



Full wwPDB EM Validation Report ⓘ

Mar 5, 2026 – 01:02 AM UTC

PDB ID : 4V3P / pdb_00004v3p
EMDB ID : EMD-2790
Title : The molecular structure of the left-handed supra-molecular helix of eukaryotic polyribosomes
Authors : Myasnikov, A.G.; Afonina, Z.A.; Menetret, J.F.; Shirokov, V.A.; Spirin, A.S.; Klaholz, B.P.
Deposited on : 2014-10-20
Resolution : 34.00 Å (reported)
Based on initial model : 3IZ6

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

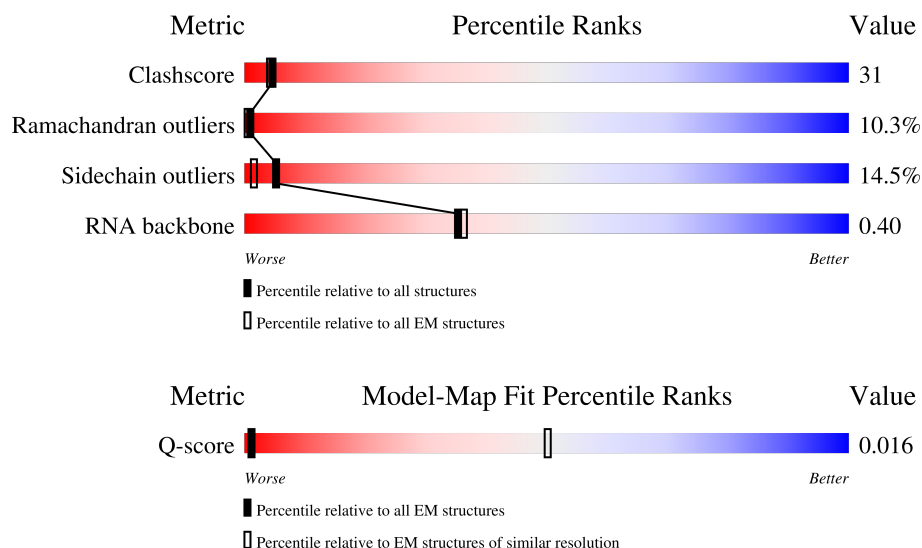
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 34.00 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



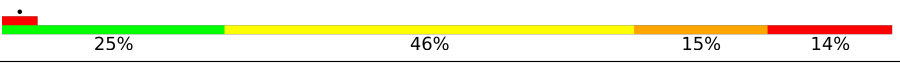
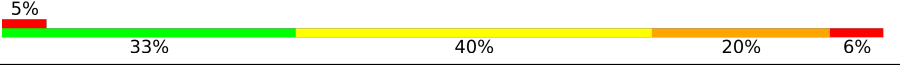
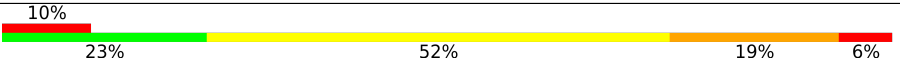
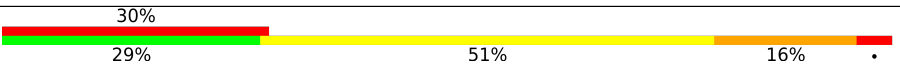
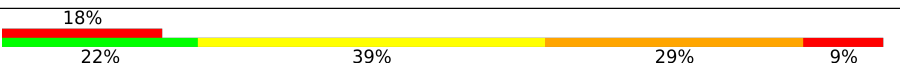
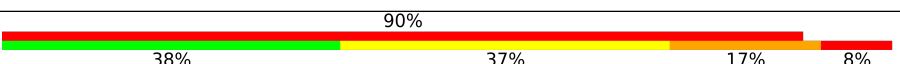
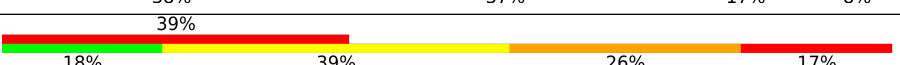
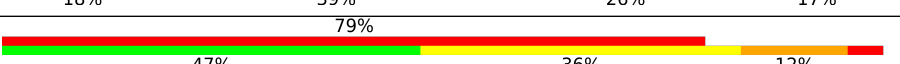
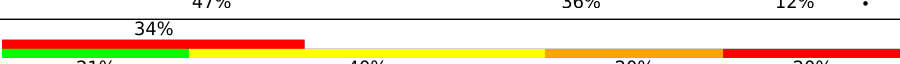
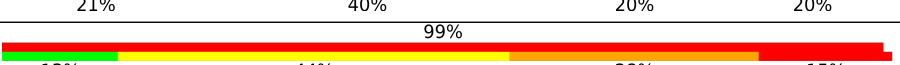
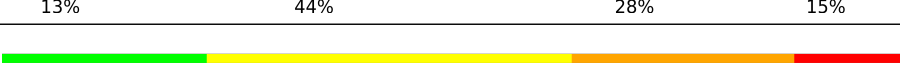
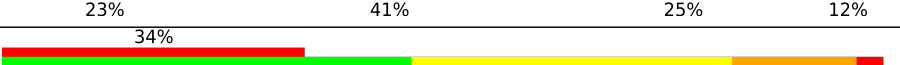
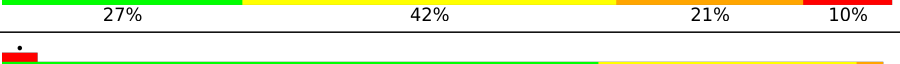
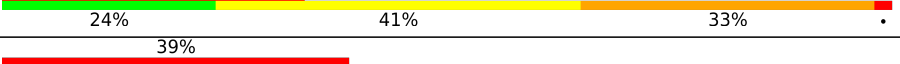
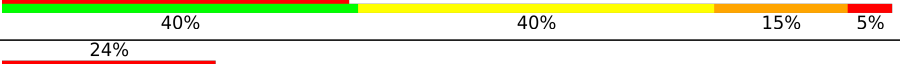
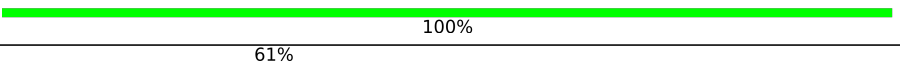
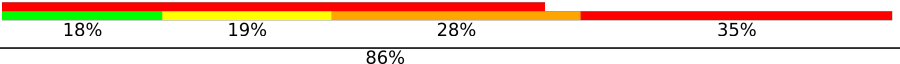
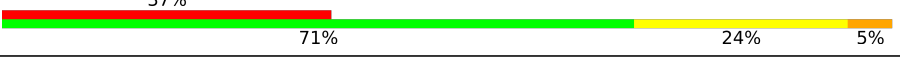
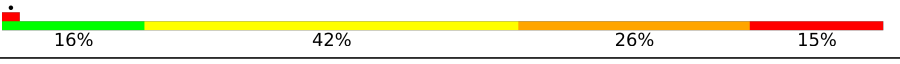
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
RNA backbone	8273	3508	-
Q-score	-	25397	4 (34.00 - 34.00)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	Sa	380	
2	SA	260	
3	SB	208	

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Mol	Chain	Length	Quality of chain
4	SD	200	
5	SE	263	
6	SF	191	
7	SI	126	
8	SJ	128	
9	SK	119	
10	SL	142	
11	SM	152	
12	SO	121	
13	SQ	141	
14	SP	85	
15	SS	146	
16	SR	91	
17	SV	100	
18	SW	92	
19	SY	58	
20	SZ	62	
21	Sc	25	
22	Sb	36	
23	SU	98	
24	SX	50	
25	SC	195	
26	SG	143	
27	SH	130	
28	SN	48	

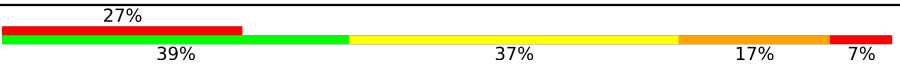
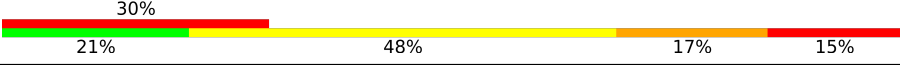
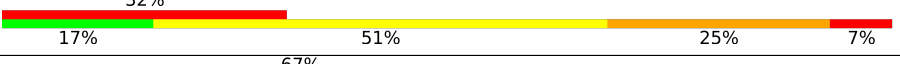
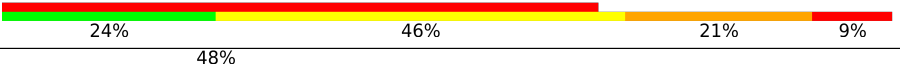
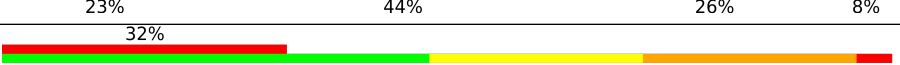
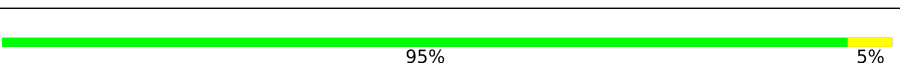
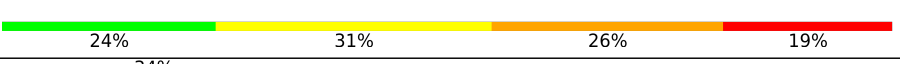
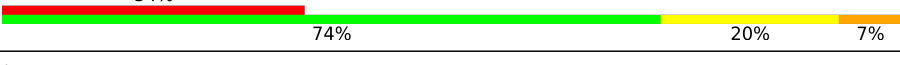
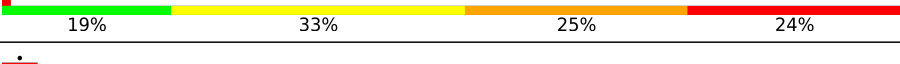
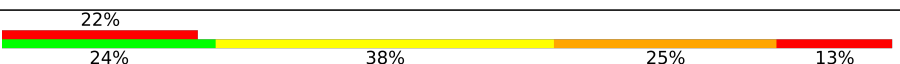
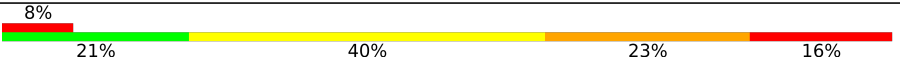
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Mol	Chain	Length	Quality of chain
29	ST	82	
30	S3	11	
31	S2	75	
32	S1	1743	
33	L1	3352	
34	L3	120	
35	L2	159	
36	LA	216	
37	LB	255	
38	LE	170	
39	LF	190	
40	LH	201	
41	LM	140	
42	LP	194	
43	LO	144	
44	LR	163	
45	LQ	304	
46	LT	189	
47	LU	164	
48	LV	171	
49	LX	122	
50	LZ	75	
51	LY	130	
52	Lb	73	
53	Ld	23	

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Mol	Chain	Length	Quality of chain
54	Lf	112	
55	Lg	120	
56	Lh	133	
57	Ll	94	
58	Ln	69	
59	Lo	51	
60	Lr	105	
61	Lq	25	
62	Lx	20	
62	Ly	20	
63	Lz	14	
64	LG	219	
65	LL	182	
66	LN	134	
67	LS	167	
68	LW	108	
69	La	99	
70	Li	119	
71	Lj	104	
72	Lk	77	
73	Lp	41	
74	LJ	128	
75	Lt	58	
75	Lu	58	
76	Lv	59	

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Mol	Chain	Length	Quality of chain
76	Lw	59	
77	Lc	124	
78	Le	244	
79	Ls	262	
80	LC	389	
81	LD	372	
82	LK	206	
83	Lm	92	
84	LI	184	

2 Entry composition

There are 84 unique types of molecules in this entry. The entry contains 195694 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called G protein beta subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	Sa	380	Total	C	N	O	S	0	0
			2842	1758	512	553	19		

- Molecule 2 is a protein called 40S ribosomal protein SA.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	SA	260	Total	C	N	O	S	0	0
			1946	1220	349	367	10		

- Molecule 3 is a protein called Putative 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	SB	208	Total	C	N	O	S	0	0
			1539	964	288	279	8		

- Molecule 4 is a protein called 40S ribosomal protein S4.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	SD	200	Total	C	N	O	S	0	0
			1607	1030	290	283	4		

- Molecule 5 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	SE	263	Total	C	N	O	S	0	0
			2028	1283	385	352	8		

- Molecule 6 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	SF	191	Total	C	N	O	S	0	0
			1485	925	281	272	7		

- Molecule 7 is a protein called 40S ribosomal protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	SI	126	Total	C	N	O	S	0	0
			1017	648	195	170	4		

- Molecule 8 is a protein called 40S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	SJ	128	Total	C	N	O	S	0	0
			887	541	171	171	4		

- Molecule 9 is a protein called 40S ribosomal protein S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	SK	119	Total	C	N	O	S	0	0
			830	508	159	159	4		

- Molecule 10 is a protein called 40S ribosomal protein S23.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	SL	142	Total	C	N	O	S	0	0
			952	576	197	175	4		

- Molecule 11 is a protein called 40S ribosomal protein S18.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	SM	152	Total	C	N	O	S	0	0
			1167	722	233	206	6		

- Molecule 12 is a protein called 40S ribosomal protein S13-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	SO	121	Total	C	N	O	S	0	0
			977	627	180	167	3		

- Molecule 13 is a protein called 40S ribosomal protein S17-4.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	SQ	141	Total	C	N	O	S	0	0
			1129	699	214	210	6		

- Molecule 14 is a protein called 40S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	SP	85	Total	C	N	O	S	0	0
			639	399	130	107	3		

- Molecule 15 is a protein called 40S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	SS	146	Total	C	N	O	S	0	0
			1155	726	218	207	4		

- Molecule 16 is a protein called 40S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	SR	91	Total	C	N	O	S	0	0
			711	457	130	120	4		

- Molecule 17 is a protein called 40S ribosomal protein S25.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	SV	100	Total	C	N	O	S	0	0
			740	458	142	140			

- Molecule 18 is a protein called 40S WHEAT GERM RIBOSOME1.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	SW	92	Total	C	N	O	S	0	0
			460	276	92	92			

- Molecule 19 is a protein called 40S ribosomal protein S28.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	SY	58	Total	C	N	O	S	0	0
			442	274	83	82	3		

- Molecule 20 is a protein called 40S ribosomal protein S30.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	SZ	62	Total	C	N	O	S	0	0
			469	289	105	73	2		

- Molecule 21 is a protein called Unknown 40S wheat germ ribosome protein 2.

Mol	Chain	Residues	Atoms				AltConf	Trace
21	Sc	25	Total	C	N	O	0	0
			126	75	25	26		

- Molecule 22 is a protein called Unknown 40S wheat germ ribosome protein 3.

Mol	Chain	Residues	Atoms				AltConf	Trace
22	Sb	36	Total	C	N	O	0	0
			181	108	36	37		

- Molecule 23 is a protein called Unknown 40S wheat germ ribosome protein 3.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	SU	98	Total	C	N	O	S	0	0
			732	466	142	123	1		

- Molecule 24 is a protein called 40S ribosomal protein S27.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	SX	50	Total	C	N	O	S	0	0
			375	235	65	68	7		

- Molecule 25 is a protein called 40S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	SC	195	Total	C	N	O	S	0	0
			1535	958	307	265	5		

- Molecule 26 is a protein called Unknown 40S wheat germ ribosome protein 4.

Mol	Chain	Residues	Atoms				AltConf	Trace
26	SG	143	Total	C	N	O	0	0
			716	429	143	144		

- Molecule 27 is a protein called Ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	SH	130	Total	C	N	O	S	0	0
			1042	667	189	181	5		

- Molecule 28 is a protein called 40S ribosomal protein S29.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	SN	48	Total	C	N	O	S	0	0
			313	184	67	56	6		

- Molecule 29 is a protein called 40S ribosomal protein S21.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	ST	82	Total	C	N	O	S	0	0
			650	400	121	126	3		

- Molecule 30 is a RNA chain called 40S WHEAT GERM RIBOSOME protein 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	S3	11	Total	C	N	O	P	0	0
			236	106	45	74	11		

- Molecule 31 is a RNA chain called 40S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	S2	75	Total	C	N	O	P	0	0
			1599	712	280	532	75		

- Molecule 32 is a RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	S1	1743	Total	C	N	O	P	0	11
			33897	14994	5742	11418	1743		

- Molecule 33 is a RNA chain called 26S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	L1	3352	Total	C	N	O	P	0	39
			69592	30953	12564	22725	3350		

- Molecule 34 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	L3	120	Total	C	N	O	P	0	0
			2565	1144	461	840	120		

- Molecule 35 is a RNA chain called 5.8S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	L2	159	Total	C	N	O	P	0	0
			3192	1415	555	1063	159		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
L2	136	G	C	conflict	GB 17016972

- Molecule 36 is a protein called Ribosomal protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	LA	216	Total	C	N	O	S	0	0
			1718	1092	309	304	13		

- Molecule 37 is a protein called 60S ribosomal protein L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	LB	255	Total	C	N	O	S	0	0
			1933	1200	398	326	9		

- Molecule 38 is a protein called Ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	LE	170	Total	C	N	O	S	0	0
			1376	867	256	244	9		

- Molecule 39 is a protein called 60S ribosomal protein L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	LF	190	Total	C	N	O	S	0	0
			1500	947	270	277	6		

- Molecule 40 is a protein called 60S ribosomal protein L7a.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	LH	201	Total	C	N	O	S	0	0
			1564	996	289	273	6		

- Molecule 41 is a protein called Ribosomal Pr 117.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	LM	140	Total	C	N	O	S	0	0
			1020	640	192	179	9		

- Molecule 42 is a protein called Ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	LP	194	Total	C	N	O	S	0	0
			1630	1027	342	257	4		

- Molecule 43 is a protein called 60S ribosomal protein L27a-3.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	LO	144	Total	C	N	O	S	0	0
			1086	691	217	173	5		

- Molecule 44 is a protein called 60S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	LR	163	Total	C	N	O	S	0	0
			1284	810	248	219	7		

- Molecule 45 is a protein called 60S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	LQ	304	Total	C	N	O	S	0	0
			2395	1497	430	461	7		

- Molecule 46 is a protein called Ribosomal protein L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	LT	189	Total	C	N	O	S	0	0
			1569	972	330	257	10		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
LT	184	GLY	UNK	variant	UNP Q7XY20

- Molecule 47 is a protein called 60S ribosomal protein L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	LU	164	Total	C	N	O	S	0	0
			1266	789	250	225	2		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
LU	65	TRP	CYS	conflict	UNP W5EIT2

- Molecule 48 is a protein called 60S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	LV	171	Total	C	N	O	S	0	0
			1335	826	266	238	5		

- Molecule 49 is a protein called 60S ribosomal protein L23a.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	LX	122	Total	C	N	O	S	0	0
			987	634	178	173	2		

- Molecule 50 is a protein called 60S ribosomal protein L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	LZ	75	Total	C	N	O	S	0	0
			578	366	115	94	3		

- Molecule 51 is a protein called 60S ribosomal protein L26.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	LY	130	Total	C	N	O	S	0	0
			1048	647	220	178	3		

- Molecule 52 is a protein called 60S ribosomal protein l28.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	Lb	73	Total	C	N	O	S	0	0
			576	364	107	103	2		

- Molecule 53 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms				AltConf	Trace
53	Ld	23	Total	C	N	O	0	0
			199	119	41	39		

- Molecule 54 is a protein called 60S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	Lf	112	Total	C	N	O	S	0	0
			825	516	146	157	6		

- Molecule 55 is a protein called 60S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	Lg	120	Total	C	N	O	S	0	0
			944	585	185	171	3		

- Molecule 56 is a protein called Ribosomal L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	Lh	133	Total	C	N	O	S	0	0
			1089	688	216	179	6		

- Molecule 57 is a protein called Ribosomal protein L37.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	Ll	94	Total	C	N	O	S	0	0
			725	438	158	122	7		

- Molecule 58 is a protein called 60S ribosomal protein L38.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	Ln	69	Total	C	N	O	S	0	0
			547	347	102	96	2		

- Molecule 59 is a protein called Ribosomal protein L39.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	Lo	51	Total	C	N	O	S	0	0
			460	291	100	67	2		

- Molecule 60 is a protein called 60S ribosomal protein L44.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	Lr	105	Total	C	N	O	S	0	0
			838	523	166	143	6		

- Molecule 61 is a protein called Unknown 60S wheat germ ribosome protein 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	Lq	25	Total	C	N	O	S	0	0
			238	145	62	28	3		

- Molecule 62 is a protein called Unknown 60S wheat germ ribosome protein 2.

Mol	Chain	Residues	Atoms				AltConf	Trace
62	Ly	20	Total	C	N	O	0	0
			101	60	20	21		
62	Lx	20	Total	C	N	O	0	0
			101	60	20	21		

- Molecule 63 is a protein called Unknown 60S wheat germ ribosome protein 3.

Mol	Chain	Residues	Atoms				AltConf	Trace
63	Lz	14	Total	C	N	O	0	0
			71	42	14	15		

- Molecule 64 is a protein called 60S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	LG	219	Total	C	N	O	S	0	0
			1730	1106	314	306	4		

- Molecule 65 is a protein called Unknown 60S wheat germ ribosome protein 5.

Mol	Chain	Residues	Atoms				AltConf	Trace
65	LL	182	Total	C	N	O	0	0
			910	545	182	183		

- Molecule 66 is a protein called Unknown 60S wheat germ ribosome protein 6.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	LN	134	Total	C	N	O	S	0	0
			1081	690	201	185	5		

- Molecule 67 is a protein called 60S ribosomal protein L18a.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	LS	167	Total	C	N	O	S	0	0
			1419	916	263	233	7		

- Molecule 68 is a protein called 60S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	LW	108	Total	C	N	O	S	0	0
			839	530	152	155	2		

- Molecule 69 is a protein called 60S ribosomal protein L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
69	La	99	Total	C	N	O	S	0	0
			732	463	140	126	3		

- Molecule 70 is a protein called Ribosomal protein l34.

Mol	Chain	Residues	Atoms					AltConf	Trace
70	Li	119	Total	C	N	O	S	0	0
			964	606	195	161	2		

- Molecule 71 is a protein called ribosomal protein L35A.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	Lj	104	Total	C	N	O	S	0	0
			797	498	158	138	3		

- Molecule 72 is a protein called 60S ribosomal protein L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	Lk	77	Total	C	N	O	S	0	0
			613	383	128	100	2		

- Molecule 73 is a protein called Ubiquitin-60S ribosomal protein L40-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
73	Lp	41	Total	C	N	O	S	0	0
			344	211	75	53	5		

- Molecule 74 is a protein called 60S ribosomal protein L12.

Mol	Chain	Residues	Atoms					AltConf	Trace
74	LJ	128	Total	C	N	O	S	0	0
			959	601	177	177	4		

- Molecule 75 is a protein called Ribosomal protein P1.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	Lt	58	Total	C	N	O	S	0	0
			432	283	69	79	1		
75	Lu	58	Total	C	N	O	S	0	0
			432	283	69	79	1		

- Molecule 76 is a protein called 60S acidic ribosomal protein P2A.

Mol	Chain	Residues	Atoms					AltConf	Trace
76	Lv	59	Total	C	N	O	S	0	0
			441	278	69	90	4		
76	Lw	59	Total	C	N	O	S	0	0
			441	278	69	90	4		

- Molecule 77 is a protein called 60S ribosomal protein L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	Lc	124	Total	C	N	O		0	0
			1006	632	202	172			

- Molecule 78 is a protein called Ribosomal protein L7.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	Le	244	Total	C	N	O	S	0	0
			1984	1271	368	339	6		

- Molecule 79 is a protein called 60S acidic ribosomal protein P0.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	Ls	262	Total	C	N	O	S	0	0
			1993	1278	330	377	8		

- Molecule 80 is a protein called Ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
80	LC	389	Total	C	N	O	S	0	0
			3102	1968	578	538	18		

- Molecule 81 is a protein called 60S ribosomal protein L4/L1.

Mol	Chain	Residues	Atoms					AltConf	Trace
81	LD	372	Total	C	N	O	S	0	0
			2866	1802	555	502	7		

- Molecule 82 is a protein called Ribosomal protein L13a.

Mol	Chain	Residues	Atoms					AltConf	Trace
82	LK	206	Total	C	N	O	S	0	0
			1650	1045	320	274	11		

- Molecule 83 is a protein called 60S ribosomal protein L37a, expressed.

Mol	Chain	Residues	Atoms					AltConf	Trace
83	Lm	92	Total	C	N	O	S	0	0
			715	447	137	124	7		

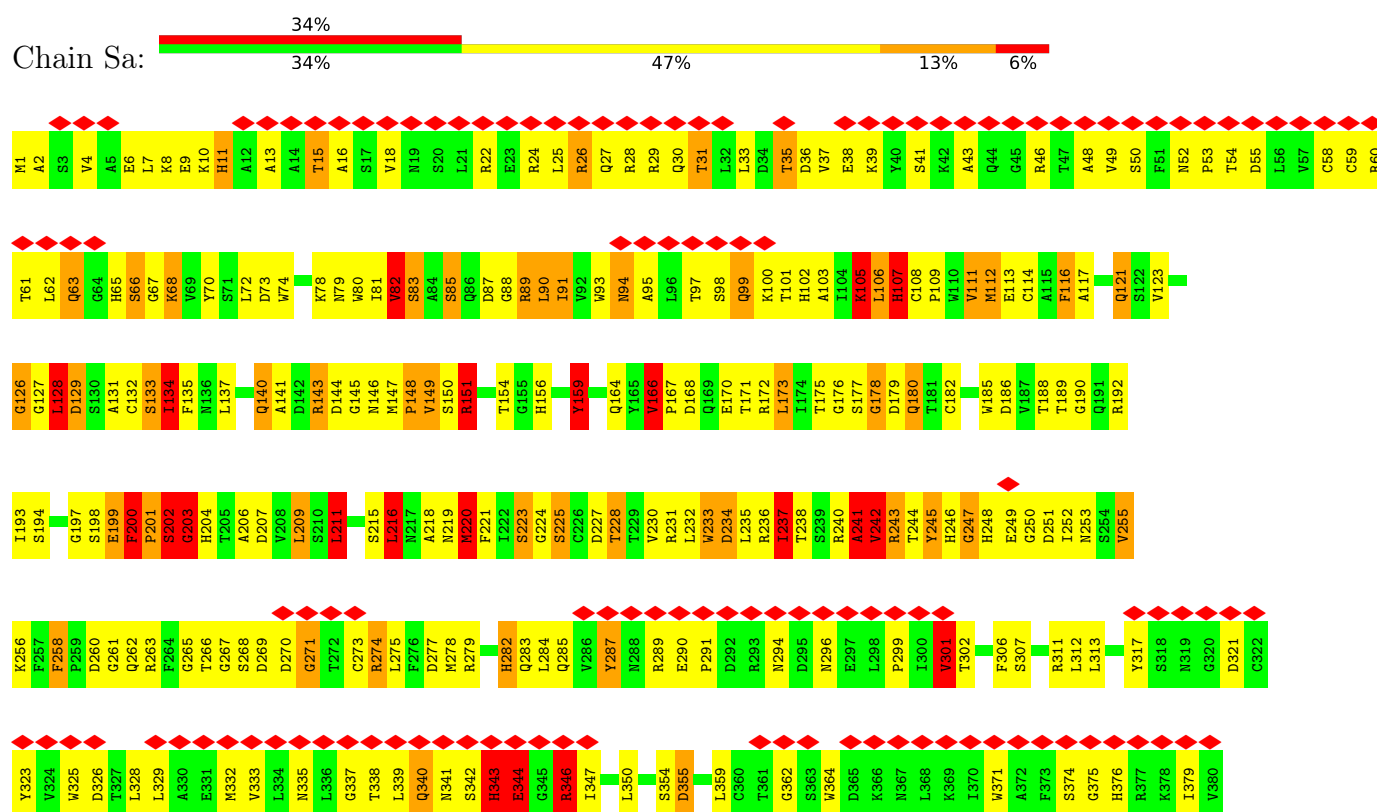
- Molecule 84 is a protein called 60S ribosomal protein L10-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
84	LI	184	Total	C	N	O	S	0	0
			1468	923	288	245	12		

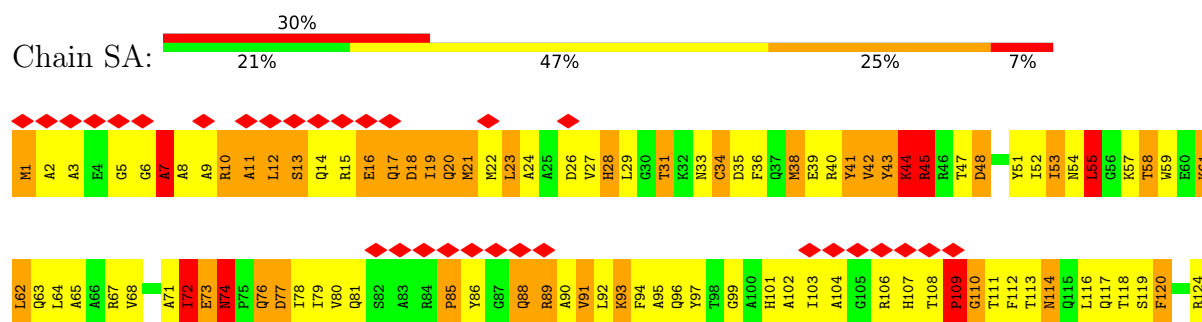
3 Residue-property plots [i](#)

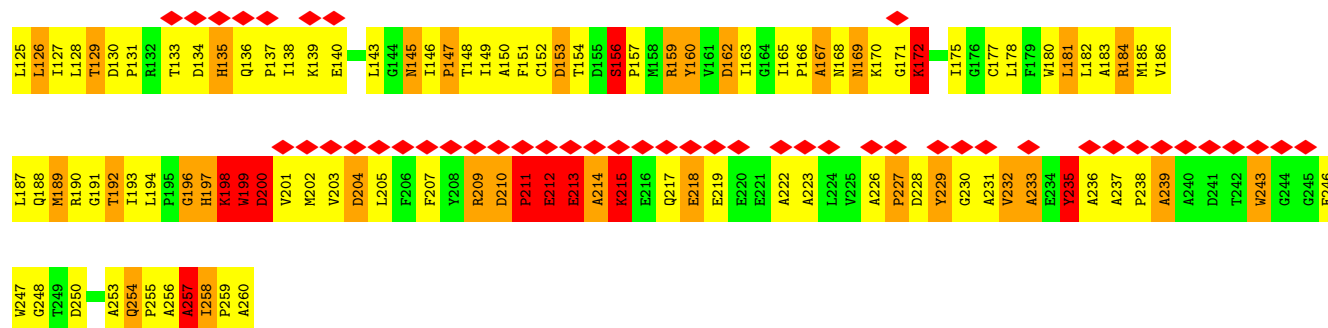
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

• Molecule 1: G protein beta subunit

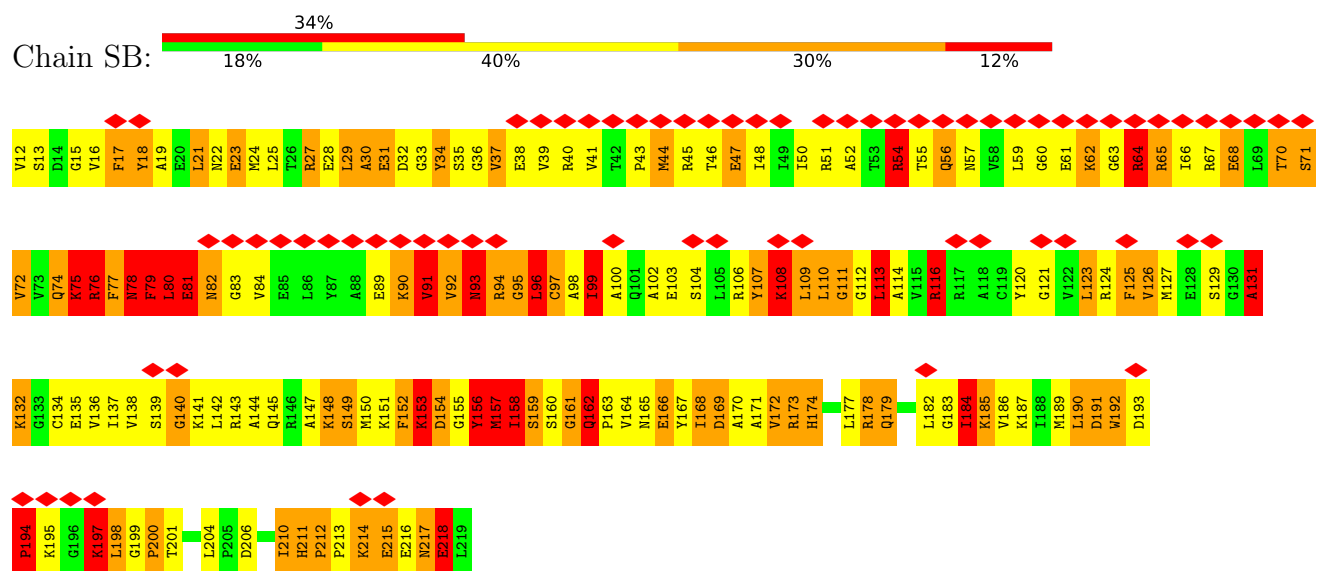


• Molecule 2: 40S ribosomal protein SA

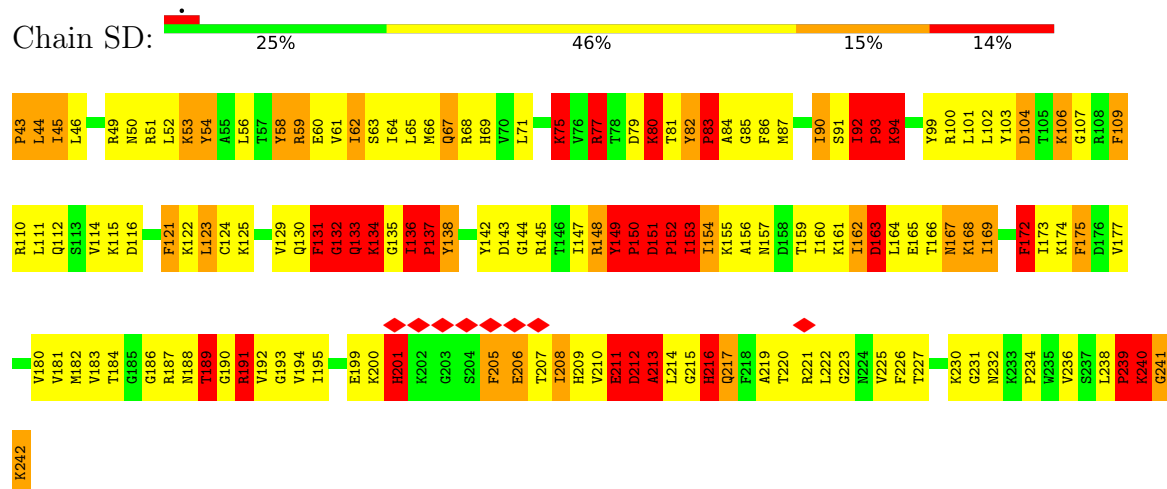




• Molecule 3: Putative 40S ribosomal protein S3

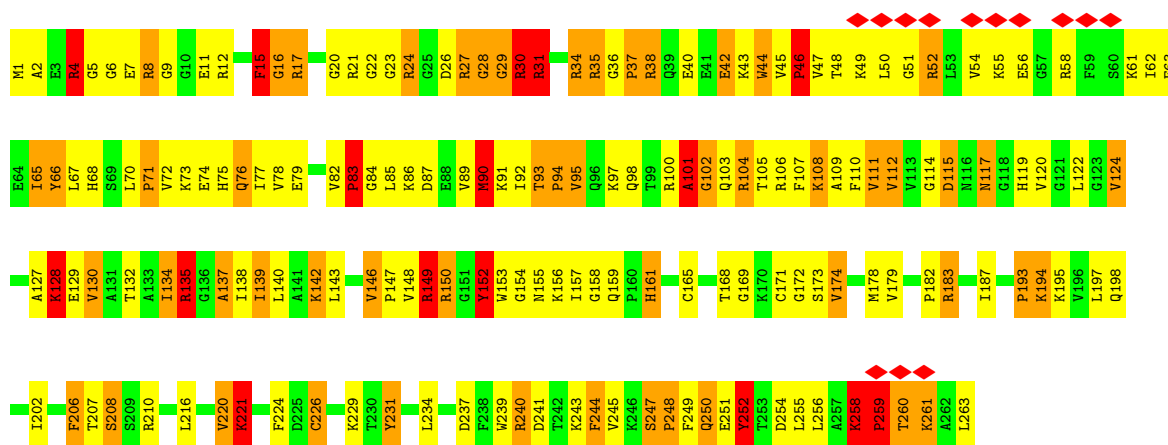


• Molecule 4: 40S ribosomal protein S4

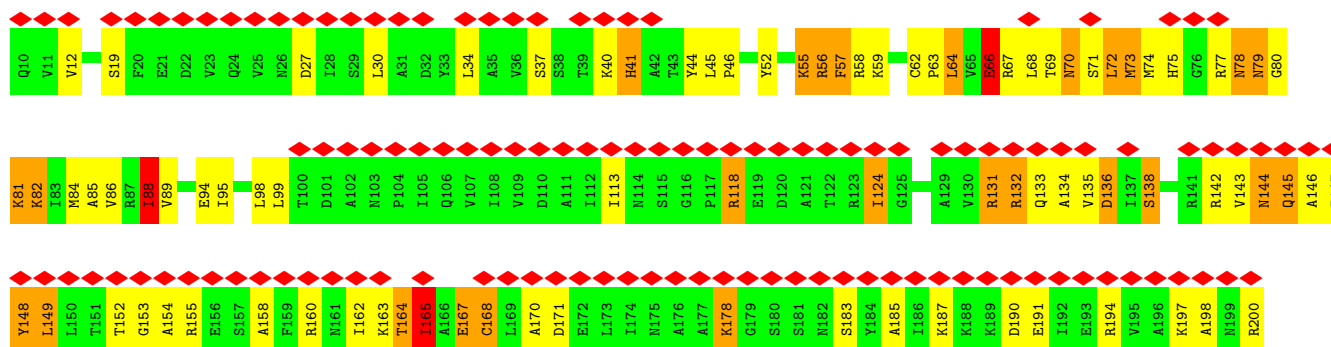


• Molecule 5: 40S ribosomal protein S2

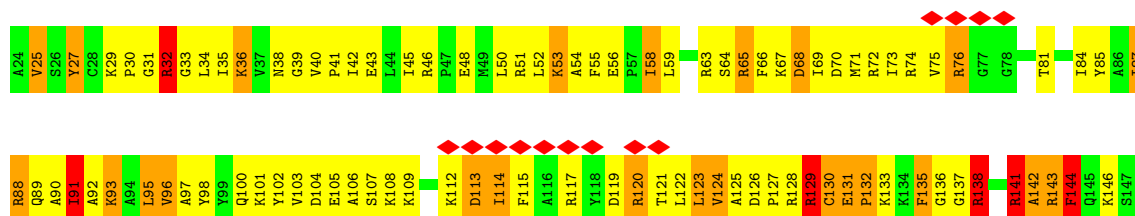




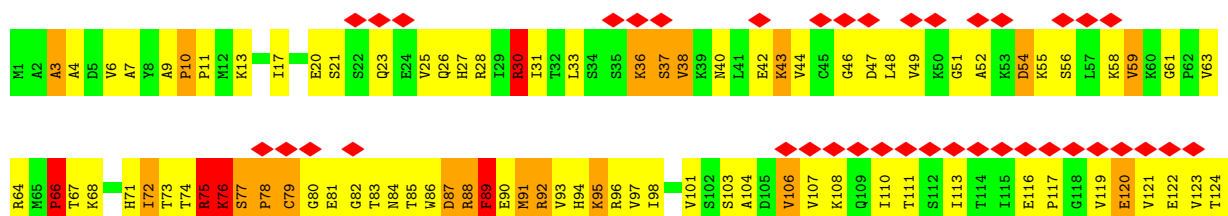
• Molecule 6: 40S ribosomal protein S5



• Molecule 7: 40S ribosomal protein S16



• Molecule 8: 40S ribosomal protein S20



S126
D127
Q128

• Molecule 9: 40S ribosomal protein S14

Chain SK: 18%
22% 39% 29% 9%

I32 F33 A34 T36 S35 F36 N37 D38 K103 T39 F40 L46 L45 S47 G48 R49 E50 T51 L52 V53 R54 M59 K60 V61 K62 K63 D64 R65 R66 E67 S68 S69 P70 Y71 A72 A73 R74 L75 A76 S77 Q78 D79 V80 A81 Q82 Q83 R84 R85 E86 L87 G88 T89 A91 L92 H93 I94 I95

L96 R97 T99 G100 G101 M102 K104 T105 T106 P107 P109 P110 A111 Q112 S113 A114 L115 L116 A117 L118 A119 M120 S121 K122 M123 K124 I125 G126 I127 I128 E129 D130 V131 T132 P133 V134 P135 T136 D137 S138 T139 R140 R141 K142 A143 G144 R145 R146 G147 R148 R149 L150

• Molecule 10: 40S ribosomal protein S23

Chain SL: 90%
38% 37% 17% 8%

M1 G2 K3 T4 R5 G6 M7 G8 A9 G10 R11 K12 L13 L14 T15 H16 R17 R18 N19 Q20 R21 V22 A23 D24 K25 A26 Y27 K28 K29 S30 H31 L32 G33 N34 E35 V36 K37 K38 P39 F40 G41 G42 S44 H45 A46 K47 G48 I49 V50 L51 E52 K53 I54 G55 I56 E57 A58 K59 Q60

P61 M62 S63 A64 I65 R66 K67 C68 A69 R70 V71 Q72 L73 V74 K75 N76 G77 K78 K79 I80 A81 F82 V84 P85 N86 D87 G88 C89 L90 N91 F92 I93 E94 E95 N96 D97 E98 V99 L100 I101 A102 G103 F104 G105 R106 K107 G108 H109 V110 V111 G112 D113 I114 P115 G116 V117 R118 F119 K120

V121 V122 K123 V124 S125 G126 V127 S128 L129 L130 A131 F132 K133 K134 E135 K136 K137 E138 K139 P140 R141 S142

• Molecule 11: 40S ribosomal protein S18

Chain SM: 39%
18% 39% 26% 17%

M1 S2 L3 I4 A5 G6 E7 E8 F9 Q10 H11 I12 L13 R14 L15 L16 N17 T18 N19 V20 D21 Q22 K23 K24 K25 I26 M27 F28 A29 L30 T31 S32 I33 K34 V35 V36 R37 R38 R39 F40 N41 T42 V43 V44 C45 R46 K47 A48 D49 I50 E51 M52 N53 K54 R55 A56 G57 E58 A61

E62 E63 M64 M68 A69 V70 V71 H72 N73 R74 R75 Q76 F77 K78 V79 P80 D81 R82 W82 F83 K87 K88 D89 Y90 K91 D92 G93 R94 R95 S96 Q97 V98 V99 S100 N101 A102 V103 I104 M105 K106 L107 R108 D109 N110 L111 E112 R113 L114 K115 K116 I117 R118 N119 H120 R121 G122 L123 R124 H125

Y126 W127 G128 V129 R130 V131 R132 G133 Q134 H135 T136 K137 T138 T139 G140 R141 G142 G143 K144 T145 V146 G147 V148 S149 K150 K151 R152

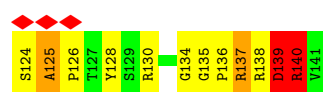
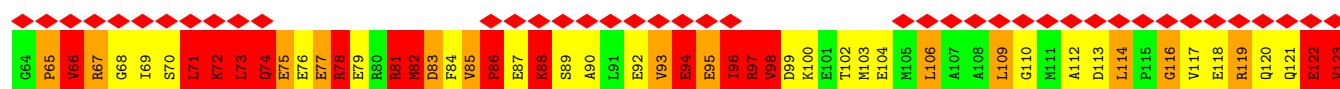
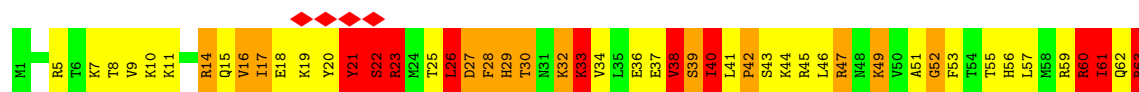
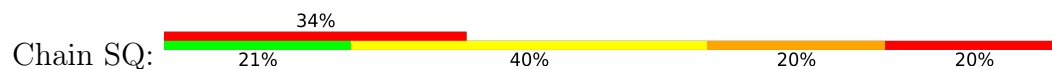
• Molecule 12: 40S ribosomal protein S13-1

Chain SO: 79%
47% 36% 12%

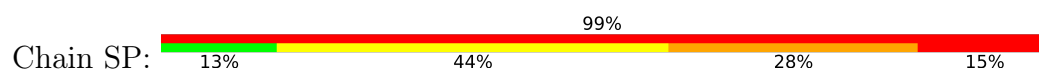
A31 D32 V33 E34 E35 N36 I37 N38 K39 A40 A41 A42 K43 G44 G45 N46 P47 S48 Q49 I50 G51 V52 V53 L54 R55 D56 Q57 H58 G59 I60 P61 L62 V63 K64 S65 V66 T67 G68 S69 K70 I71 L72 R73 I74 L75 K76 A77 H78 G79 L80 A81 P82 E83 I84 P85 E86 D87 F90



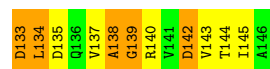
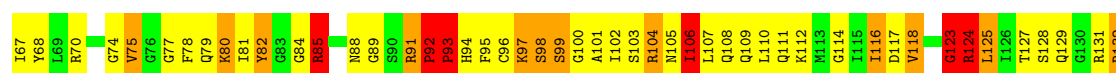
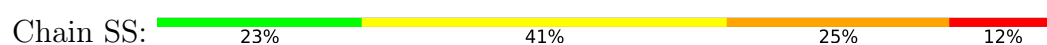
• Molecule 13: 40S ribosomal protein S17-4



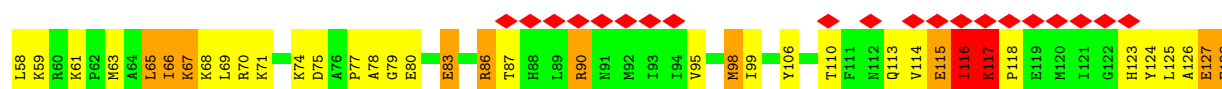
• Molecule 14: 40S ribosomal protein S11



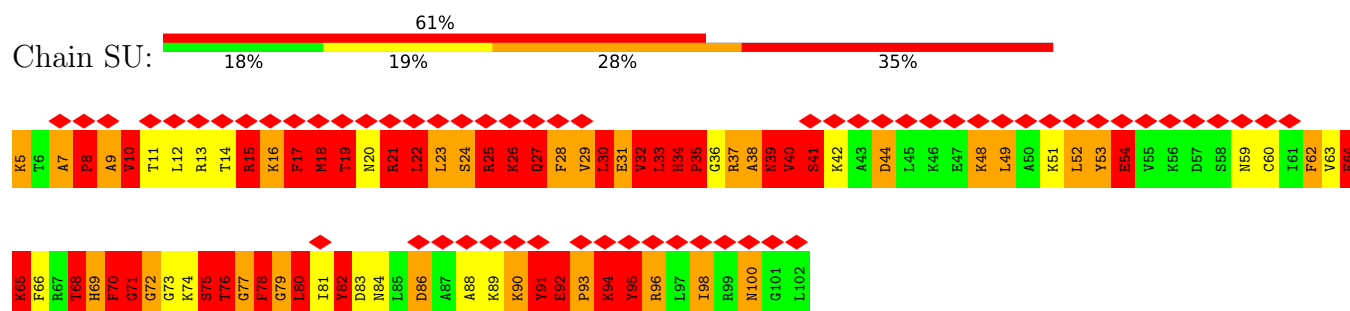
• Molecule 15: 40S ribosomal protein S19



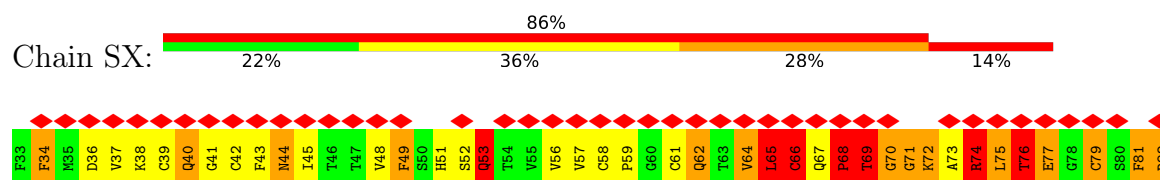
• Molecule 16: 40S ribosomal protein S15



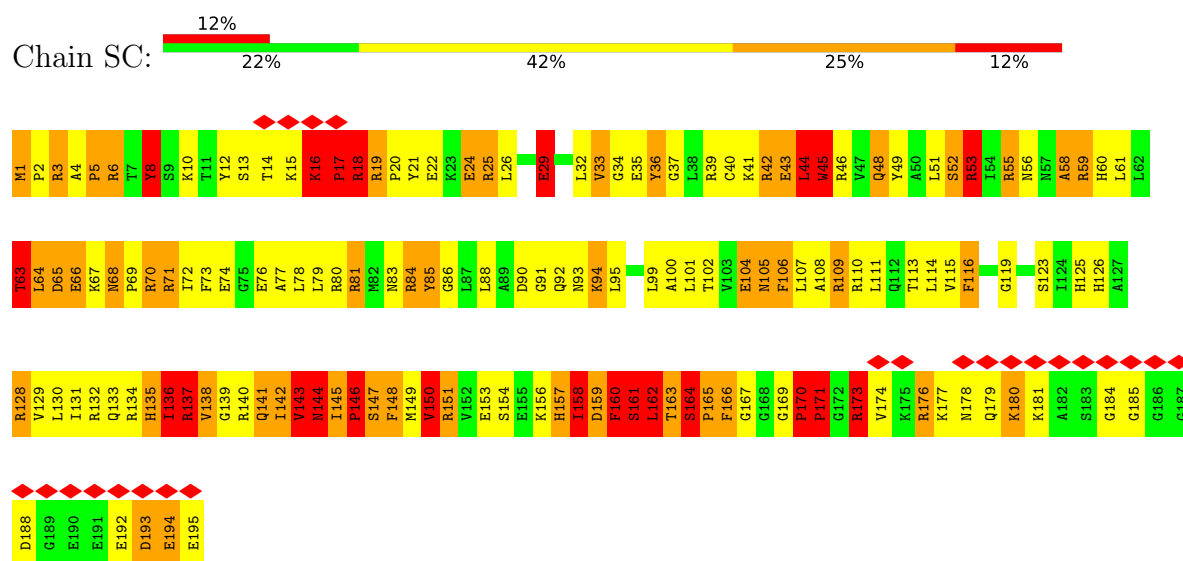
- Molecule 23: Unknown 40S wheat germ ribosome protein 3



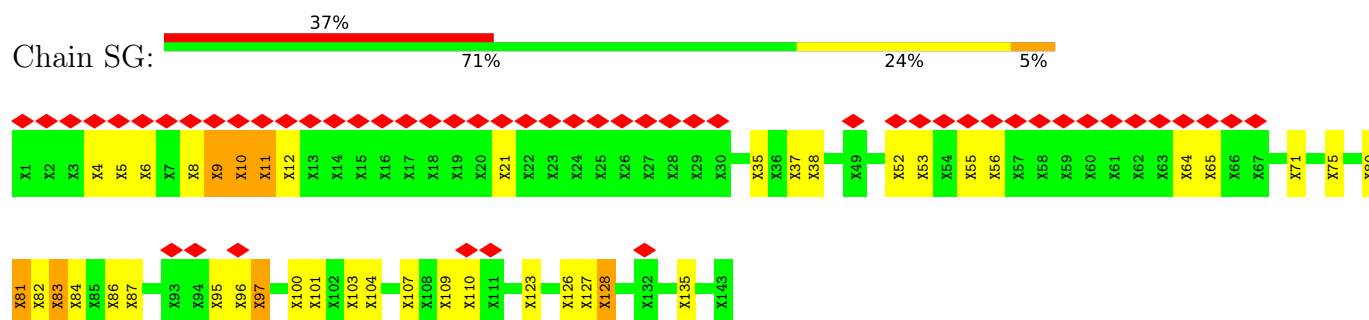
- Molecule 24: 40S ribosomal protein S27



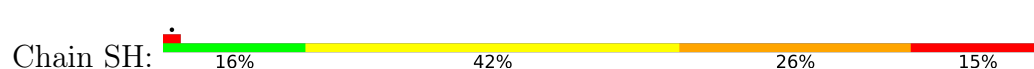
- Molecule 25: 40S ribosomal protein S9

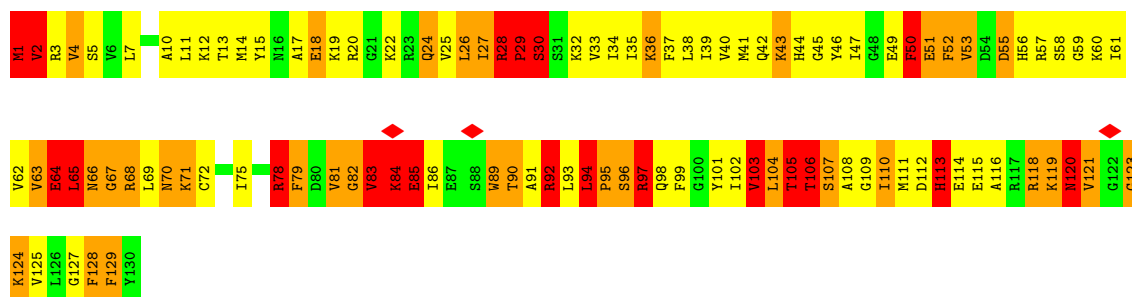


- Molecule 26: Unknown 40S wheat germ ribosome protein 4



- Molecule 27: Ribosomal protein S15

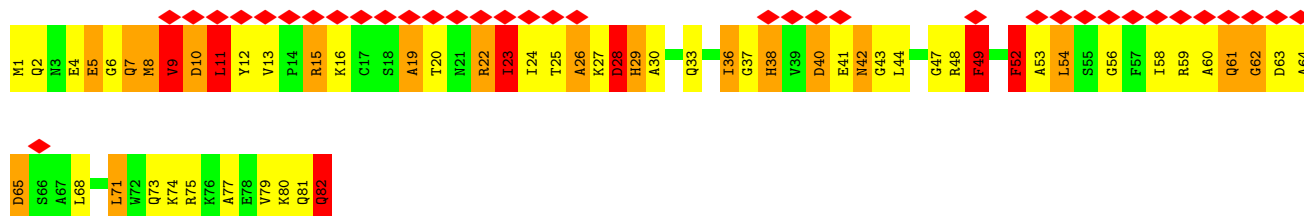




- Molecule 28: 40S ribosomal protein S29



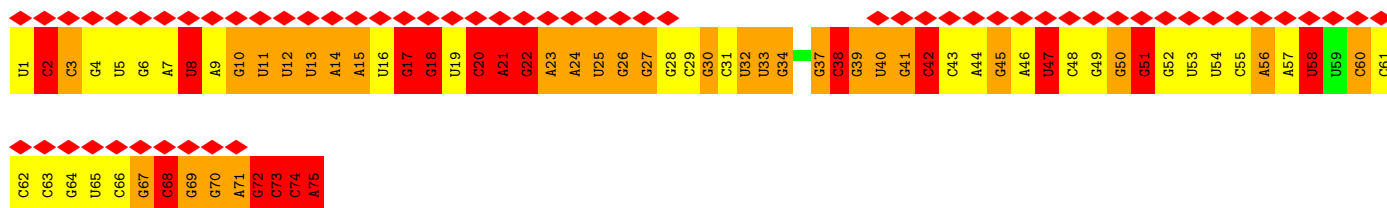
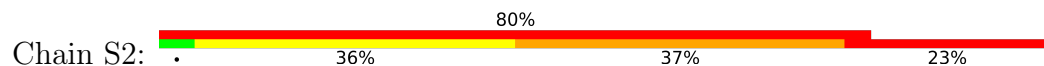
- Molecule 29: 40S ribosomal protein S21



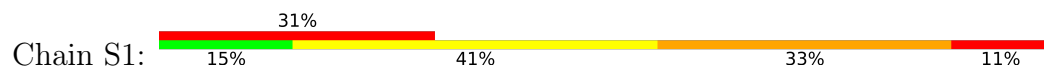
- Molecule 30: 40S WHEAT GERM RIBOSOME protein 4



- Molecule 31: 40S ribosomal RNA



- Molecule 32: 18S ribosomal RNA

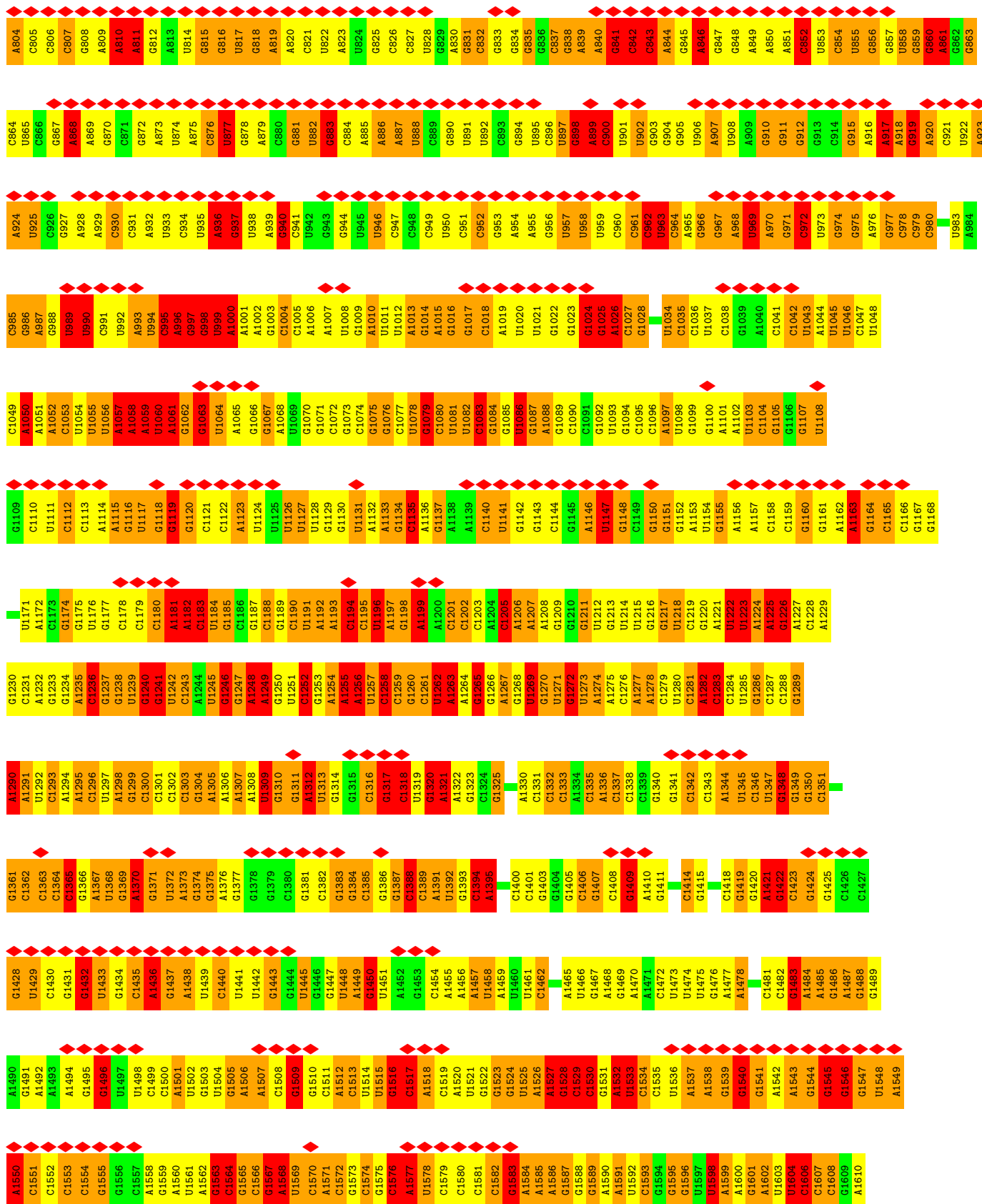




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C1715	U1655	A1595	U1536	C1457	A1394	A1330	U1270	G1203	A1142	C1081	G1019	G958
C1716	C1656	G1596	U1537	U1458	C1395	G1331	G1271	G1204	A1143	C1082	U1020	G959
C1717	C1657	G1597	U1538	G1459	G1332	G1332	G1272	G1205	A1144	C1083	C1021	A960
C1718	U1658	G1598	G1538	G1460	A1397	A1333	U1273	A1206	G1145	U1085	U1022	U961
C1719	A1659	A1599	A1539	G1461	U1398	G1336	G1274	A1207	U1086	U1086	G1023	G962
A1600	U1540	G1600	U1540	C1462	G1399	C1337	G1275	A1208	A1146	U1087	U1024	G963
G1602	C1541	A1601	C1541	G1464	G1400	U1338	U1276	C1209	A1147	A1088	A1025	U964
U1603	U1542	U1603	U1542	C1465	C1401	C1339	G1277	U1210	U1148	U1089	A1026	U965
C1604	U1543	U1604	U1543	A1466	C1402	A1340	A1278	A1211	U1149	G1090	A1027	U966
A1605	C1544	A1605	C1544	C1467	C1403	G1341	U1280	A1212	U1150	A1091	A1028	G967
U1606	A1545	U1606	A1545	U1468	U1404	C1342	G1281	C1213	A1151	A1092	C1027	A968
C1607	U1546	C1607	U1546	G1469	U1405	C1343	G1282	G1214	C1153	A1093	A1028	U969
A1608	G1547	A1608	G1547	U1470	U1406	G1344	C1283	A1215	G1154	U1094	A1029	U970
G1609	C1471	G1609	C1471	G1472	A1407	C1345	C1284	G1216	G1155	C1095	U1029	U971
C1610	U1473	C1610	U1473	U1474	U1408	U1346	G1285	G1217	A1156	A1096	A972	A972
C1611	C1474	C1611	C1474	C1475	G1409	U1347	U1286	U1218	A1157	A1097	U1030	U973
C1612	A1476	C1612	A1476	U1477	G1410	A1348	U1287	C1219	G1158	A1098	A1031	C974
C1613	U1478	C1613	U1478	C1479	C1411	A1349	C1288	C1220	G1159	C1033	A1032	A975
C1614	U1480	C1614	U1480	G1481	A1412	C1350	U1290	A1221	G1160	U100	A1035	A976
U1615	U1482	U1615	U1482	A1416	C1413	A1351	A1291	A1222	C1161	U102	U1036	G977
U1616	U1483	U1616	U1483	A1417	C1414	A1352	G1292	A1223	A1162	U103	G1037	A978
C1617	U1484	C1617	U1484	U1485	C1415	G1353	A1293	C1224	C1163	U104	C1038	A979
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C1619	A1488	C1619	A1488	U1489	C1417	U1355	U1294	A1226	C1167	G1106	G1040	C980
U1620	U1490	U1620	U1490	G1491	A1418	A1356	U1295	G1227	U1168	U1107	A1041	G981
C1621	U1492	C1621	U1492	A1419	C1419	U1357	G1296	C1228	C1169	C1042	C1043	A982
A1622	U1494	A1622	U1494	U1495	C1420	C1358	U1297	C1229	G1170	U1109	C1044	A983
C1623	U1496	C1623	U1496	U1497	U1421	G1359	G1298	A1230	C1171	C1110	G1045	A984
U1624	U1498	U1624	U1498	U1499	G1422	G1360	G1299	A1231	C1172	C1111	A1046	G985
U1625	A1498	U1625	A1498	U1500	A1423	G1361	A1300	G1232	C1173	G1112	A1048	G986
C1626	U1500	C1626	U1500	U1501	G1424	A1362	G1301	A1233	G1174	G1113	U1049	U987
C1627	U1502	C1627	U1502	U1503	G1425	C1363	G1302	G1237	G1175	G1114	C1050	G988
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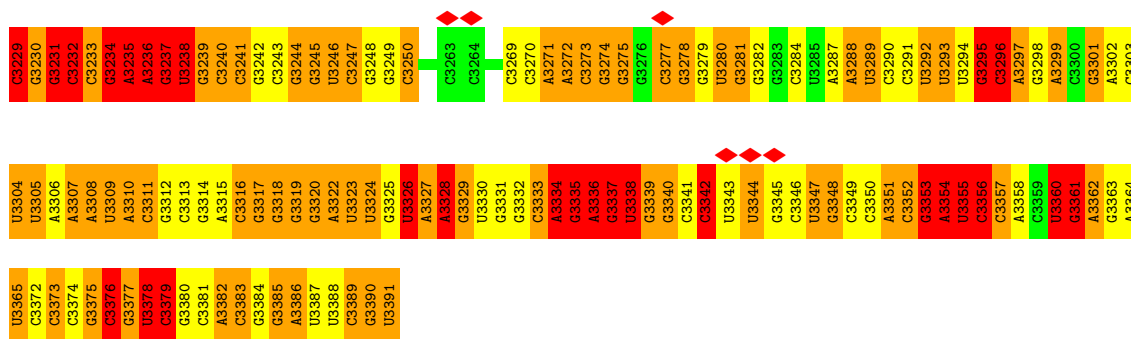
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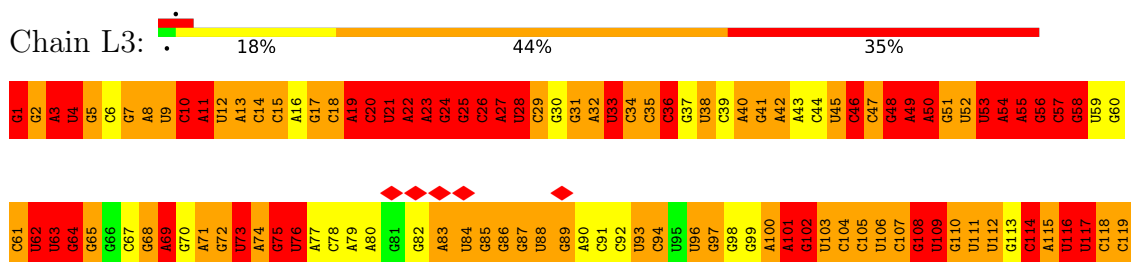


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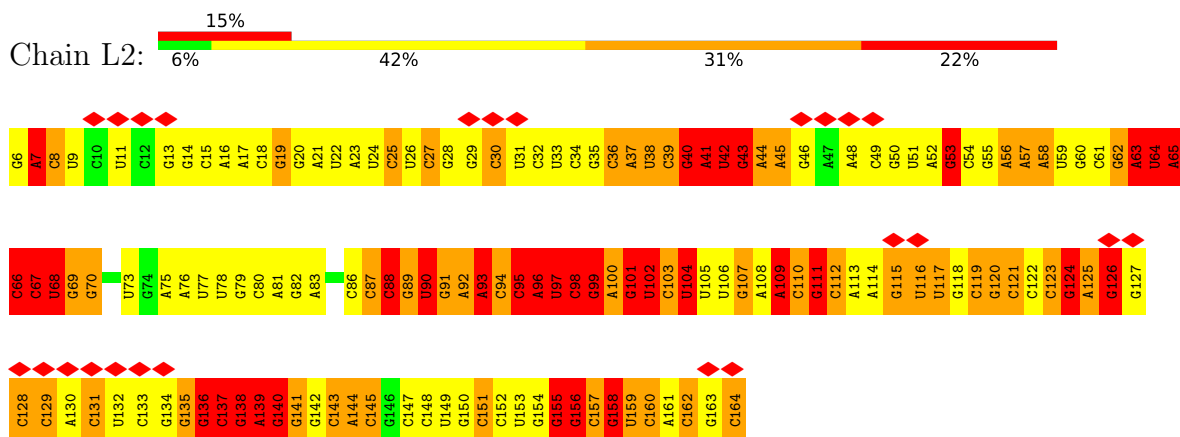
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C2728	C2729	A2730	G2731	U2732	U2733	U2734	G2735	U2736	U2737	U2738	U2739	G2740	G2741	A2742	A2743	G2744	G2745	G2746	U2747	G2748	A2749	A2750	A2751	G2752	C2753	U2754	U2755	G2756	G2757	G2758	U2759	U2760	U2761	U2762	C2763	G2764	A2765	U2766	C2767	U2768	U2769	U2770	U2771	A2772	G2773	A2774	G2775	U2776	U2777	C2778	G2779	A2781	U2782	U2783	U2784	U2785	U2786	A2787					
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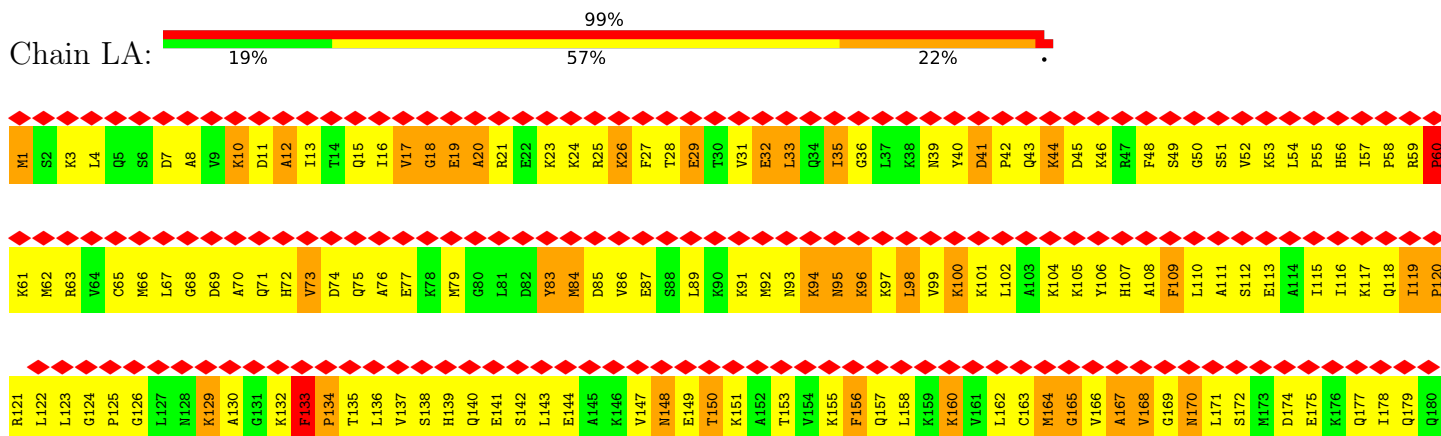
- Molecule 34: 5S ribosomal RNA



- Molecule 35: 5.8S ribosomal RNA

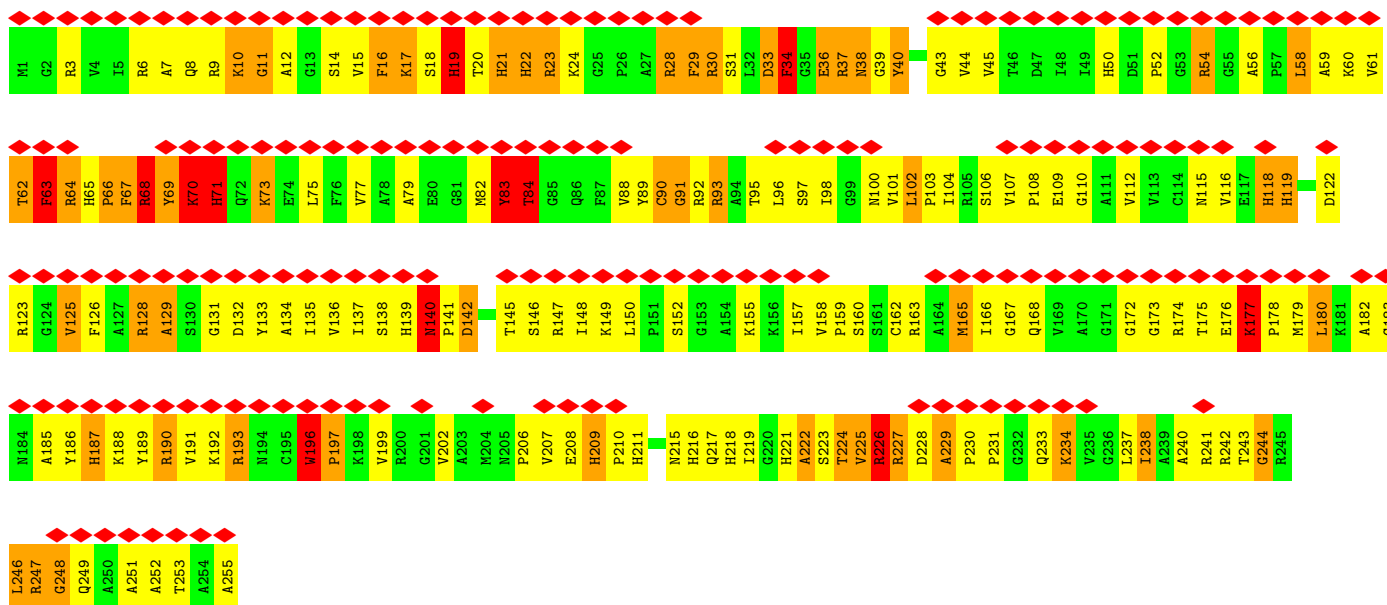


- Molecule 36: Ribosomal protein

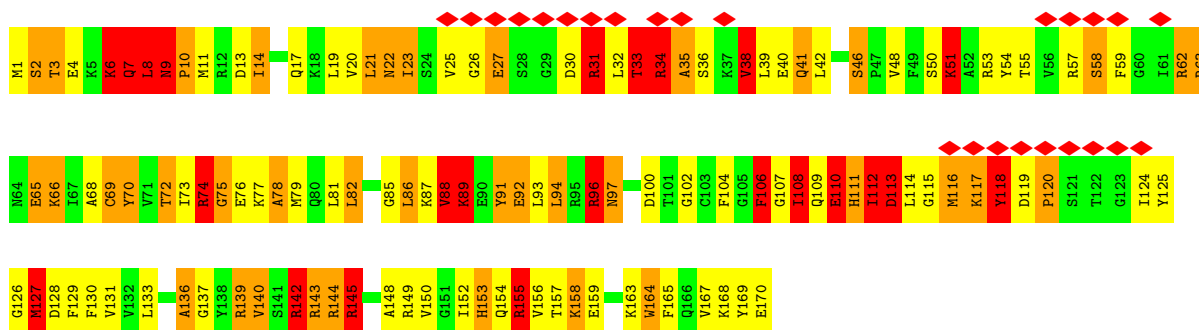
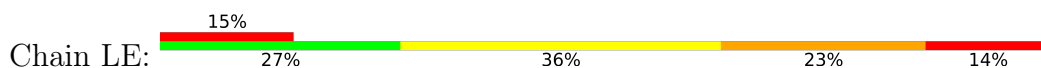




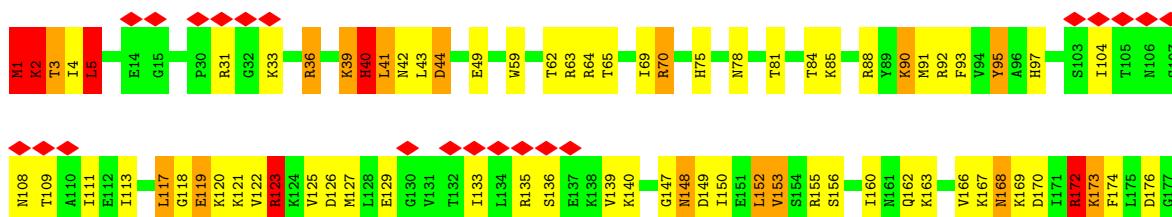
• Molecule 37: 60S ribosomal protein L2

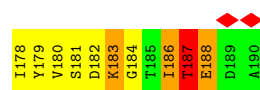


• Molecule 38: Ribosomal protein L11

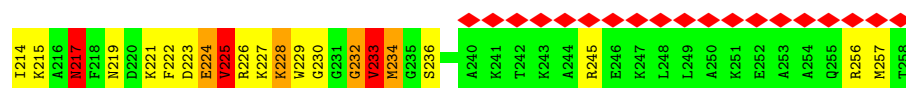
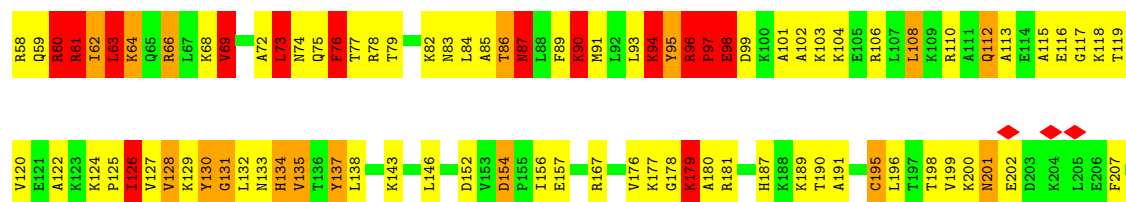


• Molecule 39: 60S ribosomal protein L9

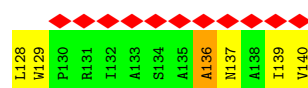
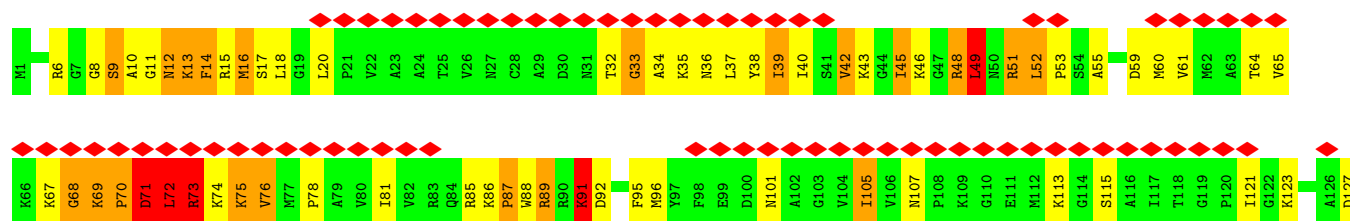




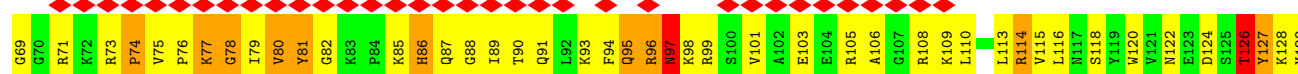
• Molecule 40: 60S ribosomal protein L7a



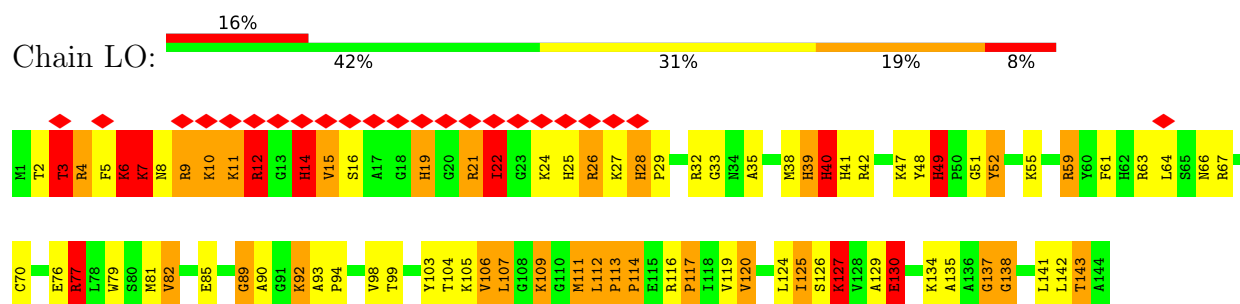
• Molecule 41: Ribosomal Pr 117



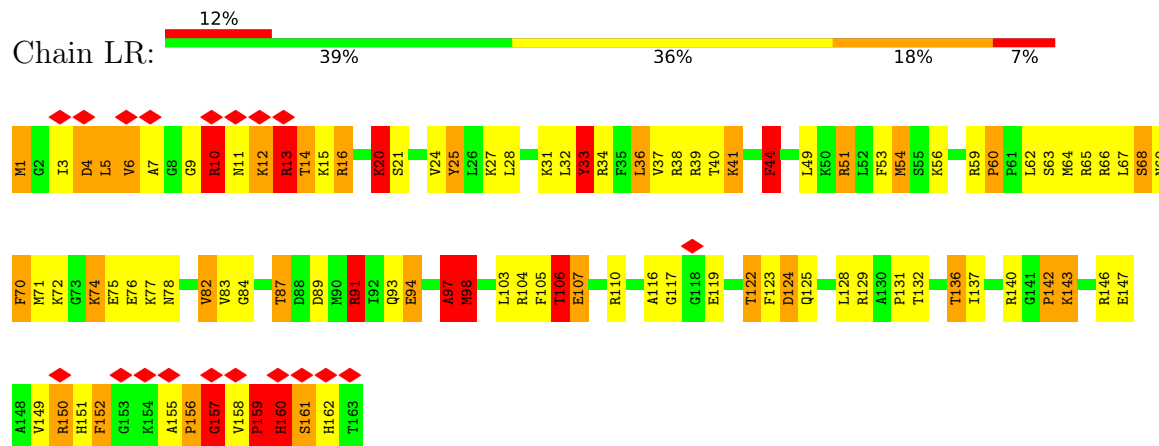
• Molecule 42: Ribosomal protein L15



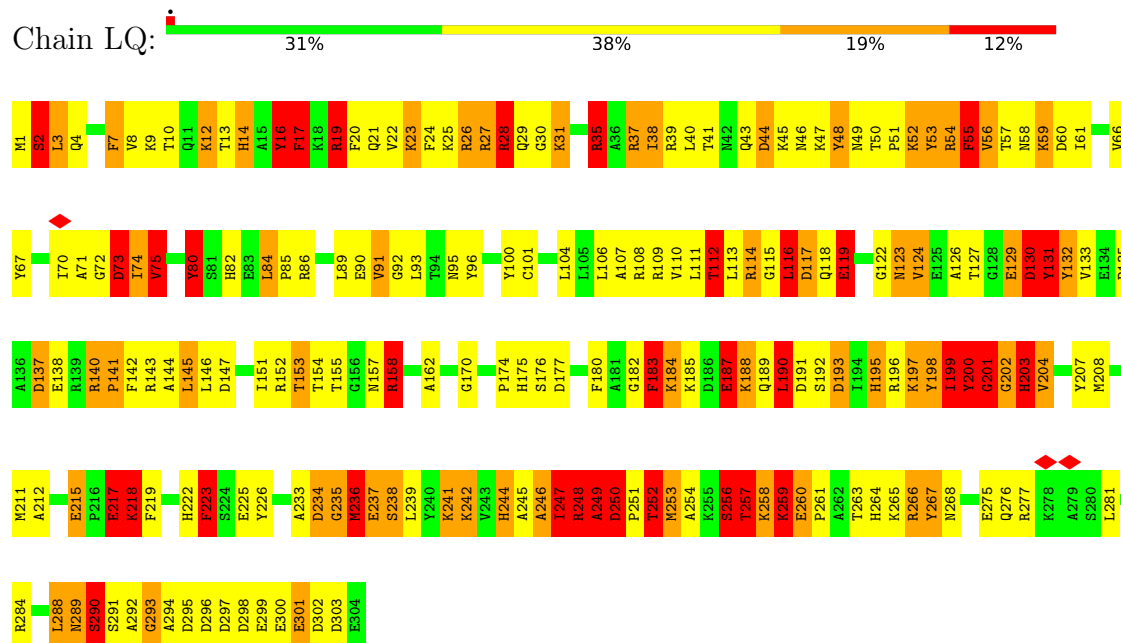
• Molecule 43: 60S ribosomal protein L27a-3



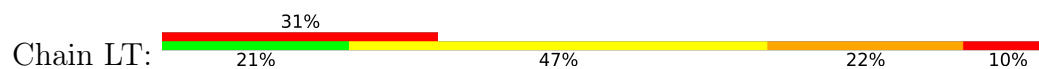
• Molecule 44: 60S ribosomal protein L18

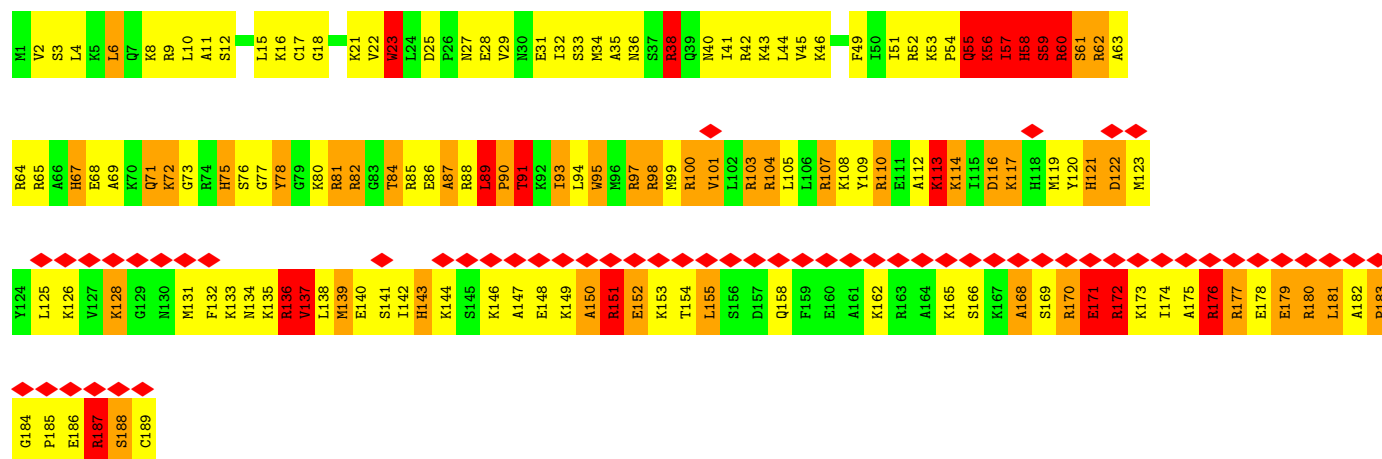


• Molecule 45: 60S ribosomal protein L5

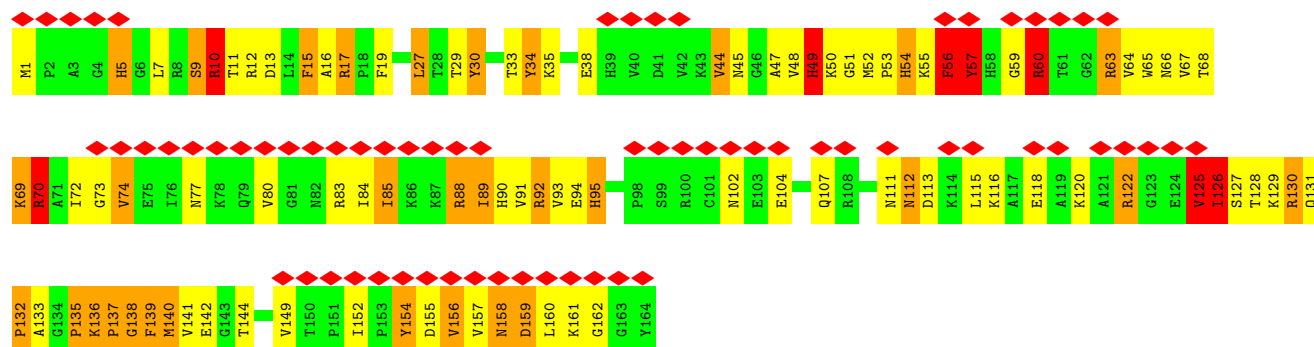
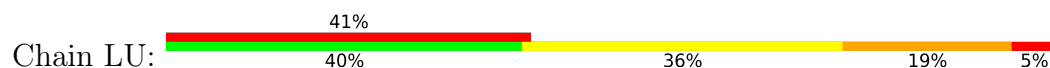


• Molecule 46: Ribosomal protein L19

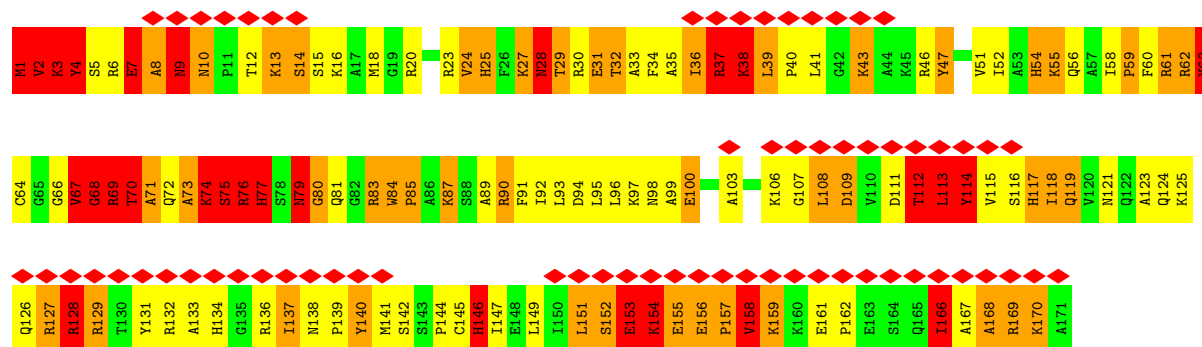
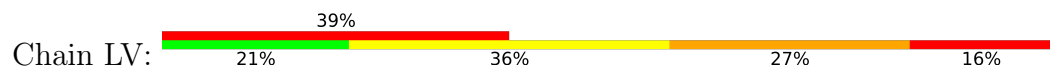




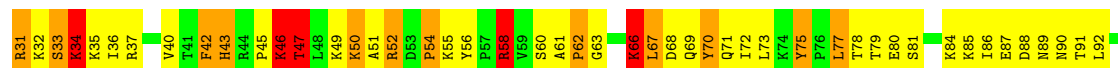
• Molecule 47: 60S ribosomal protein L21

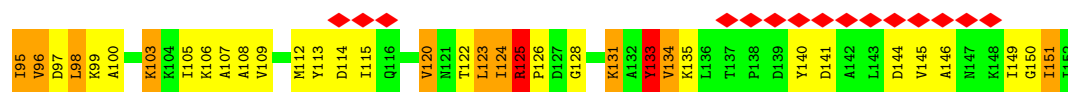


• Molecule 48: 60S ribosomal protein L17

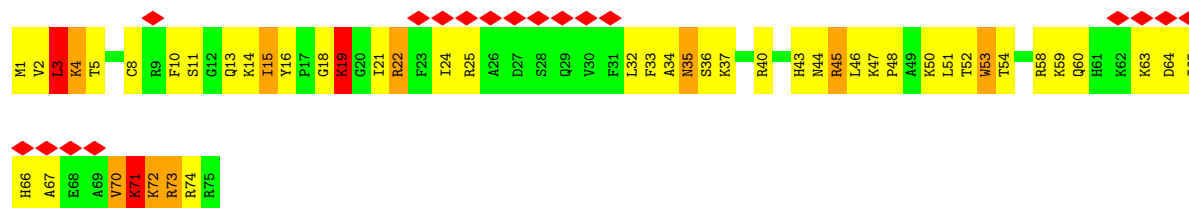


• Molecule 49: 60S ribosomal protein L23a

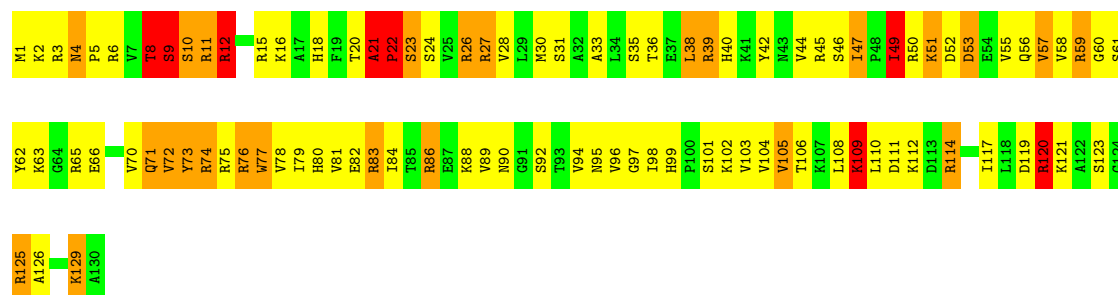




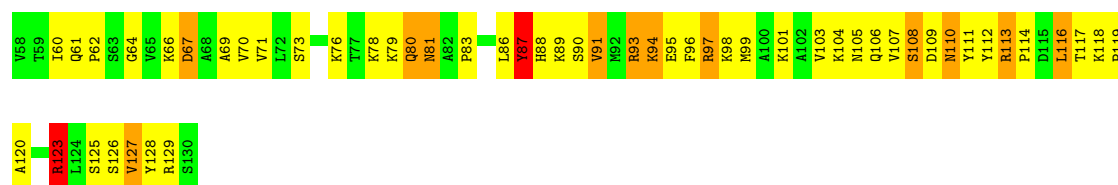
• Molecule 50: 60S ribosomal protein L24



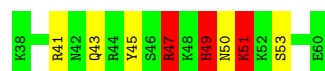
• Molecule 51: 60S ribosomal protein L26



• Molecule 52: 60S ribosomal protein L28

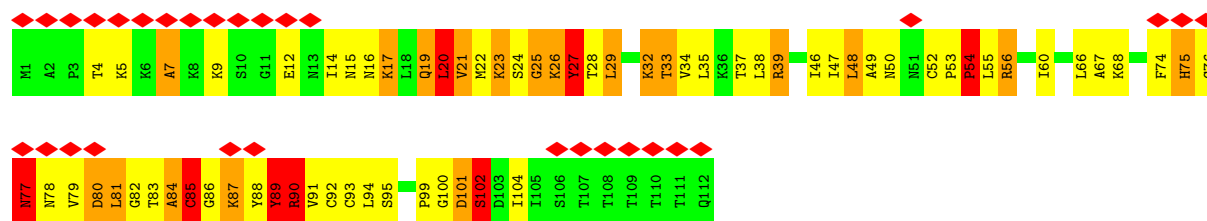


• Molecule 53: 60S ribosomal protein L29

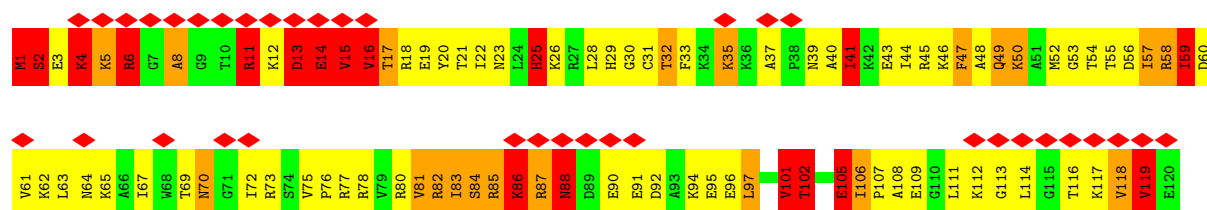
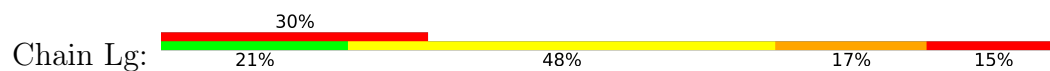


• Molecule 54: 60S ribosomal protein L30

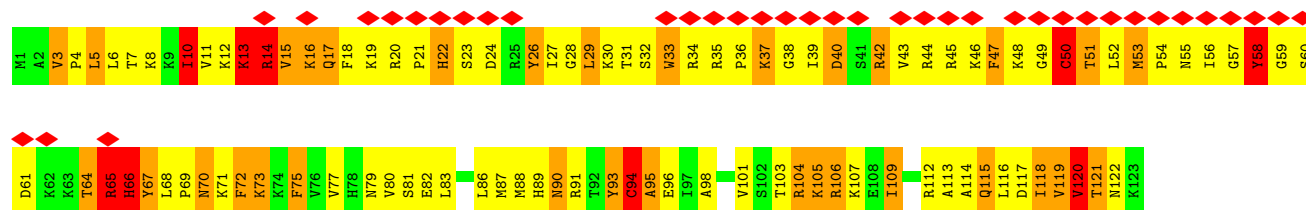
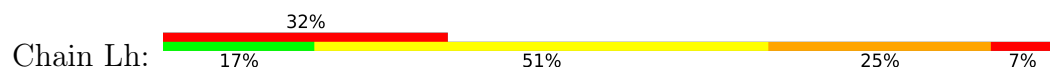




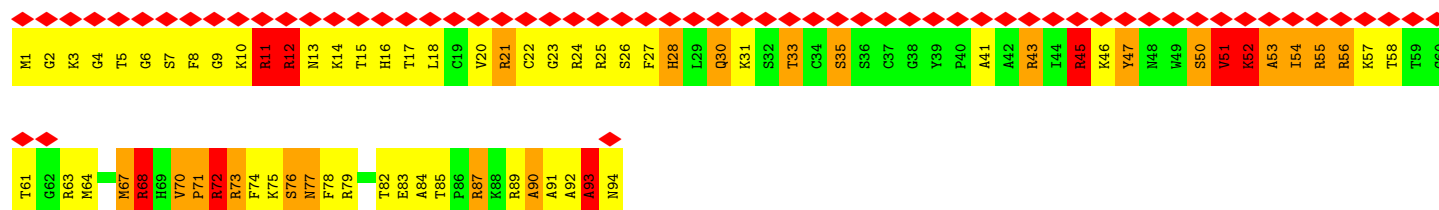
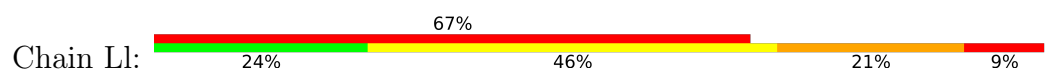
• Molecule 55: 60S ribosomal protein L31



• Molecule 56: Ribosomal L32

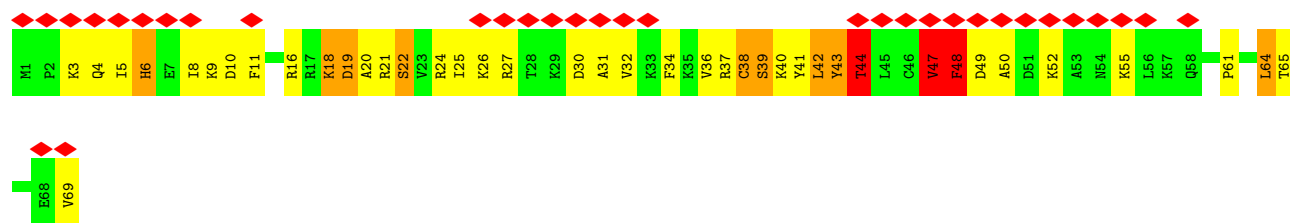


• Molecule 57: Ribosomal protein L37



• Molecule 58: 60S ribosomal protein L38

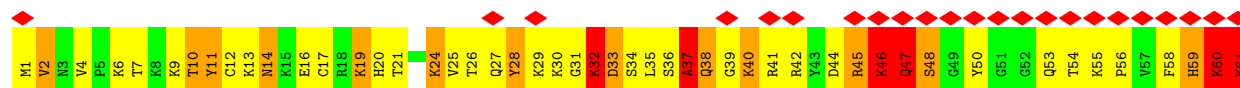
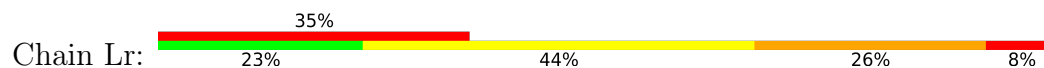




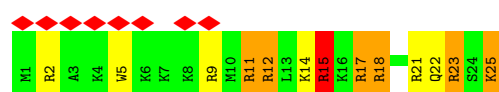
• Molecule 59: Ribosomal protein L39



• Molecule 60: 60S ribosomal protein L44



• Molecule 61: Unknown 60S wheat germ ribosome protein 1



• Molecule 62: Unknown 60S wheat germ ribosome protein 2



• Molecule 62: Unknown 60S wheat germ ribosome protein 2

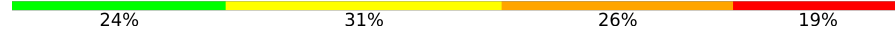


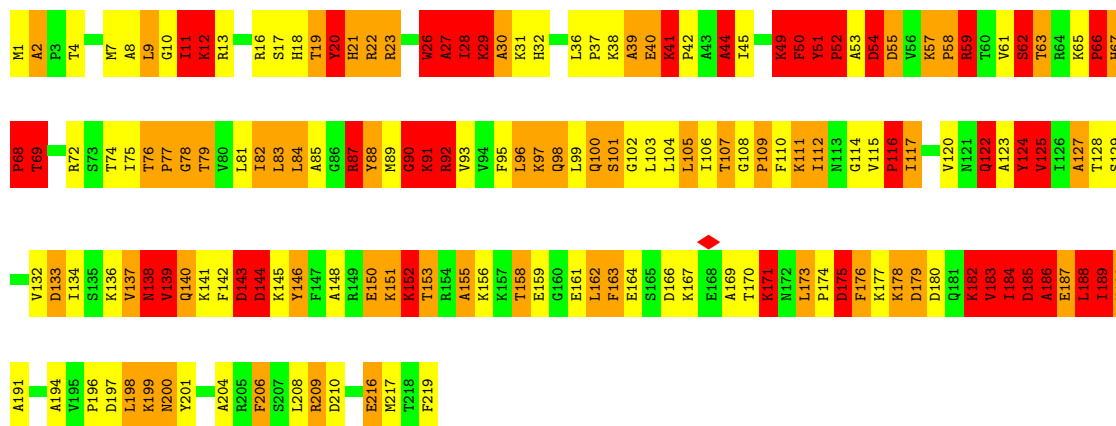
• Molecule 63: Unknown 60S wheat germ ribosome protein 3

Chain Lz: 



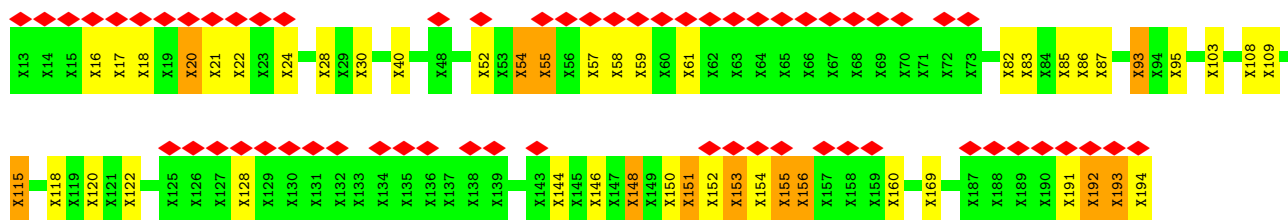
• Molecule 64: 60S ribosomal protein L6

Chain LG: 



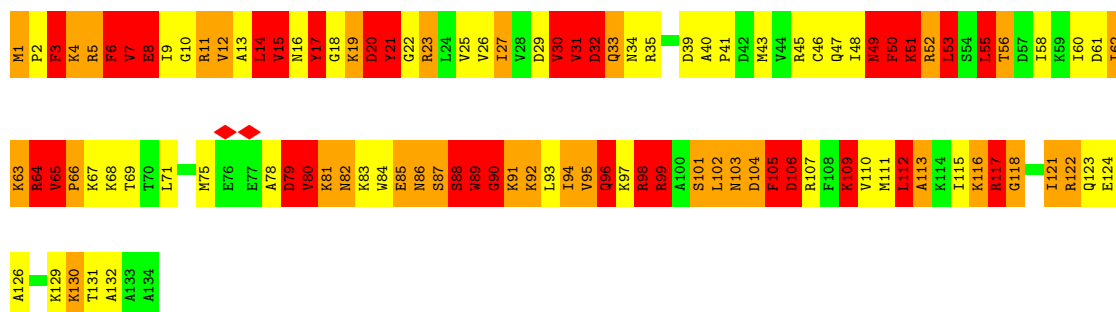
• Molecule 65: Unknown 60S wheat germ ribosome protein 5

Chain LL: 



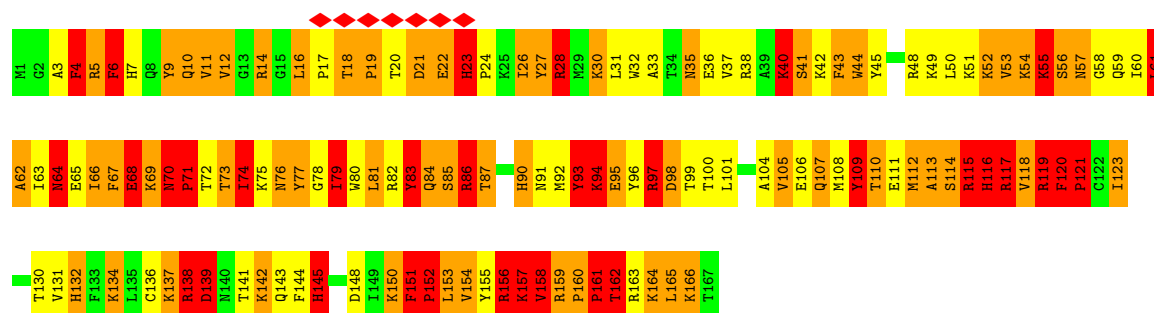
• Molecule 66: Unknown 60S wheat germ ribosome protein 6

Chain LN: 

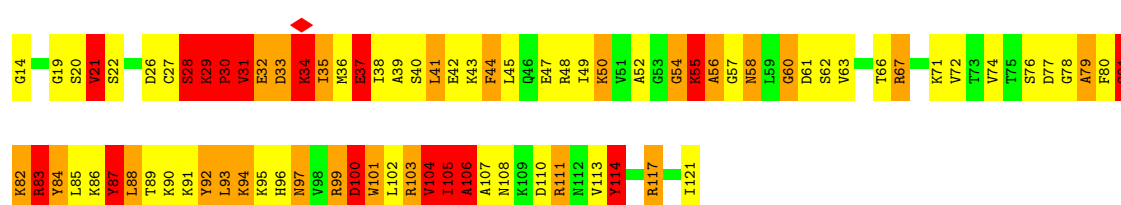
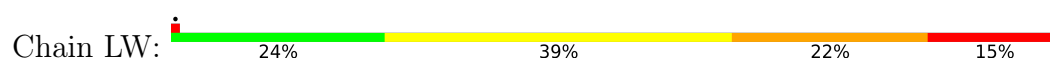


• Molecule 67: 60S ribosomal protein L18a

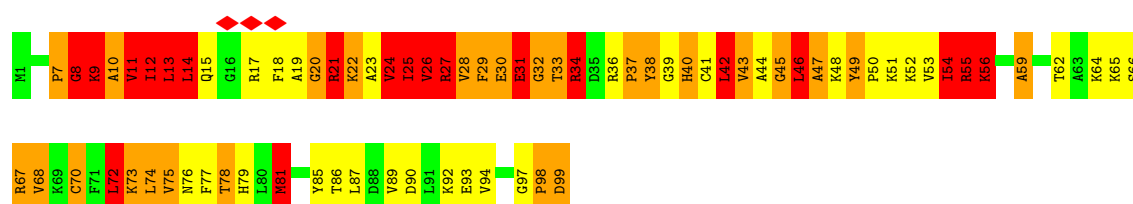
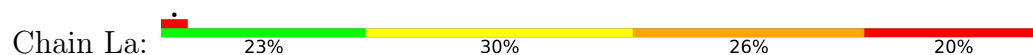
Chain LS: 



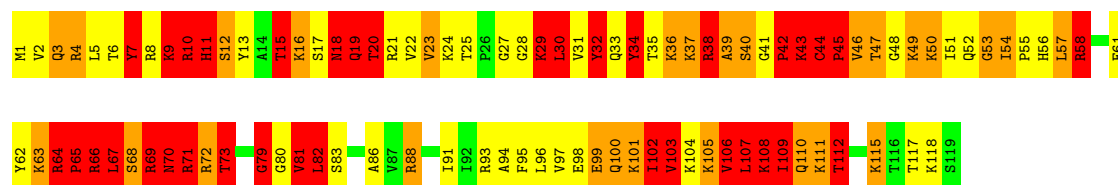
• Molecule 68: 60S ribosomal protein L22



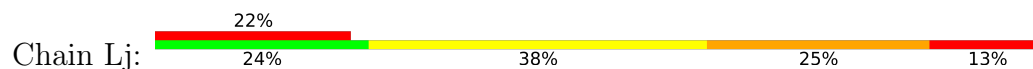
• Molecule 69: 60S ribosomal protein L27

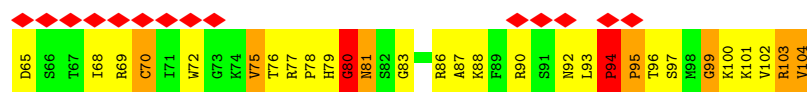


• Molecule 70: Ribosomal protein l34

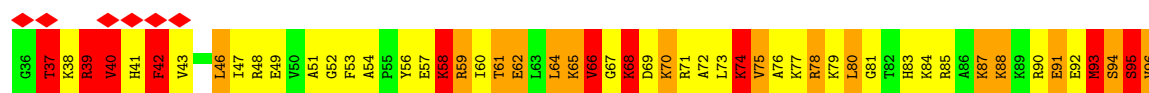
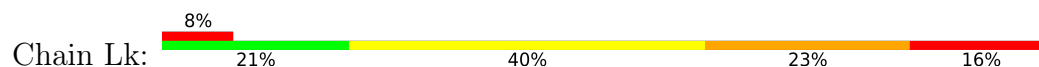


• Molecule 71: ribosomal protein L35A





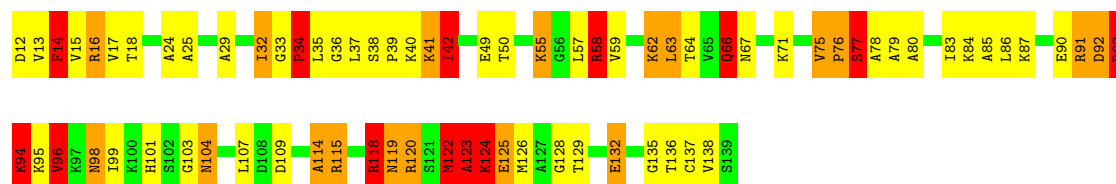
• Molecule 72: 60S ribosomal protein L36



• Molecule 73: Ubiquitin-60S ribosomal protein L40-1



• Molecule 74: 60S ribosomal protein L12



• Molecule 75: Ribosomal protein P1

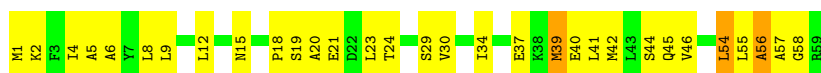


• Molecule 75: Ribosomal protein P1



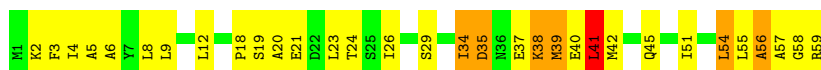
• Molecule 76: 60S acidic ribosomal protein P2A





- Molecule 76: 60S acidic ribosomal protein P2A

Chain Lw: 46% 42% 10%



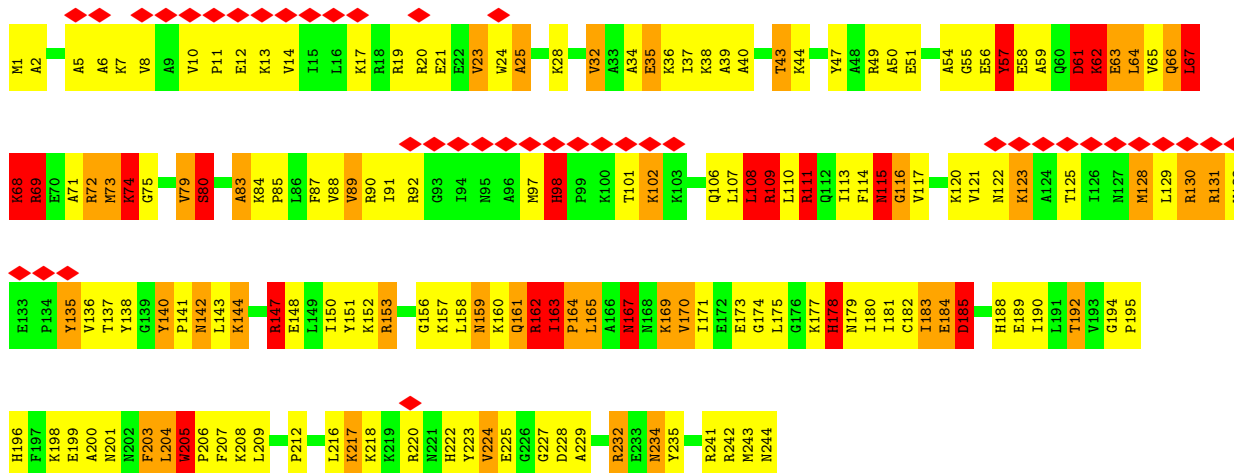
- Molecule 77: 60S ribosomal protein L35

Chain Lc: 40% 36% 19% 5%



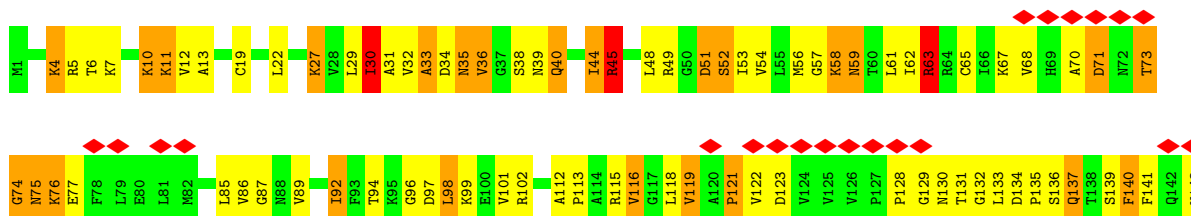
- Molecule 78: Ribosomal protein L7

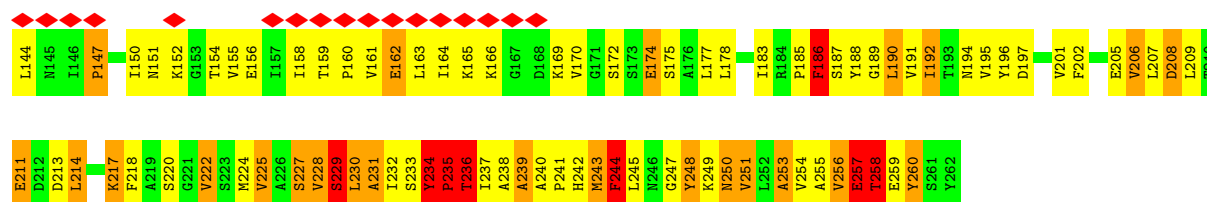
Chain Le: 17% 32% 44% 16% 8%



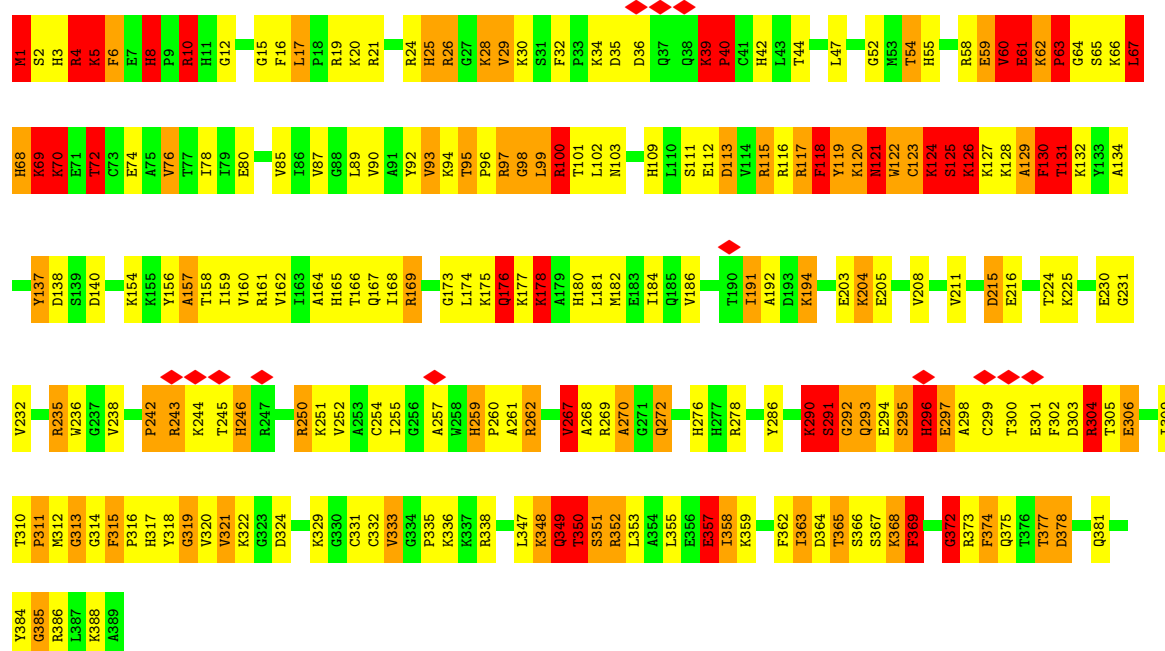
- Molecule 79: 60S acidic ribosomal protein P0

Chain Ls: 15% 36% 41% 19%

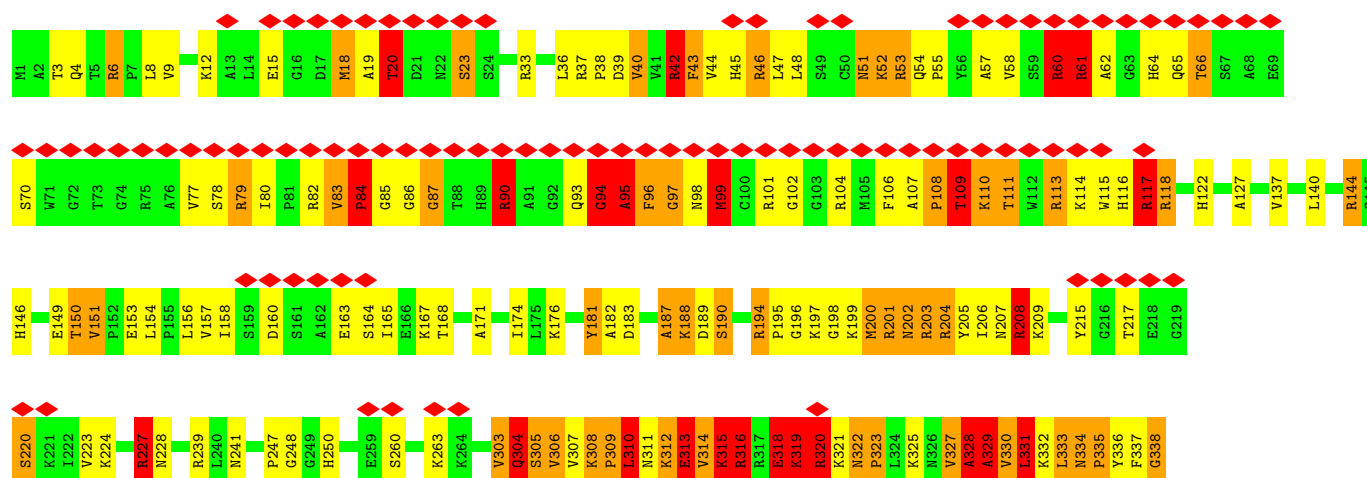
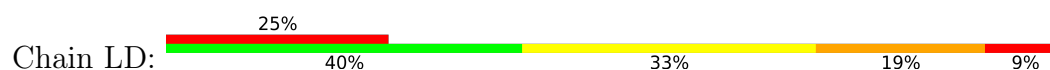




• Molecule 80: Ribosomal protein L3

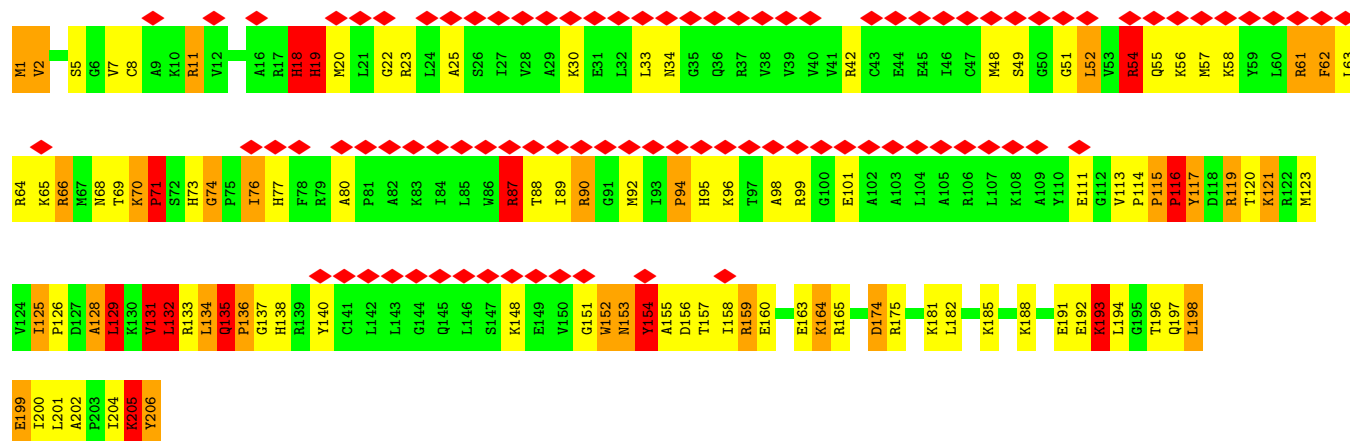


• Molecule 81: 60S ribosomal protein L4/L1

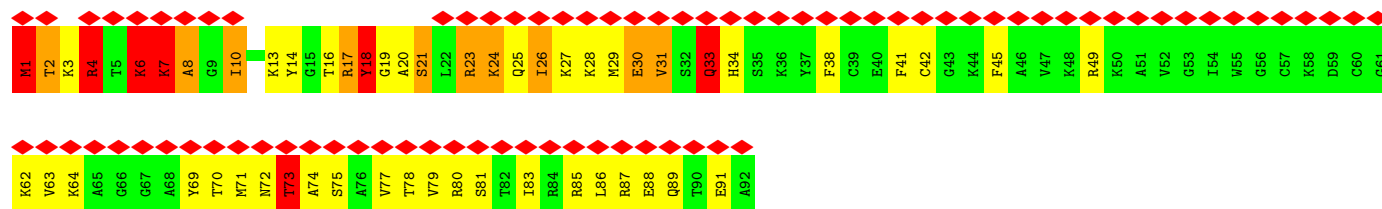
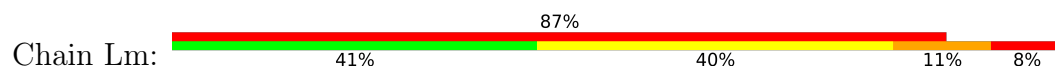




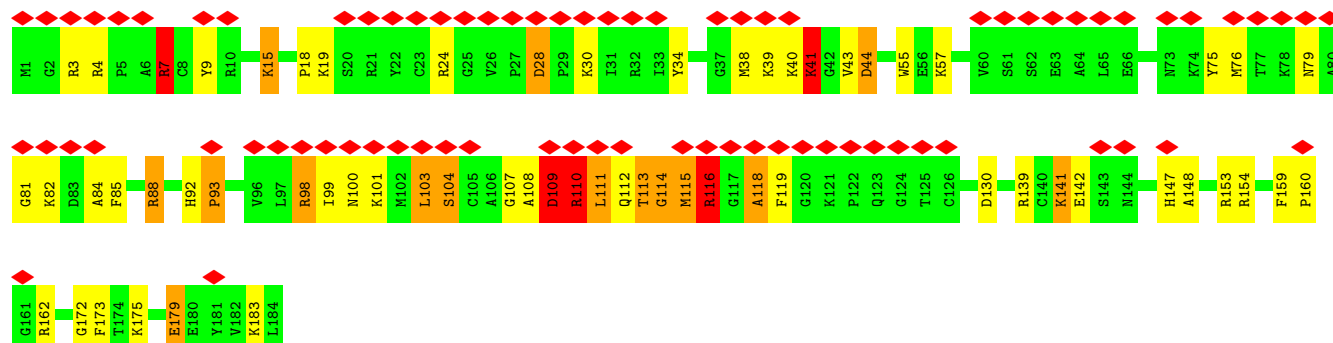
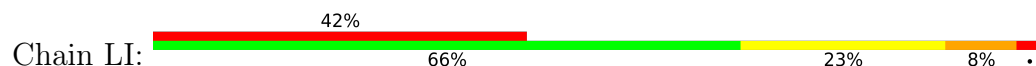
• Molecule 82: Ribosomal protein L13a



• Molecule 83: 60S ribosomal protein L37a, expressed



• Molecule 84: 60S ribosomal protein L10-1



4 Experimental information

Property	Value	Source
EM reconstruction method	SUBTOMOGRAM AVERAGING	Depositor
Imposed symmetry	HELICAL, twist=Not provided°, rise=Not provided Å, axial sym=Not provided	Depositor
Number of subtomograms used	106	Depositor
Resolution determination method	Not provided	
CTF correction method	Not provided	
Microscope	FEI TECNAI F30	Depositor
Voltage (kV)	150	Depositor
Electron dose ($e^-/\text{\AA}^2$)	30	Depositor
Minimum defocus (nm)	2000	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	41176	Depositor
Image detector	FEI FALCON I (4k x 4k)	Depositor
Maximum map value	16.279	Depositor
Minimum map value	-14.012	Depositor
Average map value	0.000	Depositor
Map value standard deviation	1.000	Depositor
Recommended contour level	1	Depositor
Map size (Å)	1740.8, 1740.8, 1360.0	wwPDB
Map dimensions	256, 256, 200	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	6.8, 6.8, 6.8	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	Sa	2.51	114/2897 (3.9%)	2.93	280/3917 (7.1%)
2	SA	2.25	65/1988 (3.3%)	3.27	204/2697 (7.6%)
3	SB	2.68	93/1555 (6.0%)	3.70	244/2077 (11.7%)
4	SD	2.94	64/1637 (3.9%)	4.11	161/2202 (7.3%)
5	SE	2.54	67/2068 (3.2%)	3.57	199/2776 (7.2%)
6	SF	1.40	14/1505 (0.9%)	2.21	64/2027 (3.2%)
7	SI	2.43	53/1034 (5.1%)	2.75	92/1379 (6.7%)
8	SJ	2.58	45/896 (5.0%)	3.76	91/1193 (7.6%)
9	SK	2.88	33/839 (3.9%)	3.58	99/1120 (8.8%)
10	SL	2.34	31/965 (3.2%)	3.21	78/1271 (6.1%)
11	SM	3.20	71/1185 (6.0%)	4.14	196/1574 (12.5%)
12	SO	1.22	5/994 (0.5%)	3.12	39/1332 (2.9%)
13	SQ	2.60	59/1145 (5.2%)	4.40	176/1531 (11.5%)
14	SP	2.64	34/653 (5.2%)	3.44	59/871 (6.8%)
15	SS	2.61	57/1179 (4.8%)	4.24	166/1586 (10.5%)
16	SR	2.25	15/727 (2.1%)	2.57	47/975 (4.8%)
17	SV	1.68	10/748 (1.3%)	2.19	53/994 (5.3%)
19	SY	2.80	19/443 (4.3%)	3.27	39/592 (6.6%)
20	SZ	2.11	13/476 (2.7%)	4.13	45/623 (7.2%)
23	SU	3.61	64/745 (8.6%)	5.11	176/988 (17.8%)
24	SX	2.35	17/382 (4.5%)	2.42	33/515 (6.4%)
25	SC	3.74	87/1563 (5.6%)	4.37	255/2086 (12.2%)
27	SH	2.23	33/1060 (3.1%)	3.17	110/1419 (7.8%)
28	SN	3.21	25/317 (7.9%)	3.76	59/414 (14.3%)
29	ST	2.26	26/659 (3.9%)	3.13	93/884 (10.5%)
30	S3	2.00	10/264 (3.8%)	2.12	16/407 (3.9%)
31	S2	2.64	101/1785 (5.7%)	2.47	175/2779 (6.3%)
32	S1	2.35	1648/37672 (4.4%)	2.24	2742/58357 (4.7%)
33	L1	2.58	3984/77720 (5.1%)	2.47	7259/121026 (6.0%)
34	L3	2.44	128/2868 (4.5%)	2.55	285/4468 (6.4%)
35	L2	2.93	216/3553 (6.1%)	2.66	376/5515 (6.8%)
36	LA	1.79	30/1741 (1.7%)	2.24	97/2323 (4.2%)
37	LB	2.13	60/1979 (3.0%)	2.97	144/2659 (5.4%)
38	LE	3.03	65/1397 (4.7%)	2.89	151/1864 (8.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
39	LF	1.74	36/1519 (2.4%)	2.38	60/2042 (2.9%)
40	LH	1.69	30/1586 (1.9%)	3.03	91/2120 (4.3%)
41	LM	1.87	24/1036 (2.3%)	2.61	80/1388 (5.8%)
42	LP	2.20	50/1669 (3.0%)	2.91	123/2235 (5.5%)
43	LO	1.98	29/1113 (2.6%)	3.63	66/1485 (4.4%)
44	LR	1.85	28/1303 (2.1%)	2.48	75/1748 (4.3%)
45	LQ	2.24	77/2438 (3.2%)	4.09	235/3271 (7.2%)
46	LT	2.30	66/1590 (4.2%)	3.20	183/2100 (8.7%)
47	LU	2.29	44/1290 (3.4%)	3.59	130/1728 (7.5%)
48	LV	2.64	71/1359 (5.2%)	4.33	193/1816 (10.6%)
49	LX	2.32	35/1002 (3.5%)	2.88	86/1340 (6.4%)
50	LZ	1.93	18/591 (3.0%)	3.21	40/782 (5.1%)
51	LY	2.23	36/1061 (3.4%)	2.92	71/1418 (5.0%)
52	Lb	2.29	19/585 (3.2%)	2.64	43/786 (5.5%)
53	Ld	1.40	1/201 (0.5%)	2.19	12/261 (4.6%)
54	Lf	1.68	22/836 (2.6%)	2.39	47/1121 (4.2%)
55	Lg	2.16	36/954 (3.8%)	2.74	95/1272 (7.5%)
56	Lh	2.08	32/1108 (2.9%)	3.10	87/1477 (5.9%)
57	Li	2.23	31/738 (4.2%)	3.06	89/974 (9.1%)
58	Ln	1.57	9/554 (1.6%)	3.33	35/738 (4.7%)
59	Lo	2.53	24/472 (5.1%)	3.70	73/627 (11.6%)
60	Lr	2.74	37/853 (4.3%)	4.60	118/1124 (10.5%)
61	Lq	2.27	10/239 (4.2%)	4.16	11/302 (3.6%)
64	LG	2.49	69/1765 (3.9%)	4.39	262/2372 (11.0%)
66	LN	2.18	40/1094 (3.7%)	3.80	150/1461 (10.3%)
67	LS	2.37	54/1457 (3.7%)	3.67	203/1957 (10.4%)
68	LW	2.43	30/850 (3.5%)	3.67	99/1135 (8.7%)
69	La	2.64	34/743 (4.6%)	3.80	125/992 (12.6%)
70	Li	2.57	49/979 (5.0%)	3.71	149/1305 (11.4%)
71	Lj	2.60	37/811 (4.6%)	3.88	98/1083 (9.0%)
72	Lk	2.32	29/618 (4.7%)	5.17	88/809 (10.9%)
73	Lp	3.38	23/349 (6.6%)	4.34	58/458 (12.7%)
74	LJ	1.88	17/967 (1.8%)	2.62	80/1298 (6.2%)
75	Lt	1.09	1/438 (0.2%)	1.91	10/596 (1.7%)
75	Lu	0.93	0/438	1.78	6/596 (1.0%)
76	Lv	1.04	0/444	1.97	12/596 (2.0%)
76	Lw	1.30	2/444 (0.5%)	2.27	25/596 (4.2%)
77	Lc	2.30	38/1017 (3.7%)	3.54	72/1351 (5.3%)
78	Le	2.03	58/2018 (2.9%)	3.23	196/2702 (7.3%)
79	Ls	1.27	11/2023 (0.5%)	2.38	119/2739 (4.3%)
80	LC	2.05	94/3168 (3.0%)	4.14	240/4234 (5.7%)
81	LD	1.96	80/2919 (2.7%)	4.10	279/3924 (7.1%)
82	LK	1.79	29/1678 (1.7%)	2.66	102/2246 (4.5%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
83	Lm	1.86	11/724 (1.5%)	2.68	37/958 (3.9%)
84	LI	1.65	7/1499 (0.5%)	2.48	49/2001 (2.4%)
All	All	2.43	8834/207179 (4.3%)	2.82	18805/304005 (6.2%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	Sa	1	25
2	SA	1	24
3	SB	0	32
4	SD	1	31
5	SE	0	23
6	SF	0	14
7	SI	0	5
8	SJ	0	16
9	SK	0	14
10	SL	0	11
11	SM	1	24
12	SO	0	14
13	SQ	1	37
14	SP	0	6
15	SS	1	25
16	SR	0	4
17	SV	0	5
18	SW	0	12
19	SY	0	6
20	SZ	1	9
21	Sc	0	1
23	SU	3	38
24	SX	0	3
25	SC	6	43
26	SG	0	43
27	SH	0	11
28	SN	1	6
29	ST	2	6
32	S1	9	0
33	L1	45	0
34	L3	2	0
35	L2	4	0

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Mol	Chain	#Chirality outliers	#Planarity outliers
36	LA	0	4
37	LB	0	25
38	LE	1	18
39	LF	0	15
40	LH	0	28
41	LM	0	5
42	LP	0	29
43	LO	0	20
44	LR	0	27
45	LQ	4	59
46	LT	1	26
47	LU	1	21
48	LV	0	29
49	LX	1	11
50	LZ	0	12
51	LY	0	12
52	Lb	0	2
53	Ld	0	2
54	Lf	0	6
55	Lg	0	11
56	Lh	1	13
57	Li	0	11
58	Ln	0	11
59	Lo	0	12
60	Lr	1	28
61	Lq	0	5
62	Lx	0	5
62	Ly	0	1
63	Lz	0	2
64	LG	2	59
65	LL	0	39
66	LN	2	21
67	LS	2	41
68	LW	0	24
69	La	0	28
70	Li	2	43
71	Lj	0	26
72	Lk	1	10
73	Lp	2	10
74	LJ	1	12
75	Lt	0	2
75	Lu	0	3

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Mol	Chain	#Chirality outliers	#Planarity outliers
76	Lv	0	1
76	Lw	0	2
77	Lc	0	16
78	Le	0	23
79	Ls	1	13
80	LC	5	58
81	LD	2	58
82	LK	2	26
83	Lm	0	12
84	LI	0	17
All	All	111	1482

All (8834) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	SC	171	PRO	N-CD	81.78	2.62	1.47
32	S1	1315	U	O3'-P	-57.72	0.74	1.61
11	SM	126	TYR	CD2-CE2	56.68	3.08	1.38
1	Sa	140	GLN	CD-NE2	51.16	2.40	1.33
32	S1	860	A	O3'-P	-50.96	0.84	1.61
33	L1	2398	A	O3'-P	-45.71	0.92	1.61
5	SE	30	ARG	CZ-NH2	-44.92	0.75	1.33
84	LI	109	ASP	CA-C	-44.40	1.31	1.52
2	SA	109	PRO	C-N	-39.74	0.75	1.33
9	SK	93	HIS	C-N	38.02	1.85	1.33
25	SC	43	GLU	C-N	37.60	1.86	1.33
16	SR	86	ARG	C-N	37.54	1.80	1.33
4	SD	167	ASN	C-N	35.93	1.85	1.33
38	LE	153	HIS	CG-CD2	34.16	1.73	1.35
32	S1	1083	C	O3'-P	-33.80	1.10	1.61
33	L1	250	C	O4'-C1'	33.21	1.91	1.41
25	SC	29	GLU	CD-OE1	33.13	1.88	1.25
34	L3	1	G	C2'-C1'	-32.11	1.04	1.53
3	SB	154	ASP	C-N	31.74	1.79	1.33
33	L1	2247	A	C2'-C1'	31.46	2.00	1.53
35	L2	97	U	C2'-C1'	31.03	1.99	1.53
33	L1	716	A	C2'-C1'	31.02	1.99	1.53
33	L1	640	C	O4'-C1'	30.91	1.88	1.41
33	L1	2628	C	O4'-C1'	30.77	1.88	1.42
33	L1	1804	G	O4'-C1'	30.70	1.87	1.41
33	L1	1691	U	C2'-C1'	30.27	1.98	1.53
35	L2	155	G	C2'-C1'	-30.23	1.07	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	803	G	C2'-C1'	30.03	1.98	1.53
33	L1	237	C	O4'-C1'	29.75	1.86	1.41
38	LE	153	HIS	CD2-NE2	29.71	1.70	1.37
60	Lr	101	GLY	C-O	-29.52	0.84	1.23
28	SN	51	GLY	C-N	29.22	1.72	1.33
38	LE	153	HIS	CE1-NE2	29.15	1.61	1.32
38	LE	153	HIS	ND1-CE1	28.68	1.61	1.32
32	S1	1783	C	O4'-C1'	28.60	1.84	1.41
32	S1	1642	C	C2'-C1'	-28.41	1.10	1.53
32	S1	1156	A	O3'-P	-28.37	1.18	1.61
33	L1	3227	U	O4'-C1'	28.29	1.98	1.41
32	S1	633	U	C2'-C1'	27.96	2.09	1.53
33	L1	1818	C	O4'-C1'	27.54	1.82	1.41
4	SD	240	LYS	CA-C	27.50	1.89	1.52
5	SE	250	GLN	C-N	27.08	1.69	1.33
32	S1	376	G	O4'-C1'	26.93	1.95	1.41
33	L1	2640	A	C2'-C1'	26.91	1.93	1.53
25	SC	29	GLU	CD-OE2	26.75	1.76	1.25
33	L1	986	G	C2'-C1'	26.68	1.93	1.53
23	SU	82	TYR	CA-C	26.64	1.82	1.53
4	SD	153	ILE	CA-C	26.64	1.86	1.52
33	L1	3327	A	C2'-C1'	-26.60	1.13	1.53
32	S1	1004	U	O3'-P	-26.41	1.21	1.61
35	L2	98	C	O4'-C1'	26.39	1.94	1.41
33	L1	2231	G	C2'-C1'	26.37	1.93	1.53
33	L1	3334	A	O4'-C1'	26.35	1.81	1.41
19	SY	47	ARG	C-N	26.09	1.68	1.33
33	L1	1549	A	O4'-C1'	26.01	1.93	1.41
33	L1	280	G	C2'-C1'	25.99	1.92	1.53
33	L1	62	A	O4'-C1'	-25.70	1.03	1.41
33	L1	2059	C	O4'-C1'	25.63	1.80	1.41
33	L1	2779	G	C2'-C1'	25.59	1.91	1.53
33	L1	2203	A	C2'-C1'	25.48	2.04	1.53
33	L1	1576	C	O4'-C1'	25.46	1.79	1.41
33	L1	1265	G	C2'-C1'	25.30	2.04	1.53
33	L1	1035	C	C2'-C1'	-25.19	1.15	1.53
33	L1	2668	U	C2'-C1'	25.14	2.03	1.53
38	LE	153	HIS	CG-ND1	25.02	1.65	1.38
32	S1	1678	G	O4'-C1'	-25.00	1.04	1.41
33	L1	1593	C	O4'-C1'	24.99	1.79	1.41
13	SQ	82	MET	C-O	-24.97	0.92	1.24
33	L1	522	C	O3'-P	-24.95	1.23	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1826	G	C2'-C1'	24.87	1.90	1.53
9	SK	126	GLY	C-N	24.86	1.67	1.33
33	L1	2700	A	O3'-P	24.84	1.98	1.61
69	La	27	ARG	CA-C	24.80	1.82	1.52
33	L1	3357	C	C2'-C1'	-24.75	1.16	1.53
73	Lp	52	LYS	C-O	-24.72	0.92	1.23
33	L1	3320	G	O4'-C1'	24.63	1.78	1.41
32	S1	823	A	P-OP1	-24.29	1.00	1.49
32	S1	764	U	P-OP1	-24.29	1.00	1.49
34	L3	48	G	C2'-C1'	24.28	1.89	1.53
35	L2	89	G	C2'-C1'	-24.27	1.16	1.53
32	S1	1572	U	O4'-C1'	24.25	1.78	1.41
32	S1	764	U	P-OP2	-24.23	1.00	1.49
32	S1	823	A	P-OP2	-24.19	1.00	1.49
33	L1	1564	C	O4'-C1'	24.12	1.77	1.41
32	S1	1759	A	O4'-C1'	24.05	1.77	1.41
33	L1	2984	A	C2'-C1'	-24.05	1.17	1.53
32	S1	701	C	P-OP2	-24.03	1.00	1.48
33	L1	1344	A	O4'-C1'	24.02	1.77	1.41
32	S1	701	C	P-OP1	-24.01	1.00	1.48
33	L1	700	C	O4'-C1'	24.00	1.77	1.41
33	L1	267	G	O4'-C1'	24.00	1.77	1.42
23	SU	72	GLY	N-CA	23.95	1.67	1.45
33	L1	3334	A	C2'-C1'	-23.95	1.17	1.53
31	S2	72	G	C2'-C1'	23.84	1.89	1.53
33	L1	507	C	O4'-C1'	23.81	1.77	1.41
47	LU	138	GLY	C-O	-23.71	0.89	1.23
33	L1	532	G	C2'-C1'	-23.70	1.17	1.53
4	SD	240	LYS	C-O	-23.68	0.94	1.24
33	L1	1551	C	O4'-C1'	23.61	1.77	1.41
33	L1	1309	U	O4'-C1'	23.54	1.77	1.42
33	L1	70	A	C2'-C1'	-23.40	1.18	1.53
68	LW	29	LYS	N-CA	23.26	1.78	1.46
33	L1	1513	C	O4'-C1'	23.14	1.76	1.41
33	L1	2708	A	O4'-C1'	23.12	1.76	1.42
33	L1	2450	G	O4'-C1'	-23.07	1.07	1.41
33	L1	2318	U	C2'-C1'	22.95	1.87	1.53
33	L1	1035	C	O4'-C1'	22.84	1.75	1.41
64	LG	50	PHE	N-CA	22.82	1.75	1.46
5	SE	30	ARG	CD-NE	22.76	1.78	1.46
33	L1	3143	A	O4'-C1'	22.70	1.75	1.42
35	L2	57	A	O4'-C1'	22.64	1.75	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2437	A	O4'-C1'	22.57	1.75	1.41
42	LP	74	PRO	C-O	-22.50	0.95	1.23
33	L1	707	G	C2'-C1'	-22.49	1.19	1.53
33	L1	2486	G	C2'-C1'	22.46	1.87	1.53
33	L1	3354	A	C2'-C1'	22.45	1.87	1.53
25	SC	63	THR	CB-OG1	22.45	1.79	1.43
73	Lp	51	ILE	CA-C	22.43	1.81	1.52
33	L1	425	G	C2'-C1'	-22.43	1.19	1.53
32	S1	1642	C	O4'-C1'	22.40	1.75	1.41
33	L1	665	G	C2'-C1'	-22.38	1.19	1.53
33	L1	3048	C	C2'-C1'	-22.30	1.19	1.53
14	SP	50	ILE	C-N	-22.28	1.02	1.33
32	S1	535	C	O3'-P	-22.27	1.27	1.61
25	SC	143	VAL	C-N	22.26	1.64	1.33
33	L1	2881	C	C2'-C1'	-22.25	1.20	1.53
68	LW	104	VAL	C-O	-22.24	0.97	1.24
33	L1	2290	A	C2'-C1'	-22.17	1.20	1.53
32	S1	3	C	O4'-C1'	22.15	1.74	1.41
32	S1	1225	A	C2'-C1'	22.08	1.86	1.53
33	L1	2802	G	O4'-C1'	22.04	1.74	1.41
33	L1	3234	G	C2'-C1'	21.94	1.86	1.53
33	L1	2518	A	C2'-C1'	-21.89	1.20	1.53
33	L1	3005	C	C2'-C1'	-21.89	1.20	1.53
32	S1	669	A	P-OP2	21.76	1.92	1.49
33	L1	1318	C	O4'-C1'	21.71	1.74	1.41
25	SC	106	PHE	CD1-CE1	21.62	2.03	1.38
32	S1	1346	C	C2'-C1'	-21.58	1.21	1.53
27	SH	109	GLY	CA-C	-21.55	1.29	1.51
33	L1	2290	A	O4'-C1'	21.50	1.74	1.41
70	Li	107	LEU	C-O	-21.49	0.96	1.24
33	L1	1628	G	O4'-C1'	21.48	1.73	1.41
33	L1	1679	U	C2'-C1'	21.40	1.85	1.53
33	L1	2125	A	C2'-C1'	21.34	1.85	1.53
33	L1	177	C	O4'-C1'	21.23	1.73	1.41
35	L2	63	A	C2'-C1'	-21.23	1.21	1.53
33	L1	997	G	C2'-C1'	21.22	1.85	1.53
32	S1	200	C	O4'-C1'	21.19	1.73	1.41
33	L1	566	G	C2'-C1'	-21.18	1.21	1.53
33	L1	963	U	O4'-C1'	21.17	1.73	1.41
35	L2	30	C	O4'-C1'	21.17	1.73	1.41
33	L1	618	G	O3'-P	21.16	1.92	1.61
33	L1	563	C	O4'-C1'	21.16	1.73	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	L2	53	G	C2'-C1'	-21.15	1.21	1.53
33	L1	1672	G	O4'-C1'	-21.12	1.09	1.41
32	S1	303	A	O3'-P	21.09	1.92	1.61
33	L1	1754	C	O4'-C1'	21.07	1.73	1.41
32	S1	187	C	O3'-P	-21.06	1.29	1.61
33	L1	1395	A	C2'-C1'	20.97	1.84	1.53
32	S1	1740	G	C2'-C1'	20.93	1.84	1.53
33	L1	1575	G	C2'-C1'	-20.82	1.22	1.53
33	L1	2231	G	O4'-C1'	-20.81	1.10	1.41
33	L1	996	A	C2'-C1'	-20.79	1.22	1.53
23	SU	33	LEU	C-O	-20.79	0.99	1.23
32	S1	1310	C	O4'-C1'	20.74	1.72	1.41
4	SD	132	GLY	C-O	-20.73	0.95	1.23
33	L1	1651	A	C2'-C1'	-20.68	1.22	1.53
64	LG	44	ALA	C-O	-20.63	0.97	1.24
33	L1	177	C	C2'-C1'	-20.63	1.22	1.53
33	L1	400	G	O4'-C1'	-20.59	1.11	1.42
35	L2	64	U	O4'-C1'	20.53	1.72	1.42
31	S2	75	A	O4'-C1'	-20.53	1.11	1.42
33	L1	995	C	O4'-C1'	20.53	1.72	1.41
33	L1	3156	G	C2'-C1'	20.50	1.84	1.53
33	L1	1081	U	C2'-C1'	20.48	1.84	1.53
33	L1	2786	G	O4'-C1'	20.47	1.72	1.41
33	L1	1034	U	O3'-P	-20.47	1.30	1.61
32	S1	582	U	O4'-C1'	20.46	1.72	1.42
33	L1	1646	U	C2'-C1'	20.44	1.84	1.53
32	S1	1739	U	O4'-C1'	20.44	1.72	1.41
33	L1	175	G	C2'-C1'	-20.42	1.22	1.53
64	LG	184	ILE	C-O	-20.41	0.99	1.24
33	L1	2216	G	C2'-C1'	20.40	1.83	1.53
33	L1	348	C	O4'-C1'	20.38	1.72	1.42
14	SP	41	LEU	C-O	-20.36	1.02	1.23
33	L1	543	C	O4'-C1'	20.34	1.72	1.41
33	L1	3035	C	C2'-C1'	-20.33	1.22	1.53
32	S1	1091	A	C2'-C1'	-20.29	1.23	1.53
33	L1	1949	G	O4'-C1'	-20.27	1.11	1.41
33	L1	665	G	O4'-C1'	20.27	1.72	1.42
19	SY	46	VAL	C-N	20.25	1.62	1.33
11	SM	126	TYR	CE1-CZ	20.24	1.86	1.38
3	SB	212	PRO	C-O	-20.23	1.01	1.24
33	L1	227	C	O4'-C1'	20.23	1.72	1.41
33	L1	1513	C	C2'-C1'	-20.22	1.23	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1368	U	O4'-C1'	20.22	1.72	1.41
33	L1	804	A	O4'-C1'	20.20	1.72	1.42
33	L1	1320	G	O4'-C1'	-20.20	1.11	1.41
33	L1	3093	C	O4'-C1'	20.18	1.72	1.41
33	L1	3149	C	O4'-C1'	20.09	1.71	1.41
34	L3	68	G	C2'-C1'	-20.05	1.23	1.53
9	SK	123	MET	SD-CE	-20.01	1.29	1.79
33	L1	2493	C	O4'-C1'	20.00	1.71	1.41
33	L1	1241	G	O4'-C1'	20.00	1.71	1.41
35	L2	138	G	O4'-C1'	19.98	1.71	1.41
31	S2	41	G	C2'-C1'	-19.97	1.23	1.53
33	L1	1395	A	O4'-C1'	-19.96	1.11	1.41
33	L1	2356	A	C2'-C1'	-19.95	1.23	1.53
80	LC	372	GLY	C-O	-19.94	0.97	1.23
33	L1	9	C	O4'-C1'	19.90	1.71	1.41
35	L2	96	A	O4'-C1'	19.89	1.71	1.41
38	LE	91	TYR	CG-CD2	19.87	1.81	1.39
33	L1	1849	U	C2'-C1'	19.86	1.83	1.53
33	L1	3335	G	O4'-C1'	19.83	1.71	1.41
8	SJ	78	PRO	C-N	19.79	1.59	1.33
32	S1	1346	C	O4'-C1'	19.78	1.71	1.41
33	L1	1804	G	C2'-C1'	-19.75	1.23	1.53
33	L1	2585	C	O4'-C1'	19.72	1.71	1.41
27	SH	68	ARG	CA-C	-19.72	1.39	1.52
9	SK	84	CYS	CB-SG	-19.71	1.16	1.81
34	L3	15	C	O4'-C1'	19.71	1.71	1.41
33	L1	2753	C	O4'-C1'	19.71	1.71	1.41
83	Lm	7	LYS	C-O	-19.68	1.03	1.24
33	L1	2170	G	C2'-C1'	-19.62	1.23	1.53
32	S1	632	G	C2'-C1'	19.61	1.82	1.53
13	SQ	73	LEU	C-O	-19.61	1.06	1.24
33	L1	707	G	O4'-C1'	19.58	1.71	1.41
45	LQ	124	VAL	C-O	-19.57	0.97	1.24
71	Lj	24	LYS	C-O	-19.54	0.99	1.24
32	S1	1759	A	C2'-C1'	19.54	1.82	1.53
32	S1	147	C	O4'-C1'	19.43	1.70	1.41
32	S1	1007	G	C2'-C1'	-19.41	1.24	1.53
33	L1	2418	A	O4'-C1'	19.40	1.70	1.41
32	S1	1740	G	O4'-C1'	-19.36	1.12	1.41
32	S1	635	G	C2'-C1'	19.34	1.82	1.53
60	Lr	32	LYS	C-O	-19.25	1.00	1.23
23	SU	82	TYR	N-CA	19.21	1.71	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	19	C	O4'-C1'	19.21	1.70	1.41
32	S1	1792	A	C2'-C1'	19.14	1.82	1.53
33	L1	2599	U	C2'-C1'	19.13	1.82	1.53
32	S1	1462	C	C2'-C1'	-19.12	1.24	1.53
32	S1	1472	G	C2'-C1'	-19.12	1.24	1.53
32	S1	593	C	O4'-C1'	19.11	1.70	1.41
33	L1	953	G	C2'-C1'	-19.10	1.24	1.53
10	SL	54	ILE	C-N	-19.10	1.04	1.33
33	L1	584	G	O4'-C1'	19.00	1.70	1.41
33	L1	1614	G	C2'-C1'	-19.00	1.24	1.53
33	L1	596	C	O4'-C1'	18.96	1.70	1.41
33	L1	242	U	O4'-C1'	18.95	1.70	1.41
33	L1	2059	C	C2'-C1'	-18.95	1.25	1.53
33	L1	384	A	O4'-C1'	18.94	1.70	1.41
32	S1	1403	G	C2'-C1'	-18.91	1.25	1.53
33	L1	656	G	C2'-C1'	-18.89	1.25	1.53
32	S1	152	G	O4'-C1'	18.88	1.70	1.41
35	L2	66	C	C2'-C1'	-18.87	1.24	1.53
33	L1	3092	A	C2'-C1'	-18.85	1.24	1.53
33	L1	628	C	O4'-C1'	18.84	1.70	1.41
33	L1	631	C	O4'-C1'	18.83	1.70	1.41
33	L1	3175	C	O4'-C1'	18.83	1.69	1.41
39	LF	187	THR	C-O	-18.83	1.03	1.23
33	L1	30	C	O4'-C1'	18.81	1.69	1.41
32	S1	823	A	O4'-C1'	18.80	1.69	1.41
38	LE	91	TYR	CG-CD1	18.79	1.78	1.39
5	SE	30	ARG	CZ-NH1	18.74	1.58	1.32
20	SZ	44	PHE	C-N	18.69	1.59	1.33
33	L1	1823	C	O4'-C1'	18.69	1.69	1.41
4	SD	240	LYS	N-CA	18.68	1.70	1.46
35	L2	109	A	C2'-C1'	-18.67	1.25	1.53
33	L1	2450	G	C2'-C1'	18.63	1.81	1.53
33	L1	811	A	C2'-C1'	-18.59	1.25	1.53
33	L1	102	G	C2'-C1'	18.56	1.81	1.53
33	L1	62	A	C2'-C1'	18.55	1.81	1.53
33	L1	632	C	O4'-C1'	18.51	1.69	1.41
33	L1	2355	A	C2'-C1'	18.50	1.81	1.53
33	L1	262	A	C2'-C1'	18.48	1.81	1.53
67	LS	151	PHE	CA-CB	-18.48	1.16	1.53
33	L1	2582	G	C2'-C1'	-18.45	1.25	1.53
34	L3	46	C	C2'-C1'	-18.45	1.25	1.53
33	L1	3317	G	O4'-C1'	-18.43	1.14	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
45	LQ	202	GLY	N-CA	18.43	1.72	1.45
32	S1	1678	G	C2'-C1'	18.43	1.80	1.53
4	SD	93	PRO	C-O	-18.37	1.02	1.23
33	L1	68	U	C2'-C1'	-18.36	1.25	1.53
33	L1	2808	U	C2'-C1'	-18.32	1.25	1.53
33	L1	1050	A	C2'-C1'	18.30	1.80	1.53
33	L1	557	C	C2'-C1'	-18.29	1.25	1.53
33	L1	18	G	O3'-P	-18.27	1.33	1.61
33	L1	1666	C	O4'-C1'	18.26	1.69	1.41
32	S1	1745	U	O4'-C1'	18.23	1.69	1.41
33	L1	291	C	C2'-C1'	-18.21	1.26	1.53
31	S2	75	A	C2'-C1'	18.20	1.80	1.53
32	S1	636	U	O4'-C1'	18.19	1.69	1.41
32	S1	1757	G	O4'-C1'	18.16	1.68	1.41
4	SD	153	ILE	C-N	18.15	1.58	1.33
35	L2	97	U	O4'-C1'	-18.08	1.14	1.41
33	L1	1370	A	O4'-C1'	18.07	1.68	1.41
33	L1	3357	C	O4'-C1'	18.03	1.68	1.41
34	L3	10	C	O4'-C1'	18.02	1.68	1.41
33	L1	917	A	O4'-C1'	18.00	1.69	1.42
35	L2	41	A	O4'-C1'	17.99	1.69	1.42
33	L1	1551	C	C2'-C1'	-17.96	1.26	1.53
80	LC	357	GLU	C-O	-17.92	0.98	1.23
4	SD	240	LYS	C-N	17.91	1.58	1.33
33	L1	1563	G	O4'-C1'	17.89	1.68	1.41
33	L1	3101	C	O4'-C1'	17.88	1.68	1.41
33	L1	1193	A	O4'-C1'	17.86	1.68	1.41
33	L1	3203	G	C2'-C1'	17.86	1.80	1.53
33	L1	637	C	O4'-C1'	17.84	1.68	1.41
33	L1	1236	C	C2'-C1'	-17.83	1.26	1.53
45	LQ	9	LYS	C-N	17.82	1.57	1.33
32	S1	1748	U	C2'-C1'	-17.80	1.26	1.53
33	L1	1577	A	C2'-C1'	17.79	1.80	1.53
33	L1	487	C	O4'-C1'	17.79	1.68	1.41
33	L1	1018	C	O4'-C1'	17.75	1.68	1.41
33	L1	590	C	O4'-C1'	17.74	1.68	1.41
33	L1	2759	C	C2'-C1'	-17.73	1.26	1.53
33	L1	2622	G	C2'-C1'	-17.72	1.26	1.53
38	LE	91	TYR	CE2-CZ	17.71	1.80	1.38
33	L1	2686	U	C2'-C1'	-17.69	1.26	1.53
33	L1	711	A	O4'-C1'	-17.69	1.15	1.41
33	L1	2984	A	O4'-C1'	17.69	1.68	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1674	C	O4'-C1'	17.68	1.68	1.41
33	L1	858	U	C2'-C1'	-17.68	1.26	1.53
33	L1	264	C	O4'-C1'	17.67	1.68	1.41
32	S1	1647	C	O3'-P	-17.67	1.34	1.61
33	L1	1634	G	O4'-C1'	17.63	1.68	1.41
32	S1	1184	C	O4'-C1'	17.62	1.68	1.41
33	L1	69	U	C2'-C1'	-17.62	1.26	1.53
33	L1	238	C	O4'-C1'	17.61	1.68	1.41
32	S1	311	G	C2'-C1'	-17.61	1.26	1.53
33	L1	2783	U	C2'-C1'	17.61	1.79	1.53
33	L1	227	C	C2'-C1'	-17.60	1.26	1.53
33	L1	803	G	O4'-C1'	-17.60	1.15	1.41
33	L1	3347	U	O4'-C1'	17.58	1.68	1.41
33	L1	3218	C	C2'-C1'	-17.57	1.26	1.53
33	L1	2237	A	O4'-C1'	17.57	1.68	1.41
33	L1	307	C	O4'-C1'	17.56	1.68	1.41
33	L1	164	C	C2'-C1'	-17.55	1.27	1.53
33	L1	1371	G	C2'-C1'	-17.55	1.27	1.53
37	LB	196	TRP	C-O	-17.52	1.01	1.24
33	L1	167	C	O4'-C1'	17.52	1.68	1.42
48	LV	114	TYR	CE1-CZ	17.50	1.80	1.38
34	L3	56	G	C2'-C1'	-17.49	1.27	1.53
33	L1	2952	G	C2'-C1'	17.48	1.79	1.53
33	L1	1151	G	C2'-C1'	-17.46	1.27	1.53
33	L1	1613	C	P-OP1	-17.46	1.14	1.49
33	L1	1862	C	O4'-C1'	17.43	1.67	1.41
33	L1	2114	A	O4'-C1'	17.43	1.67	1.41
45	LQ	116	LEU	C-O	-17.40	1.02	1.24
33	L1	1723	C	O4'-C1'	17.39	1.67	1.41
33	L1	3327	A	O4'-C1'	17.39	1.67	1.41
32	S1	563	C	O4'-C1'	17.39	1.67	1.41
33	L1	640	C	C2'-C1'	-17.39	1.27	1.53
33	L1	1348	G	C2'-C1'	-17.37	1.27	1.53
33	L1	3304	U	C2'-C1'	17.35	1.79	1.53
44	LR	97	ALA	C-O	-17.34	1.02	1.24
35	L2	44	A	C2'-C1'	-17.31	1.27	1.53
33	L1	1647	C	O4'-C1'	17.29	1.67	1.41
35	L2	43	G	O4'-C1'	17.29	1.67	1.42
33	L1	1612	C	C2'-C1'	-17.27	1.27	1.53
33	L1	3350	C	C2'-C1'	-17.27	1.27	1.53
33	L1	1207	A	C2'-C1'	-17.27	1.27	1.53
33	L1	1525	U	C2'-C1'	-17.26	1.27	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	69	U	O4'-C1'	17.26	1.67	1.41
33	L1	1077	C	C2'-C1'	-17.24	1.27	1.53
33	L1	1247	G	C2'-C1'	-17.23	1.27	1.53
33	L1	1295	A	C2'-C1'	17.22	1.79	1.53
33	L1	2709	G	C2'-C1'	-17.21	1.27	1.53
33	L1	3143	A	C2'-C1'	-17.19	1.27	1.53
67	LS	151	PHE	CB-CG	17.18	1.90	1.50
32	S1	138	C	O4'-C1'	17.18	1.67	1.41
32	S1	1279	A	C2'-C1'	-17.18	1.27	1.53
33	L1	846	A	O4'-C1'	-17.18	1.15	1.41
81	LD	328	ALA	C-O	-17.17	1.02	1.23
33	L1	3385	G	O4'-C1'	-17.17	1.16	1.41
4	SD	153	ILE	N-CA	17.16	1.67	1.46
33	L1	1211	G	O4'-C1'	-17.15	1.16	1.41
33	L1	1767	G	C2'-C1'	17.15	1.79	1.53
33	L1	1612	C	O4'-C1'	17.12	1.67	1.41
33	L1	446	C	O4'-C1'	17.11	1.67	1.41
33	L1	1070	G	C2'-C1'	-17.09	1.27	1.53
30	S3	16	G	C2'-C1'	17.08	1.78	1.53
35	L2	124	G	C2'-C1'	17.07	1.78	1.53
33	L1	1817	U	O4'-C1'	17.06	1.67	1.41
32	S1	94	A	C2'-C1'	-17.05	1.27	1.53
33	L1	692	U	O4'-C1'	17.02	1.67	1.41
33	L1	3218	C	O4'-C1'	17.01	1.67	1.41
32	S1	373	U	C2'-C1'	16.98	1.78	1.53
33	L1	1458	U	O4'-C1'	-16.98	1.16	1.42
3	SB	153	LYS	CD-CE	16.97	2.03	1.52
33	L1	2361	C	C2'-C1'	16.97	1.78	1.53
33	L1	1061	A	O4'-C1'	16.96	1.67	1.41
73	Lp	52	LYS	C-N	16.96	1.57	1.33
32	S1	1214	C	O4'-C1'	16.94	1.67	1.41
33	L1	299	G	C2'-C1'	16.93	1.78	1.53
33	L1	2362	A	C2'-C1'	16.91	1.78	1.53
33	L1	1530	C	O4'-C1'	16.90	1.67	1.41
33	L1	1087	G	C2'-C1'	-16.90	1.28	1.53
33	L1	1634	G	C2'-C1'	-16.90	1.27	1.53
4	SD	132	GLY	C-N	16.90	1.56	1.33
33	L1	1662	G	C2'-C1'	-16.88	1.28	1.53
33	L1	1430	C	C2'-C1'	-16.88	1.28	1.53
33	L1	3081	G	O4'-C1'	16.84	1.67	1.42
33	L1	458	G	C2'-C1'	-16.83	1.28	1.53
48	LV	36	ILE	C-O	-16.83	1.05	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	SD	239	PRO	C-N	16.81	1.57	1.33
33	L1	2900	G	O4'-C1'	16.80	1.66	1.41
33	L1	557	C	O4'-C1'	16.80	1.66	1.41
33	L1	1450	G	O4'-C1'	16.79	1.67	1.42
38	LE	115	GLY	CA-C	-16.79	1.33	1.51
82	LK	135	GLN	C-O	-16.78	1.02	1.24
71	Lj	95	PRO	CA-C	-16.78	1.28	1.52
32	S1	1061	G	C2'-C1'	-16.77	1.28	1.53
33	L1	2460	A	O4'-C1'	-16.72	1.16	1.42
45	LQ	256	SER	CA-C	16.71	1.75	1.52
35	L2	125	A	C2'-C1'	-16.71	1.28	1.53
45	LQ	235	GLY	C-O	-16.71	1.03	1.23
33	L1	521	G	O3'-P	16.70	1.86	1.61
35	L2	148	C	C2'-C1'	-16.69	1.28	1.53
33	L1	2630	A	O4'-C1'	-16.67	1.17	1.42
38	LE	91	TYR	CE1-CZ	16.67	1.78	1.38
33	L1	2759	C	O4'-C1'	16.66	1.66	1.41
33	L1	1755	A	O4'-C1'	16.65	1.66	1.41
35	L2	25	C	O4'-C1'	16.65	1.66	1.41
33	L1	1078	U	O4'-C1'	16.64	1.66	1.41
33	L1	234	G	C2'-C1'	-16.64	1.28	1.53
33	L1	3227	U	C2'-C1'	16.61	1.86	1.53
32	S1	1076	C	O4'-C1'	16.59	1.66	1.41
31	S2	8	U	C2'-C1'	16.59	1.78	1.53
60	Lr	61	LYS	C-O	-16.58	1.02	1.23
33	L1	2585	C	C2'-C1'	-16.55	1.28	1.53
33	L1	2199	C	C2'-C1'	-16.54	1.28	1.53
32	S1	1055	G	C2'-C1'	-16.50	1.28	1.53
33	L1	582	C	C2'-C1'	-16.48	1.28	1.53
33	L1	1862	C	C2'-C1'	-16.48	1.28	1.53
35	L2	155	G	O4'-C1'	16.47	1.66	1.42
33	L1	1135	C	O4'-C1'	16.44	1.66	1.41
33	L1	3037	G	C2'-C1'	-16.43	1.28	1.53
33	L1	3328	A	O4'-C1'	16.42	1.66	1.41
33	L1	2597	C	C2'-C1'	-16.42	1.28	1.53
33	L1	1800	G	O4'-C1'	-16.41	1.17	1.41
33	L1	1911	A	O4'-C1'	-16.38	1.17	1.41
33	L1	2664	G	C2'-C1'	-16.38	1.28	1.53
32	S1	1462	C	O4'-C1'	16.36	1.66	1.42
11	SM	36	VAL	CA-C	16.35	1.72	1.52
33	L1	2590	C	O4'-C1'	16.35	1.66	1.41
33	L1	1295	A	O4'-C1'	-16.34	1.17	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	SU	72	GLY	CA-C	16.30	1.68	1.52
33	L1	2135	U	O4'-C1'	16.29	1.66	1.41
33	L1	3299	A	C2'-C1'	16.28	1.77	1.53
32	S1	483	C	O4'-C1'	16.27	1.66	1.41
33	L1	232	C	O4'-C1'	16.27	1.66	1.41
4	SD	153	ILE	C-O	-16.27	1.04	1.24
15	SS	5	THR	C-N	-16.26	1.13	1.33
32	S1	437	C	O4'-C1'	16.26	1.66	1.41
32	S1	1354	C	C2'-C1'	-16.25	1.28	1.53
32	S1	1279	A	O4'-C1'	16.22	1.66	1.41
33	L1	3001	G	C2'-C1'	-16.22	1.29	1.53
11	SM	112	GLU	CA-C	-16.19	1.30	1.52
33	L1	1900	C	O4'-C1'	16.17	1.66	1.41
33	L1	1246	G	C2'-C1'	16.16	1.77	1.53
33	L1	12	G	C2'-C1'	-16.15	1.29	1.53
33	L1	1131	U	O4'-C1'	16.13	1.65	1.41
32	S1	1308	G	C2'-C1'	16.11	1.77	1.53
32	S1	1290	U	O4'-C1'	16.10	1.65	1.41
33	L1	3036	C	C2'-C1'	-16.10	1.29	1.53
33	L1	1083	C	C2'-C1'	16.10	1.77	1.53
33	L1	2875	U	O4'-C1'	16.08	1.65	1.41
33	L1	2252	C	C2'-C1'	16.07	1.77	1.53
23	SU	25	ARG	CA-C	16.06	1.72	1.52
33	L1	2597	C	O4'-C1'	16.06	1.65	1.41
33	L1	1564	C	C2'-C1'	-16.05	1.29	1.53
5	SE	101	ALA	C-O	-16.02	1.03	1.23
33	L1	3124	A	C2'-C1'	16.01	1.77	1.53
33	L1	2766	U	C2'-C1'	16.00	1.77	1.53
80	LC	17	LEU	C-O	-15.98	1.03	1.24
81	LD	309	PRO	N-CD	-15.98	1.25	1.47
33	L1	1822	C	O4'-C1'	15.98	1.65	1.41
32	S1	600	C	O4'-C1'	15.97	1.65	1.41
33	L1	72	A	C2'-C1'	15.97	1.77	1.53
33	L1	763	G	O4'-C1'	15.97	1.65	1.41
33	L1	3094	C	O4'-C1'	15.94	1.65	1.42
33	L1	2800	C	C2'-C1'	-15.94	1.29	1.53
33	L1	1538	A	O4'-C1'	15.94	1.65	1.41
33	L1	2688	G	C2'-C1'	-15.93	1.29	1.53
32	S1	1198	A	C2'-C1'	-15.91	1.29	1.53
33	L1	2199	C	O4'-C1'	15.88	1.65	1.41
64	LG	185	ASP	C-O	-15.88	1.03	1.24
33	L1	124	C	C2'-C1'	-15.87	1.29	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3149	C	C2'-C1'	-15.86	1.29	1.53
33	L1	2579	G	C2'-C1'	-15.85	1.29	1.53
33	L1	1607	C	O4'-C1'	15.84	1.65	1.41
32	S1	1727	C	C2'-C1'	-15.82	1.29	1.53
33	L1	811	A	O4'-C1'	15.82	1.65	1.41
33	L1	1630	C	O4'-C1'	15.82	1.65	1.41
33	L1	3203	G	O4'-C1'	-15.82	1.18	1.41
33	L1	124	C	O4'-C1'	15.79	1.65	1.41
33	L1	1752	C	C2'-C1'	-15.78	1.29	1.53
33	L1	490	G	C2'-C1'	-15.77	1.29	1.53
33	L1	534	G	C2'-C1'	-15.76	1.29	1.53
4	SD	136	ILE	CA-C	-15.75	1.36	1.52
33	L1	542	G	C2'-C1'	-15.75	1.29	1.53
33	L1	3137	G	O4'-C1'	-15.69	1.18	1.41
33	L1	643	G	O4'-C1'	-15.69	1.18	1.41
33	L1	2744	C	O4'-C1'	15.69	1.65	1.41
4	SD	136	ILE	CA-CB	15.68	1.74	1.54
32	S1	576	C	O4'-C1'	15.67	1.65	1.41
33	L1	1394	C	O4'-C1'	15.67	1.65	1.42
32	S1	1088	G	O4'-C1'	15.66	1.65	1.41
33	L1	2211	G	C2'-C1'	-15.66	1.29	1.53
33	L1	1753	A	C2'-C1'	15.65	1.76	1.53
33	L1	2206	U	C2'-C1'	-15.64	1.29	1.53
33	L1	167	C	C2'-C1'	-15.64	1.29	1.53
33	L1	1547	G	O4'-C1'	15.64	1.65	1.41
33	L1	1057	A	C2'-C1'	15.63	1.76	1.53
33	L1	843	C	O4'-C1'	15.63	1.65	1.41
32	S1	1266	U	O4'-C1'	15.59	1.65	1.41
32	S1	504	C	O4'-C1'	15.59	1.65	1.41
33	L1	1744	C	O4'-C1'	15.58	1.65	1.41
33	L1	568	C	C2'-C1'	-15.55	1.30	1.53
35	L2	128	C	O4'-C1'	15.55	1.65	1.41
73	Lp	52	LYS	N-CA	15.55	1.64	1.45
33	L1	1533	U	O4'-C1'	15.55	1.65	1.41
33	L1	2706	A	O4'-C1'	-15.53	1.18	1.41
33	L1	956	G	C2'-C1'	-15.53	1.30	1.53
23	SU	80	LEU	N-CA	15.53	1.65	1.45
33	L1	2424	G	C2'-C1'	-15.53	1.30	1.53
33	L1	2793	G	C2'-C1'	-15.49	1.30	1.53
35	L2	119	C	O4'-C1'	15.47	1.64	1.41
33	L1	656	G	O4'-C1'	15.46	1.64	1.41
4	SD	150	PRO	C-O	-15.46	1.03	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	902	C	O4'-C1'	15.45	1.65	1.42
33	L1	136	C	O4'-C1'	15.44	1.64	1.41
33	L1	3035	C	O4'-C1'	15.43	1.64	1.41
35	L2	90	U	C2'-C1'	15.42	1.76	1.53
32	S1	893	U	O4'-C1'	15.42	1.64	1.41
32	S1	1736	C	O4'-C1'	15.42	1.64	1.41
33	L1	1587	G	O4'-C1'	15.40	1.64	1.41
33	L1	1312	A	O4'-C1'	15.37	1.64	1.41
34	L3	1	G	O4'-C1'	15.37	1.65	1.42
33	L1	527	G	O4'-C1'	15.35	1.64	1.41
33	L1	1394	C	C2'-C1'	-15.35	1.30	1.53
33	L1	242	U	C2'-C1'	-15.35	1.30	1.53
33	L1	3331	G	O4'-C1'	-15.33	1.18	1.41
33	L1	555	G	C2'-C1'	-15.33	1.30	1.53
33	L1	2836	G	C2'-C1'	-15.30	1.30	1.53
32	S1	1797	C	O4'-C1'	15.30	1.64	1.41
33	L1	127	G	C2'-C1'	-15.30	1.30	1.53
32	S1	1719	C	O4'-C1'	15.28	1.64	1.41
33	L1	3341	C	C2'-C1'	-15.28	1.30	1.53
11	SM	33	ILE	CA-C	-15.27	1.34	1.52
4	SD	239	PRO	C-O	-15.26	1.05	1.23
33	L1	2179	U	O4'-C1'	15.26	1.64	1.41
39	LF	188	GLU	N-CA	15.26	1.65	1.46
48	LV	114	TYR	CG-CD2	15.26	1.71	1.39
67	LS	120	PHE	C-O	-15.25	1.04	1.24
33	L1	1574	C	O4'-C1'	15.24	1.64	1.41
33	L1	3234	G	O4'-C1'	-15.24	1.18	1.41
33	L1	2543	G	O4'-C1'	15.24	1.64	1.41
32	S1	1659	A	O4'-C1'	15.23	1.64	1.41
33	L1	3344	U	O4'-C1'	15.22	1.64	1.41
32	S1	618	C	O4'-C1'	15.22	1.64	1.41
33	L1	3316	C	O4'-C1'	15.21	1.64	1.41
33	L1	2887	C	C2'-C1'	-15.20	1.30	1.53
33	L1	2952	G	O4'-C1'	-15.19	1.19	1.42
32	S1	1095	C	C2'-C1'	-15.18	1.30	1.53
33	L1	636	C	O4'-C1'	15.18	1.64	1.41
33	L1	1311	G	O4'-C1'	-15.18	1.18	1.41
33	L1	2376	G	O4'-C1'	-15.18	1.19	1.42
33	L1	3326	U	C2'-C1'	15.18	1.75	1.53
32	S1	1351	U	O4'-C1'	15.16	1.64	1.41
48	LV	166	ILE	C-O	-15.16	1.06	1.24
33	L1	2669	C	C2'-C1'	-15.16	1.30	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1249	G	C2'-C1'	-15.15	1.30	1.53
71	Lj	25	SER	CA-C	15.15	1.73	1.52
33	L1	423	C	O4'-C1'	15.15	1.64	1.42
68	LW	29	LYS	CA-CB	15.15	1.77	1.53
31	S2	37	G	C2'-C1'	-15.14	1.30	1.53
33	L1	231	C	O4'-C1'	15.13	1.64	1.41
33	L1	295	U	O4'-C1'	-15.12	1.19	1.42
32	S1	1729	A	C2'-C1'	-15.11	1.30	1.53
33	L1	265	G	O4'-C1'	15.11	1.64	1.42
32	S1	1108	U	C2'-C1'	15.09	1.75	1.53
32	S1	1683	G	C2'-C1'	-15.09	1.30	1.53
9	SK	123	MET	CG-SD	-15.08	1.43	1.80
32	S1	61	A	C2'-C1'	15.08	1.75	1.53
33	L1	2780	G	C2'-C1'	15.06	1.75	1.53
32	S1	1632	C	O4'-C1'	15.06	1.64	1.41
33	L1	937	G	C2'-C1'	-15.05	1.30	1.53
33	L1	2391	C	O4'-C1'	15.05	1.64	1.41
33	L1	3036	C	O4'-C1'	15.04	1.64	1.41
11	SM	89	ASP	C-O	-15.03	1.06	1.24
33	L1	842	C	C2'-C1'	-15.03	1.30	1.53
32	S1	1761	G	O4'-C1'	15.02	1.64	1.41
35	L2	121	C	O4'-C1'	15.02	1.64	1.41
32	S1	1589	C	O4'-C1'	15.02	1.64	1.41
23	SU	79	GLY	C-O	-15.00	1.03	1.23
32	S1	301	U	O4'-C1'	15.00	1.64	1.41
33	L1	1708	C	C2'-C1'	-15.00	1.30	1.53
33	L1	425	G	O4'-C1'	14.99	1.64	1.41
33	L1	49	U	O4'-C1'	14.98	1.64	1.41
32	S1	290	C	O4'-C1'	14.98	1.64	1.41
11	SM	36	VAL	C-N	14.96	1.50	1.33
32	S1	509	A	O4'-C1'	14.95	1.64	1.41
33	L1	3147	G	C2'-C1'	-14.95	1.30	1.53
33	L1	2779	G	O4'-C1'	-14.95	1.19	1.41
33	L1	2667	C	C2'-C1'	-14.94	1.30	1.53
33	L1	2973	A	C2'-C1'	14.94	1.75	1.53
32	S1	1614	C	O4'-C1'	14.94	1.64	1.41
33	L1	2734	C	O4'-C1'	14.94	1.64	1.41
48	LV	114	TYR	CE2-CZ	14.93	1.74	1.38
4	SD	67	GLN	C-N	14.92	1.54	1.33
33	L1	3090	C	O4'-C1'	14.92	1.64	1.41
13	SQ	22	SER	N-CA	14.91	1.65	1.46
33	L1	1778	C	O4'-C1'	14.91	1.64	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2332	C	C2'-C1'	-14.90	1.30	1.53
35	L2	101	G	C2'-C1'	-14.89	1.31	1.53
33	L1	2748	G	O4'-C1'	-14.89	1.19	1.41
33	L1	257	C	C2'-C1'	-14.89	1.31	1.53
32	S1	1536	U	O4'-C1'	14.88	1.64	1.41
33	L1	2725	U	C2'-C1'	-14.88	1.31	1.53
32	S1	1682	U	O4'-C1'	14.87	1.64	1.41
33	L1	533	G	C2'-C1'	-14.86	1.31	1.53
33	L1	430	G	C2'-C1'	-14.85	1.31	1.53
33	L1	2097	C	O4'-C1'	14.85	1.64	1.41
33	L1	475	U	O4'-C1'	14.85	1.64	1.41
32	S1	1566	U	O4'-C1'	14.84	1.64	1.41
32	S1	1012	C	O4'-C1'	14.84	1.64	1.41
33	L1	755	C	C2'-C1'	-14.84	1.30	1.53
34	L3	8	A	C2'-C1'	-14.84	1.31	1.53
33	L1	137	C	C2'-C1'	-14.84	1.31	1.53
34	L3	26	C	O4'-C1'	14.83	1.63	1.41
33	L1	433	C	O4'-C1'	14.82	1.63	1.41
33	L1	1243	C	C2'-C1'	-14.82	1.31	1.53
32	S1	1688	G	O4'-C1'	-14.81	1.19	1.41
33	L1	2396	A	O4'-C1'	14.80	1.63	1.41
11	SM	97	GLN	CD-NE2	-14.80	1.02	1.33
23	SU	81	ILE	CA-C	14.78	1.71	1.52
33	L1	716	A	O4'-C1'	14.77	1.63	1.41
64	LG	51	TYR	C-O	-14.76	1.05	1.24
32	S1	1112	G	C2'-C1'	-14.76	1.31	1.53
32	S1	1547	G	O4'-C1'	14.76	1.63	1.41
82	LK	135	GLN	CA-CB	14.75	1.76	1.53
32	S1	1713	C	C2'-C1'	-14.75	1.31	1.53
33	L1	571	G	C2'-C1'	-14.75	1.30	1.53
33	L1	641	C	O4'-C1'	14.75	1.63	1.41
32	S1	1332	G	C2'-C1'	14.74	1.75	1.53
33	L1	2629	C	C2'-C1'	-14.73	1.31	1.53
35	L2	138	G	C2'-C1'	-14.73	1.31	1.53
33	L1	570	G	C2'-C1'	-14.72	1.31	1.53
45	LQ	237	GLU	C-O	-14.72	1.08	1.24
33	L1	1254	A	O4'-C1'	-14.72	1.19	1.41
33	L1	283	A	C2'-C1'	14.70	1.75	1.53
33	L1	1806	C	O4'-C1'	14.70	1.63	1.41
33	L1	1660	C	O4'-C1'	14.69	1.63	1.41
33	L1	3005	C	O4'-C1'	14.68	1.63	1.41
23	SU	7	ALA	C-O	-14.68	1.01	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
64	LG	49	LYS	C-N	14.68	1.54	1.33
32	S1	1512	C	O4'-C1'	14.66	1.63	1.41
4	SD	93	PRO	CA-CB	14.65	1.73	1.53
32	S1	119	U	C2'-C1'	-14.65	1.31	1.53
33	L1	1608	C	O4'-C1'	14.65	1.63	1.41
33	L1	381	G	C2'-C1'	14.64	1.75	1.53
33	L1	2724	A	O4'-C1'	14.63	1.63	1.41
35	L2	93	A	C2'-C1'	-14.63	1.31	1.53
33	L1	424	G	O4'-C1'	14.60	1.63	1.42
32	S1	1343	C	O4'-C1'	14.60	1.63	1.41
33	L1	1252	C	O4'-C1'	14.60	1.63	1.41
15	SS	8	THR	C-N	14.59	1.51	1.33
32	S1	299	A	C2'-C1'	14.58	1.75	1.53
33	L1	796	C	O4'-C1'	14.58	1.63	1.41
34	L3	3	A	O4'-C1'	14.58	1.63	1.41
32	S1	152	G	C2'-C1'	-14.58	1.31	1.53
33	L1	1568	A	C2'-C1'	14.57	1.75	1.53
23	SU	24	SER	C-N	14.55	1.53	1.33
33	L1	256	G	C2'-C1'	-14.53	1.31	1.53
33	L1	1767	G	O4'-C1'	-14.53	1.19	1.41
13	SQ	26	LEU	C-O	-14.52	1.05	1.24
32	S1	1006	A	C2'-C1'	-14.52	1.31	1.53
33	L1	2900	G	C2'-C1'	-14.51	1.31	1.53
33	L1	1255	A	C2'-C1'	-14.48	1.31	1.53
33	L1	1574	C	C2'-C1'	-14.47	1.31	1.53
33	L1	827	C	C2'-C1'	-14.46	1.31	1.53
33	L1	1318	C	C2'-C1'	-14.47	1.31	1.53
33	L1	636	C	C2'-C1'	-14.46	1.31	1.53
33	L1	1430	C	O4'-C1'	14.46	1.63	1.41
33	L1	1120	G	O4'-C1'	14.45	1.63	1.41
33	L1	2216	G	O4'-C1'	-14.44	1.20	1.41
82	LK	134	LEU	N-CA	14.44	1.65	1.46
33	L1	599	C	C2'-C1'	-14.42	1.31	1.53
71	Lj	25	SER	N-CA	14.41	1.64	1.46
33	L1	1900	C	C2'-C1'	-14.41	1.31	1.53
33	L1	250	C	C2'-C1'	-14.40	1.31	1.53
33	L1	272	G	C2'-C1'	-14.40	1.31	1.53
33	L1	2105	G	O4'-C1'	-14.40	1.20	1.41
33	L1	1750	A	O4'-C1'	14.40	1.63	1.41
33	L1	3344	U	C2'-C1'	-14.40	1.31	1.53
33	L1	1015	A	O4'-C1'	14.38	1.63	1.41
32	S1	1453	U	O4'-C1'	14.38	1.63	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	317	U	O4'-C1'	14.37	1.63	1.42
33	L1	1004	C	O4'-C1'	14.37	1.63	1.41
33	L1	1877	G	O4'-C1'	-14.37	1.20	1.41
33	L1	1823	C	C2'-C1'	-14.37	1.31	1.53
33	L1	2903	G	C2'-C1'	-14.37	1.31	1.53
77	Lc	98	PRO	C-O	-14.36	1.05	1.24
33	L1	271	G	C2'-C1'	-14.36	1.31	1.53
33	L1	307	C	C2'-C1'	-14.36	1.31	1.53
32	S1	936	C	O4'-C1'	14.35	1.63	1.41
33	L1	1350	G	C2'-C1'	14.35	1.74	1.53
33	L1	2512	U	C2'-C1'	-14.35	1.31	1.53
33	L1	963	U	C2'-C1'	-14.35	1.31	1.53
33	L1	2726	U	C2'-C1'	-14.35	1.31	1.53
34	L3	73	U	C2'-C1'	14.35	1.74	1.53
31	S2	68	C	O4'-C1'	14.34	1.63	1.41
32	S1	1536	U	C2'-C1'	-14.34	1.31	1.53
33	L1	1508	C	O4'-C1'	14.33	1.63	1.41
35	L2	158	G	C2'-C1'	14.33	1.74	1.53
35	L2	48	A	C2'-C1'	-14.32	1.31	1.53
33	L1	734	C	O4'-C1'	14.31	1.63	1.41
33	L1	140	C	O4'-C1'	14.31	1.63	1.41
32	S1	580	G	O4'-C1'	14.30	1.63	1.41
32	S1	1715	C	C2'-C1'	-14.28	1.31	1.53
33	L1	1222	U	C2'-C1'	14.26	1.74	1.53
33	L1	1727	A	O4'-C1'	14.26	1.63	1.42
33	L1	1744	C	C2'-C1'	-14.25	1.31	1.53
33	L1	2437	A	C2'-C1'	-14.23	1.32	1.53
33	L1	2723	G	O4'-C1'	14.23	1.62	1.41
32	S1	501	U	O4'-C1'	14.23	1.62	1.41
47	LU	140	MET	C-O	-14.23	1.05	1.23
60	Lr	61	LYS	CA-CB	14.22	1.72	1.53
33	L1	1885	G	C2'-C1'	-14.21	1.32	1.53
32	S1	938	A	C2'-C1'	-14.21	1.32	1.53
33	L1	2881	C	O4'-C1'	14.18	1.62	1.41
33	L1	1819	A	C2'-C1'	-14.15	1.32	1.53
33	L1	842	C	O4'-C1'	14.13	1.62	1.41
33	L1	2750	A	C2'-C1'	-14.13	1.32	1.53
33	L1	1192	A	C2'-C1'	14.13	1.74	1.53
10	SL	84	VAL	C-O	-14.13	1.06	1.24
33	L1	1283	C	O4'-C1'	14.12	1.62	1.41
31	S2	43	C	C2'-C1'	-14.11	1.32	1.53
33	L1	2474	A	C2'-C1'	14.11	1.74	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	252	A	O4'-C1'	14.10	1.62	1.41
32	S1	1797	C	C2'-C1'	-14.09	1.32	1.53
33	L1	175	G	O4'-C1'	14.09	1.62	1.41
32	S1	1202	G	C2'-C1'	-14.08	1.32	1.53
33	L1	568	C	O4'-C1'	14.08	1.62	1.41
33	L1	1258	C	C2'-C1'	14.08	1.74	1.53
32	S1	67	G	C2'-C1'	-14.08	1.32	1.53
33	L1	3236	A	O4'-C1'	14.07	1.62	1.41
5	SE	194	LYS	N-CA	14.07	1.63	1.46
33	L1	1272	G	O4'-C1'	14.07	1.62	1.41
33	L1	1732	G	C2'-C1'	-14.06	1.31	1.53
32	S1	473	C	O4'-C1'	14.06	1.62	1.41
33	L1	418	G	O4'-C1'	14.05	1.62	1.41
33	L1	510	C	C2'-C1'	-14.05	1.32	1.53
33	L1	2166	U	C2'-C1'	-14.05	1.32	1.53
11	SM	97	GLN	C-O	-14.05	0.99	1.23
38	LE	34	ARG	CA-CB	14.04	1.77	1.53
32	S1	631	C	O4'-C1'	14.04	1.62	1.41
43	LO	6	LYS	C-O	-14.04	1.03	1.24
25	SC	163	THR	CA-CB	14.04	1.77	1.53
33	L1	3372	C	O4'-C1'	14.04	1.63	1.42
32	S1	1606	U	O4'-C1'	14.04	1.62	1.41
40	LH	233	VAL	C-O	-14.03	1.07	1.24
32	S1	988	G	C2'-C1'	-14.02	1.32	1.53
33	L1	444	C	O4'-C1'	14.01	1.62	1.41
33	L1	2487	A	O4'-C1'	-14.01	1.20	1.41
5	SE	30	ARG	CG-CD	-14.01	1.10	1.52
33	L1	423	C	C2'-C1'	-13.99	1.32	1.53
32	S1	885	C	O4'-C1'	13.99	1.62	1.41
33	L1	1887	A	O4'-C1'	13.99	1.62	1.41
33	L1	3376	C	C2'-C1'	-13.98	1.32	1.53
33	L1	224	C	O4'-C1'	13.96	1.62	1.41
33	L1	2345	C	O4'-C1'	13.96	1.62	1.41
70	Li	43	LYS	C-O	13.96	1.41	1.24
32	S1	357	A	C2'-C1'	13.95	1.74	1.53
32	S1	1397	A	O4'-C1'	13.94	1.62	1.41
33	L1	3310	A	C2'-C1'	-13.94	1.32	1.53
48	LV	114	TYR	CD1-CE1	13.93	1.80	1.38
33	L1	2789	G	O4'-C1'	-13.93	1.20	1.41
33	L1	472	U	C2'-C1'	-13.93	1.32	1.53
33	L1	1017	G	C2'-C1'	-13.92	1.32	1.53
33	L1	2475	C	O4'-C1'	13.91	1.62	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2700	A	C2'-C1'	-13.91	1.32	1.53
32	S1	1369	C	O4'-C1'	13.91	1.62	1.41
71	Lj	8	ARG	C-O	-13.91	1.06	1.23
47	LU	138	GLY	CA-C	13.90	1.74	1.52
33	L1	1245	U	C2'-C1'	13.86	1.74	1.53
32	S1	1062	C	O4'-C1'	13.85	1.62	1.41
32	S1	623	A	O3'-P	-13.84	1.40	1.61
33	L1	1731	A	C2'-C1'	-13.84	1.32	1.53
33	L1	1756	C	O4'-C1'	13.84	1.62	1.41
33	L1	2235	G	C2'-C1'	-13.84	1.32	1.53
32	S1	1748	U	O4'-C1'	13.83	1.62	1.41
10	SL	119	PHE	CA-C	13.83	1.71	1.52
33	L1	2493	C	C2'-C1'	-13.82	1.32	1.53
33	L1	2748	G	C2'-C1'	13.82	1.74	1.53
45	LQ	249	ALA	N-CA	13.80	1.64	1.46
33	L1	335	G	O4'-C1'	13.80	1.62	1.42
69	La	27	ARG	C-N	13.80	1.52	1.33
32	S1	138	C	C2'-C1'	-13.79	1.32	1.53
33	L1	1822	C	C2'-C1'	-13.79	1.32	1.53
32	S1	1443	U	C2'-C1'	13.79	1.74	1.53
32	S1	1589	C	C2'-C1'	-13.79	1.32	1.53
34	L3	103	U	O4'-C1'	13.78	1.62	1.41
33	L1	1787	C	C2'-C1'	-13.77	1.32	1.53
32	S1	1311	U	O4'-C1'	13.77	1.62	1.41
33	L1	2684	U	C2'-C1'	-13.77	1.32	1.53
50	LZ	3	LEU	C-N	13.77	1.52	1.33
32	S1	950	U	C2'-C1'	-13.74	1.32	1.53
32	S1	449	A	O4'-C1'	13.74	1.62	1.41
33	L1	2478	G	C2'-C1'	-13.74	1.32	1.53
32	S1	1774	C	O4'-C1'	13.74	1.62	1.41
33	L1	2081	C	O4'-C1'	13.74	1.62	1.41
23	SU	25	ARG	N-CA	13.74	1.63	1.46
25	SC	33	VAL	C-N	13.73	1.53	1.33
34	L3	46	C	O4'-C1'	13.72	1.62	1.41
33	L1	571	G	O4'-C1'	13.72	1.62	1.42
32	S1	1793	C	O4'-C1'	13.71	1.62	1.41
33	L1	490	G	O4'-C1'	13.71	1.62	1.41
32	S1	1068	G	C2'-C1'	13.71	1.73	1.53
33	L1	58	G	C2'-C1'	13.71	1.73	1.53
33	L1	729	G	O4'-C1'	-13.71	1.21	1.41
33	L1	1888	G	O4'-C1'	-13.71	1.21	1.41
60	Lr	32	LYS	CA-CB	13.70	1.77	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	4	C	O4'-C1'	13.70	1.62	1.41
33	L1	487	C	C2'-C1'	-13.70	1.32	1.53
33	L1	2061	C	C2'-C1'	-13.68	1.32	1.53
33	L1	12	G	O4'-C1'	13.67	1.62	1.41
33	L1	1254	A	C2'-C1'	13.66	1.73	1.53
33	L1	1798	C	O4'-C1'	13.66	1.62	1.41
34	L3	68	G	O4'-C1'	13.66	1.62	1.41
32	S1	358	C	O4'-C1'	13.65	1.62	1.41
33	L1	1056	U	O4'-C1'	13.65	1.62	1.41
33	L1	2696	C	C2'-C1'	-13.65	1.32	1.53
32	S1	850	G	C2'-C1'	-13.64	1.32	1.53
33	L1	2229	G	C2'-C1'	13.64	1.73	1.53
35	L2	63	A	O4'-C1'	13.64	1.62	1.42
32	S1	1116	G	C2'-C1'	-13.64	1.32	1.53
32	S1	1126	C	C2'-C1'	-13.63	1.32	1.53
32	S1	1469	C	O4'-C1'	13.63	1.62	1.41
33	L1	1814	C	O4'-C1'	13.63	1.62	1.41
33	L1	2887	C	O4'-C1'	13.63	1.62	1.41
33	L1	543	C	C2'-C1'	-13.62	1.32	1.53
33	L1	1211	G	C2'-C1'	13.62	1.73	1.53
33	L1	2518	A	O4'-C1'	13.61	1.62	1.41
33	L1	3207	C	C2'-C1'	-13.61	1.32	1.53
33	L1	922	U	C2'-C1'	-13.58	1.32	1.53
33	L1	2375	G	O4'-C1'	13.58	1.62	1.41
35	L2	107	G	C2'-C1'	-13.58	1.32	1.53
35	L2	160	C	O4'-C1'	13.57	1.62	1.41
33	L1	310	C	C2'-C1'	-13.56	1.33	1.53
33	L1	583	C	O4'-C1'	13.56	1.61	1.41
60	Lr	62	ALA	N-CA	13.56	1.62	1.46
33	L1	1131	U	C2'-C1'	-13.56	1.33	1.53
33	L1	71	C	C2'-C1'	13.55	1.73	1.53
33	L1	1599	A	C2'-C1'	-13.55	1.33	1.53
49	LX	34	LYS	N-CA	13.55	1.63	1.46
33	L1	308	U	C2'-C1'	-13.55	1.33	1.53
32	S1	123	U	C2'-C1'	13.55	1.73	1.53
33	L1	2684	U	O4'-C1'	13.54	1.61	1.41
33	L1	1735	U	C2'-C1'	13.54	1.73	1.53
32	S1	1196	C	O4'-C1'	13.54	1.61	1.41
23	SU	81	ILE	C-N	13.52	1.51	1.33
34	L3	26	C	C2'-C1'	-13.51	1.33	1.53
33	L1	1593	C	C2'-C1'	-13.51	1.33	1.53
33	L1	1086	U	C2'-C1'	13.50	1.73	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	L3	79	A	C2'-C1'	13.50	1.73	1.53
32	S1	1229	C	O4'-C1'	13.50	1.61	1.41
33	L1	2213	G	C2'-C1'	-13.49	1.33	1.53
32	S1	1648	C	O4'-C1'	13.49	1.61	1.41
33	L1	3363	G	C2'-C1'	-13.49	1.33	1.53
48	LV	114	TYR	CG-CD1	13.49	1.67	1.39
35	L2	152	C	O4'-C1'	13.48	1.61	1.41
73	Lp	52	LYS	CA-CB	13.48	1.75	1.53
33	L1	165	C	O4'-C1'	13.48	1.61	1.41
80	LC	385	GLY	C-O	-13.47	1.05	1.23
33	L1	334	A	C2'-C1'	-13.47	1.33	1.53
33	L1	2614	U	C2'-C1'	13.47	1.73	1.53
35	L2	25	C	C2'-C1'	-13.47	1.33	1.53
33	L1	518	G	C2'-C1'	-13.45	1.33	1.53
68	LW	105	ILE	N-CA	13.44	1.63	1.46
67	LS	70	ASN	C-O	-13.43	1.07	1.24
32	S1	1794	C	O4'-C1'	13.42	1.61	1.41
69	La	9	LYS	CA-C	13.42	1.69	1.53
32	S1	577	C	O4'-C1'	13.41	1.61	1.41
32	S1	1446	C	O4'-C1'	13.41	1.61	1.41
33	L1	630	C	C2'-C1'	-13.40	1.33	1.53
32	S1	317	U	C2'-C1'	-13.39	1.32	1.53
33	L1	683	U	C2'-C1'	-13.39	1.33	1.53
33	L1	1615	G	C2'-C1'	-13.39	1.33	1.53
6	SF	165	ILE	CA-C	-13.39	1.35	1.52
33	L1	447	C	O4'-C1'	13.39	1.61	1.41
33	L1	2386	A	C2'-C1'	-13.38	1.33	1.53
32	S1	1373	C	O4'-C1'	13.37	1.61	1.41
33	L1	582	C	O4'-C1'	13.37	1.61	1.41
37	LB	73	LYS	C-O	-13.37	1.07	1.24
64	LG	185	ASP	CA-CB	13.37	1.76	1.53
34	L3	111	U	C2'-C1'	-13.37	1.33	1.53
33	L1	628	C	C2'-C1'	-13.36	1.33	1.53
32	S1	466	G	C2'-C1'	-13.36	1.33	1.53
34	L3	40	A	C2'-C1'	13.36	1.73	1.53
33	L1	2354	G	C2'-C1'	13.35	1.73	1.53
32	S1	36	C	O4'-C1'	13.35	1.61	1.41
33	L1	1602	A	O4'-C1'	-13.35	1.22	1.42
40	LH	87	ASN	N-CA	-13.35	1.28	1.46
32	S1	32	U	C2'-C1'	13.34	1.73	1.53
32	S1	1616	U	C2'-C1'	-13.34	1.33	1.53
34	L3	13	A	C2'-C1'	-13.33	1.33	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	513	G	C2'-C1'	-13.33	1.33	1.53
33	L1	105	A	O4'-C1'	13.33	1.61	1.41
33	L1	1913	C	C2'-C1'	-13.31	1.33	1.53
33	L1	1912	U	C2'-C1'	-13.31	1.33	1.53
33	L1	2746	G	C2'-C1'	-13.30	1.33	1.53
32	S1	943	G	C2'-C1'	-13.29	1.33	1.53
33	L1	348	C	C2'-C1'	-13.29	1.33	1.53
32	S1	1649	C	O4'-C1'	13.29	1.61	1.41
32	S1	603	A	C2'-C1'	-13.28	1.33	1.53
32	S1	290	C	C2'-C1'	-13.28	1.33	1.53
33	L1	35	U	C2'-C1'	-13.28	1.33	1.53
33	L1	1715	C	C2'-C1'	13.28	1.73	1.53
33	L1	1949	G	C2'-C1'	13.28	1.73	1.53
32	S1	318	C	O4'-C1'	13.28	1.61	1.41
33	L1	1708	C	O4'-C1'	13.28	1.61	1.41
33	L1	2418	A	C2'-C1'	-13.27	1.33	1.53
34	L3	15	C	C2'-C1'	-13.26	1.33	1.53
35	L2	86	C	O4'-C1'	13.26	1.61	1.42
33	L1	311	G	C2'-C1'	-13.26	1.33	1.53
33	L1	682	G	C2'-C1'	-13.25	1.33	1.53
32	S1	124	G	C2'-C1'	-13.25	1.33	1.53
33	L1	578	C	O4'-C1'	13.25	1.61	1.41
32	S1	645	G	C2'-C1'	-13.24	1.33	1.53
33	L1	10	C	C2'-C1'	-13.24	1.33	1.53
33	L1	854	C	O4'-C1'	13.24	1.61	1.41
33	L1	607	U	O4'-C1'	-13.23	1.21	1.41
32	S1	1600	G	C2'-C1'	-13.22	1.33	1.53
35	L2	48	A	O4'-C1'	13.21	1.61	1.41
33	L1	295	U	C2'-C1'	13.21	1.72	1.53
32	S1	1406	U	O4'-C1'	13.20	1.61	1.41
31	S2	68	C	C2'-C1'	-13.20	1.33	1.53
32	S1	1303	G	O4'-C1'	13.20	1.61	1.41
33	L1	3333	C	C2'-C1'	-13.20	1.33	1.53
10	SL	120	LYS	CA-C	13.20	1.70	1.52
33	L1	2863	U	C2'-C1'	-13.20	1.33	1.53
32	S1	181	C	O4'-C1'	13.19	1.61	1.41
32	S1	1385	C	O4'-C1'	13.18	1.61	1.41
32	S1	1658	U	O4'-C1'	13.17	1.61	1.41
33	L1	2901	C	O4'-C1'	13.17	1.61	1.41
33	L1	1755	A	C2'-C1'	-13.17	1.33	1.53
33	L1	2848	U	C2'-C1'	13.17	1.73	1.53
33	L1	1010	A	C2'-C1'	13.17	1.73	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2105	G	C2'-C1'	13.16	1.73	1.53
33	L1	2839	A	O4'-C1'	-13.16	1.22	1.42
38	LE	91	TYR	CD1-CE1	13.16	1.78	1.38
33	L1	3216	G	O4'-C1'	-13.16	1.22	1.41
32	S1	1727	C	O4'-C1'	13.15	1.61	1.41
33	L1	1537	A	C2'-C1'	13.15	1.73	1.53
33	L1	1579	C	O4'-C1'	13.14	1.61	1.41
33	L1	1712	A	O4'-C1'	13.14	1.61	1.42
33	L1	1408	C	O4'-C1'	13.14	1.61	1.41
33	L1	2388	C	C2'-C1'	-13.13	1.33	1.53
33	L1	2478	G	O4'-C1'	13.13	1.61	1.41
32	S1	604	U	O4'-C1'	13.12	1.61	1.41
33	L1	2480	G	C2'-C1'	13.12	1.73	1.53
33	L1	2469	C	O4'-C1'	13.12	1.61	1.41
32	S1	1139	C	O4'-C1'	13.12	1.61	1.41
33	L1	1253	G	O4'-C1'	-13.11	1.22	1.41
33	L1	973	U	O4'-C1'	13.10	1.61	1.41
32	S1	1036	U	O4'-C1'	13.10	1.61	1.42
32	S1	1562	C	O4'-C1'	13.08	1.61	1.41
33	L1	2112	C	O4'-C1'	13.08	1.61	1.41
33	L1	2490	U	O4'-C1'	13.07	1.61	1.42
33	L1	1789	C	O4'-C1'	13.07	1.61	1.42
35	L2	50	G	C2'-C1'	-13.07	1.33	1.53
33	L1	887	A	O4'-C1'	-13.07	1.22	1.42
32	S1	1042	C	O4'-C1'	13.06	1.61	1.41
33	L1	164	C	O4'-C1'	13.05	1.61	1.41
33	L1	2431	U	C2'-C1'	-13.05	1.33	1.53
33	L1	1533	U	C2'-C1'	13.04	1.73	1.53
33	L1	1536	U	C2'-C1'	13.03	1.72	1.53
11	SM	92	ASP	CA-C	-13.02	1.35	1.52
13	SQ	83	ASP	N-CA	13.02	1.62	1.46
33	L1	1710	G	C2'-C1'	-13.02	1.33	1.53
33	L1	1545	G	O4'-C1'	13.02	1.61	1.41
33	L1	2280	C	O4'-C1'	13.01	1.61	1.41
67	LS	151	PHE	CG-CD2	13.01	1.66	1.38
33	L1	677	U	C2'-C1'	-13.01	1.33	1.53
33	L1	2459	U	C2'-C1'	13.01	1.72	1.53
32	S1	1354	C	O4'-C1'	13.00	1.61	1.41
33	L1	599	C	O4'-C1'	13.00	1.61	1.41
33	L1	2949	G	C2'-C1'	-12.99	1.33	1.53
33	L1	2722	U	C2'-C1'	12.98	1.72	1.53
33	L1	1366	G	C2'-C1'	-12.97	1.33	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	128	G	C2'-C1'	12.96	1.72	1.53
32	S1	558	C	O4'-C1'	12.96	1.61	1.42
31	S2	39	G	C2'-C1'	-12.95	1.33	1.53
33	L1	1575	G	O4'-C1'	12.95	1.61	1.41
33	L1	173	C	O4'-C1'	12.94	1.61	1.41
33	L1	1442	U	O4'-C1'	12.94	1.61	1.41
33	L1	2993	A	C2'-C1'	-12.94	1.33	1.53
32	S1	1593	U	C2'-C1'	12.93	1.72	1.53
32	S1	1588	C	O4'-C1'	12.93	1.61	1.41
33	L1	2229	G	O4'-C1'	-12.93	1.22	1.41
64	LG	13	ARG	N-CA	12.93	1.62	1.46
33	L1	2723	G	C2'-C1'	-12.93	1.33	1.53
32	S1	1715	C	O4'-C1'	12.92	1.61	1.41
33	L1	3169	C	O4'-C1'	12.92	1.61	1.41
25	SC	106	PHE	CG-CD1	12.92	1.66	1.38
33	L1	679	C	O4'-C1'	12.92	1.61	1.41
33	L1	763	G	C2'-C1'	-12.92	1.33	1.53
33	L1	814	U	C2'-C1'	-12.92	1.33	1.53
64	LG	52	PRO	CA-C	12.92	1.70	1.52
33	L1	2973	A	O4'-C1'	-12.92	1.22	1.42
23	SU	69	HIS	N-CA	12.91	1.62	1.46
32	S1	1549	G	C2'-C1'	-12.91	1.33	1.53
33	L1	1880	A	C3'-O3'	12.91	1.61	1.42
69	La	28	VAL	C-N	12.91	1.49	1.33
33	L1	2996	A	O4'-C1'	-12.91	1.22	1.41
33	L1	1526	A	O4'-C1'	-12.90	1.22	1.42
34	L3	78	C	O4'-C1'	12.90	1.60	1.41
33	L1	2667	C	O4'-C1'	12.90	1.60	1.41
32	S1	398	C	C2'-C1'	-12.90	1.34	1.53
33	L1	2899	A	C2'-C1'	12.89	1.72	1.53
33	L1	3144	U	O4'-C1'	12.89	1.61	1.42
33	L1	72	A	O4'-C1'	-12.89	1.22	1.41
33	L1	1904	A	C2'-C1'	-12.89	1.34	1.53
32	S1	1743	C	O4'-C1'	12.87	1.60	1.41
33	L1	436	G	O4'-C1'	12.87	1.60	1.41
33	L1	2762	U	C2'-C1'	12.87	1.72	1.53
35	L2	109	A	O4'-C1'	12.87	1.61	1.42
4	SD	131	PHE	N-CA	-12.86	1.30	1.46
59	Lo	30	ARG	CA-CB	12.86	1.75	1.53
33	L1	3020	C	O4'-C1'	12.86	1.60	1.41
29	ST	41	GLU	CA-C	12.85	1.69	1.52
33	L1	2393	G	C2'-C1'	-12.84	1.34	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2345	C	C2'-C1'	-12.84	1.34	1.53
32	S1	1657	C	O4'-C1'	12.84	1.60	1.41
33	L1	1549	A	C2'-C1'	-12.83	1.27	1.53
33	L1	833	G	C2'-C1'	-12.83	1.34	1.53
33	L1	1266	G	C2'-C1'	-12.83	1.34	1.53
34	L3	41	G	C2'-C1'	-12.82	1.34	1.53
32	S1	1063	U	C2'-C1'	12.82	1.72	1.53
13	SQ	74	GLN	N-CA	12.82	1.62	1.46
15	SS	44	ARG	CA-C	-12.82	1.46	1.52
64	LG	185	ASP	N-CA	12.82	1.62	1.46
33	L1	816	G	C2'-C1'	-12.81	1.34	1.53
33	L1	507	C	C2'-C1'	-12.79	1.34	1.53
4	SD	133	GLN	N-CA	12.79	1.62	1.46
32	S1	1169	G	O4'-C1'	-12.79	1.22	1.41
33	L1	510	C	O4'-C1'	12.79	1.60	1.41
33	L1	1320	G	C2'-C1'	12.79	1.72	1.53
33	L1	2581	C	C2'-C1'	-12.78	1.34	1.53
33	L1	1367	A	O4'-C1'	12.78	1.60	1.41
32	S1	826	C	O4'-C1'	12.77	1.60	1.41
33	L1	2850	G	C2'-C1'	-12.77	1.34	1.53
33	L1	530	C	O4'-C1'	12.77	1.60	1.41
33	L1	922	U	O4'-C1'	12.77	1.60	1.41
33	L1	446	C	C2'-C1'	-12.76	1.34	1.53
32	S1	1068	G	O4'-C1'	-12.76	1.22	1.42
32	S1	1213	C	O4'-C1'	12.76	1.60	1.41
32	S1	611	G	C2'-C1'	-12.75	1.33	1.53
33	L1	1545	G	C2'-C1'	-12.75	1.34	1.53
8	SJ	126	SER	C-O	-12.75	1.07	1.23
33	L1	1508	C	C2'-C1'	-12.75	1.34	1.53
33	L1	2197	C	C2'-C1'	-12.75	1.34	1.53
66	LN	99	ARG	CA-C	-12.75	1.36	1.52
33	L1	1096	C	O4'-C1'	12.74	1.60	1.41
33	L1	1873	C	O4'-C1'	12.73	1.61	1.42
33	L1	2876	G	C2'-C1'	-12.73	1.34	1.53
33	L1	3333	C	O4'-C1'	12.72	1.60	1.41
39	LF	2	LYS	C-O	-12.72	1.10	1.24
33	L1	1863	A	C2'-C1'	12.71	1.72	1.53
35	L2	136	G	O4'-C1'	12.70	1.60	1.41
33	L1	80	C	O4'-C1'	12.70	1.60	1.41
33	L1	255	C	O4'-C1'	12.69	1.60	1.41
38	LE	89	LYS	N-CA	12.68	1.62	1.46
80	LC	69	LYS	C-O	-12.67	1.08	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
60	Lr	33	ASP	N-CA	12.66	1.62	1.46
81	LD	351	ARG	CZ-NH2	-12.66	1.17	1.33
32	S1	431	C	O4'-C1'	12.66	1.60	1.41
33	L1	691	U	O4'-C1'	-12.66	1.22	1.41
33	L1	74	G	C2'-C1'	-12.65	1.34	1.53
33	L1	739	C	O4'-C1'	12.65	1.60	1.41
32	S1	373	U	O4'-C1'	-12.64	1.22	1.41
33	L1	1007	A	O4'-C1'	12.63	1.60	1.41
33	L1	3277	C	O4'-C1'	12.62	1.60	1.41
33	L1	594	C	O4'-C1'	12.61	1.60	1.41
33	L1	549	G	C2'-C1'	-12.61	1.34	1.53
34	L3	101	A	O4'-C1'	12.60	1.60	1.41
32	S1	1746	U	O4'-C1'	12.60	1.60	1.41
33	L1	140	C	C2'-C1'	-12.59	1.34	1.53
33	L1	1841	G	O4'-C1'	-12.59	1.22	1.41
33	L1	840	A	C2'-C1'	-12.58	1.34	1.53
33	L1	1633	C	C2'-C1'	-12.58	1.34	1.53
33	L1	1892	A	C2'-C1'	-12.57	1.34	1.53
33	L1	618	G	O4'-C1'	-12.57	1.22	1.41
33	L1	2218	A	C2'-C1'	-12.57	1.34	1.53
33	L1	183	C	O4'-C1'	12.56	1.60	1.41
33	L1	10	C	O4'-C1'	12.56	1.60	1.41
33	L1	2644	U	C2'-C1'	-12.56	1.34	1.53
33	L1	805	C	C2'-C1'	-12.56	1.34	1.53
33	L1	514	G	C2'-C1'	-12.56	1.34	1.53
33	L1	1171	U	O4'-C1'	-12.55	1.22	1.41
33	L1	3034	A	O4'-C1'	-12.55	1.22	1.41
33	L1	1553	C	O4'-C1'	12.55	1.60	1.41
33	L1	2691	U	O4'-C1'	12.55	1.60	1.42
33	L1	2150	C	O4'-C1'	12.54	1.60	1.41
11	SM	113	ARG	N-CA	-12.53	1.31	1.46
3	SB	158	ILE	CA-C	12.52	1.68	1.52
33	L1	2649	C	C2'-C1'	-12.52	1.34	1.53
45	LQ	10	THR	C-N	12.52	1.50	1.33
25	SC	144	ASN	N-CA	12.52	1.62	1.46
33	L1	41	C	C2'-C1'	-12.51	1.34	1.53
33	L1	1598	U	C2'-C1'	12.51	1.72	1.53
32	S1	385	C	O4'-C1'	12.51	1.60	1.41
33	L1	687	C	C2'-C1'	-12.51	1.34	1.53
32	S1	882	G	C2'-C1'	-12.49	1.34	1.53
5	SE	194	LYS	CA-CB	12.48	1.70	1.53
33	L1	1450	G	C2'-C1'	-12.48	1.34	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Sa	16	ALA	C-N	12.47	1.50	1.33
13	SQ	61	ILE	CA-C	12.47	1.69	1.52
43	LO	40	HIS	C-O	-12.46	1.08	1.23
64	LG	52	PRO	N-CA	12.46	1.63	1.47
32	S1	295	C	O4'-C1'	12.46	1.60	1.41
69	La	8	GLY	N-CA	12.46	1.56	1.45
32	S1	1375	C	O4'-C1'	12.46	1.60	1.41
33	L1	959	U	C2'-C1'	-12.45	1.34	1.53
32	S1	447	C	O4'-C1'	12.45	1.60	1.41
33	L1	3212	C	C2'-C1'	-12.44	1.34	1.53
35	L2	112	C	O4'-C1'	12.44	1.60	1.41
23	SU	72	GLY	C-N	12.44	1.51	1.33
33	L1	240	U	O4'-C1'	12.44	1.60	1.41
33	L1	3335	G	C2'-C1'	-12.44	1.34	1.53
27	SH	82	GLY	C-O	-12.43	1.07	1.24
33	L1	3128	A	C2'-C1'	-12.43	1.34	1.53
33	L1	2540	C	C2'-C1'	-12.43	1.34	1.53
33	L1	338	C	O4'-C1'	12.42	1.60	1.41
33	L1	579	G	O4'-C1'	12.42	1.60	1.41
33	L1	1807	C	C2'-C1'	12.42	1.72	1.53
33	L1	337	C	O4'-C1'	12.42	1.60	1.41
33	L1	743	C	O4'-C1'	12.42	1.60	1.41
81	LD	329	ALA	C-O	-12.41	1.07	1.23
33	L1	1555	G	O4'-C1'	12.41	1.60	1.41
33	L1	690	G	O4'-C1'	-12.41	1.23	1.41
33	L1	2104	G	C2'-C1'	-12.41	1.34	1.53
33	L1	233	C	C2'-C1'	-12.40	1.34	1.53
80	LC	352	ARG	C-O	-12.40	1.08	1.23
38	LE	91	TYR	CD2-CE2	12.40	1.75	1.38
4	SD	131	PHE	C-O	-12.39	1.09	1.24
10	SL	121	VAL	N-CA	12.39	1.58	1.46
33	L1	1007	A	C2'-C1'	-12.39	1.34	1.53
33	L1	3232	C	C2'-C1'	-12.39	1.34	1.53
25	SC	162	LEU	CA-CB	-12.39	1.32	1.53
32	S1	1720	G	C2'-C1'	-12.38	1.34	1.53
33	L1	1103	U	C2'-C1'	12.38	1.72	1.53
80	LC	120	LYS	C-O	-12.38	1.08	1.24
32	S1	354	G	O4'-C1'	12.37	1.60	1.42
33	L1	1693	A	O4'-C1'	12.37	1.60	1.41
32	S1	1126	C	O4'-C1'	12.37	1.60	1.41
33	L1	1748	A	O4'-C1'	12.37	1.60	1.42
33	L1	1731	A	O4'-C1'	12.37	1.60	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	652	G	O4'-C1'	12.36	1.60	1.41
33	L1	2397	A	O4'-C1'	12.36	1.60	1.41
34	L3	104	C	O4'-C1'	12.36	1.60	1.41
33	L1	2712	C	O4'-C1'	12.34	1.60	1.41
33	L1	2846	C	C2'-C1'	-12.34	1.34	1.53
32	S1	1693	C	O4'-C1'	12.32	1.60	1.41
69	La	7	PRO	C-N	12.32	1.44	1.32
33	L1	1907	A	O4'-C1'	-12.32	1.23	1.41
33	L1	3240	C	C2'-C1'	-12.31	1.34	1.53
34	L3	50	A	O4'-C1'	12.30	1.60	1.41
23	SU	35	PRO	N-CA	12.30	1.63	1.47
33	L1	691	U	C2'-C1'	12.29	1.71	1.53
33	L1	1364	C	O4'-C1'	12.29	1.60	1.41
33	L1	224	C	C2'-C1'	-12.28	1.34	1.53
33	L1	333	G	O4'-C1'	12.27	1.60	1.41
32	S1	1517	C	O4'-C1'	12.27	1.60	1.41
33	L1	2300	G	O4'-C1'	12.27	1.60	1.41
33	L1	1883	A	C2'-C1'	12.26	1.71	1.53
33	L1	2386	A	O4'-C1'	12.26	1.60	1.41
33	L1	410	G	C2'-C1'	-12.26	1.34	1.53
33	L1	695	G	C2'-C1'	12.25	1.71	1.53
32	S1	170	C	O4'-C1'	12.25	1.60	1.41
32	S1	437	C	C2'-C1'	-12.24	1.34	1.53
32	S1	575	G	C2'-C1'	-12.24	1.34	1.53
33	L1	1240	G	C2'-C1'	-12.24	1.34	1.53
35	L2	154	G	C2'-C1'	-12.23	1.35	1.53
32	S1	999	G	C2'-C1'	-12.23	1.35	1.53
32	S1	1099	G	C2'-C1'	-12.23	1.35	1.53
2	SA	11	ALA	CA-C	12.22	1.69	1.52
28	SN	52	PHE	CA-C	-12.22	1.38	1.52
10	SL	119	PHE	C-N	12.22	1.50	1.33
35	L2	129	C	O4'-C1'	12.21	1.59	1.41
32	S1	1746	U	C2'-C1'	-12.21	1.35	1.53
61	Lq	23	ARG	C-O	-12.21	1.08	1.24
33	L1	19	C	C2'-C1'	-12.20	1.35	1.53
64	LG	27	ALA	N-CA	12.20	1.61	1.46
33	L1	1707	C	C2'-C1'	12.20	1.71	1.53
33	L1	2744	C	C2'-C1'	-12.20	1.35	1.53
67	LS	166	LYS	N-CA	12.20	1.61	1.46
33	L1	1829	G	C2'-C1'	-12.19	1.35	1.53
33	L1	68	U	O4'-C1'	12.19	1.59	1.41
32	S1	1094	U	O4'-C1'	12.19	1.59	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	521	G	C2'-C1'	-12.18	1.34	1.53
33	L1	1026	A	C2'-C1'	-12.18	1.35	1.53
35	L2	43	G	C2'-C1'	-12.17	1.34	1.53
32	S1	1718	C	O4'-C1'	12.17	1.59	1.41
2	SA	211	PRO	C-O	-12.17	1.08	1.24
32	S1	420	A	O4'-C1'	12.15	1.59	1.41
33	L1	841	G	C2'-C1'	-12.15	1.34	1.53
33	L1	2477	G	C2'-C1'	12.15	1.71	1.53
15	SS	92	PRO	CA-CB	12.13	1.70	1.54
10	SL	117	VAL	N-CA	-12.12	1.31	1.46
33	L1	2696	C	O4'-C1'	12.13	1.59	1.41
33	L1	2350	C	C2'-C1'	-12.12	1.35	1.53
70	Li	111	LYS	N-CA	12.12	1.61	1.45
33	L1	210	G	C2'-C1'	-12.12	1.34	1.53
33	L1	310	C	O4'-C1'	12.12	1.59	1.41
15	SS	5	THR	CA-CB	12.12	1.72	1.53
33	L1	2941	G	C2'-C1'	-12.11	1.35	1.53
69	La	28	VAL	CA-C	12.11	1.68	1.52
33	L1	2530	G	C2'-C1'	-12.10	1.35	1.53
31	S2	7	A	O4'-C1'	12.10	1.60	1.42
33	L1	131	C	O4'-C1'	12.09	1.59	1.41
32	S1	1691	C	C2'-C1'	-12.09	1.35	1.53
32	S1	1592	G	O3'-P	12.09	1.79	1.61
32	S1	1298	G	O3'-P	12.08	1.79	1.61
33	L1	2847	A	C2'-C1'	12.08	1.71	1.53
34	L3	28	U	C2'-C1'	-12.07	1.35	1.53
32	S1	1425	G	O4'-C1'	12.07	1.59	1.41
33	L1	2341	U	C2'-C1'	-12.07	1.35	1.53
35	L2	27	C	O4'-C1'	12.06	1.60	1.42
33	L1	1698	C	O4'-C1'	12.06	1.59	1.41
33	L1	1527	A	O4'-C1'	12.06	1.60	1.42
33	L1	1401	C	O4'-C1'	12.06	1.59	1.41
32	S1	1801	A	O4'-C1'	-12.05	1.23	1.42
33	L1	650	A	O4'-C1'	-12.05	1.23	1.41
43	LO	138	GLY	N-CA	12.05	1.62	1.45
33	L1	1566	C	O4'-C1'	12.04	1.59	1.41
33	L1	3341	C	O4'-C1'	12.04	1.59	1.41
34	L3	120	C	C2'-C1'	-12.04	1.34	1.53
32	S1	67	G	O4'-C1'	12.04	1.59	1.41
32	S1	318	C	C2'-C1'	-12.04	1.35	1.53
33	L1	3270	C	C2'-C1'	-12.03	1.35	1.53
13	SQ	110	GLY	N-CA	12.03	1.63	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	627	G	C2'-C1'	-12.03	1.35	1.53
71	Lj	9	VAL	N-CA	12.03	1.61	1.46
69	La	33	THR	CA-C	-12.03	1.41	1.53
33	L1	1607	C	C2'-C1'	-12.02	1.35	1.53
32	S1	877	G	O4'-C1'	12.02	1.59	1.41
33	L1	1664	G	O4'-C1'	12.02	1.65	1.41
33	L1	1912	U	O4'-C1'	12.02	1.59	1.41
33	L1	1025	G	C2'-C1'	-12.01	1.35	1.53
33	L1	2490	U	C2'-C1'	-12.01	1.35	1.53
35	L2	89	G	O4'-C1'	12.01	1.59	1.42
32	S1	31	C	O4'-C1'	12.01	1.59	1.41
33	L1	339	G	C2'-C1'	-12.00	1.35	1.53
32	S1	1226	U	C2'-C1'	12.00	1.71	1.53
33	L1	63	G	O4'-C1'	12.00	1.59	1.41
32	S1	1327	C	O4'-C1'	12.00	1.59	1.41
33	L1	791	C	O4'-C1'	11.99	1.59	1.41
33	L1	2927	C	O4'-C1'	11.99	1.59	1.41
33	L1	2846	C	O4'-C1'	11.99	1.59	1.41
32	S1	1061	G	O4'-C1'	11.98	1.59	1.41
32	S1	1249	G	O4'-C1'	11.98	1.59	1.41
33	L1	1080	C	O4'-C1'	11.98	1.59	1.41
32	S1	1620	C	O4'-C1'	11.98	1.59	1.41
33	L1	1660	C	C2'-C1'	-11.97	1.35	1.53
33	L1	2247	A	O4'-C1'	11.97	1.59	1.41
32	S1	1138	A	C2'-C1'	11.97	1.71	1.53
33	L1	1136	A	C2'-C1'	-11.97	1.35	1.53
33	L1	2649	C	O4'-C1'	11.96	1.59	1.41
71	Lj	7	GLN	N-CA	11.96	1.61	1.46
33	L1	1741	G	C2'-C1'	-11.95	1.35	1.53
33	L1	328	G	O4'-C1'	11.94	1.59	1.42
33	L1	702	G	C2'-C1'	-11.94	1.35	1.53
33	L1	1880	A	C3'-C2'	11.94	1.70	1.52
33	L1	2840	A	C2'-C1'	-11.94	1.35	1.53
32	S1	893	U	C2'-C1'	-11.93	1.35	1.53
32	S1	1326	A	O4'-C1'	11.93	1.59	1.41
59	Lo	30	ARG	C-O	-11.93	1.08	1.24
33	L1	686	A	O4'-C1'	11.93	1.59	1.41
33	L1	305	G	O4'-C1'	-11.93	1.23	1.41
33	L1	63	G	C2'-C1'	-11.92	1.35	1.53
33	L1	2875	U	C2'-C1'	11.91	1.71	1.53
32	S1	1214	C	C2'-C1'	-11.91	1.35	1.53
23	SU	68	THR	C-O	-11.91	1.11	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	827	C	O4'-C1'	11.91	1.59	1.41
33	L1	1554	C	C2'-C1'	-11.91	1.35	1.53
33	L1	2485	U	C2'-C1'	11.90	1.71	1.53
33	L1	480	C	C2'-C1'	-11.90	1.35	1.53
32	S1	1067	A	C2'-C1'	-11.89	1.35	1.53
32	S1	1389	G	C2'-C1'	-11.89	1.35	1.53
73	Lp	53	ASN	N-CA	11.88	1.68	1.46
33	L1	2629	C	O4'-C1'	11.88	1.59	1.41
33	L1	1573	G	C2'-C1'	-11.87	1.35	1.53
33	L1	1555	G	C2'-C1'	-11.86	1.35	1.53
33	L1	2868	C	O4'-C1'	-11.86	1.24	1.42
33	L1	1526	A	C2'-C1'	11.86	1.70	1.53
32	S1	1471	C	O4'-C1'	11.86	1.59	1.41
32	S1	1686	C	C2'-C1'	-11.85	1.35	1.53
33	L1	1483	G	O4'-C1'	-11.85	1.24	1.42
33	L1	2160	C	O4'-C1'	11.85	1.59	1.41
33	L1	2758	C	O4'-C1'	11.85	1.59	1.41
33	L1	1070	G	O4'-C1'	11.85	1.59	1.41
33	L1	3082	G	O4'-C1'	11.84	1.59	1.41
35	L2	153	U	O4'-C1'	11.84	1.59	1.41
33	L1	1089	G	O4'-C1'	11.84	1.59	1.41
31	S2	11	U	O4'-C1'	11.84	1.59	1.41
33	L1	2232	C	O4'-C1'	11.84	1.59	1.41
33	L1	112	C	O4'-C1'	11.83	1.59	1.42
33	L1	2784	U	C2'-C1'	-11.83	1.35	1.53
33	L1	400	G	C2'-C1'	11.82	1.70	1.53
33	L1	1273	U	O4'-C1'	11.82	1.59	1.41
33	L1	2411	G	C2'-C1'	-11.82	1.35	1.53
33	L1	3225	G	O4'-C1'	-11.82	1.24	1.41
32	S1	995	C	O4'-C1'	11.82	1.59	1.41
33	L1	513	C	O4'-C1'	11.82	1.59	1.41
34	L3	10	C	C2'-C1'	-11.82	1.35	1.53
33	L1	1711	G	C2'-C1'	-11.82	1.35	1.53
33	L1	2419	C	O4'-C1'	11.81	1.59	1.41
33	L1	165	C	C2'-C1'	-11.81	1.35	1.53
33	L1	1542	A	O4'-C1'	11.81	1.59	1.41
33	L1	2178	G	C2'-C1'	-11.80	1.35	1.53
33	L1	2592	G	C2'-C1'	-11.80	1.35	1.53
33	L1	541	C	O4'-C1'	11.79	1.59	1.41
32	S1	589	A	C2'-C1'	-11.79	1.35	1.53
32	S1	648	C	C2'-C1'	11.79	1.71	1.53
33	L1	2732	U	O4'-C1'	11.78	1.59	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
41	LM	73	ARG	CA-C	-11.78	1.38	1.52
33	L1	979	C	O4'-C1'	11.78	1.59	1.41
33	L1	1053	C	O4'-C1'	11.78	1.59	1.41
33	L1	627	G	O4'-C1'	11.78	1.59	1.41
33	L1	2808	U	O4'-C1'	11.78	1.59	1.41
33	L1	810	A	O4'-C1'	11.77	1.59	1.41
33	L1	1286	G	C2'-C1'	-11.77	1.35	1.53
32	S1	1050	C	O4'-C1'	11.77	1.59	1.41
33	L1	2580	C	C2'-C1'	-11.77	1.35	1.53
68	LW	105	ILE	CA-C	11.77	1.67	1.52
33	L1	759	C	C2'-C1'	-11.76	1.35	1.53
32	S1	400	G	C2'-C1'	11.76	1.71	1.53
33	L1	496	U	C2'-C1'	-11.75	1.35	1.53
33	L1	1707	C	O4'-C1'	-11.75	1.24	1.41
32	S1	493	C	C2'-C1'	-11.74	1.35	1.53
38	LE	116	MET	N-CA	-11.74	1.30	1.46
32	S1	939	C	O4'-C1'	11.74	1.59	1.42
33	L1	2739	A	O4'-C1'	-11.74	1.24	1.41
33	L1	2358	C	O4'-C1'	11.73	1.59	1.41
33	L1	1718	U	C2'-C1'	-11.72	1.35	1.53
33	L1	1811	U	O4'-C1'	11.72	1.59	1.41
4	SD	241	GLY	CA-C	-11.72	1.30	1.52
13	SQ	95	GLU	N-CA	11.72	1.60	1.46
33	L1	178	C	C2'-C1'	-11.72	1.35	1.53
33	L1	2405	C	C2'-C1'	-11.71	1.35	1.53
32	S1	386	C	O4'-C1'	11.70	1.59	1.41
33	L1	3026	C	O4'-C1'	11.70	1.59	1.41
33	L1	1132	A	C2'-C1'	-11.70	1.35	1.53
33	L1	1901	G	C2'-C1'	11.69	1.70	1.53
33	L1	1217	G	C2'-C1'	-11.69	1.35	1.53
33	L1	1310	G	O4'-C1'	-11.67	1.24	1.42
33	L1	3042	U	C2'-C1'	11.67	1.70	1.53
55	Lg	41	ILE	CA-CB	-11.67	1.39	1.54
33	L1	1530	C	C2'-C1'	-11.66	1.35	1.53
33	L1	2622	G	O4'-C1'	11.66	1.59	1.41
33	L1	1350	G	O4'-C1'	-11.65	1.24	1.41
33	L1	2036	C	O4'-C1'	11.64	1.59	1.41
30	S3	17	A	O4'-C1'	11.64	1.59	1.41
33	L1	960	C	O4'-C1'	11.64	1.59	1.41
33	L1	220	G	C2'-C1'	-11.63	1.35	1.53
32	S1	459	C	O4'-C1'	11.63	1.59	1.42
32	S1	1433	A	O4'-C1'	-11.63	1.24	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1937	C	O4'-C1'	11.63	1.59	1.41
33	L1	489	C	O4'-C1'	11.62	1.59	1.41
33	L1	3088	A	C2'-C1'	-11.62	1.35	1.53
23	SU	34	HIS	C-O	-11.61	1.09	1.24
33	L1	2226	C	O4'-C1'	-11.61	1.24	1.41
33	L1	25	U	C2'-C1'	11.60	1.70	1.53
33	L1	2407	U	C2'-C1'	-11.60	1.35	1.53
31	S2	61	C	O4'-C1'	11.60	1.59	1.41
33	L1	2801	A	O4'-C1'	11.60	1.59	1.41
77	Lc	5	LYS	C-O	-11.60	1.09	1.23
24	SX	82	ARG	C-O	-11.60	1.00	1.23
33	L1	2841	G	C2'-C1'	-11.60	1.35	1.53
33	L1	7	C	O4'-C1'	11.59	1.59	1.41
33	L1	1873	C	C2'-C1'	-11.59	1.35	1.53
13	SQ	138	ARG	CA-C	11.59	1.67	1.52
33	L1	3040	G	O4'-C1'	-11.59	1.24	1.41
33	L1	509	G	C2'-C1'	-11.58	1.35	1.53
33	L1	1635	A	C2'-C1'	-11.58	1.35	1.53
31	S2	26	G	O4'-C1'	-11.58	1.24	1.41
33	L1	254	G	C2'-C1'	-11.58	1.35	1.53
33	L1	1078	U	C2'-C1'	-11.58	1.35	1.53
32	S1	580	G	C2'-C1'	-11.57	1.35	1.53
32	S1	298	C	O4'-C1'	11.57	1.59	1.41
33	L1	80	C	C2'-C1'	-11.57	1.35	1.53
33	L1	2133	A	O4'-C1'	11.57	1.59	1.42
81	LD	405	GLN	C-O	-11.57	1.00	1.23
33	L1	615	A	C2'-C1'	-11.57	1.35	1.53
33	L1	2395	G	C2'-C1'	-11.56	1.36	1.53
33	L1	451	C	O4'-C1'	11.56	1.58	1.41
32	S1	1513	A	C2'-C1'	11.56	1.70	1.53
5	SE	263	LEU	C-O	-11.56	1.00	1.23
33	L1	2544	C	C2'-C1'	-11.55	1.36	1.53
33	L1	1589	G	O4'-C1'	-11.55	1.24	1.42
10	SL	142	SER	C-O	-11.54	1.00	1.23
33	L1	1939	C	O4'-C1'	11.54	1.58	1.41
33	L1	819	A	O4'-C1'	11.54	1.59	1.42
81	LD	405	GLN	C-OXT	-11.54	1.00	1.23
2	SA	260	ALA	C-O	-11.54	1.00	1.23
10	SL	142	SER	C-OXT	-11.54	1.00	1.23
32	S1	1371	U	C2'-C1'	-11.54	1.36	1.53
33	L1	2715	U	C2'-C1'	-11.54	1.36	1.53
3	SB	148	LYS	CA-C	11.53	1.68	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2567	C	O4'-C1'	11.53	1.58	1.41
34	L3	11	A	C2'-C1'	-11.53	1.36	1.53
33	L1	3161	C	O4'-C1'	11.53	1.58	1.41
70	Li	44	CYS	CA-C	-11.53	1.40	1.52
33	L1	2486	G	O4'-C1'	-11.53	1.24	1.41
80	LC	70	LYS	N-CA	11.53	1.61	1.46
66	LN	64	ARG	NE-CZ	-11.52	1.20	1.33
33	L1	1913	C	O4'-C1'	11.51	1.58	1.41
32	S1	14	C	O4'-C1'	11.51	1.58	1.41
33	L1	2070	C	O4'-C1'	11.51	1.58	1.41
40	LH	87	ASN	C-O	-11.51	1.09	1.24
33	L1	2505	C	O4'-C1'	11.51	1.58	1.41
60	Lr	59	HIS	N-CA	11.51	1.60	1.45
2	SA	212	GLU	N-CA	11.50	1.61	1.46
33	L1	2058	C	O4'-C1'	11.50	1.58	1.41
66	LN	79	ASP	CA-C	-11.50	1.37	1.52
33	L1	178	C	O4'-C1'	11.50	1.58	1.41
33	L1	1000	A	O4'-C1'	11.50	1.58	1.41
32	S1	1667	A	O4'-C1'	11.49	1.58	1.41
32	S1	1358	G	O4'-C1'	11.49	1.58	1.41
33	L1	3183	G	O4'-C1'	11.49	1.58	1.41
33	L1	1703	C	O4'-C1'	11.49	1.58	1.41
33	L1	1368	U	C2'-C1'	-11.48	1.36	1.53
32	S1	1060	U	C2'-C1'	-11.47	1.36	1.53
33	L1	3175	C	C2'-C1'	-11.47	1.36	1.53
32	S1	1597	C	O4'-C1'	11.47	1.58	1.41
32	S1	1156	A	C2'-C1'	11.47	1.70	1.53
33	L1	2302	G	O4'-C1'	11.47	1.59	1.42
33	L1	2726	U	O4'-C1'	11.46	1.58	1.41
33	L1	1540	G	C2'-C1'	-11.45	1.36	1.53
33	L1	3349	C	O4'-C1'	11.45	1.58	1.41
70	Li	108	LYS	CA-CB	11.44	1.72	1.53
33	L1	302	G	O4'-C1'	-11.43	1.24	1.42
33	L1	297	G	C2'-C1'	-11.43	1.36	1.53
33	L1	718	C	C2'-C1'	-11.43	1.36	1.53
32	S1	439	C	O4'-C1'	11.42	1.58	1.41
33	L1	1213	G	C2'-C1'	-11.42	1.36	1.53
33	L1	2158	C	O4'-C1'	11.42	1.58	1.41
33	L1	2758	C	C2'-C1'	-11.42	1.36	1.53
33	L1	442	C	O4'-C1'	11.41	1.58	1.41
33	L1	1074	C	O4'-C1'	11.41	1.58	1.41
32	S1	1167	C	O4'-C1'	11.41	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1619	G	C2'-C1'	-11.41	1.36	1.53
33	L1	2955	U	C2'-C1'	11.40	1.70	1.53
33	L1	3003	C	C2'-C1'	-11.40	1.36	1.53
33	L1	3092	A	O4'-C1'	11.40	1.59	1.42
35	L2	32	C	C2'-C1'	-11.39	1.36	1.53
32	S1	1243	C	O4'-C1'	11.39	1.58	1.41
33	L1	2657	C	O4'-C1'	11.39	1.58	1.41
33	L1	2871	U	O4'-C1'	11.39	1.58	1.41
32	S1	1509	C	O4'-C1'	11.39	1.58	1.41
33	L1	3232	C	O4'-C1'	11.39	1.58	1.41
33	L1	448	G	C2'-C1'	-11.39	1.36	1.53
32	S1	1447	C	O4'-C1'	11.38	1.58	1.41
33	L1	2681	A	O4'-C1'	11.38	1.58	1.41
33	L1	1786	G	C2'-C1'	-11.38	1.36	1.53
33	L1	282	A	C2'-C1'	11.37	1.70	1.53
33	L1	2512	U	O4'-C1'	11.37	1.58	1.41
33	L1	2666	G	O4'-C1'	-11.37	1.24	1.41
35	L2	62	G	C2'-C1'	-11.36	1.36	1.53
10	SL	120	LYS	C-N	11.35	1.47	1.33
32	S1	1549	G	O4'-C1'	11.35	1.58	1.41
33	L1	2154	G	C2'-C1'	-11.35	1.36	1.53
33	L1	2165	A	C2'-C1'	-11.35	1.36	1.53
33	L1	3291	C	O4'-C1'	11.35	1.58	1.41
32	S1	690	G	O4'-C1'	11.35	1.58	1.41
33	L1	2858	G	C2'-C1'	-11.35	1.36	1.53
32	S1	1174	G	O4'-C1'	11.35	1.58	1.41
33	L1	1363	C	O4'-C1'	11.35	1.58	1.41
33	L1	1642	G	C2'-C1'	-11.35	1.36	1.53
33	L1	1606	C	C2'-C1'	-11.34	1.36	1.53
33	L1	664	A	O4'-C1'	-11.34	1.24	1.41
33	L1	492	G	O4'-C1'	-11.33	1.24	1.41
35	L2	115	G	C2'-C1'	11.33	1.70	1.53
33	L1	589	G	C2'-C1'	-11.33	1.36	1.53
33	L1	1698	C	C2'-C1'	-11.32	1.36	1.53
33	L1	2829	U	C2'-C1'	11.32	1.70	1.53
33	L1	1499	C	O4'-C1'	11.31	1.58	1.41
33	L1	2406	C	O4'-C1'	11.31	1.58	1.41
47	LU	73	GLY	CA-C	-11.31	1.44	1.52
33	L1	2336	C	O4'-C1'	11.31	1.58	1.41
32	S1	377	G	O4'-C1'	11.30	1.58	1.41
25	SC	163	THR	N-CA	11.30	1.60	1.46
33	L1	2567	C	C2'-C1'	-11.30	1.36	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1228	G	O4'-C1'	11.29	1.58	1.41
29	ST	41	GLU	CA-CB	11.28	1.71	1.53
33	L1	1286	G	O4'-C1'	11.28	1.58	1.41
33	L1	493	G	C2'-C1'	-11.28	1.36	1.53
14	SP	108	ILE	CA-C	11.28	1.64	1.52
33	L1	333	G	C2'-C1'	-11.28	1.36	1.53
33	L1	3063	C	C2'-C1'	-11.27	1.36	1.53
33	L1	1552	C	C2'-C1'	-11.27	1.36	1.53
33	L1	3063	C	O4'-C1'	11.27	1.58	1.41
33	L1	1523	G	O3'-P	11.26	1.78	1.61
33	L1	2697	A	O4'-C1'	11.26	1.58	1.41
32	S1	832	C	C2'-C1'	-11.26	1.36	1.53
33	L1	518	G	O4'-C1'	11.26	1.58	1.41
33	L1	751	C	O4'-C1'	11.26	1.58	1.41
33	L1	428	G	C2'-C1'	-11.25	1.36	1.53
32	S1	689	C	O4'-C1'	11.24	1.58	1.41
48	LV	114	TYR	CD2-CE2	11.24	1.72	1.38
33	L1	296	C	O4'-C1'	11.23	1.58	1.42
33	L1	461	A	O4'-C1'	11.23	1.58	1.41
33	L1	2636	U	C2'-C1'	11.23	1.70	1.53
33	L1	105	A	C2'-C1'	11.23	1.70	1.53
32	S1	683	C	O4'-C1'	11.22	1.58	1.41
10	SL	120	LYS	N-CA	11.22	1.60	1.46
56	Lh	33	TRP	C-N	11.22	1.50	1.33
24	SX	71	GLY	C-N	-11.21	1.19	1.33
34	L3	12	U	O4'-C1'	11.21	1.58	1.41
81	LD	356	LYS	CA-C	-11.21	1.47	1.52
70	Li	43	LYS	CA-CB	11.20	1.72	1.53
33	L1	3247	C	C2'-C1'	-11.20	1.36	1.53
33	L1	973	U	C2'-C1'	-11.19	1.36	1.53
32	S1	1231	A	O4'-C1'	11.19	1.58	1.41
33	L1	1948	G	C2'-C1'	11.19	1.70	1.53
33	L1	2225	C	O4'-C1'	11.19	1.58	1.41
33	L1	1437	G	C2'-C1'	-11.19	1.36	1.53
32	S1	1065	A	O4'-C1'	11.19	1.58	1.41
32	S1	591	C	C2'-C1'	-11.17	1.36	1.53
32	S1	1021	C	O4'-C1'	11.16	1.58	1.41
33	L1	1499	C	C2'-C1'	-11.16	1.36	1.53
67	LS	162	THR	CA-C	11.16	1.67	1.52
32	S1	1576	C	O4'-C1'	11.16	1.58	1.42
33	L1	1736	C	O4'-C1'	11.16	1.58	1.41
33	L1	2439	A	C2'-C1'	-11.16	1.36	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	663	C	O4'-C1'	11.14	1.58	1.41
33	L1	1501	A	C2'-C1'	-11.13	1.36	1.53
33	L1	1663	G	C2'-C1'	-11.13	1.36	1.53
32	S1	1300	A	C2'-C1'	-11.12	1.36	1.53
33	L1	2992	G	O4'-C1'	-11.12	1.25	1.41
32	S1	550	U	O4'-C1'	11.12	1.58	1.41
33	L1	1034	U	C2'-C1'	-11.12	1.36	1.53
33	L1	2572	U	C2'-C1'	11.12	1.70	1.53
35	L2	36	C	O4'-C1'	11.12	1.58	1.41
66	LN	89	TRP	N-CA	11.11	1.60	1.46
33	L1	2942	A	C2'-C1'	-11.11	1.36	1.53
32	S1	398	C	O4'-C1'	11.10	1.58	1.41
33	L1	671	C	C2'-C1'	-11.10	1.36	1.53
33	L1	450	C	C2'-C1'	-11.10	1.36	1.53
32	S1	1227	A	C2'-C1'	11.09	1.70	1.53
33	L1	1371	G	O4'-C1'	11.09	1.58	1.41
33	L1	1815	G	C2'-C1'	-11.09	1.36	1.53
33	L1	2200	U	O4'-C1'	11.09	1.58	1.41
41	LM	69	LYS	N-CA	11.09	1.59	1.45
33	L1	2166	U	O4'-C1'	11.08	1.58	1.41
35	L2	61	C	O4'-C1'	11.08	1.58	1.41
32	S1	397	C	O4'-C1'	11.08	1.58	1.41
33	L1	430	G	O4'-C1'	11.08	1.58	1.41
33	L1	2896	C	O4'-C1'	11.07	1.58	1.41
41	LM	68	GLY	CA-C	11.07	1.67	1.51
33	L1	2388	C	O4'-C1'	11.07	1.58	1.41
32	S1	1109	U	O4'-C1'	11.07	1.58	1.41
32	S1	1201	C	O4'-C1'	11.07	1.58	1.41
33	L1	536	C	O4'-C1'	11.06	1.58	1.41
33	L1	1088	A	O4'-C1'	11.06	1.58	1.41
32	S1	18	C	O4'-C1'	11.06	1.58	1.41
33	L1	1977	C	O4'-C1'	11.05	1.58	1.41
33	L1	2481	C	O4'-C1'	11.05	1.58	1.41
35	L2	44	A	O4'-C1'	11.05	1.58	1.41
23	SU	71	GLY	C-N	11.05	1.47	1.33
32	S1	412	C	O4'-C1'	11.05	1.58	1.41
32	S1	1336	C	O4'-C1'	11.04	1.58	1.41
32	S1	1731	A	C2'-C1'	-11.04	1.36	1.53
82	LK	2	VAL	CA-C	-11.04	1.40	1.52
33	L1	81	C	O4'-C1'	11.04	1.58	1.41
33	L1	553	C	O4'-C1'	11.04	1.58	1.42
35	L2	64	U	C2'-C1'	-11.04	1.36	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1353	G	O4'-C1'	11.04	1.58	1.41
32	S1	1792	A	O4'-C1'	-11.03	1.25	1.41
33	L1	347	A	C2'-C1'	-11.03	1.36	1.53
33	L1	112	C	C2'-C1'	-11.02	1.36	1.53
33	L1	846	A	C2'-C1'	11.02	1.69	1.53
33	L1	1180	C	O4'-C1'	11.02	1.58	1.42
32	S1	484	A	C2'-C1'	-11.02	1.36	1.53
33	L1	2274	A	C2'-C1'	-11.02	1.36	1.53
33	L1	93	G	C2'-C1'	-11.01	1.36	1.53
33	L1	2763	C	C2'-C1'	11.01	1.69	1.53
33	L1	606	C	C2'-C1'	11.01	1.69	1.53
33	L1	1004	C	C2'-C1'	-11.01	1.36	1.53
64	LG	141	LYS	C-N	11.01	1.47	1.33
32	S1	614	G	O4'-C1'	-11.00	1.25	1.41
33	L1	2949	G	O4'-C1'	11.00	1.58	1.41
78	Le	204	LEU	N-CA	-11.00	1.33	1.46
32	S1	1072	U	C2'-C1'	-11.00	1.36	1.53
33	L1	1763	C	O4'-C1'	11.00	1.58	1.41
41	LM	72	LEU	C-N	10.99	1.48	1.33
32	S1	377	G	C2'-C1'	-10.99	1.36	1.53
32	S1	1295	G	C2'-C1'	-10.99	1.36	1.53
35	L2	157	C	O4'-C1'	10.99	1.58	1.41
33	L1	2708	A	C2'-C1'	-10.99	1.36	1.53
33	L1	1391	A	C2'-C1'	-10.98	1.36	1.53
31	S2	3	C	O4'-C1'	10.98	1.58	1.41
33	L1	3307	A	C2'-C1'	10.98	1.69	1.53
33	L1	1112	C	C2'-C1'	-10.98	1.36	1.53
33	L1	1197	A	C2'-C1'	-10.98	1.36	1.53
33	L1	3222	G	C2'-C1'	-10.98	1.36	1.53
33	L1	1389	C	C2'-C1'	10.97	1.69	1.53
32	S1	292	A	C2'-C1'	10.96	1.69	1.53
48	LV	167	ALA	N-CA	10.96	1.59	1.45
33	L1	2730	A	C2'-C1'	10.96	1.69	1.53
32	S1	1134	U	C2'-C1'	10.96	1.69	1.53
70	Li	108	LYS	N-CA	10.95	1.60	1.46
33	L1	1366	G	O4'-C1'	-10.95	1.25	1.41
35	L2	41	A	C2'-C1'	-10.94	1.36	1.53
33	L1	449	G	O4'-C1'	10.94	1.58	1.41
33	L1	746	C	C2'-C1'	-10.93	1.36	1.53
33	L1	3375	G	C2'-C1'	-10.93	1.36	1.53
33	L1	614	C	O4'-C1'	10.93	1.58	1.41
32	S1	1226	U	P-O5'	-10.92	1.43	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	679	C	O4'-C1'	10.92	1.58	1.41
33	L1	3121	C	C2'-C1'	-10.92	1.36	1.53
25	SC	164	SER	CA-CB	10.91	1.70	1.53
32	S1	475	A	O4'-C1'	10.91	1.58	1.41
33	L1	174	G	C2'-C1'	-10.90	1.37	1.53
32	S1	1686	C	O4'-C1'	10.90	1.57	1.41
32	S1	513	G	O4'-C1'	10.89	1.57	1.41
33	L1	1689	G	O4'-C1'	10.89	1.57	1.41
33	L1	1914	C	O4'-C1'	10.89	1.57	1.41
33	L1	3365	U	O4'-C1'	10.89	1.57	1.41
33	L1	30	C	C2'-C1'	-10.88	1.37	1.53
33	L1	1142	G	C2'-C1'	-10.88	1.37	1.53
33	L1	1814	C	C2'-C1'	-10.88	1.37	1.53
33	L1	27	C	O4'-C1'	10.87	1.57	1.41
32	S1	933	G	O4'-C1'	-10.86	1.25	1.42
33	L1	2456	G	C2'-C1'	-10.86	1.37	1.53
32	S1	1030	A	O4'-C1'	10.86	1.57	1.41
32	S1	397	C	C2'-C1'	-10.86	1.37	1.53
33	L1	2227	A	O4'-C1'	10.85	1.57	1.41
33	L1	952	C	C2'-C1'	-10.85	1.37	1.53
32	S1	586	U	C2'-C1'	-10.84	1.36	1.53
32	S1	1128	C	O4'-C1'	10.84	1.57	1.41
32	S1	1656	C	O4'-C1'	10.84	1.57	1.41
33	L1	607	U	C2'-C1'	10.84	1.69	1.53
32	S1	1705	C	O4'-C1'	10.84	1.57	1.41
33	L1	637	C	C2'-C1'	-10.84	1.37	1.53
32	S1	1372	C	O4'-C1'	10.84	1.57	1.41
33	L1	2510	U	O4'-C1'	10.84	1.57	1.41
33	L1	1806	C	C2'-C1'	-10.83	1.37	1.53
33	L1	2767	C	O4'-C1'	10.83	1.57	1.41
33	L1	1338	C	C2'-C1'	-10.82	1.37	1.53
32	S1	1358	G	C2'-C1'	-10.82	1.37	1.53
33	L1	301	G	C2'-C1'	-10.82	1.37	1.53
33	L1	1824	C	C2'-C1'	-10.81	1.37	1.53
33	L1	2143	A	C2'-C1'	-10.81	1.37	1.53
31	S2	73	C	O4'-C1'	10.81	1.57	1.41
32	S1	1199	C	O4'-C1'	10.81	1.57	1.41
32	S1	226	C	O4'-C1'	10.80	1.57	1.41
32	S1	483	C	C2'-C1'	-10.80	1.37	1.53
33	L1	1344	A	C2'-C1'	-10.81	1.37	1.53
33	L1	1859	G	O4'-C1'	10.80	1.57	1.41
45	LQ	116	LEU	N-CA	10.81	1.60	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1184	C	C2'-C1'	-10.80	1.37	1.53
33	L1	2633	C	O4'-C1'	10.80	1.57	1.41
33	L1	2282	C	O4'-C1'	10.80	1.58	1.42
33	L1	2944	C	O4'-C1'	10.80	1.57	1.41
64	LG	186	ALA	CA-CB	10.79	1.71	1.53
33	L1	3088	A	O4'-C1'	10.79	1.57	1.41
48	LV	170	LYS	C-O	-10.79	1.10	1.24
33	L1	928	A	O4'-C1'	10.79	1.58	1.42
33	L1	1151	G	O4'-C1'	10.78	1.57	1.41
33	L1	1779	C	C2'-C1'	-10.77	1.37	1.53
33	L1	1878	G	C2'-C1'	-10.77	1.37	1.53
33	L1	465	C	O4'-C1'	10.77	1.57	1.41
34	L3	110	G	C2'-C1'	-10.76	1.37	1.53
32	S1	980	C	O4'-C1'	10.76	1.57	1.41
33	L1	1252	C	C2'-C1'	-10.76	1.37	1.53
32	S1	889	C	O4'-C1'	10.75	1.57	1.41
32	S1	1005	C	O4'-C1'	10.75	1.57	1.41
33	L1	1112	C	O4'-C1'	10.75	1.57	1.41
31	S2	72	G	O4'-C1'	-10.75	1.25	1.41
33	L1	2438	A	C2'-C1'	-10.74	1.37	1.53
32	S1	1607	C	O4'-C1'	10.74	1.57	1.41
33	L1	384	A	C2'-C1'	-10.74	1.37	1.53
15	SS	11	ASP	CA-C	10.73	1.67	1.52
33	L1	826	C	C2'-C1'	-10.73	1.37	1.53
33	L1	3026	C	C2'-C1'	-10.73	1.37	1.53
32	S1	302	C	O4'-C1'	10.73	1.57	1.41
32	S1	1098	A	C2'-C1'	-10.72	1.36	1.53
33	L1	2836	G	O4'-C1'	10.72	1.57	1.41
32	S1	1037	G	O4'-C1'	10.72	1.57	1.41
33	L1	215	U	C2'-C1'	-10.72	1.37	1.53
33	L1	1633	C	O4'-C1'	10.71	1.57	1.41
33	L1	2576	C	O4'-C1'	10.71	1.57	1.41
33	L1	2362	A	O4'-C1'	-10.71	1.25	1.41
33	L1	2687	C	C2'-C1'	-10.71	1.37	1.53
33	L1	25	U	O4'-C1'	10.71	1.57	1.41
33	L1	519	C	C2'-C1'	-10.71	1.37	1.53
33	L1	257	C	O4'-C1'	10.71	1.57	1.41
33	L1	688	G	C2'-C1'	-10.71	1.37	1.53
71	Lj	12	TYR	C-O	-10.71	1.10	1.24
32	S1	879	C	O4'-C1'	10.70	1.57	1.41
33	L1	113	A	C2'-C1'	10.70	1.69	1.53
32	S1	1485	A	C2'-C1'	10.70	1.69	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	639	A	C2'-C1'	-10.70	1.37	1.53
32	S1	1303	G	C2'-C1'	-10.69	1.37	1.53
33	L1	592	U	C2'-C1'	-10.69	1.37	1.53
33	L1	2492	C	O4'-C1'	10.69	1.57	1.41
33	L1	663	G	C2'-C1'	-10.69	1.37	1.53
32	S1	1718	C	C2'-C1'	-10.68	1.37	1.53
33	L1	81	C	C2'-C1'	-10.68	1.37	1.53
32	S1	832	C	O4'-C1'	10.68	1.57	1.41
25	SC	145	ILE	CA-C	-10.68	1.41	1.52
33	L1	519	C	O4'-C1'	10.67	1.57	1.41
25	SC	44	LEU	C-O	-10.67	1.10	1.24
32	S1	1514	G	O4'-C1'	10.67	1.57	1.41
32	S1	1209	C	O4'-C1'	10.66	1.57	1.41
33	L1	2586	C	O4'-C1'	10.66	1.57	1.41
32	S1	1731	A	O4'-C1'	10.66	1.57	1.41
33	L1	3215	U	O4'-C1'	-10.66	1.25	1.41
33	L1	2544	C	O4'-C1'	10.66	1.57	1.41
35	L2	156	G	O4'-C1'	10.65	1.57	1.41
33	L1	2097	C	C2'-C1'	-10.64	1.37	1.53
34	L3	103	U	C2'-C1'	-10.64	1.37	1.53
33	L1	631	C	C2'-C1'	-10.64	1.37	1.53
33	L1	3147	G	O4'-C1'	10.64	1.57	1.41
32	S1	1423	A	O4'-C1'	10.64	1.57	1.41
33	L1	2037	C	O4'-C1'	10.64	1.57	1.41
33	L1	3349	C	C2'-C1'	-10.64	1.37	1.53
33	L1	2770	U	C2'-C1'	10.63	1.69	1.53
33	L1	1966	C	O4'-C1'	10.63	1.57	1.41
33	L1	892	U	O4'-C1'	10.62	1.57	1.41
45	LQ	117	ASP	N-CA	10.62	1.59	1.46
32	S1	148	C	C2'-C1'	-10.62	1.37	1.53
33	L1	82	C	C2'-C1'	-10.62	1.37	1.53
32	S1	1625	U	O4'-C1'	10.61	1.57	1.42
33	L1	3324	U	C2'-C1'	10.61	1.69	1.53
33	L1	1056	U	C2'-C1'	-10.60	1.37	1.53
33	L1	1628	G	C2'-C1'	-10.60	1.37	1.53
33	L1	1648	C	O4'-C1'	10.60	1.57	1.41
32	S1	1538	C	C2'-C1'	10.60	1.69	1.53
33	L1	1439	U	C2'-C1'	-10.60	1.37	1.53
33	L1	77	U	C2'-C1'	10.59	1.69	1.53
2	SA	212	GLU	CA-C	10.59	1.67	1.52
33	L1	496	U	O4'-C1'	10.58	1.57	1.41
32	S1	1673	C	O4'-C1'	10.58	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1115	A	C2'-C1'	10.58	1.69	1.53
33	L1	1283	C	C2'-C1'	-10.57	1.37	1.53
32	S1	234	G	C2'-C1'	-10.57	1.37	1.53
33	L1	3163	G	O4'-C1'	10.57	1.57	1.41
32	S1	934	A	O4'-C1'	-10.56	1.25	1.41
33	L1	719	U	C2'-C1'	-10.56	1.37	1.53
34	L3	19	A	C2'-C1'	10.56	1.69	1.53
33	L1	294	A	C2'-C1'	10.56	1.69	1.53
33	L1	2487	A	C2'-C1'	10.56	1.69	1.53
33	L1	2672	C	C2'-C1'	-10.56	1.37	1.53
32	S1	880	G	C2'-C1'	10.56	1.69	1.53
33	L1	759	C	O4'-C1'	10.55	1.57	1.41
31	S2	14	A	C2'-C1'	-10.55	1.37	1.53
32	S1	495	C	O4'-C1'	10.55	1.57	1.41
33	L1	411	C	C2'-C1'	-10.55	1.37	1.53
33	L1	800	C	O4'-C1'	10.55	1.57	1.41
32	S1	943	G	O4'-C1'	10.55	1.57	1.41
33	L1	2620	U	O4'-C1'	-10.55	1.26	1.42
33	L1	704	G	O4'-C1'	10.54	1.57	1.41
33	L1	1911	A	C2'-C1'	10.54	1.69	1.53
33	L1	2151	G	O4'-C1'	10.54	1.57	1.42
81	LD	304	GLN	C-O	-10.54	1.10	1.24
34	L3	13	A	O4'-C1'	10.54	1.57	1.41
2	SA	108	THR	C-N	-10.54	1.20	1.33
32	S1	1127	G	O4'-C1'	10.53	1.57	1.41
33	L1	218	G	C2'-C1'	-10.53	1.37	1.53
33	L1	781	C	O4'-C1'	10.53	1.57	1.41
33	L1	1361	G	C2'-C1'	10.52	1.69	1.53
32	S1	692	C	O4'-C1'	10.52	1.57	1.41
33	L1	1258	C	O4'-C1'	10.52	1.57	1.41
69	La	29	PHE	N-CA	10.52	1.58	1.46
25	SC	136	ILE	C-O	-10.52	1.11	1.24
33	L1	1054	U	C2'-C1'	-10.51	1.37	1.53
32	S1	1616	U	O4'-C1'	10.51	1.57	1.41
33	L1	642	C	O4'-C1'	10.50	1.57	1.41
33	L1	1644	A	O4'-C1'	10.50	1.57	1.41
33	L1	1316	C	O4'-C1'	10.50	1.57	1.41
33	L1	687	C	O4'-C1'	10.50	1.57	1.41
33	L1	1002	A	O4'-C1'	10.49	1.57	1.41
33	L1	1165	C	O4'-C1'	10.49	1.57	1.41
33	L1	3059	C	O4'-C1'	10.49	1.57	1.41
33	L1	1424	G	O4'-C1'	-10.49	1.25	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2441	G	O4'-C1'	-10.49	1.25	1.41
28	SN	10	HIS	C-O	-10.48	1.10	1.24
33	L1	2009	C	O4'-C1'	10.48	1.57	1.41
33	L1	522	C	O4'-C1'	10.48	1.57	1.41
33	L1	267	G	C2'-C1'	-10.47	1.37	1.53
66	LN	109	LYS	N-CA	10.47	1.58	1.46
33	L1	3051	U	C2'-C1'	-10.47	1.37	1.53
32	S1	891	U	O4'-C1'	10.47	1.57	1.41
67	LS	163	ARG	CA-C	10.46	1.68	1.52
32	S1	1566	U	C2'-C1'	10.46	1.69	1.53
33	L1	2299	C	O4'-C1'	10.46	1.57	1.41
33	L1	3207	C	O4'-C1'	10.46	1.57	1.41
33	L1	1772	G	C2'-C1'	10.45	1.69	1.53
32	S1	1777	G	O4'-C1'	10.45	1.57	1.42
33	L1	968	A	O4'-C1'	-10.45	1.25	1.41
80	LC	358	ILE	N-CA	10.45	1.59	1.46
33	L1	642	C	O3'-P	-10.45	1.45	1.61
33	L1	869	A	C2'-C1'	-10.44	1.37	1.53
23	SU	34	HIS	N-CA	10.44	1.60	1.46
32	S1	1151	G	C2'-C1'	-10.44	1.37	1.53
33	L1	3272	A	O4'-C1'	10.44	1.57	1.41
32	S1	33	U	C2'-C1'	10.44	1.69	1.53
33	L1	3058	U	O4'-C1'	10.43	1.57	1.41
45	LQ	290	SER	C-O	-10.43	1.10	1.24
73	Lp	51	ILE	C-N	10.43	1.48	1.33
33	L1	2624	G	C2'-C1'	-10.43	1.37	1.53
25	SC	143	VAL	C-O	-10.43	1.11	1.24
32	S1	1717	C	O4'-C1'	10.43	1.57	1.41
33	L1	1085	G	C2'-C1'	-10.43	1.37	1.53
33	L1	596	C	C2'-C1'	-10.42	1.37	1.53
33	L1	1300	C	O4'-C1'	10.42	1.57	1.41
33	L1	141	C	O4'-C1'	10.42	1.57	1.41
32	S1	493	C	O4'-C1'	10.41	1.57	1.41
35	L2	143	C	O4'-C1'	10.41	1.57	1.41
32	S1	1614	C	C2'-C1'	-10.41	1.37	1.53
33	L1	2365	C	O4'-C1'	10.41	1.57	1.41
32	S1	979	A	C2'-C1'	-10.41	1.37	1.53
32	S1	1314	U	O5'-C5'	-10.40	1.26	1.42
33	L1	426	A	O4'-C1'	10.40	1.57	1.41
33	L1	1128	U	C2'-C1'	-10.40	1.37	1.53
33	L1	3032	G	C2'-C1'	-10.40	1.37	1.53
34	L3	107	C	C2'-C1'	-10.40	1.37	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1395	C	C2'-C1'	-10.39	1.37	1.53
33	L1	3039	U	C2'-C1'	-10.39	1.37	1.53
33	L1	495	G	O4'-C1'	-10.39	1.26	1.41
32	S1	1317	A	C2'-C1'	10.39	1.69	1.53
33	L1	1583	G	C2'-C1'	10.39	1.69	1.53
4	SD	213	ALA	N-CA	-10.39	1.32	1.46
32	S1	670	C	O4'-C1'	10.38	1.57	1.41
32	S1	1444	G	O4'-C1'	10.38	1.57	1.41
33	L1	887	A	C2'-C1'	10.38	1.68	1.53
35	L2	61	C	C2'-C1'	-10.38	1.37	1.53
67	LS	150	LYS	C-O	-10.38	1.11	1.24
32	S1	1359	C	O4'-C1'	10.37	1.57	1.41
33	L1	41	C	O4'-C1'	10.37	1.57	1.41
33	L1	725	G	O4'-C1'	10.37	1.57	1.41
33	L1	545	C	O4'-C1'	10.37	1.57	1.41
33	L1	769	C	O4'-C1'	10.36	1.57	1.41
31	S2	33	U	O4'-C1'	10.36	1.57	1.41
33	L1	3354	A	O4'-C1'	-10.36	1.26	1.41
32	S1	570	C	O4'-C1'	10.36	1.57	1.41
33	L1	1764	G	C2'-C1'	-10.36	1.37	1.53
13	SQ	94	GLU	CA-CB	10.35	1.65	1.53
33	L1	1304	G	C2'-C1'	-10.35	1.37	1.53
33	L1	1437	G	O4'-C1'	10.35	1.57	1.42
64	LG	21	HIS	ND1-CE1	10.35	1.42	1.32
33	L1	3158	C	C2'-C1'	-10.34	1.37	1.53
33	L1	985	C	O4'-C1'	10.34	1.57	1.41
33	L1	459	G	C2'-C1'	-10.34	1.37	1.53
33	L1	3325	G	C2'-C1'	-10.34	1.37	1.53
32	S1	51	A	O4'-C1'	10.33	1.57	1.41
33	L1	2971	A	C2'-C1'	-10.33	1.37	1.53
33	L1	3080	U	O4'-C1'	-10.33	1.26	1.42
78	Le	83	ALA	C-O	-10.33	1.10	1.24
29	ST	13	VAL	CA-CB	10.32	1.59	1.54
33	L1	911	G	O4'-C1'	10.32	1.57	1.42
33	L1	2396	A	C2'-C1'	-10.31	1.37	1.53
37	LB	209	HIS	C-N	10.31	1.47	1.33
33	L1	515	C	O4'-C1'	10.31	1.57	1.41
33	L1	833	G	O4'-C1'	10.31	1.57	1.41
33	L1	3250	C	O4'-C1'	10.31	1.57	1.41
3	SB	159	SER	CB-OG	-10.31	1.21	1.42
33	L1	729	G	C2'-C1'	10.31	1.68	1.53
33	L1	1107	G	C2'-C1'	-10.31	1.37	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2028	C	O4'-C1'	10.30	1.57	1.41
81	LD	18	MET	C-O	-10.30	1.10	1.24
33	L1	1458	U	C2'-C1'	10.30	1.68	1.53
33	L1	2632	U	C2'-C1'	10.30	1.68	1.53
32	S1	38	C	O4'-C1'	10.30	1.57	1.41
32	S1	342	C	O4'-C1'	10.30	1.57	1.41
32	S1	1376	A	O4'-C1'	10.30	1.57	1.41
33	L1	719	U	O4'-C1'	10.30	1.57	1.41
33	L1	722	C	C2'-C1'	10.30	1.68	1.53
32	S1	1203	G	O4'-C1'	-10.30	1.26	1.42
34	L3	12	U	C2'-C1'	-10.29	1.38	1.53
33	L1	241	G	C2'-C1'	-10.29	1.38	1.53
33	L1	674	G	C2'-C1'	-10.29	1.38	1.53
33	L1	2626	G	O4'-C1'	10.28	1.57	1.41
33	L1	2790	C	O4'-C1'	10.28	1.57	1.41
32	S1	1781	U	C2'-C1'	-10.28	1.38	1.53
32	S1	1790	G	O4'-C1'	10.27	1.57	1.41
33	L1	1511	C	O4'-C1'	10.27	1.57	1.41
33	L1	1666	C	C2'-C1'	-10.27	1.38	1.53
33	L1	1682	C	O4'-C1'	10.27	1.57	1.42
32	S1	1643	A	C2'-C1'	10.27	1.68	1.53
2	SA	11	ALA	N-CA	10.26	1.59	1.46
33	L1	2099	G	C2'-C1'	-10.26	1.38	1.53
33	L1	238	C	C2'-C1'	-10.26	1.38	1.53
25	SC	163	THR	CB-OG1	-10.26	1.27	1.43
33	L1	2377	C	O4'-C1'	10.26	1.57	1.41
15	SS	8	THR	CA-C	-10.25	1.38	1.52
33	L1	1742	G	P-O5'	-10.25	1.44	1.59
33	L1	1947	U	C2'-C1'	10.25	1.68	1.53
3	SB	149	SER	N-CA	10.24	1.59	1.46
33	L1	1951	C	O4'-C1'	10.24	1.57	1.41
33	L1	3350	C	O4'-C1'	10.24	1.57	1.41
33	L1	1083	C	O4'-C1'	-10.24	1.26	1.42
35	L2	104	U	O4'-C1'	10.24	1.57	1.41
33	L1	480	C	O4'-C1'	10.23	1.57	1.41
33	L1	1948	G	O4'-C1'	-10.23	1.26	1.41
33	L1	385	A	O4'-C1'	-10.23	1.26	1.41
32	S1	21	U	O4'-C1'	10.22	1.56	1.41
32	S1	595	A	O4'-C1'	10.22	1.56	1.41
15	SS	15	HIS	N-CA	-10.22	1.34	1.46
32	S1	1794	C	C2'-C1'	-10.21	1.38	1.53
33	L1	137	C	O4'-C1'	10.21	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	LR	98	MET	N-CA	10.21	1.59	1.46
32	S1	1791	A	O4'-C1'	10.21	1.56	1.41
32	S1	694	C	O4'-C1'	10.21	1.56	1.41
33	L1	350	A	C2'-C1'	10.21	1.68	1.53
33	L1	1202	C	O4'-C1'	10.21	1.56	1.41
33	L1	3158	C	O4'-C1'	10.21	1.56	1.41
51	LY	9	SER	N-CA	10.20	1.59	1.46
32	S1	1413	C	O4'-C1'	10.20	1.56	1.41
33	L1	1875	A	O4'-C1'	10.20	1.57	1.42
32	S1	562	U	C2'-C1'	10.20	1.68	1.53
32	S1	1371	U	O4'-C1'	10.20	1.56	1.41
32	S1	453	C	O4'-C1'	10.19	1.56	1.41
33	L1	237	C	C2'-C1'	-10.19	1.38	1.53
33	L1	409	U	C2'-C1'	-10.19	1.38	1.53
34	L3	22	A	O4'-C1'	-10.19	1.26	1.41
32	S1	563	C	C2'-C1'	-10.18	1.38	1.53
32	S1	1464	G	C2'-C1'	-10.18	1.38	1.53
23	SU	29	VAL	CA-CB	-10.18	1.42	1.54
32	S1	1722	C	C2'-C1'	-10.18	1.38	1.53
32	S1	1250	C	C2'-C1'	-10.18	1.38	1.53
33	L1	60	G	C2'-C1'	-10.18	1.38	1.53
33	L1	1063	G	O4'-C1'	10.17	1.56	1.41
32	S1	495	C	C2'-C1'	-10.16	1.38	1.53
32	S1	1038	C	O4'-C1'	10.16	1.56	1.41
35	L2	18	C	C2'-C1'	-10.16	1.38	1.53
32	S1	343	C	O4'-C1'	10.16	1.56	1.41
32	S1	1478	C	O4'-C1'	10.16	1.57	1.42
33	L1	2687	C	O4'-C1'	10.16	1.56	1.41
32	S1	1299	G	O3'-P	-10.15	1.46	1.61
33	L1	3352	C	C2'-C1'	10.15	1.68	1.53
33	L1	1456	A	C2'-C1'	10.15	1.68	1.53
32	S1	1783	C	C2'-C1'	-10.15	1.38	1.53
33	L1	745	G	O4'-C1'	10.15	1.56	1.41
33	L1	562	G	C2'-C1'	-10.14	1.38	1.53
11	SM	21	ASP	C-N	10.14	1.44	1.32
24	SX	53	GLN	N-CA	-10.14	1.33	1.46
33	L1	27	C	C2'-C1'	-10.13	1.38	1.53
33	L1	1554	C	O4'-C1'	10.13	1.56	1.41
33	L1	2474	A	O4'-C1'	-10.12	1.26	1.41
10	SL	84	VAL	N-CA	-10.12	1.34	1.46
32	S1	164	C	O4'-C1'	10.12	1.56	1.41
1	Sa	266	THR	CA-C	-10.11	1.40	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	602	U	C2'-C1'	-10.12	1.38	1.53
84	LI	116	ARG	C-O	-10.12	1.11	1.24
28	SN	11	PRO	N-CA	10.11	1.60	1.47
33	L1	710	C	O4'-C1'	10.11	1.56	1.41
33	L1	3061	C	O4'-C1'	10.11	1.56	1.41
33	L1	3270	C	O4'-C1'	10.11	1.56	1.41
33	L1	2825	G	C2'-C1'	10.11	1.68	1.53
33	L1	3296	C	C2'-C1'	10.11	1.68	1.53
35	L2	125	A	O4'-C1'	10.11	1.56	1.41
55	Lg	82	ARG	CA-C	-10.11	1.40	1.52
4	SD	151	ASP	CA-CB	10.10	1.69	1.53
33	L1	2012	C	O4'-C1'	10.10	1.56	1.41
33	L1	2704	U	O4'-C1'	10.10	1.56	1.41
34	L3	3	A	C2'-C1'	10.10	1.68	1.53
31	S2	11	U	C2'-C1'	-10.10	1.38	1.53
33	L1	1363	C	C2'-C1'	-10.10	1.38	1.53
33	L1	2870	U	O4'-C1'	10.10	1.56	1.41
32	S1	1799	G	C2'-C1'	-10.09	1.38	1.53
46	LT	136	ARG	C-O	-10.09	1.12	1.23
33	L1	1236	C	O4'-C1'	10.09	1.56	1.41
33	L1	2333	U	O4'-C1'	-10.09	1.26	1.41
33	L1	2761	A	C2'-C1'	-10.09	1.38	1.53
32	S1	1225	A	O3'-P	-10.08	1.46	1.61
33	L1	128	C	O4'-C1'	10.08	1.56	1.41
33	L1	630	C	O4'-C1'	10.08	1.56	1.41
33	L1	938	U	C2'-C1'	10.07	1.68	1.53
33	L1	26	A	O4'-C1'	10.07	1.56	1.41
23	SU	8	PRO	N-CD	-10.07	1.33	1.47
81	LD	90	ARG	C-O	-10.07	1.11	1.24
33	L1	1516	G	C2'-C1'	-10.07	1.38	1.53
32	S1	404	A	O4'-C1'	-10.05	1.26	1.41
33	L1	350	A	O4'-C1'	-10.05	1.26	1.42
33	L1	3129	G	C2'-C1'	-10.05	1.38	1.53
35	L2	145	C	C2'-C1'	10.05	1.68	1.53
35	L2	122	C	C2'-C1'	-10.04	1.38	1.53
32	S1	1762	C	O4'-C1'	10.04	1.56	1.41
33	L1	397	A	O4'-C1'	-10.04	1.26	1.41
33	L1	2033	C	O4'-C1'	10.04	1.56	1.41
33	L1	2640	A	O4'-C1'	-10.04	1.26	1.41
32	S1	950	U	O4'-C1'	10.04	1.56	1.41
33	L1	940	G	O3'-P	-10.04	1.46	1.61
32	S1	346	C	O4'-C1'	10.03	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	SC	165	PRO	N-CA	10.03	1.60	1.47
32	S1	693	C	O4'-C1'	10.03	1.56	1.41
32	S1	1632	C	C2'-C1'	-10.03	1.38	1.53
33	L1	2676	A	O4'-C1'	10.03	1.56	1.41
32	S1	1043	C	O4'-C1'	10.03	1.56	1.41
33	L1	563	C	C2'-C1'	-10.03	1.38	1.53
32	S1	1765	A	O4'-C1'	-10.02	1.26	1.42
33	L1	655	G	C2'-C1'	-10.02	1.38	1.53
33	L1	1345	U	O4'-C1'	10.02	1.56	1.41
32	S1	1784	G	C2'-C1'	-10.02	1.38	1.53
32	S1	137	A	C2'-C1'	-10.01	1.38	1.53
33	L1	233	C	O4'-C1'	10.01	1.56	1.41
33	L1	2049	C	O4'-C1'	10.01	1.56	1.41
32	S1	1775	A	C2'-C1'	-10.01	1.38	1.53
35	L2	135	G	C2'-C1'	-10.00	1.38	1.53
32	S1	144	U	O4'-C1'	10.00	1.56	1.41
33	L1	2935	A	O4'-C1'	10.00	1.56	1.41
32	S1	1633	C	O4'-C1'	10.00	1.56	1.41
33	L1	2172	C	O4'-C1'	10.00	1.56	1.42
33	L1	2302	G	C2'-C1'	-10.00	1.38	1.53
32	S1	1770	G	C2'-C1'	-9.99	1.38	1.53
34	L3	49	A	C2'-C1'	-9.99	1.38	1.53
32	S1	148	C	O4'-C1'	9.99	1.56	1.41
33	L1	726	C	O4'-C1'	9.99	1.56	1.41
32	S1	17	C	O4'-C1'	9.98	1.56	1.41
33	L1	1440	C	C2'-C1'	-9.98	1.38	1.53
33	L1	4	C	O4'-C1'	9.98	1.56	1.41
32	S1	1337	C	O4'-C1'	9.97	1.56	1.41
35	L2	19	G	C2'-C1'	-9.97	1.38	1.53
31	S2	16	U	O4'-C1'	9.96	1.56	1.41
33	L1	21	G	O4'-C1'	-9.96	1.27	1.42
31	S2	46	A	C2'-C1'	9.96	1.68	1.53
1	Sa	332	MET	CA-C	-9.96	1.40	1.52
33	L1	55	G	O4'-C1'	-9.96	1.26	1.41
15	SS	124	ARG	C-N	9.95	1.47	1.33
33	L1	1892	A	O4'-C1'	9.95	1.56	1.41
32	S1	879	C	C2'-C1'	-9.94	1.38	1.53
33	L1	471	C	O4'-C1'	9.94	1.56	1.41
33	L1	1592	U	O4'-C1'	9.94	1.56	1.42
33	L1	2373	C	C2'-C1'	9.94	1.68	1.53
8	SJ	78	PRO	C-O	-9.94	1.11	1.24
36	LA	31	VAL	CA-C	9.94	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	933	G	C2'-C1'	9.93	1.68	1.53
33	L1	1432	G	C2'-C1'	-9.93	1.38	1.53
33	L1	1886	U	C2'-C1'	-9.93	1.38	1.53
33	L1	3003	C	O4'-C1'	9.93	1.56	1.41
33	L1	3240	C	O4'-C1'	9.93	1.56	1.42
32	S1	1602	G	C2'-C1'	-9.93	1.38	1.53
33	L1	1748	A	C2'-C1'	-9.93	1.38	1.53
33	L1	3314	G	C2'-C1'	-9.92	1.38	1.53
33	L1	3011	U	C2'-C1'	9.92	1.68	1.53
33	L1	2699	A	O4'-C1'	9.92	1.56	1.41
32	S1	1066	U	O4'-C1'	9.91	1.56	1.41
78	Le	162	ARG	C-O	-9.91	1.12	1.24
33	L1	232	C	C2'-C1'	-9.90	1.38	1.53
45	LQ	137	ASP	C-O	-9.90	1.06	1.23
33	L1	886	A	O4'-C1'	9.90	1.56	1.41
33	L1	3323	U	C2'-C1'	9.90	1.68	1.53
33	L1	686	A	C2'-C1'	-9.90	1.38	1.53
33	L1	3290	C	C2'-C1'	-9.89	1.38	1.53
31	S2	47	U	C2'-C1'	9.89	1.67	1.53
32	S1	1514	G	C2'-C1'	-9.89	1.38	1.53
33	L1	3121	C	O4'-C1'	9.89	1.56	1.41
32	S1	1539	A	O4'-C1'	9.89	1.56	1.41
33	L1	125	G	C2'-C1'	-9.89	1.38	1.53
33	L1	230	G	O4'-C1'	9.89	1.56	1.41
33	L1	3301	G	C2'-C1'	9.88	1.68	1.53
32	S1	1370	C	O4'-C1'	9.88	1.56	1.41
32	S1	108	C	O4'-C1'	9.88	1.56	1.41
32	S1	174	C	O4'-C1'	9.88	1.56	1.41
33	L1	2025	C	O4'-C1'	9.88	1.56	1.41
33	L1	1997	G	O4'-C1'	9.87	1.56	1.41
33	L1	2336	C	C2'-C1'	-9.86	1.38	1.53
32	S1	569	C	O4'-C1'	9.86	1.56	1.42
33	L1	2018	C	O4'-C1'	9.86	1.56	1.41
33	L1	1735	U	O4'-C1'	9.86	1.56	1.41
4	SD	212	ASP	N-CA	-9.86	1.33	1.45
77	Lc	98	PRO	CA-CB	-9.85	1.39	1.53
33	L1	1076	G	O4'-C1'	9.85	1.56	1.41
51	LY	57	VAL	C-N	9.85	1.45	1.33
33	L1	2032	C	O4'-C1'	9.84	1.56	1.41
33	L1	2491	A	C2'-C1'	-9.84	1.38	1.53
35	L2	93	A	O4'-C1'	9.84	1.56	1.42
64	LG	152	LYS	N-CA	-9.84	1.34	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
83	Lm	8	ALA	CA-C	-9.84	1.39	1.52
32	S1	1543	U	O4'-C1'	-9.84	1.27	1.42
33	L1	231	C	C2'-C1'	-9.84	1.38	1.53
33	L1	1496	G	C2'-C1'	9.84	1.67	1.53
33	L1	2753	C	C2'-C1'	-9.83	1.38	1.53
32	S1	1402	C	O4'-C1'	9.83	1.56	1.41
33	L1	3319	G	C2'-C1'	-9.82	1.38	1.53
33	L1	2738	U	C2'-C1'	-9.82	1.38	1.53
32	S1	88	C	O4'-C1'	9.81	1.56	1.41
33	L1	1675	G	O4'-C1'	-9.81	1.26	1.41
32	S1	1691	C	O4'-C1'	9.81	1.56	1.41
33	L1	491	G	C2'-C1'	-9.80	1.38	1.53
33	L1	2	C	O4'-C1'	9.80	1.56	1.41
33	L1	2284	U	O4'-C1'	9.80	1.56	1.41
33	L1	3342	C	O4'-C1'	9.80	1.56	1.41
15	SS	14	PRO	CA-CB	-9.80	1.39	1.53
32	S1	994	U	C2'-C1'	9.80	1.68	1.53
32	S1	1707	G	C2'-C1'	9.80	1.68	1.53
32	S1	666	C	O4'-C1'	9.79	1.56	1.41
33	L1	548	G	C2'-C1'	-9.79	1.38	1.53
33	L1	1382	C	O4'-C1'	9.79	1.56	1.41
34	L3	40	A	O4'-C1'	-9.79	1.26	1.41
34	L3	75	G	P-O5'	-9.79	1.45	1.59
33	L1	375	G	C2'-C1'	-9.79	1.38	1.53
33	L1	2521	C	C2'-C1'	-9.79	1.38	1.53
71	Lj	8	ARG	CA-CB	9.78	1.67	1.53
13	SQ	22	SER	CA-CB	9.78	1.70	1.53
32	S1	1434	G	C2'-C1'	-9.78	1.38	1.53
32	S1	591	C	O4'-C1'	9.77	1.56	1.41
33	L1	1414	C	C2'-C1'	-9.77	1.38	1.53
33	L1	2234	G	C2'-C1'	-9.77	1.38	1.53
33	L1	2998	A	C2'-C1'	9.77	1.68	1.53
48	LV	128	ARG	CD-NE	9.77	1.59	1.46
29	ST	42	ASN	CA-CB	9.76	1.65	1.53
32	S1	1506	G	C2'-C1'	-9.76	1.38	1.53
33	L1	722	C	O4'-C1'	-9.76	1.27	1.41
33	L1	2503	A	O4'-C1'	9.76	1.56	1.41
33	L1	3101	C	C4'-C3'	9.76	1.67	1.52
33	L1	3231	G	C2'-C1'	-9.76	1.38	1.53
33	L1	755	C	O4'-C1'	9.75	1.56	1.42
32	S1	1743	C	C2'-C1'	-9.75	1.38	1.53
33	L1	916	A	O4'-C1'	-9.75	1.27	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2814	C	O4'-C1'	9.75	1.56	1.41
80	LC	352	ARG	CA-CB	9.75	1.69	1.53
33	L1	2462	G	C2'-C1'	9.74	1.68	1.53
33	L1	843	C	C2'-C1'	-9.74	1.38	1.53
33	L1	2485	U	O4'-C1'	-9.74	1.27	1.41
33	L1	2856	U	C2'-C1'	9.74	1.68	1.53
57	L1	11	ARG	C-O	-9.74	1.11	1.24
83	Lm	8	ALA	N-CA	9.74	1.58	1.46
44	LR	98	MET	CA-CB	9.73	1.70	1.53
84	LI	109	ASP	C-N	9.73	1.47	1.33
49	LX	31	ARG	NE-CZ	9.73	1.43	1.33
33	L1	280	G	O4'-C1'	-9.73	1.27	1.41
33	L1	1715	C	C5'-C4'	-9.73	1.36	1.51
32	S1	1654	C	O4'-C1'	9.73	1.56	1.41
48	LV	80	GLY	C-N	9.73	1.47	1.33
33	L1	683	U	O4'-C1'	9.73	1.56	1.41
33	L1	2580	C	O4'-C1'	9.73	1.56	1.41
32	S1	1735	C	O4'-C1'	9.72	1.56	1.41
33	L1	3229	C	C2'-C1'	-9.72	1.38	1.53
32	S1	336	U	C2'-C1'	9.72	1.68	1.53
33	L1	994	U	C2'-C1'	-9.72	1.38	1.53
33	L1	853	U	C2'-C1'	9.71	1.68	1.53
33	L1	3375	G	O4'-C1'	9.71	1.56	1.41
32	S1	378	U	O4'-C1'	9.71	1.56	1.41
33	L1	126	G	C2'-C1'	-9.71	1.38	1.53
33	L1	1525	U	O4'-C1'	9.71	1.56	1.42
33	L1	2783	U	O4'-C1'	-9.71	1.27	1.41
35	L2	32	C	O4'-C1'	9.70	1.56	1.41
33	L1	315	A	C2'-C1'	-9.70	1.38	1.53
33	L1	2631	A	C5'-C4'	9.70	1.65	1.51
49	LX	34	LYS	CA-C	9.70	1.65	1.52
32	S1	896	C	O4'-C1'	9.70	1.56	1.41
32	S1	1389	G	O4'-C1'	9.70	1.56	1.41
33	L1	1994	C	O4'-C1'	9.69	1.56	1.41
1	Sa	251	ASP	CA-C	-9.68	1.40	1.52
33	L1	744	C	C2'-C1'	-9.68	1.38	1.53
35	L2	151	C	O4'-C1'	9.68	1.56	1.41
32	S1	324	U	O4'-C1'	9.68	1.56	1.41
33	L1	931	C	O4'-C1'	9.68	1.56	1.41
33	L1	1784	C	O4'-C1'	9.68	1.56	1.41
32	S1	574	A	C2'-C1'	9.67	1.67	1.53
33	L1	1486	G	C2'-C1'	9.67	1.67	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2443	C	O4'-C1'	9.67	1.56	1.41
32	S1	1738	U	O4'-C1'	9.67	1.56	1.41
33	L1	2755	U	O4'-C1'	9.67	1.56	1.41
55	Lg	4	LYS	CA-C	-9.67	1.40	1.52
33	L1	3388	U	C2'-C1'	9.67	1.67	1.53
31	S2	49	G	C2'-C1'	-9.66	1.38	1.53
32	S1	654	C	O4'-C1'	9.66	1.56	1.41
5	SE	193	PRO	C-N	9.66	1.47	1.33
32	S1	1072	U	O4'-C1'	9.65	1.56	1.41
33	L1	681	A	C2'-C1'	9.65	1.67	1.53
33	L1	1736	C	C2'-C1'	-9.65	1.38	1.53
33	L1	708	C	O4'-C1'	9.64	1.56	1.41
33	L1	2026	C	O4'-C1'	9.64	1.56	1.41
32	S1	104	A	O3'-P	-9.64	1.46	1.61
33	L1	1673	A	C2'-C1'	-9.64	1.38	1.53
3	SB	124	ARG	CD-NE	9.64	1.59	1.46
33	L1	264	C	C2'-C1'	-9.63	1.38	1.53
33	L1	2839	A	C2'-C1'	9.64	1.67	1.53
56	Lh	107	LYS	C-N	9.64	1.47	1.33
81	LD	94	GLY	C-O	-9.63	1.10	1.23
33	L1	1391	A	O4'-C1'	9.63	1.56	1.41
73	Lp	14	ASN	CA-C	-9.63	1.40	1.52
7	SI	53	LYS	C-N	9.62	1.45	1.33
32	S1	286	C	O4'-C1'	9.62	1.56	1.41
33	L1	1133	A	O4'-C1'	9.62	1.56	1.41
33	L1	1582	C	C2'-C1'	-9.62	1.39	1.53
32	S1	586	U	O4'-C1'	9.62	1.56	1.42
32	S1	1761	G	C2'-C1'	-9.62	1.39	1.53
82	LK	136	PRO	N-CA	9.62	1.59	1.47
4	SD	151	ASP	N-CA	9.61	1.59	1.46
33	L1	459	G	O4'-C1'	9.61	1.56	1.41
33	L1	859	G	C2'-C1'	-9.61	1.39	1.53
33	L1	910	G	C2'-C1'	-9.61	1.38	1.53
33	L1	111	C	O4'-C1'	9.61	1.56	1.41
33	L1	859	G	O4'-C1'	9.61	1.56	1.41
33	L1	2546	C	C2'-C1'	-9.61	1.39	1.53
64	LG	184	ILE	CA-C	9.61	1.65	1.52
33	L1	1622	G	O4'-C1'	9.60	1.56	1.41
11	SM	141	ARG	C-N	-9.60	1.20	1.33
33	L1	2343	U	O4'-C1'	9.60	1.56	1.41
32	S1	1353	G	C2'-C1'	-9.60	1.39	1.53
35	L2	18	C	O4'-C1'	9.60	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
42	LP	74	PRO	CA-CB	-9.60	1.39	1.53
33	L1	2515	C	O4'-C1'	9.60	1.56	1.41
33	L1	2048	C	O4'-C1'	9.59	1.56	1.41
60	Lr	46	LYS	C-O	-9.58	1.11	1.24
33	L1	1047	C	O4'-C1'	9.58	1.56	1.41
70	Li	107	LEU	CA-C	9.58	1.65	1.52
33	L1	1107	G	O4'-C1'	9.58	1.56	1.41
34	L3	56	G	O4'-C1'	9.58	1.56	1.41
33	L1	1935	G	C2'-C1'	-9.57	1.39	1.53
49	LX	77	LEU	C-N	9.57	1.45	1.33
8	SJ	107	VAL	CA-CB	-9.57	1.43	1.54
14	SP	112	VAL	CA-C	-9.56	1.43	1.53
33	L1	70	A	O4'-C1'	9.56	1.56	1.42
33	L1	1457	A	O4'-C1'	9.56	1.56	1.42
33	L1	2331	A	C2'-C1'	9.56	1.67	1.53
80	LC	17	LEU	CA-CB	9.56	1.68	1.53
32	S1	501	U	C2'-C1'	-9.56	1.39	1.53
33	L1	431	G	C2'-C1'	-9.55	1.39	1.53
33	L1	696	A	O4'-C1'	9.56	1.55	1.41
33	L1	3095	G	C2'-C1'	-9.55	1.39	1.53
32	S1	1339	C	O4'-C1'	9.55	1.55	1.41
33	L1	18	G	C2'-C1'	-9.55	1.39	1.53
33	L1	2454	U	C2'-C1'	-9.55	1.39	1.53
33	L1	2909	A	C2'-C1'	9.54	1.67	1.53
80	LC	70	LYS	CA-CB	9.54	1.69	1.53
24	SX	70	GLY	C-N	9.54	1.47	1.33
32	S1	983	A	C2'-C1'	-9.54	1.39	1.53
32	S1	1383	U	C2'-C1'	-9.54	1.39	1.53
6	SF	165	ILE	CA-CB	-9.53	1.42	1.54
32	S1	1245	G	C2'-C1'	9.53	1.67	1.53
33	L1	602	G	C2'-C1'	-9.53	1.39	1.53
33	L1	1496	G	O4'-C1'	-9.53	1.27	1.42
9	SK	96	LEU	CA-C	-9.53	1.40	1.53
33	L1	426	A	C2'-C1'	-9.53	1.39	1.53
33	L1	720	G	C2'-C1'	9.53	1.67	1.53
33	L1	1749	G	C2'-C1'	-9.53	1.39	1.53
33	L1	2638	A	O4'-C1'	9.52	1.56	1.42
33	L1	1715	C	P-O5'	-9.52	1.45	1.59
33	L1	2731	G	C2'-C1'	-9.52	1.39	1.53
33	L1	1260	G	O4'-C1'	9.52	1.55	1.41
32	S1	1699	C	C2'-C1'	-9.52	1.39	1.53
33	L1	693	C	O4'-C1'	9.51	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	975	G	C2'-C1'	-9.51	1.39	1.53
35	L2	39	C	O3'-P	9.51	1.75	1.61
32	S1	657	C	O4'-C1'	9.51	1.55	1.41
33	L1	2498	C	O4'-C1'	9.51	1.55	1.41
32	S1	1194	C	O4'-C1'	9.50	1.56	1.42
32	S1	1458	U	C2'-C1'	-9.50	1.39	1.53
80	LC	295	SER	C-O	-9.50	1.12	1.23
33	L1	744	C	O4'-C1'	9.50	1.55	1.41
32	S1	1645	C	C2'-C1'	-9.49	1.38	1.53
33	L1	445	C	O4'-C1'	9.49	1.55	1.41
33	L1	1696	G	C2'-C1'	9.49	1.67	1.53
33	L1	552	G	O4'-C1'	9.49	1.55	1.41
33	L1	92	C	O4'-C1'	9.49	1.56	1.42
33	L1	2228	A	C2'-C1'	9.49	1.67	1.53
60	Lr	89	LYS	CA-CB	9.49	1.69	1.53
15	SS	92	PRO	C-O	-9.48	1.13	1.24
33	L1	35	U	O4'-C1'	9.48	1.55	1.41
33	L1	1305	A	O4'-C1'	9.48	1.56	1.42
33	L1	1375	G	C3'-O3'	9.48	1.56	1.42
33	L1	3241	C	C2'-C1'	-9.48	1.39	1.53
81	LD	23	SER	C-O	-9.48	1.13	1.23
35	L2	158	G	O4'-C1'	-9.47	1.27	1.41
23	SU	80	LEU	CA-C	9.47	1.64	1.52
31	S2	31	C	C2'-C1'	-9.47	1.39	1.53
14	SP	106	SER	CB-OG	9.47	1.61	1.42
32	S1	1073	C	C2'-C1'	-9.47	1.39	1.53
33	L1	876	C	C2'-C1'	-9.47	1.39	1.53
32	S1	1015	C	O4'-C1'	9.47	1.55	1.41
32	S1	320	A	O4'-C1'	9.46	1.55	1.41
11	SM	22	GLY	N-CA	9.46	1.55	1.45
33	L1	133	G	O4'-C1'	-9.46	1.27	1.41
33	L1	3077	C	O4'-C1'	9.46	1.55	1.41
24	SX	75	LEU	N-CA	-9.46	1.33	1.46
33	L1	2727	U	C2'-C1'	-9.46	1.39	1.53
32	S1	1506	G	O4'-C1'	9.46	1.55	1.41
64	LG	44	ALA	CA-C	9.46	1.65	1.52
33	L1	697	A	C2'-C1'	-9.45	1.39	1.53
68	LW	88	LEU	CA-CB	-9.45	1.38	1.53
33	L1	1962	C	O4'-C1'	9.45	1.55	1.41
33	L1	1987	C	O4'-C1'	9.45	1.55	1.41
33	L1	1135	C	C2'-C1'	-9.45	1.39	1.53
35	L2	99	G	C2'-C1'	9.45	1.67	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	17	G	C2'-C1'	-9.45	1.39	1.53
33	L1	88	A	C2'-C1'	-9.44	1.39	1.53
27	SH	120	ASN	N-CA	-9.44	1.32	1.46
32	S1	305	A	O4'-C1'	-9.44	1.27	1.41
32	S1	25	C	O4'-C1'	9.44	1.56	1.42
33	L1	661	A	C2'-C1'	9.44	1.67	1.53
34	L3	72	G	C2'-C1'	-9.43	1.39	1.53
33	L1	605	A	C2'-C1'	9.43	1.67	1.53
33	L1	2763	C	O4'-C1'	9.43	1.55	1.41
33	L1	703	G	C2'-C1'	-9.43	1.39	1.53
33	L1	784	G	C2'-C1'	-9.43	1.39	1.53
64	LG	69	THR	N-CA	9.43	1.58	1.46
33	L1	218	G	O4'-C1'	9.42	1.56	1.42
59	Lo	22	PRO	CA-C	-9.42	1.40	1.52
33	L1	1895	G	C2'-C1'	-9.42	1.39	1.53
32	S1	576	C	C2'-C1'	-9.42	1.39	1.53
33	L1	1208	A	O4'-C1'	9.41	1.55	1.41
32	S1	1019	G	C2'-C1'	-9.41	1.39	1.53
33	L1	2279	C	O4'-C1'	9.41	1.55	1.41
33	L1	1675	G	C2'-C1'	9.41	1.67	1.53
32	S1	60	C	O4'-C1'	9.40	1.55	1.41
32	S1	652	G	C2'-C1'	-9.40	1.39	1.53
33	L1	602	G	O4'-C1'	9.40	1.55	1.41
33	L1	3210	G	C2'-C1'	9.40	1.67	1.53
32	S1	14	C	C2'-C1'	-9.39	1.39	1.53
67	LS	137	LYS	CA-C	-9.39	1.41	1.53
32	S1	627	A	C2'-C1'	9.39	1.67	1.53
33	L1	589	G	O4'-C1'	9.39	1.55	1.41
33	L1	3212	C	O4'-C1'	9.39	1.55	1.41
46	LT	100	ARG	CD-NE	9.39	1.59	1.46
32	S1	61	A	O4'-C1'	9.38	1.55	1.41
32	S1	1242	A	C5'-C4'	9.38	1.65	1.51
33	L1	2673	G	C2'-C1'	-9.38	1.39	1.53
33	L1	1014	G	O4'-C1'	9.38	1.55	1.41
33	L1	1253	G	C2'-C1'	9.38	1.67	1.53
33	L1	1599	A	O4'-C1'	9.38	1.55	1.41
33	L1	1780	C	O4'-C1'	9.38	1.55	1.41
20	SZ	61	GLU	C-N	9.38	1.46	1.33
35	L2	133	C	O4'-C1'	9.38	1.55	1.41
33	L1	611	C	C2'-C1'	9.37	1.67	1.53
33	L1	1682	C	C2'-C1'	-9.37	1.39	1.53
33	L1	2910	C	O4'-C1'	9.37	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3099	G	O4'-C1'	9.37	1.55	1.41
32	S1	350	G	C2'-C1'	-9.36	1.39	1.53
32	S1	1174	G	C2'-C1'	-9.36	1.39	1.53
33	L1	1961	C	O4'-C1'	9.36	1.55	1.41
33	L1	2749	A	C2'-C1'	-9.36	1.39	1.53
33	L1	554	C	O4'-C1'	9.36	1.55	1.41
33	L1	931	C	C2'-C1'	-9.36	1.39	1.53
33	L1	132	U	O4'-C1'	9.35	1.55	1.41
33	L1	1192	A	O4'-C1'	-9.35	1.27	1.42
35	L2	23	A	O4'-C1'	-9.35	1.27	1.41
10	SL	36	TRP	NE1-CE2	-9.34	1.27	1.37
32	S1	677	C	O4'-C1'	9.34	1.55	1.41
33	L1	1375	G	O4'-C1'	9.33	1.55	1.41
33	L1	2230	C	C3'-O3'	9.33	1.56	1.42
7	SI	72	ARG	CD-NE	9.33	1.59	1.46
32	S1	235	C	O4'-C1'	9.32	1.55	1.41
32	S1	1695	G	C2'-C1'	-9.32	1.39	1.53
27	SH	121	VAL	C-N	9.32	1.45	1.33
33	L1	558	G	C2'-C1'	-9.32	1.39	1.53
33	L1	3099	G	C4'-C3'	9.32	1.66	1.52
32	S1	1757	G	C2'-C1'	-9.31	1.39	1.53
37	LB	223	SER	CA-C	-9.31	1.40	1.52
33	L1	281	G	C2'-C1'	-9.31	1.39	1.53
33	L1	505	G	O4'-C1'	9.30	1.55	1.41
9	SK	51	THR	CA-C	9.30	1.64	1.52
33	L1	1270	G	C2'-C1'	-9.30	1.39	1.53
64	LG	62	SER	N-CA	-9.30	1.35	1.46
33	L1	679	C	C2'-C1'	-9.30	1.39	1.53
32	S1	642	C	O4'-C1'	9.29	1.55	1.41
32	S1	1411	C	O4'-C1'	9.29	1.55	1.41
5	SE	58	ARG	NE-CZ	9.29	1.43	1.33
33	L1	3377	G	O4'-C1'	9.28	1.55	1.41
32	S1	164	C	C2'-C1'	-9.28	1.39	1.53
32	S1	1050	C	C2'-C1'	-9.28	1.39	1.53
31	S2	27	G	C2'-C1'	-9.28	1.39	1.53
32	S1	938	A	O4'-C1'	9.28	1.55	1.41
33	L1	632	C	C2'-C1'	-9.28	1.39	1.53
64	LG	20	TYR	CA-C	-9.28	1.41	1.52
33	L1	513	C	C2'-C1'	-9.27	1.39	1.53
33	L1	2713	G	C2'-C1'	-9.27	1.39	1.53
33	L1	3322	A	C2'-C1'	-9.27	1.39	1.53
33	L1	1203	C	O4'-C1'	9.26	1.55	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2088	C	C2'-C1'	-9.26	1.39	1.53
33	L1	857	G	O4'-C1'	-9.26	1.27	1.41
32	S1	1434	G	O4'-C1'	9.26	1.55	1.41
33	L1	2792	A	O4'-C1'	-9.26	1.27	1.41
35	L2	34	C	O4'-C1'	9.26	1.55	1.41
33	L1	2132	A	O4'-C1'	-9.26	1.28	1.42
32	S1	1315	U	C2'-C1'	9.26	1.67	1.53
32	S1	1557	C	O4'-C1'	9.26	1.55	1.41
33	L1	2382	C	O4'-C1'	9.25	1.55	1.41
27	SH	79	PHE	N-CA	9.25	1.58	1.46
33	L1	479	C	O4'-C1'	9.25	1.55	1.41
33	L1	2365	C	C2'-C1'	-9.25	1.39	1.53
3	SB	81	GLU	C-O	-9.25	1.12	1.24
32	S1	309	C	O4'-C1'	9.25	1.55	1.41
33	L1	3317	G	C2'-C1'	9.25	1.67	1.53
33	L1	2584	U	C2'-C1'	-9.24	1.39	1.53
23	SU	9	ALA	N-CA	9.24	1.57	1.46
32	S1	1385	C	C2'-C1'	-9.24	1.39	1.53
33	L1	1759	C	O4'-C1'	9.24	1.55	1.41
33	L1	3088	A	C4'-C3'	9.24	1.66	1.52
13	SQ	21	TYR	CA-CB	9.23	1.69	1.53
19	SY	10	VAL	CA-C	-9.23	1.42	1.52
33	L1	1251	U	O4'-C1'	-9.23	1.27	1.41
13	SQ	109	LEU	C-O	-9.23	1.11	1.23
32	S1	259	A	O4'-C1'	9.23	1.55	1.41
33	L1	3272	A	C2'-C1'	-9.23	1.39	1.53
33	L1	1343	C	O4'-C1'	9.23	1.55	1.41
33	L1	1737	C	O4'-C1'	9.22	1.55	1.41
12	SO	67	THR	C-O	-9.22	1.12	1.24
23	SU	24	SER	N-CA	-9.22	1.34	1.46
33	L1	460	A	C2'-C1'	9.22	1.67	1.53
1	Sa	246	HIS	ND1-CE1	9.22	1.41	1.32
32	S1	1807	A	O3'-P	-9.21	1.47	1.61
33	L1	2648	G	C2'-C1'	-9.21	1.39	1.53
33	L1	3037	G	O4'-C1'	9.21	1.55	1.41
33	L1	585	A	C2'-C1'	-9.21	1.39	1.53
32	S1	648	C	O4'-C1'	9.21	1.55	1.41
32	S1	100	C	O4'-C1'	9.21	1.55	1.42
33	L1	907	A	C2'-C1'	-9.21	1.39	1.53
33	L1	1906	A	C2'-C1'	9.20	1.67	1.53
32	S1	1112	G	O4'-C1'	9.20	1.55	1.41
32	S1	1683	G	O4'-C1'	9.20	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2676	A	P-O5'	-9.20	1.46	1.59
33	L1	2280	C	C2'-C1'	-9.20	1.39	1.53
32	S1	23	G	C2'-C1'	-9.20	1.39	1.53
33	L1	778	G	C2'-C1'	-9.20	1.39	1.53
33	L1	1550	A	O4'-C1'	9.19	1.55	1.41
33	L1	3269	C	O4'-C1'	9.19	1.55	1.41
39	LF	88	ARG	CD-NE	9.19	1.59	1.46
41	LM	53	PRO	N-CA	-9.19	1.36	1.47
32	S1	1696	C	O4'-C1'	9.19	1.55	1.41
41	LM	14	PHE	CA-C	9.19	1.65	1.53
32	S1	1790	G	C2'-C1'	-9.19	1.39	1.53
33	L1	1954	G	C4'-C3'	9.19	1.66	1.52
33	L1	3048	C	O4'-C1'	9.18	1.55	1.41
23	SU	78	PHE	CA-C	9.18	1.63	1.52
7	SI	126	ASP	CA-CB	9.18	1.69	1.53
56	Lh	37	LYS	CA-C	9.18	1.64	1.52
33	L1	974	G	C2'-C1'	-9.18	1.39	1.53
33	L1	2532	A	C2'-C1'	-9.18	1.39	1.53
35	L2	36	C	C2'-C1'	-9.17	1.39	1.53
49	LX	125	ARG	CD-NE	9.17	1.59	1.46
32	S1	854	C	C2'-C1'	-9.17	1.39	1.53
33	L1	2868	C	C2'-C1'	9.17	1.66	1.53
33	L1	2423	A	O4'-C1'	-9.17	1.27	1.41
43	LO	82	VAL	CA-CB	-9.16	1.47	1.53
25	SC	171	PRO	CG-CD	9.16	1.81	1.50
32	S1	70	C	O4'-C1'	9.16	1.55	1.41
32	S1	1232	G	C2'-C1'	-9.16	1.39	1.53
2	SA	204	ASP	C-O	-9.16	1.14	1.23
33	L1	183	C	O3'-P	-9.16	1.47	1.61
33	L1	2173	G	C2'-C1'	-9.16	1.39	1.53
33	L1	3271	A	O4'-C1'	9.16	1.55	1.42
24	SX	75	LEU	CA-C	-9.16	1.40	1.52
33	L1	581	G	C2'-C1'	-9.16	1.39	1.53
33	L1	2540	C	O4'-C1'	9.15	1.55	1.41
33	L1	1027	C	C2'-C1'	9.15	1.67	1.53
33	L1	15	C	O4'-C1'	9.15	1.55	1.41
33	L1	888	U	C2'-C1'	9.15	1.67	1.53
33	L1	990	U	C2'-C1'	-9.15	1.39	1.53
33	L1	2479	C	O4'-C1'	9.15	1.55	1.41
31	S2	50	G	C2'-C1'	-9.15	1.39	1.53
33	L1	1022	G	O4'-C1'	-9.15	1.27	1.41
8	SJ	89	PHE	N-CA	-9.14	1.35	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	906	G	C2'-C1'	-9.14	1.39	1.53
33	L1	272	G	O4'-C1'	9.14	1.55	1.41
33	L1	482	C	O4'-C1'	9.14	1.55	1.41
33	L1	1472	C	O4'-C1'	9.14	1.55	1.41
33	L1	2471	C	O4'-C1'	9.14	1.55	1.41
3	SB	170	ALA	N-CA	-9.14	1.34	1.46
32	S1	1781	U	O4'-C1'	9.14	1.55	1.41
33	L1	2301	C	C2'-C1'	-9.14	1.39	1.53
45	LQ	260	GLU	CA-C	9.14	1.64	1.52
32	S1	595	A	C2'-C1'	-9.13	1.39	1.53
46	LT	172	ARG	CD-NE	9.13	1.59	1.46
51	LY	9	SER	C-O	-9.13	1.12	1.24
33	L1	3275	G	C2'-C1'	-9.13	1.39	1.53
32	S1	1503	C	O4'-C1'	9.13	1.55	1.41
33	L1	2369	G	C2'-C1'	-9.13	1.39	1.53
34	L3	76	U	O4'-C1'	9.13	1.55	1.41
82	LK	11	ARG	C-O	-9.13	1.12	1.24
35	L2	122	C	O4'-C1'	9.12	1.55	1.41
33	L1	2909	A	O4'-C1'	-9.12	1.27	1.41
33	L1	890	G	C2'-C1'	-9.12	1.39	1.53
33	L1	2578	G	C2'-C1'	-9.12	1.39	1.53
33	L1	960	C	C2'-C1'	-9.12	1.39	1.53
33	L1	1081	U	O4'-C1'	-9.12	1.27	1.41
33	L1	3084	G	O4'-C1'	-9.11	1.27	1.41
32	S1	680	C	O4'-C1'	9.11	1.55	1.41
33	L1	433	C	C2'-C1'	-9.11	1.39	1.53
33	L1	1568	A	O4'-C1'	-9.11	1.27	1.41
33	L1	1790	A	C2'-C1'	-9.11	1.39	1.53
33	L1	2029	G	C2'-C1'	-9.11	1.39	1.53
45	LQ	290	SER	N-CA	9.11	1.57	1.46
32	S1	10	G	C2'-C1'	-9.10	1.39	1.53
33	L1	2436	G	O4'-C1'	-9.10	1.28	1.42
33	L1	3072	A	O4'-C1'	9.10	1.55	1.41
13	SQ	61	ILE	N-CA	9.10	1.58	1.46
33	L1	540	G	C2'-C1'	-9.10	1.39	1.53
33	L1	2795	G	C2'-C1'	-9.10	1.39	1.53
33	L1	2994	U	O4'-C1'	9.10	1.55	1.41
32	S1	875	C	O4'-C1'	9.10	1.55	1.41
32	S1	1446	C	C2'-C1'	-9.10	1.39	1.53
43	LO	137	GLY	C-O	-9.10	1.08	1.24
32	S1	1663	A	O4'-C1'	9.09	1.55	1.41
71	Lj	95	PRO	C-N	9.09	1.45	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
45	LQ	112	THR	C-O	-9.09	1.12	1.24
32	S1	1442	A	O4'-C1'	9.09	1.55	1.41
33	L1	675	C	O4'-C1'	9.09	1.55	1.41
33	L1	2029	G	O4'-C1'	9.08	1.55	1.41
72	Lk	93	MET	N-CA	-9.08	1.33	1.46
33	L1	246	C	C2'-C1'	9.08	1.67	1.53
33	L1	2031	G	C2'-C1'	-9.07	1.39	1.53
32	S1	1219	C	O4'-C1'	9.07	1.55	1.41
32	S1	1163	C	O4'-C1'	9.07	1.55	1.42
57	L1	11	ARG	CA-CB	9.07	1.68	1.53
33	L1	1075	G	C2'-C1'	-9.06	1.39	1.53
33	L1	775	A	O4'-C1'	9.06	1.55	1.41
33	L1	2037	C	C2'-C1'	-9.06	1.39	1.53
33	L1	2566	C	O4'-C1'	9.06	1.55	1.41
32	S1	351	G	C2'-C1'	-9.06	1.39	1.53
35	L2	94	C	O4'-C1'	-9.05	1.28	1.42
33	L1	1973	C	O4'-C1'	9.04	1.55	1.41
32	S1	1283	C	O4'-C1'	9.04	1.55	1.41
33	L1	1906	A	O4'-C1'	-9.04	1.28	1.41
32	S1	624	A	O4'-C1'	9.03	1.55	1.41
34	L3	98	G	C2'-C1'	-9.04	1.39	1.53
33	L1	1384	G	O4'-C1'	-9.03	1.28	1.41
32	S1	275	C	C2'-C1'	-9.03	1.39	1.53
32	S1	634	A	C5'-C4'	9.03	1.64	1.51
33	L1	454	A	O4'-C1'	9.03	1.55	1.41
33	L1	3224	C	O4'-C1'	9.03	1.55	1.41
33	L1	1965	C	O4'-C1'	9.03	1.55	1.41
33	L1	2215	A	O4'-C1'	9.03	1.55	1.41
33	L1	434	C	O4'-C1'	9.02	1.55	1.41
33	L1	2745	C	C2'-C1'	-9.02	1.39	1.53
32	S1	947	G	C2'-C1'	-9.02	1.39	1.53
33	L1	2482	A	C2'-C1'	-9.01	1.39	1.53
33	L1	3164	C	O4'-C1'	9.01	1.55	1.41
33	L1	841	G	O4'-C1'	-9.01	1.28	1.42
33	L1	3127	C	C2'-C1'	-9.01	1.39	1.53
33	L1	2150	C	C2'-C1'	-9.01	1.39	1.53
33	L1	3086	G	O4'-C1'	-9.01	1.28	1.41
33	L1	3170	C	O4'-C1'	9.01	1.55	1.41
69	La	45	GLY	CA-C	-9.01	1.39	1.51
33	L1	735	C	O4'-C1'	9.00	1.55	1.41
33	L1	1623	C	C2'-C1'	-9.00	1.39	1.53
33	L1	486	G	C2'-C1'	-9.00	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1637	G	O4'-C1'	-9.00	1.28	1.41
32	S1	1295	G	O4'-C1'	9.00	1.55	1.41
33	L1	818	G	O4'-C1'	-9.00	1.28	1.41
32	S1	1091	A	O4'-C1'	9.00	1.55	1.41
33	L1	3021	U	O4'-C1'	-8.99	1.28	1.41
32	S1	362	U	O4'-C1'	8.99	1.55	1.41
32	S1	668	C	O4'-C1'	8.99	1.55	1.41
11	SM	82	TRP	N-CA	-8.99	1.34	1.46
33	L1	3216	G	C2'-C1'	8.99	1.66	1.53
32	S1	1080	C	O4'-C1'	8.99	1.55	1.41
66	LN	64	ARG	CZ-NH1	8.98	1.45	1.32
33	L1	2619	C	C2'-C1'	-8.98	1.39	1.53
4	SD	152	PRO	C-N	8.97	1.45	1.33
60	Lr	32	LYS	CA-C	8.97	1.63	1.52
33	L1	1025	G	O4'-C1'	8.97	1.55	1.41
34	L3	39	C	C2'-C1'	-8.97	1.39	1.53
33	L1	111	C	C2'-C1'	-8.97	1.39	1.53
9	SK	83	ARG	CD-NE	8.96	1.58	1.46
32	S1	1798	G	C2'-C1'	-8.96	1.40	1.53
33	L1	2145	C	O4'-C1'	8.96	1.55	1.41
33	L1	1235	A	O4'-C1'	8.96	1.55	1.41
33	L1	1064	U	C2'-C1'	8.95	1.66	1.53
33	L1	2883	C	O4'-C1'	8.96	1.55	1.41
35	L2	131	C	O4'-C1'	8.95	1.55	1.41
36	LA	200	VAL	N-CA	8.95	1.59	1.47
33	L1	1877	G	C2'-C1'	8.95	1.66	1.53
1	Sa	83	SER	CB-OG	8.95	1.60	1.42
32	S1	1278	C	O4'-C1'	-8.95	1.28	1.41
33	L1	3039	U	O4'-C1'	8.95	1.55	1.41
13	SQ	82	MET	CA-C	8.95	1.64	1.52
33	L1	1614	G	O4'-C1'	8.94	1.55	1.41
31	S2	29	C	C2'-C1'	-8.94	1.40	1.53
33	L1	1824	C	O4'-C1'	8.94	1.55	1.41
81	LD	359	LEU	CA-C	-8.94	1.41	1.52
33	L1	1819	A	O4'-C1'	8.94	1.55	1.41
47	LU	92	ARG	C-N	-8.94	1.23	1.33
81	LD	60	ARG	CD-NE	8.94	1.58	1.46
33	L1	478	G	C2'-C1'	-8.93	1.40	1.53
32	S1	1635	U	C2'-C1'	-8.93	1.40	1.53
33	L1	515	C	C2'-C1'	-8.93	1.40	1.53
33	L1	1996	C	O4'-C1'	8.93	1.55	1.41
33	L1	2543	G	C2'-C1'	-8.93	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	LO	127	LYS	C-O	-8.92	1.12	1.24
78	Le	234	ASN	CA-C	-8.92	1.41	1.52
11	SM	73	ASN	CA-C	8.92	1.64	1.52
29	ST	38	HIS	ND1-CE1	8.92	1.41	1.32
32	S1	1611	U	O4'-C1'	8.91	1.55	1.41
23	SU	25	ARG	C-N	8.91	1.44	1.33
33	L1	3024	U	C2'-C1'	8.91	1.66	1.53
32	S1	1782	C	C2'-C1'	-8.91	1.40	1.53
32	S1	453	C	C2'-C1'	8.91	1.66	1.53
71	Lj	9	VAL	CA-C	-8.91	1.41	1.52
33	L1	1799	C	O4'-C1'	8.90	1.54	1.41
33	L1	2261	U	C2'-C1'	-8.90	1.40	1.53
33	L1	3250	C	C2'-C1'	-8.90	1.40	1.53
32	S1	658	C	O4'-C1'	8.89	1.54	1.41
33	L1	291	C	O4'-C1'	8.89	1.54	1.41
33	L1	2446	G	C2'-C1'	-8.89	1.40	1.53
40	LH	87	ASN	CA-CB	8.88	1.68	1.53
33	L1	230	G	C2'-C1'	-8.88	1.40	1.53
59	Lo	30	ARG	CA-C	8.88	1.64	1.52
32	S1	1347	U	O4'-C1'	8.88	1.54	1.41
45	LQ	256	SER	C-N	8.88	1.45	1.33
33	L1	1953	C	O4'-C1'	8.87	1.54	1.41
33	L1	1094	G	C2'-C1'	-8.86	1.40	1.53
38	LE	120	PRO	CA-C	-8.86	1.43	1.52
45	LQ	191	ASP	C-N	8.86	1.44	1.33
23	SU	80	LEU	C-N	8.86	1.45	1.33
33	L1	3070	G	O4'-C1'	8.86	1.54	1.41
11	SM	35	GLY	C-N	8.86	1.45	1.33
32	S1	983	A	O4'-C1'	8.86	1.54	1.41
33	L1	1808	G	O4'-C1'	-8.86	1.28	1.41
33	L1	2763	C	C4'-C3'	8.86	1.65	1.52
33	L1	2859	C	C2'-C1'	-8.85	1.40	1.53
33	L1	2223	A	C5'-C4'	8.85	1.64	1.51
33	L1	239	C	C2'-C1'	8.85	1.66	1.53
33	L1	2672	C	O4'-C1'	8.85	1.54	1.41
34	L3	35	C	O4'-C1'	8.85	1.54	1.41
60	Lr	87	ARG	CA-C	8.85	1.63	1.52
35	L2	117	U	O4'-C1'	8.85	1.54	1.41
25	SC	164	SER	C-O	-8.85	1.12	1.24
32	S1	271	C	O4'-C1'	8.85	1.54	1.41
33	L1	501	U	O4'-C1'	8.85	1.54	1.41
33	L1	245	C	O4'-C1'	8.84	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	262	A	O4'-C1'	8.84	1.54	1.41
33	L1	1279	C	C2'-C1'	8.84	1.66	1.53
33	L1	1481	C	C2'-C1'	-8.84	1.40	1.53
33	L1	2766	U	O4'-C1'	8.83	1.54	1.41
70	Li	50	LYS	N-CA	-8.83	1.35	1.46
33	L1	444	C	C2'-C1'	-8.83	1.40	1.53
33	L1	953	G	O4'-C1'	8.83	1.54	1.41
33	L1	2473	C	C2'-C1'	8.83	1.66	1.53
31	S2	58	U	C2'-C1'	8.82	1.66	1.53
33	L1	2496	U	O4'-C1'	-8.82	1.28	1.41
25	SC	18	ARG	CA-C	-8.82	1.41	1.52
32	S1	993	C	C2'-C1'	-8.82	1.40	1.53
33	L1	11	A	O4'-C1'	8.82	1.54	1.41
32	S1	1162	A	C2'-C1'	8.81	1.66	1.53
1	Sa	224	GLY	CA-C	-8.81	1.39	1.51
33	L1	2095	C	O4'-C1'	8.81	1.54	1.41
33	L1	188	U	C2'-C1'	8.81	1.66	1.53
33	L1	2462	G	O4'-C1'	-8.81	1.28	1.41
33	L1	1163	A	O4'-C1'	-8.81	1.28	1.41
38	LE	96	ARG	C-N	8.81	1.45	1.33
32	S1	973	U	O4'-C1'	8.81	1.54	1.41
33	L1	991	C	O4'-C1'	8.81	1.54	1.41
32	S1	127	G	O4'-C1'	8.80	1.54	1.41
33	L1	2198	U	C2'-C1'	-8.80	1.40	1.53
32	S1	584	A	O4'-C1'	8.80	1.55	1.42
33	L1	699	C	C2'-C1'	-8.80	1.40	1.53
33	L1	1087	G	O4'-C1'	8.80	1.54	1.41
33	L1	210	G	O4'-C1'	8.80	1.55	1.42
31	S2	21	A	O4'-C1'	8.79	1.54	1.41
33	L1	3224	C	C2'-C1'	-8.79	1.40	1.53
32	S1	891	U	C2'-C1'	-8.78	1.40	1.53
33	L1	528	C	O4'-C1'	8.78	1.54	1.41
33	L1	578	C	C5'-C4'	8.78	1.64	1.51
33	L1	2874	A	O4'-C1'	8.78	1.55	1.42
32	S1	192	G	C2'-C1'	-8.77	1.40	1.53
33	L1	473	G	C2'-C1'	8.77	1.66	1.53
32	S1	694	C	C2'-C1'	-8.77	1.40	1.53
32	S1	158	C	O4'-C1'	8.77	1.54	1.41
32	S1	29	U	O4'-C1'	8.77	1.54	1.41
33	L1	966	G	O4'-C1'	8.77	1.54	1.41
33	L1	1120	G	C2'-C1'	-8.77	1.40	1.53
44	LR	7	ALA	CA-C	8.76	1.64	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1724	C	O4'-C1'	8.76	1.54	1.41
69	La	34	ARG	N-CA	-8.76	1.35	1.46
33	L1	1481	C	O4'-C1'	8.76	1.54	1.41
32	S1	293	C	O4'-C1'	8.75	1.54	1.41
32	S1	609	A	O4'-C1'	8.75	1.54	1.41
33	L1	3235	A	P-O5'	-8.75	1.46	1.59
32	S1	1095	C	O4'-C1'	8.75	1.54	1.41
33	L1	912	G	O4'-C1'	8.75	1.54	1.41
33	L1	2101	A	O4'-C1'	8.75	1.54	1.41
33	L1	2997	C	O4'-C1'	8.75	1.54	1.41
32	S1	1388	A	O4'-C1'	8.75	1.54	1.41
33	L1	1960	C	O4'-C1'	8.75	1.54	1.41
31	S2	13	U	C2'-C1'	8.74	1.66	1.53
32	S1	1271	G	O4'-C1'	8.74	1.54	1.41
35	L2	50	G	O4'-C1'	8.74	1.54	1.41
32	S1	1146	G	C2'-C1'	-8.74	1.40	1.53
84	LI	116	ARG	N-CA	8.74	1.57	1.46
33	L1	1702	C	O4'-C1'	8.74	1.54	1.41
33	L1	3148	A	C2'-C1'	-8.74	1.40	1.53
4	SD	54	TYR	C-O	-8.74	1.12	1.24
33	L1	808	G	O4'-C1'	-8.74	1.28	1.41
33	L1	1737	C	C2'-C1'	-8.74	1.40	1.53
33	L1	2000	C	O4'-C1'	8.74	1.54	1.41
71	Lj	2	LYS	N-CA	-8.73	1.35	1.46
23	SU	81	ILE	N-CA	8.73	1.56	1.46
33	L1	1720	C	O4'-C1'	8.73	1.54	1.41
32	S1	103	U	O4'-C1'	8.73	1.54	1.41
33	L1	3229	C	O4'-C1'	8.73	1.54	1.41
32	S1	1213	C	C2'-C1'	-8.73	1.40	1.53
47	LU	141	VAL	N-CA	8.73	1.57	1.46
70	Li	107	LEU	C-N	8.73	1.46	1.33
32	S1	1099	G	O4'-C1'	8.72	1.54	1.41
32	S1	1749	C	C2'-C1'	-8.72	1.40	1.53
55	Lg	106	ILE	CA-C	8.72	1.62	1.52
33	L1	2882	U	C2'-C1'	-8.72	1.40	1.53
32	S1	673	C	O4'-C1'	8.72	1.54	1.41
32	S1	690	G	C2'-C1'	-8.72	1.40	1.53
32	S1	881	G	O4'-C1'	8.72	1.54	1.41
33	L1	1005	C	C2'-C1'	8.72	1.66	1.53
38	LE	3	THR	C-N	8.72	1.45	1.33
25	SC	144	ASN	C-N	8.71	1.43	1.33
33	L1	3310	A	O4'-C1'	8.71	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
82	LK	11	ARG	N-CA	-8.71	1.34	1.46
14	SP	81	MET	CA-C	-8.71	1.42	1.52
32	S1	859	U	C2'-C1'	8.71	1.66	1.53
33	L1	1215	U	O4'-C1'	8.71	1.54	1.41
33	L1	1262	U	O4'-C1'	-8.71	1.28	1.41
58	Ln	47	VAL	C-O	-8.71	1.13	1.24
32	S1	1166	C	O4'-C1'	8.70	1.54	1.41
32	S1	339	G	C2'-C1'	-8.70	1.40	1.53
33	L1	974	G	P-O5'	-8.70	1.46	1.59
33	L1	1761	C	O4'-C1'	8.70	1.54	1.41
33	L1	1570	C	C2'-C1'	8.70	1.66	1.53
33	L1	282	A	C5'-C4'	8.70	1.64	1.51
33	L1	1195	C	C5'-C4'	8.69	1.64	1.51
7	SI	48	GLU	CA-C	-8.69	1.42	1.52
80	LC	357	GLU	C-N	8.68	1.45	1.33
67	LS	28	ARG	CD-NE	8.68	1.58	1.46
33	L1	2864	U	C2'-C1'	-8.68	1.40	1.53
32	S1	574	A	O4'-C1'	8.67	1.54	1.41
33	L1	975	G	O4'-C1'	-8.67	1.28	1.41
33	L1	1080	C	C2'-C1'	-8.67	1.40	1.53
34	L3	97	G	C2'-C1'	-8.67	1.40	1.53
33	L1	1041	C	O4'-C1'	8.67	1.54	1.41
80	LC	10	ARG	CD-NE	8.67	1.58	1.46
33	L1	2593	A	C2'-C1'	-8.66	1.40	1.53
32	S1	381	G	O4'-C1'	-8.66	1.28	1.41
32	S1	417	U	C2'-C1'	-8.66	1.40	1.53
64	LG	12	LYS	CA-CB	8.66	1.68	1.53
32	S1	1388	A	C2'-C1'	-8.66	1.40	1.53
33	L1	3277	C	C2'-C1'	-8.66	1.40	1.53
1	Sa	66	SER	N-CA	-8.66	1.35	1.46
32	S1	1133	C	O4'-C1'	8.66	1.54	1.41
8	SJ	6	VAL	C-N	8.66	1.45	1.33
74	LJ	64	THR	CA-C	-8.65	1.42	1.52
33	L1	2201	G	C2'-C1'	8.65	1.66	1.53
32	S1	40	A	O4'-C1'	8.65	1.54	1.41
32	S1	1083	C	C2'-C1'	-8.65	1.40	1.53
34	L3	108	G	O4'-C1'	-8.65	1.28	1.41
33	L1	785	U	O3'-P	-8.65	1.48	1.61
32	S1	1405	U	O4'-C1'	8.64	1.54	1.41
33	L1	389	A	C2'-C1'	-8.64	1.40	1.53
33	L1	2908	C	O4'-C1'	8.64	1.54	1.41
19	SY	37	LEU	CA-C	-8.64	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1060	U	O4'-C1'	8.64	1.54	1.41
33	L1	34	G	C2'-C1'	-8.64	1.40	1.53
33	L1	3100	C	O4'-C1'	8.63	1.54	1.42
33	L1	110	C	C2'-C1'	-8.63	1.40	1.53
32	S1	285	G	O4'-C1'	8.63	1.54	1.41
32	S1	333	G	C2'-C1'	-8.62	1.40	1.53
47	LU	138	GLY	C-N	8.62	1.45	1.33
33	L1	587	A	O4'-C1'	8.62	1.54	1.41
33	L1	608	G	O4'-C1'	8.62	1.54	1.41
33	L1	970	A	C2'-C1'	-8.62	1.40	1.53
33	L1	766	C	O4'-C1'	8.62	1.54	1.41
14	SP	81	MET	C-N	8.62	1.45	1.33
33	L1	912	G	C2'-C1'	-8.62	1.40	1.53
38	LE	34	ARG	N-CA	8.62	1.57	1.46
3	SB	210	ILE	C-O	-8.62	1.13	1.24
31	S2	12	U	C3'-O3'	8.61	1.55	1.42
32	S1	291	G	C2'-C1'	-8.62	1.40	1.53
32	S1	1392	G	O4'-C1'	8.61	1.54	1.41
33	L1	1369	G	C5'-C4'	8.61	1.64	1.51
33	L1	121	A	O3'-P	-8.61	1.48	1.61
33	L1	1415	G	C2'-C1'	-8.61	1.40	1.53
33	L1	2157	C	O4'-C1'	8.61	1.54	1.41
33	L1	1751	G	O4'-C1'	8.61	1.54	1.41
33	L1	517	G	C2'-C1'	-8.61	1.40	1.53
48	LV	154	LYS	C-O	-8.61	1.13	1.24
33	L1	2100	A	O4'-C1'	8.60	1.54	1.41
33	L1	2226	C	C2'-C1'	8.60	1.66	1.53
59	Lo	31	THR	N-CA	8.60	1.58	1.45
33	L1	2776	U	O4'-C1'	8.60	1.54	1.41
33	L1	3086	G	C2'-C1'	-8.60	1.40	1.53
3	SB	75	LYS	N-CA	-8.60	1.35	1.46
32	S1	365	C	O4'-C1'	8.60	1.54	1.41
33	L1	3382	A	C2'-C1'	8.60	1.66	1.53
35	L2	40	G	C2'-C1'	-8.60	1.40	1.53
36	LA	7	ASP	CA-CB	8.60	1.65	1.53
1	Sa	325	TRP	N-CA	-8.60	1.35	1.45
5	SE	90	MET	N-CA	-8.60	1.35	1.46
33	L1	658	C	O4'-C1'	8.59	1.54	1.41
33	L1	1542	A	C2'-C1'	-8.59	1.40	1.53
33	L1	2112	C	C2'-C1'	-8.59	1.40	1.53
32	S1	1027	C	O4'-C1'	8.59	1.54	1.41
33	L1	660	A	O4'-C1'	8.59	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	801	G	O4'-C1'	-8.59	1.28	1.41
33	L1	1303	C	C2'-C1'	-8.59	1.40	1.53
31	S2	18	G	O4'-C1'	-8.59	1.29	1.42
33	L1	2789	G	O3'-P	-8.59	1.48	1.61
33	L1	457	C	C2'-C1'	-8.58	1.40	1.53
33	L1	2102	C	O4'-C1'	8.58	1.54	1.41
33	L1	2503	A	C2'-C1'	-8.58	1.40	1.53
32	S1	1370	C	C2'-C1'	-8.58	1.40	1.53
32	S1	828	G	O4'-C1'	-8.57	1.28	1.41
32	S1	1161	C	O4'-C1'	8.57	1.54	1.41
32	S1	1476	C	O4'-C1'	8.57	1.54	1.41
33	L1	822	U	C2'-C1'	8.57	1.66	1.53
33	L1	1785	G	O4'-C1'	-8.57	1.28	1.41
33	L1	2430	C	P-O5'	-8.57	1.46	1.59
33	L1	2621	G	C2'-C1'	8.57	1.66	1.53
33	L1	248	C	O4'-C1'	8.57	1.54	1.41
33	L1	2497	A	O4'-C1'	8.57	1.54	1.41
33	L1	23	A	C2'-C1'	8.56	1.66	1.53
33	L1	1097	A	O4'-C1'	8.56	1.54	1.41
33	L1	1671	G	O4'-C1'	8.56	1.54	1.41
33	L1	3247	C	O4'-C1'	8.56	1.54	1.41
33	L1	1515	U	C2'-C1'	-8.56	1.40	1.53
33	L1	2483	A	O4'-C1'	-8.56	1.28	1.41
33	L1	2945	G	C2'-C1'	-8.56	1.40	1.53
7	SI	88	ARG	NE-CZ	8.56	1.42	1.33
33	L1	13	G	C2'-C1'	-8.56	1.40	1.53
33	L1	2522	C	O4'-C1'	8.56	1.54	1.41
33	L1	228	C	O4'-C1'	8.55	1.54	1.41
33	L1	1431	G	C2'-C1'	-8.56	1.40	1.53
37	LB	68	ARG	NE-CZ	8.55	1.42	1.33
32	S1	1288	C	C2'-C1'	8.55	1.65	1.53
32	S1	1410	C	O4'-C1'	8.55	1.54	1.41
33	L1	1225	A	C2'-C1'	-8.55	1.40	1.53
34	L3	69	A	C2'-C1'	-8.55	1.40	1.53
32	S1	108	C	C2'-C1'	-8.55	1.40	1.53
33	L1	814	U	O4'-C1'	8.55	1.54	1.41
48	LV	158	VAL	CA-C	-8.55	1.42	1.52
1	Sa	63	GLN	CD-OE1	8.54	1.39	1.23
1	Sa	287	TYR	CA-C	-8.54	1.42	1.52
31	S2	2	C	O4'-C1'	8.54	1.54	1.41
32	S1	1132	G	O3'-P	-8.55	1.48	1.61
32	S1	1608	A	C2'-C1'	8.55	1.66	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	S2	48	C	O4'-C1'	8.54	1.54	1.41
32	S1	391	A	C2'-C1'	8.54	1.65	1.53
51	LY	15	ARG	CD-NE	8.54	1.58	1.46
32	S1	636	U	C2'-C1'	8.54	1.66	1.53
33	L1	795	C	O4'-C1'	8.54	1.54	1.41
33	L1	3066	G	C2'-C1'	-8.54	1.40	1.53
32	S1	1100	U	O4'-C1'	8.54	1.54	1.41
33	L1	2630	A	C2'-C1'	8.54	1.65	1.53
33	L1	2129	U	O4'-C1'	8.53	1.54	1.41
33	L1	1096	C	C2'-C1'	-8.53	1.40	1.53
33	L1	2134	U	O3'-P	-8.53	1.48	1.61
33	L1	2147	U	O4'-C1'	8.53	1.54	1.41
33	L1	2385	A	C2'-C1'	-8.53	1.40	1.53
33	L1	2406	C	C2'-C1'	-8.53	1.40	1.53
32	S1	845	C	O4'-C1'	8.52	1.54	1.41
33	L1	1215	U	C2'-C1'	-8.52	1.40	1.53
33	L1	2673	G	O4'-C1'	8.52	1.54	1.41
46	LT	137	VAL	N-CA	8.52	1.57	1.46
69	La	10	ALA	CA-C	8.52	1.62	1.52
33	L1	1321	A	O4'-C1'	8.52	1.54	1.42
33	L1	1389	C	O4'-C1'	-8.52	1.28	1.41
32	S1	1282	G	O4'-C1'	8.51	1.54	1.41
66	LN	87	SER	CA-C	8.51	1.63	1.52
32	S1	1310	C	C4'-C3'	8.51	1.65	1.52
81	LD	309	PRO	N-CA	-8.51	1.36	1.47
33	L1	442	C	C2'-C1'	-8.51	1.40	1.53
32	S1	687	C	O4'-C1'	8.51	1.54	1.41
33	L1	2354	G	O4'-C1'	-8.51	1.28	1.41
33	L1	1338	C	O4'-C1'	8.50	1.54	1.41
35	L2	148	C	O4'-C1'	8.50	1.54	1.41
32	S1	1122	U	O4'-C1'	8.50	1.54	1.41
32	S1	1198	A	O4'-C1'	8.50	1.54	1.41
68	LW	82	LYS	N-CA	-8.50	1.35	1.46
32	S1	585	U	O4'-C1'	8.50	1.54	1.41
32	S1	683	C	C2'-C1'	-8.49	1.40	1.53
33	L1	1486	G	O4'-C1'	-8.49	1.28	1.41
33	L1	2709	G	O4'-C1'	8.49	1.54	1.41
33	L1	3211	C	C4'-O4'	8.49	1.58	1.45
33	L1	999	U	O4'-C1'	8.49	1.54	1.41
32	S1	1537	U	C2'-C1'	-8.48	1.40	1.53
33	L1	2161	G	C2'-C1'	-8.48	1.40	1.53
33	L1	2412	A	O4'-C1'	-8.48	1.28	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3313	C	O4'-C1'	8.48	1.54	1.41
33	L1	1957	G	O4'-C1'	-8.47	1.28	1.41
35	L2	121	C	C2'-C1'	-8.47	1.40	1.53
32	S1	649	C	O4'-C1'	8.47	1.54	1.41
32	S1	940	U	O4'-C1'	8.47	1.54	1.41
81	LD	318	GLU	CA-C	-8.47	1.41	1.52
32	S1	973	U	C2'-C1'	-8.46	1.40	1.53
44	LR	89	ASP	CA-C	-8.46	1.44	1.53
33	L1	2341	U	O4'-C1'	8.46	1.54	1.41
25	SC	145	ILE	CA-CB	8.46	1.65	1.54
32	S1	1357	U	C2'-C1'	-8.46	1.40	1.53
33	L1	506	U	O4'-C1'	8.46	1.54	1.41
33	L1	372	A	C2'-C1'	8.46	1.65	1.53
32	S1	919	G	C2'-C1'	-8.45	1.40	1.53
33	L1	3379	C	O4'-C1'	8.45	1.54	1.41
76	Lw	35	ASP	CA-CB	8.45	1.65	1.53
35	L2	53	G	O4'-C1'	8.45	1.54	1.41
32	S1	619	A	O4'-C1'	8.45	1.54	1.41
40	LH	233	VAL	CA-CB	-8.45	1.43	1.54
33	L1	22	G	C2'-C1'	-8.44	1.40	1.53
33	L1	1026	A	O4'-C1'	8.44	1.54	1.41
9	SK	92	LEU	CA-C	-8.44	1.42	1.52
25	SC	150	VAL	CA-C	-8.44	1.42	1.52
33	L1	2649	C	C3'-O3'	8.44	1.54	1.42
33	L1	3183	G	C4'-C3'	8.44	1.65	1.52
42	LP	185	ARG	CZ-NH2	8.44	1.44	1.33
32	S1	1082	C	O4'-C1'	8.44	1.54	1.41
35	L2	87	C	O4'-C1'	8.44	1.54	1.41
49	LX	51	ALA	N-CA	-8.44	1.36	1.46
35	L2	44	A	C5'-C4'	8.44	1.64	1.51
38	LE	89	LYS	CA-C	8.43	1.64	1.52
33	L1	49	U	C2'-C1'	-8.43	1.40	1.53
34	L3	25	G	C2'-C1'	8.43	1.66	1.53
32	S1	962	G	C2'-C1'	-8.43	1.40	1.53
33	L1	633	C	O4'-C1'	8.43	1.54	1.41
3	SB	131	ALA	C-N	-8.43	1.21	1.33
32	S1	333	G	O4'-C1'	8.43	1.54	1.41
35	L2	13	G	C2'-C1'	-8.43	1.40	1.53
32	S1	416	A	C2'-C1'	8.42	1.66	1.53
32	S1	1011	C	O4'-C1'	8.42	1.54	1.41
32	S1	890	G	C2'-C1'	-8.42	1.40	1.53
33	L1	136	C	C2'-C1'	-8.42	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1026	C	O4'-C1'	8.42	1.54	1.41
73	Lp	50	LYS	C-N	8.42	1.45	1.33
33	L1	935	U	O4'-C1'	8.42	1.54	1.42
33	L1	2794	A	C2'-C1'	-8.42	1.40	1.53
32	S1	981	G	C2'-C1'	-8.41	1.40	1.53
35	L2	106	U	C2'-C1'	-8.41	1.40	1.53
33	L1	1407	G	C2'-C1'	8.41	1.66	1.53
4	SD	212	ASP	C-N	-8.41	1.22	1.33
32	S1	1093	A	C2'-C1'	8.41	1.66	1.53
32	S1	1516	C	C4'-C3'	8.41	1.65	1.52
33	L1	1789	C	C5'-C4'	8.40	1.64	1.51
64	LG	171	LYS	C-O	-8.40	1.12	1.24
25	SC	25	ARG	CD-NE	8.40	1.58	1.46
33	L1	586	A	C2'-C1'	-8.40	1.40	1.53
32	S1	9	U	O4'-C1'	8.40	1.54	1.42
33	L1	251	G	O4'-C1'	-8.40	1.29	1.41
33	L1	314	C	O4'-C1'	8.40	1.54	1.42
32	S1	1572	U	C2'-C1'	-8.39	1.40	1.53
35	L2	88	C	O4'-C1'	8.39	1.54	1.42
32	S1	1015	C	C2'-C1'	-8.39	1.40	1.53
32	S1	1613	G	C2'-C1'	-8.38	1.40	1.53
33	L1	3058	U	C2'-C1'	-8.38	1.40	1.53
15	SS	93	PRO	C-O	-8.38	1.13	1.23
32	S1	1172	G	C2'-C1'	-8.38	1.40	1.53
32	S1	1637	G	C2'-C1'	-8.38	1.40	1.53
33	L1	1467	G	C2'-C1'	8.38	1.66	1.53
33	L1	796	C	C2'-C1'	-8.38	1.40	1.53
25	SC	60	HIS	CA-CB	8.38	1.66	1.53
32	S1	1083	C	O4'-C1'	8.37	1.54	1.41
33	L1	450	C	O4'-C1'	8.37	1.54	1.41
33	L1	1921	U	C2'-C1'	8.37	1.65	1.53
33	L1	343	G	C2'-C1'	-8.37	1.40	1.53
1	Sa	38	GLU	CA-CB	8.37	1.66	1.53
33	L1	3215	U	C2'-C1'	8.37	1.65	1.53
55	Lg	113	GLY	CA-C	-8.37	1.42	1.52
80	LC	358	ILE	CA-CB	8.37	1.65	1.54
33	L1	529	C	C2'-C1'	-8.36	1.40	1.53
33	L1	2076	C	O4'-C1'	-8.36	1.29	1.41
33	L1	2787	A	O3'-P	-8.36	1.48	1.61
32	S1	914	U	O4'-C1'	8.36	1.54	1.41
33	L1	720	G	O4'-C1'	8.36	1.54	1.41
34	L3	106	U	O3'-P	-8.36	1.48	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1910	G	C2'-C1'	-8.36	1.40	1.53
32	S1	350	G	O4'-C1'	8.35	1.54	1.41
32	S1	1452	A	O4'-C1'	8.35	1.54	1.41
67	LS	166	LYS	CA-C	8.35	1.64	1.52
33	L1	2053	A	O4'-C1'	8.35	1.54	1.41
33	L1	2444	U	O4'-C1'	8.35	1.54	1.41
33	L1	964	C	C2'-C1'	8.34	1.65	1.53
33	L1	3033	A	C2'-C1'	8.34	1.65	1.53
66	LN	64	ARG	CD-NE	-8.34	1.34	1.46
33	L1	3289	U	O4'-C1'	8.34	1.54	1.41
33	L1	2999	G	O4'-C1'	-8.34	1.29	1.41
33	L1	3144	U	C2'-C1'	-8.34	1.40	1.53
33	L1	1369	G	C2'-C1'	-8.33	1.40	1.53
1	Sa	50	SER	CA-C	-8.33	1.41	1.53
33	L1	1889	G	C2'-C1'	-8.33	1.40	1.53
33	L1	2685	C	C2'-C1'	-8.33	1.40	1.53
32	S1	1707	G	O4'-C1'	-8.33	1.29	1.41
33	L1	2489	A	O4'-C1'	8.33	1.54	1.42
3	SB	144	ALA	CA-CB	8.32	1.66	1.53
35	L2	87	C	C2'-C1'	-8.32	1.40	1.53
33	L1	771	G	C2'-C1'	-8.32	1.40	1.53
33	L1	1319	U	O4'-C1'	-8.32	1.29	1.41
33	L1	2374	G	O4'-C1'	-8.32	1.29	1.42
33	L1	385	A	C2'-C1'	-8.32	1.40	1.53
33	L1	2874	A	C2'-C1'	-8.32	1.40	1.53
33	L1	566	G	O4'-C1'	8.31	1.54	1.41
33	L1	166	U	O4'-C1'	8.31	1.54	1.41
33	L1	1226	G	O3'-P	-8.31	1.48	1.61
33	L1	2674	A	O4'-C1'	-8.31	1.29	1.41
33	L1	2108	C	O4'-C1'	8.31	1.54	1.41
33	L1	2178	G	O4'-C1'	8.31	1.54	1.41
33	L1	1299	G	C2'-C1'	-8.30	1.40	1.53
32	S1	1391	G	C2'-C1'	-8.30	1.40	1.53
33	L1	254	G	O4'-C1'	8.30	1.54	1.41
33	L1	629	U	O4'-C1'	8.30	1.54	1.41
33	L1	3021	U	C2'-C1'	8.30	1.65	1.53
33	L1	1580	C	C2'-C1'	-8.30	1.40	1.53
32	S1	1518	C	O4'-C1'	8.30	1.54	1.41
33	L1	752	U	O4'-C1'	8.30	1.54	1.41
33	L1	649	A	O4'-C1'	8.29	1.54	1.42
33	L1	677	U	O4'-C1'	8.29	1.54	1.41
40	LH	101	ALA	CA-C	-8.29	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2480	G	O4'-C1'	-8.29	1.29	1.41
33	L1	2408	G	O4'-C1'	8.29	1.54	1.42
33	L1	2539	G	O4'-C1'	8.28	1.54	1.41
33	L1	1894	G	C2'-C1'	8.28	1.65	1.53
32	S1	1736	C	C2'-C1'	-8.28	1.41	1.53
33	L1	641	C	O3'-P	-8.27	1.48	1.61
70	Li	15	THR	CA-CB	-8.27	1.43	1.53
33	L1	2299	C	C2'-C1'	-8.27	1.41	1.53
11	SM	21	ASP	CA-C	8.27	1.64	1.53
33	L1	1095	C	C2'-C1'	-8.27	1.41	1.53
33	L1	1812	A	O5'-C5'	8.27	1.54	1.42
33	L1	924	A	C2'-C1'	8.27	1.65	1.53
33	L1	2872	C	C2'-C1'	8.27	1.65	1.53
34	L3	119	C	O4'-C1'	8.27	1.54	1.41
51	LY	5	PRO	CA-C	8.27	1.60	1.52
34	L3	104	C	C2'-C1'	-8.26	1.41	1.53
31	S2	45	G	O4'-C1'	8.26	1.54	1.42
32	S1	1350	C	O4'-C1'	8.26	1.54	1.41
32	S1	1574	U	C2'-C1'	-8.26	1.41	1.53
33	L1	1787	C	O4'-C1'	8.26	1.54	1.41
3	SB	131	ALA	CA-C	-8.26	1.41	1.52
33	L1	2060	C	O4'-C1'	-8.26	1.29	1.41
33	L1	2507	U	C2'-C1'	-8.26	1.41	1.53
34	L3	58	G	O4'-C1'	-8.26	1.29	1.41
33	L1	2793	G	O4'-C1'	-8.25	1.29	1.41
60	Lr	38	GLN	C-N	8.25	1.44	1.33
32	S1	1211	U	O4'-C1'	8.25	1.54	1.42
64	LG	186	ALA	N-CA	8.25	1.56	1.46
32	S1	1705	C	C2'-C1'	-8.25	1.41	1.53
33	L1	659	C	O4'-C1'	8.25	1.54	1.41
33	L1	1267	A	C2'-C1'	-8.25	1.41	1.53
33	L1	1547	G	C2'-C1'	-8.25	1.41	1.53
69	La	47	ALA	CA-C	-8.25	1.47	1.52
32	S1	1000	A	O4'-C1'	-8.24	1.29	1.41
32	S1	1024	A	O4'-C1'	8.24	1.54	1.41
32	S1	1333	A	O4'-C1'	8.24	1.54	1.41
32	S1	1708	U	O3'-P	-8.24	1.48	1.61
33	L1	1475	U	C2'-C1'	-8.24	1.41	1.53
36	LA	124	GLY	N-CA	8.24	1.52	1.44
45	LQ	248	ARG	CA-C	8.24	1.63	1.52
5	SE	58	ARG	CA-C	8.24	1.60	1.52
32	S1	999	G	O4'-C1'	8.24	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1579	C	C2'-C1'	-8.23	1.41	1.53
36	LA	119	ILE	CA-CB	-8.23	1.50	1.54
32	S1	22	A	O4'-C1'	8.23	1.53	1.41
32	S1	154	A	C2'-C1'	8.23	1.65	1.53
32	S1	408	G	O4'-C1'	8.23	1.53	1.41
48	LV	90	ARG	CD-NE	8.23	1.57	1.46
33	L1	2042	G	O4'-C1'	8.23	1.53	1.41
33	L1	2113	A	C2'-C1'	-8.23	1.41	1.53
34	L3	92	C	C2'-C1'	-8.23	1.41	1.53
48	LV	39	LEU	N-CA	-8.22	1.38	1.46
33	L1	2594	A	O4'-C1'	-8.22	1.29	1.41
33	L1	2451	G	O4'-C1'	8.22	1.54	1.42
33	L1	2531	G	C2'-C1'	-8.22	1.41	1.53
33	L1	2003	C	O4'-C1'	8.21	1.53	1.41
32	S1	440	A	O4'-C1'	8.21	1.53	1.41
33	L1	700	C	C2'-C1'	-8.21	1.41	1.53
35	L2	57	A	C2'-C1'	-8.21	1.41	1.53
32	S1	1688	G	C2'-C1'	8.20	1.65	1.53
33	L1	3306	A	C2'-C1'	-8.20	1.41	1.53
10	SL	23	ALA	N-CA	-8.20	1.35	1.46
3	SB	51	ARG	C-N	8.20	1.43	1.33
5	SE	147	PRO	N-CA	-8.20	1.36	1.47
1	Sa	30	GLN	CA-CB	8.20	1.66	1.53
32	S1	641	C	O4'-C1'	8.20	1.53	1.41
32	S1	1565	U	O4'-C1'	8.20	1.53	1.41
9	SK	49	ARG	CD-NE	8.20	1.57	1.46
32	S1	99	U	C2'-C1'	-8.19	1.41	1.53
33	L1	3211	C	C2'-C1'	8.19	1.65	1.53
27	SH	97	ARG	CA-C	-8.19	1.41	1.52
32	S1	436	G	C2'-C1'	-8.19	1.41	1.53
33	L1	2424	G	O4'-C1'	8.19	1.53	1.41
32	S1	1145	G	O4'-C1'	8.19	1.53	1.41
33	L1	3328	A	C5'-C4'	8.19	1.63	1.51
11	SM	107	LEU	CA-C	8.19	1.63	1.52
32	S1	670	C	C2'-C1'	-8.19	1.41	1.53
32	S1	948	C	O4'-C1'	8.19	1.53	1.41
32	S1	1062	C	C2'-C1'	-8.19	1.41	1.53
33	L1	2751	A	C2'-C1'	8.19	1.65	1.53
70	Li	43	LYS	CA-C	8.19	1.63	1.52
33	L1	1701	G	O4'-C1'	-8.18	1.29	1.41
32	S1	16	G	C2'-C1'	-8.18	1.41	1.53
14	SP	102	GLU	CA-C	-8.18	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	11	A	C2'-C1'	-8.18	1.41	1.53
8	SJ	30	ARG	NE-CZ	8.17	1.42	1.33
49	LX	67	LEU	N-CA	-8.17	1.35	1.46
33	L1	3365	U	C2'-C1'	8.17	1.65	1.53
70	Li	50	LYS	CA-C	-8.17	1.42	1.52
3	SB	148	LYS	C-N	8.16	1.45	1.33
24	SX	72	LYS	N-CA	-8.16	1.35	1.46
32	S1	330	G	C2'-C1'	-8.16	1.41	1.53
13	SQ	60	ARG	C-N	8.16	1.43	1.33
33	L1	1143	G	C2'-C1'	-8.16	1.41	1.53
33	L1	1984	C	O4'-C1'	8.16	1.53	1.41
33	L1	2574	A	O4'-C1'	8.16	1.53	1.41
33	L1	2688	G	C3'-O3'	8.16	1.54	1.42
33	L1	3292	U	C2'-C1'	8.16	1.65	1.53
17	SV	34	LYS	N-CA	-8.16	1.35	1.46
67	LS	151	PHE	CD2-CE2	-8.16	1.14	1.38
33	L1	7	C	C2'-C1'	-8.16	1.41	1.53
33	L1	541	C	C2'-C1'	-8.16	1.41	1.53
33	L1	2359	C	O4'-C1'	8.16	1.53	1.41
33	L1	96	C	O4'-C1'	8.16	1.53	1.41
33	L1	2061	C	O4'-C1'	8.15	1.53	1.41
32	S1	402	G	C2'-C1'	-8.15	1.41	1.53
33	L1	1618	U	O4'-C1'	8.15	1.53	1.41
67	LS	30	LYS	CA-C	-8.15	1.42	1.52
1	Sa	67	GLY	CA-C	-8.14	1.42	1.52
33	L1	3290	C	O4'-C1'	8.14	1.53	1.41
31	S2	12	U	C5'-C4'	8.14	1.63	1.51
32	S1	1699	C	O4'-C1'	8.14	1.53	1.41
32	S1	1211	U	C2'-C1'	-8.14	1.40	1.53
33	L1	392	C	C2'-C1'	-8.14	1.41	1.53
33	L1	2743	A	O4'-C1'	-8.14	1.29	1.41
64	LG	29	LYS	C-O	-8.14	1.13	1.24
2	SA	57	LYS	C-N	8.14	1.44	1.33
33	L1	1297	U	C2'-C1'	-8.14	1.41	1.53
34	L3	26	C	C5'-C4'	8.14	1.63	1.51
27	SH	110	ILE	C-N	-8.13	1.22	1.33
35	L2	104	U	C2'-C1'	-8.13	1.41	1.53
33	L1	1488	G	O4'-C1'	8.13	1.53	1.41
33	L1	1055	U	C2'-C1'	-8.13	1.41	1.53
33	L1	2334	G	O4'-C1'	-8.12	1.29	1.42
47	LU	92	ARG	CA-C	-8.12	1.42	1.53
32	S1	1314	U	C5'-C4'	-8.12	1.39	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1696	G	O4'-C1'	8.12	1.53	1.41
72	Lk	66	VAL	N-CA	-8.12	1.36	1.46
32	S1	1681	G	C2'-C1'	-8.12	1.41	1.53
24	SX	72	LYS	CA-C	-8.11	1.44	1.53
33	L1	3241	C	O4'-C1'	8.12	1.53	1.41
36	LA	168	VAL	N-CA	-8.12	1.36	1.46
80	LC	174	LEU	CA-C	-8.12	1.42	1.52
15	SS	98	SER	C-O	-8.11	1.13	1.24
27	SH	78	ARG	CA-CB	8.11	1.64	1.53
32	S1	228	G	C2'-C1'	-8.10	1.41	1.53
33	L1	2389	A	C2'-C1'	-8.10	1.41	1.53
33	L1	2805	A	O4'-C1'	-8.10	1.29	1.42
33	L1	3004	G	C2'-C1'	-8.10	1.41	1.53
11	SM	113	ARG	CA-CB	8.10	1.66	1.53
64	LG	26	TRP	C-O	-8.10	1.13	1.24
80	LC	295	SER	CA-CB	8.10	1.67	1.53
59	Lo	23	ILE	N-CA	-8.10	1.36	1.46
33	L1	2477	G	O4'-C1'	-8.10	1.29	1.41
80	LC	291	SER	C-O	-8.10	1.14	1.24
2	SA	185	MET	CA-C	8.09	1.63	1.52
3	SB	97	CYS	CA-C	8.09	1.62	1.52
24	SX	74	ARG	CA-C	-8.09	1.42	1.52
33	L1	1539	G	O4'-C1'	-8.09	1.29	1.41
48	LV	69	ARG	CA-CB	8.09	1.68	1.53
60	Lr	4	VAL	N-CA	-8.09	1.39	1.45
32	S1	1698	A	C2'-C1'	8.09	1.65	1.53
33	L1	2883	C	C2'-C1'	8.09	1.65	1.53
33	L1	449	G	C2'-C1'	-8.09	1.41	1.53
33	L1	1952	U	C2'-C1'	8.09	1.65	1.53
33	L1	1968	C	O4'-C1'	8.09	1.53	1.41
5	SE	158	GLY	CA-C	-8.08	1.45	1.52
32	S1	1239	C	O4'-C1'	-8.08	1.29	1.41
33	L1	734	C	C2'-C1'	-8.08	1.41	1.53
33	L1	3372	C	C2'-C1'	-8.08	1.41	1.53
64	LG	11	ILE	CA-C	-8.08	1.43	1.52
30	S3	18	C	O4'-C1'	8.08	1.53	1.41
33	L1	2800	C	O4'-C1'	8.08	1.53	1.41
33	L1	684	C	C2'-C1'	8.07	1.65	1.53
33	L1	508	G	C2'-C1'	-8.07	1.41	1.53
25	SC	125	HIS	CA-C	-8.07	1.43	1.53
33	L1	384	A	C3'-O3'	8.07	1.54	1.42
33	L1	2501	U	C5'-C4'	8.07	1.63	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	L2	55	G	C4'-C3'	8.07	1.65	1.53
48	LV	69	ARG	C-O	-8.07	1.13	1.23
33	L1	1991	U	C2'-C1'	-8.07	1.41	1.53
32	S1	449	A	C2'-C1'	-8.07	1.41	1.53
32	S1	1548	G	C2'-C1'	-8.07	1.41	1.53
33	L1	292	A	C2'-C1'	-8.06	1.41	1.53
32	S1	1773	A	C2'-C1'	-8.06	1.41	1.53
32	S1	38	C	C2'-C1'	-8.06	1.41	1.53
33	L1	1650	G	C2'-C1'	-8.06	1.41	1.53
33	L1	1730	U	C2'-C1'	8.06	1.65	1.53
80	LC	8	HIS	CG-CD2	8.06	1.44	1.35
33	L1	3318	G	C2'-C1'	-8.06	1.41	1.53
34	L3	115	A	C2'-C1'	-8.05	1.41	1.53
23	SU	77	GLY	CA-C	-8.05	1.43	1.52
32	S1	279	C	O4'-C1'	8.05	1.53	1.41
33	L1	376	A	C2'-C1'	-8.05	1.41	1.53
33	L1	1121	C	O4'-C1'	8.05	1.53	1.41
33	L1	2632	U	O4'-C1'	-8.05	1.29	1.41
33	L1	736	U	C2'-C1'	8.05	1.65	1.53
32	S1	35	U	O4'-C1'	8.05	1.53	1.41
45	LQ	249	ALA	C-O	-8.05	1.13	1.24
32	S1	662	C	O4'-C1'	8.04	1.53	1.41
33	L1	2849	A	O4'-C1'	8.04	1.53	1.41
38	LE	112	ILE	CA-C	-8.04	1.43	1.52
3	SB	75	LYS	C-N	8.04	1.43	1.33
78	Le	161	GLN	CA-C	-8.04	1.49	1.53
33	L1	1709	U	C2'-C1'	-8.04	1.41	1.53
32	S1	337	A	C2'-C1'	-8.04	1.41	1.53
33	L1	2518	A	C4'-O4'	8.04	1.57	1.45
33	L1	1059	A	O4'-C1'	8.03	1.53	1.41
33	L1	737	C	O4'-C1'	8.03	1.53	1.41
33	L1	2005	C	O4'-C1'	8.03	1.53	1.41
43	LO	39	HIS	ND1-CE1	8.03	1.40	1.32
33	L1	2891	C	O4'-C1'	8.03	1.53	1.41
45	LQ	257	THR	CA-CB	8.03	1.66	1.53
35	L2	15	C	O4'-C1'	8.03	1.53	1.41
33	L1	390	G	C2'-C1'	8.02	1.65	1.53
33	L1	1818	C	C2'-C1'	-8.02	1.41	1.53
31	S2	66	C	O4'-C1'	8.02	1.53	1.41
33	L1	477	C	O4'-C1'	8.02	1.53	1.41
33	L1	741	G	O4'-C1'	8.02	1.53	1.41
33	L1	1984	C	C2'-C1'	-8.02	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	787	G	C2'-C1'	8.02	1.65	1.53
33	L1	1581	C	C2'-C1'	-8.02	1.41	1.53
11	SM	40	PHE	N-CA	8.02	1.56	1.46
32	S1	1179	C	O4'-C1'	8.02	1.53	1.41
33	L1	1912	U	C4'-O4'	8.02	1.57	1.45
80	LC	165	HIS	ND1-CE1	8.02	1.40	1.32
33	L1	2201	G	C3'-C2'	8.01	1.64	1.52
34	L3	77	A	O4'-C1'	8.01	1.53	1.41
80	LC	388	LYS	N-CA	-8.01	1.39	1.46
32	S1	1316	A	C2'-C1'	8.01	1.65	1.53
47	LU	34	TYR	CA-C	-8.01	1.42	1.52
33	L1	713	G	C2'-C1'	-8.01	1.41	1.53
44	LR	160	HIS	CB-CG	8.01	1.61	1.50
33	L1	583	C	C2'-C1'	-8.01	1.41	1.53
33	L1	2023	C	O4'-C1'	8.00	1.53	1.41
33	L1	2536	G	C2'-C1'	-8.00	1.41	1.53
32	S1	1004	U	O4'-C1'	8.00	1.53	1.41
78	Le	5	ALA	CA-C	-8.00	1.42	1.52
33	L1	809	A	C2'-C1'	8.00	1.65	1.53
32	S1	633	U	O4'-C1'	7.99	1.57	1.41
72	Lk	95	SER	CA-CB	7.99	1.67	1.53
32	S1	1178	C	O4'-C1'	7.99	1.53	1.41
33	L1	1081	U	C4'-O4'	7.99	1.57	1.45
33	L1	2651	G	O4'-C1'	-7.99	1.29	1.41
8	SJ	76	LYS	CA-C	-7.99	1.43	1.52
8	SJ	94	HIS	ND1-CE1	7.99	1.40	1.32
32	S1	53	G	O4'-C1'	7.98	1.53	1.41
32	S1	1687	G	O4'-C1'	7.98	1.53	1.41
33	L1	410	G	O4'-C1'	7.98	1.53	1.41
25	SC	80	ARG	NE-CZ	7.98	1.41	1.33
32	S1	1232	G	O4'-C1'	7.98	1.53	1.41
33	L1	957	U	O4'-C1'	7.98	1.53	1.41
33	L1	3007	A	O5'-C5'	7.98	1.54	1.42
32	S1	1119	G	O4'-C1'	-7.98	1.29	1.42
33	L1	2665	A	O4'-C1'	7.98	1.53	1.41
20	SZ	61	GLU	N-CA	7.97	1.56	1.46
33	L1	649	A	C2'-C1'	-7.97	1.41	1.53
69	La	26	VAL	N-CA	-7.97	1.36	1.46
8	SJ	104	ALA	CA-C	-7.97	1.44	1.53
32	S1	1109	U	C2'-C1'	-7.97	1.41	1.53
33	L1	1271	U	C4'-O4'	7.97	1.57	1.45
33	L1	37	U	C2'-C1'	-7.97	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3123	A	C3'-C2'	-7.97	1.40	1.52
32	S1	1074	C	O4'-C1'	7.96	1.53	1.41
33	L1	1223	U	C2'-C1'	7.96	1.65	1.53
33	L1	1247	G	O4'-C1'	7.96	1.53	1.41
64	LG	87	ARG	CA-C	-7.96	1.43	1.52
32	S1	1162	A	O4'-C1'	-7.96	1.29	1.41
33	L1	2453	G	O4'-C1'	7.96	1.53	1.41
48	LV	1	MET	C-N	7.96	1.44	1.33
55	Lg	49	GLN	C-N	7.96	1.44	1.33
67	LS	150	LYS	CA-CB	7.96	1.66	1.53
33	L1	2613	G	C2'-C1'	7.96	1.65	1.53
47	LU	12	ARG	N-CA	7.95	1.55	1.46
33	L1	903	G	C2'-C1'	7.95	1.65	1.53
33	L1	141	C	C2'-C1'	-7.95	1.41	1.53
33	L1	666	U	O4'-C1'	7.95	1.53	1.41
33	L1	1604	U	C2'-C1'	-7.95	1.41	1.53
33	L1	1088	A	C2'-C1'	-7.95	1.41	1.53
33	L1	516	C	O4'-C1'	7.95	1.53	1.41
33	L1	429	G	O4'-C1'	-7.94	1.29	1.41
32	S1	29	U	C2'-C1'	-7.94	1.41	1.53
32	S1	439	C	C2'-C1'	-7.94	1.41	1.53
33	L1	559	U	C2'-C1'	7.94	1.65	1.53
38	LE	69	CYS	N-CA	-7.94	1.36	1.46
32	S1	665	C	O4'-C1'	7.94	1.53	1.41
66	LN	85	GLU	CA-CB	7.94	1.65	1.53
33	L1	2990	C	O4'-C1'	7.94	1.53	1.41
32	S1	1146	G	O3'-P	-7.94	1.49	1.61
33	L1	733	C	O4'-C1'	7.94	1.53	1.41
33	L1	1713	A	C2'-C1'	-7.94	1.41	1.53
33	L1	2617	G	O4'-C1'	7.94	1.53	1.41
33	L1	1942	A	O4'-C1'	-7.94	1.29	1.41
33	L1	2162	C	O4'-C1'	7.93	1.53	1.41
32	S1	1349	A	O4'-C1'	7.93	1.53	1.41
33	L1	1912	U	C4'-C3'	7.93	1.64	1.52
33	L1	1072	C	C2'-C1'	-7.93	1.41	1.53
32	S1	1161	C	C2'-C1'	-7.93	1.41	1.53
5	SE	179	VAL	C-N	7.93	1.44	1.33
33	L1	2337	C	C2'-C1'	-7.93	1.41	1.53
13	SQ	82	MET	C-N	7.92	1.44	1.33
43	LO	40	HIS	CA-CB	7.92	1.65	1.53
32	S1	442	A	O4'-C1'	7.92	1.53	1.42
33	L1	2720	U	C2'-C1'	-7.92	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	825	G	O3'-P	-7.92	1.49	1.61
4	SD	132	GLY	CA-C	7.91	1.63	1.51
33	L1	723	G	C5'-C4'	7.91	1.63	1.51
70	Li	101	LYS	CA-C	7.91	1.63	1.52
33	L1	876	C	O4'-C1'	7.91	1.53	1.41
33	L1	1277	A	C2'-C1'	-7.90	1.41	1.53
33	L1	2377	C	C2'-C1'	-7.90	1.41	1.53
3	SB	131	ALA	C-O	-7.90	1.14	1.24
33	L1	676	G	O3'-P	-7.90	1.49	1.61
32	S1	93	A	O4'-C1'	-7.90	1.29	1.41
32	S1	352	U	C2'-C1'	-7.90	1.41	1.53
11	SM	117	ILE	CA-CB	-7.90	1.43	1.54
32	S1	1262	U	O4'-C1'	7.90	1.53	1.41
33	L1	2202	A	O4'-C1'	7.90	1.53	1.42
48	LV	25	HIS	N-CA	-7.90	1.35	1.46
33	L1	3019	C	O4'-C1'	7.90	1.53	1.41
32	S1	413	C	C2'-C1'	-7.89	1.41	1.53
32	S1	1764	G	O4'-C1'	7.89	1.53	1.41
33	L1	2692	G	C2'-C1'	-7.89	1.41	1.53
33	L1	341	U	C5'-C4'	7.89	1.63	1.51
33	L1	799	U	O4'-C1'	7.89	1.53	1.41
33	L1	1116	G	O4'-C1'	-7.89	1.29	1.41
45	LQ	19	ARG	C-N	7.89	1.45	1.33
77	Lc	64	ALA	CA-C	-7.89	1.42	1.52
33	L1	2676	A	C2'-C1'	7.89	1.65	1.53
32	S1	474	A	O4'-C1'	7.89	1.53	1.41
32	S1	1594	A	O4'-C1'	7.89	1.53	1.41
32	S1	1666	G	C2'-C1'	-7.89	1.41	1.53
33	L1	551	A	O4'-C1'	7.89	1.53	1.41
33	L1	615	A	O4'-C1'	7.89	1.53	1.41
33	L1	3311	C	O4'-C1'	7.89	1.53	1.42
4	SD	94	LYS	CA-C	7.88	1.63	1.52
55	Lg	114	LEU	CA-C	-7.88	1.42	1.52
32	S1	1605	A	O4'-C1'	7.88	1.53	1.41
33	L1	2380	G	C2'-C1'	-7.88	1.41	1.53
33	L1	2933	C	C5'-C4'	7.88	1.63	1.51
32	S1	352	U	O4'-C1'	7.88	1.53	1.41
33	L1	715	A	C2'-C1'	7.88	1.65	1.53
33	L1	1146	A	O3'-P	-7.88	1.49	1.61
33	L1	3233	C	O4'-C1'	7.88	1.53	1.41
34	L3	25	G	O4'-C1'	-7.88	1.29	1.41
32	S1	955	C	O4'-C1'	7.88	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2179	U	C2'-C1'	-7.88	1.41	1.53
33	L1	2383	G	C2'-C1'	-7.88	1.41	1.53
33	L1	730	A	O4'-C1'	7.88	1.53	1.41
33	L1	1205	C	C2'-C1'	-7.87	1.41	1.53
33	L1	2228	A	O4'-C1'	-7.87	1.29	1.41
7	SI	46	ARG	NE-CZ	7.87	1.41	1.33
33	L1	2435	U	O4'-C1'	7.87	1.53	1.41
71	Lj	5	GLN	N-CA	-7.87	1.36	1.46
33	L1	3094	C	C2'-C1'	7.87	1.64	1.53
31	S2	6	G	C2'-C1'	-7.86	1.41	1.53
32	S1	1587	G	O4'-C1'	7.86	1.53	1.41
33	L1	476	C	O4'-C1'	7.86	1.53	1.41
33	L1	1248	A	O4'-C1'	-7.86	1.30	1.42
33	L1	1457	A	C2'-C1'	-7.86	1.41	1.53
33	L1	1746	G	O4'-C1'	-7.86	1.29	1.41
32	S1	161	G	O4'-C1'	7.86	1.53	1.41
32	S1	1609	G	C2'-C1'	-7.86	1.41	1.53
34	L3	100	A	O4'-C1'	7.86	1.53	1.41
33	L1	2941	G	C3'-O3'	7.86	1.53	1.42
33	L1	1059	A	C2'-C1'	-7.85	1.41	1.53
33	L1	2572	U	O4'-C1'	-7.85	1.29	1.41
32	S1	273	C	O4'-C1'	7.85	1.53	1.41
33	L1	2441	G	C2'-C1'	7.85	1.65	1.53
78	Le	68	LYS	N-CA	-7.85	1.36	1.46
33	L1	1709	U	O4'-C1'	7.85	1.53	1.41
33	L1	1775	C	C2'-C1'	7.85	1.65	1.53
4	SD	133	GLN	CA-C	7.85	1.62	1.52
32	S1	1652	C	O4'-C1'	7.85	1.53	1.41
33	L1	95	G	C2'-C1'	-7.85	1.41	1.53
33	L1	1670	G	O4'-C1'	-7.84	1.29	1.41
42	LP	143	ARG	NE-CZ	7.84	1.41	1.33
33	L1	417	G	O4'-C1'	-7.84	1.29	1.41
32	S1	1793	C	O5'-C5'	7.84	1.54	1.42
33	L1	1113	C	O4'-C1'	7.84	1.53	1.41
33	L1	1507	A	O4'-C1'	-7.84	1.29	1.41
33	L1	1243	C	O4'-C1'	7.84	1.53	1.41
32	S1	1662	G	O4'-C1'	7.84	1.53	1.41
80	LC	312	MET	CA-C	-7.84	1.42	1.52
15	SS	101	ALA	N-CA	-7.84	1.36	1.46
33	L1	2727	U	O4'-C1'	7.84	1.53	1.41
13	SQ	49	LYS	CA-C	-7.83	1.42	1.52
33	L1	244	G	C2'-C1'	-7.83	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2335	U	C2'-C1'	-7.83	1.41	1.53
46	LT	65	ARG	CD-NE	7.83	1.57	1.46
80	LC	130	PHE	C-O	-7.83	1.14	1.23
33	L1	2035	G	C2'-C1'	-7.83	1.41	1.53
12	SO	80	LEU	CA-CB	7.83	1.66	1.53
15	SS	14	PRO	N-CD	-7.83	1.36	1.47
46	LT	53	LYS	CA-CB	7.83	1.64	1.53
69	La	41	CYS	CA-C	-7.83	1.42	1.53
72	Lk	62	GLU	CA-CB	7.83	1.65	1.53
33	L1	2904	A	C2'-C1'	7.83	1.65	1.53
33	L1	1271	U	C4'-C3'	7.82	1.64	1.52
33	L1	3109	G	O4'-C1'	-7.82	1.29	1.41
46	LT	120	TYR	C-N	7.82	1.44	1.33
33	L1	2502	U	O4'-C1'	7.82	1.53	1.41
32	S1	296	A	C2'-C1'	-7.82	1.41	1.53
33	L1	32	G	C2'-C1'	-7.82	1.41	1.53
64	LG	96	LEU	N-CA	-7.82	1.36	1.46
32	S1	16	G	O4'-C1'	7.82	1.53	1.41
33	L1	1408	C	C2'-C1'	-7.82	1.41	1.53
33	L1	2017	G	C2'-C1'	-7.82	1.41	1.53
5	SE	127	ALA	CA-C	-7.81	1.43	1.52
33	L1	2438	A	O4'-C1'	7.81	1.53	1.41
33	L1	1849	U	O4'-C1'	-7.81	1.29	1.41
33	L1	3353	G	O4'-C1'	7.81	1.53	1.42
33	L1	2348	U	C3'-O3'	7.81	1.53	1.42
33	L1	581	G	O4'-C1'	7.81	1.53	1.41
42	LP	93	LYS	N-CA	-7.81	1.36	1.46
33	L1	3159	C	O4'-C1'	7.81	1.53	1.41
33	L1	1003	G	O4'-C1'	7.81	1.53	1.41
11	SM	132	ARG	CD-NE	7.80	1.57	1.46
32	S1	1274	G	O4'-C1'	7.80	1.53	1.41
51	LY	72	VAL	CA-CB	-7.80	1.43	1.54
50	LZ	43	HIS	ND1-CE1	7.80	1.40	1.32
32	S1	3	C	C2'-C1'	-7.80	1.41	1.53
35	L2	137	C	O4'-C1'	7.80	1.53	1.41
23	SU	52	LEU	CA-C	7.80	1.64	1.52
33	L1	874	U	C4'-O4'	7.80	1.57	1.45
33	L1	1510	G	O4'-C1'	-7.80	1.30	1.42
68	LW	114	TYR	CA-C	-7.80	1.43	1.52
49	LX	35	LYS	CA-C	7.79	1.63	1.52
32	S1	494	G	O4'-C1'	7.79	1.53	1.41
32	S1	572	G	O4'-C1'	-7.79	1.29	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	652	C	O4'-C1'	7.79	1.53	1.42
33	L1	1373	A	C2'-C1'	-7.79	1.41	1.53
33	L1	2761	A	C4'-C3'	7.79	1.64	1.53
32	S1	1603	U	C2'-C1'	7.79	1.65	1.53
33	L1	1851	U	O4'-C1'	-7.79	1.29	1.41
33	L1	2682	A	C2'-C1'	7.79	1.65	1.53
33	L1	1581	C	O4'-C1'	7.79	1.53	1.41
33	L1	2508	U	O4'-C1'	-7.79	1.29	1.41
32	S1	1142	A	O3'-P	-7.78	1.49	1.61
33	L1	2206	U	C5'-C4'	7.78	1.62	1.51
35	L2	103	C	O4'-C1'	7.78	1.53	1.41
32	S1	689	C	C2'-C1'	-7.78	1.41	1.53
32	S1	1401	C	O4'-C1'	7.78	1.53	1.41
33	L1	1543	A	C2'-C1'	7.78	1.65	1.53
33	L1	1983	U	O4'-C1'	7.78	1.53	1.41
81	LD	351	ARG	CD-NE	7.78	1.57	1.46
32	S1	20	G	C2'-C1'	-7.78	1.41	1.53
70	Li	69	ARG	NE-CZ	7.78	1.41	1.33
64	LG	30	ALA	N-CA	7.77	1.56	1.46
37	LB	77	VAL	CA-C	-7.77	1.43	1.52
32	S1	884	G	O4'-C1'	-7.77	1.29	1.41
32	S1	435	C	C2'-C1'	-7.77	1.41	1.53
33	L1	2115	G	O4'-C1'	-7.77	1.29	1.41
32	S1	957	A	C2'-C1'	7.77	1.65	1.53
32	S1	1261	U	C2'-C1'	7.77	1.65	1.53
32	S1	1033	C	O3'-P	-7.76	1.49	1.61
70	Li	111	LYS	CA-C	7.76	1.63	1.53
39	LF	78	ASN	N-CA	-7.76	1.36	1.46
32	S1	645	G	O4'-C1'	7.76	1.53	1.41
24	SX	66	CYS	CA-C	-7.75	1.43	1.52
33	L1	8	C	C2'-C1'	-7.75	1.41	1.53
38	LE	48	VAL	CA-C	-7.75	1.43	1.52
33	L1	1115	A	O4'-C1'	7.75	1.53	1.41
68	LW	104	VAL	N-CA	-7.75	1.36	1.46
33	L1	1740	U	O4'-C1'	7.75	1.53	1.41
33	L1	2262	C	C4'-O4'	7.75	1.57	1.45
50	LZ	53	TRP	C-O	-7.75	1.13	1.23
66	LN	33	GLN	N-CA	-7.75	1.36	1.46
11	SM	12	ILE	CA-CB	-7.75	1.44	1.54
67	LS	151	PHE	CG-CD1	-7.74	1.22	1.38
23	SU	7	ALA	CA-CB	7.74	1.64	1.53
32	S1	1541	C	C2'-C1'	-7.74	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1616	U	O3'-P	-7.74	1.49	1.61
33	L1	603	G	C2'-C1'	-7.74	1.41	1.53
33	L1	609	C	C2'-C1'	-7.74	1.41	1.53
33	L1	2629	C	P-O5'	-7.74	1.48	1.59
32	S1	150	U	C2'-C1'	7.74	1.65	1.53
34	L3	72	G	O4'-C1'	7.74	1.53	1.41
64	LG	49	LYS	C-O	-7.74	1.14	1.24
25	SC	162	LEU	C-O	-7.73	1.14	1.24
80	LC	120	LYS	N-CA	7.73	1.56	1.46
33	L1	2566	C	C2'-C1'	-7.73	1.41	1.53
33	L1	2661	G	C4'-C3'	7.73	1.64	1.52
77	Lc	85	ARG	CD-NE	7.73	1.57	1.46
33	L1	1123	A	O4'-C1'	-7.73	1.30	1.41
51	LY	52	ASP	N-CA	-7.73	1.37	1.46
73	Lp	48	LYS	N-CA	-7.73	1.36	1.46
32	S1	979	A	O4'-C1'	7.73	1.53	1.41
32	S1	1698	A	C5'-C4'	7.73	1.62	1.51
33	L1	2740	C	O4'-C1'	7.73	1.53	1.41
33	L1	1706	C	O4'-C1'	7.73	1.53	1.42
32	S1	1079	G	O4'-C1'	7.72	1.53	1.41
33	L1	597	C	C4'-C3'	7.72	1.64	1.52
33	L1	1595	G	O4'-C1'	7.72	1.53	1.41
33	L1	2481	C	C2'-C1'	-7.72	1.41	1.53
52	Lb	88	HIS	ND1-CE1	7.72	1.40	1.32
32	S1	654	C	C2'-C1'	-7.72	1.41	1.53
33	L1	724	A	O4'-C1'	7.72	1.53	1.41
32	S1	1034	G	C2'-C1'	-7.72	1.41	1.53
70	Li	66	ARG	CD-NE	7.72	1.57	1.46
32	S1	579	C	O4'-C1'	7.72	1.53	1.41
33	L1	1237	G	C2'-C1'	-7.72	1.41	1.53
33	L1	1674	A	O4'-C1'	7.72	1.53	1.41
44	LR	39	ARG	N-CA	-7.71	1.36	1.46
11	SM	39	ARG	NE-CZ	7.71	1.41	1.33
32	S1	334	G	C2'-C1'	-7.71	1.41	1.53
38	LE	108	ILE	CA-C	7.71	1.62	1.52
29	ST	73	GLN	C-N	7.71	1.43	1.33
33	L1	669	G	C2'-C1'	-7.71	1.41	1.53
67	LS	28	ARG	CA-CB	7.71	1.73	1.53
1	Sa	65	HIS	ND1-CE1	7.71	1.40	1.32
2	SA	218	GLU	N-CA	-7.71	1.37	1.46
32	S1	1396	U	C2'-C1'	7.70	1.64	1.53
33	L1	764	A	O4'-C1'	7.70	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3070	G	C2'-C1'	-7.70	1.41	1.53
37	LB	118	HIS	CE1-NE2	7.70	1.40	1.32
12	SO	80	LEU	C-O	-7.70	1.13	1.24
35	L2	22	U	C2'-C1'	-7.70	1.41	1.53
78	Le	162	ARG	CA-C	-7.70	1.43	1.52
33	L1	2007	C	O4'-C1'	7.70	1.53	1.41
33	L1	3006	G	O4'-C1'	-7.70	1.30	1.42
32	S1	1248	A	C2'-C1'	-7.69	1.41	1.53
33	L1	2230	C	O4'-C1'	7.69	1.53	1.41
33	L1	2870	U	C2'-C1'	-7.69	1.41	1.53
33	L1	3101	C	C2'-C1'	-7.69	1.41	1.53
33	L1	2832	G	O4'-C1'	7.69	1.53	1.41
80	LC	350	THR	CA-CB	7.69	1.66	1.53
32	S1	631	C	O3'-P	-7.69	1.49	1.61
33	L1	225	G	C2'-C1'	-7.69	1.41	1.53
33	L1	309	C	C5'-C4'	7.69	1.62	1.51
71	Lj	12	TYR	CA-CB	7.69	1.66	1.53
32	S1	1012	C	C2'-C1'	-7.69	1.41	1.53
32	S1	1766	A	C2'-C1'	7.69	1.64	1.53
14	SP	93	HIS	ND1-CE1	7.68	1.40	1.32
32	S1	771	G	O3'-P	-7.68	1.49	1.61
32	S1	848	C	O4'-C1'	7.68	1.53	1.41
33	L1	453	U	C2'-C1'	-7.68	1.41	1.53
33	L1	1042	C	C5'-C4'	7.68	1.62	1.51
15	SS	93	PRO	CA-CB	7.68	1.64	1.53
40	LH	98	GLU	CA-C	7.68	1.63	1.52
32	S1	387	G	C2'-C1'	-7.68	1.41	1.53
32	S1	988	G	C5'-C4'	7.68	1.62	1.51
33	L1	2975	G	C2'-C1'	-7.68	1.41	1.53
48	LV	10	ASN	C-N	7.68	1.44	1.34
31	S2	22	G	O4'-C1'	7.67	1.53	1.41
33	L1	1351	C	C5'-C4'	7.67	1.62	1.51
34	L3	71	A	C2'-C1'	7.67	1.64	1.53
28	SN	38	CYS	C-N	7.67	1.43	1.33
33	L1	1955	G	C3'-O3'	7.67	1.53	1.42
59	Lo	13	LEU	CA-CB	7.67	1.65	1.53
32	S1	1082	C	C2'-C1'	-7.67	1.41	1.53
80	LC	293	GLN	N-CA	7.67	1.54	1.46
7	SI	38	ASN	C-N	7.67	1.37	1.33
32	S1	456	A	C2'-C1'	7.66	1.64	1.53
33	L1	1036	C	O4'-C1'	7.66	1.53	1.41
33	L1	1042	C	O4'-C1'	7.66	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1251	U	C2'-C1'	7.66	1.64	1.53
11	SM	89	ASP	CA-CB	7.66	1.62	1.53
33	L1	1344	A	C5'-C4'	7.66	1.62	1.51
24	SX	65	LEU	CA-C	-7.65	1.42	1.52
33	L1	545	C	C2'-C1'	-7.65	1.41	1.53
32	S1	1393	G	C2'-C1'	-7.65	1.41	1.53
15	SS	93	PRO	N-CA	7.65	1.55	1.46
27	SH	18	GLU	CA-CB	7.65	1.65	1.53
33	L1	1779	C	O4'-C1'	7.65	1.53	1.41
33	L1	2042	G	C2'-C1'	-7.65	1.41	1.53
33	L1	2356	A	O4'-C1'	7.65	1.53	1.41
14	SP	108	ILE	N-CA	7.65	1.55	1.46
33	L1	1599	A	C3'-O3'	7.65	1.53	1.42
32	S1	949	A	C2'-C1'	7.65	1.64	1.53
32	S1	1210	U	O4'-C1'	7.65	1.53	1.41
33	L1	532	G	O4'-C1'	7.65	1.53	1.41
33	L1	2382	C	C2'-C1'	-7.65	1.41	1.53
33	L1	1235	A	C3'-O3'	7.65	1.53	1.42
33	L1	1830	U	C2'-C1'	-7.65	1.41	1.53
33	L1	2345	C	P-O5'	-7.65	1.48	1.59
33	L1	1997	G	C2'-C1'	-7.64	1.41	1.53
48	LV	170	LYS	N-CA	7.64	1.56	1.46
7	SI	128	ARG	NE-CZ	7.64	1.41	1.33
80	LC	349	GLN	C-O	-7.64	1.14	1.24
33	L1	3111	C	C2'-C1'	-7.64	1.41	1.53
32	S1	1055	G	O4'-C1'	7.64	1.53	1.41
33	L1	304	A	O4'-C1'	-7.64	1.30	1.41
23	SU	80	LEU	CB-CG	7.63	1.68	1.53
32	S1	623	A	C2'-C1'	7.63	1.64	1.53
33	L1	590	C	C2'-C1'	-7.63	1.41	1.53
33	L1	578	C	C2'-C1'	-7.63	1.42	1.53
33	L1	2673	G	C3'-O3'	7.63	1.53	1.42
33	L1	3054	G	C5'-C4'	7.63	1.62	1.51
37	LB	226	ARG	CA-C	7.63	1.63	1.52
32	S1	949	A	O4'-C1'	-7.63	1.30	1.42
69	La	9	LYS	C-N	7.63	1.44	1.33
33	L1	2276	A	C2'-C1'	7.63	1.64	1.53
33	L1	2650	A	C2'-C1'	7.62	1.64	1.53
33	L1	1385	C	C2'-C1'	-7.62	1.42	1.53
37	LB	209	HIS	N-CA	7.62	1.53	1.45
32	S1	355	U	C4'-O4'	7.62	1.57	1.45
33	L1	493	G	O4'-C1'	7.62	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2204	U	C2'-C1'	-7.62	1.42	1.53
33	L1	3389	C	O4'-C1'	7.62	1.53	1.41
31	S2	22	G	C2'-C1'	-7.62	1.42	1.53
32	S1	435	C	O4'-C1'	7.62	1.53	1.41
33	L1	329	G	O4'-C1'	-7.62	1.30	1.41
33	L1	2837	C	C2'-C1'	-7.62	1.42	1.53
32	S1	384	U	O4'-C1'	7.61	1.53	1.41
33	L1	1128	U	O4'-C1'	7.61	1.53	1.41
33	L1	1146	A	O4'-C1'	-7.61	1.30	1.42
33	L1	1276	C	O4'-C1'	7.61	1.53	1.41
32	S1	290	C	C4'-C3'	7.61	1.64	1.52
32	S1	1250	C	O4'-C1'	7.61	1.53	1.41
39	LF	188	GLU	CA-C	-7.61	1.42	1.52
33	L1	357	C	C2'-C1'	-7.61	1.42	1.53
32	S1	467	U	C2'-C1'	-7.61	1.42	1.53
33	L1	132	U	C2'-C1'	-7.61	1.42	1.53
32	S1	1776	A	C4'-C3'	7.60	1.64	1.53
33	L1	660	A	C2'-C1'	-7.60	1.42	1.53
33	L1	1407	G	O4'-C1'	-7.60	1.30	1.41
33	L1	2219	A	C3'-C2'	7.60	1.64	1.52
33	L1	2838	C	O4'-C1'	7.60	1.53	1.41
33	L1	391	U	C2'-C1'	-7.60	1.42	1.53
33	L1	1034	U	C4'-C3'	-7.60	1.41	1.52
71	Lj	24	LYS	N-CA	-7.60	1.36	1.46
13	SQ	82	MET	CA-CB	7.60	1.66	1.53
32	S1	287	C	O4'-C1'	7.60	1.53	1.41
32	S1	1007	G	O4'-C1'	7.60	1.53	1.41
33	L1	1009	G	O4'-C1'	-7.60	1.30	1.41
33	L1	2876	G	O5'-C5'	7.59	1.53	1.42
32	S1	320	A	C5'-C4'	7.59	1.62	1.51
32	S1	1670	G	C2'-C1'	7.59	1.64	1.53
33	L1	3168	C	O4'-C1'	7.59	1.53	1.41
33	L1	1596	G	C2'-C1'	-7.59	1.42	1.53
42	LP	81	TYR	CA-C	-7.59	1.44	1.53
64	LG	27	ALA	CA-C	-7.59	1.43	1.52
33	L1	1317	G	C2'-C1'	7.58	1.64	1.53
29	ST	37	GLY	N-CA	-7.58	1.37	1.45
32	S1	610	A	O4'-C1'	-7.58	1.30	1.42
33	L1	3314	G	O4'-C1'	7.58	1.53	1.41
32	S1	1543	U	C2'-C1'	7.58	1.64	1.53
33	L1	100	C	O4'-C1'	7.58	1.53	1.41
2	SA	11	ALA	C-N	7.58	1.44	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
45	LQ	245	ALA	CA-C	-7.58	1.42	1.52
17	SV	71	ARG	C-N	7.57	1.44	1.33
81	LD	308	LYS	C-N	-7.57	1.25	1.34
27	SH	78	ARG	C-O	-7.57	1.12	1.23
32	S1	446	C	O4'-C1'	7.57	1.53	1.41
32	S1	140	C	O4'-C1'	7.57	1.53	1.41
32	S1	915	C	C2'-C1'	7.57	1.64	1.53
33	L1	600	G	C5'-C4'	7.57	1.62	1.51
32	S1	550	U	C2'-C1'	-7.57	1.42	1.53
32	S1	910	A	C2'-C1'	-7.57	1.42	1.53
33	L1	2792	A	C3'-O3'	7.57	1.53	1.42
67	LS	38	ARG	C-N	7.57	1.43	1.33
31	S2	74	C	O3'-P	-7.57	1.49	1.61
35	L2	101	G	O4'-C1'	7.56	1.52	1.41
24	SX	64	VAL	N-CA	-7.56	1.35	1.46
33	L1	2129	U	C2'-C1'	-7.56	1.42	1.53
33	L1	2442	A	O4'-C1'	7.56	1.52	1.41
35	L2	19	G	O4'-C1'	7.56	1.52	1.41
32	S1	1788	G	C2'-C1'	7.56	1.64	1.53
33	L1	662	G	C2'-C1'	-7.56	1.42	1.53
68	LW	87	TYR	C-N	-7.56	1.23	1.33
83	Lm	4	ARG	CA-C	-7.56	1.43	1.52
33	L1	705	A	O4'-C1'	7.55	1.52	1.41
33	L1	1369	G	C4'-C3'	7.55	1.63	1.52
33	L1	229	G	O4'-C1'	7.55	1.52	1.41
33	L1	608	G	C2'-C1'	-7.55	1.42	1.53
33	L1	1993	G	C2'-C1'	-7.55	1.42	1.53
33	L1	276	U	O4'-C1'	7.55	1.52	1.41
33	L1	2066	G	C3'-C2'	7.55	1.64	1.52
33	L1	1812	A	C5'-C4'	7.54	1.62	1.51
32	S1	1069	G	C2'-C1'	7.54	1.64	1.53
33	L1	928	A	C2'-C1'	-7.54	1.41	1.53
33	L1	1346	C	C2'-C1'	-7.54	1.42	1.53
33	L1	2394	G	C2'-C1'	-7.54	1.42	1.53
33	L1	2402	G	C2'-C1'	7.54	1.64	1.53
33	L1	3360	U	C2'-C1'	-7.54	1.41	1.53
32	S1	373	U	P-O5'	-7.54	1.48	1.59
67	LS	41	SER	C-N	-7.54	1.24	1.33
32	S1	905	A	C2'-C1'	-7.54	1.42	1.53
32	S1	910	A	O4'-C1'	7.54	1.52	1.41
33	L1	1580	C	O4'-C1'	7.54	1.52	1.41
3	SB	177	LEU	CA-C	-7.54	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	308	U	C3'-O3'	7.54	1.53	1.42
33	L1	670	A	C2'-C1'	-7.54	1.42	1.53
33	L1	2699	A	C2'-C1'	-7.53	1.42	1.53
72	Lk	66	VAL	CA-CB	7.53	1.64	1.54
33	L1	921	C	C2'-C1'	7.53	1.64	1.53
33	L1	2105	G	P-O5'	-7.53	1.48	1.59
33	L1	3100	C	C5'-C4'	7.53	1.62	1.51
33	L1	786	U	C2'-C1'	-7.53	1.41	1.53
32	S1	94	A	O4'-C1'	7.53	1.53	1.42
32	S1	315	U	C5'-C4'	7.53	1.62	1.51
38	LE	143	ARG	CD-NE	7.53	1.56	1.46
82	LK	114	PRO	CA-C	7.53	1.59	1.52
33	L1	88	A	O3'-P	-7.52	1.49	1.61
33	L1	2685	C	O4'-C1'	7.52	1.52	1.41
33	L1	1770	C	O4'-C1'	7.52	1.52	1.41
45	LQ	266	ARG	CA-C	7.52	1.62	1.52
33	L1	1043	U	O4'-C1'	7.52	1.52	1.41
29	ST	15	ARG	CA-C	-7.51	1.43	1.52
33	L1	138	G	C2'-C1'	-7.51	1.42	1.53
33	L1	2644	U	O4'-C1'	7.51	1.52	1.41
69	La	75	VAL	N-CA	-7.51	1.36	1.46
81	LD	90	ARG	CA-CB	7.51	1.66	1.53
33	L1	2132	A	C2'-C1'	7.51	1.64	1.53
32	S1	1018	A	O4'-C1'	7.51	1.52	1.41
33	L1	1729	G	C2'-C1'	-7.51	1.42	1.53
33	L1	1827	U	O4'-C1'	7.51	1.52	1.41
7	SI	34	LEU	C-N	7.50	1.42	1.33
35	L2	56	A	C2'-C1'	7.50	1.64	1.53
33	L1	588	G	C2'-C1'	-7.50	1.42	1.53
45	LQ	140	ARG	CA-C	7.50	1.62	1.52
4	SD	65	LEU	N-CA	-7.50	1.37	1.46
33	L1	1632	G	O3'-P	-7.50	1.50	1.61
35	L2	137	C	C2'-C1'	-7.49	1.42	1.53
32	S1	68	A	C2'-C1'	-7.49	1.42	1.53
33	L1	2927	C	C3'-O3'	7.49	1.53	1.42
32	S1	163	G	C2'-C1'	-7.49	1.42	1.53
32	S1	1022	U	C5'-C4'	7.49	1.62	1.51
33	L1	877	U	C3'-O3'	7.49	1.53	1.42
33	L1	955	A	C2'-C1'	-7.49	1.42	1.53
1	Sa	240	ARG	CA-CB	7.49	1.62	1.52
33	L1	1959	U	O4'-C1'	7.49	1.52	1.41
32	S1	470	U	C2'-C1'	-7.48	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	147	C	C2'-C1'	-7.48	1.42	1.53
32	S1	1777	G	P-O5'	-7.48	1.48	1.59
32	S1	1433	A	C2'-C1'	7.48	1.64	1.53
33	L1	1249	A	O4'-C1'	7.48	1.53	1.42
33	L1	1387	G	O3'-P	7.48	1.72	1.61
33	L1	468	U	C4'-C3'	7.48	1.63	1.52
33	L1	483	U	O4'-C1'	7.48	1.52	1.41
33	L1	1133	A	C2'-C1'	7.48	1.64	1.53
33	L1	1256	A	C2'-C1'	-7.48	1.42	1.53
33	L1	73	A	O4'-C1'	-7.47	1.30	1.41
33	L1	2380	G	O5'-C5'	7.47	1.53	1.42
37	LB	224	THR	C-N	7.47	1.44	1.33
40	LH	61	ARG	CD-NE	7.47	1.56	1.46
46	LT	32	ILE	CA-CB	-7.47	1.45	1.54
7	SI	136	GLY	CA-C	-7.47	1.44	1.52
29	ST	1	MET	N-CA	7.47	1.60	1.46
33	L1	2065	G	C2'-C1'	7.47	1.64	1.53
32	S1	155	A	C2'-C1'	-7.47	1.42	1.53
33	L1	2504	A	O4'-C1'	7.47	1.52	1.41
33	L1	1274	A	C5'-C4'	7.46	1.62	1.51
33	L1	1172	A	O5'-C5'	7.46	1.53	1.42
33	L1	1514	U	O4'-C1'	7.46	1.53	1.42
42	LP	118	SER	CA-C	-7.46	1.43	1.52
49	LX	144	ASP	C-N	7.46	1.43	1.33
33	L1	1689	G	C2'-C1'	-7.46	1.42	1.53
33	L1	2936	A	O4'-C1'	7.46	1.52	1.41
33	L1	1775	C	O4'-C1'	7.46	1.52	1.41
33	L1	2774	A	O4'-C1'	7.46	1.52	1.41
38	LE	118	TYR	N-CA	-7.46	1.37	1.46
33	L1	1260	G	C2'-C1'	-7.46	1.42	1.53
32	S1	909	G	C2'-C1'	-7.46	1.42	1.53
33	L1	1506	A	C2'-C1'	-7.46	1.42	1.53
32	S1	406	C	O4'-C1'	7.45	1.52	1.41
33	L1	549	G	O4'-C1'	7.45	1.52	1.41
33	L1	1060	U	O3'-P	-7.45	1.50	1.61
25	SC	126	HIS	CA-CB	7.45	1.65	1.53
33	L1	695	G	O4'-C1'	-7.45	1.30	1.41
33	L1	1810	G	C2'-C1'	7.45	1.64	1.53
23	SU	18	MET	N-CA	7.45	1.55	1.45
33	L1	924	A	O4'-C1'	-7.45	1.30	1.42
32	S1	931	A	O4'-C1'	-7.45	1.30	1.41
33	L1	584	G	C2'-C1'	7.45	1.64	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2366	A	C2'-C1'	-7.45	1.42	1.53
33	L1	2230	C	C2'-C1'	-7.44	1.42	1.53
33	L1	2736	A	C2'-C1'	7.44	1.64	1.53
32	S1	1281	G	C5'-C4'	7.44	1.62	1.51
32	S1	1288	C	O4'-C1'	7.44	1.53	1.42
33	L1	690	G	C2'-C1'	7.44	1.64	1.53
33	L1	1321	A	C2'-C1'	-7.44	1.41	1.53
33	L1	1954	G	O4'-C1'	-7.44	1.30	1.41
33	L1	1163	A	C2'-C1'	-7.44	1.42	1.53
33	L1	1226	G	O5'-C5'	7.44	1.54	1.42
33	L1	1932	A	C2'-C1'	-7.44	1.42	1.53
8	SJ	82	GLY	N-CA	7.43	1.57	1.45
32	S1	428	C	O4'-C1'	7.43	1.52	1.41
32	S1	500	G	O4'-C1'	7.43	1.52	1.41
33	L1	2706	A	C2'-C1'	7.43	1.64	1.53
35	L2	135	G	O4'-C1'	7.43	1.52	1.41
32	S1	1578	A	C2'-C1'	-7.43	1.42	1.53
33	L1	891	U	O4'-C1'	-7.43	1.30	1.41
44	LR	146	ARG	CD-NE	7.43	1.56	1.46
33	L1	123	U	O4'-C1'	7.43	1.52	1.41
32	S1	767	G	O3'-P	-7.43	1.50	1.61
32	S1	1607	C	O3'-P	-7.42	1.50	1.61
33	L1	1349	G	O4'-C1'	-7.42	1.30	1.41
8	SJ	108	LYS	CA-C	-7.42	1.43	1.52
13	SQ	26	LEU	C-N	7.42	1.44	1.33
32	S1	1356	A	O4'-C1'	7.42	1.52	1.41
33	L1	1606	C	O4'-C1'	7.42	1.52	1.41
33	L1	2620	U	C2'-C1'	7.42	1.64	1.53
3	SB	75	LYS	CA-C	-7.42	1.42	1.52
33	L1	255	C	C2'-C1'	-7.42	1.42	1.53
33	L1	2358	C	C2'-C1'	-7.42	1.42	1.53
33	L1	1739	G	C2'-C1'	-7.42	1.42	1.53
33	L1	2075	C	O4'-C1'	7.42	1.52	1.41
33	L1	2164	G	C2'-C1'	-7.42	1.42	1.53
33	L1	2842	C	C2'-C1'	7.42	1.64	1.53
40	LH	120	VAL	C-N	7.42	1.43	1.33
43	LO	137	GLY	C-N	7.41	1.44	1.33
78	Le	2	ALA	N-CA	-7.41	1.37	1.46
33	L1	2749	A	O3'-P	-7.41	1.50	1.61
37	LB	193	ARG	N-CA	-7.41	1.37	1.46
57	L1	12	ARG	N-CA	7.41	1.62	1.46
19	SY	27	ARG	CD-NE	7.41	1.56	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	609	C	O4'-C1'	7.41	1.52	1.41
33	L1	868	A	C4'-C3'	7.41	1.63	1.52
33	L1	2908	C	C2'-C1'	-7.41	1.42	1.53
33	L1	3138	C	O4'-C1'	7.41	1.52	1.41
10	SL	25	LYS	C-N	7.40	1.44	1.33
33	L1	42	A	O4'-C1'	-7.40	1.30	1.42
42	LP	49	ARG	CD-NE	7.40	1.56	1.46
33	L1	2381	G	O4'-C1'	-7.40	1.30	1.41
42	LP	80	VAL	CA-CB	-7.39	1.45	1.54
32	S1	956	A	C2'-C1'	7.39	1.64	1.53
32	S1	1363	G	C2'-C1'	-7.39	1.42	1.53
33	L1	2537	G	C2'-C1'	-7.39	1.42	1.53
33	L1	2079	A	P-O5'	-7.39	1.48	1.59
66	LN	109	LYS	CA-C	-7.39	1.43	1.52
81	LD	305	SER	N-CA	7.39	1.55	1.46
33	L1	904	G	O3'-P	-7.39	1.50	1.61
15	SS	15	HIS	CA-CB	-7.39	1.42	1.53
32	S1	256	G	C2'-C1'	-7.39	1.42	1.53
33	L1	3018	A	C3'-O3'	7.39	1.53	1.42
32	S1	1037	G	C2'-C1'	-7.38	1.42	1.53
33	L1	630	C	C5'-C4'	7.38	1.62	1.51
33	L1	676	G	C2'-C1'	-7.38	1.42	1.53
33	L1	1713	A	O4'-C1'	7.38	1.52	1.41
47	LU	85	ILE	C-N	7.38	1.43	1.33
32	S1	1725	C	O4'-C1'	7.38	1.52	1.41
33	L1	978	C	O4'-C1'	7.38	1.52	1.41
33	L1	1567	G	O4'-C1'	-7.38	1.30	1.41
33	L1	2659	A	C2'-C1'	-7.38	1.42	1.53
34	L3	94	C	C2'-C1'	-7.37	1.42	1.53
32	S1	1241	G	C2'-C1'	-7.37	1.42	1.53
33	L1	411	C	O4'-C1'	7.37	1.52	1.41
33	L1	258	C	O4'-C1'	7.37	1.52	1.41
33	L1	2740	C	C3'-O3'	7.37	1.53	1.42
7	SI	141	ARG	NE-CZ	7.37	1.41	1.33
33	L1	780	U	O4'-C1'	7.37	1.52	1.41
33	L1	2677	A	C2'-C1'	7.37	1.64	1.53
35	L2	110	C	O4'-C1'	7.37	1.53	1.42
33	L1	3245	G	C2'-C1'	-7.37	1.42	1.53
39	LF	181	SER	C-N	7.37	1.42	1.33
35	L2	56	A	O4'-C1'	7.36	1.52	1.41
33	L1	134	U	O4'-C1'	-7.36	1.30	1.42
3	SB	80	LEU	C-N	7.36	1.44	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	504	C	C2'-C1'	-7.36	1.42	1.53
32	S1	967	C	O4'-C1'	7.36	1.52	1.41
32	S1	1542	G	O4'-C1'	-7.36	1.30	1.42
33	L1	367	A	C5'-C4'	7.36	1.62	1.51
25	SC	128	ARG	CA-CB	-7.36	1.43	1.53
33	L1	567	G	C2'-C1'	-7.36	1.42	1.53
33	L1	2989	A	O4'-C1'	7.35	1.52	1.41
33	L1	3087	A	O4'-C1'	7.35	1.52	1.42
32	S1	1713	C	O4'-C1'	7.35	1.52	1.41
33	L1	1866	C	C2'-C1'	-7.35	1.42	1.53
33	L1	2863	U	O4'-C1'	7.35	1.52	1.41
67	LS	70	ASN	N-CA	-7.35	1.35	1.46
32	S1	1352	A	C3'-C2'	-7.35	1.41	1.52
8	SJ	71	HIS	ND1-CE1	7.35	1.39	1.32
33	L1	1325	G	C2'-C1'	-7.35	1.42	1.53
33	L1	1501	A	O4'-C1'	7.35	1.52	1.41
32	S1	954	C	O4'-C1'	7.34	1.52	1.41
33	L1	1368	U	C3'-O3'	7.34	1.53	1.42
17	SV	78	ARG	CA-C	-7.34	1.42	1.52
33	L1	2350	C	O4'-C1'	7.34	1.52	1.41
33	L1	469	U	O4'-C1'	7.34	1.52	1.41
33	L1	2594	A	C3'-C2'	7.34	1.63	1.52
36	LA	164	MET	C-N	7.34	1.44	1.33
33	L1	1382	C	C2'-C1'	-7.34	1.42	1.53
32	S1	159	U	O4'-C1'	7.33	1.52	1.41
32	S1	991	G	C2'-C1'	-7.33	1.42	1.53
32	S1	1004	U	C2'-C1'	-7.33	1.42	1.53
13	SQ	21	TYR	C-O	-7.33	1.14	1.24
34	L3	94	C	O4'-C1'	7.33	1.52	1.41
32	S1	1294	U	C2'-C1'	-7.33	1.42	1.53
33	L1	1038	C	O4'-C1'	7.33	1.52	1.41
31	S2	18	G	C5'-C4'	7.33	1.62	1.51
32	S1	331	U	O4'-C1'	7.33	1.52	1.41
33	L1	185	A	C2'-C1'	-7.33	1.42	1.53
33	L1	3083	C	O4'-C1'	7.33	1.52	1.41
78	Le	141	PRO	CA-CB	7.33	1.62	1.54
48	LV	71	ALA	CA-C	-7.33	1.42	1.52
57	L1	74	PHE	CA-C	7.33	1.61	1.52
33	L1	338	C	C2'-C1'	-7.33	1.42	1.53
33	L1	1986	G	C2'-C1'	-7.33	1.42	1.53
58	Ln	6	HIS	ND1-CE1	7.33	1.39	1.32
1	Sa	200	PHE	N-CA	7.32	1.53	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1659	G	C2'-C1'	-7.32	1.42	1.53
33	L1	2453	G	C2'-C1'	7.32	1.64	1.53
60	Lr	42	ARG	CD-NE	7.32	1.56	1.46
32	S1	1275	G	C2'-C1'	-7.32	1.42	1.53
33	L1	879	A	O3'-P	-7.32	1.50	1.61
33	L1	1127	U	C2'-C1'	-7.32	1.42	1.53
48	LV	136	ARG	NE-CZ	7.32	1.41	1.33
33	L1	110	C	O4'-C1'	7.32	1.52	1.41
81	LD	18	MET	N-CA	-7.32	1.36	1.46
4	SD	136	ILE	CB-CG1	7.32	1.68	1.53
35	L2	65	A	C5'-C4'	7.32	1.62	1.51
33	L1	2456	G	O5'-C5'	7.31	1.53	1.42
33	L1	2796	G	C2'-C1'	7.31	1.64	1.53
32	S1	1701	G	C5'-C4'	7.31	1.62	1.51
33	L1	332	A	O4'-C1'	7.31	1.52	1.41
33	L1	2340	G	O4'-C1'	-7.31	1.30	1.41
42	LP	48	ALA	CA-CB	7.31	1.64	1.53
77	Lc	32	GLN	N-CA	-7.31	1.37	1.46
27	SH	86	ILE	CA-C	-7.31	1.43	1.52
32	S1	937	A	O4'-C1'	7.31	1.52	1.42
32	S1	1788	G	O4'-C1'	-7.31	1.30	1.41
38	LE	139	ARG	C-N	7.31	1.43	1.33
33	L1	1933	U	C2'-C1'	-7.31	1.42	1.53
32	S1	468	A	C2'-C1'	7.30	1.64	1.53
33	L1	2896	C	C2'-C1'	7.30	1.64	1.53
35	L2	68	U	C4'-C3'	-7.30	1.41	1.52
42	LP	42	PRO	N-CD	-7.30	1.37	1.47
32	S1	478	A	O4'-C1'	7.30	1.52	1.41
33	L1	249	A	C3'-O3'	7.30	1.53	1.42
33	L1	2492	C	C5'-C4'	7.30	1.62	1.51
45	LQ	300	GLU	CA-C	7.30	1.62	1.52
4	SD	148	ARG	CA-C	-7.30	1.43	1.52
32	S1	1125	U	O4'-C1'	7.30	1.52	1.41
34	L3	54	A	O3'-P	-7.30	1.50	1.61
54	Lf	90	ARG	CD-NE	7.30	1.56	1.46
32	S1	617	G	C2'-C1'	-7.30	1.42	1.53
32	S1	1537	U	O4'-C1'	7.30	1.52	1.41
33	L1	2319	A	C2'-C1'	7.29	1.64	1.53
34	L3	35	C	C2'-C1'	-7.29	1.42	1.53
32	S1	1592	G	C2'-C1'	7.29	1.64	1.53
33	L1	1345	U	C2'-C1'	-7.29	1.42	1.53
33	L1	3164	C	C2'-C1'	-7.29	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	825	U	C2'-C1'	-7.29	1.42	1.53
32	S1	844	C	O4'-C1'	7.29	1.52	1.41
5	SE	90	MET	CA-CB	7.29	1.65	1.53
32	S1	1228	G	C2'-C1'	-7.29	1.42	1.53
32	S1	1306	U	C2'-C1'	-7.29	1.42	1.53
33	L1	529	C	O4'-C1'	7.28	1.52	1.41
32	S1	182	C	C2'-C1'	-7.28	1.42	1.53
31	S2	56	A	C2'-C1'	7.28	1.64	1.53
32	S1	144	U	C2'-C1'	-7.28	1.42	1.53
33	L1	1828	C	C2'-C1'	-7.28	1.42	1.53
27	SH	108	ALA	C-N	7.28	1.40	1.32
28	SN	35	GLY	CA-C	7.28	1.62	1.51
33	L1	128	C	C2'-C1'	-7.28	1.42	1.53
33	L1	2719	U	O3'-P	-7.28	1.50	1.61
23	SU	8	PRO	N-CA	7.28	1.56	1.47
33	L1	443	G	C2'-C1'	-7.28	1.42	1.53
32	S1	448	C	O4'-C1'	7.27	1.52	1.42
32	S1	494	G	C2'-C1'	-7.27	1.42	1.53
2	SA	22	MET	CA-C	-7.27	1.43	1.52
33	L1	2313	U	C2'-C1'	7.27	1.64	1.53
33	L1	3092	A	C4'-O4'	7.27	1.56	1.45
32	S1	1661	C	O4'-C1'	7.27	1.52	1.41
33	L1	1465	A	O4'-C1'	7.27	1.52	1.41
33	L1	595	C	C4'-O4'	7.27	1.56	1.45
31	S2	57	A	O4'-C1'	7.27	1.52	1.42
32	S1	1287	U	O4'-C1'	7.27	1.52	1.41
33	L1	338	C	O3'-P	-7.27	1.50	1.61
33	L1	484	C	C3'-O3'	7.27	1.53	1.42
33	L1	2038	G	C2'-C1'	-7.27	1.42	1.53
60	Lr	17	CYS	CA-CB	7.27	1.62	1.53
67	LS	138	ARG	NE-CZ	7.27	1.41	1.33
13	SQ	81	ARG	N-CA	-7.27	1.36	1.46
14	SP	117	ARG	C-N	7.26	1.43	1.33
32	S1	339	G	O4'-C1'	7.26	1.52	1.41
33	L1	585	A	O4'-C1'	7.26	1.52	1.41
33	L1	1742	G	O5'-C5'	-7.26	1.31	1.42
32	S1	1548	G	O4'-C1'	7.26	1.52	1.41
34	L3	30	G	C2'-C1'	-7.26	1.42	1.53
3	SB	143	ARG	CD-NE	7.26	1.56	1.46
33	L1	2109	G	C2'-C1'	-7.26	1.42	1.53
31	S2	71	A	O4'-C1'	7.25	1.52	1.41
67	LS	90	HIS	CA-C	-7.25	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
69	La	77	PHE	CA-CB	-7.25	1.41	1.53
32	S1	839	G	C2'-C1'	-7.25	1.42	1.53
32	S1	1319	U	C4'-C3'	7.25	1.63	1.52
33	L1	2087	A	C2'-C1'	7.25	1.64	1.53
35	L2	51	U	O4'-C1'	7.25	1.52	1.41
49	LX	61	ALA	CA-C	-7.25	1.43	1.52
33	L1	1015	A	C2'-C1'	7.25	1.64	1.53
33	L1	1256	A	O3'-P	-7.25	1.50	1.61
12	SO	64	LYS	N-CA	-7.25	1.36	1.46
32	S1	1032	A	O4'-C1'	7.24	1.52	1.41
32	S1	1080	C	C2'-C1'	-7.24	1.42	1.53
32	S1	1122	U	C2'-C1'	-7.24	1.42	1.53
33	L1	2916	G	C2'-C1'	-7.24	1.42	1.53
33	L1	1511	C	C2'-C1'	-7.24	1.42	1.53
79	Ls	234	TYR	CA-C	7.24	1.61	1.52
16	SR	114	VAL	CA-C	-7.24	1.43	1.52
33	L1	1176	U	C3'-C2'	-7.24	1.41	1.52
32	S1	1628	C	O4'-C1'	7.24	1.52	1.41
81	LD	386	ILE	N-CA	-7.24	1.37	1.46
32	S1	357	A	O4'-C1'	7.23	1.52	1.41
32	S1	1336	C	C2'-C1'	-7.23	1.42	1.53
33	L1	611	C	O4'-C1'	7.23	1.52	1.41
33	L1	1143	G	O4'-C1'	-7.23	1.30	1.41
7	SI	63	ARG	NE-CZ	7.23	1.41	1.33
32	S1	300	U	C2'-C1'	7.23	1.64	1.53
32	S1	1559	U	C2'-C1'	7.23	1.64	1.53
33	L1	462	C	O4'-C1'	7.23	1.52	1.41
29	ST	16	LYS	C-O	-7.23	1.15	1.24
32	S1	1077	C	O4'-C1'	7.23	1.52	1.41
33	L1	2430	C	C2'-C1'	7.23	1.64	1.53
33	L1	2595	G	O4'-C1'	7.23	1.52	1.41
35	L2	147	C	C2'-C1'	-7.23	1.42	1.53
68	LW	81	SER	CA-C	-7.23	1.46	1.52
33	L1	2757	G	C2'-C1'	7.23	1.63	1.53
42	LP	156	HIS	CB-CG	7.23	1.60	1.50
46	LT	181	LEU	C-O	-7.23	1.15	1.24
1	Sa	262	GLN	CA-CB	7.22	1.65	1.53
32	S1	1612	C	O4'-C1'	7.22	1.52	1.41
33	L1	1369	G	O4'-C1'	-7.22	1.30	1.41
15	SS	91	ARG	CD-NE	7.22	1.56	1.46
33	L1	463	G	O4'-C1'	-7.22	1.30	1.41
33	L1	741	G	C2'-C1'	-7.22	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2497	A	P-O5'	-7.22	1.49	1.59
11	SM	89	ASP	N-CA	-7.22	1.37	1.46
32	S1	454	U	O4'-C1'	7.22	1.52	1.41
32	S1	1580	G	O4'-C1'	-7.22	1.31	1.42
33	L1	1881	C	C2'-O2'	-7.22	1.30	1.41
32	S1	145	A	C2'-C1'	-7.22	1.42	1.53
32	S1	1225	A	O4'-C1'	7.22	1.52	1.41
32	S1	1390	A	O4'-C1'	7.22	1.52	1.41
33	L1	1950	G	C2'-C1'	7.22	1.64	1.53
34	L3	51	G	C2'-C1'	-7.22	1.42	1.53
64	LG	124	TYR	CA-C	7.22	1.62	1.52
66	LN	111	MET	CA-C	7.22	1.61	1.52
1	Sa	343	HIS	ND1-CE1	7.21	1.39	1.32
33	L1	2074	C	O4'-C1'	7.21	1.52	1.41
33	L1	3183	G	C2'-C1'	-7.21	1.42	1.53
34	L3	27	A	C2'-C1'	-7.21	1.42	1.53
16	SR	127	GLU	CA-C	7.21	1.61	1.52
33	L1	1509	G	C2'-C1'	7.21	1.63	1.53
33	L1	2711	U	C2'-C1'	-7.21	1.42	1.53
7	SI	72	ARG	NE-CZ	7.21	1.41	1.33
32	S1	98	C	O4'-C1'	7.21	1.52	1.41
32	S1	1390	A	C2'-C1'	-7.21	1.42	1.53
33	L1	461	A	C2'-C1'	-7.21	1.42	1.53
33	L1	1876	U	C2'-C1'	-7.21	1.42	1.53
33	L1	2032	C	C2'-C1'	-7.21	1.42	1.53
33	L1	2444	U	C2'-C1'	-7.21	1.42	1.53
33	L1	2934	C	C2'-C1'	7.20	1.64	1.53
33	L1	3385	G	O5'-C5'	7.20	1.53	1.42
4	SD	137	PRO	CA-C	7.20	1.62	1.52
80	LC	161	ARG	CD-NE	7.20	1.56	1.46
5	SE	90	MET	C-O	-7.20	1.15	1.24
32	S1	82	G	C2'-C1'	-7.20	1.42	1.53
32	S1	1764	G	C2'-C1'	-7.20	1.42	1.53
33	L1	1885	G	C4'-O4'	-7.20	1.34	1.45
33	L1	1541	G	O4'-C1'	-7.20	1.30	1.41
33	L1	1865	C	O4'-C1'	7.20	1.52	1.41
33	L1	2703	G	C2'-C1'	-7.20	1.42	1.53
33	L1	1982	G	O4'-C1'	7.20	1.52	1.41
33	L1	2599	U	O4'-C1'	-7.20	1.30	1.41
33	L1	2736	A	O4'-C1'	-7.20	1.30	1.41
70	Li	31	VAL	CA-CB	-7.19	1.45	1.54
32	S1	800	U	O3'-P	7.19	1.72	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	835	G	O4'-C1'	-7.19	1.30	1.41
33	L1	932	A	O4'-C1'	-7.19	1.30	1.41
33	L1	2800	C	O3'-P	-7.19	1.50	1.61
31	S2	52	G	C3'-O3'	7.19	1.52	1.42
33	L1	1439	U	O4'-C1'	7.19	1.52	1.41
33	L1	2705	A	O4'-C1'	7.19	1.52	1.42
33	L1	2854	C	O4'-C1'	7.19	1.52	1.41
5	SE	143	LEU	CA-C	-7.19	1.44	1.52
33	L1	327	A	O4'-C1'	-7.19	1.31	1.42
35	L2	95	C	C2'-C1'	7.19	1.63	1.53
7	SI	137	GLY	CA-C	-7.18	1.45	1.52
35	L2	26	U	O3'-P	-7.18	1.50	1.61
42	LP	31	ARG	CD-NE	7.18	1.56	1.46
5	SE	158	GLY	N-CA	7.18	1.52	1.44
32	S1	304	A	O4'-C1'	7.18	1.52	1.41
33	L1	337	C	C2'-C1'	-7.18	1.42	1.53
33	L1	891	U	C2'-C1'	7.18	1.64	1.53
73	Lp	52	LYS	CA-C	7.18	1.63	1.53
33	L1	604	C	O4'-C1'	7.18	1.52	1.41
3	SB	162	GLN	CA-C	7.18	1.61	1.52
33	L1	2746	G	O4'-C1'	7.18	1.52	1.41
33	L1	2813	A	C2'-C1'	-7.18	1.42	1.53
81	LD	20	THR	C-O	-7.18	1.15	1.24
32	S1	681	G	C2'-C1'	-7.17	1.42	1.53
33	L1	3079	G	O4'-C1'	7.17	1.52	1.42
35	L2	73	U	O3'-P	-7.17	1.50	1.61
32	S1	1802	G	P-O5'	-7.17	1.49	1.59
8	SJ	123	VAL	C-N	7.17	1.44	1.33
32	S1	1608	A	O4'-C1'	-7.17	1.30	1.41
35	L2	8	C	O4'-C1'	7.17	1.52	1.41
33	L1	1901	G	O4'-C1'	-7.17	1.30	1.41
33	L1	2855	G	C2'-C1'	7.17	1.64	1.53
51	LY	39	ARG	CD-NE	7.17	1.56	1.46
81	LD	203	ARG	CA-C	-7.17	1.45	1.53
33	L1	3090	C	C3'-O3'	7.17	1.52	1.42
35	L2	93	A	C3'-C2'	7.17	1.63	1.52
33	L1	2798	G	O4'-C1'	-7.17	1.31	1.42
33	L1	61	A	C2'-C1'	-7.16	1.42	1.53
33	L1	594	C	C2'-C1'	-7.16	1.42	1.53
33	L1	1474	U	C2'-C1'	-7.16	1.42	1.53
69	La	9	LYS	CA-CB	7.16	1.64	1.52
33	L1	934	C	O4'-C1'	7.16	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	142	G	C2'-C1'	-7.16	1.42	1.53
33	L1	1273	U	C2'-C1'	-7.16	1.42	1.53
33	L1	2347	A	O4'-C1'	7.16	1.52	1.41
33	L1	2493	C	C5'-C4'	7.16	1.61	1.51
33	L1	2718	A	O3'-P	-7.16	1.50	1.61
15	SS	13	ASN	CA-CB	7.16	1.64	1.53
33	L1	1095	C	O4'-C1'	7.16	1.52	1.41
32	S1	1040	G	O3'-P	-7.15	1.50	1.61
33	L1	3057	A	C2'-C1'	-7.15	1.42	1.53
33	L1	2135	U	C2'-C1'	-7.15	1.42	1.53
81	LD	339	THR	CA-C	-7.15	1.43	1.52
3	SB	54	ARG	CA-CB	7.15	1.63	1.53
44	LR	33	TYR	N-CA	-7.15	1.37	1.46
32	S1	619	A	C2'-C1'	-7.14	1.42	1.53
32	S1	914	U	C2'-C1'	7.14	1.64	1.53
33	L1	1305	A	C2'-C1'	-7.14	1.42	1.53
72	Lk	93	MET	C-O	-7.14	1.15	1.23
81	LD	79	ARG	C-N	7.14	1.41	1.33
34	L3	64	G	C2'-C1'	-7.14	1.42	1.53
67	LS	120	PHE	CA-CB	7.14	1.64	1.53
25	SC	53	ARG	C-N	7.14	1.43	1.33
32	S1	994	U	C4'-O4'	7.14	1.56	1.45
25	SC	39	ARG	CD-NE	7.14	1.56	1.46
33	L1	3069	U	O4'-C1'	7.14	1.52	1.41
35	L2	52	A	O4'-C1'	-7.14	1.31	1.42
9	SK	37	ASN	N-CA	-7.14	1.36	1.46
32	S1	1137	A	O4'-C1'	7.14	1.52	1.41
33	L1	1772	G	O4'-C1'	-7.14	1.30	1.41
33	L1	1958	G	C2'-C1'	-7.14	1.42	1.53
33	L1	1785	G	C2'-C1'	-7.13	1.42	1.53
33	L1	160	G	C2'-C1'	-7.13	1.42	1.53
45	LQ	289	ASN	C-N	-7.13	1.23	1.33
5	SE	149	ARG	CD-NE	7.13	1.56	1.46
32	S1	1656	C	C2'-C1'	-7.13	1.42	1.53
33	L1	3175	C	C3'-O3'	7.13	1.52	1.42
33	L1	1837	A	C2'-C1'	-7.13	1.42	1.53
33	L1	598	U	C2'-C1'	-7.13	1.42	1.53
33	L1	1263	A	C2'-C1'	-7.13	1.42	1.53
33	L1	3384	G	O4'-C1'	7.13	1.52	1.41
33	L1	2210	A	O4'-C1'	7.13	1.52	1.41
33	L1	2232	C	C2'-C1'	-7.13	1.42	1.53
32	S1	355	U	O3'-P	-7.12	1.50	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1114	A	O4'-C1'	-7.12	1.30	1.41
28	SN	11	PRO	C-N	7.12	1.42	1.33
33	L1	1119	G	C4'-C3'	7.12	1.63	1.53
33	L1	2511	U	C2'-C1'	7.12	1.64	1.53
1	Sa	66	SER	CA-C	-7.12	1.43	1.52
32	S1	219	G	C2'-C1'	-7.12	1.42	1.53
33	L1	2366	A	O4'-C1'	7.12	1.52	1.41
33	L1	2771	U	O4'-C1'	-7.12	1.30	1.41
33	L1	467	C	O4'-C1'	7.12	1.52	1.41
32	S1	425	A	O4'-C1'	7.12	1.52	1.41
33	L1	2795	G	C4'-C3'	7.12	1.63	1.52
33	L1	1191	U	C2'-C1'	7.11	1.64	1.53
33	L1	1881	C	O5'-C5'	7.11	1.53	1.42
33	L1	2991	U	O4'-C1'	7.11	1.52	1.41
33	L1	1821	G	O5'-C5'	7.11	1.53	1.42
78	Le	62	LYS	CA-CB	7.11	1.65	1.53
2	SA	59	TRP	CA-C	-7.11	1.43	1.52
33	L1	1572	C	O4'-C1'	7.11	1.52	1.41
64	LG	185	ASP	CA-C	7.11	1.62	1.52
33	L1	638	G	O3'-P	-7.11	1.50	1.61
33	L1	858	U	O3'-P	-7.11	1.50	1.61
46	LT	136	ARG	N-CA	7.11	1.54	1.45
84	LI	116	ARG	C-N	7.11	1.43	1.33
15	SS	47	GLU	CA-C	-7.11	1.43	1.53
32	S1	220	C	O4'-C1'	7.11	1.52	1.41
33	L1	1043	U	C2'-C1'	-7.11	1.42	1.53
33	L1	2276	A	O4'-C1'	-7.11	1.30	1.41
43	LO	6	LYS	CA-C	-7.10	1.43	1.53
33	L1	470	G	O4'-C1'	-7.10	1.31	1.41
33	L1	2718	A	C2'-C1'	7.10	1.63	1.53
33	L1	2109	G	O4'-C1'	7.10	1.52	1.41
38	LE	77	LYS	CA-CB	7.10	1.64	1.53
32	S1	1610	C	C2'-C1'	7.09	1.64	1.53
33	L1	3086	G	C5'-C4'	7.09	1.61	1.51
35	L2	75	A	O3'-P	-7.09	1.50	1.61
66	LN	113	ALA	N-CA	-7.09	1.37	1.46
33	L1	1226	G	O4'-C1'	-7.09	1.31	1.42
32	S1	380	C	O4'-C1'	7.09	1.52	1.41
32	S1	919	G	O4'-C1'	7.09	1.52	1.42
33	L1	1754	C	C2'-C1'	-7.09	1.42	1.53
33	L1	1763	C	C2'-C1'	-7.09	1.42	1.53
33	L1	2235	G	C5'-C4'	7.09	1.61	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	Lg	12	LYS	CA-C	-7.09	1.46	1.53
2	SA	160	TYR	N-CA	7.09	1.55	1.46
32	S1	1125	U	C2'-C1'	-7.09	1.42	1.53
32	S1	1197	A	O5'-C5'	7.09	1.53	1.42
33	L1	1243	C	C5'-C4'	7.09	1.61	1.51
33	L1	1977	C	C2'-C1'	-7.09	1.42	1.53
66	LN	106	ASP	CA-C	-7.09	1.43	1.52
7	SI	53	LYS	N-CA	-7.09	1.36	1.46
32	S1	1285	G	C2'-C1'	-7.09	1.42	1.53
33	L1	464	G	O4'-C1'	7.09	1.52	1.41
33	L1	2499	U	O3'-P	-7.09	1.50	1.61
33	L1	3243	C	O4'-C1'	7.09	1.52	1.41
78	Le	163	ILE	CA-CB	-7.09	1.45	1.54
78	Le	163	ILE	N-CA	7.09	1.55	1.46
78	Le	242	ARG	CD-NE	7.09	1.56	1.46
78	Le	180	ILE	CA-C	-7.08	1.44	1.52
32	S1	105	A	O4'-C1'	7.08	1.52	1.41
32	S1	1611	U	C2'-C1'	7.08	1.64	1.53
33	L1	3236	A	C2'-C1'	-7.08	1.42	1.53
33	L1	3322	A	O4'-C1'	-7.08	1.31	1.41
14	SP	76	CYS	CA-C	-7.08	1.42	1.52
33	L1	1868	C	O4'-C1'	7.08	1.52	1.41
38	LE	48	VAL	N-CA	-7.08	1.38	1.46
43	LO	106	VAL	CA-C	-7.08	1.43	1.52
32	S1	1430	A	O4'-C1'	7.08	1.52	1.41
39	LF	40	HIS	ND1-CE1	7.08	1.39	1.32
80	LC	358	ILE	CA-C	-7.08	1.43	1.52
33	L1	918	A	O3'-P	-7.08	1.50	1.61
23	SU	26	LYS	N-CA	7.07	1.54	1.46
32	S1	199	G	C2'-C1'	-7.07	1.42	1.53
32	S1	1464	G	O4'-C1'	7.07	1.52	1.41
70	Li	34	TYR	C-N	7.07	1.42	1.33
27	SH	2	VAL	CA-C	-7.07	1.44	1.52
32	S1	834	A	C2'-C1'	-7.07	1.42	1.53
32	S1	1737	A	O4'-C1'	7.07	1.52	1.41
33	L1	123	U	C5'-C4'	7.07	1.61	1.51
14	SP	88	ARG	CA-C	7.07	1.62	1.52
33	L1	2619	C	O4'-C1'	7.07	1.52	1.41
33	L1	1008	U	O4'-C1'	7.07	1.52	1.41
80	LC	315	PHE	C-N	-7.07	1.25	1.33
33	L1	685	G	O4'-C1'	7.06	1.52	1.41
33	L1	1266	G	O4'-C1'	7.06	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2755	U	C2'-C1'	-7.06	1.42	1.53
69	La	76	ASN	C-N	-7.06	1.24	1.33
32	S1	557	G	O4'-C1'	7.06	1.52	1.41
32	S1	1300	A	C5'-C4'	7.06	1.61	1.51
33	L1	1274	A	C2'-C1'	7.06	1.64	1.53
46	LT	158	GLN	C-N	7.06	1.43	1.33
33	L1	318	G	O3'-P	-7.06	1.50	1.61
24	SX	74	ARG	CA-CB	7.06	1.65	1.53
32	S1	489	C	O4'-C1'	7.06	1.52	1.41
33	L1	964	C	O4'-C1'	7.06	1.52	1.41
35	L2	91	G	C2'-C1'	-7.06	1.42	1.53
31	S2	42	C	P-O5'	7.05	1.70	1.59
4	SD	50	ASN	N-CA	7.05	1.55	1.46
33	L1	2274	A	O4'-C1'	7.05	1.52	1.42
56	Lh	50	CYS	N-CA	-7.05	1.36	1.46
13	SQ	121	GLN	CA-CB	7.05	1.62	1.53
33	L1	1337	C	O4'-C1'	7.05	1.52	1.41
33	L1	1441	U	C2'-C1'	-7.05	1.42	1.53
33	L1	2521	C	O4'-C1'	7.05	1.52	1.41
48	LV	118	ILE	CA-C	-7.05	1.43	1.52
67	LS	138	ARG	CZ-NH2	7.05	1.42	1.33
32	S1	1342	C	O4'-C1'	7.05	1.52	1.41
16	SR	86	ARG	NE-CZ	7.05	1.40	1.33
32	S1	1593	U	O4'-C1'	7.04	1.52	1.41
33	L1	2481	C	O3'-P	-7.04	1.50	1.61
33	L1	3170	C	C2'-C1'	-7.04	1.42	1.53
37	LB	209	HIS	ND1-CE1	7.04	1.39	1.32
32	S1	1483	G	O4'-C1'	-7.04	1.31	1.41
33	L1	3343	U	C2'-C1'	-7.04	1.42	1.53
35	L2	24	U	C2'-C1'	-7.04	1.42	1.53
8	SJ	95	LYS	CA-C	7.04	1.61	1.52
16	SR	115	GLU	CA-CB	7.04	1.64	1.53
32	S1	635	G	O4'-C1'	7.04	1.52	1.41
33	L1	3288	A	C5'-C4'	7.04	1.61	1.51
33	L1	1800	G	C4'-C3'	7.04	1.63	1.52
5	SE	172	GLY	C-N	7.04	1.43	1.33
13	SQ	94	GLU	C-O	-7.04	1.14	1.23
33	L1	2692	G	C5'-C4'	7.04	1.61	1.51
33	L1	854	C	C2'-C1'	-7.03	1.42	1.53
33	L1	2461	A	C5'-C4'	7.03	1.61	1.51
33	L1	1690	C	C2'-C1'	7.03	1.63	1.53
33	L1	726	C	C2'-C1'	-7.03	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3129	G	O4'-C1'	7.03	1.52	1.41
35	L2	114	A	O4'-C1'	7.03	1.52	1.41
25	SC	165	PRO	CA-C	7.03	1.62	1.52
32	S1	1555	A	O4'-C1'	7.03	1.52	1.41
42	LP	24	ARG	NE-CZ	7.03	1.40	1.33
32	S1	1321	C	C4'-O4'	-7.02	1.35	1.45
67	LS	137	LYS	CA-CB	7.02	1.65	1.53
56	Lh	46	LYS	CA-CB	7.02	1.65	1.53
33	L1	2283	G	C2'-C1'	-7.02	1.42	1.53
33	L1	3076	C	O4'-C1'	7.02	1.52	1.41
4	SD	188	ASN	CA-C	7.02	1.62	1.52
33	L1	1678	U	O4'-C1'	-7.02	1.31	1.41
33	L1	3007	A	C2'-C1'	-7.02	1.42	1.53
4	SD	164	LEU	N-CA	-7.01	1.37	1.46
32	S1	1123	G	C2'-C1'	-7.01	1.42	1.53
48	LV	152	SER	C-N	7.01	1.43	1.33
79	Ls	190	LEU	CA-CB	7.01	1.61	1.52
32	S1	903	A	C5'-C4'	7.01	1.61	1.51
32	S1	1299	G	C2'-C1'	-7.01	1.42	1.53
33	L1	2461	A	O4'-C1'	7.01	1.52	1.41
33	L1	2875	U	O3'-P	7.01	1.71	1.61
33	L1	3331	G	C2'-C1'	7.01	1.63	1.53
33	L1	839	A	C3'-C2'	-7.01	1.42	1.52
2	SA	231	ALA	C-N	7.01	1.43	1.33
49	LX	81	SER	C-N	7.01	1.43	1.33
42	LP	172	ARG	CD-NE	7.00	1.56	1.46
14	SP	41	LEU	C-N	7.00	1.43	1.33
33	L1	2012	C	C2'-C1'	-7.00	1.42	1.53
56	Lh	125	ALA	N-CA	-7.00	1.37	1.46
32	S1	1577	A	O4'-C1'	7.00	1.52	1.41
33	L1	934	C	C2'-C1'	-7.00	1.42	1.53
37	LB	50	HIS	ND1-CE1	7.00	1.39	1.32
73	Lp	35	ARG	CD-NE	7.00	1.56	1.46
3	SB	92	VAL	CA-CB	-7.00	1.45	1.54
33	L1	2569	G	O4'-C1'	-7.00	1.31	1.41
25	SC	194	GLU	C-N	-7.00	1.23	1.33
33	L1	258	C	C2'-C1'	-7.00	1.42	1.53
34	L3	28	U	O4'-C1'	7.00	1.52	1.41
32	S1	180	A	C2'-C1'	-7.00	1.42	1.53
33	L1	1190	C	C2'-C1'	-7.00	1.42	1.53
33	L1	2951	U	C2'-C1'	7.00	1.63	1.53
33	L1	2501	U	C2'-C1'	-6.99	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Sa	95	ALA	C-N	6.99	1.43	1.33
31	S2	55	C	O4'-C1'	6.99	1.52	1.41
32	S1	1629	U	C2'-C1'	-6.99	1.42	1.53
5	SE	28	GLY	C-O	-6.99	1.13	1.23
33	L1	689	G	O4'-C1'	-6.99	1.31	1.41
81	LD	304	GLN	CA-CB	6.99	1.65	1.53
32	S1	289	G	C2'-C1'	-6.99	1.42	1.53
32	S1	1612	C	C2'-C1'	-6.99	1.42	1.53
33	L1	315	A	O4'-C1'	6.99	1.52	1.41
64	LG	151	LYS	C-N	-6.99	1.24	1.33
46	LT	168	ALA	CA-C	-6.98	1.43	1.52
33	L1	1024	G	O4'-C1'	6.98	1.52	1.41
33	L1	3226	G	C2'-C1'	6.98	1.63	1.53
33	L1	2168	C	O3'-P	-6.98	1.50	1.61
80	LC	160	VAL	CA-CB	-6.98	1.46	1.54
32	S1	1519	G	O4'-C1'	-6.98	1.31	1.41
7	SI	39	GLY	C-N	6.98	1.40	1.33
33	L1	366	G	O4'-C1'	6.97	1.52	1.41
33	L1	2862	U	C2'-C1'	6.97	1.63	1.53
33	L1	198	A	O4'-C1'	-6.97	1.31	1.42
33	L1	1080	C	P-O5'	-6.97	1.49	1.59
36	LA	119	ILE	C-N	6.97	1.43	1.33
29	ST	41	GLU	C-N	6.97	1.44	1.33
33	L1	844	A	C2'-C1'	-6.97	1.42	1.53
55	Lg	12	LYS	CA-CB	6.97	1.63	1.53
33	L1	2062	U	C2'-C1'	6.97	1.63	1.53
51	LY	27	ARG	CD-NE	6.97	1.56	1.46
33	L1	2044	C	O4'-C1'	6.97	1.52	1.41
33	L1	2523	G	O4'-C1'	-6.97	1.31	1.41
25	SC	106	PHE	CA-C	-6.97	1.44	1.52
27	SH	105	THR	CA-C	-6.97	1.44	1.52
33	L1	3146	C	O5'-C5'	6.96	1.52	1.42
48	LV	7	GLU	CA-C	-6.96	1.45	1.53
80	LC	17	LEU	N-CA	-6.96	1.36	1.46
32	S1	951	U	C2'-C1'	6.96	1.63	1.53
32	S1	1702	G	C5'-C4'	6.96	1.61	1.51
81	LD	23	SER	CA-CB	6.96	1.65	1.53
33	L1	2337	C	C4'-C3'	6.96	1.62	1.52
33	L1	51	A	O4'-C1'	6.96	1.52	1.41
33	L1	2612	A	C2'-C1'	6.96	1.63	1.53
35	L2	6	G	O4'-C1'	6.96	1.52	1.41
35	L2	62	G	O4'-C1'	6.96	1.52	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1654	C	C2'-C1'	-6.96	1.43	1.53
33	L1	793	C	C2'-C1'	-6.96	1.43	1.53
33	L1	2111	A	O4'-C1'	6.96	1.52	1.41
69	La	22	LYS	N-CA	-6.95	1.37	1.46
1	Sa	192	ARG	N-CA	-6.95	1.37	1.46
57	Ll	6	GLY	CA-C	6.95	1.60	1.51
32	S1	181	C	C2'-C1'	-6.95	1.43	1.53
33	L1	249	A	C5'-C4'	6.95	1.61	1.51
33	L1	1789	C	O3'-P	-6.95	1.50	1.61
33	L1	2125	A	O4'-C1'	-6.95	1.31	1.41
56	Lh	13	LYS	C-O	-6.95	1.15	1.24
35	L2	27	C	C2'-C1'	-6.95	1.42	1.53
5	SE	72	VAL	CA-CB	-6.94	1.46	1.54
7	SI	129	ARG	CZ-NH2	6.94	1.42	1.33
29	ST	22	ARG	CA-C	6.94	1.61	1.52
32	S1	272	G	C2'-C1'	-6.94	1.43	1.53
33	L1	878	G	O4'-C1'	6.94	1.52	1.41
33	L1	2033	C	C2'-C1'	-6.94	1.43	1.53
33	L1	2235	G	O4'-C1'	6.94	1.52	1.41
51	LY	105	VAL	CA-CB	-6.94	1.46	1.54
33	L1	879	A	C4'-C3'	6.94	1.62	1.52
33	L1	1235	A	C4'-C3'	6.94	1.62	1.52
61	Lq	2	ARG	CD-NE	6.94	1.55	1.46
33	L1	1548	U	O4'-C1'	6.94	1.52	1.41
33	L1	3082	G	O3'-P	-6.94	1.50	1.61
43	LO	127	LYS	CA-CB	-6.94	1.41	1.53
2	SA	73	GLU	N-CA	-6.93	1.38	1.46
79	Ls	190	LEU	CA-C	6.93	1.61	1.52
33	L1	3122	U	C2'-C1'	-6.93	1.42	1.53
44	LR	151	HIS	C-N	6.93	1.43	1.33
3	SB	65	ARG	CD-NE	6.93	1.55	1.46
33	L1	3035	C	O3'-P	-6.93	1.50	1.61
32	S1	97	G	C2'-C1'	-6.93	1.43	1.53
33	L1	2678	C	O5'-C5'	6.93	1.52	1.42
35	L2	105	U	O4'-C1'	6.93	1.52	1.41
32	S1	1036	U	C2'-C1'	-6.93	1.42	1.53
32	S1	1381	G	C2'-C1'	-6.92	1.43	1.53
33	L1	183	C	C2'-C1'	-6.92	1.43	1.53
40	LH	61	ARG	N-CA	6.92	1.55	1.46
80	LC	349	GLN	N-CA	6.92	1.54	1.46
32	S1	1633	C	C2'-C1'	-6.92	1.43	1.53
33	L1	302	G	O3'-P	-6.92	1.50	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	138	G	O3'-P	-6.92	1.50	1.61
33	L1	1441	U	O4'-C1'	6.92	1.52	1.41
35	L2	144	A	O4'-C1'	6.92	1.52	1.41
51	LY	123	SER	CA-C	-6.92	1.44	1.52
33	L1	3168	C	C2'-C1'	6.92	1.63	1.53
33	L1	2589	G	O3'-P	-6.92	1.50	1.61
33	L1	2795	G	O3'-P	-6.92	1.50	1.61
51	LY	74	ARG	CD-NE	6.92	1.55	1.46
32	S1	417	U	O4'-C1'	6.91	1.52	1.41
33	L1	923	A	C2'-C1'	6.91	1.63	1.53
33	L1	1509	G	O4'-C1'	-6.91	1.31	1.42
33	L1	2567	C	O3'-P	-6.91	1.50	1.61
33	L1	3308	A	O4'-C1'	6.91	1.52	1.42
32	S1	858	G	C5'-C4'	6.91	1.61	1.51
33	L1	1277	A	O3'-P	-6.91	1.50	1.61
7	SI	63	ARG	CA-C	6.91	1.61	1.52
33	L1	2669	C	O4'-C1'	6.91	1.52	1.41
35	L2	70	G	C2'-C1'	-6.91	1.43	1.53
32	S1	1088	G	C2'-C1'	-6.91	1.43	1.53
33	L1	1661	G	C2'-C1'	-6.91	1.43	1.53
33	L1	1518	A	O4'-C1'	6.91	1.52	1.41
46	LT	179	GLU	CA-C	-6.91	1.43	1.52
23	SU	17	PHE	C-N	6.91	1.42	1.33
31	S2	52	G	O4'-C1'	-6.91	1.31	1.41
32	S1	273	C	C2'-C1'	-6.91	1.43	1.53
32	S1	1271	G	C2'-C1'	-6.91	1.43	1.53
77	Lc	62	ILE	C-N	6.91	1.43	1.33
78	Le	204	LEU	C-O	-6.91	1.14	1.23
33	L1	279	G	O4'-C1'	-6.90	1.31	1.41
33	L1	2348	U	O4'-C1'	6.90	1.52	1.41
35	L2	53	G	C5'-C4'	6.90	1.61	1.51
33	L1	312	U	C2'-C1'	-6.90	1.43	1.53
33	L1	1275	A	O5'-C5'	6.90	1.52	1.42
27	SH	18	GLU	C-N	6.90	1.42	1.33
32	S1	404	A	C2'-C1'	6.90	1.63	1.53
33	L1	299	G	O4'-C1'	-6.90	1.31	1.41
33	L1	1855	A	C2'-C1'	6.90	1.63	1.53
33	L1	3287	A	O4'-C1'	6.90	1.52	1.41
32	S1	1744	C	O4'-C1'	6.90	1.51	1.41
32	S1	1307	U	O3'-P	-6.90	1.50	1.61
33	L1	398	G	O4'-C1'	-6.90	1.31	1.42
33	L1	561	G	C2'-C1'	-6.90	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
82	LK	48	MET	CA-C	-6.90	1.44	1.52
33	L1	3282	G	C2'-C1'	-6.90	1.43	1.53
33	L1	1703	C	C2'-C1'	-6.89	1.43	1.53
33	L1	108	A	C4'-C3'	6.89	1.63	1.53
32	S1	1348	A	C2'-C1'	6.89	1.63	1.53
33	L1	2772	A	O4'-C1'	6.89	1.51	1.41
70	Li	27	GLY	C-N	6.89	1.39	1.33
32	S1	371	A	C2'-C1'	6.88	1.63	1.53
33	L1	179	G	C5'-C4'	6.88	1.61	1.51
33	L1	544	C	O4'-C1'	6.88	1.51	1.41
46	LT	25	ASP	CA-C	6.88	1.60	1.53
37	LB	247	ARG	CZ-NH2	6.88	1.42	1.33
33	L1	3223	C	P-O5'	-6.88	1.49	1.59
33	L1	3363	G	C5'-C4'	6.88	1.61	1.51
56	Lh	13	LYS	N-CA	-6.88	1.37	1.46
33	L1	2373	C	O4'-C1'	6.88	1.52	1.42
33	L1	2825	G	O4'-C1'	-6.88	1.31	1.41
19	SY	48	GLU	CA-C	6.88	1.61	1.52
32	S1	368	A	C2'-C1'	-6.88	1.43	1.53
33	L1	2080	G	C3'-O3'	6.88	1.52	1.42
34	L3	5	G	C2'-C1'	-6.88	1.43	1.53
33	L1	601	G	C5'-C4'	6.87	1.61	1.51
33	L1	1648	C	C3'-C2'	6.87	1.63	1.52
57	L1	50	SER	N-CA	-6.87	1.38	1.46
32	S1	1437	C	C2'-C1'	6.87	1.63	1.53
51	LY	114	ARG	CD-NE	6.87	1.55	1.46
33	L1	3237	G	O4'-C1'	-6.87	1.31	1.41
50	LZ	46	LEU	CA-CB	6.87	1.61	1.53
33	L1	424	G	C2'-C1'	-6.87	1.42	1.53
33	L1	685	G	C2'-C1'	-6.87	1.43	1.53
9	SK	86	GLU	N-CA	6.86	1.54	1.46
32	S1	452	C	C2'-C1'	-6.86	1.43	1.53
33	L1	1062	G	C2'-C1'	-6.86	1.43	1.53
33	L1	3246	U	O4'-C1'	6.86	1.51	1.41
32	S1	1564	A	O4'-C1'	6.86	1.52	1.42
32	S1	1425	G	C2'-C1'	-6.86	1.43	1.53
60	Lr	84	PRO	CA-C	6.86	1.60	1.52
33	L1	3206	C	O4'-C1'	6.86	1.51	1.41
1	Sa	199	GLU	CA-C	6.86	1.62	1.53
33	L1	382	A	O4'-C1'	-6.86	1.31	1.41
33	L1	725	G	C2'-C1'	-6.86	1.43	1.53
33	L1	1044	A	O4'-C1'	6.86	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2565	C	O4'-C1'	6.86	1.51	1.41
33	L1	3033	A	O4'-C1'	6.86	1.51	1.41
35	L2	140	G	C2'-C1'	-6.86	1.43	1.53
33	L1	1199	A	C5'-C4'	6.85	1.61	1.51
60	Lr	9	LYS	CA-CB	6.85	1.63	1.53
10	SL	85	PRO	N-CD	-6.85	1.38	1.47
32	S1	276	G	O4'-C1'	6.85	1.51	1.41
33	L1	2751	A	C5'-C4'	6.85	1.61	1.51
33	L1	3026	C	C4'-C3'	6.85	1.62	1.52
25	SC	136	ILE	N-CA	-6.85	1.37	1.46
32	S1	1140	U	C3'-O3'	6.85	1.52	1.42
11	SM	120	HIS	ND1-CE1	6.85	1.39	1.32
35	L2	55	G	C2'-C1'	6.85	1.63	1.53
1	Sa	102	HIS	N-CA	-6.85	1.37	1.45
32	S1	1667	A	C2'-C1'	-6.84	1.43	1.53
33	L1	900	C	C2'-C1'	-6.84	1.43	1.53
32	S1	1803	G	O4'-C1'	-6.84	1.31	1.41
36	LA	40	TYR	CA-CB	6.84	1.62	1.53
45	LQ	75	VAL	CA-CB	-6.84	1.46	1.54
33	L1	2484	G	C5'-C4'	6.84	1.61	1.51
34	L3	54	A	O4'-C1'	6.84	1.51	1.41
33	L1	1213	G	O4'-C1'	6.84	1.51	1.41
81	LD	84	PRO	C-O	-6.83	1.15	1.24
1	Sa	82	VAL	C-N	-6.83	1.25	1.33
32	S1	312	C	O4'-C1'	6.83	1.51	1.41
33	L1	1945	A	O4'-C1'	6.83	1.51	1.41
37	LB	73	LYS	C-N	6.83	1.43	1.33
78	Le	87	PHE	CA-C	-6.83	1.44	1.52
32	S1	946	A	C2'-C1'	-6.83	1.43	1.53
34	L3	38	U	O3'-P	6.83	1.71	1.61
33	L1	1309	U	C2'-C1'	-6.83	1.42	1.53
33	L1	3120	U	O3'-P	-6.83	1.50	1.61
33	L1	569	C	O4'-C1'	6.83	1.51	1.41
33	L1	2359	C	C2'-C1'	-6.83	1.43	1.53
15	SS	44	ARG	CZ-NH2	6.83	1.42	1.33
23	SU	28	PHE	CA-C	-6.83	1.44	1.52
33	L1	1964	G	C2'-C1'	-6.83	1.43	1.53
38	LE	72	THR	CA-C	-6.83	1.44	1.52
23	SU	13	ARG	NE-CZ	6.82	1.40	1.33
80	LC	385	GLY	N-CA	6.82	1.55	1.45
32	S1	1124	G	C2'-C1'	-6.82	1.43	1.53
33	L1	2422	U	O3'-P	-6.82	1.50	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2686	U	O5'-C5'	6.82	1.52	1.42
38	LE	33	THR	CA-C	6.82	1.61	1.52
64	LG	20	TYR	CG-CD1	6.82	1.53	1.39
33	L1	2261	U	O4'-C1'	6.82	1.51	1.41
35	L2	102	U	O5'-C5'	6.82	1.52	1.42
35	L2	129	C	C2'-C1'	-6.82	1.43	1.53
78	Le	49	ARG	CD-NE	6.81	1.55	1.46
15	SS	100	GLY	CA-C	-6.81	1.44	1.52
33	L1	3054	G	O4'-C1'	6.81	1.51	1.41
35	L2	92	A	C2'-C1'	-6.81	1.43	1.53
32	S1	327	A	C2'-C1'	6.81	1.63	1.53
33	L1	1604	U	O4'-C1'	6.81	1.52	1.42
33	L1	2254	A	O4'-C1'	6.81	1.51	1.41
37	LB	225	VAL	N-CA	6.81	1.53	1.46
33	L1	2665	A	C3'-O3'	6.81	1.52	1.42
15	SS	52	ASP	N-CA	-6.80	1.40	1.46
31	S2	4	G	C3'-O3'	6.80	1.52	1.42
32	S1	1639	A	O3'-P	-6.80	1.50	1.61
42	LP	114	ARG	N-CA	-6.80	1.37	1.46
32	S1	347	C	O4'-C1'	6.80	1.51	1.41
32	S1	1153	C	O4'-C1'	6.80	1.51	1.41
33	L1	1374	G	O4'-C1'	-6.80	1.31	1.41
33	L1	2755	U	C4'-O4'	6.80	1.55	1.45
4	SD	213	ALA	CA-C	-6.80	1.43	1.52
32	S1	656	G	O4'-C1'	6.80	1.51	1.41
33	L1	60	G	O4'-C1'	6.80	1.51	1.41
37	LB	90	CYS	CA-CB	6.80	1.64	1.53
55	Lg	1	MET	CA-C	-6.80	1.38	1.52
3	SB	67	ARG	CD-NE	6.80	1.55	1.46
13	SQ	97	ARG	CD-NE	6.80	1.55	1.46
70	Li	112	THR	C-N	6.80	1.42	1.33
80	LC	366	SER	CA-CB	6.79	1.62	1.53
33	L1	1016	G	C4'-O4'	6.79	1.55	1.45
33	L1	1160	G	C2'-C1'	-6.79	1.43	1.53
77	Lc	60	THR	CA-C	6.79	1.61	1.52
32	S1	1106	G	O4'-C1'	6.79	1.51	1.41
47	LU	126	ILE	C-O	-6.79	1.15	1.24
1	Sa	359	LEU	C-N	6.79	1.43	1.33
33	L1	706	U	C2'-C1'	-6.79	1.43	1.53
46	LT	143	HIS	ND1-CE1	6.79	1.39	1.32
31	S2	39	G	C5'-C4'	6.79	1.61	1.51
33	L1	1012	U	O4'-C1'	6.79	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	SD	61	VAL	CA-C	-6.79	1.44	1.52
33	L1	1538	A	O3'-P	-6.79	1.50	1.61
33	L1	2689	U	C3'-O3'	6.79	1.52	1.42
33	L1	2895	G	O3'-P	-6.79	1.50	1.61
41	LM	61	VAL	N-CA	-6.78	1.38	1.46
8	SJ	78	PRO	CA-CB	-6.78	1.44	1.53
23	SU	82	TYR	C-O	-6.78	1.14	1.23
33	L1	247	C	O4'-C1'	6.78	1.51	1.41
33	L1	749	C	O4'-C1'	6.78	1.51	1.41
33	L1	3213	A	O4'-C1'	6.78	1.51	1.41
55	Lg	6	ARG	CD-NE	6.78	1.55	1.46
32	S1	684	C	O4'-C1'	6.78	1.51	1.41
33	L1	520	G	C4'-C3'	6.78	1.62	1.52
33	L1	819	A	C2'-C1'	-6.78	1.42	1.53
19	SY	9	VAL	CA-C	6.77	1.60	1.52
25	SC	113	THR	C-N	6.77	1.43	1.33
33	L1	1066	G	C2'-C1'	-6.77	1.43	1.53
32	S1	1151	G	O4'-C1'	6.77	1.51	1.41
27	SH	79	PHE	CA-CB	6.77	1.65	1.53
33	L1	2877	U	O4'-C1'	-6.77	1.31	1.41
33	L1	868	A	C4'-O4'	6.77	1.55	1.45
54	Lf	27	TYR	CA-C	-6.77	1.44	1.52
32	S1	573	C	O4'-C1'	6.76	1.51	1.41
32	S1	935	A	C3'-C2'	6.76	1.62	1.52
33	L1	2028	C	C2'-C1'	-6.76	1.43	1.53
32	S1	1197	A	O4'-C1'	-6.76	1.31	1.42
33	L1	1061	A	C2'-C1'	-6.76	1.43	1.53
73	Lp	45	LEU	N-CA	-6.76	1.37	1.46
11	SM	97	GLN	C-N	6.76	1.42	1.33
33	L1	1553	C	C2'-C1'	-6.76	1.43	1.53
33	L1	2347	A	C2'-C1'	-6.76	1.43	1.53
40	LH	233	VAL	N-CA	6.76	1.54	1.46
32	S1	1239	C	C4'-O4'	6.75	1.55	1.45
32	S1	1758	G	O3'-P	-6.75	1.51	1.61
33	L1	692	U	C2'-C1'	-6.75	1.43	1.53
33	L1	805	C	O5'-C5'	6.75	1.52	1.42
68	LW	104	VAL	C-N	6.75	1.42	1.33
33	L1	2704	U	O3'-P	-6.75	1.51	1.61
10	SL	5	ARG	CA-C	6.75	1.61	1.52
1	Sa	171	THR	CA-C	-6.75	1.46	1.53
8	SJ	79	CYS	CA-C	-6.75	1.44	1.52
27	SH	109	GLY	N-CA	6.75	1.51	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
29	ST	29	HIS	ND1-CE1	6.75	1.39	1.32
32	S1	1191	U	C2'-C1'	6.75	1.63	1.53
33	L1	856	G	C2'-C1'	-6.75	1.43	1.53
33	L1	3364	A	C2'-C1'	-6.75	1.43	1.53
48	LV	132	ARG	C-N	6.75	1.42	1.33
32	S1	1504	U	C2'-C1'	6.75	1.63	1.53
33	L1	2942	A	O3'-P	-6.75	1.51	1.61
59	Lo	34	THR	CA-C	6.75	1.61	1.52
71	Lj	7	GLN	CA-CB	6.75	1.64	1.53
32	S1	1098	A	O4'-C1'	6.75	1.52	1.42
33	L1	365	A	C2'-C1'	6.75	1.63	1.53
45	LQ	238	SER	C-O	-6.75	1.10	1.23
2	SA	193	ILE	CA-C	-6.74	1.44	1.52
33	L1	2591	G	O4'-C1'	-6.74	1.31	1.41
33	L1	2660	A	C2'-C1'	6.74	1.63	1.53
33	L1	3141	G	O4'-C1'	-6.74	1.31	1.41
28	SN	39	CYS	CA-C	-6.74	1.44	1.52
33	L1	36	U	C2'-C1'	-6.74	1.43	1.53
33	L1	2639	A	C2'-C1'	-6.74	1.43	1.53
33	L1	715	A	O4'-C1'	6.74	1.51	1.41
33	L1	1312	A	C4'-C3'	6.74	1.62	1.52
31	S2	53	U	C4'-C3'	6.74	1.62	1.52
33	L1	1828	C	O4'-C1'	6.74	1.51	1.41
33	L1	2461	A	C4'-C3'	6.74	1.62	1.52
11	SM	113	ARG	CA-C	6.73	1.61	1.52
25	SC	70	ARG	CA-C	-6.73	1.44	1.52
33	L1	3155	C	O3'-P	-6.73	1.51	1.61
9	SK	43	VAL	CA-CB	-6.73	1.46	1.54
25	SC	134	ARG	N-CA	-6.73	1.38	1.46
33	L1	2202	A	C5'-C4'	6.73	1.61	1.51
51	LY	18	HIS	ND1-CE1	6.73	1.39	1.32
33	L1	239	C	O3'-P	-6.73	1.51	1.61
33	L1	1613	C	O4'-C1'	6.73	1.51	1.41
33	L1	1638	U	O5'-C5'	6.73	1.52	1.42
32	S1	505	U	C5'-C4'	6.73	1.61	1.51
32	S1	533	C	O3'-P	-6.73	1.51	1.61
61	Lq	23	ARG	CA-CB	-6.73	1.42	1.53
33	L1	789	A	O4'-C1'	6.73	1.52	1.42
33	L1	1868	C	C2'-C1'	-6.73	1.43	1.53
64	LG	140	GLN	CA-C	-6.73	1.43	1.52
33	L1	1079	G	C5'-C4'	6.73	1.61	1.51
33	L1	2645	A	O4'-C1'	-6.73	1.31	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	SQ	74	GLN	CA-C	6.72	1.61	1.52
33	L1	2734	C	C2'-C1'	-6.72	1.43	1.53
33	L1	3326	U	O4'-C1'	-6.72	1.31	1.42
81	LD	97	GLY	CA-C	-6.72	1.46	1.52
33	L1	1923	G	C3'-C2'	6.72	1.62	1.52
69	La	25	ILE	C-N	-6.72	1.27	1.34
32	S1	54	C	C2'-C1'	6.72	1.63	1.53
33	L1	971	G	C4'-C3'	6.72	1.62	1.52
33	L1	1113	C	C2'-C1'	-6.72	1.43	1.53
33	L1	1674	A	C3'-O3'	6.72	1.52	1.42
33	L1	2640	A	C4'-O4'	6.72	1.55	1.45
33	L1	831	G	C3'-O3'	6.72	1.52	1.42
25	SC	107	LEU	CA-C	-6.72	1.43	1.52
25	SC	128	ARG	C-N	6.72	1.41	1.33
33	L1	1255	A	O4'-C1'	6.72	1.51	1.41
33	L1	2665	A	C5'-C4'	6.72	1.61	1.51
33	L1	2730	A	C3'-O3'	6.72	1.53	1.43
33	L1	2823	C	O4'-C1'	6.72	1.51	1.41
33	L1	3145	G	O4'-C1'	6.72	1.51	1.41
48	LV	138	ASN	CA-C	-6.72	1.46	1.52
8	SJ	49	VAL	N-CA	6.71	1.54	1.46
20	SZ	44	PHE	C-O	-6.71	1.16	1.23
32	S1	224	C	O4'-C1'	6.71	1.51	1.41
32	S1	673	C	C2'-C1'	-6.71	1.43	1.53
33	L1	2219	A	C5'-C4'	6.71	1.61	1.51
1	Sa	63	GLN	N-CA	6.71	1.54	1.46
33	L1	3067	G	O4'-C1'	-6.71	1.31	1.41
78	Le	212	PRO	N-CA	-6.71	1.39	1.47
79	Ls	119	VAL	CA-C	-6.71	1.45	1.52
80	LC	167	GLN	CA-CB	6.71	1.62	1.52
72	Lk	95	SER	N-CA	-6.71	1.37	1.46
19	SY	47	ARG	NE-CZ	6.71	1.40	1.33
35	L2	42	U	O4'-C1'	6.71	1.52	1.42
56	Lh	48	LYS	CA-CB	6.71	1.63	1.53
25	SC	162	LEU	C-N	-6.71	1.24	1.33
33	L1	1516	G	O4'-C1'	6.71	1.52	1.42
1	Sa	263	ARG	NE-CZ	6.70	1.40	1.33
33	L1	1830	U	O4'-C1'	6.70	1.52	1.42
56	Lh	50	CYS	CA-C	-6.70	1.43	1.52
5	SE	70	LEU	N-CA	-6.70	1.36	1.46
8	SJ	71	HIS	CB-CG	6.70	1.59	1.50
73	Lp	26	ARG	CD-NE	6.70	1.55	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	SK	46	LEU	CA-C	-6.70	1.44	1.52
40	LH	156	ILE	CA-CB	6.70	1.63	1.54
42	LP	186	PRO	C-N	6.70	1.41	1.33
25	SC	144	ASN	CA-C	-6.70	1.43	1.52
32	S1	1311	U	C2'-C1'	-6.70	1.43	1.53
33	L1	1962	C	C2'-C1'	-6.70	1.43	1.53
64	LG	26	TRP	CA-C	-6.70	1.43	1.52
33	L1	483	U	C2'-C1'	-6.70	1.43	1.53
33	L1	826	C	O4'-C1'	6.70	1.51	1.41
33	L1	1177	G	O4'-C1'	-6.70	1.31	1.41
33	L1	2225	C	C2'-C1'	-6.70	1.43	1.53
10	SL	5	ARG	CD-NE	6.69	1.55	1.46
32	S1	1285	G	O4'-C1'	6.69	1.51	1.41
33	L1	1857	G	O4'-C1'	-6.69	1.31	1.41
9	SK	35	SER	CA-C	-6.69	1.43	1.52
20	SZ	8	LEU	C-N	6.69	1.43	1.33
25	SC	16	LYS	CA-C	6.69	1.61	1.52
28	SN	52	PHE	N-CA	6.69	1.54	1.46
33	L1	1119	G	C2'-C1'	-6.69	1.43	1.53
33	L1	2627	G	O4'-C1'	-6.69	1.31	1.41
33	L1	3362	A	C2'-C1'	6.69	1.63	1.53
1	Sa	299	PRO	C-N	6.69	1.41	1.33
32	S1	961	U	O4'-C1'	6.69	1.51	1.41
32	S1	568	G	P-O5'	-6.69	1.49	1.59
39	LF	121	LYS	CA-CB	6.69	1.61	1.53
33	L1	2091	U	C2'-C1'	6.68	1.63	1.53
1	Sa	247	GLY	CA-C	-6.68	1.43	1.51
32	S1	49	C	O4'-C1'	6.68	1.51	1.41
33	L1	614	C	O3'-P	-6.68	1.51	1.61
68	LW	14	GLY	N-CA	6.68	1.56	1.45
70	Li	110	GLN	C-O	-6.68	1.15	1.24
31	S2	52	G	C2'-C1'	-6.68	1.43	1.53
32	S1	500	G	C2'-C1'	-6.68	1.43	1.53
33	L1	2770	U	C3'-O3'	6.68	1.52	1.42
32	S1	1755	G	C2'-C1'	-6.68	1.43	1.53
33	L1	998	G	O4'-C1'	-6.68	1.31	1.41
72	Lk	39	ARG	NE-CZ	6.68	1.40	1.33
32	S1	998	A	C2'-C1'	-6.67	1.43	1.53
38	LE	111	HIS	CB-CG	-6.67	1.40	1.50
2	SA	91	VAL	N-CA	-6.67	1.38	1.46
35	L2	123	C	C2'-C1'	-6.67	1.43	1.53
48	LV	153	GLU	C-N	6.67	1.43	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	192	G	O4'-C1'	-6.67	1.31	1.41
33	L1	2707	A	O4'-C1'	-6.67	1.31	1.42
48	LV	81	GLN	C-N	6.67	1.43	1.33
5	SE	179	VAL	CA-C	-6.67	1.47	1.53
33	L1	1879	A	C4'-C3'	6.67	1.62	1.52
33	L1	2176	A	C2'-C1'	6.67	1.63	1.53
33	L1	2738	U	C4'-O4'	6.67	1.55	1.45
32	S1	295	C	C2'-C1'	-6.67	1.43	1.53
32	S1	854	C	O4'-C1'	6.67	1.51	1.41
32	S1	1270	U	O4'-C1'	6.67	1.51	1.41
33	L1	1018	C	C4'-C3'	6.67	1.62	1.52
33	L1	3351	A	O4'-C1'	-6.67	1.31	1.41
45	LQ	16	TYR	N-CA	6.67	1.54	1.46
53	Ld	49	HIS	ND1-CE1	6.67	1.39	1.32
32	S1	413	C	O4'-C1'	6.67	1.51	1.41
33	L1	1209	G	O4'-C1'	-6.67	1.31	1.41
33	L1	1495	G	C3'-O3'	6.67	1.52	1.42
33	L1	1729	G	C4'-O4'	6.67	1.55	1.45
33	L1	2049	C	C2'-C1'	-6.67	1.43	1.53
33	L1	3358	A	O4'-C1'	-6.67	1.31	1.41
1	Sa	333	VAL	CA-CB	-6.66	1.46	1.54
32	S1	577	C	C5'-C4'	6.66	1.61	1.51
32	S1	1288	C	C5'-C4'	6.66	1.61	1.51
33	L1	1711	G	O4'-C1'	6.66	1.51	1.41
33	L1	2036	C	C2'-C1'	-6.66	1.43	1.53
32	S1	647	G	C4'-C3'	6.66	1.62	1.52
32	S1	1115	G	C2'-C1'	-6.66	1.43	1.53
32	S1	1057	U	C2'-C1'	6.66	1.63	1.53
35	L2	128	C	C2'-C1'	-6.66	1.43	1.53
8	SJ	90	GLU	CA-C	-6.66	1.44	1.52
32	S1	1163	C	C2'-C1'	6.66	1.63	1.53
33	L1	1083	C	C4'-C3'	6.66	1.63	1.53
33	L1	1996	C	C2'-C1'	-6.66	1.43	1.53
33	L1	2700	A	C5'-C4'	6.66	1.61	1.51
1	Sa	166	VAL	CA-CB	6.66	1.62	1.54
24	SX	53	GLN	C-N	6.66	1.42	1.33
33	L1	1662	G	O4'-C1'	6.66	1.51	1.41
33	L1	1871	G	C2'-C1'	-6.66	1.43	1.53
35	L2	161	A	O4'-C1'	6.66	1.51	1.41
41	LM	71	ASP	CA-C	-6.65	1.44	1.53
32	S1	1427	A	C2'-C1'	-6.65	1.43	1.53
32	S1	1669	U	O4'-C1'	6.65	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2787	A	O4'-C1'	-6.65	1.31	1.41
48	LV	36	ILE	CA-CB	-6.65	1.45	1.54
9	SK	82	GLN	CA-C	-6.65	1.44	1.52
33	L1	1627	U	C2'-C1'	6.65	1.63	1.53
37	LB	123	ARG	C-N	6.65	1.43	1.33
25	SC	164	SER	CA-C	-6.65	1.44	1.52
46	LT	85	ARG	CA-CB	6.65	1.63	1.53
32	S1	624	A	C2'-C1'	6.65	1.63	1.53
32	S1	1773	A	O4'-C1'	6.65	1.51	1.41
33	L1	748	C	C2'-C1'	-6.65	1.43	1.53
33	L1	2418	A	C3'-O3'	6.65	1.52	1.42
1	Sa	132	CYS	CA-C	-6.65	1.44	1.52
33	L1	2705	A	C2'-C1'	-6.65	1.43	1.53
33	L1	3246	U	C2'-C1'	-6.65	1.43	1.53
33	L1	398	G	C4'-C3'	6.64	1.63	1.53
32	S1	1201	C	O3'-P	-6.64	1.51	1.61
33	L1	2673	G	C5'-C4'	6.64	1.61	1.51
3	SB	164	VAL	C-N	6.64	1.41	1.33
11	SM	53	ASN	CG-ND2	6.64	1.47	1.33
32	S1	11	A	O4'-C1'	6.64	1.51	1.41
33	L1	2343	U	C2'-C1'	-6.64	1.43	1.53
33	L1	3348	G	O4'-C1'	-6.64	1.31	1.41
32	S1	1314	U	C2'-C1'	6.64	1.63	1.53
32	S1	1476	C	C2'-C1'	-6.64	1.43	1.53
32	S1	1560	U	C2'-C1'	-6.64	1.43	1.53
33	L1	916	A	C2'-C1'	6.64	1.63	1.53
33	L1	1909	G	O3'-P	-6.64	1.51	1.61
33	L1	3380	G	C2'-C1'	-6.64	1.43	1.53
48	LV	14	SER	CA-C	-6.64	1.44	1.52
81	LD	340	ALA	CA-C	6.64	1.61	1.52
4	SD	131	PHE	CA-CB	6.63	1.62	1.53
15	SS	15	HIS	CB-CG	6.63	1.59	1.50
33	L1	245	C	C2'-C1'	-6.63	1.43	1.53
33	L1	841	G	C3'-C2'	6.63	1.62	1.52
9	SK	132	THR	N-CA	6.63	1.55	1.46
11	SM	12	ILE	CA-C	-6.63	1.44	1.52
33	L1	163	U	C2'-C1'	6.63	1.63	1.53
33	L1	925	U	C2'-C1'	6.63	1.63	1.53
64	LG	184	ILE	N-CA	6.63	1.54	1.46
6	SF	124	ILE	CA-CB	6.63	1.62	1.54
33	L1	367	A	O4'-C1'	-6.63	1.32	1.42
33	L1	930	C	C2'-C1'	-6.63	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	958	U	O4'-C1'	6.63	1.51	1.41
33	L1	2661	G	C5'-C4'	6.63	1.61	1.51
32	S1	1056	A	C2'-C1'	-6.63	1.43	1.53
33	L1	2025	C	C2'-C1'	-6.63	1.43	1.53
32	S1	924	A	O4'-C1'	6.63	1.51	1.41
33	L1	1565	G	C2'-C1'	-6.63	1.43	1.53
33	L1	2798	G	C4'-C3'	6.63	1.63	1.53
33	L1	3027	G	C2'-C1'	6.63	1.63	1.53
58	Ln	48	PHE	N-CA	6.63	1.54	1.46
9	SK	133	PRO	C-N	-6.62	1.25	1.33
32	S1	1286	U	O4'-C1'	6.62	1.51	1.41
33	L1	3057	A	O4'-C1'	6.62	1.51	1.41
42	LP	26	ARG	NE-CZ	6.62	1.40	1.33
59	Lo	41	ARG	CD-NE	6.62	1.55	1.46
33	L1	641	C	C4'-O4'	6.62	1.55	1.45
33	L1	1941	G	C2'-C1'	-6.62	1.43	1.53
33	L1	2154	G	O4'-C1'	6.62	1.51	1.41
33	L1	2230	C	C5'-C4'	6.62	1.61	1.51
33	L1	2486	G	O3'-P	-6.62	1.51	1.61
64	LG	29	LYS	N-CA	-6.62	1.37	1.46
33	L1	2009	C	C2'-C1'	-6.62	1.43	1.53
33	L1	2204	U	O5'-C5'	6.62	1.52	1.42
42	LP	115	VAL	CA-C	-6.62	1.45	1.52
1	Sa	145	GLY	C-N	6.62	1.42	1.33
33	L1	170	C	O4'-C1'	6.62	1.51	1.41
33	L1	1578	U	O4'-C1'	6.62	1.51	1.42
33	L1	2024	G	C2'-C1'	-6.62	1.43	1.53
32	S1	256	G	O4'-C1'	6.62	1.51	1.41
33	L1	2765	A	O4'-C1'	-6.62	1.31	1.41
33	L1	3096	U	P-O5'	-6.62	1.49	1.59
33	L1	1515	U	O3'-P	-6.62	1.51	1.61
7	SI	67	LYS	C-N	6.61	1.43	1.33
32	S1	126	U	C4'-C3'	6.61	1.62	1.52
35	L2	130	A	C2'-C1'	6.61	1.63	1.53
43	LO	138	GLY	CA-C	6.61	1.61	1.51
4	SD	123	LEU	CA-C	-6.61	1.44	1.52
83	Lm	7	LYS	C-N	6.61	1.43	1.33
32	S1	155	A	O4'-C1'	6.61	1.51	1.41
42	LP	74	PRO	C-N	6.61	1.42	1.33
45	LQ	16	TYR	C-O	-6.61	1.15	1.24
33	L1	2021	G	O4'-C1'	6.61	1.51	1.41
78	Le	189	GLU	CA-C	-6.61	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1752	U	O4'-C1'	6.61	1.51	1.41
33	L1	1659	G	O4'-C1'	6.61	1.51	1.41
33	L1	2899	A	O4'-C1'	-6.61	1.31	1.41
32	S1	1573	C	O4'-C1'	6.61	1.51	1.41
33	L1	957	U	C2'-C1'	-6.61	1.43	1.53
33	L1	1743	C	O4'-C1'	6.61	1.51	1.41
33	L1	2420	U	O4'-C1'	6.61	1.51	1.41
35	L2	86	C	C2'-C1'	-6.61	1.43	1.53
33	L1	2902	A	O4'-C1'	-6.60	1.31	1.41
32	S1	372	U	O4'-C1'	6.60	1.51	1.41
33	L1	1618	U	P-OP2	6.60	1.62	1.49
1	Sa	13	ALA	N-CA	-6.60	1.38	1.46
33	L1	586	A	O4'-C1'	6.60	1.51	1.41
33	L1	1140	C	O4'-C1'	6.60	1.51	1.41
33	L1	1370	A	C3'-O3'	6.60	1.52	1.42
23	SU	53	TYR	C-N	6.60	1.43	1.33
33	L1	2626	G	C5'-C4'	6.60	1.61	1.51
9	SK	149	ARG	CA-C	6.60	1.61	1.52
33	L1	1982	G	C2'-C1'	-6.60	1.43	1.53
33	L1	1526	A	P-O5'	-6.59	1.49	1.59
33	L1	2910	C	C4'-C3'	6.59	1.62	1.52
34	L3	116	U	O4'-C1'	6.59	1.51	1.41
33	L1	977	G	C2'-C1'	-6.59	1.43	1.53
40	LH	87	ASN	C-N	6.59	1.41	1.33
64	LG	69	THR	CA-CB	6.59	1.64	1.53
39	LF	90	LYS	N-CA	6.59	1.54	1.46
8	SJ	120	GLU	CA-CB	6.59	1.64	1.53
33	L1	240	U	C2'-C1'	-6.59	1.43	1.53
33	L1	1296	C	C5'-C4'	6.59	1.61	1.51
33	L1	2474	A	C3'-O3'	6.59	1.52	1.42
33	L1	2999	G	C2'-C1'	-6.59	1.43	1.53
33	L1	3361	G	C2'-C1'	-6.59	1.43	1.53
77	Lc	40	SER	CA-CB	6.59	1.63	1.53
77	Lc	57	ARG	CZ-NH1	6.58	1.42	1.32
33	L1	1448	U	O4'-C1'	6.58	1.51	1.41
33	L1	2904	A	O4'-C1'	6.58	1.51	1.41
11	SM	62	GLU	C-N	6.58	1.42	1.34
33	L1	2670	A	C2'-C1'	-6.58	1.43	1.53
33	L1	3047	A	O4'-C1'	-6.58	1.31	1.41
47	LU	44	VAL	CA-CB	-6.58	1.47	1.54
33	L1	3050	A	C2'-C1'	6.58	1.63	1.53
35	L2	126	G	O4'-C1'	6.58	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	SU	95	TYR	CB-CG	-6.58	1.37	1.51
32	S1	960	A	C2'-C1'	6.58	1.63	1.53
33	L1	723	G	C2'-C1'	6.58	1.63	1.53
33	L1	2693	G	C2'-C1'	-6.58	1.43	1.53
46	LT	88	ARG	N-CA	-6.58	1.37	1.46
49	LX	133	TYR	CA-C	6.58	1.60	1.52
13	SQ	27	ASP	N-CA	6.57	1.54	1.46
33	L1	1265	G	O4'-C1'	-6.57	1.28	1.41
33	L1	1741	G	O3'-P	6.57	1.71	1.61
33	L1	2262	C	C2'-C1'	-6.57	1.43	1.53
31	S2	30	G	C2'-C1'	-6.57	1.43	1.53
4	SD	206	GLU	N-CA	-6.57	1.38	1.46
32	S1	1397	A	C2'-C1'	6.57	1.63	1.53
33	L1	3163	G	C2'-C1'	-6.57	1.43	1.53
55	Lg	41	ILE	N-CA	-6.57	1.38	1.46
14	SP	63	GLY	C-N	6.57	1.42	1.33
33	L1	1991	U	O4'-C1'	6.57	1.51	1.41
73	Lp	26	ARG	CA-C	6.57	1.60	1.52
32	S1	610	A	C2'-C1'	-6.57	1.43	1.53
33	L1	38	A	C2'-C1'	6.57	1.63	1.53
33	L1	1801	G	O4'-C1'	6.57	1.51	1.41
44	LR	155	ALA	CA-CB	6.57	1.60	1.53
4	SD	240	LYS	CA-CB	-6.56	1.42	1.53
31	S2	21	A	C3'-O3'	6.56	1.51	1.42
32	S1	122	U	O4'-C1'	6.56	1.51	1.41
32	S1	1664	U	O4'-C1'	6.56	1.51	1.41
33	L1	21	G	C2'-C1'	6.56	1.62	1.53
33	L1	435	G	C2'-C1'	-6.56	1.43	1.53
33	L1	651	A	C2'-C1'	-6.56	1.43	1.53
35	L2	152	C	C2'-C1'	-6.56	1.43	1.53
7	SI	43	GLU	CA-C	-6.56	1.45	1.52
31	S2	13	U	O4'-C1'	-6.56	1.31	1.41
41	LM	40	ILE	CA-CB	-6.56	1.45	1.54
69	La	28	VAL	N-CA	6.56	1.54	1.46
81	LD	111	THR	C-N	6.56	1.42	1.33
14	SP	62	THR	C-N	6.56	1.40	1.33
27	SH	79	PHE	CA-C	6.56	1.61	1.52
32	S1	149	G	O4'-C1'	6.55	1.51	1.41
32	S1	1093	A	C4'-O4'	6.55	1.55	1.45
48	LV	68	GLY	CA-C	-6.55	1.42	1.51
32	S1	1515	G	O4'-C1'	6.55	1.51	1.41
32	S1	1646	G	O3'-P	-6.55	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1107	G	C4'-C3'	6.55	1.62	1.52
33	L1	1596	G	O3'-P	-6.55	1.51	1.61
33	L1	1766	U	O4'-C1'	6.55	1.51	1.41
33	L1	2832	G	C2'-C1'	-6.55	1.43	1.53
33	L1	2985	C	O4'-C1'	6.55	1.51	1.42
1	Sa	9	GLU	CA-C	-6.55	1.44	1.52
2	SA	229	TYR	C-N	6.55	1.41	1.33
14	SP	63	GLY	N-CA	-6.55	1.37	1.46
33	L1	373	A	O4'-C1'	6.55	1.51	1.41
33	L1	560	C	C2'-C1'	6.55	1.63	1.53
33	L1	3057	A	C3'-C2'	6.55	1.62	1.52
64	LG	59	ARG	CD-NE	6.55	1.55	1.46
32	S1	311	G	O4'-C1'	6.55	1.51	1.41
33	L1	243	C	O4'-C1'	6.55	1.51	1.41
33	L1	2933	C	C2'-C1'	6.55	1.63	1.53
74	LJ	91	ARG	CD-NE	6.55	1.55	1.46
33	L1	397	A	O5'-C5'	6.54	1.52	1.42
33	L1	1132	A	O4'-C1'	6.54	1.51	1.41
48	LV	30	ARG	CD-NE	6.54	1.55	1.46
80	LC	255	ILE	C-N	6.54	1.43	1.33
20	SZ	48	VAL	C-N	-6.54	1.25	1.33
32	S1	1299	G	O4'-C1'	6.54	1.51	1.41
33	L1	634	A	O4'-C1'	6.54	1.51	1.41
33	L1	666	U	C2'-C1'	-6.54	1.43	1.53
15	SS	92	PRO	C-N	6.54	1.41	1.33
19	SY	56	GLU	CA-CB	6.54	1.64	1.53
32	S1	1307	U	O4'-C1'	6.54	1.51	1.41
37	LB	9	ARG	CD-NE	6.54	1.55	1.46
38	LE	63	ARG	CD-NE	6.54	1.55	1.46
60	Lr	89	LYS	C-O	-6.54	1.15	1.24
35	L2	83	A	O3'-P	-6.54	1.51	1.61
38	LE	97	ASN	CA-C	-6.54	1.43	1.52
1	Sa	233	TRP	CA-C	-6.54	1.44	1.52
37	LB	64	ARG	CD-NE	6.54	1.55	1.46
72	Lk	96	VAL	N-CA	6.54	1.52	1.46
32	S1	1248	A	O4'-C1'	6.54	1.51	1.41
80	LC	8	HIS	N-CA	-6.54	1.38	1.45
32	S1	289	G	O4'-C1'	6.53	1.51	1.41
33	L1	3333	C	C3'-C2'	6.53	1.62	1.52
33	L1	1844	U	O4'-C1'	6.53	1.51	1.42
73	Lp	18	MET	C-N	6.53	1.41	1.33
13	SQ	33	LYS	C-N	-6.53	1.26	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	858	U	O4'-C1'	6.53	1.51	1.41
33	L1	882	U	C2'-C1'	-6.53	1.43	1.53
33	L1	1165	C	C2'-C1'	-6.53	1.43	1.53
33	L1	972	C	O4'-C1'	6.53	1.51	1.41
33	L1	1190	C	O4'-C1'	6.53	1.51	1.41
15	SS	110	LEU	C-N	6.53	1.42	1.33
64	LG	12	LYS	C-O	-6.53	1.15	1.24
33	L1	2821	U	C2'-C1'	-6.52	1.43	1.53
48	LV	153	GLU	N-CA	6.52	1.54	1.46
33	L1	1915	G	C2'-C1'	-6.52	1.43	1.53
33	L1	2815	A	O4'-C1'	6.52	1.51	1.41
33	L1	1076	G	C5'-C4'	6.52	1.61	1.51
33	L1	2131	U	C3'-C2'	-6.52	1.43	1.52
66	LN	112	LEU	N-CA	6.52	1.54	1.46
3	SB	77	PHE	CA-C	-6.52	1.47	1.53
33	L1	2095	C	C2'-C1'	-6.52	1.43	1.53
54	Lf	93	CYS	CA-CB	6.51	1.63	1.53
32	S1	206	U	O4'-C1'	6.51	1.51	1.41
32	S1	410	U	C2'-C1'	-6.51	1.43	1.53
33	L1	1317	G	O4'-C1'	6.51	1.51	1.41
33	L1	2169	U	C2'-C1'	-6.51	1.43	1.53
81	LD	204	ARG	CD-NE	6.51	1.55	1.46
32	S1	345	A	O4'-C1'	6.51	1.51	1.41
33	L1	3301	G	O4'-C1'	-6.51	1.31	1.41
1	Sa	10	LYS	CA-C	-6.51	1.45	1.52
33	L1	1062	G	O4'-C1'	6.51	1.51	1.41
37	LB	196	TRP	C-N	6.51	1.46	1.34
38	LE	33	THR	C-O	-6.51	1.15	1.24
52	Lb	123	ARG	NE-CZ	6.51	1.40	1.33
80	LC	122	TRP	CA-C	6.51	1.61	1.52
32	S1	487	A	C2'-C1'	-6.50	1.43	1.53
32	S1	625	A	C3'-O3'	6.50	1.51	1.42
33	L1	513	C	C4'-O4'	6.50	1.55	1.45
33	L1	1608	C	C2'-C1'	-6.50	1.43	1.53
33	L1	1664	G	C2'-C1'	-6.50	1.40	1.52
33	L1	1685	U	C2'-C1'	-6.50	1.43	1.53
33	L1	2435	U	C2'-C1'	-6.50	1.43	1.53
33	L1	226	U	O4'-C1'	-6.50	1.31	1.41
49	LX	35	LYS	N-CA	6.50	1.54	1.46
2	SA	85	PRO	C-N	6.50	1.42	1.33
33	L1	1311	G	P-O5'	-6.50	1.50	1.59
27	SH	78	ARG	CA-C	-6.50	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	990	G	C2'-C1'	-6.50	1.43	1.53
33	L1	857	G	C2'-C1'	-6.50	1.43	1.53
33	L1	2595	G	C4'-C3'	6.50	1.62	1.52
35	L2	111	G	C2'-C1'	-6.50	1.43	1.53
39	LF	123	ARG	N-CA	-6.50	1.38	1.46
33	L1	454	A	C2'-C1'	-6.50	1.43	1.53
33	L1	2483	A	C2'-C1'	6.50	1.63	1.53
33	L1	2708	A	O3'-P	-6.50	1.51	1.61
33	L1	2579	G	O4'-C1'	6.49	1.51	1.41
46	LT	179	GLU	C-N	6.49	1.43	1.33
27	SH	63	VAL	C-N	6.49	1.42	1.33
2	SA	218	GLU	C-N	6.49	1.42	1.33
33	L1	2773	G	C4'-C3'	-6.49	1.42	1.52
7	SI	124	VAL	CA-CB	6.49	1.65	1.55
32	S1	1364	C	O3'-P	-6.49	1.51	1.61
33	L1	1700	U	O4'-C1'	6.49	1.51	1.41
3	SB	148	LYS	C-O	6.49	1.32	1.24
4	SD	189	THR	N-CA	6.49	1.54	1.46
35	L2	124	G	O4'-C1'	6.49	1.51	1.41
52	Lb	97	ARG	CD-NE	6.49	1.55	1.46
32	S1	378	U	C2'-C1'	-6.49	1.43	1.53
32	S1	1725	C	C2'-C1'	-6.49	1.43	1.53
33	L1	970	A	O4'-C1'	6.49	1.51	1.41
33	L1	1132	A	P-O5'	-6.49	1.50	1.59
33	L1	1301	C	O4'-C1'	6.48	1.51	1.41
32	S1	1327	C	C2'-C1'	-6.48	1.43	1.53
64	LG	28	ILE	CA-C	-6.48	1.44	1.52
32	S1	1599	C	O4'-C1'	6.48	1.51	1.41
32	S1	1617	U	P-O5'	-6.48	1.50	1.59
33	L1	2505	C	C2'-C1'	-6.48	1.43	1.53
32	S1	161	G	C2'-C1'	6.48	1.63	1.53
33	L1	1850	C	C2'-C1'	6.48	1.63	1.53
33	L1	2158	C	C2'-C1'	-6.48	1.43	1.53
33	L1	2224	A	C2'-C1'	6.48	1.63	1.53
69	La	10	ALA	C-N	6.48	1.42	1.33
32	S1	1154	G	C2'-C1'	-6.48	1.43	1.53
32	S1	1468	G	C2'-C1'	6.48	1.63	1.53
33	L1	1569	U	O4'-C1'	-6.48	1.32	1.42
33	L1	103	G	C2'-C1'	-6.47	1.43	1.53
35	L2	42	U	C2'-C1'	-6.47	1.43	1.53
43	LO	89	GLY	C-N	6.47	1.42	1.33
47	LU	49	HIS	CB-CG	-6.47	1.41	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
51	LY	73	TYR	CA-CB	6.47	1.62	1.53
33	L1	2716	U	C3'-C2'	6.47	1.62	1.52
33	L1	1872	C	C5'-C4'	6.47	1.60	1.51
35	L2	45	A	C5'-C4'	6.47	1.60	1.51
81	LD	353	LYS	CA-C	6.47	1.61	1.52
33	L1	1345	U	O3'-P	-6.47	1.51	1.61
37	LB	63	PHE	C-N	6.47	1.42	1.33
42	LP	45	PRO	CA-C	-6.47	1.42	1.52
11	SM	74	PRO	N-CA	6.46	1.55	1.47
32	S1	674	G	C2'-C1'	-6.46	1.43	1.53
33	L1	2801	A	C5'-C4'	6.46	1.60	1.51
34	L3	1	G	P-OP2	6.46	1.61	1.49
51	LY	71	GLN	N-CA	-6.46	1.37	1.46
33	L1	892	U	C2'-C1'	-6.46	1.43	1.53
32	S1	471	G	C2'-C1'	6.46	1.63	1.53
32	S1	1053	C	C2'-C1'	-6.46	1.43	1.53
33	L1	2213	G	O5'-C5'	6.46	1.52	1.42
33	L1	2470	C	C5'-C4'	6.46	1.60	1.51
39	LF	188	GLU	CA-CB	6.46	1.64	1.53
31	S2	57	A	C2'-O2'	-6.46	1.31	1.41
33	L1	44	A	O4'-C1'	6.46	1.51	1.41
33	L1	845	G	P-O5'	-6.46	1.50	1.59
33	L1	2308	A	O4'-C1'	6.46	1.51	1.42
49	LX	123	LEU	CA-C	-6.46	1.44	1.52
33	L1	1630	C	P-O5'	-6.46	1.50	1.59
37	LB	187	HIS	CD2-NE2	6.46	1.45	1.37
80	LC	154	LYS	CA-CB	6.46	1.64	1.53
33	L1	1782	G	C2'-C1'	-6.46	1.43	1.53
32	S1	1373	C	C2'-C1'	-6.45	1.43	1.53
33	L1	2756	G	C3'-O3'	6.45	1.51	1.42
38	LE	114	LEU	CA-C	-6.45	1.44	1.52
33	L1	1683	U	O4'-C1'	6.45	1.51	1.41
33	L1	3113	G	O4'-C1'	6.45	1.51	1.41
66	LN	18	GLY	CA-C	-6.45	1.42	1.51
81	LD	314	VAL	CA-C	-6.45	1.44	1.52
78	Le	34	ALA	C-N	6.45	1.42	1.33
32	S1	5	U	O4'-C1'	6.45	1.51	1.41
33	L1	2108	C	C2'-C1'	6.45	1.63	1.53
59	Lo	9	ILE	CA-C	6.45	1.60	1.52
33	L1	525	A	O4'-C1'	6.45	1.51	1.41
33	L1	584	G	C2'-O2'	-6.45	1.32	1.42
34	L3	67	C	P-O5'	-6.44	1.50	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
64	LG	179	ASP	C-N	6.44	1.42	1.33
32	S1	1588	C	C2'-C1'	-6.44	1.43	1.53
33	L1	2107	A	O4'-C1'	6.44	1.51	1.41
33	L1	2546	C	O4'-C1'	6.44	1.51	1.41
14	SP	41	LEU	CA-C	6.44	1.61	1.53
31	S2	38	C	O4'-C1'	6.44	1.51	1.41
33	L1	508	G	O4'-C1'	6.44	1.51	1.41
33	L1	601	G	O4'-C1'	-6.44	1.31	1.41
33	L1	2602	U	C3'-O3'	6.44	1.51	1.42
33	L1	2955	U	C4'-O4'	6.44	1.55	1.45
73	Lp	18	MET	CA-C	-6.44	1.45	1.52
14	SP	114	PRO	N-CA	-6.44	1.40	1.46
31	S2	7	A	O3'-P	-6.44	1.51	1.61
33	L1	2808	U	C3'-O3'	6.44	1.51	1.42
33	L1	2824	U	C2'-C1'	6.44	1.63	1.53
32	S1	315	U	C2'-C1'	-6.44	1.43	1.53
32	S1	477	A	C2'-C1'	-6.44	1.43	1.53
32	S1	327	A	O4'-C1'	-6.43	1.32	1.42
33	L1	1714	A	O3'-P	-6.43	1.51	1.61
33	L1	2502	U	C2'-C1'	6.43	1.63	1.53
33	L1	2520	U	O4'-C1'	6.43	1.51	1.41
33	L1	2564	G	C2'-C1'	-6.43	1.43	1.53
59	Lo	4	HIS	ND1-CE1	6.43	1.39	1.32
7	SI	112	LYS	N-CA	-6.43	1.38	1.46
20	SZ	7	SER	C-N	-6.43	1.24	1.33
32	S1	587	C	O4'-C1'	6.43	1.51	1.41
34	L3	73	U	C4'-O4'	6.43	1.55	1.45
35	L2	7	A	O4'-C1'	6.43	1.51	1.41
48	LV	140	TYR	CA-C	-6.43	1.45	1.52
8	SJ	122	GLU	C-N	6.43	1.41	1.33
31	S2	15	A	C3'-O3'	6.43	1.51	1.42
33	L1	2392	G	O4'-C1'	-6.43	1.32	1.42
80	LC	252	VAL	CA-C	-6.43	1.45	1.52
33	L1	2344	A	O3'-P	-6.43	1.51	1.61
27	SH	119	LYS	C-N	6.42	1.43	1.33
32	S1	953	G	O4'-C1'	-6.42	1.32	1.41
33	L1	2875	U	C4'-C3'	6.42	1.62	1.52
33	L1	1342	C	C3'-O3'	6.42	1.51	1.42
11	SM	148	VAL	CA-C	-6.42	1.44	1.52
33	L1	2886	C	O4'-C1'	6.42	1.51	1.41
33	L1	3387	U	C3'-C2'	6.42	1.62	1.52
35	L2	69	G	O3'-P	-6.42	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	SQ	66	VAL	C-N	6.42	1.41	1.33
32	S1	1750	A	C5'-C4'	6.42	1.60	1.51
44	LR	34	ARG	CD-NE	6.42	1.55	1.46
33	L1	2934	C	O4'-C1'	-6.42	1.32	1.41
32	S1	1591	A	O3'-P	-6.41	1.51	1.61
32	S1	647	G	O4'-C1'	-6.41	1.32	1.41
33	L1	296	C	C2'-C1'	-6.41	1.43	1.53
33	L1	533	G	O4'-C1'	6.41	1.51	1.41
32	S1	1371	U	C4'-O4'	6.41	1.55	1.45
42	LP	68	ARG	CD-NE	6.41	1.55	1.46
54	Lf	53	PRO	CA-C	6.41	1.56	1.52
33	L1	1994	C	C2'-C1'	-6.41	1.43	1.53
45	LQ	37	ARG	N-CA	6.41	1.54	1.46
54	Lf	85	CYS	CA-CB	6.41	1.64	1.53
8	SJ	49	VAL	CA-C	-6.41	1.44	1.52
15	SS	131	ARG	CD-NE	6.41	1.55	1.46
32	S1	313	C	C3'-O3'	6.41	1.51	1.42
32	S1	1426	C	O4'-C1'	6.41	1.51	1.41
48	LV	80	GLY	CA-C	-6.41	1.45	1.52
74	LJ	38	SER	C-N	6.41	1.42	1.33
32	S1	379	U	C3'-O3'	6.40	1.51	1.42
32	S1	1374	G	O3'-P	-6.40	1.51	1.61
33	L1	1168	G	C2'-C1'	6.40	1.62	1.53
32	S1	1209	C	C2'-C1'	-6.40	1.43	1.53
33	L1	598	U	P-O5'	-6.40	1.50	1.59
33	L1	1512	A	C2'-C1'	6.40	1.62	1.53
33	L1	1905	A	C3'-O3'	6.40	1.51	1.42
33	L1	2696	C	C3'-O3'	6.40	1.51	1.42
57	L1	43	ARG	NE-CZ	6.40	1.40	1.33
5	SE	66	TYR	N-CA	-6.40	1.38	1.46
33	L1	1619	G	C5'-C4'	6.40	1.60	1.51
2	SA	212	GLU	C-N	6.40	1.42	1.33
32	S1	91	C	O4'-C1'	6.40	1.51	1.41
33	L1	1577	A	C5'-C4'	6.40	1.60	1.51
68	LW	28	SER	C-N	6.40	1.46	1.33
31	S2	15	A	O4'-C1'	-6.39	1.32	1.41
32	S1	985	G	O4'-C1'	6.39	1.51	1.41
33	L1	1513	C	C4'-O4'	-6.39	1.35	1.45
33	L1	2299	C	C5'-C4'	6.39	1.60	1.51
33	L1	2713	G	O4'-C1'	6.39	1.51	1.41
71	Lj	53	ILE	N-CA	-6.39	1.38	1.46
32	S1	428	C	C2'-C1'	-6.39	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	969	U	C2'-C1'	6.39	1.62	1.53
33	L1	2731	G	C5'-C4'	6.39	1.60	1.51
42	LP	20	ARG	N-CA	6.39	1.54	1.46
32	S1	1808	U	O3'-P	-6.39	1.51	1.61
58	Ln	6	HIS	CG-CD2	6.39	1.42	1.35
16	SR	117	LYS	CA-CB	6.39	1.63	1.53
33	L1	2354	G	O3'-P	-6.39	1.51	1.61
33	L1	3383	C	O4'-C1'	6.39	1.51	1.41
33	L1	3214	U	C2'-C1'	6.39	1.62	1.53
33	L1	2175	A	C2'-C1'	-6.39	1.43	1.53
37	LB	207	VAL	N-CA	-6.39	1.39	1.46
56	Lh	13	LYS	CA-CB	6.38	1.64	1.53
33	L1	674	G	O4'-C1'	6.38	1.51	1.41
33	L1	1473	U	C2'-C1'	-6.38	1.43	1.53
80	LC	351	SER	N-CA	6.38	1.54	1.46
83	Lm	19	GLY	CA-C	6.38	1.60	1.51
32	S1	23	G	O4'-C1'	6.38	1.51	1.41
32	S1	1641	A	O4'-C1'	6.38	1.51	1.42
33	L1	583	C	C4'-C3'	6.38	1.62	1.52
33	L1	2681	A	C2'-C1'	-6.38	1.43	1.53
32	S1	1416	A	O4'-C1'	6.38	1.51	1.41
42	LP	139	HIS	CA-CB	6.38	1.63	1.53
33	L1	467	C	C2'-C1'	-6.38	1.43	1.53
33	L1	743	C	C2'-C1'	-6.38	1.43	1.53
78	Le	73	MET	CA-C	-6.38	1.44	1.52
32	S1	1208	A	C2'-C1'	-6.38	1.43	1.53
33	L1	2409	U	O4'-C1'	6.38	1.51	1.41
33	L1	1867	U	C2'-C1'	-6.38	1.43	1.53
80	LC	128	LYS	CA-C	6.38	1.60	1.52
11	SM	38	ARG	N-CA	-6.37	1.38	1.46
32	S1	56	U	O4'-C1'	6.37	1.51	1.42
33	L1	2149	G	C2'-C1'	-6.37	1.43	1.53
33	L1	3055	U	C2'-C1'	6.37	1.62	1.53
78	Le	242	ARG	CZ-NH2	6.37	1.41	1.33
32	S1	11	A	C4'-O4'	-6.37	1.35	1.45
33	L1	2576	C	C2'-C1'	-6.37	1.43	1.53
33	L1	3330	U	O4'-C1'	-6.37	1.32	1.41
77	Lc	34	ARG	CA-CB	6.37	1.63	1.53
33	L1	923	A	O3'-P	-6.37	1.51	1.61
38	LE	34	ARG	CD-NE	6.37	1.55	1.46
33	L1	161	C	O4'-C1'	6.37	1.51	1.41
24	SX	69	THR	C-N	6.37	1.42	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1653	A	C2'-C1'	-6.37	1.43	1.53
60	Lr	12	CYS	N-CA	6.37	1.53	1.45
77	Lc	13	ASN	CA-CB	6.37	1.63	1.53
82	LK	204	ILE	CA-CB	-6.37	1.47	1.54
5	SE	173	SER	CA-CB	6.36	1.63	1.53
25	SC	136	ILE	CA-CB	6.36	1.63	1.54
4	SD	201	HIS	CA-C	-6.36	1.44	1.53
5	SE	173	SER	N-CA	-6.36	1.38	1.46
31	S2	42	C	C5'-C4'	6.36	1.60	1.51
34	L3	105	C	O4'-C1'	6.36	1.51	1.41
55	Lg	18	ARG	CD-NE	6.36	1.55	1.46
70	Li	64	ARG	CZ-NH1	6.36	1.41	1.32
77	Lc	7	LYS	C-N	6.36	1.42	1.33
3	SB	76	ARG	C-O	-6.36	1.16	1.24
32	S1	17	C	C2'-C1'	-6.36	1.43	1.53
33	L1	1257	U	O4'-C1'	-6.36	1.32	1.41
33	L1	2495	C	C2'-C1'	-6.36	1.43	1.53
33	L1	2772	A	C2'-C1'	-6.36	1.43	1.53
39	LF	117	LEU	CA-CB	6.36	1.63	1.53
23	SU	23	LEU	C-N	6.36	1.42	1.33
32	S1	1623	C	O4'-C1'	6.36	1.51	1.41
33	L1	67	C	O4'-C1'	6.36	1.51	1.41
33	L1	2471	C	C2'-C1'	-6.36	1.43	1.53
33	L1	3299	A	C3'-O3'	6.36	1.51	1.42
9	SK	148	ARG	N-CA	-6.36	1.38	1.46
13	SQ	40	ILE	CA-C	-6.36	1.44	1.52
32	S1	556	G	C3'-C2'	-6.36	1.43	1.52
33	L1	3176	C	C3'-O3'	6.36	1.51	1.42
77	Lc	46	ASN	CA-CB	6.36	1.64	1.53
9	SK	127	ARG	CD-NE	6.35	1.55	1.46
32	S1	466	G	O4'-C1'	6.35	1.51	1.41
33	L1	316	A	O4'-C1'	6.35	1.51	1.41
33	L1	2445	U	C2'-C1'	-6.35	1.43	1.53
35	L2	105	U	C2'-C1'	-6.35	1.43	1.53
48	LV	158	VAL	CA-CB	6.35	1.61	1.54
54	Lf	38	LEU	C-N	6.35	1.42	1.33
81	LD	101	ARG	CD-NE	6.35	1.55	1.46
1	Sa	266	THR	C-N	-6.35	1.28	1.33
8	SJ	121	VAL	CA-C	-6.34	1.45	1.52
33	L1	277	U	C2'-C1'	-6.34	1.43	1.53
33	L1	427	U	O4'-C1'	6.34	1.51	1.41
33	L1	2738	U	C3'-C2'	6.34	1.62	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	LH	178	GLY	CA-C	-6.34	1.46	1.52
32	S1	1106	G	C4'-C3'	6.34	1.62	1.52
33	L1	1241	G	C3'-C2'	6.34	1.62	1.52
11	SM	53	ASN	CA-C	-6.34	1.44	1.52
32	S1	1330	A	O4'-C1'	6.34	1.51	1.41
33	L1	1336	A	O4'-C1'	6.34	1.51	1.41
33	L1	1535	C	O4'-C1'	6.34	1.51	1.41
33	L1	1869	U	C2'-C1'	-6.34	1.43	1.53
33	L1	2617	G	C2'-C1'	-6.34	1.43	1.53
52	Lb	107	VAL	CA-C	-6.34	1.44	1.52
32	S1	946	A	C5'-C4'	6.34	1.60	1.51
33	L1	1789	C	C2'-C1'	-6.34	1.43	1.53
33	L1	2706	A	C4'-C3'	6.34	1.62	1.52
31	S2	64	G	O3'-P	-6.34	1.51	1.61
32	S1	509	A	C2'-C1'	-6.34	1.43	1.53
33	L1	580	C	C4'-C3'	-6.34	1.43	1.52
33	L1	1178	C	C2'-C1'	-6.34	1.43	1.53
33	L1	1746	G	C2'-C1'	-6.34	1.43	1.53
31	S2	20	C	O5'-C5'	6.33	1.51	1.42
32	S1	650	G	C2'-C1'	-6.33	1.43	1.53
33	L1	2014	A	O4'-C1'	6.33	1.51	1.41
32	S1	585	U	C2'-C1'	6.33	1.62	1.53
33	L1	208	G	C4'-C3'	6.33	1.62	1.53
80	LC	296	HIS	N-CA	6.33	1.54	1.46
32	S1	1173	U	O4'-C1'	6.33	1.51	1.41
32	S1	1518	C	C2'-C1'	-6.33	1.43	1.53
33	L1	1271	U	O3'-P	6.33	1.70	1.61
33	L1	2973	A	C3'-C2'	6.33	1.62	1.52
4	SD	51	ARG	NE-CZ	6.33	1.40	1.33
7	SI	135	PHE	CA-C	-6.33	1.45	1.52
32	S1	604	U	C2'-C1'	-6.33	1.43	1.53
33	L1	309	C	C3'-O3'	6.33	1.51	1.42
33	L1	721	A	O4'-C1'	6.33	1.51	1.41
33	L1	2724	A	C2'-C1'	-6.33	1.43	1.53
30	S3	15	A	C2'-C1'	6.33	1.62	1.53
35	L2	67	C	C2'-C1'	-6.33	1.43	1.53
80	LC	1	MET	C-O	-6.33	1.10	1.23
82	LK	129	LEU	CA-C	-6.33	1.44	1.52
7	SI	76	ARG	NE-CZ	6.33	1.40	1.33
32	S1	1175	G	C2'-C1'	-6.33	1.43	1.53
32	S1	1244	U	O4'-C1'	6.33	1.51	1.41
33	L1	818	G	C2'-C1'	-6.33	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	358	C	C5'-C4'	6.32	1.60	1.51
33	L1	701	U	C2'-C1'	6.32	1.62	1.53
33	L1	1080	C	O3'-P	-6.32	1.51	1.61
33	L1	1618	U	C2'-C1'	-6.32	1.43	1.53
33	L1	2797	U	O5'-C5'	6.32	1.51	1.42
36	LA	1	MET	N-CA	6.32	1.58	1.46
51	LY	12	ARG	CD-NE	6.32	1.55	1.46
33	L1	1608	C	C5'-C4'	6.32	1.60	1.51
33	L1	1685	U	O4'-C1'	6.32	1.51	1.41
33	L1	293	A	O4'-C1'	-6.32	1.32	1.41
33	L1	1119	G	O4'-C1'	-6.32	1.32	1.42
41	LM	71	ASP	N-CA	-6.32	1.38	1.46
3	SB	190	LEU	CA-CB	6.32	1.64	1.53
33	L1	1425	G	O4'-C1'	-6.32	1.32	1.41
1	Sa	62	LEU	CA-C	6.32	1.60	1.52
11	SM	109	ASP	C-N	-6.32	1.25	1.33
15	SS	7	ARG	N-CA	-6.32	1.39	1.46
19	SY	14	MET	CA-CB	6.32	1.63	1.53
32	S1	434	G	C2'-C1'	-6.32	1.43	1.53
32	S1	933	G	C4'-C3'	-6.32	1.43	1.53
33	L1	1896	A	O4'-C1'	-6.32	1.32	1.42
66	LN	123	GLN	CA-CB	6.32	1.63	1.53
81	LD	331	LEU	C-N	6.32	1.42	1.34
32	S1	51	A	C2'-C1'	-6.31	1.43	1.53
33	L1	578	C	C4'-O4'	-6.31	1.36	1.45
4	SD	152	PRO	CA-C	6.31	1.61	1.52
32	S1	1167	C	C2'-C1'	-6.31	1.43	1.53
33	L1	2289	U	O3'-P	-6.31	1.51	1.61
35	L2	160	C	C2'-C1'	-6.31	1.43	1.53
47	LU	54	HIS	CA-C	6.31	1.61	1.52
3	SB	168	ILE	N-CA	-6.31	1.38	1.46
34	L3	120	C	O4'-C1'	6.31	1.51	1.42
70	Li	42	PRO	C-N	6.31	1.42	1.33
77	Lc	22	GLN	CA-C	6.31	1.60	1.52
37	LB	44	VAL	CA-C	-6.31	1.44	1.52
52	Lb	73	SER	CA-C	-6.31	1.44	1.52
45	LQ	298	ASP	CA-C	-6.30	1.44	1.52
55	Lg	29	HIS	ND1-CE1	6.30	1.38	1.32
8	SJ	47	ASP	CA-CB	6.30	1.63	1.53
64	LG	20	TYR	CA-CB	-6.30	1.43	1.53
32	S1	978	A	C2'-C1'	6.30	1.62	1.53
33	L1	1224	A	P-O5'	-6.30	1.50	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2379	U	O3'-P	-6.30	1.51	1.61
32	S1	68	A	O4'-C1'	6.30	1.51	1.41
33	L1	2995	G	C2'-C1'	6.30	1.62	1.53
17	SV	11	PRO	N-CA	-6.30	1.39	1.47
31	S2	57	A	C4'-O4'	6.30	1.55	1.45
33	L1	790	G	O4'-C1'	6.30	1.51	1.41
33	L1	1393	G	C2'-C1'	-6.30	1.44	1.53
33	L1	2582	G	O4'-C1'	6.30	1.51	1.41
32	S1	419	C	C2'-C1'	6.29	1.62	1.53
32	S1	1292	G	C2'-C1'	-6.29	1.44	1.53
33	L1	2721	C	C3'-O3'	6.29	1.51	1.42
60	Lr	33	ASP	CA-CB	6.29	1.64	1.53
32	S1	402	G	O4'-C1'	6.29	1.51	1.41
32	S1	405	A	O4'-C1'	6.29	1.51	1.42
33	L1	2797	U	C2'-C1'	-6.29	1.44	1.53
80	LC	350	THR	C-O	-6.29	1.16	1.24
32	S1	569	C	C5'-C4'	6.29	1.60	1.51
33	L1	1190	C	C4'-O4'	-6.29	1.36	1.45
33	L1	1386	G	C5'-C4'	6.29	1.60	1.51
47	LU	9	SER	C-N	6.29	1.42	1.33
69	La	9	LYS	N-CA	6.29	1.55	1.47
32	S1	1459	G	C4'-C3'	6.29	1.61	1.52
33	L1	1632	G	O4'-C1'	-6.29	1.32	1.41
44	LR	31	LYS	CA-CB	6.29	1.63	1.53
50	LZ	45	ARG	CD-NE	6.29	1.55	1.46
13	SQ	29	HIS	ND1-CE1	6.29	1.38	1.32
33	L1	1195	C	O4'-C1'	6.29	1.51	1.41
33	L1	1752	C	O4'-C1'	6.29	1.51	1.41
40	LH	181	ARG	CD-NE	6.29	1.55	1.46
66	LN	89	TRP	C-O	-6.29	1.16	1.24
70	Li	97	VAL	N-CA	6.29	1.53	1.46
33	L1	230	G	O3'-P	-6.28	1.51	1.61
33	L1	739	C	C2'-C1'	-6.28	1.44	1.53
33	L1	1583	G	O4'-C1'	6.28	1.51	1.41
33	L1	2106	U	O3'-P	-6.28	1.51	1.61
35	L2	154	G	O4'-C1'	6.28	1.51	1.41
81	LD	309	PRO	C-O	-6.28	1.16	1.24
33	L1	328	G	C5'-C4'	6.28	1.60	1.51
33	L1	1092	G	O4'-C1'	-6.28	1.32	1.41
32	S1	1225	A	C4'-C3'	-6.28	1.43	1.52
33	L1	1937	C	C2'-C1'	-6.28	1.44	1.53
3	SB	158	ILE	C-N	6.28	1.43	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1660	C	C2'-C1'	-6.28	1.44	1.53
32	S1	423	G	O4'-C1'	6.28	1.51	1.41
32	S1	873	G	O4'-C1'	-6.28	1.32	1.41
32	S1	998	A	O4'-C1'	6.28	1.51	1.41
33	L1	545	C	O3'-P	-6.28	1.51	1.61
33	L1	1193	A	C3'-O3'	6.28	1.51	1.42
33	L1	1808	G	P-O5'	-6.28	1.50	1.59
33	L1	2743	A	C2'-C1'	6.28	1.62	1.53
47	LU	54	HIS	CB-CG	6.28	1.58	1.50
48	LV	4	TYR	CA-CB	6.28	1.63	1.53
68	LW	83	ARG	CD-NE	6.28	1.55	1.46
78	Le	153	ARG	CD-NE	6.28	1.55	1.46
33	L1	1981	U	O4'-C1'	6.28	1.51	1.41
66	LN	84	TRP	C-N	6.28	1.41	1.33
81	LD	308	LYS	CA-C	6.28	1.60	1.52
43	LO	41	HIS	N-CA	6.27	1.53	1.46
33	L1	104	G	C2'-C1'	-6.27	1.44	1.53
33	L1	447	C	C2'-C1'	-6.27	1.44	1.53
33	L1	2226	C	O3'-P	-6.27	1.51	1.61
33	L1	238	C	C2'-O2'	-6.27	1.33	1.42
33	L1	1321	A	O3'-P	-6.27	1.51	1.61
1	Sa	203	GLY	N-CA	6.27	1.54	1.45
4	SD	148	ARG	N-CA	-6.27	1.38	1.46
7	SI	58	ILE	N-CA	-6.27	1.38	1.46
33	L1	657	A	O4'-C1'	6.27	1.51	1.41
80	LC	320	VAL	CA-CB	-6.27	1.47	1.54
32	S1	667	U	O4'-C1'	6.27	1.51	1.41
33	L1	1967	C	O4'-C1'	6.27	1.51	1.41
68	LW	90	LYS	CA-C	6.27	1.60	1.52
74	LJ	62	LYS	CA-C	-6.27	1.45	1.52
33	L1	2018	C	C2'-C1'	-6.27	1.44	1.53
33	L1	2840	A	C4'-C3'	6.26	1.61	1.52
32	S1	955	C	C4'-C3'	6.26	1.61	1.52
78	Le	148	GLU	CA-CB	6.26	1.62	1.53
33	L1	2587	G	O4'-C1'	-6.26	1.32	1.41
33	L1	1979	G	C2'-C1'	-6.26	1.44	1.53
13	SQ	96	ILE	CA-CB	6.26	1.62	1.54
33	L1	794	G	C2'-C1'	-6.26	1.44	1.53
3	SB	189	MET	N-CA	6.26	1.53	1.46
32	S1	824	U	O4'-C1'	6.26	1.51	1.41
32	S1	886	A	O4'-C1'	6.26	1.51	1.41
32	S1	901	U	C3'-C2'	6.26	1.62	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1716	C	C3'-O3'	6.26	1.51	1.42
33	L1	1198	G	O4'-C1'	-6.26	1.32	1.42
33	L1	803	G	O3'-P	-6.25	1.51	1.61
33	L1	1679	U	C3'-O3'	6.25	1.51	1.42
33	L1	2331	A	C5'-C4'	6.25	1.60	1.51
32	S1	173	G	C2'-C1'	-6.25	1.44	1.53
32	S1	1006	A	O4'-C1'	6.25	1.51	1.41
32	S1	1225	A	C3'-O3'	-6.25	1.32	1.42
32	S1	1694	G	C2'-C1'	-6.25	1.44	1.53
33	L1	1805	A	O4'-C1'	6.25	1.51	1.41
33	L1	3033	A	O3'-P	-6.25	1.51	1.61
14	SP	78	SER	CA-CB	6.25	1.63	1.53
60	Lr	9	LYS	N-CA	6.25	1.53	1.46
33	L1	1874	A	C2'-C1'	6.25	1.62	1.53
33	L1	2668	U	C4'-O4'	6.25	1.57	1.45
33	L1	291	C	C4'-C3'	6.25	1.61	1.52
33	L1	2177	U	C2'-C1'	-6.25	1.44	1.53
11	SM	115	LYS	N-CA	-6.25	1.38	1.46
15	SS	55	TRP	CA-C	-6.25	1.46	1.52
33	L1	569	C	C2'-C1'	-6.25	1.44	1.53
33	L1	3002	U	C3'-C2'	6.25	1.62	1.52
77	Lc	23	LEU	C-N	6.25	1.41	1.33
25	SC	71	ARG	CD-NE	6.24	1.54	1.46
32	S1	1722	C	C4'-C3'	6.24	1.61	1.52
33	L1	990	U	O4'-C1'	6.24	1.51	1.41
33	L1	2803	A	C2'-C1'	-6.24	1.43	1.53
39	LF	156	SER	C-N	6.24	1.42	1.33
48	LV	155	GLU	CA-C	6.24	1.61	1.52
6	SF	55	LYS	CA-CB	6.24	1.62	1.53
35	L2	58	A	C3'-C2'	6.24	1.62	1.52
45	LQ	196	ARG	CZ-NH2	6.24	1.41	1.33
13	SQ	66	VAL	CA-C	6.24	1.60	1.52
32	S1	1318	U	O4'-C1'	6.24	1.51	1.41
32	S1	1423	A	C2'-C1'	-6.24	1.44	1.53
33	L1	584	G	C3'-C2'	6.24	1.62	1.52
34	L3	118	C	O4'-C1'	6.24	1.51	1.41
55	Lg	29	HIS	CD2-NE2	6.24	1.44	1.37
66	LN	126	ALA	CA-CB	-6.24	1.43	1.53
32	S1	1450	A	O4'-C1'	-6.24	1.32	1.42
32	S1	1713	C	O3'-P	-6.24	1.51	1.61
33	L1	1914	C	C2'-C1'	-6.24	1.44	1.53
34	L3	12	U	C5'-C4'	6.24	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
45	LQ	257	THR	CA-C	-6.24	1.45	1.52
32	S1	1001	C	O4'-C1'	6.23	1.51	1.41
3	SB	29	LEU	N-CA	-6.23	1.39	1.46
32	S1	314	C	C2'-C1'	-6.23	1.44	1.53
81	LD	328	ALA	N-CA	-6.23	1.38	1.46
13	SQ	63	ARG	CA-CB	6.23	1.64	1.53
33	L1	1742	G	O3'-P	-6.23	1.51	1.61
33	L1	2338	C	O3'-P	-6.23	1.51	1.61
33	L1	2643	A	O3'-P	-6.23	1.51	1.61
1	Sa	180	GLN	N-CA	-6.23	1.38	1.46
33	L1	2460	A	C3'-O3'	6.23	1.52	1.43
77	Lc	76	ASN	N-CA	-6.23	1.38	1.46
33	L1	1003	G	C2'-C1'	-6.23	1.44	1.53
68	LW	36	MET	CA-C	-6.23	1.44	1.52
32	S1	1738	U	C5'-C4'	6.23	1.60	1.51
5	SE	139	ILE	CA-C	6.22	1.59	1.52
33	L1	1330	A	C3'-O3'	6.22	1.51	1.42
33	L1	2716	U	C2'-C1'	-6.22	1.43	1.53
55	Lg	6	ARG	NE-CZ	6.22	1.39	1.33
1	Sa	234	ASP	CA-C	-6.22	1.45	1.52
32	S1	313	C	P-O5'	-6.22	1.50	1.59
33	L1	1734	G	C2'-C1'	-6.22	1.44	1.53
33	L1	3351	A	C2'-C1'	6.22	1.62	1.53
58	Ln	18	LYS	CA-C	-6.22	1.44	1.52
81	LD	369	GLU	C-O	-6.22	1.15	1.24
41	LM	105	ILE	CA-CB	-6.22	1.46	1.54
46	LT	67	HIS	CA-C	6.22	1.60	1.52
17	SV	69	ARG	CD-NE	6.22	1.54	1.46
25	SC	106	PHE	CA-CB	6.22	1.65	1.53
33	L1	571	G	O3'-P	-6.22	1.51	1.61
33	L1	2224	A	O4'-C1'	-6.22	1.32	1.41
38	LE	33	THR	N-CA	-6.22	1.38	1.46
68	LW	78	GLY	N-CA	6.22	1.51	1.45
33	L1	3382	A	C5'-C4'	6.22	1.60	1.51
41	LM	59	ASP	C-N	6.22	1.42	1.33
19	SY	25	GLN	C-N	6.22	1.39	1.33
32	S1	940	U	C2'-C1'	-6.22	1.44	1.53
33	L1	1120	G	C5'-C4'	6.22	1.60	1.51
38	LE	142	ARG	CA-CB	6.22	1.63	1.53
6	SF	82	LYS	CA-C	-6.21	1.44	1.52
13	SQ	63	ARG	NE-CZ	6.21	1.39	1.33
32	S1	1705	C	P-O5'	-6.21	1.50	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3388	U	O3'-P	-6.21	1.51	1.61
33	L1	591	G	C2'-C1'	-6.21	1.44	1.53
32	S1	314	C	O4'-C1'	6.21	1.50	1.41
34	L3	36	C	O4'-C1'	6.21	1.50	1.41
64	LG	134	ILE	N-CA	-6.21	1.38	1.46
80	LC	250	ARG	CD-NE	6.21	1.54	1.46
32	S1	1545	A	C2'-C1'	-6.21	1.44	1.53
32	S1	1700	G	C2'-C1'	-6.21	1.44	1.53
25	SC	178	ASN	N-CA	6.21	1.54	1.46
32	S1	775	A	O3'-P	6.21	1.70	1.61
32	S1	916	U	C5'-C4'	6.21	1.60	1.51
32	S1	1422	G	O4'-C1'	6.21	1.50	1.41
32	S1	1461	G	C2'-O2'	-6.21	1.33	1.42
9	SK	61	VAL	CA-C	-6.20	1.44	1.52
32	S1	900	G	C2'-C1'	-6.20	1.44	1.53
33	L1	2508	U	C2'-C1'	6.20	1.62	1.53
37	LB	247	ARG	NE-CZ	6.20	1.39	1.33
32	S1	1171	C	O4'-C1'	6.20	1.50	1.41
3	SB	22	ASN	CA-CB	6.20	1.62	1.53
31	S2	45	G	O5'-C5'	6.20	1.52	1.42
32	S1	370	A	O4'-C1'	6.20	1.50	1.41
48	LV	140	TYR	CA-CB	6.20	1.63	1.53
60	Lr	24	LYS	CA-CB	6.20	1.61	1.53
33	L1	1762	G	C2'-C1'	-6.20	1.44	1.53
33	L1	2757	G	C3'-C2'	6.20	1.62	1.52
32	S1	1317	A	O4'-C1'	-6.20	1.32	1.41
33	L1	1058	A	O4'-C1'	6.20	1.51	1.42
33	L1	2247	A	C3'-O3'	6.20	1.51	1.42
37	LB	197	PRO	CA-CB	-6.20	1.42	1.53
33	L1	1299	G	O4'-C1'	6.19	1.50	1.41
33	L1	1428	G	O4'-C1'	-6.19	1.32	1.41
33	L1	2613	G	O3'-P	-6.19	1.51	1.61
47	LU	107	GLN	C-N	6.19	1.42	1.34
48	LV	31	GLU	CA-C	-6.19	1.44	1.52
5	SE	135	ARG	CD-NE	6.19	1.54	1.46
23	SU	83	ASP	N-CA	6.19	1.54	1.46
32	S1	507	G	C2'-C1'	-6.19	1.44	1.53
33	L1	341	U	O4'-C1'	-6.19	1.32	1.42
33	L1	2706	A	C5'-C4'	6.19	1.60	1.51
33	L1	3077	C	C2'-C1'	-6.19	1.44	1.53
37	LB	234	LYS	CA-CB	6.19	1.61	1.52
80	LC	164	ALA	CA-C	-6.19	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	476	U	C2'-C1'	6.19	1.62	1.53
33	L1	3126	U	C2'-C1'	-6.19	1.44	1.53
7	SI	74	ARG	NE-CZ	6.19	1.39	1.33
33	L1	2229	G	C5'-C4'	6.19	1.60	1.51
3	SB	50	ILE	CA-C	-6.18	1.45	1.52
27	SH	109	GLY	C-O	-6.18	1.14	1.23
84	LI	101	LYS	CA-C	-6.18	1.45	1.52
33	L1	2299	C	C4'-C3'	6.18	1.61	1.52
33	L1	307	C	C4'-C3'	6.18	1.61	1.52
33	L1	1680	A	O4'-C1'	6.18	1.50	1.41
45	LQ	248	ARG	CA-CB	6.18	1.64	1.53
44	LR	160	HIS	ND1-CE1	6.18	1.38	1.32
57	L1	79	ARG	NE-CZ	6.18	1.39	1.33
6	SF	66	GLU	CA-CB	6.18	1.62	1.53
16	SR	126	ALA	CA-C	-6.18	1.45	1.52
32	S1	1716	C	O4'-C1'	6.18	1.50	1.41
33	L1	186	A	C3'-C2'	-6.18	1.43	1.52
40	LH	228	LYS	C-N	6.18	1.42	1.33
79	Ls	191	VAL	N-CA	6.18	1.53	1.46
81	LD	102	GLY	CA-C	6.18	1.60	1.51
41	LM	85	ARG	CA-C	6.17	1.61	1.52
78	Le	227	GLY	CA-C	-6.17	1.42	1.52
3	SB	33	GLY	C-N	6.17	1.42	1.33
31	S2	20	C	C2'-C1'	6.17	1.62	1.53
32	S1	955	C	C2'-C1'	-6.17	1.44	1.53
32	S1	1598	G	C2'-C1'	-6.17	1.44	1.53
13	SQ	97	ARG	NE-CZ	6.17	1.39	1.33
23	SU	95	TYR	C-N	6.17	1.42	1.33
33	L1	793	C	C4'-O4'	-6.17	1.36	1.45
31	S2	7	A	C4'-C3'	6.17	1.62	1.53
32	S1	422	G	P-O5'	-6.17	1.50	1.59
32	S1	1309	U	C2'-C1'	-6.17	1.44	1.53
33	L1	2675	G	O3'-P	-6.17	1.51	1.61
33	L1	3007	A	O4'-C1'	6.17	1.50	1.41
32	S1	1727	C	C4'-O4'	6.17	1.54	1.45
32	S1	1022	U	O4'-C1'	6.16	1.50	1.41
34	L3	105	C	C2'-C1'	-6.16	1.44	1.53
11	SM	111	LEU	CA-CB	6.16	1.62	1.53
33	L1	860	G	O4'-C1'	-6.16	1.32	1.41
33	L1	936	A	C2'-C1'	6.16	1.62	1.53
33	L1	2761	A	O4'-C1'	6.16	1.51	1.42
33	L1	2822	A	O4'-C1'	6.16	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	LA	183	GLN	CA-C	-6.16	1.44	1.52
32	S1	35	U	C2'-C1'	-6.16	1.44	1.53
32	S1	1159	G	C2'-C1'	-6.16	1.44	1.53
33	L1	16	A	C3'-O3'	6.16	1.51	1.42
33	L1	1019	A	C2'-C1'	6.16	1.62	1.53
42	LP	41	ARG	NE-CZ	6.16	1.39	1.33
10	SL	117	VAL	CA-C	-6.16	1.45	1.52
32	S1	1063	U	C4'-O4'	6.16	1.54	1.45
79	Ls	7	LYS	N-CA	6.16	1.53	1.46
3	SB	74	GLN	CA-C	-6.16	1.44	1.52
32	S1	603	A	O4'-C1'	6.16	1.50	1.41
33	L1	1954	G	C2'-C1'	-6.16	1.44	1.53
33	L1	2660	A	C4'-C3'	6.16	1.62	1.53
34	L3	62	U	O3'-P	-6.16	1.51	1.61
33	L1	601	G	C4'-C3'	6.15	1.61	1.52
66	LN	109	LYS	CA-CB	6.15	1.62	1.53
11	SM	74	PRO	CA-C	6.15	1.61	1.52
32	S1	1	U	O4'-C1'	-6.15	1.32	1.41
33	L1	398	G	C2'-C1'	-6.15	1.43	1.53
33	L1	1797	U	P-O5'	-6.15	1.50	1.59
82	LK	154	TYR	CA-CB	6.15	1.62	1.53
17	SV	68	GLU	N-CA	-6.15	1.39	1.46
25	SC	166	PHE	CA-C	-6.15	1.44	1.52
32	S1	427	G	O4'-C1'	6.15	1.51	1.42
32	S1	1461	G	C5'-C4'	6.15	1.60	1.51
33	L1	654	C	O4'-C1'	6.15	1.50	1.41
33	L1	3090	C	C2'-C1'	-6.15	1.44	1.53
40	LH	135	VAL	C-N	6.15	1.41	1.33
33	L1	3054	G	C2'-C1'	-6.15	1.44	1.53
25	SC	173	ARG	CD-NE	6.15	1.54	1.46
32	S1	510	A	O4'-C1'	6.15	1.50	1.41
32	S1	1134	U	O3'-P	-6.15	1.51	1.61
33	L1	1674	A	C5'-C4'	6.15	1.60	1.51
38	LE	149	ARG	CD-NE	6.15	1.54	1.46
66	LN	64	ARG	CZ-NH2	-6.15	1.25	1.33
33	L1	182	C	O4'-C1'	6.15	1.50	1.41
47	LU	50	LYS	C-N	6.14	1.41	1.33
51	LY	12	ARG	NE-CZ	6.14	1.39	1.33
51	LY	77	TRP	CZ2-CH2	6.14	1.49	1.37
52	Lb	112	TYR	CA-CB	6.14	1.62	1.53
32	S1	162	A	C2'-C1'	6.14	1.62	1.53
32	S1	846	U	C2'-C1'	-6.14	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	861	A	O4'-C1'	-6.14	1.32	1.41
33	L1	2615	U	C2'-C1'	-6.14	1.44	1.53
1	Sa	371	TRP	CA-CB	6.14	1.64	1.53
33	L1	131	C	C2'-C1'	6.14	1.62	1.53
33	L1	2248	G	O4'-C1'	-6.14	1.32	1.41
57	L1	10	LYS	CA-C	-6.14	1.44	1.52
23	SU	35	PRO	CA-CB	6.14	1.62	1.53
33	L1	1172	A	C3'-O3'	6.14	1.51	1.42
8	SJ	74	THR	CA-C	6.14	1.59	1.52
33	L1	25	U	P-O5'	-6.14	1.50	1.59
33	L1	1272	G	P-O5'	6.14	1.69	1.59
10	SL	19	ASN	CA-CB	6.13	1.62	1.53
32	S1	913	U	O4'-C1'	6.13	1.50	1.41
32	S1	1724	U	O4'-C1'	6.13	1.50	1.41
33	L1	2656	C	C2'-C1'	6.13	1.62	1.53
77	Lc	34	ARG	N-CA	-6.13	1.39	1.46
44	LR	63	SER	CA-C	-6.13	1.44	1.53
6	SF	163	LYS	CA-C	-6.13	1.45	1.52
33	L1	1332	C	C2'-C1'	-6.13	1.44	1.53
33	L1	1873	C	O5'-C5'	6.13	1.52	1.42
33	L1	2201	G	O5'-C5'	6.13	1.51	1.42
36	LA	28	THR	CA-CB	-6.13	1.45	1.54
46	LT	71	GLN	CA-CB	6.13	1.63	1.53
46	LT	98	ARG	CA-C	-6.13	1.45	1.52
72	Lk	68	LYS	CB-CG	-6.13	1.34	1.52
31	S2	4	G	C2'-C1'	-6.13	1.44	1.53
25	SC	105	ASN	CA-CB	6.13	1.61	1.53
32	S1	1479	U	O4'-C1'	-6.13	1.32	1.42
32	S1	37	U	O4'-C1'	6.13	1.50	1.41
32	S1	1071	C	O3'-P	-6.13	1.51	1.61
33	L1	3074	A	O4'-C1'	6.13	1.50	1.41
33	L1	16	A	O3'-P	-6.12	1.51	1.61
34	L3	107	C	O4'-C1'	6.12	1.50	1.41
1	Sa	265	GLY	N-CA	-6.12	1.38	1.46
33	L1	2992	G	C2'-C1'	6.12	1.62	1.53
33	L1	2167	G	O4'-C1'	-6.12	1.32	1.42
56	Lh	75	PHE	CA-C	-6.12	1.45	1.52
32	S1	1205	G	O4'-C1'	6.12	1.51	1.42
32	S1	1720	G	C3'-C2'	6.12	1.61	1.52
33	L1	1323	G	O4'-C1'	-6.12	1.32	1.41
33	L1	1623	C	O4'-C1'	6.12	1.51	1.42
35	L2	88	C	O3'-P	-6.12	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	709	G	O4'-C1'	-6.12	1.32	1.41
46	LT	89	LEU	CA-C	-6.12	1.45	1.52
67	LS	94	LYS	CA-CB	6.12	1.61	1.53
25	SC	110	ARG	NE-CZ	6.12	1.39	1.33
32	S1	1157	A	P-O5'	-6.12	1.50	1.59
33	L1	1191	U	C3'-O3'	6.12	1.51	1.42
33	L1	1761	C	C3'-O3'	6.12	1.51	1.42
33	L1	2695	A	C2'-C1'	-6.12	1.44	1.53
39	LF	90	LYS	CA-C	6.12	1.59	1.52
33	L1	409	U	P-O5'	-6.11	1.50	1.59
66	LN	130	LYS	C-N	6.11	1.41	1.33
80	LC	65	SER	CA-CB	6.11	1.61	1.53
33	L1	1347	U	C2'-C1'	6.11	1.62	1.53
33	L1	2643	A	C2'-C1'	6.11	1.62	1.53
42	LP	158	HIS	ND1-CE1	6.11	1.38	1.32
32	S1	270	U	O4'-C1'	6.11	1.50	1.41
32	S1	1056	A	C3'-O3'	6.11	1.51	1.42
33	L1	890	G	O4'-C1'	6.11	1.50	1.41
33	L1	1759	C	C2'-C1'	-6.11	1.44	1.53
32	S1	1326	A	C4'-O4'	-6.11	1.36	1.45
32	S1	565	G	C2'-C1'	-6.11	1.44	1.53
33	L1	537	U	O4'-C1'	6.11	1.50	1.41
33	L1	2069	G	O4'-C1'	6.11	1.50	1.41
33	L1	2492	C	O3'-P	-6.11	1.51	1.61
33	L1	3312	G	C4'-C3'	6.10	1.61	1.52
42	LP	191	THR	C-N	6.10	1.41	1.33
15	SS	14	PRO	C-N	-6.10	1.26	1.33
32	S1	1647	C	C2'-C1'	-6.10	1.44	1.53
33	L1	1154	U	O4'-C1'	6.10	1.50	1.41
33	L1	2417	G	O3'-P	6.10	1.70	1.61
34	L3	101	A	O3'-P	-6.10	1.51	1.61
46	LT	177	ARG	CD-NE	6.10	1.54	1.46
32	S1	1647	C	C5'-C4'	6.10	1.60	1.51
33	L1	2441	G	C5'-C4'	6.10	1.60	1.51
33	L1	2731	G	O5'-C5'	6.10	1.51	1.42
48	LV	13	LYS	N-CA	-6.10	1.38	1.46
32	S1	1184	C	C5'-C4'	6.10	1.60	1.51
33	L1	1257	U	C4'-C3'	6.10	1.61	1.52
33	L1	1571	A	O4'-C1'	-6.10	1.32	1.42
32	S1	1738	U	C2'-C1'	-6.10	1.44	1.53
33	L1	1126	U	C2'-C1'	6.10	1.62	1.53
33	L1	3044	C	O4'-C1'	6.10	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	663	C	C2'-C1'	-6.10	1.44	1.53
33	L1	448	G	O4'-C1'	6.10	1.50	1.41
5	SE	56	GLU	CA-CB	6.09	1.65	1.53
32	S1	10	G	P-O5'	-6.09	1.50	1.59
32	S1	1429	U	O4'-C1'	6.09	1.50	1.41
33	L1	1377	G	C2'-C1'	-6.09	1.44	1.53
33	L1	2628	C	C2'-C1'	-6.09	1.44	1.53
57	L1	3	LYS	CA-CB	6.09	1.62	1.53
70	Li	43	LYS	CD-CE	6.09	1.70	1.52
82	LK	204	ILE	CA-C	6.09	1.59	1.52
33	L1	810	A	C2'-C1'	6.09	1.62	1.53
32	S1	1242	A	C3'-C2'	6.09	1.61	1.52
32	S1	1516	C	C5'-C4'	6.09	1.60	1.51
8	SJ	64	ARG	CZ-NH2	6.09	1.41	1.33
32	S1	1310	C	C2'-C1'	-6.09	1.44	1.53
33	L1	3296	C	O4'-C1'	-6.09	1.32	1.42
25	SC	59	ARG	N-CA	-6.09	1.38	1.46
32	S1	986	U	O4'-C1'	6.09	1.50	1.41
33	L1	972	C	P-O5'	-6.09	1.50	1.59
33	L1	1827	U	C4'-C3'	6.09	1.61	1.52
37	LB	60	LYS	CA-CB	6.09	1.61	1.53
33	L1	5	G	O4'-C1'	6.08	1.50	1.41
33	L1	268	U	O4'-C1'	6.08	1.50	1.41
33	L1	1047	C	C2'-C1'	-6.08	1.44	1.53
33	L1	98	A	C2'-C1'	-6.08	1.44	1.53
33	L1	1045	U	C2'-C1'	-6.08	1.44	1.53
33	L1	2050	G	C2'-C1'	-6.08	1.44	1.53
33	L1	2581	C	O3'-P	-6.08	1.52	1.61
72	Lk	46	LEU	CA-C	-6.08	1.45	1.52
24	SX	76	THR	N-CA	-6.08	1.38	1.46
46	LT	38	ARG	NE-CZ	6.08	1.39	1.33
56	Lh	126	ARG	CD-NE	6.08	1.54	1.46
70	Li	49	LYS	CA-C	-6.08	1.44	1.52
7	SI	51	ARG	CZ-NH2	6.08	1.41	1.33
55	Lg	35	LYS	CA-CB	6.08	1.63	1.53
66	LN	64	ARG	CG-CD	6.08	1.70	1.52
32	S1	384	U	C2'-C1'	-6.08	1.44	1.53
33	L1	159	G	C2'-C1'	-6.08	1.44	1.53
34	L3	2	G	O4'-C1'	-6.08	1.32	1.41
60	Lr	30	LYS	CA-CB	6.08	1.63	1.53
64	LG	9	LEU	N-CA	-6.08	1.39	1.46
14	SP	92	LEU	CA-C	-6.07	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1577	A	O4'-C1'	-6.07	1.32	1.41
42	LP	188	ARG	CA-CB	6.07	1.64	1.53
66	LN	49	ASN	N-CA	-6.07	1.38	1.46
70	Li	42	PRO	CA-C	6.07	1.65	1.52
81	LD	115	TRP	CA-CB	6.07	1.60	1.52
32	S1	1577	A	C2'-C1'	-6.07	1.44	1.53
33	L1	593	G	C2'-C1'	-6.07	1.44	1.53
33	L1	2502	U	C4'-O4'	6.07	1.54	1.45
13	SQ	63	ARG	C-N	6.07	1.42	1.33
33	L1	2876	G	O3'-P	6.07	1.70	1.61
33	L1	3337	G	C4'-O4'	6.07	1.54	1.45
35	L2	60	G	C4'-O4'	6.07	1.54	1.45
35	L2	112	C	C2'-C1'	-6.07	1.44	1.53
41	LM	37	LEU	CA-C	-6.07	1.45	1.52
72	Lk	93	MET	CA-CB	6.07	1.59	1.53
20	SZ	21	VAL	N-CA	-6.06	1.38	1.46
32	S1	583	A	C2'-C1'	6.06	1.62	1.53
33	L1	2247	A	C4'-O4'	6.06	1.54	1.45
69	La	29	PHE	CA-C	6.06	1.60	1.52
10	SL	5	ARG	N-CA	6.06	1.54	1.46
13	SQ	42	PRO	N-CD	-6.06	1.39	1.47
23	SU	8	PRO	CA-C	-6.06	1.43	1.52
33	L1	995	C	C3'-O3'	6.06	1.51	1.42
33	L1	1825	G	O5'-C5'	6.06	1.51	1.42
46	LT	6	LEU	CA-C	-6.06	1.44	1.52
59	Lo	38	ASN	C-N	6.06	1.42	1.33
32	S1	1071	C	C5'-C4'	6.06	1.60	1.51
33	L1	2222	C	C5'-C4'	6.06	1.60	1.51
35	L2	120	G	C2'-C1'	-6.06	1.44	1.53
16	SR	95	VAL	N-CA	6.06	1.50	1.46
33	L1	2469	C	C5'-C4'	6.06	1.60	1.51
59	Lo	37	TYR	CA-C	-6.06	1.46	1.53
1	Sa	134	ILE	CA-C	-6.05	1.44	1.53
3	SB	194	PRO	CA-CB	-6.05	1.45	1.53
33	L1	1119	G	C5'-C4'	6.05	1.60	1.51
57	Ll	27	PHE	CA-C	6.05	1.60	1.52
66	LN	86	ASN	N-CA	-6.05	1.39	1.46
32	S1	1614	C	O3'-P	-6.05	1.52	1.61
33	L1	1364	C	C2'-C1'	-6.05	1.44	1.53
33	L1	2048	C	C2'-C1'	-6.05	1.44	1.53
37	LB	150	LEU	C-N	6.05	1.41	1.33
40	LH	86	THR	CA-C	-6.05	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
77	Lc	106	GLU	CA-CB	6.05	1.63	1.53
27	SH	83	VAL	CA-CB	-6.05	1.44	1.55
33	L1	2756	G	O4'-C1'	-6.05	1.32	1.41
32	S1	1599	C	C2'-C1'	-6.05	1.44	1.53
32	S1	1750	A	C2'-C1'	6.05	1.62	1.53
32	S1	1459	G	O4'-C1'	-6.05	1.32	1.41
32	S1	1135	G	C4'-O4'	-6.04	1.36	1.45
2	SA	147	PRO	N-CA	-6.04	1.40	1.47
15	SS	85	ARG	CA-CB	6.04	1.62	1.53
33	L1	2376	G	C2'-C1'	6.04	1.62	1.53
77	Lc	98	PRO	N-CA	6.04	1.55	1.47
33	L1	311	G	P-O5'	-6.04	1.50	1.59
33	L1	754	G	O4'-C1'	-6.04	1.32	1.41
67	LS	28	ARG	N-CA	6.04	1.53	1.46
77	Lc	30	LEU	C-N	6.04	1.41	1.33
33	L1	2361	C	O4'-C1'	-6.04	1.32	1.41
3	SB	29	LEU	CA-C	-6.04	1.44	1.52
32	S1	788	G	C4'-C3'	6.04	1.64	1.52
33	L1	1905	A	O4'-C1'	6.04	1.50	1.41
56	Lh	39	ILE	N-CA	-6.04	1.39	1.46
81	LD	61	ARG	CD-NE	6.04	1.54	1.46
29	ST	30	ALA	CA-C	-6.04	1.49	1.52
33	L1	3215	U	O5'-C5'	6.04	1.51	1.42
52	Lb	61	GLN	CA-C	6.04	1.60	1.52
70	Li	44	CYS	N-CA	-6.04	1.36	1.46
1	Sa	282	HIS	ND1-CE1	6.04	1.38	1.32
2	SA	257	ALA	C-N	6.04	1.41	1.33
32	S1	48	G	C2'-C1'	-6.04	1.44	1.53
33	L1	2453	G	C5'-C4'	6.04	1.60	1.51
33	L1	3027	G	O4'-C1'	6.04	1.50	1.41
81	LD	84	PRO	N-CA	6.04	1.55	1.47
33	L1	1110	C	O4'-C1'	6.03	1.50	1.41
33	L1	1403	G	O4'-C1'	6.03	1.50	1.41
33	L1	1574	C	C5'-C4'	6.03	1.60	1.51
33	L1	2510	U	C2'-C1'	-6.03	1.44	1.53
33	L1	2703	G	P-O5'	-6.03	1.50	1.59
48	LV	34	PHE	CA-C	-6.03	1.45	1.52
33	L1	3175	C	C5'-C4'	6.03	1.60	1.51
70	Li	38	ARG	CD-NE	6.03	1.54	1.46
33	L1	2495	C	C3'-C2'	6.03	1.61	1.52
33	L1	2695	A	C5'-C4'	6.03	1.60	1.51
48	LV	121	ASN	N-CA	-6.03	1.38	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
71	Lj	99	GLY	CA-C	-6.03	1.43	1.51
2	SA	194	LEU	C-N	6.03	1.41	1.33
82	LK	120	THR	CA-C	6.03	1.60	1.52
33	L1	3049	A	O4'-C1'	6.03	1.50	1.41
84	LI	103	LEU	N-CA	-6.03	1.38	1.45
3	SB	76	ARG	CD-NE	6.03	1.54	1.46
60	Lr	28	TYR	C-N	6.03	1.41	1.33
64	LG	158	THR	N-CA	6.03	1.53	1.46
33	L1	1306	A	O3'-P	6.02	1.70	1.61
33	L1	2337	C	O4'-C1'	6.02	1.50	1.41
33	L1	2641	A	O4'-C1'	6.02	1.50	1.41
33	L1	3041	A	C2'-C1'	-6.02	1.44	1.53
35	L2	164	C	O4'-C1'	6.02	1.50	1.41
50	LZ	47	LYS	CA-C	6.02	1.59	1.53
67	LS	137	LYS	N-CA	-6.02	1.39	1.46
80	LC	30	LYS	CA-CB	6.02	1.64	1.53
33	L1	2824	U	O3'-P	-6.02	1.52	1.61
32	S1	1207	A	O3'-P	-6.02	1.52	1.61
33	L1	251	G	C5'-C4'	6.02	1.60	1.51
37	LB	17	LYS	CA-CB	6.02	1.62	1.53
52	Lb	97	ARG	CZ-NH2	6.02	1.41	1.33
32	S1	1447	C	C2'-C1'	-6.02	1.44	1.53
72	Lk	48	ARG	CA-CB	6.02	1.62	1.53
3	SB	27	ARG	CZ-NH2	6.01	1.41	1.33
6	SF	88	ILE	C-N	6.01	1.41	1.33
33	L1	86	U	P-O5'	-6.01	1.50	1.59
33	L1	318	G	C2'-C1'	-6.01	1.44	1.53
33	L1	469	U	C2'-C1'	-6.01	1.44	1.53
33	L1	897	U	C4'-C3'	6.01	1.62	1.53
33	L1	1245	U	O4'-C1'	-6.01	1.32	1.41
35	L2	118	G	C2'-C1'	-6.01	1.44	1.53
80	LC	65	SER	C-N	6.01	1.42	1.33
82	LK	115	PRO	CA-C	6.01	1.57	1.52
78	Le	222	HIS	C-N	-6.01	1.26	1.33
28	SN	38	CYS	N-CA	-6.01	1.38	1.46
33	L1	224	C	C3'-O3'	6.01	1.51	1.42
33	L1	1753	A	C4'-C3'	-6.01	1.44	1.53
35	L2	88	C	C4'-O4'	6.01	1.54	1.45
33	L1	318	G	O5'-C5'	6.01	1.51	1.42
33	L1	2814	C	C2'-C1'	-6.01	1.44	1.53
45	LQ	1	MET	C-N	6.01	1.42	1.33
2	SA	23	LEU	CA-C	-6.01	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	3	C	C3'-C2'	-6.01	1.43	1.52
33	L1	2665	A	C2'-C1'	-6.01	1.44	1.53
56	Lh	120	VAL	C-N	6.01	1.42	1.33
28	SN	11	PRO	N-CD	-6.01	1.39	1.47
33	L1	1181	A	C2'-C1'	6.01	1.62	1.53
33	L1	3294	U	C2'-C1'	6.01	1.62	1.53
33	L1	3295	G	O4'-C1'	-6.01	1.32	1.42
35	L2	68	U	O5'-C5'	6.01	1.51	1.42
37	LB	28	ARG	CD-NE	6.01	1.54	1.46
32	S1	1726	G	C2'-C1'	-6.00	1.44	1.53
35	L2	13	G	O4'-C1'	-6.00	1.32	1.41
55	Lg	83	ILE	C-N	6.00	1.42	1.33
32	S1	233	U	O4'-C1'	6.00	1.50	1.41
33	L1	1590	A	O4'-C1'	6.00	1.50	1.41
46	LT	71	GLN	C-O	-6.00	1.16	1.24
64	LG	155	ALA	C-N	6.00	1.41	1.33
70	Li	64	ARG	NE-CZ	6.00	1.39	1.33
82	LK	66	ARG	NE-CZ	6.00	1.39	1.33
11	SM	108	ARG	CD-NE	6.00	1.54	1.46
33	L1	657	A	C2'-C1'	-6.00	1.44	1.53
33	L1	1163	A	C5'-C4'	6.00	1.60	1.51
33	L1	3041	A	O4'-C1'	-6.00	1.32	1.41
71	Lj	22	ARG	CD-NE	6.00	1.54	1.46
81	LD	194	ARG	CD-NE	6.00	1.54	1.46
27	SH	25	VAL	N-CA	6.00	1.53	1.46
32	S1	904	G	O4'-C1'	6.00	1.50	1.41
32	S1	916	U	O4'-C1'	-6.00	1.32	1.41
33	L1	688	G	O4'-C1'	6.00	1.50	1.41
33	L1	3295	G	O3'-P	-6.00	1.52	1.61
82	LK	1	MET	C-N	6.00	1.41	1.33
15	SS	26	LYS	C-O	-6.00	1.16	1.24
33	L1	209	G	P-O5'	-6.00	1.50	1.59
49	LX	112	MET	N-CA	-6.00	1.38	1.46
33	L1	1902	G	C2'-C1'	6.00	1.62	1.53
42	LP	21	PHE	CA-C	-6.00	1.45	1.52
60	Lr	36	SER	N-CA	6.00	1.54	1.46
33	L1	1517	C	O4'-C1'	6.00	1.50	1.42
35	L2	102	U	C3'-O3'	6.00	1.51	1.42
33	L1	1276	C	C5'-C4'	5.99	1.60	1.51
43	LO	137	GLY	CA-C	5.99	1.59	1.52
56	Lh	106	ARG	CD-NE	5.99	1.54	1.46
70	Li	81	VAL	C-N	5.99	1.42	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	821	C	O4'-C1'	5.99	1.50	1.41
57	L1	22	CYS	CA-CB	5.99	1.62	1.54
4	SD	216	HIS	N-CA	5.99	1.53	1.45
35	L2	96	A	C5'-C4'	5.99	1.60	1.51
43	LO	135	ALA	CA-C	-5.99	1.44	1.52
58	Ln	37	ARG	CD-NE	5.99	1.54	1.46
33	L1	805	C	C4'-C3'	-5.99	1.43	1.52
33	L1	2737	A	O4'-C1'	5.99	1.50	1.41
81	LD	84	PRO	CA-CB	-5.99	1.45	1.53
33	L1	1987	C	C2'-C1'	-5.99	1.44	1.53
34	L3	72	G	P-O5'	-5.99	1.50	1.59
14	SP	90	ASN	C-O	-5.99	1.16	1.24
32	S1	360	G	C2'-C1'	-5.99	1.44	1.53
33	L1	470	G	C5'-C4'	5.99	1.60	1.51
33	L1	2646	A	C4'-O4'	-5.99	1.36	1.45
33	L1	2984	A	C3'-C2'	5.99	1.61	1.52
33	L1	3287	A	C2'-C1'	-5.98	1.44	1.53
35	L2	133	C	C2'-C1'	-5.98	1.44	1.53
52	Lb	98	LYS	CA-C	-5.98	1.45	1.52
58	Ln	47	VAL	N-CA	-5.98	1.38	1.46
7	SI	88	ARG	CA-C	5.98	1.59	1.52
32	S1	1304	A	O4'-C1'	-5.98	1.32	1.41
33	L1	1118	G	O4'-C1'	5.98	1.50	1.41
45	LQ	135	PRO	N-CA	-5.98	1.39	1.47
45	LQ	264	HIS	ND1-CE1	5.98	1.38	1.32
33	L1	82	C	O4'-C1'	5.98	1.50	1.41
34	L3	32	A	C2'-C1'	-5.98	1.44	1.53
32	S1	1767	G	C2'-C1'	-5.98	1.44	1.53
33	L1	127	G	O3'-P	-5.98	1.52	1.61
33	L1	488	U	O3'-P	-5.98	1.52	1.61
33	L1	2236	U	C3'-O3'	5.98	1.51	1.42
80	LC	255	ILE	CA-CB	-5.98	1.45	1.54
32	S1	906	G	C5'-C4'	5.98	1.60	1.51
33	L1	83	U	C2'-C1'	-5.98	1.44	1.53
32	S1	390	G	C2'-C1'	-5.97	1.44	1.53
32	S1	1679	A	O4'-C1'	5.97	1.50	1.41
33	L1	340	A	C5'-C4'	5.97	1.60	1.51
33	L1	915	G	O4'-C1'	-5.97	1.32	1.41
33	L1	1990	A	O4'-C1'	5.97	1.50	1.41
32	S1	1422	G	C2'-C1'	-5.97	1.44	1.53
37	LB	209	HIS	CB-CG	5.97	1.58	1.50
48	LV	24	VAL	CA-C	-5.97	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	28	A	O4'-C1'	5.97	1.50	1.41
33	L1	3343	U	O4'-C1'	5.97	1.50	1.41
3	SB	157	MET	C-N	5.97	1.41	1.33
32	S1	101	A	O4'-C1'	5.97	1.50	1.41
32	S1	115	A	C2'-C1'	5.97	1.62	1.53
67	LS	55	LYS	CA-C	-5.97	1.46	1.52
5	SE	128	LYS	CA-C	5.97	1.60	1.52
35	L2	36	C	C4'-C3'	5.97	1.61	1.52
7	SI	84	ILE	N-CA	-5.97	1.39	1.46
32	S1	1310	C	O5'-C5'	5.97	1.51	1.42
33	L1	392	C	O4'-C1'	5.97	1.50	1.41
33	L1	1590	A	C2'-C1'	-5.97	1.44	1.53
33	L1	2562	A	C2'-C1'	5.97	1.62	1.53
33	L1	2749	A	P-O5'	-5.97	1.50	1.59
47	LU	10	ARG	CD-NE	5.97	1.54	1.46
29	ST	28	ASP	N-CA	-5.96	1.38	1.46
32	S1	440	A	C4'-C3'	5.96	1.61	1.52
32	S1	452	C	O4'-C1'	5.96	1.50	1.41
33	L1	1288	C	O4'-C1'	5.96	1.50	1.41
33	L1	1365	C	O4'-C1'	5.96	1.50	1.41
46	LT	150	ALA	CA-C	-5.96	1.45	1.52
3	SB	46	THR	CA-C	-5.96	1.45	1.52
8	SJ	91	MET	C-N	5.96	1.42	1.33
15	SS	96	CYS	CA-C	-5.96	1.45	1.52
33	L1	1182	A	C5'-C4'	5.96	1.60	1.51
33	L1	1267	A	O5'-C5'	5.96	1.51	1.42
33	L1	3100	C	C2'-C1'	5.96	1.61	1.53
39	LF	3	THR	CA-C	5.96	1.55	1.52
45	LQ	190	LEU	N-CA	5.96	1.53	1.46
46	LT	104	ARG	CA-C	5.96	1.60	1.52
49	LX	89	ASN	C-N	5.96	1.41	1.33
64	LG	176	PHE	C-N	5.96	1.41	1.33
27	SH	113	HIS	CG-CD2	5.96	1.42	1.35
31	S2	71	A	C3'-C2'	-5.96	1.43	1.52
33	L1	1101	A	O3'-P	-5.96	1.52	1.61
71	Lj	93	LEU	CA-CB	5.96	1.61	1.53
3	SB	116	ARG	CD-NE	5.96	1.54	1.46
6	SF	72	LEU	CA-C	-5.96	1.45	1.52
17	SV	69	ARG	N-CA	-5.96	1.39	1.46
25	SC	81	ARG	CA-C	-5.96	1.45	1.52
32	S1	15	U	C2'-C1'	-5.96	1.44	1.53
80	LC	365	THR	CA-C	-5.96	1.40	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	LD	43	PHE	C-N	5.96	1.40	1.33
27	SH	55	ASP	CA-CB	5.96	1.63	1.53
32	S1	1749	C	O4'-C1'	5.96	1.50	1.41
67	LS	7	HIS	CB-CG	5.96	1.58	1.50
5	SE	67	LEU	C-N	5.96	1.41	1.33
13	SQ	81	ARG	C-O	-5.96	1.16	1.24
56	Lh	95	ALA	CA-C	-5.96	1.45	1.52
32	S1	381	G	C2'-C1'	5.95	1.62	1.53
32	S1	511	U	C2'-C1'	-5.95	1.44	1.53
33	L1	1933	U	O4'-C1'	5.95	1.50	1.41
33	L1	3372	C	P-OP2	5.95	1.60	1.49
60	Lr	10	THR	CB-OG1	-5.95	1.34	1.43
32	S1	1154	G	O3'-P	5.95	1.70	1.61
33	L1	2456	G	O4'-C1'	5.95	1.50	1.41
34	L3	61	C	C2'-C1'	-5.95	1.44	1.53
37	LB	129	ALA	C-N	5.95	1.41	1.33
48	LV	156	GLU	N-CA	5.95	1.52	1.46
2	SA	40	ARG	CD-NE	5.95	1.54	1.46
35	L2	45	A	C4'-C3'	5.95	1.61	1.52
72	Lk	72	ALA	C-N	5.95	1.42	1.33
8	SJ	52	ALA	CA-CB	5.95	1.62	1.53
32	S1	587	C	C2'-C1'	-5.95	1.44	1.53
32	S1	1650	G	O4'-C1'	5.95	1.50	1.41
47	LU	83	ARG	CA-C	5.95	1.61	1.52
78	Le	35	GLU	CA-CB	5.95	1.64	1.53
9	SK	64	ASP	CA-C	-5.95	1.45	1.52
33	L1	3347	U	P-O5'	-5.95	1.50	1.59
38	LE	74	ARG	CA-C	-5.95	1.44	1.52
11	SM	124	ARG	CD-NE	5.94	1.54	1.46
37	LB	77	VAL	CA-CB	-5.94	1.47	1.54
32	S1	368	A	O4'-C1'	5.94	1.50	1.41
33	L1	1858	U	O4'-C1'	5.94	1.50	1.41
33	L1	2123	C	O4'-C1'	5.94	1.50	1.41
33	L1	2494	A	C5'-C4'	5.94	1.60	1.51
33	L1	1049	C	O4'-C1'	5.94	1.50	1.41
33	L1	2222	C	O4'-C1'	5.94	1.50	1.41
42	LP	38	ARG	NE-CZ	5.94	1.39	1.33
81	LD	370	GLU	CA-C	-5.94	1.45	1.52
32	S1	1421	U	O4'-C1'	5.94	1.50	1.41
33	L1	404	G	O4'-C1'	-5.94	1.33	1.42
33	L1	3376	C	O4'-C1'	5.94	1.50	1.41
80	LC	125	SER	C-N	5.94	1.42	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	SB	174	HIS	C-N	5.93	1.41	1.33
13	SQ	67	ARG	N-CA	5.93	1.53	1.45
31	S2	64	G	C5'-C4'	5.93	1.60	1.51
32	S1	60	C	C2'-C1'	-5.93	1.44	1.53
33	L1	2131	U	C2'-C1'	-5.93	1.44	1.53
34	L3	92	C	O4'-C1'	5.93	1.50	1.41
5	SE	38	ARG	CZ-NH1	5.93	1.41	1.32
28	SN	32	ARG	CD-NE	5.93	1.54	1.46
38	LE	107	GLY	N-CA	5.93	1.53	1.45
32	S1	901	U	O5'-C5'	5.93	1.51	1.42
33	L1	714	G	O4'-C1'	-5.93	1.32	1.41
33	L1	1890	C	O4'-C1'	5.93	1.50	1.41
68	LW	28	SER	CA-CB	5.93	1.63	1.53
32	S1	1413	C	C2'-C1'	-5.93	1.44	1.53
33	L1	492	G	C2'-C1'	5.93	1.62	1.53
33	L1	2806	A	C5'-C4'	5.93	1.60	1.51
67	LS	77	TYR	C-N	5.93	1.38	1.33
71	Lj	12	TYR	N-CA	-5.93	1.38	1.46
32	S1	457	C	O4'-C1'	5.93	1.50	1.42
32	S1	1126	C	O3'-P	-5.93	1.52	1.61
33	L1	2099	G	P-O5'	-5.93	1.50	1.59
16	SR	115	GLU	CA-C	-5.93	1.45	1.52
32	S1	1149	U	O4'-C1'	5.93	1.50	1.41
33	L1	570	G	O3'-P	-5.93	1.52	1.61
37	LB	252	ALA	C-N	5.93	1.41	1.33
64	LG	79	THR	CA-CB	5.93	1.62	1.53
3	SB	33	GLY	CA-C	-5.92	1.43	1.51
3	SB	156	TYR	CA-CB	5.92	1.63	1.53
29	ST	28	ASP	C-N	5.92	1.42	1.33
32	S1	13	C	C3'-C2'	-5.92	1.43	1.52
32	S1	1265	A	C2'-C1'	-5.92	1.44	1.53
32	S1	1387	U	C2'-C1'	5.92	1.62	1.53
33	L1	251	G	P-O5'	5.92	1.68	1.59
33	L1	2063	U	O4'-C1'	5.92	1.50	1.42
57	L1	21	ARG	N-CA	5.92	1.53	1.46
14	SP	91	TYR	N-CA	5.92	1.53	1.46
28	SN	12	LYS	CA-C	5.92	1.59	1.52
33	L1	642	C	C3'-O3'	-5.92	1.33	1.42
33	L1	3086	G	C4'-C3'	5.92	1.61	1.52
38	LE	36	SER	C-N	5.92	1.41	1.33
33	L1	1086	U	O4'-C1'	5.92	1.50	1.41
33	L1	1792	G	O4'-C1'	5.92	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	LR	28	LEU	N-CA	5.92	1.53	1.46
32	S1	207	A	C2'-C1'	-5.92	1.44	1.53
32	S1	1344	U	O4'-C1'	5.92	1.50	1.41
33	L1	733	C	C2'-C1'	-5.92	1.44	1.53
81	LD	310	LEU	C-N	-5.92	1.26	1.33
32	S1	1218	U	C2'-C1'	-5.92	1.44	1.53
33	L1	207	U	C2'-C1'	5.92	1.62	1.53
33	L1	2470	C	O4'-C1'	5.92	1.50	1.41
33	L1	3175	C	C4'-C3'	5.92	1.61	1.52
40	LH	223	ASP	CA-CB	5.92	1.61	1.53
32	S1	1473	C	P-O5'	-5.91	1.50	1.59
33	L1	1345	U	C3'-O3'	5.91	1.51	1.42
32	S1	90	G	C2'-C1'	-5.91	1.44	1.53
39	LF	118	GLY	C-N	5.91	1.41	1.33
82	LK	22	GLY	N-CA	5.91	1.53	1.45
32	S1	1621	U	C2'-C1'	5.91	1.62	1.53
33	L1	2104	G	O4'-C1'	5.91	1.50	1.41
79	Ls	227	SER	CA-C	-5.91	1.45	1.52
33	L1	242	U	C5'-C4'	5.91	1.60	1.51
23	SU	44	ASP	N-CA	-5.91	1.39	1.46
33	L1	1041	C	C2'-C1'	5.91	1.62	1.53
33	L1	2436	G	C2'-C1'	5.91	1.61	1.53
54	Lf	27	TYR	N-CA	-5.91	1.39	1.46
69	La	11	VAL	N-CA	5.91	1.53	1.46
32	S1	1506	G	O3'-P	-5.91	1.52	1.61
33	L1	2245	G	C2'-C1'	-5.91	1.44	1.53
33	L1	2815	A	C2'-C1'	-5.91	1.44	1.53
35	L2	21	A	O4'-C1'	-5.91	1.32	1.41
49	LX	120	VAL	CA-C	-5.91	1.45	1.52
80	LC	54	THR	C-N	-5.91	1.26	1.33
20	SZ	7	SER	N-CA	-5.90	1.38	1.46
33	L1	2754	G	P-O5'	-5.90	1.50	1.59
7	SI	76	ARG	CD-NE	5.90	1.54	1.46
27	SH	83	VAL	N-CA	5.90	1.52	1.46
33	L1	337	C	P-O5'	-5.90	1.50	1.59
33	L1	595	C	O4'-C1'	5.90	1.50	1.41
33	L1	780	U	C2'-C1'	-5.90	1.44	1.53
33	L1	961	C	O4'-C1'	5.90	1.50	1.41
33	L1	1512	A	C3'-O3'	5.90	1.51	1.42
54	Lf	19	GLN	CA-C	5.90	1.60	1.52
25	SC	135	HIS	CA-CB	5.90	1.63	1.53
32	S1	1097	A	C2'-C1'	-5.90	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1786	G	O4'-C1'	5.90	1.50	1.41
33	L1	2380	G	C4'-C3'	5.90	1.61	1.52
78	Le	17	LYS	CA-C	5.90	1.60	1.52
33	L1	357	C	C3'-O3'	5.90	1.50	1.42
33	L1	3383	C	C4'-C3'	5.90	1.61	1.52
47	LU	141	VAL	CA-C	-5.90	1.45	1.52
32	S1	390	G	O4'-C1'	5.90	1.50	1.41
54	Lf	35	LEU	CA-C	-5.90	1.45	1.52
1	Sa	355	ASP	CA-CB	5.89	1.63	1.53
33	L1	1451	U	C4'-C3'	5.89	1.61	1.52
79	Ls	236	THR	CA-C	5.89	1.60	1.52
15	SS	91	ARG	C-N	5.89	1.40	1.33
32	S1	666	C	C2'-C1'	-5.89	1.44	1.53
33	L1	1214	U	O4'-C1'	5.89	1.50	1.41
33	L1	1886	U	C5'-C4'	5.89	1.60	1.51
33	L1	3093	C	C5'-C4'	5.89	1.60	1.51
36	LA	11	ASP	C-N	5.89	1.41	1.33
66	LN	82	ASN	C-N	5.89	1.41	1.33
32	S1	1015	C	P-O5'	5.89	1.68	1.59
32	S1	1139	C	C2'-C1'	-5.89	1.44	1.53
33	L1	1281	C	P-O5'	-5.89	1.50	1.59
34	L3	103	U	C5'-C4'	5.89	1.60	1.51
11	SM	34	LYS	C-N	5.89	1.41	1.33
33	L1	437	C	C2'-C1'	5.89	1.62	1.53
33	L1	1835	A	O4'-C1'	5.89	1.50	1.41
34	L3	29	C	O4'-C1'	5.89	1.50	1.41
33	L1	2292	U	C2'-C1'	-5.89	1.44	1.53
2	SA	7	ALA	C-N	5.89	1.42	1.33
32	S1	1197	A	O3'-P	-5.89	1.52	1.61
32	S1	1664	U	P-O5'	-5.89	1.50	1.59
33	L1	2661	G	O4'-C1'	-5.89	1.32	1.41
38	LE	130	PHE	C-O	-5.89	1.16	1.24
15	SS	124	ARG	CA-C	5.88	1.60	1.52
32	S1	447	C	C4'-C3'	5.88	1.61	1.52
33	L1	6	A	C2'-C1'	5.88	1.62	1.53
33	L1	1027	C	P-O5'	5.88	1.68	1.59
33	L1	2419	C	C2'-C1'	-5.88	1.44	1.53
55	Lg	108	ALA	C-N	5.88	1.42	1.33
80	LC	96	PRO	N-CA	-5.88	1.39	1.47
32	S1	1653	G	C2'-C1'	-5.88	1.44	1.53
33	L1	2344	A	O4'-C1'	-5.88	1.32	1.41
33	L1	2732	U	C2'-C1'	-5.88	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	SM	96	SER	CA-C	-5.88	1.44	1.52
37	LB	223	SER	CA-CB	5.88	1.62	1.53
1	Sa	279	ARG	CZ-NH1	5.88	1.41	1.32
9	SK	46	LEU	CA-CB	5.88	1.62	1.53
35	L2	92	A	C5'-C4'	5.88	1.60	1.51
33	L1	962	C	O5'-C5'	5.88	1.51	1.42
33	L1	1587	G	C2'-C1'	-5.88	1.44	1.53
33	L1	3127	C	O4'-C1'	5.88	1.50	1.41
4	SD	239	PRO	CA-CB	-5.88	1.45	1.53
7	SI	96	VAL	CA-CB	-5.88	1.47	1.54
25	SC	60	HIS	CA-C	-5.88	1.45	1.52
33	L1	2725	U	C5'-C4'	5.88	1.60	1.51
48	LV	54	HIS	ND1-CE1	5.88	1.38	1.32
51	LY	96	VAL	CA-C	-5.88	1.45	1.52
54	Lf	35	LEU	C-O	-5.88	1.17	1.24
33	L1	639	A	O4'-C1'	5.88	1.50	1.41
33	L1	1144	C	C2'-C1'	-5.88	1.44	1.53
33	L1	1191	U	C4'-C3'	5.87	1.61	1.52
33	L1	1307	A	C2'-C1'	5.87	1.61	1.53
33	L1	2269	U	C2'-C1'	-5.87	1.44	1.53
33	L1	2918	U	C3'-O3'	5.87	1.50	1.42
1	Sa	24	ARG	N-CA	5.87	1.53	1.46
32	S1	451	U	C2'-C1'	-5.87	1.44	1.53
32	S1	1583	G	O4'-C1'	-5.87	1.32	1.41
32	S1	1776	A	O4'-C1'	5.87	1.50	1.42
33	L1	68	U	C3'-O3'	5.87	1.50	1.42
45	LQ	297	ASP	C-N	5.87	1.41	1.33
13	SQ	63	ARG	CZ-NH1	5.87	1.41	1.32
33	L1	721	A	C2'-C1'	-5.87	1.44	1.53
33	L1	1442	U	O3'-P	5.87	1.70	1.61
33	L1	2750	A	O4'-C1'	5.87	1.50	1.41
32	S1	1	U	O3'-P	-5.87	1.52	1.61
32	S1	1319	U	C4'-O4'	5.87	1.54	1.45
33	L1	2026	C	C2'-C1'	-5.87	1.44	1.53
33	L1	2999	G	C4'-O4'	5.87	1.54	1.45
46	LT	149	LYS	CA-C	-5.87	1.44	1.52
59	Lo	21	ARG	CD-NE	5.87	1.54	1.46
82	LK	154	TYR	CA-C	-5.87	1.45	1.52
2	SA	13	SER	CA-C	-5.87	1.45	1.52
1	Sa	11	HIS	CA-CB	5.87	1.61	1.53
4	SD	94	LYS	N-CA	5.87	1.53	1.46
33	L1	3365	U	C4'-C3'	5.87	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
47	LU	49	HIS	ND1-CE1	5.87	1.38	1.32
57	L1	45	ARG	NE-CZ	5.87	1.39	1.33
8	SJ	96	ARG	NE-CZ	5.86	1.39	1.33
25	SC	128	ARG	NE-CZ	5.86	1.39	1.33
33	L1	570	G	C4'-C3'	5.86	1.61	1.52
33	L1	2060	C	C2'-C1'	5.86	1.62	1.53
33	L1	3049	A	C2'-C1'	5.86	1.62	1.53
43	LO	16	SER	C-N	5.86	1.41	1.33
14	SP	104	ARG	CZ-NH2	-5.86	1.25	1.33
32	S1	598	A	C2'-C1'	5.86	1.61	1.53
32	S1	1551	A	C2'-C1'	-5.86	1.44	1.53
33	L1	855	U	C3'-O3'	5.86	1.50	1.42
67	LS	105	VAL	CA-C	-5.86	1.45	1.52
33	L1	2628	C	C5'-C4'	5.86	1.60	1.51
47	LU	118	GLU	CA-C	-5.86	1.45	1.52
4	SD	212	ASP	CA-CB	5.86	1.62	1.53
9	SK	52	LEU	N-CA	5.86	1.53	1.46
32	S1	1100	U	C2'-C1'	-5.86	1.44	1.53
32	S1	1123	G	C3'-O3'	5.86	1.50	1.42
33	L1	2859	C	O4'-C1'	5.86	1.50	1.41
33	L1	3002	U	O4'-C1'	-5.86	1.32	1.41
35	L2	23	A	C2'-C1'	5.86	1.62	1.53
71	Lj	93	LEU	C-N	5.86	1.40	1.33
81	LD	158	ILE	CA-C	-5.86	1.45	1.52
33	L1	1770	C	C2'-C1'	-5.86	1.44	1.53
33	L1	2886	C	C2'-C1'	-5.86	1.44	1.53
33	L1	3381	C	C2'-C1'	-5.86	1.44	1.53
73	Lp	44	GLN	CA-C	-5.86	1.46	1.53
16	SR	58	LEU	N-CA	5.85	1.57	1.46
33	L1	2115	G	C2'-C1'	5.85	1.62	1.53
83	Lm	18	TYR	C-N	5.85	1.42	1.33
23	SU	15	ARG	NE-CZ	5.85	1.39	1.33
32	S1	1541	C	O3'-P	-5.85	1.52	1.61
33	L1	1601	G	O4'-C1'	5.85	1.50	1.41
33	L1	1765	G	C2'-C1'	5.85	1.62	1.53
32	S1	1632	C	C4'-C3'	5.85	1.61	1.52
33	L1	2397	A	C5'-C4'	-5.85	1.42	1.51
46	LT	108	LYS	CA-CB	5.85	1.62	1.53
1	Sa	46	ARG	CD-NE	5.85	1.54	1.46
14	SP	54	TYR	CA-C	-5.85	1.45	1.52
19	SY	5	VAL	C-N	5.85	1.41	1.33
32	S1	1705	C	C3'-C2'	5.85	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	453	U	O4'-C1'	5.85	1.50	1.41
74	LJ	118	ARG	CA-C	5.85	1.60	1.52
1	Sa	164	GLN	N-CA	-5.85	1.38	1.46
32	S1	1386	U	C2'-C1'	-5.85	1.44	1.53
33	L1	1035	C	O3'-P	-5.85	1.52	1.61
33	L1	2333	U	C3'-C2'	-5.85	1.44	1.52
74	LJ	122	MET	CA-C	5.85	1.60	1.52
33	L1	2509	A	C2'-C1'	-5.85	1.44	1.53
33	L1	2856	U	O4'-C1'	-5.85	1.32	1.41
33	L1	2944	C	O3'-P	-5.85	1.52	1.61
10	SL	18	ARG	CZ-NH2	5.84	1.41	1.33
32	S1	1703	G	C5'-C4'	5.84	1.60	1.51
33	L1	1243	C	C3'-O3'	5.84	1.50	1.42
33	L1	2064	C	C5'-C4'	5.84	1.60	1.51
33	L1	1462	C	O4'-C1'	5.84	1.50	1.41
42	LP	99	ARG	C-O	-5.84	1.17	1.24
82	LK	135	GLN	CB-CG	5.84	1.70	1.52
33	L1	293	A	O3'-P	-5.84	1.52	1.61
33	L1	2931	C	C2'-C1'	-5.84	1.44	1.53
2	SA	248	GLY	C-N	5.84	1.41	1.33
33	L1	1449	A	O3'-P	-5.84	1.52	1.61
40	LH	130	TYR	C-O	-5.84	1.16	1.23
33	L1	2101	A	C2'-C1'	-5.84	1.44	1.53
56	Lh	42	ARG	CD-NE	5.83	1.54	1.46
33	L1	839	A	C4'-C3'	5.83	1.61	1.52
33	L1	1672	G	C3'-C2'	5.83	1.61	1.52
42	LP	30	TYR	CA-C	5.83	1.60	1.52
32	S1	590	G	O4'-C1'	-5.83	1.32	1.41
33	L1	637	C	O3'-P	5.83	1.69	1.61
46	LT	94	LEU	CA-CB	5.83	1.62	1.53
33	L1	628	C	C4'-C3'	5.83	1.61	1.52
37	LB	238	ILE	C-O	-5.83	1.18	1.24
68	LW	20	SER	CA-C	-5.83	1.45	1.52
33	L1	1386	G	C2'-C1'	-5.83	1.44	1.53
33	L1	3361	G	C3'-O3'	5.83	1.50	1.42
67	LS	28	ARG	NE-CZ	5.83	1.39	1.33
33	L1	501	U	C2'-C1'	-5.83	1.44	1.53
3	SB	110	LEU	N-CA	-5.83	1.41	1.46
33	L1	45	U	C2'-C1'	-5.83	1.44	1.53
33	L1	1513	C	C5'-C4'	5.83	1.59	1.51
45	LQ	301	GLU	C-N	5.83	1.40	1.33
48	LV	113	LEU	CA-CB	-5.83	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
71	Lj	3	GLY	CA-C	-5.83	1.43	1.51
77	Lc	5	LYS	CA-CB	5.83	1.64	1.53
31	S2	21	A	O5'-C5'	5.82	1.51	1.42
33	L1	882	U	O3'-P	-5.82	1.52	1.61
33	L1	1714	A	O4'-C1'	5.82	1.50	1.42
70	Li	80	GLY	C-N	5.82	1.41	1.33
5	SE	35	ARG	CD-NE	5.82	1.54	1.46
28	SN	50	ILE	CA-C	-5.82	1.46	1.52
33	L1	696	A	C2'-C1'	-5.82	1.44	1.53
34	L3	31	G	C2'-C1'	-5.82	1.44	1.53
34	L3	71	A	C3'-C2'	-5.82	1.44	1.52
16	SR	113	GLN	CA-C	-5.82	1.45	1.52
33	L1	959	U	O4'-C1'	5.82	1.50	1.41
33	L1	1881	C	O3'-P	-5.82	1.52	1.61
59	Lo	21	ARG	CA-C	5.82	1.58	1.52
1	Sa	200	PHE	CA-CB	5.82	1.61	1.53
32	S1	1131	G	C3'-O3'	5.82	1.50	1.42
51	LY	42	TYR	CA-CB	5.82	1.63	1.53
29	ST	42	ASN	N-CA	5.82	1.54	1.47
32	S1	1544	G	C2'-C1'	-5.82	1.44	1.53
33	L1	919	G	C2'-C1'	-5.82	1.44	1.53
33	L1	1946	C	O4'-C1'	5.82	1.50	1.41
33	L1	2253	U	O4'-C1'	5.82	1.50	1.41
33	L1	2933	C	C4'-O4'	5.82	1.54	1.45
38	LE	68	ALA	N-CA	-5.82	1.38	1.46
23	SU	89	LYS	CA-CB	5.82	1.62	1.53
31	S2	55	C	C2'-C1'	-5.82	1.44	1.53
34	L3	27	A	O4'-C1'	5.82	1.50	1.41
35	L2	50	G	C3'-O3'	5.82	1.50	1.42
28	SN	11	PRO	CA-C	5.81	1.60	1.52
32	S1	1183	G	C4'-C3'	5.81	1.61	1.52
47	LU	144	THR	C-N	5.81	1.41	1.33
33	L1	198	A	C2'-C1'	5.81	1.61	1.53
33	L1	3062	G	C4'-C3'	5.81	1.61	1.52
64	LG	95	PHE	CA-C	-5.81	1.45	1.52
32	S1	954	C	C5'-C4'	5.81	1.59	1.51
32	S1	1805	U	O3'-P	-5.81	1.52	1.61
10	SL	6	GLY	N-CA	5.81	1.53	1.45
15	SS	19	LYS	C-N	5.81	1.41	1.33
31	S2	18	G	C2'-C1'	-5.81	1.44	1.53
32	S1	2	A	C4'-O4'	5.81	1.54	1.45
32	S1	104	A	C4'-C3'	5.81	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1412	A	O4'-C1'	5.81	1.50	1.41
33	L1	2358	C	C5'-C4'	5.81	1.59	1.51
33	L1	1948	G	C4'-C3'	5.81	1.61	1.52
55	Lg	16	VAL	CA-CB	-5.81	1.46	1.54
80	LC	236	TRP	C-N	5.81	1.39	1.33
33	L1	2530	G	O4'-C1'	-5.81	1.32	1.41
32	S1	1340	A	O4'-C1'	5.80	1.50	1.41
33	L1	1942	A	C2'-C1'	-5.80	1.44	1.53
33	L1	2862	U	C4'-C3'	-5.80	1.43	1.52
33	L1	1253	G	P-O5'	5.80	1.68	1.59
33	L1	2157	C	C2'-C1'	-5.80	1.44	1.53
33	L1	3020	C	C2'-C1'	-5.80	1.44	1.53
33	L1	3101	C	C5'-C4'	5.80	1.59	1.51
5	SE	260	THR	N-CA	-5.80	1.38	1.46
48	LV	114	TYR	N-CA	-5.80	1.38	1.45
59	Lo	10	LYS	CA-C	-5.80	1.45	1.52
31	S2	44	A	O4'-C1'	-5.80	1.32	1.41
32	S1	1465	C	C2'-C1'	5.80	1.61	1.53
33	L1	405	A	O4'-C1'	5.80	1.50	1.41
33	L1	3382	A	O4'-C1'	-5.80	1.32	1.41
78	Le	109	ARG	CD-NE	5.80	1.54	1.46
9	SK	61	VAL	N-CA	-5.80	1.40	1.46
32	S1	562	U	C5'-C4'	5.80	1.59	1.51
32	S1	1655	U	O4'-C1'	5.80	1.50	1.41
33	L1	131	C	C3'-O3'	5.80	1.50	1.42
33	L1	604	C	O5'-C5'	5.80	1.51	1.42
33	L1	1189	G	C5'-C4'	5.80	1.59	1.51
33	L1	2694	A	C2'-C1'	5.80	1.62	1.53
74	LJ	135	GLY	CA-C	-5.80	1.44	1.52
33	L1	2843	G	P-O5'	-5.80	1.51	1.59
45	LQ	189	GLN	CA-C	5.80	1.60	1.52
56	Lh	66	HIS	CA-C	5.80	1.60	1.52
67	LS	109	TYR	C-O	-5.80	1.17	1.24
72	Lk	49	GLU	CA-CB	5.80	1.62	1.53
74	LJ	13	VAL	CA-C	5.80	1.60	1.52
32	S1	120	G	C2'-C1'	5.79	1.62	1.53
32	S1	1340	A	C2'-C1'	-5.79	1.44	1.53
69	La	10	ALA	N-CA	5.79	1.53	1.46
33	L1	214	G	O3'-P	-5.79	1.52	1.61
33	L1	515	C	O5'-C5'	5.79	1.51	1.42
40	LH	226	ARG	CZ-NH2	5.79	1.41	1.33
55	Lg	113	GLY	C-O	5.79	1.30	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	Le	196	HIS	CE1-NE2	5.79	1.38	1.32
33	L1	3387	U	O4'-C1'	5.79	1.50	1.41
3	SB	37	VAL	CA-CB	-5.79	1.46	1.54
33	L1	941	C	C2'-C1'	-5.79	1.44	1.53
33	L1	1714	A	C2'-C1'	-5.79	1.44	1.53
33	L1	2337	C	C3'-O3'	5.79	1.50	1.42
47	LU	50	LYS	CA-C	-5.79	1.45	1.52
37	LB	119	HIS	ND1-CE1	5.79	1.38	1.32
82	LK	54	ARG	CZ-NH2	-5.79	1.25	1.33
33	L1	713	G	O4'-C1'	5.79	1.50	1.41
33	L1	1525	U	C5'-C4'	5.79	1.60	1.51
33	L1	2624	G	C3'-O3'	5.79	1.50	1.42
35	L2	55	G	C5'-C4'	5.79	1.60	1.51
66	LN	23	ARG	NE-CZ	5.79	1.39	1.33
80	LC	59	GLU	N-CA	-5.79	1.39	1.46
1	Sa	48	ALA	C-N	5.78	1.41	1.33
33	L1	1785	G	O5'-C5'	5.78	1.51	1.42
33	L1	1945	A	C2'-C1'	-5.78	1.44	1.53
33	L1	2424	G	C3'-C2'	5.78	1.61	1.52
33	L1	2500	U	C5'-C4'	5.78	1.59	1.51
36	LA	24	LYS	CA-CB	5.78	1.62	1.53
49	LX	106	LYS	N-CA	5.78	1.53	1.46
82	LK	202	ALA	CA-C	5.78	1.59	1.52
15	SS	7	ARG	C-N	5.78	1.41	1.34
33	L1	886	A	O3'-P	-5.78	1.52	1.61
33	L1	2936	A	C2'-C1'	5.78	1.62	1.53
36	LA	207	SER	C-N	5.78	1.41	1.33
50	LZ	45	ARG	CA-C	5.78	1.60	1.52
79	Ls	35	ASN	CA-C	5.78	1.60	1.52
23	SU	65	LYS	CA-C	5.78	1.60	1.52
32	S1	1091	A	O3'-P	-5.78	1.52	1.61
33	L1	1028	G	C3'-C2'	-5.78	1.44	1.52
33	L1	2647	C	O3'-P	-5.78	1.52	1.61
33	L1	3147	G	C4'-O4'	5.78	1.54	1.45
33	L1	3183	G	O3'-P	-5.78	1.52	1.61
36	LA	32	GLU	N-CA	-5.78	1.39	1.46
45	LQ	124	VAL	CA-CB	-5.78	1.47	1.54
3	SB	179	GLN	N-CA	-5.78	1.38	1.46
33	L1	2479	C	C2'-C1'	5.78	1.62	1.53
50	LZ	43	HIS	CE1-NE2	5.78	1.38	1.32
80	LC	259	HIS	CG-CD2	5.78	1.42	1.35
32	S1	977	G	C2'-C1'	-5.77	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	LH	178	GLY	C-N	5.77	1.41	1.33
32	S1	410	U	O4'-C1'	5.77	1.50	1.41
32	S1	1166	C	C2'-C1'	-5.77	1.44	1.53
32	S1	1558	A	O4'-C1'	5.77	1.50	1.41
33	L1	2231	G	P-O5'	5.77	1.68	1.59
33	L1	2394	G	O3'-P	-5.77	1.52	1.61
42	LP	5	LYS	N-CA	-5.77	1.39	1.46
71	Lj	80	GLY	CA-C	-5.77	1.44	1.51
33	L1	2199	C	C3'-C2'	-5.77	1.44	1.52
33	L1	2479	C	C3'-O3'	5.77	1.50	1.42
33	L1	2761	A	C2'-O2'	5.77	1.50	1.41
46	LT	136	ARG	CA-C	-5.77	1.46	1.53
81	LD	360	ASP	C-O	-5.77	1.17	1.24
23	SU	80	LEU	CA-CB	5.77	1.67	1.53
32	S1	577	C	C2'-C1'	-5.77	1.44	1.53
32	S1	1677	U	P-O5'	-5.77	1.51	1.59
33	L1	875	A	C2'-C1'	-5.77	1.44	1.53
33	L1	1971	A	O4'-C1'	5.77	1.50	1.41
77	Lc	38	VAL	CA-C	-5.77	1.45	1.52
32	S1	1630	G	C2'-C1'	-5.77	1.44	1.53
33	L1	2674	A	C5'-C4'	5.77	1.59	1.51
4	SD	61	VAL	CA-CB	5.76	1.61	1.54
33	L1	209	G	C3'-O3'	5.76	1.51	1.43
33	L1	256	G	O4'-C1'	5.76	1.50	1.41
33	L1	1668	U	C3'-O3'	5.76	1.50	1.42
33	L1	2658	U	P-O5'	-5.76	1.51	1.59
44	LR	4	ASP	C-N	-5.76	1.26	1.34
31	S2	60	C	O4'-C1'	5.76	1.50	1.41
33	L1	610	G	C3'-O3'	5.76	1.50	1.42
80	LC	67	LEU	N-CA	5.76	1.53	1.46
19	SY	6	LYS	N-CA	5.76	1.53	1.46
33	L1	1130	G	P-O5'	-5.76	1.51	1.59
33	L1	2226	C	C4'-O4'	5.76	1.54	1.45
33	L1	3125	G	O3'-P	-5.76	1.52	1.61
32	S1	773	U	O3'-P	-5.76	1.52	1.61
33	L1	2577	G	C2'-C1'	-5.76	1.44	1.53
38	LE	34	ARG	CG-CD	5.76	1.69	1.52
45	LQ	175	HIS	ND1-CE1	5.76	1.38	1.32
67	LS	61	LEU	CB-CG	5.76	1.65	1.53
13	SQ	49	LYS	N-CA	-5.76	1.39	1.46
13	SQ	97	ARG	C-N	5.76	1.41	1.33
32	S1	367	G	C2'-C1'	-5.76	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
38	LE	69	CYS	CA-C	-5.76	1.45	1.52
44	LR	69	ASN	CA-C	-5.76	1.44	1.52
10	SL	27	TYR	C-N	5.75	1.41	1.33
19	SY	49	GLY	C-N	5.75	1.41	1.33
33	L1	1960	C	C5'-C4'	5.75	1.59	1.51
33	L1	2829	U	O4'-C1'	-5.75	1.33	1.42
3	SB	34	TYR	N-CA	5.75	1.53	1.46
30	S3	19	U	O4'-C1'	5.75	1.50	1.41
33	L1	642	C	C2'-C1'	-5.75	1.44	1.53
33	L1	958	U	C3'-O3'	5.75	1.50	1.42
33	L1	1014	G	C2'-C1'	5.75	1.61	1.53
33	L1	2227	A	C5'-C4'	5.75	1.59	1.51
33	L1	2643	A	C5'-C4'	5.75	1.59	1.51
33	L1	3316	C	C2'-C1'	-5.75	1.44	1.53
1	Sa	263	ARG	CZ-NH1	5.75	1.40	1.32
11	SM	80	PRO	C-N	5.75	1.41	1.33
29	ST	20	THR	N-CA	5.75	1.53	1.46
33	L1	888	U	O5'-C5'	5.75	1.51	1.42
33	L1	1182	A	O4'-C1'	-5.75	1.33	1.41
35	L2	113	A	C2'-C1'	-5.75	1.44	1.53
32	S1	356	G	O3'-P	-5.75	1.52	1.61
33	L1	1152	G	O4'-C1'	5.75	1.50	1.41
33	L1	2648	G	O3'-P	-5.75	1.52	1.61
33	L1	3358	A	P-O5'	-5.75	1.51	1.59
38	LE	73	ILE	C-N	5.75	1.41	1.33
32	S1	1569	U	O4'-C1'	5.75	1.50	1.41
33	L1	579	G	C4'-C3'	5.75	1.61	1.52
33	L1	2039	G	C2'-C1'	-5.75	1.44	1.53
33	L1	2235	G	O5'-C5'	5.75	1.51	1.42
43	LO	114	PRO	N-CA	-5.75	1.40	1.47
45	LQ	108	ARG	CD-NE	5.75	1.54	1.46
32	S1	642	C	C2'-C1'	-5.75	1.44	1.53
33	L1	845	G	C2'-C1'	-5.75	1.44	1.53
33	L1	2401	A	C5'-C4'	5.75	1.59	1.51
33	L1	3332	G	C2'-C1'	-5.75	1.44	1.53
33	L1	222	C	O4'-C1'	5.75	1.50	1.41
32	S1	1690	U	O4'-C1'	5.74	1.50	1.41
33	L1	207	U	O4'-C1'	-5.74	1.33	1.41
35	L2	67	C	O3'-P	-5.74	1.52	1.61
45	LQ	48	TYR	CA-C	-5.74	1.46	1.53
45	LQ	256	SER	N-CA	-5.74	1.38	1.46
49	LX	72	ILE	CA-CB	-5.74	1.48	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
81	LD	208	ARG	CA-C	5.74	1.60	1.52
33	L1	213	G	O4'-C1'	-5.74	1.33	1.41
33	L1	461	A	C4'-C3'	5.74	1.61	1.52
33	L1	1881	C	O4'-C1'	-5.74	1.33	1.42
33	L1	1985	G	C2'-C1'	-5.74	1.44	1.53
32	S1	46	A	O4'-C1'	-5.74	1.33	1.42
33	L1	90	G	C2'-C1'	-5.74	1.44	1.53
33	L1	350	A	C4'-O4'	5.74	1.54	1.45
33	L1	2034	G	C2'-C1'	-5.74	1.44	1.53
33	L1	2737	A	C4'-O4'	5.74	1.54	1.45
61	Lq	11	ARG	CA-C	-5.74	1.45	1.52
3	SB	143	ARG	CZ-NH2	5.74	1.41	1.33
32	S1	442	A	C2'-C1'	5.74	1.61	1.53
33	L1	1561	U	C5'-C4'	5.74	1.62	1.51
56	Lh	105	LYS	C-N	5.74	1.41	1.33
33	L1	498	G	C4'-C3'	5.74	1.64	1.52
33	L1	1340	G	C2'-C1'	-5.74	1.44	1.53
33	L1	211	A	P-O5'	-5.74	1.51	1.59
33	L1	756	C	O4'-C1'	5.74	1.50	1.41
33	L1	1310	G	O3'-P	-5.74	1.52	1.61
33	L1	3341	C	C3'-O3'	5.74	1.50	1.42
6	SF	73	MET	CA-C	-5.73	1.45	1.52
33	L1	422	G	O4'-C1'	-5.73	1.33	1.41
8	SJ	87	ASP	C-N	5.73	1.41	1.33
9	SK	89	ILE	CA-C	5.73	1.60	1.52
32	S1	82	G	O4'-C1'	5.73	1.50	1.41
35	L2	88	C	C5'-C4'	5.73	1.59	1.51
38	LE	82	LEU	C-N	-5.73	1.26	1.33
42	LP	130	PHE	CA-C	-5.73	1.45	1.52
49	LX	56	TYR	C-N	5.73	1.40	1.33
33	L1	305	G	C4'-C3'	5.73	1.61	1.52
45	LQ	80	TYR	CA-C	-5.73	1.45	1.52
46	LT	12	SER	CA-C	5.73	1.60	1.52
3	SB	126	VAL	CA-C	5.73	1.60	1.52
33	L1	1046	U	O4'-C1'	5.73	1.50	1.41
13	SQ	73	LEU	CA-CB	5.73	1.62	1.54
32	S1	1275	G	O4'-C1'	5.73	1.50	1.41
33	L1	831	G	C5'-C4'	5.73	1.59	1.51
70	Li	33	GLN	N-CA	5.73	1.53	1.46
72	Lk	79	LYS	CA-C	5.73	1.60	1.52
81	LD	15	GLU	CA-C	-5.73	1.45	1.52
28	SN	22	ARG	CA-C	-5.73	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	877	G	C2'-C1'	5.73	1.61	1.53
32	S1	1017	U	O4'-C1'	5.73	1.50	1.41
33	L1	20	G	C2'-C1'	-5.73	1.44	1.53
33	L1	2411	G	O4'-C1'	5.73	1.50	1.41
59	Lo	33	ASN	CA-C	-5.73	1.45	1.52
33	L1	522	C	C3'-O3'	5.72	1.50	1.42
33	L1	541	C	C5'-C4'	5.72	1.59	1.51
33	L1	1608	C	C3'-O3'	5.72	1.50	1.42
38	LE	34	ARG	CB-CG	5.72	1.69	1.52
40	LH	78	ARG	CD-NE	5.72	1.54	1.46
32	S1	826	C	C2'-C1'	-5.72	1.44	1.53
32	S1	1307	U	C2'-C1'	-5.72	1.44	1.53
33	L1	26	A	O5'-C5'	5.72	1.51	1.42
33	L1	959	U	C5'-C4'	5.72	1.59	1.51
33	L1	2627	G	O5'-C5'	5.72	1.51	1.42
33	L1	1765	G	O4'-C1'	-5.72	1.33	1.41
64	LG	177	LYS	C-O	-5.72	1.17	1.24
33	L1	293	A	O5'-C5'	5.72	1.51	1.42
67	LS	26	ILE	C-N	5.72	1.41	1.33
33	L1	712	A	O4'-C1'	5.72	1.50	1.41
33	L1	1307	A	O4'-C1'	-5.72	1.33	1.42
33	L1	1831	A	O4'-C1'	-5.72	1.33	1.41
33	L1	2751	A	C4'-C3'	5.72	1.61	1.52
33	L1	1502	U	O4'-C1'	5.71	1.50	1.41
33	L1	1954	G	O3'-P	-5.71	1.52	1.61
33	L1	1651	A	O4'-C1'	5.71	1.50	1.41
37	LB	118	HIS	CG-ND1	-5.71	1.31	1.38
78	Le	73	MET	C-O	-5.71	1.16	1.24
52	Lb	98	LYS	CA-CB	5.71	1.62	1.53
1	Sa	337	GLY	C-N	5.71	1.40	1.33
16	SR	139	ARG	CA-CB	5.71	1.62	1.53
32	S1	392	G	C2'-C1'	-5.71	1.44	1.53
33	L1	15	C	C5'-C4'	5.71	1.59	1.51
33	L1	1293	C	C2'-C1'	-5.71	1.44	1.53
33	L1	1616	G	C4'-O4'	5.71	1.54	1.45
1	Sa	49	VAL	N-CA	-5.71	1.39	1.46
33	L1	671	C	C5'-C4'	5.71	1.59	1.51
33	L1	861	A	O5'-C5'	5.71	1.51	1.42
33	L1	1235	A	C4'-O4'	5.71	1.54	1.45
33	L1	3234	G	C5'-C4'	5.71	1.59	1.51
36	LA	29	GLU	C-O	-5.71	1.17	1.23
57	L1	85	THR	CA-C	5.71	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1500	C	C2'-C1'	-5.71	1.44	1.53
33	L1	1908	C	C2'-C1'	-5.71	1.44	1.53
35	L2	25	C	C4'-C3'	5.71	1.61	1.52
33	L1	1112	C	C5'-C4'	5.70	1.59	1.51
32	S1	1472	G	O4'-C1'	5.70	1.50	1.41
32	S1	1479	U	C5'-C4'	5.70	1.59	1.51
33	L1	924	A	C3'-C2'	5.70	1.61	1.52
33	L1	2470	C	C3'-O3'	5.70	1.50	1.42
1	Sa	24	ARG	CD-NE	5.70	1.54	1.46
9	SK	141	ARG	CA-C	-5.70	1.45	1.52
33	L1	779	U	C2'-C1'	5.70	1.61	1.53
33	L1	1947	U	O3'-P	-5.70	1.52	1.61
51	LY	20	THR	N-CA	5.70	1.53	1.46
81	LD	198	GLY	CA-C	-5.70	1.45	1.52
33	L1	2133	A	C2'-C1'	-5.70	1.44	1.53
7	SI	42	ILE	C-N	5.70	1.41	1.33
33	L1	249	A	C2'-C1'	-5.70	1.44	1.53
33	L1	319	C	P-O5'	-5.70	1.51	1.59
33	L1	1023	G	C4'-O4'	5.70	1.54	1.45
59	Lo	25	TYR	C-O	-5.70	1.16	1.24
33	L1	3041	A	C3'-C2'	-5.69	1.44	1.52
34	L3	55	A	O4'-C1'	-5.69	1.33	1.41
35	L2	139	A	O4'-C1'	5.69	1.50	1.41
78	Le	162	ARG	CA-CB	5.69	1.62	1.53
3	SB	35	SER	CA-CB	5.69	1.63	1.53
13	SQ	92	GLU	CA-C	-5.69	1.45	1.52
32	S1	445	A	O4'-C1'	5.69	1.50	1.41
32	S1	499	A	O4'-C1'	5.69	1.50	1.41
33	L1	1333	C	C3'-C2'	5.69	1.61	1.52
33	L1	1670	G	C5'-C4'	5.69	1.59	1.51
33	L1	2223	A	C2'-C1'	-5.69	1.44	1.53
27	SH	57	ARG	N-CA	-5.69	1.38	1.46
33	L1	1167	G	C3'-O3'	5.69	1.50	1.42
33	L1	1766	U	O3'-P	-5.69	1.52	1.61
32	S1	1195	U	C2'-C1'	-5.69	1.44	1.53
50	LZ	35	ASN	CA-C	5.69	1.59	1.52
33	L1	1861	A	C2'-C1'	5.69	1.61	1.53
34	L3	10	C	O5'-C5'	5.69	1.50	1.42
32	S1	862	U	O4'-C1'	5.68	1.50	1.41
81	LD	95	ALA	C-O	-5.68	1.12	1.23
33	L1	1764	G	O3'-P	-5.68	1.52	1.61
33	L1	2267	G	O4'-C1'	-5.68	1.33	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
47	LU	88	ARG	NE-CZ	5.68	1.39	1.33
60	Lr	74	CYS	CA-CB	5.68	1.62	1.53
67	LS	116	HIS	N-CA	-5.68	1.38	1.46
81	LD	341	ARG	C-N	5.68	1.41	1.33
3	SB	148	LYS	N-CA	-5.68	1.38	1.46
33	L1	1694	A	C2'-C1'	5.68	1.61	1.53
33	L1	1886	U	C4'-C3'	5.68	1.61	1.52
56	Lh	38	GLY	C-N	5.68	1.41	1.33
5	SE	20	GLY	CA-C	5.68	1.58	1.51
33	L1	73	A	C4'-O4'	-5.68	1.37	1.45
33	L1	1692	U	C2'-C1'	5.68	1.61	1.53
37	LB	34	PHE	CA-C	-5.68	1.45	1.52
78	Le	169	LYS	CA-CB	5.68	1.63	1.53
11	SM	97	GLN	CA-C	5.68	1.61	1.53
33	L1	1264	A	O4'-C1'	-5.68	1.33	1.41
33	L1	1527	A	O5'-C5'	5.68	1.51	1.42
33	L1	2108	C	O3'-P	-5.68	1.52	1.61
33	L1	2694	A	O4'-C1'	-5.68	1.33	1.41
1	Sa	186	ASP	CA-CB	5.68	1.60	1.53
29	ST	59	ARG	CD-NE	5.68	1.54	1.46
32	S1	258	U	O4'-C1'	5.68	1.50	1.41
40	LH	79	THR	C-O	-5.68	1.17	1.24
27	SH	28	ARG	CD-NE	5.67	1.54	1.46
32	S1	271	C	C2'-C1'	-5.67	1.44	1.53
33	L1	2488	A	C4'-C3'	-5.67	1.44	1.52
33	L1	2872	C	C3'-O3'	5.67	1.50	1.42
33	L1	3065	U	P-OP2	5.67	1.60	1.49
41	LM	89	ARG	NE-CZ	5.67	1.39	1.33
3	SB	83	GLY	N-CA	-5.67	1.39	1.44
10	SL	5	ARG	CA-CB	5.67	1.63	1.53
32	S1	1238	A	O4'-C1'	-5.67	1.33	1.41
33	L1	1302	C	C2'-C1'	-5.67	1.44	1.53
32	S1	1069	G	O4'-C1'	5.67	1.50	1.41
33	L1	823	A	O4'-C1'	5.67	1.50	1.41
33	L1	2334	G	O3'-P	-5.67	1.52	1.61
37	LB	22	HIS	ND1-CE1	5.67	1.38	1.32
56	Lh	37	LYS	N-CA	5.67	1.53	1.46
32	S1	1101	C	O4'-C1'	5.67	1.50	1.41
33	L1	2418	A	O5'-C5'	5.67	1.50	1.42
33	L1	2431	U	O4'-C1'	5.67	1.50	1.41
80	LC	1	MET	N-CA	-5.67	1.35	1.46
33	L1	141	C	C3'-C2'	-5.67	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	560	C	P-O5'	-5.67	1.51	1.59
33	L1	843	C	C5'-C4'	5.67	1.59	1.51
33	L1	2278	G	C2'-C1'	5.67	1.61	1.53
33	L1	2622	G	C4'-O4'	-5.67	1.37	1.45
35	L2	29	G	C5'-C4'	5.67	1.59	1.51
38	LE	111	HIS	ND1-CE1	5.67	1.38	1.32
72	Lk	109	ASP	N-CA	-5.67	1.38	1.46
50	LZ	11	SER	N-CA	5.67	1.53	1.46
28	SN	42	CYS	C-N	5.66	1.41	1.34
32	S1	398	C	O3'-P	-5.66	1.52	1.61
33	L1	2811	C	O3'-P	-5.66	1.52	1.61
69	La	72	LEU	CA-C	-5.66	1.45	1.52
82	LK	11	ARG	CA-CB	5.66	1.63	1.53
1	Sa	185	TRP	CA-C	5.66	1.59	1.52
29	ST	25	THR	N-CA	5.66	1.53	1.46
32	S1	843	G	C2'-C1'	-5.66	1.44	1.53
33	L1	1620	U	O5'-C5'	5.66	1.50	1.42
67	LS	24	PRO	N-CD	-5.66	1.39	1.47
71	Lj	92	ASN	CA-C	-5.66	1.45	1.52
8	SJ	3	ALA	CA-C	-5.66	1.45	1.52
33	L1	398	G	O3'-P	-5.66	1.52	1.61
33	L1	1020	U	O4'-C1'	5.66	1.50	1.41
39	LF	36	ARG	CA-C	5.66	1.59	1.52
33	L1	1323	G	C5'-C4'	5.66	1.59	1.51
33	L1	3110	A	O5'-C5'	5.66	1.50	1.42
1	Sa	284	LEU	CA-C	-5.66	1.45	1.52
33	L1	2483	A	P-O5'	5.66	1.68	1.59
19	SY	16	ARG	CD-NE	5.66	1.54	1.46
32	S1	928	A	C3'-C2'	-5.66	1.44	1.52
33	L1	207	U	C5'-C4'	5.66	1.59	1.51
33	L1	1669	C	P-O5'	-5.66	1.51	1.59
66	LN	66	PRO	N-CD	-5.66	1.39	1.47
82	LK	117	TYR	CA-CB	5.66	1.60	1.52
33	L1	2003	C	C2'-C1'	-5.65	1.44	1.53
36	LA	201	ARG	CD-NE	5.65	1.54	1.46
81	LD	15	GLU	N-CA	-5.65	1.38	1.45
7	SI	40	VAL	CA-C	-5.65	1.47	1.52
16	SR	86	ARG	N-CA	-5.65	1.38	1.46
33	L1	2240	C	O4'-C1'	5.65	1.50	1.41
56	Lh	105	LYS	CA-C	-5.65	1.45	1.52
72	Lk	96	VAL	C-O	-5.65	1.18	1.24
2	SA	184	ARG	CD-NE	5.65	1.54	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	SD	214	LEU	CA-CB	5.65	1.60	1.52
7	SI	36	LYS	C-N	5.65	1.40	1.33
32	S1	170	C	C2'-C1'	-5.65	1.44	1.53
33	L1	126	G	C4'-C3'	5.65	1.61	1.52
33	L1	1205	C	O4'-C1'	5.65	1.50	1.41
33	L1	3293	U	C5'-C4'	5.65	1.59	1.51
36	LA	16	ILE	CA-CB	-5.65	1.47	1.54
13	SQ	139	ASP	C-N	5.65	1.41	1.33
33	L1	2151	G	C5'-C4'	5.65	1.59	1.51
10	SL	121	VAL	CA-C	5.65	1.59	1.52
32	S1	906	G	P-O5'	-5.65	1.51	1.59
33	L1	36	U	O4'-C1'	5.65	1.50	1.41
33	L1	2518	A	C4'-C3'	5.65	1.61	1.52
47	LU	136	LYS	CA-C	5.65	1.59	1.52
59	Lo	27	ILE	N-CA	5.65	1.53	1.46
78	Le	13	LYS	C-N	5.65	1.41	1.33
10	SL	118	ARG	N-CA	-5.64	1.39	1.46
32	S1	892	A	C4'-C3'	5.64	1.61	1.52
33	L1	1892	A	C5'-C4'	5.64	1.59	1.51
33	L1	2850	G	C3'-O3'	5.64	1.50	1.42
35	L2	14	G	O4'-C1'	-5.64	1.33	1.41
61	Lq	12	ARG	CD-NE	5.64	1.54	1.46
80	LC	52	GLY	C-N	-5.64	1.26	1.33
32	S1	1272	G	C2'-C1'	-5.64	1.44	1.53
33	L1	2259	U	C3'-O3'	5.64	1.50	1.42
45	LQ	188	LYS	C-N	5.64	1.41	1.33
33	L1	2794	A	O5'-C5'	5.64	1.50	1.42
33	L1	1263	A	C4'-C3'	5.64	1.61	1.52
33	L1	1345	U	C5'-C4'	5.64	1.59	1.51
33	L1	1620	U	O3'-P	-5.64	1.52	1.61
33	L1	2159	U	O4'-C1'	5.64	1.50	1.41
33	L1	2465	G	O4'-C1'	-5.64	1.33	1.41
33	L1	2679	A	O5'-C5'	5.64	1.50	1.42
46	LT	61	SER	CA-C	5.64	1.60	1.52
32	S1	934	A	C2'-C1'	-5.64	1.44	1.53
33	L1	377	C	C2'-C1'	-5.64	1.44	1.53
33	L1	807	C	O5'-C5'	5.64	1.50	1.42
33	L1	925	U	C5'-C4'	5.64	1.59	1.51
33	L1	1196	U	C2'-C1'	5.64	1.61	1.53
2	SA	21	MET	CA-CB	5.64	1.62	1.53
33	L1	1388	C	C2'-C1'	-5.64	1.44	1.53
33	L1	1598	U	O3'-P	-5.64	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	SI	53	LYS	CA-CB	5.63	1.61	1.53
46	LT	176	ARG	N-CA	-5.63	1.38	1.46
32	S1	232	C	O4'-C1'	5.63	1.50	1.41
2	SA	42	VAL	N-CA	5.63	1.53	1.46
33	L1	857	G	O3'-P	-5.63	1.52	1.61
33	L1	1341	G	C2'-C1'	-5.63	1.45	1.53
70	Li	18	ASN	CA-C	-5.63	1.45	1.52
80	LC	367	SER	CA-CB	5.63	1.64	1.53
33	L1	1343	C	C3'-O3'	5.63	1.50	1.42
33	L1	1505	G	O4'-C1'	-5.63	1.33	1.42
32	S1	1066	U	C2'-C1'	-5.63	1.45	1.53
32	S1	1135	G	O4'-C1'	5.63	1.50	1.41
33	L1	2380	G	P-O5'	5.63	1.68	1.59
33	L1	2450	G	P-O5'	-5.63	1.51	1.59
31	S2	62	C	O4'-C1'	5.63	1.50	1.41
32	S1	509	A	C5'-C4'	5.63	1.59	1.51
32	S1	1181	G	C3'-C2'	-5.63	1.44	1.52
33	L1	1562	A	O3'-P	-5.63	1.52	1.61
33	L1	1603	U	O3'-P	-5.63	1.52	1.61
33	L1	2837	C	C4'-O4'	5.63	1.53	1.45
80	LC	97	ARG	N-CA	-5.63	1.40	1.46
32	S1	918	G	P-O5'	-5.62	1.51	1.59
33	L1	3384	G	C2'-C1'	-5.62	1.45	1.53
32	S1	1620	C	C2'-C1'	-5.62	1.45	1.53
33	L1	228	C	O5'-C5'	5.62	1.50	1.42
33	L1	814	U	C2'-O2'	-5.62	1.34	1.42
33	L1	875	A	O3'-P	-5.62	1.52	1.61
33	L1	2762	U	C3'-O3'	5.62	1.50	1.42
57	L1	67	MET	N-CA	-5.62	1.39	1.46
80	LC	349	GLN	CA-CB	-5.62	1.45	1.53
32	S1	1203	G	C2'-C1'	5.62	1.61	1.53
33	L1	221	C	C2'-C1'	-5.62	1.45	1.53
33	L1	1373	A	O5'-C5'	5.62	1.50	1.42
33	L1	3123	A	O4'-C1'	5.62	1.50	1.41
46	LT	183	PRO	CA-C	-5.62	1.43	1.52
33	L1	605	A	O4'-C1'	5.62	1.50	1.41
57	L1	17	THR	CA-C	-5.62	1.45	1.53
32	S1	107	U	C2'-C1'	-5.62	1.45	1.53
32	S1	573	C	C2'-O2'	-5.62	1.34	1.42
32	S1	981	G	O4'-C1'	5.62	1.50	1.41
32	S1	1380	A	O4'-C1'	-5.62	1.33	1.41
33	L1	2716	U	O3'-P	-5.62	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3006	G	C4'-O4'	5.62	1.54	1.45
67	LS	118	VAL	N-CA	-5.62	1.39	1.46
8	SJ	108	LYS	N-CA	5.62	1.53	1.46
32	S1	1677	U	C2'-C1'	5.62	1.61	1.53
33	L1	1672	G	C3'-O3'	5.62	1.50	1.42
51	LY	6	ARG	NE-CZ	-5.62	1.26	1.33
56	Lh	122	ASN	N-CA	-5.62	1.39	1.46
33	L1	1789	C	C3'-C2'	-5.62	1.44	1.52
33	L1	2581	C	O4'-C1'	5.62	1.50	1.41
3	SB	106	ARG	CD-NE	5.61	1.54	1.46
5	SE	258	LYS	CA-CB	5.61	1.62	1.53
23	SU	79	GLY	C-N	5.61	1.41	1.33
32	S1	380	C	C2'-C1'	-5.61	1.45	1.53
33	L1	882	U	O4'-C1'	5.61	1.50	1.41
33	L1	2911	C	C2'-C1'	-5.61	1.45	1.53
33	L1	3140	A	C4'-C3'	5.61	1.60	1.52
33	L1	3270	C	C5'-C4'	5.61	1.59	1.51
56	Lh	7	THR	C-N	5.61	1.41	1.33
32	S1	1756	A	C4'-O4'	5.61	1.53	1.45
38	LE	170	GLU	CA-CB	5.61	1.64	1.53
11	SM	43	ILE	CA-C	-5.61	1.45	1.52
32	S1	905	A	C3'-O3'	5.61	1.50	1.42
32	S1	1469	C	C2'-C1'	-5.61	1.45	1.53
33	L1	198	A	P-O5'	-5.61	1.51	1.59
33	L1	2870	U	C2'-O2'	-5.61	1.34	1.42
73	Lp	42	SER	N-CA	-5.61	1.38	1.46
32	S1	570	C	C2'-C1'	-5.61	1.45	1.53
42	LP	147	ARG	CD-NE	5.61	1.54	1.46
80	LC	378	ASP	C-N	5.61	1.41	1.33
2	SA	247	TRP	CA-CB	5.61	1.62	1.53
9	SK	127	ARG	CA-CB	5.61	1.62	1.53
32	S1	1552	U	O4'-C1'	5.61	1.50	1.41
50	LZ	13	GLN	CA-C	5.61	1.60	1.52
1	Sa	329	LEU	CA-CB	5.61	1.62	1.53
4	SD	51	ARG	C-N	5.61	1.41	1.33
33	L1	566	G	O5'-C5'	5.61	1.50	1.42
33	L1	1278	A	C2'-C1'	-5.61	1.45	1.53
33	L1	1978	G	C2'-C1'	-5.61	1.45	1.53
33	L1	3289	U	C4'-O4'	5.61	1.53	1.45
64	LG	26	TRP	CA-CB	5.61	1.62	1.53
38	LE	17	GLN	CA-C	-5.60	1.45	1.52
32	S1	871	G	P-OP2	5.60	1.60	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1716	G	C3'-O3'	5.60	1.50	1.42
25	SC	52	SER	N-CA	5.60	1.53	1.46
52	Lb	108	SER	C-N	5.60	1.40	1.33
7	SI	25	VAL	CA-C	-5.60	1.45	1.52
17	SV	34	LYS	C-N	5.60	1.41	1.33
32	S1	1352	A	C2'-C1'	-5.60	1.45	1.53
32	S1	1629	U	O4'-C1'	5.60	1.50	1.41
33	L1	2071	U	C3'-O3'	5.60	1.53	1.42
33	L1	3081	G	C5'-C4'	5.60	1.59	1.51
46	LT	57	ILE	N-CA	-5.60	1.39	1.46
46	LT	109	TYR	CA-C	5.60	1.60	1.52
47	LU	83	ARG	CD-NE	5.60	1.54	1.46
13	SQ	9	VAL	CA-C	-5.60	1.46	1.52
33	L1	1734	G	P-OP2	5.60	1.60	1.49
33	L1	1949	G	C3'-O3'	5.60	1.50	1.42
78	Le	109	ARG	CA-C	5.60	1.60	1.52
79	Ls	96	GLY	C-N	5.60	1.40	1.33
33	L1	2622	G	P-O5'	-5.60	1.51	1.59
25	SC	163	THR	CB-CG2	5.59	1.71	1.52
33	L1	1261	C	C2'-C1'	-5.59	1.45	1.53
33	L1	1443	G	C3'-O3'	5.59	1.50	1.42
5	SE	8	ARG	NE-CZ	5.59	1.39	1.33
31	S2	12	U	C2'-C1'	-5.59	1.45	1.53
32	S1	887	U	O3'-P	-5.59	1.52	1.61
48	LV	123	ALA	CA-C	-5.59	1.45	1.52
48	LV	169	ARG	CA-C	5.59	1.60	1.52
33	L1	308	U	O4'-C1'	5.59	1.50	1.41
39	LF	95	TYR	CZ-OH	5.59	1.49	1.38
45	LQ	116	LEU	C-N	5.59	1.41	1.33
56	Lh	104	ARG	CD-NE	5.59	1.54	1.46
60	Lr	89	LYS	N-CA	-5.59	1.39	1.46
32	S1	1769	C	C2'-C1'	-5.59	1.45	1.53
33	L1	1890	C	C3'-O3'	5.59	1.50	1.42
33	L1	2863	U	P-O5'	5.59	1.68	1.59
33	L1	3124	A	O4'-C1'	5.59	1.50	1.41
33	L1	3176	C	O4'-C1'	5.59	1.50	1.41
49	LX	66	LYS	CA-C	-5.59	1.45	1.52
52	Lb	87	TYR	CA-C	5.59	1.60	1.52
40	LH	134	HIS	ND1-CE1	5.59	1.38	1.32
54	Lf	94	LEU	N-CA	-5.59	1.39	1.46
33	L1	3326	U	P-O5'	-5.59	1.51	1.59
55	Lg	116	THR	CB-OG1	-5.59	1.34	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
66	LN	17	TYR	CA-C	-5.59	1.45	1.52
74	LJ	17	VAL	N-CA	-5.59	1.40	1.46
80	LC	378	ASP	CA-CB	5.59	1.62	1.53
32	S1	1394	A	C2'-C1'	-5.58	1.44	1.53
33	L1	1150	G	C2'-C1'	-5.58	1.45	1.53
33	L1	1743	C	C2'-C1'	-5.58	1.45	1.53
25	SC	105	ASN	C-N	5.58	1.41	1.33
33	L1	1403	G	P-OP2	5.58	1.60	1.49
33	L1	1652	G	C2'-C1'	-5.58	1.45	1.53
33	L1	1726	G	O3'-P	-5.58	1.52	1.61
45	LQ	146	LEU	CA-C	-5.58	1.45	1.52
66	LN	99	ARG	CA-CB	5.58	1.62	1.53
25	SC	137	ARG	CA-C	-5.58	1.41	1.52
33	L1	1	G	P-OP2	5.58	1.60	1.49
33	L1	950	U	C2'-C1'	-5.58	1.45	1.53
33	L1	1963	G	C2'-C1'	-5.58	1.45	1.53
37	LB	196	TRP	CA-CB	-5.58	1.44	1.53
23	SU	19	THR	N-CA	5.58	1.52	1.46
33	L1	735	C	C2'-C1'	-5.58	1.45	1.53
33	L1	2255	U	C2'-C1'	-5.58	1.45	1.53
33	L1	2542	U	C2'-C1'	5.58	1.61	1.53
42	LP	55	ALA	CA-C	-5.58	1.45	1.52
33	L1	1079	G	O4'-C1'	5.58	1.50	1.41
33	L1	1337	C	C2'-C1'	-5.58	1.45	1.53
7	SI	120	ARG	CD-NE	5.58	1.54	1.46
14	SP	49	ALA	C-N	5.58	1.40	1.33
33	L1	184	C	O5'-C5'	5.58	1.50	1.42
33	L1	1537	A	O4'-C1'	5.58	1.50	1.41
35	L2	16	A	C2'-C1'	5.58	1.61	1.53
67	LS	61	LEU	CA-CB	5.58	1.62	1.53
81	LD	20	THR	N-CA	-5.58	1.39	1.46
8	SJ	90	GLU	N-CA	-5.57	1.39	1.46
32	S1	788	G	C5'-C4'	5.57	1.63	1.52
33	L1	271	G	O5'-C5'	5.57	1.50	1.42
33	L1	2207	C	C4'-C3'	5.57	1.60	1.52
33	L1	2993	A	O3'-P	-5.57	1.52	1.61
38	LE	74	ARG	C-N	5.57	1.41	1.33
73	Lp	26	ARG	CA-CB	5.57	1.61	1.53
80	LC	278	ARG	N-CA	-5.57	1.39	1.46
2	SA	168	ASN	CA-C	5.57	1.59	1.52
32	S1	913	U	C3'-O3'	5.57	1.50	1.42
33	L1	3071	A	O4'-C1'	-5.57	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	L2	22	U	O3'-P	-5.57	1.52	1.61
1	Sa	192	ARG	CD-NE	5.57	1.54	1.46
7	SI	56	GLU	C-O	-5.57	1.19	1.24
29	ST	47	GLY	CA-C	5.57	1.57	1.51
33	L1	365	A	C3'-O3'	5.57	1.50	1.42
33	L1	980	C	O4'-C1'	5.57	1.50	1.41
33	L1	1400	C	C2'-C1'	-5.57	1.45	1.53
33	L1	2068	G	C2'-C1'	-5.57	1.45	1.53
33	L1	2750	A	C3'-O3'	5.57	1.50	1.42
33	L1	3101	C	C3'-O3'	5.57	1.50	1.42
32	S1	556	G	C2'-C1'	-5.57	1.45	1.53
33	L1	505	G	C4'-O4'	5.57	1.53	1.45
36	LA	205	VAL	CA-C	5.57	1.59	1.52
70	Li	94	ALA	CA-C	-5.57	1.45	1.52
1	Sa	313	LEU	CA-C	-5.57	1.46	1.52
32	S1	1016	C	P-O5'	-5.57	1.51	1.59
32	S1	1663	A	C2'-C1'	5.57	1.61	1.53
32	S1	1734	U	O4'-C1'	5.57	1.50	1.41
33	L1	1099	G	O3'-P	-5.57	1.52	1.61
33	L1	2996	A	C4'-C3'	5.57	1.60	1.52
66	LN	18	GLY	C-N	5.57	1.37	1.33
70	Li	67	LEU	C-N	5.57	1.40	1.33
32	S1	1238	A	C3'-C2'	-5.57	1.44	1.52
33	L1	2841	G	C5'-C4'	5.57	1.59	1.51
35	L2	30	C	P-O5'	-5.57	1.51	1.59
57	L1	13	ASN	CA-C	-5.57	1.46	1.52
80	LC	184	ILE	N-CA	-5.57	1.39	1.46
33	L1	3003	C	O5'-C5'	5.56	1.50	1.42
33	L1	1576	C	C3'-C2'	5.56	1.61	1.52
36	LA	124	GLY	CA-C	5.56	1.55	1.51
52	Lb	89	LYS	C-N	5.56	1.41	1.33
32	S1	137	A	P-OP2	5.56	1.60	1.49
32	S1	388	G	C2'-C1'	-5.56	1.45	1.53
33	L1	218	G	O3'-P	-5.56	1.52	1.61
33	L1	1114	A	C4'-C3'	5.56	1.60	1.52
64	LG	50	PHE	CA-CB	5.56	1.62	1.53
67	LS	66	ILE	CA-C	-5.56	1.45	1.52
9	SK	134	VAL	C-N	-5.56	1.25	1.33
33	L1	1372	U	C4'-C3'	-5.56	1.44	1.52
33	L1	3012	A	C2'-C1'	5.56	1.61	1.53
57	L1	28	HIS	CG-ND1	5.56	1.44	1.38
64	LG	61	VAL	C-N	-5.56	1.26	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Sa	182	CYS	N-CA	-5.56	1.39	1.45
7	SI	72	ARG	CA-C	-5.55	1.44	1.52
33	L1	3162	C	O4'-C1'	5.55	1.50	1.41
67	LS	163	ARG	CA-CB	5.55	1.62	1.53
80	LC	128	LYS	CA-CB	5.55	1.62	1.53
35	L2	23	A	C4'-C3'	5.55	1.60	1.52
25	SC	93	ASN	CA-CB	5.55	1.62	1.53
31	S2	8	U	O4'-C1'	-5.55	1.33	1.41
32	S1	1319	U	O5'-C5'	-5.55	1.34	1.42
33	L1	16	A	C4'-O4'	-5.55	1.37	1.45
33	L1	2596	A	O4'-C1'	5.55	1.50	1.42
47	LU	12	ARG	CD-NE	5.55	1.54	1.46
50	LZ	10	PHE	CA-C	-5.55	1.45	1.52
66	LN	93	LEU	CA-C	5.55	1.59	1.52
80	LC	95	THR	N-CA	5.55	1.50	1.45
3	SB	131	ALA	N-CA	-5.55	1.39	1.46
14	SP	108	ILE	C-N	5.55	1.46	1.33
32	S1	1445	C	O4'-C1'	5.55	1.50	1.41
33	L1	610	G	O4'-C1'	5.55	1.50	1.41
37	LB	73	LYS	N-CA	5.55	1.53	1.46
44	LR	156	PRO	C-N	5.55	1.41	1.33
61	Lq	17	ARG	C-N	5.55	1.41	1.33
33	L1	1176	U	C4'-O4'	5.55	1.53	1.45
33	L1	2051	G	C2'-C1'	-5.55	1.45	1.53
32	S1	970	U	C2'-C1'	-5.55	1.45	1.53
33	L1	1755	A	O3'-P	-5.55	1.52	1.61
33	L1	1840	C	O4'-C1'	5.55	1.50	1.41
33	L1	2679	A	O4'-C1'	5.55	1.50	1.41
33	L1	3270	C	P-O5'	-5.55	1.51	1.59
33	L1	2577	G	C3'-O3'	5.54	1.50	1.42
33	L1	3145	G	C2'-C1'	5.54	1.61	1.53
37	LB	248	GLY	CA-C	-5.54	1.44	1.51
80	LC	180	HIS	ND1-CE1	5.54	1.38	1.32
5	SE	73	LYS	CA-C	-5.54	1.45	1.52
11	SM	92	ASP	C-N	-5.54	1.25	1.33
33	L1	1090	C	O4'-C1'	5.54	1.50	1.41
33	L1	2222	C	C4'-C3'	5.54	1.60	1.52
33	L1	2464	G	C2'-C1'	-5.54	1.45	1.53
35	L2	43	G	O5'-C5'	5.54	1.51	1.42
35	L2	150	G	O3'-P	-5.54	1.52	1.61
49	LX	86	ILE	N-CA	-5.54	1.40	1.46
69	La	26	VAL	CA-C	5.54	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	SA	43	TYR	C-N	5.54	1.40	1.33
5	SE	100	ARG	CZ-NH1	5.54	1.40	1.32
23	SU	21	ARG	NE-CZ	5.54	1.39	1.33
33	L1	1261	C	C4'-C3'	-5.54	1.44	1.52
33	L1	1544	G	O4'-C1'	5.54	1.50	1.41
33	L1	2545	C	O4'-C1'	5.54	1.50	1.41
2	SA	95	ALA	C-O	-5.54	1.17	1.24
32	S1	1373	C	C3'-O3'	5.54	1.50	1.42
33	L1	1866	C	O4'-C1'	5.54	1.50	1.41
33	L1	329	G	C2'-C1'	5.54	1.61	1.53
33	L1	2201	G	O3'-P	-5.54	1.52	1.61
15	SS	34	PRO	CA-C	-5.54	1.44	1.52
32	S1	1321	C	C2'-C1'	-5.54	1.45	1.53
33	L1	1414	C	O5'-C5'	5.54	1.50	1.42
33	L1	3139	U	O4'-C1'	5.54	1.50	1.41
1	Sa	337	GLY	C-O	-5.54	1.17	1.24
5	SE	54	VAL	C-N	5.54	1.41	1.33
32	S1	327	A	P-OP2	5.54	1.60	1.49
32	S1	581	G	O3'-P	-5.54	1.52	1.61
32	S1	882	G	C3'-C2'	-5.54	1.44	1.52
32	S1	1362	A	O4'-C1'	5.54	1.50	1.41
33	L1	2388	C	O5'-C5'	5.54	1.50	1.42
33	L1	2612	A	O5'-C5'	5.54	1.50	1.42
43	LO	120	VAL	CA-CB	-5.54	1.47	1.54
67	LS	159	ARG	N-CA	-5.54	1.38	1.46
78	Le	181	ILE	N-CA	5.54	1.53	1.46
81	LD	360	ASP	C-N	5.54	1.41	1.33
33	L1	1320	G	O5'-C5'	5.53	1.50	1.42
33	L1	1818	C	C3'-O3'	-5.53	1.33	1.42
33	L1	2950	C	O4'-C1'	5.53	1.50	1.41
2	SA	135	HIS	CA-C	-5.53	1.45	1.52
32	S1	1664	U	C2'-C1'	-5.53	1.45	1.53
33	L1	1052	A	C2'-C1'	5.53	1.61	1.53
37	LB	248	GLY	N-CA	5.53	1.53	1.45
69	La	65	LYS	C-N	5.53	1.41	1.33
33	L1	3215	U	C5'-C4'	5.53	1.59	1.51
33	L1	2799	U	O3'-P	-5.53	1.52	1.61
41	LM	85	ARG	CD-NE	5.53	1.53	1.46
46	LT	81	ARG	NE-CZ	5.53	1.39	1.33
57	L1	45	ARG	CD-NE	5.53	1.53	1.46
32	S1	602	U	O3'-P	-5.53	1.52	1.61
33	L1	902	U	C4'-C3'	5.53	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2456	G	P-O5'	-5.53	1.51	1.59
37	LB	56	ALA	C-N	-5.53	1.26	1.33
45	LQ	249	ALA	CA-CB	-5.53	1.44	1.53
31	S2	20	C	O4'-C1'	5.53	1.50	1.41
32	S1	860	A	O4'-C1'	5.53	1.50	1.41
32	S1	1265	A	C5'-C4'	5.53	1.59	1.51
33	L1	2281	U	O4'-C1'	5.53	1.50	1.42
33	L1	3223	C	O4'-C1'	5.53	1.50	1.41
47	LU	59	GLY	CA-C	5.53	1.58	1.51
69	La	67	ARG	NE-CZ	5.53	1.39	1.33
78	Le	241	ARG	CD-NE	5.53	1.53	1.46
14	SP	120	GLU	CA-C	5.52	1.60	1.52
32	S1	975	A	C3'-O3'	5.52	1.50	1.42
32	S1	1351	U	C2'-C1'	-5.52	1.45	1.53
32	S1	1353	G	C5'-C4'	5.52	1.59	1.51
54	Lf	20	LEU	N-CA	-5.52	1.39	1.46
77	Lc	114	HIS	CB-CG	5.52	1.57	1.50
32	S1	581	G	O4'-C1'	-5.52	1.33	1.42
32	S1	667	U	C2'-C1'	-5.52	1.45	1.53
34	L3	26	C	C4'-C3'	5.52	1.60	1.52
44	LR	157	GLY	C-N	5.52	1.39	1.33
33	L1	2865	G	O3'-P	-5.52	1.52	1.61
42	LP	82	GLY	N-CA	-5.52	1.39	1.45
1	Sa	237	ILE	CA-CB	5.52	1.61	1.54
32	S1	358	C	C2'-C1'	-5.52	1.45	1.53
33	L1	1080	C	C3'-C2'	-5.52	1.44	1.52
33	L1	2842	C	O4'-C1'	-5.52	1.33	1.41
36	LA	166	VAL	N-CA	5.52	1.53	1.46
14	SP	52	GLY	CA-C	-5.52	1.44	1.51
15	SS	129	GLN	CA-C	-5.52	1.45	1.52
30	S3	12	A	P-OP2	5.52	1.59	1.49
32	S1	491	G	C4'-O4'	5.52	1.53	1.45
33	L1	1677	G	C2'-C1'	-5.52	1.45	1.53
33	L1	1938	U	O4'-C1'	5.52	1.50	1.41
33	L1	2177	U	O4'-C1'	5.52	1.50	1.41
15	SS	77	GLY	N-CA	-5.52	1.38	1.45
33	L1	207	U	C4'-C3'	5.52	1.60	1.52
33	L1	1470	A	C2'-C1'	-5.52	1.44	1.53
33	L1	2215	A	C2'-C1'	-5.52	1.45	1.53
32	S1	25	C	C2'-C1'	-5.51	1.44	1.53
32	S1	62	A	O4'-C1'	5.51	1.50	1.41
33	L1	1710	G	O4'-C1'	5.51	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
39	LF	182	ASP	C-O	5.51	1.30	1.23
51	LY	117	ILE	CA-C	-5.51	1.45	1.52
54	Lf	21	VAL	N-CA	5.51	1.53	1.46
2	SA	156	SER	CA-C	5.51	1.57	1.52
2	SA	146	ILE	CA-CB	5.51	1.61	1.54
11	SM	132	ARG	CA-CB	5.51	1.60	1.52
33	L1	2103	U	C2'-C1'	5.51	1.61	1.53
33	L1	2275	A	C5'-C4'	5.51	1.59	1.51
42	LP	156	HIS	ND1-CE1	5.51	1.38	1.32
45	LQ	157	ASN	CA-C	-5.51	1.45	1.52
13	SQ	81	ARG	CA-CB	5.51	1.62	1.53
32	S1	827	C	O4'-C1'	5.51	1.50	1.41
33	L1	64	A	C4'-C3'	5.51	1.61	1.53
78	Le	44	LYS	CA-CB	5.51	1.61	1.53
10	SL	84	VAL	CA-CB	5.51	1.61	1.54
31	S2	67	G	C2'-C1'	-5.51	1.45	1.53
32	S1	1452	A	P-OP2	5.51	1.59	1.49
33	L1	1322	A	C3'-O3'	5.51	1.51	1.43
33	L1	1891	A	C3'-O3'	5.51	1.50	1.42
49	LX	36	ILE	CA-C	-5.51	1.46	1.52
55	Lg	59	ILE	C-N	-5.51	1.26	1.33
33	L1	1343	C	C4'-C3'	5.51	1.60	1.52
33	L1	2110	G	C2'-C1'	-5.51	1.44	1.53
33	L1	3329	G	O4'-C1'	-5.51	1.33	1.41
34	L3	101	A	P-O5'	-5.51	1.51	1.59
67	LS	115	ARG	CA-CB	5.51	1.62	1.53
3	SB	138	VAL	C-O	-5.50	1.18	1.24
32	S1	169	A	O4'-C1'	5.50	1.50	1.41
33	L1	1176	U	C5'-C4'	5.50	1.59	1.51
39	LF	174	PHE	C-O	-5.50	1.17	1.23
69	La	34	ARG	CA-C	-5.50	1.45	1.52
82	LK	76	ILE	CA-CB	-5.50	1.45	1.55
1	Sa	302	THR	C-N	5.50	1.40	1.33
32	S1	552	G	O4'-C1'	5.50	1.50	1.41
33	L1	477	C	C2'-C1'	-5.50	1.45	1.53
33	L1	2349	C	P-O5'	-5.50	1.51	1.59
33	L1	2655	U	C2'-C1'	5.50	1.61	1.53
79	Ls	190	LEU	C-N	5.50	1.40	1.33
81	LD	117	ARG	CD-NE	5.50	1.53	1.46
8	SJ	52	ALA	C-N	5.50	1.40	1.33
33	L1	338	C	P-O5'	-5.50	1.51	1.59
33	L1	2562	A	O4'-C1'	-5.50	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3161	C	C2'-C1'	-5.50	1.45	1.53
34	L3	49	A	C5'-C4'	5.50	1.59	1.51
1	Sa	26	ARG	N-CA	5.50	1.53	1.46
28	SN	22	ARG	N-CA	-5.50	1.39	1.46
32	S1	589	A	C2'-O2'	-5.50	1.34	1.42
33	L1	148	U	P-O5'	-5.50	1.48	1.59
33	L1	547	C	O4'-C1'	5.50	1.49	1.41
33	L1	3361	G	O4'-C1'	5.50	1.49	1.41
77	Lc	20	THR	C-N	5.50	1.41	1.33
33	L1	62	A	O3'-P	-5.50	1.52	1.61
33	L1	2429	A	C4'-O4'	5.50	1.53	1.45
35	L2	110	C	C5'-C4'	5.50	1.59	1.51
41	LM	42	VAL	C-N	5.50	1.40	1.33
46	LT	60	ARG	C-N	5.50	1.41	1.33
78	Le	83	ALA	CA-CB	5.50	1.62	1.53
11	SM	141	ARG	N-CA	-5.50	1.39	1.46
13	SQ	14	ARG	CD-NE	5.50	1.53	1.46
33	L1	1343	C	C2'-C1'	-5.50	1.45	1.53
33	L1	1647	C	C2'-C1'	-5.50	1.45	1.53
33	L1	2727	U	C5'-C4'	5.50	1.59	1.51
57	Ll	33	THR	CB-OG1	-5.50	1.34	1.43
71	Lj	79	HIS	N-CA	-5.50	1.40	1.46
2	SA	13	SER	CA-CB	-5.49	1.46	1.52
33	L1	908	U	O3'-P	-5.49	1.52	1.61
33	L1	2421	C	O5'-C5'	5.49	1.50	1.42
70	Li	98	GLU	CA-CB	5.49	1.61	1.53
81	LD	381	TRP	N-CA	-5.49	1.39	1.46
32	S1	974	C	O4'-C1'	5.49	1.49	1.41
33	L1	2807	G	C4'-C3'	5.49	1.60	1.52
33	L1	3152	C	C5'-C4'	5.49	1.59	1.51
70	Li	22	VAL	C-N	5.49	1.41	1.33
74	LJ	128	GLY	C-N	5.49	1.41	1.33
11	SM	75	ARG	NE-CZ	5.49	1.39	1.33
32	S1	44	U	P-OP2	5.49	1.59	1.49
32	S1	470	U	O4'-C1'	5.49	1.49	1.41
32	S1	1461	G	O4'-C1'	-5.49	1.33	1.41
33	L1	2449	A	C3'-O3'	5.49	1.50	1.42
33	L1	2798	G	C2'-C1'	-5.49	1.44	1.53
42	LP	63	ARG	CD-NE	5.49	1.53	1.46
52	Lb	123	ARG	CD-NE	5.49	1.53	1.46
32	S1	1184	C	C4'-C3'	5.49	1.60	1.52
32	S1	1417	A	C2'-C1'	5.49	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	924	A	O5'-C5'	5.49	1.51	1.42
32	S1	8	U	C3'-C2'	-5.49	1.44	1.52
32	S1	373	U	C3'-C2'	5.49	1.60	1.52
33	L1	1923	G	O4'-C1'	-5.49	1.33	1.41
34	L3	75	G	O4'-C1'	-5.49	1.33	1.42
45	LQ	122	GLY	C-N	5.49	1.41	1.33
32	S1	399	U	C4'-C3'	5.48	1.60	1.52
32	S1	1029	U	C4'-C3'	-5.48	1.44	1.52
32	S1	1664	U	C5'-C4'	5.48	1.59	1.51
33	L1	1882	A	C5'-C4'	5.48	1.59	1.51
33	L1	2488	A	C2'-C1'	5.48	1.61	1.53
44	LR	136	THR	C-N	-5.48	1.26	1.33
32	S1	237	C	O4'-C1'	5.48	1.49	1.41
32	S1	920	A	O4'-C1'	5.48	1.49	1.41
32	S1	1212	A	C2'-C1'	-5.48	1.45	1.53
33	L1	457	C	O4'-C1'	5.48	1.49	1.41
33	L1	2910	C	C4'-O4'	5.48	1.53	1.45
48	LV	36	ILE	N-CA	5.48	1.54	1.46
48	LV	146	HIS	CB-CG	-5.48	1.42	1.50
54	Lf	39	ARG	CD-NE	5.48	1.53	1.46
33	L1	84	A	C3'-O3'	-5.48	1.34	1.43
33	L1	2751	A	O4'-C1'	-5.48	1.33	1.41
35	L2	153	U	C2'-C1'	-5.48	1.45	1.53
39	LF	3	THR	N-CA	5.48	1.52	1.45
48	LV	43	LYS	C-N	5.48	1.41	1.33
78	Le	157	LYS	C-N	5.48	1.41	1.33
5	SE	65	ILE	CA-C	-5.48	1.45	1.52
25	SC	3	ARG	CA-C	-5.48	1.45	1.52
33	L1	2711	U	O3'-P	-5.48	1.52	1.61
35	L2	53	G	C3'-O3'	5.48	1.50	1.42
32	S1	928	A	C2'-C1'	-5.48	1.45	1.53
32	S1	1133	C	C2'-C1'	-5.48	1.45	1.53
33	L1	56	A	C2'-C1'	5.48	1.61	1.53
33	L1	958	U	C4'-O4'	5.48	1.53	1.45
33	L1	2702	G	P-O5'	-5.48	1.51	1.59
42	LP	185	ARG	NE-CZ	5.48	1.39	1.33
66	LN	122	ARG	N-CA	5.48	1.52	1.46
80	LC	161	ARG	NE-CZ	5.48	1.39	1.33
33	L1	1966	C	C2'-C1'	-5.48	1.45	1.53
33	L1	2038	G	O4'-C1'	5.48	1.49	1.41
33	L1	2562	A	C5'-C4'	5.48	1.59	1.51
81	LD	42	ARG	CA-CB	5.48	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	SM	18	THR	CA-C	5.47	1.60	1.52
28	SN	26	ASN	C-N	5.47	1.41	1.33
32	S1	1651	U	C2'-C1'	-5.47	1.45	1.53
33	L1	1510	G	C4'-C3'	5.47	1.61	1.53
33	L1	2140	C	O3'-P	-5.47	1.52	1.61
33	L1	2393	G	O4'-C1'	5.47	1.49	1.41
3	SB	68	GLU	CA-C	-5.47	1.45	1.52
33	L1	24	C	P-O5'	-5.47	1.51	1.59
33	L1	1197	A	P-O5'	-5.47	1.51	1.59
33	L1	2507	U	O4'-C1'	5.47	1.49	1.41
38	LE	139	ARG	N-CA	-5.47	1.39	1.46
32	S1	679	C	C2'-C1'	-5.47	1.45	1.53
32	S1	1247	G	C2'-C1'	-5.47	1.45	1.53
33	L1	1965	C	C2'-C1'	-5.47	1.45	1.53
33	L1	2226	C	C3'-O3'	5.47	1.50	1.42
78	Le	177	LYS	CA-CB	5.47	1.62	1.54
3	SB	178	ARG	CD-NE	5.47	1.53	1.46
6	SF	88	ILE	N-CA	-5.47	1.40	1.46
10	SL	8	GLY	C-N	5.47	1.41	1.33
15	SS	74	GLY	C-N	5.47	1.40	1.33
32	S1	1155	G	O4'-C1'	-5.47	1.33	1.41
32	S1	1707	G	C3'-O3'	5.47	1.50	1.42
33	L1	1194	C	P-O5'	-5.47	1.51	1.59
33	L1	1218	U	P-O5'	-5.47	1.51	1.59
33	L1	1346	C	O4'-C1'	5.47	1.49	1.41
67	LS	79	ILE	CA-C	-5.47	1.46	1.52
74	LJ	77	SER	C-N	5.47	1.41	1.33
11	SM	75	ARG	CZ-NH1	5.47	1.40	1.32
33	L1	2422	U	C2'-C1'	-5.47	1.45	1.53
4	SD	150	PRO	C-N	5.47	1.44	1.33
33	L1	2059	C	C3'-C2'	5.47	1.60	1.52
35	L2	102	U	C4'-C3'	-5.47	1.44	1.52
7	SI	97	ALA	N-CA	5.46	1.52	1.46
11	SM	42	ASN	N-CA	-5.46	1.39	1.46
32	S1	596	A	O4'-C1'	5.46	1.49	1.41
32	S1	830	U	C3'-O3'	5.46	1.50	1.42
32	S1	1160	G	C4'-O4'	-5.46	1.37	1.45
33	L1	135	G	O4'-C1'	5.46	1.49	1.41
33	L1	1117	U	C4'-C3'	-5.46	1.44	1.52
45	LQ	4	GLN	CA-CB	5.46	1.63	1.53
77	Lc	21	LYS	CA-CB	5.46	1.61	1.53
33	L1	1335	C	O4'-C1'	5.46	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	SB	214	LYS	C-N	5.46	1.41	1.33
33	L1	1012	U	C2'-C1'	-5.46	1.45	1.53
33	L1	1496	G	O3'-P	-5.46	1.52	1.61
55	Lg	111	LEU	CA-C	-5.46	1.45	1.52
64	LG	7	MET	CA-C	5.46	1.59	1.52
1	Sa	339	LEU	CA-C	-5.46	1.45	1.52
32	S1	1792	A	C3'-O3'	5.46	1.50	1.42
33	L1	1867	U	O4'-C1'	5.46	1.49	1.41
33	L1	2090	G	C2'-C1'	5.46	1.61	1.53
31	S2	32	U	O5'-C5'	5.46	1.50	1.42
33	L1	71	C	P-O5'	-5.46	1.51	1.59
33	L1	467	C	C5'-C4'	5.46	1.59	1.51
33	L1	2220	U	O4'-C1'	5.46	1.49	1.41
33	L1	2618	G	C4'-C3'	-5.46	1.44	1.52
34	L3	110	G	O4'-C1'	5.46	1.49	1.41
32	S1	382	A	O4'-C1'	-5.46	1.33	1.41
32	S1	1471	C	C2'-C1'	-5.46	1.45	1.53
33	L1	22	G	C3'-O3'	5.46	1.50	1.42
33	L1	2803	A	O4'-C1'	-5.46	1.33	1.42
33	L1	3002	U	C3'-O3'	5.46	1.50	1.42
39	LF	168	ASN	CA-CB	5.46	1.62	1.53
46	LT	63	ALA	C-O	-5.46	1.17	1.24
61	Lq	11	ARG	CD-NE	5.46	1.53	1.46
71	Lj	5	GLN	C-N	5.46	1.41	1.33
32	S1	231	U	O4'-C1'	-5.46	1.33	1.41
33	L1	1174	G	O4'-C1'	-5.46	1.33	1.41
3	SB	211	HIS	C-N	5.45	1.39	1.33
6	SF	149	LEU	N-CA	-5.45	1.39	1.46
33	L1	206	C	O4'-C1'	5.45	1.49	1.41
33	L1	1388	C	C4'-C3'	5.45	1.60	1.52
1	Sa	89	ARG	NE-CZ	5.45	1.39	1.33
33	L1	343	G	C4'-C3'	5.45	1.60	1.52
20	SZ	19	PRO	N-CA	5.45	1.54	1.47
32	S1	1302	C	C4'-O4'	5.45	1.53	1.45
32	S1	1772	A	C4'-C3'	-5.45	1.44	1.52
33	L1	1500	C	O4'-C1'	5.45	1.49	1.41
33	L1	1530	C	C4'-C3'	5.45	1.60	1.52
51	LY	11	ARG	CD-NE	5.45	1.53	1.46
1	Sa	73	ASP	N-CA	-5.45	1.39	1.46
33	L1	3053	G	O4'-C1'	5.45	1.49	1.41
33	L1	3339	G	O3'-P	-5.45	1.52	1.61
45	LQ	17	PHE	N-CA	5.45	1.53	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	SE	49	LYS	CA-CB	5.45	1.61	1.53
31	S2	48	C	C4'-C3'	5.45	1.60	1.52
68	LW	90	LYS	CA-CB	5.45	1.61	1.53
32	S1	1716	C	C5'-C4'	5.45	1.59	1.51
33	L1	526	A	O4'-C1'	5.45	1.49	1.41
33	L1	839	A	O3'-P	-5.45	1.52	1.61
33	L1	1955	G	C5'-C4'	5.45	1.59	1.51
33	L1	2877	U	C4'-C3'	5.45	1.60	1.52
50	LZ	8	CYS	CA-CB	5.45	1.59	1.53
32	S1	1076	C	C2'-C1'	-5.44	1.45	1.53
33	L1	87	A	C5'-C4'	5.44	1.59	1.51
33	L1	1864	G	O4'-C1'	5.44	1.49	1.41
1	Sa	326	ASP	N-CA	-5.44	1.39	1.46
5	SE	24	ARG	CZ-NH2	5.44	1.40	1.33
32	S1	1345	G	C2'-C1'	5.44	1.61	1.53
35	L2	66	C	O4'-C1'	5.44	1.50	1.42
82	LK	56	LYS	CA-CB	5.44	1.61	1.53
3	SB	50	ILE	C-N	5.44	1.39	1.33
15	SS	98	SER	N-CA	5.44	1.53	1.46
32	S1	1574	U	O4'-C1'	5.44	1.49	1.41
33	L1	1935	G	O4'-C1'	5.44	1.49	1.41
33	L1	3080	U	C2'-C1'	5.44	1.61	1.53
45	LQ	263	THR	CA-C	-5.44	1.45	1.52
47	LU	139	PHE	N-CA	5.44	1.53	1.46
33	L1	519	C	C4'-O4'	5.44	1.53	1.45
33	L1	2622	G	O3'-P	-5.44	1.52	1.61
31	S2	9	A	O3'-P	-5.44	1.52	1.61
32	S1	973	U	C3'-O3'	5.44	1.50	1.42
32	S1	1007	G	P-O5'	-5.44	1.51	1.59
32	S1	1735	C	C2'-C1'	-5.44	1.45	1.53
33	L1	1330	A	C2'-C1'	-5.44	1.45	1.53
33	L1	2301	C	O4'-C1'	5.44	1.49	1.41
37	LB	65	HIS	ND1-CE1	5.44	1.38	1.32
32	S1	436	G	O4'-C1'	5.44	1.49	1.41
32	S1	895	U	O4'-C1'	5.44	1.49	1.41
33	L1	2214	A	O5'-C5'	5.44	1.50	1.42
32	S1	776	A	O3'-P	-5.43	1.52	1.61
33	L1	748	C	O4'-C1'	5.43	1.49	1.41
33	L1	1901	G	C3'-O3'	5.43	1.50	1.42
33	L1	2883	C	O5'-C5'	5.43	1.50	1.42
34	L3	50	A	C2'-C1'	-5.43	1.45	1.53
67	LS	63	ILE	CA-CB	-5.43	1.47	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
71	Lj	75	VAL	C-O	5.43	1.29	1.24
11	SM	17	ASN	CA-CB	5.43	1.62	1.53
25	SC	79	LEU	C-N	5.43	1.41	1.34
38	LE	149	ARG	CA-CB	5.43	1.62	1.53
57	Ll	24	ARG	C-N	5.43	1.41	1.33
58	Ln	21	ARG	CA-C	5.43	1.59	1.52
33	L1	2718	A	C3'-O3'	5.43	1.51	1.43
60	Lr	61	LYS	CB-CG	5.43	1.68	1.52
2	SA	243	TRP	NE1-CE2	-5.43	1.31	1.37
32	S1	1766	A	O4'-C1'	-5.43	1.33	1.41
33	L1	1159	C	O4'-C1'	5.43	1.49	1.41
33	L1	2857	U	O4'-C1'	5.43	1.49	1.41
33	L1	3309	U	P-O5'	-5.43	1.51	1.59
44	LR	97	ALA	CA-CB	5.43	1.62	1.53
32	S1	491	G	O3'-P	-5.43	1.53	1.61
32	S1	525	A	C4'-C3'	-5.43	1.41	1.52
46	LT	110	ARG	NE-CZ	5.43	1.39	1.33
5	SE	261	LYS	CA-CB	5.43	1.62	1.53
25	SC	80	ARG	CA-C	-5.43	1.45	1.52
32	S1	1553	A	C5'-C4'	5.43	1.59	1.51
32	S1	1592	G	O4'-C1'	-5.43	1.33	1.42
33	L1	1974	C	O4'-C1'	5.43	1.49	1.41
42	LP	96	ARG	CA-C	5.43	1.59	1.52
33	L1	1675	G	O5'-C5'	5.42	1.50	1.42
33	L1	2488	A	C3'-O3'	5.42	1.50	1.42
80	LC	232	VAL	CA-CB	-5.42	1.47	1.54
32	S1	617	G	O4'-C1'	5.42	1.50	1.42
33	L1	149	A	O3'-P	-5.42	1.53	1.61
32	S1	1160	G	C5'-C4'	5.42	1.59	1.51
32	S1	1266	U	C3'-O3'	5.42	1.50	1.42
33	L1	1155	G	C2'-C1'	-5.42	1.45	1.53
45	LQ	174	PRO	CA-CB	-5.42	1.46	1.53
3	SB	52	ALA	CA-C	5.42	1.59	1.52
33	L1	524	A	O4'-C1'	5.42	1.49	1.41
33	L1	1731	A	C4'-C3'	5.42	1.60	1.52
33	L1	2786	G	C5'-C4'	5.42	1.59	1.51
33	L1	3068	U	C2'-C1'	5.42	1.61	1.53
49	LX	90	ASN	CA-C	5.42	1.60	1.53
50	LZ	34	ALA	CA-C	5.42	1.60	1.52
72	Lk	90	ARG	CD-NE	5.42	1.53	1.46
28	SN	32	ARG	C-N	5.42	1.41	1.33
32	S1	471	G	O4'-C1'	-5.42	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	539	A	P-O5'	-5.42	1.49	1.60
32	S1	1266	U	C2'-C1'	-5.42	1.45	1.53
33	L1	294	A	C5'-C4'	5.42	1.59	1.51
57	L1	45	ARG	C-N	5.42	1.41	1.33
77	Lc	77	LYS	CA-C	-5.42	1.45	1.52
48	LV	25	HIS	ND1-CE1	5.42	1.38	1.32
49	LX	71	GLN	CA-CB	5.42	1.60	1.52
2	SA	5	GLY	C-N	5.42	1.38	1.33
33	L1	1119	G	O3'-P	-5.42	1.53	1.61
33	L1	3124	A	C5'-C4'	5.42	1.59	1.51
34	L3	70	G	O4'-C1'	-5.42	1.33	1.41
33	L1	1906	A	C5'-C4'	5.41	1.59	1.51
33	L1	2065	G	C5'-C4'	5.41	1.59	1.51
33	L1	2140	C	P-O5'	-5.41	1.51	1.59
39	LF	40	HIS	CA-C	-5.41	1.46	1.52
33	L1	1122	C	O4'-C1'	5.41	1.49	1.41
33	L1	1941	G	C5'-C4'	5.41	1.59	1.51
32	S1	568	G	C3'-O3'	5.41	1.51	1.43
33	L1	996	A	O4'-C1'	5.41	1.49	1.41
15	SS	116	ILE	CB-CG1	5.41	1.64	1.53
25	SC	92	GLN	CA-C	5.41	1.59	1.52
33	L1	369	G	O4'-C1'	-5.41	1.33	1.41
33	L1	539	C	O4'-C1'	5.41	1.49	1.41
33	L1	1920	U	C5'-C4'	5.41	1.59	1.51
2	SA	231	ALA	C-O	-5.41	1.17	1.24
3	SB	134	CYS	C-N	5.41	1.40	1.33
14	SP	115	CYS	CA-C	-5.41	1.46	1.52
32	S1	1072	U	O3'-P	-5.41	1.53	1.61
33	L1	892	U	C3'-O3'	5.41	1.50	1.42
33	L1	3157	C	O4'-C1'	5.41	1.49	1.41
35	L2	102	U	C2'-C1'	-5.41	1.45	1.53
64	LG	104	LEU	C-N	5.41	1.41	1.33
77	Lc	111	ARG	CD-NE	5.41	1.53	1.46
33	L1	544	C	P-O5'	-5.40	1.51	1.59
66	LN	61	ASP	CA-CB	5.40	1.59	1.52
30	S3	22	A	C2'-C1'	5.40	1.61	1.53
32	S1	875	C	C2'-C1'	-5.40	1.45	1.53
33	L1	29	G	C5'-C4'	5.40	1.59	1.51
33	L1	1123	A	C3'-O3'	5.40	1.50	1.42
33	L1	1801	G	O3'-P	-5.40	1.53	1.61
33	L1	2273	C	O4'-C1'	5.40	1.49	1.41
25	SC	66	GLU	CA-C	5.40	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1089	A	O4'-C1'	5.40	1.49	1.41
48	LV	33	ALA	CA-C	-5.40	1.46	1.52
33	L1	1462	C	C2'-C1'	-5.40	1.45	1.53
33	L1	2654	G	C3'-C2'	5.40	1.60	1.52
32	S1	601	G	C2'-C1'	-5.40	1.45	1.53
33	L1	2519	U	C2'-C1'	5.40	1.61	1.53
5	SE	52	ARG	NE-CZ	5.39	1.39	1.33
13	SQ	25	THR	CA-C	5.39	1.58	1.53
20	SZ	10	ARG	CA-C	-5.39	1.45	1.52
32	S1	1261	U	C4'-O4'	-5.39	1.37	1.45
32	S1	1325	A	C5'-C4'	5.39	1.59	1.51
33	L1	2804	A	C2'-C1'	5.39	1.61	1.53
72	Lk	61	THR	CA-C	-5.39	1.45	1.52
1	Sa	218	ALA	CA-C	-5.39	1.46	1.53
32	S1	206	U	C2'-C1'	-5.39	1.45	1.53
32	S1	1169	G	C2'-C1'	5.39	1.61	1.53
33	L1	877	U	O5'-C5'	5.39	1.50	1.42
33	L1	1128	U	C3'-O3'	5.39	1.50	1.42
33	L1	2449	A	O4'-C1'	5.39	1.49	1.41
39	LF	179	TYR	C-N	5.39	1.40	1.33
67	LS	41	SER	N-CA	-5.39	1.39	1.46
81	LD	80	ILE	CA-C	5.39	1.58	1.52
8	SJ	37	SER	CA-C	-5.39	1.46	1.52
32	S1	1768	U	C2'-C1'	-5.39	1.45	1.53
1	Sa	311	ARG	N-CA	-5.39	1.39	1.46
3	SB	178	ARG	N-CA	-5.39	1.40	1.46
33	L1	275	G	O3'-P	-5.39	1.53	1.61
33	L1	3389	C	C5'-C4'	5.39	1.59	1.51
60	Lr	101	GLY	CA-C	5.39	1.56	1.52
33	L1	2571	C	O4'-C1'	5.39	1.49	1.41
33	L1	428	G	O4'-C1'	5.39	1.49	1.41
33	L1	896	C	C4'-C3'	5.39	1.60	1.52
33	L1	2574	A	C2'-C1'	-5.39	1.45	1.53
40	LH	74	ASN	C-N	5.39	1.40	1.33
78	Le	115	ASN	N-CA	-5.39	1.38	1.45
5	SE	112	VAL	C-N	5.38	1.40	1.33
27	SH	25	VAL	C-N	5.38	1.40	1.33
33	L1	1297	U	C5'-C4'	5.38	1.59	1.51
33	L1	3008	U	C2'-C1'	5.38	1.61	1.53
37	LB	75	LEU	CA-C	-5.38	1.45	1.52
32	S1	1346	C	C5'-C4'	5.38	1.59	1.51
46	LT	187	ARG	CD-NE	5.38	1.53	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
78	Le	162	ARG	N-CA	-5.38	1.39	1.46
1	Sa	65	HIS	CE1-NE2	5.38	1.38	1.32
3	SB	142	LEU	CA-C	-5.38	1.45	1.52
33	L1	1276	C	C2'-C1'	-5.38	1.45	1.53
40	LH	227	LYS	C-N	5.38	1.41	1.33
51	LY	71	GLN	CA-C	-5.38	1.46	1.52
32	S1	1263	C	C2'-C1'	-5.38	1.45	1.53
33	L1	246	C	O4'-C1'	5.38	1.49	1.41
33	L1	944	G	C2'-C1'	-5.38	1.45	1.53
33	L1	1014	G	C5'-C4'	5.38	1.59	1.51
46	LT	175	ALA	CA-C	-5.38	1.45	1.52
47	LU	144	THR	CA-CB	5.38	1.62	1.53
55	Lg	6	ARG	CA-CB	5.38	1.64	1.53
80	LC	259	HIS	CG-ND1	5.38	1.44	1.38
5	SE	140	LEU	CA-CB	5.38	1.62	1.53
33	L1	3046	C	C2'-C1'	-5.38	1.45	1.53
35	L2	46	G	C2'-C1'	5.38	1.61	1.53
70	Li	37	LYS	CA-CB	5.38	1.62	1.53
15	SS	38	ASP	N-CA	-5.38	1.39	1.46
17	SV	71	ARG	N-CA	-5.38	1.39	1.46
33	L1	2676	A	O3'-P	-5.38	1.53	1.61
33	L1	3218	C	O3'-P	-5.38	1.53	1.61
35	L2	6	G	P-OP2	5.38	1.59	1.49
36	LA	21	ARG	C-N	5.38	1.41	1.34
45	LQ	84	LEU	CB-CG	5.38	1.64	1.53
69	La	66	SER	CA-C	-5.38	1.46	1.52
15	SS	97	LYS	CA-C	-5.38	1.45	1.53
23	SU	78	PHE	C-N	5.38	1.41	1.33
32	S1	354	G	C3'-C2'	5.38	1.61	1.52
32	S1	1084	U	C2'-C1'	5.38	1.61	1.53
27	SH	110	ILE	CA-CB	-5.37	1.47	1.53
31	S2	46	A	O3'-P	-5.37	1.53	1.61
33	L1	1386	G	O4'-C1'	5.37	1.49	1.41
35	L2	100	A	C4'-O4'	5.37	1.53	1.45
64	LG	156	LYS	CA-C	-5.37	1.46	1.52
3	SB	154	ASP	N-CA	-5.37	1.39	1.45
31	S2	47	U	O3'-P	-5.37	1.53	1.61
32	S1	1120	U	C3'-O3'	5.37	1.50	1.42
33	L1	1006	A	O4'-C1'	5.37	1.49	1.41
33	L1	2458	A	O4'-C1'	-5.37	1.33	1.41
33	L1	2538	G	O4'-C1'	-5.37	1.33	1.41
33	L1	2842	C	C3'-O3'	5.37	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3236	A	O3'-P	5.37	1.69	1.61
74	LJ	92	ASP	N-CA	5.37	1.53	1.46
2	SA	197	HIS	CE1-NE2	-5.37	1.27	1.32
32	S1	480	U	O4'-C1'	5.37	1.50	1.42
1	Sa	332	MET	N-CA	-5.37	1.39	1.46
32	S1	55	A	O4'-C1'	5.37	1.49	1.41
33	L1	347	A	O4'-C1'	5.37	1.50	1.42
44	LR	124	ASP	CA-C	5.37	1.59	1.52
67	LS	27	TYR	C-N	5.37	1.41	1.33
81	LD	315	LYS	CA-CB	-5.37	1.44	1.53
3	SB	70	THR	CA-C	-5.37	1.45	1.52
32	S1	955	C	C5'-C4'	5.37	1.59	1.51
32	S1	1728	G	C2'-C1'	-5.37	1.45	1.53
33	L1	135	G	C5'-C4'	5.37	1.59	1.51
33	L1	1201	C	C2'-C1'	5.37	1.61	1.53
33	L1	1218	U	C4'-C3'	-5.37	1.44	1.52
33	L1	3004	G	O3'-P	-5.37	1.53	1.61
33	L1	3325	G	O5'-C5'	5.37	1.50	1.42
34	L3	11	A	P-O5'	5.37	1.67	1.59
49	LX	109	VAL	C-N	5.37	1.41	1.33
64	LG	175	ASP	CA-C	-5.37	1.45	1.52
32	S1	1230	A	O4'-C1'	5.37	1.49	1.41
33	L1	957	U	O5'-C5'	5.37	1.50	1.42
54	Lf	37	THR	C-N	5.37	1.41	1.33
5	SE	135	ARG	C-O	-5.36	1.17	1.24
32	S1	173	G	O4'-C1'	5.36	1.49	1.41
32	S1	97	G	O4'-C1'	5.36	1.49	1.41
33	L1	2739	A	O3'-P	-5.36	1.53	1.61
60	Lr	101	GLY	N-CA	-5.36	1.39	1.46
71	Lj	94	PRO	N-CA	5.36	1.57	1.46
3	SB	142	LEU	CB-CG	5.36	1.64	1.53
25	SC	109	ARG	N-CA	5.36	1.53	1.46
32	S1	1723	G	C2'-C1'	-5.36	1.45	1.53
33	L1	1001	A	C5'-C4'	5.36	1.59	1.51
33	L1	1391	A	P-OP2	5.36	1.59	1.49
32	S1	1042	C	C2'-C1'	-5.36	1.45	1.53
32	S1	1739	U	C2'-C1'	-5.36	1.45	1.53
33	L1	6	A	C5'-C4'	5.36	1.59	1.51
33	L1	484	C	C3'-C2'	5.36	1.60	1.52
33	L1	606	C	O4'-C1'	5.36	1.49	1.41
33	L1	3208	G	C4'-C3'	5.36	1.60	1.52
50	LZ	48	PRO	CA-C	5.36	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
52	Lb	80	GLN	CA-C	-5.36	1.45	1.52
5	SE	102	GLY	N-CA	-5.36	1.36	1.45
32	S1	1	U	P-OP2	5.36	1.59	1.49
32	S1	1124	G	C3'-C2'	5.36	1.60	1.52
32	S1	1383	U	O4'-C1'	5.36	1.49	1.41
33	L1	272	G	C5'-C4'	5.36	1.59	1.51
33	L1	1465	A	C2'-C1'	-5.36	1.45	1.53
33	L1	2943	A	O4'-C1'	5.36	1.50	1.42
44	LR	51	ARG	CD-NE	5.36	1.53	1.46
1	Sa	236	ARG	NE-CZ	5.35	1.39	1.33
32	S1	449	A	C3'-O3'	5.35	1.50	1.42
32	S1	1660	C	C3'-C2'	-5.35	1.44	1.52
33	L1	538	C	C2'-C1'	5.35	1.61	1.53
33	L1	801	G	C2'-C1'	5.35	1.61	1.53
33	L1	1813	C	O4'-C1'	5.35	1.49	1.41
33	L1	3292	U	C4'-C3'	-5.35	1.44	1.52
54	Lf	29	LEU	CA-CB	5.35	1.61	1.53
32	S1	466	G	C4'-O4'	-5.35	1.37	1.45
32	S1	599	G	O4'-C1'	5.35	1.49	1.41
33	L1	83	U	O4'-C1'	5.35	1.49	1.41
33	L1	1097	A	C3'-C2'	5.35	1.60	1.52
33	L1	2228	A	C4'-O4'	5.35	1.53	1.45
33	L1	3146	C	O4'-C1'	5.35	1.49	1.41
38	LE	68	ALA	CA-CB	-5.35	1.44	1.53
39	LF	2	LYS	CA-CB	5.35	1.61	1.53
31	S2	4	G	O4'-C1'	-5.35	1.33	1.41
32	S1	496	A	O4'-C1'	5.35	1.49	1.41
32	S1	858	G	O5'-C5'	5.35	1.50	1.42
1	Sa	374	SER	C-N	5.35	1.40	1.33
2	SA	181	LEU	N-CA	-5.35	1.39	1.46
32	S1	207	A	O4'-C1'	5.35	1.49	1.41
32	S1	856	G	O3'-P	-5.35	1.53	1.61
32	S1	1562	C	C4'-C3'	-5.35	1.44	1.52
52	Lb	123	ARG	CZ-NH2	5.35	1.40	1.33
80	LC	313	GLY	N-CA	5.35	1.52	1.45
7	SI	102	TYR	CA-CB	5.35	1.61	1.53
24	SX	74	ARG	N-CA	-5.35	1.39	1.46
30	S3	20	U	O4'-C1'	5.35	1.49	1.41
32	S1	188	U	O3'-P	-5.35	1.53	1.61
32	S1	1448	U	O4'-C1'	5.35	1.49	1.41
33	L1	252	A	C4'-C3'	5.35	1.60	1.52
33	L1	603	G	C4'-O4'	5.35	1.53	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1961	C	C2'-C1'	-5.35	1.45	1.53
82	LK	20	MET	C-N	5.35	1.40	1.33
25	SC	81	ARG	NE-CZ	5.35	1.39	1.33
31	S2	18	G	O3'-P	-5.35	1.53	1.61
57	L1	18	LEU	C-N	5.35	1.40	1.33
33	L1	2473	C	O4'-C1'	5.34	1.49	1.41
67	LS	93	TYR	C-N	5.34	1.41	1.33
5	SE	42	GLU	N-CA	-5.34	1.39	1.46
25	SC	163	THR	C-N	5.34	1.44	1.33
33	L1	331	G	C3'-O3'	5.34	1.50	1.42
64	LG	189	ILE	CA-CB	5.34	1.61	1.54
78	Le	130	ARG	CA-CB	-5.34	1.45	1.53
81	LD	110	LYS	C-N	5.34	1.41	1.33
3	SB	47	GLU	CA-C	5.34	1.59	1.52
7	SI	143	ARG	CA-CB	5.34	1.62	1.53
17	SV	106	THR	CA-C	-5.34	1.46	1.52
33	L1	861	A	C4'-C3'	5.34	1.60	1.52
33	L1	915	G	C5'-C4'	-5.34	1.43	1.51
33	L1	1037	U	C2'-C1'	-5.34	1.45	1.53
33	L1	2968	G	C2'-C1'	-5.34	1.45	1.53
43	LO	126	SER	CA-C	5.34	1.59	1.52
46	LT	99	MET	CA-CB	5.34	1.61	1.53
51	LY	117	ILE	C-N	5.34	1.40	1.33
15	SS	134	LEU	CA-C	-5.34	1.45	1.52
32	S1	675	A	C2'-C1'	-5.34	1.45	1.53
32	S1	1231	A	O5'-C5'	5.34	1.50	1.42
33	L1	210	G	C4'-C3'	5.34	1.61	1.53
33	L1	1177	G	C3'-O3'	5.34	1.50	1.42
56	Lh	109	ILE	CA-CB	-5.34	1.47	1.54
1	Sa	234	ASP	C-N	5.34	1.41	1.33
23	SU	68	THR	N-CA	5.34	1.52	1.46
32	S1	979	A	O3'-P	-5.34	1.53	1.61
8	SJ	52	ALA	C-O	5.34	1.30	1.24
15	SS	105	ASN	C-O	-5.34	1.17	1.24
32	S1	1093	A	O4'-C1'	5.34	1.49	1.41
33	L1	2684	U	O3'-P	-5.34	1.53	1.61
1	Sa	107	HIS	CA-C	-5.33	1.45	1.52
32	S1	558	C	O3'-P	-5.33	1.53	1.61
33	L1	2219	A	O5'-C5'	5.33	1.50	1.42
33	L1	2740	C	C2'-C1'	-5.33	1.45	1.53
33	L1	3160	G	C5'-C4'	5.33	1.59	1.51
10	SL	35	GLU	C-N	-5.33	1.25	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	SU	40	VAL	C-N	5.33	1.41	1.33
32	S1	928	A	O3'-P	-5.33	1.53	1.61
32	S1	1440	U	C2'-C1'	5.33	1.61	1.53
33	L1	1616	G	C2'-C1'	-5.33	1.45	1.53
33	L1	2040	G	C2'-C1'	-5.33	1.45	1.53
42	LP	65	ARG	CD-NE	5.33	1.53	1.46
49	LX	85	LYS	N-CA	-5.33	1.39	1.46
59	Lo	31	THR	CA-C	-5.33	1.45	1.52
60	Lr	90	HIS	CD2-NE2	5.33	1.43	1.37
1	Sa	335	ASN	CA-C	-5.33	1.46	1.52
32	S1	626	A	O3'-P	-5.33	1.53	1.61
32	S1	1130	A	O4'-C1'	5.33	1.49	1.41
33	L1	1035	C	P-O5'	-5.33	1.51	1.59
33	L1	1571	A	C2'-C1'	5.33	1.61	1.53
33	L1	3239	G	O4'-C1'	-5.33	1.33	1.41
46	LT	100	ARG	NE-CZ	5.33	1.39	1.33
57	Ll	15	THR	N-CA	5.33	1.53	1.46
1	Sa	245	TYR	N-CA	-5.33	1.39	1.46
28	SN	22	ARG	CD-NE	5.33	1.53	1.46
32	S1	1762	C	C2'-C1'	-5.33	1.45	1.53
3	SB	137	ILE	N-CA	5.33	1.52	1.46
20	SZ	48	VAL	N-CA	-5.33	1.40	1.46
33	L1	430	G	C5'-C4'	5.33	1.59	1.51
33	L1	1534	C	O4'-C1'	5.33	1.49	1.41
33	L1	2653	U	C2'-C1'	-5.33	1.45	1.53
66	LN	123	GLN	C-N	5.33	1.40	1.33
77	Lc	102	SER	CA-CB	5.33	1.61	1.53
80	LC	181	LEU	CA-C	5.33	1.59	1.52
33	L1	915	G	C4'-C3'	5.33	1.60	1.52
38	LE	110	GLU	CA-C	-5.33	1.45	1.52
48	LV	25	HIS	C-O	-5.33	1.17	1.23
58	Ln	65	THR	CA-CB	5.33	1.62	1.53
32	S1	387	G	O4'-C1'	5.33	1.49	1.41
32	S1	1382	C	C2'-C1'	-5.33	1.45	1.53
33	L1	1440	C	O4'-C1'	5.33	1.49	1.41
33	L1	3355	U	C4'-O4'	5.33	1.53	1.45
34	L3	20	C	O4'-C1'	5.33	1.49	1.41
42	LP	12	ARG	CD-NE	5.33	1.53	1.46
7	SI	138	ARG	C-N	5.32	1.38	1.33
20	SZ	7	SER	CA-CB	5.32	1.62	1.53
32	S1	431	C	C2'-C1'	-5.32	1.45	1.53
33	L1	1331	C	O4'-C1'	5.32	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
48	LV	85	PRO	CA-C	-5.32	1.44	1.52
2	SA	197	HIS	CA-C	-5.32	1.46	1.52
3	SB	38	GLU	N-CA	5.32	1.52	1.45
33	L1	518	G	C4'-C3'	5.32	1.60	1.52
46	LT	166	SER	CA-CB	5.32	1.61	1.53
32	S1	1460	G	C2'-C1'	-5.32	1.45	1.53
32	S1	1737	A	C3'-O3'	5.32	1.50	1.42
33	L1	277	U	O4'-C1'	5.32	1.49	1.41
33	L1	441	G	O4'-C1'	-5.32	1.33	1.41
33	L1	1564	C	C5'-C4'	5.32	1.59	1.51
64	LG	92	ARG	N-CA	5.32	1.52	1.45
27	SH	57	ARG	CA-C	-5.32	1.45	1.52
33	L1	2602	U	C5'-C4'	5.32	1.59	1.51
8	SJ	36	LYS	N-CA	-5.32	1.40	1.46
33	L1	73	A	C4'-C3'	5.32	1.60	1.52
33	L1	812	G	C2'-C1'	-5.32	1.45	1.53
33	L1	1342	C	O3'-P	-5.32	1.53	1.61
34	L3	115	A	C4'-C3'	-5.32	1.44	1.52
46	LT	38	ARG	CD-NE	5.32	1.53	1.46
59	Lo	5	LYS	CA-CB	5.32	1.62	1.53
3	SB	145	GLN	CA-C	-5.32	1.45	1.53
15	SS	91	ARG	NE-CZ	5.32	1.38	1.33
32	S1	650	G	O4'-C1'	5.32	1.49	1.41
32	S1	913	U	P-O5'	-5.32	1.51	1.59
32	S1	988	G	O4'-C1'	5.32	1.49	1.41
32	S1	1032	A	C5'-C4'	5.32	1.59	1.51
33	L1	1729	G	C3'-C2'	-5.32	1.44	1.52
41	LM	33	GLY	CA-C	-5.32	1.44	1.51
81	LD	57	ALA	CA-C	-5.32	1.46	1.52
33	L1	2301	C	O5'-C5'	5.31	1.50	1.42
45	LQ	266	ARG	CD-NE	5.31	1.53	1.46
32	S1	341	G	O4'-C1'	5.31	1.49	1.41
32	S1	409	C	O5'-C5'	5.31	1.50	1.42
33	L1	178	C	O5'-C5'	5.31	1.50	1.42
33	L1	814	U	C3'-C2'	5.31	1.60	1.52
33	L1	974	G	O4'-C1'	-5.31	1.33	1.41
33	L1	3133	C	O4'-C1'	5.31	1.49	1.41
33	L1	3303	C	C2'-C1'	-5.31	1.45	1.53
34	L3	47	C	C2'-C1'	-5.31	1.45	1.53
42	LP	109	LYS	CA-CB	5.31	1.62	1.53
1	Sa	317	TYR	CA-C	-5.31	1.46	1.52
33	L1	1188	C	O4'-C1'	5.31	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
56	Lh	65	ARG	NE-CZ	5.31	1.38	1.33
9	SK	43	VAL	CA-C	-5.31	1.46	1.52
35	L2	44	A	O3'-P	5.31	1.69	1.61
72	Lk	78	ARG	NE-CZ	5.31	1.38	1.33
1	Sa	236	ARG	CA-CB	5.31	1.61	1.53
25	SC	188	ASP	C-N	5.31	1.40	1.33
32	S1	608	U	O4'-C1'	-5.31	1.33	1.41
32	S1	1375	C	C3'-O3'	-5.31	1.34	1.42
33	L1	1669	C	C3'-O3'	5.31	1.50	1.42
33	L1	2125	A	P-O5'	-5.31	1.51	1.59
33	L1	2991	U	C2'-C1'	-5.31	1.45	1.53
35	L2	86	C	C4'-C3'	5.31	1.61	1.53
32	S1	647	G	C2'-C1'	5.31	1.61	1.53
33	L1	1049	C	C2'-C1'	-5.31	1.45	1.53
42	LP	110	LEU	CA-C	-5.31	1.48	1.53
50	LZ	4	LYS	C-N	5.31	1.40	1.33
68	LW	88	LEU	C-N	5.31	1.40	1.33
32	S1	49	C	C2'-C1'	-5.30	1.45	1.53
32	S1	801	U	O3'-P	-5.30	1.53	1.61
32	S1	1475	A	O4'-C1'	5.30	1.49	1.41
33	L1	2453	G	O5'-C5'	5.30	1.50	1.42
33	L1	2620	U	O5'-C5'	5.30	1.50	1.42
39	LF	88	ARG	CZ-NH2	5.30	1.40	1.33
55	Lg	50	LYS	CA-CB	5.30	1.61	1.53
25	SC	108	ALA	N-CA	-5.30	1.39	1.46
32	S1	34	G	C2'-C1'	5.30	1.61	1.53
32	S1	1131	G	O4'-C1'	-5.30	1.33	1.41
32	S1	1358	G	C4'-O4'	5.30	1.53	1.45
33	L1	580	C	O3'-P	-5.30	1.53	1.61
33	L1	2710	C	O4'-C1'	5.30	1.49	1.41
55	Lg	37	ALA	CA-C	5.30	1.59	1.52
1	Sa	223	SER	C-N	5.30	1.41	1.33
32	S1	894	U	O4'-C1'	5.30	1.49	1.41
32	S1	1075	G	O5'-C5'	5.30	1.50	1.42
33	L1	2093	G	C2'-C1'	-5.30	1.45	1.53
55	Lg	106	ILE	C-N	5.30	1.40	1.33
78	Le	241	ARG	CZ-NH2	5.30	1.40	1.33
33	L1	1656	C	O4'-C1'	5.30	1.49	1.41
48	LV	62	ARG	CD-NE	5.30	1.53	1.46
49	LX	145	VAL	N-CA	-5.30	1.40	1.46
55	Lg	61	VAL	CA-CB	-5.30	1.47	1.54
71	Lj	58	LYS	CA-C	-5.30	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1880	A	C2'-O2'	5.29	1.50	1.42
7	SI	128	ARG	CD-NE	5.29	1.53	1.46
32	S1	1034	G	O4'-C1'	5.29	1.49	1.42
32	S1	1720	G	C5'-C4'	5.29	1.59	1.51
33	L1	805	C	O4'-C1'	5.29	1.49	1.41
33	L1	1048	U	O4'-C1'	5.29	1.49	1.41
33	L1	1602	A	C4'-C3'	5.29	1.61	1.53
33	L1	2671	A	O4'-C1'	-5.29	1.33	1.41
33	L1	2989	A	C2'-C1'	-5.29	1.45	1.53
33	L1	3087	A	C5'-C4'	5.29	1.59	1.51
66	LN	109	LYS	C-N	5.29	1.40	1.33
68	LW	44	PHE	CA-CB	5.29	1.61	1.53
1	Sa	109	PRO	CA-C	-5.29	1.47	1.52
8	SJ	121	VAL	C-N	5.29	1.41	1.33
13	SQ	109	LEU	N-CA	5.29	1.53	1.46
32	S1	1063	U	C5'-C4'	5.29	1.59	1.51
33	L1	261	C	O4'-C1'	5.29	1.49	1.41
33	L1	702	G	O4'-C1'	5.29	1.49	1.41
66	LN	19	LYS	CA-C	-5.29	1.50	1.53
73	Lp	17	LYS	CA-C	5.29	1.60	1.53
23	SU	66	PHE	C-N	5.29	1.40	1.33
3	SB	116	ARG	NE-CZ	5.29	1.38	1.33
32	S1	1192	G	C2'-C1'	-5.29	1.45	1.53
33	L1	451	C	C2'-C1'	-5.29	1.45	1.53
33	L1	2931	C	O3'-P	-5.29	1.53	1.61
57	L1	21	ARG	CA-CB	5.29	1.61	1.53
32	S1	886	A	O3'-P	-5.29	1.53	1.61
32	S1	1269	G	C2'-C1'	5.29	1.61	1.53
33	L1	429	G	C5'-C4'	5.29	1.59	1.51
39	LF	184	GLY	N-CA	5.29	1.54	1.45
72	Lk	42	PHE	CA-C	-5.29	1.45	1.52
1	Sa	121	GLN	CA-CB	-5.29	1.44	1.53
33	L1	129	G	C4'-C3'	5.29	1.60	1.52
33	L1	2097	C	O5'-C5'	5.29	1.50	1.42
33	L1	2232	C	O5'-C5'	5.29	1.50	1.42
33	L1	2990	C	C2'-C1'	-5.29	1.45	1.53
34	L3	98	G	C4'-O4'	-5.29	1.37	1.45
43	LO	55	LYS	C-N	-5.29	1.28	1.34
54	Lf	84	ALA	N-CA	-5.29	1.40	1.46
14	SP	72	ILE	CA-CB	-5.28	1.48	1.54
32	S1	12	U	P-O5'	-5.28	1.51	1.59
32	S1	305	A	C3'-O3'	5.28	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	403	A	P-O5'	-5.28	1.51	1.59
32	S1	942	C	C5'-C4'	5.28	1.59	1.51
32	S1	1204	G	C5'-C4'	5.28	1.59	1.51
33	L1	503	U	O4'-C1'	5.28	1.49	1.41
33	L1	1421	A	C2'-C1'	-5.28	1.45	1.53
33	L1	1601	G	C2'-C1'	-5.28	1.45	1.53
33	L1	2599	U	C5'-C4'	5.28	1.59	1.51
49	LX	124	ILE	N-CA	5.28	1.52	1.46
77	Lc	61	VAL	CA-C	-5.28	1.46	1.52
33	L1	521	G	O4'-C1'	5.28	1.49	1.42
33	L1	2795	G	C5'-C4'	5.28	1.59	1.51
46	LT	143	HIS	CE1-NE2	5.28	1.37	1.32
7	SI	42	ILE	CA-C	-5.28	1.45	1.52
25	SC	12	TYR	N-CA	5.28	1.52	1.46
32	S1	1189	U	C2'-C1'	-5.28	1.45	1.53
32	S1	1196	C	P-O5'	5.28	1.67	1.59
32	S1	1299	G	C5'-C4'	5.28	1.59	1.51
48	LV	152	SER	CA-CB	5.28	1.61	1.53
51	LY	4	ASN	N-CA	5.28	1.53	1.46
64	LG	152	LYS	C-N	5.28	1.40	1.33
8	SJ	124	THR	N-CA	-5.28	1.40	1.46
33	L1	1819	A	C5'-C4'	5.28	1.59	1.51
35	L2	49	C	C5'-C4'	5.28	1.59	1.51
8	SJ	31	ILE	C-N	5.28	1.40	1.33
33	L1	564	A	C4'-O4'	5.28	1.53	1.45
33	L1	2164	G	O3'-P	-5.28	1.53	1.61
33	L1	2613	G	O4'-C1'	-5.28	1.33	1.41
33	L1	2743	A	C3'-O3'	5.28	1.50	1.42
33	L1	2838	C	C3'-C2'	5.28	1.60	1.52
80	LC	377	THR	CA-CB	-5.28	1.44	1.53
1	Sa	147	MET	CA-C	5.28	1.58	1.52
32	S1	1180	U	O4'-C1'	5.28	1.49	1.41
73	Lp	22	LYS	CA-C	-5.28	1.45	1.52
15	SS	62	SER	N-CA	-5.27	1.40	1.46
33	L1	19	C	C3'-O3'	5.27	1.50	1.42
33	L1	3313	C	C2'-C1'	-5.27	1.45	1.53
70	Li	7	TYR	N-CA	-5.27	1.40	1.46
33	L1	174	G	O4'-C1'	5.27	1.49	1.41
37	LB	22	HIS	CA-C	-5.27	1.46	1.52
80	LC	310	THR	C-N	5.27	1.40	1.33
4	SD	144	GLY	C-N	5.27	1.40	1.33
33	L1	487	C	C5'-C4'	5.27	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	SA	205	LEU	C-N	5.27	1.39	1.33
12	SO	133	LYS	CA-CB	5.27	1.59	1.52
32	S1	977	G	C5'-C4'	5.27	1.59	1.51
32	S1	985	G	C2'-C1'	-5.27	1.45	1.53
33	L1	2946	U	P-O5'	-5.27	1.51	1.59
60	Lr	66	LYS	CA-C	-5.27	1.46	1.53
61	Lq	5	TRP	N-CA	5.27	1.52	1.46
2	SA	38	MET	C-N	5.27	1.41	1.33
25	SC	56	ASN	CA-CB	5.27	1.61	1.53
32	S1	1579	C	O4'-C1'	5.27	1.49	1.41
33	L1	221	C	O4'-C1'	5.27	1.49	1.41
33	L1	858	U	C4'-C3'	5.27	1.60	1.52
38	LE	106	PHE	CA-CB	5.27	1.64	1.54
45	LQ	117	ASP	CA-C	5.27	1.59	1.52
45	LQ	145	LEU	C-N	5.27	1.41	1.33
47	LU	122	ARG	CA-CB	5.27	1.62	1.53
77	Lc	12	TRP	CZ2-CH2	5.27	1.47	1.37
3	SB	38	GLU	CA-C	-5.27	1.46	1.52
32	S1	116	G	C5'-C4'	5.27	1.59	1.51
33	L1	1223	U	O3'-P	-5.27	1.53	1.61
33	L1	3279	G	O4'-C1'	5.27	1.49	1.41
55	Lg	106	ILE	CA-CB	-5.27	1.47	1.54
4	SD	61	VAL	C-N	-5.26	1.27	1.33
32	S1	18	C	C5'-C4'	5.26	1.59	1.51
32	S1	787	C	O3'-P	-5.26	1.53	1.61
33	L1	608	G	P-O5'	-5.26	1.51	1.59
33	L1	1798	C	O3'-P	-5.26	1.53	1.61
73	Lp	15	GLN	N-CA	-5.26	1.39	1.46
74	LJ	138	VAL	CA-C	5.26	1.59	1.52
13	SQ	135	GLY	N-CA	5.26	1.51	1.44
33	L1	564	A	O4'-C1'	5.26	1.49	1.41
33	L1	1382	C	C4'-O4'	5.26	1.53	1.45
33	L1	2709	G	C5'-C4'	5.26	1.59	1.51
33	L1	2717	G	C2'-C1'	-5.26	1.45	1.53
45	LQ	193	ASP	CA-C	5.26	1.59	1.52
46	LT	45	VAL	CA-C	5.26	1.59	1.52
3	SB	126	VAL	N-CA	5.26	1.52	1.46
32	S1	789	C	C4'-C3'	5.26	1.63	1.52
33	L1	401	C	O4'-C1'	5.26	1.49	1.41
33	L1	422	G	C2'-C1'	5.26	1.61	1.53
33	L1	972	C	C4'-O4'	5.26	1.53	1.45
33	L1	1602	A	C2'-C1'	5.26	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	L3	10	C	C5'-C4'	5.26	1.59	1.51
83	Lm	27	LYS	CA-C	-5.26	1.46	1.52
25	SC	114	LEU	N-CA	-5.26	1.39	1.46
41	LM	43	LYS	CA-CB	5.26	1.60	1.52
5	SE	76	GLN	C-O	-5.26	1.17	1.24
32	S1	605	A	C2'-C1'	5.26	1.61	1.53
33	L1	2706	A	O3'-P	-5.26	1.53	1.61
29	ST	40	ASP	CA-C	-5.25	1.46	1.53
33	L1	1608	C	C4'-O4'	5.25	1.53	1.45
68	LW	90	LYS	N-CA	-5.25	1.40	1.46
11	SM	17	ASN	CB-CG	5.25	1.65	1.52
33	L1	71	C	O4'-C1'	5.25	1.49	1.42
33	L1	918	A	C4'-O4'	5.25	1.53	1.45
33	L1	2650	A	P-O5'	-5.25	1.51	1.59
33	L1	2653	U	C4'-C3'	5.25	1.60	1.52
45	LQ	37	ARG	NE-CZ	5.25	1.38	1.33
70	Li	10	ARG	CD-NE	5.25	1.53	1.46
25	SC	137	ARG	CZ-NH2	5.25	1.40	1.33
32	S1	1756	A	O4'-C1'	5.25	1.49	1.41
33	L1	84	A	C4'-C3'	5.25	1.61	1.53
33	L1	2390	G	C2'-C1'	-5.25	1.45	1.53
48	LV	129	ARG	CD-NE	5.25	1.53	1.46
78	Le	47	TYR	N-CA	5.25	1.52	1.46
5	SE	63	GLU	N-CA	-5.25	1.40	1.46
33	L1	227	C	C3'-C2'	5.25	1.60	1.52
33	L1	295	U	C5'-C4'	5.25	1.59	1.51
34	L3	89	G	C2'-C1'	-5.25	1.45	1.53
81	LD	315	LYS	CA-C	-5.25	1.45	1.52
25	SC	70	ARG	C-O	-5.25	1.17	1.23
31	S2	29	C	O4'-C1'	5.25	1.49	1.41
32	S1	1310	C	O3'-P	5.25	1.69	1.61
33	L1	2418	A	C4'-O4'	-5.25	1.37	1.45
37	LB	152	SER	CA-CB	5.25	1.62	1.53
81	LD	319	LYS	N-CA	-5.25	1.39	1.46
32	S1	912	A	C4'-O4'	5.25	1.53	1.45
33	L1	2720	U	C4'-C3'	5.25	1.60	1.52
60	Lr	78	LYS	CA-CB	5.25	1.61	1.53
33	L1	109	G	C5'-C4'	5.25	1.59	1.51
33	L1	2077	C	C3'-O3'	5.25	1.50	1.42
33	L1	2192	C	O4'-C1'	5.25	1.49	1.42
80	LC	235	ARG	CD-NE	5.25	1.53	1.46
32	S1	677	C	C2'-C1'	-5.24	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	2052	G	O3'-P	-5.24	1.53	1.61
33	L1	3081	G	C3'-C2'	5.24	1.60	1.52
49	LX	107	ALA	N-CA	5.24	1.52	1.46
70	Li	52	GLN	CA-C	5.24	1.59	1.53
32	S1	1	U	C3'-O3'	5.24	1.50	1.42
32	S1	19	A	C2'-C1'	5.24	1.61	1.53
33	L1	3293	U	P-O5'	-5.24	1.51	1.59
39	LF	150	ILE	N-CA	5.24	1.52	1.46
3	SB	27	ARG	NE-CZ	5.24	1.38	1.33
32	S1	41	A	O4'-C1'	5.24	1.49	1.41
33	L1	1076	G	C2'-C1'	-5.24	1.45	1.53
3	SB	120	TYR	CA-CB	5.24	1.61	1.53
32	S1	382	A	C2'-C1'	5.24	1.61	1.53
33	L1	503	U	C2'-C1'	-5.24	1.45	1.53
33	L1	1423	C	O5'-C5'	5.24	1.50	1.42
33	L1	1433	U	O3'-P	-5.24	1.53	1.61
33	L1	3139	U	C2'-C1'	-5.24	1.45	1.53
45	LQ	35	ARG	CD-NE	5.24	1.53	1.46
46	LT	170	ARG	CZ-NH1	5.24	1.40	1.32
81	LD	61	ARG	N-CA	5.24	1.52	1.46
33	L1	1878	G	C3'-O3'	5.24	1.50	1.42
47	LU	162	GLY	C-O	-5.24	1.17	1.23
33	L1	1602	A	C5'-C4'	5.24	1.59	1.51
33	L1	1729	G	C4'-C3'	5.24	1.60	1.52
35	L2	61	C	C5'-C4'	5.24	1.59	1.51
51	LY	126	ALA	C-N	5.24	1.41	1.33
71	Lj	94	PRO	N-CD	5.24	1.55	1.47
33	L1	572	U	O3'-P	-5.23	1.53	1.61
33	L1	983	U	O3'-P	5.23	1.69	1.61
33	L1	2635	G	O3'-P	-5.23	1.53	1.61
7	SI	101	LYS	C-N	5.23	1.40	1.33
19	SY	34	GLN	CA-CB	5.23	1.62	1.53
33	L1	73	A	O5'-C5'	5.23	1.50	1.42
33	L1	714	G	C2'-C1'	-5.23	1.45	1.53
33	L1	1901	G	C4'-C3'	5.23	1.60	1.52
30	S3	16	G	P-O5'	-5.23	1.51	1.59
32	S1	366	G	C4'-C3'	5.23	1.60	1.52
32	S1	1278	C	C2'-O2'	5.23	1.50	1.42
32	S1	1703	G	C3'-O3'	5.23	1.50	1.42
70	Li	22	VAL	CA-CB	5.23	1.60	1.54
1	Sa	260	ASP	C-O	5.23	1.30	1.24
15	SS	61	ALA	N-CA	-5.23	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	682	A	O4'-C1'	5.23	1.49	1.41
81	LD	53	ARG	CD-NE	5.23	1.53	1.46
7	SI	124	VAL	C-N	5.23	1.41	1.33
32	S1	375	G	O4'-C1'	-5.23	1.33	1.41
32	S1	982	A	C2'-C1'	-5.23	1.45	1.53
33	L1	617	C	O4'-C1'	5.23	1.49	1.41
33	L1	2142	A	O4'-C1'	5.23	1.49	1.41
35	L2	39	C	C2'-C1'	-5.23	1.45	1.53
51	LY	53	ASP	CA-CB	5.23	1.60	1.53
57	L1	55	ARG	CD-NE	5.23	1.53	1.46
80	LC	19	ARG	CA-CB	5.23	1.60	1.52
33	L1	1025	G	O3'-P	-5.23	1.53	1.61
37	LB	61	VAL	C-N	5.23	1.40	1.33
1	Sa	41	SER	CA-C	-5.22	1.46	1.52
32	S1	901	U	O4'-C1'	5.22	1.49	1.41
33	L1	2875	U	C3'-C2'	5.22	1.60	1.52
37	LB	91	GLY	CA-C	-5.22	1.46	1.51
68	LW	38	ILE	CA-C	-5.22	1.46	1.52
5	SE	259	PRO	N-CD	-5.22	1.40	1.47
32	S1	644	U	O4'-C1'	5.22	1.49	1.41
33	L1	338	C	O5'-C5'	5.22	1.50	1.42
33	L1	458	G	P-O5'	-5.22	1.51	1.59
33	L1	1256	A	O5'-C5'	5.22	1.50	1.42
33	L1	1516	G	C3'-O3'	5.22	1.50	1.43
33	L1	2516	U	O4'-C1'	5.22	1.49	1.41
38	LE	34	ARG	CA-C	5.22	1.59	1.52
77	Lc	74	TYR	N-CA	-5.22	1.39	1.46
83	Lm	17	ARG	CA-CB	5.22	1.60	1.53
32	S1	288	G	C2'-C1'	-5.22	1.45	1.53
33	L1	1947	U	C4'-C3'	5.22	1.60	1.52
32	S1	1640	C	O3'-P	-5.22	1.53	1.61
33	L1	308	U	O5'-C5'	5.22	1.50	1.42
33	L1	1317	G	C5'-C4'	5.22	1.59	1.51
33	L1	1393	G	C3'-O3'	-5.22	1.34	1.42
33	L1	1631	G	O4'-C1'	5.22	1.49	1.41
68	LW	66	THR	CA-C	-5.22	1.46	1.52
14	SP	72	ILE	CA-C	-5.22	1.46	1.52
33	L1	434	C	C2'-C1'	-5.22	1.45	1.53
11	SM	34	LYS	CA-C	5.22	1.59	1.52
32	S1	221	U	C2'-C1'	-5.22	1.45	1.53
32	S1	1430	A	C3'-O3'	5.22	1.50	1.42
33	L1	911	G	C2'-C1'	5.22	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	1019	A	C2'-O2'	-5.22	1.34	1.42
33	L1	1705	A	O4'-C1'	5.22	1.49	1.41
35	L2	32	C	P-O5'	-5.22	1.51	1.59
57	L1	28	HIS	CA-CB	5.22	1.59	1.52
80	LC	250	ARG	CA-C	5.22	1.59	1.53
15	SS	88	ASN	C-N	5.21	1.39	1.33
32	S1	491	G	C5'-C4'	5.21	1.59	1.51
33	L1	933	U	O4'-C1'	-5.21	1.33	1.41
5	SE	157	ILE	C-O	-5.21	1.17	1.23
32	S1	1136	A	C3'-O3'	5.21	1.50	1.42
33	L1	2568	G	C3'-O3'	5.21	1.50	1.42
33	L1	3174	C	C5'-C4'	5.21	1.62	1.52
35	L2	121	C	C5'-C4'	5.21	1.59	1.51
45	LQ	256	SER	CA-CB	5.21	1.62	1.53
46	LT	170	ARG	CA-C	-5.21	1.46	1.52
32	S1	1540	U	C5'-C4'	5.21	1.59	1.51
33	L1	632	C	P-O5'	-5.21	1.51	1.59
1	Sa	58	CYS	CA-C	-5.21	1.46	1.52
1	Sa	91	ILE	CA-C	-5.21	1.46	1.52
29	ST	71	LEU	CA-C	-5.21	1.46	1.52
40	LH	119	THR	CA-C	-5.21	1.46	1.52
44	LR	82	VAL	CA-C	-5.21	1.46	1.52
4	SD	64	ILE	C-N	-5.21	1.27	1.33
7	SI	102	TYR	CZ-OH	5.21	1.49	1.38
29	ST	48	ARG	CA-C	5.21	1.58	1.52
32	S1	1202	G	O3'-P	5.21	1.69	1.61
32	S1	1263	C	O4'-C1'	5.21	1.49	1.41
33	L1	383	A	C3'-O3'	5.21	1.50	1.42
33	L1	1582	C	O4'-C1'	5.21	1.49	1.41
33	L1	2630	A	P-O5'	-5.21	1.51	1.59
36	LA	201	ARG	CA-C	5.21	1.59	1.52
45	LQ	143	ARG	CA-C	-5.21	1.46	1.53
76	Lw	39	MET	N-CA	-5.21	1.40	1.46
81	LD	372	ALA	C-O	-5.21	1.18	1.24
33	L1	3228	C	O4'-C1'	5.21	1.49	1.41
38	LE	53	ARG	CD-NE	5.21	1.53	1.46
46	LT	52	ARG	CD-NE	5.21	1.53	1.46
68	LW	74	VAL	N-CA	-5.21	1.40	1.46
70	Li	66	ARG	CA-C	-5.21	1.46	1.53
5	SE	124	VAL	N-CA	-5.20	1.40	1.46
31	S2	39	G	C4'-O4'	-5.20	1.37	1.45
33	L1	310	C	C3'-O3'	5.20	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
39	LF	1	MET	N-CA	5.20	1.56	1.46
81	LD	187	ALA	N-CA	5.20	1.53	1.45
48	LV	28	ASN	CA-CB	5.20	1.61	1.53
28	SN	13	ASN	CA-C	-5.20	1.46	1.52
32	S1	39	A	C2'-C1'	-5.20	1.45	1.53
33	L1	282	A	O3'-P	-5.20	1.53	1.61
50	LZ	5	THR	CA-C	-5.20	1.46	1.52
2	SA	89	ARG	C-N	5.20	1.40	1.33
33	L1	3273	C	O4'-C1'	5.20	1.49	1.41
44	LR	9	GLY	C-N	-5.20	1.27	1.33
32	S1	854	C	O3'-P	-5.20	1.53	1.61
36	LA	202	CYS	N-CA	-5.20	1.39	1.46
68	LW	28	SER	C-O	-5.20	1.17	1.23
78	Le	116	GLY	N-CA	-5.20	1.40	1.45
32	S1	628	G	C5'-C4'	5.20	1.59	1.51
32	S1	1343	C	C2'-C1'	-5.20	1.45	1.53
32	S1	1777	G	C5'-C4'	5.20	1.59	1.51
33	L1	211	A	O4'-C1'	5.20	1.49	1.41
33	L1	1819	A	O3'-P	-5.20	1.53	1.61
72	Lk	105	GLY	C-N	5.20	1.40	1.33
31	S2	71	A	C2'-O2'	-5.19	1.34	1.42
33	L1	999	U	C2'-C1'	-5.19	1.45	1.53
11	SM	53	ASN	CA-CB	-5.19	1.44	1.53
32	S1	1578	A	O4'-C1'	5.19	1.49	1.41
33	L1	138	G	O4'-C1'	5.19	1.49	1.41
33	L1	1953	C	C3'-C2'	5.19	1.60	1.52
33	L1	1973	C	C2'-C1'	-5.19	1.45	1.53
2	SA	156	SER	N-CA	-5.19	1.41	1.45
3	SB	178	ARG	NE-CZ	5.19	1.38	1.33
32	S1	1142	A	O4'-C1'	5.19	1.49	1.42
35	L2	141	G	C2'-C1'	-5.19	1.45	1.53
71	Lj	23	SER	CA-C	-5.19	1.46	1.52
46	LT	149	LYS	N-CA	5.19	1.52	1.46
49	LX	46	LYS	CA-CB	5.19	1.62	1.53
50	LZ	21	ILE	CA-C	5.19	1.59	1.52
32	S1	1143	A	O3'-P	-5.19	1.53	1.61
33	L1	20	G	O3'-P	-5.19	1.53	1.61
33	L1	1613	C	C2'-C1'	-5.19	1.45	1.53
33	L1	3320	G	C3'-O3'	5.19	1.50	1.42
37	LB	93	ARG	CD-NE	5.19	1.53	1.46
80	LC	191	ILE	CA-C	5.19	1.59	1.52
5	SE	101	ALA	CA-CB	5.19	1.64	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1763	A	O4'-C1'	5.19	1.49	1.41
33	L1	757	G	C2'-C1'	-5.19	1.45	1.53
49	LX	70	TYR	CA-CB	5.19	1.62	1.53
51	LY	36	THR	N-CA	-5.19	1.40	1.46
77	Lc	86	ALA	CA-C	-5.19	1.46	1.52
3	SB	194	PRO	C-N	5.18	1.41	1.33
23	SU	9	ALA	C-N	5.18	1.40	1.33
32	S1	323	U	C2'-C1'	-5.18	1.45	1.53
33	L1	70	A	C3'-C2'	5.18	1.60	1.52
33	L1	186	A	P-O5'	-5.18	1.51	1.59
34	L3	86	G	C2'-C1'	-5.18	1.45	1.53
48	LV	136	ARG	CD-NE	5.18	1.53	1.46
2	SA	95	ALA	C-N	5.18	1.41	1.34
32	S1	1763	A	C2'-C1'	-5.18	1.45	1.53
33	L1	1347	U	O3'-P	-5.18	1.53	1.61
70	Li	58	ARG	CD-NE	5.18	1.53	1.46
31	S2	66	C	C3'-O3'	5.18	1.50	1.42
33	L1	67	C	C2'-C1'	-5.18	1.45	1.53
15	SS	117	ASP	N-CA	5.18	1.52	1.45
16	SR	86	ARG	CZ-NH1	5.18	1.40	1.32
32	S1	443	U	O4'-C1'	5.18	1.49	1.42
33	L1	1932	A	O5'-C5'	5.18	1.50	1.42
35	L2	92	A	P-O5'	5.18	1.67	1.59
78	Le	80	SER	N-CA	5.18	1.54	1.46
19	SY	35	ASN	CA-C	-5.18	1.46	1.53
33	L1	1060	U	O4'-C1'	-5.18	1.33	1.41
33	L1	2140	C	C2'-C1'	-5.18	1.45	1.53
33	L1	2741	G	C2'-C1'	-5.18	1.45	1.53
45	LQ	261	PRO	N-CA	-5.18	1.40	1.47
74	LJ	86	LEU	C-N	5.18	1.41	1.33
1	Sa	151	ARG	N-CA	-5.18	1.39	1.46
25	SC	41	LYS	N-CA	-5.18	1.39	1.45
33	L1	466	U	O4'-C1'	5.18	1.49	1.41
33	L1	1113	C	C5'-C4'	5.18	1.59	1.51
33	L1	3310	A	C4'-O4'	5.18	1.53	1.45
40	LH	223	ASP	CA-C	-5.18	1.46	1.52
66	LN	94	ILE	N-CA	5.18	1.52	1.46
14	SP	69	GLY	CA-C	-5.17	1.46	1.51
33	L1	856	G	C4'-O4'	5.17	1.53	1.45
33	L1	1422	G	C2'-C1'	5.17	1.61	1.53
45	LQ	248	ARG	CD-NE	5.17	1.53	1.46
56	Lh	46	LYS	CA-C	-5.17	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
72	Lk	105	GLY	CA-C	-5.17	1.46	1.52
19	SY	39	MET	SD-CE	5.17	1.92	1.79
32	S1	1464	G	P-OP2	5.17	1.59	1.49
33	L1	237	C	C3'-O3'	5.17	1.50	1.42
33	L1	1271	U	C3'-O3'	5.17	1.50	1.42
33	L1	1432	G	O3'-P	-5.17	1.53	1.61
41	LM	40	ILE	CA-C	5.17	1.59	1.52
44	LR	151	HIS	ND1-CE1	5.17	1.37	1.32
2	SA	168	ASN	N-CA	5.17	1.52	1.46
32	S1	1421	U	P-OP2	5.17	1.59	1.49
33	L1	3138	C	C2'-C1'	-5.17	1.45	1.53
32	S1	1760	A	O4'-C1'	5.17	1.49	1.42
34	L3	49	A	C4'-C3'	5.17	1.60	1.52
33	L1	785	U	O4'-C1'	-5.17	1.34	1.42
33	L1	2825	G	O5'-C5'	5.17	1.50	1.42
33	L1	3096	U	O4'-C1'	-5.17	1.33	1.41
33	L1	3358	A	C2'-C1'	-5.17	1.45	1.53
54	Lf	86	GLY	CA-C	5.17	1.59	1.51
2	SA	124	ARG	C-N	5.17	1.40	1.33
2	SA	148	THR	C-O	-5.17	1.18	1.24
33	L1	93	G	O4'-C1'	5.17	1.49	1.41
33	L1	1264	A	O5'-C5'	5.17	1.50	1.42
33	L1	1456	A	O3'-P	-5.17	1.53	1.61
33	L1	2561	A	P-OP2	5.17	1.59	1.49
35	L2	113	A	O4'-C1'	5.17	1.49	1.41
46	LT	44	LEU	C-N	5.17	1.40	1.33
33	L1	973	U	O3'-P	-5.17	1.53	1.61
42	LP	157	LYS	C-N	5.17	1.41	1.33
5	SE	23	GLY	N-CA	-5.16	1.39	1.45
25	SC	42	ARG	CZ-NH1	5.16	1.40	1.32
32	S1	1218	U	O4'-C1'	-5.16	1.33	1.41
32	S1	1778	G	C2'-C1'	-5.16	1.45	1.53
33	L1	268	U	C4'-C3'	5.16	1.60	1.52
37	LB	246	LEU	CA-CB	5.16	1.62	1.53
68	LW	41	LEU	C-O	5.16	1.30	1.24
33	L1	158	A	O4'-C1'	5.16	1.49	1.41
33	L1	1893	G	O3'-P	5.16	1.68	1.61
33	L1	2615	U	P-O5'	-5.16	1.52	1.59
75	Lt	41	TYR	CA-CB	5.16	1.61	1.53
11	SM	39	ARG	CA-C	5.16	1.59	1.52
25	SC	138	VAL	C-N	5.16	1.41	1.33
32	S1	889	C	C2'-C1'	-5.16	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
46	LT	152	GLU	C-O	-5.16	1.18	1.24
47	LU	66	ASN	CA-C	-5.16	1.46	1.52
71	Lj	15	GLY	CA-C	5.16	1.57	1.51
32	S1	308	U	C2'-C1'	-5.16	1.45	1.53
33	L1	1504	U	C3'-C2'	5.16	1.60	1.52
33	L1	2102	C	C3'-O3'	5.16	1.49	1.42
56	Lh	128	ARG	CA-CB	5.16	1.61	1.53
32	S1	831	C	C3'-O3'	5.16	1.49	1.42
32	S1	951	U	O4'-C1'	5.16	1.49	1.41
33	L1	1395	A	C3'-O3'	5.16	1.49	1.42
46	LT	188	SER	CA-CB	5.16	1.61	1.53
64	LG	90	GLY	C-N	5.16	1.40	1.33
33	L1	2260	C	C2'-C1'	-5.15	1.45	1.53
33	L1	2519	U	O4'-C1'	5.15	1.49	1.41
46	LT	3	SER	N-CA	5.15	1.52	1.46
1	Sa	46	ARG	CZ-NH1	5.15	1.40	1.32
33	L1	2102	C	C2'-C1'	-5.15	1.45	1.53
33	L1	2661	G	C4'-O4'	5.15	1.53	1.45
37	LB	179	MET	CA-CB	5.15	1.61	1.53
51	LY	73	TYR	N-CA	-5.15	1.40	1.46
5	SE	29	GLY	CA-C	-5.15	1.42	1.52
32	S1	627	A	O4'-C1'	-5.15	1.34	1.42
32	S1	974	C	C2'-C1'	5.15	1.61	1.53
33	L1	349	A	P-O5'	-5.15	1.52	1.59
33	L1	1595	G	C2'-C1'	-5.15	1.45	1.53
64	LG	186	ALA	CA-C	-5.15	1.45	1.52
74	LJ	25	ALA	C-O	-5.15	1.18	1.24
74	LJ	59	VAL	CA-CB	5.15	1.61	1.54
82	LK	51	GLY	C-N	5.15	1.40	1.33
2	SA	193	ILE	CA-CB	-5.15	1.47	1.54
33	L1	1649	G	C4'-O4'	5.15	1.53	1.45
59	Lo	10	LYS	CA-CB	5.15	1.61	1.53
70	Li	94	ALA	N-CA	5.15	1.52	1.46
72	Lk	83	HIS	N-CA	5.15	1.52	1.46
15	SS	94	HIS	CD2-NE2	5.15	1.43	1.37
32	S1	370	A	C2'-C1'	-5.15	1.45	1.53
32	S1	1175	G	O4'-C1'	5.15	1.49	1.41
32	S1	1379	U	O4'-C1'	5.15	1.49	1.41
32	S1	1713	C	O5'-C5'	5.15	1.50	1.42
32	S1	1804	A	O5'-C5'	5.15	1.50	1.42
33	L1	2628	C	P-O5'	-5.15	1.52	1.59
33	L1	3033	A	C4'-C3'	5.15	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	3109	G	C2'-C1'	-5.15	1.45	1.53
33	L1	3291	C	C3'-O3'	5.15	1.49	1.42
33	L1	3391	U	O4'-C1'	5.15	1.49	1.41
34	L3	80	A	O4'-C1'	5.15	1.49	1.41
35	L2	41	A	C2'-O2'	-5.15	1.33	1.41
45	LQ	112	THR	N-CA	5.15	1.52	1.46
81	LD	164	SER	C-N	5.15	1.40	1.33
32	S1	1092	A	O4'-C1'	-5.15	1.33	1.41
32	S1	1204	G	C2'-C1'	5.15	1.61	1.53
77	Lc	108	THR	N-CA	5.15	1.52	1.46
7	SI	65	ARG	C-N	5.14	1.40	1.33
32	S1	1378	C	C2'-C1'	5.14	1.60	1.53
32	S1	1780	U	C2'-C1'	-5.14	1.45	1.53
33	L1	1808	G	C2'-C1'	5.14	1.61	1.53
33	L1	2747	U	C3'-O3'	5.14	1.49	1.42
33	L1	2785	U	O4'-C1'	5.14	1.49	1.41
35	L2	64	U	O3'-P	-5.14	1.53	1.61
11	SM	106	LYS	CA-CB	5.14	1.61	1.53
32	S1	64	U	C2'-C1'	-5.14	1.45	1.53
32	S1	1184	C	C3'-O3'	5.14	1.49	1.42
33	L1	210	G	C5'-C4'	5.14	1.59	1.51
33	L1	1811	U	C3'-C2'	5.14	1.60	1.52
40	LH	122	ALA	CA-C	-5.14	1.45	1.52
46	LT	62	ARG	CD-NE	5.14	1.53	1.46
33	L1	785	U	C3'-O3'	-5.14	1.35	1.43
33	L1	3290	C	C5'-C4'	5.14	1.58	1.51
34	L3	54	A	C3'-O3'	-5.14	1.34	1.42
81	LD	318	GLU	CA-CB	5.14	1.62	1.53
3	SB	51	ARG	CA-C	-5.14	1.47	1.53
3	SB	104	SER	N-CA	-5.14	1.40	1.46
8	SJ	11	PRO	C-N	5.14	1.40	1.33
28	SN	32	ARG	CA-CB	5.14	1.59	1.52
33	L1	767	U	O4'-C1'	5.14	1.49	1.41
33	L1	1532	A	O4'-C1'	5.14	1.49	1.41
33	L1	3053	G	O3'-P	-5.14	1.53	1.61
47	LU	140	MET	C-N	5.14	1.40	1.33
67	LS	141	THR	CA-C	5.14	1.59	1.52
16	SR	128	PHE	C-N	5.14	1.40	1.33
23	SU	92	GLU	CA-C	5.14	1.59	1.52
32	S1	1322	G	C4'-O4'	5.14	1.53	1.45
39	LF	170	ASP	CA-C	5.14	1.59	1.52
42	LP	42	PRO	CA-CB	5.14	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	323	U	O4'-C1'	5.14	1.49	1.42
33	L1	940	G	O4'-C1'	5.14	1.49	1.42
33	L1	2774	A	C4'-O4'	5.14	1.53	1.45
33	L1	2797	U	O4'-C1'	5.14	1.49	1.41
33	L1	3170	C	C4'-C3'	5.14	1.60	1.52
34	L3	67	C	O3'-P	-5.14	1.53	1.61
35	L2	103	C	C3'-O3'	5.14	1.49	1.42
2	SA	192	THR	C-N	-5.13	1.26	1.33
33	L1	3211	C	C2'-O2'	-5.13	1.34	1.42
34	L3	26	C	O5'-C5'	5.13	1.50	1.42
46	LT	98	ARG	CD-NE	5.13	1.53	1.46
71	Lj	24	LYS	C-N	5.13	1.40	1.33
33	L1	376	A	C3'-O3'	5.13	1.49	1.42
33	L1	1190	C	C2'-O2'	-5.13	1.34	1.42
33	L1	2902	A	O5'-C5'	5.13	1.50	1.42
35	L2	150	G	O4'-C1'	-5.13	1.33	1.41
32	S1	637	U	O4'-C1'	5.13	1.49	1.41
33	L1	2877	U	C2'-C1'	-5.13	1.45	1.53
43	LO	129	ALA	C-N	5.13	1.40	1.33
61	Lq	23	ARG	N-CA	5.13	1.52	1.46
33	L1	276	U	P-O5'	-5.13	1.52	1.59
33	L1	1895	G	C4'-C3'	5.13	1.60	1.53
33	L1	2648	G	C3'-O3'	5.13	1.49	1.42
7	SI	148	TYR	CA-CB	5.13	1.62	1.53
32	S1	422	G	O4'-C1'	5.13	1.49	1.41
32	S1	1404	U	O5'-C5'	5.13	1.50	1.42
32	S1	1561	G	C2'-C1'	5.13	1.61	1.53
33	L1	1341	G	C3'-O3'	5.13	1.49	1.42
33	L1	3167	G	C2'-C1'	5.13	1.61	1.53
33	L1	3274	G	O4'-C1'	5.13	1.49	1.41
1	Sa	131	ALA	CA-C	-5.13	1.46	1.52
7	SI	53	LYS	CA-C	5.13	1.59	1.53
33	L1	1850	C	C4'-O4'	5.13	1.53	1.45
33	L1	2353	C	C2'-C1'	-5.13	1.45	1.53
33	L1	3144	U	C3'-C2'	5.13	1.60	1.52
33	L1	3319	G	P-O5'	-5.13	1.52	1.59
38	LE	88	VAL	CA-C	-5.13	1.46	1.52
43	LO	33	GLY	N-CA	5.13	1.51	1.45
74	LJ	103	GLY	C-N	5.13	1.40	1.33
80	LC	98	GLY	CA-C	-5.13	1.45	1.52
32	S1	306	U	O4'-C1'	5.12	1.49	1.41
32	S1	1587	G	C2'-C1'	-5.12	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	451	C	C4'-C3'	5.12	1.60	1.52
37	LB	45	VAL	CA-C	-5.12	1.47	1.52
67	LS	26	ILE	CA-CB	-5.12	1.47	1.54
11	SM	68	MET	C-N	5.12	1.40	1.33
32	S1	856	G	C2'-C1'	-5.12	1.45	1.53
32	S1	1728	G	C3'-O3'	5.12	1.49	1.42
33	L1	292	A	C3'-O3'	5.12	1.49	1.42
33	L1	791	C	C2'-C1'	-5.12	1.45	1.53
33	L1	1841	G	O5'-C5'	5.12	1.50	1.42
33	L1	2613	G	C5'-C4'	5.12	1.58	1.51
35	L2	22	U	O4'-C1'	5.12	1.49	1.41
67	LS	120	PHE	C-N	5.12	1.39	1.34
32	S1	305	A	C5'-C4'	5.12	1.58	1.51
32	S1	381	G	C4'-C3'	5.12	1.60	1.52
32	S1	1268	G	O4'-C1'	5.12	1.49	1.41
32	S1	1454	G	O4'-C1'	5.12	1.49	1.41
33	L1	218	G	C5'-C4'	5.12	1.59	1.51
33	L1	2451	G	O3'-P	-5.12	1.53	1.61
33	L1	2933	C	O4'-C1'	5.12	1.49	1.41
35	L2	51	U	C3'-O3'	5.12	1.49	1.42
37	LB	226	ARG	NE-CZ	-5.12	1.27	1.33
46	LT	86	GLU	N-CA	-5.12	1.39	1.46
52	Lb	99	MET	N-CA	-5.12	1.40	1.46
33	L1	939	A	P-O5'	-5.12	1.52	1.59
34	L3	48	G	C4'-O4'	5.12	1.53	1.45
3	SB	99	ILE	N-CA	-5.12	1.40	1.46
13	SQ	81	ARG	CA-C	-5.12	1.46	1.52
32	S1	1157	A	C2'-C1'	5.12	1.61	1.53
33	L1	1765	G	C3'-O3'	5.12	1.49	1.42
39	LF	88	ARG	CZ-NH1	5.12	1.40	1.32
32	S1	501	U	O5'-C5'	5.12	1.50	1.42
32	S1	715	U	P-O5'	-5.12	1.49	1.59
32	S1	944	A	C2'-C1'	-5.12	1.45	1.53
37	LB	188	LYS	CA-CB	5.12	1.61	1.53
39	LF	153	VAL	CA-C	-5.12	1.46	1.52
23	SU	64	PHE	CA-C	-5.12	1.46	1.52
32	S1	1029	U	P-O5'	-5.12	1.52	1.59
33	L1	645	C	O4'-C1'	5.12	1.49	1.41
33	L1	1920	U	O3'-P	-5.12	1.53	1.61
43	LO	135	ALA	N-CA	-5.12	1.39	1.46
45	LQ	237	GLU	C-N	5.12	1.40	1.33
81	LD	353	LYS	N-CA	5.12	1.52	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Sa	159	TYR	N-CA	-5.11	1.40	1.46
33	L1	1837	A	O5'-C5'	5.11	1.50	1.42
33	L1	2547	C	C2'-C1'	-5.11	1.45	1.53
46	LT	43	LYS	C-N	5.11	1.40	1.33
46	LT	121	HIS	CE1-NE2	5.11	1.37	1.32
64	LG	91	LYS	CA-C	5.11	1.59	1.52
78	Le	198	LYS	CA-CB	5.11	1.62	1.53
83	Lm	17	ARG	NE-CZ	5.11	1.38	1.33
32	S1	1016	C	O4'-C1'	5.11	1.49	1.41
32	S1	1016	C	O5'-C5'	5.11	1.50	1.42
1	Sa	31	THR	N-CA	5.11	1.52	1.46
33	L1	176	A	O4'-C1'	5.11	1.49	1.41
33	L1	2129	U	O3'-P	-5.11	1.53	1.61
33	L1	2890	U	O4'-C1'	5.11	1.49	1.42
39	LF	43	LEU	CA-C	-5.11	1.46	1.52
56	Lh	37	LYS	CA-CB	5.11	1.61	1.53
59	Lo	28	ARG	NE-CZ	5.11	1.38	1.33
78	Le	21	GLU	C-N	5.11	1.40	1.33
78	Le	98	HIS	CA-CB	5.11	1.61	1.53
2	SA	163	ILE	C-O	-5.11	1.18	1.24
31	S2	72	G	O3'-P	-5.11	1.53	1.61
36	LA	20	ALA	N-CA	-5.11	1.40	1.46
48	LV	76	ARG	CA-CB	5.11	1.60	1.53
25	SC	1	MET	N-CA	-5.11	1.36	1.46
32	S1	88	C	C2'-C1'	-5.11	1.45	1.53
33	L1	61	A	O4'-C1'	5.11	1.49	1.41
33	L1	228	C	C2'-C1'	5.11	1.61	1.53
33	L1	357	C	O4'-C1'	5.11	1.49	1.41
70	Li	23	VAL	CA-C	-5.11	1.46	1.52
2	SA	180	TRP	N-CA	5.11	1.52	1.46
3	SB	34	TYR	C-N	5.11	1.40	1.33
7	SI	63	ARG	CD-NE	5.11	1.53	1.46
32	S1	736	U	C4'-C3'	5.11	1.62	1.52
32	S1	1397	A	O3'-P	-5.11	1.53	1.61
32	S1	1662	G	C2'-C1'	-5.11	1.45	1.53
33	L1	1469	G	O3'-P	-5.11	1.53	1.61
33	L1	2529	C	O4'-C1'	5.11	1.49	1.41
33	L1	2661	G	O3'-P	-5.11	1.53	1.61
33	L1	3362	A	C3'-O3'	5.11	1.49	1.42
44	LR	34	ARG	C-O	-5.11	1.17	1.24
47	LU	49	HIS	N-CA	-5.11	1.38	1.45
47	LU	89	ILE	N-CA	5.11	1.52	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
9	SK	134	VAL	N-CA	-5.10	1.40	1.46
32	S1	942	C	O5'-C5'	-5.10	1.34	1.42
32	S1	1122	U	C3'-O3'	5.10	1.49	1.42
33	L1	15	C	O3'-P	-5.10	1.53	1.61
33	L1	135	G	C4'-O4'	5.10	1.53	1.45
33	L1	564	A	C3'-O3'	5.10	1.49	1.42
33	L1	1806	C	C2'-O2'	-5.10	1.34	1.42
33	L1	3119	C	O4'-C1'	5.10	1.49	1.41
71	Lj	13	VAL	CA-C	-5.10	1.42	1.52
32	S1	479	A	C2'-C1'	-5.10	1.45	1.53
32	S1	1293	U	O4'-C1'	5.10	1.49	1.41
33	L1	601	G	C2'-C1'	-5.10	1.45	1.53
33	L1	2774	A	P-O5'	-5.10	1.52	1.59
33	L1	3235	A	O5'-C5'	5.10	1.50	1.42
77	Lc	57	ARG	NE-CZ	5.10	1.38	1.33
33	L1	76	A	O3'-P	5.10	1.68	1.61
52	Lb	125	SER	C-O	-5.10	1.17	1.24
8	SJ	31	ILE	CB-CG1	5.10	1.63	1.53
31	S2	22	G	C5'-C4'	5.10	1.58	1.51
33	L1	175	G	C4'-C3'	5.10	1.60	1.52
33	L1	1206	A	C4'-C3'	5.10	1.60	1.52
33	L1	1382	C	C2'-O2'	-5.10	1.34	1.42
38	LE	21	LEU	CA-C	-5.10	1.46	1.52
41	LM	69	LYS	C-N	5.10	1.37	1.33
13	SQ	140	ARG	CA-C	5.10	1.59	1.52
32	S1	288	G	C5'-C4'	5.10	1.58	1.51
33	L1	181	G	C2'-C1'	-5.10	1.45	1.53
33	L1	869	A	P-O5'	-5.10	1.52	1.59
33	L1	2226	C	C5'-C4'	5.10	1.58	1.51
60	Lr	39	GLY	CA-C	-5.10	1.46	1.52
32	S1	848	C	C5'-C4'	5.10	1.58	1.51
33	L1	2191	C	C2'-C1'	-5.10	1.45	1.53
33	L1	2202	A	C3'-C2'	-5.10	1.45	1.52
33	L1	3217	G	C2'-C1'	5.10	1.60	1.53
32	S1	1127	G	O5'-C5'	5.09	1.50	1.42
32	S1	1607	C	C4'-C3'	5.09	1.60	1.52
32	S1	1610	C	O4'-C1'	5.09	1.49	1.41
33	L1	58	G	O4'-C1'	-5.09	1.34	1.42
33	L1	1830	U	C3'-C2'	-5.09	1.45	1.52
33	L1	2562	A	P-O5'	-5.09	1.52	1.59
33	L1	2873	G	C2'-C1'	-5.09	1.45	1.53
33	L1	3201	A	C5'-C4'	5.09	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
49	LX	70	TYR	CZ-OH	5.09	1.48	1.38
51	LY	40	HIS	CA-C	5.09	1.59	1.52
55	Lg	64	ASN	C-N	-5.09	1.27	1.33
60	Lr	29	LYS	CA-C	5.09	1.58	1.52
11	SM	11	HIS	CA-C	-5.09	1.46	1.52
33	L1	3	G	C2'-C1'	-5.09	1.45	1.53
33	L1	3346	C	O5'-C5'	5.09	1.50	1.42
78	Le	158	LEU	CB-CG	5.09	1.63	1.53
15	SS	13	ASN	C-N	-5.09	1.22	1.33
31	S2	38	C	C5'-C4'	5.09	1.58	1.51
32	S1	887	U	O4'-C1'	5.09	1.49	1.41
33	L1	2482	A	C3'-O3'	-5.09	1.34	1.42
33	L1	2801	A	C2'-C1'	-5.09	1.45	1.53
43	LO	90	ALA	N-CA	-5.09	1.40	1.45
77	Lc	30	LEU	CA-C	-5.09	1.45	1.52
32	S1	620	G	C2'-C1'	-5.09	1.45	1.53
32	S1	678	A	O4'-C1'	5.09	1.49	1.41
33	L1	1478	A	C2'-C1'	5.09	1.60	1.53
33	L1	1714	A	C4'-C3'	5.09	1.60	1.53
33	L1	2237	A	C3'-C2'	5.09	1.60	1.52
46	LT	151	ARG	CD-NE	5.09	1.53	1.46
77	Lc	47	ARG	CD-NE	5.09	1.53	1.46
33	L1	3152	C	O4'-C1'	5.09	1.49	1.42
34	L3	75	G	C2'-C1'	-5.09	1.45	1.53
34	L3	116	U	C3'-O3'	5.09	1.49	1.42
54	Lf	77	ASN	CA-C	5.09	1.59	1.52
55	Lg	59	ILE	CA-C	5.09	1.58	1.52
1	Sa	263	ARG	CA-C	-5.09	1.46	1.52
2	SA	223	ALA	N-CA	-5.09	1.40	1.46
33	L1	284	U	O4'-C1'	5.09	1.49	1.41
33	L1	907	A	O5'-C5'	5.09	1.50	1.42
33	L1	3091	U	C5'-C4'	5.09	1.58	1.51
36	LA	125	PRO	CA-C	5.09	1.61	1.52
38	LE	30	ASP	N-CA	-5.09	1.39	1.46
45	LQ	276	GLN	C-N	5.09	1.41	1.33
28	SN	12	LYS	N-CA	5.08	1.52	1.46
47	LU	155	ASP	CA-CB	5.08	1.62	1.53
25	SC	116	PHE	C-N	5.08	1.42	1.33
32	S1	255	U	C2'-C1'	-5.08	1.45	1.53
33	L1	162	G	C5'-C4'	5.08	1.58	1.51
33	L1	1891	A	P-O5'	-5.08	1.52	1.59
33	L1	3183	G	C3'-O3'	5.08	1.49	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
45	LQ	235	GLY	N-CA	5.08	1.52	1.45
11	SM	94	ARG	CD-NE	5.08	1.53	1.46
32	S1	366	G	O4'-C1'	5.08	1.49	1.41
33	L1	970	A	C3'-O3'	5.08	1.49	1.42
33	L1	1482	C	O4'-C1'	5.08	1.49	1.41
33	L1	2626	G	C3'-O3'	5.08	1.49	1.42
45	LQ	142	PHE	CA-C	5.08	1.59	1.52
70	Li	69	ARG	CD-NE	5.08	1.53	1.46
80	LC	301	GLU	C-N	5.08	1.40	1.33
33	L1	2220	U	C4'-O4'	5.08	1.53	1.45
33	L1	2987	C	C2'-C1'	-5.08	1.45	1.53
42	LP	148	ILE	CA-C	5.08	1.59	1.52
48	LV	132	ARG	CA-C	5.08	1.59	1.52
49	LX	145	VAL	CA-C	-5.08	1.46	1.52
80	LC	76	VAL	N-CA	5.08	1.52	1.46
5	SE	58	ARG	CD-NE	5.08	1.53	1.46
32	S1	557	G	C2'-C1'	-5.08	1.45	1.53
32	S1	939	C	C2'-C1'	-5.08	1.45	1.53
31	S2	3	C	C2'-C1'	-5.08	1.45	1.53
42	LP	187	SER	CA-CB	5.08	1.62	1.53
32	S1	794	G	C3'-O3'	5.08	1.57	1.42
32	S1	1568	U	O4'-C1'	5.08	1.49	1.41
32	S1	1640	C	C2'-C1'	-5.08	1.45	1.53
32	S1	1689	A	C2'-C1'	-5.08	1.45	1.53
33	L1	939	A	O3'-P	-5.08	1.53	1.61
33	L1	2760	U	C5'-C4'	5.08	1.58	1.51
59	Lo	35	ILE	C-N	5.08	1.40	1.33
32	S1	622	U	O4'-C1'	5.07	1.49	1.41
33	L1	2333	U	O5'-C5'	5.07	1.50	1.42
33	L1	2635	G	C2'-C1'	-5.07	1.45	1.53
33	L1	2663	U	O4'-C1'	5.07	1.49	1.41
33	L1	3211	C	O4'-C1'	5.07	1.49	1.41
34	L3	14	C	C3'-C2'	-5.07	1.45	1.52
68	LW	74	VAL	CA-CB	-5.07	1.48	1.54
78	Le	98	HIS	N-CA	5.07	1.52	1.45
78	Le	130	ARG	CA-C	-5.07	1.45	1.52
80	LC	119	TYR	C-N	-5.07	1.26	1.33
32	S1	632	G	C5'-C4'	5.07	1.58	1.51
32	S1	1357	U	O4'-C1'	5.07	1.49	1.41
33	L1	1913	C	C3'-C2'	5.07	1.60	1.52
43	LO	127	LYS	N-CA	5.07	1.52	1.46
57	Ll	53	ALA	CA-C	-5.07	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	1033	C	O4'-C1'	5.07	1.49	1.42
32	S1	1360	G	C5'-C4'	5.07	1.58	1.51
32	S1	1545	A	O4'-C1'	5.07	1.49	1.41
32	S1	1581	A	C2'-C1'	5.07	1.60	1.53
33	L1	844	A	C2'-O2'	-5.07	1.34	1.42
33	L1	1342	C	P-O5'	-5.07	1.52	1.59
33	L1	1475	U	O4'-C1'	5.07	1.49	1.41
33	L1	2674	A	C2'-C1'	5.07	1.60	1.53
33	L1	3299	A	O5'-C5'	5.07	1.50	1.42
33	L1	3326	U	C4'-C3'	5.07	1.60	1.53
33	L1	3338	U	C4'-O4'	5.07	1.53	1.45
67	LS	116	HIS	CB-CG	5.07	1.57	1.50
1	Sa	121	GLN	CD-NE2	5.07	1.43	1.33
32	S1	609	A	C3'-O3'	5.07	1.49	1.42
33	L1	1899	U	C3'-C2'	5.07	1.60	1.52
33	L1	2827	C	O4'-C1'	5.07	1.49	1.41
55	Lg	111	LEU	N-CA	-5.07	1.40	1.46
2	SA	34	CYS	CA-CB	5.07	1.61	1.53
19	SY	47	ARG	CZ-NH1	5.07	1.39	1.32
33	L1	1254	A	C3'-C2'	-5.07	1.45	1.52
33	L1	1344	A	C4'-C3'	5.07	1.60	1.52
39	LF	2	LYS	N-CA	5.07	1.52	1.46
52	Lb	97	ARG	C-N	5.07	1.40	1.33
6	SF	67	ARG	CD-NE	5.07	1.53	1.46
32	S1	794	G	C4'-C3'	5.07	1.62	1.52
32	S1	1318	U	C2'-C1'	-5.07	1.45	1.53
33	L1	208	G	O4'-C1'	5.07	1.49	1.42
33	L1	2022	U	O4'-C1'	5.07	1.49	1.41
33	L1	3346	C	C2'-C1'	-5.07	1.45	1.53
33	L1	3373	C	O5'-C5'	5.07	1.50	1.42
51	LY	40	HIS	CE1-NE2	-5.07	1.27	1.32
5	SE	48	THR	N-CA	-5.06	1.40	1.46
33	L1	1889	G	C3'-O3'	5.06	1.49	1.42
49	LX	131	LYS	CA-CB	5.06	1.60	1.53
32	S1	501	U	C5'-C4'	5.06	1.58	1.51
32	S1	1736	C	C5'-C4'	5.06	1.58	1.51
33	L1	29	G	C4'-C3'	5.06	1.60	1.52
33	L1	39	A	C2'-C1'	-5.06	1.45	1.53
33	L1	208	G	C2'-C1'	-5.06	1.45	1.53
33	L1	2677	A	C5'-C4'	5.06	1.58	1.51
33	L1	2767	C	C2'-C1'	-5.06	1.45	1.53
42	LP	120	TRP	CA-CB	5.06	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	Lf	21	VAL	CA-CB	-5.06	1.48	1.54
80	LC	315	PHE	CA-C	5.06	1.58	1.52
1	Sa	63	GLN	CA-CB	5.06	1.62	1.53
3	SB	197	LYS	N-CA	-5.06	1.39	1.46
11	SM	45	CYS	C-N	5.06	1.40	1.33
33	L1	652	C	C2'-C1'	5.06	1.60	1.53
33	L1	706	U	O4'-C1'	5.06	1.49	1.41
33	L1	1616	G	O4'-C1'	-5.06	1.34	1.41
33	L1	1773	U	C2'-C1'	-5.06	1.45	1.53
33	L1	1936	G	O4'-C1'	5.06	1.49	1.41
35	L2	155	G	C3'-C2'	5.06	1.60	1.52
80	LC	8	HIS	CB-CG	5.06	1.57	1.50
1	Sa	192	ARG	NE-CZ	5.06	1.38	1.33
2	SA	14	GLN	C-N	5.06	1.40	1.33
31	S2	43	C	O5'-C5'	5.06	1.50	1.42
33	L1	297	G	O5'-C5'	5.06	1.50	1.42
33	L1	915	G	P-O5'	-5.06	1.52	1.59
33	L1	997	G	O4'-C1'	-5.06	1.34	1.41
33	L1	1129	G	O3'-P	-5.06	1.53	1.61
33	L1	3142	C	C3'-O3'	5.06	1.50	1.43
54	Lf	92	CYS	CA-CB	5.06	1.62	1.53
56	Lh	128	ARG	N-CA	-5.06	1.40	1.46
72	Lk	95	SER	C-O	-5.06	1.17	1.24
11	SM	77	PHE	N-CA	5.06	1.51	1.45
13	SQ	19	LYS	CA-CB	5.06	1.62	1.53
13	SQ	40	ILE	N-CA	5.06	1.52	1.46
15	SS	61	ALA	C-N	5.06	1.40	1.33
31	S2	61	C	C5'-C4'	5.06	1.58	1.51
33	L1	1433	U	O4'-C1'	-5.06	1.34	1.41
33	L1	3056	C	O3'-P	-5.06	1.53	1.61
80	LC	352	ARG	NE-CZ	5.06	1.38	1.33
1	Sa	7	LEU	C-N	5.06	1.40	1.33
33	L1	123	U	C2'-C1'	-5.06	1.45	1.53
33	L1	1818	C	O3'-P	-5.06	1.53	1.61
6	SF	146	ALA	CA-C	-5.05	1.46	1.52
32	S1	888	U	O4'-C1'	5.05	1.49	1.41
32	S1	1666	G	O3'-P	-5.05	1.53	1.61
32	S1	1674	C	C4'-O4'	5.05	1.53	1.45
33	L1	2702	G	C2'-C1'	-5.05	1.45	1.53
33	L1	358	G	C2'-C1'	-5.05	1.45	1.53
37	LB	88	VAL	CA-CB	-5.05	1.48	1.54
33	L1	839	A	C2'-C1'	5.05	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
46	LT	176	ARG	CD-NE	5.05	1.53	1.46
47	LU	130	ARG	CD-NE	5.05	1.53	1.46
13	SQ	73	LEU	C-N	5.05	1.40	1.33
29	ST	15	ARG	N-CA	5.05	1.52	1.46
32	S1	143	A	O4'-C1'	-5.05	1.34	1.42
32	S1	469	G	C4'-C3'	5.05	1.60	1.52
32	S1	993	C	O4'-C1'	5.05	1.49	1.41
32	S1	1044	A	C2'-C1'	-5.05	1.45	1.53
32	S1	1382	C	C4'-C3'	5.05	1.60	1.52
33	L1	91	G	C2'-C1'	5.05	1.60	1.53
33	L1	580	C	C5'-C4'	5.05	1.58	1.51
33	L1	641	C	P-O5'	5.05	1.67	1.59
33	L1	1656	C	C2'-C1'	-5.05	1.45	1.53
33	L1	2337	C	C5'-C4'	5.05	1.58	1.51
55	Lg	59	ILE	C-O	-5.05	1.18	1.24
81	LD	372	ALA	CA-C	5.05	1.59	1.52
30	S3	17	A	O3'-P	-5.05	1.53	1.61
33	L1	513	C	O3'-P	-5.05	1.53	1.61
33	L1	633	C	C2'-C1'	-5.05	1.45	1.53
33	L1	1599	A	O3'-P	-5.05	1.53	1.61
41	LM	101	ASN	N-CA	-5.05	1.40	1.46
45	LQ	48	TYR	N-CA	-5.05	1.40	1.46
33	L1	1680	A	C2'-C1'	5.04	1.60	1.53
5	SE	152	TYR	N-CA	-5.04	1.39	1.46
23	SU	15	ARG	CD-NE	5.04	1.53	1.46
33	L1	1222	U	C4'-C3'	5.04	1.60	1.52
33	L1	1538	A	C5'-C4'	5.04	1.58	1.51
33	L1	2459	U	O4'-C1'	5.04	1.49	1.41
82	LK	129	LEU	N-CA	5.04	1.52	1.46
14	SP	116	PHE	CA-CB	5.04	1.59	1.52
33	L1	1172	A	C4'-C3'	5.04	1.60	1.52
33	L1	1716	G	O5'-C5'	5.04	1.50	1.42
33	L1	2758	C	C3'-O3'	5.04	1.49	1.42
33	L1	2806	A	C3'-O3'	5.04	1.49	1.42
71	Lj	30	ASN	C-N	5.04	1.40	1.33
77	Lc	49	HIS	CG-ND1	-5.04	1.32	1.38
33	L1	185	A	C4'-C3'	5.04	1.60	1.52
33	L1	1313	U	O5'-C5'	5.04	1.50	1.42
33	L1	2995	G	O5'-C5'	5.04	1.50	1.42
3	SB	41	VAL	C-O	5.04	1.29	1.24
7	SI	95	LEU	CB-CG	5.04	1.63	1.53
28	SN	40	ARG	CZ-NH1	5.04	1.39	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	L1	400	G	C3'-C2'	5.04	1.60	1.52
45	LQ	38	ILE	CB-CG1	5.04	1.63	1.53
54	Lf	52	CYS	CA-C	-5.04	1.47	1.53
32	S1	489	C	C5'-C4'	5.04	1.58	1.51
32	S1	674	G	O4'-C1'	5.04	1.49	1.41
33	L1	309	C	O3'-P	5.04	1.68	1.61
33	L1	363	A	O3'-P	-5.04	1.53	1.61
61	Lq	22	GLN	CA-C	-5.04	1.48	1.52
78	Le	122	ASN	CA-C	5.04	1.58	1.52
1	Sa	43	ALA	CA-CB	5.04	1.61	1.53
31	S2	14	A	O4'-C1'	5.04	1.49	1.41
32	S1	564	U	C4'-O4'	5.04	1.53	1.45
32	S1	567	U	C5'-C4'	5.04	1.58	1.51
33	L1	410	G	C3'-C2'	5.04	1.60	1.52
33	L1	1718	U	O4'-C1'	5.04	1.49	1.41
66	LN	56	THR	CB-OG1	-5.04	1.35	1.43
81	LD	328	ALA	CA-CB	5.04	1.62	1.53
1	Sa	15	THR	CA-C	-5.03	1.46	1.52
32	S1	451	U	O4'-C1'	5.03	1.49	1.41
32	S1	849	G	O4'-C1'	5.03	1.49	1.41
33	L1	382	A	C2'-C1'	5.03	1.60	1.53
33	L1	2698	A	P-O5'	-5.03	1.52	1.59
43	LO	19	HIS	C-N	5.03	1.45	1.33
47	LU	11	THR	CA-CB	5.03	1.60	1.53
48	LV	37	ARG	CD-NE	5.03	1.53	1.46
55	Lg	46	LYS	C-N	5.03	1.40	1.33
64	LG	184	ILE	C-N	5.03	1.40	1.33
72	Lk	51	ALA	CA-C	-5.03	1.46	1.52
4	SD	211	GLU	C-N	-5.03	1.26	1.33
32	S1	286	C	C2'-C1'	-5.03	1.45	1.53
32	S1	1677	U	C3'-C2'	5.03	1.60	1.52
33	L1	442	C	P-O5'	-5.03	1.52	1.59
33	L1	1467	G	P-O5'	-5.03	1.52	1.59
33	L1	1550	A	C5'-C4'	5.03	1.58	1.51
57	L1	70	VAL	CA-C	5.03	1.57	1.52
81	LD	360	ASP	N-CA	-5.03	1.40	1.46
8	SJ	97	VAL	CA-CB	-5.03	1.47	1.53
33	L1	527	G	C2'-C1'	-5.03	1.45	1.53
33	L1	1061	A	P-O5'	-5.03	1.52	1.59
33	L1	3202	G	C3'-O3'	5.03	1.49	1.42
34	L3	99	G	C3'-C2'	5.03	1.60	1.52
64	LG	141	LYS	N-CA	5.03	1.52	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
71	Lj	78	PRO	N-CA	-5.03	1.41	1.47
72	Lk	99	LYS	C-N	-5.03	1.27	1.33
2	SA	183	ALA	C-N	5.03	1.40	1.33
41	LM	33	GLY	N-CA	-5.03	1.38	1.45
78	Le	7	LYS	CA-C	-5.03	1.46	1.52
8	SJ	126	SER	N-CA	5.03	1.52	1.45
32	S1	179	A	C2'-C1'	-5.03	1.45	1.53
32	S1	586	U	P-O5'	-5.03	1.52	1.59
33	L1	47	A	C2'-C1'	-5.03	1.45	1.53
33	L1	365	A	C4'-C3'	5.03	1.60	1.52
33	L1	496	U	C3'-O3'	5.03	1.49	1.42
33	L1	2446	G	O4'-C1'	5.03	1.49	1.41
48	LV	145	CYS	CA-C	5.03	1.58	1.52
48	LV	146	HIS	CA-C	-5.03	1.46	1.52
1	Sa	346	ARG	CZ-NH1	5.03	1.39	1.32
25	SC	104	GLU	CA-C	-5.03	1.46	1.52
32	S1	278	C	O4'-C1'	5.03	1.49	1.41
33	L1	1679	U	C5'-C4'	5.03	1.58	1.51
33	L1	1975	G	O4'-C1'	5.03	1.49	1.41
33	L1	2636	U	C4'-O4'	5.03	1.53	1.45
36	LA	158	LEU	CA-C	5.03	1.59	1.52
11	SM	28	PHE	C-O	-5.02	1.17	1.24
32	S1	940	U	C4'-C3'	-5.02	1.45	1.52
32	S1	1372	C	C4'-O4'	5.02	1.53	1.45
57	L1	20	VAL	C-O	-5.02	1.18	1.24
11	SM	121	ARG	CA-C	-5.02	1.46	1.52
23	SU	93	PRO	CA-C	5.02	1.59	1.52
32	S1	653	U	P-O5'	-5.02	1.52	1.59
33	L1	832	C	O4'-C1'	5.02	1.49	1.41
33	L1	1113	C	O5'-C5'	5.02	1.50	1.42
33	L1	2213	G	C5'-C4'	5.02	1.58	1.51
33	L1	2288	C	O4'-C1'	5.02	1.49	1.41
33	L1	2575	C	C3'-O3'	5.02	1.49	1.42
33	L1	3382	A	C3'-O3'	5.02	1.49	1.42
34	L3	24	G	C4'-C3'	-5.02	1.45	1.52
35	L2	88	C	C2'-C1'	5.02	1.60	1.53
36	LA	13	ILE	CA-C	5.02	1.58	1.52
48	LV	5	SER	CA-C	5.02	1.59	1.52
51	LY	9	SER	C-N	5.02	1.40	1.33
33	L1	856	G	O5'-C5'	5.02	1.50	1.42
33	L1	2597	C	O5'-C5'	5.02	1.50	1.42
11	SM	77	PHE	C-N	5.02	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	S1	329	G	C2'-C1'	5.02	1.60	1.53
33	L1	2245	G	O4'-C1'	5.02	1.49	1.41
33	L1	3385	G	C3'-O3'	5.02	1.49	1.42
35	L2	98	C	O3'-P	-5.02	1.53	1.61
41	LM	45	ILE	N-CA	5.02	1.55	1.46
46	LT	77	GLY	CA-C	5.02	1.58	1.51
33	L1	45	U	O4'-C1'	5.02	1.49	1.41
33	L1	1428	G	C3'-O3'	5.02	1.49	1.42
33	L1	2368	G	C2'-C1'	-5.02	1.45	1.53
33	L1	3054	G	O5'-C5'	5.02	1.50	1.42
81	LD	6	ARG	C-N	5.02	1.40	1.33
1	Sa	190	GLY	CA-C	-5.02	1.44	1.51
4	SD	45	ILE	C-O	-5.02	1.18	1.24
13	SQ	81	ARG	CD-NE	5.02	1.53	1.46
32	S1	1089	A	O3'-P	-5.02	1.53	1.61
33	L1	863	G	C2'-O2'	-5.02	1.34	1.42
5	SE	63	GLU	CA-CB	5.01	1.61	1.53
10	SL	27	TYR	N-CA	5.01	1.52	1.46
32	S1	403	A	O5'-C5'	5.01	1.50	1.42
32	S1	945	A	C3'-O3'	5.01	1.49	1.42
33	L1	790	G	C2'-C1'	-5.01	1.45	1.53
33	L1	3319	G	O5'-C5'	5.01	1.50	1.42
34	L3	17	G	O4'-C1'	-5.01	1.34	1.41
35	L2	149	U	O4'-C1'	5.01	1.49	1.41
55	Lg	45	ARG	CA-CB	5.01	1.61	1.53
80	LC	166	THR	C-N	5.01	1.40	1.33
38	LE	53	ARG	N-CA	5.01	1.52	1.45
1	Sa	246	HIS	CG-CD2	5.01	1.41	1.35
29	ST	38	HIS	CG-CD2	5.01	1.41	1.35
32	S1	1246	A	O4'-C1'	5.01	1.49	1.41
32	S1	1786	A	O4'-C1'	5.01	1.49	1.41
33	L1	459	G	C4'-C3'	5.01	1.60	1.52
33	L1	518	G	C3'-C2'	-5.01	1.45	1.52
36	LA	202	CYS	CA-C	-5.01	1.46	1.52
83	Lm	18	TYR	CA-C	5.01	1.59	1.52
33	L1	907	A	C3'-O3'	5.01	1.49	1.42
33	L1	1924	G	P-O5'	5.01	1.67	1.59
33	L1	2236	U	O3'-P	-5.01	1.53	1.61
33	L1	2336	C	C5'-C4'	5.01	1.58	1.51
43	LO	49	HIS	CD2-NE2	5.01	1.43	1.37
78	Le	178	HIS	ND1-CE1	5.01	1.37	1.32
80	LC	251	LYS	N-CA	-5.01	1.39	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	SE	86	LYS	CA-CB	5.01	1.61	1.53
9	SK	51	THR	C-N	5.01	1.40	1.33
11	SM	34	LYS	N-CA	-5.01	1.39	1.46
11	SM	37	GLY	CA-C	-5.01	1.46	1.52
32	S1	570	C	C3'-O3'	5.01	1.49	1.42
32	S1	1609	G	C3'-C2'	5.01	1.60	1.52
51	LY	28	VAL	C-N	5.01	1.40	1.33
15	SS	104	ARG	CZ-NH1	5.01	1.39	1.32
33	L1	212	G	C3'-O3'	5.01	1.49	1.42
47	LU	131	GLN	N-CA	-5.01	1.42	1.46
31	S2	9	A	C3'-O3'	5.00	1.50	1.43
32	S1	1241	G	O4'-C1'	5.00	1.49	1.41
67	LS	42	LYS	CA-C	-5.00	1.46	1.52
1	Sa	93	TRP	CA-C	-5.00	1.46	1.52
1	Sa	192	ARG	CZ-NH2	5.00	1.40	1.33
33	L1	839	A	O4'-C1'	5.00	1.49	1.41
33	L1	1730	U	O3'-P	-5.00	1.53	1.61
33	L1	1891	A	C4'-O4'	5.00	1.53	1.45
35	L2	37	A	O3'-P	-5.00	1.53	1.61
35	L2	157	C	C2'-C1'	-5.00	1.45	1.53
39	LF	97	HIS	C-N	5.00	1.39	1.33
72	Lk	70	LYS	CA-C	-5.00	1.46	1.52
32	S1	1297	U	C4'-C3'	5.00	1.60	1.52
32	S1	1331	C	C2'-C1'	5.00	1.60	1.53
33	L1	1472	C	C2'-C1'	-5.00	1.45	1.53
33	L1	1769	C	O4'-C1'	5.00	1.49	1.41
33	L1	1771	G	O4'-C1'	-5.00	1.34	1.41
33	L1	2658	U	C4'-C3'	5.00	1.60	1.53
47	LU	113	ASP	CA-C	-5.00	1.45	1.52

All (18805) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
72	Lk	93	MET	CA-C-O	-67.87	58.55	121.67
60	Lr	101	GLY	CA-C-O	-65.35	56.59	120.64
48	LV	36	ILE	O-C-N	-60.24	64.59	123.03
2	SA	204	ASP	O-C-N	-58.77	68.01	123.26
23	SU	82	TYR	CA-C-O	-57.12	48.95	122.63
77	Lc	5	LYS	CA-C-O	-56.75	60.72	121.45
80	LC	130	PHE	CA-C-O	-56.51	61.45	121.36
48	LV	36	ILE	CA-C-O	-55.68	65.74	120.31
81	LD	23	SER	O-C-N	-55.45	67.84	123.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	SE	101	ALA	CA-C-O	-54.85	57.29	121.46
81	LD	23	SER	CA-C-O	-54.69	62.76	121.28
4	SD	131	PHE	CA-C-O	-54.60	60.26	120.32
5	SE	28	GLY	O-C-N	-54.37	64.51	122.68
67	LS	150	LYS	CA-C-O	-54.33	59.36	120.20
2	SA	204	ASP	CA-C-O	-54.09	60.68	121.26
4	SD	239	PRO	O-C-N	-53.72	57.46	123.00
80	LC	295	SER	CA-C-O	-53.48	62.36	121.19
8	SJ	126	SER	CA-C-O	-53.24	64.48	121.45
43	LO	40	HIS	CA-C-O	-52.57	61.01	121.47
81	LD	329	ALA	CA-C-O	-52.53	60.19	121.65
20	SZ	44	PHE	O-C-N	-52.20	55.39	122.73
20	SZ	44	PHE	CA-C-O	-51.94	67.64	121.14
48	LV	69	ARG	CA-C-O	-51.94	63.34	121.51
64	LG	79	THR	O-C-N	-51.35	64.93	122.96
80	LC	291	SER	O-C-N	-51.32	67.72	122.12
80	LC	291	SER	CA-C-O	-51.21	65.32	120.63
43	LO	40	HIS	O-C-N	-51.15	65.16	122.96
47	LU	126	ILE	O-C-N	-51.04	64.12	121.80
25	SC	143	VAL	O-C-N	-50.87	58.98	122.57
8	SJ	126	SER	O-C-N	-50.83	64.64	123.10
45	LQ	124	VAL	O-C-N	-50.36	64.41	122.83
4	SD	131	PHE	O-C-N	-50.21	64.03	123.27
60	Lr	101	GLY	O-C-N	-49.97	68.52	123.49
81	LD	328	ALA	CA-C-O	-49.85	59.23	120.54
37	LB	196	TRP	O-C-N	-49.56	64.33	121.32
45	LQ	235	GLY	O-C-N	-49.56	66.60	122.60
15	SS	93	PRO	CA-C-O	-49.52	60.72	122.12
80	LC	17	LEU	O-C-N	-49.48	64.41	121.32
46	LT	71	GLN	CA-C-O	-49.34	58.13	119.31
47	LU	126	ILE	CA-C-O	-49.19	67.35	120.47
14	SP	41	LEU	CA-C-O	-49.19	59.70	121.67
72	Lk	66	VAL	CA-C-O	-48.83	59.75	120.78
80	LC	130	PHE	O-C-N	-48.65	66.00	122.92
5	SE	28	GLY	CA-C-O	-48.65	60.38	122.65
45	LQ	235	GLY	CA-C-O	-48.46	60.30	122.82
77	Lc	5	LYS	O-C-N	-48.39	67.45	123.10
73	Lp	52	LYS	O-C-N	-48.35	68.79	122.94
64	LG	79	THR	CA-C-O	-47.99	66.28	121.47
25	SC	143	VAL	CA-C-O	-47.96	60.84	120.78
40	LH	233	VAL	O-C-N	-47.95	62.63	122.57
4	SD	132	GLY	O-C-N	-47.86	60.48	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	LP	74	PRO	O-C-N	-47.84	65.30	122.71
81	LD	329	ALA	O-C-N	-47.69	65.36	122.58
25	SC	136	ILE	O-C-N	-47.52	63.16	122.57
81	LD	328	ALA	O-C-N	-47.34	68.02	123.41
80	LC	349	GLN	O-C-N	-47.33	66.58	121.95
67	LS	150	LYS	O-C-N	-47.17	68.43	122.20
64	LG	184	ILE	CA-C-O	-47.07	61.95	120.78
45	LQ	124	VAL	CA-C-O	-46.90	61.46	121.02
15	SS	93	PRO	O-C-N	-46.88	65.95	123.14
68	LW	28	SER	CA-C-O	-46.83	65.18	120.43
47	LU	138	GLY	CA-C-O	-46.81	51.37	121.58
60	Lr	32	LYS	CA-C-O	-46.80	68.28	121.16
12	SO	80	LEU	CA-C-O	-46.56	61.57	119.31
64	LG	185	ASP	CA-C-O	-46.48	54.04	120.51
80	LC	295	SER	O-C-N	-46.34	65.87	122.87
58	Ln	47	VAL	CA-C-O	-46.30	62.90	120.78
8	SJ	78	PRO	O-C-N	-46.06	60.46	122.64
78	Le	204	LEU	CA-C-O	-45.96	64.18	121.17
10	SL	84	VAL	O-C-N	-45.87	68.80	121.10
13	SQ	139	ASP	N-CA-C	45.87	146.39	108.78
58	Ln	47	VAL	O-C-N	-45.60	65.57	122.57
10	SL	84	VAL	CA-C-O	-45.36	59.17	119.95
15	SS	92	PRO	O-C-N	-45.10	68.24	121.46
4	SD	153	ILE	O-C-N	-45.02	66.29	122.57
71	Lj	12	TYR	O-C-N	-45.00	62.74	122.59
81	LD	94	GLY	O-C-N	-44.96	64.25	122.70
40	LH	233	VAL	CA-C-O	-44.93	64.61	120.78
81	LD	304	GLN	O-C-N	-44.79	63.02	122.59
4	SD	240	LYS	CA-C-O	-44.76	56.50	120.51
78	Le	83	ALA	CA-C-O	-44.51	56.86	120.51
42	LP	74	PRO	CA-C-O	-44.31	58.51	122.31
27	SH	82	GLY	O-C-N	-44.27	67.07	122.41
50	LZ	53	TRP	CA-C-O	-44.24	66.25	119.78
11	SM	89	ASP	CA-C-O	-44.23	67.98	120.62
27	SH	82	GLY	CA-C-O	-44.21	65.19	119.13
45	LQ	290	SER	CA-C-O	-44.21	57.29	120.51
45	LQ	290	SER	O-C-N	-43.97	64.11	122.59
3	SB	210	ILE	O-C-N	-43.91	67.69	122.57
80	LC	352	ARG	O-C-N	-43.82	65.39	123.24
25	SC	136	ILE	CA-C-O	-43.81	66.01	120.78
80	LC	349	GLN	CA-C-O	-43.59	65.56	119.61
5	SE	90	MET	O-C-N	-43.57	64.64	122.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
64	LG	171	LYS	CA-C-O	-43.40	64.16	120.15
80	LC	385	GLY	O-C-N	-43.38	66.30	122.70
43	LO	127	LYS	CA-C-O	-43.29	58.60	120.51
80	LC	352	ARG	CA-C-O	-43.09	61.12	120.15
45	LQ	249	ALA	CA-C-O	-43.04	58.96	120.51
5	SE	101	ALA	O-C-N	-42.92	65.59	123.11
3	SB	210	ILE	CA-C-O	-42.81	67.27	120.78
84	LI	116	ARG	O-C-N	-42.79	65.67	122.59
56	Lh	13	LYS	CA-C-O	-42.77	59.34	120.51
61	Lq	23	ARG	O-C-N	-42.68	65.82	122.59
37	LB	196	TRP	CA-C-O	-42.67	61.70	120.16
15	SS	98	SER	CA-C-O	-42.66	59.50	120.51
51	LY	9	SER	O-C-N	-42.61	65.92	122.59
81	LD	18	MET	CA-C-O	-42.38	59.91	120.51
45	LQ	112	THR	CA-C-O	-42.34	59.96	120.51
13	SQ	26	LEU	O-C-N	-42.33	66.29	122.59
37	LB	73	LYS	O-C-N	-42.27	66.37	122.59
80	LC	120	LYS	O-C-N	-42.16	66.52	122.59
81	LD	20	THR	O-C-N	-42.12	66.57	122.59
71	Lj	12	TYR	CA-C-O	-42.03	60.40	120.51
48	LV	170	LYS	CA-C-O	-42.01	60.44	120.51
81	LD	90	ARG	CA-C-O	-41.76	60.80	120.51
48	LV	170	LYS	O-C-N	-41.72	67.10	122.59
72	Lk	95	SER	O-C-N	-41.71	67.12	122.59
78	Le	204	LEU	O-C-N	-41.70	65.68	121.97
82	LK	11	ARG	O-C-N	-41.70	67.13	122.59
81	LD	90	ARG	O-C-N	-41.66	67.18	122.59
66	LN	89	TRP	CA-C-O	-41.53	61.12	120.51
51	LY	9	SER	CA-C-O	-41.52	61.14	120.51
40	LH	87	ASN	O-C-N	-41.51	67.38	122.59
60	Lr	89	LYS	CA-C-O	-41.47	61.21	120.51
45	LQ	249	ALA	O-C-N	-41.42	67.50	122.59
43	LO	137	GLY	O-C-N	-41.42	83.56	122.90
66	LN	89	TRP	O-C-N	-41.34	67.61	122.59
81	LD	84	PRO	O-C-N	-41.25	66.96	122.64
12	SO	67	THR	O-C-N	-41.24	67.75	122.59
37	LB	73	LYS	CA-C-O	-41.09	61.75	120.51
81	LD	18	MET	O-C-N	-41.08	67.95	122.59
59	Lo	30	ARG	CA-C-O	-40.95	61.96	120.51
5	SE	30	ARG	NE-CZ-NH2	-40.91	82.38	119.20
13	SQ	82	MET	O-C-N	-40.83	68.29	122.59
25	SC	44	LEU	CA-C-O	-40.69	62.33	120.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	LD	304	GLN	CA-C-O	-40.65	62.39	120.51
80	LC	372	GLY	O-C-N	-40.53	70.01	122.70
80	LC	120	LYS	CA-C-O	-40.33	62.84	120.51
80	LC	350	THR	O-C-N	-40.22	69.09	122.59
81	LD	20	THR	CA-C-O	-40.11	63.15	120.51
82	LK	11	ARG	CA-C-O	-40.05	63.24	120.51
43	LO	127	LYS	O-C-N	-40.01	69.38	122.59
12	SO	80	LEU	O-C-N	-39.86	67.45	122.46
61	Lq	23	ARG	CA-C-O	-39.84	63.54	120.51
64	LG	49	LYS	O-C-N	-39.79	69.67	122.59
72	Lk	93	MET	O-C-N	-39.74	66.14	121.78
80	LC	350	THR	CA-C-O	-39.72	63.70	120.51
5	SE	90	MET	CA-C-O	-39.70	63.74	120.51
72	Lk	95	SER	CA-C-O	-39.62	63.86	120.51
64	LG	171	LYS	O-C-N	-39.60	71.10	122.19
80	LC	17	LEU	CA-C-O	-39.56	65.96	120.16
72	Lk	66	VAL	O-C-N	-39.55	73.14	122.57
78	Le	83	ALA	O-C-N	-39.36	70.25	122.59
3	SB	212	PRO	O-C-N	-39.28	75.11	121.46
4	SD	239	PRO	CA-C-O	-39.17	71.94	122.08
12	SO	67	THR	CA-C-O	-39.15	64.53	120.51
14	SP	41	LEU	O-C-N	-39.06	70.57	121.74
64	LG	49	LYS	CA-C-O	-39.01	64.72	120.51
40	LH	87	ASN	CA-C-O	-39.00	64.74	120.51
84	LI	116	ARG	CA-C-O	-38.98	64.77	120.51
15	SS	98	SER	O-C-N	-38.80	70.98	122.59
48	LV	69	ARG	O-C-N	-38.79	74.09	122.96
70	Li	107	LEU	CA-C-O	-38.59	65.32	120.51
45	LQ	16	TYR	CA-C-O	-38.58	65.34	120.51
39	LF	2	LYS	CA-C-O	-38.53	65.35	121.98
13	SQ	26	LEU	CA-C-O	-38.28	65.77	120.51
45	LQ	16	TYR	O-C-N	-38.20	71.78	122.59
68	LW	28	SER	O-C-N	-38.15	79.98	123.48
60	Lr	89	LYS	O-C-N	-37.96	72.10	122.59
77	Lc	98	PRO	O-C-N	-37.92	71.45	122.64
4	SD	153	ILE	CA-C-O	-37.89	73.42	120.78
45	LQ	237	GLU	CA-C-O	-37.83	66.36	121.98
56	Lh	13	LYS	O-C-N	-37.17	73.15	122.59
23	SU	33	LEU	O-C-N	-36.82	84.60	123.26
50	LZ	53	TRP	O-C-N	-36.70	68.61	122.20
11	SM	89	ASP	O-C-N	-36.45	73.57	122.77
13	SQ	61	ILE	N-CA-C	36.37	150.13	111.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
80	LC	292	GLY	O-C-N	-36.31	64.90	123.00
64	LG	44	ALA	CA-C-O	-36.22	68.71	120.51
83	Lm	7	LYS	O-C-N	-36.12	85.47	123.04
25	SC	171	PRO	CA-N-CD	-36.12	61.44	112.00
46	LT	71	GLN	O-C-N	-36.11	72.63	122.46
45	LQ	112	THR	O-C-N	-36.09	74.58	122.59
33	L1	499	A	P-O5'-C5'	35.99	173.99	120.00
9	SK	93	HIS	O-C-N	-35.86	74.89	122.59
3	SB	212	PRO	CA-C-O	-35.64	68.88	120.56
80	LC	372	GLY	CA-C-O	-35.63	58.58	120.57
81	LD	95	ALA	O-C-N	-35.61	66.02	123.00
45	LQ	238	SER	O-C-N	-35.55	66.13	123.00
15	SS	92	PRO	CA-C-O	-35.52	69.06	120.56
80	LC	357	GLU	CA-C-O	-35.51	73.79	121.73
81	LD	95	ALA	CA-C-O	-35.40	60.61	120.80
78	Le	162	ARG	O-C-N	-35.38	82.23	123.27
80	LC	1	MET	O-C-N	-35.26	66.58	123.00
32	S1	303	A	O3'-P-O5'	35.21	156.81	104.00
25	SC	33	VAL	O-C-N	-34.91	78.93	122.22
48	LV	166	ILE	CA-C-O	-34.82	77.25	120.78
32	S1	1506	G	P-O3'-C3'	34.81	172.42	120.20
66	LN	64	ARG	NE-CZ-NH2	-34.78	87.90	119.20
45	LQ	238	SER	CA-C-O	-34.75	61.73	120.80
33	L1	641	C	P-O3'-C3'	34.40	171.80	120.20
81	LD	94	GLY	CA-C-O	-33.87	61.64	120.57
49	LX	33	SER	O-C-N	-33.75	81.45	122.63
11	SM	97	GLN	CA-C-O	-33.74	56.77	122.23
80	LC	385	GLY	CA-C-O	-33.59	62.12	120.57
80	LC	1	MET	CA-C-O	-33.39	64.04	120.80
77	Lc	98	PRO	CA-C-O	-33.07	60.41	120.60
81	LD	84	PRO	CA-C-O	-32.67	61.15	120.60
9	SK	102	ASN	CB-CG-ND2	32.50	165.14	116.40
70	Li	107	LEU	O-C-N	-32.47	79.40	122.59
71	Lj	24	LYS	CA-C-O	-32.40	74.18	120.51
47	LU	140	MET	CA-C-O	-32.31	83.66	121.46
11	SM	53	ASN	OD1-CG-ND2	-32.23	90.37	122.60
33	L1	1395	A	O4'-C1'-N9	32.03	156.54	108.50
80	LC	357	GLU	O-C-N	-32.02	76.65	122.76
13	SQ	139	ASP	CA-C-O	31.97	136.49	117.94
68	LW	104	VAL	O-C-N	-31.96	82.62	122.57
33	L1	1742	G	P-O5'-C5'	31.91	168.77	120.90
11	SM	126	TYR	CZ-CE2-CD2	-31.64	62.66	119.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	LQ	137	ASP	CA-C-O	-31.53	61.06	122.23
2	SA	108	THR	CA-C-N	31.34	151.55	120.52
2	SA	108	THR	C-N-CA	31.34	151.55	120.52
44	LR	97	ALA	CA-C-O	-31.30	75.75	120.51
13	SQ	73	LEU	O-C-N	-31.10	83.81	122.68
69	La	8	GLY	CA-C-O	-30.82	99.87	122.37
45	LQ	237	GLU	O-C-N	-30.75	65.12	121.70
8	SJ	78	PRO	CA-C-O	-30.62	64.86	120.60
39	LF	2	LYS	O-C-N	-30.52	65.55	121.70
19	SY	46	VAL	CA-C-N	-30.32	74.98	122.59
19	SY	46	VAL	C-N-CA	-30.32	74.98	122.59
40	LH	97	PRO	O-C-N	-30.00	82.15	122.64
33	L1	3333	C	P-O3'-C3'	29.90	165.05	120.20
80	LC	292	GLY	CA-C-O	-29.62	58.60	120.80
33	L1	62	A	O4'-C1'-N9	29.49	152.73	108.50
2	SA	108	THR	O-C-N	-29.45	90.38	121.60
43	LO	137	GLY	CA-C-O	-29.41	76.70	122.28
4	SD	240	LYS	O-C-N	-29.21	83.75	122.59
13	SQ	82	MET	CA-C-O	-28.74	79.41	120.51
67	LS	70	ASN	CA-C-O	-28.45	81.18	120.16
9	SK	123	MET	CG-SD-CE	27.89	162.26	100.90
47	LU	138	GLY	O-C-N	-27.84	81.64	123.13
34	L3	54	A	P-O3'-C3'	27.79	161.89	120.20
60	Lr	61	LYS	CA-C-O	-27.65	87.09	120.55
45	LQ	116	LEU	O-C-N	-27.64	85.83	122.59
33	L1	716	A	O4'-C1'-C2'	-27.60	80.00	107.60
33	L1	309	C	O5'-C5'-C4'	27.55	152.82	111.50
28	SN	10	HIS	O-C-N	-27.49	89.71	121.32
25	SC	44	LEU	O-C-N	-27.48	86.05	122.59
32	S1	1759	A	O4'-C1'-C2'	-27.20	80.40	107.60
32	S1	647	G	P-O3'-C3'	27.06	160.79	120.20
4	SD	150	PRO	O-C-N	-26.85	86.40	122.64
33	L1	2247	A	O4'-C1'-C2'	-26.56	81.04	107.60
45	LQ	116	LEU	CA-C-O	-26.49	82.63	120.51
69	La	27	ARG	N-CA-C	26.43	149.22	108.79
33	L1	1766	U	P-O3'-C3'	26.12	159.39	120.20
25	SC	171	PRO	N-CD-CG	-26.12	64.02	103.20
41	LM	72	LEU	N-CA-C	26.05	139.27	111.14
33	L1	384	A	N9-C1'-C2'	26.01	151.02	112.00
57	LI	11	ARG	O-C-N	-26.01	87.99	122.59
82	LK	135	GLN	CA-C-O	-25.99	84.56	120.16
84	LI	109	ASP	CA-C-O	-25.97	104.97	119.77

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3375	G	P-O3'-C3'	25.87	159.00	120.20
45	LQ	137	ASP	O-C-N	-25.80	62.40	121.74
67	LS	120	PHE	CA-C-O	-25.75	84.89	120.16
32	S1	1541	C	P-O3'-C3'	25.71	158.77	120.20
64	LG	51	TYR	O-C-N	-25.46	92.04	121.32
83	Lm	7	LYS	CA-C-O	-25.35	93.61	121.25
32	S1	1443	U	P-O3'-C3'	25.33	158.19	120.20
11	SM	126	TYR	CG-CD2-CE2	-25.27	83.29	121.20
32	S1	1678	G	O4'-C1'-N9	25.18	146.27	108.50
33	L1	641	C	O4'-C1'-C2'	-25.05	82.55	107.60
71	Lj	8	ARG	O-C-N	-25.02	94.14	123.16
56	Lh	37	LYS	CA-C-N	25.00	143.92	119.92
56	Lh	37	LYS	C-N-CA	25.00	143.92	119.92
1	Sa	94	ASN	CA-C-N	24.92	154.52	120.38
1	Sa	94	ASN	C-N-CA	24.92	154.52	120.38
81	LD	308	LYS	O-C-N	-24.90	97.30	120.71
71	Lj	24	LYS	O-C-N	-24.85	89.53	122.59
32	S1	174	C	P-O3'-C3'	24.85	157.48	120.20
1	Sa	140	GLN	CG-CD-NE2	-24.73	79.30	116.40
32	S1	1616	U	P-O3'-C3'	24.72	157.28	120.20
66	LN	64	ARG	NH1-CZ-NH2	24.64	151.34	119.30
33	L1	3320	G	O4'-C1'-C2'	-24.64	82.97	107.60
33	L1	570	G	P-O3'-C3'	24.59	157.09	120.20
47	LU	140	MET	O-C-N	-24.39	90.42	123.11
32	S1	1473	C	P-O5'-C5'	24.36	157.44	120.90
3	SB	81	GLU	O-C-N	-24.34	90.21	122.59
11	SM	97	GLN	O-C-N	-24.20	66.09	121.74
68	LW	104	VAL	CA-C-O	-24.13	90.62	120.78
23	SU	79	GLY	O-C-N	-24.09	91.39	122.70
70	Li	110	GLN	CA-C-O	-23.73	86.58	120.51
4	SD	132	GLY	CA-C-O	-23.71	79.31	120.57
33	L1	722	C	P-O3'-C3'	23.66	155.69	120.20
33	L1	3336	A	P-O3'-C3'	23.18	154.97	120.20
66	LN	113	ALA	N-CA-CB	-23.16	76.07	110.12
33	L1	1394	C	N1-C1'-C2'	23.02	148.52	114.00
43	LO	6	LYS	CA-C-O	-22.91	96.49	120.77
33	L1	789	A	P-O3'-C3'	22.80	154.40	120.20
32	S1	1225	A	P-O3'-C3'	22.65	154.17	120.20
33	L1	2501	U	O3'-P-O5'	-22.65	70.03	104.00
64	LG	184	ILE	O-C-N	-22.61	94.31	122.57
32	S1	1279	A	P-O5'-C5'	22.56	154.74	120.90
15	SS	123	GLY	O-C-N	-22.51	98.97	122.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1623	C	O5'-C5'-C4'	22.42	145.33	111.70
32	S1	652	G	P-O3'-C3'	22.41	153.82	120.20
33	L1	227	C	N1-C1'-C2'	22.41	145.62	112.00
33	L1	996	A	C1'-O4'-C4'	-22.27	87.64	109.90
33	L1	62	A	P-O3'-C3'	22.24	153.56	120.20
23	SU	71	GLY	O-C-N	-22.18	93.87	122.70
79	Ls	234	TYR	CA-C-N	22.13	147.51	119.84
79	Ls	234	TYR	C-N-CA	22.13	147.51	119.84
64	LG	51	TYR	CA-C-O	-22.12	89.86	120.16
13	SQ	109	LEU	O-C-N	-22.11	91.90	122.41
23	SU	7	ALA	O-C-N	-22.10	69.06	121.87
23	SU	7	ALA	CA-C-O	-22.09	99.65	120.19
33	L1	2793	G	O4'-C1'-C2'	22.01	129.61	107.60
19	SY	46	VAL	O-C-N	21.98	146.78	122.82
64	LG	12	LYS	CA-C-O	-21.92	89.16	120.51
39	LF	187	THR	CA-C-O	-21.92	98.56	121.14
4	SD	150	PRO	CA-C-O	-21.87	80.80	120.60
13	SQ	73	LEU	CA-C-O	-21.77	97.94	120.80
33	L1	1533	U	O4'-C1'-C2'	-21.76	85.84	107.60
32	S1	663	C	P-O3'-C3'	21.75	152.82	120.20
13	SQ	138	ARG	CA-C-N	21.68	146.46	123.04
13	SQ	138	ARG	C-N-CA	21.68	146.46	123.04
68	LW	83	ARG	CA-C-N	21.66	149.31	120.28
68	LW	83	ARG	C-N-CA	21.66	149.31	120.28
66	LN	64	ARG	CD-NE-CZ	-21.66	94.08	124.40
32	S1	259	A	P-O5'-C5'	21.49	153.13	120.90
32	S1	1571	G	P-O3'-C3'	21.46	152.39	120.20
32	S1	1588	C	O3'-P-O5'	-21.43	71.86	104.00
31	S2	74	C	P-O3'-C3'	21.32	152.18	120.20
32	S1	1614	C	P-O3'-C3'	21.30	152.16	120.20
23	SU	78	PHE	CA-CB-CG	21.30	135.09	113.80
33	L1	73	A	C5'-C4'-C3'	21.28	147.92	116.00
32	S1	533	C	P-O3'-C3'	21.24	152.06	120.20
33	L1	1691	U	N1-C1'-C2'	-21.16	80.27	112.00
33	L1	69	U	N1-C1'-C2'	21.07	143.60	112.00
32	S1	261	C	P-O3'-C3'	21.06	151.80	120.20
73	Lp	52	LYS	CA-C-O	-21.05	96.88	121.72
33	L1	2622	G	P-O3'-C3'	21.04	151.76	120.20
32	S1	151	A	P-O3'-C3'	21.02	151.72	120.20
69	La	29	PHE	CA-CB-CG	20.95	134.75	113.80
25	SC	63	THR	OG1-CB-CG2	-20.95	67.40	109.30
33	L1	2290	A	N9-C1'-C2'	20.82	143.23	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1691	U	O4'-C1'-C2'	-20.81	86.79	107.60
1	Sa	199	GLU	CA-C-N	20.76	148.08	120.26
1	Sa	199	GLU	C-N-CA	20.76	148.08	120.26
23	SU	34	HIS	O-C-N	-20.75	97.46	121.32
35	L2	79	G	P-O3'-C3'	20.72	151.28	120.20
32	S1	376	G	N9-C1'-C2'	20.70	153.81	112.40
33	L1	1620	U	P-O3'-C3'	20.67	151.21	120.20
33	L1	2203	A	P-O3'-C3'	20.61	151.11	120.20
25	SC	164	SER	CA-C-N	-20.59	94.10	119.84
25	SC	164	SER	C-N-CA	-20.59	94.10	119.84
33	L1	2247	A	C1'-O4'-C4'	20.54	130.44	109.90
35	L2	102	U	P-O5'-C5'	-20.48	90.19	120.90
32	S1	1566	U	O4'-C1'-C2'	-20.46	87.14	107.60
33	L1	640	C	N1-C1'-C2'	20.45	142.68	112.00
32	S1	1538	C	P-O3'-C3'	20.37	150.76	120.20
70	Li	46	VAL	N-CA-CB	-20.36	77.63	111.23
33	L1	1059	A	P-O5'-C5'	20.35	151.43	120.90
33	L1	262	A	O4'-C1'-C2'	-20.33	87.27	107.60
11	SM	34	LYS	CA-C-N	20.29	152.34	121.51
11	SM	34	LYS	C-N-CA	20.29	152.34	121.51
33	L1	1779	C	P-O5'-C5'	20.24	151.26	120.90
33	L1	3143	A	N9-C1'-C2'	20.20	144.30	114.00
64	LG	29	LYS	O-C-N	-20.20	95.72	122.59
25	SC	162	LEU	CA-C-O	-20.18	91.65	120.51
32	S1	1183	G	P-O3'-C3'	20.16	150.43	120.20
25	SC	164	SER	CA-C-O	-20.12	92.60	120.16
60	Lr	61	LYS	CA-C-N	-20.08	94.69	123.00
60	Lr	61	LYS	C-N-CA	-20.08	94.69	123.00
34	L3	75	G	P-O5'-C5'	20.07	151.00	120.90
81	LD	309	PRO	CB-CA-C	20.07	142.65	112.55
1	Sa	266	THR	N-CA-C	-20.05	75.46	108.34
23	SU	24	SER	CA-C-N	20.02	153.57	122.74
23	SU	24	SER	C-N-CA	20.02	153.57	122.74
33	L1	1576	C	O4'-C1'-C2'	-19.95	87.64	107.60
11	SM	92	ASP	CA-CB-CG	19.91	132.51	112.60
33	L1	1395	A	P-O5'-C5'	19.89	150.73	120.90
33	L1	1081	U	O4'-C1'-N1	19.86	138.28	108.50
1	Sa	16	ALA	O-C-N	19.81	145.40	122.22
4	SD	133	GLN	N-CA-C	19.81	139.36	110.24
32	S1	964	U	P-O3'-C3'	19.80	149.90	120.20
33	L1	72	A	O4'-C1'-N9	19.75	138.12	108.50
34	L3	3	A	O4'-C1'-C2'	-19.72	87.88	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	SQ	81	ARG	CA-C-O	-19.72	92.31	120.51
33	L1	785	U	P-O3'-C3'	19.69	149.74	120.20
33	L1	2766	U	O4'-C1'-C2'	-19.60	88.00	107.60
4	SD	93	PRO	CA-C-O	-19.52	98.78	121.03
32	S1	636	U	O4'-C1'-C2'	-19.51	88.09	107.60
33	L1	2629	C	N1-C1'-C2'	19.50	141.25	112.00
31	S2	75	A	O4'-C1'-N9	19.48	137.43	108.20
29	ST	41	GLU	N-CA-C	19.46	132.50	111.28
9	SK	93	HIS	CA-C-N	19.42	156.92	121.97
9	SK	93	HIS	C-N-CA	19.42	156.92	121.97
33	L1	2460	A	O4'-C1'-C2'	19.38	125.18	105.80
25	SC	29	GLU	OE1-CD-OE2	-19.38	76.40	122.90
66	LN	99	ARG	N-CA-C	19.35	131.78	111.07
9	SK	84	CYS	CA-CB-SG	19.30	158.78	114.40
35	L2	48	A	P-O3'-C3'	19.28	149.12	120.20
33	L1	2881	C	N1-C1'-C2'	19.27	140.91	112.00
33	L1	2723	G	P-O3'-C3'	19.24	149.06	120.20
35	L2	44	A	N9-C1'-C2'	19.23	140.85	112.00
32	S1	303	A	P-O3'-C3'	-19.23	91.36	120.20
33	L1	2483	A	O4'-C1'-N9	19.22	137.33	108.50
13	SQ	21	TYR	O-C-N	-19.19	97.06	122.59
32	S1	1587	G	P-O3'-C3'	19.18	148.97	120.20
70	Li	43	LYS	CG-CD-CE	19.16	155.36	111.30
33	L1	2669	C	P-O3'-C3'	19.14	148.91	120.20
33	L1	1746	G	C3'-C2'-C1'	-19.13	82.17	101.30
15	SS	5	THR	N-CA-C	19.12	134.05	111.11
33	L1	1272	G	P-O3'-C3'	19.12	148.88	120.20
33	L1	3156	G	O4'-C1'-N9	19.09	137.14	108.50
84	LI	109	ASP	CA-CB-CG	-19.08	93.52	112.60
49	LX	33	SER	CA-C-N	-19.07	85.11	121.54
49	LX	33	SER	C-N-CA	-19.07	85.11	121.54
33	L1	707	G	N9-C1'-C2'	19.03	140.55	112.00
33	L1	1880	A	C4'-C3'-C2'	-19.03	83.57	102.60
32	S1	1782	C	P-O5'-C5'	19.02	149.43	120.90
32	S1	1225	A	O4'-C1'-C2'	-19.01	88.59	107.60
33	L1	716	A	C1'-O4'-C4'	19.01	128.91	109.90
33	L1	1818	C	O4'-C1'-C2'	-19.01	88.59	107.60
33	L1	500	C	P-O5'-C5'	19.00	148.50	120.00
4	SD	93	PRO	O-C-N	-18.96	101.86	123.10
32	S1	3	C	C3'-C2'-C1'	18.96	120.26	101.30
46	LT	176	ARG	CB-CA-C	18.92	142.14	110.17
32	S1	576	C	N1-C1'-C2'	18.92	140.38	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	SM	35	GLY	N-CA-C	18.89	143.28	115.32
33	L1	1616	G	C3'-C2'-C1'	-18.85	82.45	101.30
2	SA	215	LYS	CA-C-N	18.84	157.52	121.54
2	SA	215	LYS	C-N-CA	18.84	157.52	121.54
33	L1	2059	C	N1-C1'-C2'	18.83	140.25	112.00
25	SC	144	ASN	CA-C-O	-18.83	93.59	120.51
33	L1	250	C	N1-C1'-C2'	18.80	140.20	112.00
33	L1	1371	G	N9-C1'-C2'	18.79	140.19	112.00
5	SE	30	ARG	NH1-CZ-NH2	18.78	143.71	119.30
25	SC	33	VAL	CA-C-N	18.77	158.20	121.41
25	SC	33	VAL	C-N-CA	18.77	158.20	121.41
33	L1	2399	G	P-O3'-C3'	18.77	148.35	120.20
33	L1	640	C	O4'-C1'-C2'	-18.76	88.84	107.60
33	L1	70	A	N9-C1'-C2'	18.74	142.10	114.00
71	Lj	95	PRO	CA-C-N	-18.71	96.24	122.82
71	Lj	95	PRO	C-N-CA	-18.71	96.24	122.82
35	L2	97	U	C1'-O4'-C4'	18.68	128.58	109.90
64	LG	143	ASP	CA-CB-CG	18.67	131.27	112.60
1	Sa	83	SER	CA-CB-OG	18.65	148.40	111.10
33	L1	250	C	O4'-C1'-C2'	-18.63	88.97	107.60
33	L1	1599	A	N9-C1'-C2'	18.62	139.92	112.00
44	LR	97	ALA	O-C-N	-18.61	97.83	122.59
39	LF	187	THR	O-C-N	-18.59	98.75	122.73
33	L1	2502	U	O4'-C1'-C2'	-18.56	89.04	107.60
4	SD	136	ILE	CA-CB-CG1	18.54	141.93	110.40
33	L1	996	A	C3'-C2'-C1'	-18.54	82.76	101.30
33	L1	2274	A	N9-C1'-C2'	18.53	141.80	114.00
33	L1	308	U	N1-C1'-C2'	18.52	139.78	112.00
33	L1	811	A	N9-C1'-C2'	18.50	139.74	112.00
23	SU	34	HIS	CA-C-O	-18.47	94.85	120.16
33	L1	1318	C	N1-C1'-C2'	18.47	139.70	112.00
35	L2	57	A	C3'-C2'-C1'	18.45	119.75	101.30
4	SD	136	ILE	O-C-N	-18.44	100.08	121.10
33	L1	2793	G	C1'-O4'-C4'	-18.43	91.47	109.90
33	L1	1258	C	O4'-C1'-C2'	-18.42	89.18	107.60
48	LV	158	VAL	N-CA-CB	18.39	132.06	110.55
66	LN	87	SER	N-CA-C	18.33	130.68	111.07
35	L2	53	G	N9-C1'-C2'	18.31	139.47	112.00
5	SE	30	ARG	CB-CG-CD	-18.28	69.25	111.30
33	L1	3137	G	P-O3'-C3'	18.18	147.47	120.20
33	L1	3327	A	N9-C1'-C2'	18.18	139.27	112.00
32	S1	1745	U	O4'-C1'-C2'	-18.08	89.52	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	SK	34	ALA	N-CA-C	-18.04	89.50	111.69
33	L1	3234	G	N9-C1'-C2'	-18.04	84.94	112.00
64	LG	26	TRP	O-C-N	-18.02	98.63	122.59
13	SQ	109	LEU	CA-C-O	-18.02	100.58	121.66
33	L1	1508	C	N1-C1'-C2'	17.97	138.96	112.00
33	L1	1748	A	P-O3'-C3'	17.96	147.15	120.20
33	L1	2487	A	O4'-C1'-N9	17.96	135.45	108.50
32	S1	1239	C	O4'-C1'-N1	17.96	135.44	108.50
33	L1	1735	U	O4'-C1'-C2'	-17.91	89.69	107.60
60	Lr	32	LYS	O-C-N	-17.90	100.61	123.16
70	Li	43	LYS	CA-C-N	17.88	146.22	121.20
70	Li	43	LYS	C-N-CA	17.88	146.22	121.20
33	L1	167	C	N1-C1'-C2'	17.86	140.80	114.00
33	L1	607	U	O4'-C1'-N1	17.84	135.25	108.50
33	L1	1698	C	N1-C1'-C2'	17.82	138.72	112.00
5	SE	193	PRO	CA-C-N	17.80	147.53	121.72
5	SE	193	PRO	C-N-CA	17.80	147.53	121.72
1	Sa	128	LEU	CB-CA-C	17.79	145.81	110.42
27	SH	78	ARG	CA-C-O	-17.77	95.49	122.32
33	L1	3357	C	N1-C1'-C2'	17.75	138.62	112.00
33	L1	1672	G	O4'-C1'-N9	17.73	135.09	108.50
4	SD	239	PRO	CA-C-N	17.72	155.38	121.54
4	SD	239	PRO	C-N-CA	17.72	155.38	121.54
66	LN	48	ILE	CA-C-N	17.70	145.85	122.84
66	LN	48	ILE	C-N-CA	17.70	145.85	122.84
33	L1	1746	G	O4'-C1'-C2'	17.68	125.28	107.60
23	SU	68	THR	CA-C-O	-17.68	95.99	121.98
33	L1	1034	U	O3'-P-O5'	-17.65	77.52	104.00
7	SI	53	LYS	CB-CA-C	17.59	137.80	112.11
33	L1	2594	A	P-O3'-C3'	17.55	146.53	120.20
33	L1	1752	C	C5'-C4'-C3'	17.54	142.31	116.00
33	L1	488	U	P-O3'-C3'	17.54	146.50	120.20
33	L1	3334	A	C3'-C2'-C1'	17.52	118.82	101.30
32	S1	1311	U	N1-C1'-C2'	17.50	138.26	112.00
33	L1	102	G	O4'-C1'-C2'	-17.48	90.11	107.60
32	S1	1674	C	O4'-C1'-C2'	-17.48	90.12	107.60
33	L1	669	G	P-O5'-C5'	17.44	147.06	120.90
73	Lp	35	ARG	N-CA-C	17.44	131.36	110.44
57	L1	52	LYS	N-CA-C	17.42	132.28	111.02
33	L1	3234	G	O4'-C1'-N9	17.41	134.62	108.50
84	LI	109	ASP	N-CA-CB	17.40	140.46	111.22
6	SF	164	THR	CA-C-N	17.40	144.30	120.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	SF	164	THR	C-N-CA	17.40	144.30	120.46
33	L1	3322	A	O4'-C1'-N9	17.38	134.57	108.50
33	L1	1083	C	O4'-C1'-N1	17.37	134.25	108.20
33	L1	283	A	O4'-C1'-C2'	-17.36	90.25	107.60
33	L1	3101	C	C5'-C4'-C3'	17.35	142.02	116.00
33	L1	640	C	C3'-C2'-C1'	17.34	118.64	101.30
67	LS	113	ALA	N-CA-C	17.32	129.60	111.07
33	L1	2875	U	O4'-C1'-C2'	-17.31	90.29	107.60
81	LD	308	LYS	CA-C-N	17.30	137.71	118.85
81	LD	308	LYS	C-N-CA	17.30	137.71	118.85
69	La	27	ARG	N-CA-CB	-17.28	84.77	111.56
33	L1	716	A	N9-C1'-C2'	-17.27	86.10	112.00
33	L1	475	U	O4'-C1'-C2'	-17.25	90.35	107.60
48	LV	69	ARG	CA-C-N	17.23	152.71	121.70
48	LV	69	ARG	C-N-CA	17.23	152.71	121.70
13	SQ	94	GLU	CA-C-O	-17.22	93.50	120.37
33	L1	2582	G	O4'-C1'-C2'	17.20	124.80	107.60
33	L1	1193	A	O4'-C1'-C2'	-17.19	90.41	107.60
33	L1	2622	G	N9-C1'-C2'	17.18	137.77	112.00
33	L1	1455	A	P-O3'-C3'	17.16	145.95	120.20
34	L3	48	G	P-O3'-C3'	17.16	145.94	120.20
33	L1	2808	U	C1'-O4'-C4'	-17.16	92.74	109.90
32	S1	138	C	P-O5'-C5'	17.13	146.59	120.90
33	L1	1715	C	O4'-C1'-C2'	-17.12	88.68	105.80
48	LV	166	ILE	CA-C-N	-17.09	98.90	121.98
48	LV	166	ILE	C-N-CA	-17.09	98.90	121.98
33	L1	858	U	N1-C1'-C2'	17.07	137.60	112.00
33	L1	164	C	N1-C1'-C2'	17.07	137.60	112.00
33	L1	2802	G	C3'-C2'-C1'	17.05	118.36	101.30
33	L1	1728	G	O4'-C1'-C2'	-17.04	90.56	107.60
33	L1	641	C	O5'-C5'-C4'	17.03	137.05	111.50
69	La	31	GLU	O-C-N	-17.02	99.95	122.59
15	SS	124	ARG	CA-C-N	17.01	148.00	122.65
15	SS	124	ARG	C-N-CA	17.01	148.00	122.65
57	L1	2	GLY	N-CA-C	17.01	134.92	112.13
33	L1	1826	G	O4'-C1'-C2'	-17.01	90.59	107.60
32	S1	1225	A	N9-C1'-C2'	-16.97	86.55	112.00
23	SU	92	GLU	CA-C-N	16.96	141.04	119.84
23	SU	92	GLU	C-N-CA	16.96	141.04	119.84
33	L1	1366	G	O4'-C1'-C2'	16.96	124.56	107.60
16	SR	126	ALA	N-CA-C	-16.95	92.07	113.43
47	LU	126	ILE	N-CA-C	16.94	132.26	111.09

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
66	LN	113	ALA	N-CA-C	16.94	129.74	111.28
32	S1	544	G	P-O3'-C3'	16.92	145.58	120.20
33	L1	434	C	P-O3'-C3'	16.91	145.56	120.20
59	Lo	30	ARG	CA-C-N	-16.88	95.72	122.23
59	Lo	30	ARG	C-N-CA	-16.88	95.72	122.23
32	S1	1314	U	C5'-C4'-C3'	-16.87	90.69	116.00
38	LE	88	VAL	O-C-N	-16.87	101.48	122.57
33	L1	3087	A	P-O3'-C3'	16.86	145.50	120.20
73	Lp	52	LYS	N-CA-C	16.84	135.44	110.52
33	L1	68	U	N1-C1'-C2'	16.84	137.26	112.00
33	L1	2108	C	P-O3'-C3'	16.83	145.44	120.20
33	L1	1576	C	P-O3'-C3'	16.82	145.42	120.20
32	S1	1422	G	P-O3'-C3'	16.81	145.42	120.20
33	L1	2627	G	P-O3'-C3'	16.79	145.38	120.20
33	L1	745	G	O3'-P-O5'	-16.78	78.82	104.00
33	L1	2973	A	O4'-C1'-N9	16.78	133.37	108.20
64	LG	111	LYS	N-CA-C	16.78	129.02	111.07
33	L1	1679	U	C1'-O4'-C4'	16.77	126.67	109.90
35	L2	93	A	P-O3'-C3'	16.77	145.35	120.20
33	L1	1679	U	O4'-C1'-C2'	-16.77	90.83	107.60
35	L2	93	A	N9-C1'-C2'	16.76	139.14	114.00
32	S1	860	A	O3'-P-O5'	-16.76	78.86	104.00
79	Ls	235	PRO	CA-N-CD	-16.73	88.57	112.00
33	L1	996	A	N9-C1'-C2'	16.73	137.10	112.00
32	S1	635	G	O4'-C1'-C2'	-16.72	90.88	107.60
33	L1	1576	C	C3'-C2'-C1'	16.71	118.01	101.30
33	L1	1880	A	O4'-C1'-C2'	-16.68	90.92	107.60
35	L2	124	G	O4'-C1'-C2'	-16.66	90.94	107.60
19	SY	47	ARG	O-C-N	-16.66	101.50	123.15
33	L1	3317	G	O4'-C1'-N9	16.64	133.46	108.50
32	S1	170	C	P-O3'-C3'	16.63	145.15	120.20
33	L1	584	G	O4'-C1'-C2'	-16.62	90.98	107.60
33	L1	1880	A	C5'-C4'-O4'	-16.62	84.87	109.80
33	L1	1078	U	N1-C1'-C2'	16.62	136.93	112.00
33	L1	2590	C	O4'-C1'-C2'	-16.61	90.99	107.60
33	L1	2518	A	N9-C1'-C2'	16.61	136.91	112.00
10	SL	116	GLY	O-C-N	16.59	138.33	123.73
33	L1	1699	C	P-O3'-C3'	16.59	145.08	120.20
33	L1	1347	U	P-O3'-C3'	16.56	145.04	120.20
33	L1	1701	G	P-O3'-C3'	16.55	145.03	120.20
34	L3	2	G	P-O3'-C3'	16.54	145.00	120.20
35	L2	63	A	N9-C1'-C2'	16.52	138.78	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3372	C	N1-C1'-C2'	16.51	138.76	114.00
33	L1	1050	A	O4'-C1'-C2'	-16.49	91.11	107.60
81	LD	314	VAL	N-CA-CB	-16.49	90.35	112.28
33	L1	2503	A	P-O3'-C3'	16.48	144.93	120.20
35	L2	43	G	C3'-C2'-C1'	16.46	117.96	101.50
35	L2	97	U	N1-C1'-C2'	-16.46	87.32	112.00
33	L1	1101	A	P-O3'-C3'	16.45	144.87	120.20
33	L1	618	G	P-O3'-C3'	-16.43	95.55	120.20
15	SS	8	THR	CA-C-N	-16.43	99.41	120.60
15	SS	8	THR	C-N-CA	-16.43	99.41	120.60
33	L1	2973	A	P-O3'-C3'	16.41	144.81	120.20
33	L1	1265	G	N9-C1'-C2'	-16.40	79.60	112.40
33	L1	803	G	N9-C1'-C2'	-16.39	87.42	112.00
33	L1	1577	A	O4'-C1'-N9	16.36	133.05	108.50
32	S1	477	A	P-O3'-C3'	16.36	144.74	120.20
33	L1	224	C	N1-C1'-C2'	16.36	136.54	112.00
67	LS	166	LYS	N-CA-C	16.36	145.64	110.80
70	Li	46	VAL	N-CA-C	16.35	143.34	109.34
32	S1	61	A	O4'-C1'-C2'	-16.33	91.27	107.60
33	L1	2362	A	O4'-C1'-N9	16.33	133.00	108.50
33	L1	307	C	C5'-C4'-C3'	16.32	140.48	116.00
32	S1	372	U	P-O3'-C3'	16.32	144.68	120.20
32	S1	1442	A	O3'-P-O5'	-16.32	79.53	104.00
33	L1	1057	A	O4'-C1'-C2'	-16.31	91.29	107.60
31	S2	73	C	P-O3'-C3'	16.31	144.66	120.20
33	L1	2640	A	N9-C1'-C2'	-16.30	87.55	112.00
10	SL	96	ASN	CA-CB-CG	-16.30	96.30	112.60
33	L1	1646	U	O4'-C1'-C2'	-16.30	91.30	107.60
33	L1	1458	U	O4'-C1'-N1	16.28	132.62	108.20
32	S1	1748	U	N1-C1'-C2'	16.27	136.41	112.00
45	LQ	256	SER	N-CA-CB	-16.27	85.06	110.44
32	S1	1314	U	O5'-C5'-C4'	16.26	135.90	111.50
33	L1	986	G	O4'-C1'-C2'	-16.26	91.34	107.60
33	L1	1628	G	C3'-C2'-C1'	16.26	117.56	101.30
33	L1	691	U	P-O3'-C3'	16.26	144.59	120.20
33	L1	1067	G	P-O3'-C3'	16.26	144.59	120.20
33	L1	2204	U	P-O3'-C3'	16.26	144.59	120.20
32	S1	1606	U	P-O3'-C3'	16.24	144.56	120.20
32	S1	2	A	O4'-C1'-N9	16.21	132.81	108.50
9	SK	123	MET	CB-CG-SD	16.20	161.31	112.70
72	Lk	96	VAL	N-CA-C	-16.20	97.65	113.53
60	Lr	61	LYS	O-C-N	-16.20	101.47	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1132	G	P-O3'-C3'	16.18	144.47	120.20
33	L1	112	C	N1-C1'-C2'	16.17	138.26	114.00
32	S1	1404	U	O4'-C1'-N1	16.15	132.73	108.50
32	S1	1097	A	P-O5'-C5'	16.15	145.12	120.90
23	SU	8	PRO	O-C-N	-16.14	100.86	122.64
33	L1	2355	A	O4'-C1'-C2'	-16.12	91.48	107.60
33	L1	2100	A	P-O3'-C3'	16.11	144.37	120.20
33	L1	3317	G	P-O3'-C3'	16.11	144.37	120.20
64	LG	26	TRP	CA-C-N	-16.11	97.92	122.74
64	LG	26	TRP	C-N-CA	-16.11	97.92	122.74
23	SU	25	ARG	CA-C-N	16.11	146.23	122.39
23	SU	25	ARG	C-N-CA	16.11	146.23	122.39
33	L1	1015	A	O4'-C1'-C2'	-16.11	91.50	107.60
33	L1	1691	U	C1'-O4'-C4'	16.09	125.99	109.90
32	S1	1289	U	P-O3'-C3'	16.09	144.33	120.20
33	L1	2508	U	O4'-C1'-N1	16.06	132.59	108.50
33	L1	1383	G	O4'-C1'-N9	16.06	132.59	108.50
32	S1	1358	G	N9-C1'-C2'	16.06	136.08	112.00
33	L1	513	C	P-O3'-C3'	16.04	144.27	120.20
11	SM	92	ASP	CB-CA-C	-16.04	78.50	110.42
59	Lo	49	LEU	CA-C-N	16.04	142.78	121.13
59	Lo	49	LEU	C-N-CA	16.04	142.78	121.13
34	L3	48	G	O4'-C1'-C2'	-16.02	91.58	107.60
33	L1	631	C	N1-C1'-C2'	16.02	136.03	112.00
81	LD	322	ASN	CA-CB-CG	16.00	128.60	112.60
33	L1	3295	G	C3'-C2'-C1'	-15.97	85.53	101.50
32	S1	1642	C	N1-C1'-C2'	15.97	135.95	112.00
35	L2	50	G	N9-C1'-C2'	15.97	135.95	112.00
35	L2	30	C	O4'-C1'-C2'	-15.95	91.65	107.60
25	SC	63	THR	CA-CB-OG1	-15.94	85.69	109.60
33	L1	3175	C	N1-C1'-C2'	15.92	135.88	112.00
33	L1	964	C	O4'-C1'-C2'	-15.91	91.69	107.60
32	S1	404	A	O4'-C1'-N9	15.90	132.36	108.50
32	S1	877	G	O4'-C1'-C2'	-15.90	91.69	107.60
82	LK	135	GLN	CA-C-N	-15.90	99.97	119.84
82	LK	135	GLN	C-N-CA	-15.90	99.97	119.84
35	L2	155	G	N9-C1'-C2'	15.88	137.82	114.00
25	SC	29	GLU	CG-CD-OE2	15.88	154.93	118.40
32	S1	32	U	O4'-C1'-C2'	-15.88	91.72	107.60
34	L3	25	G	O3'-P-O5'	15.87	127.80	104.00
32	S1	1766	A	O4'-C1'-N9	15.86	132.29	108.50
33	L1	440	U	P-O3'-C3'	15.86	143.99	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	SQ	39	SER	CA-C-O	-15.83	97.87	120.51
32	S1	648	C	O4'-C1'-C2'	-15.83	91.77	107.60
33	L1	1163	A	O4'-C1'-C2'	15.82	123.42	107.60
32	S1	683	C	P-O3'-C3'	15.81	143.92	120.20
33	L1	2477	G	P-O3'-C3'	15.80	143.91	120.20
33	L1	2513	U	P-O5'-C5'	15.80	144.61	120.90
33	L1	296	C	P-O3'-C3'	15.79	143.89	120.20
33	L1	2628	C	C3'-C2'-C1'	15.74	117.24	101.50
33	L1	2984	A	N9-C1'-C2'	15.72	137.59	114.00
33	L1	237	C	O4'-C1'-C2'	-15.71	91.89	107.60
33	L1	2226	C	O4'-C1'-N1	15.69	132.03	108.50
33	L1	1432	G	O4'-C1'-C2'	15.67	121.47	105.80
5	SE	194	LYS	N-CA-CB	15.66	135.39	109.87
70	Li	46	VAL	CB-CA-C	-15.65	85.62	111.29
20	SZ	42	ARG	CA-C-N	15.64	145.50	120.94
20	SZ	42	ARG	C-N-CA	15.64	145.50	120.94
33	L1	858	U	P-O3'-C3'	15.64	143.66	120.20
33	L1	484	C	O3'-P-O5'	15.64	127.46	104.00
32	S1	1715	C	N1-C1'-C2'	15.62	135.44	112.00
33	L1	1826	G	C1'-O4'-C4'	15.62	125.52	109.90
32	S1	200	C	O4'-C1'-C2'	-15.59	92.01	107.60
25	SC	162	LEU	CA-C-N	-15.58	91.78	121.54
25	SC	162	LEU	C-N-CA	-15.58	91.78	121.54
33	L1	2438	A	P-O3'-C3'	15.56	143.54	120.20
30	S3	16	G	N9-C1'-C2'	-15.56	88.66	112.00
33	L1	620	C	P-O3'-C3'	15.55	143.53	120.20
33	L1	1034	U	O5'-C5'-C4'	15.54	134.81	111.50
33	L1	2318	U	C1'-O4'-C4'	15.54	125.44	109.90
64	LG	152	LYS	N-CA-C	15.54	128.30	111.36
33	L1	175	G	N9-C1'-C2'	15.53	135.29	112.00
35	L2	155	G	C5'-C4'-C3'	15.53	138.49	115.20
33	L1	2787	A	C5'-C4'-C3'	-15.51	92.73	116.00
38	LE	34	ARG	CB-CG-CD	15.51	146.97	111.30
33	L1	1369	G	O4'-C1'-C2'	15.49	123.09	107.60
48	LV	158	VAL	CB-CA-C	-15.49	92.14	111.97
33	L1	234	G	C1'-O4'-C4'	-15.48	94.42	109.90
32	S1	1783	C	C3'-C2'-C1'	15.46	116.76	101.30
33	L1	1881	C	C5'-C4'-C3'	15.46	138.39	115.20
1	Sa	251	ASP	CA-C-N	-15.46	105.59	122.59
1	Sa	251	ASP	C-N-CA	-15.46	105.59	122.59
33	L1	1496	G	O4'-C1'-N9	15.45	131.37	108.20
33	L1	2380	G	O5'-C5'-C4'	15.43	134.64	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3361	G	P-O5'-C5'	15.43	144.04	120.90
33	L1	105	A	O4'-C1'-C2'	-15.41	92.19	107.60
33	L1	1483	G	O4'-C1'-C2'	15.40	121.20	105.80
15	SS	15	HIS	N-CA-CB	-15.40	87.68	110.01
32	S1	1070	A	P-O3'-C3'	15.40	143.29	120.20
33	L1	1804	G	N9-C1'-C2'	15.40	135.09	112.00
32	S1	664	G	P-O5'-C5'	15.39	143.99	120.90
33	L1	1035	C	O3'-P-O5'	-15.39	80.92	104.00
33	L1	1880	A	C5'-C4'-C3'	15.38	139.08	116.00
33	L1	1450	G	N9-C1'-C2'	15.37	137.06	114.00
33	L1	1742	G	P-O3'-C3'	15.36	143.25	120.20
73	Lp	52	LYS	CA-CB-CG	15.35	144.80	114.10
79	Ls	256	VAL	N-CA-C	15.35	126.22	110.72
33	L1	1767	G	P-O3'-C3'	15.34	143.21	120.20
33	L1	384	A	O4'-C1'-C2'	-15.33	92.27	107.60
33	L1	1024	G	P-O3'-C3'	15.33	143.19	120.20
33	L1	986	G	C1'-O4'-C4'	15.33	125.23	109.90
33	L1	998	G	P-O3'-C3'	15.33	143.19	120.20
23	SU	25	ARG	N-CA-C	15.32	134.66	108.76
33	L1	2318	U	O4'-C1'-C2'	-15.32	92.28	107.60
33	L1	2502	U	O4'-C1'-N1	15.32	131.49	108.50
33	L1	62	A	C3'-C2'-C1'	-15.32	85.98	101.30
34	L3	109	U	P-O5'-C5'	15.32	143.88	120.90
33	L1	809	A	O4'-C1'-C2'	-15.31	90.48	105.80
33	L1	1616	G	O4'-C1'-N9	15.30	131.46	108.50
33	L1	3354	A	C1'-O4'-C4'	15.29	125.19	109.90
33	L1	1035	C	N1-C1'-C2'	15.29	134.93	112.00
34	L3	75	G	P-O3'-C3'	15.29	143.13	120.20
11	SM	113	ARG	CB-CA-C	-15.25	86.93	110.88
33	L1	1045	U	P-O3'-C3'	15.25	143.08	120.20
33	L1	946	U	C2'-C3'-O3'	15.25	132.38	109.50
35	L2	158	G	O4'-C1'-N9	15.25	131.38	108.50
33	L1	2135	U	O4'-C1'-N1	-15.25	85.63	108.50
64	LG	19	THR	CA-C-N	15.25	140.26	120.44
64	LG	19	THR	C-N-CA	15.25	140.26	120.44
35	L2	39	C	P-O3'-C3'	-15.23	97.35	120.20
33	L1	2617	G	O3'-P-O5'	-15.23	81.16	104.00
32	S1	1315	U	O3'-P-O5'	15.22	126.83	104.00
33	L1	2216	G	C1'-O4'-C4'	15.22	125.12	109.90
23	SU	81	ILE	N-CA-C	15.21	130.97	108.45
32	S1	1556	U	P-O3'-C3'	15.21	143.02	120.20
33	L1	7	C	N1-C1'-C2'	15.21	134.81	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3005	C	N1-C1'-C2'	15.21	134.81	112.00
45	LQ	183	PHE	CA-CB-CG	15.20	129.00	113.80
33	L1	803	G	C1'-O4'-C4'	15.20	125.10	109.90
32	S1	1740	G	O4'-C1'-N9	15.20	131.29	108.50
33	L1	543	C	N1-C1'-C2'	15.20	134.79	112.00
35	L2	104	U	N1-C1'-C2'	15.19	134.78	112.00
33	L1	1619	G	P-O3'-C3'	15.18	142.97	120.20
36	LA	119	ILE	O-C-N	-15.17	110.71	120.42
33	L1	335	G	O4'-C1'-C2'	-15.17	90.63	105.80
32	S1	98	C	P-O3'-C3'	15.16	142.94	120.20
67	LS	28	ARG	N-CA-CB	15.15	138.43	111.00
33	L1	2450	G	O4'-C1'-N9	15.15	131.23	108.50
32	S1	1346	C	N1-C1'-C2'	15.15	134.72	112.00
33	L1	2640	A	O4'-C1'-N9	15.14	131.21	108.50
32	S1	1547	G	O4'-C1'-C2'	-15.13	92.47	107.60
27	SH	120	ASN	N-CA-C	-15.13	91.65	111.92
33	L1	640	C	P-O5'-C5'	15.12	143.58	120.90
32	S1	1589	C	P-O3'-C3'	15.12	142.87	120.20
83	Lm	20	ALA	N-CA-C	15.11	127.83	111.36
33	L1	2380	G	P-O5'-C5'	15.10	143.55	120.90
80	LC	69	LYS	O-C-N	-15.09	102.52	122.59
33	L1	1369	G	C5'-C4'-C3'	15.09	138.63	116.00
33	L1	1370	A	O4'-C1'-C2'	-15.08	92.52	107.60
71	Lj	7	GLN	N-CA-CB	15.08	135.98	110.49
35	L2	57	A	O4'-C1'-C2'	-15.08	92.52	107.60
33	L1	2629	C	P-O3'-C3'	-15.05	97.62	120.20
32	S1	1364	C	P-O3'-C3'	15.05	142.78	120.20
32	S1	483	C	C3'-C2'-C1'	15.04	116.33	101.30
32	S1	1097	A	O3'-P-O5'	15.03	126.54	104.00
4	SD	61	VAL	CA-C-N	15.02	141.75	120.42
4	SD	61	VAL	C-N-CA	15.02	141.75	120.42
32	S1	1744	C	P-O3'-C3'	15.02	142.73	120.20
29	ST	64	ALA	N-CA-C	15.02	127.14	111.07
32	S1	1795	U	P-O3'-C3'	15.02	142.72	120.20
33	L1	1241	G	O4'-C1'-C2'	-15.02	92.58	107.60
32	S1	1069	G	O4'-C1'-C2'	-15.01	92.59	107.60
33	L1	637	C	N1-C1'-C2'	15.00	134.50	112.00
23	SU	33	LEU	CA-C-O	-14.99	105.49	121.38
33	L1	887	A	O4'-C1'-N9	14.99	130.69	108.20
70	Li	83	SER	N-CA-C	14.98	127.10	111.07
33	L1	1211	G	O4'-C1'-N9	14.98	130.97	108.50
33	L1	2802	G	O4'-C1'-C2'	-14.98	92.62	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	LS	120	PHE	CA-C-N	-14.98	103.86	120.04
67	LS	120	PHE	C-N-CA	-14.98	103.86	120.04
33	L1	1101	A	O3'-P-O5'	-14.96	81.55	104.00
33	L1	339	G	O4'-C1'-C2'	14.96	120.76	105.80
32	S1	1203	G	O4'-C1'-N9	14.94	130.61	108.20
13	SQ	109	LEU	CA-C-N	-14.93	98.56	122.30
13	SQ	109	LEU	C-N-CA	-14.93	98.56	122.30
32	S1	1474	U	P-O3'-C3'	14.91	142.57	120.20
32	S1	632	G	O4'-C1'-C2'	-14.90	92.70	107.60
33	L1	986	G	N9-C1'-C2'	-14.88	89.67	112.00
33	L1	755	C	N1-C1'-C2'	14.88	136.32	114.00
33	L1	1345	U	N1-C1'-C2'	14.88	134.32	112.00
67	LS	28	ARG	N-CA-C	-14.88	84.39	109.24
32	S1	1108	U	O4'-C1'-C2'	-14.87	92.73	107.60
33	L1	2759	C	N1-C1'-C2'	14.86	134.29	112.00
32	S1	1674	C	C3'-C2'-C1'	14.86	116.16	101.30
33	L1	1270	G	C3'-C2'-C1'	-14.85	86.45	101.30
32	S1	1278	C	O4'-C1'-N1	14.85	130.77	108.50
32	S1	1759	A	C3'-C2'-C1'	14.85	116.15	101.30
33	L1	566	G	N9-C1'-C2'	14.85	134.28	112.00
46	LT	136	ARG	O-C-N	-14.85	102.82	121.83
33	L1	234	G	O4'-C1'-C2'	14.83	122.43	107.60
33	L1	2375	G	P-O3'-C3'	14.83	142.44	120.20
33	L1	2334	G	O4'-C1'-C2'	14.82	120.62	105.80
2	SA	214	ALA	CA-C-N	14.81	149.84	121.54
2	SA	214	ALA	C-N-CA	14.81	149.84	121.54
71	Lj	95	PRO	CA-C-O	-14.81	93.64	120.60
32	S1	1226	U	O3'-P-O5'	-14.80	81.80	104.00
33	L1	2376	G	P-O5'-C5'	14.80	143.10	120.90
69	La	27	ARG	CB-CG-CD	14.79	145.32	111.30
33	L1	2876	G	O4'-C1'-C2'	14.79	122.39	107.60
2	SA	211	PRO	CA-C-O	-14.78	93.70	120.60
33	L1	178	C	N1-C1'-C2'	14.78	134.17	112.00
33	L1	667	C	P-O5'-C5'	14.77	143.05	120.90
33	L1	2669	C	N1-C1'-C2'	14.77	134.15	112.00
71	Lj	14	ARG	N-CA-CB	-14.77	87.95	111.43
80	LC	69	LYS	CA-C-O	-14.77	99.40	120.51
64	LG	12	LYS	CA-C-N	-14.76	99.34	120.29
64	LG	12	LYS	C-N-CA	-14.76	99.34	120.29
33	L1	2676	A	P-O5'-C5'	14.75	143.03	120.90
32	S1	1746	U	N1-C1'-C2'	14.74	134.11	112.00
33	L1	858	U	C5'-C4'-C3'	14.73	138.10	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1696	G	O4'-C1'-C2'	-14.73	92.87	107.60
23	SU	21	ARG	N-CA-C	14.72	130.54	112.87
48	LV	166	ILE	O-C-N	-14.72	104.17	122.57
34	L3	48	G	C1'-O4'-C4'	14.72	124.62	109.90
33	L1	536	C	N1-C1'-C2'	14.71	134.07	112.00
32	S1	1740	G	C1'-O4'-C4'	14.71	124.61	109.90
33	L1	487	C	P-O3'-C3'	14.70	142.26	120.20
32	S1	1645	C	N1-C1'-C2'	14.70	136.05	114.00
25	SC	164	SER	O-C-N	-14.70	104.42	121.32
33	L1	2166	U	N1-C1'-C2'	14.66	134.00	112.00
55	Lg	83	ILE	N-CA-CB	-14.66	91.88	111.82
33	L1	2502	U	O4'-C4'-C3'	-14.64	89.36	104.00
33	L1	997	G	O4'-C1'-C2'	-14.62	92.98	107.60
32	S1	1801	A	O4'-C1'-C2'	14.61	120.41	105.80
33	L1	131	C	O4'-C1'-C2'	-14.60	93.00	107.60
33	L1	2730	A	O4'-C1'-N9	14.60	130.10	108.20
33	L1	1814	C	N1-C1'-C2'	14.59	133.88	112.00
33	L1	3150	G	O3'-P-O5'	-14.58	82.13	104.00
54	Lf	53	PRO	O-C-N	-14.58	114.30	121.15
33	L1	963	U	N1-C1'-C2'	14.56	133.84	112.00
33	L1	2518	A	C1'-O4'-C4'	-14.56	95.34	109.90
33	L1	2640	A	O4'-C1'-C2'	-14.56	93.03	107.60
32	S1	140	C	P-O3'-C3'	14.56	142.04	120.20
32	S1	31	C	N1-C1'-C2'	14.56	133.83	112.00
4	SD	167	ASN	CA-C-N	-14.55	99.97	122.81
4	SD	167	ASN	C-N-CA	-14.55	99.97	122.81
33	L1	1708	C	N1-C1'-C2'	14.55	133.83	112.00
69	La	29	PHE	N-CA-C	14.55	126.83	110.97
33	L1	2108	C	O4'-C1'-C2'	-14.54	93.06	107.60
33	L1	1944	G	P-O3'-C3'	14.53	142.00	120.20
33	L1	1241	G	C3'-C2'-C1'	14.53	115.83	101.30
11	SM	42	ASN	CA-CB-CG	14.52	127.12	112.60
33	L1	2896	C	O4'-C1'-C2'	-14.51	93.09	107.60
33	L1	2779	G	C1'-O4'-C4'	14.51	124.41	109.90
33	L1	2490	U	N1-C1'-C2'	14.51	135.76	114.00
41	LM	72	LEU	CA-C-O	-14.51	105.76	120.70
64	LG	185	ASP	O-C-N	-14.51	103.30	122.59
7	SI	53	LYS	N-CA-CB	-14.49	88.84	111.74
33	L1	1383	G	P-O3'-C3'	14.49	141.94	120.20
33	L1	2502	U	P-O3'-C3'	14.47	141.91	120.20
67	LS	141	THR	CA-C-N	14.47	139.67	120.28
67	LS	141	THR	C-N-CA	14.47	139.67	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	25	U	P-O5'-C5'	14.47	142.60	120.90
33	L1	2540	C	N1-C1'-C2'	14.43	133.65	112.00
69	La	28	VAL	CA-C-N	14.43	139.70	120.65
69	La	28	VAL	C-N-CA	14.43	139.70	120.65
33	L1	1395	A	C5'-C4'-C3'	14.43	137.64	116.00
33	L1	3143	A	C3'-C2'-C1'	14.42	115.92	101.50
3	SB	154	ASP	O-C-N	14.42	141.89	123.15
32	S1	1397	A	O4'-C1'-C2'	-14.42	93.18	107.60
34	L3	79	A	C1'-O4'-C4'	14.41	124.31	109.90
30	S3	16	G	O4'-C1'-C2'	-14.41	93.19	107.60
32	S1	1163	C	O3'-P-O5'	-14.40	82.40	104.00
33	L1	3328	A	O4'-C1'-C2'	-14.40	93.20	107.60
69	La	26	VAL	N-CA-C	-14.40	96.24	112.80
33	L1	3086	G	O4'-C1'-C2'	14.39	121.99	107.60
12	SO	64	LYS	CG-CD-CE	14.38	144.38	111.30
10	SL	119	PHE	CA-C-N	14.37	148.99	121.54
10	SL	119	PHE	C-N-CA	14.37	148.99	121.54
34	L3	73	U	O4'-C1'-C2'	-14.37	93.23	107.60
32	S1	1614	C	O3'-P-O5'	-14.36	82.45	104.00
33	L1	2361	C	O4'-C1'-N1	14.36	130.05	108.50
33	L1	1538	A	C3'-C2'-C1'	14.36	115.66	101.30
14	SP	107	ASN	O-C-N	-14.34	104.17	122.82
33	L1	3344	U	N1-C1'-C2'	14.34	133.51	112.00
33	L1	1312	A	O4'-C1'-C2'	-14.33	93.27	107.60
48	LV	25	HIS	CA-CB-CG	14.32	128.12	113.80
33	L1	291	C	C1'-O4'-C4'	-14.31	95.59	109.90
32	S1	623	A	P-O3'-C3'	14.31	141.66	120.20
33	L1	3092	A	C1'-O4'-C4'	-14.30	95.40	109.70
1	Sa	82	VAL	O-C-N	14.29	137.98	122.97
33	L1	2903	G	O4'-C1'-C2'	14.29	121.89	107.60
33	L1	571	G	P-O3'-C3'	14.28	141.63	120.20
25	SC	163	THR	OG1-CB-CG2	14.28	137.86	109.30
33	L1	2795	G	C5'-C4'-C3'	14.28	137.42	116.00
41	LM	68	GLY	N-CA-C	14.28	147.02	113.18
33	L1	1817	U	O4'-C1'-C2'	-14.27	93.33	107.60
25	SC	60	HIS	N-CA-C	14.26	126.82	111.28
33	L1	1855	A	O4'-C1'-C2'	-14.26	91.54	105.80
32	S1	435	C	P-O3'-C3'	14.24	141.56	120.20
33	L1	1900	C	N1-C1'-C2'	14.24	133.35	112.00
13	SQ	73	LEU	N-CA-C	-14.23	89.83	108.19
33	L1	2597	C	N1-C1'-C2'	14.23	133.35	112.00
33	L1	549	G	N9-C1'-C2'	14.22	133.34	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2109	G	N9-C1'-C2'	14.22	133.33	112.00
33	L1	1892	A	N9-C1'-C2'	14.19	133.29	112.00
33	L1	1746	G	C1'-O4'-C4'	-14.19	95.71	109.90
23	SU	72	GLY	CA-C-O	-14.18	108.56	121.47
33	L1	2361	C	O4'-C1'-C2'	-14.18	93.42	107.60
81	LD	329	ALA	N-CA-C	14.17	131.36	111.52
3	SB	82	ASN	N-CA-C	14.16	126.30	108.45
33	L1	2518	A	C3'-C2'-C1'	-14.15	87.15	101.30
33	L1	2628	C	O4'-C1'-C2'	-14.15	91.65	105.80
32	S1	1472	G	P-O3'-C3'	-14.13	99.00	120.20
23	SU	78	PHE	CB-CA-C	14.13	136.90	110.62
33	L1	1781	C	P-O3'-C3'	14.11	141.37	120.20
33	L1	2431	U	N1-C1'-C2'	14.10	133.14	112.00
35	L2	40	G	O4'-C1'-C2'	14.09	121.69	107.60
33	L1	1826	G	N9-C1'-C2'	-14.09	90.87	112.00
67	LS	12	VAL	N-CA-CB	14.08	127.89	110.99
32	S1	823	A	O4'-C1'-C2'	-14.08	93.52	107.60
33	L1	1563	G	O4'-C1'-C2'	-14.08	93.52	107.60
33	L1	722	C	O4'-C1'-N1	14.08	129.62	108.50
33	L1	2380	G	O4'-C1'-C2'	14.06	121.66	107.60
48	LV	152	SER	CA-C-O	-14.06	105.33	120.24
33	L1	3341	C	P-O5'-C5'	14.04	141.96	120.90
35	L2	99	G	O4'-C1'-C2'	-14.04	93.56	107.60
69	La	27	ARG	CA-C-N	14.04	147.25	121.97
69	La	27	ARG	C-N-CA	14.04	147.25	121.97
1	Sa	266	THR	CA-C-N	-14.04	109.67	122.73
1	Sa	266	THR	C-N-CA	-14.04	109.67	122.73
33	L1	1741	G	P-O3'-C3'	-14.03	99.15	120.20
33	L1	1066	G	P-O3'-C3'	14.02	141.22	120.20
33	L1	2482	A	C1'-O4'-C4'	-14.01	95.89	109.90
29	ST	38	HIS	CA-CB-CG	-14.01	99.79	113.80
32	S1	1746	U	O3'-P-O5'	-14.00	82.99	104.00
33	L1	1806	C	N1-C1'-C2'	14.00	133.00	112.00
33	L1	3357	C	C1'-O4'-C4'	-14.00	95.90	109.90
33	L1	1086	U	O4'-C1'-C2'	-13.99	93.61	107.60
32	S1	1759	A	C1'-O4'-C4'	13.99	123.89	109.90
33	L1	1118	G	P-O3'-C3'	13.98	141.17	120.20
33	L1	998	G	O4'-C1'-N9	13.97	129.45	108.50
33	L1	2701	G	P-O3'-C3'	13.96	141.14	120.20
33	L1	1614	G	N9-C1'-C2'	13.96	132.94	112.00
35	L2	97	U	O4'-C1'-C2'	-13.95	93.65	107.60
3	SB	110	LEU	N-CA-C	-13.94	95.36	108.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	SS	8	THR	CA-C-O	-13.95	104.34	120.10
33	L1	3048	C	N1-C1'-C2'	13.94	132.91	112.00
33	L1	1034	U	N1-C1'-C2'	13.94	132.91	112.00
35	L2	94	C	P-O5'-C5'	13.94	141.81	120.90
32	S1	1516	C	P-O3'-C3'	13.93	141.10	120.20
32	S1	128	G	O4'-C1'-C2'	-13.93	93.67	107.60
32	S1	1456	U	P-O5'-C5'	13.92	141.78	120.90
33	L1	656	G	N9-C1'-C2'	13.91	132.86	112.00
33	L1	720	G	O4'-C1'-C2'	-13.91	93.69	107.60
33	L1	424	G	C3'-C2'-C1'	13.91	115.41	101.50
33	L1	1254	A	O4'-C1'-N9	13.90	129.35	108.50
32	S1	321	C	P-O3'-C3'	13.89	141.04	120.20
32	S1	861	A	O4'-C1'-N9	13.89	129.34	108.50
33	L1	1366	G	C1'-O4'-C4'	-13.88	96.03	109.90
33	L1	729	G	O4'-C1'-N9	13.87	129.31	108.50
33	L1	2232	C	C3'-C2'-C1'	13.85	115.15	101.30
33	L1	1486	G	P-O3'-C3'	13.84	140.96	120.20
48	LV	4	TYR	N-CA-C	13.83	130.99	110.52
33	L1	1949	G	O4'-C1'-N9	13.83	129.25	108.50
33	L1	2881	C	C1'-O4'-C4'	-13.83	96.07	109.90
69	La	25	ILE	N-CA-C	-13.83	88.07	108.54
33	L1	1564	C	P-O5'-C5'	13.82	141.64	120.90
33	L1	2462	G	O4'-C1'-N9	13.82	129.24	108.50
45	LQ	252	THR	CB-CA-C	-13.82	89.19	110.88
34	L3	79	A	O4'-C1'-C2'	-13.80	93.80	107.60
11	SM	33	ILE	N-CA-CB	13.80	126.36	110.49
20	SZ	28	LYS	CB-CA-C	13.79	132.69	110.90
33	L1	2584	U	N1-C1'-C2'	13.79	132.68	112.00
33	L1	2486	G	C1'-O4'-C4'	13.79	123.69	109.90
33	L1	237	C	C3'-C2'-C1'	13.78	115.08	101.30
33	L1	1384	G	C3'-C2'-C1'	-13.78	87.52	101.30
33	L1	1401	C	O4'-C1'-C2'	-13.77	93.83	107.60
32	S1	476	U	P-O3'-C3'	13.77	140.85	120.20
33	L1	542	G	O4'-C1'-C2'	13.77	121.37	107.60
32	S1	187	C	OP2-P-O3'	-13.76	66.72	108.00
45	LQ	256	SER	O-C-N	-13.75	103.63	122.46
33	L1	700	C	C3'-C2'-C1'	13.74	115.04	101.30
33	L1	3320	G	C3'-C2'-C1'	13.74	115.04	101.30
15	SS	8	THR	N-CA-C	-13.70	95.95	111.71
33	L1	605	A	O4'-C1'-C2'	-13.69	93.92	107.60
33	L1	1408	C	N1-C1'-C2'	13.68	132.52	112.00
33	L1	1665	G	P-O3'-C3'	13.68	140.72	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2125	A	O4'-C1'-C2'	-13.68	93.92	107.60
32	S1	652	G	O3'-P-O5'	-13.67	83.50	104.00
35	L2	115	G	O4'-C1'-C2'	-13.67	93.93	107.60
34	L3	78	C	O4'-C1'-C2'	-13.67	93.93	107.60
13	SQ	139	ASP	CA-C-N	13.66	147.64	121.54
13	SQ	139	ASP	C-N-CA	13.66	147.64	121.54
33	L1	2059	C	P-O3'-C3'	-13.66	99.71	120.20
33	L1	2596	A	P-O3'-C3'	13.66	140.69	120.20
36	LA	16	ILE	N-CA-C	13.66	123.37	110.53
33	L1	237	C	N1-C1'-C2'	13.66	132.49	112.00
3	SB	75	LYS	N-CA-C	-13.66	95.02	112.23
33	L1	1247	G	C1'-O4'-C4'	-13.66	96.24	109.90
33	L1	1271	U	P-O3'-C3'	-13.65	99.73	120.20
31	S2	72	G	O4'-C1'-N9	13.65	128.97	108.50
32	S1	376	G	O4'-C1'-C2'	-13.63	80.13	107.40
33	L1	1827	U	P-O5'-C5'	13.62	141.34	120.90
70	Li	42	PRO	CA-C-N	13.62	147.56	121.54
70	Li	42	PRO	C-N-CA	13.62	147.56	121.54
34	L3	117	U	P-O3'-C3'	13.62	140.62	120.20
33	L1	3347	U	O4'-C1'-C2'	-13.61	94.00	107.60
81	LD	318	GLU	CB-CA-C	-13.61	81.55	109.99
33	L1	24	C	C5'-C4'-C3'	-13.60	95.60	116.00
33	L1	563	C	N1-C1'-C2'	13.60	132.40	112.00
33	L1	1061	A	O4'-C1'-C2'	-13.60	94.00	107.60
32	S1	1034	G	P-O3'-C3'	13.59	140.58	120.20
32	S1	1060	U	N1-C1'-C2'	13.58	132.37	112.00
38	LE	34	ARG	N-CA-CB	13.58	133.44	110.49
32	S1	1753	U	O3'-P-O5'	-13.57	83.65	104.00
71	Lj	14	ARG	CB-CA-C	13.56	137.16	110.30
3	SB	79	PHE	CA-CB-CG	13.56	127.36	113.80
32	S1	1226	U	O4'-C1'-C2'	-13.54	94.06	107.60
15	SS	5	THR	CA-CB-OG1	13.54	129.91	109.60
25	SC	162	LEU	CB-CG-CD1	-13.53	70.10	110.70
33	L1	2562	A	P-O3'-C3'	13.53	140.49	120.20
33	L1	2363	G	P-O3'-C3'	13.52	140.48	120.20
33	L1	3270	C	N1-C1'-C2'	13.52	132.28	112.00
33	L1	2355	A	C1'-O4'-C4'	13.52	123.42	109.90
33	L1	2245	G	O3'-P-O5'	-13.51	83.73	104.00
33	L1	1035	C	P-O3'-C3'	13.51	140.46	120.20
34	L3	1	G	N9-C1'-C2'	13.51	134.26	114.00
34	L3	106	U	P-O3'-C3'	13.50	140.45	120.20
32	S1	1659	A	O4'-C1'-C2'	-13.50	94.10	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1827	U	N1-C1'-C2'	13.50	132.25	112.00
34	L3	24	G	P-O3'-C3'	-13.50	99.95	120.20
35	L2	45	A	C5'-C4'-C3'	13.50	136.25	116.00
33	L1	2731	G	O4'-C1'-C2'	13.49	121.09	107.60
33	L1	997	G	P-O3'-C3'	13.48	140.43	120.20
33	L1	1270	G	C1'-O4'-C4'	-13.48	96.42	109.90
73	Lp	51	ILE	O-C-N	-13.48	105.72	122.57
31	S2	22	G	N9-C1'-C2'	13.48	132.22	112.00
33	L1	996	A	C1'-C2'-O2'	13.48	128.62	108.40
32	S1	1648	C	N1-C1'-C2'	13.48	132.21	112.00
34	L3	19	A	O4'-C1'-C2'	-13.48	94.12	107.60
81	LD	319	LYS	N-CA-C	-13.47	96.19	113.17
33	L1	1879	A	O3'-P-O5'	13.47	124.21	104.00
32	S1	717	G	P-O5'-C5'	13.47	140.21	120.00
32	S1	1783	C	O4'-C1'-C2'	-13.47	94.13	107.60
11	SM	28	PHE	CA-CB-CG	-13.45	100.35	113.80
33	L1	1822	C	N1-C1'-C2'	13.46	132.18	112.00
33	L1	1063	G	N9-C1'-C2'	13.45	132.18	112.00
32	S1	1677	U	O4'-C1'-C2'	-13.45	94.16	107.60
34	L3	115	A	C4'-C3'-O3'	-13.45	92.83	113.00
81	LD	358	LYS	CB-CA-C	-13.45	88.47	110.79
33	L1	1344	A	N9-C1'-C2'	13.44	132.16	112.00
39	LF	173	LYS	N-CA-C	13.44	127.17	111.71
33	L1	3081	G	C3'-C2'-C1'	13.44	114.94	101.50
32	S1	1288	C	O4'-C1'-C2'	-13.43	92.37	105.80
64	LG	68	PRO	CA-C-O	-13.43	96.16	120.60
32	S1	1104	U	P-O3'-C3'	13.42	140.33	120.20
33	L1	711	A	O4'-C1'-N9	13.42	128.63	108.50
32	S1	559	A	P-O3'-C3'	13.42	140.33	120.20
33	L1	3376	C	C5'-C4'-C3'	13.41	136.12	116.00
23	SU	81	ILE	CA-C-N	13.41	141.90	122.05
23	SU	81	ILE	C-N-CA	13.41	141.90	122.05
33	L1	804	A	O4'-C1'-C2'	-13.39	92.41	105.80
33	L1	1775	C	O4'-C1'-C2'	-13.39	94.21	107.60
33	L1	49	U	N1-C1'-C2'	13.39	132.09	112.00
33	L1	2738	U	C5'-C4'-C3'	-13.39	95.92	116.00
33	L1	1533	U	P-O3'-C3'	13.38	140.27	120.20
33	L1	123	U	N1-C1'-C2'	13.38	132.07	112.00
33	L1	2572	U	O4'-C1'-N1	13.38	128.56	108.50
33	L1	1115	A	O4'-C1'-C2'	-13.37	94.23	107.60
33	L1	2479	C	O4'-C1'-C2'	-13.37	94.23	107.60
47	LU	158	ASN	CA-CB-CG	13.36	125.96	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	373	U	O4'-C1'-N1	13.35	128.52	108.50
33	L1	9	C	O4'-C1'-C2'	-13.35	94.25	107.60
33	L1	1516	G	N9-C1'-C2'	13.35	134.02	114.00
33	L1	25	U	O4'-C1'-C2'	-13.35	94.25	107.60
73	Lp	53	ASN	CA-CB-CG	13.35	125.95	112.60
33	L1	2203	A	N9-C1'-C2'	-13.34	85.72	112.40
33	L1	3377	G	P-O3'-C3'	13.34	140.20	120.20
33	L1	250	C	C3'-C2'-C1'	13.33	114.63	101.30
33	L1	772	U	P-O3'-C3'	13.33	140.19	120.20
33	L1	309	C	N1-C1'-C2'	13.33	131.99	112.00
33	L1	583	C	N1-C1'-C2'	13.33	131.99	112.00
33	L1	3093	C	O4'-C1'-C2'	-13.32	94.28	107.60
48	LV	70	THR	N-CA-CB	13.32	134.15	111.50
78	Le	67	LEU	CA-C-N	13.32	138.13	120.28
78	Le	67	LEU	C-N-CA	13.32	138.13	120.28
82	LK	129	LEU	CB-CA-C	-13.32	86.32	110.70
33	L1	841	G	O4'-C1'-C2'	13.30	119.10	105.80
33	L1	1369	G	C3'-C2'-C1'	-13.30	88.00	101.30
33	L1	3291	C	P-O5'-C5'	13.30	140.84	120.90
7	SI	135	PHE	CA-CB-CG	13.29	127.09	113.80
32	S1	1225	A	P-O5'-C5'	-13.29	100.97	120.90
33	L1	1369	G	P-O5'-C5'	13.28	140.82	120.90
33	L1	853	U	O4'-C1'-C2'	-13.28	94.32	107.60
20	SZ	44	PHE	CA-C-N	13.28	145.60	121.70
20	SZ	44	PHE	C-N-CA	13.28	145.60	121.70
33	L1	155	G	P-O3'-C3'	13.27	140.11	120.20
33	L1	968	A	O4'-C1'-N9	13.27	128.41	108.50
60	Lr	32	LYS	CA-C-N	-13.27	94.97	121.91
60	Lr	32	LYS	C-N-CA	-13.27	94.97	121.91
33	L1	2621	G	O4'-C1'-N9	13.27	128.10	108.20
35	L2	97	U	O4'-C1'-N1	13.26	128.40	108.50
33	L1	3216	G	O4'-C1'-N9	13.26	128.38	108.50
33	L1	534	G	C1'-O4'-C4'	-13.25	96.65	109.90
33	L1	2391	C	O4'-C1'-C2'	-13.25	94.35	107.60
32	S1	33	U	C1'-O4'-C4'	13.25	123.15	109.90
34	L3	68	G	N9-C1'-C2'	13.25	131.87	112.00
33	L1	803	G	O4'-C1'-C2'	-13.25	94.35	107.60
33	L1	2876	G	C1'-O4'-C4'	-13.25	96.65	109.90
33	L1	1064	U	O4'-C1'-C2'	-13.23	94.37	107.60
34	L3	13	A	N9-C1'-C2'	13.23	131.84	112.00
31	S2	75	A	P-O5'-C5'	13.22	140.73	120.90
32	S1	1279	A	N9-C1'-C2'	13.22	131.84	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1753	A	O4'-C1'-C2'	-13.22	92.58	105.80
32	S1	1237	G	P-O3'-C3'	13.22	140.03	120.20
33	L1	177	C	N1-C1'-C2'	13.22	131.82	112.00
33	L1	3320	G	N9-C1'-C2'	13.20	131.80	112.00
67	LS	118	VAL	N-CA-C	-13.20	89.67	107.88
33	L1	2151	G	P-O3'-C3'	13.19	139.99	120.20
32	S1	1004	U	O3'-P-O5'	-13.19	84.21	104.00
33	L1	506	U	P-O3'-C3'	13.19	139.99	120.20
33	L1	1818	C	N1-C1'-C2'	13.19	131.78	112.00
33	L1	2944	C	N1-C1'-C2'	13.18	131.77	112.00
33	L1	3360	U	P-O3'-C3'	13.18	139.97	120.20
33	L1	1630	C	O4'-C1'-C2'	-13.17	94.43	107.60
33	L1	1958	G	P-O3'-C3'	13.17	139.96	120.20
42	LP	21	PHE	CA-CB-CG	13.16	126.97	113.80
32	S1	119	U	C1'-O4'-C4'	-13.16	96.74	109.90
23	SU	78	PHE	N-CA-CB	-13.16	91.16	111.56
66	LN	8	GLU	CA-C-N	13.16	141.45	121.71
66	LN	8	GLU	C-N-CA	13.16	141.45	121.71
66	LN	89	TRP	CA-CB-CG	13.16	138.60	113.60
33	L1	2453	G	O4'-C1'-C2'	-13.14	94.45	107.60
70	Li	44	CYS	N-CA-C	-13.14	89.98	109.42
33	L1	305	G	O4'-C1'-C2'	13.13	120.73	107.60
33	L1	999	U	P-O3'-C3'	13.13	139.89	120.20
32	S1	535	C	OP2-P-O3'	-13.12	68.64	108.00
33	L1	2630	A	P-O3'-C3'	13.12	139.88	120.20
33	L1	695	G	O4'-C1'-N9	13.11	128.17	108.50
32	S1	1572	U	O4'-C1'-C2'	-13.11	94.49	107.60
4	SD	65	LEU	CB-CA-C	13.11	132.55	110.79
15	SS	5	THR	CB-CA-C	-13.11	89.84	110.81
33	L1	790	G	P-O5'-C5'	13.10	140.55	120.90
33	L1	265	G	O4'-C1'-C2'	-13.10	92.70	105.80
64	LG	185	ASP	CA-C-N	-13.09	96.53	121.54
64	LG	185	ASP	C-N-CA	-13.09	96.53	121.54
33	L1	557	C	N1-C1'-C2'	13.09	131.64	112.00
2	SA	215	LYS	N-CA-C	13.08	138.67	110.80
32	S1	32	U	N1-C1'-C2'	-13.08	92.38	112.00
38	LE	170	GLU	CB-CA-C	13.07	134.94	110.10
38	LE	34	ARG	CA-CB-CG	13.07	140.24	114.10
33	L1	306	A	P-O5'-C5'	13.06	140.50	120.90
33	L1	2375	G	P-O5'-C5'	13.06	140.50	120.90
73	Lp	51	ILE	CB-CA-C	13.06	132.72	111.29
33	L1	2482	A	P-O3'-C3'	13.06	139.79	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3322	A	C3'-C2'-C1'	-13.06	88.24	101.30
33	L1	582	C	N1-C1'-C2'	13.06	131.59	112.00
33	L1	2504	A	P-O3'-C3'	13.06	139.79	120.20
32	S1	1421	U	P-O3'-C3'	13.05	139.78	120.20
33	L1	2125	A	N9-C1'-C2'	-13.05	92.42	112.00
33	L1	2278	G	C2'-C3'-O3'	13.05	129.07	109.50
33	L1	1616	G	C1'-O4'-C4'	-13.04	96.86	109.90
33	L1	1348	G	O4'-C1'-C2'	13.04	120.64	107.60
33	L1	28	C	P-O3'-C3'	13.04	139.76	120.20
1	Sa	199	GLU	N-CA-C	13.04	126.35	110.19
32	S1	1479	U	O4'-C1'-N1	13.03	127.75	108.20
33	L1	1549	A	N9-C1'-C2'	13.03	138.46	112.40
33	L1	2161	G	O3'-P-O5'	-13.02	84.47	104.00
1	Sa	82	VAL	CA-C-N	-13.01	92.72	121.87
1	Sa	82	VAL	C-N-CA	-13.01	92.72	121.87
33	L1	2478	G	N9-C1'-C2'	13.01	131.52	112.00
67	LS	16	LEU	N-CA-CB	-13.01	87.21	110.37
33	L1	1134	G	C2'-C3'-O3'	13.00	129.00	109.50
6	SF	165	ILE	CA-C-N	-13.00	102.99	120.54
6	SF	165	ILE	C-N-CA	-13.00	102.99	120.54
33	L1	2	C	P-O3'-C3'	13.00	139.70	120.20
11	SM	112	GLU	CA-C-N	-13.00	103.54	120.44
11	SM	112	GLU	C-N-CA	-13.00	103.54	120.44
32	S1	473	C	O4'-C1'-C2'	-12.99	94.61	107.60
33	L1	1513	C	N1-C1'-C2'	12.98	131.48	112.00
33	L1	1756	C	N1-C1'-C2'	12.98	131.48	112.00
4	SD	93	PRO	CB-CA-C	-12.98	95.75	111.46
33	L1	532	G	C1'-O4'-C4'	-12.98	96.92	109.90
33	L1	997	G	C1'-O4'-C4'	12.98	122.88	109.90
58	Ln	42	LEU	N-CA-C	12.98	128.99	112.89
33	L1	1887	A	O4'-C1'-C2'	-12.98	94.62	107.60
32	S1	1682	U	O4'-C1'-C2'	-12.97	94.62	107.60
33	L1	1192	A	O4'-C1'-N9	12.97	127.65	108.20
33	L1	348	C	C3'-C2'-C1'	12.97	114.47	101.50
64	LG	65	LYS	CA-C-O	-12.95	106.42	118.33
32	S1	1314	U	P-O5'-C5'	12.95	140.32	120.90
33	L1	1690	C	P-O5'-C5'	12.95	140.32	120.90
33	L1	2643	A	O4'-C1'-N9	12.95	127.92	108.50
35	L2	96	A	C3'-C2'-C1'	12.94	114.24	101.30
33	L1	639	A	C1'-C2'-O2'	12.93	127.80	108.40
33	L1	2783	U	P-O5'-C5'	12.92	140.29	120.90
33	L1	975	G	C5'-C4'-C3'	12.92	135.38	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
74	LJ	123	ALA	N-CA-C	12.91	128.45	110.24
33	L1	1351	C	C5'-C4'-C3'	12.91	135.36	116.00
33	L1	1081	U	O4'-C1'-C2'	-12.91	94.69	107.60
33	L1	1449	A	P-O3'-C3'	12.90	139.56	120.20
33	L1	1727	A	C3'-C2'-C1'	12.90	114.40	101.50
66	LN	111	MET	N-CA-C	12.89	124.87	111.07
84	LI	110	ARG	CA-C-N	12.89	137.95	120.54
84	LI	110	ARG	C-N-CA	12.89	137.95	120.54
33	L1	1628	G	O4'-C1'-C2'	-12.89	94.71	107.60
47	LU	56	PHE	CA-CB-CG	12.88	126.68	113.80
33	L1	138	G	P-O3'-C3'	12.87	139.50	120.20
33	L1	917	A	O4'-C1'-C2'	-12.87	92.93	105.80
33	L1	2354	G	N9-C1'-C2'	-12.86	92.71	112.00
33	L1	127	G	O4'-C1'-C2'	12.86	120.46	107.60
33	L1	700	C	O4'-C1'-C2'	-12.86	94.74	107.60
33	L1	21	G	O4'-C1'-N9	12.85	127.48	108.20
32	S1	1541	C	O3'-P-O5'	12.84	123.26	104.00
56	Lh	48	LYS	CB-CA-C	12.84	131.24	109.53
33	L1	2786	G	O4'-C1'-C2'	-12.84	94.77	107.60
72	Lk	68	LYS	CA-CB-CG	-12.84	88.43	114.10
27	SH	82	GLY	N-CA-C	12.83	133.14	115.30
33	L1	2444	U	N1-C1'-C2'	12.83	131.25	112.00
34	L3	26	C	P-O3'-C3'	12.83	139.45	120.20
66	LN	99	ARG	CB-CA-C	-12.83	90.73	110.88
33	L1	3296	C	O4'-C1'-N1	12.82	127.44	108.20
32	S1	934	A	O4'-C1'-N9	12.82	127.73	108.50
33	L1	975	G	O4'-C1'-C2'	12.82	120.42	107.60
33	L1	2630	A	O4'-C1'-N9	12.82	127.44	108.20
35	L2	96	A	O4'-C1'-C2'	-12.82	94.78	107.60
33	L1	3304	U	O4'-C1'-C2'	-12.81	94.78	107.60
33	L1	98	A	P-O3'-C3'	12.81	139.42	120.20
33	L1	972	C	O4'-C1'-C2'	-12.81	94.79	107.60
33	L1	641	C	P-O5'-C5'	-12.81	101.69	120.90
33	L1	3354	A	O4'-C1'-N9	12.81	127.71	108.50
33	L1	723	G	O5'-C5'-C4'	12.80	130.71	111.50
33	L1	3156	G	O4'-C4'-C3'	-12.80	91.20	104.00
27	SH	67	GLY	O-C-N	12.79	139.33	122.70
33	L1	1132	A	N9-C1'-C2'	12.79	131.19	112.00
33	L1	1526	A	O4'-C1'-N9	12.79	127.39	108.20
33	L1	2373	C	O4'-C1'-C2'	-12.79	93.01	105.80
33	L1	2486	G	N9-C1'-C2'	-12.79	92.81	112.00
33	L1	2739	A	C5'-C4'-C3'	12.79	135.19	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	SU	19	THR	CA-CB-OG1	12.79	128.78	109.60
33	L1	280	G	C1'-O4'-C4'	12.78	122.68	109.90
76	Lw	35	ASP	CB-CA-C	-12.78	89.00	109.84
32	S1	630	U	O4'-C1'-N1	12.78	127.67	108.50
5	SE	179	VAL	O-C-N	-12.78	113.32	121.37
82	LK	134	LEU	N-CA-C	12.78	128.35	113.02
33	L1	1888	G	O4'-C1'-N9	12.77	127.66	108.50
33	L1	568	C	N1-C1'-C2'	12.77	131.15	112.00
32	S1	1395	C	P-O3'-C3'	12.77	139.35	120.20
33	L1	1311	G	O4'-C1'-C2'	12.77	120.37	107.60
33	L1	1753	A	O5'-C5'-C4'	12.77	130.85	111.70
4	SD	148	ARG	CA-C-O	-12.76	106.81	120.46
23	SU	17	PHE	CA-C-O	-12.76	106.98	121.40
33	L1	1662	G	N9-C1'-C2'	12.76	131.14	112.00
25	SC	17	PRO	N-CA-C	12.75	138.74	112.47
32	S1	535	C	O3'-P-O5'	12.75	123.13	104.00
33	L1	1041	C	O4'-C1'-C2'	-12.75	94.85	107.60
32	S1	3	C	O4'-C1'-C2'	-12.75	94.85	107.60
33	L1	2216	G	O4'-C1'-C2'	-12.74	94.86	107.60
55	Lg	119	VAL	N-CA-C	12.73	135.82	109.34
33	L1	2199	C	N1-C1'-C2'	12.73	131.10	112.00
32	S1	16	G	N9-C1'-C2'	12.73	131.09	112.00
33	L1	1855	A	N9-C1'-C2'	-12.73	94.91	114.00
35	L2	36	C	N1-C1'-C2'	12.73	131.10	112.00
33	L1	3048	C	C1'-O4'-C4'	-12.72	97.18	109.90
33	L1	121	A	P-O3'-C3'	12.71	139.27	120.20
33	L1	555	G	O3'-P-O5'	12.71	123.06	104.00
33	L1	1370	A	C3'-C2'-C1'	12.71	114.01	101.30
33	L1	2595	G	P-O3'-C3'	12.70	139.25	120.20
33	L1	83	U	P-O5'-C5'	12.70	139.95	120.90
32	S1	788	G	O3'-P-O5'	12.70	123.05	104.00
33	L1	2875	U	C3'-C2'-C1'	12.69	113.99	101.30
32	S1	1543	U	O4'-C1'-N1	12.69	127.23	108.20
32	S1	1225	A	C1'-O4'-C4'	12.68	122.58	109.90
34	L3	2	G	C4'-C3'-O3'	-12.68	93.97	113.00
35	L2	94	C	O4'-C1'-C2'	12.68	118.48	105.80
10	SL	3	LYS	N-CA-C	-12.68	92.21	110.59
33	L1	643	G	O4'-C1'-C2'	12.68	120.28	107.60
33	L1	1472	C	N1-C1'-C2'	12.67	131.01	112.00
33	L1	2629	C	P-O5'-C5'	12.67	139.91	120.90
67	LS	28	ARG	CA-CB-CG	12.67	139.45	114.10
2	SA	153	ASP	CA-CB-CG	12.67	125.27	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1307	U	N1-C1'-C2'	12.67	131.00	112.00
46	LT	136	ARG	CA-C-O	-12.67	105.67	121.50
33	L1	1010	A	O4'-C1'-C2'	-12.66	94.94	107.60
33	L1	2829	U	O4'-C1'-N1	12.66	127.19	108.20
33	L1	858	U	O3'-P-O5'	-12.65	85.02	104.00
32	S1	1682	U	N1-C1'-C2'	12.65	130.97	112.00
32	S1	653	U	O4'-C1'-N1	12.65	127.47	108.50
81	LD	303	VAL	CA-C-N	12.65	145.69	121.54
81	LD	303	VAL	C-N-CA	12.65	145.69	121.54
69	La	10	ALA	N-CA-C	12.64	129.48	113.55
33	L1	175	G	C1'-O4'-C4'	-12.64	97.26	109.90
33	L1	1058	A	P-O5'-C5'	12.64	139.86	120.90
33	L1	2738	U	P-O3'-C3'	-12.64	101.24	120.20
33	L1	2056	C	P-O3'-C3'	12.63	139.15	120.20
33	L1	337	C	C1'-O4'-C4'	-12.63	97.27	109.90
33	L1	385	A	C5'-C4'-C3'	12.62	134.93	116.00
33	L1	2054	A	O5'-C5'-C4'	12.61	129.72	110.80
66	LN	109	LYS	N-CA-CB	12.61	128.30	110.01
33	L1	176	A	P-O3'-C3'	12.61	139.11	120.20
33	L1	2518	A	C1'-C2'-O2'	12.61	127.31	108.40
13	SQ	33	LYS	N-CA-CB	12.60	128.65	110.12
32	S1	1649	C	O4'-C1'-C2'	-12.60	95.00	107.60
32	S1	231	U	O4'-C1'-N1	12.59	127.39	108.50
68	LW	29	LYS	N-CA-CB	12.59	132.77	110.37
35	L2	157	C	P-O3'-C3'	12.58	139.07	120.20
33	L1	1658	G	P-O3'-C3'	12.58	139.07	120.20
33	L1	1941	G	O4'-C1'-C2'	12.58	120.18	107.60
33	L1	1621	G	O4'-C1'-N9	12.58	127.36	108.50
33	L1	1628	G	O4'-C1'-N9	-12.56	89.65	108.50
80	LC	16	PHE	CA-CB-CG	-12.56	101.24	113.80
33	L1	841	G	C5'-C4'-C3'	12.56	134.04	115.20
32	S1	1099	G	P-O3'-C3'	12.55	139.03	120.20
33	L1	1675	G	O4'-C1'-N9	12.55	127.33	108.50
32	S1	626	A	P-O3'-C3'	12.55	139.03	120.20
41	LM	69	LYS	N-CA-C	12.55	125.37	110.31
33	L1	126	G	O4'-C1'-C2'	12.55	120.15	107.60
33	L1	1133	A	O4'-C1'-C2'	-12.54	95.06	107.60
32	S1	1765	A	O4'-C1'-N9	12.54	127.01	108.20
33	L1	1054	U	N1-C1'-C2'	12.54	130.81	112.00
33	L1	1683	U	P-O3'-C3'	12.54	139.01	120.20
29	ST	23	ILE	N-CA-C	12.54	123.41	110.62
32	S1	512	U	P-O3'-C3'	12.54	139.00	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3156	G	O4'-C1'-C2'	-12.54	95.06	107.60
38	LE	165	PHE	CA-CB-CG	-12.54	101.26	113.80
20	SZ	51	PHE	CA-C-N	12.53	134.15	119.99
20	SZ	51	PHE	C-N-CA	12.53	134.15	119.99
33	L1	239	C	O4'-C1'-N1	12.53	127.30	108.50
33	L1	2125	A	C1'-O4'-C4'	12.53	122.43	109.90
32	S1	1067	A	O3'-P-O5'	-12.53	85.20	104.00
32	S1	1678	G	N9-C1'-C2'	-12.53	93.21	112.00
33	L1	343	G	O4'-C1'-C2'	12.53	120.13	107.60
34	L3	3	A	P-O3'-C3'	12.52	138.99	120.20
23	SU	11	THR	N-CA-C	12.52	127.55	108.52
33	L1	2379	U	O3'-P-O5'	-12.51	85.24	104.00
66	LN	87	SER	CA-C-O	-12.51	107.69	120.82
33	L1	1598	U	O4'-C1'-C2'	-12.50	95.10	107.60
33	L1	254	G	N9-C1'-C2'	12.50	130.75	112.00
33	L1	1623	C	P-O5'-C5'	-12.50	102.15	120.90
33	L1	2800	C	P-O3'-C3'	12.50	138.94	120.20
34	L3	14	C	C5'-C4'-C3'	12.50	134.75	116.00
80	LC	112	GLU	CA-C-N	12.49	137.02	120.28
80	LC	112	GLU	C-N-CA	12.49	137.02	120.28
33	L1	1764	G	N9-C1'-C2'	12.49	130.74	112.00
33	L1	2746	G	N9-C1'-C2'	12.49	130.73	112.00
32	S1	1516	C	C5'-C4'-C3'	12.49	134.73	116.00
32	S1	532	U	P-O3'-C3'	12.48	138.92	120.20
33	L1	686	A	P-O3'-C3'	12.48	138.92	120.20
33	L1	1395	A	C1'-C2'-O2'	12.48	127.12	108.40
33	L1	1735	U	P-O3'-C3'	12.48	138.92	120.20
35	L2	66	C	N1-C1'-C2'	12.48	132.72	114.00
32	S1	1513	A	O4'-C1'-C2'	-12.47	95.12	107.60
33	L1	1320	G	O4'-C1'-N9	12.47	127.21	108.50
33	L1	2748	G	O4'-C1'-N9	12.46	127.20	108.50
33	L1	309	C	P-O3'-C3'	-12.45	101.52	120.20
33	L1	2810	A	O4'-C1'-N9	12.45	126.88	108.20
33	L1	612	U	P-O3'-C3'	12.45	138.88	120.20
33	L1	1243	C	N1-C1'-C2'	12.45	130.67	112.00
32	S1	1757	G	O4'-C1'-C2'	-12.45	95.16	107.60
33	L1	1745	G	P-O3'-C3'	12.44	138.87	120.20
33	L1	3124	A	O4'-C1'-C2'	-12.44	95.16	107.60
32	S1	404	A	P-O3'-C3'	12.44	138.86	120.20
33	L1	2231	G	N9-C1'-C2'	-12.44	93.34	112.00
33	L1	1368	U	C3'-C2'-C1'	12.43	113.73	101.30
33	L1	1911	A	O4'-C1'-N9	12.43	127.15	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2135	U	N1-C1'-C2'	12.43	130.64	112.00
32	S1	453	C	O4'-C1'-C2'	-12.42	95.18	107.60
33	L1	841	G	C5'-C4'-O4'	-12.42	90.46	109.10
33	L1	538	C	O4'-C1'-C2'	-12.42	93.38	105.80
33	L1	1764	G	C1'-C2'-O2'	12.42	127.03	108.40
35	L2	94	C	O4'-C1'-N1	12.42	126.82	108.20
35	L2	61	C	N1-C1'-C2'	12.41	130.62	112.00
32	S1	1686	C	N1-C1'-C2'	12.40	130.60	112.00
83	Lm	4	ARG	CD-NE-CZ	12.40	141.76	124.40
32	S1	67	G	N9-C1'-C2'	12.39	130.59	112.00
32	S1	1169	G	O4'-C1'-N9	12.39	127.08	108.50
32	S1	593	C	O4'-C1'-C2'	-12.37	95.23	107.60
33	L1	2796	G	O4'-C1'-C2'	-12.37	95.23	107.60
33	L1	280	G	O4'-C1'-C2'	-12.37	95.23	107.60
33	L1	641	C	O4'-C1'-N1	12.37	127.05	108.50
27	SH	27	ILE	CA-CB-CG1	12.36	131.41	110.40
33	L1	804	A	C1'-C2'-O2'	-12.36	93.26	111.80
20	SZ	5	HIS	N-CA-C	12.36	126.16	111.82
33	L1	2995	G	P-O3'-C3'	12.36	138.74	120.20
33	L1	1366	G	C3'-C2'-C1'	-12.35	88.95	101.30
64	LG	140	GLN	CA-C-N	-12.35	101.57	121.58
64	LG	140	GLN	C-N-CA	-12.35	101.57	121.58
32	S1	1225	A	O3'-P-O5'	-12.35	85.48	104.00
33	L1	723	G	O4'-C1'-N9	12.35	127.02	108.50
59	Lo	45	ARG	N-CA-C	12.35	124.82	111.36
33	L1	2786	G	O3'-P-O5'	-12.34	85.49	104.00
67	LS	28	ARG	CB-CG-CD	12.32	139.64	111.30
6	SF	171	ASP	CA-CB-CG	12.32	124.92	112.60
27	SH	78	ARG	CA-C-N	-12.31	98.02	121.54
27	SH	78	ARG	C-N-CA	-12.31	98.02	121.54
33	L1	384	A	C1'-C2'-O2'	12.31	126.87	108.40
33	L1	2903	G	C1'-O4'-C4'	-12.31	97.59	109.90
35	L2	53	G	C1'-O4'-C4'	-12.31	97.59	109.90
13	SQ	66	VAL	N-CA-C	12.31	134.94	109.34
32	S1	32	U	C1'-O4'-C4'	12.30	122.20	109.90
33	L1	1254	A	C5'-C4'-C3'	12.31	134.46	116.00
33	L1	3227	U	O4'-C1'-C2'	-12.31	70.48	107.40
32	S1	480	U	O4'-C1'-C2'	-12.30	93.50	105.80
32	S1	1097	A	OP1-P-O3'	-12.30	71.11	108.00
33	L1	1486	G	O4'-C1'-N9	12.30	126.95	108.50
34	L3	115	A	P-O5'-C5'	12.30	139.34	120.90
33	L1	692	U	P-O3'-C3'	12.29	138.64	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2290	A	C1'-O4'-C4'	-12.29	97.61	109.90
35	L2	90	U	O4'-C1'-C2'	-12.29	93.51	105.80
33	L1	138	G	C5'-C4'-C3'	12.29	134.43	116.00
32	S1	600	C	O4'-C1'-C2'	-12.28	95.32	107.60
32	S1	1430	A	O4'-C1'-C2'	-12.28	95.32	107.60
33	L1	1744	C	N1-C1'-C2'	12.28	130.42	112.00
32	S1	1756	A	O3'-P-O5'	-12.28	85.58	104.00
33	L1	2503	A	P-O5'-C5'	12.28	139.31	120.90
33	L1	2796	G	P-O3'-C3'	12.27	138.61	120.20
47	LU	45	ASN	CA-CB-CG	-12.27	100.33	112.60
72	Lk	92	GLU	CA-C-O	12.27	125.06	117.94
33	L1	2614	U	O4'-C1'-C2'	-12.27	95.33	107.60
32	S1	1142	A	P-O3'-C3'	12.26	138.59	120.20
33	L1	3027	G	O4'-C1'-C2'	-12.26	95.34	107.60
37	LB	252	ALA	CA-C-N	12.26	143.76	121.70
37	LB	252	ALA	C-N-CA	12.26	143.76	121.70
33	L1	3337	G	P-O3'-C3'	12.25	138.58	120.20
33	L1	745	G	P-O3'-C3'	12.24	138.56	120.20
33	L1	2793	G	C3'-C2'-C1'	-12.24	89.06	101.30
16	SR	117	LYS	N-CA-CB	12.23	132.14	110.37
33	L1	614	C	O4'-C1'-C2'	-12.23	95.37	107.60
33	L1	3137	G	O4'-C1'-N9	12.23	126.85	108.50
67	LS	113	ALA	N-CA-CB	-12.23	92.28	110.01
33	L1	1537	A	O4'-C1'-C2'	-12.22	95.38	107.60
32	S1	1736	C	N1-C1'-C2'	12.22	130.32	112.00
33	L1	664	A	O4'-C1'-C2'	12.22	119.82	107.60
32	S1	501	U	N1-C1'-C2'	12.22	130.32	112.00
32	S1	373	U	N1-C1'-C2'	-12.21	93.68	112.00
32	S1	1224	C	O3'-P-O5'	12.21	122.31	104.00
33	L1	1867	U	C3'-C2'-C1'	-12.21	89.09	101.30
33	L1	1612	C	N1-C1'-C2'	12.20	130.31	112.00
23	SU	25	ARG	CB-CA-C	-12.20	87.61	109.70
33	L1	357	C	N1-C1'-C2'	12.20	130.31	112.00
33	L1	2544	C	N1-C1'-C2'	12.20	130.30	112.00
35	L2	42	U	N1-C1'-C2'	12.20	132.29	114.00
71	Lj	79	HIS	N-CA-C	-12.20	86.70	107.80
33	L1	665	G	N9-C1'-C2'	12.19	132.29	114.00
78	Le	163	ILE	N-CA-CB	-12.19	94.14	111.21
33	L1	2722	U	O4'-C1'-C2'	-12.19	95.41	107.60
33	L1	1958	G	O4'-C1'-C2'	12.18	117.98	105.80
13	SQ	71	LEU	CA-C-N	12.17	144.79	121.54
13	SQ	71	LEU	C-N-CA	12.17	144.79	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	470	G	O4'-C1'-N9	12.16	126.75	108.50
78	Le	74	LYS	CA-CB-CG	12.16	138.43	114.10
23	SU	83	ASP	N-CA-C	12.16	136.69	110.80
33	L1	3310	A	N9-C1'-C2'	12.16	130.23	112.00
33	L1	3365	U	P-O5'-C5'	12.16	139.13	120.90
33	L1	1761	C	P-O3'-C3'	-12.15	101.98	120.20
32	S1	1658	U	P-O5'-C5'	12.14	139.12	120.90
23	SU	25	ARG	CD-NE-CZ	12.14	141.40	124.40
2	SA	229	TYR	CA-C-N	12.14	133.42	119.94
2	SA	229	TYR	C-N-CA	12.14	133.42	119.94
33	L1	1750	A	O4'-C1'-C2'	-12.13	95.47	107.60
33	L1	3325	G	N9-C1'-C2'	12.14	130.20	112.00
32	S1	549	A	P-O5'-C5'	12.13	138.20	120.00
78	Le	167	ASN	CA-C-N	12.13	137.00	120.38
78	Le	167	ASN	C-N-CA	12.13	137.00	120.38
33	L1	2530	G	O4'-C1'-C2'	12.12	119.72	107.60
33	L1	839	A	C5'-C4'-C3'	12.12	134.18	116.00
32	S1	1661	C	P-O3'-C3'	12.12	138.37	120.20
71	Lj	8	ARG	CA-C-O	-12.12	106.99	120.92
33	L1	1829	G	O4'-C1'-C2'	12.11	119.71	107.60
33	L1	3204	G	P-O3'-C3'	12.11	138.36	120.20
33	L1	3327	A	C1'-O4'-C4'	-12.11	97.79	109.90
33	L1	1583	G	O4'-C1'-C2'	-12.10	95.50	107.60
81	LD	309	PRO	CA-N-CD	-12.09	95.07	112.00
32	S1	632	G	C1'-O4'-C4'	12.09	121.99	109.90
33	L1	3144	U	P-O3'-C3'	12.09	138.33	120.20
34	L3	10	C	C3'-C2'-C1'	12.09	113.39	101.30
32	S1	1537	U	O3'-P-O5'	-12.09	85.87	104.00
32	S1	1611	U	O4'-C1'-C2'	-12.09	95.52	107.60
33	L1	2361	C	N1-C1'-C2'	-12.08	93.88	112.00
82	LK	135	GLN	O-C-N	-12.08	107.43	121.32
33	L1	1621	G	P-O5'-C5'	12.08	139.02	120.90
33	L1	1713	A	N9-C1'-C2'	12.08	130.12	112.00
33	L1	2203	A	O4'-C1'-C2'	-12.08	83.24	107.40
33	L1	1439	U	N1-C1'-C2'	12.07	130.11	112.00
33	L1	2085	A	P-O3'-C3'	12.07	138.31	120.20
33	L1	628	C	N1-C1'-C2'	12.06	130.09	112.00
33	L1	665	G	C1'-O4'-C4'	-12.06	97.64	109.70
33	L1	2114	A	O4'-C1'-C2'	-12.05	95.55	107.60
33	L1	1742	G	O4'-C1'-N9	12.05	126.58	108.50
33	L1	2518	A	O3'-P-O5'	-12.05	85.92	104.00
64	LG	66	PRO	CA-C-N	12.04	135.15	120.09

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
64	LG	66	PRO	C-N-CA	12.04	135.15	120.09
33	L1	937	G	C1'-O4'-C4'	-12.04	97.86	109.90
33	L1	2762	U	C5'-C4'-C3'	12.04	134.06	116.00
39	LF	147	GLY	O-C-N	-12.04	109.66	123.51
2	SA	198	LYS	CB-CA-C	12.03	133.52	111.03
33	L1	1862	C	N1-C1'-C2'	12.03	130.04	112.00
33	L1	2356	A	C1'-O4'-C4'	-12.03	97.87	109.90
33	L1	2511	U	N1-C1'-C2'	-12.02	93.96	112.00
72	Lk	68	LYS	CG-CD-CE	12.02	138.95	111.30
29	ST	42	ASN	CA-CB-CG	12.02	124.61	112.60
40	LH	66	ARG	NE-CZ-NH2	12.01	130.01	119.20
23	SU	8	PRO	CA-C-N	-12.00	102.17	122.33
23	SU	8	PRO	C-N-CA	-12.00	102.17	122.33
33	L1	458	G	C1'-O4'-C4'	-12.00	97.90	109.90
33	L1	2418	A	N9-C1'-C2'	12.00	130.00	112.00
33	L1	2657	C	O4'-C1'-C2'	-12.00	95.60	107.60
33	L1	2799	U	P-O3'-C3'	12.00	138.19	120.20
10	SL	120	LYS	N-CA-C	11.99	136.34	110.80
7	SI	53	LYS	CA-CB-CG	11.98	138.07	114.10
27	SH	120	ASN	CB-CA-C	11.98	127.92	111.63
4	SD	172	PHE	CA-CB-CG	-11.98	101.82	113.80
33	L1	639	A	N9-C1'-C2'	11.98	129.96	112.00
71	Lj	8	ARG	CA-C-N	-11.98	103.45	122.25
71	Lj	8	ARG	C-N-CA	-11.98	103.45	122.25
5	SE	193	PRO	O-C-N	-11.97	106.48	122.64
32	S1	1639	A	O3'-P-O5'	-11.97	86.04	104.00
32	S1	1740	G	O4'-C1'-C2'	-11.97	95.63	107.60
10	SL	119	PHE	N-CA-C	11.96	136.28	110.80
33	L1	533	G	N9-C1'-C2'	11.96	129.94	112.00
33	L1	580	C	P-O3'-C3'	11.96	138.14	120.20
32	S1	1096	A	O3'-P-O5'	-11.95	86.07	104.00
78	Le	65	VAL	N-CA-C	11.95	121.61	110.74
3	SB	150	MET	CG-SD-CE	11.94	127.18	100.90
33	L1	549	G	C1'-O4'-C4'	-11.95	97.95	109.90
33	L1	262	A	N9-C1'-C2'	-11.94	94.08	112.00
33	L1	1642	G	O4'-C1'-C2'	11.94	119.54	107.60
81	LD	150	THR	CA-C-N	11.94	143.19	121.70
33	L1	810	A	O4'-C1'-C2'	-11.94	95.66	107.60
37	LB	91	GLY	CA-C-N	11.94	136.28	120.28
37	LB	91	GLY	C-N-CA	11.94	136.28	120.28
81	LD	150	THR	C-N-CA	11.94	143.19	121.70
32	S1	93	A	O4'-C1'-N9	11.94	126.40	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	L3	49	A	C5'-C4'-C3'	11.93	133.90	116.00
28	SN	10	HIS	CA-C-N	-11.93	104.93	119.84
28	SN	10	HIS	C-N-CA	-11.93	104.93	119.84
33	L1	1270	G	C1'-C2'-O2'	11.93	126.29	108.40
45	LQ	201	GLY	CA-C-N	-11.93	98.03	121.41
45	LQ	201	GLY	C-N-CA	-11.93	98.03	121.41
40	LH	98	GLU	N-CA-C	11.92	136.20	110.80
33	L1	330	C	P-O5'-C5'	11.92	138.78	120.90
33	L1	840	A	C5'-C4'-C3'	11.92	133.87	116.00
33	L1	1579	C	N1-C1'-C2'	11.91	129.87	112.00
4	SD	94	LYS	CA-C-O	-11.91	103.48	120.51
33	L1	309	C	C4'-C3'-C2'	-11.91	90.69	102.60
32	S1	452	C	P-O3'-C3'	11.90	138.06	120.20
38	LE	116	MET	CA-C-N	11.90	137.19	120.29
38	LE	116	MET	C-N-CA	11.90	137.19	120.29
32	S1	1666	G	P-O3'-C3'	11.90	138.05	120.20
33	L1	1539	G	P-O3'-C3'	11.90	138.05	120.20
67	LS	41	SER	CA-C-N	11.90	136.23	120.28
67	LS	41	SER	C-N-CA	11.90	136.23	120.28
33	L1	2766	U	C1'-O4'-C4'	11.90	121.80	109.90
38	LE	114	LEU	CA-C-N	-11.89	105.46	120.92
38	LE	114	LEU	C-N-CA	-11.89	105.46	120.92
33	L1	423	C	P-O3'-C3'	11.89	138.04	120.20
35	L2	89	G	N9-C1'-C2'	11.88	131.82	114.00
15	SS	80	LYS	CB-CA-C	11.88	129.53	110.88
33	L1	2818	G	C2'-C3'-O3'	11.88	127.32	109.50
33	L1	294	A	O4'-C1'-C2'	-11.88	95.72	107.60
33	L1	280	G	O4'-C1'-N9	11.88	126.31	108.50
33	L1	1551	C	N1-C1'-C2'	11.88	129.81	112.00
53	Ld	49	HIS	CA-CB-CG	11.87	125.67	113.80
33	L1	2887	C	N1-C1'-C2'	11.87	129.80	112.00
33	L1	2211	G	C1'-O4'-C4'	-11.86	98.04	109.90
38	LE	88	VAL	CA-C-O	-11.86	105.95	120.78
33	L1	2502	U	C1'-O4'-C4'	11.86	121.76	109.90
32	S1	1393	G	P-O5'-C5'	11.85	138.68	120.90
32	S1	882	G	N9-C1'-C2'	11.85	129.77	112.00
33	L1	572	U	P-O3'-C3'	11.84	137.96	120.20
35	L2	90	U	C1'-O4'-C4'	11.84	121.54	109.70
35	L2	93	A	C3'-C2'-C1'	11.84	113.34	101.50
46	LT	136	ARG	N-CA-C	-11.84	91.51	109.86
56	Lh	105	LYS	O-C-N	-11.84	109.57	122.12
33	L1	1602	A	O4'-C1'-N9	11.82	125.94	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	LF	187	THR	CA-C-N	-11.82	98.96	121.54
39	LF	187	THR	C-N-CA	-11.82	98.96	121.54
33	L1	2376	G	O4'-C1'-N9	11.82	125.93	108.20
33	L1	507	C	O4'-C1'-C2'	-11.82	95.78	107.60
33	L1	786	U	P-O3'-C3'	11.82	137.93	120.20
3	SB	79	PHE	N-CA-CB	-11.81	92.23	110.77
33	L1	457	C	N1-C1'-C2'	11.81	129.72	112.00
33	L1	1344	A	C3'-C2'-C1'	11.81	113.11	101.30
10	SL	54	ILE	O-C-N	-11.81	107.81	122.57
33	L1	2076	C	O4'-C1'-N1	11.81	126.21	108.50
34	L3	2	G	O3'-P-O5'	11.81	121.71	104.00
43	LO	120	VAL	N-CA-CB	11.81	124.46	111.00
45	LQ	199	ILE	N-CA-CB	11.80	130.70	111.23
31	S2	68	C	N1-C1'-C2'	11.79	129.69	112.00
33	L1	2169	U	N1-C1'-C2'	11.79	129.69	112.00
33	L1	2914	G	P-O3'-C3'	11.79	137.89	120.20
33	L1	3292	U	O4'-C1'-C2'	-11.79	95.81	107.60
32	S1	1739	U	N1-C1'-C2'	11.79	129.68	112.00
3	SB	30	ALA	CA-C-N	11.78	144.05	121.54
3	SB	30	ALA	C-N-CA	11.78	144.05	121.54
33	L1	3121	C	N1-C1'-C2'	11.78	129.68	112.00
34	L3	48	G	O4'-C1'-N9	11.79	126.18	108.50
32	S1	391	A	O3'-P-O5'	11.78	121.67	104.00
33	L1	2436	G	O4'-C1'-N9	11.78	125.87	108.20
34	L3	4	U	O3'-P-O5'	-11.78	86.33	104.00
70	Li	68	SER	N-CA-CB	11.78	129.03	110.65
33	L1	1061	A	P-O5'-C5'	11.78	138.56	120.90
33	L1	1691	U	O4'-C1'-N1	11.77	126.16	108.50
33	L1	3035	C	N1-C1'-C2'	11.77	129.66	112.00
67	LS	41	SER	N-CA-C	11.77	124.11	111.28
33	L1	1430	C	C1'-O4'-C4'	-11.77	98.13	109.90
9	SK	77	SER	CA-C-N	11.77	138.19	120.31
9	SK	77	SER	C-N-CA	11.77	138.19	120.31
33	L1	570	G	C1'-O4'-C4'	-11.77	98.13	109.90
67	LS	43	PHE	CA-CB-CG	-11.76	102.04	113.80
66	LN	80	VAL	CA-C-N	11.76	136.41	120.54
66	LN	80	VAL	C-N-CA	11.76	136.41	120.54
33	L1	1730	U	O4'-C1'-C2'	-11.76	95.84	107.60
33	L1	1880	A	P-O3'-C3'	-11.76	102.57	120.20
33	L1	72	A	C1'-O4'-C4'	11.75	121.65	109.90
34	L3	1	G	O3'-P-O5'	11.75	121.63	104.00
33	L1	715	A	O4'-C1'-C2'	-11.74	95.86	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	458	G	O4'-C1'-C2'	11.74	119.34	107.60
27	SH	109	GLY	O-C-N	-11.74	112.39	123.78
33	L1	3155	C	P-O3'-C3'	11.74	137.81	120.20
32	S1	893	U	N1-C1'-C2'	11.73	129.60	112.00
32	S1	1063	U	O4'-C1'-C2'	-11.73	95.87	107.60
32	S1	1740	G	N9-C1'-C2'	-11.73	94.40	112.00
33	L1	1136	A	C1'-O4'-C4'	-11.73	98.17	109.90
33	L1	1384	G	C1'-O4'-C4'	-11.73	98.17	109.90
33	L1	1222	U	O4'-C1'-C2'	-11.73	95.87	107.60
34	L3	101	A	P-O5'-C5'	11.72	138.49	120.90
33	L1	282	A	O4'-C1'-C2'	-11.72	94.08	105.80
11	SM	117	ILE	CA-C-O	11.72	133.12	120.47
33	L1	1395	A	C1'-O4'-C4'	11.72	121.62	109.90
50	LZ	34	ALA	N-CA-C	11.72	125.19	111.71
25	SC	18	ARG	O-C-N	11.71	138.17	122.59
33	L1	566	G	C1'-O4'-C4'	-11.71	98.19	109.90
9	SK	91	ALA	CA-C-N	11.71	137.07	120.79
9	SK	91	ALA	C-N-CA	11.71	137.07	120.79
5	SE	30	ARG	NE-CZ-NH1	11.71	133.21	121.50
33	L1	1511	C	N1-C1'-C2'	11.71	129.56	112.00
33	L1	2691	U	O4'-C1'-C2'	-11.70	94.10	105.80
33	L1	3289	U	O4'-C1'-C2'	-11.70	95.90	107.60
32	S1	1713	C	N1-C1'-C2'	11.70	129.55	112.00
33	L1	1752	C	C3'-C2'-C1'	11.70	113.00	101.30
33	L1	2355	A	N9-C1'-C2'	-11.70	94.46	112.00
33	L1	311	G	C1'-O4'-C4'	-11.69	98.21	109.90
33	L1	846	A	N9-C1'-C2'	-11.69	94.46	112.00
33	L1	1940	U	C5'-C4'-C3'	-11.69	98.46	116.00
81	LD	358	LYS	N-CA-C	11.69	124.02	111.28
33	L1	1818	C	C4'-C3'-C2'	11.68	114.28	102.60
32	S1	1608	A	O4'-C1'-N9	11.68	126.02	108.50
32	S1	1665	U	C5'-C4'-C3'	11.68	133.52	116.00
38	LE	2	SER	CA-C-N	11.68	143.85	121.54
38	LE	2	SER	C-N-CA	11.68	143.85	121.54
67	LS	119	ARG	N-CA-C	-11.68	92.62	108.74
33	L1	3005	C	C1'-O4'-C4'	-11.68	98.22	109.90
46	LT	67	HIS	CA-CB-CG	-11.68	102.12	113.80
33	L1	543	C	C1'-C2'-O2'	11.67	125.91	108.40
33	L1	2763	C	O4'-C1'-C2'	-11.67	95.93	107.60
69	La	36	ARG	CA-C-N	11.67	134.43	119.84
69	La	36	ARG	C-N-CA	11.67	134.43	119.84
3	SB	153	LYS	CD-CE-NZ	-11.67	74.56	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	SU	89	LYS	O-C-N	-11.67	109.75	122.12
33	L1	936	A	O4'-C1'-N9	11.67	126.00	108.50
32	S1	1615	G	P-O5'-C5'	11.66	138.39	120.90
33	L1	1878	G	O4'-C1'-C2'	11.66	119.26	107.60
32	S1	1588	C	OP2-P-O3'	-11.65	73.04	108.00
33	L1	840	A	O3'-P-O5'	-11.65	86.52	104.00
41	LM	71	ASP	N-CA-C	-11.65	95.27	112.04
32	S1	632	G	P-O3'-C3'	11.64	137.66	120.20
33	L1	875	A	O4'-C1'-C2'	11.64	119.24	107.60
64	LG	44	ALA	O-C-N	11.64	138.08	122.59
32	S1	850	G	N9-C1'-C2'	11.64	129.46	112.00
33	L1	484	C	C4'-C3'-C2'	-11.64	90.96	102.60
33	L1	528	C	O4'-C1'-C2'	-11.64	95.96	107.60
10	SL	3	LYS	O-C-N	-11.64	109.06	122.68
4	SD	52	LEU	N-CA-C	11.63	123.96	111.28
27	SH	119	LYS	N-CA-C	-11.63	98.19	112.38
33	L1	1197	A	C1'-O4'-C4'	-11.63	98.27	109.90
33	L1	2059	C	O4'-C1'-C2'	-11.63	95.97	107.60
33	L1	543	C	C2'-C3'-O3'	11.63	131.14	113.70
10	SL	120	LYS	CA-C-N	11.62	143.33	122.88
10	SL	120	LYS	C-N-CA	11.62	143.33	122.88
33	L1	3240	C	N1-C1'-C2'	11.62	131.43	114.00
25	SC	144	ASN	CA-C-N	-11.62	100.64	122.13
25	SC	144	ASN	C-N-CA	-11.62	100.64	122.13
33	L1	937	G	C1'-C2'-O2'	11.62	125.82	108.40
33	L1	1700	U	O4'-C1'-C2'	-11.62	95.98	107.60
32	S1	624	A	O4'-C1'-C2'	-11.61	95.99	107.60
48	LV	158	VAL	N-CA-C	-11.61	99.27	110.42
23	SU	28	PHE	CA-C-N	11.60	138.34	123.14
23	SU	28	PHE	C-N-CA	11.60	138.34	123.14
33	L1	534	G	O4'-C1'-C2'	11.60	119.20	107.60
69	La	9	LYS	N-CA-C	11.60	131.38	107.37
33	L1	19	C	C3'-C2'-C1'	11.59	112.89	101.30
32	S1	161	G	O4'-C1'-C2'	-11.59	96.01	107.60
32	S1	357	A	O4'-C1'-C2'	-11.59	96.01	107.60
78	Le	32	VAL	N-CA-CB	11.59	126.31	110.54
33	L1	367	A	C2'-C3'-O3'	11.59	126.88	109.50
33	L1	20	G	C3'-C2'-C1'	-11.59	89.71	101.30
32	S1	936	C	P-O5'-C5'	11.59	138.28	120.90
33	L1	2230	C	C1'-C2'-O2'	11.59	125.78	108.40
28	SN	52	PHE	N-CA-C	-11.58	90.03	108.90
33	L1	3169	C	O4'-C1'-C2'	-11.58	96.02	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3354	A	O4'-C1'-C2'	-11.58	96.02	107.60
33	L1	291	C	O4'-C1'-C2'	11.57	119.17	107.60
33	L1	2362	A	N9-C1'-C2'	-11.57	94.64	112.00
33	L1	1800	G	C5'-C4'-C3'	11.57	133.36	116.00
33	L1	1259	C	O4'-C1'-C2'	-11.56	96.04	107.60
33	L1	1277	A	P-O3'-C3'	11.56	137.53	120.20
13	SQ	122	GLU	N-CA-C	11.55	125.00	111.71
32	S1	653	U	P-O5'-C5'	11.55	138.23	120.90
33	L1	857	G	O4'-C1'-C2'	11.55	119.15	107.60
32	S1	682	A	P-O3'-C3'	11.55	137.52	120.20
33	L1	1014	G	O4'-C1'-C2'	-11.55	96.05	107.60
33	L1	2479	C	C5'-C4'-C3'	11.55	133.33	116.00
33	L1	2398	A	O3'-P-O5'	11.55	121.32	104.00
33	L1	135	G	C5'-C4'-C3'	11.55	133.32	116.00
33	L1	2696	C	N1-C1'-C2'	11.54	129.32	112.00
33	L1	3334	A	C1'-O4'-C4'	-11.54	98.36	109.90
66	LN	99	ARG	NE-CZ-NH2	11.54	129.59	119.20
33	L1	997	G	O4'-C1'-N9	11.54	125.81	108.50
33	L1	2748	G	P-O5'-C5'	11.54	138.21	120.90
33	L1	3304	U	N1-C1'-C2'	-11.54	94.69	112.00
33	L1	446	C	N1-C1'-C2'	11.54	129.30	112.00
33	L1	2216	G	N9-C1'-C2'	-11.53	94.70	112.00
33	L1	1361	G	P-O3'-C3'	11.53	137.50	120.20
24	SX	53	GLN	CA-C-O	-11.53	108.21	120.55
33	L1	3211	C	O4'-C1'-C2'	-11.53	96.07	107.60
33	L1	1607	C	N1-C1'-C2'	11.52	129.28	112.00
31	S2	75	A	N9-C1'-C2'	-11.52	96.73	114.00
33	L1	62	A	P-O5'-C5'	-11.52	103.63	120.90
14	SP	112	VAL	N-CA-CB	11.51	124.78	111.66
33	L1	1649	G	O4'-C1'-N9	11.51	125.76	108.50
33	L1	1384	G	O4'-C1'-C2'	11.51	119.11	107.60
33	L1	2927	C	O4'-C1'-C2'	-11.51	96.09	107.60
33	L1	3035	C	C1'-O4'-C4'	-11.50	98.40	109.90
33	L1	2881	C	C1'-C2'-O2'	11.50	125.65	108.40
33	L1	3158	C	N1-C1'-C2'	11.50	129.25	112.00
33	L1	2771	U	C5'-C4'-C3'	11.50	133.25	116.00
31	S2	26	G	C3'-C2'-C1'	-11.49	89.81	101.30
35	L2	56	A	O4'-C1'-C2'	-11.49	96.11	107.60
3	SB	160	SER	O-C-N	11.49	137.57	123.44
32	S1	879	C	C3'-C2'-C1'	11.49	112.79	101.30
33	L1	3304	U	P-O5'-C5'	11.49	138.13	120.90
33	L1	1863	A	O4'-C1'-C2'	-11.48	96.12	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1430	C	N1-C1'-C2'	11.47	129.21	112.00
33	L1	2247	A	C3'-C2'-C1'	11.47	112.77	101.30
35	L2	99	G	O4'-C1'-N9	11.47	125.70	108.50
32	S1	1109	U	O4'-C1'-C2'	-11.46	96.14	107.60
33	L1	1196	U	P-O5'-C5'	11.46	138.10	120.90
32	S1	1068	G	C1'-O4'-C4'	11.46	121.16	109.70
64	LG	184	ILE	CA-CB-CG2	-11.46	91.02	110.50
80	LC	364	ASP	CA-C-N	11.46	142.32	121.70
80	LC	364	ASP	C-N-CA	11.46	142.32	121.70
67	LS	160	PRO	N-CA-C	11.46	124.68	110.70
32	S1	1763	A	P-O3'-C3'	11.45	137.38	120.20
33	L1	579	G	N9-C1'-C2'	11.45	129.17	112.00
33	L1	2675	G	C5'-C4'-C3'	11.45	133.17	116.00
32	S1	1616	U	O3'-P-O5'	-11.45	86.83	104.00
33	L1	2497	A	P-O3'-C3'	11.44	137.37	120.20
38	LE	108	ILE	O-C-N	-11.44	108.27	122.57
33	L1	262	A	C1'-O4'-C4'	11.44	121.34	109.90
33	L1	1867	U	O4'-C1'-N1	11.44	125.66	108.50
33	L1	1895	G	O4'-C1'-C2'	11.44	117.24	105.80
3	SB	76	ARG	N-CA-C	11.44	124.97	111.02
9	SK	85	LYS	CG-CD-CE	-11.44	85.00	111.30
33	L1	2640	A	C1'-O4'-C4'	11.44	121.34	109.90
33	L1	3234	G	C4'-C3'-C2'	-11.44	91.16	102.60
32	S1	594	C	P-O3'-C3'	11.43	137.35	120.20
33	L1	6	A	O4'-C1'-C2'	-11.43	96.17	107.60
33	L1	1764	G	C3'-C2'-C1'	-11.43	89.87	101.30
32	S1	1072	U	N1-C1'-C2'	11.43	129.14	112.00
33	L1	2672	C	C3'-C2'-C1'	11.43	112.73	101.30
55	Lg	83	ILE	CB-CA-C	11.43	125.84	110.42
33	L1	483	U	P-O3'-C3'	11.42	137.33	120.20
32	S1	1065	A	O4'-C1'-C2'	-11.42	96.18	107.60
33	L1	1395	A	N9-C1'-C2'	-11.41	94.88	112.00
31	S2	6	G	N9-C1'-C2'	11.41	129.12	112.00
33	L1	2763	C	C1'-O4'-C4'	11.41	121.31	109.90
33	L1	692	U	O4'-C1'-C2'	-11.41	96.19	107.60
33	L1	1830	U	C1'-O4'-C4'	-11.41	98.29	109.70
33	L1	2594	A	C4'-C3'-C2'	-11.40	91.20	102.60
33	L1	3372	C	C3'-C2'-C1'	11.40	112.90	101.50
7	SI	114	ILE	N-CA-C	-11.38	101.58	112.96
31	S2	72	G	C1'-O4'-C4'	11.38	121.28	109.90
32	S1	1156	A	O3'-P-O5'	11.38	121.07	104.00
33	L1	596	C	N1-C1'-C2'	11.38	129.07	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	603	G	C1'-O4'-C4'	-11.38	98.52	109.90
34	L3	3	A	C3'-C2'-C1'	11.38	112.68	101.30
66	LN	85	GLU	N-CA-C	11.38	123.25	111.07
11	SM	32	SER	O-C-N	11.38	135.12	122.15
32	S1	1093	A	O4'-C1'-C2'	-11.37	96.23	107.60
33	L1	1070	G	N9-C1'-C2'	11.37	129.06	112.00
6	SF	165	ILE	N-CA-C	11.37	122.21	110.62
33	L1	1754	C	N1-C1'-C2'	11.37	129.05	112.00
69	La	22	LYS	CB-CA-C	11.37	127.64	110.14
33	L1	2862	U	P-O3'-C3'	11.36	137.25	120.20
33	L1	3360	U	N1-C1'-C2'	11.36	131.04	114.00
23	SU	68	THR	CA-C-N	-11.36	99.85	121.54
23	SU	68	THR	C-N-CA	-11.36	99.85	121.54
33	L1	993	A	P-O3'-C3'	11.36	137.24	120.20
33	L1	1198	G	O4'-C1'-N9	11.35	125.22	108.20
13	SQ	53	PHE	CA-CB-CG	-11.34	102.46	113.80
23	SU	7	ALA	N-CA-C	11.34	125.96	110.31
33	L1	1651	A	C1'-O4'-C4'	-11.34	98.56	109.90
33	L1	1835	A	N9-C1'-C2'	11.34	129.01	112.00
33	L1	1277	A	O3'-P-O5'	-11.34	86.99	104.00
32	S1	1663	A	O4'-C1'-C2'	-11.34	96.27	107.60
33	L1	1538	A	O4'-C1'-C2'	-11.34	96.26	107.60
13	SQ	22	SER	N-CA-CB	11.33	129.64	110.49
60	Lr	104	LEU	N-CA-C	-11.33	98.21	112.72
64	LG	26	TRP	CA-C-O	-11.33	104.30	120.51
35	L2	62	G	P-O3'-C3'	11.33	137.19	120.20
45	LQ	124	VAL	CB-CA-C	11.33	126.73	111.21
80	LC	70	LYS	N-CA-CB	11.33	129.64	110.49
32	S1	1549	G	N9-C1'-C2'	11.33	128.99	112.00
33	L1	1348	G	C1'-O4'-C4'	-11.33	98.57	109.90
33	L1	3377	G	O4'-C1'-C2'	-11.33	96.27	107.60
33	L1	1484	A	P-O3'-C3'	11.32	137.18	120.20
33	L1	1880	A	C3'-C2'-C1'	11.32	112.62	101.30
33	L1	2252	C	O4'-C1'-C2'	-11.31	96.29	107.60
33	L1	1316	C	O4'-C1'-C2'	-11.31	96.29	107.60
80	LC	112	GLU	N-CA-C	-11.30	99.97	113.88
33	L1	310	C	P-O3'-C3'	-11.30	103.25	120.20
32	S1	1453	U	O4'-C1'-C2'	-11.29	96.31	107.60
34	L3	26	C	N1-C1'-C2'	11.29	128.94	112.00
32	S1	631	C	O4'-C1'-C2'	-11.29	96.31	107.60
32	S1	1464	G	N9-C1'-C2'	11.29	128.94	112.00
33	L1	1948	G	O4'-C1'-N9	11.29	125.44	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1803	G	O4'-C1'-N9	11.29	125.43	108.50
73	Lp	53	ASN	N-CA-CB	11.29	129.69	110.50
32	S1	891	U	N1-C1'-C2'	11.28	128.92	112.00
33	L1	2620	U	P-O3'-C3'	11.28	137.12	120.20
33	L1	3353	G	C2'-C3'-O3'	11.28	126.41	109.50
33	L1	691	U	N1-C1'-C2'	-11.27	95.09	112.00
33	L1	156	A	P-O3'-C3'	11.27	137.10	120.20
33	L1	2468	G	P-O3'-C3'	11.26	137.09	120.20
33	L1	3327	A	C1'-C2'-O2'	11.26	125.29	108.40
33	L1	2900	G	C3'-C2'-C1'	11.25	112.55	101.30
33	L1	1593	C	C3'-C2'-C1'	11.25	112.55	101.30
33	L1	691	U	O4'-C1'-N1	11.25	125.37	108.50
33	L1	1804	G	O4'-C1'-C2'	-11.25	96.35	107.60
32	S1	1482	U	P-O3'-C3'	11.25	137.07	120.20
11	SM	36	VAL	N-CA-C	11.24	127.03	108.81
33	L1	2751	A	C1'-O4'-C4'	11.24	121.14	109.90
23	SU	90	LYS	N-CA-CB	11.24	126.64	110.12
33	L1	3095	G	C1'-O4'-C4'	-11.24	98.66	109.90
32	S1	504	C	O4'-C1'-C2'	-11.24	96.36	107.60
1	Sa	16	ALA	CA-C-N	-11.23	104.34	120.29
1	Sa	16	ALA	C-N-CA	-11.23	104.34	120.29
33	L1	62	A	N9-C1'-C2'	-11.23	95.16	112.00
33	L1	3304	U	C1'-O4'-C4'	11.23	121.13	109.90
33	L1	2083	U	P-O3'-C3'	11.23	137.04	120.20
2	SA	45	ARG	N-CA-C	11.22	134.71	110.80
34	L3	40	A	O4'-C1'-C2'	-11.22	96.38	107.60
33	L1	937	G	N9-C1'-C2'	11.22	128.83	112.00
33	L1	2945	G	P-O5'-C5'	11.22	137.73	120.90
32	S1	1326	A	C5'-C4'-C3'	-11.21	99.18	116.00
33	L1	431	G	C3'-C2'-C1'	-11.21	90.08	101.30
33	L1	1342	C	C5'-C4'-C3'	11.21	132.82	116.00
15	SS	7	ARG	O-C-N	11.21	134.08	122.08
23	SU	42	LYS	N-CA-C	11.21	125.08	111.40
33	L1	1180	C	C3'-C2'-C1'	11.21	112.71	101.50
33	L1	1363	C	N1-C1'-C2'	11.21	128.81	112.00
38	LE	85	GLY	CA-C-N	11.21	135.73	120.38
38	LE	85	GLY	C-N-CA	11.21	135.73	120.38
33	L1	1647	C	N1-C1'-C2'	11.20	128.80	112.00
35	L2	124	G	C1'-O4'-C4'	11.20	121.10	109.90
32	S1	1290	U	O4'-C1'-C2'	-11.20	96.40	107.60
32	S1	1442	A	OP1-P-O3'	-11.20	74.41	108.00
33	L1	2235	G	C1'-O4'-C4'	-11.20	98.70	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	341	G	P-O3'-C3'	11.19	136.99	120.20
33	L1	3295	G	C1'-O4'-C4'	-11.19	98.51	109.70
32	S1	1642	C	C1'-O4'-C4'	-11.19	98.71	109.90
33	L1	1394	C	O4'-C1'-N1	-11.18	91.43	108.20
33	L1	1622	G	O4'-C1'-C2'	-11.18	96.42	107.60
33	L1	3084	G	O4'-C1'-C2'	11.18	118.78	107.60
67	LS	85	SER	N-CA-CB	-11.18	90.90	111.13
79	Ls	258	THR	N-CA-CB	-11.18	91.60	110.49
3	SB	123	LEU	CA-C-N	11.17	135.25	120.28
3	SB	123	LEU	C-N-CA	11.17	135.25	120.28
33	L1	2722	U	C1'-O4'-C4'	11.17	121.07	109.90
41	LM	69	LYS	N-CA-CB	11.17	122.45	109.72
33	L1	167	C	P-O3'-C3'	11.17	136.95	120.20
33	L1	1575	G	O3'-P-O5'	11.17	120.75	104.00
33	L1	2230	C	N1-C1'-C2'	11.17	128.75	112.00
1	Sa	302	THR	N-CA-C	11.16	123.44	111.28
28	SN	38	CYS	CB-CA-C	11.16	132.62	110.42
41	LM	51	ARG	N-CA-C	11.16	127.98	109.46
32	S1	187	C	OP1-P-O3'	11.15	141.47	108.00
34	L3	38	U	P-O3'-C3'	-11.15	103.47	120.20
31	S2	50	G	O4'-C1'-C2'	11.15	118.75	107.60
33	L1	3275	G	O4'-C1'-C2'	11.15	118.75	107.60
34	L3	39	C	N1-C1'-C2'	11.15	128.73	112.00
35	L2	154	G	N9-C1'-C2'	11.15	128.72	112.00
48	LV	70	THR	CA-CB-OG1	11.15	126.32	109.60
33	L1	2299	C	N1-C1'-C2'	11.14	128.71	112.00
34	L3	1	G	O4'-C1'-C2'	11.14	116.94	105.80
25	SC	163	THR	CB-CA-C	-11.14	88.26	110.42
32	S1	1070	A	O4'-C1'-N9	11.14	125.21	108.50
34	L3	12	U	N1-C1'-C2'	11.14	128.71	112.00
33	L1	507	C	C3'-C2'-C1'	11.14	112.44	101.30
34	L3	58	G	N9-C1'-C2'	-11.14	95.29	112.00
35	L2	119	C	N1-C1'-C2'	11.14	128.71	112.00
33	L1	2592	G	O4'-C1'-C2'	11.13	118.73	107.60
35	L2	138	G	C3'-C2'-C1'	11.13	112.43	101.30
33	L1	1942	A	O4'-C1'-C2'	11.13	118.73	107.60
33	L1	1155	G	P-O3'-C3'	11.12	136.89	120.20
33	L1	1312	A	C3'-C2'-C1'	11.12	112.42	101.30
33	L1	2634	U	P-O3'-C3'	11.12	136.88	120.20
32	S1	147	C	C3'-C2'-C1'	11.12	112.42	101.30
33	L1	2146	A	C5'-C4'-C3'	11.12	132.68	116.00
31	S2	58	U	O4'-C1'-C2'	-11.12	96.48	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	L2	43	G	O4'-C1'-N9	-11.12	91.53	108.20
42	LP	12	ARG	NE-CZ-NH1	11.11	132.61	121.50
33	L1	803	G	O4'-C1'-N9	11.11	125.17	108.50
33	L1	133	G	O4'-C1'-C2'	11.11	118.71	107.60
33	L1	964	C	C1'-O4'-C4'	11.11	121.00	109.90
49	LX	58	ARG	N-CA-CB	-11.11	91.72	110.49
25	SC	160	PHE	CA-CB-CG	11.10	124.90	113.80
32	S1	504	C	C3'-C2'-C1'	11.10	112.40	101.30
33	L1	690	G	O4'-C1'-N9	11.10	125.15	108.50
76	Lw	35	ASP	N-CA-C	11.10	127.41	109.76
31	S2	41	G	N9-C1'-C2'	11.10	128.65	112.00
32	S1	389	A	P-O3'-C3'	11.10	136.84	120.20
33	L1	3024	U	O4'-C1'-C2'	-11.10	96.50	107.60
34	L3	40	A	O4'-C1'-N9	11.09	125.14	108.50
33	L1	2502	U	C5'-C4'-O4'	-11.09	93.16	109.80
33	L1	64	A	C2'-C3'-O3'	11.09	126.14	109.50
33	L1	1019	A	O4'-C1'-C2'	-11.09	96.51	107.60
33	L1	2480	G	O4'-C1'-N9	11.09	125.13	108.50
33	L1	796	C	N1-C1'-C2'	11.09	128.63	112.00
12	SO	80	LEU	N-CA-C	11.09	126.64	112.89
32	S1	297	U	P-O3'-C3'	11.09	136.83	120.20
33	L1	159	G	O4'-C1'-C2'	11.09	118.69	107.60
32	S1	470	U	P-O3'-C3'	11.08	136.82	120.20
33	L1	642	C	C5'-C4'-O4'	11.08	126.42	109.80
33	L1	1646	U	C1'-O4'-C4'	11.08	120.98	109.90
33	L1	2059	C	C1'-C2'-O2'	11.07	125.01	108.40
57	L1	7	SER	CA-C-N	11.07	135.11	120.28
57	L1	7	SER	C-N-CA	11.07	135.11	120.28
16	SR	127	GLU	O-C-N	-11.07	110.14	122.09
32	S1	1459	G	O4'-C1'-N9	11.07	125.10	108.50
33	L1	484	C	O4'-C1'-N1	11.07	125.10	108.50
33	L1	2909	A	C1'-O4'-C4'	11.07	120.97	109.90
33	L1	146	U	P-O3'-C3'	11.06	136.80	120.20
35	L2	96	A	P-O5'-C5'	11.06	137.50	120.90
2	SA	200	ASP	N-CA-C	11.06	134.36	110.80
12	SO	64	LYS	CB-CA-C	11.06	133.43	110.31
32	S1	1580	G	O4'-C1'-N9	11.06	124.79	108.20
33	L1	2786	G	C3'-C2'-C1'	11.06	112.36	101.30
56	Lh	37	LYS	N-CA-C	11.06	124.89	111.40
33	L1	2099	G	O4'-C1'-C2'	11.05	118.65	107.60
33	L1	2657	C	C5'-C4'-C3'	11.05	132.58	116.00
34	L3	77	A	O4'-C1'-C2'	-11.05	96.55	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1841	G	C3'-C2'-C1'	-11.05	90.25	101.30
33	L1	2882	U	O4'-C1'-C2'	11.04	118.64	107.60
33	L1	1564	C	O4'-C1'-C2'	-11.04	96.56	107.60
33	L1	1577	A	N9-C1'-C2'	-11.04	95.44	112.00
33	L1	2669	C	C1'-C2'-O2'	11.04	124.96	108.40
33	L1	3236	A	C3'-C2'-C1'	11.04	112.34	101.30
23	SU	70	PHE	N-CA-C	-11.04	87.29	110.80
64	LG	12	LYS	O-C-N	-11.04	107.91	122.59
79	Ls	77	GLU	N-CA-CB	-11.04	94.06	110.07
59	Lo	38	ASN	CA-CB-CG	11.03	123.63	112.60
32	S1	1715	C	C1'-O4'-C4'	-11.03	98.87	109.90
33	L1	2795	G	O4'-C1'-C2'	11.03	118.63	107.60
33	L1	425	G	N9-C1'-C2'	11.03	128.54	112.00
33	L1	662	G	O4'-C1'-C2'	11.03	118.63	107.60
33	L1	2436	G	P-O3'-C3'	11.03	136.75	120.20
33	L1	105	A	C3'-C2'-C1'	11.02	112.32	101.30
33	L1	755	C	C1'-O4'-C4'	-11.02	98.68	109.70
33	L1	3326	U	O4'-C1'-N1	11.02	124.73	108.20
33	L1	307	C	N1-C1'-C2'	11.01	128.52	112.00
23	SU	7	ALA	CB-CA-C	-11.01	93.38	108.68
33	L1	2461	A	P-O3'-C3'	11.01	136.71	120.20
23	SU	11	THR	CA-C-N	11.00	137.71	121.31
23	SU	11	THR	C-N-CA	11.00	137.71	121.31
32	S1	147	C	O4'-C1'-C2'	-11.00	96.60	107.60
33	L1	3363	G	O4'-C1'-C2'	11.00	118.60	107.60
4	SD	149	TYR	CA-C-N	11.00	133.59	119.84
4	SD	149	TYR	C-N-CA	11.00	133.59	119.84
33	L1	745	G	O4'-C1'-C2'	-11.00	96.60	107.60
33	L1	1753	A	P-O3'-C3'	10.99	136.69	120.20
29	ST	63	ASP	CA-C-N	10.99	134.73	120.44
29	ST	63	ASP	C-N-CA	10.99	134.73	120.44
32	S1	517	U	P-O3'-C3'	10.99	136.68	120.20
33	L1	307	C	O3'-P-O5'	-10.99	87.52	104.00
33	L1	1798	C	O4'-C1'-C2'	-10.99	96.61	107.60
33	L1	2204	U	C5'-C4'-C3'	10.98	132.48	116.00
66	LN	87	SER	O-C-N	10.98	133.38	122.07
33	L1	72	A	C1'-C2'-O2'	10.98	124.87	108.40
45	LQ	158	ARG	CD-NE-CZ	-10.98	109.03	124.40
4	SD	137	PRO	N-CA-CB	-10.98	91.72	103.25
27	SH	83	VAL	CG1-CB-CG2	10.97	134.94	110.80
68	LW	82	LYS	N-CA-CB	-10.97	91.94	110.49
32	S1	1332	G	O4'-C1'-C2'	-10.97	96.63	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
66	LN	48	ILE	CB-CA-C	10.97	128.85	110.30
33	L1	677	U	C1'-O4'-C4'	-10.97	98.93	109.90
41	LM	69	LYS	O-C-N	-10.97	110.57	120.99
33	L1	2252	C	O4'-C1'-N1	10.96	124.95	108.50
32	S1	1586	U	P-O3'-C3'	10.96	136.64	120.20
33	L1	1663	G	P-O3'-C3'	10.96	136.64	120.20
34	L3	25	G	O5'-C5'-C4'	-10.96	95.06	111.50
32	S1	1323	U	O4'-C1'-C2'	-10.96	96.64	107.60
33	L1	3337	G	O4'-C1'-N9	10.96	124.93	108.50
33	L1	1873	C	N1-C1'-C2'	10.95	130.43	114.00
33	L1	1666	C	N1-C1'-C2'	10.95	128.43	112.00
49	LX	34	LYS	N-CA-C	10.95	134.13	110.80
33	L1	905	G	P-O5'-C5'	10.95	137.33	120.90
33	L1	1263	A	O4'-C1'-N9	10.95	124.92	108.50
33	L1	2846	C	N1-C1'-C2'	10.95	128.42	112.00
33	L1	2474	A	O4'-C1'-N9	10.94	124.92	108.50
32	S1	11	A	O4'-C1'-C2'	-10.94	96.66	107.60
32	S1	716	A	P-O5'-C5'	10.94	136.41	120.00
35	L2	41	A	C3'-C2'-C1'	10.94	112.44	101.50
32	S1	1688	G	O4'-C1'-N9	10.93	124.90	108.50
47	LU	54	HIS	CA-C-N	10.93	136.34	120.38
47	LU	54	HIS	C-N-CA	10.93	136.34	120.38
33	L1	105	A	N9-C1'-C2'	-10.93	95.61	112.00
33	L1	1237	G	N9-C1'-C2'	10.93	128.40	112.00
33	L1	2129	U	N1-C1'-C2'	10.93	128.39	112.00
32	S1	447	C	O4'-C1'-C2'	-10.93	96.67	107.60
32	S1	446	C	C3'-C2'-C1'	10.92	112.22	101.30
56	Lh	16	LYS	N-CA-C	-10.92	98.08	111.40
32	S1	501	U	O3'-P-O5'	-10.92	87.62	104.00
33	L1	1849	U	N1-C1'-C2'	-10.92	95.62	112.00
32	S1	514	G	P-O3'-C3'	10.91	136.57	120.20
33	L1	2402	G	O4'-C1'-C2'	-10.91	94.89	105.80
13	SQ	62	GLN	CA-C-N	10.91	142.38	121.54
13	SQ	62	GLN	C-N-CA	10.91	142.38	121.54
32	S1	1061	G	N9-C1'-C2'	10.91	128.37	112.00
11	SM	89	ASP	N-CA-CB	-10.91	91.71	109.60
32	S1	54	C	O4'-C1'-N1	10.91	124.86	108.50
33	L1	3202	G	O4'-C1'-C2'	10.91	118.51	107.60
33	L1	1662	G	C1'-O4'-C4'	-10.91	98.99	109.90
33	L1	2862	U	O4'-C1'-C2'	-10.91	96.69	107.60
72	Lk	59	ARG	NE-CZ-NH1	-10.91	110.59	121.50
33	L1	1773	U	P-O3'-C3'	10.90	136.56	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	SP	109	PRO	CB-CA-C	-10.90	93.57	111.56
32	S1	512	U	O3'-P-O5'	-10.90	87.64	104.00
33	L1	68	U	C1'-O4'-C4'	-10.90	99.00	109.90
33	L1	73	A	O4'-C1'-N9	10.90	124.86	108.50
48	LV	109	ASP	CA-CB-CG	-10.90	101.70	112.60
15	SS	11	ASP	N-CA-C	10.90	134.01	110.80
33	L1	102	G	C1'-O4'-C4'	10.90	120.80	109.90
33	L1	1647	C	O4'-C1'-C2'	-10.90	96.70	107.60
33	L1	2753	C	N1-C1'-C2'	10.90	128.35	112.00
33	L1	2684	U	N1-C1'-C2'	10.90	128.34	112.00
81	LD	394	PHE	CA-C-N	10.90	134.60	120.44
81	LD	394	PHE	C-N-CA	10.90	134.60	120.44
32	S1	1245	G	O4'-C1'-C2'	-10.89	96.71	107.60
33	L1	230	G	C5'-C4'-C3'	-10.89	99.67	116.00
33	L1	639	A	O5'-C5'-C4'	10.89	127.83	111.50
33	L1	327	A	C4'-C3'-C2'	10.89	113.49	102.60
33	L1	1058	A	P-O3'-C3'	10.89	136.53	120.20
33	L1	3307	A	O4'-C1'-C2'	-10.89	96.71	107.60
38	LE	33	THR	CA-C-N	10.89	142.34	121.54
38	LE	33	THR	C-N-CA	10.89	142.34	121.54
33	L1	2482	A	O4'-C1'-C2'	10.89	118.49	107.60
33	L1	177	C	C1'-O4'-C4'	-10.88	99.02	109.90
3	SB	154	ASP	CA-C-N	-10.88	100.08	121.41
3	SB	154	ASP	C-N-CA	-10.88	100.08	121.41
32	S1	1303	G	C3'-C2'-C1'	10.88	112.18	101.30
32	S1	1371	U	C1'-O4'-C4'	-10.88	99.02	109.90
33	L1	1265	G	O4'-C1'-N9	10.88	130.26	108.50
23	SU	72	GLY	O-C-N	-10.88	115.58	123.95
33	L1	29	G	C5'-C4'-C3'	10.88	132.32	116.00
33	L1	2769	U	P-O5'-C5'	10.88	137.22	120.90
33	L1	966	G	O4'-C1'-C2'	-10.88	96.72	107.60
33	L1	857	G	O3'-P-O5'	-10.87	87.70	104.00
32	S1	292	A	O4'-C1'-C2'	-10.86	96.74	107.60
33	L1	1647	C	P-O5'-C5'	10.86	137.19	120.90
34	L3	40	A	C1'-O4'-C4'	10.86	120.76	109.90
33	L1	1350	G	O4'-C1'-N9	10.86	124.78	108.50
33	L1	2783	U	C1'-O4'-C4'	10.85	120.75	109.90
33	L1	3041	A	C3'-C2'-C1'	-10.85	90.45	101.30
69	La	32	GLY	CA-C-N	-10.85	108.25	122.79
69	La	32	GLY	C-N-CA	-10.85	108.25	122.79
32	S1	1657	C	O4'-C1'-C2'	-10.85	96.75	107.60
34	L3	58	G	O4'-C1'-N9	10.85	124.77	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	SB	138	VAL	N-CA-C	10.84	123.52	107.80
33	L1	555	G	O4'-C1'-C2'	10.84	118.44	107.60
33	L1	2145	C	O4'-C1'-C2'	-10.84	96.76	107.60
33	L1	2636	U	O4'-C1'-C2'	-10.84	96.76	107.60
35	L2	43	G	C1'-C2'-O2'	-10.84	95.53	111.80
10	SL	122	VAL	N-CA-C	-10.84	94.50	109.46
33	L1	246	C	O4'-C1'-C2'	-10.84	96.76	107.60
67	LS	6	PHE	N-CA-CB	10.84	128.81	110.49
32	S1	1063	U	C1'-O4'-C4'	10.84	120.74	109.90
33	L1	2762	U	O4'-C1'-C2'	-10.84	96.76	107.60
70	Li	43	LYS	CD-CE-NZ	10.84	146.58	111.90
33	L1	2972	C	P-O3'-C3'	10.84	136.45	120.20
32	S1	519	A	P-O3'-C3'	10.83	136.45	120.20
33	L1	1593	C	N1-C1'-C2'	10.83	128.25	112.00
51	LY	129	LYS	N-CA-C	10.83	123.17	111.36
32	S1	128	G	C1'-O4'-C4'	10.83	120.73	109.90
33	L1	2585	C	N1-C1'-C2'	10.83	128.25	112.00
33	L1	3326	U	O4'-C1'-C2'	-10.83	94.97	105.80
33	L1	328	G	O5'-C5'-C4'	10.83	127.94	111.70
33	L1	1549	A	O4'-C1'-N9	-10.83	86.84	108.50
33	L1	3021	U	O4'-C1'-N1	10.83	124.74	108.50
35	L2	24	U	N1-C1'-C2'	10.83	128.24	112.00
6	SF	144	ASN	CB-CA-C	-10.82	92.83	110.79
33	L1	771	G	P-O3'-C3'	10.82	136.43	120.20
60	Lr	89	LYS	CA-C-N	10.82	141.17	121.70
60	Lr	89	LYS	C-N-CA	10.82	141.17	121.70
33	L1	1818	C	O4'-C4'-C3'	-10.82	93.18	104.00
32	S1	1685	U	P-O3'-C3'	10.81	136.42	120.20
33	L1	3092	A	O4'-C1'-N9	-10.81	91.98	108.20
32	S1	1745	U	P-O3'-C3'	10.81	136.42	120.20
33	L1	1081	U	N1-C1'-C2'	-10.81	95.78	112.00
33	L1	1348	G	P-O5'-C5'	10.81	137.12	120.90
33	L1	2903	G	C3'-C2'-C1'	-10.81	90.49	101.30
23	SU	72	GLY	N-CA-C	10.81	126.77	111.42
25	SC	145	ILE	O-C-N	10.81	133.42	121.10
32	S1	188	U	P-O3'-C3'	10.81	136.41	120.20
33	L1	1207	A	N9-C1'-C2'	10.80	128.20	112.00
32	S1	1346	C	C3'-C2'-C1'	10.80	112.10	101.30
67	LS	111	GLU	O-C-N	-10.80	109.84	122.15
33	L1	397	A	O4'-C1'-C2'	10.79	118.39	107.60
72	Lk	41	HIS	CA-CB-CG	10.80	124.60	113.80
33	L1	2231	G	C5'-C4'-C3'	10.79	132.19	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1407	A	P-O3'-C3'	10.79	136.39	120.20
33	L1	1689	G	P-O3'-C3'	10.79	136.39	120.20
33	L1	811	A	C1'-C2'-O2'	10.79	124.59	108.40
12	SO	64	LYS	O-C-N	-10.79	107.97	122.43
32	S1	33	U	O4'-C1'-C2'	-10.79	96.81	107.60
32	S1	962	G	O4'-C1'-C2'	10.79	118.39	107.60
33	L1	1646	U	N1-C1'-C2'	-10.78	95.82	112.00
32	S1	1443	U	O4'-C1'-C2'	-10.78	96.82	107.60
57	L1	11	ARG	CA-C-O	-10.78	105.09	120.51
33	L1	228	C	O4'-C1'-C2'	-10.78	96.82	107.60
33	L1	178	C	C1'-C2'-O2'	10.78	124.57	108.40
32	S1	880	G	O4'-C1'-C2'	-10.78	96.83	107.60
33	L1	2722	U	P-O3'-C3'	10.77	136.36	120.20
33	L1	2626	G	O4'-C1'-C2'	-10.77	96.83	107.60
33	L1	3326	U	C1'-O4'-C4'	10.77	120.47	109.70
31	S2	41	G	C1'-C2'-O2'	10.77	124.55	108.40
32	S1	379	U	N1-C1'-C2'	10.76	128.15	112.00
33	L1	2394	G	O4'-C1'-C2'	10.76	118.36	107.60
79	Ls	249	LYS	CB-CA-C	-10.76	92.92	110.79
33	L1	3143	A	O4'-C1'-N9	-10.76	92.06	108.20
33	L1	3375	G	N9-C1'-C2'	10.76	128.13	112.00
69	La	81	MET	CA-C-N	10.76	130.99	119.05
69	La	81	MET	C-N-CA	10.76	130.99	119.05
23	SU	81	ILE	CA-C-O	-10.75	108.93	120.76
25	SC	171	PRO	N-CA-CB	10.75	114.54	103.25
33	L1	3334	A	O4'-C1'-N9	-10.75	92.37	108.50
66	LN	61	ASP	CA-CB-CG	-10.75	101.85	112.60
33	L1	1937	C	P-O3'-C3'	10.75	136.33	120.20
33	L1	2292	U	N1-C1'-C2'	10.75	130.12	114.00
33	L1	3099	G	C3'-C2'-C1'	10.75	112.05	101.30
3	SB	158	ILE	N-CA-C	10.75	123.60	108.12
32	S1	181	C	O4'-C1'-C2'	-10.75	96.85	107.60
33	L1	1374	G	O4'-C1'-N9	10.75	124.62	108.50
6	SF	167	GLU	N-CA-CB	10.74	125.59	110.01
33	L1	718	C	N1-C1'-C2'	10.74	128.12	112.00
35	L2	97	U	P-O3'-C3'	10.74	136.31	120.20
32	S1	1615	G	O4'-C1'-N9	10.74	124.61	108.50
15	SS	79	GLN	CA-C-N	10.74	134.40	120.44
15	SS	79	GLN	C-N-CA	10.74	134.40	120.44
34	L3	48	G	O3'-P-O5'	-10.74	87.89	104.00
33	L1	2053	A	O3'-P-O5'	10.74	120.10	104.00
33	L1	2231	G	C1'-O4'-C4'	10.74	120.64	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1715	C	C1'-C2'-O2'	10.73	124.49	108.40
41	LM	69	LYS	CA-C-O	-10.73	110.11	121.27
81	LD	322	ASN	OD1-CG-ND2	-10.73	111.87	122.60
33	L1	2731	G	C1'-O4'-C4'	-10.72	99.18	109.90
33	L1	2513	U	O4'-C1'-N1	10.72	124.57	108.50
33	L1	2337	C	N1-C1'-C2'	10.71	128.07	112.00
32	S1	1108	U	C1'-O4'-C4'	10.71	120.61	109.90
1	Sa	63	GLN	CB-CG-CD	10.71	130.81	112.60
33	L1	138	G	N9-C1'-C2'	10.71	128.07	112.00
33	L1	301	G	N9-C1'-C2'	10.71	128.07	112.00
33	L1	1025	G	P-O3'-C3'	10.71	136.26	120.20
33	L1	2465	G	O4'-C1'-N9	10.71	124.57	108.50
33	L1	55	G	O4'-C1'-N9	10.71	124.56	108.50
32	S1	1427	A	O4'-C1'-C2'	10.71	118.31	107.60
38	LE	1	MET	CA-C-N	10.71	141.99	121.54
33	L1	1730	U	C1'-O4'-C4'	10.70	120.60	109.90
34	L3	48	G	N9-C1'-C2'	-10.71	95.94	112.00
38	LE	1	MET	C-N-CA	10.71	141.99	121.54
69	La	11	VAL	CB-CA-C	-10.71	93.73	111.29
11	SM	126	TYR	CD1-CE1-CZ	-10.70	100.34	119.60
33	L1	507	C	N1-C1'-C2'	10.70	128.05	112.00
33	L1	532	G	O4'-C1'-C2'	10.70	118.30	107.60
34	L3	15	C	C3'-C2'-C1'	10.70	112.00	101.30
81	LD	310	LEU	O-C-N	-10.70	110.78	122.12
33	L1	2407	U	N1-C1'-C2'	10.70	128.04	112.00
34	L3	1	G	C4'-C3'-C2'	10.70	113.30	102.60
64	LG	69	THR	N-CA-CB	10.70	128.57	110.49
46	LT	91	THR	CA-C-N	10.69	134.61	120.28
46	LT	91	THR	C-N-CA	10.69	134.61	120.28
13	SQ	94	GLU	O-C-N	-10.69	106.33	121.72
33	L1	1533	U	N1-C1'-C2'	-10.69	95.96	112.00
33	L1	2518	A	P-O3'-C3'	10.69	136.24	120.20
32	S1	1138	A	O4'-C1'-C2'	-10.69	96.91	107.60
32	S1	1712	C	P-O5'-C5'	10.68	136.91	120.90
33	L1	2875	U	C1'-O4'-C4'	10.67	120.57	109.90
32	S1	1508	C	P-O3'-C3'	10.67	136.20	120.20
33	L1	1027	C	P-O3'-C3'	10.67	136.20	120.20
33	L1	2105	G	O4'-C1'-N9	10.67	124.50	108.50
32	S1	591	C	N1-C1'-C2'	10.66	128.00	112.00
33	L1	1394	C	C3'-C2'-C1'	10.66	112.16	101.50
35	L2	70	G	O4'-C1'-C2'	10.66	118.26	107.60
14	SP	50	ILE	O-C-N	-10.66	109.76	121.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2700	A	N9-C1'-C2'	10.66	127.98	112.00
33	L1	3037	G	C1'-O4'-C4'	-10.65	99.25	109.90
33	L1	218	G	C3'-C2'-C1'	10.64	112.14	101.50
6	SF	144	ASN	N-CA-C	10.64	122.88	111.28
32	S1	1541	C	C1'-O4'-C4'	-10.64	99.26	109.90
33	L1	1050	A	C1'-O4'-C4'	10.64	120.54	109.90
33	L1	1620	U	O3'-P-O5'	-10.64	88.03	104.00
32	S1	187	C	P-O3'-C3'	10.64	136.16	120.20
33	L1	2579	G	C1'-O4'-C4'	-10.64	99.26	109.90
35	L2	42	U	C3'-C2'-C1'	10.64	112.14	101.50
4	SD	216	HIS	N-CA-C	10.64	124.99	109.14
11	SM	82	TRP	CA-C-N	10.64	141.86	121.54
11	SM	82	TRP	C-N-CA	10.64	141.86	121.54
33	L1	3063	C	N1-C1'-C2'	10.64	127.96	112.00
33	L1	1901	G	C1'-O4'-C4'	10.63	120.53	109.90
66	LN	85	GLU	N-CA-CB	10.64	125.43	110.01
69	La	28	VAL	N-CA-C	10.63	131.46	109.34
32	S1	373	U	C1'-O4'-C4'	10.63	120.53	109.90
33	L1	1377	G	O4'-C1'-C2'	10.63	118.23	107.60
33	L1	2783	U	O4'-C1'-C2'	-10.63	96.97	107.60
44	LR	83	VAL	N-CA-CB	-10.62	96.09	110.54
33	L1	325	A	P-O5'-C5'	10.62	136.84	120.90
79	Ls	237	ILE	N-CA-C	10.62	124.33	111.05
33	L1	1880	A	O4'-C4'-C3'	-10.62	93.38	104.00
33	L1	3356	C	P-O5'-C5'	10.62	136.83	120.90
32	S1	1683	G	C1'-O4'-C4'	-10.62	99.28	109.90
33	L1	1881	C	C4'-C3'-C2'	-10.62	91.98	102.60
33	L1	2984	A	O4'-C1'-N9	-10.62	92.28	108.20
33	L1	3311	C	O4'-C1'-C2'	-10.62	95.19	105.80
32	S1	1355	U	O4'-C1'-N1	10.60	124.40	108.50
33	L1	1087	G	C1'-O4'-C4'	-10.60	99.30	109.90
33	L1	1258	C	C3'-C2'-C1'	10.60	111.90	101.30
33	L1	1634	G	N9-C1'-C2'	10.60	127.90	112.00
3	SB	162	GLN	O-C-N	-10.60	109.14	121.32
25	SC	174	VAL	N-CA-C	10.60	121.49	110.36
33	L1	531	G	C3'-C2'-C1'	-10.60	90.70	101.30
33	L1	2096	U	P-O3'-C3'	10.60	136.09	120.20
64	LG	152	LYS	CB-CA-C	10.60	128.86	110.85
33	L1	1289	G	C4'-C3'-O3'	10.59	125.29	109.40
2	SA	196	GLY	CA-C-N	-10.59	104.54	122.33
2	SA	196	GLY	C-N-CA	-10.59	104.54	122.33
35	L2	87	C	N1-C1'-C2'	10.59	127.89	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	S2	4	G	P-O5'-C5'	-10.59	105.02	120.90
32	S1	3	C	P-O5'-C5'	10.59	136.78	120.90
33	L1	2591	G	O4'-C1'-C2'	10.58	118.18	107.60
25	SC	4	ALA	CA-C-N	10.58	129.97	118.97
25	SC	4	ALA	C-N-CA	10.58	129.97	118.97
33	L1	3241	C	N1-C1'-C2'	10.58	127.87	112.00
9	SK	96	LEU	CB-CA-C	-10.57	91.21	110.56
32	S1	631	C	P-O3'-C3'	10.57	136.06	120.20
33	L1	1286	G	N9-C1'-C2'	10.57	127.86	112.00
12	SO	57	GLN	N-CA-CB	10.57	128.35	110.49
33	L1	3168	C	O4'-C1'-C2'	-10.57	97.03	107.60
32	S1	1433	A	O4'-C1'-N9	10.57	124.05	108.20
33	L1	2774	A	O3'-P-O5'	-10.57	88.15	104.00
33	L1	48	A	C4'-C3'-C2'	-10.56	92.03	102.60
34	L3	25	G	P-O3'-C3'	10.56	136.05	120.20
34	L3	25	G	C4'-C3'-C2'	-10.56	92.03	102.60
32	S1	1566	U	C1'-O4'-C4'	10.56	120.46	109.90
32	S1	1517	C	O4'-C1'-C2'	-10.56	97.04	107.60
33	L1	844	A	C1'-O4'-C4'	-10.55	99.35	109.90
33	L1	1102	A	O3'-P-O5'	-10.55	88.17	104.00
33	L1	531	G	O4'-C1'-C2'	10.55	118.15	107.60
33	L1	2176	A	O4'-C1'-C2'	-10.55	97.05	107.60
33	L1	3156	G	N9-C1'-C2'	-10.55	96.17	112.00
33	L1	183	C	P-O3'-C3'	10.55	136.02	120.20
33	L1	940	G	P-O3'-C3'	10.55	136.02	120.20
13	SQ	94	GLU	CA-C-N	-10.54	103.38	121.94
13	SQ	94	GLU	C-N-CA	-10.54	103.38	121.94
33	L1	2390	G	C5'-C4'-C3'	10.54	131.81	116.00
72	Lk	62	GLU	CB-CG-CD	10.54	130.52	112.60
51	LY	23	SER	N-CA-CB	10.54	125.30	109.91
33	L1	1254	A	N9-C1'-C2'	-10.54	96.19	112.00
74	LJ	107	LEU	CA-C-N	10.54	134.40	120.28
74	LJ	107	LEU	C-N-CA	10.54	134.40	120.28
33	L1	3365	U	O4'-C1'-C2'	-10.54	97.06	107.60
33	L1	2201	G	O4'-C1'-C2'	-10.53	97.07	107.60
32	S1	610	A	O4'-C1'-C2'	10.53	116.33	105.80
33	L1	2502	U	O3'-P-O5'	-10.53	88.20	104.00
32	S1	1225	A	C4'-C3'-O3'	-10.53	97.20	113.00
33	L1	1873	C	P-O3'-C3'	10.53	135.99	120.20
32	S1	788	G	C5'-C4'-C3'	10.53	130.69	114.90
33	L1	1754	C	O4'-C1'-C2'	-10.53	97.08	107.60
33	L1	2213	G	C1'-O4'-C4'	-10.52	99.38	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	SM	53	ASN	CB-CG-OD1	10.52	141.84	120.80
57	L1	92	ALA	CA-C-N	10.52	140.64	121.70
57	L1	92	ALA	C-N-CA	10.52	140.64	121.70
33	L1	3355	U	O4'-C1'-C2'	-10.52	97.08	107.60
16	SR	130	ILE	CB-CA-C	10.52	128.54	111.29
33	L1	554	C	P-O3'-C3'	10.52	135.98	120.20
33	L1	3363	G	C3'-C2'-C1'	-10.51	90.79	101.30
33	L1	271	G	N9-C1'-C2'	10.51	127.77	112.00
34	L3	115	A	P-O3'-C3'	10.51	135.97	120.20
32	S1	933	G	N9-C1'-C2'	-10.51	98.23	114.00
33	L1	418	G	C3'-C2'-C1'	10.51	111.81	101.30
4	SD	188	ASN	OD1-CG-ND2	-10.51	112.09	122.60
33	L1	781	C	O4'-C1'-C2'	-10.51	97.09	107.60
52	Lb	120	ALA	CA-C-N	10.51	134.36	120.28
52	Lb	120	ALA	C-N-CA	10.51	134.36	120.28
33	L1	2108	C	C5'-C4'-C3'	-10.50	100.25	116.00
33	L1	272	G	C1'-O4'-C4'	-10.50	99.40	109.90
33	L1	2794	A	C1'-O4'-C4'	-10.50	99.40	109.90
25	SC	106	PHE	CG-CD1-CE1	-10.49	102.86	120.70
33	L1	2433	U	P-O3'-C3'	10.49	135.94	120.20
35	L2	136	G	O4'-C1'-C2'	-10.49	97.11	107.60
33	L1	63	G	N9-C1'-C2'	10.49	127.73	112.00
64	LG	55	ASP	CA-CB-CG	-10.48	102.12	112.60
81	LD	310	LEU	N-CA-C	-10.48	99.86	111.28
3	SB	148	LYS	O-C-N	-10.48	108.65	122.59
34	L3	73	U	P-O3'-C3'	10.48	135.91	120.20
45	LQ	246	ALA	N-CA-C	-10.48	91.74	109.24
33	L1	619	C	O5'-C5'-C4'	10.47	126.51	110.80
33	L1	684	C	O4'-C1'-C2'	-10.47	97.12	107.60
32	S1	1516	C	O3'-P-O5'	10.47	119.71	104.00
33	L1	735	C	N1-C1'-C2'	10.47	127.70	112.00
33	L1	1344	A	O4'-C1'-C2'	-10.47	97.13	107.60
33	L1	1878	G	C1'-O4'-C4'	-10.47	99.43	109.90
33	L1	70	A	O4'-C1'-C2'	10.47	116.27	105.80
33	L1	241	G	C3'-C2'-C1'	-10.47	90.83	101.30
32	S1	1084	U	O4'-C1'-C2'	-10.46	97.14	107.60
33	L1	2739	A	C4'-C3'-C2'	-10.47	92.13	102.60
33	L1	384	A	P-O3'-C3'	-10.46	104.50	120.20
35	L2	101	G	O3'-P-O5'	10.46	119.70	104.00
33	L1	3080	U	O4'-C1'-N1	10.46	123.89	108.20
35	L2	41	A	O4'-C1'-N9	-10.46	92.50	108.20
23	SU	70	PHE	CB-CA-C	-10.46	89.61	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	LS	120	PHE	O-C-N	-10.46	109.30	121.32
64	LG	200	ASN	CA-C-N	10.46	134.03	120.44
64	LG	200	ASN	C-N-CA	10.46	134.03	120.44
33	L1	527	G	O4'-C1'-C2'	-10.45	97.15	107.60
33	L1	381	G	O4'-C1'-C2'	-10.45	97.15	107.60
33	L1	1533	U	C1'-O4'-C4'	10.45	120.35	109.90
35	L2	137	C	P-O3'-C3'	10.45	135.87	120.20
31	S2	8	U	C1'-O4'-C4'	10.45	120.35	109.90
35	L2	104	U	C1'-O4'-C4'	-10.45	99.45	109.90
32	S1	645	G	N9-C1'-C2'	10.44	127.66	112.00
73	Lp	16	ASP	CA-CB-CG	10.44	123.04	112.60
33	L1	463	G	O4'-C1'-N9	10.44	124.16	108.50
33	L1	1753	A	C2'-C3'-O3'	10.44	125.16	109.50
33	L1	3152	C	O4'-C1'-C2'	-10.44	95.36	105.80
4	SD	136	ILE	CA-C-O	-10.44	105.97	119.95
33	L1	1897	A	N9-C1'-C2'	10.43	127.65	112.00
33	L1	3150	G	O4'-C1'-N9	10.43	124.15	108.50
33	L1	305	G	C3'-C2'-C1'	-10.43	90.87	101.30
33	L1	2278	G	P-O3'-C3'	10.43	135.84	120.20
43	LO	16	SER	N-CA-C	10.43	123.92	111.82
4	SD	186	GLY	N-CA-C	10.42	131.63	112.77
35	L2	86	C	C3'-C2'-C1'	10.42	111.92	101.50
33	L1	996	A	O4'-C1'-C2'	10.42	118.02	107.60
33	L1	2496	U	O4'-C1'-N1	10.42	124.12	108.50
60	Lr	33	ASP	N-CA-C	10.42	124.46	108.42
33	L1	599	C	C3'-C2'-C1'	10.41	111.71	101.30
33	L1	2579	G	N9-C1'-C2'	10.41	127.62	112.00
32	S1	1275	G	O3'-P-O5'	-10.41	88.38	104.00
33	L1	2875	U	P-O3'-C3'	-10.41	104.58	120.20
48	LV	158	VAL	CA-CB-CG2	10.41	128.10	110.40
1	Sa	306	PHE	CA-CB-CG	-10.41	103.39	113.80
32	S1	1414	G	P-O3'-C3'	10.41	135.81	120.20
35	L2	145	C	O4'-C1'-C2'	-10.40	97.20	107.60
16	SR	117	LYS	CB-CA-C	-10.40	89.68	110.17
33	L1	1634	G	P-O3'-C3'	10.40	135.80	120.20
45	LQ	142	PHE	CA-C-N	10.40	137.13	122.36
45	LQ	142	PHE	C-N-CA	10.40	137.13	122.36
32	S1	1201	C	O4'-C1'-C2'	-10.40	97.20	107.60
33	L1	238	C	O4'-C1'-C2'	-10.40	97.20	107.60
33	L1	2375	G	O4'-C1'-C2'	-10.39	97.20	107.60
43	LO	120	VAL	CB-CA-C	10.39	123.54	110.96
33	L1	2318	U	N1-C1'-C2'	-10.39	96.41	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	Ln	39	SER	N-CA-C	10.39	122.61	111.28
33	L1	689	G	O4'-C1'-N9	10.39	124.08	108.50
33	L1	1442	U	P-O3'-C3'	-10.39	104.61	120.20
34	L3	114	C	O3'-P-O5'	-10.39	88.42	104.00
74	LJ	95	LYS	N-CA-C	10.39	132.93	110.80
32	S1	1446	C	P-O3'-C3'	10.38	135.78	120.20
33	L1	418	G	N9-C1'-C2'	10.38	127.57	112.00
33	L1	555	G	C1'-O4'-C4'	-10.38	99.52	109.90
16	SR	133	LYS	O-C-N	10.38	130.41	120.55
32	S1	916	U	O4'-C1'-N1	10.38	124.07	108.50
33	L1	2711	U	C1'-O4'-C4'	-10.38	99.52	109.90
32	S1	882	G	C1'-O4'-C4'	-10.38	99.52	109.90
33	L1	1382	C	C5'-C4'-C3'	10.38	131.56	116.00
33	L1	3232	C	N1-C1'-C2'	10.38	127.57	112.00
33	L1	124	C	N1-C1'-C2'	10.38	127.56	112.00
33	L1	2165	A	C5'-C4'-C3'	-10.37	100.44	116.00
33	L1	2774	A	P-O3'-C3'	10.37	135.76	120.20
33	L1	2944	C	C3'-C2'-C1'	10.38	111.67	101.30
32	S1	859	U	O4'-C1'-N1	10.37	124.06	108.50
33	L1	3094	C	O4'-C1'-C2'	-10.37	95.43	105.80
32	S1	575	G	N9-C1'-C2'	10.37	127.56	112.00
33	L1	1247	G	N9-C1'-C2'	10.37	127.56	112.00
70	Li	9	LYS	CB-CA-C	10.37	127.41	110.09
31	S2	47	U	N1-C1'-C2'	-10.37	98.44	114.00
15	SS	14	PRO	N-CA-C	10.36	133.81	112.47
25	SC	194	GLU	O-C-N	-10.36	109.56	123.24
32	S1	1112	G	N9-C1'-C2'	10.36	127.54	112.00
78	Le	74	LYS	CB-CA-C	10.36	133.26	111.91
81	LD	109	THR	CA-C-N	10.36	141.33	121.54
81	LD	109	THR	C-N-CA	10.36	141.33	121.54
11	SM	51	ASP	CA-CB-CG	10.36	122.96	112.60
15	SS	5	THR	CA-C-O	10.36	131.98	120.90
32	S1	1698	A	O4'-C1'-C2'	-10.36	97.24	107.60
33	L1	2218	A	N9-C1'-C2'	10.35	127.53	112.00
11	SM	104	ASP	CA-CB-CG	10.35	122.95	112.60
13	SQ	70	SER	N-CA-C	10.35	122.63	110.41
32	S1	1410	C	P-O3'-C3'	10.35	135.72	120.20
33	L1	2780	G	C1'-O4'-C4'	10.35	120.25	109.90
33	L1	3352	C	O4'-C1'-C2'	-10.35	97.25	107.60
33	L1	1905	A	O4'-C1'-C2'	-10.34	97.26	107.60
32	S1	1303	G	O4'-C1'-C2'	-10.34	97.26	107.60
33	L1	310	C	N1-C1'-C2'	10.34	127.51	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1320	G	C3'-C2'-C1'	-10.34	90.96	101.30
33	L1	2159	U	O4'-C1'-C2'	-10.34	97.26	107.60
35	L2	25	C	N1-C1'-C2'	10.34	127.51	112.00
32	S1	1443	U	O5'-P-OP1	10.34	139.01	108.00
35	L2	143	C	P-O3'-C3'	10.34	135.70	120.20
12	SO	124	ARG	N-CA-CB	-10.33	94.39	110.30
32	S1	1369	C	P-O3'-C3'	10.33	135.70	120.20
33	L1	385	A	O4'-C1'-C2'	10.33	117.93	107.60
33	L1	1766	U	P-O5'-C5'	10.33	136.40	120.90
33	L1	2496	U	P-O3'-C3'	10.33	135.70	120.20
32	S1	1694	G	P-O3'-C3'	10.33	135.69	120.20
32	S1	633	U	O4'-C1'-C2'	-10.33	76.42	107.40
32	S1	1610	C	O4'-C1'-C2'	-10.33	97.27	107.60
33	L1	3316	C	C3'-C2'-C1'	10.33	111.63	101.30
32	S1	457	C	O4'-C1'-C2'	-10.32	95.47	105.80
32	S1	1038	C	O4'-C1'-C2'	-10.32	97.28	107.60
32	S1	1597	C	O4'-C1'-C2'	-10.32	97.28	107.60
32	S1	1587	G	O3'-P-O5'	10.32	119.48	104.00
33	L1	1316	C	C3'-C2'-C1'	10.32	111.62	101.30
33	L1	514	G	P-O5'-C5'	10.31	136.37	120.90
33	L1	2470	C	C5'-C4'-C3'	10.31	131.47	116.00
33	L1	3016	C	O4'-C1'-C2'	-10.31	97.29	107.60
66	LN	50	PHE	CA-C-N	10.31	134.10	120.28
66	LN	50	PHE	C-N-CA	10.31	134.10	120.28
33	L1	31	U	C5'-C4'-C3'	10.31	131.47	116.00
33	L1	1539	G	O4'-C1'-C2'	10.31	117.91	107.60
33	L1	2996	A	O4'-C1'-C2'	10.31	117.91	107.60
33	L1	2594	A	O4'-C1'-N9	10.30	123.96	108.50
33	L1	2984	A	C1'-O4'-C4'	-10.30	99.40	109.70
33	L1	2992	G	O4'-C1'-N9	10.30	123.95	108.50
29	ST	29	HIS	CA-C-N	10.30	135.70	121.79
29	ST	29	HIS	C-N-CA	10.30	135.70	121.79
32	S1	1539	A	O4'-C1'-C2'	-10.30	97.30	107.60
33	L1	3357	C	C1'-C2'-O2'	10.30	123.85	108.40
25	SC	17	PRO	CA-N-CD	-10.30	97.58	112.00
32	S1	420	A	C3'-C2'-C1'	10.30	111.60	101.30
23	SU	35	PRO	CA-N-CD	-10.29	97.59	112.00
32	S1	29	U	N1-C1'-C2'	10.29	127.44	112.00
33	L1	1894	G	O4'-C1'-C2'	-10.29	97.31	107.60
33	L1	2870	U	N1-C1'-C2'	10.29	127.43	112.00
32	S1	1615	G	P-O3'-C3'	10.29	135.63	120.20
56	Lh	48	LYS	CA-C-N	10.29	138.66	122.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	Lh	48	LYS	C-N-CA	10.29	138.66	122.51
13	SQ	33	LYS	CB-CG-CD	10.28	134.95	111.30
32	S1	1266	U	N1-C1'-C2'	10.29	127.43	112.00
33	L1	2592	G	C3'-C2'-C1'	-10.28	91.02	101.30
1	Sa	177	SER	CA-C-O	-10.28	110.00	121.51
13	SQ	100	LYS	CB-CA-C	10.28	128.32	110.85
15	SS	54	ASP	N-CA-C	10.28	125.18	112.23
33	L1	1078	U	O4'-C1'-C2'	-10.28	97.32	107.60
33	L1	2459	U	O4'-C1'-C2'	-10.28	97.32	107.60
33	L1	261	C	P-O3'-C3'	10.27	135.61	120.20
33	L1	3035	C	O4'-C1'-C2'	10.27	117.87	107.60
47	LU	131	GLN	CA-C-O	-10.27	108.66	118.73
32	S1	998	A	P-O5'-C5'	10.27	136.31	120.90
23	SU	52	LEU	CB-CA-C	10.27	133.18	110.18
33	L1	822	U	C1'-O4'-C4'	10.27	120.17	109.90
33	L1	2160	C	C3'-C2'-C1'	10.27	111.57	101.30
34	L3	120	C	N1-C1'-C2'	10.27	129.40	114.00
33	L1	1034	U	P-O5'-C5'	-10.27	105.50	120.90
33	L1	498	G	C4'-C3'-O3'	10.26	125.40	110.00
33	L1	2070	C	O4'-C1'-C2'	-10.26	97.34	107.60
33	L1	3059	C	P-O5'-C5'	10.26	136.29	120.90
33	L1	3081	G	O4'-C1'-C2'	-10.26	95.54	105.80
64	LG	74	THR	CA-C-N	10.26	140.44	121.97
64	LG	74	THR	C-N-CA	10.26	140.44	121.97
33	L1	1589	G	O4'-C1'-N9	10.26	123.59	108.20
33	L1	311	G	O4'-C1'-C2'	10.26	117.86	107.60
33	L1	3304	U	O4'-C1'-N1	10.26	123.89	108.50
33	L1	2424	G	C1'-O4'-C4'	-10.26	99.64	109.90
33	L1	1375	G	N9-C1'-C2'	10.25	127.38	112.00
45	LQ	19	ARG	O-C-N	-10.25	109.06	122.39
2	SA	197	HIS	N-CA-C	-10.25	90.54	108.69
25	SC	106	PHE	CB-CG-CD1	10.25	138.13	120.70
32	S1	1674	C	O3'-P-O5'	-10.25	88.63	104.00
33	L1	1103	U	O4'-C1'-N1	10.25	123.88	108.50
33	L1	77	U	O4'-C1'-C2'	-10.25	97.35	107.60
32	S1	180	A	P-O3'-C3'	10.25	135.57	120.20
32	S1	94	A	O4'-C1'-C2'	10.24	116.05	105.80
32	S1	1593	U	O4'-C1'-C2'	-10.24	97.36	107.60
33	L1	1236	C	N1-C1'-C2'	10.24	127.36	112.00
33	L1	1527	A	C2'-C3'-O3'	10.24	124.86	109.50
68	LW	82	LYS	N-CA-C	-10.24	88.99	110.80
1	Sa	176	GLY	O-C-N	-10.24	115.30	123.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Sa	251	ASP	CB-CA-C	-10.24	92.72	109.72
9	SK	43	VAL	CG1-CB-CG2	10.24	133.33	110.80
33	L1	2904	A	O4'-C1'-C2'	-10.24	97.36	107.60
13	SQ	28	PHE	CA-CB-CG	10.24	124.04	113.80
48	LV	70	THR	CA-C-N	10.24	134.40	120.38
48	LV	70	THR	C-N-CA	10.24	134.40	120.38
33	L1	2388	C	C1'-O4'-C4'	-10.23	99.67	109.90
33	L1	2802	G	O4'-C1'-N9	-10.23	93.15	108.50
35	L2	51	U	O4'-C1'-C2'	-10.23	97.37	107.60
33	L1	220	G	N9-C1'-C2'	10.23	127.34	112.00
23	SU	76	THR	N-CA-C	-10.23	93.69	109.95
32	S1	1094	U	O4'-C1'-C2'	-10.23	97.37	107.60
32	S1	1628	C	O4'-C1'-C2'	-10.23	97.37	107.60
33	L1	811	A	C1'-O4'-C4'	-10.23	99.67	109.90
33	L1	2676	A	O4'-C1'-C2'	-10.23	97.37	107.60
33	L1	3213	A	O4'-C1'-C2'	-10.23	97.37	107.60
71	Lj	3	GLY	N-CA-C	-10.23	88.94	113.18
32	S1	336	U	O4'-C1'-C2'	-10.22	97.38	107.60
33	L1	1258	C	C1'-O4'-C4'	10.22	120.12	109.90
4	SD	240	LYS	CA-C-N	-10.22	103.31	121.70
4	SD	240	LYS	C-N-CA	-10.22	103.31	121.70
33	L1	1289	G	C2'-C3'-O3'	10.22	124.83	109.50
33	L1	1513	C	C3'-C2'-C1'	10.22	111.52	101.30
33	L1	3218	C	N1-C1'-C2'	10.22	127.33	112.00
16	SR	116	ILE	CA-C-O	-10.22	108.01	120.78
33	L1	676	G	P-O3'-C3'	10.22	135.52	120.20
4	SD	206	GLU	N-CA-C	10.21	122.00	111.07
32	S1	949	A	O4'-C1'-N9	10.21	123.52	108.20
33	L1	2469	C	O4'-C1'-C2'	-10.21	97.39	107.60
33	L1	1211	G	N9-C1'-C2'	-10.21	96.68	112.00
33	L1	1364	C	P-O3'-C3'	10.21	135.52	120.20
33	L1	1732	G	O4'-C1'-C2'	10.21	116.01	105.80
33	L1	1980	C	O3'-P-O5'	10.21	119.31	104.00
81	LD	60	ARG	CD-NE-CZ	-10.21	110.11	124.40
33	L1	2903	G	N9-C1'-C2'	10.21	127.31	112.00
69	La	28	VAL	N-CA-CB	-10.21	94.39	111.23
32	S1	1202	G	O4'-C1'-C2'	10.20	117.80	107.60
33	L1	2167	G	N9-C1'-C2'	-10.20	98.69	114.00
33	L1	1821	G	C4'-C3'-C2'	-10.20	92.40	102.60
33	L1	763	G	N9-C1'-C2'	10.20	127.29	112.00
33	L1	2508	U	N1-C1'-C2'	-10.20	96.70	112.00
28	SN	22	ARG	N-CA-CB	-10.19	95.05	110.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2166	U	O5'-C5'-C4'	10.19	126.79	111.50
40	LH	66	ARG	NE-CZ-NH1	-10.19	111.31	121.50
32	S1	788	G	C4'-C3'-O3'	10.19	125.28	110.00
33	L1	1723	C	O4'-C1'-C2'	-10.19	97.41	107.60
32	S1	4	C	P-O3'-C3'	10.19	135.48	120.20
33	L1	1008	U	O4'-C1'-C2'	-10.18	97.42	107.60
34	L3	114	C	P-O3'-C3'	10.18	135.47	120.20
27	SH	108	ALA	CA-C-N	10.18	135.88	121.22
27	SH	108	ALA	C-N-CA	10.18	135.88	121.22
33	L1	1081	U	C3'-C2'-C1'	-10.18	91.12	101.30
33	L1	3042	U	O4'-C1'-C2'	-10.18	97.42	107.60
33	L1	3100	C	O4'-C1'-C2'	-10.18	95.62	105.80
31	S2	37	G	C1'-O4'-C4'	-10.18	99.72	109.90
23	SU	34	HIS	CA-CB-CG	10.18	123.97	113.80
32	S1	632	G	O4'-C1'-N9	10.18	123.76	108.50
33	L1	711	A	C1'-C2'-O2'	10.18	123.66	108.40
32	S1	364	A	C5'-C4'-C3'	10.17	130.16	114.90
32	S1	1316	A	O4'-C1'-C2'	-10.17	97.43	107.60
33	L1	2170	G	O4'-C1'-C2'	10.17	115.97	105.80
33	L1	1367	A	O4'-C1'-C2'	-10.17	97.43	107.60
33	L1	2628	C	C2'-C3'-O3'	10.17	124.75	109.50
33	L1	2991	U	N1-C1'-C2'	10.16	127.25	112.00
32	S1	951	U	O4'-C1'-C2'	-10.16	97.44	107.60
33	L1	2419	C	N1-C1'-C2'	10.16	127.24	112.00
33	L1	2725	U	O4'-C1'-C2'	10.16	117.76	107.60
15	SS	58	THR	N-CA-C	-10.16	99.43	112.23
33	L1	1587	G	O4'-C1'-C2'	-10.16	97.44	107.60
33	L1	2237	A	O4'-C1'-N9	-10.16	93.26	108.50
23	SU	34	HIS	N-CA-CB	10.15	128.45	110.37
33	L1	1087	G	N9-C1'-C2'	10.15	127.23	112.00
33	L1	1649	G	C5'-C4'-C3'	10.15	131.23	116.00
3	SB	12	VAL	CA-C-N	10.15	134.71	120.29
3	SB	12	VAL	C-N-CA	10.15	134.71	120.29
32	S1	715	U	P-O3'-C3'	-10.15	104.98	120.20
33	L1	366	G	O4'-C1'-C2'	-10.15	97.45	107.60
4	SD	133	GLN	O-C-N	-10.14	110.89	123.06
33	L1	1755	A	C3'-C2'-C1'	10.14	111.44	101.30
34	L3	1	G	P-O3'-C3'	-10.14	104.98	120.20
32	S1	373	U	P-O5'-C5'	10.14	136.11	120.90
32	S1	635	G	C1'-O4'-C4'	10.14	120.04	109.90
33	L1	91	G	O4'-C1'-C2'	-10.14	95.66	105.80
33	L1	280	G	N9-C1'-C2'	-10.14	96.79	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	123	U	O4'-C1'-N1	10.14	123.70	108.50
67	LS	70	ASN	N-CA-CB	10.14	128.42	110.37
33	L1	19	C	O4'-C1'-C2'	-10.14	97.46	107.60
33	L1	2099	G	C1'-O4'-C4'	-10.14	99.76	109.90
32	S1	995	C	N1-C1'-C2'	10.13	127.20	112.00
32	S1	114	U	O4'-C1'-N1	10.13	123.69	108.50
33	L1	1512	A	O4'-C1'-C2'	-10.13	97.47	107.60
35	L2	151	C	O4'-C1'-C2'	-10.13	97.47	107.60
33	L1	1281	C	O4'-C1'-N1	10.13	123.69	108.50
33	L1	1843	A	C2'-C3'-O3'	10.13	124.69	109.50
71	Lj	4	ARG	N-CA-C	-10.12	90.17	107.99
41	LM	71	ASP	CA-C-N	10.12	134.20	120.44
41	LM	71	ASP	C-N-CA	10.12	134.20	120.44
33	L1	442	C	N1-C1'-C2'	10.12	127.18	112.00
32	S1	1030	A	O4'-C1'-C2'	-10.12	97.48	107.60
33	L1	1959	U	C5'-C4'-C3'	10.12	131.18	116.00
33	L1	2711	U	O4'-C1'-C2'	10.12	117.72	107.60
35	L2	70	G	C1'-O4'-C4'	-10.12	99.78	109.90
32	S1	1677	U	C1'-O4'-C4'	10.11	120.01	109.90
33	L1	324	U	P-O3'-C3'	10.11	135.36	120.20
33	L1	1531	G	O4'-C1'-N9	10.11	123.66	108.50
17	SV	29	SER	N-CA-CB	10.11	127.68	110.50
33	L1	2154	G	N9-C1'-C2'	10.11	127.16	112.00
64	LG	62	SER	CB-CA-C	10.11	126.75	110.88
2	SA	74	ASN	O-C-N	10.10	130.29	121.30
49	LX	125	ARG	CA-C-N	10.10	129.72	119.82
32	S1	303	A	OP2-P-O3'	-10.10	77.69	108.00
32	S1	416	A	O4'-C1'-C2'	-10.10	97.50	107.60
33	L1	964	C	C3'-C2'-C1'	10.10	111.40	101.30
33	L1	2516	U	P-O3'-C3'	10.10	135.35	120.20
49	LX	125	ARG	C-N-CA	10.10	129.72	119.82
33	L1	1863	A	C1'-O4'-C4'	10.10	120.00	109.90
33	L1	2796	G	C3'-C2'-C1'	10.10	111.40	101.30
32	S1	1072	U	P-O3'-C3'	10.10	135.35	120.20
33	L1	492	G	C4'-C3'-C2'	10.10	112.70	102.60
33	L1	713	G	N9-C1'-C2'	10.10	127.15	112.00
33	L1	1836	U	P-O3'-C3'	10.10	135.34	120.20
64	LG	65	LYS	O-C-N	-10.10	110.70	120.70
33	L1	641	C	C2'-C3'-O3'	-10.09	98.56	113.70
15	SS	8	THR	N-CA-CB	10.09	125.76	110.22
32	S1	716	A	C5'-C4'-C3'	-10.09	99.77	114.90
33	L1	150	G	P-O3'-C3'	10.09	135.33	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	242	U	N1-C1'-C2'	10.09	127.13	112.00
64	LG	18	HIS	CA-CB-CG	10.09	123.89	113.80
33	L1	475	U	C3'-C2'-C1'	10.09	111.39	101.30
70	Li	21	ARG	CA-C-N	10.09	134.98	122.37
70	Li	21	ARG	C-N-CA	10.09	134.98	122.37
33	L1	3156	G	P-O5'-C5'	10.08	136.03	120.90
25	SC	106	PHE	CA-C-N	10.08	135.63	120.31
25	SC	106	PHE	C-N-CA	10.08	135.63	120.31
32	S1	1315	U	OP2-P-O3'	-10.08	77.76	108.00
32	S1	1743	C	P-O5'-C5'	10.08	136.02	120.90
33	L1	10	C	N1-C1'-C2'	10.08	127.12	112.00
33	L1	1084	G	N9-C1'-C2'	10.08	127.12	112.00
33	L1	1954	G	O4'-C1'-C2'	10.08	117.68	107.60
33	L1	1499	C	N1-C1'-C2'	10.08	127.11	112.00
48	LV	39	LEU	CA-C-N	10.08	131.40	120.11
48	LV	39	LEU	C-N-CA	10.08	131.40	120.11
33	L1	594	C	N1-C1'-C2'	10.07	127.10	112.00
74	LJ	94	LYS	CA-C-N	10.07	140.77	121.54
74	LJ	94	LYS	C-N-CA	10.07	140.77	121.54
33	L1	1894	G	C5'-C4'-C3'	10.06	131.10	116.00
33	L1	2794	A	O4'-C1'-C2'	10.06	117.67	107.60
33	L1	3175	C	C3'-C2'-C1'	10.06	111.36	101.30
3	SB	161	GLY	N-CA-C	-10.06	89.34	113.18
32	S1	1589	C	O5'-P-OP2	10.06	138.18	108.00
35	L2	76	A	O3'-P-O5'	-10.06	88.92	104.00
69	La	46	LEU	N-CA-CB	10.06	123.97	110.29
33	L1	1824	C	N1-C1'-C2'	10.05	127.08	112.00
33	L1	1050	A	N9-C1'-C2'	-10.05	96.92	112.00
33	L1	3379	C	O4'-C1'-C2'	-10.05	97.55	107.60
32	S1	1727	C	N1-C1'-C2'	10.05	127.07	112.00
38	LE	112	ILE	N-CA-CB	10.05	121.48	110.53
55	Lg	59	ILE	CA-C-O	10.05	130.94	120.39
32	S1	694	C	N1-C1'-C2'	10.04	127.06	112.00
33	L1	1739	G	O4'-C1'-C2'	10.04	115.84	105.80
33	L1	1804	G	P-O5'-C5'	10.04	135.96	120.90
42	LP	86	HIS	CA-CB-CG	-10.04	103.76	113.80
33	L1	400	G	O4'-C1'-C2'	10.04	115.84	105.80
33	L1	1123	A	O4'-C1'-N9	10.04	123.56	108.50
82	LK	113	VAL	CA-C-N	-10.04	110.04	120.38
82	LK	113	VAL	C-N-CA	-10.04	110.04	120.38
33	L1	521	G	O4'-C1'-C2'	10.04	115.84	105.80
33	L1	1545	G	N9-C1'-C2'	10.03	127.05	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2659	A	C4'-C3'-O3'	10.03	124.44	109.40
31	S2	73	C	N1-C1'-C2'	10.02	127.03	112.00
33	L1	183	C	N1-C1'-C2'	10.02	127.04	112.00
33	L1	816	G	N9-C1'-C2'	10.02	127.03	112.00
35	L2	31	U	P-O5'-C5'	10.02	135.94	120.90
73	Lp	46	ARG	CB-CA-C	10.02	125.18	109.15
33	L1	2763	C	C3'-C2'-C1'	10.02	111.32	101.30
32	S1	495	C	N1-C1'-C2'	10.02	127.03	112.00
33	L1	3099	G	P-O3'-C3'	10.02	135.22	120.20
32	S1	1748	U	C1'-O4'-C4'	-10.02	99.89	109.90
25	SC	106	PHE	CB-CG-CD2	-10.01	103.68	120.70
32	S1	258	U	O3'-P-O5'	10.01	119.02	104.00
33	L1	1103	U	O4'-C1'-C2'	-10.01	97.59	107.60
32	S1	1586	U	P-O5'-C5'	10.01	135.92	120.90
33	L1	1058	A	O3'-P-O5'	-10.01	88.98	104.00
33	L1	1136	A	O4'-C1'-C2'	10.01	117.61	107.60
33	L1	1450	G	O4'-C1'-N9	-10.01	93.18	108.20
33	L1	2460	A	C1'-C2'-O2'	10.01	126.82	111.80
48	LV	71	ALA	N-CA-C	-10.01	99.22	111.33
33	L1	860	G	P-O5'-C5'	10.01	135.91	120.90
33	L1	676	G	C3'-C2'-C1'	-10.00	91.30	101.30
77	Lc	117	GLN	CA-C-N	10.00	134.49	120.29
77	Lc	117	GLN	C-N-CA	10.00	134.49	120.29
32	S1	408	G	O4'-C1'-C2'	-10.00	97.60	107.60
32	S1	1443	U	P-O5'-C5'	10.00	135.90	120.90
33	L1	309	C	C3'-C2'-C1'	10.00	111.30	101.30
33	L1	2213	G	O4'-C1'-C2'	10.00	117.60	107.60
33	L1	2679	A	P-O3'-C3'	10.00	135.19	120.20
55	Lg	118	VAL	CA-C-N	10.00	139.97	121.97
55	Lg	118	VAL	C-N-CA	10.00	139.97	121.97
33	L1	833	G	C1'-O4'-C4'	-9.99	99.91	109.90
33	L1	1900	C	C1'-O4'-C4'	-9.99	99.91	109.90
33	L1	968	A	C3'-C2'-C1'	-9.99	91.31	101.30
33	L1	2229	G	O4'-C1'-N9	9.99	123.49	108.50
72	Lk	96	VAL	CB-CA-C	-9.99	100.86	110.65
1	Sa	204	HIS	CE1-NE2-CD2	-9.99	99.01	109.00
33	L1	1907	A	O4'-C1'-N9	9.99	123.48	108.50
45	LQ	143	ARG	N-CA-CB	9.99	126.48	111.70
33	L1	2407	U	P-O3'-C3'	9.98	135.18	120.20
48	LV	75	SER	CA-C-N	9.98	140.98	124.31
48	LV	75	SER	C-N-CA	9.98	140.98	124.31
49	LX	34	LYS	CB-CA-C	-9.98	90.55	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
66	LN	53	LEU	N-CA-C	-9.98	91.95	108.32
64	LG	79	THR	CA-C-N	9.98	139.67	121.70
64	LG	79	THR	C-N-CA	9.98	139.67	121.70
33	L1	2991	U	P-O5'-C5'	9.98	135.87	120.90
33	L1	3057	A	N9-C1'-C2'	9.98	126.97	112.00
23	SU	82	TYR	CA-C-N	-9.98	102.48	121.54
23	SU	82	TYR	C-N-CA	-9.98	102.48	121.54
33	L1	2808	U	N1-C1'-C2'	9.98	126.97	112.00
33	L1	1255	A	N9-C1'-C2'	9.98	126.96	112.00
9	SK	33	PHE	CA-C-N	9.97	137.63	120.58
9	SK	33	PHE	C-N-CA	9.97	137.63	120.58
32	S1	1718	C	N1-C1'-C2'	9.97	126.96	112.00
33	L1	1922	C	O5'-C5'-C4'	9.97	126.66	111.70
1	Sa	63	GLN	OE1-CD-NE2	-9.97	112.63	122.60
32	S1	1055	G	N9-C1'-C2'	9.97	126.95	112.00
33	L1	113	A	O4'-C1'-C2'	-9.97	97.63	107.60
33	L1	2789	G	O4'-C1'-N9	9.97	123.45	108.50
25	SC	171	PRO	CB-CA-C	9.97	128.00	111.56
33	L1	3109	G	O4'-C1'-N9	9.96	123.45	108.50
33	L1	3326	U	N1-C1'-C2'	-9.96	99.05	114.00
35	L2	102	U	O3'-P-O5'	-9.97	89.05	104.00
33	L1	1272	G	N9-C1'-C2'	9.96	126.94	112.00
23	SU	62	PHE	CA-CB-CG	9.96	123.76	113.80
33	L1	2591	G	C1'-O4'-C4'	-9.96	99.94	109.90
33	L1	2941	G	C1'-O4'-C4'	-9.96	99.94	109.90
2	SA	40	ARG	NE-CZ-NH1	9.96	131.46	121.50
32	S1	635	G	N9-C1'-C2'	-9.95	97.07	112.00
33	L1	408	U	P-O5'-C5'	9.96	135.83	120.90
33	L1	2219	A	P-O3'-C3'	9.96	135.13	120.20
2	SA	22	MET	N-CA-C	9.95	122.13	111.28
33	L1	175	G	C3'-C2'-C1'	-9.95	91.35	101.30
33	L1	608	G	N9-C1'-C2'	9.95	126.93	112.00
31	S2	37	G	P-O3'-C3'	9.95	135.12	120.20
33	L1	1076	G	N9-C1'-C2'	9.95	126.92	112.00
33	L1	1208	A	O4'-C1'-C2'	-9.95	97.65	107.60
32	S1	1435	G	O4'-C1'-N9	9.95	123.42	108.50
33	L1	3071	A	O4'-C1'-N9	9.94	123.42	108.50
32	S1	1294	U	N1-C1'-C2'	9.94	126.91	112.00
33	L1	2345	C	N1-C1'-C2'	9.94	126.91	112.00
33	L1	522	C	O3'-P-O5'	9.94	118.91	104.00
33	L1	1675	G	C1'-C2'-O2'	9.94	123.30	108.40
32	S1	933	G	O4'-C1'-N9	9.93	123.10	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
73	Lp	51	ILE	N-CA-C	9.93	130.00	109.34
33	L1	1741	G	O4'-C1'-C2'	9.93	115.73	105.80
38	LE	85	GLY	CA-C-O	-9.93	109.78	120.90
67	LS	12	VAL	CB-CA-C	-9.93	97.33	110.84
67	LS	28	ARG	CD-NE-CZ	9.93	138.30	124.40
77	Lc	31	GLY	CA-C-O	-9.93	110.14	120.66
33	L1	590	C	N1-C1'-C2'	9.93	126.89	112.00
33	L1	1075	G	C1'-O4'-C4'	-9.93	99.97	109.90
33	L1	1748	A	C2'-C3'-O3'	9.92	124.38	109.50
32	S1	1385	C	N1-C1'-C2'	9.92	126.88	112.00
33	L1	570	G	O4'-C1'-C2'	9.92	117.52	107.60
33	L1	462	C	N1-C1'-C2'	9.91	126.87	112.00
33	L1	2252	C	C1'-O4'-C4'	9.91	119.81	109.90
33	L1	255	C	N1-C1'-C2'	9.91	126.86	112.00
33	L1	3317	G	P-O5'-C5'	-9.91	106.03	120.90
32	S1	904	G	O4'-C1'-C2'	-9.91	97.69	107.60
49	LX	34	LYS	CA-C-N	-9.91	106.81	120.38
49	LX	34	LYS	C-N-CA	-9.91	106.81	120.38
32	S1	1145	G	O4'-C1'-C2'	-9.90	97.70	107.60
38	LE	34	ARG	NE-CZ-NH1	9.90	131.40	121.50
49	LX	63	GLY	O-C-N	-9.90	113.47	122.88
28	SN	10	HIS	CA-C-O	-9.90	106.60	120.16
32	S1	1538	C	O4'-C1'-C2'	-9.90	97.70	107.60
33	L1	937	G	O4'-C1'-C2'	9.90	117.50	107.60
33	L1	372	A	C2'-C3'-O3'	9.89	124.34	109.50
33	L1	1266	G	C1'-O4'-C4'	-9.89	100.01	109.90
50	LZ	3	LEU	CA-C-N	-9.89	108.58	122.93
50	LZ	3	LEU	C-N-CA	-9.89	108.58	122.93
33	L1	2356	A	O4'-C1'-C2'	9.89	117.49	107.60
33	L1	2766	U	N1-C1'-C2'	-9.89	97.16	112.00
23	SU	68	THR	O-C-N	-9.89	103.50	121.70
33	L1	543	C	O4'-C1'-C2'	-9.89	97.71	107.60
33	L1	720	G	C3'-C2'-C1'	9.89	111.19	101.30
4	SD	136	ILE	N-CA-CB	9.89	125.06	111.21
33	L1	2782	G	O4'-C1'-N9	9.89	123.33	108.50
46	LT	98	ARG	CB-CA-C	-9.89	95.28	110.90
33	L1	3001	G	C1'-O4'-C4'	-9.89	100.01	109.90
55	Lg	13	ASP	N-CA-C	9.89	124.10	109.07
33	L1	1549	A	C3'-C2'-C1'	9.88	121.07	101.30
35	L2	32	C	C1'-O4'-C4'	-9.88	100.02	109.90
33	L1	2437	A	C3'-C2'-C1'	9.88	111.18	101.30
33	L1	882	U	N1-C1'-C2'	9.88	126.82	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1648	C	O4'-C1'-C2'	-9.88	97.72	107.60
33	L1	707	G	C1'-O4'-C4'	-9.88	100.02	109.90
47	LU	140	MET	N-CA-C	-9.87	94.25	109.85
33	L1	3041	A	O4'-C1'-C2'	9.87	117.47	107.60
33	L1	2836	G	N9-C1'-C2'	9.87	126.80	112.00
33	L1	3099	G	C5'-C4'-C3'	9.87	130.80	116.00
45	LQ	247	ILE	CA-C-N	9.86	140.38	121.54
45	LQ	247	ILE	C-N-CA	9.86	140.38	121.54
33	L1	1753	A	P-O5'-C5'	9.86	135.69	120.90
33	L1	1941	G	C3'-C2'-C1'	-9.86	91.44	101.30
33	L1	481	G	P-O3'-C3'	9.86	134.98	120.20
33	L1	1255	A	C1'-O4'-C4'	-9.86	100.04	109.90
33	L1	1883	A	N9-C1'-C2'	-9.86	97.22	112.00
47	LU	48	VAL	N-CA-C	-9.86	93.86	108.45
33	L1	1538	A	P-O3'-C3'	9.85	134.98	120.20
33	L1	1895	G	C1'-O4'-C4'	-9.85	99.85	109.70
13	SQ	95	GLU	CB-CA-C	-9.85	90.18	109.68
32	S1	885	C	O4'-C1'-C2'	-9.85	97.75	107.60
32	S1	1138	A	C1'-O4'-C4'	9.85	119.75	109.90
33	L1	2022	U	P-O5'-C5'	9.85	135.67	120.90
33	L1	2369	G	N9-C1'-C2'	9.85	126.77	112.00
33	L1	2439	A	O4'-C1'-C2'	9.85	117.44	107.60
51	LY	47	ILE	N-CA-C	9.85	117.26	109.19
11	SM	88	LYS	CA-C-N	9.84	137.01	121.66
11	SM	88	LYS	C-N-CA	9.84	137.01	121.66
32	S1	562	U	P-O3'-C3'	9.84	134.96	120.20
33	L1	888	U	P-O5'-C5'	9.84	135.66	120.90
33	L1	3128	A	O4'-C1'-C2'	9.84	117.44	107.60
70	Li	30	LEU	CA-C-N	9.84	136.64	123.06
70	Li	30	LEU	C-N-CA	9.84	136.64	123.06
31	S2	58	U	C1'-O4'-C4'	9.84	119.74	109.90
32	S1	1485	A	N9-C1'-C2'	-9.84	97.25	112.00
33	L1	70	A	P-O3'-C3'	9.84	134.96	120.20
38	LE	153	HIS	ND1-CE1-NE2	9.84	118.24	108.40
17	SV	34	LYS	N-CA-CB	9.84	127.11	110.49
33	L1	935	U	O4'-C1'-C2'	-9.83	95.97	105.80
71	Lj	86	ARG	NE-CZ-NH1	9.83	131.33	121.50
32	S1	1163	C	O4'-C1'-C2'	-9.83	95.97	105.80
9	SK	146	ARG	CA-C-N	9.83	130.89	119.98
9	SK	146	ARG	C-N-CA	9.83	130.89	119.98
33	L1	1366	G	C1'-C2'-O2'	9.83	123.14	108.40
45	LQ	27	ARG	N-CA-C	9.83	121.99	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1802	A	N9-C1'-C2'	9.82	126.74	112.00
33	L1	3175	C	O4'-C1'-C2'	-9.82	97.78	107.60
33	L1	1576	C	P-O5'-C5'	9.82	135.63	120.90
48	LV	154	LYS	N-CA-C	9.82	123.38	111.40
33	L1	1947	U	N1-C1'-C2'	-9.82	97.27	112.00
33	L1	1257	U	O4'-C1'-N1	9.81	123.22	108.50
32	S1	919	G	C5'-C4'-C3'	9.81	129.91	115.20
45	LQ	107	ALA	N-CA-C	9.81	121.97	111.28
11	SM	110	ASP	O-C-N	-9.81	111.72	122.12
13	SQ	21	TYR	CA-C-O	-9.81	106.49	120.51
33	L1	2483	A	C1'-C2'-O2'	9.81	123.11	108.40
32	S1	137	A	N9-C1'-C2'	9.80	128.71	114.00
32	S1	449	A	O4'-C1'-C2'	-9.80	97.80	107.60
33	L1	1050	A	P-O3'-C3'	9.80	134.91	120.20
25	SC	163	THR	O-C-N	9.80	135.62	122.59
33	L1	2882	U	N1-C1'-C2'	9.80	126.70	112.00
66	LN	85	GLU	CB-CG-CD	9.80	129.26	112.60
16	SR	128	PHE	N-CA-C	9.80	126.41	108.58
33	L1	804	A	C3'-C2'-C1'	9.80	111.30	101.50
33	L1	2411	G	C1'-O4'-C4'	-9.80	100.10	109.90
64	LG	50	PHE	CA-CB-CG	-9.80	104.00	113.80
60	Lr	60	LYS	CA-C-N	-9.79	107.87	122.86
60	Lr	60	LYS	C-N-CA	-9.79	107.87	122.86
33	L1	3281	G	O4'-C1'-N9	9.79	123.19	108.50
32	S1	1057	U	O4'-C1'-N1	9.79	123.19	108.50
33	L1	1251	U	O4'-C1'-N1	9.79	123.19	108.50
33	L1	1007	A	N9-C1'-C2'	9.79	126.68	112.00
33	L1	1197	A	P-O3'-C3'	9.79	134.88	120.20
33	L1	3222	G	C5'-C4'-C3'	9.79	130.68	116.00
16	SR	116	ILE	N-CA-CB	-9.79	95.08	111.23
28	SN	51	GLY	CA-C-N	-9.79	109.19	122.99
28	SN	51	GLY	C-N-CA	-9.79	109.19	122.99
33	L1	579	G	C3'-C2'-C1'	9.79	111.09	101.30
46	LT	58	HIS	ND1-CE1-NE2	9.79	118.19	108.40
33	L1	2623	G	C5'-C4'-C3'	9.78	130.68	116.00
33	L1	2771	U	O4'-C1'-N1	9.79	123.18	108.50
33	L1	20	G	O4'-C1'-N9	9.78	123.17	108.50
1	Sa	202	SER	CB-CA-C	9.78	129.88	110.42
33	L1	1622	G	P-O5'-C5'	9.78	135.57	120.90
33	L1	1697	G	P-O3'-C3'	9.78	134.87	120.20
33	L1	2502	U	O5'-C5'-C4'	9.78	126.17	111.50
33	L1	2700	A	O3'-P-O5'	-9.78	89.33	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3094	C	C3'-C2'-C1'	9.78	111.28	101.50
33	L1	1127	U	N1-C1'-C2'	9.78	126.67	112.00
33	L1	857	G	O4'-C1'-N9	9.77	123.16	108.50
33	L1	297	G	C5'-C4'-C3'	9.77	130.65	116.00
33	L1	1991	U	C5'-C4'-C3'	9.77	130.65	116.00
32	S1	1761	G	N9-C1'-C2'	9.77	126.65	112.00
33	L1	2061	C	C1'-O4'-C4'	-9.77	100.13	109.90
23	SU	8	PRO	CA-C-O	-9.77	102.83	120.60
11	SM	100	SER	CA-CB-OG	9.76	130.63	111.10
33	L1	2231	G	O4'-C1'-N9	9.76	123.14	108.50
33	L1	3354	A	N9-C1'-C2'	-9.76	97.36	112.00
13	SQ	86	PRO	CA-N-CD	-9.76	98.34	112.00
32	S1	1474	U	O4'-C1'-C2'	-9.76	97.84	107.60
33	L1	2502	U	N1-C1'-C2'	-9.76	97.36	112.00
33	L1	3226	G	O4'-C1'-C2'	-9.76	97.84	107.60
33	L1	605	A	C3'-C2'-C1'	9.76	111.06	101.30
33	L1	1432	G	C1'-O4'-C4'	-9.76	99.94	109.70
33	L1	3323	U	N1-C1'-C2'	-9.76	97.37	112.00
32	S1	119	U	C3'-C2'-C1'	-9.75	91.55	101.30
43	LO	112	LEU	O-C-N	-9.75	112.68	120.38
32	S1	1068	G	N9-C1'-C2'	-9.75	99.38	114.00
33	L1	3295	G	O4'-C1'-C2'	9.75	115.55	105.80
33	L1	1589	G	P-O3'-C3'	9.75	134.82	120.20
32	S1	980	C	O4'-C1'-C2'	-9.74	97.86	107.60
33	L1	2431	U	C1'-O4'-C4'	-9.74	100.16	109.90
81	LD	368	PRO	CA-N-CD	-9.74	98.36	112.00
33	L1	1196	U	P-O3'-C3'	-9.74	105.59	120.20
37	LB	34	PHE	N-CA-CB	9.74	126.95	110.49
33	L1	1297	U	C1'-O4'-C4'	-9.74	100.16	109.90
59	Lo	30	ARG	N-CA-CB	-9.74	94.03	110.49
9	SK	134	VAL	N-CA-C	-9.74	87.85	108.88
33	L1	1592	U	O4'-C1'-C2'	-9.74	96.06	105.80
64	LG	139	VAL	N-CA-CB	9.73	127.29	111.23
33	L1	681	A	O4'-C1'-C2'	-9.73	96.07	105.80
33	L1	2375	G	O3'-P-O5'	-9.73	89.41	104.00
9	SK	126	GLY	CA-C-N	9.72	133.66	120.44
9	SK	126	GLY	C-N-CA	9.72	133.66	120.44
32	S1	1371	U	N1-C1'-C2'	9.72	126.58	112.00
33	L1	1620	U	O4'-C1'-N1	9.72	123.08	108.50
32	S1	903	A	P-O3'-C3'	9.72	134.78	120.20
32	S1	1028	A	P-O3'-C3'	9.72	134.78	120.20
33	L1	1009	G	O4'-C1'-N9	9.72	123.08	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	SU	75	SER	N-CA-C	-9.72	95.36	110.42
32	S1	4	C	O4'-C1'-C2'	-9.71	97.89	107.60
33	L1	82	C	N1-C1'-C2'	9.71	126.57	112.00
33	L1	2496	U	N1-C1'-C2'	-9.71	97.43	112.00
32	S1	1063	U	N1-C1'-C2'	-9.71	97.44	112.00
79	Ls	257	GLU	CA-C-N	9.71	140.08	121.54
79	Ls	257	GLU	C-N-CA	9.71	140.08	121.54
33	L1	1060	U	O4'-C1'-N1	9.71	123.06	108.50
46	LT	58	HIS	CE1-NE2-CD2	-9.71	99.29	109.00
32	S1	915	C	O4'-C1'-C2'	-9.70	97.90	107.60
33	L1	1672	G	N9-C1'-C2'	-9.70	97.45	112.00
33	L1	1370	A	C1'-O4'-C4'	9.70	119.60	109.90
64	LG	140	GLN	N-CA-CB	9.70	126.88	110.49
33	L1	1369	G	C1'-O4'-C4'	-9.70	100.20	109.90
33	L1	1551	C	C3'-C2'-C1'	9.70	111.00	101.30
32	S1	1133	C	C5'-C4'-C3'	-9.69	101.46	116.00
32	S1	1184	C	C3'-C2'-C1'	9.69	110.99	101.30
33	L1	108	A	C4'-C3'-C2'	-9.69	92.91	102.60
33	L1	2352	G	C3'-C2'-C1'	-9.69	91.61	101.30
33	L1	1133	A	C3'-C2'-C1'	9.69	110.99	101.30
33	L1	1407	G	O4'-C1'-N9	9.69	123.03	108.50
64	LG	122	GLN	CA-C-N	9.69	140.04	121.54
64	LG	122	GLN	C-N-CA	9.69	140.04	121.54
67	LS	78	GLY	O-C-N	-9.69	115.74	122.62
25	SC	166	PHE	N-CA-C	-9.69	90.17	110.80
33	L1	251	G	O4'-C1'-N9	9.69	123.03	108.50
32	S1	268	G	P-O3'-C3'	9.69	134.73	120.20
33	L1	2199	C	C1'-O4'-C4'	-9.69	100.22	109.90
11	SM	89	ASP	N-CA-C	9.68	123.09	109.15
33	L1	1888	G	C3'-C2'-C1'	-9.68	91.62	101.30
11	SM	113	ARG	N-CA-C	9.68	121.43	111.07
33	L1	1615	G	C1'-O4'-C4'	-9.68	100.22	109.90
32	S1	1572	U	O3'-P-O5'	-9.68	89.48	104.00
33	L1	2165	A	C1'-O4'-C4'	-9.68	100.22	109.90
13	SQ	14	ARG	N-CA-C	9.68	121.42	111.07
32	S1	524	A	C4'-C3'-O3'	9.68	124.51	110.00
25	SC	56	ASN	CA-CB-CG	9.67	122.27	112.60
32	S1	1513	A	N9-C1'-C2'	-9.67	97.49	112.00
33	L1	461	A	N9-C1'-C2'	9.67	126.51	112.00
25	SC	144	ASN	O-C-N	9.67	135.45	122.59
32	S1	938	A	N9-C1'-C2'	9.67	126.51	112.00
32	S1	1678	G	C3'-C2'-C1'	-9.67	91.63	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Le	184	GLU	CA-C-N	9.67	133.01	120.44
78	Le	184	GLU	C-N-CA	9.67	133.01	120.44
6	SF	144	ASN	N-CA-CB	-9.67	95.91	110.12
34	L3	53	U	P-O3'-C3'	9.67	134.70	120.20
67	LS	145	HIS	CA-CB-CG	-9.67	104.13	113.80
32	S1	1183	G	O3'-P-O5'	9.66	118.50	104.00
32	S1	1458	U	P-O5'-C5'	9.66	135.40	120.90
33	L1	2377	C	N1-C1'-C2'	9.66	126.49	112.00
31	S2	18	G	O4'-C1'-C2'	9.66	115.46	105.80
35	L2	59	U	P-O5'-C5'	9.66	135.38	120.90
66	LN	99	ARG	CD-NE-CZ	9.66	137.92	124.40
45	LQ	153	THR	N-CA-CB	9.65	124.24	110.24
33	L1	2081	C	C3'-C2'-C1'	9.65	110.95	101.30
33	L1	3225	G	O4'-C1'-N9	9.65	122.98	108.50
79	Ls	251	VAL	N-CA-C	9.65	119.60	110.53
33	L1	812	G	C3'-C2'-C1'	-9.65	91.65	101.30
33	L1	1921	U	O4'-C1'-N1	9.65	122.67	108.20
23	SU	38	ALA	N-CA-CB	-9.65	95.15	110.87
32	S1	582	U	O4'-C1'-C2'	-9.65	96.15	105.80
67	LS	109	TYR	CA-C-N	9.65	132.98	120.44
67	LS	109	TYR	C-N-CA	9.65	132.98	120.44
33	L1	11	A	N9-C1'-C2'	9.64	126.47	112.00
33	L1	1027	C	C5'-C4'-C3'	9.64	130.47	116.00
32	S1	292	A	C1'-O4'-C4'	9.64	119.54	109.90
33	L1	2628	C	O4'-C1'-N1	-9.64	93.74	108.20
40	LH	229	TRP	CA-C-N	9.64	130.62	121.46
40	LH	229	TRP	C-N-CA	9.64	130.62	121.46
44	LR	5	LEU	N-CA-CB	-9.64	95.37	110.22
23	SU	25	ARG	CG-CD-NE	9.64	133.20	112.00
33	L1	2350	C	C1'-O4'-C4'	-9.64	100.26	109.90
11	SM	36	VAL	O-C-N	-9.64	112.02	123.00
33	L1	1670	G	O4'-C1'-C2'	9.63	117.23	107.60
33	L1	1888	G	O4'-C1'-C2'	9.63	117.23	107.60
33	L1	1894	G	C1'-O4'-C4'	9.63	119.53	109.90
33	L1	2630	A	N9-C1'-C2'	-9.63	99.55	114.00
35	L2	30	C	N1-C1'-C2'	9.63	126.45	112.00
69	La	40	HIS	CA-C-N	9.63	141.43	123.32
69	La	40	HIS	C-N-CA	9.63	141.43	123.32
33	L1	705	A	O4'-C1'-C2'	-9.63	97.97	107.60
4	SD	94	LYS	CB-CA-C	9.63	129.58	110.42
37	LB	226	ARG	CA-C-O	-9.63	111.07	121.56
11	SM	113	ARG	CA-CB-CG	9.62	133.35	114.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	LU	136	LYS	N-CA-C	9.63	126.83	113.16
33	L1	911	G	O4'-C1'-C2'	-9.62	96.18	105.80
34	L3	15	C	O4'-C1'-C2'	-9.62	97.98	107.60
4	SD	60	GLU	CA-C-N	9.62	134.10	120.53
4	SD	60	GLU	C-N-CA	9.62	134.10	120.53
33	L1	2436	G	N9-C1'-C2'	-9.62	99.56	114.00
32	S1	316	A	P-O3'-C3'	9.62	134.63	120.20
32	S1	1076	C	N1-C1'-C2'	9.62	126.43	112.00
32	S1	584	A	P-O3'-C3'	9.62	134.63	120.20
32	S1	1561	G	O4'-C1'-C2'	-9.62	97.98	107.60
32	S1	899	A	P-O5'-C5'	9.62	135.33	120.90
33	L1	431	G	N9-C1'-C2'	9.62	126.43	112.00
33	L1	2597	C	C1'-O4'-C4'	-9.62	100.28	109.90
33	L1	3363	G	C1'-O4'-C4'	-9.62	100.28	109.90
12	SO	142	GLU	N-CA-CB	-9.61	96.13	110.07
33	L1	1754	C	C5'-C4'-C3'	-9.62	101.58	116.00
33	L1	1879	A	O4'-C1'-N9	9.61	122.92	108.50
33	L1	2067	G	N9-C1'-C2'	9.61	126.42	112.00
33	L1	1911	A	C3'-C2'-C1'	-9.61	91.69	101.30
33	L1	3124	A	N9-C1'-C2'	-9.61	97.59	112.00
33	L1	2780	G	O4'-C1'-C2'	-9.61	97.99	107.60
64	LG	51	TYR	CA-C-N	-9.61	107.83	119.84
64	LG	51	TYR	C-N-CA	-9.61	107.83	119.84
33	L1	430	G	C1'-O4'-C4'	-9.60	100.30	109.90
31	S2	72	G	P-O3'-C3'	9.60	134.60	120.20
32	S1	192	G	P-O3'-C3'	9.60	134.60	120.20
61	Lq	15	ARG	NE-CZ-NH2	-9.60	110.56	119.20
25	SC	88	LEU	CA-C-N	9.60	133.53	120.38
25	SC	88	LEU	C-N-CA	9.60	133.53	120.38
33	L1	609	C	C3'-C2'-C1'	9.60	110.89	101.30
33	L1	2497	A	O4'-C1'-C2'	-9.60	98.00	107.60
66	LN	84	TRP	O-C-N	9.59	132.29	122.12
32	S1	1777	G	P-O3'-C3'	9.59	134.59	120.20
32	S1	583	A	O4'-C1'-N9	9.59	122.89	108.50
33	L1	1932	A	C1'-O4'-C4'	-9.59	100.31	109.90
33	L1	110	C	N1-C1'-C2'	9.59	126.38	112.00
33	L1	2177	U	C5'-C4'-C3'	9.59	130.38	116.00
33	L1	3158	C	C5'-C4'-C3'	9.59	130.38	116.00
32	S1	1014	U	P-O3'-C3'	9.59	134.58	120.20
10	SL	4	THR	CB-CA-C	9.59	124.56	109.03
33	L1	2450	G	C4'-C3'-C2'	-9.59	93.01	102.60
33	L1	3188	G	P-O3'-C3'	9.59	134.58	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	272	G	N9-C1'-C2'	9.58	126.37	112.00
33	L1	2669	C	C1'-O4'-C4'	-9.58	100.32	109.90
32	S1	624	A	P-O3'-C3'	9.58	134.57	120.20
33	L1	1245	U	P-O3'-C3'	9.58	134.57	120.20
33	L1	2721	C	P-O3'-C3'	-9.58	105.83	120.20
33	L1	312	U	P-O5'-C5'	-9.58	106.53	120.90
33	L1	891	U	O4'-C1'-C2'	-9.58	98.02	107.60
33	L1	1785	G	O4'-C1'-C2'	9.58	117.18	107.60
79	Ls	258	THR	CA-CB-CG2	9.58	126.78	110.50
11	SM	21	ASP	CA-C-N	9.57	136.46	121.62
11	SM	21	ASP	C-N-CA	9.57	136.46	121.62
3	SB	29	LEU	CD1-CG-CD2	-9.57	89.74	110.80
32	S1	44	U	P-O3'-C3'	9.57	134.56	120.20
33	L1	1005	C	O4'-C1'-C2'	-9.57	98.03	107.60
55	Lg	4	LYS	N-CA-CB	9.57	123.98	109.34
35	L2	63	A	C3'-C2'-C1'	9.56	111.06	101.50
32	S1	7	G	C3'-C2'-C1'	-9.56	91.74	101.30
33	L1	2543	G	N9-C1'-C2'	9.56	126.34	112.00
33	L1	3344	U	C3'-C2'-C1'	9.56	110.86	101.30
33	L1	3353	G	P-O3'-C3'	9.56	134.54	120.20
1	Sa	134	ILE	N-CA-C	-9.55	95.39	108.96
3	SB	126	VAL	CA-C-N	9.55	134.04	120.28
3	SB	126	VAL	C-N-CA	9.55	134.04	120.28
13	SQ	69	ILE	CB-CA-C	9.55	124.20	111.87
33	L1	1753	A	C1'-O4'-C4'	9.56	119.26	109.70
33	L1	3136	A	P-O3'-C3'	9.55	134.53	120.20
42	LP	79	ILE	CB-CA-C	9.55	124.67	111.49
70	Li	49	LYS	CA-C-N	9.55	134.28	120.71
70	Li	49	LYS	C-N-CA	9.55	134.28	120.71
66	LN	112	LEU	CA-C-N	9.55	133.08	120.28
66	LN	112	LEU	C-N-CA	9.55	133.08	120.28
74	LJ	93	ARG	CD-NE-CZ	-9.55	111.03	124.40
3	SB	149	SER	N-CA-CB	9.55	126.63	110.49
25	SC	43	GLU	O-C-N	-9.55	112.00	122.12
32	S1	150	U	P-O3'-C3'	9.55	134.52	120.20
34	L3	1	G	C4'-C3'-O3'	9.55	123.72	109.40
81	LD	344	ALA	N-CA-CB	9.55	124.08	109.85
33	L1	2219	A	C4'-C3'-C2'	-9.55	93.05	102.60
51	LY	73	TYR	CA-C-N	9.55	132.85	120.44
51	LY	73	TYR	C-N-CA	9.55	132.85	120.44
33	L1	2519	U	O4'-C1'-C2'	-9.54	98.06	107.60
33	L1	2734	C	O4'-C1'-C2'	-9.54	98.06	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
71	Lj	37	GLU	N-CA-CB	-9.54	95.97	109.91
11	SM	94	ARG	N-CA-CB	9.54	126.61	110.49
54	Lf	19	GLN	CA-C-O	9.54	130.66	120.55
76	Lw	37	GLU	N-CA-C	9.54	121.68	111.28
31	S2	16	U	C5'-C4'-C3'	9.54	130.31	116.00
33	L1	137	C	P-O3'-C3'	9.54	134.51	120.20
33	L1	1709	U	P-O3'-C3'	9.54	134.51	120.20
33	L1	2493	C	N1-C1'-C2'	9.54	126.31	112.00
64	LG	7	MET	CA-C-N	9.53	133.44	120.38
64	LG	7	MET	C-N-CA	9.53	133.44	120.38
33	L1	2732	U	C3'-C2'-C1'	9.53	110.83	101.30
33	L1	962	C	P-O3'-C3'	9.53	134.49	120.20
13	SQ	139	ASP	CA-CB-CG	9.53	122.13	112.60
33	L1	563	C	P-O3'-C3'	9.53	134.49	120.20
33	L1	2629	C	C1'-O4'-C4'	-9.53	100.37	109.90
33	L1	1614	G	C1'-O4'-C4'	-9.53	100.38	109.90
33	L1	2219	A	O4'-C1'-C2'	-9.53	98.08	107.60
33	L1	2801	A	P-O3'-C3'	9.53	134.49	120.20
33	L1	3059	C	C3'-C2'-C1'	9.53	110.83	101.30
8	SJ	88	ARG	O-C-N	9.52	135.16	123.44
32	S1	1069	G	C1'-O4'-C4'	9.52	119.42	109.90
33	L1	1812	A	C4'-C3'-C2'	-9.52	93.08	102.60
35	L2	62	G	N9-C1'-C2'	9.52	128.28	114.00
33	L1	2362	A	P-O3'-C3'	9.52	134.48	120.20
33	L1	2475	C	O4'-C1'-C2'	-9.52	98.08	107.60
33	L1	2935	A	N9-C1'-C2'	9.52	126.28	112.00
13	SQ	53	PHE	CB-CA-C	9.52	126.59	110.79
32	S1	1226	U	C5'-C4'-C3'	-9.52	101.72	116.00
33	L1	537	U	O4'-C1'-C2'	-9.52	98.08	107.60
33	L1	2707	A	O4'-C1'-C2'	9.52	115.32	105.80
33	L1	2756	G	C5'-C4'-C3'	9.52	130.28	116.00
72	Lk	94	SER	N-CA-CB	9.52	126.68	110.50
9	SK	37	ASN	CA-CB-CG	-9.52	103.08	112.60
32	S1	1214	C	N1-C1'-C2'	9.52	126.27	112.00
33	L1	9	C	N1-C1'-C2'	9.52	126.27	112.00
33	L1	334	A	O4'-C1'-C2'	9.52	117.11	107.60
71	Lj	41	THR	N-CA-C	9.52	124.51	113.38
33	L1	1749	G	O4'-C1'-C2'	9.51	117.11	107.60
33	L1	1163	A	P-O3'-C3'	9.51	134.47	120.20
33	L1	3148	A	N9-C1'-C2'	9.51	126.26	112.00
33	L1	1270	G	N9-C1'-C2'	9.51	126.26	112.00
33	L1	3240	C	P-O3'-C3'	9.51	134.46	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	123	U	N1-C1'-C2'	-9.51	97.74	112.00
46	LT	85	ARG	N-CA-C	9.51	121.33	110.97
32	S1	891	U	C1'-O4'-C4'	-9.51	100.39	109.90
32	S1	663	C	O3'-P-O5'	9.50	118.25	104.00
7	SI	95	LEU	CA-C-N	9.50	132.86	120.60
7	SI	95	LEU	C-N-CA	9.50	132.86	120.60
32	S1	152	G	P-O5'-C5'	9.50	135.15	120.90
35	L2	7	A	O4'-C1'-C2'	-9.50	98.10	107.60
27	SH	89	TRP	N-CA-CB	9.49	124.08	110.12
33	L1	2486	G	O4'-C1'-C2'	-9.49	98.11	107.60
33	L1	2734	C	C3'-C2'-C1'	9.49	110.79	101.30
33	L1	2106	U	C1'-C2'-O2'	9.49	122.64	108.40
72	Lk	48	ARG	CA-C-O	-9.49	110.36	120.42
32	S1	1513	A	C1'-O4'-C4'	9.49	119.39	109.90
33	L1	47	A	C3'-C2'-C1'	-9.49	92.01	101.50
34	L3	13	A	P-O5'-C5'	-9.49	106.67	120.90
33	L1	268	U	C5'-C4'-C3'	9.49	130.23	116.00
33	L1	2300	G	P-O5'-C5'	9.49	135.13	120.90
35	L2	65	A	O4'-C1'-C2'	9.49	117.09	107.60
33	L1	12	G	N9-C1'-C2'	9.48	126.23	112.00
33	L1	1821	G	O4'-C1'-C2'	-9.48	98.12	107.60
33	L1	898	G	N9-C1'-C2'	9.48	126.22	112.00
35	L2	152	C	N1-C1'-C2'	9.48	126.22	112.00
32	S1	123	U	O4'-C1'-C2'	-9.48	98.12	107.60
33	L1	2755	U	N1-C1'-C2'	9.48	126.22	112.00
33	L1	590	C	P-O5'-C5'	9.47	135.11	120.90
35	L2	18	C	N1-C1'-C2'	9.47	126.21	112.00
33	L1	424	G	N9-C1'-C2'	9.47	128.21	114.00
81	LD	351	ARG	NE-CZ-NH2	9.47	127.73	119.20
33	L1	684	C	P-O3'-C3'	9.47	134.41	120.20
33	L1	1086	U	C1'-O4'-C4'	9.47	119.37	109.90
33	L1	1511	C	C3'-C2'-C1'	9.47	110.77	101.30
33	L1	2628	C	N1-C1'-C2'	9.47	128.21	114.00
34	L3	117	U	C5'-C4'-C3'	9.47	130.21	116.00
35	L2	53	G	O4'-C1'-C2'	9.47	117.07	107.60
66	LN	49	ASN	N-CA-C	-9.47	92.01	108.20
32	S1	916	U	O3'-P-O5'	-9.47	89.80	104.00
33	L1	326	C	P-O3'-C3'	9.47	134.40	120.20
33	L1	3094	C	C2'-C3'-O3'	9.47	123.70	109.50
35	L2	46	G	C5'-C4'-C3'	-9.47	101.80	116.00
45	LQ	137	ASP	CA-CB-CG	9.47	122.07	112.60
59	Lo	5	LYS	N-CA-C	9.46	122.80	111.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
64	LG	199	LYS	N-CA-C	9.47	121.60	111.28
33	L1	722	C	P-O5'-C5'	9.46	135.09	120.90
32	S1	584	A	C2'-C3'-O3'	9.46	123.69	109.50
23	SU	88	ALA	CA-C-N	9.46	132.95	120.28
23	SU	88	ALA	C-N-CA	9.46	132.95	120.28
45	LQ	153	THR	CA-C-N	9.46	136.11	122.77
45	LQ	153	THR	C-N-CA	9.46	136.11	122.77
33	L1	231	C	N1-C1'-C2'	9.46	126.18	112.00
71	Lj	8	ARG	CB-CA-C	-9.46	93.93	109.53
33	L1	2568	G	O4'-C1'-C2'	-9.45	98.15	107.60
33	L1	2725	U	C1'-O4'-C4'	-9.45	100.45	109.90
33	L1	267	G	C3'-C2'-C1'	9.45	110.95	101.50
33	L1	2237	A	C3'-C2'-C1'	9.45	110.75	101.30
5	SE	22	GLY	CA-C-N	9.45	130.47	119.98
5	SE	22	GLY	C-N-CA	9.45	130.47	119.98
32	S1	1095	C	C1'-O4'-C4'	-9.45	100.45	109.90
80	LC	69	LYS	CA-C-N	-9.45	103.49	121.54
80	LC	69	LYS	C-N-CA	-9.45	103.49	121.54
33	L1	2362	A	O4'-C1'-C2'	-9.45	98.15	107.60
42	LP	181	HIS	CA-C-N	9.45	133.89	120.28
42	LP	181	HIS	C-N-CA	9.45	133.89	120.28
10	SL	121	VAL	N-CA-C	9.45	121.12	112.43
11	SM	34	LYS	N-CA-C	-9.45	90.68	110.80
33	L1	1384	G	C1'-C2'-O2'	9.45	122.57	108.40
17	SV	68	GLU	CB-CG-CD	9.45	128.66	112.60
33	L1	2900	G	O4'-C1'-N9	-9.45	94.33	108.50
34	L3	67	C	O3'-P-O5'	-9.44	89.83	104.00
33	L1	2876	G	C3'-C2'-C1'	-9.44	91.86	101.30
33	L1	138	G	C4'-C3'-O3'	9.44	127.16	113.00
68	LW	28	SER	CA-C-N	-9.44	98.76	121.80
68	LW	28	SER	C-N-CA	-9.44	98.76	121.80
7	SI	32	ARG	N-CA-CB	9.44	126.44	110.49
20	SZ	43	ARG	N-CA-CB	-9.44	96.58	110.17
33	L1	547	C	O4'-C1'-C2'	-9.44	98.16	107.60
33	L1	3353	G	O4'-C1'-C2'	-9.44	96.36	105.80
60	Lr	61	LYS	CB-CA-C	-9.44	95.94	111.13
33	L1	2738	U	C4'-C3'-O3'	9.44	127.16	113.00
32	S1	127	G	O4'-C1'-C2'	-9.44	98.17	107.60
32	S1	669	A	O5'-P-OP2	9.44	136.31	108.00
33	L1	796	C	C3'-C2'-C1'	9.44	110.74	101.30
4	SD	107	GLY	O-C-N	-9.43	112.03	122.50
33	L1	1456	A	N9-C1'-C2'	-9.43	99.85	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	SM	114	LEU	N-CA-C	-9.43	100.88	111.82
33	L1	1741	G	N9-C1'-C2'	9.43	128.15	114.00
11	SM	116	LYS	CB-CA-C	9.43	128.77	110.67
47	LU	135	PRO	N-CA-C	9.43	126.38	113.65
11	SM	82	TRP	N-CA-C	-9.43	90.72	110.80
32	S1	1021	C	O4'-C1'-C2'	-9.43	98.17	107.60
33	L1	307	C	C1'-C2'-O2'	9.43	122.54	108.40
36	LA	83	TYR	CA-CB-CG	-9.43	96.93	113.90
44	LR	68	SER	N-CA-C	9.43	121.56	111.28
33	L1	2580	C	N1-C1'-C2'	9.42	126.14	112.00
33	L1	484	C	OP1-P-O3'	-9.42	79.73	108.00
66	LN	112	LEU	N-CA-C	9.42	121.55	111.28
79	Ls	235	PRO	N-CA-C	9.42	131.88	112.47
20	SZ	7	SER	CA-C-O	9.42	130.29	119.27
33	L1	1755	A	O4'-C1'-C2'	-9.42	98.18	107.60
34	L3	9	U	P-O3'-C3'	9.42	134.33	120.20
32	S1	614	G	O4'-C1'-N9	9.41	122.62	108.50
33	L1	126	G	C1'-O4'-C4'	-9.41	100.48	109.90
33	L1	165	C	N1-C1'-C2'	9.41	126.12	112.00
33	L1	1536	U	O4'-C1'-N1	9.41	122.62	108.50
69	La	78	THR	N-CA-CB	9.41	123.96	110.12
33	L1	1755	A	C4'-C3'-C2'	-9.41	93.19	102.60
59	Lo	32	ASP	CA-CB-CG	-9.41	103.19	112.60
32	S1	341	G	O4'-C1'-C2'	-9.41	98.19	107.60
33	L1	1028	G	O4'-C1'-N9	9.41	122.61	108.50
33	L1	1070	G	C1'-O4'-C4'	-9.41	100.49	109.90
33	L1	1568	A	C1'-O4'-C4'	9.41	119.31	109.90
35	L2	158	G	C3'-C2'-C1'	-9.41	91.89	101.30
60	Lr	46	LYS	CB-CA-C	9.40	129.13	110.42
11	SM	126	TYR	CE1-CZ-CE2	9.40	139.11	120.30
72	Lk	96	VAL	N-CA-CB	9.40	124.82	112.12
69	La	32	GLY	N-CA-C	-9.40	98.03	112.89
33	L1	571	G	N9-C1'-C2'	9.40	128.10	114.00
57	Ll	57	LYS	O-C-N	9.40	132.09	122.12
32	S1	484	A	O4'-C1'-C2'	9.40	117.00	107.60
33	L1	549	G	C3'-C2'-C1'	-9.40	91.90	101.30
43	LO	25	HIS	N-CA-C	-9.40	94.69	109.72
33	L1	969	U	C5'-C4'-C3'	-9.39	101.91	116.00
33	L1	1568	A	N9-C1'-C2'	-9.39	97.91	112.00
73	Lp	51	ILE	N-CA-CB	-9.39	95.73	111.23
32	S1	1663	A	P-O5'-C5'	9.39	134.99	120.90
31	S2	61	C	N1-C1'-C2'	9.39	126.08	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	601	G	O4'-C1'-C2'	9.39	116.99	107.60
33	L1	1952	U	O4'-C1'-C2'	-9.39	98.21	107.60
33	L1	3347	U	P-O5'-C5'	9.39	134.98	120.90
34	L3	64	G	N9-C1'-C2'	9.39	126.08	112.00
66	LN	117	ARG	CB-CA-C	9.39	126.37	110.79
33	L1	723	G	C5'-C4'-C3'	9.39	130.08	116.00
33	L1	874	U	O4'-C1'-N1	9.38	122.58	108.50
33	L1	1222	U	C1'-O4'-C4'	9.38	119.28	109.90
33	L1	1868	C	N1-C1'-C2'	9.38	126.07	112.00
32	S1	1754	A	O3'-P-O5'	-9.38	89.93	104.00
33	L1	1045	U	O4'-C1'-N1	9.38	122.57	108.50
32	S1	178	A	O4'-C1'-C2'	-9.38	98.22	107.60
32	S1	1083	C	N1-C1'-C2'	9.38	126.06	112.00
33	L1	3020	C	O4'-C1'-C2'	-9.37	98.23	107.60
1	Sa	35	THR	CA-C-N	9.37	133.78	120.28
1	Sa	35	THR	C-N-CA	9.37	133.78	120.28
9	SK	77	SER	CA-C-O	9.37	131.46	121.15
33	L1	2479	C	C3'-C2'-C1'	9.37	110.67	101.30
33	L1	2418	A	P-O3'-C3'	-9.37	106.14	120.20
33	L1	2753	C	O4'-C1'-C2'	-9.37	98.23	107.60
38	LE	96	ARG	NE-CZ-NH2	9.37	127.64	119.20
70	Li	111	LYS	N-CA-CB	9.37	123.84	110.44
32	S1	148	C	N1-C1'-C2'	9.37	126.06	112.00
33	L1	3096	U	P-O5'-C5'	9.37	134.95	120.90
32	S1	1749	C	N1-C1'-C2'	9.37	126.05	112.00
33	L1	574	C	P-O3'-C3'	9.37	134.25	120.20
33	L1	2624	G	N9-C1'-C2'	9.37	126.05	112.00
34	L3	1	G	O4'-C4'-C3'	-9.36	96.74	106.10
37	LB	229	ALA	O-C-N	-9.36	112.19	121.27
33	L1	784	G	C3'-C2'-C1'	-9.36	91.94	101.30
35	L2	162	C	P-O3'-C3'	9.36	134.24	120.20
19	SY	15	GLY	N-CA-C	-9.36	102.11	111.56
32	S1	776	A	P-O5'-C5'	-9.36	105.97	120.00
30	S3	18	C	P-O3'-C3'	9.36	134.23	120.20
32	S1	1097	A	N9-C1'-C2'	9.36	128.03	114.00
33	L1	431	G	P-O3'-C3'	9.36	134.23	120.20
33	L1	2758	C	N1-C1'-C2'	9.36	126.03	112.00
24	SX	52	SER	O-C-N	9.35	134.06	122.65
32	S1	1648	C	O4'-C1'-C2'	-9.35	98.25	107.60
33	L1	1574	C	N1-C1'-C2'	9.35	126.03	112.00
33	L1	1694	A	O4'-C1'-C2'	-9.35	98.25	107.60
14	SP	108	ILE	CA-C-N	9.35	131.53	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	SP	108	ILE	C-N-CA	9.35	131.53	119.84
32	S1	1037	G	C1'-O4'-C4'	-9.35	100.55	109.90
33	L1	2379	U	P-O3'-C3'	9.35	134.22	120.20
79	Ls	30	ILE	CB-CA-C	9.35	124.61	110.96
33	L1	496	U	C1'-C2'-O2'	9.35	122.42	108.40
33	L1	811	A	O3'-P-O5'	-9.35	89.98	104.00
32	S1	1183	G	C5'-C4'-C3'	9.34	130.02	116.00
32	S1	1765	A	P-O3'-C3'	9.34	134.22	120.20
32	S1	1753	U	C5'-C4'-C3'	9.34	130.01	116.00
33	L1	2994	U	O4'-C1'-C2'	-9.34	98.26	107.60
33	L1	1651	A	O4'-C1'-C2'	9.34	116.94	107.60
33	L1	1880	A	O5'-C5'-C4'	9.34	125.51	111.50
33	L1	2053	A	O4'-C1'-C2'	-9.34	98.26	107.60
33	L1	2667	C	N1-C1'-C2'	9.34	126.01	112.00
33	L1	2829	U	N1-C1'-C2'	-9.34	99.99	114.00
33	L1	2477	G	O4'-C1'-N9	9.34	122.50	108.50
72	Lk	54	ALA	CA-C-N	9.34	129.03	118.85
72	Lk	54	ALA	C-N-CA	9.34	129.03	118.85
32	S1	1643	A	N9-C1'-C2'	-9.34	98.00	112.00
33	L1	3094	C	O4'-C1'-N1	-9.34	94.20	108.20
35	L2	87	C	C1'-O4'-C4'	-9.34	100.56	109.90
7	SI	70	ASP	CA-C-N	9.33	132.79	120.28
7	SI	70	ASP	C-N-CA	9.33	132.79	120.28
35	L2	104	U	C1'-C2'-O2'	9.33	122.40	108.40
33	L1	719	U	N1-C1'-C2'	9.33	126.00	112.00
32	S1	220	C	P-O5'-C5'	9.33	134.90	120.90
32	S1	800	U	P-O3'-C3'	9.33	134.19	120.20
33	L1	1540	G	O4'-C1'-C2'	9.33	116.93	107.60
33	L1	1555	G	N9-C1'-C2'	9.33	126.00	112.00
33	L1	1789	C	C1'-O4'-C4'	-9.33	100.37	109.70
78	Le	7	LYS	CA-C-N	9.33	132.32	120.56
78	Le	7	LYS	C-N-CA	9.33	132.32	120.56
81	LD	313	GLU	CA-C-N	9.33	137.41	122.76
81	LD	313	GLU	C-N-CA	9.33	137.41	122.76
64	LG	141	LYS	CB-CA-C	-9.33	97.28	110.34
67	LS	116	HIS	N-CA-C	9.33	124.72	113.16
32	S1	377	G	P-O5'-C5'	9.32	134.89	120.90
32	S1	1443	U	O5'-P-OP2	-9.32	80.03	108.00
33	L1	407	A	O4'-C1'-C2'	-9.32	98.28	107.60
33	L1	542	G	C1'-O4'-C4'	-9.32	100.58	109.90
33	L1	995	C	P-O5'-C5'	-9.32	106.92	120.90
33	L1	2882	U	C1'-O4'-C4'	-9.32	100.58	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	LD	322	ASN	CA-C-N	9.32	129.40	119.05
81	LD	322	ASN	C-N-CA	9.32	129.40	119.05
33	L1	2101	A	O3'-P-O5'	-9.32	90.02	104.00
64	LG	153	THR	N-CA-CB	9.32	123.82	110.12
33	L1	1858	U	P-O3'-C3'	9.32	134.18	120.20
33	L1	1682	C	N1-C1'-C2'	9.32	127.98	114.00
33	L1	141	C	N1-C1'-C2'	9.32	125.97	112.00
33	L1	304	A	O3'-P-O5'	9.32	117.97	104.00
33	L1	2772	A	C5'-C4'-C3'	-9.32	102.03	116.00
46	LT	122	ASP	CA-CB-CG	9.32	121.92	112.60
25	SC	106	PHE	N-CA-CB	9.31	126.33	110.68
32	S1	1059	U	O4'-C1'-N1	9.31	122.47	108.50
33	L1	861	A	P-O3'-C3'	9.31	134.17	120.20
33	L1	3246	U	N1-C1'-C2'	9.31	125.97	112.00
33	L1	1752	C	C4'-C3'-O3'	9.31	126.97	113.00
33	L1	2362	A	C1'-O4'-C4'	9.31	119.21	109.90
33	L1	1395	A	P-O3'-C3'	9.31	134.16	120.20
33	L1	714	G	P-O3'-C3'	9.30	134.16	120.20
38	LE	54	TYR	CA-C-N	9.31	133.94	120.82
38	LE	54	TYR	C-N-CA	9.31	133.94	120.82
32	S1	1346	C	C1'-O4'-C4'	-9.30	100.60	109.90
32	S1	1519	G	O4'-C1'-N9	9.30	122.46	108.50
5	SE	63	GLU	CA-C-N	9.30	133.10	120.54
5	SE	63	GLU	C-N-CA	9.30	133.10	120.54
32	S1	1147	A	O4'-C1'-C2'	-9.30	98.30	107.60
76	Lw	56	ALA	CA-C-N	-9.30	107.50	120.71
76	Lw	56	ALA	C-N-CA	-9.30	107.50	120.71
32	S1	1542	G	P-O5'-C5'	9.30	134.85	120.90
81	LD	322	ASN	CB-CA-C	-9.30	94.29	112.05
33	L1	58	G	C3'-C2'-C1'	-9.29	92.21	101.50
33	L1	755	C	P-O5'-C5'	9.29	134.84	120.90
33	L1	1281	C	O4'-C1'-C2'	-9.30	98.30	107.60
76	Lv	56	ALA	CA-C-N	-9.30	107.51	120.71
33	L1	1103	U	O3'-P-O5'	-9.29	90.06	104.00
33	L1	1772	G	O4'-C1'-N9	9.29	122.44	108.50
33	L1	2999	G	O4'-C1'-C2'	9.29	116.89	107.60
76	Lv	56	ALA	C-N-CA	-9.30	107.51	120.71
77	Lc	101	LYS	N-CA-C	9.30	122.58	111.33
32	S1	1773	A	P-O3'-C3'	9.29	134.14	120.20
33	L1	308	U	C5'-C4'-C3'	9.29	129.94	116.00
32	S1	789	C	O5'-C5'-C4'	9.29	124.74	110.80
33	L1	2247	A	C4'-C3'-O3'	-9.29	99.06	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	69	U	O4'-C1'-N1	-9.29	94.57	108.50
33	L1	641	C	C4'-C3'-C2'	-9.29	93.31	102.60
80	LC	352	ARG	CB-CA-C	-9.29	97.88	110.79
33	L1	618	G	O4'-C1'-C2'	9.29	116.89	107.60
33	L1	860	G	P-O3'-C3'	9.29	134.13	120.20
33	L1	2385	A	P-O3'-C3'	9.29	134.13	120.20
33	L1	2673	G	N9-C1'-C2'	9.29	125.93	112.00
4	SD	79	ASP	CA-CB-CG	-9.29	103.31	112.60
32	S1	483	C	O4'-C1'-C2'	-9.29	98.31	107.60
33	L1	1849	U	C1'-O4'-C4'	9.29	119.19	109.90
33	L1	2984	A	C3'-C2'-C1'	9.29	110.78	101.50
78	Le	11	PRO	N-CA-CB	9.28	113.54	103.33
25	SC	161	SER	N-CA-C	-9.28	91.03	110.80
32	S1	1504	U	O4'-C1'-C2'	-9.28	98.32	107.60
34	L3	3	A	C1'-O4'-C4'	9.28	119.18	109.90
44	LR	143	LYS	N-CA-C	-9.28	102.53	114.04
33	L1	3326	U	P-O3'-C3'	9.28	134.11	120.20
33	L1	2841	G	N9-C1'-C2'	9.27	125.91	112.00
33	L1	1817	U	N1-C1'-C2'	9.27	125.90	112.00
33	L1	3021	U	C5'-C4'-C3'	9.27	129.90	116.00
31	S2	41	G	C1'-O4'-C4'	-9.27	100.63	109.90
33	L1	339	G	C2'-C3'-O3'	9.27	123.40	109.50
33	L1	3059	C	O4'-C1'-C2'	-9.27	98.33	107.60
33	L1	3087	A	C5'-C4'-C3'	9.27	129.10	115.20
45	LQ	249	ALA	CA-C-N	9.27	138.38	121.70
45	LQ	249	ALA	C-N-CA	9.27	138.38	121.70
32	S1	1626	C	O4'-C1'-N1	9.26	122.39	108.50
83	Lm	4	ARG	NE-CZ-NH2	-9.26	110.86	119.20
33	L1	1577	A	C4'-C3'-C2'	-9.26	93.34	102.60
35	L2	125	A	P-O3'-C3'	9.26	134.09	120.20
39	LF	187	THR	N-CA-C	-9.26	96.78	108.45
57	L1	52	LYS	N-CA-CB	-9.26	95.74	109.82
32	S1	1452	A	O4'-C1'-C2'	-9.26	98.34	107.60
33	L1	311	G	C4'-C3'-C2'	-9.26	93.34	102.60
33	L1	1309	U	O4'-C1'-N1	-9.26	94.32	108.20
33	L1	2165	A	C4'-C3'-C2'	-9.26	93.34	102.60
64	LG	49	LYS	CA-C-N	-9.26	103.86	121.54
64	LG	49	LYS	C-N-CA	-9.26	103.86	121.54
32	S1	1423	A	C3'-C2'-C1'	9.25	110.55	101.30
32	S1	1343	C	C3'-C2'-C1'	9.25	110.55	101.30
33	L1	989	U	O4'-C1'-C2'	-9.25	98.35	107.60
78	Le	115	ASN	CA-CB-CG	9.25	121.85	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	L3	78	C	C3'-C2'-C1'	9.25	110.55	101.30
33	L1	226	U	C1'-O4'-C4'	9.25	119.15	109.90
33	L1	1101	A	C4'-C3'-O3'	9.25	123.87	110.00
33	L1	159	G	P-O5'-C5'	-9.24	107.04	120.90
33	L1	267	G	O4'-C1'-C2'	-9.24	96.56	105.80
52	Lb	126	SER	CA-C-N	9.24	133.12	120.46
52	Lb	126	SER	C-N-CA	9.24	133.12	120.46
35	L2	124	G	N9-C1'-C2'	-9.24	98.14	112.00
67	LS	121	PRO	N-CA-CB	9.24	111.98	103.20
32	S1	1792	A	N9-C1'-C2'	-9.24	98.14	112.00
33	L1	489	C	O4'-C1'-C2'	-9.24	98.36	107.60
32	S1	1722	C	O4'-C1'-C2'	9.24	116.84	107.60
33	L1	3336	A	O3'-P-O5'	-9.24	90.14	104.00
2	SA	163	ILE	CA-C-N	9.23	130.97	122.20
2	SA	163	ILE	C-N-CA	9.23	130.97	122.20
3	SB	31	GLU	N-CA-CB	9.23	126.10	110.49
33	L1	2058	C	O4'-C1'-C2'	-9.23	98.36	107.60
33	L1	1912	U	N1-C1'-C2'	9.23	125.85	112.00
33	L1	487	C	N1-C1'-C2'	9.23	125.85	112.00
33	L1	2021	G	O3'-P-O5'	-9.23	90.15	104.00
32	S1	174	C	O4'-C1'-C2'	-9.23	98.37	107.60
32	S1	381	G	O4'-C1'-N9	9.23	122.34	108.50
33	L1	2582	G	C1'-O4'-C4'	-9.23	100.67	109.90
35	L2	48	A	O3'-P-O5'	-9.23	90.16	104.00
64	LG	137	VAL	CA-C-N	9.23	139.17	121.54
32	S1	148	C	P-O5'-C5'	9.23	134.74	120.90
32	S1	1100	U	N1-C1'-C2'	9.23	125.84	112.00
64	LG	137	VAL	C-N-CA	9.23	139.17	121.54
32	S1	1540	U	O3'-P-O5'	9.23	117.84	104.00
34	L3	19	A	C1'-O4'-C4'	9.23	119.13	109.90
5	SE	7	GLU	N-CA-C	9.22	123.89	110.42
33	L1	1565	G	C5'-C4'-C3'	-9.22	102.16	116.00
7	SI	97	ALA	N-CA-C	9.22	121.33	111.28
8	SJ	86	TRP	CB-CG-CD2	-9.22	113.89	126.80
33	L1	2818	G	P-O3'-C3'	9.22	134.03	120.20
41	LM	70	PRO	CA-C-N	9.22	141.71	121.80
41	LM	70	PRO	C-N-CA	9.22	141.71	121.80
33	L1	327	A	O4'-C1'-C2'	9.22	115.02	105.80
33	L1	1010	A	N9-C1'-C2'	-9.22	98.17	112.00
33	L1	1941	G	C1'-O4'-C4'	-9.21	100.69	109.90
33	L1	3023	G	N9-C1'-C2'	9.21	125.82	112.00
31	S2	67	G	C1'-C2'-O2'	9.21	122.22	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	962	C	O4'-C1'-C2'	-9.21	98.39	107.60
33	L1	2167	G	P-O3'-C3'	9.21	134.02	120.20
32	S1	1659	A	C3'-C2'-C1'	9.21	110.51	101.30
35	L2	109	A	N9-C1'-C2'	9.21	127.81	114.00
33	L1	134	U	O4'-C1'-N1	9.21	122.01	108.20
33	L1	1103	U	N1-C1'-C2'	-9.21	98.19	112.00
33	L1	1689	G	O3'-P-O5'	-9.21	90.19	104.00
3	SB	217	ASN	CA-C-N	9.21	139.12	121.54
3	SB	217	ASN	C-N-CA	9.21	139.12	121.54
33	L1	1568	A	O4'-C1'-N9	9.21	122.31	108.50
45	LQ	16	TYR	CB-CA-C	9.21	128.74	110.42
64	LG	144	ASP	N-CA-C	9.21	130.41	110.80
33	L1	2348	U	N1-C1'-C2'	9.20	125.80	112.00
33	L1	725	G	N9-C1'-C2'	9.20	125.80	112.00
33	L1	2451	G	O4'-C1'-C2'	-9.20	96.60	105.80
33	L1	1623	C	P-O3'-C3'	9.20	134.00	120.20
32	S1	1793	C	C3'-C2'-C1'	9.20	110.50	101.30
80	LC	302	PHE	CA-C-N	9.20	138.25	121.70
80	LC	302	PHE	C-N-CA	9.20	138.25	121.70
33	L1	2204	U	O5'-C5'-C4'	9.20	125.29	111.50
32	S1	398	C	C3'-C2'-C1'	9.19	110.49	101.30
32	S1	1609	G	N9-C1'-C2'	9.19	125.79	112.00
15	SS	8	THR	CA-CB-OG1	9.19	123.38	109.60
40	LH	78	ARG	NE-CZ-NH1	9.19	130.69	121.50
47	LU	9	SER	N-CA-C	9.19	124.83	107.75
2	SA	211	PRO	CA-C-N	-9.18	104.00	121.54
2	SA	211	PRO	C-N-CA	-9.18	104.00	121.54
33	L1	853	U	C1'-O4'-C4'	9.18	119.08	109.90
33	L1	2396	A	C3'-C2'-C1'	9.18	110.48	101.30
33	L1	3358	A	O4'-C1'-C2'	9.18	116.78	107.60
15	SS	132	ARG	N-CA-C	9.18	122.44	111.33
19	SY	30	PHE	CA-CB-CG	-9.18	104.62	113.80
27	SH	3	ARG	NE-CZ-NH2	9.18	127.46	119.20
33	L1	785	U	P-O5'-C5'	9.18	134.67	120.90
45	LQ	183	PHE	N-CA-CB	-9.18	94.98	110.49
33	L1	1778	C	O3'-P-O5'	-9.18	90.23	104.00
33	L1	400	G	C3'-C2'-C1'	-9.18	92.33	101.50
33	L1	2112	C	C3'-C2'-C1'	9.18	110.48	101.30
33	L1	3343	U	N1-C1'-C2'	9.18	125.77	112.00
32	S1	299	A	N9-C1'-C2'	-9.17	98.24	112.00
48	LV	111	ASP	CA-C-O	-9.17	110.83	120.55
33	L1	987	A	P-O3'-C3'	9.17	133.96	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2901	C	O4'-C1'-C2'	-9.17	98.43	107.60
11	SM	117	ILE	CA-CB-CG2	9.17	126.08	110.50
79	Ls	34	ASP	N-CA-CB	-9.17	96.31	110.06
32	S1	1375	C	O4'-C1'-C2'	-9.17	98.43	107.60
33	L1	1057	A	O4'-C1'-N9	9.16	122.25	108.50
33	L1	1632	G	P-O3'-C3'	9.16	133.94	120.20
33	L1	2434	G	O4'-C1'-N9	9.16	122.25	108.50
68	LW	29	LYS	CB-CA-C	-9.16	92.11	110.17
73	Lp	14	ASN	CA-C-N	-9.16	108.12	120.95
73	Lp	14	ASN	C-N-CA	-9.16	108.12	120.95
33	L1	3292	U	O4'-C1'-N1	9.16	122.24	108.50
32	S1	1350	C	N1-C1'-C2'	9.16	125.74	112.00
33	L1	2151	G	O4'-C1'-C2'	-9.15	96.64	105.80
28	SN	38	CYS	N-CA-CB	9.15	125.96	110.49
33	L1	1060	U	P-O3'-C3'	9.15	133.93	120.20
33	L1	1743	C	P-O3'-C3'	9.15	133.93	120.20
33	L1	611	C	O4'-C1'-C2'	-9.15	98.45	107.60
33	L1	1536	U	C1'-O4'-C4'	9.15	119.05	109.90
33	L1	2686	U	O4'-C1'-C2'	9.15	116.75	107.60
33	L1	2774	A	O4'-C1'-N9	9.14	122.22	108.50
33	L1	3206	C	P-O3'-C3'	9.14	133.92	120.20
56	Lh	105	LYS	CA-C-O	9.14	130.24	120.55
25	SC	145	ILE	CA-C-N	9.14	131.26	119.84
25	SC	145	ILE	C-N-CA	9.14	131.26	119.84
11	SM	133	GLY	N-CA-C	9.14	134.84	113.18
13	SQ	97	ARG	CA-C-N	9.14	138.15	121.70
13	SQ	97	ARG	C-N-CA	9.14	138.15	121.70
34	L3	68	G	C1'-O4'-C4'	-9.14	100.76	109.90
33	L1	971	G	C5'-C4'-C3'	9.14	129.71	116.00
33	L1	2171	A	O4'-C1'-C2'	-9.14	96.66	105.80
33	L1	2738	U	O4'-C1'-N1	9.14	122.21	108.50
45	LQ	17	PHE	CA-C-N	9.14	133.27	120.29
45	LQ	17	PHE	C-N-CA	9.14	133.27	120.29
78	Le	69	ARG	CA-C-N	9.14	137.62	122.54
78	Le	69	ARG	C-N-CA	9.14	137.62	122.54
32	S1	1282	G	O4'-C1'-C2'	-9.14	98.46	107.60
33	L1	1739	G	P-O3'-C3'	9.13	133.90	120.20
31	S2	67	G	P-O3'-C3'	9.13	133.89	120.20
32	S1	377	G	N9-C1'-C2'	9.13	125.69	112.00
32	S1	1227	A	O4'-C1'-N9	9.13	122.19	108.50
64	LG	216	GLU	N-CA-C	9.13	123.95	111.90
78	Le	54	ALA	CA-C-N	9.13	130.11	119.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Le	54	ALA	C-N-CA	9.13	130.11	119.98
33	L1	521	G	P-O3'-C3'	9.13	133.89	120.20
33	L1	1112	C	N1-C1'-C2'	9.12	125.69	112.00
33	L1	3291	C	C3'-C2'-C1'	9.12	110.42	101.30
35	L2	102	U	N1-C1'-C2'	9.12	125.69	112.00
33	L1	430	G	N9-C1'-C2'	9.12	125.68	112.00
33	L1	1050	A	O4'-C1'-N9	9.12	122.18	108.50
47	LU	155	ASP	N-CA-CB	-9.12	95.08	110.49
32	S1	788	G	P-O3'-C3'	9.12	133.88	120.20
56	Lh	107	LYS	O-C-N	9.12	131.57	122.09
69	La	25	ILE	N-CA-CB	9.12	121.16	110.95
79	Ls	238	ALA	CA-C-N	9.12	134.17	120.31
79	Ls	238	ALA	C-N-CA	9.12	134.17	120.31
2	SA	41	TYR	O-C-N	-9.12	112.98	122.64
29	ST	27	LYS	CA-C-N	9.12	134.51	121.02
29	ST	27	LYS	C-N-CA	9.12	134.51	121.02
56	Lh	75	PHE	CA-CB-CG	-9.12	104.68	113.80
32	S1	1211	U	N1-C1'-C2'	9.11	127.67	114.00
33	L1	3033	A	O4'-C1'-C2'	-9.11	98.49	107.60
33	L1	3203	G	O4'-C1'-N9	9.11	122.17	108.50
33	L1	2066	G	O4'-C1'-N9	9.11	122.17	108.50
33	L1	2133	A	N9-C1'-C2'	9.11	127.67	114.00
1	Sa	376	HIS	O-C-N	9.11	132.53	122.15
82	LK	160	GLU	N-CA-C	9.11	121.21	111.28
32	S1	1585	A	P-O3'-C3'	-9.11	106.54	120.20
33	L1	23	A	O4'-C1'-N9	9.11	122.16	108.50
33	L1	1778	C	P-O3'-C3'	9.11	133.86	120.20
68	LW	88	LEU	CB-CA-C	9.11	127.36	110.70
33	L1	1263	A	O4'-C1'-C2'	9.10	116.70	107.60
16	SR	75	ASP	N-CA-C	-9.10	104.24	114.62
33	L1	229	G	O4'-C1'-C2'	-9.10	98.50	107.60
33	L1	1368	U	N1-C1'-C2'	9.10	125.65	112.00
33	L1	1667	C	O4'-C1'-N1	9.10	122.15	108.50
33	L1	493	G	C3'-C2'-C1'	9.10	110.40	101.30
33	L1	2909	A	N9-C1'-C2'	-9.10	98.35	112.00
41	LM	49	LEU	CA-C-N	9.10	138.92	121.54
41	LM	49	LEU	C-N-CA	9.10	138.92	121.54
32	S1	1406	U	C3'-C2'-C1'	9.10	110.40	101.30
33	L1	2528	U	P-O3'-C3'	9.10	133.84	120.20
33	L1	299	G	N9-C1'-C2'	-9.09	98.36	112.00
33	L1	1804	G	C3'-C2'-C1'	9.09	110.39	101.30
46	LT	187	ARG	CB-CA-C	9.09	125.88	110.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2162	C	O4'-C1'-C2'	-9.09	98.51	107.60
32	S1	1095	C	N1-C1'-C2'	9.09	125.63	112.00
67	LS	120	PHE	N-CA-CB	9.09	126.55	110.37
33	L1	3088	A	N9-C1'-C2'	9.09	125.63	112.00
33	L1	3095	G	O4'-C1'-C2'	9.09	116.69	107.60
33	L1	3149	C	N1-C1'-C2'	9.09	125.63	112.00
78	Le	142	ASN	CA-CB-CG	-9.09	103.51	112.60
33	L1	1151	G	C1'-O4'-C4'	-9.08	100.82	109.90
32	S1	1315	U	C1'-O4'-C4'	9.08	118.98	109.90
33	L1	1715	C	C1'-O4'-C4'	9.08	118.78	109.70
23	SU	27	GLN	N-CA-C	9.08	123.31	108.52
33	L1	549	G	C1'-C2'-O2'	9.08	122.02	108.40
33	L1	1249	A	O4'-C1'-C2'	-9.08	96.72	105.80
33	L1	2800	C	N1-C1'-C2'	9.08	125.62	112.00
32	S1	119	U	O4'-C1'-C2'	9.07	116.67	107.60
32	S1	1290	U	C3'-C2'-C1'	9.07	110.37	101.30
33	L1	1163	A	C1'-O4'-C4'	-9.07	100.83	109.90
33	L1	1575	G	N9-C1'-C2'	9.07	125.61	112.00
33	L1	1904	A	N9-C1'-C2'	9.07	125.61	112.00
34	L3	101	A	P-O3'-C3'	9.07	133.81	120.20
56	Lh	64	THR	N-CA-C	9.07	124.14	112.89
66	LN	104	ASP	N-CA-CB	-9.07	95.15	110.49
33	L1	400	G	P-O3'-C3'	9.07	133.81	120.20
33	L1	1850	C	O4'-C1'-C2'	-9.07	98.53	107.60
33	L1	2152	A	O4'-C1'-N9	9.07	121.81	108.20
35	L2	63	A	P-O3'-C3'	9.07	133.81	120.20
74	LJ	93	ARG	O-C-N	-9.07	110.52	122.59
32	S1	1156	A	N9-C1'-C2'	-9.07	98.40	112.00
25	SC	45	TRP	N-CA-CB	9.07	125.81	110.49
72	Lk	100	MET	N-CA-CB	-9.07	96.74	110.16
3	SB	76	ARG	CB-CA-C	-9.07	96.50	110.92
32	S1	1473	C	P-O3'-C3'	9.07	133.80	120.20
25	SC	68	ASN	CA-C-O	-9.06	107.74	120.16
33	L1	343	G	C1'-O4'-C4'	-9.06	100.84	109.90
33	L1	857	G	C1'-C2'-O2'	9.06	122.00	108.40
33	L1	1223	U	O4'-C1'-N1	9.06	122.10	108.50
33	L1	3303	C	C1'-O4'-C4'	-9.06	100.84	109.90
41	LM	68	GLY	CA-C-O	-9.06	104.80	120.57
84	LI	108	ALA	O-C-N	-9.06	112.09	123.24
11	SM	12	ILE	CA-CB-CG1	9.06	125.80	110.40
29	ST	62	GLY	CA-C-N	9.06	132.22	120.44
29	ST	62	GLY	C-N-CA	9.06	132.22	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1354	C	C1'-O4'-C4'	-9.06	100.84	109.90
33	L1	1507	A	P-O3'-C3'	-9.06	106.61	120.20
20	SZ	5	HIS	N-CA-CB	9.06	124.32	110.28
33	L1	1707	C	O4'-C1'-N1	9.06	122.09	108.50
33	L1	2621	G	C2'-C3'-O3'	9.06	123.09	109.50
33	L1	3109	G	O4'-C1'-C2'	9.06	116.66	107.60
33	L1	1575	G	C1'-O4'-C4'	-9.06	100.84	109.90
27	SH	113	HIS	N-CA-CB	9.05	123.43	110.12
33	L1	531	G	O4'-C1'-N9	9.05	122.08	108.50
33	L1	1880	A	P-O5'-C5'	9.05	134.48	120.90
33	L1	2105	G	C1'-O4'-C4'	9.05	118.95	109.90
48	LV	137	ILE	O-C-N	-9.05	113.48	123.26
48	LV	153	GLU	CB-CG-CD	9.05	127.99	112.60
15	SS	56	TYR	CA-C-N	9.05	132.75	120.44
15	SS	56	TYR	C-N-CA	9.05	132.75	120.44
69	La	45	GLY	N-CA-C	-9.05	91.73	113.18
33	L1	518	G	C1'-O4'-C4'	-9.05	100.85	109.90
33	L1	2902	A	O4'-C1'-N9	9.05	122.08	108.50
33	L1	3051	U	C1'-C2'-O2'	9.05	121.97	108.40
64	LG	171	LYS	N-CA-C	9.05	122.80	112.57
32	S1	1315	U	O4'-C1'-C2'	-9.05	98.55	107.60
33	L1	159	G	C1'-O4'-C4'	-9.05	100.85	109.90
33	L1	347	A	P-O5'-C5'	9.05	134.47	120.90
33	L1	1738	A	O3'-P-O5'	-9.05	90.43	104.00
33	L1	3108	U	O4'-C1'-N1	9.05	122.07	108.50
57	L1	52	LYS	CB-CA-C	-9.05	96.53	110.92
60	Lr	46	LYS	CA-C-O	-9.05	107.57	120.51
1	Sa	242	VAL	CB-CA-C	-9.04	100.07	111.92
4	SD	130	GLN	N-CA-C	-9.04	94.16	108.90
33	L1	2994	U	C3'-C2'-C1'	9.04	110.34	101.30
33	L1	3036	C	N1-C1'-C2'	9.04	125.57	112.00
33	L1	3100	C	O3'-P-O5'	9.04	117.56	104.00
33	L1	2562	A	C5'-C4'-C3'	9.04	129.56	116.00
33	L1	2729	C	P-O3'-C3'	9.04	133.76	120.20
48	LV	155	GLU	CA-CB-CG	9.04	132.18	114.10
15	SS	92	PRO	CB-CA-C	-9.04	99.89	110.92
33	L1	1786	G	C1'-O4'-C4'	-9.04	100.86	109.90
80	LC	276	HIS	CA-CB-CG	9.04	122.84	113.80
32	S1	1070	A	P-O5'-C5'	9.03	134.45	120.90
33	L1	74	G	O4'-C1'-C2'	9.04	116.64	107.60
56	Lh	10	ILE	N-CA-C	9.03	119.02	110.53
33	L1	2053	A	C1'-O4'-C4'	9.03	118.93	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	SH	78	ARG	O-C-N	-9.03	105.02	121.63
46	LT	137	VAL	N-CA-CB	9.03	126.13	111.23
10	SL	118	ARG	N-CA-C	-9.03	91.57	110.80
33	L1	3001	G	O4'-C1'-C2'	9.03	116.63	107.60
33	L1	3087	A	O4'-C4'-C3'	-9.03	97.07	106.10
84	LI	109	ASP	CA-C-N	-9.03	104.30	121.54
84	LI	109	ASP	C-N-CA	-9.03	104.30	121.54
14	SP	103	LYS	CG-CD-CE	9.02	132.05	111.30
31	S2	8	U	N1-C1'-C2'	-9.02	98.47	112.00
32	S1	119	U	N1-C1'-C2'	9.02	125.53	112.00
34	L3	20	C	P-O5'-C5'	9.02	134.43	120.90
38	LE	111	HIS	CB-CG-CD2	-9.02	119.47	131.20
32	S1	1758	G	O4'-C1'-N9	9.02	122.03	108.50
34	L3	116	U	O4'-C1'-C2'	-9.02	98.58	107.60
79	Ls	121	PRO	CB-CA-C	9.02	124.85	111.68
32	S1	1566	U	C3'-C2'-C1'	9.02	110.31	101.30
33	L1	1265	G	C1'-O4'-C4'	9.02	128.03	110.00
4	SD	136	ILE	CB-CG1-CD1	9.01	132.72	113.80
33	L1	2439	A	C3'-C2'-C1'	-9.01	92.29	101.30
45	LQ	256	SER	CA-C-N	-9.01	106.93	123.05
45	LQ	256	SER	C-N-CA	-9.01	106.93	123.05
81	LD	311	ASN	O-C-N	-9.01	112.57	122.12
3	SB	44	MET	CA-CB-CG	9.00	132.10	114.10
33	L1	2946	U	C1'-O4'-C4'	9.00	118.90	109.90
7	SI	144	PHE	CA-CB-CG	9.00	122.80	113.80
35	L2	46	G	O4'-C1'-C2'	-9.00	98.60	107.60
32	S1	988	G	C1'-O4'-C4'	-9.00	100.90	109.90
33	L1	2179	U	O4'-C1'-C2'	-9.00	98.60	107.60
5	SE	90	MET	N-CA-CB	9.00	125.70	110.49
31	S2	16	U	C3'-C2'-C1'	9.00	110.30	101.30
32	S1	25	C	P-O3'-C3'	9.00	133.70	120.20
32	S1	513	G	N9-C1'-C2'	9.00	125.50	112.00
32	S1	1116	G	N9-C1'-C2'	9.00	125.49	112.00
11	SM	12	ILE	CA-CB-CG2	-8.99	95.21	110.50
34	L3	39	C	O4'-C1'-C2'	-8.99	98.61	107.60
64	LG	51	TYR	N-CA-C	8.99	129.69	109.81
33	L1	2789	G	O4'-C1'-C2'	8.99	116.59	107.60
57	L1	74	PHE	N-CA-CB	8.99	123.04	109.91
33	L1	1504	U	N1-C1'-C2'	8.99	125.48	112.00
33	L1	2437	A	N9-C1'-C2'	8.99	125.48	112.00
11	SM	104	ASP	CB-CA-C	-8.99	95.87	110.79
33	L1	1181	A	C4'-C3'-C2'	8.99	111.59	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	18	G	P-O3'-C3'	8.98	133.68	120.20
33	L1	1859	G	O4'-C1'-C2'	-8.98	98.62	107.60
49	LX	35	LYS	N-CA-C	8.98	122.20	111.33
32	S1	1661	C	O3'-P-O5'	8.98	117.47	104.00
81	LD	359	LEU	CB-CA-C	-8.98	96.71	110.90
32	S1	934	A	C3'-C2'-C1'	-8.98	92.32	101.30
33	L1	1757	G	O4'-C1'-N9	8.98	121.97	108.50
35	L2	64	U	C3'-C2'-C1'	8.98	110.48	101.50
45	LQ	257	THR	CA-CB-CG2	8.98	125.77	110.50
25	SC	136	ILE	N-CA-C	8.98	128.01	109.34
33	L1	3051	U	O4'-C1'-C2'	8.98	116.58	107.60
33	L1	1751	G	P-O3'-C3'	8.97	133.66	120.20
33	L1	2779	G	N9-C1'-C2'	-8.97	98.54	112.00
64	LG	97	LYS	N-CA-CB	8.97	128.22	111.53
20	SZ	46	THR	N-CA-CB	8.97	125.65	110.49
32	S1	1572	U	C3'-C2'-C1'	8.97	110.27	101.30
33	L1	1073	G	O4'-C1'-N9	8.97	121.96	108.50
33	L1	1215	U	N1-C1'-C2'	8.97	125.46	112.00
32	S1	574	A	O4'-C1'-C2'	-8.97	98.63	107.60
13	SQ	62	GLN	N-CA-C	8.97	124.02	109.94
32	S1	1545	A	P-O3'-C3'	8.97	133.65	120.20
33	L1	460	A	N9-C1'-C2'	-8.97	98.55	112.00
35	L2	99	G	C1'-O4'-C4'	8.97	118.87	109.90
31	S2	72	G	N9-C1'-C2'	-8.96	98.55	112.00
32	S1	419	C	O4'-C1'-C2'	-8.96	98.64	107.60
14	SP	112	VAL	CB-CA-C	-8.96	100.32	111.88
15	SS	39	ILE	N-CA-C	8.96	119.02	110.42
32	S1	232	C	O4'-C1'-C2'	-8.96	98.64	107.60
32	S1	1665	U	N1-C1'-C2'	8.96	125.44	112.00
35	L2	13	G	O4'-C1'-C2'	8.96	116.56	107.60
32	S1	299	A	C1'-O4'-C4'	8.96	118.86	109.90
4	SD	45	ILE	N-CA-CB	-8.96	100.07	110.55
32	S1	917	U	C5'-C4'-C3'	-8.96	101.77	115.20
32	S1	1126	C	C1'-O4'-C4'	-8.96	100.94	109.90
33	L1	1817	U	P-O3'-C3'	-8.96	106.77	120.20
33	L1	2273	C	P-O3'-C3'	8.96	133.63	120.20
33	L1	2984	A	C5'-C4'-O4'	8.96	122.53	109.10
27	SH	30	SER	CA-C-N	8.95	133.00	120.29
27	SH	30	SER	C-N-CA	8.95	133.00	120.29
33	L1	1274	A	O4'-C1'-N9	8.95	121.93	108.50
33	L1	3084	G	C1'-O4'-C4'	-8.95	100.95	109.90
68	LW	52	ALA	CA-C-O	-8.95	111.48	120.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	SB	139	SER	N-CA-CB	-8.95	95.41	109.19
33	L1	3090	C	N1-C1'-C2'	8.95	125.42	112.00
33	L1	64	A	O4'-C1'-C2'	8.95	114.75	105.80
33	L1	858	U	O4'-C4'-C3'	-8.95	95.05	104.00
33	L1	2944	C	O4'-C1'-C2'	-8.95	98.65	107.60
33	L1	2992	G	N9-C1'-C2'	-8.95	98.58	112.00
33	L1	2401	A	O4'-C1'-C2'	-8.95	96.85	105.80
15	SS	63	ILE	CB-CA-C	8.95	124.22	112.14
32	S1	1640	C	P-O3'-C3'	8.94	133.62	120.20
33	L1	339	G	P-O3'-C3'	8.95	133.62	120.20
33	L1	2744	C	N1-C1'-C2'	8.94	125.42	112.00
32	S1	1797	C	N1-C1'-C2'	8.94	125.41	112.00
33	L1	113	A	N9-C1'-C2'	-8.94	98.59	112.00
33	L1	963	U	O4'-C1'-N1	-8.94	95.09	108.50
32	S1	508	U	O4'-C1'-N1	8.94	121.91	108.50
32	S1	1064	U	O4'-C1'-N1	8.94	121.91	108.50
38	LE	41	GLN	CB-CG-CD	-8.94	97.41	112.60
32	S1	1064	U	O4'-C1'-C2'	-8.94	98.67	107.60
33	L1	2248	G	C4'-C3'-C2'	-8.94	93.67	102.60
33	L1	2477	G	N9-C1'-C2'	-8.94	98.60	112.00
33	L1	2736	A	O4'-C1'-N9	8.94	121.91	108.50
35	L2	76	A	P-O3'-C3'	-8.94	106.80	120.20
64	LG	57	LYS	O-C-N	-8.94	112.53	120.48
78	Le	68	LYS	CB-CG-CD	8.94	131.85	111.30
33	L1	69	U	C3'-C2'-C1'	8.93	110.23	101.30
34	L3	15	C	O3'-P-O5'	-8.93	90.61	104.00
33	L1	350	A	C3'-C2'-C1'	-8.93	92.57	101.50
33	L1	1863	A	N9-C1'-C2'	-8.93	98.61	112.00
23	SU	24	SER	O-C-N	8.93	134.46	122.59
32	S1	1196	C	N1-C1'-C2'	8.93	125.39	112.00
33	L1	1018	C	O4'-C1'-C2'	-8.93	98.67	107.60
33	L1	2153	U	O4'-C1'-N1	8.92	121.58	108.20
48	LV	47	TYR	O-C-N	-8.92	112.88	122.07
60	Lr	100	LYS	CA-C-N	-8.92	114.14	122.80
60	Lr	100	LYS	C-N-CA	-8.92	114.14	122.80
79	Ls	35	ASN	CA-CB-CG	8.92	121.52	112.60
32	S1	1757	G	C3'-C2'-C1'	8.92	110.22	101.30
13	SQ	63	ARG	CA-C-N	-8.92	107.87	121.87
13	SQ	63	ARG	C-N-CA	-8.92	107.87	121.87
33	L1	498	G	P-O5'-C5'	8.92	133.38	120.00
33	L1	2171	A	C2'-C3'-O3'	8.92	122.88	109.50
33	L1	2592	G	C1'-O4'-C4'	-8.92	100.98	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2709	G	C1'-O4'-C4'	-8.92	100.98	109.90
34	L3	117	U	P-O5'-C5'	-8.92	107.52	120.90
32	S1	474	A	O4'-C1'-C2'	-8.91	98.69	107.60
33	L1	627	G	N9-C1'-C2'	8.91	125.37	112.00
34	L3	22	A	O4'-C1'-N9	8.91	121.87	108.50
81	LD	209	LYS	CA-C-O	8.91	129.96	120.33
33	L1	2497	A	P-O5'-C5'	8.91	134.27	120.90
30	S3	16	G	C1'-O4'-C4'	8.91	118.81	109.90
33	L1	226	U	P-O5'-C5'	8.91	134.26	120.90
33	L1	306	A	O4'-C1'-C2'	8.91	116.51	107.60
45	LQ	257	THR	CB-CA-C	-8.91	94.50	110.36
24	SX	75	LEU	CB-CA-C	-8.91	92.70	110.42
33	L1	3203	G	C1'-O4'-C4'	8.91	118.81	109.90
27	SH	18	GLU	N-CA-C	-8.90	102.37	113.23
33	L1	154	G	P-O3'-C3'	8.90	133.56	120.20
33	L1	519	C	N1-C1'-C2'	8.90	125.36	112.00
33	L1	2091	U	C1'-O4'-C4'	8.90	118.80	109.90
46	LT	172	ARG	CB-CA-C	-8.90	96.01	110.79
71	Lj	4	ARG	CA-C-O	8.90	130.18	120.92
33	L1	241	G	O4'-C1'-C2'	8.90	116.50	107.60
33	L1	397	A	C5'-C4'-C3'	-8.90	102.65	116.00
33	L1	1428	G	O4'-C1'-N9	8.90	121.85	108.50
34	L3	76	U	O3'-P-O5'	-8.90	90.65	104.00
80	LC	319	GLY	N-CA-C	8.90	123.19	110.46
32	S1	159	U	P-O3'-C3'	8.90	133.55	120.20
32	S1	902	C	O4'-C1'-C2'	-8.90	96.90	105.80
38	LE	8	LEU	N-CA-C	8.90	129.75	110.80
46	LT	63	ALA	N-CA-C	8.90	121.06	111.36
15	SS	50	PRO	CA-C-N	8.89	133.83	120.31
15	SS	50	PRO	C-N-CA	8.89	133.83	120.31
33	L1	3390	G	P-O3'-C3'	8.89	133.54	120.20
25	SC	171	PRO	CB-CG-CD	-8.89	77.64	106.10
33	L1	240	U	N1-C1'-C2'	8.89	125.34	112.00
33	L1	1767	G	O4'-C1'-N9	8.89	121.84	108.50
33	L1	2584	U	P-O3'-C3'	8.89	133.54	120.20
33	L1	1056	U	P-O3'-C3'	8.89	133.53	120.20
33	L1	2011	G	P-O3'-C3'	8.89	133.53	120.20
42	LP	120	TRP	N-CA-CB	-8.89	95.94	110.43
32	S1	493	C	P-O3'-C3'	8.89	133.53	120.20
69	La	25	ILE	CA-CB-CG1	8.89	125.51	110.40
32	S1	222	G	P-O5'-C5'	8.88	134.23	120.90
32	S1	1088	G	O4'-C1'-C2'	-8.88	98.72	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	147	G	P-O3'-C3'	8.88	133.52	120.20
33	L1	3197	C	O3'-P-O5'	-8.88	90.68	104.00
32	S1	453	C	C3'-C2'-C1'	8.88	110.18	101.30
73	Lp	43	ASN	CB-CA-C	8.88	125.83	111.36
81	LD	117	ARG	NE-CZ-NH2	8.88	127.19	119.20
8	SJ	89	PHE	CA-CB-CG	8.88	122.68	113.80
33	L1	24	C	C4'-C3'-C2'	-8.88	93.72	102.60
9	SK	132	THR	CA-C-O	8.88	132.32	120.16
16	SR	127	GLU	N-CA-CB	-8.88	97.20	110.07
32	S1	29	U	P-O3'-C3'	8.88	133.51	120.20
33	L1	473	G	O4'-C1'-C2'	-8.88	98.72	107.60
11	SM	61	ALA	N-CA-C	8.87	120.56	111.07
32	S1	1442	A	O4'-C1'-C2'	-8.87	98.73	107.60
33	L1	2460	A	O4'-C1'-N9	8.87	121.51	108.20
32	S1	592	U	P-O3'-C3'	8.87	133.51	120.20
32	S1	1101	C	O4'-C1'-C2'	-8.87	98.73	107.60
32	S1	1302	C	C3'-C2'-C1'	8.87	110.17	101.30
33	L1	800	C	O4'-C1'-C2'	-8.87	98.73	107.60
33	L1	1348	G	N9-C1'-C2'	8.87	125.31	112.00
33	L1	637	C	O4'-C1'-C2'	-8.87	98.73	107.60
33	L1	1042	C	O4'-C1'-C2'	-8.87	98.73	107.60
33	L1	1457	A	P-O3'-C3'	8.87	133.50	120.20
33	L1	2518	A	O4'-C4'-C3'	-8.87	95.13	104.00
69	La	24	VAL	CA-C-N	8.87	134.22	121.80
69	La	24	VAL	C-N-CA	8.87	134.22	121.80
11	SM	145	THR	CA-C-O	8.87	130.16	120.94
33	L1	492	G	C3'-C2'-C1'	-8.87	92.43	101.30
1	Sa	252	ILE	CB-CA-C	8.87	123.44	112.45
15	SS	11	ASP	CA-C-N	8.86	135.59	122.91
15	SS	11	ASP	C-N-CA	8.86	135.59	122.91
33	L1	2021	G	O4'-C1'-C2'	-8.86	98.74	107.60
11	SM	37	GLY	N-CA-C	-8.86	100.43	112.57
32	S1	734	C	C5'-C4'-C3'	8.86	128.19	114.90
33	L1	232	C	N1-C1'-C2'	8.86	125.30	112.00
33	L1	755	C	P-O3'-C3'	8.86	133.49	120.20
33	L1	1790	A	N9-C1'-C2'	8.86	127.29	114.00
33	L1	473	G	C1'-O4'-C4'	8.86	118.76	109.90
33	L1	1056	U	N1-C1'-C2'	8.86	125.29	112.00
44	LR	97	ALA	CA-C-N	-8.86	104.62	121.54
44	LR	97	ALA	C-N-CA	-8.86	104.62	121.54
64	LG	20	TYR	CA-CB-CG	-8.86	97.95	113.90
78	Le	162	ARG	CB-CA-C	-8.86	95.45	110.16

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	719	U	P-O3'-C3'	8.86	133.49	120.20
32	S1	1760	A	P-O3'-C3'	8.86	133.49	120.20
33	L1	2490	U	C3'-C2'-C1'	8.86	110.36	101.50
14	SP	41	LEU	CB-CA-C	8.86	133.34	113.33
32	S1	1226	U	C4'-C3'-C2'	-8.86	93.74	102.60
73	Lp	52	LYS	CB-CA-C	-8.86	94.33	109.83
25	SC	161	SER	N-CA-CB	8.86	125.45	110.49
29	ST	54	LEU	CA-C-N	8.85	131.95	120.44
29	ST	54	LEU	C-N-CA	8.85	131.95	120.44
72	Lk	39	ARG	CA-C-N	8.85	137.64	121.70
72	Lk	39	ARG	C-N-CA	8.85	137.64	121.70
1	Sa	67	GLY	N-CA-C	-8.85	95.99	112.10
32	S1	1613	G	P-O3'-C3'	8.85	133.48	120.20
33	L1	3057	A	P-O3'-C3'	8.85	133.48	120.20
34	L3	55	A	O3'-P-O5'	8.85	117.28	104.00
4	SD	138	TYR	N-CA-C	-8.85	94.16	108.41
27	SH	121	VAL	CA-CB-CG2	8.85	125.44	110.40
32	S1	1473	C	O5'-C5'-C4'	-8.85	98.22	111.50
33	L1	1696	G	C1'-O4'-C4'	8.85	118.75	109.90
25	SC	65	ASP	CB-CA-C	8.85	128.03	110.42
3	SB	74	GLN	OE1-CD-NE2	-8.85	113.75	122.60
5	SE	73	LYS	CA-C-N	8.85	131.94	120.44
5	SE	73	LYS	C-N-CA	8.85	131.94	120.44
33	L1	1346	C	C1'-C2'-O2'	8.85	121.67	108.40
55	Lg	72	ILE	N-CA-C	8.85	119.64	110.62
32	S1	148	C	O3'-P-O5'	-8.84	90.74	104.00
32	S1	1110	C	O4'-C1'-C2'	-8.84	98.76	107.60
32	S1	1517	C	C3'-C2'-C1'	8.84	110.14	101.30
15	SS	93	PRO	N-CA-CB	-8.84	93.24	103.23
33	L1	83	U	O3'-P-O5'	-8.84	90.74	104.00
33	L1	789	A	C2'-C3'-O3'	8.84	122.76	109.50
60	Lr	90	HIS	CE1-NE2-CD2	-8.84	100.16	109.00
32	S1	664	G	O3'-P-O5'	-8.84	90.75	104.00
80	LC	314	GLY	CA-C-O	8.83	130.61	122.39
33	L1	532	G	C1'-C2'-O2'	8.83	121.65	108.40
82	LK	128	ALA	CA-C-N	8.83	135.68	120.58
82	LK	128	ALA	C-N-CA	8.83	135.68	120.58
33	L1	1650	G	C5'-C4'-C3'	8.83	129.24	116.00
68	LW	61	ASP	CA-CB-CG	8.83	121.43	112.60
15	SS	7	ARG	CB-CA-C	8.83	124.95	110.92
33	L1	2160	C	O4'-C1'-C2'	-8.83	98.77	107.60
33	L1	207	U	N1-C1'-C2'	-8.82	98.76	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	164	C	N1-C1'-C2'	8.82	125.23	112.00
32	S1	192	G	C3'-C2'-C1'	-8.82	92.48	101.30
70	Li	108	LYS	N-CA-CB	8.82	125.40	110.49
27	SH	106	THR	CA-C-N	-8.82	109.00	120.65
27	SH	106	THR	C-N-CA	-8.82	109.00	120.65
32	S1	221	U	P-O5'-C5'	8.82	134.13	120.90
32	S1	1511	A	O4'-C1'-N9	8.82	121.73	108.50
33	L1	1297	U	O4'-C1'-C2'	8.82	116.42	107.60
32	S1	1760	A	O4'-C1'-C2'	-8.82	96.98	105.80
33	L1	3310	A	C5'-C4'-C3'	8.82	129.22	116.00
32	S1	903	A	C2'-C3'-O3'	8.81	122.72	109.50
33	L1	2439	A	C1'-O4'-C4'	-8.81	101.09	109.90
33	L1	2726	U	C1'-O4'-C4'	-8.81	101.08	109.90
33	L1	2760	U	P-O5'-C5'	8.81	134.12	120.90
33	L1	667	C	C5'-C4'-C3'	8.81	129.22	116.00
27	SH	109	GLY	CA-C-O	8.81	130.81	121.83
33	L1	257	C	N1-C1'-C2'	8.81	125.21	112.00
33	L1	545	C	N1-C1'-C2'	8.81	125.21	112.00
32	S1	46	A	O4'-C1'-N9	8.80	121.41	108.20
33	L1	2587	G	O4'-C1'-N9	8.81	121.71	108.50
33	L1	2096	U	O4'-C1'-N1	8.80	121.71	108.50
33	L1	771	G	O3'-P-O5'	-8.80	90.80	104.00
33	L1	1651	A	N9-C1'-C2'	8.80	125.20	112.00
33	L1	1690	C	O4'-C1'-N1	8.80	121.70	108.50
48	LV	117	HIS	CB-CA-C	8.80	124.76	109.80
32	S1	611	G	O4'-C1'-C2'	8.80	114.60	105.80
64	LG	206	PHE	CA-C-N	8.80	131.88	120.44
64	LG	206	PHE	C-N-CA	8.80	131.88	120.44
70	Li	47	THR	N-CA-C	-8.80	96.03	109.41
33	L1	2361	C	C1'-O4'-C4'	8.80	118.70	109.90
73	Lp	30	ARG	N-CA-C	8.80	123.31	112.23
15	SS	21	TYR	CA-C-N	8.79	132.06	120.28
15	SS	21	TYR	C-N-CA	8.79	132.06	120.28
32	S1	400	G	O4'-C1'-C2'	-8.80	98.80	107.60
33	L1	467	C	C3'-C2'-C1'	8.80	110.10	101.30
33	L1	2376	G	C2'-C3'-O3'	8.79	122.69	109.50
45	LQ	248	ARG	CB-CG-CD	8.79	131.53	111.30
32	S1	184	C	P-O3'-C3'	8.79	133.39	120.20
33	L1	400	G	O4'-C1'-N9	8.79	121.39	108.20
33	L1	2837	C	C3'-C2'-C1'	8.79	110.09	101.30
35	L2	68	U	O3'-P-O5'	-8.79	90.81	104.00
9	SK	142	LYS	N-CA-C	8.79	129.52	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	SM	145	THR	O-C-N	-8.79	112.55	122.75
33	L1	3365	U	C3'-C2'-C1'	8.79	110.09	101.30
42	LP	20	ARG	N-CA-CB	8.79	123.04	110.12
32	S1	1178	C	O4'-C1'-C2'	-8.79	98.81	107.60
33	L1	842	C	P-O3'-C3'	8.79	133.38	120.20
42	LP	5	LYS	N-CA-C	8.79	120.86	111.28
33	L1	1260	G	N9-C1'-C2'	8.78	125.18	112.00
32	S1	301	U	N1-C1'-C2'	8.78	125.17	112.00
33	L1	1699	C	N1-C1'-C2'	8.78	125.17	112.00
7	SI	73	ILE	CA-C-O	8.78	128.60	119.91
13	SQ	69	ILE	CA-C-N	8.78	134.97	121.53
13	SQ	69	ILE	C-N-CA	8.78	134.97	121.53
32	S1	301	U	O4'-C1'-C2'	-8.78	98.82	107.60
32	S1	1037	G	N9-C1'-C2'	8.78	125.17	112.00
33	L1	211	A	C3'-C2'-C1'	8.78	110.08	101.30
33	L1	1913	C	P-O3'-C3'	-8.78	107.03	120.20
34	L3	1	G	C2'-C3'-O3'	8.78	122.67	109.50
81	LD	43	PHE	CA-CB-CG	-8.78	105.02	113.80
32	S1	1425	G	N9-C1'-C2'	8.78	125.17	112.00
32	S1	1759	A	O4'-C1'-N9	-8.78	95.34	108.50
33	L1	1893	G	O4'-C1'-N9	8.78	121.67	108.50
33	L1	2176	A	O4'-C1'-N9	8.78	121.66	108.50
33	L1	2596	A	C2'-C3'-O3'	8.78	122.66	109.50
32	S1	1632	C	N1-C1'-C2'	8.77	125.16	112.00
32	S1	1643	A	O4'-C1'-C2'	-8.77	98.83	107.60
33	L1	3383	C	C3'-C2'-C1'	8.77	110.07	101.30
31	S2	37	G	O4'-C1'-C2'	8.77	116.37	107.60
64	LG	183	VAL	N-CA-C	8.77	127.58	109.34
33	L1	1261	C	P-O5'-C5'	8.77	134.05	120.90
33	L1	2674	A	N9-C1'-C2'	-8.77	98.84	112.00
54	Lf	53	PRO	CA-C-O	-8.77	113.80	120.73
33	L1	2516	U	O4'-C1'-C2'	-8.77	98.83	107.60
33	L1	2810	A	C5'-C4'-C3'	8.77	128.35	115.20
37	LB	196	TRP	CB-CA-C	8.77	127.44	110.17
33	L1	1348	G	C5'-C4'-C3'	8.76	129.15	116.00
35	L2	49	C	N1-C1'-C2'	8.76	125.14	112.00
72	Lk	75	VAL	N-CA-C	8.76	119.56	110.62
2	SA	188	GLN	CA-C-N	-8.76	109.08	122.05
2	SA	188	GLN	C-N-CA	-8.76	109.08	122.05
10	SL	24	ASP	CA-CB-CG	8.76	121.36	112.60
33	L1	2511	U	O4'-C1'-N1	8.76	121.64	108.50
5	SE	51	GLY	CA-C-O	-8.76	112.22	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1119	G	O4'-C4'-C3'	-8.76	97.34	106.10
33	L1	1666	C	C3'-C2'-C1'	8.76	110.06	101.30
33	L1	2299	C	P-O3'-C3'	8.76	133.34	120.20
33	L1	3333	C	N1-C1'-C2'	8.76	125.14	112.00
2	SA	162	ASP	CA-CB-CG	8.76	121.36	112.60
3	SB	30	ALA	O-C-N	-8.76	110.94	122.59
25	SC	92	GLN	CB-CA-C	8.76	125.32	110.79
34	L3	56	G	N9-C1'-C2'	8.76	125.13	112.00
37	LB	29	PHE	CA-CB-CG	-8.76	105.04	113.80
33	L1	3156	G	C1'-O4'-C4'	8.75	118.65	109.90
33	L1	492	G	O4'-C1'-N9	8.75	121.63	108.50
33	L1	1368	U	P-O3'-C3'	-8.75	107.07	120.20
47	LU	142	GLU	N-CA-C	8.75	123.37	112.87
4	SD	45	ILE	CA-CB-CG2	8.75	125.38	110.50
35	L2	67	C	N1-C1'-C2'	8.75	125.13	112.00
33	L1	641	C	O4'-C4'-C3'	-8.75	95.25	104.00
33	L1	704	G	O4'-C1'-C2'	-8.75	98.85	107.60
33	L1	1674	A	O4'-C1'-C2'	-8.75	98.85	107.60
33	L1	3331	G	O4'-C1'-N9	8.75	121.62	108.50
60	Lr	12	CYS	CA-C-N	8.75	137.82	121.81
60	Lr	12	CYS	C-N-CA	8.75	137.82	121.81
74	LJ	109	ASP	CA-CB-CG	8.75	121.35	112.60
33	L1	73	A	C5'-C4'-O4'	-8.75	96.68	109.80
41	LM	70	PRO	CB-CA-C	-8.75	99.13	109.89
33	L1	2740	C	N1-C1'-C2'	8.75	125.12	112.00
33	L1	3334	A	C4'-C3'-C2'	-8.75	93.85	102.60
45	LQ	237	GLU	CA-C-N	8.74	137.44	121.70
45	LQ	237	GLU	C-N-CA	8.74	137.44	121.70
23	SU	76	THR	CA-C-N	-8.74	110.84	122.03
23	SU	76	THR	C-N-CA	-8.74	110.84	122.03
32	S1	485	A	P-O5'-C5'	8.74	134.02	120.90
32	S1	1568	U	P-O3'-C3'	8.74	133.31	120.20
33	L1	423	C	C3'-C2'-C1'	8.74	110.24	101.50
77	Lc	33	LEU	CA-C-N	8.74	132.33	120.44
77	Lc	33	LEU	C-N-CA	8.74	132.33	120.44
10	SL	117	VAL	N-CA-C	-8.74	91.16	109.34
33	L1	2498	C	O3'-P-O5'	-8.74	90.89	104.00
33	L1	938	U	N1-C1'-C2'	-8.74	98.89	112.00
1	Sa	4	VAL	CA-C-N	8.74	134.66	120.94
1	Sa	4	VAL	C-N-CA	8.74	134.66	120.94
33	L1	294	A	C1'-O4'-C4'	8.73	118.63	109.90
50	LZ	52	THR	N-CA-C	8.73	120.42	111.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
80	LC	68	HIS	CA-C-N	8.73	138.22	121.54
80	LC	68	HIS	C-N-CA	8.73	138.22	121.54
3	SB	159	SER	CA-CB-OG	-8.73	93.64	111.10
34	L3	40	A	N9-C1'-C2'	-8.73	98.90	112.00
32	S1	633	U	N1-C1'-C2'	-8.73	86.21	112.40
32	S1	1231	A	C3'-C2'-C1'	8.73	110.03	101.30
33	L1	3168	C	C3'-C2'-C1'	8.73	110.03	101.30
33	L1	1367	A	C3'-C2'-C1'	8.73	110.03	101.30
33	L1	1787	C	C1'-C2'-O2'	8.73	121.49	108.40
64	LG	68	PRO	CA-C-N	-8.73	104.87	121.54
64	LG	68	PRO	C-N-CA	-8.73	104.87	121.54
33	L1	1878	G	C1'-C2'-O2'	8.72	121.49	108.40
33	L1	3001	G	N9-C1'-C2'	8.72	125.09	112.00
33	L1	1247	G	O4'-C1'-C2'	8.72	116.32	107.60
34	L3	8	A	C1'-O4'-C4'	-8.72	101.18	109.90
17	SV	78	ARG	N-CA-CB	8.72	123.40	110.49
32	S1	1775	A	N9-C1'-C2'	8.72	127.08	114.00
33	L1	766	C	N1-C1'-C2'	8.72	125.08	112.00
32	S1	576	C	O4'-C1'-C2'	-8.72	98.88	107.60
33	L1	897	U	O4'-C1'-C2'	8.72	114.52	105.80
70	Li	41	GLY	CA-C-O	-8.72	109.05	121.52
6	SF	81	LYS	CB-CA-C	-8.72	90.89	110.07
10	SL	5	ARG	CA-C-N	8.72	138.50	121.41
10	SL	5	ARG	C-N-CA	8.72	138.50	121.41
13	SQ	82	MET	CA-C-N	-8.72	104.89	121.54
13	SQ	82	MET	C-N-CA	-8.72	104.89	121.54
33	L1	1737	C	O3'-P-O5'	8.72	117.08	104.00
33	L1	233	C	C1'-O4'-C4'	-8.71	101.19	109.90
34	L3	9	U	P-O5'-C5'	8.71	133.97	120.90
56	Lh	38	GLY	N-CA-C	8.71	121.56	111.36
70	Li	111	LYS	N-CA-C	8.71	121.77	110.53
7	SI	131	GLU	CA-C-N	8.71	130.73	119.84
7	SI	131	GLU	C-N-CA	8.71	130.73	119.84
33	L1	1197	A	N9-C1'-C2'	8.71	125.07	112.00
23	SU	23	LEU	N-CA-CB	-8.71	95.77	110.49
32	S1	1435	G	C1'-O4'-C4'	-8.71	101.19	109.90
33	L1	553	C	P-O3'-C3'	8.71	133.26	120.20
33	L1	1136	A	C1'-C2'-O2'	8.71	121.47	108.40
33	L1	2900	G	N9-C1'-C2'	8.71	125.07	112.00
32	S1	1658	U	C3'-C2'-C1'	8.71	110.01	101.30
1	Sa	179	ASP	CA-C-N	8.71	138.17	121.54
1	Sa	179	ASP	C-N-CA	8.71	138.17	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	SS	124	ARG	CB-CA-C	-8.71	95.17	109.53
32	S1	622	U	O4'-C1'-C2'	-8.71	98.89	107.60
33	L1	521	G	C1'-O4'-C4'	-8.71	101.00	109.70
33	L1	3208	G	O4'-C1'-N9	8.71	121.56	108.50
80	LC	357	GLU	CA-C-N	-8.71	106.30	121.97
80	LC	357	GLU	C-N-CA	-8.71	106.30	121.97
1	Sa	147	MET	CA-C-O	-8.70	110.44	118.79
27	SH	28	ARG	CA-C-O	-8.70	108.24	120.16
46	LT	85	ARG	CA-C-N	8.70	133.54	120.31
46	LT	85	ARG	C-N-CA	8.70	133.54	120.31
33	L1	841	G	P-O3'-C3'	8.70	133.25	120.20
33	L1	3079	G	P-O3'-C3'	8.70	133.25	120.20
17	SV	13	SER	O-C-N	-8.70	111.02	122.59
33	L1	2467	A	C2'-C3'-O3'	8.70	122.55	109.50
33	L1	1825	G	C1'-O4'-C4'	-8.70	101.20	109.90
33	L1	1907	A	C3'-C2'-C1'	-8.70	92.60	101.30
33	L1	2725	U	N1-C1'-C2'	8.70	125.05	112.00
32	S1	545	A	P-O3'-C3'	8.70	133.24	120.20
77	Lc	13	ASN	CA-CB-CG	-8.70	103.90	112.60
23	SU	78	PHE	O-C-N	-8.69	114.12	123.42
33	L1	409	U	O4'-C1'-C2'	8.69	116.29	107.60
33	L1	845	G	O4'-C1'-N9	8.69	121.54	108.50
33	L1	2505	C	O4'-C1'-C2'	-8.69	98.91	107.60
32	S1	689	C	P-O3'-C3'	8.69	133.24	120.20
33	L1	3081	G	C2'-C3'-O3'	8.69	122.53	109.50
33	L1	492	G	P-O3'-C3'	8.69	133.23	120.20
33	L1	1525	U	N1-C1'-C2'	8.69	127.03	114.00
33	L1	2460	A	P-O5'-C5'	8.69	133.93	120.90
33	L1	2772	A	N9-C1'-C2'	8.69	125.03	112.00
33	L1	795	C	P-O3'-C3'	-8.68	107.17	120.20
48	LV	7	GLU	CA-C-N	8.68	138.13	121.54
48	LV	7	GLU	C-N-CA	8.68	138.13	121.54
33	L1	2622	G	C1'-O4'-C4'	-8.68	101.22	109.90
33	L1	30	C	N1-C1'-C2'	8.68	125.02	112.00
33	L1	1075	G	N9-C1'-C2'	8.68	125.02	112.00
32	S1	308	U	N1-C1'-C2'	8.68	125.02	112.00
33	L1	536	C	O4'-C1'-C2'	-8.68	98.92	107.60
33	L1	2617	G	P-O5'-C5'	-8.68	107.88	120.90
32	S1	1058	G	P-O5'-C5'	8.68	133.91	120.90
32	S1	1361	G	P-O3'-C3'	8.68	133.22	120.20
67	LS	83	TYR	N-CA-CB	8.68	125.93	110.83
32	S1	1462	C	C3'-C2'-C1'	8.67	110.17	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1729	A	N9-C1'-C2'	8.67	125.01	112.00
33	L1	47	A	C1'-O4'-C4'	-8.67	101.03	109.70
33	L1	1501	A	C1'-O4'-C4'	-8.67	101.23	109.90
31	S2	52	G	O4'-C1'-C2'	8.67	116.27	107.60
33	L1	74	G	C1'-O4'-C4'	-8.67	101.23	109.90
33	L1	2348	U	P-O3'-C3'	-8.67	107.20	120.20
34	L3	8	A	O4'-C1'-C2'	8.67	116.27	107.60
64	LG	184	ILE	CA-C-N	-8.67	104.98	121.54
64	LG	184	ILE	C-N-CA	-8.67	104.98	121.54
33	L1	590	C	C1'-C2'-O2'	8.67	121.40	108.40
48	LV	79	ASN	CA-CB-CG	8.67	121.27	112.60
32	S1	1262	U	O4'-C1'-C2'	-8.66	98.94	107.60
33	L1	69	U	C1'-O4'-C4'	-8.66	101.23	109.90
33	L1	1383	G	C1'-C2'-O2'	8.66	121.40	108.40
33	L1	3350	C	C1'-O4'-C4'	-8.66	101.23	109.90
81	LD	303	VAL	CA-C-O	8.66	135.53	120.80
3	SB	102	ALA	CA-C-N	8.66	132.75	120.28
3	SB	102	ALA	C-N-CA	8.66	132.75	120.28
32	S1	955	C	N1-C1'-C2'	8.66	124.99	112.00
33	L1	1742	G	O4'-C1'-C2'	-8.66	98.94	107.60
31	S2	45	G	O4'-C1'-C2'	-8.66	97.14	105.80
33	L1	462	C	C1'-O4'-C4'	-8.66	101.24	109.90
81	LD	96	PHE	CA-C-N	-8.66	114.13	121.58
32	S1	1771	U	O4'-C1'-N1	8.66	121.19	108.20
33	L1	1525	U	C1'-C2'-O2'	-8.66	98.81	111.80
33	L1	1624	G	O4'-C1'-C2'	-8.66	98.94	107.60
51	LY	59	ARG	N-CA-C	8.66	120.49	111.14
81	LD	96	PHE	C-N-CA	-8.66	114.13	121.58
32	S1	258	U	N1-C1'-C2'	8.66	124.98	112.00
33	L1	1122	C	O4'-C1'-C2'	-8.66	98.94	107.60
32	S1	388	G	P-O3'-C3'	8.66	133.18	120.20
82	LK	113	VAL	O-C-N	-8.66	111.23	121.10
32	S1	299	A	O4'-C1'-C2'	-8.65	98.94	107.60
33	L1	1458	U	C1'-C2'-O2'	8.65	124.78	111.80
33	L1	2459	U	C1'-O4'-C4'	8.65	118.55	109.90
33	L1	2686	U	C1'-O4'-C4'	-8.65	101.25	109.90
13	SQ	121	GLN	CA-C-N	8.65	132.74	120.28
13	SQ	121	GLN	C-N-CA	8.65	132.74	120.28
33	L1	484	C	P-O3'-C3'	-8.65	107.22	120.20
33	L1	695	G	N9-C1'-C2'	-8.65	99.02	112.00
5	SE	117	ASN	N-CA-CB	8.65	125.11	110.49
33	L1	1034	U	C4'-C3'-O3'	-8.65	100.02	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1317	G	N9-C1'-C2'	-8.65	99.02	112.00
80	LC	243	ARG	N-CA-C	-8.65	96.70	108.38
78	Le	174	GLY	N-CA-C	-8.65	102.02	112.48
17	SV	56	PRO	CA-N-CD	-8.65	99.89	112.00
32	S1	974	C	O4'-C1'-C2'	-8.65	98.95	107.60
23	SU	15	ARG	N-CA-C	8.65	121.95	111.40
33	L1	381	G	C1'-O4'-C4'	8.65	118.55	109.90
33	L1	2213	G	C3'-C2'-C1'	-8.65	92.65	101.30
33	L1	3218	C	C1'-O4'-C4'	-8.64	101.26	109.90
51	LY	120	ARG	N-CA-C	8.64	120.70	111.28
33	L1	1132	A	P-O3'-C3'	8.64	133.16	120.20
46	LT	87	ALA	CA-C-O	8.64	129.86	120.10
33	L1	1789	C	P-O3'-C3'	8.64	133.16	120.20
32	S1	690	G	O3'-P-O5'	-8.64	91.05	104.00
33	L1	639	A	C1'-O4'-C4'	-8.64	101.26	109.90
33	L1	641	C	C5'-C4'-C3'	-8.64	103.04	116.00
33	L1	891	U	C1'-O4'-C4'	8.64	118.54	109.90
32	S1	1370	C	N1-C1'-C2'	8.64	124.95	112.00
33	L1	465	C	N1-C1'-C2'	8.63	124.95	112.00
33	L1	1506	A	N9-C1'-C2'	8.64	124.95	112.00
31	S2	4	G	C3'-C2'-C1'	-8.63	92.67	101.30
2	SA	222	ALA	CA-C-N	8.63	131.84	120.28
2	SA	222	ALA	C-N-CA	8.63	131.84	120.28
33	L1	2439	A	C1'-C2'-O2'	8.63	121.35	108.40
33	L1	3306	A	C4'-C3'-C2'	-8.63	93.97	102.60
74	LJ	14	PHE	N-CA-CB	8.63	122.71	109.85
32	S1	1710	C	O5'-C5'-C4'	8.63	123.74	110.80
33	L1	1183	C	C2'-C3'-O3'	8.63	122.44	109.50
33	L1	1527	A	O4'-C1'-C2'	-8.63	97.17	105.80
35	L2	53	G	C1'-C2'-O2'	8.63	121.34	108.40
32	S1	193	G	P-O3'-C3'	8.63	133.14	120.20
32	S1	1771	U	P-O3'-C3'	8.62	133.14	120.20
33	L1	1625	G	O4'-C1'-C2'	-8.62	98.97	107.60
33	L1	1883	A	O4'-C1'-C2'	-8.63	98.97	107.60
33	L1	2743	A	O4'-C1'-N9	8.63	121.44	108.50
46	LT	143	HIS	CE1-NE2-CD2	-8.62	100.38	109.00
32	S1	258	U	P-O5'-C5'	8.62	133.83	120.90
33	L1	2952	G	C2'-C3'-O3'	8.62	122.43	109.50
78	Le	13	LYS	O-C-N	-8.62	112.98	122.12
32	S1	449	A	C3'-C2'-C1'	8.62	109.92	101.30
34	L3	49	A	N9-C1'-C2'	8.62	124.93	112.00
60	Lr	24	LYS	N-CA-C	8.62	122.57	108.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	SM	12	ILE	CB-CA-C	-8.62	98.78	110.42
32	S1	446	C	O4'-C1'-C2'	-8.62	98.98	107.60
33	L1	2179	U	N1-C1'-C2'	8.62	124.92	112.00
33	L1	3101	C	C5'-C4'-O4'	-8.62	96.87	109.80
35	L2	155	G	C1'-O4'-C4'	-8.62	101.08	109.70
81	LD	197	LYS	CA-C-N	8.62	130.91	120.14
81	LD	197	LYS	C-N-CA	8.62	130.91	120.14
32	S1	974	C	C3'-C2'-C1'	8.62	109.92	101.30
33	L1	1948	G	C1'-O4'-C4'	8.62	118.52	109.90
33	L1	2274	A	C3'-C2'-C1'	8.62	110.12	101.50
33	L1	2391	C	C3'-C2'-C1'	8.62	109.92	101.30
40	LH	217	ASN	CA-CB-CG	8.61	121.21	112.60
33	L1	2334	G	C1'-C2'-O2'	8.61	124.72	111.80
33	L1	2793	G	P-O3'-C3'	8.61	133.12	120.20
32	S1	1058	G	P-O3'-C3'	8.61	133.11	120.20
33	L1	1019	A	C1'-O4'-C4'	8.61	118.51	109.90
33	L1	2697	A	N9-C1'-C2'	8.61	124.91	112.00
33	L1	222	C	N1-C1'-C2'	8.61	124.91	112.00
45	LQ	84	LEU	CA-C-O	-8.60	110.00	118.34
4	SD	189	THR	N-CA-CB	8.60	123.75	109.56
35	L2	65	A	C4'-C3'-C2'	8.60	111.20	102.60
36	LA	156	PHE	CA-CB-CG	-8.60	105.20	113.80
48	LV	9	ASN	CA-CB-CG	-8.60	104.00	112.60
33	L1	840	A	O4'-C1'-C2'	8.60	116.20	107.60
33	L1	897	U	C2'-C3'-O3'	8.60	122.40	109.50
33	L1	1801	G	P-O3'-C3'	8.60	133.10	120.20
33	L1	3244	G	P-O3'-C3'	8.60	133.10	120.20
4	SD	107	GLY	N-CA-C	8.60	128.19	115.64
32	S1	390	G	P-O3'-C3'	8.60	133.10	120.20
33	L1	754	G	O4'-C1'-N9	8.60	121.40	108.50
33	L1	1818	C	O3'-P-O5'	-8.60	91.10	104.00
25	SC	145	ILE	CA-C-O	-8.60	108.43	119.95
32	S1	1338	U	O4'-C1'-N1	8.60	121.39	108.50
33	L1	425	G	C1'-O4'-C4'	-8.60	101.30	109.90
33	L1	2763	C	N1-C1'-C2'	-8.60	99.11	112.00
31	S2	22	G	C1'-C2'-O2'	8.59	121.29	108.40
32	S1	1739	U	P-O3'-C3'	-8.59	107.31	120.20
33	L1	2290	A	O4'-C1'-N9	-8.59	95.61	108.50
33	L1	3149	C	C1'-O4'-C4'	-8.59	101.31	109.90
68	LW	57	GLY	CA-C-N	8.59	137.96	121.54
68	LW	57	GLY	C-N-CA	8.59	137.96	121.54
6	SF	147	ILE	CA-C-N	8.59	131.79	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	SF	147	ILE	C-N-CA	8.59	131.79	120.28
23	SU	18	MET	N-CA-C	8.59	122.13	109.07
33	L1	2836	G	C1'-O4'-C4'	-8.59	101.31	109.90
33	L1	3011	U	O4'-C1'-C2'	-8.59	99.01	107.60
32	S1	1664	U	O4'-C1'-N1	8.59	121.38	108.50
34	L3	117	U	O3'-P-O5'	8.59	116.89	104.00
67	LS	160	PRO	N-CA-CB	8.59	111.41	103.08
33	L1	2747	U	N1-C1'-C2'	8.59	124.88	112.00
35	L2	8	C	O4'-C1'-C2'	-8.59	99.01	107.60
32	S1	476	U	O4'-C1'-N1	8.59	121.38	108.50
33	L1	2813	A	O4'-C1'-C2'	8.59	116.19	107.60
33	L1	2847	A	O4'-C1'-C2'	-8.59	99.01	107.60
34	L3	50	A	O4'-C1'-C2'	-8.59	99.01	107.60
33	L1	347	A	O4'-C1'-C2'	8.58	114.38	105.80
25	SC	193	ASP	N-CA-C	8.58	121.40	110.24
33	L1	2614	U	C1'-O4'-C4'	8.58	118.48	109.90
33	L1	2619	C	N1-C1'-C2'	8.58	124.87	112.00
33	L1	3016	C	C4'-C3'-C2'	-8.58	94.02	102.60
33	L1	3349	C	N1-C1'-C2'	8.58	124.87	112.00
13	SQ	81	ARG	CB-CA-C	8.58	127.50	110.42
46	LT	6	LEU	N-CA-C	8.58	121.77	111.82
5	SE	148	VAL	N-CA-C	-8.58	96.15	108.42
33	L1	1898	G	O4'-C1'-N9	8.58	121.37	108.50
33	L1	2502	U	C2'-C3'-O3'	-8.58	100.83	113.70
33	L1	922	U	N1-C1'-C2'	8.58	124.87	112.00
33	L1	1498	U	N1-C1'-C2'	8.58	124.87	112.00
33	L1	1576	C	O4'-C1'-N1	-8.58	95.64	108.50
33	L1	1577	A	O4'-C1'-C2'	-8.58	99.02	107.60
33	L1	446	C	C1'-C2'-O2'	8.57	121.26	108.40
33	L1	701	U	O4'-C1'-C2'	-8.57	99.03	107.60
33	L1	1875	A	O4'-C4'-C3'	-8.57	97.53	106.10
17	SV	34	LYS	CB-CA-C	8.57	127.48	110.42
32	S1	1472	G	C1'-O4'-C4'	-8.57	101.33	109.90
33	L1	1017	G	P-O5'-C5'	8.57	133.76	120.90
66	LN	52	ARG	CA-C-N	8.57	136.21	121.64
66	LN	52	ARG	C-N-CA	8.57	136.21	121.64
81	LD	318	GLU	CB-CG-CD	-8.57	98.03	112.60
32	S1	636	U	C3'-C2'-C1'	8.57	109.87	101.30
32	S1	1658	U	N1-C1'-C2'	8.57	124.85	112.00
33	L1	2760	U	P-O3'-C3'	8.57	133.05	120.20
67	LS	38	ARG	CA-C-N	8.57	131.58	120.44
67	LS	38	ARG	C-N-CA	8.57	131.58	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	SM	113	ARG	NE-CZ-NH1	-8.57	112.93	121.50
33	L1	166	U	N1-C1'-C2'	8.57	124.85	112.00
81	LD	335	PRO	CA-N-CD	-8.57	100.00	112.00
33	L1	1885	G	O4'-C1'-C2'	8.57	116.17	107.60
11	SM	12	ILE	N-CA-CB	8.56	123.47	111.82
33	L1	1536	U	O4'-C1'-C2'	-8.56	99.03	107.60
1	Sa	266	THR	CA-CB-OG1	8.56	122.44	109.60
32	S1	19	A	O4'-C1'-C2'	-8.56	99.04	107.60
33	L1	859	G	P-O3'-C3'	8.56	133.04	120.20
33	L1	309	C	C5'-C4'-C3'	8.56	128.84	116.00
33	L1	1683	U	O4'-C1'-C2'	-8.56	99.04	107.60
35	L2	67	C	C1'-O4'-C4'	-8.56	101.34	109.90
38	LE	63	ARG	N-CA-CB	8.56	124.96	110.49
35	L2	128	C	N1-C1'-C2'	8.56	124.84	112.00
64	LG	52	PRO	CA-N-CD	-8.56	100.02	112.00
11	SM	33	ILE	N-CA-C	-8.56	97.38	108.93
33	L1	1095	C	N1-C1'-C2'	8.56	124.84	112.00
33	L1	1593	C	O4'-C1'-C2'	-8.56	99.04	107.60
79	Ls	186	PHE	CA-CB-CG	-8.56	105.24	113.80
33	L1	1282	A	O5'-C5'-C4'	8.56	124.33	111.50
39	LF	1	MET	N-CA-CB	-8.56	95.95	110.50
80	LC	61	GLU	N-CA-CB	8.56	124.95	110.49
33	L1	3292	U	C1'-O4'-C4'	8.55	118.45	109.90
33	L1	1696	G	P-O3'-C3'	8.55	133.03	120.20
33	L1	2060	C	O4'-C4'-C3'	8.55	112.55	104.00
32	S1	1387	U	O4'-C1'-N1	8.55	121.33	108.50
32	S1	1641	A	P-O5'-C5'	-8.55	108.07	120.90
55	Lg	58	ARG	CA-C-N	8.55	134.34	123.14
55	Lg	58	ARG	C-N-CA	8.55	134.34	123.14
33	L1	136	C	C1'-O4'-C4'	-8.55	101.35	109.90
33	L1	1131	U	C3'-C2'-C1'	8.55	109.85	101.30
33	L1	2757	G	C2'-C3'-O3'	8.55	122.32	109.50
35	L2	123	C	P-O3'-C3'	8.55	133.02	120.20
55	Lg	58	ARG	CA-C-O	8.55	129.77	120.71
69	La	38	TYR	O-C-N	-8.55	111.22	122.59
32	S1	1035	A	O4'-C1'-N9	8.55	121.02	108.20
33	L1	3081	G	C1'-C2'-O2'	-8.55	98.98	111.80
33	L1	3157	C	O4'-C1'-C2'	-8.54	99.06	107.60
1	Sa	145	GLY	O-C-N	8.54	130.48	122.19
32	S1	36	C	N1-C1'-C2'	8.54	124.81	112.00
32	S1	391	A	O4'-C1'-N9	8.54	121.01	108.20
32	S1	978	A	P-O5'-C5'	-8.54	108.09	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1485	A	O4'-C1'-C2'	-8.54	99.06	107.60
33	L1	860	G	C3'-C2'-C1'	-8.54	92.76	101.30
33	L1	1192	A	N9-C1'-C2'	-8.54	101.19	114.00
33	L1	3335	G	O4'-C1'-C2'	-8.54	99.06	107.60
32	S1	11	A	C3'-C2'-C1'	8.54	109.84	101.30
33	L1	2843	G	C5'-C4'-C3'	8.54	128.81	116.00
32	S1	1456	U	C4'-C3'-C2'	-8.54	94.06	102.60
33	L1	1271	U	O4'-C4'-C3'	-8.54	95.46	104.00
79	Ls	239	ALA	N-CA-CB	-8.54	97.05	110.28
33	L1	843	C	C3'-C2'-C1'	8.53	109.83	101.30
70	Li	7	TYR	N-CA-C	8.53	120.36	111.14
2	SA	108	THR	C-N-CD	-8.53	90.02	125.00
33	L1	1311	G	C3'-C2'-C1'	-8.53	92.77	101.30
31	S2	49	G	C1'-O4'-C4'	-8.53	101.37	109.90
48	LV	31	GLU	N-CA-CB	8.53	124.90	110.49
33	L1	618	G	O4'-C1'-N9	8.53	121.29	108.50
33	L1	1488	G	O4'-C1'-C2'	-8.53	99.07	107.60
33	L1	1674	A	C3'-C2'-C1'	8.53	109.83	101.30
3	SB	52	ALA	CA-C-N	8.52	132.39	120.29
3	SB	52	ALA	C-N-CA	8.52	132.39	120.29
34	L3	99	G	P-O5'-C5'	-8.52	108.11	120.90
46	LT	62	ARG	NE-CZ-NH2	8.52	126.87	119.20
67	LS	23	HIS	O-C-N	-8.52	111.52	121.32
32	S1	1326	A	O4'-C1'-C2'	-8.52	99.08	107.60
44	LR	31	LYS	CA-C-N	8.52	131.70	120.28
44	LR	31	LYS	C-N-CA	8.52	131.70	120.28
48	LV	73	ALA	CA-C-N	8.52	137.82	121.54
48	LV	73	ALA	C-N-CA	8.52	137.82	121.54
33	L1	2114	A	C3'-C2'-C1'	8.52	109.82	101.30
33	L1	3319	G	C5'-C4'-C3'	-8.52	103.22	116.00
43	LO	14	HIS	CA-C-N	8.52	137.30	121.97
43	LO	14	HIS	C-N-CA	8.52	137.30	121.97
11	SM	141	ARG	CA-C-O	8.52	129.58	120.55
33	L1	1140	C	O4'-C1'-C2'	-8.52	99.08	107.60
33	L1	1317	G	P-O5'-C5'	-8.52	108.13	120.90
33	L1	2887	C	C1'-O4'-C4'	-8.52	101.39	109.90
33	L1	818	G	O4'-C1'-C2'	8.51	116.11	107.60
33	L1	2200	U	O4'-C1'-C2'	-8.51	99.09	107.60
33	L1	712	A	O4'-C1'-C2'	-8.51	99.09	107.60
2	SA	89	ARG	N-CA-C	8.51	120.56	111.28
66	LN	15	VAL	N-CA-C	8.51	120.78	109.21
33	L1	2499	U	O4'-C1'-N1	8.51	121.26	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2770	U	O3'-P-O5'	-8.51	91.24	104.00
69	La	28	VAL	CA-C-O	-8.51	110.14	120.78
54	Lf	50	ASN	CA-CB-CG	-8.51	104.09	112.60
32	S1	16	G	C1'-O4'-C4'	-8.50	101.40	109.90
33	L1	639	A	P-O3'-C3'	-8.50	107.44	120.20
33	L1	1193	A	C3'-C2'-C1'	8.50	109.80	101.30
37	LB	141	PRO	CA-C-N	-8.50	111.79	122.84
37	LB	141	PRO	C-N-CA	-8.50	111.79	122.84
33	L1	841	G	O3'-P-O5'	-8.50	91.25	104.00
33	L1	1407	G	N9-C1'-C2'	-8.50	99.25	112.00
33	L1	1625	G	O4'-C1'-N9	8.50	121.25	108.50
33	L1	2746	G	C1'-O4'-C4'	-8.50	101.40	109.90
35	L2	110	C	C3'-C2'-C1'	8.50	110.00	101.50
32	S1	1749	C	C1'-O4'-C4'	-8.50	101.40	109.90
33	L1	1525	U	C3'-C2'-C1'	8.50	110.00	101.50
11	SM	40	PHE	O-C-N	8.50	131.12	122.12
34	L3	41	G	N9-C1'-C2'	8.49	124.74	112.00
47	LU	132	PRO	N-CA-C	8.49	125.62	113.47
33	L1	2726	U	N1-C1'-C2'	8.49	124.74	112.00
71	Lj	9	VAL	N-CA-CB	8.49	125.29	111.36
32	S1	716	A	O5'-C5'-C4'	8.49	123.53	110.80
70	Li	107	LEU	CA-C-N	-8.49	105.32	121.54
70	Li	107	LEU	C-N-CA	-8.49	105.32	121.54
33	L1	1761	C	O4'-C1'-C2'	-8.49	99.11	107.60
64	LG	53	ALA	CA-C-N	8.49	137.75	121.54
64	LG	53	ALA	C-N-CA	8.49	137.75	121.54
73	Lp	35	ARG	CB-CA-C	-8.49	92.42	111.77
32	S1	202	C	P-O3'-C3'	8.49	132.93	120.20
33	L1	1682	C	P-O3'-C3'	8.49	132.93	120.20
33	L1	2716	U	P-O5'-C5'	8.49	133.63	120.90
66	LN	121	ILE	CB-CA-C	-8.49	101.11	111.97
3	SB	131	ALA	CA-C-N	8.48	137.75	121.54
3	SB	131	ALA	C-N-CA	8.48	137.75	121.54
19	SY	24	THR	CB-CA-C	8.48	127.31	110.42
32	S1	580	G	C3'-C2'-C1'	8.48	109.78	101.30
6	SF	82	LYS	N-CA-CB	8.48	122.59	110.12
32	S1	1119	G	C4'-C3'-C2'	-8.48	94.12	102.60
32	S1	861	A	C1'-C2'-O2'	8.48	121.12	108.40
33	L1	230	G	C1'-O4'-C4'	-8.48	101.42	109.90
33	L1	518	G	N9-C1'-C2'	8.48	124.72	112.00
33	L1	569	C	N1-C1'-C2'	8.48	124.72	112.00
33	L1	2643	A	C3'-C2'-C1'	-8.48	92.82	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	L3	75	G	C1'-O4'-C4'	-8.48	101.22	109.70
70	Li	103	VAL	CB-CA-C	-8.48	97.38	111.29
84	LI	118	ALA	CA-C-N	8.48	137.74	121.54
84	LI	118	ALA	C-N-CA	8.48	137.74	121.54
32	S1	634	A	N9-C1'-C2'	-8.48	99.28	112.00
32	S1	1450	A	O4'-C1'-N9	8.48	120.92	108.20
4	SD	188	ASN	CA-C-N	8.48	133.94	121.31
4	SD	188	ASN	C-N-CA	8.48	133.94	121.31
12	SO	141	TYR	CA-C-N	8.48	131.97	120.44
12	SO	141	TYR	C-N-CA	8.48	131.97	120.44
31	S2	7	A	C1'-C2'-O2'	-8.48	99.08	111.80
48	LV	37	ARG	N-CA-CB	8.48	124.91	110.50
55	Lg	59	ILE	O-C-N	-8.48	114.10	123.26
79	Ls	231	ALA	CB-CA-C	8.48	124.86	110.79
81	LD	358	LYS	CA-CB-CG	-8.48	97.15	114.10
25	SC	113	THR	N-CA-C	8.47	121.53	110.43
33	L1	668	U	O4'-C1'-N1	8.47	121.21	108.50
33	L1	1217	G	C1'-O4'-C4'	-8.47	101.42	109.90
1	Sa	11	HIS	CA-CB-CG	8.47	122.27	113.80
4	SD	151	ASP	CA-CB-CG	-8.47	104.13	112.60
32	S1	1720	G	N9-C1'-C2'	8.47	124.71	112.00
33	L1	776	G	O4'-C1'-N9	8.47	121.21	108.50
33	L1	2680	G	O4'-C1'-N9	8.47	120.91	108.20
33	L1	854	C	N1-C1'-C2'	8.47	124.70	112.00
48	LV	90	ARG	CA-C-N	8.47	131.63	120.28
48	LV	90	ARG	C-N-CA	8.47	131.63	120.28
32	S1	1719	C	C3'-C2'-C1'	8.47	109.77	101.30
34	L3	99	G	O3'-P-O5'	-8.47	91.30	104.00
3	SB	82	ASN	CB-CG-ND2	-8.46	103.70	116.40
48	LV	76	ARG	CB-CA-C	-8.46	95.06	111.06
83	Lm	7	LYS	N-CA-CB	8.47	126.39	111.49
25	SC	61	LEU	CA-C-N	8.46	131.95	120.44
25	SC	61	LEU	C-N-CA	8.46	131.95	120.44
33	L1	1621	G	O3'-P-O5'	-8.46	91.31	104.00
49	LX	43	HIS	CA-CB-CG	8.46	122.26	113.80
81	LD	396	ASN	CA-CB-CG	-8.46	104.14	112.60
1	Sa	66	SER	N-CA-CB	-8.46	97.61	110.13
32	S1	161	G	C4'-C3'-C2'	-8.46	94.14	102.60
32	S1	801	U	O5'-C5'-C4'	8.46	135.88	110.50
33	L1	472	U	O4'-C1'-C2'	8.46	116.06	107.60
33	L1	846	A	O4'-C4'-C3'	-8.46	95.54	104.00
33	L1	3020	C	C3'-C2'-C1'	8.46	109.76	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
50	LZ	53	TRP	CB-CA-C	8.46	123.52	109.56
32	S1	1567	G	C5'-C4'-O4'	8.46	121.79	109.10
33	L1	1540	G	C1'-O4'-C4'	-8.46	101.44	109.90
33	L1	3305	U	O4'-C1'-C2'	-8.46	99.14	107.60
33	L1	1072	C	O4'-C1'-C2'	8.46	116.06	107.60
33	L1	1345	U	C1'-C2'-O2'	8.46	121.08	108.40
33	L1	1485	A	P-O3'-C3'	8.46	132.88	120.20
2	SA	94	PHE	CA-CB-CG	-8.45	105.35	113.80
32	S1	200	C	C3'-C2'-C1'	8.45	109.75	101.30
33	L1	1363	C	C1'-O4'-C4'	-8.45	101.45	109.90
30	S3	19	U	O4'-C1'-C2'	-8.45	99.15	107.60
32	S1	1781	U	C3'-C2'-C1'	8.45	109.75	101.30
33	L1	1016	G	O3'-P-O5'	8.45	116.68	104.00
34	L3	97	G	O4'-C1'-N9	8.45	121.18	108.50
33	L1	1849	U	O4'-C1'-C2'	-8.45	99.15	107.60
33	L1	2738	U	C4'-C3'-C2'	-8.45	94.15	102.60
69	La	26	VAL	CB-CA-C	8.45	135.68	111.42
78	Le	50	ALA	N-CA-C	8.45	120.49	111.28
31	S2	7	A	C2'-C3'-O3'	8.45	122.17	109.50
32	S1	1461	G	P-O5'-C5'	-8.44	108.23	120.90
33	L1	563	C	O4'-C1'-C2'	-8.45	99.16	107.60
33	L1	2796	G	C4'-C3'-C2'	-8.45	94.16	102.60
32	S1	1169	G	C3'-C2'-C1'	-8.44	92.86	101.30
33	L1	1572	C	O4'-C1'-C2'	-8.44	99.16	107.60
33	L1	3324	U	N1-C1'-C2'	-8.44	99.34	112.00
46	LT	18	GLY	N-CA-C	8.44	123.56	112.25
32	S1	1184	C	N1-C1'-C2'	8.44	124.66	112.00
44	LR	159	PRO	CA-C-N	8.44	136.89	121.70
44	LR	159	PRO	C-N-CA	8.44	136.89	121.70
33	L1	183	C	O4'-C1'-C2'	-8.44	99.16	107.60
33	L1	522	C	O4'-C1'-C2'	-8.44	99.16	107.60
33	L1	2437	A	O4'-C1'-C2'	-8.44	99.16	107.60
33	L1	2480	G	C1'-O4'-C4'	8.44	118.34	109.90
33	L1	2783	U	O4'-C1'-N1	8.44	121.16	108.50
70	Li	81	VAL	N-CA-CB	8.44	125.85	111.50
33	L1	844	A	O4'-C1'-C2'	8.44	116.04	107.60
33	L1	1295	A	O4'-C1'-N9	8.44	121.16	108.50
33	L1	2918	U	O3'-P-O5'	-8.44	91.34	104.00
33	L1	3310	A	C1'-O4'-C4'	-8.44	101.47	109.90
34	L3	101	A	N9-C1'-C2'	8.44	124.65	112.00
70	Li	102	ILE	O-C-N	-8.44	112.03	122.57
32	S1	205	U	O4'-C1'-N1	8.43	121.15	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2112	C	N1-C1'-C2'	8.43	124.65	112.00
33	L1	2676	A	C3'-C2'-C1'	8.43	109.73	101.30
33	L1	3145	G	P-O5'-C5'	8.43	133.55	120.90
34	L3	71	A	N9-C1'-C2'	-8.43	99.35	112.00
67	LS	77	TYR	N-CA-C	8.43	122.95	110.30
32	S1	1239	C	C1'-C2'-O2'	8.43	121.05	108.40
33	L1	16	A	O4'-C4'-C3'	8.43	112.43	104.00
33	L1	2900	G	P-O5'-C5'	8.43	133.55	120.90
68	LW	55	LYS	CA-C-N	8.43	133.80	122.84
68	LW	55	LYS	C-N-CA	8.43	133.80	122.84
28	SN	14	TYR	CA-C-O	8.43	132.56	120.51
32	S1	192	G	O4'-C1'-N9	8.43	121.14	108.50
33	L1	2682	A	C4'-C3'-O3'	-8.43	100.36	113.00
72	Lk	51	ALA	CA-C-N	8.43	129.27	120.00
72	Lk	51	ALA	C-N-CA	8.43	129.27	120.00
8	SJ	42	GLU	N-CA-C	8.43	120.46	111.28
32	S1	1621	U	O4'-C1'-N1	8.43	121.14	108.50
33	L1	348	C	C1'-C2'-O2'	-8.43	99.16	111.80
33	L1	2808	U	O4'-C1'-C2'	8.43	116.03	107.60
56	Lh	22	HIS	CA-CB-CG	8.43	122.23	113.80
29	ST	10	ASP	CA-CB-CG	8.42	121.02	112.60
32	S1	32	U	C5'-C4'-C3'	8.42	128.63	116.00
33	L1	1266	G	N9-C1'-C2'	8.42	124.63	112.00
51	LY	11	ARG	NE-CZ-NH2	8.42	126.78	119.20
33	L1	1346	C	N1-C1'-C2'	8.42	124.63	112.00
33	L1	1550	A	O3'-P-O5'	8.42	116.63	104.00
33	L1	1824	C	C4'-C3'-C2'	-8.42	94.18	102.60
33	L1	1931	G	N9-C1'-C2'	-8.42	99.37	112.00
32	S1	1710	C	P-O3'-C3'	8.42	132.83	120.20
33	L1	460	A	O4'-C1'-C2'	-8.42	99.18	107.60
33	L1	1223	U	C5'-C4'-O4'	-8.42	97.17	109.80
67	LS	44	TRP	CB-CA-C	8.42	124.77	110.79
82	LK	133	ARG	CA-C-N	-8.42	108.08	122.56
82	LK	133	ARG	C-N-CA	-8.42	108.08	122.56
33	L1	74	G	N9-C1'-C2'	8.42	124.62	112.00
33	L1	1575	G	C5'-C4'-C3'	-8.42	103.37	116.00
33	L1	2108	C	O3'-P-O5'	8.42	116.62	104.00
37	LB	224	THR	CB-CA-C	8.42	122.89	110.26
23	SU	79	GLY	CA-C-O	-8.41	105.93	120.57
32	S1	593	C	C3'-C2'-C1'	8.41	109.72	101.30
33	L1	234	G	C3'-C2'-C1'	-8.41	92.89	101.30
33	L1	2688	G	O4'-C1'-C2'	8.41	116.01	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Sa	200	PHE	CA-CB-CG	8.41	122.21	113.80
13	SQ	97	ARG	CB-CA-C	8.41	127.16	110.42
70	Li	28	GLY	CA-C-O	8.41	128.81	121.41
33	L1	1941	G	C1'-C2'-O2'	8.41	121.02	108.40
11	SM	21	ASP	O-C-N	-8.41	111.77	122.20
11	SM	126	TYR	CE1-CZ-OH	-8.41	94.67	119.90
33	L1	1836	U	C2'-C3'-O3'	8.41	122.12	109.50
33	L1	2105	G	C3'-C2'-C1'	-8.41	92.89	101.30
1	Sa	209	LEU	N-CA-CB	8.41	123.56	110.44
32	S1	61	A	C1'-O4'-C4'	8.41	118.31	109.90
32	S1	1771	U	P-O5'-C5'	8.41	133.51	120.90
38	LE	9	ASN	CA-C-N	8.41	130.35	119.84
38	LE	9	ASN	C-N-CA	8.41	130.35	119.84
25	SC	164	SER	CB-CA-C	-8.40	93.61	110.17
33	L1	2213	G	N9-C1'-C2'	8.40	124.61	112.00
47	LU	85	ILE	O-C-N	-8.40	113.11	122.69
15	SS	60	ALA	CA-C-N	8.40	131.54	120.28
15	SS	60	ALA	C-N-CA	8.40	131.54	120.28
33	L1	2132	A	P-O3'-C3'	8.40	132.80	120.20
33	L1	80	C	N1-C1'-C2'	8.40	124.60	112.00
33	L1	3101	C	C3'-C2'-C1'	8.40	109.70	101.30
33	L1	398	G	O4'-C1'-C2'	8.40	114.20	105.80
33	L1	1507	A	O4'-C1'-C2'	8.40	116.00	107.60
33	L1	1867	U	C1'-C2'-O2'	8.40	121.00	108.40
33	L1	3168	C	P-O3'-C3'	8.40	132.80	120.20
36	LA	157	GLN	N-CA-C	8.40	122.85	110.17
70	Li	111	LYS	CA-C-N	8.40	137.58	121.54
70	Li	111	LYS	C-N-CA	8.40	137.58	121.54
28	SN	11	PRO	CA-C-N	8.40	136.50	121.89
28	SN	11	PRO	C-N-CA	8.40	136.50	121.89
32	S1	318	C	C1'-C2'-O2'	8.39	120.99	108.40
33	L1	1255	A	P-O5'-C5'	8.39	133.49	120.90
33	L1	2790	C	N1-C1'-C2'	8.39	124.59	112.00
69	La	11	VAL	CA-C-N	8.39	134.45	123.03
69	La	11	VAL	C-N-CA	8.39	134.45	123.03
7	SI	87	ILE	O-C-N	-8.39	114.89	123.03
32	S1	1068	G	C2'-C3'-O3'	8.39	122.09	109.50
36	LA	211	LYS	N-CA-CB	-8.39	98.44	110.44
67	LS	152	PRO	CA-N-CD	-8.39	100.25	112.00
32	S1	1226	U	O5'-C5'-C4'	-8.39	98.91	111.50
33	L1	2273	C	O4'-C1'-C2'	-8.39	99.21	107.60
33	L1	2507	U	N1-C1'-C2'	8.39	124.59	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	SM	111	LEU	CA-C-N	8.39	133.06	120.31
11	SM	111	LEU	C-N-CA	8.39	133.06	120.31
32	S1	534	C	P-O5'-C5'	-8.39	107.42	120.00
32	S1	1591	A	O4'-C1'-N9	8.39	121.08	108.50
33	L1	2381	G	O4'-C1'-N9	8.39	121.08	108.50
33	L1	2883	C	O4'-C1'-C2'	-8.39	99.21	107.60
57	L1	73	ARG	CA-C-O	-8.39	112.01	120.82
15	SS	46	LYS	N-CA-C	8.38	128.66	110.80
33	L1	1225	A	P-O3'-C3'	8.39	132.78	120.20
52	Lb	94	LYS	N-CA-C	-8.39	103.56	113.88
33	L1	2523	G	O4'-C1'-N9	8.38	121.08	108.50
33	L1	135	G	P-O3'-C3'	8.38	132.77	120.20
33	L1	1658	G	O4'-C1'-N9	8.38	121.08	108.50
33	L1	2234	G	N9-C1'-C2'	8.38	124.58	112.00
33	L1	3095	G	N9-C1'-C2'	8.38	124.58	112.00
33	L1	2225	C	P-O5'-C5'	8.38	133.47	120.90
33	L1	2246	G	O4'-C1'-N9	8.38	121.07	108.50
84	LI	109	ASP	CB-CA-C	-8.38	98.51	115.27
33	L1	1599	A	C1'-O4'-C4'	-8.38	101.52	109.90
33	L1	1627	U	O4'-C1'-C2'	-8.38	99.22	107.60
33	L1	1107	G	N9-C1'-C2'	8.38	124.56	112.00
33	L1	3145	G	O4'-C1'-C2'	-8.38	99.22	107.60
33	L1	706	U	N1-C1'-C2'	8.38	124.56	112.00
33	L1	973	U	N1-C1'-C2'	8.38	124.56	112.00
33	L1	3183	G	N9-C1'-C2'	8.37	124.56	112.00
34	L3	32	A	N9-C1'-C2'	8.38	124.56	112.00
32	S1	37	U	O4'-C1'-C2'	-8.37	99.23	107.60
47	LU	12	ARG	N-CA-C	8.37	120.03	111.07
33	L1	1801	G	C3'-C2'-C1'	8.37	109.67	101.30
84	LI	116	ARG	CA-C-N	8.37	136.77	121.70
84	LI	116	ARG	C-N-CA	8.37	136.77	121.70
32	S1	1560	U	O4'-C1'-C2'	8.37	115.97	107.60
33	L1	105	A	O4'-C1'-N9	-8.37	95.95	108.50
33	L1	543	C	C5'-C4'-C3'	8.37	128.55	116.00
33	L1	372	A	P-O3'-C3'	8.37	132.75	120.20
33	L1	846	A	O4'-C1'-N9	8.37	121.05	108.50
33	L1	1201	C	P-O3'-C3'	8.37	132.75	120.20
74	LJ	58	ARG	N-CA-C	8.37	122.67	110.28
3	SB	136	VAL	O-C-N	-8.37	114.61	123.14
32	S1	372	U	O4'-C4'-C3'	-8.37	95.63	104.00
32	S1	937	A	O4'-C1'-C2'	-8.37	97.43	105.80
32	S1	1703	G	C5'-C4'-C3'	8.37	128.55	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	L2	148	C	N1-C1'-C2'	8.37	124.55	112.00
7	SI	100	GLN	CA-C-N	8.36	131.31	120.44
7	SI	100	GLN	C-N-CA	8.36	131.31	120.44
19	SY	47	ARG	N-CA-C	-8.36	96.56	109.52
33	L1	2423	A	O4'-C1'-C2'	8.36	115.96	107.60
33	L1	3235	A	O4'-C1'-N9	8.36	121.04	108.50
80	LC	25	HIS	CB-CG-CD2	-8.36	120.33	131.20
27	SH	24	GLN	O-C-N	-8.36	114.35	123.04
33	L1	2664	G	C1'-O4'-C4'	-8.36	101.54	109.90
33	L1	97	G	C4'-C3'-C2'	-8.36	94.24	102.60
33	L1	1723	C	C3'-C2'-C1'	8.36	109.66	101.30
64	LG	18	HIS	CA-C-N	8.36	131.31	120.44
64	LG	18	HIS	C-N-CA	8.36	131.31	120.44
70	Li	19	GLN	N-CA-CB	8.36	124.62	110.49
11	SM	110	ASP	N-CA-C	8.36	120.39	111.28
23	SU	80	LEU	CB-CG-CD1	8.36	135.77	110.70
32	S1	471	G	O4'-C1'-N9	8.36	121.03	108.50
33	L1	2221	U	O4'-C1'-C2'	-8.36	99.24	107.60
33	L1	2995	G	C3'-C2'-C1'	8.36	109.66	101.30
33	L1	3082	G	O4'-C1'-C2'	-8.36	99.24	107.60
16	SR	79	GLY	CA-C-N	8.35	131.80	120.44
16	SR	79	GLY	C-N-CA	8.35	131.80	120.44
32	S1	648	C	C1'-O4'-C4'	8.35	118.25	109.90
64	LG	68	PRO	O-C-N	-8.35	111.36	122.64
20	SZ	3	LYS	N-CA-C	-8.35	103.58	112.93
32	S1	391	A	N9-C1'-C2'	-8.35	101.47	114.00
33	L1	1263	A	C1'-C2'-O2'	8.35	120.93	108.40
67	LS	9	TYR	CA-C-N	8.35	135.70	122.34
67	LS	9	TYR	C-N-CA	8.35	135.70	122.34
80	LC	301	GLU	CA-C-N	8.35	136.73	121.70
80	LC	301	GLU	C-N-CA	8.35	136.73	121.70
17	SV	17	LYS	N-CA-C	-8.35	97.31	109.59
70	Li	112	THR	N-CA-C	8.35	128.59	110.80
33	L1	280	G	P-O3'-C3'	8.35	132.72	120.20
23	SU	28	PHE	O-C-N	8.35	132.70	123.27
33	L1	1587	G	C3'-C2'-C1'	8.35	109.65	101.30
78	Le	67	LEU	CA-C-O	8.35	129.53	120.10
33	L1	19	C	N1-C1'-C2'	8.34	124.52	112.00
33	L1	2591	G	C3'-C2'-C1'	-8.34	92.96	101.30
3	SB	158	ILE	O-C-N	-8.34	114.19	123.20
33	L1	3303	C	N1-C1'-C2'	8.34	124.51	112.00
3	SB	177	LEU	N-CA-C	-8.34	97.47	109.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	213	G	O4'-C1'-N9	8.34	121.01	108.50
33	L1	1265	G	O4'-C1'-C2'	-8.34	90.72	107.40
33	L1	1429	U	O4'-C1'-C2'	-8.34	99.26	107.60
33	L1	1624	G	C5'-C4'-C3'	-8.34	103.49	116.00
33	L1	3111	C	N1-C1'-C2'	8.34	124.51	112.00
32	S1	10	G	C1'-C2'-O2'	8.34	120.91	108.40
33	L1	1753	A	C5'-C4'-C3'	8.34	127.71	115.20
33	L1	3142	C	O4'-C1'-C2'	-8.34	97.47	105.80
64	LG	23	ARG	CB-CA-C	-8.34	96.95	110.79
70	Li	65	PRO	CA-N-CD	-8.34	100.33	112.00
31	S2	13	U	C1'-O4'-C4'	8.33	118.23	109.90
47	LU	88	ARG	O-C-N	-8.33	112.63	123.21
33	L1	2999	G	C4'-C3'-O3'	8.33	125.50	113.00
33	L1	3379	C	P-O5'-C5'	-8.33	108.40	120.90
33	L1	308	U	C1'-C2'-O2'	8.33	120.89	108.40
33	L1	484	C	P-O5'-C5'	8.33	133.40	120.90
33	L1	2765	A	C5'-C4'-C3'	8.33	128.50	116.00
33	L1	1163	A	C3'-C2'-C1'	-8.33	92.97	101.30
33	L1	1644	A	O4'-C1'-C2'	-8.33	99.27	107.60
35	L2	64	U	C1'-C2'-O2'	-8.33	99.31	111.80
82	LK	198	LEU	CA-C-N	8.33	131.44	120.28
82	LK	198	LEU	C-N-CA	8.33	131.44	120.28
1	Sa	94	ASN	CA-C-O	-8.33	111.85	120.84
32	S1	1331	C	O4'-C1'-C2'	-8.33	99.27	107.60
38	LE	22	ASN	N-CA-C	-8.33	96.32	109.23
36	LA	19	GLU	N-CA-C	8.33	123.57	108.17
81	LD	351	ARG	CA-C-N	8.33	134.46	120.64
81	LD	351	ARG	C-N-CA	8.33	134.46	120.64
29	ST	11	LEU	N-CA-C	8.32	128.53	110.80
33	L1	567	G	C1'-C2'-O2'	8.32	120.89	108.40
33	L1	1756	C	O4'-C1'-C2'	-8.32	99.28	107.60
33	L1	1852	C	O4'-C1'-N1	8.32	120.98	108.50
33	L1	2632	U	N1-C1'-C2'	-8.32	99.51	112.00
50	LZ	3	LEU	CA-C-O	-8.32	109.75	118.90
27	SH	120	ASN	CA-C-N	-8.32	111.37	122.94
27	SH	120	ASN	C-N-CA	-8.32	111.37	122.94
32	S1	417	U	N1-C1'-C2'	8.32	124.48	112.00
32	S1	1802	G	P-O5'-C5'	8.32	133.38	120.90
33	L1	31	U	P-O5'-C5'	8.32	133.38	120.90
33	L1	1684	U	O4'-C1'-N1	8.32	120.98	108.50
33	L1	1351	C	P-O3'-C3'	8.32	132.68	120.20
33	L1	1822	C	C1'-O4'-C4'	-8.32	101.58	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2840	A	C1'-O4'-C4'	-8.32	101.58	109.90
33	L1	2874	A	P-O3'-C3'	-8.32	107.72	120.20
33	L1	2936	A	O4'-C1'-C2'	-8.32	99.28	107.60
33	L1	2999	G	C2'-C3'-O3'	8.32	126.18	113.70
33	L1	3142	C	N1-C1'-C2'	8.32	126.48	114.00
33	L1	3144	U	C1'-C2'-O2'	-8.32	99.32	111.80
48	LV	67	VAL	N-CA-CB	-8.32	100.08	110.31
3	SB	15	GLY	CA-C-O	8.32	129.48	120.66
8	SJ	86	TRP	CB-CG-CD1	8.32	139.37	126.90
25	SC	161	SER	CA-C-N	8.32	137.42	121.54
25	SC	161	SER	C-N-CA	8.32	137.42	121.54
32	S1	1733	G	O3'-P-O5'	-8.32	91.52	104.00
72	Lk	49	GLU	CB-CA-C	-8.32	97.82	110.88
33	L1	1383	G	C3'-C2'-C1'	-8.31	92.99	101.30
33	L1	1564	C	N1-C1'-C2'	8.31	124.47	112.00
34	L3	20	C	O4'-C1'-C2'	-8.31	99.29	107.60
33	L1	553	C	C3'-C2'-C1'	8.31	109.81	101.50
33	L1	722	C	N1-C1'-C2'	-8.31	99.53	112.00
35	L2	107	G	N9-C1'-C2'	8.31	124.47	112.00
33	L1	1642	G	C1'-O4'-C4'	-8.31	101.59	109.90
64	LG	91	LYS	N-CA-C	8.31	120.21	108.74
33	L1	1501	A	N9-C1'-C2'	8.31	124.46	112.00
38	LE	87	LYS	N-CA-C	8.31	120.42	111.36
33	L1	2759	C	C1'-C2'-O2'	8.31	120.86	108.40
5	SE	48	THR	CA-C-N	8.30	131.75	120.38
5	SE	48	THR	C-N-CA	8.30	131.75	120.38
33	L1	2565	C	O4'-C1'-C2'	-8.30	99.30	107.60
79	Ls	255	ALA	N-CA-C	8.30	121.26	111.71
33	L1	266	A	P-O3'-C3'	8.30	132.65	120.20
33	L1	1277	A	C1'-O4'-C4'	-8.30	101.60	109.90
33	L1	2397	A	O4'-C1'-C2'	-8.30	99.30	107.60
46	LT	84	THR	N-CA-C	8.30	121.04	110.33
15	SS	11	ASP	O-C-N	-8.30	111.55	122.59
23	SU	17	PHE	CA-CB-CG	8.30	122.10	113.80
32	S1	298	C	O4'-C1'-C2'	-8.30	99.30	107.60
33	L1	1670	G	O4'-C1'-N9	8.30	120.95	108.50
33	L1	2420	U	C3'-C2'-C1'	8.30	109.60	101.30
81	LD	223	VAL	N-CA-CB	8.30	120.34	111.46
33	L1	1530	C	C1'-O4'-C4'	-8.30	101.60	109.90
33	L1	888	U	O4'-C1'-C2'	-8.30	99.30	107.60
80	LC	350	THR	N-CA-CB	8.30	124.51	110.49
11	SM	56	ALA	CA-C-N	8.29	129.12	120.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	SM	56	ALA	C-N-CA	8.29	129.12	120.00
33	L1	2762	U	C1'-O4'-C4'	8.29	118.19	109.90
48	LV	154	LYS	N-CA-CB	8.29	122.41	110.13
33	L1	1583	G	C3'-C2'-C1'	8.29	109.59	101.30
5	SE	106	ARG	N-CA-C	-8.29	97.17	108.86
28	SN	21	CYS	O-C-N	8.29	132.46	122.68
32	S1	626	A	C3'-C2'-C1'	8.29	109.79	101.50
33	L1	2702	G	O4'-C1'-N9	8.29	120.94	108.50
33	L1	491	G	C4'-C3'-C2'	-8.29	94.31	102.60
33	L1	3386	A	P-O5'-C5'	8.29	133.34	120.90
49	LX	35	LYS	CA-C-N	8.29	131.29	120.60
49	LX	35	LYS	C-N-CA	8.29	131.29	120.60
11	SM	94	ARG	CB-CA-C	8.29	126.92	110.42
33	L1	1855	A	C5'-C4'-C3'	-8.29	102.77	115.20
33	L1	256	G	N9-C1'-C2'	8.29	124.43	112.00
33	L1	1474	U	P-O5'-C5'	8.29	133.33	120.90
33	L1	1602	A	C2'-C3'-O3'	8.29	121.93	109.50
33	L1	2996	A	C5'-C4'-C3'	8.29	128.43	116.00
33	L1	3082	G	C3'-C2'-C1'	8.29	109.59	101.30
33	L1	1533	U	O3'-P-O5'	-8.29	91.57	104.00
34	L3	25	G	N9-C1'-C2'	-8.29	99.57	112.00
44	LR	54	MET	N-CA-C	8.29	119.94	111.07
48	LV	111	ASP	O-C-N	8.28	130.90	122.12
32	S1	1088	G	C3'-C2'-C1'	8.28	109.58	101.30
33	L1	1273	U	N1-C1'-C2'	8.28	124.42	112.00
33	L1	3128	A	N9-C1'-C2'	8.28	124.42	112.00
68	LW	82	LYS	CB-CA-C	8.28	126.90	110.42
70	Li	43	LYS	N-CA-C	8.28	128.44	110.80
32	S1	554	A	O4'-C1'-C2'	-8.28	99.32	107.60
32	S1	1229	C	O4'-C1'-C2'	-8.28	99.32	107.60
32	S1	1442	A	OP2-P-O3'	8.28	132.84	108.00
33	L1	1054	U	C1'-C2'-O2'	8.28	120.82	108.40
32	S1	301	U	C3'-C2'-C1'	8.28	109.58	101.30
32	S1	1109	U	C3'-C2'-C1'	8.28	109.58	101.30
33	L1	1466	U	O4'-C1'-N1	8.28	120.92	108.50
9	SK	69	SER	CA-C-N	-8.28	109.50	119.84
9	SK	69	SER	C-N-CA	-8.28	109.50	119.84
33	L1	1414	C	O4'-C1'-C2'	8.28	115.88	107.60
33	L1	1247	G	C4'-C3'-C2'	-8.28	94.33	102.60
33	L1	2659	A	C1'-C2'-O2'	8.28	124.21	111.80
80	LC	366	SER	CB-CA-C	8.28	122.67	110.26
81	LD	194	ARG	CA-C-O	-8.28	111.79	120.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Sa	133	SER	CA-C-N	-8.27	111.27	122.77
1	Sa	133	SER	C-N-CA	-8.27	111.27	122.77
2	SA	44	LYS	CA-C-N	8.27	137.34	121.54
2	SA	44	LYS	C-N-CA	8.27	137.34	121.54
15	SS	14	PRO	CA-C-N	8.27	131.19	120.44
15	SS	14	PRO	C-N-CA	8.27	131.19	120.44
32	S1	1562	C	O4'-C1'-C2'	-8.27	99.33	107.60
33	L1	787	G	O4'-C1'-N9	8.27	120.61	108.20
33	L1	2751	A	O4'-C1'-C2'	-8.27	99.33	107.60
70	Li	110	GLN	CA-C-N	-8.27	103.75	121.45
70	Li	110	GLN	C-N-CA	-8.27	103.75	121.45
78	Le	63	GLU	CB-CG-CD	8.27	126.67	112.60
72	Lk	59	ARG	NE-CZ-NH2	8.27	126.64	119.20
81	LD	350	ALA	N-CA-C	-8.27	105.19	114.62
11	SM	116	LYS	CA-C-N	8.27	133.86	120.30
11	SM	116	LYS	C-N-CA	8.27	133.86	120.30
32	S1	258	U	C4'-C3'-C2'	-8.27	94.33	102.60
33	L1	41	C	N1-C1'-C2'	8.27	124.40	112.00
33	L1	528	C	O3'-P-O5'	-8.27	91.60	104.00
33	L1	1077	C	C1'-C2'-O2'	8.27	120.80	108.40
33	L1	2205	G	O4'-C1'-N9	8.27	120.90	108.50
32	S1	1029	U	O4'-C1'-N1	8.27	120.90	108.50
33	L1	1318	C	O4'-C1'-N1	-8.27	96.10	108.50
33	L1	2668	U	N1-C1'-C2'	-8.27	87.60	112.40
33	L1	842	C	C5'-C4'-C3'	8.27	128.40	116.00
33	L1	1277	A	C5'-C4'-C3'	8.27	128.40	116.00
33	L1	2501	U	P-O3'-C3'	8.27	132.60	120.20
11	SM	111	LEU	N-CA-C	8.26	120.29	111.28
32	S1	391	A	P-O3'-C3'	8.26	132.59	120.20
33	L1	615	A	C1'-O4'-C4'	-8.26	101.64	109.90
32	S1	610	A	O4'-C1'-N9	8.26	120.59	108.20
32	S1	1457	C	P-O5'-C5'	8.26	133.29	120.90
51	LY	38	LEU	CA-C-N	8.26	132.18	120.28
51	LY	38	LEU	C-N-CA	8.26	132.18	120.28
81	LD	51	ASN	CA-CB-CG	8.26	120.86	112.60
4	SD	163	ASP	CA-CB-CG	-8.26	104.34	112.60
23	SU	38	ALA	N-CA-C	8.26	124.96	107.70
32	S1	578	G	C1'-O4'-C4'	8.26	118.16	109.90
33	L1	1606	C	N1-C1'-C2'	8.26	124.39	112.00
33	L1	2229	G	N9-C1'-C2'	-8.26	99.61	112.00
35	L2	62	G	C3'-C2'-C1'	8.26	109.76	101.50
32	S1	1350	C	O4'-C1'-C2'	-8.26	99.34	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Le	67	LEU	N-CA-CB	8.26	122.93	110.22
32	S1	1022	U	P-O5'-C5'	-8.25	108.52	120.90
33	L1	533	G	C1'-O4'-C4'	-8.25	101.65	109.90
33	L1	1394	C	C2'-C3'-O3'	8.25	121.88	109.50
33	L1	2151	G	C2'-C3'-O3'	8.25	121.88	109.50
35	L2	64	U	N1-C1'-C2'	8.25	126.38	114.00
34	L3	116	U	N1-C1'-C2'	8.25	124.38	112.00
68	LW	35	ILE	N-CA-C	-8.25	97.63	107.70
33	L1	49	U	O4'-C1'-C2'	-8.25	99.35	107.60
33	L1	2274	A	C4'-C3'-C2'	-8.25	94.35	102.60
33	L1	2790	C	O4'-C1'-C2'	-8.25	99.35	107.60
34	L3	46	C	N1-C1'-C2'	8.25	124.37	112.00
34	L3	102	G	P-O3'-C3'	8.25	132.57	120.20
2	SA	211	PRO	O-C-N	-8.25	111.51	122.64
25	SC	16	LYS	CA-C-O	-8.25	108.86	120.16
33	L1	1678	U	P-O5'-C5'	8.25	133.27	120.90
33	L1	1778	C	C3'-C2'-C1'	8.25	109.55	101.30
35	L2	125	A	N9-C1'-C2'	8.25	124.37	112.00
81	LD	61	ARG	NE-CZ-NH2	8.25	126.62	119.20
32	S1	1278	C	O3'-P-O5'	8.24	116.37	104.00
33	L1	2677	A	O4'-C1'-C2'	-8.24	99.36	107.60
33	L1	3290	C	O5'-C5'-C4'	-8.24	99.13	111.50
44	LR	160	HIS	CA-C-N	8.24	136.54	121.70
44	LR	160	HIS	C-N-CA	8.24	136.54	121.70
32	S1	1443	U	C1'-O4'-C4'	8.24	118.14	109.90
33	L1	238	C	N1-C1'-C2'	8.24	124.36	112.00
33	L1	692	U	C3'-C2'-C1'	8.24	109.54	101.30
33	L1	2419	C	C3'-C2'-C1'	8.24	109.54	101.30
33	L1	2998	A	P-O5'-C5'	-8.24	108.54	120.90
1	Sa	31	THR	CA-C-O	-8.24	108.73	120.51
33	L1	1066	G	O4'-C1'-C2'	8.24	115.84	107.60
33	L1	2682	A	P-O3'-C3'	8.24	132.56	120.20
33	L1	2773	G	O3'-P-O5'	-8.24	91.64	104.00
33	L1	3176	C	C3'-C2'-C1'	8.24	109.54	101.30
64	LG	59	ARG	NE-CZ-NH1	-8.24	113.26	121.50
64	LG	23	ARG	N-CA-CB	8.24	122.23	110.12
32	S1	1296	G	O4'-C1'-N9	8.24	120.86	108.50
33	L1	1394	C	C5'-C4'-C3'	8.24	127.56	115.20
32	S1	1195	U	P-O3'-C3'	8.24	132.55	120.20
33	L1	666	U	O3'-P-O5'	-8.24	91.64	104.00
78	Le	6	ALA	CA-C-N	8.24	131.66	120.38
78	Le	6	ALA	C-N-CA	8.24	131.66	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	LD	319	LYS	CA-C-N	-8.24	108.59	120.29
81	LD	319	LYS	C-N-CA	-8.24	108.59	120.29
33	L1	309	C	O4'-C1'-C2'	-8.23	99.36	107.60
33	L1	1857	G	P-O3'-C3'	8.23	132.55	120.20
66	LN	109	LYS	CA-C-O	-8.23	112.17	120.82
67	LS	117	ARG	N-CA-CB	8.23	124.40	110.49
25	SC	15	LYS	N-CA-C	8.23	128.33	110.80
32	S1	569	C	O4'-C1'-C2'	-8.23	97.57	105.80
33	L1	436	G	O4'-C1'-C2'	-8.23	99.37	107.60
33	L1	1735	U	C1'-O4'-C4'	8.23	118.13	109.90
33	L1	2653	U	C1'-O4'-C4'	-8.23	101.67	109.90
82	LK	134	LEU	CD1-CG-CD2	8.23	128.91	110.80
33	L1	959	U	P-O5'-C5'	8.23	133.24	120.90
66	LN	93	LEU	O-C-N	-8.23	113.40	122.12
32	S1	962	G	C3'-C2'-C1'	-8.23	93.07	101.30
33	L1	1258	C	O5'-C5'-C4'	8.23	123.84	111.50
33	L1	3137	G	C3'-C2'-C1'	-8.23	93.07	101.30
23	SU	64	PHE	CA-CB-CG	8.22	122.02	113.80
27	SH	121	VAL	CA-C-N	-8.22	114.13	122.27
27	SH	121	VAL	C-N-CA	-8.22	114.13	122.27
33	L1	543	C	C5'-C4'-O4'	8.22	122.14	109.80
33	L1	1673	A	N9-C1'-C2'	8.22	124.34	112.00
64	LG	184	ILE	N-CA-CB	-8.22	97.66	111.23
33	L1	1633	C	P-O5'-C5'	8.22	133.24	120.90
68	LW	37	GLU	CA-C-N	8.22	131.73	120.46
68	LW	37	GLU	C-N-CA	8.22	131.73	120.46
4	SD	153	ILE	N-CA-CB	-8.22	97.67	111.23
32	S1	199	G	P-O3'-C3'	8.22	132.53	120.20
32	S1	1387	U	C1'-O4'-C4'	8.22	118.12	109.90
33	L1	1912	U	P-O5'-C5'	8.22	133.23	120.90
33	L1	2633	C	O4'-C1'-C2'	-8.22	99.38	107.60
70	Li	10	ARG	N-CA-CB	8.22	124.38	110.49
15	SS	124	ARG	N-CA-C	8.22	123.77	109.96
32	S1	260	A	O4'-C1'-N9	8.22	120.83	108.50
33	L1	1246	G	O4'-C1'-C2'	-8.22	99.38	107.60
34	L3	38	U	N1-C1'-C2'	8.22	124.33	112.00
78	Le	10	VAL	CA-C-N	8.22	128.17	119.05
78	Le	10	VAL	C-N-CA	8.22	128.17	119.05
68	LW	50	LYS	N-CA-C	8.22	119.93	110.97
5	SE	22	GLY	O-C-N	8.21	130.07	122.18
33	L1	2391	C	O3'-P-O5'	-8.22	91.68	104.00
33	L1	2688	G	C1'-O4'-C4'	-8.22	101.68	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	LS	121	PRO	CA-N-CD	-8.21	100.50	112.00
30	S3	18	C	C3'-C2'-C1'	8.21	109.51	101.30
64	LG	124	TYR	O-C-N	-8.21	111.67	122.59
31	S2	4	G	O4'-C1'-C2'	8.21	115.81	107.60
31	S2	41	G	O4'-C1'-C2'	8.21	115.81	107.60
33	L1	589	G	N9-C1'-C2'	8.21	124.32	112.00
33	L1	679	C	N1-C1'-C2'	8.21	124.32	112.00
83	Lm	27	LYS	N-CA-CB	8.21	121.91	110.01
32	S1	609	A	C3'-C2'-C1'	8.21	109.51	101.30
33	L1	804	A	O4'-C1'-N9	-8.21	95.89	108.20
35	L2	25	C	C1'-O4'-C4'	-8.21	101.69	109.90
2	SA	212	GLU	N-CA-C	8.21	128.28	110.80
25	SC	147	SER	N-CA-CB	8.21	124.36	110.49
32	S1	934	A	P-O5'-C5'	-8.20	108.59	120.90
33	L1	3128	A	C1'-C2'-O2'	8.21	120.71	108.40
33	L1	716	A	C3'-C2'-C1'	8.20	109.50	101.30
33	L1	2590	C	C1'-O4'-C4'	8.20	118.10	109.90
32	S1	36	C	O4'-C1'-C2'	-8.20	99.40	107.60
32	S1	623	A	O4'-C1'-C2'	-8.20	99.40	107.60
32	S1	1063	U	O4'-C1'-N1	8.20	120.80	108.50
33	L1	1725	G	C5'-C4'-C3'	-8.20	103.70	116.00
33	L1	3327	A	C4'-C3'-O3'	-8.20	100.70	113.00
57	L1	16	HIS	CE1-NE2-CD2	-8.20	100.80	109.00
29	ST	42	ASN	CB-CA-C	-8.20	97.33	112.00
32	S1	169	A	O4'-C1'-C2'	-8.20	99.40	107.60
64	LG	177	LYS	N-CA-C	8.20	119.84	111.07
33	L1	445	C	O4'-C1'-C2'	-8.19	99.41	107.60
33	L1	1554	C	N1-C1'-C2'	8.19	124.29	112.00
33	L1	2275	A	P-O3'-C3'	8.19	132.49	120.20
42	LP	110	LEU	N-CA-C	-8.19	97.48	109.11
46	LT	119	MET	CA-C-O	8.19	129.10	120.42
67	LS	28	ARG	CB-CA-C	-8.19	93.13	109.35
67	LS	40	LYS	CA-C-O	8.19	129.42	120.82
33	L1	691	U	C1'-O4'-C4'	8.19	118.09	109.90
33	L1	1701	G	O4'-C1'-N9	8.19	120.78	108.50
33	L1	168	A	O4'-C1'-C2'	-8.19	99.41	107.60
33	L1	327	A	P-O3'-C3'	-8.19	107.92	120.20
56	Lh	106	ARG	CA-C-N	8.19	131.59	120.54
56	Lh	106	ARG	C-N-CA	8.19	131.59	120.54
11	SM	77	PHE	CA-CB-CG	-8.19	105.61	113.80
33	L1	230	G	N9-C1'-C2'	8.19	124.28	112.00
33	L1	2644	U	C1'-O4'-C4'	-8.19	101.71	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2646	A	O4'-C1'-C2'	-8.19	99.41	107.60
70	Li	112	THR	CA-C-N	-8.19	107.62	120.88
70	Li	112	THR	C-N-CA	-8.19	107.62	120.88
33	L1	2211	G	C4'-C3'-C2'	-8.19	94.42	102.60
33	L1	2495	C	P-O3'-C3'	8.19	132.48	120.20
45	LQ	41	THR	N-CA-C	8.19	123.04	112.89
48	LV	80	GLY	CA-C-N	-8.19	109.98	122.09
48	LV	80	GLY	C-N-CA	-8.19	109.98	122.09
64	LG	29	LYS	CG-CD-CE	8.19	130.13	111.30
78	Le	110	LEU	N-CA-CB	8.18	124.32	110.49
33	L1	1841	G	O4'-C1'-C2'	8.18	115.78	107.60
32	S1	259	A	O4'-C1'-C2'	-8.18	99.42	107.60
32	S1	770	U	O3'-P-O5'	-8.18	91.73	104.00
33	L1	1393	G	O3'-P-O5'	-8.18	91.73	104.00
67	LS	165	LEU	CB-CA-C	8.18	126.70	110.42
32	S1	1057	U	O4'-C1'-C2'	-8.18	99.42	107.60
32	S1	1565	U	O4'-C1'-C2'	-8.18	99.42	107.60
33	L1	1072	C	C1'-O4'-C4'	-8.18	101.72	109.90
33	L1	2708	A	O4'-C1'-N9	-8.18	95.93	108.20
37	LB	21	HIS	CE1-NE2-CD2	-8.18	100.82	109.00
64	LG	127	ALA	N-CA-C	8.17	120.46	110.41
33	L1	2631	A	C5'-C4'-C3'	-8.17	103.74	116.00
33	L1	2741	G	C1'-C2'-O2'	8.17	120.66	108.40
64	LG	59	ARG	CD-NE-CZ	-8.17	112.96	124.40
66	LN	79	ASP	CA-C-N	8.17	136.68	121.97
66	LN	79	ASP	C-N-CA	8.17	136.68	121.97
72	Lk	62	GLU	CB-CA-C	8.17	124.36	110.79
1	Sa	198	SER	CA-C-N	8.17	135.51	121.29
1	Sa	198	SER	C-N-CA	8.17	135.51	121.29
32	S1	378	U	N1-C1'-C2'	8.17	124.26	112.00
32	S1	1443	U	OP1-P-OP2	-8.17	95.09	119.60
48	LV	152	SER	CA-C-N	8.17	136.19	120.99
32	S1	400	G	C1'-O4'-C4'	8.17	118.07	109.90
32	S1	1589	C	OP1-P-OP2	-8.17	95.09	119.60
33	L1	233	C	N1-C1'-C2'	8.17	124.25	112.00
33	L1	375	G	O4'-C1'-C2'	8.17	115.77	107.60
33	L1	1513	C	O4'-C1'-N1	-8.17	96.24	108.50
48	LV	152	SER	C-N-CA	8.17	136.19	120.99
33	L1	1115	A	C3'-C2'-C1'	8.17	109.47	101.30
46	LT	86	GLU	CB-CG-CD	8.17	126.49	112.60
32	S1	1607	C	C3'-C2'-C1'	8.17	109.47	101.30
48	LV	70	THR	N-CA-C	-8.17	88.13	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	SS	59	ARG	N-CA-C	8.16	119.80	111.07
33	L1	230	G	C4'-C3'-O3'	-8.16	100.75	113.00
33	L1	1282	A	P-O5'-C5'	-8.16	108.66	120.90
33	L1	1703	C	N1-C1'-C2'	8.16	124.25	112.00
1	Sa	66	SER	CA-C-N	-8.16	113.88	122.69
1	Sa	66	SER	C-N-CA	-8.16	113.88	122.69
2	SA	199	TRP	CA-C-N	8.16	137.12	121.54
2	SA	199	TRP	C-N-CA	8.16	137.12	121.54
32	S1	475	A	O4'-C1'-C2'	-8.16	99.44	107.60
33	L1	2720	U	P-O3'-C3'	-8.16	107.96	120.20
45	LQ	241	LYS	O-C-N	-8.16	113.95	123.25
55	Lg	112	LYS	CA-C-N	8.15	129.03	119.98
55	Lg	112	LYS	C-N-CA	8.15	129.03	119.98
11	SM	99	VAL	CB-CA-C	8.15	124.66	111.29
33	L1	3156	G	O3'-P-O5'	-8.15	91.77	104.00
33	L1	374	G	C3'-C2'-C1'	-8.15	93.35	101.50
33	L1	1467	G	O4'-C1'-N9	8.15	120.73	108.50
33	L1	584	G	C3'-C2'-C1'	8.15	109.45	101.30
33	L1	1143	G	O4'-C1'-C2'	8.15	115.75	107.60
66	LN	64	ARG	CA-C-N	8.15	137.21	122.13
66	LN	64	ARG	C-N-CA	8.15	137.21	122.13
33	L1	229	G	O3'-P-O5'	-8.15	91.78	104.00
33	L1	2450	G	P-O5'-C5'	8.15	133.12	120.90
34	L3	120	C	C1'-O4'-C4'	-8.15	101.55	109.70
3	SB	82	ASN	CA-CB-CG	-8.15	104.45	112.60
32	S1	1758	G	P-O3'-C3'	8.15	132.42	120.20
35	L2	157	C	P-O5'-C5'	8.15	133.12	120.90
32	S1	220	C	O3'-P-O5'	8.14	116.22	104.00
33	L1	137	C	N1-C1'-C2'	8.14	124.22	112.00
33	L1	148	U	P-O3'-C3'	8.14	132.41	120.20
33	L1	899	A	C2'-C3'-O3'	8.14	121.71	109.50
33	L1	1319	U	O4'-C1'-N1	8.14	120.71	108.50
33	L1	2113	A	O4'-C1'-N9	8.14	120.72	108.50
32	S1	636	U	C1'-O4'-C4'	8.14	118.04	109.90
32	S1	647	G	C5'-C4'-C3'	8.14	128.21	116.00
32	S1	1332	G	C1'-O4'-C4'	8.14	118.04	109.90
33	L1	1942	A	P-O5'-C5'	8.14	133.11	120.90
33	L1	640	C	O4'-C1'-N1	-8.14	96.29	108.50
33	L1	1820	C	O3'-P-O5'	-8.14	91.79	104.00
33	L1	1869	U	N1-C1'-C2'	8.14	124.21	112.00
29	ST	15	ARG	CB-CA-C	-8.13	97.79	110.81
33	L1	531	G	P-O5'-C5'	-8.13	108.70	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1666	C	O4'-C1'-C2'	-8.13	99.47	107.60
34	L3	49	A	C4'-C3'-C2'	-8.14	94.46	102.60
33	L1	2106	U	N1-C1'-C2'	8.13	124.20	112.00
33	L1	2848	U	C1'-O4'-C4'	8.13	118.03	109.90
33	L1	3092	A	N9-C1'-C2'	8.13	126.20	114.00
16	SR	116	ILE	N-CA-C	8.13	126.25	109.34
32	S1	1743	C	C3'-C2'-C1'	8.13	109.43	101.30
33	L1	17	G	C1'-O4'-C4'	-8.13	101.77	109.90
33	L1	1576	C	N1-C1'-C2'	8.13	124.20	112.00
54	Lf	80	ASP	CA-CB-CG	-8.13	104.47	112.60
64	LG	174	PRO	O-C-N	-8.13	112.47	122.23
32	S1	489	C	P-O3'-C3'	8.13	132.39	120.20
32	S1	890	G	N9-C1'-C2'	8.13	124.19	112.00
33	L1	487	C	O4'-C1'-C2'	-8.13	99.47	107.60
33	L1	3234	G	O4'-C1'-C2'	-8.13	99.47	107.60
33	L1	2685	C	C5'-C4'-C3'	8.13	128.19	116.00
33	L1	2708	A	C3'-C2'-C1'	8.13	109.63	101.50
33	L1	435	G	P-O3'-C3'	8.13	132.39	120.20
33	L1	972	C	P-O3'-C3'	8.13	132.39	120.20
33	L1	2474	A	C1'-O4'-C4'	8.13	118.03	109.90
32	S1	620	G	P-O3'-C3'	8.12	132.38	120.20
81	LD	359	LEU	N-CA-CB	8.12	121.85	110.07
2	SA	235	TYR	N-CA-CB	8.12	124.21	110.49
32	S1	888	U	O4'-C1'-C2'	-8.12	99.48	107.60
52	Lb	87	TYR	N-CA-CB	8.12	124.22	110.49
13	SQ	98	VAL	N-CA-CB	8.12	125.30	111.50
32	S1	147	C	P-O3'-C3'	-8.12	108.02	120.20
33	L1	2821	U	C4'-C3'-C2'	-8.12	94.48	102.60
32	S1	1231	A	O4'-C1'-C2'	-8.12	99.48	107.60
32	S1	1395	C	N1-C1'-C2'	8.12	126.18	114.00
33	L1	560	C	C1'-O4'-C4'	8.12	118.02	109.90
38	LE	89	LYS	CB-CA-C	-8.12	94.26	110.42
33	L1	1201	C	O4'-C1'-C2'	-8.12	97.68	105.80
33	L1	1735	U	N1-C1'-C2'	-8.12	99.83	112.00
33	L1	2703	G	P-O3'-C3'	8.12	132.38	120.20
33	L1	3041	A	C1'-O4'-C4'	-8.12	101.78	109.90
33	L1	64	A	P-O3'-C3'	8.12	132.37	120.20
35	L2	25	C	C3'-C2'-C1'	8.12	109.42	101.30
31	S2	29	C	P-O5'-C5'	8.11	133.07	120.90
33	L1	1685	U	P-O3'-C3'	8.11	132.37	120.20
33	L1	1858	U	O4'-C1'-C2'	-8.11	99.49	107.60
33	L1	2901	C	N1-C1'-C2'	8.11	124.17	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	LV	151	LEU	CB-CA-C	-8.11	97.05	110.19
32	S1	1761	G	C1'-O4'-C4'	-8.11	101.79	109.90
33	L1	73	A	O3'-P-O5'	-8.11	91.83	104.00
33	L1	3007	A	N9-C1'-C2'	8.11	124.17	112.00
34	L3	74	A	P-O3'-C3'	-8.11	108.03	120.20
37	LB	122	ASP	CA-CB-CG	8.11	120.71	112.60
32	S1	298	C	C3'-C2'-C1'	8.11	109.41	101.30
32	S1	1091	A	N9-C1'-C2'	8.11	124.16	112.00
33	L1	2512	U	P-O3'-C3'	8.11	132.36	120.20
72	Lk	100	MET	CG-SD-CE	-8.11	83.06	100.90
79	Ls	235	PRO	CA-C-N	-8.11	106.06	121.54
79	Ls	235	PRO	C-N-CA	-8.11	106.06	121.54
15	SS	139	GLY	N-CA-C	8.10	132.38	113.18
32	S1	1191	U	O4'-C1'-C2'	-8.10	99.50	107.60
32	S1	1504	U	O4'-C1'-N1	8.10	120.65	108.50
33	L1	1896	A	O4'-C1'-C2'	8.10	113.90	105.80
33	L1	2440	U	O4'-C1'-N1	8.10	120.65	108.50
33	L1	2942	A	N9-C1'-C2'	8.10	124.15	112.00
35	L2	126	G	O4'-C1'-C2'	-8.10	99.50	107.60
66	LN	51	LYS	CA-C-N	8.10	133.82	121.83
66	LN	51	LYS	C-N-CA	8.10	133.82	121.83
33	L1	1564	C	C3'-C2'-C1'	8.10	109.40	101.30
33	L1	1715	C	O5'-C5'-C4'	8.10	123.85	111.70
33	L1	1874	A	O4'-C1'-C2'	-8.10	97.70	105.80
33	L1	2581	C	C1'-O4'-C4'	-8.10	101.80	109.90
33	L1	2748	G	C4'-C3'-C2'	-8.10	94.50	102.60
33	L1	2899	A	O4'-C1'-C2'	-8.10	99.50	107.60
33	L1	3049	A	O4'-C1'-C2'	-8.10	99.50	107.60
35	L2	16	A	N9-C1'-C2'	-8.10	99.85	112.00
41	LM	42	VAL	O-C-N	-8.10	114.51	123.26
1	Sa	200	PHE	N-CA-C	8.10	123.76	112.75
33	L1	211	A	O4'-C1'-C2'	-8.10	99.50	107.60
33	L1	1886	U	P-O5'-C5'	8.10	133.04	120.90
33	L1	2235	G	N9-C1'-C2'	8.10	124.14	112.00
33	L1	2909	A	O4'-C1'-C2'	-8.10	99.50	107.60
3	SB	75	LYS	CA-C-N	8.09	132.04	120.79
3	SB	75	LYS	C-N-CA	8.09	132.04	120.79
3	SB	168	ILE	N-CA-C	-8.09	96.84	108.17
32	S1	1663	A	C3'-C2'-C1'	8.09	109.39	101.30
33	L1	2672	C	C4'-C3'-C2'	-8.09	94.51	102.60
74	LJ	58	ARG	NE-CZ-NH1	8.09	129.59	121.50
81	LD	390	ASP	CA-C-N	8.09	137.00	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	LD	390	ASP	C-N-CA	8.09	137.00	121.54
27	SH	106	THR	N-CA-C	-8.09	97.58	109.63
32	S1	965	U	O3'-P-O5'	8.09	116.14	104.00
32	S1	1665	U	O3'-P-O5'	-8.09	91.86	104.00
32	S1	1665	U	O5'-C5'-C4'	8.09	123.64	111.50
33	L1	1820	C	O4'-C1'-N1	8.09	120.64	108.50
59	Lo	24	PRO	N-CA-C	-8.09	95.80	112.47
33	L1	3335	G	O4'-C4'-C3'	-8.09	95.91	104.00
36	LA	7	ASP	CA-C-O	8.09	129.12	120.46
3	SB	148	LYS	CA-C-N	8.09	136.99	121.54
3	SB	148	LYS	C-N-CA	8.09	136.99	121.54
33	L1	603	G	N9-C1'-C2'	8.09	124.13	112.00
33	L1	844	A	C3'-C2'-C1'	-8.09	93.21	101.30
33	L1	1576	C	C1'-O4'-C4'	8.09	117.99	109.90
55	Lg	13	ASP	CA-C-N	8.09	136.99	121.54
55	Lg	13	ASP	C-N-CA	8.09	136.99	121.54
80	LC	61	GLU	N-CA-C	-8.09	93.57	110.80
33	L1	410	G	C1'-C2'-O2'	8.09	120.53	108.40
78	Le	117	VAL	O-C-N	-8.09	113.71	123.09
11	SM	103	VAL	CA-C-O	-8.08	112.60	121.17
24	SX	34	PHE	CA-CB-CG	-8.08	105.72	113.80
32	S1	150	U	O4'-C1'-N1	8.08	120.62	108.50
33	L1	722	C	C4'-C3'-O3'	8.08	125.12	113.00
8	SJ	55	LYS	CA-C-N	8.08	130.94	120.44
8	SJ	55	LYS	C-N-CA	8.08	130.94	120.44
33	L1	2680	G	C4'-C3'-C2'	-8.08	94.52	102.60
32	S1	148	C	P-O3'-C3'	8.08	132.32	120.20
72	Lk	66	VAL	N-CA-CB	8.08	124.56	111.23
32	S1	60	C	N1-C1'-C2'	8.08	124.11	112.00
32	S1	1795	U	O4'-C1'-C2'	-8.08	99.52	107.60
81	LD	39	ASP	N-CA-CB	-8.08	98.36	110.07
81	LD	6	ARG	O-C-N	8.08	127.77	121.23
32	S1	970	U	N1-C1'-C2'	8.07	124.11	112.00
32	S1	1458	U	N1-C1'-C2'	8.07	124.11	112.00
33	L1	72	A	O3'-P-O5'	-8.07	91.89	104.00
33	L1	2164	G	O4'-C1'-N9	8.07	120.61	108.50
33	L1	3275	G	C1'-O4'-C4'	-8.07	101.83	109.90
68	LW	81	SER	N-CA-C	-8.07	101.91	113.21
33	L1	1762	G	P-O3'-C3'	8.07	132.31	120.20
33	L1	1912	U	C1'-O4'-C4'	-8.07	101.83	109.90
12	SO	123	HIS	N-CA-CB	8.07	121.71	110.01
33	L1	259	G	O4'-C1'-N9	8.07	120.61	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	563	C	C2'-C3'-O3'	8.07	125.81	113.70
33	L1	643	G	C3'-C2'-C1'	-8.07	93.23	101.30
25	SC	145	ILE	N-CA-CB	8.07	122.51	111.21
32	S1	693	C	O4'-C1'-C2'	-8.07	99.53	107.60
32	S1	1683	G	O4'-C1'-C2'	8.07	115.67	107.60
33	L1	846	A	C4'-C3'-C2'	-8.07	94.53	102.60
33	L1	2491	A	N9-C1'-C2'	8.07	124.10	112.00
32	S1	350	G	N9-C1'-C2'	8.07	124.10	112.00
32	S1	1022	U	N1-C1'-C2'	8.07	124.10	112.00
32	S1	1457	C	P-O3'-C3'	-8.07	108.10	120.20
33	L1	337	C	N1-C1'-C2'	8.07	124.10	112.00
33	L1	2621	G	O4'-C1'-C2'	-8.07	97.73	105.80
47	LU	126	ILE	CB-CA-C	-8.07	99.19	112.26
33	L1	2562	A	P-O5'-C5'	8.06	133.00	120.90
35	L2	63	A	C1'-O4'-C4'	-8.06	101.64	109.70
35	L2	98	C	O4'-C1'-N1	-8.06	84.31	108.50
68	LW	87	TYR	CB-CA-C	8.06	123.64	110.90
82	LK	115	PRO	CB-CA-C	8.06	120.76	110.92
32	S1	1278	C	C1'-C2'-O2'	8.06	120.49	108.40
33	L1	130	G	O4'-C1'-N9	8.06	120.59	108.50
41	LM	72	LEU	CB-CA-C	-8.06	98.16	110.90
72	Lk	84	LYS	CB-CA-C	-8.06	97.41	110.79
69	La	11	VAL	N-CA-C	8.06	126.11	109.34
23	SU	34	HIS	CA-C-N	-8.06	109.77	119.84
23	SU	34	HIS	C-N-CA	-8.06	109.77	119.84
32	S1	1660	C	N1-C1'-C2'	8.06	124.09	112.00
33	L1	2212	U	O4'-C1'-N1	8.06	120.59	108.50
33	L1	2237	A	N9-C1'-C2'	8.06	124.09	112.00
66	LN	55	LEU	CB-CA-C	8.06	124.12	109.37
33	L1	677	U	O4'-C1'-C2'	8.06	115.66	107.60
33	L1	2540	C	C1'-O4'-C4'	-8.06	101.84	109.90
33	L1	3355	U	P-O5'-C5'	8.06	132.98	120.90
32	S1	850	G	C1'-O4'-C4'	-8.05	101.85	109.90
33	L1	282	A	C1'-O4'-C4'	8.05	117.75	109.70
33	L1	1610	A	C4'-C3'-C2'	-8.05	94.55	102.60
13	SQ	33	LYS	N-CA-C	8.05	120.05	111.28
32	S1	1206	A	O4'-C1'-N9	8.05	120.58	108.50
33	L1	265	G	C3'-C2'-C1'	8.05	109.55	101.50
33	L1	772	U	O4'-C1'-N1	8.05	120.58	108.50
33	L1	886	A	P-O3'-C3'	8.05	132.28	120.20
33	L1	2847	A	C1'-O4'-C4'	8.05	117.95	109.90
33	L1	1764	G	O3'-P-O5'	-8.05	91.93	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1780	C	O4'-C1'-C2'	-8.05	99.55	107.60
33	L1	2842	C	N1-C1'-C2'	-8.05	99.93	112.00
38	LE	108	ILE	N-CA-C	8.05	126.08	109.34
5	SE	258	LYS	CA-C-N	8.04	129.89	119.84
5	SE	258	LYS	C-N-CA	8.04	129.89	119.84
20	SZ	25	ASP	CA-CB-CG	-8.04	104.56	112.60
33	L1	972	C	O3'-P-O5'	-8.04	91.93	104.00
33	L1	1518	A	P-O5'-C5'	8.04	132.97	120.90
33	L1	1955	G	O4'-C1'-C2'	8.04	115.64	107.60
33	L1	3295	G	C1'-C2'-O2'	8.05	123.87	111.80
33	L1	2493	C	C1'-O4'-C4'	-8.04	101.86	109.90
67	LS	27	TYR	CA-C-N	8.04	135.76	122.73
67	LS	27	TYR	C-N-CA	8.04	135.76	122.73
7	SI	113	ASP	CA-CB-CG	8.04	120.64	112.60
32	S1	1181	G	O3'-P-O5'	8.04	116.06	104.00
32	S1	1503	C	O4'-C1'-C2'	-8.04	99.56	107.60
33	L1	38	A	O4'-C1'-C2'	-8.04	99.56	107.60
33	L1	607	U	C1'-O4'-C4'	8.04	117.94	109.90
33	L1	1394	C	O5'-C5'-C4'	-8.04	99.64	111.70
33	L1	1525	U	C4'-C3'-O3'	8.04	121.47	109.40
64	LG	180	ASP	CA-C-N	8.04	131.40	120.38
64	LG	180	ASP	C-N-CA	8.04	131.40	120.38
55	Lg	25	HIS	CA-CB-CG	8.04	121.84	113.80
32	S1	1402	C	O4'-C1'-C2'	-8.04	99.56	107.60
33	L1	1277	A	N9-C1'-C2'	8.04	124.06	112.00
47	LU	156	VAL	N-CA-C	8.04	121.10	111.05
67	LS	166	LYS	CB-CA-C	-8.04	94.42	110.42
1	Sa	39	LYS	N-CA-C	-8.04	98.32	108.45
42	LP	190	ALA	N-CA-C	8.04	119.67	111.07
15	SS	6	ALA	O-C-N	8.04	130.71	122.03
25	SC	129	VAL	N-CA-C	-8.04	103.06	111.58
32	S1	306	U	O4'-C1'-N1	8.04	120.56	108.50
49	LX	141	ASP	CA-C-N	8.04	131.85	120.28
49	LX	141	ASP	C-N-CA	8.04	131.85	120.28
55	Lg	64	ASN	CA-C-O	8.04	129.26	120.82
33	L1	2910	C	C5'-C4'-C3'	-8.03	103.95	116.00
39	LF	172	ARG	N-CA-C	8.03	120.82	111.02
56	Lh	120	VAL	CA-C-O	-8.03	110.74	120.78
78	Le	209	LEU	N-CA-C	8.04	121.88	110.23
32	S1	1034	G	C5'-C4'-O4'	8.03	121.15	109.10
32	S1	1224	C	C5'-C4'-C3'	8.03	128.05	116.00
32	S1	1538	C	C1'-O4'-C4'	8.03	117.93	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	307	C	O5'-C5'-C4'	8.03	123.55	111.50
33	L1	3277	C	P-O3'-C3'	8.03	132.25	120.20
36	LA	212	ARG	CA-C-N	8.03	134.27	122.71
36	LA	212	ARG	C-N-CA	8.03	134.27	122.71
3	SB	17	PHE	CA-CB-CG	-8.03	105.77	113.80
4	SD	93	PRO	N-CA-C	8.03	122.92	110.80
25	SC	194	GLU	CA-C-N	8.03	136.15	121.70
25	SC	194	GLU	C-N-CA	8.03	136.15	121.70
29	ST	5	GLU	CB-CA-C	-8.03	98.27	110.88
32	S1	1683	G	N9-C1'-C2'	8.03	124.04	112.00
33	L1	528	C	C3'-C2'-C1'	8.03	109.33	101.30
33	L1	1240	G	C1'-O4'-C4'	-8.03	101.67	109.70
33	L1	2355	A	C3'-C2'-C1'	8.03	109.33	101.30
33	L1	2949	G	C1'-O4'-C4'	-8.03	101.87	109.90
32	S1	1442	A	P-O3'-C3'	-8.03	108.16	120.20
33	L1	3387	U	P-O5'-C5'	8.03	132.94	120.90
32	S1	1134	U	O4'-C1'-C2'	-8.03	99.58	107.60
34	L3	73	U	C1'-O4'-C4'	8.03	117.92	109.90
68	LW	34	LYS	CA-C-N	8.03	130.00	121.97
68	LW	34	LYS	C-N-CA	8.03	130.00	121.97
69	La	73	LYS	N-CA-C	8.03	120.11	111.36
4	SD	211	GLU	O-C-N	8.02	130.75	122.09
32	S1	828	G	C3'-C2'-C1'	-8.02	93.28	101.30
33	L1	2475	C	C3'-C2'-C1'	8.02	109.32	101.30
32	S1	467	U	C1'-C2'-O2'	8.02	120.43	108.40
32	S1	1342	C	O4'-C1'-C2'	-8.02	99.58	107.60
33	L1	632	C	C1'-O4'-C4'	-8.02	101.88	109.90
33	L1	845	G	C5'-C4'-C3'	-8.02	103.97	116.00
33	L1	2275	A	C2'-C3'-O3'	8.02	121.53	109.50
33	L1	2659	A	N9-C1'-C2'	8.02	126.03	114.00
33	L1	2899	A	N9-C1'-C2'	-8.02	99.97	112.00
28	SN	22	ARG	NE-CZ-NH2	8.02	126.42	119.20
32	S1	103	U	C4'-C3'-O3'	-8.02	100.97	113.00
45	LQ	115	GLY	CA-C-N	8.02	136.86	121.54
45	LQ	115	GLY	C-N-CA	8.02	136.86	121.54
64	LG	21	HIS	CA-C-O	-8.02	112.05	120.55
77	Lc	111	ARG	N-CA-C	8.02	119.80	111.14
1	Sa	347	ILE	N-CA-CB	8.02	121.77	111.67
23	SU	80	LEU	CD1-CG-CD2	-8.02	93.16	110.80
33	L1	212	G	O4'-C1'-C2'	-8.02	99.58	107.60
33	L1	2483	A	C5'-C4'-C3'	8.02	128.02	116.00
33	L1	3007	A	C1'-O4'-C4'	-8.02	101.88	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	348	C	N1-C1'-C2'	8.01	126.02	114.00
33	L1	1038	C	O4'-C1'-C2'	-8.01	99.59	107.60
33	L1	3201	A	O4'-C1'-N9	8.01	120.52	108.50
55	Lg	13	ASP	O-C-N	8.01	132.39	123.25
33	L1	2632	U	O4'-C1'-C2'	-8.01	99.59	107.60
15	SS	67	ILE	N-CA-C	8.01	118.79	110.62
33	L1	668	U	P-O3'-C3'	-8.01	108.18	120.20
33	L1	1693	A	O4'-C1'-C2'	-8.01	99.59	107.60
33	L1	2868	C	C1'-O4'-C4'	8.01	117.71	109.70
29	ST	9	VAL	CA-C-N	8.01	136.84	121.54
29	ST	9	VAL	C-N-CA	8.01	136.84	121.54
33	L1	2724	A	C3'-C2'-C1'	8.01	109.31	101.30
33	L1	2776	U	O4'-C1'-C2'	-8.01	99.59	107.60
32	S1	492	G	P-O3'-C3'	8.01	132.21	120.20
1	Sa	375	GLY	N-CA-C	-8.01	102.59	112.68
33	L1	555	G	C3'-C2'-C1'	-8.01	93.29	101.30
33	L1	1507	A	C5'-C4'-C3'	8.01	128.01	116.00
33	L1	1865	C	O4'-C1'-C2'	-8.01	99.59	107.60
33	L1	2618	G	C5'-C4'-C3'	8.00	128.00	116.00
40	LH	90	LYS	O-C-N	-8.00	111.95	122.59
59	Lo	7	PHE	CA-CB-CG	8.00	121.80	113.80
33	L1	1778	C	O4'-C1'-C2'	-8.00	99.60	107.60
33	L1	2763	C	C5'-C4'-C3'	8.00	128.00	116.00
60	Lr	66	LYS	N-CA-C	8.00	121.55	109.63
66	LN	116	LYS	CA-C-N	8.00	131.00	120.28
66	LN	116	LYS	C-N-CA	8.00	131.00	120.28
77	Lc	114	HIS	CA-C-N	8.00	131.51	120.39
77	Lc	114	HIS	C-N-CA	8.00	131.51	120.39
25	SC	3	ARG	N-CA-CB	8.00	121.61	110.01
33	L1	2059	C	C5'-C4'-C3'	8.00	128.00	116.00
33	L1	2481	C	N1-C1'-C2'	8.00	124.00	112.00
33	L1	2936	A	P-O3'-C3'	8.00	132.19	120.20
32	S1	989	G	P-O5'-C5'	8.00	132.89	120.90
33	L1	1253	G	O4'-C1'-N9	8.00	120.49	108.50
9	SK	106	THR	CB-CA-C	7.99	125.92	110.17
33	L1	2172	C	P-O3'-C3'	7.99	132.19	120.20
33	L1	590	C	C2'-C3'-O3'	7.99	125.69	113.70
32	S1	1297	U	O4'-C1'-C2'	-7.99	99.61	107.60
32	S1	1615	G	O4'-C1'-C2'	-7.99	99.61	107.60
33	L1	1193	A	P-O5'-C5'	-7.99	108.92	120.90
33	L1	1262	U	N1-C1'-C2'	-7.99	100.02	112.00
33	L1	2998	A	O4'-C1'-C2'	-7.99	99.61	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	SB	112	GLY	CA-C-N	7.99	136.80	121.54
3	SB	112	GLY	C-N-CA	7.99	136.80	121.54
32	S1	422	G	O4'-C1'-N9	7.99	120.48	108.50
32	S1	1276	U	O3'-P-O5'	7.99	115.98	104.00
32	S1	1760	A	C4'-C3'-O3'	7.99	121.38	109.40
33	L1	4	C	O4'-C1'-C2'	-7.99	99.61	107.60
33	L1	997	G	N9-C1'-C2'	-7.99	100.02	112.00
35	L2	92	A	C3'-C2'-C1'	7.99	109.29	101.30
13	SQ	61	ILE	N-CA-CB	-7.99	95.63	110.40
32	S1	1379	U	O4'-C1'-N1	7.99	120.48	108.50
32	S1	1512	C	O4'-C1'-C2'	-7.99	99.61	107.60
33	L1	1081	U	C1'-O4'-C4'	7.99	117.89	109.90
35	L2	56	A	C1'-C2'-O2'	7.99	120.38	108.40
64	LG	167	LYS	N-CA-C	7.99	119.61	111.07
32	S1	1	U	O4'-C1'-N1	7.98	120.48	108.50
33	L1	686	A	N9-C1'-C2'	7.98	123.98	112.00
33	L1	1361	G	O4'-C4'-C3'	-7.98	96.02	104.00
33	L1	2774	A	O4'-C1'-C2'	-7.98	99.62	107.60
48	LV	157	PRO	CA-N-CD	-7.98	100.82	112.00
33	L1	1164	G	C5'-C4'-C3'	-7.98	104.03	116.00
33	L1	1967	C	O4'-C1'-C2'	-7.98	99.62	107.60
64	LG	57	LYS	CA-C-N	7.98	127.91	119.05
64	LG	57	LYS	C-N-CA	7.98	127.91	119.05
83	Lm	19	GLY	CA-C-N	7.98	131.62	120.29
83	Lm	19	GLY	C-N-CA	7.98	131.62	120.29
32	S1	947	G	O4'-C1'-C2'	7.98	115.58	107.60
32	S1	950	U	N1-C1'-C2'	7.98	123.97	112.00
42	LP	12	ARG	NE-CZ-NH2	-7.98	112.02	119.20
16	SR	115	GLU	N-CA-C	-7.98	102.67	111.36
32	S1	1134	U	O4'-C1'-N1	7.98	120.47	108.50
32	S1	1609	G	O4'-C1'-N9	7.98	120.47	108.50
33	L1	2584	U	C1'-C2'-O2'	7.98	120.37	108.40
79	Ls	35	ASN	CA-C-N	7.98	133.68	121.71
79	Ls	35	ASN	C-N-CA	7.98	133.68	121.71
33	L1	6	A	C1'-O4'-C4'	7.98	117.88	109.90
33	L1	605	A	C4'-C3'-C2'	-7.98	94.62	102.60
33	L1	973	U	C1'-O4'-C4'	-7.97	101.92	109.90
24	SX	74	ARG	CA-C-N	-7.97	106.31	121.54
24	SX	74	ARG	C-N-CA	-7.97	106.31	121.54
33	L1	789	A	O3'-P-O5'	7.97	115.96	104.00
33	L1	1743	C	P-O5'-C5'	-7.97	108.94	120.90
33	L1	2390	G	O4'-C1'-C2'	7.97	115.57	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	L3	57	C	P-O5'-C5'	7.97	132.86	120.90
33	L1	1952	U	P-O5'-C5'	7.97	132.86	120.90
33	L1	2233	G	O4'-C1'-N9	7.97	120.46	108.50
83	Lm	7	LYS	CA-C-N	-7.97	106.31	121.54
83	Lm	7	LYS	C-N-CA	-7.97	106.31	121.54
11	SM	97	GLN	CG-CD-NE2	-7.97	104.44	116.40
33	L1	2952	G	N9-C1'-C2'	-7.97	102.05	114.00
31	S2	47	U	P-O3'-C3'	7.97	132.15	120.20
32	S1	906	G	C1'-O4'-C4'	-7.97	101.93	109.90
33	L1	105	A	C5'-C4'-C3'	-7.97	104.05	116.00
1	Sa	215	SER	N-CA-CB	7.96	123.69	110.47
32	S1	292	A	N9-C1'-C2'	-7.96	100.06	112.00
32	S1	1134	U	C1'-O4'-C4'	7.96	117.86	109.90
32	S1	1373	C	N1-C1'-C2'	7.96	123.94	112.00
32	S1	1737	A	O4'-C1'-C2'	-7.96	99.64	107.60
33	L1	1196	U	O4'-C4'-C3'	-7.96	96.04	104.00
33	L1	1400	C	C1'-O4'-C4'	-7.96	101.94	109.90
33	L1	2633	C	O3'-P-O5'	-7.96	92.06	104.00
33	L1	2807	G	O4'-C1'-C2'	7.96	115.56	107.60
33	L1	2941	G	O4'-C1'-C2'	7.96	115.56	107.60
45	LQ	17	PHE	CA-CB-CG	-7.96	105.84	113.80
45	LQ	197	LYS	CA-C-N	7.96	136.03	121.70
45	LQ	197	LYS	C-N-CA	7.96	136.03	121.70
56	Lh	22	HIS	N-CA-CB	7.96	124.10	112.08
33	L1	2508	U	C4'-C3'-C2'	7.96	110.56	102.60
33	L1	2225	C	N1-C1'-C2'	7.96	123.93	112.00
32	S1	156	U	O4'-C1'-N1	7.95	120.43	108.50
32	S1	258	U	C5'-C4'-C3'	-7.95	104.07	116.00
33	L1	2789	G	P-O3'-C3'	7.95	132.13	120.20
32	S1	956	A	O4'-C1'-N9	7.95	120.43	108.50
33	L1	164	C	C1'-C2'-O2'	7.95	120.33	108.40
33	L1	1279	C	O4'-C1'-C2'	-7.95	99.65	107.60
33	L1	2103	U	O4'-C1'-N1	7.95	120.42	108.50
52	Lb	96	PHE	CA-CB-CG	-7.95	105.85	113.80
66	LN	84	TRP	CA-C-N	7.95	130.78	120.44
66	LN	84	TRP	C-N-CA	7.95	130.78	120.44
32	S1	1462	C	C1'-O4'-C4'	-7.95	101.75	109.70
32	S1	1546	U	O4'-C1'-C2'	-7.95	97.85	105.80
33	L1	2773	G	C5'-C4'-C3'	-7.95	104.08	116.00
35	L2	54	C	P-O3'-C3'	7.95	132.12	120.20
74	LJ	16	ARG	N-CA-C	-7.95	97.24	109.24
1	Sa	207	ASP	CA-C-N	-7.95	112.44	122.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Sa	207	ASP	C-N-CA	-7.95	112.44	122.37
27	SH	118	ARG	CA-C-N	7.95	133.31	120.60
27	SH	118	ARG	C-N-CA	7.95	133.31	120.60
28	SN	13	ASN	OD1-CG-ND2	7.95	130.55	122.60
33	L1	891	U	O4'-C1'-N1	7.95	120.42	108.50
33	L1	2620	U	N1-C1'-C2'	-7.95	102.08	114.00
70	Li	41	GLY	O-C-N	-7.94	113.83	121.77
32	S1	1651	U	O4'-C1'-C2'	7.94	115.54	107.60
67	LS	156	ARG	N-CA-C	-7.94	98.47	110.14
77	Lc	91	ALA	CA-C-N	7.94	130.57	120.56
77	Lc	91	ALA	C-N-CA	7.94	130.57	120.56
27	SH	107	SER	N-CA-CB	7.94	121.50	109.91
32	S1	1435	G	C3'-C2'-C1'	-7.94	93.36	101.30
33	L1	1004	C	N1-C1'-C2'	7.94	123.91	112.00
46	LT	23	TRP	CA-CB-CG	7.94	128.69	113.60
33	L1	347	A	N9-C1'-C2'	7.94	125.91	114.00
33	L1	1948	G	N9-C1'-C2'	-7.94	100.09	112.00
33	L1	1623	C	C1'-C2'-O2'	-7.94	99.89	111.80
33	L1	3193	C	P-O5'-C5'	7.94	131.91	120.00
33	L1	3379	C	O5'-C5'-C4'	7.94	123.40	111.50
17	SV	39	ASN	O-C-N	-7.93	113.74	122.79
32	S1	919	G	O4'-C1'-C2'	-7.93	97.86	105.80
32	S1	1483	G	O4'-C1'-N9	7.93	120.40	108.50
33	L1	2876	G	P-O5'-C5'	-7.93	109.00	120.90
33	L1	1067	G	O3'-P-O5'	7.93	115.90	104.00
33	L1	2723	G	C3'-C2'-C1'	7.93	109.23	101.30
33	L1	2863	U	C1'-O4'-C4'	-7.93	101.97	109.90
71	Lj	24	LYS	CA-C-N	-7.93	106.39	121.54
71	Lj	24	LYS	C-N-CA	-7.93	106.39	121.54
33	L1	68	U	C1'-C2'-O2'	7.93	120.30	108.40
33	L1	342	A	P-O5'-C5'	7.93	132.80	120.90
33	L1	424	G	P-O3'-C3'	7.93	132.10	120.20
49	LX	88	ASP	CA-CB-CG	7.93	120.53	112.60
32	S1	1068	G	O4'-C1'-N9	7.93	120.10	108.20
33	L1	1317	G	O4'-C1'-C2'	-7.93	99.67	107.60
33	L1	2770	U	O4'-C1'-N1	7.93	120.39	108.50
32	S1	1080	C	N1-C1'-C2'	7.93	123.89	112.00
33	L1	1831	A	C1'-O4'-C4'	7.93	117.83	109.90
34	L3	2	G	P-O5'-C5'	7.93	132.79	120.90
40	LH	134	HIS	CA-CB-CG	-7.93	105.87	113.80
59	Lo	27	ILE	N-CA-C	7.93	125.83	109.34
32	S1	1792	A	C1'-O4'-C4'	7.92	117.83	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	805	C	C3'-C2'-C1'	7.92	109.22	101.30
36	LA	27	PHE	CA-CB-CG	7.92	121.72	113.80
51	LY	46	SER	CA-C-O	-7.92	112.17	120.89
71	Lj	13	VAL	N-CA-CB	7.92	124.97	111.50
8	SJ	90	GLU	N-CA-CB	7.92	123.01	110.65
32	S1	546	U	P-O3'-C3'	7.92	132.09	120.20
33	L1	2197	C	C1'-O4'-C4'	-7.92	101.98	109.90
78	Le	68	LYS	CB-CA-C	7.92	123.94	110.79
33	L1	534	G	P-O5'-C5'	-7.92	109.02	120.90
56	Lh	5	LEU	CA-C-O	-7.92	112.02	120.42
67	LS	63	ILE	O-C-N	-7.92	114.64	123.20
32	S1	290	C	C1'-O4'-C4'	-7.92	101.98	109.90
9	SK	77	SER	N-CA-C	7.92	121.40	110.24
33	L1	2484	G	O4'-C1'-N9	7.92	120.38	108.50
46	LT	2	VAL	N-CA-C	-7.92	96.61	108.17
59	Lo	30	ARG	O-C-N	-7.92	112.06	122.59
32	S1	1179	C	O4'-C1'-C2'	-7.92	99.68	107.60
34	L3	63	U	P-O3'-C3'	7.92	132.07	120.20
38	LE	120	PRO	N-CA-CB	7.92	109.63	103.30
27	SH	121	VAL	CA-CB-CG1	7.92	123.86	110.40
11	SM	135	HIS	CA-CB-CG	7.91	121.71	113.80
32	S1	438	G	C4'-C3'-C2'	-7.91	94.69	102.60
32	S1	690	G	O4'-C1'-C2'	-7.91	99.69	107.60
33	L1	538	C	N1-C1'-C2'	-7.91	102.13	114.00
33	L1	1508	C	P-O5'-C5'	7.91	132.77	120.90
33	L1	1875	A	O4'-C1'-C2'	-7.91	97.89	105.80
33	L1	2701	G	O3'-P-O5'	-7.91	92.13	104.00
68	LW	82	LYS	CA-C-O	-7.91	109.19	120.51
32	S1	492	G	O4'-C1'-N9	7.91	120.37	108.50
45	LQ	175	HIS	CB-CG-CD2	-7.91	120.92	131.20
55	Lg	15	VAL	CB-CA-C	-7.91	98.31	111.29
25	SC	43	GLU	CA-C-N	7.91	136.65	121.54
25	SC	43	GLU	C-N-CA	7.91	136.65	121.54
32	S1	1249	G	N9-C1'-C2'	7.91	123.87	112.00
33	L1	682	G	N9-C1'-C2'	7.91	123.87	112.00
2	SA	9	ALA	CA-C-O	-7.91	112.41	121.58
32	S1	860	A	OP2-P-O3'	7.91	131.72	108.00
33	L1	334	A	P-O3'-C3'	7.91	132.06	120.20
33	L1	1035	C	C5'-C4'-C3'	7.91	127.86	116.00
33	L1	1373	A	P-O3'-C3'	-7.91	108.34	120.20
33	L1	1624	G	O4'-C1'-N9	7.91	120.36	108.50
31	S2	64	G	C3'-C2'-C1'	7.91	109.21	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1614	G	C5'-C4'-C3'	-7.91	104.14	116.00
74	LJ	124	LYS	N-CA-CB	7.91	123.85	110.49
81	LD	312	LYS	CB-CA-C	7.91	123.92	110.56
32	S1	405	A	O4'-C1'-C2'	-7.91	97.89	105.80
32	S1	1592	G	O4'-C1'-N9	7.91	120.06	108.20
33	L1	251	G	C3'-C2'-C1'	-7.91	93.39	101.30
33	L1	1812	A	C1'-O4'-C4'	-7.91	102.00	109.90
33	L1	2791	U	O4'-C1'-N1	7.91	120.36	108.50
46	LT	27	ASN	CA-CB-CG	-7.91	104.69	112.60
33	L1	707	G	O4'-C1'-N9	-7.90	96.64	108.50
32	S1	1354	C	N1-C1'-C2'	7.90	123.86	112.00
33	L1	1126	U	O4'-C1'-C2'	-7.90	99.70	107.60
33	L1	2247	A	N9-C1'-C2'	-7.90	100.15	112.00
33	L1	3343	U	C5'-C4'-C3'	7.90	127.85	116.00
38	LE	153	HIS	CE1-NE2-CD2	-7.90	101.10	109.00
12	SO	124	ARG	N-CA-C	7.90	122.18	112.23
25	SC	94	LYS	CA-C-N	7.90	136.10	123.93
25	SC	94	LYS	C-N-CA	7.90	136.10	123.93
48	LV	94	ASP	CA-CB-CG	-7.90	104.70	112.60
56	Lh	53	MET	O-C-N	-7.90	111.07	121.34
32	S1	1759	A	N9-C1'-C2'	-7.90	100.16	112.00
33	L1	1089	G	O4'-C1'-C2'	-7.90	99.70	107.60
33	L1	1147	U	N1-C1'-C2'	7.90	125.85	114.00
82	LK	129	LEU	CA-C-O	-7.90	111.47	120.24
32	S1	1483	G	O4'-C1'-C2'	7.90	115.50	107.60
33	L1	1902	G	N9-C1'-C2'	-7.90	102.16	114.00
32	S1	587	C	N1-C1'-C2'	7.89	123.84	112.00
32	S1	1238	A	O4'-C1'-N9	7.89	120.34	108.50
32	S1	1507	G	C3'-C2'-C1'	-7.89	93.41	101.30
33	L1	708	C	O4'-C1'-C2'	-7.89	99.70	107.60
33	L1	1310	G	P-O3'-C3'	7.89	132.04	120.20
33	L1	2164	G	C3'-C2'-C1'	-7.89	93.41	101.30
33	L1	2449	A	C5'-C4'-C3'	7.89	127.84	116.00
33	L1	3376	C	O4'-C1'-N1	7.89	120.34	108.50
32	S1	1734	U	P-O5'-C5'	7.89	132.74	120.90
33	L1	71	C	O4'-C1'-C2'	-7.89	97.91	105.80
33	L1	372	A	N9-C1'-C2'	-7.89	102.16	114.00
32	S1	140	C	O4'-C1'-C2'	-7.89	99.71	107.60
32	S1	795	A	P-O5'-C5'	7.89	131.84	120.00
33	L1	88	A	C1'-C2'-O2'	7.89	120.23	108.40
33	L1	1238	G	O4'-C1'-N9	7.89	120.33	108.50
33	L1	2374	G	O4'-C1'-N9	7.89	120.03	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3037	G	C5'-C4'-C3'	-7.89	104.17	116.00
1	Sa	134	ILE	CA-C-N	-7.89	108.23	121.64
1	Sa	134	ILE	C-N-CA	-7.89	108.23	121.64
32	S1	1651	U	C3'-C2'-C1'	-7.89	93.41	101.30
81	LD	45	HIS	CA-C-O	-7.89	112.54	120.82
32	S1	1119	G	O4'-C1'-N9	7.89	120.03	108.20
33	L1	3306	A	C1'-O4'-C4'	-7.89	102.01	109.90
33	L1	3339	G	O3'-P-O5'	-7.89	92.17	104.00
37	LB	31	SER	CA-C-N	7.89	136.60	121.54
37	LB	31	SER	C-N-CA	7.89	136.60	121.54
47	LU	130	ARG	CA-C-O	-7.89	112.19	120.55
12	SO	124	ARG	CA-CB-CG	-7.88	98.33	114.10
32	S1	1553	A	C4'-C3'-C2'	-7.88	94.72	102.60
33	L1	2647	C	O4'-C1'-C2'	-7.88	97.92	105.80
34	L3	102	G	O4'-C1'-N9	7.88	120.33	108.50
55	Lg	41	ILE	CB-CA-C	7.88	122.78	112.14
4	SD	145	ARG	N-CA-CB	7.88	121.56	109.97
33	L1	801	G	N9-C1'-C2'	-7.88	100.18	112.00
51	LY	23	SER	N-CA-C	7.88	119.56	110.97
32	S1	1489	A	P-O3'-C3'	7.88	132.02	120.20
35	L2	54	C	O4'-C1'-C2'	-7.88	99.72	107.60
32	S1	995	C	O4'-C1'-C2'	-7.88	99.72	107.60
33	L1	2730	A	N9-C1'-C2'	-7.88	102.18	114.00
11	SM	109	ASP	CA-C-N	7.88	130.83	120.28
11	SM	109	ASP	C-N-CA	7.88	130.83	120.28
35	L2	45	A	N9-C1'-C2'	-7.88	100.18	112.00
31	S2	71	A	C4'-C3'-C2'	7.88	110.47	102.60
33	L1	3099	G	O4'-C1'-C2'	-7.88	99.72	107.60
55	Lg	106	ILE	CA-C-N	7.88	127.94	119.28
55	Lg	106	ILE	C-N-CA	7.88	127.94	119.28
81	LD	370	GLU	CA-C-N	7.88	130.68	120.44
81	LD	370	GLU	C-N-CA	7.88	130.68	120.44
8	SJ	27	HIS	CB-CG-CD2	-7.87	120.97	131.20
32	S1	568	G	C1'-C2'-O2'	-7.87	99.99	111.80
32	S1	961	U	N1-C1'-C2'	7.87	123.81	112.00
33	L1	2632	U	C1'-O4'-C4'	7.87	117.77	109.90
35	L2	8	C	O3'-P-O5'	7.87	115.81	104.00
60	Lr	6	LYS	N-CA-C	-7.87	103.47	113.23
81	LD	314	VAL	CB-CA-C	-7.87	101.85	111.85
33	L1	1679	U	O4'-C1'-N1	7.87	120.31	108.50
80	LC	39	LYS	CA-C-N	7.87	129.68	119.84
80	LC	39	LYS	C-N-CA	7.87	129.68	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	SK	112	GLN	CB-CA-C	-7.87	98.22	110.81
33	L1	1361	G	P-O5'-C5'	7.87	132.70	120.90
33	L1	3050	A	O4'-C1'-C2'	-7.87	99.73	107.60
1	Sa	204	HIS	ND1-CE1-NE2	7.87	116.27	108.40
33	L1	721	A	N9-C1'-C2'	7.87	123.80	112.00
33	L1	3237	G	C3'-C2'-C1'	-7.87	93.43	101.30
81	LD	383	LYS	CA-C-N	7.87	130.67	120.44
81	LD	383	LYS	C-N-CA	7.87	130.67	120.44
33	L1	1818	C	C5'-C4'-C3'	7.87	127.80	116.00
35	L2	94	C	C3'-C2'-C1'	-7.87	93.63	101.50
66	LN	81	LYS	CB-CA-C	7.87	123.40	110.81
32	S1	951	U	C1'-O4'-C4'	7.87	117.77	109.90
32	S1	1133	C	C4'-C3'-O3'	-7.87	101.20	113.00
33	L1	81	C	N1-C1'-C2'	7.87	123.80	112.00
71	Lj	17	ILE	CB-CA-C	7.87	120.66	110.91
33	L1	638	G	O4'-C4'-C3'	-7.86	98.24	106.10
33	L1	1035	C	C1'-O4'-C4'	-7.86	102.04	109.90
33	L1	1255	A	O4'-C1'-C2'	7.86	115.46	107.60
33	L1	3167	G	O4'-C1'-C2'	-7.86	99.74	107.60
81	LD	315	LYS	CA-CB-CG	-7.86	98.37	114.10
33	L1	3177	A	N9-C1'-C2'	-7.86	100.21	112.00
66	LN	32	ASP	N-CA-CB	7.86	123.78	110.49
1	Sa	54	THR	CA-CB-CG2	7.86	123.86	110.50
27	SH	56	HIS	CE1-NE2-CD2	-7.86	101.14	109.00
32	S1	483	C	O3'-P-O5'	7.86	115.79	104.00
32	S1	1299	G	C3'-C2'-C1'	-7.86	93.44	101.30
33	L1	975	G	C1'-O4'-C4'	-7.86	102.04	109.90
33	L1	1823	C	N1-C1'-C2'	7.86	123.79	112.00
33	L1	2132	A	O4'-C1'-N9	7.86	119.99	108.20
33	L1	2643	A	N9-C1'-C2'	-7.86	100.21	112.00
32	S1	302	C	N1-C1'-C2'	7.86	123.79	112.00
64	LG	55	ASP	N-CA-CB	7.86	121.67	110.12
2	SA	219	GLU	O-C-N	7.86	130.16	122.07
23	SU	80	LEU	CA-C-O	-7.86	112.23	121.11
31	S2	71	A	N9-C1'-C2'	7.86	123.79	112.00
32	S1	1588	C	P-O3'-C3'	7.86	131.99	120.20
35	L2	53	G	O4'-C1'-N9	-7.86	96.71	108.50
64	LG	139	VAL	CA-C-N	7.86	136.55	121.54
64	LG	139	VAL	C-N-CA	7.86	136.55	121.54
80	LC	160	VAL	CA-CB-CG1	7.86	123.76	110.40
32	S1	1155	G	O4'-C1'-C2'	7.86	115.46	107.60
33	L1	599	C	C1'-O4'-C4'	-7.86	102.05	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2066	G	C1'-C2'-O2'	7.86	120.18	108.40
64	LG	52	PRO	N-CA-C	7.86	128.65	112.47
80	LC	74	GLU	N-CA-C	-7.86	96.66	108.99
33	L1	2739	A	P-O3'-C3'	7.85	131.98	120.20
4	SD	212	ASP	CA-C-O	7.85	130.99	121.72
32	S1	545	A	C5'-C4'-C3'	7.85	126.68	114.90
32	S1	1586	U	C4'-C3'-C2'	-7.85	94.75	102.60
3	SB	18	TYR	O-C-N	7.85	130.16	122.07
15	SS	44	ARG	CA-C-N	7.85	136.53	121.54
15	SS	44	ARG	C-N-CA	7.85	136.53	121.54
33	L1	1714	A	O4'-C1'-N9	-7.85	96.43	108.20
33	L1	2725	U	C1'-C2'-O2'	7.85	120.17	108.40
33	L1	3227	U	C3'-C2'-C1'	7.85	124.85	101.30
57	L1	79	ARG	NH1-CZ-NH2	7.85	129.50	119.30
60	Lr	83	HIS	ND1-CE1-NE2	7.85	116.25	108.40
78	Le	204	LEU	CA-C-N	7.85	135.83	121.70
78	Le	204	LEU	C-N-CA	7.85	135.83	121.70
14	SP	59	CYS	O-C-N	-7.85	113.28	121.60
32	S1	1000	A	C3'-C2'-C1'	-7.85	93.45	101.30
33	L1	527	G	C3'-C2'-C1'	7.85	109.15	101.30
33	L1	1391	A	O3'-P-O5'	-7.85	92.23	104.00
33	L1	1776	G	O4'-C1'-C2'	7.85	115.45	107.60
33	L1	2933	C	O4'-C1'-C2'	-7.85	99.75	107.60
35	L2	52	A	O4'-C1'-C2'	7.85	113.65	105.80
38	LE	86	LEU	N-CA-CB	7.85	121.83	110.06
66	LN	105	PHE	CA-C-N	7.85	131.13	120.54
66	LN	105	PHE	C-N-CA	7.85	131.13	120.54
67	LS	28	ARG	CA-C-N	-7.85	110.65	122.74
67	LS	28	ARG	C-N-CA	-7.85	110.65	122.74
33	L1	3234	G	O4'-C4'-C3'	-7.85	96.15	104.00
32	S1	856	G	C3'-C2'-C1'	-7.84	93.46	101.30
33	L1	652	C	O4'-C1'-C2'	-7.84	97.95	105.80
33	L1	1878	G	C3'-C2'-C1'	-7.84	93.46	101.30
42	LP	118	SER	O-C-N	-7.84	114.31	123.25
67	LS	28	ARG	NE-CZ-NH1	7.84	129.34	121.50
4	SD	54	TYR	N-CA-C	-7.84	94.10	110.80
28	SN	12	LYS	N-CA-C	7.84	122.59	108.48
32	S1	1283	C	O4'-C1'-C2'	-7.84	99.76	107.60
33	L1	213	G	C4'-C3'-C2'	-7.84	94.76	102.60
33	L1	1112	C	P-O5'-C5'	7.84	132.66	120.90
33	L1	1496	G	N9-C1'-C2'	-7.84	102.24	114.00
44	LR	124	ASP	N-CA-C	7.84	119.91	111.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	SH	18	GLU	CB-CG-CD	7.84	125.93	112.60
33	L1	809	A	N9-C1'-C2'	-7.84	102.24	114.00
33	L1	1541	G	O4'-C1'-C2'	7.84	115.44	107.60
33	L1	2824	U	O4'-C1'-N1	7.84	120.26	108.50
80	LC	60	VAL	N-CA-C	7.84	125.64	109.34
8	SJ	51	GLY	CA-C-N	7.84	130.63	120.44
8	SJ	51	GLY	C-N-CA	7.84	130.63	120.44
31	S2	15	A	O4'-C1'-N9	7.84	120.26	108.50
5	SE	112	VAL	CA-C-N	7.84	130.43	120.56
5	SE	112	VAL	C-N-CA	7.84	130.43	120.56
6	SF	69	THR	O-C-N	7.84	130.43	122.12
11	SM	112	GLU	O-C-N	7.84	131.91	122.27
23	SU	89	LYS	CA-C-O	-7.84	112.24	120.55
33	L1	1236	C	C1'-O4'-C4'	-7.84	102.06	109.90
33	L1	1767	G	C1'-C2'-O2'	7.84	120.15	108.40
33	L1	1954	G	O3'-P-O5'	7.84	115.75	104.00
38	LE	117	LYS	CB-CA-C	-7.84	97.53	110.85
29	ST	42	ASN	N-CA-CB	7.83	122.45	110.39
32	S1	893	U	C1'-O4'-C4'	-7.83	102.07	109.90
32	S1	1702	G	N9-C1'-C2'	7.83	123.75	112.00
33	L1	317	G	O4'-C1'-N9	7.83	120.25	108.50
33	L1	843	C	O5'-C5'-C4'	7.83	123.25	111.50
33	L1	1911	A	P-O5'-C5'	-7.83	109.15	120.90
33	L1	2749	A	C1'-O4'-C4'	-7.83	102.07	109.90
29	ST	5	GLU	CA-C-N	7.83	128.63	119.94
29	ST	5	GLU	C-N-CA	7.83	128.63	119.94
33	L1	2755	U	C3'-C2'-C1'	7.83	109.13	101.30
32	S1	1091	A	C1'-O4'-C4'	-7.83	102.07	109.90
33	L1	335	G	C1'-C2'-O2'	-7.83	100.06	111.80
33	L1	1226	G	O5'-C5'-C4'	7.83	123.44	111.70
38	LE	3	THR	CA-C-N	7.83	136.49	121.54
38	LE	3	THR	C-N-CA	7.83	136.49	121.54
64	LG	182	LYS	CA-C-N	7.83	136.06	121.97
64	LG	182	LYS	C-N-CA	7.83	136.06	121.97
2	SA	11	ALA	O-C-N	-7.83	112.18	122.59
78	Le	74	LYS	N-CA-C	-7.83	97.81	108.38
15	SS	80	LYS	CA-C-N	7.83	131.18	120.46
15	SS	80	LYS	C-N-CA	7.83	131.18	120.46
66	LN	96	GLN	N-CA-C	7.83	119.81	111.28
23	SU	16	LYS	N-CA-C	-7.82	96.25	108.14
33	L1	1673	A	O4'-C1'-C2'	7.82	115.42	107.60
33	L1	575	C	P-O3'-C3'	7.82	131.93	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	LS	138	ARG	N-CA-CB	7.82	123.71	110.49
33	L1	2708	A	C1'-C2'-O2'	-7.82	100.07	111.80
3	SB	131	ALA	N-CA-C	7.82	127.45	110.80
32	S1	371	A	O4'-C1'-C2'	-7.82	99.78	107.60
32	S1	578	G	O4'-C4'-C3'	-7.82	96.18	104.00
33	L1	2906	U	O4'-C1'-C2'	7.82	115.42	107.60
43	LO	49	HIS	CE1-NE2-CD2	-7.82	101.18	109.00
33	L1	1391	A	OP1-P-OP2	-7.82	96.15	119.60
56	Lh	67	TYR	CB-CG-CD1	7.82	132.52	120.80
33	L1	973	U	C5'-C4'-C3'	-7.81	104.28	116.00
33	L1	2373	C	C5'-C4'-C3'	-7.81	103.48	115.20
33	L1	3308	A	C2'-C3'-O3'	7.81	121.22	109.50
37	LB	196	TRP	N-CA-C	-7.81	92.54	109.81
48	LV	154	LYS	CA-C-O	-7.81	112.19	120.55
32	S1	1592	G	P-O3'-C3'	7.81	131.91	120.20
33	L1	729	G	C3'-C2'-C1'	-7.81	93.49	101.30
33	L1	1875	A	C2'-C3'-O3'	7.81	121.21	109.50
33	L1	2389	A	O4'-C1'-N9	7.81	120.21	108.50
33	L1	3049	A	P-O5'-C5'	-7.81	109.19	120.90
33	L1	3328	A	C3'-C2'-C1'	7.81	109.11	101.30
3	SB	185	LYS	CA-C-N	7.81	131.60	120.98
3	SB	185	LYS	C-N-CA	7.81	131.60	120.98
32	S1	579	C	O4'-C1'-C2'	-7.81	99.79	107.60
32	S1	1474	U	N1-C1'-C2'	-7.81	100.29	112.00
33	L1	2480	G	N9-C1'-C2'	-7.81	100.29	112.00
33	L1	2841	G	O4'-C1'-N9	7.81	120.21	108.50
1	Sa	354	SER	N-CA-C	7.80	119.87	111.36
33	L1	252	A	O4'-C1'-C2'	-7.80	99.80	107.60
60	Lr	89	LYS	N-CA-C	7.80	127.42	110.80
31	S2	11	U	N1-C1'-C2'	7.80	123.70	112.00
32	S1	508	U	C2'-C3'-O3'	7.80	125.40	113.70
32	S1	1751	U	C5'-C4'-C3'	-7.80	104.30	116.00
33	L1	1103	U	C1'-O4'-C4'	7.80	117.70	109.90
33	L1	1571	A	O4'-C1'-N9	7.80	119.90	108.20
48	LV	155	GLU	N-CA-CB	-7.80	97.30	110.49
33	L1	324	U	N1-C1'-C2'	7.80	125.70	114.00
33	L1	558	G	C4'-C3'-C2'	-7.80	94.80	102.60
33	L1	1050	A	C5'-C4'-C3'	7.80	127.70	116.00
33	L1	2232	C	C4'-C3'-C2'	-7.80	94.80	102.60
56	Lh	27	ILE	CA-C-N	7.80	128.64	119.98
56	Lh	27	ILE	C-N-CA	7.80	128.64	119.98
25	SC	119	GLY	O-C-N	-7.80	115.83	122.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2792	A	O4'-C1'-C2'	7.80	115.40	107.60
33	L1	3308	A	C3'-C2'-C1'	7.80	109.30	101.50
80	LC	367	SER	N-CA-C	7.80	132.83	111.00
33	L1	226	U	O3'-P-O5'	-7.79	92.31	104.00
33	L1	651	A	O4'-C1'-C2'	-7.79	98.01	105.80
33	L1	2673	G	C1'-C2'-O2'	7.79	120.09	108.40
33	L1	3041	A	O4'-C1'-N9	7.79	120.19	108.50
40	LH	195	CYS	CA-C-O	7.79	129.79	121.45
42	LP	85	LYS	CA-C-O	7.79	128.97	119.38
50	LZ	13	GLN	O-C-N	-7.79	113.22	122.81
28	SN	28	HIS	CE1-NE2-CD2	-7.79	101.21	109.00
32	S1	1729	A	C5'-C4'-C3'	7.79	127.69	116.00
33	L1	3183	G	C5'-C4'-C3'	7.79	127.69	116.00
64	LG	29	LYS	CA-C-O	-7.79	109.37	120.51
33	L1	643	G	C4'-C3'-C2'	-7.79	94.81	102.60
33	L1	2103	U	O4'-C1'-C2'	-7.79	99.81	107.60
37	LB	142	ASP	CA-CB-CG	-7.79	104.81	112.60
32	S1	1473	C	C4'-C3'-C2'	-7.79	94.81	102.60
32	S1	1639	A	P-O3'-C3'	7.79	131.88	120.20
32	S1	1679	A	O4'-C1'-C2'	-7.79	99.81	107.60
33	L1	504	U	O4'-C1'-N1	7.79	120.18	108.50
33	L1	1662	G	C1'-C2'-O2'	7.79	120.08	108.40
1	Sa	200	PHE	CA-C-O	7.78	126.36	118.73
31	S2	6	G	O4'-C1'-C2'	7.78	115.38	107.60
33	L1	164	C	O5'-C5'-C4'	7.78	123.17	111.50
33	L1	2090	G	O4'-C1'-C2'	-7.78	99.82	107.60
33	L1	2465	G	O5'-C5'-C4'	7.78	123.17	111.50
3	SB	204	LEU	CA-C-O	-7.78	112.82	119.36
9	SK	135	PRO	CA-C-N	-7.78	110.57	122.09
9	SK	135	PRO	C-N-CA	-7.78	110.57	122.09
32	S1	1184	C	C5'-C4'-C3'	7.78	127.67	116.00
33	L1	1910	G	N9-C1'-C2'	7.78	123.67	112.00
33	L1	2093	G	O4'-C1'-C2'	7.78	115.38	107.60
81	LD	167	LYS	CA-C-N	7.78	130.71	120.28
81	LD	167	LYS	C-N-CA	7.78	130.71	120.28
29	ST	28	ASP	CA-CB-CG	7.78	120.38	112.60
32	S1	1607	C	O4'-C1'-C2'	-7.78	99.82	107.60
32	S1	576	C	C1'-C2'-O2'	7.78	120.07	108.40
32	S1	614	G	O4'-C1'-C2'	7.78	115.38	107.60
32	S1	1727	C	C1'-O4'-C4'	-7.78	102.12	109.90
67	LS	98	ASP	CA-C-N	7.78	136.39	121.54
67	LS	98	ASP	C-N-CA	7.78	136.39	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	68	U	C5'-C4'-C3'	7.77	127.66	116.00
33	L1	127	G	N9-C1'-C2'	7.77	123.66	112.00
33	L1	348	C	O4'-C1'-C2'	-7.77	98.03	105.80
33	L1	2164	G	C4'-C3'-O3'	-7.77	101.34	113.00
2	SA	34	CYS	N-CA-C	7.77	119.82	108.86
33	L1	2202	A	P-O5'-C5'	-7.77	109.24	120.90
33	L1	1488	G	C3'-C2'-C1'	7.77	109.07	101.30
31	S2	8	U	O4'-C1'-C2'	-7.77	99.83	107.60
33	L1	1362	C	C1'-C2'-O2'	7.77	120.05	108.40
46	LT	188	SER	N-CA-C	7.77	119.38	111.07
67	LS	138	ARG	CD-NE-CZ	7.77	135.27	124.40
33	L1	1563	G	O3'-P-O5'	-7.76	92.35	104.00
33	L1	2910	C	N1-C1'-C2'	7.76	123.65	112.00
33	L1	2952	G	O4'-C1'-N9	7.76	119.85	108.20
45	LQ	124	VAL	N-CA-C	-7.76	97.07	108.87
25	SC	8	TYR	N-CA-CB	7.76	121.27	110.01
33	L1	1547	G	N9-C1'-C2'	7.76	123.64	112.00
33	L1	3072	A	P-O5'-C5'	7.76	132.54	120.90
28	SN	12	LYS	CA-C-N	7.76	135.18	121.75
28	SN	12	LYS	C-N-CA	7.76	135.18	121.75
32	S1	771	G	O3'-P-O5'	-7.76	92.36	104.00
33	L1	1505	G	O4'-C1'-N9	7.76	119.84	108.20
33	L1	1710	G	O3'-P-O5'	-7.76	92.36	104.00
2	SA	228	ASP	CA-CB-CG	7.76	120.36	112.60
31	S2	75	A	C1'-O4'-C4'	7.76	117.46	109.70
32	S1	1326	A	P-O3'-C3'	7.76	131.84	120.20
32	S1	1593	U	N1-C1'-C2'	-7.76	100.36	112.00
33	L1	665	G	O4'-C1'-N9	-7.76	96.56	108.20
33	L1	1643	A	P-O5'-C5'	-7.76	109.26	120.90
33	L1	2955	U	O4'-C1'-N1	7.76	120.14	108.50
33	L1	3211	C	C3'-C2'-C1'	7.76	109.06	101.30
40	LH	230	GLY	O-C-N	-7.76	116.45	123.36
82	LK	133	ARG	N-CA-C	-7.76	95.76	108.41
33	L1	2009	C	N1-C1'-C2'	7.76	123.64	112.00
1	Sa	379	ILE	N-CA-C	7.76	119.83	107.73
46	LT	64	ARG	N-CA-C	7.76	119.73	111.28
51	LY	21	ALA	CA-C-N	7.76	129.53	119.84
51	LY	21	ALA	C-N-CA	7.76	129.53	119.84
55	Lg	64	ASN	O-C-N	-7.76	114.08	122.07
33	L1	1737	C	C3'-C2'-C1'	7.75	109.06	101.30
33	L1	2356	A	N9-C1'-C2'	7.75	123.63	112.00
31	S2	56	A	O4'-C1'-C2'	-7.75	99.85	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	70	A	O4'-C1'-N9	-7.75	96.57	108.20
34	L3	10	C	O4'-C1'-C2'	-7.75	99.85	107.60
35	L2	155	G	P-O3'-C3'	7.75	131.83	120.20
57	L1	70	VAL	CA-C-N	7.75	127.03	118.97
57	L1	70	VAL	C-N-CA	7.75	127.03	118.97
33	L1	3210	G	O4'-C1'-C2'	-7.75	99.85	107.60
35	L2	115	G	C1'-O4'-C4'	7.75	117.65	109.90
33	L1	424	G	C1'-C2'-O2'	-7.75	100.18	111.80
2	SA	11	ALA	N-CA-C	7.75	127.30	110.80
33	L1	84	A	O3'-P-O5'	-7.75	92.38	104.00
33	L1	2638	A	O3'-P-O5'	7.75	115.62	104.00
79	Ls	225	VAL	CA-C-N	7.75	130.66	120.28
79	Ls	225	VAL	C-N-CA	7.75	130.66	120.28
30	S3	12	A	O4'-C1'-N9	7.75	120.12	108.50
33	L1	437	C	O4'-C1'-C2'	-7.74	99.86	107.60
33	L1	542	G	N9-C1'-C2'	7.74	123.61	112.00
15	SS	63	ILE	N-CA-C	-7.74	102.72	110.62
32	S1	605	A	C1'-O4'-C4'	7.74	117.64	109.90
33	L1	1000	A	O4'-C1'-C2'	-7.74	99.86	107.60
33	L1	1634	G	C1'-O4'-C4'	-7.74	102.16	109.90
33	L1	2390	G	O4'-C1'-N9	7.74	120.11	108.50
33	L1	3299	A	O4'-C1'-C2'	-7.74	99.86	107.60
33	L1	1763	C	N1-C1'-C2'	7.74	123.61	112.00
33	L1	2779	G	O4'-C1'-C2'	-7.74	99.86	107.60
33	L1	2579	G	O4'-C1'-C2'	7.74	115.34	107.60
33	L1	2617	G	P-O3'-C3'	7.74	131.81	120.20
49	LX	144	ASP	CA-CB-CG	-7.74	104.86	112.60
33	L1	906	U	C5'-C4'-C3'	7.74	127.60	116.00
33	L1	1320	G	C4'-C3'-C2'	-7.74	94.86	102.60
71	Lj	4	ARG	N-CA-CB	7.74	121.88	110.35
33	L1	267	G	C1'-O4'-C4'	-7.73	101.97	109.70
33	L1	315	A	N9-C1'-C2'	7.73	123.60	112.00
44	LR	123	PHE	N-CA-C	7.73	120.60	111.71
58	Ln	22	SER	N-CA-C	7.73	127.27	110.80
32	S1	1672	U	O3'-P-O5'	-7.73	92.40	104.00
33	L1	88	A	C3'-C2'-C1'	-7.73	93.57	101.30
60	Lr	80	TYR	N-CA-C	7.73	127.27	110.80
33	L1	371	A	O4'-C4'-C3'	7.73	111.73	104.00
33	L1	2628	C	C1'-C2'-O2'	-7.73	100.20	111.80
10	SL	112	GLY	CA-C-N	7.73	132.18	120.82
10	SL	112	GLY	C-N-CA	7.73	132.18	120.82
15	SS	8	THR	OG1-CB-CG2	-7.73	93.84	109.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1975	G	O4'-C1'-C2'	-7.73	99.87	107.60
32	S1	1459	G	C3'-C2'-C1'	-7.73	93.57	101.30
33	L1	2334	G	O4'-C1'-N9	7.73	119.79	108.20
33	L1	3238	U	C4'-C3'-C2'	-7.73	94.87	102.60
79	Ls	228	VAL	N-CA-C	-7.73	103.00	110.42
33	L1	968	A	C1'-C2'-O2'	7.72	119.98	108.40
33	L1	1432	G	C2'-C3'-O3'	7.72	121.09	109.50
33	L1	2092	C	C5'-C4'-C3'	7.72	127.59	116.00
33	L1	2512	U	N1-C1'-C2'	7.72	123.59	112.00
33	L1	2737	A	N9-C1'-C2'	7.72	123.59	112.00
33	L1	2746	G	C4'-C3'-O3'	-7.72	101.41	113.00
54	Lf	52	CYS	O-C-N	-7.72	114.42	121.30
33	L1	839	A	O4'-C1'-C2'	-7.72	99.88	107.60
33	L1	1233	G	P-O5'-C5'	7.72	132.48	120.90
33	L1	1300	C	O4'-C1'-C2'	-7.72	99.88	107.60
33	L1	1729	G	C1'-O4'-C4'	-7.72	102.18	109.90
33	L1	3207	C	N1-C1'-C2'	7.72	123.58	112.00
45	LQ	242	LYS	O-C-N	-7.72	114.54	123.27
80	LC	268	ALA	CA-C-O	7.72	129.81	120.62
33	L1	12	G	C1'-O4'-C4'	-7.72	102.18	109.90
33	L1	869	A	C1'-C2'-O2'	7.72	119.98	108.40
4	SD	93	PRO	CA-C-N	-7.72	106.80	121.54
4	SD	93	PRO	C-N-CA	-7.72	106.80	121.54
33	L1	784	G	O3'-P-O5'	-7.72	92.42	104.00
33	L1	1458	U	O4'-C1'-C2'	7.72	113.52	105.80
77	Lc	92	ILE	N-CA-CB	7.72	119.58	110.55
80	LC	368	LYS	N-CA-C	-7.72	94.36	110.80
33	L1	3061	C	O3'-P-O5'	7.72	115.58	104.00
59	Lo	47	THR	O-C-N	-7.72	112.33	122.59
5	SE	169	GLY	O-C-N	7.72	130.42	122.24
32	S1	1263	C	O4'-C1'-C2'	-7.72	99.88	107.60
33	L1	1384	G	O4'-C1'-N9	7.72	120.08	108.50
33	L1	1743	C	C4'-C3'-C2'	-7.72	94.88	102.60
41	LM	15	ARG	NE-CZ-NH2	7.72	126.15	119.20
25	SC	164	SER	C-N-CD	7.71	156.63	125.00
32	S1	1225	A	C4'-C3'-C2'	7.71	110.31	102.60
33	L1	376	A	N9-C1'-C2'	7.71	123.57	112.00
33	L1	1740	U	O4'-C1'-C2'	-7.71	99.89	107.60
58	Ln	43	TYR	CA-C-N	7.71	136.28	121.54
58	Ln	43	TYR	C-N-CA	7.71	136.28	121.54
32	S1	1309	U	N1-C1'-C2'	7.71	123.57	112.00
33	L1	2200	U	C3'-C2'-C1'	7.71	109.01	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	LM	33	GLY	CA-C-O	-7.71	111.48	119.27
10	SL	16	HIS	CA-C-N	7.71	130.95	120.54
10	SL	16	HIS	C-N-CA	7.71	130.95	120.54
33	L1	887	A	N9-C1'-C2'	-7.71	102.43	114.00
33	L1	3234	G	C3'-C2'-C1'	-7.71	93.59	101.30
45	LQ	188	LYS	CA-C-N	7.71	134.70	122.36
45	LQ	188	LYS	C-N-CA	7.71	134.70	122.36
25	SC	8	TYR	CB-CA-C	-7.71	98.78	110.88
32	S1	1195	U	C1'-C2'-O2'	7.71	119.96	108.40
33	L1	3040	G	O4'-C1'-N9	7.71	120.06	108.50
34	L3	23	A	P-O3'-C3'	7.71	131.76	120.20
35	L2	128	C	C3'-C2'-C1'	7.71	109.01	101.30
48	LV	154	LYS	CB-CA-C	-7.71	97.84	110.79
33	L1	306	A	C5'-C4'-C3'	7.71	127.56	116.00
33	L1	533	G	C5'-C4'-C3'	7.71	127.56	116.00
33	L1	2400	A	C3'-C2'-C1'	7.71	109.01	101.30
59	Lo	43	HIS	CA-CB-CG	7.71	121.51	113.80
33	L1	473	G	O4'-C4'-C3'	-7.71	96.30	104.00
32	S1	652	G	O4'-C1'-C2'	-7.70	99.90	107.60
33	L1	639	A	O4'-C1'-N9	7.70	120.06	108.50
33	L1	2151	G	C5'-C4'-C3'	7.70	126.75	115.20
33	L1	2441	G	C1'-C2'-O2'	7.70	119.95	108.40
33	L1	1955	G	O3'-P-O5'	7.70	115.55	104.00
46	LT	116	ASP	CA-C-N	7.70	130.60	120.28
46	LT	116	ASP	C-N-CA	7.70	130.60	120.28
17	SV	63	PRO	CA-N-CD	-7.70	101.22	112.00
33	L1	2134	U	P-O5'-C5'	7.70	132.45	120.90
33	L1	2735	G	O4'-C1'-N9	7.70	120.05	108.50
33	L1	3127	C	C1'-O4'-C4'	-7.70	102.20	109.90
68	LW	36	MET	N-CA-C	-7.70	94.40	110.80
11	SM	117	ILE	CA-CB-CG1	-7.70	97.31	110.40
13	SQ	95	GLU	N-CA-C	7.70	121.91	108.75
32	S1	562	U	O4'-C1'-C2'	-7.70	99.90	107.60
33	L1	841	G	C4'-C3'-C2'	-7.70	94.91	102.60
33	L1	2909	A	O4'-C1'-N9	7.70	120.04	108.50
70	Li	70	ASN	N-CA-CB	7.70	123.50	110.49
33	L1	304	A	O4'-C1'-C2'	7.69	115.29	107.60
33	L1	548	G	P-O5'-C5'	-7.69	109.36	120.90
33	L1	1822	C	C3'-C2'-C1'	7.69	108.99	101.30
45	LQ	55	PHE	CA-CB-CG	-7.69	106.11	113.80
71	Lj	102	VAL	CB-CA-C	7.69	122.93	111.31
32	S1	891	U	C1'-C2'-O2'	7.69	119.94	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	L3	106	U	OP1-P-O3'	7.69	131.08	108.00
47	LU	83	ARG	N-CA-C	7.69	122.38	113.38
33	L1	1252	C	N1-C1'-C2'	7.69	123.53	112.00
33	L1	2861	U	O3'-P-O5'	-7.69	92.46	104.00
50	LZ	15	ILE	N-CA-CB	7.69	119.10	110.72
60	Lr	17	CYS	N-CA-C	-7.69	99.88	111.34
32	S1	1541	C	N1-C1'-C2'	7.69	123.53	112.00
33	L1	1932	A	O4'-C1'-N9	7.69	120.03	108.50
33	L1	2875	U	C5'-C4'-C3'	-7.69	104.47	116.00
33	L1	1764	G	C1'-O4'-C4'	-7.68	102.22	109.90
34	L3	50	A	C3'-C2'-C1'	7.68	108.98	101.30
48	LV	64	CYS	N-CA-C	-7.68	98.28	108.19
33	L1	578	C	P-O3'-C3'	7.68	131.72	120.20
33	L1	2762	U	P-O5'-C5'	7.68	132.42	120.90
73	Lp	14	ASN	N-CA-CB	7.68	121.65	110.20
80	LC	351	SER	N-CA-CB	7.68	123.47	110.49
32	S1	384	U	N1-C1'-C2'	7.68	123.52	112.00
33	L1	1119	G	P-O3'-C3'	7.68	131.72	120.20
33	L1	2235	G	C1'-C2'-O2'	7.68	119.92	108.40
35	L2	89	G	O4'-C4'-C3'	-7.68	98.42	106.10
40	LH	178	GLY	CA-C-N	7.68	130.57	120.28
40	LH	178	GLY	C-N-CA	7.68	130.57	120.28
45	LQ	44	ASP	CA-C-N	-7.68	111.79	122.93
45	LQ	44	ASP	C-N-CA	-7.68	111.79	122.93
80	LC	28	LYS	CA-C-N	7.68	131.42	120.98
80	LC	28	LYS	C-N-CA	7.68	131.42	120.98
32	S1	1332	G	N9-C1'-C2'	-7.68	100.48	112.00
35	L2	66	C	O4'-C1'-C2'	7.68	113.48	105.80
78	Le	161	GLN	CA-C-N	-7.68	112.17	123.00
78	Le	161	GLN	C-N-CA	-7.68	112.17	123.00
11	SM	131	VAL	N-CA-C	7.68	119.37	111.00
13	SQ	73	LEU	CA-C-N	-7.68	106.88	121.54
13	SQ	73	LEU	C-N-CA	-7.68	106.88	121.54
32	S1	823	A	C3'-C2'-C1'	7.68	108.98	101.30
33	L1	2896	C	C5'-C4'-C3'	-7.68	104.49	116.00
45	LQ	107	ALA	CA-C-N	7.68	130.57	120.28
45	LQ	107	ALA	C-N-CA	7.68	130.57	120.28
20	SZ	50	GLY	CA-C-N	7.67	131.19	120.29
20	SZ	50	GLY	C-N-CA	7.67	131.19	120.29
25	SC	125	HIS	ND1-CE1-NE2	7.67	116.08	108.40
32	S1	1226	U	C2'-C3'-O3'	7.67	125.21	113.70
33	L1	606	C	O4'-C1'-C2'	-7.67	99.92	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	LS	134	LYS	CA-C-N	7.67	131.33	120.28
67	LS	134	LYS	C-N-CA	7.67	131.33	120.28
32	S1	1722	C	C1'-O4'-C4'	-7.67	102.23	109.90
33	L1	605	A	C5'-C4'-C3'	-7.67	104.49	116.00
33	L1	771	G	C4'-C3'-C2'	-7.67	94.93	102.60
33	L1	817	U	P-O3'-C3'	-7.67	108.69	120.20
34	L3	67	C	C5'-C4'-C3'	7.67	127.51	116.00
55	Lg	25	HIS	N-CA-C	7.67	119.28	111.07
1	Sa	43	ALA	CA-C-N	7.67	130.56	120.28
1	Sa	43	ALA	C-N-CA	7.67	130.56	120.28
33	L1	1819	A	N9-C1'-C2'	7.67	123.51	112.00
33	L1	2343	U	N1-C1'-C2'	7.67	123.51	112.00
34	L3	14	C	C3'-C2'-C1'	7.67	108.97	101.30
55	Lg	29	HIS	N-CA-CB	7.67	122.03	110.22
59	Lo	4	HIS	CA-C-O	7.67	131.48	120.51
68	LW	104	VAL	N-CA-CB	7.67	123.89	111.23
33	L1	422	G	P-O5'-C5'	7.67	132.40	120.90
71	Lj	94	PRO	N-CA-C	7.67	120.06	110.70
32	S1	1091	A	O3'-P-O5'	-7.67	92.50	104.00
32	S1	1391	G	N9-C1'-C2'	7.67	123.50	112.00
35	L2	155	G	O4'-C1'-C2'	7.67	113.47	105.80
64	LG	96	LEU	CB-CA-C	7.67	123.67	110.79
71	Lj	93	LEU	CA-C-O	-7.67	110.23	121.27
11	SM	135	HIS	CB-CG-CD2	-7.67	121.23	131.20
32	S1	263	C	O3'-P-O5'	7.67	115.50	104.00
32	S1	1156	A	O4'-C1'-C2'	-7.67	99.93	107.60
33	L1	2692	G	O4'-C1'-C2'	7.67	113.47	105.80
33	L1	1083	C	N1-C1'-C2'	-7.67	102.50	114.00
33	L1	3011	U	O4'-C1'-N1	7.67	120.00	108.50
23	SU	18	MET	N-CA-CB	7.66	124.46	111.66
29	ST	12	TYR	CA-C-N	7.66	126.46	120.33
29	ST	12	TYR	C-N-CA	7.66	126.46	120.33
32	S1	1271	G	P-O3'-C3'	7.66	131.69	120.20
32	S1	1586	U	O3'-P-O5'	7.66	115.49	104.00
33	L1	1587	G	P-O5'-C5'	7.66	132.39	120.90
33	L1	1711	G	C1'-O4'-C4'	-7.66	102.24	109.90
33	L1	3072	A	C3'-C2'-C1'	7.66	108.96	101.30
33	L1	3150	G	O4'-C4'-C3'	-7.66	96.34	104.00
41	LM	95	PHE	CA-CB-CG	-7.66	106.14	113.80
2	SA	153	ASP	O-C-N	-7.66	113.78	122.20
32	S1	1443	U	N1-C1'-C2'	-7.66	100.51	112.00
33	L1	347	A	C5'-C4'-C3'	7.66	126.69	115.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	769	C	C3'-C2'-C1'	7.66	108.96	101.30
33	L1	2465	G	C4'-C3'-C2'	-7.66	94.94	102.60
36	LA	26	LYS	CA-C-N	7.66	132.96	122.77
36	LA	26	LYS	C-N-CA	7.66	132.96	122.77
43	LO	77	ARG	NE-CZ-NH1	-7.66	113.84	121.50
37	LB	187	HIS	CA-CB-CG	-7.66	106.14	113.80
32	S1	1544	G	N9-C1'-C2'	7.66	123.48	112.00
33	L1	299	G	O4'-C1'-N9	7.66	119.98	108.50
33	L1	1092	G	O4'-C1'-N9	7.66	119.98	108.50
32	S1	1064	U	O3'-P-O5'	-7.65	92.52	104.00
33	L1	278	U	P-O3'-C3'	7.65	131.68	120.20
33	L1	655	G	C1'-O4'-C4'	-7.65	102.25	109.90
33	L1	565	C	N1-C1'-C2'	7.65	123.47	112.00
33	L1	2731	G	C3'-C2'-C1'	-7.65	93.65	101.30
70	Li	88	ARG	N-CA-CB	7.65	121.10	110.01
32	S1	1249	G	C1'-O4'-C4'	-7.65	102.25	109.90
32	S1	611	G	P-O3'-C3'	7.64	131.67	120.20
33	L1	229	G	P-O3'-C3'	7.64	131.67	120.20
34	L3	79	A	O4'-C1'-N9	7.64	119.97	108.50
36	LA	84	MET	N-CA-C	7.64	119.25	111.07
33	L1	1171	U	C4'-C3'-C2'	-7.64	94.96	102.60
35	L2	63	A	C2'-C3'-O3'	7.64	120.97	109.50
56	Lh	127	LEU	CA-C-N	7.64	130.52	120.28
56	Lh	127	LEU	C-N-CA	7.64	130.52	120.28
9	SK	42	HIS	CB-CG-CD2	-7.64	121.27	131.20
32	S1	1269	G	O4'-C1'-N9	7.64	119.96	108.50
1	Sa	291	PRO	CA-C-N	7.64	131.14	120.29
1	Sa	291	PRO	C-N-CA	7.64	131.14	120.29
32	S1	1361	G	O4'-C1'-C2'	7.64	115.24	107.60
33	L1	365	A	C1'-O4'-C4'	7.64	117.54	109.90
33	L1	1969	G	P-O3'-C3'	7.64	131.66	120.20
33	L1	2798	G	O4'-C4'-C3'	-7.64	98.46	106.10
37	LB	141	PRO	N-CA-C	-7.64	96.74	112.47
32	S1	467	U	N1-C1'-C2'	7.63	123.45	112.00
32	S1	1506	G	O3'-P-O5'	-7.63	92.55	104.00
33	L1	2640	A	O4'-C4'-C3'	-7.63	96.36	104.00
33	L1	2784	U	O4'-C1'-C2'	7.63	115.23	107.60
36	LA	119	ILE	CB-CA-C	-7.63	106.45	113.70
4	SD	153	ILE	CA-CB-CG2	7.63	123.47	110.50
33	L1	803	G	C1'-C2'-O2'	7.63	119.85	108.40
33	L1	1275	A	O3'-P-O5'	7.63	115.45	104.00
33	L1	1824	C	C1'-O4'-C4'	-7.63	102.27	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3334	A	O4'-C1'-C2'	-7.63	99.97	107.60
67	LS	164	LYS	CA-CB-CG	7.63	129.36	114.10
20	SZ	7	SER	O-C-N	-7.63	112.01	122.46
32	S1	1285	G	N9-C1'-C2'	7.63	123.44	112.00
33	L1	892	U	C3'-C2'-C1'	7.63	108.93	101.30
33	L1	2062	U	O4'-C1'-C2'	-7.63	99.97	107.60
33	L1	2282	C	O4'-C1'-C2'	-7.63	98.17	105.80
32	S1	482	A	O3'-P-O5'	7.63	115.44	104.00
33	L1	701	U	O4'-C1'-N1	7.62	119.94	108.50
33	L1	1690	C	N1-C1'-C2'	-7.62	100.56	112.00
45	LQ	256	SER	CA-CB-OG	7.62	126.35	111.10
47	LU	47	ALA	N-CA-C	-7.62	103.29	112.59
32	S1	666	C	N1-C1'-C2'	7.62	123.44	112.00
33	L1	1692	U	N1-C1'-C2'	-7.62	100.56	112.00
33	L1	2617	G	C4'-C3'-O3'	-7.62	101.56	113.00
80	LC	349	GLN	CA-C-N	7.62	136.10	121.54
80	LC	349	GLN	C-N-CA	7.62	136.10	121.54
11	SM	39	ARG	CA-C-N	7.62	130.49	120.28
11	SM	39	ARG	C-N-CA	7.62	130.49	120.28
11	SM	64	MET	CA-C-N	7.62	130.49	120.28
11	SM	64	MET	C-N-CA	7.62	130.49	120.28
32	S1	956	A	N9-C1'-C2'	-7.62	100.57	112.00
33	L1	1715	C	C4'-C3'-C2'	-7.62	94.98	102.60
33	L1	2114	A	C5'-C4'-C3'	-7.62	104.57	116.00
33	L1	3269	C	N1-C1'-C2'	7.62	123.43	112.00
38	LE	50	SER	CA-C-O	7.62	128.46	120.30
46	LT	27	ASN	OD1-CG-ND2	-7.62	114.98	122.60
32	S1	794	G	C5'-C4'-C3'	7.62	126.33	114.90
39	LF	150	ILE	CA-C-N	7.62	130.34	120.44
39	LF	150	ILE	C-N-CA	7.62	130.34	120.44
42	LP	74	PRO	CB-CA-C	7.62	123.13	111.40
46	LT	71	GLN	N-CA-C	7.62	122.34	112.89
48	LV	127	ARG	O-C-N	-7.62	113.28	122.65
33	L1	2445	U	N1-C1'-C2'	7.62	123.42	112.00
33	L1	3342	C	C3'-C2'-C1'	7.62	108.92	101.30
13	SQ	72	LYS	N-CA-C	7.62	127.02	110.80
33	L1	366	G	C1'-O4'-C4'	7.61	117.51	109.90
33	L1	1959	U	O4'-C1'-C2'	-7.61	99.99	107.60
33	L1	2053	A	C3'-C2'-C1'	7.61	108.91	101.30
9	SK	117	ALA	CA-C-N	7.61	131.88	120.31
9	SK	117	ALA	C-N-CA	7.61	131.88	120.31
32	S1	1024	A	O4'-C1'-C2'	-7.61	99.99	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1010	A	C1'-O4'-C4'	7.61	117.51	109.90
15	SS	92	PRO	N-CA-CB	-7.61	95.70	103.08
32	S1	247	A	C4'-C3'-O3'	7.61	121.42	110.00
57	L1	67	MET	O-C-N	-7.61	114.23	122.07
60	Lr	7	THR	CA-C-O	-7.61	112.32	120.46
73	Lp	43	ASN	CA-C-O	7.61	129.30	120.32
43	LO	33	GLY	N-CA-C	7.61	121.16	110.74
29	ST	30	ALA	N-CA-C	-7.61	96.43	108.30
32	S1	1803	G	P-O5'-C5'	-7.61	109.49	120.90
33	L1	44	A	O4'-C1'-C2'	-7.61	99.99	107.60
33	L1	338	C	N1-C1'-C2'	7.61	123.41	112.00
33	L1	3308	A	P-O3'-C3'	7.61	131.61	120.20
13	SQ	61	ILE	CA-CB-CG1	7.61	123.33	110.40
33	L1	995	C	O4'-C1'-C2'	-7.61	99.99	107.60
33	L1	174	G	C1'-O4'-C4'	-7.60	102.30	109.90
69	La	53	VAL	N-CA-C	-7.60	102.21	113.39
32	S1	1232	G	C1'-O4'-C4'	-7.60	102.30	109.90
32	S1	1467	C	O4'-C1'-C2'	-7.60	100.00	107.60
33	L1	495	G	O4'-C1'-N9	7.60	119.91	108.50
33	L1	2502	U	P-O5'-C5'	-7.60	109.50	120.90
3	SB	103	GLU	N-CA-C	7.60	120.45	111.71
33	L1	2876	G	O5'-C5'-C4'	7.60	122.90	111.50
35	L2	128	C	O4'-C1'-C2'	-7.60	100.00	107.60
33	L1	639	A	P-O5'-C5'	-7.60	109.50	120.90
33	L1	728	G	O4'-C1'-N9	7.60	119.90	108.50
33	L1	1856	G	O4'-C1'-C2'	-7.60	100.00	107.60
49	LX	61	ALA	CA-C-O	-7.60	109.75	120.16
69	La	81	MET	CA-C-O	-7.60	110.97	118.34
32	S1	1791	A	C3'-C2'-C1'	7.60	108.90	101.30
33	L1	946	U	C4'-C3'-O3'	7.60	120.80	109.40
33	L1	2771	U	O3'-P-O5'	-7.60	92.61	104.00
55	Lg	28	LEU	CA-C-N	7.60	131.22	120.28
55	Lg	28	LEU	C-N-CA	7.60	131.22	120.28
32	S1	1747	A	O4'-C1'-C2'	-7.60	100.00	107.60
54	Lf	20	LEU	N-CA-CB	-7.60	98.95	110.12
16	SR	117	LYS	CA-C-N	-7.59	110.35	119.84
16	SR	117	LYS	C-N-CA	-7.59	110.35	119.84
25	SC	192	GLU	N-CA-C	7.59	122.39	113.20
32	S1	372	U	C3'-C2'-C1'	-7.59	93.71	101.30
32	S1	1310	C	O4'-C1'-C2'	-7.59	100.00	107.60
33	L1	1710	G	C3'-C2'-C1'	-7.59	93.71	101.30
82	LK	134	LEU	CB-CA-C	-7.59	96.85	110.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	Ld	50	ASN	OD1-CG-ND2	-7.59	115.01	122.60
33	L1	2995	G	O4'-C1'-C2'	-7.59	100.01	107.60
34	L3	25	G	O4'-C1'-N9	7.59	119.89	108.50
33	L1	530	C	O4'-C1'-C2'	-7.59	100.01	107.60
33	L1	1104	C	P-O5'-C5'	7.59	132.28	120.90
73	Lp	16	ASP	CB-CA-C	7.59	129.03	112.63
33	L1	1826	G	P-O3'-C3'	-7.59	108.82	120.20
28	SN	14	TYR	N-CA-CB	7.59	123.31	110.49
33	L1	987	A	O4'-C1'-N9	7.59	119.88	108.50
33	L1	1143	G	C3'-C2'-C1'	-7.59	93.71	101.30
33	L1	1596	G	N9-C1'-C2'	7.59	123.38	112.00
33	L1	2490	U	C5'-C4'-C3'	7.59	126.58	115.20
33	L1	2746	G	C1'-C2'-O2'	7.59	119.78	108.40
33	L1	3322	A	O4'-C4'-C3'	-7.59	96.41	104.00
29	ST	41	GLU	CA-C-O	-7.58	112.51	120.55
32	S1	293	C	C3'-C2'-C1'	7.58	108.89	101.30
32	S1	1314	U	O4'-C1'-C2'	-7.58	100.02	107.60
33	L1	655	G	O4'-C1'-C2'	7.58	115.18	107.60
33	L1	729	G	N9-C1'-C2'	-7.58	100.62	112.00
33	L1	811	A	C4'-C3'-C2'	7.58	110.18	102.60
33	L1	2474	A	N9-C1'-C2'	-7.58	100.62	112.00
33	L1	2486	G	O4'-C1'-N9	7.58	119.88	108.50
1	Sa	193	ILE	N-CA-CB	7.58	120.27	110.57
2	SA	171	GLY	CA-C-N	7.58	136.02	121.54
2	SA	171	GLY	C-N-CA	7.58	136.02	121.54
33	L1	138	G	C1'-C2'-O2'	7.58	119.77	108.40
33	L1	1035	C	C1'-C2'-O2'	7.58	119.77	108.40
33	L1	2204	U	N1-C1'-C2'	-7.58	100.63	112.00
70	Li	48	GLY	N-CA-C	-7.58	105.26	114.66
36	LA	25	ARG	CB-CA-C	-7.58	98.21	110.79
32	S1	496	A	O4'-C1'-C2'	-7.58	100.02	107.60
32	S1	776	A	C4'-C3'-O3'	-7.58	98.63	110.00
32	S1	776	A	O5'-C5'-C4'	7.58	122.17	110.80
32	S1	965	U	O4'-C1'-C2'	-7.58	100.02	107.60
33	L1	272	G	C3'-C2'-C1'	-7.58	93.72	101.30
33	L1	2246	G	O3'-P-O5'	-7.58	92.63	104.00
32	S1	404	A	C3'-C2'-C1'	-7.58	93.72	101.30
32	S1	1240	A	O4'-C1'-N9	7.58	119.87	108.50
3	SB	82	ASN	CA-C-N	7.58	129.17	122.43
3	SB	82	ASN	C-N-CA	7.58	129.17	122.43
32	S1	609	A	O4'-C1'-C2'	-7.58	100.02	107.60
33	L1	826	C	C1'-O4'-C4'	-7.58	102.33	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	861	A	O4'-C1'-N9	7.58	119.86	108.50
33	L1	1382	C	O3'-P-O5'	-7.58	92.64	104.00
33	L1	1624	G	P-O5'-C5'	7.58	132.26	120.90
33	L1	3048	C	C4'-C3'-C2'	-7.58	95.02	102.60
73	Lp	14	ASN	OD1-CG-ND2	7.58	130.18	122.60
4	SD	62	ILE	N-CA-C	-7.57	103.07	110.72
33	L1	3142	C	O4'-C1'-N1	-7.57	96.84	108.20
64	LG	151	LYS	O-C-N	7.57	130.15	122.12
32	S1	1167	C	N1-C1'-C2'	7.57	123.36	112.00
32	S1	1775	A	O4'-C1'-C2'	7.57	113.37	105.80
33	L1	1365	C	C3'-C2'-C1'	7.57	108.87	101.30
32	S1	357	A	C1'-O4'-C4'	7.57	117.47	109.90
28	SN	28	HIS	ND1-CE1-NE2	7.57	115.97	108.40
32	S1	855	G	O4'-C1'-N9	7.57	119.85	108.50
3	SB	30	ALA	CB-CA-C	-7.57	95.36	110.42
32	S1	1794	C	N1-C1'-C2'	7.57	123.35	112.00
33	L1	2586	C	O4'-C1'-C2'	-7.57	100.03	107.60
33	L1	3322	A	C5'-C4'-C3'	7.57	127.35	116.00
35	L2	122	C	N1-C1'-C2'	7.57	123.35	112.00
78	Le	185	ASP	CA-C-N	7.57	130.42	120.28
78	Le	185	ASP	C-N-CA	7.57	130.42	120.28
14	SP	99	GLN	O-C-N	-7.57	114.38	123.16
32	S1	288	G	C1'-C2'-O2'	7.57	119.75	108.40
32	S1	1195	U	O4'-C1'-N1	7.57	119.85	108.50
33	L1	1013	A	P-O3'-C3'	7.57	131.55	120.20
33	L1	1135	C	O4'-C1'-C2'	-7.57	100.03	107.60
33	L1	1243	C	C1'-C2'-O2'	7.57	119.75	108.40
80	LC	113	ASP	CA-CB-CG	7.57	120.17	112.60
33	L1	1762	G	N9-C1'-C2'	7.56	123.35	112.00
32	S1	1072	U	C1'-C2'-O2'	7.56	119.75	108.40
33	L1	3348	G	C4'-C3'-C2'	-7.56	95.04	102.60
56	Lh	5	LEU	CB-CA-C	7.56	123.71	110.85
33	L1	1863	A	O4'-C1'-N9	7.56	119.84	108.50
33	L1	2150	C	N1-C1'-C2'	7.56	123.34	112.00
52	Lb	67	ASP	CA-C-N	7.56	135.98	121.54
52	Lb	67	ASP	C-N-CA	7.56	135.98	121.54
33	L1	209	G	O4'-C1'-C2'	-7.56	98.24	105.80
33	L1	3123	A	N9-C1'-C2'	7.56	123.34	112.00
58	Ln	19	ASP	CA-CB-CG	-7.56	105.04	112.60
67	LS	10	GLN	CA-CB-CG	7.56	129.21	114.10
32	S1	372	U	N1-C1'-C2'	7.55	123.33	112.00
33	L1	264	C	C3'-C2'-C1'	7.55	108.85	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	267	G	O4'-C1'-N9	-7.55	96.87	108.20
33	L1	683	U	N1-C1'-C2'	7.55	123.33	112.00
15	SS	33	LEU	CA-C-O	-7.55	109.81	120.16
33	L1	2758	C	C3'-C2'-C1'	7.55	108.85	101.30
34	L3	120	C	O4'-C1'-C2'	7.55	113.35	105.80
35	L2	96	A	O5'-C5'-C4'	7.55	122.83	111.50
42	LP	101	VAL	CA-C-N	7.55	130.40	120.28
42	LP	101	VAL	C-N-CA	7.55	130.40	120.28
7	SI	35	ILE	O-C-N	7.55	130.63	122.63
23	SU	52	LEU	N-CA-C	-7.55	102.53	112.34
32	S1	288	G	O4'-C1'-N9	7.55	119.82	108.50
32	S1	542	A	P-O3'-C3'	7.55	131.52	120.20
32	S1	1707	G	N9-C1'-C2'	-7.55	100.67	112.00
33	L1	541	C	N1-C1'-C2'	7.55	123.33	112.00
33	L1	972	C	O4'-C4'-C3'	-7.55	96.45	104.00
33	L1	3149	C	C3'-C2'-C1'	7.55	108.85	101.30
36	LA	120	PRO	CA-C-N	7.55	133.49	120.58
36	LA	120	PRO	C-N-CA	7.55	133.49	120.58
47	LU	115	LEU	N-CA-C	7.55	119.51	111.28
33	L1	450	C	N1-C1'-C2'	7.55	123.32	112.00
33	L1	1057	A	C4'-C3'-C2'	-7.55	95.05	102.60
32	S1	1093	A	C3'-C2'-C1'	7.55	108.85	101.30
33	L1	207	U	O4'-C1'-N1	7.55	119.82	108.50
33	L1	2204	U	C5'-C4'-O4'	-7.55	98.48	109.80
33	L1	2223	A	P-O5'-C5'	7.55	132.22	120.90
33	L1	2460	A	C3'-C2'-C1'	-7.55	93.95	101.50
33	L1	3100	C	C3'-C2'-C1'	7.55	109.05	101.50
33	L1	3335	G	C4'-C3'-O3'	7.55	124.32	113.00
33	L1	714	G	O4'-C1'-C2'	7.54	115.14	107.60
33	L1	3294	U	O4'-C1'-N1	7.54	119.82	108.50
32	S1	1070	A	O4'-C1'-C2'	-7.54	100.06	107.60
32	S1	1274	G	O4'-C1'-C2'	-7.54	100.06	107.60
33	L1	2770	U	P-O5'-C5'	7.54	132.21	120.90
46	LT	128	LYS	CA-C-O	7.54	128.65	119.97
52	Lb	129	ARG	N-CA-C	-7.54	102.65	112.68
82	LK	80	ALA	CA-C-N	7.54	127.42	119.05
82	LK	80	ALA	C-N-CA	7.54	127.42	119.05
28	SN	31	ILE	N-CA-C	7.54	118.14	110.82
28	SN	40	ARG	CA-C-O	-7.54	112.90	120.82
33	L1	1053	C	O4'-C1'-C2'	-7.54	100.06	107.60
40	LH	154	ASP	CA-CB-CG	7.54	120.14	112.60
53	Ld	51	LYS	CA-C-N	7.54	131.14	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	Ld	51	LYS	C-N-CA	7.54	131.14	120.28
32	S1	1718	C	C1'-C2'-O2'	7.54	119.71	108.40
33	L1	743	C	O4'-C1'-C2'	-7.54	100.06	107.60
33	L1	1102	A	C4'-C3'-O3'	7.54	121.31	110.00
33	L1	3341	C	C1'-O4'-C4'	-7.54	102.36	109.90
15	SS	109	GLN	CA-C-N	7.54	130.38	120.28
15	SS	109	GLN	C-N-CA	7.54	130.38	120.28
33	L1	2165	A	O4'-C1'-C2'	7.54	115.14	107.60
33	L1	2518	A	C4'-C3'-O3'	7.54	124.31	113.00
32	S1	1443	U	O3'-P-O5'	7.54	115.31	104.00
33	L1	3087	A	P-O5'-C5'	7.54	132.21	120.90
56	Lh	101	VAL	O-C-N	-7.54	114.69	122.75
10	SL	5	ARG	O-C-N	-7.54	112.57	122.59
32	S1	253	C	P-O3'-C3'	7.54	131.50	120.20
32	S1	564	U	O4'-C1'-N1	7.54	119.80	108.50
33	L1	846	A	P-O3'-C3'	7.54	131.50	120.20
33	L1	975	G	P-O5'-C5'	-7.54	109.60	120.90
33	L1	1243	C	C1'-O4'-C4'	-7.54	102.36	109.90
33	L1	3287	A	P-O5'-C5'	7.54	132.20	120.90
33	L1	1954	G	C5'-C4'-C3'	7.53	127.30	116.00
33	L1	684	C	O4'-C1'-N1	7.53	119.80	108.50
33	L1	2896	C	C3'-C2'-C1'	7.53	108.83	101.30
67	LS	30	LYS	N-CA-CB	7.53	122.70	110.42
32	S1	476	U	O4'-C1'-C2'	-7.53	100.07	107.60
32	S1	502	G	P-O5'-C5'	7.53	132.19	120.90
33	L1	1421	A	O4'-C1'-N9	7.53	119.50	108.20
33	L1	1527	A	O4'-C1'-N9	-7.53	96.90	108.20
33	L1	3297	A	O3'-P-O5'	7.53	115.30	104.00
70	Li	101	LYS	CA-C-N	7.53	135.52	121.97
70	Li	101	LYS	C-N-CA	7.53	135.52	121.97
15	SS	93	PRO	CB-CA-C	-7.53	100.21	110.60
32	S1	293	C	N1-C1'-C2'	7.53	123.29	112.00
33	L1	318	G	C1'-O4'-C4'	-7.53	102.37	109.90
33	L1	2234	G	C5'-C4'-C3'	7.53	127.29	116.00
69	La	12	ILE	N-CA-C	-7.53	97.73	108.65
33	L1	682	G	P-O3'-C3'	7.53	131.49	120.20
33	L1	1363	C	C1'-C2'-O2'	7.53	119.69	108.40
33	L1	1942	A	C3'-C2'-C1'	-7.53	93.77	101.30
70	Li	65	PRO	N-CA-CB	7.53	111.15	103.25
5	SE	179	VAL	CA-C-O	7.52	124.97	119.25
29	ST	30	ALA	CA-C-O	-7.52	115.48	119.77
33	L1	1364	C	C3'-C2'-C1'	7.52	108.82	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	LQ	73	ASP	O-C-N	-7.52	112.58	122.59
9	SK	51	THR	CA-C-N	7.52	135.91	121.54
9	SK	51	THR	C-N-CA	7.52	135.91	121.54
20	SZ	21	VAL	CA-C-N	7.52	135.24	121.70
20	SZ	21	VAL	C-N-CA	7.52	135.24	121.70
33	L1	1806	C	C4'-C3'-O3'	-7.52	101.72	113.00
33	L1	1881	C	O4'-C1'-N1	7.52	119.48	108.20
32	S1	512	U	C5'-C4'-C3'	7.52	127.28	116.00
33	L1	1509	G	P-O3'-C3'	-7.52	108.92	120.20
33	L1	1731	A	N9-C1'-C2'	7.52	123.28	112.00
59	Lo	20	ASN	OD1-CG-ND2	7.52	130.12	122.60
8	SJ	27	HIS	CB-CG-ND1	7.52	133.97	122.70
32	S1	1427	A	C3'-C2'-C1'	-7.52	93.78	101.30
44	LR	32	LEU	CA-C-O	7.52	128.52	120.55
48	LV	129	ARG	NE-CZ-NH2	7.52	125.97	119.20
73	Lp	51	ILE	CA-C-N	7.52	137.18	122.07
73	Lp	51	ILE	C-N-CA	7.52	137.18	122.07
3	SB	106	ARG	NE-CZ-NH1	7.51	129.01	121.50
33	L1	3203	G	N9-C1'-C2'	-7.51	100.73	112.00
34	L3	101	A	O4'-C1'-C2'	-7.51	100.09	107.60
13	SQ	117	VAL	N-CA-C	-7.51	96.64	108.81
33	L1	938	U	P-O5'-C5'	7.51	132.17	120.90
33	L1	2625	C	C1'-C2'-O2'	7.51	119.67	108.40
72	Lk	54	ALA	CA-C-O	-7.51	111.05	118.34
75	Lt	62	VAL	CA-CB-CG1	7.51	123.17	110.40
4	SD	60	GLU	CB-CA-C	7.51	124.14	109.72
12	SO	123	HIS	CB-CA-C	7.51	122.67	110.88
33	L1	1119	G	C3'-C2'-C1'	-7.51	93.99	101.50
33	L1	2582	G	C1'-C2'-O2'	7.51	119.67	108.40
33	L1	3320	G	C4'-C3'-C2'	-7.51	95.09	102.60
33	L1	685	G	N9-C1'-C2'	7.51	123.26	112.00
56	Lh	121	THR	CA-C-N	7.51	130.20	120.44
56	Lh	121	THR	C-N-CA	7.51	130.20	120.44
32	S1	181	C	N1-C1'-C2'	7.51	123.26	112.00
32	S1	1202	G	C1'-O4'-C4'	-7.51	102.39	109.90
33	L1	2758	C	C4'-C3'-C2'	-7.51	95.09	102.60
32	S1	933	G	C3'-C2'-C1'	-7.50	94.00	101.50
32	S1	1336	C	C3'-C2'-C1'	7.50	108.80	101.30
33	L1	1749	G	C1'-O4'-C4'	-7.50	102.40	109.90
33	L1	2624	G	C1'-O4'-C4'	-7.50	102.40	109.90
33	L1	2656	C	P-O3'-C3'	-7.50	108.94	120.20
33	L1	2681	A	O4'-C1'-C2'	-7.50	100.10	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2876	G	C5'-C4'-C3'	-7.50	104.75	116.00
34	L3	75	G	O3'-P-O5'	7.50	115.25	104.00
64	LG	11	ILE	N-CA-C	-7.50	97.67	108.48
67	LS	160	PRO	CA-C-N	7.50	129.22	119.84
67	LS	160	PRO	C-N-CA	7.50	129.22	119.84
32	S1	1099	G	N9-C1'-C2'	7.50	123.25	112.00
33	L1	1904	A	C1'-O4'-C4'	-7.50	102.40	109.90
33	L1	2840	A	C4'-C3'-C2'	-7.50	95.10	102.60
33	L1	3085	C	C5'-C4'-C3'	7.50	127.25	116.00
32	S1	7	G	O4'-C1'-C2'	7.50	115.10	107.60
33	L1	2667	C	C1'-O4'-C4'	-7.50	102.40	109.90
33	L1	239	C	C5'-C4'-C3'	7.50	127.25	116.00
33	L1	457	C	C3'-C2'-C1'	7.50	108.80	101.30
33	L1	1061	A	C3'-C2'-C1'	7.50	108.80	101.30
33	L1	1102	A	O5'-C5'-C4'	7.50	122.05	110.80
33	L1	2308	A	O4'-C1'-C2'	-7.50	98.30	105.80
33	L1	2546	C	N1-C1'-C2'	7.50	123.25	112.00
33	L1	2875	U	C1'-C2'-O2'	-7.50	97.15	108.40
41	LM	39	ILE	N-CA-C	7.50	119.64	108.54
71	Lj	12	TYR	N-CA-CB	7.50	123.16	110.49
80	LC	157	ALA	N-CA-C	7.50	121.40	111.28
33	L1	839	A	C4'-C3'-O3'	7.50	124.24	113.00
33	L1	1000	A	C3'-C2'-C1'	7.50	108.80	101.30
51	LY	114	ARG	CA-C-N	7.50	130.32	120.28
51	LY	114	ARG	C-N-CA	7.50	130.32	120.28
33	L1	1441	U	O3'-P-O5'	-7.49	92.76	104.00
45	LQ	12	LYS	N-CA-C	-7.49	104.18	112.72
3	SB	31	GLU	N-CA-C	-7.49	94.85	110.80
31	S2	17	G	O5'-C5'-C4'	7.49	122.94	111.70
32	S1	1279	A	C1'-O4'-C4'	-7.49	102.41	109.90
32	S1	1405	U	P-O5'-C5'	7.49	132.14	120.90
32	S1	1714	G	O4'-C1'-C2'	7.49	115.09	107.60
33	L1	262	A	C3'-C2'-C1'	7.49	108.79	101.30
38	LE	77	LYS	O-C-N	-7.49	114.18	122.12
52	Lb	79	LYS	N-CA-C	-7.49	97.13	108.52
66	LN	98	ARG	NE-CZ-NH1	7.49	128.99	121.50
4	SD	62	ILE	CA-C-N	7.49	130.92	120.29
4	SD	62	ILE	C-N-CA	7.49	130.92	120.29
32	S1	303	A	OP1-P-O3'	-7.49	85.53	108.00
33	L1	451	C	N1-C1'-C2'	7.49	123.23	112.00
33	L1	1237	G	C1'-C2'-O2'	7.49	119.63	108.40
33	L1	2722	U	P-O5'-C5'	7.49	132.13	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
64	LG	162	LEU	N-CA-C	7.49	119.08	111.07
32	S1	274	A	O5'-C5'-C4'	-7.49	100.27	111.50
33	L1	2476	G	O4'-C1'-N9	7.49	119.73	108.50
3	SB	15	GLY	O-C-N	-7.49	114.93	122.19
10	SL	54	ILE	CA-C-N	7.49	134.78	122.65
10	SL	54	ILE	C-N-CA	7.49	134.78	122.65
33	L1	56	A	O4'-C1'-N9	7.49	119.73	108.50
33	L1	102	G	C3'-C2'-C1'	7.49	108.78	101.30
33	L1	2686	U	C5'-C4'-C3'	7.49	127.23	116.00
66	LN	132	ALA	N-CA-C	7.49	119.44	111.28
72	Lk	87	LYS	N-CA-C	7.49	119.44	111.28
33	L1	13	G	N9-C1'-C2'	7.48	123.23	112.00
33	L1	1239	U	N1-C1'-C2'	7.48	125.23	114.00
33	L1	1950	G	P-O5'-C5'	7.48	132.13	120.90
80	LC	95	THR	CA-C-O	-7.48	113.23	120.64
16	SR	117	LYS	CA-CB-CG	7.48	129.06	114.10
31	S2	75	A	C5'-C4'-C3'	-7.48	103.98	115.20
33	L1	2089	A	O4'-C1'-N9	7.48	119.72	108.50
33	L1	2199	C	O3'-P-O5'	-7.48	92.78	104.00
33	L1	2463	U	O4'-C4'-C3'	-7.48	96.52	104.00
32	S1	333	G	N9-C1'-C2'	7.48	123.22	112.00
32	S1	607	U	N1-C1'-C2'	7.48	123.22	112.00
32	S1	890	G	C1'-C2'-O2'	7.48	119.62	108.40
33	L1	1130	G	P-O3'-C3'	-7.48	108.98	120.20
70	Li	93	ARG	NE-CZ-NH1	-7.48	114.02	121.50
33	L1	1278	A	P-O5'-C5'	7.48	132.12	120.90
33	L1	3345	G	O4'-C1'-N9	7.48	119.72	108.50
32	S1	1146	G	N9-C1'-C2'	7.48	123.22	112.00
33	L1	579	G	C5'-C4'-C3'	7.48	127.22	116.00
32	S1	199	G	N9-C1'-C2'	7.48	123.22	112.00
64	LG	152	LYS	CA-C-N	7.47	130.30	120.28
64	LG	152	LYS	C-N-CA	7.47	130.30	120.28
78	Le	161	GLN	CA-C-O	7.47	123.04	118.33
32	S1	801	U	P-O5'-C5'	-7.47	98.48	120.90
33	L1	2635	G	P-O5'-C5'	-7.47	109.69	120.90
6	SF	168	CYS	N-CA-CB	7.47	121.10	110.12
33	L1	1350	G	C1'-O4'-C4'	7.47	117.37	109.90
8	SJ	122	GLU	CA-C-N	7.47	133.03	123.10
8	SJ	122	GLU	C-N-CA	7.47	133.03	123.10
24	SX	81	PHE	CA-CB-CG	-7.47	106.33	113.80
33	L1	796	C	P-O5'-C5'	7.47	132.10	120.90
33	L1	3388	U	N1-C1'-C2'	-7.47	100.80	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	Lo	21	ARG	CA-C-N	7.47	127.42	120.03
59	Lo	21	ARG	C-N-CA	7.47	127.42	120.03
13	SQ	78	ARG	NE-CZ-NH2	7.47	125.92	119.20
32	S1	1328	G	P-O5'-C5'	7.47	132.10	120.90
7	SI	27	TYR	CB-CG-CD2	-7.47	109.60	120.80
79	Ls	234	TYR	C-N-CD	-7.47	94.39	125.00
33	L1	643	G	C1'-O4'-C4'	-7.46	102.44	109.90
40	LH	83	ASN	CA-CB-CG	7.46	120.06	112.60
78	Le	8	VAL	CB-CA-C	7.46	121.53	111.97
32	S1	943	G	C1'-O4'-C4'	-7.46	102.44	109.90
33	L1	1792	G	C3'-C2'-C1'	7.46	108.76	101.30
33	L1	2467	A	P-O3'-C3'	7.46	131.39	120.20
8	SJ	37	SER	CA-C-N	7.46	130.11	120.56
8	SJ	37	SER	C-N-CA	7.46	130.11	120.56
31	S2	72	G	O4'-C1'-C2'	-7.46	100.14	107.60
32	S1	567	U	O4'-C1'-C2'	-7.46	100.14	107.60
33	L1	528	C	C4'-C3'-C2'	-7.46	95.14	102.60
33	L1	3358	A	C3'-C2'-C1'	-7.46	93.84	101.30
43	LO	135	ALA	N-CA-C	7.46	126.69	110.80
51	LY	40	HIS	N-CA-C	7.46	123.29	113.30
80	LC	5	LYS	N-CA-CB	7.46	123.18	110.50
33	L1	1057	A	N9-C1'-C2'	-7.46	100.81	112.00
33	L1	1943	G	P-O3'-C3'	7.46	131.39	120.20
33	L1	3065	U	N1-C1'-C2'	7.46	123.18	112.00
33	L1	3096	U	O4'-C1'-N1	7.46	119.68	108.50
45	LQ	25	LYS	O-C-N	-7.46	114.39	122.07
1	Sa	343	HIS	CA-CB-CG	-7.45	106.35	113.80
11	SM	10	GLN	O-C-N	-7.45	114.10	122.75
32	S1	509	A	C3'-C2'-C1'	7.45	108.75	101.30
32	S1	1349	A	C5'-C4'-C3'	7.45	127.18	116.00
33	L1	3245	G	N9-C1'-C2'	7.45	123.18	112.00
34	L3	54	A	O4'-C4'-C3'	-7.45	96.55	104.00
55	Lg	3	GLU	N-CA-C	-7.45	104.58	112.93
80	LC	128	LYS	CA-C-N	7.45	135.78	121.54
80	LC	128	LYS	C-N-CA	7.45	135.78	121.54
33	L1	3145	G	C3'-C2'-C1'	7.45	108.75	101.30
60	Lr	37	ALA	CA-C-N	7.45	131.01	120.28
60	Lr	37	ALA	C-N-CA	7.45	131.01	120.28
69	La	10	ALA	CA-C-O	-7.45	111.10	119.67
69	La	38	TYR	CA-C-O	7.45	131.17	120.51
1	Sa	126	GLY	O-C-N	-7.45	116.36	123.81
32	S1	1147	A	C3'-C2'-C1'	7.45	108.75	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	77	U	C1'-O4'-C4'	7.45	117.35	109.90
33	L1	112	C	C3'-C2'-C1'	7.45	108.95	101.50
33	L1	1022	G	O4'-C1'-N9	7.45	119.68	108.50
35	L2	158	G	N9-C1'-C2'	-7.45	100.82	112.00
49	LX	58	ARG	N-CA-C	7.45	126.67	110.80
9	SK	131	VAL	O-C-N	-7.45	114.20	122.69
33	L1	198	A	C1'-O4'-C4'	7.45	117.15	109.70
32	S1	1741	A	P-O3'-C3'	7.45	131.37	120.20
33	L1	1058	A	O4'-C4'-C3'	-7.45	98.65	106.10
33	L1	3358	A	C1'-O4'-C4'	-7.45	102.45	109.90
17	SV	65	VAL	CB-CA-C	7.45	122.19	112.14
15	SS	106	ILE	N-CA-C	7.44	118.24	110.72
33	L1	3037	G	N9-C1'-C2'	7.44	123.17	112.00
42	LP	44	ARG	O-C-N	-7.44	113.33	120.85
45	LQ	257	THR	CA-C-N	7.44	135.10	121.70
45	LQ	257	THR	C-N-CA	7.44	135.10	121.70
32	S1	939	C	O4'-C1'-C2'	-7.44	98.36	105.80
33	L1	618	G	C3'-C2'-C1'	-7.44	93.86	101.30
33	L1	705	A	C5'-C4'-C3'	7.44	127.17	116.00
33	L1	1971	A	O4'-C1'-C2'	-7.44	100.16	107.60
33	L1	2212	U	P-O5'-C5'	7.44	132.06	120.90
33	L1	2647	C	C1'-O4'-C4'	7.44	117.14	109.70
72	Lk	93	MET	CA-C-N	7.44	135.10	121.70
72	Lk	93	MET	C-N-CA	7.44	135.10	121.70
32	S1	836	U	O4'-C1'-C2'	-7.44	98.36	105.80
32	S1	1613	G	O3'-P-O5'	7.44	115.16	104.00
33	L1	784	G	O4'-C1'-C2'	7.44	115.04	107.60
33	L1	2204	U	O4'-C1'-N1	7.44	119.66	108.50
46	LT	68	GLU	CA-C-O	7.44	128.53	119.38
48	LV	69	ARG	N-CA-C	-7.44	98.06	109.14
17	SV	30	LYS	N-CA-CB	7.44	123.06	110.49
32	S1	302	C	C3'-C2'-C1'	7.44	108.74	101.30
33	L1	1682	C	C2'-C3'-O3'	7.44	120.66	109.50
33	L1	2465	G	C1'-O4'-C4'	-7.44	102.46	109.90
9	SK	96	LEU	N-CA-CB	7.44	121.72	110.19
25	SC	150	VAL	CA-C-N	7.44	135.75	121.54
25	SC	150	VAL	C-N-CA	7.44	135.75	121.54
31	S2	43	C	C1'-C2'-O2'	7.44	119.56	108.40
33	L1	1912	U	C4'-C3'-C2'	-7.44	95.16	102.60
32	S1	159	U	O3'-P-O5'	7.44	115.15	104.00
33	L1	3299	A	C1'-O4'-C4'	7.44	117.34	109.90
23	SU	92	GLU	O-C-N	-7.43	112.77	121.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	248	C	O4'-C1'-C2'	-7.43	100.17	107.60
33	L1	957	U	N1-C1'-C2'	7.43	123.15	112.00
33	L1	2644	U	N1-C1'-C2'	7.43	123.15	112.00
35	L2	49	C	C5'-C4'-C3'	7.43	127.15	116.00
64	LG	148	ALA	CA-C-N	7.43	130.55	120.44
64	LG	148	ALA	C-N-CA	7.43	130.55	120.44
16	SR	139	ARG	CB-CA-C	-7.43	95.53	110.17
33	L1	1630	C	N1-C1'-C2'	7.43	123.15	112.00
33	L1	2339	U	C5'-C4'-C3'	-7.43	104.85	116.00
77	Lc	95	ARG	CA-CB-CG	7.43	128.97	114.10
80	LC	165	HIS	O-C-N	-7.43	114.65	123.27
31	S2	43	C	N1-C1'-C2'	7.43	123.15	112.00
57	L1	11	ARG	N-CA-C	7.43	126.63	110.80
32	S1	1460	G	O4'-C1'-N9	7.43	119.64	108.50
32	S1	1791	A	O4'-C1'-C2'	-7.43	100.17	107.60
33	L1	443	G	O4'-C1'-C2'	7.43	115.03	107.60
46	LT	184	GLY	CA-C-N	7.43	126.97	119.24
46	LT	184	GLY	C-N-CA	7.43	126.97	119.24
32	S1	354	G	O4'-C1'-C2'	-7.43	98.37	105.80
33	L1	722	C	C5'-C4'-C3'	7.43	127.14	116.00
33	L1	780	U	C5'-C4'-C3'	7.43	127.14	116.00
46	LT	103	ARG	N-CA-C	7.43	120.44	111.82
32	S1	149	G	C5'-C4'-C3'	-7.43	104.86	116.00
32	S1	1378	C	O4'-C1'-C2'	-7.43	98.37	105.80
33	L1	1662	G	O4'-C1'-C2'	7.43	115.03	107.60
33	L1	2253	U	N1-C1'-C2'	7.43	123.14	112.00
1	Sa	302	THR	O-C-N	-7.42	114.25	122.12
27	SH	97	ARG	N-CA-CB	7.42	123.04	110.49
32	S1	1465	C	O4'-C1'-C2'	-7.42	98.38	105.80
33	L1	731	G	C5'-C4'-C3'	7.42	127.14	116.00
33	L1	1883	A	C1'-O4'-C4'	7.42	117.32	109.90
33	L1	3086	G	O3'-P-O5'	7.42	115.14	104.00
37	LB	19	HIS	CE1-NE2-CD2	-7.42	101.58	109.00
48	LV	112	THR	CA-C-N	-7.42	107.36	121.54
48	LV	112	THR	C-N-CA	-7.42	107.36	121.54
66	LN	8	GLU	CA-C-O	7.42	129.31	120.99
32	S1	1228	G	C3'-C2'-C1'	7.42	108.72	101.30
33	L1	1197	A	C3'-C2'-C1'	-7.42	93.88	101.30
33	L1	1739	G	C2'-C3'-O3'	7.42	120.63	109.50
46	LT	121	HIS	CA-CB-CG	7.42	121.22	113.80
33	L1	1740	U	P-O5'-C5'	7.42	132.03	120.90
70	Li	13	TYR	CB-CA-C	7.42	125.19	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2620	U	C2'-C3'-O3'	7.42	120.63	109.50
46	LT	53	LYS	CA-C-O	-7.42	112.45	120.17
33	L1	548	G	C4'-C3'-O3'	-7.42	101.87	113.00
82	LK	2	VAL	CA-C-N	-7.42	110.94	121.99
82	LK	2	VAL	C-N-CA	-7.42	110.94	121.99
5	SE	194	LYS	CA-C-O	-7.42	111.89	120.49
32	S1	354	G	C3'-C2'-C1'	7.42	108.92	101.50
32	S1	1640	C	N1-C1'-C2'	7.42	123.12	112.00
33	L1	254	G	C1'-O4'-C4'	-7.42	102.48	109.90
33	L1	2202	A	C3'-C2'-C1'	7.42	108.92	101.50
33	L1	2654	G	P-O3'-C3'	7.42	131.32	120.20
33	L1	1818	C	C1'-C2'-O2'	7.42	119.52	108.40
67	LS	109	TYR	CA-C-O	-7.42	113.03	120.82
31	S2	4	G	C1'-O4'-C4'	-7.41	102.49	109.90
32	S1	154	A	O4'-C1'-C2'	-7.41	100.19	107.60
33	L1	1680	A	O4'-C1'-C2'	-7.41	100.19	107.60
33	L1	1689	G	O4'-C1'-C2'	-7.41	100.19	107.60
33	L1	2584	U	C1'-O4'-C4'	-7.41	102.49	109.90
34	L3	75	G	C1'-C2'-O2'	-7.41	100.68	111.80
33	L1	1746	G	C1'-C2'-O2'	7.41	119.52	108.40
29	ST	16	LYS	N-CA-C	7.41	119.36	111.28
33	L1	3144	U	C3'-C2'-C1'	7.41	108.91	101.50
40	LH	98	GLU	CB-CA-C	-7.41	95.67	110.42
48	LV	74	LYS	CB-CA-C	7.41	125.17	110.42
71	Lj	19	GLY	O-C-N	-7.41	113.07	122.70
79	Ls	97	ASP	N-CA-CB	7.41	120.96	110.36
33	L1	1100	G	P-O3'-C3'	7.41	131.31	120.20
39	LF	119	GLU	N-CA-CB	7.41	120.89	109.85
45	LQ	158	ARG	N-CA-C	7.41	120.23	111.71
33	L1	636	C	N1-C1'-C2'	7.41	123.11	112.00
33	L1	639	A	C3'-C2'-C1'	-7.41	93.89	101.30
33	L1	2408	G	O4'-C1'-C2'	-7.41	98.39	105.80
27	SH	83	VAL	N-CA-C	7.41	121.19	108.90
51	LY	125	ARG	NH1-CZ-NH2	-7.41	109.67	119.30
31	S2	48	C	C3'-C2'-C1'	7.40	108.70	101.30
32	S1	1317	A	O4'-C1'-N9	7.40	119.61	108.50
33	L1	513	C	C3'-C2'-C1'	7.40	108.70	101.30
33	L1	3363	G	P-O5'-C5'	7.40	132.01	120.90
5	SE	44	TRP	CA-C-O	-7.40	113.05	120.82
32	S1	138	C	N1-C1'-C2'	7.40	123.11	112.00
32	S1	372	U	O3'-P-O5'	-7.40	92.90	104.00
32	S1	1588	C	OP1-P-O3'	7.40	130.21	108.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1361	G	O4'-C1'-C2'	-7.40	100.20	107.60
33	L1	1433	U	O4'-C1'-N1	7.40	119.60	108.50
33	L1	2651	G	O4'-C1'-N9	7.40	119.60	108.50
33	L1	1939	C	O4'-C1'-C2'	-7.40	100.20	107.60
32	S1	479	A	O4'-C1'-N9	7.40	119.30	108.20
33	L1	1799	C	O4'-C1'-C2'	-7.40	100.20	107.60
33	L1	3234	G	C5'-C4'-O4'	7.40	120.89	109.80
49	LX	114	ASP	O-C-N	-7.40	113.93	123.32
64	LG	18	HIS	CB-CG-CD2	7.40	140.82	131.20
32	S1	1005	C	P-O5'-C5'	7.40	131.99	120.90
35	L2	27	C	P-O3'-C3'	7.40	131.29	120.20
3	SB	90	LYS	CA-C-N	7.39	135.28	121.97
3	SB	90	LYS	C-N-CA	7.39	135.28	121.97
32	S1	1472	G	N9-C1'-C2'	7.39	123.09	112.00
32	S1	1659	A	N9-C1'-C2'	7.39	123.09	112.00
33	L1	845	G	C1'-O4'-C4'	-7.39	102.50	109.90
33	L1	3150	G	O4'-C1'-C2'	-7.39	100.20	107.60
34	L3	19	A	N9-C1'-C2'	-7.39	100.91	112.00
32	S1	794	G	P-O3'-C3'	7.39	131.29	120.20
32	S1	1290	U	P-O5'-C5'	-7.39	109.81	120.90
33	L1	510	C	C1'-C2'-O2'	7.39	119.49	108.40
33	L1	1708	C	C1'-O4'-C4'	-7.39	102.51	109.90
33	L1	2809	U	P-O3'-C3'	-7.39	109.11	120.20
37	LB	193	ARG	N-CA-CB	-7.39	100.59	110.57
32	S1	1182	C	O3'-P-O5'	7.39	115.09	104.00
33	L1	2687	C	P-O5'-C5'	-7.39	109.81	120.90
64	LG	141	LYS	O-C-N	-7.39	114.09	123.26
3	SB	76	ARG	NE-CZ-NH1	7.39	128.89	121.50
29	ST	25	THR	CA-CB-OG1	7.39	120.69	109.60
32	S1	1538	C	O4'-C1'-N1	7.39	119.58	108.50
33	L1	525	A	O4'-C1'-C2'	-7.39	100.21	107.60
33	L1	714	G	C1'-O4'-C4'	-7.39	102.51	109.90
33	L1	1450	G	P-O3'-C3'	7.39	131.28	120.20
33	L1	1829	G	N9-C1'-C2'	7.39	123.08	112.00
33	L1	1880	A	C2'-C3'-O3'	-7.39	102.62	113.70
33	L1	3372	C	O4'-C1'-C2'	-7.39	98.41	105.80
33	L1	812	G	C1'-O4'-C4'	-7.39	102.51	109.90
33	L1	2659	A	C2'-C3'-O3'	7.39	120.58	109.50
33	L1	769	C	O4'-C1'-C2'	-7.38	100.22	107.60
33	L1	2478	G	C1'-O4'-C4'	-7.38	102.52	109.90
67	LS	26	ILE	N-CA-C	7.38	119.25	109.21
33	L1	3206	C	O4'-C1'-C2'	-7.38	100.22	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	LT	85	ARG	CB-CA-C	-7.38	99.59	110.96
77	Lc	98	PRO	CB-CA-C	7.38	123.74	111.56
31	S2	57	A	C3'-C2'-C1'	7.38	108.88	101.50
32	S1	1714	G	C1'-O4'-C4'	-7.38	102.52	109.90
33	L1	537	U	C3'-C2'-C1'	7.38	108.68	101.30
33	L1	596	C	C3'-C2'-C1'	7.38	108.68	101.30
33	L1	1613	C	N1-C1'-C2'	7.38	123.07	112.00
34	L3	103	U	N1-C1'-C2'	7.38	123.07	112.00
34	L3	46	C	C1'-O4'-C4'	-7.38	102.52	109.90
84	LI	79	ASN	CA-CB-CG	7.38	119.98	112.60
32	S1	1343	C	O4'-C1'-C2'	-7.38	100.22	107.60
33	L1	209	G	O4'-C1'-N9	-7.38	97.13	108.20
33	L1	342	A	P-O3'-C3'	-7.38	109.13	120.20
33	L1	1240	G	N9-C1'-C2'	7.38	125.07	114.00
33	L1	1276	C	O3'-P-O5'	7.38	115.06	104.00
33	L1	2627	G	O4'-C1'-N9	7.38	119.56	108.50
1	Sa	248	HIS	CE1-NE2-CD2	-7.37	101.63	109.00
31	S2	70	G	O4'-C1'-C2'	7.37	114.97	107.60
32	S1	1543	U	O5'-C5'-C4'	-7.37	100.64	111.70
32	S1	1753	U	P-O5'-C5'	-7.37	109.84	120.90
33	L1	63	G	C3'-C2'-C1'	7.37	108.67	101.30
33	L1	250	C	O4'-C1'-N1	-7.37	97.44	108.50
33	L1	841	G	C2'-C3'-O3'	7.37	120.56	109.50
33	L1	1394	C	P-O5'-C5'	7.37	131.96	120.90
44	LR	89	ASP	N-CA-C	7.37	121.11	109.39
66	LN	91	LYS	N-CA-C	7.37	120.75	111.24
32	S1	1226	U	P-O5'-C5'	7.37	131.96	120.90
33	L1	643	G	O4'-C1'-N9	7.37	119.56	108.50
33	L1	2582	G	C4'-C3'-C2'	7.37	109.97	102.60
34	L3	2	G	C1'-O4'-C4'	7.37	117.27	109.90
32	S1	1145	G	N9-C1'-C2'	7.37	123.06	112.00
33	L1	1270	G	O4'-C1'-N9	7.37	119.56	108.50
33	L1	2456	G	O4'-C1'-C2'	7.37	114.97	107.60
69	La	28	VAL	CA-CB-CG2	7.37	122.93	110.40
13	SQ	95	GLU	CA-C-N	7.37	135.23	121.97
13	SQ	95	GLU	C-N-CA	7.37	135.23	121.97
25	SC	2	PRO	N-CA-C	7.37	123.77	113.53
32	S1	1504	U	N1-C1'-C2'	-7.37	100.95	112.00
33	L1	684	C	N1-C1'-C2'	-7.37	100.95	112.00
61	Lq	11	ARG	O-C-N	-7.37	113.75	122.15
32	S1	1739	U	O4'-C1'-C2'	-7.37	100.23	107.60
33	L1	549	G	P-O3'-C3'	7.37	131.25	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	975	G	C1'-C2'-O2'	7.37	119.45	108.40
33	L1	2459	U	C3'-C2'-C1'	7.37	108.67	101.30
33	L1	2848	U	N1-C1'-C2'	-7.37	100.95	112.00
45	LQ	268	ASN	CA-CB-CG	-7.37	105.23	112.60
64	LG	59	ARG	O-C-N	-7.37	114.48	122.07
81	LD	400	TRP	N-CA-CB	7.37	120.69	110.01
32	S1	271	C	N1-C1'-C2'	7.36	123.04	112.00
33	L1	873	A	O3'-P-O5'	-7.36	92.96	104.00
33	L1	956	G	N9-C1'-C2'	7.36	123.05	112.00
33	L1	2492	C	P-O3'-C3'	7.36	131.24	120.20
2	SA	227	PRO	CA-N-CD	-7.36	101.70	112.00
5	SE	84	GLY	CA-C-N	7.36	130.14	120.28
5	SE	84	GLY	C-N-CA	7.36	130.14	120.28
33	L1	563	C	C5'-C4'-C3'	7.36	127.04	116.00
33	L1	1532	A	O4'-C1'-C2'	-7.36	100.24	107.60
33	L1	2079	A	O4'-C1'-N9	7.36	119.54	108.50
44	LR	147	GLU	CA-C-N	7.36	134.95	121.70
44	LR	147	GLU	C-N-CA	7.36	134.95	121.70
48	LV	112	THR	CA-CB-OG1	7.36	120.64	109.60
67	LS	18	THR	CA-C-N	7.36	129.04	119.84
67	LS	18	THR	C-N-CA	7.36	129.04	119.84
70	Li	40	SER	N-CA-C	7.36	126.48	110.80
32	S1	455	G	P-O3'-C3'	7.36	131.24	120.20
33	L1	400	G	N9-C1'-C2'	-7.36	102.96	114.00
32	S1	288	G	C1'-O4'-C4'	-7.36	102.54	109.90
33	L1	1436	A	C3'-C2'-C1'	-7.36	94.14	101.50
33	L1	2985	C	O4'-C1'-C2'	-7.36	98.44	105.80
70	Li	10	ARG	CD-NE-CZ	-7.36	114.10	124.40
33	L1	1232	A	C5'-C4'-C3'	7.36	127.03	116.00
33	L1	915	G	O4'-C1'-N9	7.35	119.53	108.50
33	L1	1222	U	N1-C1'-C2'	-7.35	100.97	112.00
33	L1	2476	G	P-O5'-C5'	7.35	131.93	120.90
39	LF	95	TYR	N-CA-C	-7.35	96.17	108.75
32	S1	611	G	N9-C1'-C2'	7.35	125.03	114.00
33	L1	801	G	P-O3'-C3'	7.35	131.23	120.20
35	L2	55	G	C1'-O4'-C4'	7.35	117.05	109.70
32	S1	882	G	C3'-C2'-C1'	-7.35	93.95	101.30
33	L1	212	G	C1'-O4'-C4'	7.35	117.25	109.90
33	L1	1115	A	C1'-O4'-C4'	7.35	117.25	109.90
33	L1	1900	C	O5'-C5'-C4'	7.35	122.53	111.50
10	SL	31	HIS	N-CA-C	-7.35	101.51	111.87
32	S1	282	C	O4'-C1'-C2'	-7.35	100.25	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	SB	51	ARG	NE-CZ-NH1	7.35	128.85	121.50
33	L1	554	C	O3'-P-O5'	-7.35	92.98	104.00
33	L1	566	G	C1'-C2'-O2'	7.35	119.42	108.40
33	L1	2581	C	P-O3'-C3'	7.35	131.22	120.20
47	LU	12	ARG	CA-C-O	-7.35	113.11	120.82
8	SJ	89	PHE	N-CA-C	-7.35	95.16	108.02
32	S1	610	A	C5'-C4'-O4'	7.35	120.12	109.10
33	L1	2719	U	O4'-C1'-N1	7.35	119.52	108.50
33	L1	3316	C	O3'-P-O5'	-7.35	92.98	104.00
8	SJ	75	ARG	NE-CZ-NH1	7.34	128.84	121.50
15	SS	140	ARG	N-CA-C	-7.34	103.35	111.36
32	S1	1728	G	OP2-P-O3'	-7.34	85.97	108.00
33	L1	532	G	N9-C1'-C2'	7.34	123.01	112.00
33	L1	3099	G	C1'-O4'-C4'	7.34	117.24	109.90
52	Lb	127	VAL	CA-CB-CG1	7.34	122.88	110.40
59	Lo	51	PHE	N-CA-C	7.34	131.56	111.00
70	Li	3	GLN	N-CA-C	7.34	119.36	111.36
5	SE	11	GLU	CA-C-N	7.34	130.45	120.54
5	SE	11	GLU	C-N-CA	7.34	130.45	120.54
32	S1	288	G	N9-C1'-C2'	7.34	123.01	112.00
33	L1	3101	C	O4'-C1'-C2'	-7.34	100.26	107.60
46	LT	150	ALA	N-CA-C	7.34	119.36	111.36
70	Li	91	ILE	N-CA-C	7.34	117.47	110.42
32	S1	1076	C	O4'-C1'-C2'	-7.34	100.26	107.60
33	L1	560	C	C5'-C4'-C3'	7.34	127.01	116.00
66	LN	85	GLU	O-C-N	-7.34	114.51	122.07
66	LN	112	LEU	N-CA-CB	7.34	120.91	110.12
33	L1	510	C	C1'-O4'-C4'	-7.33	102.56	109.90
29	ST	28	ASP	CB-CA-C	7.33	120.72	110.16
33	L1	1675	G	N9-C1'-C2'	-7.33	101.00	112.00
33	L1	2909	A	C5'-C4'-C3'	7.33	127.00	116.00
35	L2	96	A	C4'-C3'-C2'	-7.33	95.27	102.60
3	SB	62	LYS	CA-C-N	7.33	135.78	121.41
3	SB	62	LYS	C-N-CA	7.33	135.78	121.41
32	S1	991	G	N9-C1'-C2'	7.33	123.00	112.00
33	L1	3376	C	C4'-C3'-O3'	7.33	123.99	113.00
72	Lk	48	ARG	N-CA-CB	7.33	121.01	110.16
16	SR	78	ALA	CA-C-N	7.33	129.53	120.22
16	SR	78	ALA	C-N-CA	7.33	129.53	120.22
32	S1	37	U	P-O5'-C5'	-7.33	109.91	120.90
33	L1	2569	G	O4'-C1'-C2'	7.33	114.93	107.60
48	LV	2	VAL	CA-C-O	-7.33	111.62	120.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	SS	94	HIS	CE1-NE2-CD2	-7.33	101.67	109.00
32	S1	1160	G	O4'-C1'-N9	7.33	119.49	108.50
33	L1	221	C	N1-C1'-C2'	7.33	122.99	112.00
33	L1	826	C	N1-C1'-C2'	7.33	122.99	112.00
33	L1	2518	A	C5'-C4'-C3'	7.33	126.99	116.00
5	SE	114	GLY	CA-C-N	7.33	129.96	120.44
5	SE	114	GLY	C-N-CA	7.33	129.96	120.44
33	L1	642	C	P-O3'-C3'	7.33	131.19	120.20
33	L1	2393	G	C1'-O4'-C4'	-7.33	102.57	109.90
33	L1	2595	G	C1'-O4'-C4'	7.33	117.22	109.90
32	S1	1758	G	C4'-C3'-O3'	-7.32	102.01	113.00
33	L1	811	A	C3'-C2'-C1'	-7.32	93.98	101.30
70	Li	93	ARG	CB-CA-C	7.32	122.94	110.79
71	Lj	60	LYS	CA-C-N	7.32	134.88	121.70
71	Lj	60	LYS	C-N-CA	7.32	134.88	121.70
10	SL	23	ALA	CA-C-N	7.32	135.52	121.54
10	SL	23	ALA	C-N-CA	7.32	135.52	121.54
32	S1	952	U	O4'-C1'-N1	7.32	119.48	108.50
33	L1	1224	A	P-O3'-C3'	7.32	131.18	120.20
33	L1	1867	U	C1'-O4'-C4'	-7.32	102.58	109.90
33	L1	2170	G	C1'-O4'-C4'	-7.32	102.38	109.70
33	L1	2233	G	O4'-C1'-C2'	7.32	114.92	107.60
35	L2	119	C	C1'-O4'-C4'	-7.32	102.58	109.90
55	Lg	5	LYS	N-CA-C	-7.32	95.21	110.80
33	L1	571	G	C3'-C2'-C1'	7.32	108.82	101.50
64	LG	67	HIS	CA-C-O	-7.32	111.24	118.34
32	S1	1477	A	O4'-C1'-C2'	-7.32	100.28	107.60
33	L1	138	G	C2'-C3'-O3'	7.32	124.68	113.70
72	Lk	53	PHE	N-CA-C	-7.32	103.38	111.36
25	SC	42	ARG	CA-C-N	7.32	130.08	120.28
25	SC	42	ARG	C-N-CA	7.32	130.08	120.28
32	S1	1320	C	O4'-C1'-N1	7.32	119.47	108.50
33	L1	1777	C	O4'-C1'-C2'	-7.32	98.48	105.80
33	L1	2589	G	P-O5'-C5'	7.32	130.97	120.00
33	L1	3288	A	P-O3'-C3'	-7.32	109.22	120.20
32	S1	1759	A	C5'-C4'-C3'	-7.31	105.03	116.00
6	SF	88	ILE	N-CA-C	7.31	118.08	110.62
32	S1	1088	G	O5'-C5'-C4'	-7.31	100.53	111.50
33	L1	975	G	O4'-C4'-C3'	7.31	111.31	104.00
33	L1	1134	G	C4'-C3'-O3'	7.31	120.37	109.40
33	L1	2091	U	O4'-C1'-C2'	-7.31	100.29	107.60
33	L1	3301	G	O4'-C1'-N9	7.31	119.47	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	Ln	38	CYS	N-CA-CB	7.31	122.85	110.49
64	LG	84	LEU	CA-C-O	7.31	128.17	120.42
11	SM	135	HIS	N-CA-CB	7.31	122.84	110.49
32	S1	1799	G	P-O3'-C3'	-7.31	109.23	120.20
33	L1	2007	C	O4'-C1'-C2'	-7.31	100.29	107.60
27	SH	121	VAL	N-CA-C	7.31	119.35	108.46
33	L1	514	G	N9-C1'-C2'	7.31	122.97	112.00
37	LB	84	THR	N-CA-CB	7.31	120.81	109.48
33	L1	521	G	OP1-P-O3'	-7.31	86.08	108.00
33	L1	3295	G	N9-C1'-C2'	7.31	124.96	114.00
44	LR	37	VAL	N-CA-C	7.31	118.03	110.36
80	LC	63	PRO	CA-C-N	7.31	128.05	119.94
80	LC	63	PRO	C-N-CA	7.31	128.05	119.94
33	L1	2918	U	P-O3'-C3'	-7.31	109.24	120.20
36	LA	3	LYS	CA-C-N	7.31	130.80	120.28
36	LA	3	LYS	C-N-CA	7.31	130.80	120.28
3	SB	35	SER	CA-C-O	-7.30	110.07	120.51
32	S1	1797	C	C3'-C2'-C1'	7.30	108.60	101.30
33	L1	784	G	O4'-C1'-N9	7.30	119.46	108.50
33	L1	1508	C	C1'-O4'-C4'	-7.30	102.59	109.90
33	L1	1541	G	P-O5'-C5'	7.30	131.86	120.90
34	L3	56	G	P-O3'-C3'	-7.30	109.25	120.20
48	LV	169	ARG	CA-C-N	7.30	135.49	121.54
48	LV	169	ARG	C-N-CA	7.30	135.49	121.54
7	SI	68	ASP	CA-CB-CG	7.30	119.90	112.60
33	L1	818	G	C3'-C2'-C1'	-7.30	94.00	101.30
33	L1	2131	U	P-O5'-C5'	-7.30	109.94	120.90
81	LD	382	TYR	CA-C-N	7.30	130.07	120.28
81	LD	382	TYR	C-N-CA	7.30	130.07	120.28
1	Sa	129	ASP	N-CA-C	7.30	126.35	110.80
25	SC	141	GLN	CA-C-N	7.30	135.11	121.97
25	SC	141	GLN	C-N-CA	7.30	135.11	121.97
27	SH	3	ARG	CA-C-N	7.30	135.11	121.97
27	SH	3	ARG	C-N-CA	7.30	135.11	121.97
32	S1	1146	G	C4'-C3'-C2'	-7.30	95.30	102.60
32	S1	1395	C	C2'-C3'-O3'	7.30	120.45	109.50
32	S1	226	C	O4'-C1'-C2'	-7.30	100.30	107.60
33	L1	725	G	P-O3'-C3'	7.30	131.15	120.20
33	L1	1066	G	C1'-O4'-C4'	-7.30	102.60	109.90
33	L1	2669	C	C3'-C2'-C1'	-7.30	94.00	101.30
35	L2	52	A	C2'-C3'-O3'	7.30	120.45	109.50
37	LB	50	HIS	O-C-N	-7.30	113.89	122.87

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	LY	57	VAL	N-CA-CB	7.30	119.13	110.95
82	LK	25	ALA	N-CA-C	7.30	119.24	111.28
33	L1	834	G	O4'-C1'-N9	7.30	119.45	108.50
33	L1	3056	C	O4'-C1'-C2'	-7.30	100.30	107.60
81	LD	322	ASN	CB-CG-ND2	7.30	127.35	116.40
32	S1	420	A	O4'-C1'-C2'	-7.30	100.30	107.60
32	S1	1404	U	C1'-C2'-O2'	7.30	119.34	108.40
33	L1	2595	G	P-O5'-C5'	7.30	131.84	120.90
35	L2	98	C	C3'-C2'-C1'	7.30	123.19	101.30
13	SQ	28	PHE	N-CA-C	7.29	118.88	111.07
32	S1	1071	C	O4'-C4'-C3'	-7.29	96.71	104.00
32	S1	1435	G	C1'-C2'-O2'	7.29	119.34	108.40
33	L1	1155	G	C2'-C3'-O3'	7.29	120.44	109.50
33	L1	1624	G	N9-C1'-C2'	-7.29	101.06	112.00
33	L1	2365	C	N1-C1'-C2'	7.29	122.94	112.00
34	L3	14	C	C1'-O4'-C4'	7.29	117.19	109.90
35	L2	155	G	C2'-C3'-O3'	7.29	120.44	109.50
13	SQ	23	ARG	NE-CZ-NH2	7.29	125.76	119.20
33	L1	1074	C	N1-C1'-C2'	7.29	122.94	112.00
33	L1	1620	U	N1-C1'-C2'	-7.29	101.06	112.00
32	S1	1745	U	C5'-C4'-C3'	-7.29	105.06	116.00
33	L1	2876	G	N9-C1'-C2'	7.29	122.94	112.00
36	LA	201	ARG	NE-CZ-NH1	-7.29	114.21	121.50
6	SF	70	ASN	N-CA-CB	-7.29	99.41	110.12
32	S1	437	C	N1-C1'-C2'	7.29	122.93	112.00
33	L1	389	A	C1'-O4'-C4'	-7.29	102.61	109.90
33	L1	1621	G	O4'-C4'-C3'	-7.29	96.71	104.00
33	L1	2418	A	O3'-P-O5'	-7.29	93.07	104.00
33	L1	2491	A	O4'-C1'-C2'	7.29	114.89	107.60
41	LM	76	VAL	N-CA-C	-7.29	97.97	108.17
64	LG	68	PRO	N-CA-C	-7.29	97.46	112.47
33	L1	1875	A	P-O5'-C5'	7.29	131.83	120.90
1	Sa	216	LEU	CA-C-N	7.29	130.77	120.28
1	Sa	216	LEU	C-N-CA	7.29	130.77	120.28
1	Sa	312	LEU	CA-C-O	7.29	129.39	121.16
33	L1	23	A	P-O3'-C3'	-7.29	109.27	120.20
33	L1	1710	G	C1'-O4'-C4'	-7.29	102.61	109.90
33	L1	2511	U	C1'-O4'-C4'	7.29	117.19	109.90
33	L1	3042	U	N1-C1'-C2'	-7.29	101.07	112.00
33	L1	3084	G	C1'-C2'-O2'	7.29	119.33	108.40
46	LT	89	LEU	O-C-N	-7.29	112.94	121.32
33	L1	1432	G	P-O5'-C5'	-7.28	109.97	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	La	23	ALA	CA-C-N	7.28	133.11	123.06
69	La	23	ALA	C-N-CA	7.28	133.11	123.06
32	S1	1027	C	C3'-C2'-C1'	7.28	108.58	101.30
32	S1	1512	C	N1-C1'-C2'	7.28	122.92	112.00
33	L1	3237	G	O4'-C1'-N9	7.28	119.42	108.50
19	SY	2	ASP	N-CA-C	-7.28	95.29	110.80
32	S1	481	A	C5'-C4'-C3'	7.28	125.82	114.90
32	S1	1600	G	C1'-O4'-C4'	-7.28	102.62	109.90
33	L1	2804	A	P-O3'-C3'	7.28	131.12	120.20
56	Lh	131	GLU	CA-C-N	7.28	135.44	121.54
56	Lh	131	GLU	C-N-CA	7.28	135.44	121.54
32	S1	50	C	O3'-P-O5'	7.28	114.92	104.00
32	S1	1199	C	C3'-C2'-C1'	7.28	108.58	101.30
32	S1	1693	C	O4'-C1'-C2'	-7.28	100.32	107.60
33	L1	3307	A	C3'-C2'-C1'	7.28	108.58	101.30
33	L1	693	C	C3'-C2'-C1'	7.28	108.58	101.30
33	L1	3293	U	O4'-C1'-N1	7.28	119.42	108.50
37	LB	34	PHE	CA-CB-CG	7.28	121.08	113.80
32	S1	599	G	P-O3'-C3'	7.28	131.11	120.20
32	S1	828	G	O4'-C1'-N9	7.28	119.41	108.50
32	S1	1082	C	N1-C1'-C2'	7.28	122.91	112.00
32	S1	1674	C	C5'-C4'-C3'	7.28	126.91	116.00
33	L1	1696	G	N9-C1'-C2'	-7.28	101.09	112.00
33	L1	3030	A	P-O3'-C3'	7.28	131.11	120.20
37	LB	21	HIS	CA-CB-CG	-7.28	106.53	113.80
42	LP	146	PRO	N-CA-C	-7.28	105.37	114.68
46	LT	40	ASN	CA-CB-CG	-7.28	105.32	112.60
67	LS	66	ILE	N-CA-C	-7.28	98.75	108.06
78	Le	244	ASN	CA-CB-CG	-7.28	105.32	112.60
6	SF	165	ILE	N-CA-CB	7.27	120.43	110.54
25	SC	51	LEU	CB-CA-C	-7.27	99.41	110.90
33	L1	1989	G	O4'-C1'-N9	7.27	119.41	108.50
46	LT	80	LYS	N-CA-CB	7.27	122.69	110.32
3	SB	93	ASN	CA-CB-CG	-7.27	105.33	112.60
33	L1	299	G	O4'-C1'-C2'	-7.27	100.33	107.60
33	L1	2675	G	O3'-P-O5'	-7.27	93.09	104.00
33	L1	3093	C	N1-C1'-C2'	7.27	122.91	112.00
60	Lr	90	HIS	N-CA-CB	7.27	122.86	110.50
32	S1	1344	U	O4'-C1'-C2'	-7.27	100.33	107.60
32	S1	1731	A	N9-C1'-C2'	7.27	122.91	112.00
33	L1	797	U	O4'-C1'-C2'	-7.27	100.33	107.60
33	L1	2223	A	N9-C1'-C2'	7.27	122.91	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2344	A	C5'-C4'-C3'	-7.27	105.09	116.00
33	L1	2453	G	O4'-C1'-N9	7.27	119.41	108.50
33	L1	3332	G	O4'-C1'-C2'	7.27	114.87	107.60
64	LG	189	ILE	N-CA-CB	7.27	123.23	111.23
33	L1	2459	U	P-O5'-C5'	-7.27	110.00	120.90
33	L1	2631	A	C4'-C3'-O3'	-7.27	102.10	113.00
39	LF	186	ILE	CB-CA-C	7.27	123.21	111.29
68	LW	88	LEU	N-CA-CB	-7.27	99.37	110.20
33	L1	554	C	O4'-C1'-C2'	-7.27	100.33	107.60
33	L1	811	A	P-O5'-C5'	7.27	131.80	120.90
81	LD	369	GLU	N-CA-CB	7.27	121.36	110.53
32	S1	126	U	O4'-C1'-N1	7.27	119.40	108.50
32	S1	1336	C	N1-C1'-C2'	7.27	122.90	112.00
33	L1	2006	A	P-O3'-C3'	7.27	131.10	120.20
33	L1	3090	C	O4'-C1'-C2'	-7.27	100.33	107.60
33	L1	2199	C	C5'-C4'-C3'	7.26	126.90	116.00
33	L1	2615	U	N1-C1'-C2'	7.26	122.90	112.00
43	LO	3	THR	CA-C-O	7.26	130.90	120.51
49	LX	107	ALA	N-CA-C	7.26	119.28	111.36
60	Lr	61	LYS	CA-CB-CG	7.26	128.63	114.10
29	ST	61	GLN	CA-C-N	7.26	128.00	119.94
29	ST	61	GLN	C-N-CA	7.26	128.00	119.94
2	SA	228	ASP	O-C-N	-7.26	114.42	122.12
32	S1	124	G	O3'-P-O5'	-7.26	93.11	104.00
33	L1	1804	G	O4'-C1'-N9	-7.26	97.61	108.50
47	LU	95	HIS	CE1-NE2-CD2	-7.26	101.74	109.00
32	S1	932	C	O4'-C1'-C2'	-7.26	100.34	107.60
32	S1	1616	U	C2'-C3'-O3'	-7.26	102.81	113.70
57	L1	70	VAL	O-C-N	-7.26	115.77	120.42
69	La	25	ILE	CB-CG1-CD1	7.26	129.04	113.80
80	LC	159	ILE	CB-CA-C	7.26	121.25	111.88
33	L1	283	A	N9-C1'-C2'	-7.26	101.11	112.00
33	L1	1574	C	C3'-C2'-C1'	7.26	108.56	101.30
38	LE	108	ILE	CB-CA-C	-7.26	99.39	111.29
67	LS	70	ASN	O-C-N	7.26	129.67	121.32
8	SJ	44	VAL	O-C-N	7.26	129.02	121.91
32	S1	630	U	C4'-C3'-C2'	7.26	109.86	102.60
32	S1	1788	G	O4'-C1'-N9	7.26	119.38	108.50
48	LV	63	TYR	CA-C-O	7.26	130.89	120.51
5	SE	45	VAL	CA-C-N	7.25	128.91	119.84
5	SE	45	VAL	C-N-CA	7.25	128.91	119.84
32	S1	1476	C	N1-C1'-C2'	7.25	122.88	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1528	G	N9-C1'-C2'	7.25	122.88	112.00
33	L1	2161	G	O4'-C1'-N9	7.25	119.38	108.50
33	L1	2799	U	C1'-O4'-C4'	-7.25	102.65	109.90
33	L1	1197	A	O4'-C1'-C2'	7.25	114.85	107.60
33	L1	1361	G	C1'-O4'-C4'	7.25	117.15	109.90
32	S1	1200	A	O4'-C1'-C2'	-7.25	98.55	105.80
33	L1	2579	G	C1'-C2'-O2'	7.25	119.27	108.40
35	L2	94	C	P-O3'-C3'	7.25	131.07	120.20
32	S1	937	A	P-O5'-C5'	-7.25	110.03	120.90
33	L1	2230	C	P-O3'-C3'	-7.25	109.33	120.20
33	L1	2701	G	O4'-C1'-N9	7.25	119.37	108.50
81	LD	42	ARG	N-CA-CB	7.25	120.89	110.16
33	L1	1202	C	O4'-C1'-C2'	-7.25	100.36	107.60
33	L1	1518	A	C3'-C2'-C1'	7.25	108.55	101.30
33	L1	1650	G	C3'-C2'-C1'	7.25	108.55	101.30
33	L1	566	G	O4'-C1'-C2'	7.24	114.84	107.60
33	L1	1923	G	P-O5'-C5'	-7.24	110.03	120.90
33	L1	2724	A	O4'-C1'-C2'	-7.24	100.36	107.60
33	L1	3107	A	C4'-C3'-C2'	-7.24	95.36	102.60
3	SB	109	LEU	CA-C-N	7.24	130.88	123.13
3	SB	109	LEU	C-N-CA	7.24	130.88	123.13
3	SB	81	GLU	CA-C-O	-7.24	110.16	120.51
23	SU	89	LYS	CA-C-N	-7.24	110.58	120.28
23	SU	89	LYS	C-N-CA	-7.24	110.58	120.28
32	S1	1174	G	N9-C1'-C2'	7.24	122.86	112.00
32	S1	1198	A	C1'-O4'-C4'	-7.24	102.66	109.90
33	L1	238	C	C4'-C3'-C2'	-7.24	95.36	102.60
33	L1	1193	A	C5'-C4'-C3'	-7.24	105.14	116.00
33	L1	3049	A	C3'-C2'-C1'	7.24	108.54	101.30
33	L1	3236	A	C5'-C4'-C3'	-7.24	105.14	116.00
33	L1	3352	C	N1-C1'-C2'	-7.24	101.14	112.00
74	LJ	64	THR	CA-C-O	7.24	128.52	120.70
32	S1	634	A	C4'-C3'-O3'	-7.24	102.14	113.00
33	L1	255	C	P-O3'-C3'	7.24	131.06	120.20
33	L1	1235	A	O5'-C5'-C4'	7.24	122.36	111.50
33	L1	1684	U	C5'-C4'-C3'	7.24	126.86	116.00
32	S1	503	U	O4'-C1'-N1	7.24	119.35	108.50
33	L1	978	C	C2'-C3'-O3'	7.24	124.55	113.70
33	L1	2227	A	N9-C1'-C2'	7.24	122.85	112.00
32	S1	300	U	O4'-C1'-N1	7.23	119.35	108.50
32	S1	1303	G	N9-C1'-C2'	7.23	122.85	112.00
32	S1	1508	C	O4'-C1'-C2'	-7.23	100.37	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	558	G	C1'-O4'-C4'	-7.23	102.67	109.90
81	LD	335	PRO	O-C-N	-7.23	113.55	122.23
27	SH	78	ARG	CB-CA-C	-7.23	97.01	112.12
32	S1	406	C	O4'-C1'-C2'	-7.23	100.37	107.60
32	S1	1754	A	O4'-C1'-N9	7.23	119.35	108.50
33	L1	21	G	P-O5'-C5'	-7.23	110.05	120.90
33	L1	785	U	O4'-C1'-N1	7.23	119.05	108.20
33	L1	842	C	C3'-C2'-C1'	7.23	108.53	101.30
33	L1	1133	A	C1'-O4'-C4'	7.23	117.13	109.90
70	Li	10	ARG	CA-C-N	7.23	135.35	121.54
70	Li	10	ARG	C-N-CA	7.23	135.35	121.54
80	LC	352	ARG	N-CA-C	7.23	120.19	107.61
33	L1	55	G	C3'-C2'-C1'	-7.23	94.07	101.30
33	L1	2485	U	O4'-C1'-N1	7.23	119.35	108.50
38	LE	126	GLY	CA-C-O	7.23	133.15	120.57
39	LF	36	ARG	NH1-CZ-NH2	-7.23	109.90	119.30
3	SB	199	GLY	CA-C-N	7.23	128.88	119.84
3	SB	199	GLY	C-N-CA	7.23	128.88	119.84
32	S1	1485	A	C1'-O4'-C4'	7.23	117.13	109.90
33	L1	2780	G	O4'-C1'-N9	7.23	119.34	108.50
49	LX	100	ALA	CA-C-O	7.23	130.25	121.94
83	Lm	27	LYS	CB-CA-C	-7.23	99.53	110.88
32	S1	1306	U	N1-C1'-C2'	7.23	122.84	112.00
33	L1	43	U	O4'-C1'-C2'	-7.23	100.37	107.60
33	L1	231	C	C3'-C2'-C1'	7.23	108.53	101.30
33	L1	1509	G	C5'-C4'-C3'	-7.23	104.36	115.20
33	L1	1701	G	P-O5'-C5'	7.23	131.74	120.90
41	LM	101	ASN	O-C-N	-7.23	114.98	123.22
45	LQ	259	LYS	CB-CA-C	7.23	124.80	110.42
50	LZ	2	VAL	N-CA-C	7.23	120.04	109.63
33	L1	2666	G	C3'-C2'-C1'	-7.23	94.07	101.30
33	L1	3389	C	P-O3'-C3'	7.23	131.04	120.20
4	SD	121	PHE	CA-CB-CG	-7.22	106.58	113.80
11	SM	10	GLN	N-CA-C	-7.22	98.05	107.73
32	S1	1381	G	C1'-C2'-O2'	7.22	119.24	108.40
33	L1	875	A	C3'-C2'-C1'	-7.22	94.08	101.30
33	L1	2590	C	C3'-C2'-C1'	7.22	108.52	101.30
33	L1	3127	C	N1-C1'-C2'	7.22	122.84	112.00
32	S1	1543	U	C5'-C4'-C3'	-7.22	104.37	115.20
32	S1	1703	G	O4'-C1'-N9	7.22	119.33	108.50
33	L1	1775	C	P-O3'-C3'	-7.22	109.36	120.20
33	L1	2543	G	O4'-C1'-C2'	-7.22	100.38	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3239	G	O4'-C1'-N9	7.22	119.33	108.50
37	LB	122	ASP	N-CA-C	-7.22	103.73	112.54
45	LQ	116	LEU	CA-C-N	-7.22	107.75	121.54
45	LQ	116	LEU	C-N-CA	-7.22	107.75	121.54
47	LU	1	MET	CA-C-N	7.22	127.14	119.85
47	LU	1	MET	C-N-CA	7.22	127.14	119.85
76	Lw	41	LEU	N-CA-CB	7.22	120.74	110.12
33	L1	994	U	C1'-O4'-C4'	-7.22	102.68	109.90
33	L1	1298	A	O4'-C1'-N9	7.22	119.33	108.50
33	L1	1638	U	O4'-C1'-N1	7.22	119.33	108.50
46	LT	125	LEU	CA-C-N	7.22	129.96	120.28
46	LT	125	LEU	C-N-CA	7.22	129.96	120.28
3	SB	139	SER	CA-C-O	-7.22	114.09	120.88
5	SE	115	ASP	O-C-N	7.22	129.51	122.07
14	SP	116	PHE	CA-CB-CG	7.22	121.02	113.80
25	SC	162	LEU	O-C-N	7.22	132.19	122.59
31	S2	62	C	N1-C1'-C2'	7.22	122.83	112.00
32	S1	1323	U	C1'-O4'-C4'	7.22	117.12	109.90
33	L1	470	G	P-O5'-C5'	7.22	131.73	120.90
68	LW	58	ASN	N-CA-C	7.22	126.18	110.80
33	L1	1623	C	C3'-C2'-C1'	7.22	108.72	101.50
33	L1	2336	C	N1-C1'-C2'	7.22	122.83	112.00
11	SM	118	ARG	N-CA-CB	7.21	122.68	110.49
25	SC	68	ASN	CA-CB-CG	-7.21	105.39	112.60
33	L1	1408	C	C1'-O4'-C4'	-7.21	102.69	109.90
83	Lm	20	ALA	CB-CA-C	-7.21	98.59	110.85
37	LB	209	HIS	CA-CB-CG	-7.21	106.59	113.80
32	S1	38	C	C3'-C2'-C1'	7.21	108.51	101.30
32	S1	391	A	C1'-O4'-C4'	7.21	116.91	109.70
69	La	8	GLY	O-C-N	-7.21	116.27	123.48
73	Lp	52	LYS	CB-CG-CD	7.21	127.89	111.30
4	SD	65	LEU	N-CA-CB	-7.21	99.52	110.12
33	L1	1822	C	O3'-P-O5'	-7.21	93.19	104.00
33	L1	282	A	O5'-C5'-C4'	7.21	122.51	111.70
33	L1	1545	G	P-O3'-C3'	7.21	131.01	120.20
33	L1	1613	C	C3'-C2'-O2'	7.21	121.51	110.70
33	L1	3327	A	O3'-P-O5'	-7.21	93.19	104.00
77	Lc	23	LEU	CA-C-N	7.21	129.81	120.44
77	Lc	23	LEU	C-N-CA	7.21	129.81	120.44
33	L1	350	A	O4'-C1'-N9	7.21	119.01	108.20
33	L1	3100	C	C1'-O4'-C4'	7.21	116.91	109.70
42	LP	103	GLU	CB-CG-CD	-7.21	100.35	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	SA	147	PRO	N-CA-CB	7.21	109.75	103.27
27	SH	84	LYS	CA-C-N	7.21	134.43	121.89
27	SH	84	LYS	C-N-CA	7.21	134.43	121.89
32	S1	257	A	C4'-C3'-C2'	-7.21	95.39	102.60
43	LO	52	TYR	CA-C-O	7.21	128.38	120.82
32	S1	1130	A	O4'-C1'-C2'	-7.20	100.40	107.60
33	L1	2453	G	O3'-P-O5'	-7.20	93.19	104.00
32	S1	127	G	C3'-C2'-C1'	7.20	108.50	101.30
32	S1	1602	G	N9-C1'-C2'	7.20	122.80	112.00
33	L1	1957	G	P-O3'-C3'	7.20	131.00	120.20
57	L1	8	PHE	CA-CB-CG	-7.20	106.60	113.80
60	Lr	40	LYS	CA-C-O	-7.20	113.28	120.70
70	Li	70	ASN	N-CA-C	7.20	126.14	110.80
74	LJ	123	ALA	O-C-N	-7.20	114.18	122.97
33	L1	1423	C	O4'-C1'-C2'	-7.20	100.40	107.60
33	L1	1631	G	C2'-C3'-O3'	7.20	124.50	113.70
5	SE	195	LYS	N-CA-CB	7.20	124.02	111.13
28	SN	39	CYS	N-CA-C	-7.20	102.47	111.11
32	S1	1714	G	C1'-C2'-O2'	7.20	119.20	108.40
33	L1	555	G	OP2-P-O3'	-7.20	86.41	108.00
33	L1	608	G	O4'-C1'-C2'	-7.20	100.40	107.60
33	L1	2230	C	C5'-C4'-C3'	7.20	126.80	116.00
33	L1	2331	A	O4'-C1'-C2'	-7.20	100.40	107.60
36	LA	200	VAL	O-C-N	-7.20	114.37	122.36
67	LS	40	LYS	CA-C-N	7.20	129.93	120.28
67	LS	40	LYS	C-N-CA	7.20	129.93	120.28
33	L1	993	A	O4'-C1'-C2'	-7.20	100.40	107.60
33	L1	1855	A	P-O5'-C5'	-7.20	110.10	120.90
78	Le	150	ILE	N-CA-CB	7.20	120.33	110.54
29	ST	41	GLU	CA-C-N	7.20	131.71	121.71
29	ST	41	GLU	C-N-CA	7.20	131.71	121.71
33	L1	1823	C	C1'-O4'-C4'	-7.20	102.70	109.90
33	L1	2276	A	C2'-C3'-O3'	7.20	124.49	113.70
15	SS	45	PHE	CA-CB-CG	-7.19	106.61	113.80
23	SU	19	THR	CA-C-N	-7.19	112.85	122.85
23	SU	19	THR	C-N-CA	-7.19	112.85	122.85
33	L1	30	C	O4'-C1'-C2'	-7.19	100.41	107.60
33	L1	2469	C	C3'-C2'-C1'	7.19	108.49	101.30
33	L1	3087	A	N9-C1'-C2'	7.19	124.79	114.00
32	S1	389	A	O4'-C1'-N9	7.19	119.29	108.50
32	S1	1094	U	O4'-C1'-N1	7.19	119.29	108.50
32	S1	1537	U	N1-C1'-C2'	7.19	122.79	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	724	A	C5'-C4'-C3'	7.19	126.79	116.00
33	L1	3019	C	O4'-C1'-C2'	-7.19	100.41	107.60
59	Lo	18	ARG	CA-C-N	7.19	129.92	120.28
59	Lo	18	ARG	C-N-CA	7.19	129.92	120.28
69	La	47	ALA	N-CA-C	7.19	121.95	111.02
19	SY	47	ARG	NE-CZ-NH1	-7.19	114.31	121.50
29	ST	49	PHE	N-CA-C	7.19	120.10	109.24
32	S1	318	C	N1-C1'-C2'	7.19	122.79	112.00
32	S1	1299	G	O3'-P-O5'	-7.19	93.22	104.00
32	S1	1623	C	O4'-C1'-C2'	-7.19	100.41	107.60
33	L1	407	A	C4'-C3'-C2'	-7.19	95.41	102.60
33	L1	856	G	C5'-C4'-C3'	7.19	126.79	116.00
33	L1	1089	G	N9-C1'-C2'	7.19	122.79	112.00
33	L1	2232	C	O4'-C1'-C2'	-7.19	100.41	107.60
33	L1	2614	U	N1-C1'-C2'	-7.19	101.21	112.00
69	La	34	ARG	CG-CD-NE	7.19	127.82	112.00
75	Lt	41	TYR	CB-CG-CD2	-7.19	110.01	120.80
78	Le	92	ARG	CA-C-N	7.19	131.82	121.54
78	Le	92	ARG	C-N-CA	7.19	131.82	121.54
33	L1	1436	A	N9-C1'-C2'	-7.19	103.22	114.00
33	L1	2091	U	C5'-C4'-C3'	7.19	126.78	116.00
33	L1	2465	G	O4'-C1'-C2'	7.19	114.79	107.60
33	L1	3020	C	P-O5'-C5'	7.19	131.68	120.90
33	L1	3176	C	O4'-C1'-C2'	-7.19	100.41	107.60
33	L1	3347	U	C3'-C2'-C1'	7.19	108.49	101.30
31	S2	16	U	O4'-C1'-C2'	-7.19	100.41	107.60
32	S1	289	G	C5'-C4'-C3'	-7.19	105.22	116.00
33	L1	631	C	O4'-C1'-C2'	-7.19	100.41	107.60
33	L1	702	G	N9-C1'-C2'	7.19	122.78	112.00
33	L1	1914	C	C3'-C2'-C1'	7.19	108.49	101.30
33	L1	1954	G	C4'-C3'-C2'	-7.19	95.41	102.60
33	L1	1368	U	C5'-C4'-C3'	7.19	126.78	116.00
33	L1	2661	G	C4'-C3'-C2'	-7.19	95.41	102.60
32	S1	459	C	O4'-C1'-C2'	-7.18	98.62	105.80
33	L1	3385	G	O4'-C1'-C2'	7.18	114.78	107.60
42	LP	166	SER	CB-CA-C	-7.18	98.86	110.79
32	S1	374	A	N9-C1'-C2'	-7.18	101.23	112.00
32	S1	1574	U	C1'-O4'-C4'	-7.18	102.72	109.90
33	L1	714	G	C3'-C2'-C1'	-7.18	94.12	101.30
33	L1	985	C	O4'-C1'-C2'	-7.18	100.42	107.60
33	L1	1636	C	N1-C1'-C2'	7.18	122.77	112.00
68	LW	93	LEU	CB-CA-C	-7.18	99.50	110.92

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	S2	45	G	C1'-C2'-O2'	-7.18	101.03	111.80
32	S1	278	C	P-O3'-C3'	7.18	130.97	120.20
33	L1	2115	G	O4'-C1'-N9	7.18	119.27	108.50
33	L1	3040	G	O4'-C1'-C2'	7.18	114.78	107.60
31	S2	32	U	O4'-C1'-C2'	7.18	114.78	107.60
33	L1	1785	G	C3'-C2'-C1'	-7.18	94.12	101.30
34	L3	11	A	C4'-C3'-C2'	-7.18	95.42	102.60
66	LN	111	MET	CA-C-N	7.18	129.90	120.28
66	LN	111	MET	C-N-CA	7.18	129.90	120.28
1	Sa	197	GLY	CA-C-N	7.18	133.52	122.11
1	Sa	197	GLY	C-N-CA	7.18	133.52	122.11
25	SC	106	PHE	CG-CD2-CE2	7.18	132.90	120.70
33	L1	316	A	N9-C1'-C2'	7.18	122.76	112.00
33	L1	1552	C	N1-C1'-C2'	7.18	122.76	112.00
33	L1	1772	G	N9-C1'-C2'	-7.18	101.23	112.00
32	S1	1405	U	C5'-C4'-C3'	7.17	126.76	116.00
33	L1	816	G	O4'-C1'-C2'	7.17	114.78	107.60
33	L1	1118	G	O4'-C1'-C2'	-7.17	100.43	107.60
33	L1	2468	G	O4'-C1'-N9	7.17	119.26	108.50
33	L1	3340	G	C1'-C2'-O2'	7.17	119.16	108.40
49	LX	61	ALA	N-CA-CB	7.17	123.14	110.37
24	SX	74	ARG	N-CA-CB	-7.17	98.37	110.49
33	L1	1142	G	O4'-C1'-C2'	7.17	114.77	107.60
3	SB	75	LYS	CG-CD-CE	7.17	127.80	111.30
5	SE	256	LEU	CA-C-N	7.17	131.21	120.31
5	SE	256	LEU	C-N-CA	7.17	131.21	120.31
15	SS	44	ARG	CA-C-O	-7.17	115.68	119.77
32	S1	574	A	N9-C1'-C2'	-7.17	101.24	112.00
32	S1	1791	A	N9-C1'-C2'	7.17	122.76	112.00
33	L1	324	U	C2'-C3'-O3'	7.17	120.26	109.50
33	L1	628	C	O4'-C1'-C2'	-7.17	100.43	107.60
34	L3	115	A	N9-C1'-C2'	7.17	122.76	112.00
37	LB	93	ARG	CB-CA-C	7.17	122.68	111.13
32	S1	1162	A	O3'-P-O5'	7.17	114.75	104.00
45	LQ	253	MET	CA-C-N	7.17	130.47	120.29
45	LQ	253	MET	C-N-CA	7.17	130.47	120.29
32	S1	1789	U	O4'-C1'-N1	7.17	119.25	108.50
32	S1	372	U	C1'-C2'-O2'	7.17	119.15	108.40
32	S1	1778	G	N9-C1'-C2'	7.17	122.75	112.00
33	L1	632	C	N1-C1'-C2'	7.17	122.75	112.00
33	L1	650	A	C1'-O4'-C4'	7.17	117.07	109.90
36	LA	27	PHE	N-CA-CB	-7.17	98.74	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	LM	52	LEU	N-CA-C	7.17	118.39	109.57
64	LG	209	ARG	CA-C-N	7.17	129.88	120.28
64	LG	209	ARG	C-N-CA	7.17	129.88	120.28
81	LD	338	GLY	CA-C-N	7.17	129.75	120.44
81	LD	338	GLY	C-N-CA	7.17	129.75	120.44
81	LD	371	ALA	CB-CA-C	7.17	122.13	110.88
25	SC	133	GLN	CA-C-N	7.16	129.75	120.44
25	SC	133	GLN	C-N-CA	7.16	129.75	120.44
33	L1	799	U	N1-C1'-C2'	7.16	122.75	112.00
33	L1	2466	G	C4'-C3'-C2'	-7.16	95.44	102.60
50	LZ	44	ASN	CA-CB-CG	7.16	119.76	112.60
2	SA	199	TRP	N-CA-CB	7.16	122.59	110.49
33	L1	1382	C	P-O5'-C5'	7.16	131.64	120.90
33	L1	56	A	O4'-C1'-C2'	-7.16	100.44	107.60
56	Lh	8	LYS	O-C-N	-7.16	114.53	122.12
67	LS	141	THR	N-CA-C	7.16	118.87	111.14
3	SB	126	VAL	N-CA-C	7.16	124.23	109.34
33	L1	2498	C	C4'-C3'-C2'	-7.16	95.44	102.60
78	Le	64	LEU	N-CA-C	7.16	118.87	111.14
33	L1	1081	U	P-O3'-C3'	-7.16	109.47	120.20
35	L2	73	U	P-O3'-C3'	7.16	130.94	120.20
32	S1	159	U	C4'-C3'-C2'	-7.16	95.44	102.60
33	L1	714	G	O4'-C1'-N9	7.16	119.23	108.50
33	L1	1253	G	N9-C1'-C2'	-7.16	101.27	112.00
33	L1	2105	G	N9-C1'-C2'	-7.16	101.27	112.00
32	S1	647	G	O4'-C1'-N9	7.15	119.23	108.50
33	L1	1766	U	O4'-C1'-N1	7.15	119.23	108.50
33	L1	2375	G	C3'-C2'-C1'	7.15	108.45	101.30
48	LV	68	GLY	CA-C-N	-7.15	110.92	122.36
48	LV	68	GLY	C-N-CA	-7.15	110.92	122.36
52	Lb	71	VAL	O-C-N	7.15	130.89	122.66
82	LK	8	CYS	N-CA-C	-7.15	98.14	109.23
32	S1	632	G	C4'-C3'-O3'	-7.15	102.28	113.00
32	S1	904	G	C3'-C2'-C1'	7.15	108.45	101.30
32	S1	1651	U	C1'-O4'-C4'	-7.15	102.75	109.90
33	L1	1875	A	N9-C1'-C2'	7.15	124.72	114.00
33	L1	3237	G	C5'-C4'-C3'	-7.15	105.28	116.00
64	LG	2	ALA	CA-C-N	7.15	126.41	118.97
64	LG	2	ALA	C-N-CA	7.15	126.41	118.97
15	SS	49	PRO	N-CA-C	7.15	119.42	110.70
33	L1	2599	U	O4'-C1'-N1	7.15	119.22	108.50
80	LC	230	GLU	N-CA-C	7.15	120.31	109.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	SS	108	GLN	CA-C-N	7.15	130.44	120.29
15	SS	108	GLN	C-N-CA	7.15	130.44	120.29
33	L1	1369	G	O5'-C5'-C4'	7.15	122.22	111.50
33	L1	1800	G	C5'-C4'-O4'	-7.15	99.08	109.80
33	L1	2673	G	C1'-O4'-C4'	-7.15	102.75	109.90
51	LY	45	ARG	N-CA-CB	7.15	121.59	110.44
2	SA	175	ILE	CA-C-N	7.15	127.87	119.94
2	SA	175	ILE	C-N-CA	7.15	127.87	119.94
17	SV	65	VAL	N-CA-CB	7.15	120.26	110.54
32	S1	893	U	C1'-C2'-O2'	7.15	119.12	108.40
33	L1	1596	G	P-O5'-C5'	-7.15	110.18	120.90
33	L1	2411	G	O4'-C1'-C2'	7.15	114.75	107.60
35	L2	130	A	O4'-C1'-C2'	-7.15	100.45	107.60
1	Sa	37	VAL	CA-C-N	7.14	130.44	120.29
1	Sa	37	VAL	C-N-CA	7.14	130.44	120.29
4	SD	93	PRO	N-CA-CB	-7.14	97.07	103.36
32	S1	1198	A	N9-C1'-C2'	7.14	122.72	112.00
33	L1	28	C	O4'-C1'-N1	7.14	119.22	108.50
33	L1	326	C	C4'-C3'-C2'	7.14	109.74	102.60
33	L1	1316	C	P-O3'-C3'	-7.14	109.48	120.20
33	L1	1955	G	C3'-C2'-C1'	-7.14	94.16	101.30
33	L1	2376	G	C1'-O4'-C4'	7.14	116.84	109.70
33	L1	2927	C	N1-C1'-C2'	7.14	122.72	112.00
33	L1	3223	C	O4'-C1'-N1	7.14	119.22	108.50
81	LD	343	MET	O-C-N	-7.14	113.09	122.59
32	S1	1431	A	P-O3'-C3'	7.14	130.91	120.20
33	L1	579	G	P-O3'-C3'	-7.14	109.48	120.20
33	L1	1937	C	N1-C1'-C2'	7.14	122.71	112.00
33	L1	2855	G	O4'-C1'-N9	7.14	119.21	108.50
33	L1	3161	C	O4'-C1'-C2'	-7.14	100.46	107.60
79	Ls	45	ARG	CA-C-N	7.14	129.72	120.44
79	Ls	45	ARG	C-N-CA	7.14	129.72	120.44
10	SL	120	LYS	O-C-N	-7.14	113.09	122.59
32	S1	439	C	C4'-C3'-C2'	7.14	109.74	102.60
33	L1	160	G	O4'-C1'-C2'	7.14	114.74	107.60
33	L1	777	G	O4'-C1'-N9	7.14	119.21	108.50
45	LQ	56	VAL	N-CA-C	-7.14	98.18	108.17
33	L1	897	U	N1-C1'-C2'	7.14	124.71	114.00
33	L1	1374	G	C4'-C3'-C2'	-7.14	95.46	102.60
5	SE	15	PHE	CA-CB-CG	7.14	120.94	113.80
33	L1	490	G	C1'-O4'-C4'	-7.13	102.77	109.90
33	L1	1589	G	N9-C1'-C2'	-7.13	103.30	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3148	A	C1'-C2'-O2'	7.13	119.10	108.40
47	LU	53	PRO	CB-CA-C	7.13	122.80	110.96
52	Lb	118	LYS	CA-C-O	-7.13	110.39	120.16
66	LN	31	VAL	CB-CA-C	7.13	122.99	111.29
17	SV	69	ARG	NH1-CZ-NH2	-7.13	110.03	119.30
33	L1	801	G	O4'-C1'-N9	7.13	119.20	108.50
47	LU	130	ARG	N-CA-CB	7.13	120.61	110.12
80	LC	254	CYS	N-CA-C	-7.13	98.61	109.95
25	SC	1	MET	CA-C-N	7.13	126.97	119.05
25	SC	1	MET	C-N-CA	7.13	126.97	119.05
32	S1	161	G	C3'-C2'-C1'	7.13	108.43	101.30
33	L1	1960	C	O4'-C1'-C2'	-7.13	100.47	107.60
33	L1	2628	C	O5'-C5'-C4'	-7.13	101.00	111.70
33	L1	2595	G	C3'-C2'-C1'	7.13	108.43	101.30
27	SH	110	ILE	CA-CB-CG2	-7.13	98.38	110.50
28	SN	21	CYS	CA-C-O	-7.13	113.97	122.03
32	S1	1356	A	O4'-C1'-C2'	-7.13	100.47	107.60
33	L1	441	G	O4'-C1'-N9	7.13	119.19	108.50
33	L1	3341	C	N1-C1'-C2'	7.13	122.69	112.00
41	LM	18	LEU	O-C-N	-7.13	114.11	122.95
82	LK	135	GLN	CB-CA-C	-7.13	96.13	110.17
32	S1	1658	U	O4'-C1'-C2'	-7.13	100.47	107.60
33	L1	447	C	P-O5'-C5'	7.13	131.59	120.90
33	L1	1015	A	C1'-O4'-C4'	7.13	117.03	109.90
33	L1	1080	C	O4'-C1'-C2'	-7.13	100.47	107.60
25	SC	83	ASN	CA-C-O	-7.12	113.35	121.40
32	S1	773	U	O3'-P-O5'	-7.12	93.31	104.00
11	SM	104	ASP	N-CA-CB	7.12	120.59	110.12
27	SH	1	MET	CA-C-N	7.12	132.29	123.10
27	SH	1	MET	C-N-CA	7.12	132.29	123.10
32	S1	1600	G	N9-C1'-C2'	7.12	122.69	112.00
33	L1	1119	G	O5'-C5'-C4'	7.12	122.39	111.70
33	L1	2599	U	O4'-C4'-C3'	7.12	111.12	104.00
33	L1	3128	A	C1'-O4'-C4'	-7.12	102.78	109.90
44	LR	38	ARG	NE-CZ-NH2	7.12	125.61	119.20
33	L1	183	C	C1'-C2'-O2'	7.12	119.08	108.40
33	L1	453	U	N1-C1'-C2'	7.12	122.68	112.00
33	L1	1164	G	O4'-C1'-N9	7.12	119.18	108.50
35	L2	126	G	P-O5'-C5'	7.12	131.58	120.90
81	LD	314	VAL	N-CA-C	-7.12	105.41	112.17
33	L1	297	G	P-O5'-C5'	-7.12	110.22	120.90
33	L1	2482	A	C3'-C2'-C1'	-7.12	94.18	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Le	184	GLU	CA-C-O	7.12	128.14	120.24
80	LC	129	ALA	N-CA-C	7.12	125.97	110.80
32	S1	1300	A	N9-C1'-C2'	7.12	122.68	112.00
33	L1	2615	U	O4'-C1'-N1	7.12	119.18	108.50
34	L3	13	A	O4'-C1'-N9	-7.12	97.82	108.50
35	L2	86	C	P-O5'-C5'	7.12	131.58	120.90
56	Lh	47	PHE	CA-CB-CG	7.12	120.92	113.80
31	S2	11	U	O4'-C1'-C2'	-7.12	100.48	107.60
32	S1	1021	C	N1-C1'-C2'	7.12	122.67	112.00
11	SM	33	ILE	CB-CA-C	7.12	122.79	111.69
32	S1	192	G	O4'-C1'-C2'	7.12	114.72	107.60
33	L1	969	U	O4'-C1'-C2'	-7.12	100.48	107.60
33	L1	1549	A	O4'-C1'-C2'	-7.12	93.17	107.40
33	L1	2087	A	C4'-C3'-C2'	-7.12	95.48	102.60
83	Lm	91	GLU	CA-C-N	7.12	134.51	121.70
83	Lm	91	GLU	C-N-CA	7.12	134.51	121.70
10	SL	120	LYS	CA-C-O	-7.11	110.34	120.51
23	SU	91	TYR	CB-CA-C	7.11	122.26	112.09
33	L1	1731	A	P-O5'-C5'	7.11	131.57	120.90
33	L1	1784	C	O4'-C1'-C2'	-7.11	100.49	107.60
45	LQ	66	VAL	O-C-N	-7.11	115.58	123.26
33	L1	837	C	P-O3'-C3'	7.11	130.87	120.20
81	LD	372	ALA	CA-C-N	7.11	130.39	120.29
81	LD	372	ALA	C-N-CA	7.11	130.39	120.29
13	SQ	38	VAL	N-CA-C	-7.11	94.55	109.34
25	SC	72	ILE	CA-C-N	7.11	129.68	120.44
25	SC	72	ILE	C-N-CA	7.11	129.68	120.44
32	S1	30	G	O4'-C1'-N9	7.11	119.17	108.50
32	S1	1262	U	O3'-P-O5'	7.11	114.67	104.00
33	L1	1608	C	C3'-C2'-C1'	7.11	108.41	101.30
33	L1	1649	G	P-O3'-C3'	7.11	130.86	120.20
33	L1	2619	C	C3'-C2'-C1'	7.11	108.41	101.30
33	L1	2749	A	O4'-C1'-C2'	7.11	114.71	107.60
33	L1	326	C	O3'-P-O5'	7.11	114.66	104.00
33	L1	543	C	C1'-O4'-C4'	-7.11	102.79	109.90
33	L1	1022	G	C3'-C2'-C1'	-7.11	94.19	101.30
32	S1	263	C	P-O3'-C3'	-7.11	109.54	120.20
32	S1	1660	C	C5'-C4'-C3'	7.11	126.66	116.00
33	L1	1123	A	C3'-C2'-C1'	-7.11	94.19	101.30
33	L1	1517	C	C3'-C2'-C1'	7.11	108.61	101.50
33	L1	2383	G	N9-C1'-C2'	7.11	122.66	112.00
33	L1	2473	C	O4'-C1'-C2'	-7.11	100.50	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3284	C	O3'-P-O5'	7.11	114.66	104.00
36	LA	121	ARG	CB-CA-C	7.11	123.70	110.70
55	Lg	59	ILE	CA-C-N	7.11	132.10	120.94
55	Lg	59	ILE	C-N-CA	7.11	132.10	120.94
67	LS	55	LYS	N-CA-C	-7.11	103.62	112.72
69	La	26	VAL	N-CA-CB	-7.11	95.89	111.81
32	S1	111	U	P-O5'-C5'	7.10	131.56	120.90
33	L1	127	G	C1'-O4'-C4'	-7.10	102.80	109.90
72	Lk	59	ARG	CD-NE-CZ	-7.10	114.45	124.40
7	SI	120	ARG	N-CA-C	7.10	119.10	111.36
31	S2	70	G	C1'-O4'-C4'	-7.10	102.80	109.90
32	S1	139	U	O4'-C1'-N1	7.10	119.15	108.50
80	LC	230	GLU	CB-CG-CD	-7.10	100.53	112.60
80	LC	378	ASP	CA-C-O	7.10	127.95	120.42
2	SA	72	ILE	CA-C-N	7.10	129.80	120.28
2	SA	72	ILE	C-N-CA	7.10	129.80	120.28
32	S1	979	A	O5'-C5'-C4'	-7.10	100.85	111.50
33	L1	345	G	N9-C1'-C2'	7.10	122.65	112.00
33	L1	2795	G	C3'-C2'-C1'	-7.10	94.20	101.30
4	SD	67	GLN	O-C-N	7.10	133.85	122.42
7	SI	108	LYS	CA-C-O	-7.10	113.03	120.55
32	S1	1212	A	N9-C1'-C2'	7.10	122.65	112.00
33	L1	2748	G	C1'-O4'-C4'	7.10	117.00	109.90
23	SU	93	PRO	O-C-N	-7.10	113.06	122.64
32	S1	119	U	P-O3'-C3'	7.10	130.85	120.20
33	L1	2405	C	O4'-C1'-C2'	7.10	114.70	107.60
46	LT	55	GLN	N-CA-CB	7.10	122.48	110.49
24	SX	74	ARG	O-C-N	-7.10	113.15	122.59
69	La	93	GLU	CB-CA-C	7.10	122.91	110.85
3	SB	127	MET	CA-C-O	7.09	128.12	120.10
33	L1	2653	U	C4'-C3'-C2'	-7.09	95.50	102.60
33	L1	3326	U	O4'-C4'-C3'	-7.09	99.00	106.10
33	L1	3353	G	C5'-C4'-O4'	7.09	119.74	109.10
34	L3	97	G	C1'-C2'-O2'	7.09	119.04	108.40
45	LQ	265	LYS	CB-CA-C	-7.09	99.01	110.79
60	Lr	25	VAL	N-CA-C	7.09	118.25	108.89
78	Le	111	ARG	N-CA-C	-7.09	104.26	114.12
2	SA	38	MET	CG-SD-CE	-7.09	85.30	100.90
15	SS	20	ALA	CA-C-N	7.09	130.36	120.29
15	SS	20	ALA	C-N-CA	7.09	130.36	120.29
33	L1	3337	G	O4'-C4'-C3'	-7.09	96.91	104.00
35	L2	148	C	C1'-C2'-O2'	7.09	119.04	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	LO	2	THR	CA-C-N	7.09	135.09	121.54
43	LO	2	THR	C-N-CA	7.09	135.09	121.54
23	SU	80	LEU	O-C-N	-7.09	113.97	123.19
32	S1	1067	A	C3'-C2'-C1'	7.09	108.39	101.30
33	L1	60	G	C5'-C4'-C3'	-7.09	105.36	116.00
33	L1	619	C	P-O5'-C5'	-7.09	109.36	120.00
33	L1	2302	G	C3'-C2'-C1'	7.09	108.59	101.50
33	L1	2843	G	O4'-C4'-C3'	-7.09	96.91	104.00
48	LV	76	ARG	CA-CB-CG	7.09	128.28	114.10
81	LD	207	ASN	O-C-N	-7.09	114.42	122.93
7	SI	119	ASP	N-CA-C	-7.09	103.48	111.14
13	SQ	11	LYS	CA-CB-CG	7.09	128.28	114.10
32	S1	264	G	C5'-C4'-C3'	7.09	125.53	114.90
33	L1	141	C	C1'-O4'-C4'	-7.09	102.81	109.90
33	L1	2099	G	C3'-C2'-C1'	-7.09	94.21	101.30
33	L1	2846	C	C3'-C2'-C1'	7.09	108.39	101.30
37	LB	20	THR	N-CA-CB	7.09	121.14	110.22
38	LE	30	ASP	CB-CA-C	7.09	124.53	110.42
31	S2	69	G	N9-C1'-C2'	7.09	122.63	112.00
45	LQ	244	HIS	CE1-NE2-CD2	-7.09	101.91	109.00
32	S1	668	C	OP2-P-O3'	-7.09	86.74	108.00
33	L1	936	A	C2'-C3'-O3'	7.09	124.33	113.70
33	L1	1773	U	O3'-P-O5'	-7.09	93.37	104.00
33	L1	2540	C	C1'-C2'-O2'	7.09	119.03	108.40
40	LH	76	PHE	O-C-N	-7.09	112.75	122.46
81	LD	47	LEU	CA-C-O	-7.09	113.38	120.82
31	S2	6	G	C1'-O4'-C4'	-7.08	102.81	109.90
32	S1	1803	G	N9-C1'-C2'	-7.08	101.37	112.00
33	L1	283	A	P-O5'-C5'	-7.08	110.27	120.90
33	L1	2386	A	N9-C1'-C2'	7.08	122.63	112.00
33	L1	2392	G	P-O5'-C5'	7.08	131.53	120.90
33	L1	3296	C	C3'-C2'-C1'	-7.08	94.42	101.50
48	LV	151	LEU	CA-C-N	-7.08	112.78	122.77
48	LV	151	LEU	C-N-CA	-7.08	112.78	122.77
33	L1	629	U	O4'-C1'-C2'	-7.08	100.52	107.60
33	L1	1057	A	C1'-O4'-C4'	7.08	116.98	109.90
2	SA	43	TYR	CA-CB-CG	7.08	126.65	113.90
33	L1	1669	C	P-O5'-C5'	7.08	131.52	120.90
38	LE	116	MET	N-CA-C	-7.08	99.01	110.20
1	Sa	225	SER	N-CA-C	7.08	117.37	108.45
32	S1	623	A	C3'-C2'-C1'	7.08	108.38	101.30
33	L1	1058	A	O4'-C1'-N9	7.08	118.82	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	LH	224	GLU	CA-C-N	7.08	134.44	121.70
40	LH	224	GLU	C-N-CA	7.08	134.44	121.70
55	Lg	37	ALA	N-CA-C	7.08	123.29	113.45
33	L1	433	C	N1-C1'-C2'	7.08	122.62	112.00
33	L1	642	C	C4'-C3'-O3'	-7.08	102.38	113.00
33	L1	1766	U	O4'-C1'-C2'	-7.08	100.52	107.60
33	L1	2347	A	N9-C1'-C2'	7.08	122.62	112.00
33	L1	3086	G	P-O3'-C3'	7.08	130.82	120.20
59	Lo	31	THR	N-CA-C	7.08	123.96	114.12
33	L1	1740	U	O4'-C1'-N1	7.08	119.11	108.50
82	LK	136	PRO	N-CA-CB	7.08	110.68	103.25
5	SE	152	TYR	N-CA-CB	7.08	122.45	110.49
33	L1	310	C	C3'-C2'-C1'	7.08	108.38	101.30
33	L1	2595	G	O4'-C4'-C3'	-7.08	96.92	104.00
45	LQ	189	GLN	CA-C-O	-7.08	113.58	121.51
66	LN	94	ILE	N-CA-CB	7.08	120.16	110.54
32	S1	1447	C	P-O5'-C5'	-7.07	110.29	120.90
60	Lr	42	ARG	NE-CZ-NH1	7.07	128.57	121.50
60	Lr	69	VAL	CA-C-O	7.07	129.62	120.78
80	LC	381	GLN	CA-C-O	-7.07	113.05	120.55
83	Lm	4	ARG	CB-CG-CD	-7.07	95.03	111.30
3	SB	131	ALA	O-C-N	-7.07	113.19	122.59
33	L1	2628	C	C4'-C3'-C2'	7.07	109.67	102.60
41	LM	72	LEU	O-C-N	-7.07	114.45	122.09
81	LD	400	TRP	CA-CB-CG	7.07	127.03	113.60
32	S1	442	A	O4'-C1'-C2'	-7.07	98.73	105.80
32	S1	1457	C	O5'-C5'-C4'	-7.07	100.90	111.50
33	L1	163	U	O4'-C1'-N1	7.07	119.10	108.50
33	L1	282	A	C5'-C4'-C3'	-7.07	104.60	115.20
33	L1	668	U	C4'-C3'-C2'	-7.07	95.53	102.60
33	L1	2162	C	C3'-C2'-C1'	7.07	108.37	101.30
3	SB	94	ARG	N-CA-C	7.07	119.84	111.71
5	SE	56	GLU	N-CA-C	-7.07	103.31	113.21
32	S1	358	C	C3'-C2'-C1'	7.07	108.37	101.30
32	S1	545	A	P-O5'-C5'	7.07	130.60	120.00
33	L1	1147	U	C2'-C3'-O3'	7.07	120.10	109.50
33	L1	2994	U	N1-C1'-C2'	7.07	122.60	112.00
64	LG	107	THR	N-CA-C	7.07	120.15	109.41
32	S1	152	G	N9-C1'-C2'	7.07	122.60	112.00
32	S1	857	A	O4'-C1'-N9	7.07	119.10	108.50
35	L2	63	A	O4'-C1'-N9	-7.07	97.60	108.20
13	SQ	82	MET	CB-CA-C	-7.06	96.36	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	18	C	C3'-C2'-C1'	7.06	108.36	101.30
32	S1	1642	C	C5'-C4'-C3'	7.06	126.60	116.00
33	L1	1254	A	C4'-C3'-O3'	7.06	123.60	113.00
38	LE	111	HIS	CB-CG-ND1	7.06	133.29	122.70
32	S1	298	C	N1-C1'-C2'	7.06	122.59	112.00
32	S1	377	G	C1'-O4'-C4'	-7.06	102.84	109.90
32	S1	1462	C	N1-C1'-C2'	7.06	124.59	114.00
33	L1	1271	U	O3'-P-O5'	-7.06	93.41	104.00
41	LM	52	LEU	CA-C-N	7.06	127.46	119.83
41	LM	52	LEU	C-N-CA	7.06	127.46	119.83
71	Lj	94	PRO	CA-C-N	-7.06	111.01	119.84
71	Lj	94	PRO	C-N-CA	-7.06	111.01	119.84
81	LD	402	GLY	CA-C-O	7.06	127.83	119.50
19	SY	49	GLY	CA-C-N	7.06	130.74	120.71
19	SY	49	GLY	C-N-CA	7.06	130.74	120.71
32	S1	1803	G	O5'-C5'-C4'	7.06	122.09	111.50
33	L1	734	C	C3'-C2'-C1'	7.06	108.36	101.30
33	L1	1564	C	C4'-C3'-O3'	-7.06	102.41	113.00
35	L2	44	A	P-O3'-C3'	-7.06	109.61	120.20
13	SQ	94	GLU	CB-CA-C	-7.06	102.47	111.22
32	S1	692	C	C3'-C2'-C1'	7.06	108.36	101.30
33	L1	125	G	C1'-C2'-O2'	7.06	118.98	108.40
33	L1	1683	U	P-O5'-C5'	7.06	131.49	120.90
33	L1	2313	U	O4'-C1'-N1	7.06	119.09	108.50
35	L2	27	C	C1'-O4'-C4'	-7.06	102.64	109.70
56	Lh	55	ASN	O-C-N	-7.06	114.63	123.17
33	L1	2613	G	O4'-C1'-N9	7.06	119.08	108.50
32	S1	124	G	C3'-C2'-C1'	-7.05	94.25	101.30
32	S1	562	U	O4'-C1'-N1	7.05	119.08	108.50
32	S1	1447	C	N1-C1'-C2'	7.05	122.58	112.00
32	S1	1670	G	O4'-C1'-N9	7.05	119.08	108.50
33	L1	1949	G	C1'-O4'-C4'	7.05	116.95	109.90
33	L1	3218	C	P-O3'-C3'	7.05	130.78	120.20
4	SD	153	ILE	CB-CA-C	7.05	122.86	111.29
13	SQ	39	SER	CB-CA-C	7.05	124.46	110.42
23	SU	51	LYS	CB-CA-C	-7.05	95.91	109.95
32	S1	680	C	O4'-C1'-C2'	-7.05	100.55	107.60
83	Lm	8	ALA	N-CA-C	-7.05	95.78	110.80
27	SH	118	ARG	O-C-N	7.05	129.71	122.09
31	S2	7	A	P-O3'-C3'	7.05	130.78	120.20
32	S1	912	A	C4'-C3'-C2'	-7.05	95.55	102.60
33	L1	184	C	O3'-P-O5'	7.05	114.58	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	316	A	C5'-C4'-C3'	7.05	126.58	116.00
33	L1	1050	A	C2'-C3'-O3'	7.05	124.28	113.70
33	L1	1242	U	C1'-C2'-O2'	7.05	118.98	108.40
82	LK	119	ARG	CD-NE-CZ	7.05	134.27	124.40
33	L1	891	U	P-O5'-C5'	7.05	131.47	120.90
33	L1	1074	C	O4'-C1'-C2'	-7.05	100.55	107.60
33	L1	1850	C	C4'-C3'-C2'	-7.05	95.55	102.60
33	L1	1890	C	P-O5'-C5'	7.05	131.48	120.90
33	L1	2996	A	C3'-C2'-C1'	-7.05	94.25	101.30
33	L1	3207	C	C1'-O4'-C4'	-7.05	102.85	109.90
51	LY	71	GLN	CA-C-N	7.05	132.86	122.71
51	LY	71	GLN	C-N-CA	7.05	132.86	122.71
64	LG	161	GLU	N-CA-CB	-7.05	99.79	110.01
82	LK	73	HIS	CE1-NE2-CD2	-7.05	101.95	109.00
32	S1	1007	G	O4'-C1'-C2'	7.05	114.65	107.60
33	L1	1899	U	O4'-C1'-C2'	7.05	114.65	107.60
48	LV	7	GLU	CA-CB-CG	7.05	128.19	114.10
33	L1	258	C	N1-C1'-C2'	7.05	122.57	112.00
33	L1	659	C	C5'-C4'-C3'	7.05	126.57	116.00
74	LJ	119	ASN	CA-C-N	7.05	133.41	122.49
74	LJ	119	ASN	C-N-CA	7.05	133.41	122.49
33	L1	2020	G	P-O3'-C3'	7.04	130.77	120.20
44	LR	10	ARG	NE-CZ-NH1	7.04	128.54	121.50
9	SK	147	GLY	CA-C-O	-7.04	113.49	120.75
32	S1	14	C	C1'-O4'-C4'	-7.04	102.86	109.90
32	S1	1353	G	C3'-C2'-C1'	7.04	108.34	101.30
32	S1	1658	U	C5'-C4'-O4'	7.04	120.36	109.80
32	S1	1673	C	O4'-C1'-C2'	-7.04	100.56	107.60
33	L1	13	G	C1'-O4'-C4'	-7.04	102.86	109.90
33	L1	1207	A	C1'-O4'-C4'	-7.04	102.86	109.90
33	L1	1248	A	C4'-C3'-C2'	-7.04	95.56	102.60
33	L1	1826	G	O4'-C4'-C3'	-7.04	96.96	104.00
67	LS	154	VAL	CA-C-N	7.04	134.45	122.26
67	LS	154	VAL	C-N-CA	7.04	134.45	122.26
74	LJ	15	VAL	N-CA-C	-7.04	98.52	108.80
7	SI	105	GLU	CA-C-N	7.04	129.72	120.28
7	SI	105	GLU	C-N-CA	7.04	129.72	120.28
32	S1	1007	G	N9-C1'-C2'	7.04	122.56	112.00
32	S1	1138	A	C1'-C2'-O2'	7.04	118.96	108.40
33	L1	1620	U	C4'-C3'-C2'	-7.04	95.56	102.60
33	L1	2441	G	O4'-C1'-N9	7.04	119.06	108.50
78	Le	199	GLU	N-CA-C	-7.04	102.72	112.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	SC	129	VAL	CA-C-N	7.04	129.59	120.44
25	SC	129	VAL	C-N-CA	7.04	129.59	120.44
30	S3	15	A	P-O3'-C3'	-7.04	109.64	120.20
32	S1	627	A	O4'-C1'-N9	7.04	118.76	108.20
72	Lk	49	GLU	CA-C-N	7.04	130.10	120.46
72	Lk	49	GLU	C-N-CA	7.04	130.10	120.46
2	SA	231	ALA	CA-C-O	-7.04	113.37	120.90
4	SD	136	ILE	CB-CA-C	-7.04	98.55	111.36
23	SU	80	LEU	CA-CB-CG	7.04	140.93	116.30
33	L1	1537	A	C3'-C2'-C1'	7.04	108.34	101.30
69	La	66	SER	N-CA-C	7.04	118.60	111.07
31	S2	2	C	N1-C1'-C2'	7.04	122.56	112.00
33	L1	20	G	P-O3'-C3'	7.04	130.75	120.20
33	L1	1206	A	O4'-C1'-N9	7.04	119.06	108.50
33	L1	3357	C	P-O5'-C5'	7.04	131.46	120.90
33	L1	3376	C	C5'-C4'-O4'	-7.04	99.24	109.80
23	SU	52	LEU	O-C-N	-7.04	113.19	122.33
32	S1	1395	C	O4'-C1'-N1	7.04	118.75	108.20
33	L1	312	U	C1'-O4'-C4'	-7.04	102.86	109.90
33	L1	484	C	C3'-C2'-C1'	7.04	108.33	101.30
33	L1	2519	U	O4'-C1'-N1	7.04	119.05	108.50
33	L1	2601	G	C4'-C3'-C2'	-7.04	95.56	102.60
33	L1	2664	G	N9-C1'-C2'	7.04	122.55	112.00
33	L1	2592	G	N9-C1'-C2'	7.03	122.55	112.00
44	LR	160	HIS	N-CA-CB	7.03	122.46	110.50
64	LG	41	LYS	CA-C-N	7.03	128.63	119.84
64	LG	41	LYS	C-N-CA	7.03	128.63	119.84
76	Lv	56	ALA	N-CA-C	7.03	118.95	111.28
5	SE	2	ALA	CA-C-O	-7.03	113.16	121.11
33	L1	2706	A	O5'-C5'-C4'	7.03	122.05	111.50
82	LK	18	HIS	CB-CA-C	7.03	122.62	111.51
9	SK	66	ASP	N-CA-CB	7.03	122.37	110.49
32	S1	151	A	O3'-P-O5'	-7.03	93.45	104.00
32	S1	1685	U	O4'-C1'-N1	7.03	119.05	108.50
33	L1	473	G	O4'-C1'-N9	7.03	119.05	108.50
33	L1	1135	C	N1-C1'-C2'	7.03	122.55	112.00
33	L1	1406	C	P-O3'-C3'	-7.03	109.66	120.20
81	LD	77	VAL	CA-C-N	7.03	130.81	120.90
81	LD	77	VAL	C-N-CA	7.03	130.81	120.90
32	S1	578	G	O4'-C1'-N9	7.03	119.04	108.50
81	LD	40	VAL	O-C-N	-7.03	114.59	121.83
33	L1	84	A	N9-C1'-C2'	-7.03	103.46	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1053	C	N1-C1'-C2'	7.03	122.54	112.00
33	L1	1130	G	O3'-P-O5'	7.03	114.54	104.00
33	L1	2645	A	O4'-C1'-C2'	7.03	114.63	107.60
33	L1	2714	U	O4'-C1'-N1	7.03	119.04	108.50
73	Lp	50	LYS	CA-C-N	7.03	134.62	121.97
73	Lp	50	LYS	C-N-CA	7.03	134.62	121.97
9	SK	52	LEU	CA-C-N	7.03	134.62	121.97
9	SK	52	LEU	C-N-CA	7.03	134.62	121.97
14	SP	90	ASN	CA-CB-CG	-7.03	105.57	112.60
33	L1	1511	C	O3'-P-O5'	-7.03	93.46	104.00
54	Lf	54	PRO	N-CA-CB	-7.03	95.49	103.15
32	S1	1265	A	C4'-C3'-C2'	-7.02	95.58	102.60
67	LS	152	PRO	CB-CA-C	7.02	123.15	111.56
2	SA	36	PHE	CA-CB-CG	7.02	120.82	113.80
17	SV	39	ASN	CA-CB-CG	7.02	119.62	112.60
32	S1	1042	C	O4'-C1'-C2'	-7.02	100.58	107.60
32	S1	1434	G	N9-C1'-C2'	7.02	122.53	112.00
33	L1	26	A	O5'-C5'-C4'	7.02	122.03	111.50
33	L1	3225	G	O4'-C1'-C2'	7.02	114.62	107.60
35	L2	6	G	O4'-C1'-C2'	-7.02	100.58	107.60
45	LQ	141	PRO	N-CA-C	7.02	126.94	112.47
49	LX	43	HIS	CG-CD2-NE2	7.02	114.22	107.20
55	Lg	31	CYS	CA-C-N	7.02	131.35	120.75
55	Lg	31	CYS	C-N-CA	7.02	131.35	120.75
32	S1	1559	U	O4'-C1'-C2'	-7.02	100.58	107.60
33	L1	671	C	C1'-O4'-C4'	-7.02	102.88	109.90
33	L1	1371	G	C1'-C2'-O2'	7.02	118.93	108.40
45	LQ	21	GLN	N-CA-CB	-7.02	100.33	110.65
60	Lr	4	VAL	CA-C-O	-7.02	116.29	119.94
32	S1	530	A	C5'-C4'-C3'	-7.02	104.37	114.90
32	S1	1006	A	C3'-C2'-C1'	7.02	108.32	101.30
33	L1	2174	C	O4'-C1'-N1	7.02	119.03	108.50
34	L3	70	G	O4'-C1'-N9	7.02	119.03	108.50
35	L2	133	C	N1-C1'-C2'	7.02	122.53	112.00
33	L1	2729	C	C2'-C3'-O3'	7.02	120.03	109.50
67	LS	164	LYS	CB-CA-C	-7.02	96.45	110.42
33	L1	98	A	O4'-C4'-C3'	-7.01	96.98	104.00
33	L1	142	G	O4'-C1'-C2'	-7.01	100.59	107.60
33	L1	2480	G	C3'-C2'-C1'	-7.01	94.29	101.30
35	L2	100	A	O5'-C5'-C4'	7.01	122.02	111.50
42	LP	24	ARG	NE-CZ-NH1	7.01	128.51	121.50
64	LG	110	PHE	N-CA-C	7.01	121.22	112.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	LD	381	TRP	CA-C-N	7.01	129.56	120.44
81	LD	381	TRP	C-N-CA	7.01	129.56	120.44
1	Sa	248	HIS	ND1-CE1-NE2	7.01	115.41	108.40
25	SC	137	ARG	N-CA-CB	7.01	122.42	110.50
32	S1	572	G	C2'-C3'-O3'	7.01	124.22	113.70
33	L1	305	G	N9-C1'-C2'	-7.01	101.48	112.00
35	L2	127	G	O4'-C1'-C2'	-7.01	100.59	107.60
78	Le	59	ALA	N-CA-C	7.01	118.92	111.28
4	SD	239	PRO	CB-CA-C	7.01	120.14	110.95
7	SI	108	LYS	CA-C-N	7.01	129.68	120.28
7	SI	108	LYS	C-N-CA	7.01	129.68	120.28
32	S1	591	C	C1'-C2'-O2'	7.01	118.92	108.40
33	L1	2106	U	C1'-O4'-C4'	-7.01	102.89	109.90
33	L1	3123	A	C5'-C4'-C3'	-7.01	105.48	116.00
43	LO	137	GLY	CA-C-N	-7.01	107.67	121.41
43	LO	137	GLY	C-N-CA	-7.01	107.67	121.41
31	S2	16	U	P-O3'-C3'	7.01	130.71	120.20
32	S1	385	C	O4'-C1'-C2'	-7.01	100.59	107.60
32	S1	941	G	C1'-C2'-O2'	7.01	118.92	108.40
32	S1	1650	G	O4'-C1'-C2'	-7.01	100.59	107.60
33	L1	740	G	P-O3'-C3'	7.01	130.72	120.20
33	L1	924	A	O4'-C1'-C2'	-7.01	98.79	105.80
33	L1	1168	G	O4'-C1'-N9	7.01	119.02	108.50
33	L1	2766	U	P-O3'-C3'	7.01	130.71	120.20
33	L1	3151	C	P-O3'-C3'	7.01	130.72	120.20
33	L1	3157	C	C3'-C2'-C1'	7.01	108.31	101.30
35	L2	153	U	N1-C1'-C2'	7.01	122.51	112.00
79	Ls	239	ALA	CA-C-N	7.01	129.65	120.26
79	Ls	239	ALA	C-N-CA	7.01	129.65	120.26
5	SE	261	LYS	N-CA-C	-7.01	98.07	108.79
15	SS	98	SER	CB-CA-C	7.01	124.36	110.42
49	LX	52	ARG	NE-CZ-NH2	7.01	125.51	119.20
68	LW	100	ASP	N-CA-CB	7.01	122.33	110.49
33	L1	32	G	P-O5'-C5'	7.00	131.41	120.90
33	L1	789	A	O4'-C1'-C2'	-7.00	98.80	105.80
3	SB	158	ILE	CA-C-O	-7.00	112.94	120.36
16	SR	124	TYR	O-C-N	-7.00	114.41	123.02
32	S1	988	G	N9-C1'-C2'	7.00	122.50	112.00
33	L1	513	C	N1-C1'-C2'	7.00	122.51	112.00
33	L1	2396	A	N9-C1'-C2'	7.00	122.51	112.00
35	L2	160	C	O4'-C1'-C2'	-7.00	100.60	107.60
81	LD	52	LYS	N-CA-C	-7.00	104.66	112.57

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	SC	25	ARG	CA-C-N	7.00	129.66	120.28
25	SC	25	ARG	C-N-CA	7.00	129.66	120.28
32	S1	1287	U	O4'-C1'-C2'	-7.00	100.60	107.60
32	S1	1673	C	P-O5'-C5'	7.00	131.40	120.90
33	L1	471	C	O4'-C1'-C2'	-7.00	100.60	107.60
33	L1	1367	A	P-O3'-C3'	7.00	130.70	120.20
33	L1	2850	G	C1'-O4'-C4'	-7.00	102.90	109.90
56	Lh	24	ASP	O-C-N	-7.00	114.03	122.22
7	SI	66	PHE	N-CA-CB	7.00	120.16	110.01
32	S1	1628	C	C3'-C2'-C1'	7.00	108.30	101.30
33	L1	299	G	C1'-O4'-C4'	7.00	116.90	109.90
33	L1	556	U	O4'-C1'-N1	7.00	119.00	108.50
33	L1	2724	A	N9-C1'-C2'	7.00	122.50	112.00
79	Ls	35	ASN	N-CA-CB	-7.00	99.44	110.22
32	S1	7	G	O4'-C1'-N9	7.00	119.00	108.50
32	S1	1754	A	P-O3'-C3'	7.00	130.70	120.20
33	L1	70	A	C2'-C3'-O3'	7.00	120.00	109.50
33	L1	1098	U	P-O3'-C3'	7.00	130.70	120.20
33	L1	1194	C	O4'-C1'-C2'	-7.00	98.80	105.80
33	L1	2758	C	O3'-P-O5'	-7.00	93.50	104.00
34	L3	55	A	N9-C1'-C2'	-7.00	101.50	112.00
80	LC	291	SER	N-CA-C	7.00	119.80	111.33
32	S1	1515	G	O3'-P-O5'	7.00	114.49	104.00
33	L1	109	G	C1'-O4'-C4'	7.00	116.90	109.90
33	L1	280	G	C2'-C3'-O3'	7.00	124.19	113.70
33	L1	1619	G	P-O5'-C5'	-7.00	110.41	120.90
33	L1	2590	C	O4'-C4'-C3'	-7.00	97.00	104.00
33	L1	2927	C	C3'-C2'-C1'	7.00	108.30	101.30
33	L1	2765	A	P-O3'-C3'	7.00	130.69	120.20
69	La	18	PHE	N-CA-C	7.00	118.69	111.14
33	L1	1038	C	C4'-C3'-O3'	-6.99	102.51	113.00
48	LV	152	SER	N-CA-C	6.99	119.81	108.34
3	SB	189	MET	N-CA-CB	-6.99	100.21	110.84
31	S2	52	G	O5'-C5'-C4'	6.99	121.99	111.50
33	L1	902	U	C2'-C3'-O3'	6.99	124.19	113.70
33	L1	1056	U	C3'-C2'-C1'	6.99	108.29	101.30
33	L1	1236	C	C4'-C3'-C2'	-6.99	95.61	102.60
33	L1	1650	G	P-O5'-C5'	-6.99	110.41	120.90
33	L1	2509	A	O4'-C1'-N9	6.99	118.98	108.50
33	L1	3281	G	C4'-C3'-C2'	-6.99	95.61	102.60
68	LW	105	ILE	O-C-N	-6.99	113.83	122.57
5	SE	68	HIS	CE1-NE2-CD2	-6.99	102.01	109.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	975	A	O4'-C1'-C2'	-6.99	100.61	107.60
33	L1	694	U	O4'-C1'-N1	6.99	118.98	108.50
33	L1	1251	U	P-O5'-C5'	6.99	131.38	120.90
35	L2	40	G	C1'-O4'-C4'	-6.99	102.91	109.90
67	LS	61	LEU	N-CA-C	6.99	118.69	111.14
71	Lj	93	LEU	CA-C-N	6.99	127.58	120.38
71	Lj	93	LEU	C-N-CA	6.99	127.58	120.38
81	LD	400	TRP	CB-CA-C	-6.99	99.91	110.88
32	S1	630	U	C5'-C4'-C3'	6.99	126.48	116.00
33	L1	3294	U	P-O3'-C3'	-6.99	109.72	120.20
38	LE	110	GLU	CB-CA-C	-6.99	96.91	110.46
25	SC	5	PRO	CA-C-N	6.99	129.52	120.44
25	SC	5	PRO	C-N-CA	6.99	129.52	120.44
32	S1	1618	G	P-O5'-C5'	-6.99	110.42	120.90
33	L1	327	A	O4'-C1'-N9	6.99	118.68	108.20
33	L1	434	C	P-O5'-C5'	6.99	131.38	120.90
33	L1	1570	C	O4'-C1'-C2'	-6.99	98.81	105.80
33	L1	2781	A	P-O3'-C3'	6.99	130.68	120.20
35	L2	145	C	C1'-O4'-C4'	6.99	116.89	109.90
33	L1	2313	U	C4'-C3'-C2'	-6.98	95.62	102.60
25	SC	71	ARG	CA-C-N	6.98	129.36	120.56
25	SC	71	ARG	C-N-CA	6.98	129.36	120.56
32	S1	1548	G	N9-C1'-C2'	6.98	122.47	112.00
33	L1	3309	U	P-O5'-C5'	6.98	131.38	120.90
48	LV	98	ASN	N-CA-C	-6.98	103.60	111.07
1	Sa	285	GLN	CA-C-N	6.98	132.69	122.99
1	Sa	285	GLN	C-N-CA	6.98	132.69	122.99
13	SQ	92	GLU	O-C-N	6.98	131.26	123.16
15	SS	9	VAL	CA-C-O	6.98	128.53	121.27
32	S1	1149	U	O4'-C1'-C2'	-6.98	100.62	107.60
33	L1	684	C	C1'-O4'-C4'	6.98	116.88	109.90
33	L1	1907	A	O4'-C1'-C2'	6.98	114.58	107.60
34	L3	64	G	C1'-C2'-O2'	6.98	118.87	108.40
40	LH	97	PRO	CA-C-N	-6.98	108.21	121.54
40	LH	97	PRO	C-N-CA	-6.98	108.21	121.54
43	LO	79	TRP	CB-CG-CD2	6.98	136.57	126.80
66	LN	15	VAL	O-C-N	-6.98	114.48	122.72
33	L1	2077	C	C3'-C2'-C1'	-6.98	94.32	101.30
47	LU	138	GLY	CA-C-N	-6.98	108.21	121.54
47	LU	138	GLY	C-N-CA	-6.98	108.21	121.54
81	LD	227	ARG	NH1-CZ-NH2	-6.98	110.23	119.30
81	LD	313	GLU	CB-CG-CD	6.98	124.46	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	SR	135	VAL	CB-CA-C	-6.98	103.04	111.97
32	S1	1068	G	C4'-C3'-C2'	6.98	109.58	102.60
32	S1	1747	A	O3'-P-O5'	-6.98	93.53	104.00
33	L1	551	A	O4'-C1'-C2'	-6.98	100.62	107.60
33	L1	1081	U	C4'-C3'-C2'	-6.98	95.62	102.60
33	L1	1512	A	P-O3'-C3'	-6.98	109.73	120.20
35	L2	98	C	O4'-C1'-C2'	-6.98	86.47	107.40
40	LH	99	ASP	CA-C-O	6.98	128.37	120.90
46	LT	101	VAL	O-C-N	-6.98	115.07	121.91
11	SM	133	GLY	O-C-N	-6.98	113.63	122.70
32	S1	858	G	O4'-C1'-C2'	-6.98	100.62	107.60
33	L1	2613	G	N9-C1'-C2'	-6.98	101.53	112.00
42	LP	77	LYS	CA-C-N	6.98	135.08	121.41
42	LP	77	LYS	C-N-CA	6.98	135.08	121.41
6	SF	144	ASN	CA-CB-CG	-6.97	105.62	112.60
27	SH	90	THR	CA-C-N	6.97	130.91	120.31
27	SH	90	THR	C-N-CA	6.97	130.91	120.31
32	S1	1062	C	O3'-P-O5'	-6.97	93.54	104.00
33	L1	309	C	O3'-P-O5'	6.97	114.46	104.00
33	L1	1196	U	O4'-C1'-N1	6.97	118.96	108.50
33	L1	1547	G	O4'-C1'-C2'	-6.97	100.62	107.60
33	L1	1904	A	C4'-C3'-C2'	-6.97	95.63	102.60
48	LV	112	THR	O-C-N	-6.97	113.31	122.59
32	S1	300	U	O4'-C1'-C2'	-6.97	100.63	107.60
45	LQ	154	THR	N-CA-C	-6.97	96.91	108.34
58	Ln	27	ARG	CA-C-O	-6.97	113.18	120.99
76	Lw	34	ILE	CA-C-N	-6.97	111.53	121.50
76	Lw	34	ILE	C-N-CA	-6.97	111.53	121.50
32	S1	586	U	N1-C1'-C2'	6.97	124.46	114.00
32	S1	1609	G	C1'-C2'-O2'	6.97	118.86	108.40
33	L1	411	C	N1-C1'-C2'	6.97	122.45	112.00
33	L1	2692	G	C5'-C4'-C3'	6.97	125.65	115.20
79	Ls	248	TYR	N-CA-C	6.97	118.96	111.36
81	LD	398	SER	CA-C-N	6.97	129.50	120.44
81	LD	398	SER	C-N-CA	6.97	129.50	120.44
5	SE	171	CYS	O-C-N	6.97	129.25	122.07
1	Sa	323	TYR	N-CA-CB	6.97	122.38	110.68
32	S1	431	C	N1-C1'-C2'	6.97	122.45	112.00
33	L1	2850	G	C4'-C3'-C2'	-6.97	95.63	102.60
35	L2	101	G	C5'-C4'-C3'	6.97	126.45	116.00
55	Lg	114	LEU	N-CA-C	6.97	118.52	111.07
70	Li	102	ILE	CB-CA-C	6.97	122.72	111.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	953	G	O4'-C1'-N9	6.96	118.95	108.50
32	S1	1163	C	OP1-P-O3'	6.96	128.89	108.00
32	S1	1349	A	C3'-C2'-C1'	6.96	108.26	101.30
33	L1	486	G	C4'-C3'-O3'	-6.96	102.56	113.00
48	LV	25	HIS	CB-CG-CD2	-6.96	122.14	131.20
33	L1	2449	A	O3'-P-O5'	-6.96	93.56	104.00
56	Lh	54	PRO	O-C-N	-6.96	115.30	123.10
14	SP	94	PHE	CA-CB-CG	-6.96	106.84	113.80
32	S1	913	U	O4'-C1'-C2'	-6.96	100.64	107.60
33	L1	2114	A	P-O3'-C3'	-6.96	109.76	120.20
67	LS	162	THR	N-CA-C	6.96	125.63	110.80
20	SZ	55	ARG	N-CA-C	6.96	121.94	112.68
33	L1	1711	G	N9-C1'-C2'	6.96	122.44	112.00
23	SU	69	HIS	CA-C-N	6.96	134.83	121.54
23	SU	69	HIS	C-N-CA	6.96	134.83	121.54
33	L1	1636	C	P-O3'-C3'	6.96	130.64	120.20
33	L1	3093	C	O5'-C5'-C4'	6.96	121.94	111.50
66	LN	96	GLN	CB-CA-C	-6.96	99.24	110.79
84	LI	30	LYS	CA-C-N	6.96	134.23	121.70
84	LI	30	LYS	C-N-CA	6.96	134.23	121.70
32	S1	774	C	O3'-P-O5'	-6.96	93.56	104.00
33	L1	528	C	N1-C1'-C2'	6.96	122.44	112.00
33	L1	2216	G	O4'-C1'-N9	6.96	118.94	108.50
45	LQ	203	HIS	CA-CB-CG	6.96	120.76	113.80
17	SV	39	ASN	CA-C-N	6.96	130.29	120.28
17	SV	39	ASN	C-N-CA	6.96	130.29	120.28
33	L1	2803	A	O4'-C1'-C2'	6.96	112.75	105.80
35	L2	86	C	C1'-C2'-O2'	-6.96	101.37	111.80
76	Lw	56	ALA	N-CA-C	6.96	118.86	111.28
79	Ls	141	PHE	CA-CB-CG	-6.96	106.84	113.80
2	SA	253	ALA	N-CA-C	6.95	118.65	111.14
5	SE	263	LEU	CA-C-O	-6.95	108.98	120.80
31	S2	52	G	C1'-O4'-C4'	-6.95	102.95	109.90
32	S1	272	G	C1'-O4'-C4'	-6.95	102.95	109.90
32	S1	444	U	O4'-C1'-N1	6.95	118.93	108.50
33	L1	1262	U	O4'-C1'-N1	6.95	118.93	108.50
33	L1	1393	G	P-O3'-C3'	6.95	130.63	120.20
33	L1	2937	U	O4'-C1'-C2'	-6.95	98.85	105.80
32	S1	873	G	N9-C1'-C2'	-6.95	101.57	112.00
33	L1	2544	C	C1'-O4'-C4'	-6.95	102.95	109.90
33	L1	3175	C	O3'-P-O5'	-6.95	93.57	104.00
45	LQ	260	GLU	CA-C-O	-6.95	110.64	120.16

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
80	LC	378	ASP	CA-CB-CG	6.95	119.55	112.60
5	SE	173	SER	CA-C-N	6.95	129.46	120.56
5	SE	173	SER	C-N-CA	6.95	129.46	120.56
32	S1	581	G	P-O3'-C3'	6.95	130.63	120.20
33	L1	3390	G	C3'-C2'-C1'	6.95	108.45	101.50
60	Lr	16	GLU	CA-C-N	6.95	130.66	121.90
60	Lr	16	GLU	C-N-CA	6.95	130.66	121.90
32	S1	548	C	O3'-P-O5'	6.95	114.42	104.00
33	L1	1937	C	C3'-C2'-C1'	6.95	108.25	101.30
33	L1	3227	U	O4'-C1'-N1	-6.95	87.65	108.50
59	Lo	23	ILE	O-C-N	-6.95	113.18	121.10
33	L1	2620	U	P-O5'-C5'	6.95	131.32	120.90
38	LE	126	GLY	N-CA-C	6.95	129.65	113.18
70	Li	58	ARG	N-CA-CB	6.95	122.74	110.37
32	S1	1132	G	O3'-P-O5'	-6.95	93.58	104.00
33	L1	1237	G	C1'-O4'-C4'	-6.95	102.95	109.90
33	L1	2058	C	C5'-C4'-C3'	6.95	126.42	116.00
33	L1	2641	A	O4'-C1'-C2'	-6.95	100.65	107.60
71	Lj	93	LEU	O-C-N	6.95	130.98	121.12
77	Lc	7	LYS	CA-C-N	6.95	129.59	120.28
77	Lc	7	LYS	C-N-CA	6.95	129.59	120.28
78	Le	128	MET	CB-CA-C	6.95	121.87	110.90
33	L1	1618	U	C1'-O4'-C4'	-6.94	102.96	109.90
67	LS	71	PRO	CA-N-CD	-6.94	102.28	112.00
32	S1	969	U	O4'-C1'-N1	6.94	118.91	108.50
33	L1	334	A	C1'-O4'-C4'	-6.94	102.96	109.90
33	L1	764	A	O4'-C1'-C2'	-6.94	100.66	107.60
33	L1	1788	C	P-O3'-C3'	6.94	130.61	120.20
35	L2	159	U	P-O3'-C3'	6.94	130.61	120.20
51	LY	9	SER	CA-C-N	6.94	134.20	121.70
51	LY	9	SER	C-N-CA	6.94	134.20	121.70
6	SF	88	ILE	CB-CA-C	6.94	121.51	112.14
11	SM	22	GLY	N-CA-C	6.94	119.22	110.96
23	SU	92	GLU	N-CA-CB	-6.94	98.02	110.37
32	S1	969	U	O4'-C1'-C2'	-6.94	100.66	107.60
33	L1	1213	G	N9-C1'-C2'	6.94	122.41	112.00
33	L1	2784	U	P-O3'-C3'	-6.94	109.79	120.20
81	LD	38	PRO	CA-C-N	6.94	129.88	120.44
81	LD	38	PRO	C-N-CA	6.94	129.88	120.44
32	S1	1083	C	P-O3'-C3'	-6.94	109.79	120.20
32	S1	1122	U	C5'-C4'-C3'	6.94	126.41	116.00
33	L1	1875	A	P-O3'-C3'	6.94	130.61	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	SD	52	LEU	CB-CA-C	-6.94	99.28	110.79
32	S1	558	C	O4'-C1'-C2'	-6.94	98.86	105.80
32	S1	1084	U	P-O5'-C5'	-6.94	110.49	120.90
33	L1	17	G	O4'-C1'-C2'	6.94	114.54	107.60
38	LE	113	ASP	CA-CB-CG	-6.94	105.66	112.60
44	LR	44	PHE	CA-CB-CG	-6.94	106.86	113.80
48	LV	62	ARG	O-C-N	6.94	130.83	123.06
72	Lk	60	ILE	CB-CA-C	6.94	121.50	112.14
32	S1	4	C	C3'-C2'-C1'	6.94	108.24	101.30
35	L2	48	A	N9-C1'-C2'	6.94	122.40	112.00
2	SA	260	ALA	CA-C-O	-6.93	109.01	120.80
33	L1	641	C	C1'-C2'-O2'	6.93	118.80	108.40
33	L1	1675	G	C1'-O4'-C4'	6.93	116.83	109.90
33	L1	1954	G	P-O5'-C5'	6.93	131.30	120.90
35	L2	24	U	C1'-O4'-C4'	-6.93	102.97	109.90
39	LF	155	ARG	NE-CZ-NH2	6.93	125.44	119.20
13	SQ	27	ASP	N-CA-C	6.93	125.57	110.80
24	SX	82	ARG	CA-C-O	-6.93	109.02	120.80
33	L1	180	G	P-O5'-C5'	-6.93	110.50	120.90
33	L1	711	A	C4'-C3'-C2'	-6.93	95.67	102.60
33	L1	1254	A	C1'-O4'-C4'	6.93	116.83	109.90
52	Lb	97	ARG	CA-C-N	6.93	129.45	120.44
52	Lb	97	ARG	C-N-CA	6.93	129.45	120.44
32	S1	903	A	C1'-O4'-C4'	6.93	116.63	109.70
32	S1	1759	A	C5'-C4'-O4'	6.93	120.20	109.80
68	LW	60	GLY	O-C-N	6.93	131.71	122.70
38	LE	110	GLU	N-CA-CB	6.93	121.09	110.14
70	Li	19	GLN	N-CA-C	-6.93	96.04	110.80
33	L1	3331	G	C3'-C2'-C1'	-6.93	94.37	101.30
81	LD	6	ARG	CA-C-O	-6.93	114.79	119.29
8	SJ	121	VAL	N-CA-CB	6.93	118.08	110.53
33	L1	971	G	C5'-C4'-O4'	-6.93	99.41	109.80
33	L1	2507	U	C5'-C4'-C3'	6.93	126.39	116.00
81	LD	344	ALA	CA-C-N	6.93	134.77	121.54
81	LD	344	ALA	C-N-CA	6.93	134.77	121.54
25	SC	164	SER	CA-CB-OG	6.92	124.95	111.10
32	S1	221	U	P-O3'-C3'	-6.92	109.81	120.20
32	S1	483	C	O5'-C5'-C4'	-6.92	101.11	111.50
32	S1	838	U	O4'-C1'-N1	6.92	118.89	108.50
32	S1	919	G	C4'-C3'-C2'	-6.92	95.68	102.60
31	S2	7	A	O4'-C1'-N9	-6.92	97.81	108.20
32	S1	1446	C	N1-C1'-C2'	6.92	122.38	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1533	U	C3'-C2'-C1'	6.92	108.22	101.30
33	L1	1736	C	N1-C1'-C2'	6.92	122.39	112.00
33	L1	1953	C	O4'-C1'-C2'	-6.92	100.68	107.60
12	SO	123	HIS	CA-C-O	6.92	128.09	120.82
27	SH	81	VAL	CA-C-N	6.92	135.17	121.53
27	SH	81	VAL	C-N-CA	6.92	135.17	121.53
32	S1	905	A	P-O5'-C5'	6.92	131.28	120.90
33	L1	2654	G	C4'-C3'-C2'	-6.92	95.68	102.60
33	L1	3291	C	O4'-C1'-C2'	-6.92	100.68	107.60
64	LG	143	ASP	CB-CA-C	6.92	124.19	110.42
33	L1	2102	C	O4'-C1'-C2'	-6.92	100.68	107.60
33	L1	2333	U	O4'-C1'-N1	6.92	118.88	108.50
48	LV	79	ASN	N-CA-C	-6.92	96.06	110.80
52	Lb	70	VAL	N-CA-C	-6.92	98.19	109.12
32	S1	1222	G	C5'-C4'-C3'	6.92	125.28	114.90
33	L1	1064	U	C4'-C3'-C2'	-6.92	95.68	102.60
33	L1	1449	A	C3'-C2'-C1'	6.92	108.42	101.50
33	L1	1539	G	O4'-C1'-N9	6.92	118.88	108.50
33	L1	1806	C	P-O3'-C3'	6.92	130.58	120.20
33	L1	2352	G	O4'-C1'-N9	6.92	118.88	108.50
33	L1	2787	A	P-O5'-C5'	-6.92	110.52	120.90
67	LS	94	LYS	CA-CB-CG	6.92	127.94	114.10
2	SA	55	LEU	CA-C-N	6.92	127.66	119.98
2	SA	55	LEU	C-N-CA	6.92	127.66	119.98
25	SC	88	LEU	N-CA-C	6.92	119.67	111.71
32	S1	1097	A	C4'-C3'-C2'	-6.92	95.68	102.60
32	S1	1739	U	O3'-P-O5'	-6.92	93.62	104.00
33	L1	1257	U	C5'-C4'-C3'	6.92	126.37	116.00
33	L1	2166	U	C1'-O4'-C4'	-6.92	102.98	109.90
40	LH	227	LYS	O-C-N	6.92	129.19	122.07
78	Le	192	THR	CA-CB-CG2	6.92	122.26	110.50
11	SM	113	ARG	CA-C-N	-6.92	109.80	120.31
11	SM	113	ARG	C-N-CA	-6.92	109.80	120.31
50	LZ	53	TRP	CA-C-N	6.92	134.15	121.70
50	LZ	53	TRP	C-N-CA	6.92	134.15	121.70
32	S1	380	C	N1-C1'-C2'	6.91	122.37	112.00
32	S1	1244	U	O4'-C1'-C2'	-6.91	100.69	107.60
33	L1	510	C	N1-C1'-C2'	6.91	122.37	112.00
33	L1	759	C	N1-C1'-C2'	6.91	122.37	112.00
33	L1	2230	C	C1'-O4'-C4'	-6.91	102.99	109.90
33	L1	3218	C	C3'-C2'-C1'	6.91	108.21	101.30
33	L1	3304	U	P-O3'-C3'	-6.91	109.83	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	L2	94	C	C4'-C3'-C2'	6.91	109.51	102.60
80	LC	278	ARG	NE-CZ-NH2	-6.91	112.98	119.20
2	SA	230	GLY	CA-C-N	6.91	129.87	120.54
2	SA	230	GLY	C-N-CA	6.91	129.87	120.54
32	S1	484	A	C1'-O4'-C4'	-6.91	102.99	109.90
32	S1	732	G	C5'-C4'-C3'	6.91	125.27	114.90
32	S1	1453	U	C3'-C2'-C1'	6.91	108.21	101.30
33	L1	1296	C	C5'-C4'-C3'	6.91	126.37	116.00
33	L1	1496	G	C1'-C2'-O2'	6.91	122.17	111.80
33	L1	2851	C	C4'-C3'-O3'	-6.91	102.63	113.00
33	L1	3320	G	O4'-C1'-N9	-6.91	98.14	108.50
57	L1	3	LYS	CA-C-N	6.91	134.96	121.41
57	L1	3	LYS	C-N-CA	6.91	134.96	121.41
1	Sa	270	ASP	CA-CB-CG	6.91	119.51	112.60
3	SB	79	PHE	N-CA-C	6.91	119.67	108.34
23	SU	18	MET	CG-SD-CE	6.91	116.10	100.90
31	S2	10	G	P-O5'-C5'	-6.91	110.54	120.90
32	S1	1113	G	O4'-C1'-N9	6.91	118.56	108.20
33	L1	1534	C	O4'-C1'-C2'	-6.91	100.69	107.60
33	L1	1732	G	C1'-O4'-C4'	-6.91	102.79	109.70
33	L1	3042	U	C1'-O4'-C4'	6.91	116.81	109.90
35	L2	76	A	C5'-C4'-C3'	-6.91	104.54	114.90
40	LH	230	GLY	N-CA-C	-6.91	100.33	110.90
79	Ls	140	PHE	CA-CB-CG	-6.91	106.89	113.80
13	SQ	70	SER	CA-C-N	6.91	134.73	121.54
13	SQ	70	SER	C-N-CA	6.91	134.73	121.54
48	LV	132	ARG	N-CA-CB	-6.91	100.69	111.05
3	SB	74	GLN	CB-CG-CD	-6.91	100.86	112.60
32	S1	573	C	C3'-C2'-C1'	6.91	108.21	101.30
32	S1	599	G	O5'-C5'-C4'	6.91	121.86	111.50
33	L1	1076	G	C5'-C4'-C3'	6.91	126.36	116.00
33	L1	1881	C	P-O5'-C5'	-6.91	110.54	120.90
33	L1	2230	C	C3'-C2'-C1'	-6.91	94.39	101.30
37	LB	190	ARG	CA-C-O	6.91	127.91	119.97
32	S1	311	G	O4'-C4'-C3'	-6.90	97.10	104.00
38	LE	108	ILE	N-CA-CB	-6.90	99.84	111.23
31	S2	8	U	O4'-C1'-N1	6.90	118.85	108.50
35	L2	87	C	P-O5'-C5'	6.90	131.25	120.90
10	SL	18	ARG	CA-C-N	6.90	129.41	120.44
10	SL	18	ARG	C-N-CA	6.90	129.41	120.44
32	S1	1246	A	P-O3'-C3'	6.90	130.55	120.20
32	S1	1777	G	C1'-C2'-O2'	-6.90	101.45	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	417	G	O4'-C1'-N9	6.90	118.85	108.50
33	L1	690	G	N9-C1'-C2'	-6.90	101.65	112.00
33	L1	1785	G	C1'-O4'-C4'	-6.90	103.00	109.90
66	LN	52	ARG	N-CA-C	-6.90	99.13	109.83
79	Ls	62	ILE	N-CA-CB	6.90	118.84	111.46
81	LD	117	ARG	O-C-N	-6.90	115.11	123.19
2	SA	39	GLU	CA-C-O	6.90	127.84	119.49
6	SF	165	ILE	CG1-CB-CG2	6.90	131.40	110.70
11	SM	44	VAL	N-CA-CB	6.90	120.93	110.58
33	L1	1389	C	O4'-C1'-N1	6.90	118.85	108.50
33	L1	2341	U	C1'-C2'-O2'	6.90	118.75	108.40
33	L1	2406	C	N1-C1'-C2'	6.90	122.35	112.00
33	L1	1818	C	C4'-C3'-O3'	6.90	123.35	113.00
33	L1	2999	G	O4'-C1'-N9	6.90	118.84	108.50
64	LG	20	TYR	CD1-CE1-CZ	-6.90	107.19	119.60
64	LG	85	ALA	O-C-N	-6.90	113.08	122.94
68	LW	19	GLY	N-CA-C	-6.90	96.84	113.18
6	SF	171	ASP	N-CA-CB	-6.89	100.01	110.01
10	SL	5	ARG	CA-CB-CG	6.89	127.89	114.10
32	S1	965	U	O5'-C5'-C4'	6.89	121.84	111.50
33	L1	338	C	C1'-O4'-C4'	-6.89	103.00	109.90
33	L1	1543	A	P-O5'-C5'	-6.89	110.56	120.90
33	L1	2637	U	P-O5'-C5'	6.89	131.24	120.90
41	LM	71	ASP	N-CA-CB	6.89	120.88	110.19
68	LW	89	THR	CA-C-N	6.89	129.40	120.44
68	LW	89	THR	C-N-CA	6.89	129.40	120.44
71	Lj	95	PRO	CB-CA-C	-6.89	100.19	111.56
78	Le	218	LYS	N-CA-C	6.89	119.20	110.24
3	SB	160	SER	CA-C-N	6.89	134.92	121.41
3	SB	160	SER	C-N-CA	6.89	134.92	121.41
3	SB	190	LEU	CB-CA-C	6.89	124.14	110.42
5	SE	20	GLY	CA-C-N	6.89	129.75	120.65
5	SE	20	GLY	C-N-CA	6.89	129.75	120.65
10	SL	119	PHE	CA-C-O	-6.89	110.65	120.51
29	ST	16	LYS	CA-C-N	6.89	129.40	120.44
29	ST	16	LYS	C-N-CA	6.89	129.40	120.44
32	S1	449	A	P-O5'-C5'	6.89	131.24	120.90
33	L1	2283	G	N9-C1'-C2'	6.89	122.34	112.00
59	Lo	30	ARG	CB-CA-C	-6.89	96.70	110.42
9	SK	146	ARG	N-CA-C	6.89	118.44	111.07
32	S1	513	G	C3'-C2'-C1'	6.89	108.19	101.30
32	S1	831	C	O4'-C1'-C2'	-6.89	100.71	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	LE	50	SER	N-CA-CB	6.89	121.40	110.65
1	Sa	156	HIS	CA-CB-CG	-6.89	106.91	113.80
13	SQ	81	ARG	O-C-N	-6.89	113.43	122.59
27	SH	70	ASN	N-CA-CB	-6.89	99.40	110.63
32	S1	100	C	O4'-C1'-C2'	-6.89	98.91	105.80
32	S1	138	C	O5'-C5'-C4'	6.89	121.83	111.50
33	L1	2684	U	C1'-O4'-C4'	-6.89	103.01	109.90
35	L2	67	C	P-O3'-C3'	6.89	130.53	120.20
68	LW	103	ARG	CA-C-N	6.89	134.37	121.97
68	LW	103	ARG	C-N-CA	6.89	134.37	121.97
16	SR	135	VAL	CA-C-N	6.89	129.74	120.65
16	SR	135	VAL	C-N-CA	6.89	129.74	120.65
32	S1	380	C	O3'-P-O5'	-6.89	93.67	104.00
32	S1	1748	U	O5'-C5'-C4'	-6.89	101.17	111.50
33	L1	209	G	C1'-O4'-C4'	-6.89	102.81	109.70
33	L1	802	G	P-O3'-C3'	6.89	130.53	120.20
33	L1	1211	G	C1'-O4'-C4'	6.89	116.79	109.90
33	L1	1320	G	P-O5'-C5'	-6.89	110.57	120.90
33	L1	1693	A	N9-C1'-C2'	6.89	122.33	112.00
45	LQ	264	HIS	N-CA-C	6.89	119.63	111.71
33	L1	1879	A	P-O5'-C5'	-6.88	110.57	120.90
33	L1	1974	C	O4'-C1'-C2'	-6.88	100.72	107.60
33	L1	2974	G	P-O3'-C3'	-6.88	109.87	120.20
33	L1	3036	C	P-O5'-C5'	6.88	131.23	120.90
35	L2	40	G	C3'-C2'-C1'	-6.88	94.42	101.30
57	L1	33	THR	CA-CB-OG1	6.88	119.93	109.60
9	SK	96	LEU	N-CA-C	-6.88	102.13	112.04
33	L1	949	C	O4'-C1'-C2'	-6.88	100.72	107.60
13	SQ	86	PRO	CB-CA-C	6.88	122.91	111.56
33	L1	636	C	O4'-C1'-C2'	-6.88	100.72	107.60
58	Ln	10	ASP	CA-CB-CG	-6.88	105.72	112.60
82	LK	73	HIS	CG-CD2-NE2	6.88	114.08	107.20
33	L1	601	G	C1'-O4'-C4'	-6.88	103.02	109.90
33	L1	2517	U	O4'-C1'-C2'	-6.88	98.92	105.80
33	L1	2738	U	N1-C1'-C2'	6.88	122.32	112.00
37	LB	62	THR	CA-C-N	6.88	134.08	121.70
37	LB	62	THR	C-N-CA	6.88	134.08	121.70
48	LV	91	PHE	CA-C-O	-6.88	113.26	120.55
56	Lh	48	LYS	CB-CG-CD	6.88	127.12	111.30
4	SD	240	LYS	N-CA-C	6.88	125.45	110.80
17	SV	61	ILE	CB-CA-C	-6.88	100.37	110.62
33	L1	229	G	C4'-C3'-O3'	-6.88	102.68	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1550	A	C3'-C2'-C1'	6.88	108.18	101.30
33	L1	2506	G	P-O3'-C3'	6.88	130.52	120.20
33	L1	2772	A	C1'-O4'-C4'	-6.88	103.02	109.90
33	L1	3295	G	C2'-C3'-O3'	6.88	119.82	109.50
64	LG	188	LEU	CD1-CG-CD2	6.88	125.93	110.80
25	SC	130	LEU	CA-C-N	6.88	129.88	120.46
25	SC	130	LEU	C-N-CA	6.88	129.88	120.46
32	S1	1608	A	C1'-O4'-C4'	6.88	116.78	109.90
33	L1	1623	C	O4'-C1'-N1	6.88	118.51	108.20
33	L1	1751	G	C2'-C3'-O3'	6.88	124.02	113.70
35	L2	29	G	C3'-C2'-C1'	-6.88	94.42	101.30
37	LB	125	VAL	CB-CA-C	-6.88	104.93	111.05
49	LX	87	GLU	CB-CG-CD	-6.88	100.91	112.60
60	Lr	80	TYR	N-CA-CB	-6.88	98.87	110.49
64	LG	186	ALA	N-CA-CB	6.88	122.11	110.49
78	Le	201	ASN	CA-C-N	6.88	134.08	121.70
78	Le	201	ASN	C-N-CA	6.88	134.08	121.70
81	LD	39	ASP	CA-C-N	6.88	130.18	120.42
81	LD	39	ASP	C-N-CA	6.88	130.18	120.42
33	L1	1052	A	O4'-C1'-C2'	-6.88	100.72	107.60
33	L1	2754	G	N9-C1'-C2'	-6.88	101.69	112.00
32	S1	1213	C	N1-C1'-C2'	6.87	122.31	112.00
33	L1	105	A	C1'-C2'-O2'	-6.87	98.09	108.40
33	L1	869	A	C1'-O4'-C4'	-6.87	103.03	109.90
33	L1	2562	A	C1'-O4'-C4'	6.87	116.77	109.90
33	L1	2968	G	N9-C1'-C2'	6.87	122.31	112.00
34	L3	74	A	N9-C1'-C2'	6.87	122.31	112.00
74	LJ	77	SER	CA-C-N	6.87	134.67	121.54
74	LJ	77	SER	C-N-CA	6.87	134.67	121.54
11	SM	107	LEU	O-C-N	-6.87	114.84	122.12
33	L1	1392	U	C4'-C3'-C2'	-6.87	95.73	102.60
35	L2	147	C	N1-C1'-C2'	6.87	122.31	112.00
60	Lr	26	THR	CA-C-N	6.87	130.63	120.87
60	Lr	26	THR	C-N-CA	6.87	130.63	120.87
32	S1	289	G	C1'-O4'-C4'	-6.87	103.03	109.90
33	L1	2507	U	O4'-C4'-C3'	-6.87	97.13	104.00
33	L1	2530	G	C1'-O4'-C4'	-6.87	103.03	109.90
33	L1	2775	C	P-O3'-C3'	-6.87	109.89	120.20
80	LC	115	ARG	CA-C-O	6.87	127.83	119.31
32	S1	1012	C	O4'-C1'-C2'	-6.87	100.73	107.60
32	S1	1541	C	O4'-C1'-C2'	6.87	114.47	107.60
33	L1	81	C	C3'-C2'-C1'	6.87	108.17	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2761	A	O4'-C4'-C3'	-6.87	99.23	106.10
47	LU	10	ARG	NE-CZ-NH1	6.87	128.37	121.50
53	Ld	49	HIS	CG-CD2-NE2	6.87	114.07	107.20
66	LN	88	SER	CA-C-N	6.87	134.66	121.54
66	LN	88	SER	C-N-CA	6.87	134.66	121.54
7	SI	32	ARG	NE-CZ-NH2	6.87	125.38	119.20
33	L1	1274	A	C4'-C3'-C2'	6.87	109.47	102.60
36	LA	200	VAL	CA-C-N	6.87	129.78	120.44
36	LA	200	VAL	C-N-CA	6.87	129.78	120.44
50	LZ	48	PRO	CA-C-O	6.87	127.55	118.90
7	SI	59	LEU	O-C-N	6.87	129.40	122.12
32	S1	523	C	P-O3'-C3'	6.87	130.50	120.20
33	L1	72	A	O4'-C1'-C2'	-6.87	100.73	107.60
68	LW	21	VAL	O-C-N	-6.87	115.07	123.10
79	Ls	213	ASP	N-CA-CB	-6.87	100.03	110.12
33	L1	1075	G	O4'-C1'-C2'	6.86	114.46	107.60
33	L1	2561	A	C1'-O4'-C4'	6.86	116.56	109.70
70	Li	11	HIS	CA-C-N	6.86	134.65	121.54
70	Li	11	HIS	C-N-CA	6.86	134.65	121.54
33	L1	487	C	C3'-C2'-C1'	6.86	108.16	101.30
23	SU	29	VAL	CA-C-N	6.86	133.12	121.87
23	SU	29	VAL	C-N-CA	6.86	133.12	121.87
33	L1	173	C	O4'-C1'-C2'	-6.86	100.74	107.60
33	L1	1020	U	O4'-C1'-C2'	-6.86	100.74	107.60
33	L1	2362	A	P-O5'-C5'	-6.86	110.61	120.90
33	L1	3080	U	C1'-O4'-C4'	6.86	116.56	109.70
33	L1	3378	U	O4'-C1'-N1	6.86	118.79	108.50
55	Lg	85	ARG	N-CA-CB	-6.86	99.95	111.96
32	S1	594	C	C5'-C4'-C3'	6.86	126.29	116.00
33	L1	2703	G	O3'-P-O5'	-6.86	93.71	104.00
33	L1	2758	C	O4'-C4'-C3'	6.86	110.86	104.00
70	Li	11	HIS	CB-CA-C	6.86	124.07	110.42
78	Le	25	ALA	CA-C-N	6.86	129.47	120.28
78	Le	25	ALA	C-N-CA	6.86	129.47	120.28
32	S1	1144	A	P-O5'-C5'	-6.86	110.61	120.90
32	S1	1703	G	C1'-C2'-O2'	6.86	118.69	108.40
33	L1	1002	A	C3'-C2'-C1'	6.86	108.16	101.30
33	L1	2613	G	C1'-O4'-C4'	6.86	116.76	109.90
33	L1	3151	C	C4'-C3'-O3'	-6.86	102.71	113.00
33	L1	3338	U	O4'-C1'-N1	6.86	118.79	108.50
73	Lp	39	CYS	O-C-N	-6.86	114.85	122.12
4	SD	150	PRO	CA-N-CD	-6.86	102.40	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	SL	32	LEU	CA-C-N	-6.86	114.67	122.42
10	SL	32	LEU	C-N-CA	-6.86	114.67	122.42
23	SU	94	LYS	CA-C-N	6.86	134.63	121.54
23	SU	94	LYS	C-N-CA	6.86	134.63	121.54
32	S1	1006	A	N9-C1'-C2'	6.86	122.28	112.00
33	L1	3301	G	N9-C1'-C2'	-6.86	101.72	112.00
33	L1	3352	C	O4'-C1'-N1	6.86	118.78	108.50
51	LY	26	ARG	NE-CZ-NH1	6.86	128.35	121.50
32	S1	934	A	O4'-C1'-C2'	6.85	114.45	107.60
33	L1	689	G	C3'-C2'-C1'	-6.85	94.45	101.30
32	S1	582	U	C2'-C3'-O3'	6.85	119.78	109.50
32	S1	1246	A	O3'-P-O5'	6.85	114.28	104.00
32	S1	1756	A	O4'-C1'-C2'	-6.85	100.75	107.60
33	L1	302	G	C1'-C2'-O2'	6.85	122.08	111.80
38	LE	96	ARG	N-CA-C	6.85	118.40	111.07
80	LC	270	ALA	CA-C-N	6.85	130.74	121.83
80	LC	270	ALA	C-N-CA	6.85	130.74	121.83
13	SQ	49	LYS	O-C-N	-6.85	114.86	122.12
32	S1	508	U	P-O3'-C3'	6.85	130.48	120.20
33	L1	918	A	C1'-O4'-C4'	-6.85	103.05	109.90
33	L1	1182	A	P-O5'-C5'	6.85	131.18	120.90
60	Lr	12	CYS	O-C-N	-6.85	115.22	123.10
80	LC	257	ALA	N-CA-C	-6.85	98.93	109.14
2	SA	62	LEU	O-C-N	-6.85	114.86	122.12
3	SB	78	ASN	CA-CB-CG	6.85	119.45	112.60
29	ST	60	ALA	N-CA-C	6.85	119.33	111.11
33	L1	73	A	C1'-O4'-C4'	6.85	116.75	109.90
33	L1	978	C	C3'-C2'-C1'	6.85	108.15	101.30
33	L1	1042	C	C3'-C2'-C1'	6.85	108.15	101.30
34	L3	13	A	C3'-C2'-C1'	6.85	108.15	101.30
42	LP	45	PRO	N-CA-C	-6.85	104.66	114.18
15	SS	6	ALA	CA-C-N	6.85	130.31	120.79
15	SS	6	ALA	C-N-CA	6.85	130.31	120.79
33	L1	1788	C	P-O5'-C5'	-6.85	110.63	120.90
33	L1	2438	A	C1'-O4'-C4'	-6.85	103.05	109.90
33	L1	2789	G	C3'-C2'-C1'	-6.85	94.45	101.30
35	L2	13	G	C4'-C3'-C2'	-6.85	95.75	102.60
43	LO	39	HIS	CA-CB-CG	6.85	120.65	113.80
80	LC	95	THR	O-C-N	-6.85	116.21	121.55
31	S2	41	G	C3'-C2'-C1'	-6.85	94.45	101.30
37	LB	15	VAL	N-CA-C	6.85	116.99	110.42
33	L1	528	C	O4'-C4'-C3'	6.84	110.84	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2769	U	P-O3'-C3'	-6.84	109.93	120.20
47	LU	10	ARG	N-CA-CB	6.84	122.06	110.49
67	LS	112	MET	CA-C-N	6.84	129.34	120.44
67	LS	112	MET	C-N-CA	6.84	129.34	120.44
32	S1	1617	U	O4'-C1'-N1	6.84	118.76	108.50
33	L1	51	A	O4'-C1'-C2'	-6.84	100.76	107.60
32	S1	3	C	C4'-C3'-C2'	6.84	109.44	102.60
32	S1	1396	U	O4'-C4'-C3'	-6.84	99.26	106.10
33	L1	584	G	C1'-O4'-C4'	6.84	116.74	109.90
33	L1	1298	A	C1'-O4'-C4'	6.84	116.74	109.90
33	L1	3121	C	P-O3'-C3'	-6.84	109.94	120.20
69	La	21	ARG	CA-C-O	-6.84	113.15	121.36
3	SB	120	TYR	CA-C-N	6.84	127.57	119.98
3	SB	120	TYR	C-N-CA	6.84	127.57	119.98
4	SD	153	ILE	N-CA-C	6.84	123.57	109.34
40	LH	122	ALA	O-C-N	-6.84	113.50	122.59
42	LP	24	ARG	NE-CZ-NH2	-6.84	113.05	119.20
71	Lj	37	GLU	N-CA-C	6.84	118.42	110.97
5	SE	11	GLU	CA-C-O	6.84	130.29	120.51
13	SQ	8	THR	CA-C-N	6.84	129.31	120.56
13	SQ	8	THR	C-N-CA	6.84	129.31	120.56
33	L1	1879	A	C4'-C3'-C2'	-6.84	95.76	102.60
32	S1	327	A	O4'-C1'-N9	6.84	118.46	108.20
32	S1	1748	U	C1'-C2'-O2'	6.84	118.65	108.40
33	L1	69	U	C1'-C2'-O2'	6.84	118.65	108.40
33	L1	125	G	N9-C1'-C2'	6.84	122.25	112.00
33	L1	1675	G	O4'-C1'-C2'	-6.84	100.76	107.60
33	L1	2772	A	P-O3'-C3'	-6.84	109.94	120.20
33	L1	2936	A	C3'-C2'-C1'	6.84	108.14	101.30
60	Lr	21	THR	O-C-N	-6.84	116.11	123.42
11	SM	33	ILE	O-C-N	6.83	129.97	122.66
33	L1	1242	U	C3'-C2'-C1'	-6.83	94.47	101.30
33	L1	1953	C	C5'-C4'-C3'	6.83	126.25	116.00
2	SA	189	MET	CA-C-N	6.83	134.59	121.54
2	SA	189	MET	C-N-CA	6.83	134.59	121.54
32	S1	1210	U	O4'-C1'-C2'	-6.83	100.77	107.60
32	S1	1514	G	N9-C1'-C2'	6.83	122.25	112.00
33	L1	841	G	C4'-C3'-O3'	6.83	119.65	109.40
33	L1	1027	C	O4'-C1'-C2'	-6.83	100.77	107.60
33	L1	2275	A	C4'-C3'-C2'	6.83	109.43	102.60
33	L1	2280	C	N1-C1'-C2'	6.83	122.25	112.00
38	LE	74	ARG	CB-CA-C	6.83	124.02	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	Lo	49	LEU	CA-C-O	6.83	128.48	120.69
32	S1	1349	A	O4'-C1'-C2'	-6.83	100.77	107.60
33	L1	325	A	O4'-C1'-N9	6.83	118.75	108.50
33	L1	1242	U	O4'-C1'-N1	6.83	118.75	108.50
33	L1	1592	U	O3'-P-O5'	-6.83	93.75	104.00
33	L1	1948	G	O4'-C1'-C2'	-6.83	100.77	107.60
35	L2	64	U	P-O3'-C3'	6.83	130.45	120.20
45	LQ	236	MET	CA-C-N	6.83	131.18	122.16
45	LQ	236	MET	C-N-CA	6.83	131.18	122.16
32	S1	1403	G	N9-C1'-C2'	6.83	122.25	112.00
33	L1	2200	U	C5'-C4'-C3'	6.83	126.24	116.00
33	L1	2228	A	N9-C1'-C2'	-6.83	101.75	112.00
41	LM	87	PRO	N-CA-C	6.83	121.94	111.15
42	LP	103	GLU	CA-C-N	6.83	129.43	120.28
42	LP	103	GLU	C-N-CA	6.83	129.43	120.28
33	L1	1438	A	P-O3'-C3'	6.83	130.44	120.20
33	L1	2112	C	C2'-C3'-O3'	6.83	123.94	113.70
33	L1	3008	U	O4'-C1'-C2'	-6.83	100.77	107.60
35	L2	151	C	C5'-C4'-O4'	6.83	120.04	109.80
45	LQ	174	PRO	N-CA-C	6.83	121.96	111.11
71	Lj	58	LYS	N-CA-C	-6.83	98.80	109.72
32	S1	646	G	C4'-C3'-O3'	6.83	119.64	109.40
33	L1	2529	C	C4'-C3'-C2'	-6.83	95.78	102.60
33	L1	2574	A	O3'-P-O5'	-6.83	93.76	104.00
66	LN	3	PHE	N-CA-C	6.83	125.34	110.80
69	La	34	ARG	CA-C-O	6.83	128.94	120.54
29	ST	10	ASP	CA-C-N	6.82	134.57	121.54
29	ST	10	ASP	C-N-CA	6.82	134.57	121.54
32	S1	836	U	N1-C1'-C2'	-6.82	103.77	114.00
33	L1	1762	G	P-O5'-C5'	6.82	131.14	120.90
33	L1	2740	C	C1'-C2'-O2'	6.82	118.64	108.40
49	LX	50	LYS	N-CA-C	6.82	125.34	110.80
33	L1	3299	A	C4'-C3'-C2'	6.82	109.42	102.60
78	Le	54	ALA	CA-C-O	6.82	127.65	120.42
32	S1	1062	C	O4'-C1'-C2'	-6.82	100.78	107.60
33	L1	814	U	C1'-O4'-C4'	-6.82	103.08	109.90
33	L1	2220	U	O4'-C1'-N1	6.82	118.73	108.50
33	L1	2632	U	O3'-P-O5'	-6.82	93.77	104.00
33	L1	3122	U	C1'-O4'-C4'	-6.82	102.88	109.70
34	L3	97	G	C5'-C4'-C3'	-6.82	105.77	116.00
35	L2	90	U	P-O5'-C5'	6.82	131.13	120.90
44	LR	91	ARG	NE-CZ-NH1	-6.82	114.68	121.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	LS	21	ASP	N-CA-CB	-6.82	98.72	110.32
74	LJ	92	ASP	CA-CB-CG	6.82	119.42	112.60
81	LD	95	ALA	N-CA-CB	-6.82	100.17	110.40
32	S1	1731	A	O3'-P-O5'	-6.82	93.77	104.00
33	L1	529	C	P-O5'-C5'	-6.82	110.67	120.90
33	L1	2380	G	O5'-P-OP2	6.82	128.46	108.00
32	S1	124	G	C1'-O4'-C4'	-6.82	103.08	109.90
32	S1	1541	C	C1'-C2'-O2'	6.82	118.62	108.40
33	L1	856	G	C1'-O4'-C4'	-6.82	103.08	109.90
33	L1	2779	G	O4'-C1'-N9	6.82	118.73	108.50
33	L1	3215	U	O4'-C1'-N1	6.82	118.73	108.50
69	La	33	THR	CA-C-N	-6.82	109.94	121.94
69	La	33	THR	C-N-CA	-6.82	109.94	121.94
32	S1	1151	G	N9-C1'-C2'	6.82	122.22	112.00
32	S1	1290	U	O4'-C1'-N1	-6.82	98.28	108.50
33	L1	1214	U	O4'-C1'-C2'	-6.82	100.78	107.60
33	L1	2752	G	O4'-C1'-N9	6.82	118.72	108.50
33	L1	3384	G	P-O5'-C5'	6.82	131.12	120.90
45	LQ	17	PHE	N-CA-CB	6.82	122.01	110.49
14	SP	86	ILE	CA-CB-CG2	6.81	122.08	110.50
32	S1	478	A	O4'-C1'-C2'	-6.81	100.79	107.60
33	L1	857	G	O4'-C4'-C3'	-6.81	97.19	104.00
33	L1	1272	G	C3'-C2'-C1'	6.81	108.11	101.30
33	L1	1727	A	O4'-C1'-C2'	-6.81	98.99	105.80
34	L3	23	A	O4'-C1'-N9	6.81	118.72	108.50
45	LQ	126	ALA	N-CA-C	-6.81	98.83	109.25
67	LS	94	LYS	O-C-N	-6.81	115.23	123.27
3	SB	94	ARG	N-CA-CB	-6.81	99.73	110.22
33	L1	1922	C	O4'-C1'-C2'	-6.81	98.99	105.80
33	L1	3031	G	C5'-C4'-C3'	6.81	126.22	116.00
27	SH	90	THR	O-C-N	-6.81	112.69	122.36
32	S1	624	A	C2'-C3'-O3'	6.81	123.92	113.70
32	S1	1011	C	C3'-C2'-C1'	6.81	108.11	101.30
33	L1	255	C	O4'-C1'-C2'	-6.81	100.79	107.60
33	L1	1517	C	N1-C1'-C2'	6.81	124.22	114.00
68	LW	45	LEU	N-CA-C	6.81	118.36	111.07
70	Li	58	ARG	CB-CA-C	-6.81	96.75	110.17
2	SA	159	ARG	N-CA-C	6.81	119.57	111.33
33	L1	3084	G	C3'-C2'-C1'	-6.81	94.49	101.30
35	L2	89	G	C1'-O4'-C4'	-6.81	102.89	109.70
25	SC	135	HIS	CA-C-N	6.81	134.22	121.97
25	SC	135	HIS	C-N-CA	6.81	134.22	121.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	431	G	C1'-O4'-C4'	-6.81	103.09	109.90
33	L1	878	G	O4'-C1'-C2'	-6.81	100.79	107.60
33	L1	1226	G	O4'-C1'-C2'	6.81	112.61	105.80
67	LS	35	ASN	N-CA-CB	6.81	121.99	110.49
29	ST	4	GLU	CA-C-O	-6.80	113.34	120.55
31	S2	42	C	O4'-C1'-C2'	-6.80	100.80	107.60
33	L1	718	C	C1'-O4'-C4'	-6.80	103.09	109.90
33	L1	797	U	O4'-C1'-N1	6.80	118.71	108.50
33	L1	856	G	C1'-C2'-O2'	6.80	118.61	108.40
33	L1	1224	A	C1'-C2'-O2'	6.80	118.61	108.40
33	L1	1715	C	C5'-C4'-O4'	6.80	119.31	109.10
33	L1	2771	U	C5'-C4'-O4'	-6.80	99.59	109.80
33	L1	3109	G	C3'-C2'-C1'	-6.80	94.50	101.30
33	L1	2176	A	C1'-O4'-C4'	6.80	116.70	109.90
33	L1	3169	C	P-O5'-C5'	6.80	131.10	120.90
83	Lm	33	GLN	CA-CB-CG	6.80	127.70	114.10
33	L1	301	G	O4'-C1'-C2'	6.80	114.40	107.60
33	L1	1566	C	O4'-C1'-C2'	-6.80	100.80	107.60
59	Lo	13	LEU	CB-CA-C	6.80	121.56	110.88
33	L1	2940	G	O4'-C1'-C2'	-6.80	100.80	107.60
8	SJ	127	ASP	N-CA-C	-6.80	96.32	110.80
32	S1	1464	G	C1'-O4'-C4'	-6.80	103.10	109.90
32	S1	1590	U	O4'-C1'-N1	6.80	118.40	108.20
33	L1	503	U	N1-C1'-C2'	6.80	122.19	112.00
33	L1	1005	C	C1'-O4'-C4'	6.80	116.70	109.90
33	L1	1893	G	C3'-C2'-C1'	-6.80	94.50	101.30
33	L1	2784	U	C1'-O4'-C4'	-6.80	103.10	109.90
33	L1	3296	C	N1-C1'-C2'	-6.80	103.81	114.00
36	LA	168	VAL	CA-C-N	6.80	128.63	120.14
36	LA	168	VAL	C-N-CA	6.80	128.63	120.14
80	LC	304	ARG	N-CA-C	6.80	119.09	108.96
5	SE	98	GLN	CA-C-N	6.79	129.39	120.28
5	SE	98	GLN	C-N-CA	6.79	129.39	120.28
32	S1	1768	U	O4'-C1'-N1	6.79	118.69	108.50
33	L1	2703	G	N9-C1'-C2'	6.79	122.19	112.00
42	LP	50	ARG	NE-CZ-NH2	6.79	125.31	119.20
55	Lg	16	VAL	CA-CB-CG1	6.79	121.95	110.40
64	LG	138	ASN	N-CA-CB	6.79	121.97	110.49
67	LS	72	THR	CA-C-N	6.79	134.52	121.54
67	LS	72	THR	C-N-CA	6.79	134.52	121.54
67	LS	159	ARG	CA-C-N	6.79	127.38	120.38
67	LS	159	ARG	C-N-CA	6.79	127.38	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	963	U	C1'-O4'-C4'	-6.79	103.11	109.90
33	L1	1651	A	O4'-C4'-C3'	6.79	110.79	104.00
33	L1	2167	G	C2'-C3'-O3'	6.79	119.69	109.50
52	Lb	69	ALA	CB-CA-C	-6.79	100.10	111.24
2	SA	202	MET	N-CA-C	6.79	119.64	109.25
3	SB	74	GLN	CB-CA-C	-6.79	99.31	110.85
11	SM	4	ILE	N-CA-C	-6.79	98.68	108.53
27	SH	26	LEU	N-CA-C	6.79	119.08	108.96
32	S1	1261	U	O4'-C1'-N1	6.79	118.69	108.50
33	L1	958	U	C3'-C2'-C1'	6.79	108.09	101.30
33	L1	1214	U	C4'-C3'-C2'	-6.79	95.81	102.60
33	L1	1951	C	O4'-C1'-C2'	-6.79	100.81	107.60
11	SM	75	ARG	CA-CB-CG	6.79	127.68	114.10
33	L1	135	G	C1'-C2'-O2'	6.79	118.58	108.40
1	Sa	80	TRP	N-CA-C	6.79	120.93	110.20
32	S1	853	U	O4'-C1'-N1	6.79	118.68	108.50
33	L1	58	G	O4'-C1'-C2'	-6.79	99.01	105.80
33	L1	1706	C	C3'-C2'-C1'	6.79	108.29	101.50
33	L1	2657	C	C1'-O4'-C4'	6.79	116.69	109.90
33	L1	3208	G	O4'-C4'-C3'	-6.79	97.21	104.00
3	SB	110	LEU	N-CA-CB	6.79	121.96	110.49
27	SH	92	ARG	NE-CZ-NH1	6.79	128.29	121.50
32	S1	584	A	C3'-C2'-C1'	6.79	108.29	101.50
33	L1	3173	A	P-O3'-C3'	6.79	130.38	120.20
67	LS	64	ASN	O-C-N	-6.79	114.99	123.27
1	Sa	194	SER	CA-C-N	6.79	132.42	123.06
1	Sa	194	SER	C-N-CA	6.79	132.42	123.06
32	S1	589	A	N9-C1'-C2'	6.79	122.18	112.00
32	S1	1239	C	O4'-C4'-C3'	-6.79	97.21	104.00
33	L1	2644	U	C5'-C4'-C3'	-6.79	105.82	116.00
70	Li	49	LYS	N-CA-CB	6.79	120.23	109.51
23	SU	94	LYS	N-CA-CB	6.78	121.95	110.49
33	L1	228	C	C5'-C4'-C3'	-6.78	105.82	116.00
33	L1	2585	C	C1'-O4'-C4'	-6.78	103.12	109.90
33	L1	3099	G	N9-C1'-C2'	6.78	122.17	112.00
74	LJ	126	MET	CG-SD-CE	-6.78	85.97	100.90
31	S2	57	A	P-O5'-C5'	6.78	131.07	120.90
33	L1	3002	U	C3'-C2'-C1'	-6.78	94.52	101.30
11	SM	17	ASN	OD1-CG-ND2	6.78	129.38	122.60
11	SM	27	MET	CG-SD-CE	6.78	115.82	100.90
32	S1	1326	A	C3'-C2'-C1'	6.78	108.08	101.30
33	L1	725	G	C3'-C2'-C1'	6.78	108.08	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	780	U	O4'-C1'-C2'	-6.78	100.82	107.60
33	L1	2654	G	N9-C1'-C2'	6.78	122.17	112.00
33	L1	3031	G	N9-C1'-C2'	6.78	122.17	112.00
33	L1	3236	A	N9-C1'-C2'	6.78	122.17	112.00
60	Lr	45	ARG	N-CA-C	6.78	121.57	113.16
13	SQ	67	ARG	CA-C-N	-6.78	108.12	121.41
13	SQ	67	ARG	C-N-CA	-6.78	108.12	121.41
27	SH	81	VAL	CB-CA-C	6.78	122.41	111.29
32	S1	646	G	N9-C1'-C2'	-6.78	103.83	114.00
32	S1	1566	U	O4'-C1'-N1	-6.78	98.33	108.50
32	S1	1250	C	C1'-O4'-C4'	-6.78	103.12	109.90
33	L1	47	A	N9-C1'-C2'	-6.78	103.83	114.00
33	L1	818	G	C1'-C2'-O2'	6.78	118.56	108.40
33	L1	1901	G	O4'-C1'-C2'	-6.78	100.82	107.60
33	L1	2675	G	C1'-C2'-O2'	6.78	118.57	108.40
9	SK	89	ILE	N-CA-C	6.78	123.43	109.34
28	SN	20	VAL	N-CA-CB	6.78	122.41	111.23
33	L1	1523	G	P-O3'-C3'	-6.78	110.04	120.20
33	L1	1951	C	P-O5'-C5'	6.78	131.06	120.90
33	L1	2201	G	C2'-C3'-O3'	6.78	123.86	113.70
33	L1	2813	A	C1'-O4'-C4'	-6.78	103.12	109.90
64	LG	201	TYR	N-CA-C	6.78	118.32	111.07
33	L1	786	U	N1-C1'-C2'	6.77	124.16	114.00
32	S1	442	A	C2'-C3'-O3'	6.77	119.66	109.50
32	S1	631	C	C4'-C3'-O3'	-6.77	102.84	113.00
32	S1	1127	G	O4'-C1'-C2'	-6.77	100.83	107.60
33	L1	112	C	P-O5'-C5'	6.77	131.06	120.90
33	L1	491	G	N9-C1'-C2'	6.77	122.16	112.00
47	LU	68	THR	N-CA-C	-6.77	99.94	109.69
33	L1	121	A	P-O5'-C5'	6.77	130.16	120.00
33	L1	1257	U	N1-C1'-C2'	-6.77	101.84	112.00
33	L1	3010	G	C5'-C4'-C3'	6.77	126.16	116.00
55	Lg	58	ARG	NE-CZ-NH1	6.77	128.27	121.50
32	S1	61	A	N9-C1'-C2'	-6.77	101.85	112.00
32	S1	1396	U	C1'-O4'-C4'	6.77	116.47	109.70
33	L1	528	C	C5'-C4'-C3'	-6.77	105.85	116.00
33	L1	1801	G	O4'-C1'-C2'	-6.77	100.83	107.60
46	LT	182	ALA	CA-C-N	6.77	127.04	119.32
46	LT	182	ALA	C-N-CA	6.77	127.04	119.32
3	SB	160	SER	N-CA-C	6.77	120.66	108.48
11	SM	130	ARG	CB-CA-C	6.77	120.72	109.89
32	S1	331	U	O4'-C1'-C2'	-6.77	100.83	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
83	Lm	21	SER	CA-C-N	6.77	129.35	120.28
83	Lm	21	SER	C-N-CA	6.77	129.35	120.28
32	S1	994	U	O4'-C1'-N1	6.77	118.65	108.50
16	SR	136	LYS	CA-C-O	-6.76	113.90	121.00
32	S1	278	C	O4'-C1'-C2'	-6.76	100.83	107.60
33	L1	238	C	C3'-C2'-C1'	6.76	108.06	101.30
33	L1	2109	G	C1'-O4'-C4'	-6.76	103.14	109.90
33	L1	2640	A	C4'-C3'-C2'	-6.76	95.84	102.60
33	L1	2721	C	C4'-C3'-C2'	-6.76	95.84	102.60
37	LB	128	ARG	NE-CZ-NH2	-6.76	113.11	119.20
55	Lg	18	ARG	O-C-N	-6.76	115.42	123.27
69	La	50	PRO	N-CA-C	-6.76	106.02	114.68
24	SX	49	PHE	CA-CB-CG	-6.76	107.04	113.80
32	S1	1471	C	O4'-C1'-C2'	-6.76	100.84	107.60
33	L1	521	G	OP2-P-O3'	6.76	128.29	108.00
33	L1	1115	A	C4'-C3'-O3'	-6.76	102.86	113.00
33	L1	2732	U	O5'-C5'-C4'	6.76	121.64	111.50
57	L1	77	ASN	N-CA-CB	6.76	121.92	110.49
6	SF	73	MET	N-CA-CB	6.76	120.06	110.12
23	SU	79	GLY	CA-C-N	-6.76	112.19	122.81
23	SU	79	GLY	C-N-CA	-6.76	112.19	122.81
32	S1	1457	C	O4'-C1'-C2'	-6.76	100.84	107.60
32	S1	1714	G	O4'-C1'-N9	6.76	118.64	108.50
33	L1	1130	G	O4'-C1'-N9	6.76	118.64	108.50
45	LQ	299	GLU	O-C-N	-6.76	114.95	122.12
48	LV	95	LEU	O-C-N	-6.76	114.95	122.12
11	SM	120	HIS	CE1-NE2-CD2	-6.76	102.24	109.00
32	S1	32	U	O4'-C4'-C3'	-6.76	97.24	104.00
32	S1	523	C	P-O5'-C5'	6.76	130.14	120.00
32	S1	1058	G	O3'-P-O5'	6.76	114.14	104.00
33	L1	953	G	C1'-O4'-C4'	-6.76	103.14	109.90
73	Lp	13	TYR	N-CA-CB	-6.76	99.01	110.50
32	S1	1237	G	O4'-C1'-N9	6.76	118.64	108.50
38	LE	170	GLU	N-CA-C	-6.76	92.08	111.00
78	Le	8	VAL	O-C-N	-6.76	115.29	121.91
32	S1	2	A	C5'-C4'-C3'	6.76	126.14	116.00
32	S1	1195	U	C1'-O4'-C4'	-6.76	103.14	109.90
32	S1	1369	C	O4'-C1'-C2'	-6.76	100.84	107.60
32	S1	1729	A	O3'-P-O5'	-6.76	93.87	104.00
32	S1	1804	A	C5'-C4'-C3'	6.76	126.13	116.00
33	L1	20	G	O3'-P-O5'	6.76	114.14	104.00
38	LE	107	GLY	CA-C-N	6.76	134.13	121.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	LE	107	GLY	C-N-CA	6.76	134.13	121.97
32	S1	824	U	O4'-C1'-N1	6.75	118.63	108.50
46	LT	86	GLU	N-CA-C	6.75	119.66	111.82
67	LS	132	HIS	CA-CB-CG	-6.75	107.05	113.80
33	L1	2562	A	O5'-C5'-C4'	6.75	121.63	111.50
33	L1	3271	A	C3'-C2'-C1'	6.75	108.25	101.50
40	LH	89	PHE	CA-CB-CG	-6.75	107.05	113.80
5	SE	207	THR	CA-CB-CG2	6.75	121.98	110.50
13	SQ	97	ARG	O-C-N	-6.75	113.61	122.59
32	S1	492	G	C2'-C3'-O3'	6.75	123.83	113.70
32	S1	1068	G	C5'-C4'-C3'	6.75	125.33	115.20
32	S1	1117	G	C3'-C2'-C1'	-6.75	94.55	101.30
33	L1	72	A	P-O3'-C3'	6.75	130.33	120.20
33	L1	261	C	O4'-C1'-C2'	-6.75	100.85	107.60
33	L1	854	C	O4'-C1'-C2'	-6.75	100.85	107.60
33	L1	1137	G	C4'-C3'-C2'	-6.75	95.85	102.60
33	L1	1421	A	C5'-C4'-C3'	-6.75	105.07	115.20
33	L1	2275	A	C1'-O4'-C4'	6.75	116.45	109.70
34	L3	8	A	N9-C1'-C2'	6.75	122.13	112.00
37	LB	89	TYR	CA-CB-CG	-6.75	101.75	113.90
41	LM	46	LYS	N-CA-C	-6.75	97.58	109.06
45	LQ	175	HIS	N-CA-C	6.75	119.42	108.76
59	Lo	36	ARG	N-CA-CB	6.75	121.63	110.42
2	SA	196	GLY	O-C-N	6.75	129.29	122.88
15	SS	99	SER	CA-C-N	6.75	127.42	120.00
15	SS	99	SER	C-N-CA	6.75	127.42	120.00
33	L1	676	G	O4'-C1'-C2'	6.75	114.35	107.60
33	L1	1142	G	N9-C1'-C2'	6.75	122.12	112.00
69	La	42	LEU	CB-CA-C	6.75	121.27	109.80
25	SC	123	SER	CA-C-N	6.75	129.70	120.46
25	SC	123	SER	C-N-CA	6.75	129.70	120.46
32	S1	321	C	C3'-C2'-C1'	6.75	108.05	101.30
33	L1	1515	U	N1-C1'-C2'	6.75	122.12	112.00
33	L1	2673	G	P-O3'-C3'	-6.75	110.08	120.20
46	LT	61	SER	CB-CA-C	-6.75	99.59	110.79
31	S2	50	G	C1'-O4'-C4'	-6.75	103.16	109.90
33	L1	1457	A	P-O5'-C5'	6.75	131.02	120.90
33	L1	1552	C	C1'-O4'-C4'	-6.75	103.16	109.90
51	LY	26	ARG	CA-C-N	6.75	129.32	120.28
51	LY	26	ARG	C-N-CA	6.75	129.32	120.28
17	SV	69	ARG	NE-CZ-NH2	6.74	125.27	119.20
32	S1	54	C	O4'-C1'-C2'	-6.74	100.86	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	638	G	C4'-C3'-C2'	6.74	109.34	102.60
33	L1	1361	G	N9-C1'-C2'	-6.74	101.89	112.00
80	LC	67	LEU	CB-CA-C	6.74	120.42	109.90
33	L1	430	G	C3'-C2'-C1'	-6.74	94.56	101.30
33	L1	1205	C	N1-C1'-C2'	6.74	122.11	112.00
79	Ls	75	ASN	CA-CB-CG	6.74	119.34	112.60
81	LD	344	ALA	N-CA-C	6.74	120.07	109.96
84	LI	82	LYS	N-CA-C	6.74	118.42	111.14
31	S2	39	G	C5'-C4'-C3'	6.74	126.11	116.00
33	L1	661	A	N9-C1'-C2'	-6.74	101.89	112.00
33	L1	671	C	C1'-C2'-O2'	6.74	118.51	108.40
33	L1	1344	A	O4'-C1'-N9	-6.74	98.39	108.50
33	L1	1650	G	N9-C1'-C2'	6.74	122.11	112.00
33	L1	1701	G	C2'-C3'-O3'	6.74	123.81	113.70
33	L1	1843	A	P-O3'-C3'	6.74	130.31	120.20
33	L1	1902	G	O4'-C1'-C2'	-6.74	99.06	105.80
71	Lj	40	ASN	CA-C-N	6.74	135.10	123.91
71	Lj	40	ASN	C-N-CA	6.74	135.10	123.91
3	SB	211	HIS	CA-C-N	6.74	127.32	120.38
3	SB	211	HIS	C-N-CA	6.74	127.32	120.38
31	S2	26	G	O4'-C1'-C2'	6.74	114.34	107.60
32	S1	1057	U	N1-C1'-C2'	-6.74	101.89	112.00
32	S1	1426	C	O4'-C1'-C2'	-6.74	100.86	107.60
52	Lb	106	GLN	N-CA-CB	6.74	120.03	110.12
82	LK	155	ALA	CA-C-N	6.74	129.31	120.28
82	LK	155	ALA	C-N-CA	6.74	129.31	120.28
42	LP	74	PRO	N-CA-CB	6.74	111.60	103.45
1	Sa	207	ASP	O-C-N	-6.74	114.60	122.95
15	SS	7	ARG	N-CA-C	-6.74	102.80	111.02
16	SR	129	SER	CB-CA-C	-6.74	97.02	110.42
32	S1	1224	C	O4'-C1'-N1	6.74	118.60	108.50
32	S1	1649	C	C3'-C2'-C1'	6.74	108.04	101.30
32	S1	1784	G	O4'-C1'-C2'	6.74	114.33	107.60
33	L1	823	A	O4'-C1'-C2'	-6.74	100.86	107.60
33	L1	1066	G	C3'-C2'-C1'	-6.74	94.56	101.30
33	L1	1401	C	C1'-O4'-C4'	6.74	116.64	109.90
33	L1	1748	A	C3'-C2'-C1'	6.74	108.24	101.50
11	SM	99	VAL	CA-CB-CG1	-6.73	98.95	110.40
32	S1	170	C	O3'-P-O5'	6.73	114.10	104.00
1	Sa	106	LEU	N-CA-C	-6.73	96.46	110.80
30	S3	12	A	O4'-C1'-C2'	6.73	114.33	107.60
32	S1	1373	C	O4'-C1'-C2'	-6.73	100.87	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	814	U	N1-C1'-C2'	6.73	122.10	112.00
33	L1	883	G	N9-C1'-C2'	6.73	124.10	114.00
33	L1	1115	A	C2'-C3'-O3'	6.73	123.80	113.70
33	L1	2865	G	C4'-C3'-C2'	-6.73	95.87	102.60
51	LY	21	ALA	N-CA-C	6.73	124.69	109.81
1	Sa	63	GLN	CA-CB-CG	6.73	127.56	114.10
32	S1	2	A	C2'-C3'-O3'	6.73	123.80	113.70
32	S1	1265	A	O4'-C1'-N9	6.73	118.60	108.50
33	L1	614	C	C4'-C3'-C2'	-6.73	95.87	102.60
33	L1	953	G	N9-C1'-C2'	6.73	122.09	112.00
33	L1	1828	C	N1-C1'-C2'	6.73	122.10	112.00
33	L1	2564	G	C1'-O4'-C4'	-6.73	103.17	109.90
54	Lf	53	PRO	CA-C-N	6.73	126.24	119.24
54	Lf	53	PRO	C-N-CA	6.73	126.24	119.24
82	LK	61	ARG	N-CA-CB	6.73	120.12	110.16
1	Sa	188	THR	CA-C-N	6.73	132.09	120.58
1	Sa	188	THR	C-N-CA	6.73	132.09	120.58
32	S1	458	A	O4'-C1'-N9	6.73	118.29	108.20
33	L1	1177	G	O4'-C1'-N9	6.73	118.59	108.50
33	L1	1350	G	O4'-C1'-C2'	-6.73	100.87	107.60
33	L1	1881	C	C2'-C3'-O3'	6.73	119.59	109.50
33	L1	2109	G	P-O3'-C3'	6.73	130.29	120.20
33	L1	3053	G	C1'-O4'-C4'	-6.73	103.17	109.90
32	S1	631	C	C3'-C2'-C1'	6.73	108.03	101.30
33	L1	3362	A	C5'-C4'-C3'	-6.73	105.91	116.00
42	LP	12	ARG	CA-C-O	6.73	128.89	121.02
70	Li	105	LYS	N-CA-C	6.73	125.13	110.80
25	SC	48	GLN	O-C-N	-6.73	114.83	122.09
33	L1	567	G	N9-C1'-C2'	6.73	122.09	112.00
33	L1	1751	G	C4'-C3'-C2'	-6.73	95.87	102.60
33	L1	1958	G	O4'-C1'-N9	6.73	118.29	108.20
8	SJ	4	ALA	CA-C-N	6.72	132.48	123.00
8	SJ	4	ALA	C-N-CA	6.72	132.48	123.00
32	S1	1685	U	O4'-C1'-C2'	-6.72	100.88	107.60
33	L1	1060	U	C4'-C3'-C2'	-6.72	95.88	102.60
33	L1	2166	U	C4'-C3'-O3'	-6.72	102.91	113.00
33	L1	2484	G	C4'-C3'-C2'	-6.72	95.88	102.60
67	LS	41	SER	CA-C-O	6.72	127.68	120.55
5	SE	72	VAL	CA-CB-CG1	6.72	121.83	110.40
15	SS	45	PHE	CA-C-N	6.72	134.38	121.54
15	SS	45	PHE	C-N-CA	6.72	134.38	121.54
33	L1	1829	G	C1'-O4'-C4'	-6.72	103.18	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3038	U	C1'-O4'-C4'	-6.72	103.18	109.90
33	L1	3385	G	C4'-C3'-C2'	-6.72	95.88	102.60
64	LG	44	ALA	CA-C-N	-6.72	109.87	121.97
64	LG	44	ALA	C-N-CA	-6.72	109.87	121.97
33	L1	785	U	C5'-C4'-O4'	6.72	119.18	109.10
33	L1	812	G	O4'-C1'-N9	6.72	118.58	108.50
33	L1	1543	A	O4'-C1'-N9	6.72	118.58	108.50
33	L1	1923	G	O4'-C1'-C2'	6.72	114.32	107.60
33	L1	2091	U	O3'-P-O5'	-6.72	93.92	104.00
31	S2	75	A	C1'-C2'-O2'	6.72	121.88	111.80
33	L1	665	G	P-O5'-C5'	-6.72	110.82	120.90
33	L1	1953	C	C3'-C2'-O2'	-6.72	100.62	110.70
80	LC	68	HIS	N-CA-C	6.72	116.92	108.45
32	S1	456	A	O4'-C1'-N9	6.72	118.28	108.20
33	L1	1027	C	O4'-C1'-N1	6.72	118.58	108.50
33	L1	1563	G	P-O3'-C3'	6.72	130.28	120.20
33	L1	1622	G	O4'-C1'-N9	6.72	118.58	108.50
11	SM	97	GLN	OE1-CD-NE2	6.72	129.32	122.60
33	L1	1196	U	N1-C1'-C2'	-6.72	101.92	112.00
33	L1	1542	A	N9-C1'-C2'	6.72	122.08	112.00
33	L1	1821	G	O4'-C4'-C3'	-6.72	97.28	104.00
52	Lb	106	GLN	OE1-CD-NE2	-6.72	115.88	122.60
59	Lo	49	LEU	O-C-N	6.72	130.90	123.04
32	S1	1801	A	C1'-C2'-O2'	6.71	121.87	111.80
33	L1	2744	C	C5'-C4'-C3'	-6.71	105.93	116.00
34	L3	2	G	O5'-C5'-C4'	-6.71	101.43	111.50
56	Lh	73	LYS	N-CA-C	-6.71	98.68	109.96
66	LN	4	LYS	CB-CA-C	-6.71	99.28	110.29
25	SC	146	PRO	N-CA-CB	6.71	110.30	103.25
33	L1	3142	C	C5'-C4'-C3'	-6.71	105.13	115.20
5	SE	75	HIS	N-CA-CB	6.71	120.13	110.06
33	L1	607	U	C3'-C2'-C1'	-6.71	94.59	101.30
33	L1	877	U	C1'-O4'-C4'	-6.71	103.19	109.90
33	L1	1298	A	O4'-C4'-C3'	-6.71	97.29	104.00
33	L1	1862	C	C3'-C2'-C1'	6.71	108.01	101.30
33	L1	2900	G	C4'-C3'-C2'	6.71	109.31	102.60
47	LU	157	VAL	CA-C-N	6.71	131.92	120.71
47	LU	157	VAL	C-N-CA	6.71	131.92	120.71
15	SS	124	ARG	N-CA-CB	-6.71	99.36	110.23
33	L1	1388	C	C2'-C3'-O3'	6.71	123.77	113.70
48	LV	136	ARG	NE-CZ-NH2	-6.71	113.16	119.20
33	L1	471	C	C3'-C2'-C1'	6.71	108.01	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3247	C	N1-C1'-C2'	6.71	122.06	112.00
81	LD	327	VAL	N-CA-C	-6.71	100.64	108.82
3	SB	168	ILE	CA-C-O	6.71	127.59	120.48
32	S1	1135	G	C4'-C3'-O3'	-6.71	102.94	113.00
32	S1	1547	G	C3'-C2'-C1'	6.71	108.01	101.30
33	L1	835	G	O4'-C1'-N9	6.71	118.56	108.50
33	L1	1534	C	P-O5'-C5'	6.71	130.96	120.90
33	L1	1912	U	C3'-C2'-C1'	6.71	108.01	101.30
33	L1	2065	G	O4'-C1'-N9	6.71	118.56	108.50
33	L1	2174	C	C5'-C4'-O4'	-6.71	99.74	109.80
33	L1	2974	G	C5'-C4'-O4'	-6.71	99.74	109.80
35	L2	13	G	C1'-O4'-C4'	-6.71	103.19	109.90
6	SF	69	THR	CA-C-N	6.71	129.26	120.28
6	SF	69	THR	C-N-CA	6.71	129.26	120.28
25	SC	162	LEU	CD1-CG-CD2	6.71	125.55	110.80
32	S1	586	U	C5'-C4'-C3'	-6.71	105.14	115.20
32	S1	1632	C	C1'-C2'-O2'	6.71	118.46	108.40
33	L1	1660	C	C3'-C2'-C1'	6.71	108.00	101.30
33	L1	2569	G	C3'-C2'-C1'	-6.71	94.59	101.30
33	L1	2906	U	N1-C1'-C2'	6.71	122.06	112.00
72	Lk	101	ARG	N-CA-C	6.71	118.24	111.07
11	SM	95	PHE	CB-CG-CD2	-6.70	109.30	120.70
33	L1	449	G	N9-C1'-C2'	6.70	122.06	112.00
33	L1	585	A	N9-C1'-C2'	6.70	122.05	112.00
33	L1	1863	A	O3'-P-O5'	6.70	114.06	104.00
33	L1	2441	G	C3'-C2'-C1'	-6.70	94.60	101.30
33	L1	2561	A	C2'-C3'-O3'	6.70	119.56	109.50
33	L1	2708	A	P-O3'-C3'	6.70	130.26	120.20
33	L1	2823	C	O4'-C1'-C2'	-6.70	100.90	107.60
51	LY	27	ARG	N-CA-CB	-6.70	100.27	110.12
78	Le	6	ALA	O-C-N	6.70	128.97	122.07
80	LC	246	HIS	ND1-CE1-NE2	6.70	115.10	108.40
82	LK	156	ASP	O-C-N	6.70	129.23	122.12
34	L3	49	A	O3'-P-O5'	6.70	114.05	104.00
77	Lc	69	GLN	CA-C-N	6.70	129.15	120.44
77	Lc	69	GLN	C-N-CA	6.70	129.15	120.44
81	LD	223	VAL	N-CA-C	6.70	117.10	108.12
2	SA	41	TYR	CA-C-O	6.70	129.89	121.58
7	SI	65	ARG	N-CA-C	-6.70	103.79	112.23
33	L1	9	C	C3'-C2'-C1'	6.70	108.00	101.30
33	L1	1723	C	N1-C1'-C2'	6.70	122.05	112.00
33	L1	1751	G	C5'-C4'-C3'	-6.70	105.95	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3161	C	P-O3'-C3'	-6.70	110.15	120.20
35	L2	112	C	N1-C1'-C2'	6.70	122.05	112.00
46	LT	121	HIS	CB-CA-C	-6.70	99.67	110.79
70	Li	49	LYS	O-C-N	6.70	131.92	123.01
5	SE	97	LYS	CA-C-N	6.70	129.26	120.28
5	SE	97	LYS	C-N-CA	6.70	129.26	120.28
6	SF	163	LYS	N-CA-C	-6.70	96.42	108.48
15	SS	52	ASP	O-C-N	-6.70	114.19	120.55
34	L3	27	A	C3'-C2'-C1'	6.70	108.00	101.30
43	LO	107	LEU	CA-C-N	6.70	127.37	120.00
43	LO	107	LEU	C-N-CA	6.70	127.37	120.00
59	Lo	19	GLN	CA-C-O	6.70	127.65	120.55
83	Lm	1	MET	CG-SD-CE	-6.70	86.16	100.90
32	S1	1443	U	O4'-C1'-N1	6.70	118.54	108.50
33	L1	795	C	O4'-C1'-C2'	-6.70	100.90	107.60
33	L1	838	G	C3'-C2'-C1'	6.70	108.00	101.30
33	L1	1526	A	O4'-C1'-C2'	6.70	112.50	105.80
33	L1	2218	A	C1'-C2'-O2'	6.70	118.44	108.40
33	L1	2695	A	O3'-P-O5'	6.70	114.04	104.00
33	L1	3209	U	O5'-C5'-C4'	6.70	121.54	111.50
33	L1	3238	U	O4'-C1'-N1	6.70	118.55	108.50
35	L2	30	C	C3'-C2'-C1'	6.70	108.00	101.30
71	Lj	25	SER	N-CA-C	6.70	125.06	110.80
74	LJ	12	ASP	CA-CB-CG	-6.70	105.91	112.60
82	LK	174	ASP	CA-CB-CG	-6.70	105.91	112.60
13	SQ	96	ILE	N-CA-CB	-6.69	100.19	111.23
33	L1	779	U	N1-C1'-C2'	-6.69	101.96	112.00
67	LS	75	LYS	CA-C-N	6.69	131.85	122.41
67	LS	75	LYS	C-N-CA	6.69	131.85	122.41
4	SD	163	ASP	CB-CA-C	6.69	123.74	110.42
33	L1	1253	G	C3'-C2'-C1'	-6.69	94.61	101.30
33	L1	1975	G	P-O5'-C5'	6.69	130.94	120.90
33	L1	2679	A	N9-C1'-C2'	6.69	122.04	112.00
36	LA	133	PHE	CA-CB-CG	-6.69	107.11	113.80
32	S1	493	C	C1'-O4'-C4'	-6.69	103.21	109.90
32	S1	1632	C	C4'-C3'-C2'	-6.69	95.91	102.60
33	L1	426	A	N9-C1'-C2'	6.69	122.04	112.00
33	L1	594	C	O4'-C1'-C2'	-6.69	100.91	107.60
33	L1	1777	C	O4'-C1'-N1	6.69	118.24	108.20
33	L1	1800	G	O3'-P-O5'	6.69	114.03	104.00
37	LB	140	ASN	CA-C-N	-6.69	111.48	119.84
37	LB	140	ASN	C-N-CA	-6.69	111.48	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
50	LZ	10	PHE	CA-CB-CG	-6.69	107.11	113.80
3	SB	103	GLU	CA-C-N	6.69	129.54	120.44
3	SB	103	GLU	C-N-CA	6.69	129.54	120.44
32	S1	928	A	O4'-C1'-N9	6.69	118.53	108.50
32	S1	1175	G	N9-C1'-C2'	6.69	122.03	112.00
33	L1	1871	G	O4'-C1'-C2'	6.69	114.29	107.60
33	L1	1939	C	N1-C1'-C2'	6.69	122.03	112.00
81	LD	99	MET	CA-C-O	6.69	127.54	119.78
9	SK	51	THR	CA-C-O	-6.69	113.38	120.40
32	S1	189	U	P-O3'-C3'	6.69	130.23	120.20
33	L1	673	U	O4'-C1'-C2'	-6.69	100.91	107.60
33	L1	1312	A	P-O3'-C3'	6.69	130.23	120.20
33	L1	2644	U	O4'-C1'-C2'	6.69	114.29	107.60
33	L1	3151	C	O4'-C1'-C2'	-6.69	100.91	107.60
35	L2	89	G	C4'-C3'-O3'	6.69	119.43	109.40
48	LV	94	ASP	O-C-N	-6.69	115.03	122.12
10	SL	15	THR	CA-C-N	6.69	129.13	120.44
10	SL	15	THR	C-N-CA	6.69	129.13	120.44
32	S1	670	C	N1-C1'-C2'	6.69	122.03	112.00
48	LV	157	PRO	N-CA-CB	6.69	110.27	103.25
73	Lp	37	LYS	CB-CA-C	-6.69	97.12	110.42
2	SA	90	ALA	O-C-N	-6.68	115.04	122.12
23	SU	27	GLN	CB-CA-C	-6.68	99.23	110.19
27	SH	50	PHE	CA-CB-CG	-6.68	107.12	113.80
32	S1	1163	C	C1'-O4'-C4'	6.68	116.38	109.70
33	L1	1284	C	C4'-C3'-C2'	-6.68	95.92	102.60
35	L2	125	A	C1'-O4'-C4'	-6.68	103.22	109.90
82	LK	66	ARG	CA-C-N	6.68	129.78	120.29
82	LK	66	ARG	C-N-CA	6.68	129.78	120.29
17	SV	28	TRP	N-CA-CB	6.68	121.78	110.49
31	S2	27	G	O4'-C1'-C2'	6.68	114.28	107.60
32	S1	452	C	C3'-C2'-C1'	6.68	107.98	101.30
32	S1	1333	A	O4'-C1'-C2'	-6.68	100.92	107.60
32	S1	1498	A	O3'-P-O5'	6.68	114.02	104.00
32	S1	1714	G	C3'-C2'-C1'	-6.68	94.62	101.30
32	S1	1745	U	O4'-C4'-C3'	-6.68	97.32	104.00
33	L1	35	U	C1'-O4'-C4'	-6.68	103.22	109.90
33	L1	1083	C	P-O5'-C5'	6.68	130.92	120.90
33	L1	1252	C	C1'-O4'-C4'	-6.68	103.22	109.90
33	L1	1825	G	O4'-C1'-C2'	6.68	114.28	107.60
73	Lp	38	LYS	CA-C-N	6.68	129.23	120.28
73	Lp	38	LYS	C-N-CA	6.68	129.23	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
77	Lc	31	GLY	CA-C-N	6.68	129.23	120.28
77	Lc	31	GLY	C-N-CA	6.68	129.23	120.28
80	LC	90	VAL	CB-CA-C	6.68	119.93	110.84
33	L1	2113	A	P-O3'-C3'	6.68	130.22	120.20
48	LV	80	GLY	N-CA-C	6.68	120.57	112.49
59	Lo	8	ARG	O-C-N	-6.68	115.19	122.07
64	LG	209	ARG	NE-CZ-NH2	-6.68	113.19	119.20
15	SS	137	VAL	N-CA-C	6.68	117.47	110.72
33	L1	48	A	C2'-C3'-O3'	6.68	119.52	109.50
33	L1	2984	A	O4'-C1'-C2'	6.68	112.48	105.80
33	L1	3087	A	C3'-C2'-C1'	6.68	108.18	101.50
78	Le	91	ILE	N-CA-C	6.68	117.47	110.72
13	SQ	83	ASP	CA-CB-CG	-6.68	105.92	112.60
31	S2	18	G	C1'-C2'-O2'	6.68	121.82	111.80
33	L1	1880	A	C4'-C3'-O3'	6.68	123.01	113.00
33	L1	3147	G	C1'-O4'-C4'	-6.68	103.22	109.90
34	L3	25	G	C5'-C4'-C3'	6.68	126.02	116.00
52	Lb	93	ARG	N-CA-CB	6.68	121.77	110.49
78	Le	32	VAL	N-CA-C	-6.68	103.81	110.62
4	SD	145	ARG	CB-CA-C	-6.67	98.24	109.65
33	L1	1622	G	O4'-C4'-C3'	-6.67	97.33	104.00
33	L1	3318	G	P-O3'-C3'	-6.67	110.19	120.20
59	Lo	21	ARG	O-C-N	-6.67	115.65	121.32
17	SV	77	ALA	CA-C-N	-6.67	111.53	122.54
17	SV	77	ALA	C-N-CA	-6.67	111.53	122.54
51	LY	74	ARG	NE-CZ-NH2	6.67	125.21	119.20
67	LS	117	ARG	CA-C-N	6.67	130.90	121.96
67	LS	117	ARG	C-N-CA	6.67	130.90	121.96
32	S1	152	G	O4'-C1'-C2'	-6.67	100.93	107.60
33	L1	1310	G	C3'-C2'-C1'	-6.67	94.83	101.50
33	L1	1530	C	N1-C1'-C2'	6.67	122.01	112.00
29	ST	12	TYR	CB-CA-C	6.67	121.86	110.79
31	S2	33	U	O4'-C1'-C2'	-6.67	100.93	107.60
33	L1	2804	A	N9-C1'-C2'	-6.67	104.00	114.00
42	LP	47	LYS	N-CA-C	-6.67	105.05	113.72
72	Lk	96	VAL	CA-CB-CG1	6.67	121.74	110.40
31	S2	26	G	O4'-C1'-N9	6.67	118.50	108.50
33	L1	423	C	N1-C1'-C2'	6.67	124.00	114.00
33	L1	731	G	C4'-C3'-O3'	-6.67	103.00	113.00
33	L1	734	C	N1-C1'-C2'	6.67	122.00	112.00
33	L1	2677	A	C1'-O4'-C4'	6.67	116.57	109.90
42	LP	115	VAL	O-C-N	-6.67	115.40	122.67

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
70	Li	43	LYS	N-CA-CB	6.67	121.76	110.49
32	S1	976	A	O4'-C1'-C2'	-6.67	100.93	107.60
33	L1	444	C	N1-C1'-C2'	6.67	122.00	112.00
33	L1	581	G	C1'-O4'-C4'	-6.67	103.23	109.90
33	L1	1083	C	C3'-C2'-C1'	-6.67	94.83	101.50
33	L1	1822	C	C4'-C3'-C2'	-6.67	95.93	102.60
33	L1	2134	U	P-O3'-C3'	6.67	130.20	120.20
33	L1	3011	U	C5'-C4'-C3'	6.67	126.00	116.00
38	LE	139	ARG	NE-CZ-NH1	6.67	128.17	121.50
50	LZ	37	LYS	CA-C-N	6.67	129.11	120.44
50	LZ	37	LYS	C-N-CA	6.67	129.11	120.44
73	Lp	21	ARG	NE-CZ-NH2	6.67	125.20	119.20
6	SF	144	ASN	OD1-CG-ND2	6.67	129.26	122.60
33	L1	3107	A	O4'-C1'-C2'	-6.67	100.94	107.60
43	LO	32	ARG	O-C-N	-6.67	116.02	123.48
1	Sa	129	ASP	CB-CA-C	-6.66	97.16	110.42
4	SD	215	GLY	O-C-N	-6.66	114.04	122.70
32	S1	563	C	N1-C1'-C2'	6.66	122.00	112.00
32	S1	1512	C	C3'-C2'-C1'	6.66	107.96	101.30
33	L1	1064	U	N1-C1'-C2'	-6.66	102.00	112.00
33	L1	2173	G	N9-C1'-C2'	6.66	122.00	112.00
55	Lg	50	LYS	CA-C-N	6.66	129.10	120.44
55	Lg	50	LYS	C-N-CA	6.66	129.10	120.44
68	LW	38	ILE	CA-C-N	6.66	129.21	120.28
68	LW	38	ILE	C-N-CA	6.66	129.21	120.28
80	LC	268	ALA	O-C-N	-6.66	113.77	122.77
13	SQ	77	GLU	CA-C-N	6.66	134.26	121.54
13	SQ	77	GLU	C-N-CA	6.66	134.26	121.54
32	S1	108	C	C1'-C2'-O2'	6.66	118.39	108.40
32	S1	959	G	O4'-C1'-C2'	-6.66	100.94	107.60
32	S1	1704	G	C3'-C2'-C1'	6.66	107.96	101.30
33	L1	1598	U	C1'-O4'-C4'	6.66	116.56	109.90
33	L1	2219	A	C1'-C2'-O2'	-6.66	98.41	108.40
33	L1	2358	C	N1-C1'-C2'	6.66	121.99	112.00
33	L1	2662	A	O4'-C4'-C3'	-6.66	97.34	104.00
34	L3	119	C	O4'-C1'-C2'	-6.66	100.94	107.60
79	Ls	243	MET	N-CA-C	6.66	118.54	111.28
25	SC	108	ALA	CA-C-O	-6.66	112.31	119.97
32	S1	257	A	O4'-C1'-C2'	-6.66	100.94	107.60
32	S1	1369	C	N1-C1'-C2'	6.66	121.99	112.00
33	L1	1737	C	C5'-C4'-C3'	-6.66	106.01	116.00
33	L1	2405	C	C1'-O4'-C4'	-6.66	103.24	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3223	C	O3'-P-O5'	-6.66	94.01	104.00
44	LR	34	ARG	N-CA-CB	6.66	120.60	110.28
64	LG	87	ARG	N-CA-CB	6.66	121.36	110.17
67	LS	10	GLN	N-CA-CB	-6.66	100.64	110.49
32	S1	114	U	C1'-O4'-C4'	6.66	116.56	109.90
32	S1	359	G	O4'-C1'-N9	6.66	118.48	108.50
33	L1	2992	G	C3'-C2'-C1'	-6.66	94.64	101.30
7	SI	51	ARG	CA-C-N	6.66	132.05	122.40
7	SI	51	ARG	C-N-CA	6.66	132.05	122.40
31	S2	74	C	O3'-P-O5'	6.66	113.98	104.00
32	S1	989	G	O4'-C1'-N9	6.66	118.48	108.50
33	L1	358	G	N9-C1'-C2'	6.66	121.98	112.00
33	L1	581	G	P-O5'-C5'	-6.66	110.92	120.90
33	L1	710	C	P-O5'-C5'	6.66	130.88	120.90
33	L1	1707	C	C3'-C2'-C1'	-6.66	94.64	101.30
34	L3	39	C	O5'-C5'-C4'	-6.66	101.52	111.50
35	L2	58	A	P-O3'-C3'	6.66	130.18	120.20
38	LE	170	GLU	CA-CB-CG	6.66	127.41	114.10
57	L1	57	LYS	CA-C-O	-6.66	113.50	120.55
33	L1	409	U	O3'-P-O5'	-6.65	94.02	104.00
3	SB	72	VAL	CB-CA-C	-6.65	103.45	111.97
25	SC	107	LEU	N-CA-C	-6.65	104.10	111.82
32	S1	317	U	C3'-C2'-C1'	6.65	108.15	101.50
32	S1	409	C	N1-C1'-C2'	6.65	121.98	112.00
33	L1	592	U	N1-C1'-C2'	6.65	121.98	112.00
33	L1	1246	G	O5'-C5'-C4'	6.65	121.48	111.50
33	L1	1340	G	O4'-C1'-N9	6.65	118.48	108.50
35	L2	66	C	C1'-O4'-C4'	-6.65	103.05	109.70
44	LR	3	ILE	CA-C-N	6.65	131.77	121.19
44	LR	3	ILE	C-N-CA	6.65	131.77	121.19
64	LG	13	ARG	N-CA-CB	6.65	120.01	110.16
7	SI	129	ARG	NE-CZ-NH2	6.65	125.19	119.20
20	SZ	15	ARG	N-CA-C	6.65	118.31	108.60
39	LF	139	VAL	CA-C-N	6.65	134.24	121.54
39	LF	139	VAL	C-N-CA	6.65	134.24	121.54
51	LY	3	ARG	N-CA-C	6.65	124.96	110.80
78	Le	200	ALA	N-CA-C	-6.65	104.79	113.17
20	SZ	24	GLN	N-CA-CB	6.65	121.73	110.49
33	L1	1018	C	C3'-C2'-C1'	6.65	107.95	101.30
33	L1	2862	U	P-O5'-C5'	6.65	130.87	120.90
69	La	11	VAL	N-CA-CB	6.65	122.20	111.23
10	SL	6	GLY	N-CA-C	6.65	128.93	113.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	SM	37	GLY	CA-C-N	6.65	129.85	120.28
11	SM	37	GLY	C-N-CA	6.65	129.85	120.28
33	L1	526	A	O4'-C1'-C2'	-6.65	100.95	107.60
33	L1	1901	G	O4'-C1'-N9	6.65	118.47	108.50
33	L1	3006	G	C2'-C3'-O3'	6.65	119.47	109.50
33	L1	3324	U	O4'-C1'-N1	6.65	118.47	108.50
33	L1	3334	A	C5'-C4'-C3'	-6.65	106.03	116.00
45	LQ	39	ARG	CA-C-O	6.65	127.80	120.82
33	L1	1368	U	O4'-C4'-C3'	6.65	110.65	104.00
33	L1	2234	G	C1'-O4'-C4'	-6.65	103.25	109.90
81	LD	358	LYS	CG-CD-CE	6.65	126.59	111.30
3	SB	215	GLU	N-CA-C	-6.64	96.65	110.80
32	S1	1445	C	P-O3'-C3'	6.64	130.17	120.20
33	L1	1215	U	C4'-C3'-C2'	-6.64	95.96	102.60
33	L1	1983	U	O3'-P-O5'	-6.64	94.03	104.00
33	L1	2229	G	O3'-P-O5'	6.64	113.97	104.00
23	SU	41	SER	N-CA-C	6.64	120.35	109.85
31	S2	3	C	C1'-C2'-O2'	6.64	118.36	108.40
33	L1	1887	A	P-O3'-C3'	-6.64	110.24	120.20
67	LS	33	ALA	N-CA-CB	-6.64	100.74	111.24
1	Sa	85	SER	CA-C-N	6.64	129.84	120.28
1	Sa	85	SER	C-N-CA	6.64	129.84	120.28
32	S1	1588	C	C3'-C2'-C1'	6.64	107.94	101.30
10	SL	106	ARG	CD-NE-CZ	6.64	133.70	124.40
32	S1	1783	C	O4'-C1'-N1	-6.64	98.54	108.50
33	L1	2106	U	O4'-C1'-C2'	6.64	114.24	107.60
33	L1	2633	C	N1-C1'-C2'	6.64	121.96	112.00
36	LA	4	LEU	N-CA-C	6.64	119.35	111.71
74	LJ	76	PRO	CB-CA-C	6.64	122.52	111.56
75	Lu	55	VAL	CA-C-N	6.64	129.07	120.44
75	Lu	55	VAL	C-N-CA	6.64	129.07	120.44
27	SH	103	VAL	N-CA-CB	6.64	117.77	110.53
33	L1	1415	G	C1'-O4'-C4'	-6.64	103.26	109.90
32	S1	484	A	P-O5'-C5'	6.64	130.85	120.90
32	S1	1766	A	O4'-C1'-C2'	-6.64	100.96	107.60
33	L1	2418	A	O4'-C1'-N9	-6.64	98.55	108.50
33	L1	3140	A	N9-C1'-C2'	-6.64	102.05	112.00
35	L2	93	A	O4'-C1'-N9	-6.64	98.25	108.20
78	Le	205	TRP	N-CA-CB	6.64	121.78	110.50
32	S1	376	G	C3'-C2'-C1'	6.63	114.57	101.30
33	L1	3365	U	C1'-O4'-C4'	6.63	116.53	109.90
34	L3	17	G	O4'-C1'-N9	6.63	118.45	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	SD	162	ILE	O-C-N	-6.63	115.90	123.00
33	L1	2696	C	C3'-C2'-C1'	6.63	107.93	101.30
31	S2	73	C	O3'-P-O5'	6.63	113.95	104.00
32	S1	1656	C	N1-C1'-C2'	6.63	121.95	112.00
33	L1	208	G	P-O5'-C5'	6.63	130.85	120.90
33	L1	2751	A	O4'-C4'-C3'	-6.63	97.37	104.00
33	L1	2849	A	O4'-C1'-C2'	-6.63	100.97	107.60
33	L1	2908	C	C3'-C2'-C1'	6.63	107.93	101.30
1	Sa	271	GLY	N-CA-C	6.63	128.89	113.18
33	L1	25	U	C5'-C4'-O4'	-6.63	99.86	109.80
33	L1	2516	U	N1-C1'-C2'	6.63	121.94	112.00
36	LA	206	LYS	N-CA-C	6.63	118.21	108.86
37	LB	36	GLU	N-CA-C	6.63	120.81	111.92
11	SM	81	ASP	CA-C-O	6.63	128.58	121.55
32	S1	854	C	N1-C1'-C2'	6.63	121.94	112.00
33	L1	641	C	C4'-C3'-O3'	6.63	122.94	113.00
33	L1	784	G	C1'-O4'-C4'	-6.63	103.27	109.90
33	L1	2598	A	O3'-P-O5'	-6.63	94.06	104.00
33	L1	2699	A	N9-C1'-C2'	6.63	121.94	112.00
33	L1	2743	A	C3'-C2'-C1'	-6.63	94.67	101.30
33	L1	2997	C	P-O3'-C3'	6.63	130.14	120.20
33	L1	3232	C	C1'-O4'-C4'	-6.63	103.27	109.90
36	LA	10	LYS	N-CA-C	6.63	120.09	110.28
9	SK	82	GLN	CG-CD-NE2	-6.63	106.46	116.40
14	SP	100	ARG	CG-CD-NE	-6.63	97.42	112.00
31	S2	53	U	C1'-C2'-O2'	6.63	118.34	108.40
32	S1	101	A	O4'-C1'-C2'	-6.63	100.97	107.60
33	L1	93	G	N9-C1'-C2'	6.63	121.94	112.00
33	L1	1602	A	C1'-C2'-O2'	6.63	121.74	111.80
33	L1	2709	G	O4'-C1'-C2'	6.63	114.23	107.60
33	L1	2782	G	O3'-P-O5'	-6.63	94.06	104.00
40	LH	234	MET	CB-CA-C	6.63	122.69	110.10
31	S2	11	U	C3'-C2'-C1'	6.62	107.92	101.30
33	L1	327	A	O4'-C4'-C3'	-6.62	99.47	106.10
33	L1	2332	C	C1'-O4'-C4'	-6.62	103.28	109.90
33	L1	2837	C	C4'-C3'-C2'	-6.62	95.97	102.60
37	LB	31	SER	N-CA-CB	6.62	121.69	110.49
32	S1	54	C	C4'-C3'-C2'	-6.62	95.98	102.60
32	S1	605	A	O4'-C4'-C3'	-6.62	97.38	104.00
32	S1	791	C	P-O3'-C3'	6.62	130.13	120.20
33	L1	1425	G	O5'-C5'-C4'	-6.62	101.57	111.50
33	L1	1872	C	C4'-C3'-C2'	-6.62	95.98	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	L2	58	A	C4'-C3'-O3'	-6.62	103.07	113.00
54	Lf	34	VAL	CA-C-N	6.62	129.16	120.28
54	Lf	34	VAL	C-N-CA	6.62	129.16	120.28
70	Li	107	LEU	N-CA-CB	6.62	121.68	110.49
15	SS	91	ARG	NE-CZ-NH2	-6.62	113.24	119.20
27	SH	94	LEU	N-CA-C	6.62	124.44	109.81
32	S1	1617	U	O5'-C5'-C4'	-6.62	101.57	111.50
33	L1	30	C	C3'-C2'-C1'	6.62	107.92	101.30
33	L1	532	G	C3'-C2'-C1'	-6.62	94.68	101.30
33	L1	2387	U	O4'-C1'-N1	6.62	118.43	108.50
78	Le	244	ASN	CB-CA-C	-6.62	97.52	110.10
32	S1	1062	C	N1-C1'-C2'	6.62	121.93	112.00
71	Lj	70	CYS	O-C-N	-6.62	115.67	123.22
32	S1	290	C	N1-C1'-C2'	6.62	121.93	112.00
32	S1	319	A	O4'-C1'-N9	6.62	118.13	108.20
33	L1	730	A	O4'-C1'-C2'	-6.62	100.98	107.60
33	L1	751	C	O4'-C1'-C2'	-6.62	100.98	107.60
33	L1	993	A	O3'-P-O5'	-6.62	94.07	104.00
33	L1	1662	G	C3'-C2'-C1'	-6.62	94.68	101.30
33	L1	2438	A	N9-C1'-C2'	6.62	121.93	112.00
35	L2	88	C	O4'-C4'-C3'	-6.62	99.48	106.10
41	LM	48	ARG	CA-C-O	-6.62	114.36	121.38
71	Lj	39	VAL	CB-CA-C	6.62	122.15	111.29
80	LC	272	GLN	N-CA-C	6.62	119.35	110.35
24	SX	53	GLN	N-CA-CB	-6.62	100.34	110.13
32	S1	1640	C	C4'-C3'-C2'	-6.62	95.98	102.60
33	L1	164	C	P-O5'-C5'	6.62	130.83	120.90
33	L1	1043	U	O4'-C1'-N1	6.62	118.42	108.50
33	L1	2409	U	C5'-C4'-C3'	-6.62	106.08	116.00
57	Ll	11	ARG	CB-CA-C	-6.62	97.25	110.42
79	Ls	48	LEU	CA-C-N	6.62	129.15	120.28
79	Ls	48	LEU	C-N-CA	6.62	129.15	120.28
25	SC	178	ASN	N-CA-CB	6.62	121.67	110.49
33	L1	231	C	O4'-C1'-C2'	-6.62	100.98	107.60
33	L1	305	G	O3'-P-O5'	6.62	113.92	104.00
33	L1	1262	U	C5'-C4'-C3'	6.62	125.92	116.00
33	L1	1559	G	P-O3'-C3'	6.62	130.12	120.20
33	L1	1715	C	P-O5'-C5'	6.62	130.82	120.90
33	L1	2622	G	O3'-P-O5'	-6.62	94.08	104.00
33	L1	3376	C	C3'-C2'-O2'	6.62	120.62	110.70
67	LS	94	LYS	CB-CG-CD	6.62	126.52	111.30
13	SQ	114	LEU	O-C-N	-6.61	113.24	121.64

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	128	C	N1-C1'-C2'	6.61	121.92	112.00
33	L1	1081	U	O4'-C4'-C3'	-6.61	97.39	104.00
33	L1	2482	A	O4'-C1'-N9	6.61	118.42	108.50
33	L1	3051	U	O4'-C1'-N1	6.61	118.42	108.50
33	L1	1317	G	C3'-C2'-O2'	6.61	120.62	110.70
33	L1	3351	A	O4'-C4'-C3'	-6.61	97.39	104.00
44	LR	6	VAL	N-CA-C	6.61	117.36	110.62
66	LN	30	VAL	N-CA-CB	-6.61	100.87	111.58
5	SE	82	VAL	CA-C-O	-6.61	111.09	119.95
32	S1	144	U	C3'-C2'-C1'	6.61	107.91	101.30
32	S1	622	U	C3'-C2'-C1'	6.61	107.91	101.30
33	L1	390	G	O4'-C1'-C2'	-6.61	100.99	107.60
33	L1	472	U	C1'-O4'-C4'	-6.61	103.29	109.90
33	L1	522	C	C3'-C2'-C1'	6.61	107.91	101.30
33	L1	1235	A	O3'-P-O5'	6.61	113.92	104.00
33	L1	1789	C	P-O5'-C5'	-6.61	110.99	120.90
33	L1	2354	G	C1'-O4'-C4'	6.61	116.51	109.90
33	L1	2464	G	C1'-O4'-C4'	-6.61	103.29	109.90
33	L1	87	A	O4'-C1'-C2'	6.61	114.21	107.60
33	L1	294	A	C3'-C2'-C1'	6.61	107.91	101.30
33	L1	2235	G	O4'-C1'-C2'	6.61	114.21	107.60
47	LU	158	ASN	CB-CA-C	6.61	121.89	110.79
57	L1	5	THR	O-C-N	-6.61	115.26	122.07
78	Le	158	LEU	CA-C-N	6.61	134.16	121.54
78	Le	158	LEU	C-N-CA	6.61	134.16	121.54
32	S1	826	C	P-O5'-C5'	6.61	130.81	120.90
33	L1	333	G	C1'-O4'-C4'	-6.61	103.29	109.90
33	L1	629	U	C3'-C2'-C1'	6.61	107.91	101.30
33	L1	1871	G	C3'-C2'-C1'	-6.61	94.69	101.30
33	L1	2468	G	C3'-C2'-C1'	-6.61	94.69	101.30
47	LU	53	PRO	CA-C-N	6.61	134.16	121.54
47	LU	53	PRO	C-N-CA	6.61	134.16	121.54
5	SE	110	PHE	N-CA-C	-6.61	100.13	108.45
20	SZ	51	PHE	N-CA-CB	6.61	119.94	110.16
33	L1	68	U	C4'-C3'-C2'	-6.61	95.99	102.60
33	L1	533	G	C1'-C2'-O2'	6.61	118.31	108.40
33	L1	843	C	O4'-C1'-C2'	-6.61	101.00	107.60
33	L1	2784	U	N1-C1'-C2'	6.61	121.91	112.00
33	L1	2877	U	C4'-C3'-C2'	-6.61	95.99	102.60
34	L3	77	A	C3'-C2'-C1'	6.61	107.91	101.30
82	LK	54	ARG	N-CA-C	-6.61	104.25	112.90
15	SS	26	LYS	CA-C-N	6.60	129.79	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	SS	26	LYS	C-N-CA	6.60	129.79	120.28
33	L1	1588	G	O4'-C1'-C2'	6.60	114.20	107.60
33	L1	1787	C	C1'-O4'-C4'	-6.60	103.30	109.90
33	L1	1937	C	O4'-C1'-C2'	-6.60	101.00	107.60
33	L1	2218	A	C1'-O4'-C4'	-6.60	103.30	109.90
33	L1	3231	G	N9-C1'-C2'	6.60	121.91	112.00
80	LC	381	GLN	O-C-N	6.60	129.12	122.12
2	SA	22	MET	CA-C-O	6.60	127.55	120.55
4	SD	216	HIS	O-C-N	6.60	131.28	122.96
11	SM	14	ARG	CB-CA-C	-6.60	98.33	109.03
32	S1	505	U	P-O3'-C3'	6.60	130.10	120.20
32	S1	1243	C	C3'-C2'-C1'	6.60	107.90	101.30
33	L1	69	U	P-O3'-C3'	6.60	130.10	120.20
33	L1	656	G	C3'-C2'-C1'	6.60	107.90	101.30
33	L1	995	C	O4'-C4'-C3'	-6.60	97.40	104.00
33	L1	2205	G	C5'-C4'-C3'	6.60	125.90	116.00
33	L1	2374	G	C2'-C3'-O3'	6.60	119.41	109.50
33	L1	2577	G	C1'-O4'-C4'	-6.60	103.30	109.90
71	Lj	9	VAL	N-CA-C	-6.60	99.64	108.35
32	S1	1643	A	O4'-C1'-N9	6.60	118.40	108.50
33	L1	928	A	C1'-O4'-C4'	-6.60	103.10	109.70
33	L1	1143	G	O4'-C4'-C3'	-6.60	97.40	104.00
33	L1	1608	C	N1-C1'-C2'	6.60	121.90	112.00
33	L1	2762	U	N1-C1'-C2'	-6.60	102.10	112.00
45	LQ	22	VAL	N-CA-C	-6.60	98.77	108.54
46	LT	81	ARG	N-CA-CB	-6.60	101.00	110.57
5	SE	226	CYS	CA-C-O	6.60	128.22	120.70
32	S1	1092	A	P-O5'-C5'	6.60	130.80	120.90
33	L1	101	C	P-O3'-C3'	6.60	130.10	120.20
33	L1	138	G	C1'-O4'-C4'	-6.60	103.30	109.90
33	L1	686	A	O4'-C1'-C2'	-6.60	101.00	107.60
45	LQ	202	GLY	CA-C-N	6.60	134.15	121.54
45	LQ	202	GLY	C-N-CA	6.60	134.15	121.54
56	Lh	121	THR	CA-C-O	6.60	129.95	120.51
64	LG	178	LYS	N-CA-CB	6.60	119.82	110.12
33	L1	372	A	O4'-C1'-C2'	-6.60	99.20	105.80
33	L1	460	A	P-O5'-C5'	-6.60	111.00	120.90
33	L1	667	C	O4'-C1'-C2'	-6.60	101.00	107.60
33	L1	1668	U	O4'-C1'-N1	6.60	118.40	108.50
33	L1	2722	U	N1-C1'-C2'	-6.60	102.10	112.00
33	L1	3160	G	C5'-C4'-C3'	-6.60	106.11	116.00
33	L1	3305	U	C2'-C3'-O3'	6.60	123.60	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	LQ	119	GLU	CB-CA-C	6.60	123.55	110.42
73	Lp	52	LYS	CG-CD-CE	6.60	126.47	111.30
32	S1	1760	A	O4'-C1'-N9	6.60	118.09	108.20
46	LT	88	ARG	N-CA-CB	-6.60	100.06	110.28
32	S1	1123	G	C3'-C2'-C1'	-6.59	94.71	101.30
33	L1	295	U	C1'-O4'-C4'	6.59	116.30	109.70
33	L1	662	G	C1'-O4'-C4'	-6.59	103.31	109.90
39	LF	75	HIS	CA-C-O	-6.59	113.89	120.82
67	LS	137	LYS	CB-CA-C	6.59	121.33	111.17
75	Lt	55	VAL	CA-C-N	6.59	129.01	120.44
75	Lt	55	VAL	C-N-CA	6.59	129.01	120.44
33	L1	1057	A	C5'-C4'-C3'	6.59	125.89	116.00
33	L1	1064	U	P-O3'-C3'	-6.59	110.31	120.20
33	L1	2867	U	C3'-C2'-C1'	6.59	107.89	101.30
3	SB	44	MET	CG-SD-CE	-6.59	86.40	100.90
33	L1	1508	C	P-O3'-C3'	6.59	130.09	120.20
33	L1	2247	A	C5'-C4'-C3'	-6.59	106.11	116.00
57	L1	16	HIS	CG-CD2-NE2	6.59	113.79	107.20
82	LK	193	LYS	N-CA-C	6.59	124.84	110.80
32	S1	195	A	P-O3'-C3'	6.59	130.08	120.20
33	L1	3237	G	O4'-C1'-C2'	6.59	114.19	107.60
33	L1	3339	G	C4'-C3'-C2'	-6.59	96.01	102.60
67	LS	131	VAL	CB-CA-C	6.59	122.10	111.29
69	La	10	ALA	N-CA-CB	6.59	119.95	110.40
32	S1	144	U	N1-C1'-C2'	6.59	121.88	112.00
33	L1	2531	G	C4'-C3'-O3'	-6.59	103.12	113.00
33	L1	2594	A	O3'-P-O5'	-6.59	94.12	104.00
34	L3	119	C	P-O3'-C3'	6.59	130.08	120.20
38	LE	111	HIS	N-CA-CB	-6.59	99.73	110.14
39	LF	156	SER	N-CA-C	6.59	118.46	111.28
46	LT	113	LYS	N-CA-CB	6.59	121.62	110.49
29	ST	8	MET	CA-C-N	6.58	133.82	121.97
29	ST	8	MET	C-N-CA	6.58	133.82	121.97
32	S1	1518	C	O4'-C1'-C2'	-6.58	101.02	107.60
33	L1	406	A	P-O3'-C3'	6.58	130.08	120.20
33	L1	224	C	O4'-C1'-C2'	-6.58	101.02	107.60
33	L1	490	G	N9-C1'-C2'	6.58	121.88	112.00
33	L1	2690	G	P-O3'-C3'	6.58	130.08	120.20
46	LT	75	HIS	CA-C-O	6.58	129.23	121.40
40	LH	94	LYS	CA-C-N	-6.58	114.28	122.84
40	LH	94	LYS	C-N-CA	-6.58	114.28	122.84
47	LU	38	GLU	N-CA-CB	6.58	119.64	109.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	L1	20	VAL	CB-CA-C	-6.58	103.42	112.04
79	Ls	86	VAL	N-CA-C	-6.58	99.19	108.80
80	LC	261	ALA	N-CA-CB	-6.58	99.37	110.49
33	L1	2664	G	O4'-C1'-C2'	6.58	114.18	107.60
2	SA	73	GLU	CA-C-N	-6.58	111.70	120.65
2	SA	73	GLU	C-N-CA	-6.58	111.70	120.65
4	SD	131	PHE	N-CA-CB	-6.58	100.22	110.55
32	S1	159	U	P-O5'-C5'	6.58	130.77	120.90
32	S1	208	U	P-O3'-C3'	6.58	130.07	120.20
32	S1	1068	G	C4'-C3'-O3'	6.58	119.27	109.40
32	S1	1688	G	O3'-P-O5'	-6.58	94.13	104.00
33	L1	2318	U	O4'-C1'-N1	6.58	118.37	108.50
33	L1	2465	G	C3'-C2'-C1'	-6.58	94.72	101.30
33	L1	2571	C	O4'-C1'-C2'	-6.58	101.02	107.60
33	L1	2882	U	C3'-C2'-C1'	-6.58	94.72	101.30
36	LA	211	LYS	CA-C-O	6.58	129.50	121.94
70	Li	31	VAL	O-C-N	-6.58	116.08	123.18
71	Lj	11	LEU	N-CA-C	-6.58	99.58	110.17
1	Sa	11	HIS	ND1-CE1-NE2	6.58	114.98	108.40
32	S1	379	U	C3'-C2'-C1'	-6.58	94.72	101.30
32	S1	841	U	O4'-C1'-N1	6.58	118.37	108.50
32	S1	1065	A	C3'-C2'-C1'	6.58	107.88	101.30
32	S1	1677	U	C3'-C2'-C1'	6.58	107.88	101.30
33	L1	1121	C	O4'-C1'-C2'	-6.58	101.02	107.60
33	L1	2934	C	O4'-C1'-N1	6.58	118.37	108.50
76	Lw	38	LYS	O-C-N	-6.58	115.15	122.12
29	ST	5	GLU	O-C-N	6.58	128.84	122.07
33	L1	743	C	N1-C1'-C2'	6.58	121.86	112.00
33	L1	1303	C	O4'-C1'-N1	6.58	118.36	108.50
33	L1	1409	G	C3'-C2'-C1'	-6.58	94.72	101.30
34	L3	2	G	O4'-C1'-N9	6.58	118.36	108.50
34	L3	79	A	N9-C1'-C2'	-6.58	102.14	112.00
38	LE	127	MET	CA-C-N	6.58	134.10	121.54
38	LE	127	MET	C-N-CA	6.58	134.10	121.54
40	LH	78	ARG	NE-CZ-NH2	-6.58	113.28	119.20
42	LP	93	LYS	CB-CA-C	6.58	121.93	109.37
3	SB	137	ILE	O-C-N	-6.57	116.26	123.03
32	S1	890	G	O4'-C1'-C2'	6.57	114.17	107.60
32	S1	1387	U	N1-C1'-C2'	-6.57	102.14	112.00
33	L1	2469	C	P-O5'-C5'	-6.57	111.04	120.90
33	L1	2624	G	O4'-C1'-C2'	6.57	114.17	107.60
79	Ls	30	ILE	N-CA-CB	-6.57	103.18	111.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1318	C	C3'-C2'-C1'	6.57	107.87	101.30
33	L1	2629	C	C4'-C3'-C2'	-6.57	96.03	102.60
33	L1	2686	U	N1-C1'-C2'	6.57	121.86	112.00
15	SS	102	ILE	CB-CA-C	-6.57	103.41	112.02
33	L1	840	A	C5'-C4'-O4'	-6.57	99.95	109.80
33	L1	2299	C	C5'-C4'-C3'	6.57	125.86	116.00
71	Lj	7	GLN	N-CA-C	-6.57	96.81	110.80
35	L2	106	U	N1-C1'-C2'	6.57	121.85	112.00
11	SM	28	PHE	N-CA-C	6.57	119.44	111.82
15	SS	33	LEU	CA-C-N	6.57	128.05	119.84
15	SS	33	LEU	C-N-CA	6.57	128.05	119.84
32	S1	346	C	O4'-C1'-C2'	-6.57	101.03	107.60
33	L1	384	A	C5'-C4'-O4'	-6.57	99.95	109.80
33	L1	1295	A	N9-C1'-C2'	-6.57	102.15	112.00
32	S1	1112	G	C1'-O4'-C4'	-6.57	103.33	109.90
33	L1	2502	U	C4'-C3'-C2'	6.57	109.17	102.60
33	L1	3376	C	C4'-C3'-C2'	6.57	109.17	102.60
38	LE	142	ARG	NE-CZ-NH1	-6.57	114.93	121.50
5	SE	139	ILE	CB-CA-C	6.56	120.66	111.34
33	L1	1248	A	O4'-C1'-C2'	-6.56	99.24	105.80
33	L1	1382	C	N1-C1'-C2'	6.56	121.85	112.00
33	L1	1948	G	P-O3'-C3'	6.56	130.05	120.20
46	LT	67	HIS	CE1-NE2-CD2	-6.56	102.44	109.00
46	LT	143	HIS	CG-CD2-NE2	6.56	113.76	107.20
32	S1	1217	G	O4'-C1'-N9	6.56	118.34	108.50
32	S1	1303	G	O3'-P-O5'	-6.56	94.16	104.00
33	L1	67	C	C3'-C2'-O2'	6.56	120.54	110.70
33	L1	579	G	C1'-C2'-O2'	-6.56	98.56	108.40
33	L1	1670	G	C3'-C2'-C1'	-6.56	94.74	101.30
33	L1	1710	G	P-O5'-C5'	6.56	130.74	120.90
33	L1	2102	C	C3'-C2'-C1'	6.56	107.86	101.30
33	L1	2513	U	N1-C1'-C2'	-6.56	102.16	112.00
33	L1	2837	C	N1-C1'-C2'	6.56	121.84	112.00
37	LB	115	ASN	OD1-CG-ND2	-6.56	116.04	122.60
52	Lb	126	SER	N-CA-C	-6.56	102.59	112.04
71	Lj	34	LEU	N-CA-CB	-6.56	99.41	110.83
33	L1	230	G	O5'-C5'-C4'	6.56	121.34	111.50
33	L1	2381	G	O4'-C1'-C2'	6.56	114.16	107.60
60	Lr	46	LYS	CA-C-N	-6.56	112.89	122.40
60	Lr	46	LYS	C-N-CA	-6.56	112.89	122.40
60	Lr	54	THR	N-CA-C	-6.56	105.43	113.50
72	Lk	57	GLU	CA-C-O	-6.56	113.93	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1328	G	C1'-O4'-C4'	-6.56	103.34	109.90
33	L1	1714	A	N9-C1'-C2'	6.56	123.84	114.00
33	L1	1751	G	O4'-C1'-C2'	-6.56	101.04	107.60
80	LC	93	VAL	N-CA-C	6.56	118.03	108.58
23	SU	53	TYR	CA-C-N	6.56	134.06	121.54
23	SU	53	TYR	C-N-CA	6.56	134.06	121.54
32	S1	1208	A	N9-C1'-C2'	6.56	121.84	112.00
32	S1	1512	C	C3'-C2'-O2'	6.56	120.54	110.70
33	L1	460	A	C5'-C4'-C3'	6.56	125.83	116.00
33	L1	980	C	O4'-C1'-C2'	-6.56	101.04	107.60
33	L1	1272	G	O4'-C1'-C2'	-6.56	101.04	107.60
33	L1	1880	A	N9-C1'-C2'	6.56	121.84	112.00
66	LN	14	LEU	CA-C-N	6.56	131.55	121.71
66	LN	14	LEU	C-N-CA	6.56	131.55	121.71
78	Le	14	VAL	N-CA-C	6.56	117.34	110.72
23	SU	27	GLN	CB-CG-CD	6.56	123.75	112.60
32	S1	892	A	P-O5'-C5'	-6.56	111.07	120.90
33	L1	271	G	C1'-O4'-C4'	-6.56	103.34	109.90
33	L1	460	A	O4'-C1'-N9	6.56	118.33	108.50
33	L1	771	G	O4'-C4'-C3'	-6.56	97.44	104.00
33	L1	859	G	N9-C1'-C2'	6.56	121.83	112.00
33	L1	1094	G	C1'-O4'-C4'	-6.56	103.34	109.90
1	Sa	140	GLN	CA-C-N	6.55	129.60	120.29
1	Sa	140	GLN	C-N-CA	6.55	129.60	120.29
8	SJ	71	HIS	CG-CD2-NE2	6.55	113.75	107.20
32	S1	1664	U	P-O5'-C5'	6.55	130.73	120.90
32	S1	1758	G	O4'-C1'-C2'	-6.55	101.05	107.60
33	L1	1395	A	O4'-C1'-C2'	-6.55	101.05	107.60
37	LB	14	SER	CA-C-N	6.55	128.82	120.56
37	LB	14	SER	C-N-CA	6.55	128.82	120.56
48	LV	91	PHE	CA-CB-CG	-6.55	107.25	113.80
50	LZ	36	SER	O-C-N	-6.55	113.65	122.43
77	Lc	31	GLY	N-CA-C	-6.55	104.38	112.77
3	SB	172	VAL	N-CA-C	-6.55	95.71	109.34
3	SB	218	GLU	N-CA-C	-6.55	96.84	110.80
33	L1	2279	C	C3'-C2'-C1'	6.55	107.85	101.30
46	LT	128	LYS	O-C-N	-6.55	114.21	122.27
57	Ll	17	THR	N-CA-CB	6.55	120.77	110.87
17	SV	10	PRO	N-CA-C	6.55	118.69	110.70
32	S1	1007	G	C1'-O4'-C4'	-6.55	103.35	109.90
33	L1	218	G	P-O5'-C5'	-6.55	111.07	120.90
33	L1	2376	G	C1'-C2'-O2'	6.55	121.63	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3149	C	P-O5'-C5'	6.55	130.73	120.90
33	L1	3319	G	O5'-P-OP1	-6.55	88.34	108.00
46	LT	90	PRO	O-C-N	-6.55	113.80	122.64
47	LU	52	MET	CA-C-O	-6.55	113.55	120.23
48	LV	167	ALA	O-C-N	6.55	126.61	120.71
60	Lr	90	HIS	ND1-CE1-NE2	6.55	114.95	108.40
3	SB	89	GLU	CA-C-N	6.55	134.05	121.54
3	SB	89	GLU	C-N-CA	6.55	134.05	121.54
16	SR	139	ARG	CD-NE-CZ	-6.55	115.23	124.40
33	L1	695	G	C1'-O4'-C4'	6.55	116.45	109.90
33	L1	856	G	O3'-P-O5'	-6.55	94.18	104.00
33	L1	3058	U	N1-C1'-C2'	6.55	121.83	112.00
34	L3	103	U	C3'-C2'-C1'	6.55	107.85	101.30
46	LT	35	ALA	CA-C-N	6.55	132.51	122.23
46	LT	35	ALA	C-N-CA	6.55	132.51	122.23
46	LT	110	ARG	N-CA-C	6.55	118.08	111.07
33	L1	178	C	C1'-O4'-C4'	-6.55	103.35	109.90
42	LP	73	ARG	CA-C-N	6.55	127.44	120.11
42	LP	73	ARG	C-N-CA	6.55	127.44	120.11
4	SD	54	TYR	CB-CA-C	6.55	123.45	110.42
32	S1	1227	A	O4'-C1'-C2'	-6.55	101.05	107.60
33	L1	1586	A	O4'-C1'-N9	6.55	118.02	108.20
33	L1	2274	A	C5'-C4'-C3'	6.55	125.02	115.20
33	L1	2587	G	C3'-C2'-C1'	-6.55	94.75	101.30
33	L1	2599	U	O4'-C1'-C2'	-6.55	101.05	107.60
32	S1	115	A	O4'-C1'-N9	6.54	118.32	108.50
32	S1	1352	A	N9-C1'-C2'	6.54	121.82	112.00
32	S1	1438	U	P-O3'-C3'	6.54	130.02	120.20
33	L1	3350	C	N1-C1'-C2'	6.54	121.82	112.00
3	SB	200	PRO	CA-C-N	6.54	132.29	122.47
3	SB	200	PRO	C-N-CA	6.54	132.29	122.47
32	S1	1232	G	N9-C1'-C2'	6.54	121.82	112.00
32	S1	1263	C	C3'-C2'-C1'	6.54	107.84	101.30
33	L1	2036	C	C3'-C2'-C1'	6.54	107.84	101.30
33	L1	2279	C	N1-C1'-C2'	6.54	121.81	112.00
33	L1	2708	A	C4'-C3'-C2'	6.54	109.14	102.60
64	LG	163	PHE	CA-CB-CG	-6.54	107.26	113.80
3	SB	13	SER	N-CA-C	6.54	118.49	111.36
25	SC	37	GLY	CA-C-N	6.54	129.05	120.28
25	SC	37	GLY	C-N-CA	6.54	129.05	120.28
32	S1	170	C	N1-C1'-C2'	6.54	121.81	112.00
33	L1	316	A	P-O5'-C5'	-6.54	111.09	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	650	A	P-O5'-C5'	-6.54	111.09	120.90
3	SB	80	LEU	CA-C-N	6.54	134.03	121.54
3	SB	80	LEU	C-N-CA	6.54	134.03	121.54
7	SI	71	MET	O-C-N	-6.54	115.19	122.12
32	S1	1337	C	O4'-C1'-C2'	-6.54	101.06	107.60
33	L1	1551	C	O4'-C1'-N1	-6.54	98.69	108.50
33	L1	2087	A	O4'-C1'-N9	6.54	118.31	108.50
35	L2	102	U	C5'-C4'-C3'	-6.54	106.19	116.00
52	Lb	109	ASP	O-C-N	6.54	129.99	122.99
55	Lg	97	LEU	O-C-N	-6.54	113.89	122.59
32	S1	482	A	C4'-C3'-O3'	6.54	119.81	110.00
33	L1	60	G	N9-C1'-C2'	6.54	121.81	112.00
33	L1	924	A	C3'-C2'-O2'	-6.54	104.79	114.60
33	L1	1644	A	C3'-C2'-C1'	6.54	107.84	101.30
36	LA	214	ARG	NE-CZ-NH2	6.54	125.08	119.20
33	L1	84	A	O4'-C1'-C2'	-6.54	99.26	105.80
33	L1	2224	A	O4'-C1'-N9	6.54	118.31	108.50
33	L1	2792	A	O4'-C1'-N9	6.54	118.31	108.50
32	S1	1509	C	O4'-C1'-C2'	-6.54	101.06	107.60
33	L1	265	G	C1'-C2'-O2'	-6.54	102.00	111.80
33	L1	989	U	O4'-C1'-N1	6.54	118.30	108.50
33	L1	1910	G	C1'-C2'-O2'	6.54	118.20	108.40
33	L1	2369	G	C1'-O4'-C4'	-6.54	103.36	109.90
33	L1	3011	U	C1'-O4'-C4'	6.54	116.44	109.90
33	L1	3187	C	P-O3'-C3'	6.54	130.00	120.20
60	Lr	2	VAL	O-C-N	-6.54	115.51	123.03
80	LC	165	HIS	CB-CG-CD2	-6.54	122.70	131.20
3	SB	75	LYS	CB-CG-CD	6.53	126.33	111.30
4	SD	242	LYS	N-CA-CB	6.53	121.61	110.50
27	SH	105	THR	N-CA-CB	6.53	121.07	110.42
31	S2	58	U	N1-C1'-C2'	-6.53	102.20	112.00
33	L1	1481	C	N1-C1'-C2'	6.53	121.80	112.00
33	L1	2070	C	N1-C1'-C2'	6.53	121.80	112.00
33	L1	2228	A	C1'-O4'-C4'	6.53	116.43	109.90
34	L3	75	G	C4'-C3'-C2'	-6.53	96.07	102.60
36	LA	124	GLY	CA-C-O	6.53	124.03	119.65
5	SE	6	GLY	CA-C-N	6.53	131.75	121.56
5	SE	6	GLY	C-N-CA	6.53	131.75	121.56
7	SI	131	GLU	O-C-N	-6.53	114.93	121.27
13	SQ	73	LEU	N-CA-CB	-6.53	99.97	110.55
15	SS	14	PRO	N-CD-CG	-6.53	93.40	103.20
33	L1	1075	G	C1'-C2'-O2'	6.53	118.20	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1131	U	C1'-O4'-C4'	-6.53	103.37	109.90
45	LQ	295	ASP	CA-C-N	6.53	129.03	120.28
45	LQ	295	ASP	C-N-CA	6.53	129.03	120.28
56	Lh	66	HIS	ND1-CE1-NE2	6.53	114.93	108.40
7	SI	69	ILE	CA-C-N	6.53	131.62	120.72
7	SI	69	ILE	C-N-CA	6.53	131.62	120.72
32	S1	1271	G	N9-C1'-C2'	6.53	121.80	112.00
33	L1	423	C	O4'-C1'-N1	-6.53	98.41	108.20
33	L1	2107	A	C1'-C2'-O2'	6.53	118.20	108.40
33	L1	2389	A	C1'-O4'-C4'	-6.53	103.37	109.90
37	LB	21	HIS	CA-C-N	6.53	129.32	120.44
37	LB	21	HIS	C-N-CA	6.53	129.32	120.44
67	LS	142	LYS	N-CA-C	6.53	118.40	111.28
67	LS	151	PHE	CB-CA-C	6.53	122.51	110.10
81	LD	309	PRO	CB-CG-CD	-6.53	85.20	106.10
33	L1	16	A	C4'-C3'-C2'	-6.53	96.07	102.60
33	L1	323	A	O4'-C1'-C2'	6.53	114.13	107.60
33	L1	1099	G	P-O3'-C3'	6.53	129.99	120.20
33	L1	2625	C	O4'-C1'-C2'	-6.53	101.07	107.60
42	LP	11	TRP	CA-C-N	6.53	131.57	121.19
42	LP	11	TRP	C-N-CA	6.53	131.57	121.19
46	LT	175	ALA	CA-C-N	-6.53	112.37	122.49
46	LT	175	ALA	C-N-CA	-6.53	112.37	122.49
32	S1	33	U	C3'-C2'-C1'	6.53	107.83	101.30
33	L1	2131	U	C5'-C4'-C3'	6.53	125.79	116.00
33	L1	2507	U	O4'-C1'-N1	6.53	118.29	108.50
33	L1	2787	A	C3'-C2'-C1'	-6.53	94.77	101.30
43	LO	49	HIS	CG-CD2-NE2	6.53	113.73	107.20
1	Sa	81	ILE	N-CA-C	-6.53	98.79	108.45
7	SI	64	SER	CA-C-N	6.53	131.77	120.68
7	SI	64	SER	C-N-CA	6.53	131.77	120.68
28	SN	49	ASP	N-CA-C	-6.53	98.63	109.46
33	L1	513	C	C4'-C3'-C2'	6.53	109.13	102.60
33	L1	2790	C	C3'-C2'-C1'	6.53	107.83	101.30
32	S1	1678	G	C4'-C3'-C2'	-6.52	96.08	102.60
1	Sa	243	ARG	NE-CZ-NH2	-6.52	113.33	119.20
20	SZ	25	ASP	N-CA-C	6.52	120.50	112.54
32	S1	586	U	C3'-C2'-C1'	6.52	108.02	101.50
33	L1	1591	A	O3'-P-O5'	-6.52	94.22	104.00
33	L1	1910	G	O4'-C1'-C2'	6.52	114.12	107.60
33	L1	2269	U	N1-C1'-C2'	6.52	121.78	112.00
32	S1	154	A	N9-C1'-C2'	-6.52	102.22	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	LK	120	THR	O-C-N	-6.52	114.79	122.81
32	S1	610	A	C4'-C3'-C2'	6.52	109.12	102.60
32	S1	840	U	O4'-C1'-N1	6.52	118.28	108.50
33	L1	819	A	O5'-C5'-C4'	-6.52	101.92	111.70
33	L1	857	G	C3'-C2'-C1'	-6.52	94.78	101.30
33	L1	1142	G	C1'-O4'-C4'	-6.52	103.38	109.90
33	L1	2380	G	C5'-C4'-C3'	-6.52	106.22	116.00
64	LG	116	PRO	CB-CA-C	6.52	122.32	111.56
13	SQ	45	ARG	NE-CZ-NH2	6.52	125.07	119.20
33	L1	309	C	C5'-C4'-O4'	-6.52	100.03	109.80
33	L1	553	C	C2'-C3'-O3'	6.52	119.28	109.50
33	L1	1286	G	C1'-O4'-C4'	-6.52	103.38	109.90
33	L1	2717	G	P-O3'-C3'	-6.52	110.42	120.20
46	LT	139	MET	CA-C-N	6.52	129.54	120.29
46	LT	139	MET	C-N-CA	6.52	129.54	120.29
46	LT	176	ARG	N-CA-CB	-6.52	100.77	110.61
48	LV	139	PRO	CA-C-O	-6.52	113.66	121.48
64	LG	99	LEU	CA-C-N	6.52	132.92	122.10
64	LG	99	LEU	C-N-CA	6.52	132.92	122.10
3	SB	151	LYS	CB-CA-C	6.52	123.39	110.42
33	L1	711	A	C3'-C2'-C1'	-6.52	94.78	101.30
33	L1	2234	G	O5'-C5'-C4'	6.52	121.27	111.50
33	L1	2518	A	C4'-C3'-C2'	6.52	109.12	102.60
68	LW	52	ALA	N-CA-C	6.52	118.18	111.14
32	S1	422	G	C1'-C2'-O2'	6.51	118.17	108.40
32	S1	1545	A	N9-C1'-C2'	6.51	121.77	112.00
32	S1	1771	U	C2'-C3'-O3'	6.51	119.27	109.50
32	S1	1793	C	O4'-C4'-C3'	6.51	110.51	104.00
59	Lo	7	PHE	N-CA-CB	-6.51	100.54	110.12
1	Sa	243	ARG	NE-CZ-NH1	6.51	128.01	121.50
23	SU	16	LYS	O-C-N	-6.51	116.78	123.29
35	L2	50	G	C1'-O4'-C4'	-6.51	103.39	109.90
31	S2	51	G	O4'-C1'-N9	6.51	118.27	108.50
32	S1	1468	G	N9-C1'-C2'	-6.51	102.23	112.00
33	L1	404	G	O4'-C1'-N9	6.51	117.97	108.20
33	L1	2494	A	O3'-P-O5'	-6.51	94.23	104.00
56	Lh	56	ILE	N-CA-C	6.51	117.26	110.62
69	La	38	TYR	N-CA-CB	-6.51	99.49	110.49
19	SY	16	ARG	CB-CG-CD	6.51	126.27	111.30
33	L1	720	G	C1'-C2'-O2'	-6.51	98.64	108.40
33	L1	1371	G	P-O3'-C3'	-6.51	110.44	120.20
33	L1	1747	A	C5'-C4'-C3'	6.51	125.77	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2348	U	C1'-C2'-O2'	6.51	118.17	108.40
33	L1	2700	A	C1'-C2'-O2'	6.51	118.16	108.40
37	LB	140	ASN	N-CA-C	-6.51	95.42	109.81
38	LE	38	VAL	CB-CA-C	6.51	121.20	112.22
33	L1	1615	G	C4'-C3'-C2'	-6.51	96.09	102.60
33	L1	1073	G	C3'-C2'-C1'	-6.51	94.79	101.30
33	L1	1711	G	P-O5'-C5'	6.51	130.66	120.90
33	L1	2418	A	P-O5'-C5'	-6.51	111.14	120.90
35	L2	34	C	N1-C1'-C2'	-6.51	102.24	112.00
59	Lo	19	GLN	O-C-N	-6.51	115.22	122.12
33	L1	407	A	O3'-P-O5'	6.50	113.76	104.00
33	L1	3273	C	O4'-C1'-C2'	-6.50	101.09	107.60
5	SE	21	ARG	O-C-N	6.50	128.79	122.03
32	S1	1098	A	C3'-C2'-C1'	6.50	108.00	101.50
33	L1	327	A	C3'-C2'-C1'	-6.50	95.00	101.50
80	LC	312	MET	CB-CA-C	6.50	120.77	109.65
32	S1	960	A	O4'-C1'-N9	6.50	118.25	108.50
32	S1	1295	G	N9-C1'-C2'	6.50	121.75	112.00
32	S1	1669	U	O4'-C1'-C2'	-6.50	101.10	107.60
33	L1	20	G	O4'-C1'-C2'	6.50	114.10	107.60
33	L1	371	A	O4'-C1'-C2'	6.50	114.10	107.60
33	L1	823	A	C3'-C2'-C1'	6.50	107.80	101.30
33	L1	2762	U	C4'-C3'-O3'	6.50	122.75	113.00
33	L1	3077	C	N1-C1'-C2'	6.50	121.75	112.00
46	LT	72	LYS	N-CA-CB	6.50	121.55	110.50
67	LS	18	THR	CB-CA-C	-6.50	100.02	109.45
68	LW	26	ASP	N-CA-C	-6.50	99.15	109.23
73	Lp	53	ASN	CB-CA-C	-6.50	97.75	110.10
32	S1	914	U	O4'-C1'-C2'	-6.50	101.10	107.60
32	S1	1643	A	C4'-C3'-C2'	-6.50	96.10	102.60
33	L1	860	G	O4'-C1'-N9	6.50	118.25	108.50
33	L1	3327	A	O4'-C1'-N9	-6.50	98.75	108.50
39	LF	88	ARG	CD-NE-CZ	-6.50	115.30	124.40
32	S1	468	A	O4'-C1'-N9	6.50	118.25	108.50
32	S1	551	U	O4'-C1'-C2'	-6.50	101.10	107.60
32	S1	1080	C	C3'-C2'-C1'	6.50	107.80	101.30
33	L1	472	U	C5'-C4'-C3'	6.50	125.75	116.00
33	L1	979	C	C2'-C3'-O3'	6.50	123.45	113.70
33	L1	2260	C	P-O3'-C3'	6.50	129.95	120.20
33	L1	2497	A	O4'-C4'-C3'	-6.50	97.50	104.00
34	L3	14	C	P-O5'-C5'	-6.50	111.15	120.90
38	LE	115	GLY	CA-C-N	-6.50	112.13	121.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	LE	115	GLY	C-N-CA	-6.50	112.13	121.42
49	LX	126	PRO	N-CA-C	-6.50	105.60	113.98
24	SX	69	THR	CA-CB-OG1	6.50	119.34	109.60
31	S2	45	G	C1'-O4'-C4'	6.50	116.20	109.70
32	S1	1507	G	C2'-C3'-O3'	6.50	123.44	113.70
33	L1	2418	A	C1'-O4'-C4'	-6.50	103.40	109.90
36	LA	210	GLY	N-CA-C	6.50	123.19	112.66
55	Lg	2	SER	N-CA-C	6.50	124.64	110.80
80	LC	278	ARG	CG-CD-NE	-6.50	97.71	112.00
32	S1	605	A	O4'-C1'-C2'	-6.50	101.11	107.60
33	L1	1769	C	O4'-C1'-N1	6.50	118.24	108.50
43	LO	26	ARG	CB-CG-CD	6.50	126.24	111.30
67	LS	150	LYS	N-CA-C	6.50	120.06	111.75
31	S2	49	G	O4'-C1'-C2'	6.49	114.09	107.60
32	S1	1317	A	N9-C1'-C2'	-6.49	102.26	112.00
33	L1	840	A	N9-C1'-C2'	6.49	121.74	112.00
33	L1	2174	C	P-O5'-C5'	-6.49	111.16	120.90
33	L1	3345	G	C1'-C2'-O2'	6.49	118.14	108.40
40	LH	129	LYS	CB-CA-C	6.49	121.59	109.71
52	Lb	96	PHE	N-CA-C	-6.49	104.84	112.89
27	SH	84	LYS	N-CA-C	6.49	119.30	108.13
33	L1	630	C	C5'-C4'-C3'	6.49	125.74	116.00
33	L1	2771	U	N1-C1'-C2'	-6.49	102.26	112.00
33	L1	3232	C	P-O5'-C5'	6.49	130.64	120.90
36	LA	11	ASP	CB-CA-C	-6.49	100.84	111.68
45	LQ	296	ASP	CA-CB-CG	-6.49	106.11	112.60
46	LT	29	VAL	N-CA-C	6.49	118.02	110.62
33	L1	691	U	C2'-C3'-O3'	6.49	123.44	113.70
33	L1	2080	G	C1'-C2'-O2'	6.49	118.14	108.40
4	SD	133	GLN	CA-CB-CG	6.49	127.08	114.10
32	S1	1059	U	O4'-C4'-C3'	-6.49	97.51	104.00
33	L1	389	A	O4'-C1'-C2'	6.49	114.09	107.60
78	Le	135	TYR	N-CA-CB	6.49	120.19	110.65
79	Ls	234	TYR	CB-CA-C	6.49	122.95	110.17
7	SI	115	PHE	CA-CB-CG	-6.49	107.31	113.80
32	S1	1609	G	P-O3'-C3'	6.49	129.93	120.20
33	L1	333	G	N9-C1'-C2'	6.49	121.73	112.00
33	L1	1618	U	O3'-P-O5'	-6.49	94.27	104.00
35	L2	97	U	C3'-C2'-C1'	-6.49	94.81	101.30
4	SD	212	ASP	CA-C-N	6.49	133.93	121.54
4	SD	212	ASP	C-N-CA	6.49	133.93	121.54
5	SE	85	LEU	CA-C-O	-6.49	113.68	120.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	681	A	N9-C1'-C2'	-6.49	104.27	114.00
33	L1	1589	G	C3'-C2'-C1'	-6.49	95.02	101.50
33	L1	3279	G	P-O3'-C3'	6.49	129.93	120.20
40	LH	233	VAL	N-CA-CB	6.49	121.93	111.23
67	LS	67	PHE	N-CA-C	-6.49	98.03	109.06
32	S1	1645	C	P-O3'-C3'	6.48	129.93	120.20
33	L1	910	G	P-O3'-C3'	6.48	129.93	120.20
33	L1	2479	C	C1'-O4'-C4'	6.48	116.38	109.90
73	Lp	39	CYS	N-CA-C	-6.48	104.21	111.28
81	LD	351	ARG	NH1-CZ-NH2	-6.48	110.87	119.30
32	S1	373	U	O4'-C1'-C2'	-6.48	101.12	107.60
32	S1	483	C	C5'-C4'-C3'	6.48	125.72	116.00
32	S1	1540	U	O4'-C1'-N1	6.48	118.22	108.50
32	S1	1549	G	C1'-O4'-C4'	-6.48	103.42	109.90
33	L1	1931	G	O4'-C1'-C2'	-6.48	101.12	107.60
3	SB	99	ILE	CA-C-N	6.48	128.96	120.28
3	SB	99	ILE	C-N-CA	6.48	128.96	120.28
33	L1	1368	U	O4'-C1'-C2'	-6.48	101.12	107.60
33	L1	2421	C	N1-C1'-C2'	6.48	121.72	112.00
33	L1	3334	A	P-O3'-C3'	-6.48	110.48	120.20
48	LV	3	LYS	CA-C-N	6.48	135.10	122.07
48	LV	3	LYS	C-N-CA	6.48	135.10	122.07
57	LI	72	ARG	O-C-N	-6.48	115.40	122.07
68	LW	83	ARG	N-CA-C	6.48	124.60	110.80
80	LC	3	HIS	O-C-N	-6.48	116.09	123.48
33	L1	398	G	C4'-C3'-C2'	-6.48	96.12	102.60
33	L1	1423	C	C4'-C3'-C2'	-6.48	96.12	102.60
33	L1	1527	A	C3'-C2'-C1'	6.48	107.98	101.50
33	L1	2302	G	O4'-C1'-N9	-6.48	98.48	108.20
32	S1	1278	C	P-O3'-C3'	-6.48	110.48	120.20
33	L1	260	U	O4'-C1'-C2'	-6.48	101.12	107.60
33	L1	1296	C	O4'-C1'-C2'	-6.48	101.12	107.60
33	L1	169	G	O4'-C1'-C2'	-6.48	101.12	107.60
33	L1	224	C	O4'-C4'-C3'	-6.48	97.52	104.00
33	L1	1002	A	O4'-C1'-C2'	-6.48	101.12	107.60
75	Lu	25	GLU	CB-CA-C	-6.48	100.71	110.88
4	SD	189	THR	N-CA-C	6.47	119.41	110.35
14	SP	88	ARG	NE-CZ-NH1	6.47	127.97	121.50
32	S1	1396	U	O4'-C1'-C2'	-6.47	99.33	105.80
33	L1	1690	C	O4'-C1'-C2'	-6.47	101.13	107.60
33	L1	2598	A	P-O3'-C3'	-6.47	110.49	120.20
33	L1	3316	C	O4'-C1'-C2'	-6.47	101.13	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	LQ	193	ASP	CA-C-N	6.47	131.43	120.29
45	LQ	193	ASP	C-N-CA	6.47	131.43	120.29
46	LT	64	ARG	NE-CZ-NH1	6.47	127.97	121.50
66	LN	122	ARG	NH1-CZ-NH2	-6.47	110.88	119.30
67	LS	163	ARG	N-CA-C	6.47	120.89	112.92
71	Lj	83	GLY	CA-C-N	6.47	129.35	120.35
71	Lj	83	GLY	C-N-CA	6.47	129.35	120.35
29	ST	73	GLN	N-CA-C	6.47	118.42	111.36
32	S1	949	A	C1'-C2'-O2'	6.47	121.51	111.80
33	L1	333	G	C1'-C2'-O2'	6.47	118.11	108.40
33	L1	1330	A	O4'-C1'-N9	6.47	118.21	108.50
56	Lh	67	TYR	CB-CG-CD2	-6.47	111.09	120.80
64	LG	30	ALA	N-CA-C	6.47	119.65	111.69
1	Sa	74	TRP	CB-CG-CD2	-6.47	117.74	126.80
5	SE	138	ILE	CA-C-O	6.47	127.45	120.53
13	SQ	47	ARG	CA-C-N	6.47	128.85	120.44
13	SQ	47	ARG	C-N-CA	6.47	128.85	120.44
23	SU	94	LYS	N-CA-C	-6.47	97.02	110.80
32	S1	1650	G	C4'-C3'-C2'	-6.47	96.13	102.60
32	S1	1747	A	O5'-C5'-C4'	-6.47	101.79	111.50
33	L1	1841	G	C1'-C2'-O2'	6.47	118.11	108.40
33	L1	2481	C	P-O3'-C3'	6.47	129.91	120.20
59	Lo	25	TYR	CD1-CG-CD2	6.47	127.81	118.10
1	Sa	151	ARG	N-CA-CB	6.47	121.42	110.49
25	SC	150	VAL	N-CA-C	6.47	122.80	109.34
33	L1	1467	G	P-O3'-C3'	6.47	129.91	120.20
33	L1	1821	G	O4'-C1'-N9	6.47	118.20	108.50
33	L1	1952	U	C1'-O4'-C4'	6.47	116.37	109.90
33	L1	2337	C	C4'-C3'-C2'	-6.47	96.13	102.60
35	L2	38	U	N1-C1'-C2'	6.47	121.70	112.00
40	LH	124	LYS	N-CA-C	-6.47	99.84	109.42
69	La	27	ARG	O-C-N	-6.47	116.50	123.42
79	Ls	220	SER	CA-C-N	6.47	127.12	119.94
79	Ls	220	SER	C-N-CA	6.47	127.12	119.94
11	SM	36	VAL	CA-CB-CG1	6.47	121.39	110.40
23	SU	16	LYS	CA-CB-CG	6.47	127.03	114.10
33	L1	651	A	O4'-C4'-C3'	-6.47	99.63	106.10
33	L1	2390	G	C3'-C2'-C1'	-6.47	94.83	101.30
69	La	70	CYS	N-CA-CB	6.47	119.73	110.16
4	SD	106	LYS	N-CA-C	6.47	119.32	111.82
5	SE	207	THR	CB-CA-C	6.47	123.29	110.42
33	L1	372	A	C1'-C2'-O2'	6.47	121.50	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	564	A	C5'-C4'-C3'	6.47	125.70	116.00
33	L1	1119	G	N9-C1'-C2'	-6.47	104.30	114.00
33	L1	1222	U	C3'-C2'-C1'	6.47	107.77	101.30
33	L1	1472	C	P-O5'-C5'	6.47	130.60	120.90
34	L3	77	A	O4'-C4'-C3'	-6.47	97.53	104.00
56	Lh	42	ARG	CA-C-O	6.47	127.28	120.42
1	Sa	60	ARG	NE-CZ-NH2	-6.46	113.38	119.20
2	SA	247	TRP	CA-C-N	6.46	127.16	119.98
2	SA	247	TRP	C-N-CA	6.46	127.16	119.98
33	L1	2	C	O4'-C1'-C2'	-6.46	101.14	107.60
33	L1	309	C	C4'-C3'-O3'	6.46	122.70	113.00
33	L1	628	C	C1'-C2'-O2'	6.46	118.10	108.40
33	L1	906	U	O4'-C1'-N1	6.46	118.20	108.50
33	L1	928	A	O3'-P-O5'	-6.46	94.30	104.00
33	L1	2333	U	C5'-C4'-C3'	6.46	125.70	116.00
33	L1	3121	C	C1'-C2'-O2'	6.46	118.10	108.40
66	LN	125	LEU	CB-CA-C	-6.46	100.73	110.88
79	Ls	11	LYS	CA-C-N	6.46	133.60	121.97
79	Ls	11	LYS	C-N-CA	6.46	133.60	121.97
2	SA	223	ALA	O-C-N	-6.46	115.27	122.12
31	S2	42	C	N1-C1'-C2'	6.46	121.69	112.00
33	L1	28	C	C4'-C3'-C2'	-6.46	96.14	102.60
33	L1	392	C	P-O5'-C5'	6.46	130.59	120.90
33	L1	466	U	O4'-C1'-C2'	-6.46	101.14	107.60
33	L1	668	U	O3'-P-O5'	6.46	113.69	104.00
33	L1	1752	C	C3'-C2'-O2'	-6.46	101.01	110.70
33	L1	3274	G	N9-C1'-C2'	6.46	121.69	112.00
35	L2	32	C	C4'-C3'-C2'	-6.46	96.14	102.60
46	LT	187	ARG	CB-CG-CD	6.46	126.16	111.30
71	Lj	65	ASP	CA-C-O	6.46	127.96	120.98
79	Ls	119	VAL	CA-C-O	-6.46	113.48	120.85
82	LK	131	VAL	CA-C-N	6.46	133.88	121.54
82	LK	131	VAL	C-N-CA	6.46	133.88	121.54
32	S1	1611	U	C4'-C3'-C2'	-6.46	96.14	102.60
33	L1	1695	C	C5'-C4'-C3'	6.46	125.69	116.00
33	L1	1914	C	O4'-C1'-C2'	-6.46	101.14	107.60
33	L1	2221	U	P-O5'-C5'	6.46	130.59	120.90
40	LH	137	TYR	O-C-N	-6.46	114.78	122.15
66	LN	58	ILE	CB-CA-C	6.46	120.51	111.34
5	SE	35	ARG	N-CA-CB	6.46	119.49	110.90
7	SI	33	GLY	N-CA-C	-6.46	97.87	113.18
33	L1	1206	A	P-O5'-C5'	6.46	130.59	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1709	U	N1-C1'-C2'	6.46	121.69	112.00
33	L1	3081	G	P-O3'-C3'	6.46	129.89	120.20
67	LS	7	HIS	CE1-NE2-CD2	-6.46	102.54	109.00
80	LC	5	LYS	O-C-N	-6.46	112.67	123.00
81	LD	369	GLU	CB-CA-C	6.46	120.89	109.65
9	SK	113	SER	CA-C-O	6.46	127.35	120.70
32	S1	309	C	O4'-C1'-C2'	-6.46	101.14	107.60
32	S1	917	U	O3'-P-O5'	-6.46	94.31	104.00
33	L1	295	U	O4'-C1'-N1	6.46	117.89	108.20
33	L1	1664	G	N9-C1'-C2'	6.46	123.19	113.50
33	L1	2202	A	C1'-C2'-O2'	-6.46	102.12	111.80
33	L1	1305	A	O4'-C1'-N9	-6.46	98.52	108.20
41	LM	73	ARG	N-CA-CB	6.46	119.58	109.83
81	LD	322	ASN	CA-C-O	-6.46	112.08	118.34
4	SD	80	LYS	N-CA-C	6.45	119.13	111.71
23	SU	70	PHE	N-CA-CB	6.45	121.40	110.49
30	S3	18	C	P-O5'-C5'	6.45	130.58	120.90
33	L1	1886	U	O4'-C4'-C3'	-6.45	97.55	104.00
33	L1	2723	G	O3'-P-O5'	-6.45	94.32	104.00
33	L1	3240	C	C1'-O4'-C4'	-6.45	103.25	109.70
77	Lc	102	SER	CA-C-O	6.45	127.26	120.42
33	L1	635	U	O4'-C1'-N1	6.45	118.18	108.50
42	LP	95	GLN	OE1-CD-NE2	6.45	129.05	122.60
74	LJ	80	ALA	N-CA-C	6.45	118.39	111.36
32	S1	480	U	C5'-C4'-O4'	6.45	118.78	109.10
32	S1	1071	C	O4'-C1'-N1	6.45	118.17	108.50
33	L1	1655	G	C1'-C2'-O2'	6.45	118.08	108.40
33	L1	1765	G	O4'-C1'-N9	6.45	118.18	108.50
33	L1	2578	G	N9-C1'-C2'	6.45	121.67	112.00
33	L1	3333	C	O3'-P-O5'	6.45	113.67	104.00
75	Lt	25	GLU	CB-CA-C	-6.45	100.75	110.88
2	SA	21	MET	N-CA-CB	6.45	121.39	110.49
32	S1	1298	G	C4'-C3'-C2'	-6.45	96.15	102.60
40	LH	232	GLY	CA-C-N	6.45	133.58	121.97
40	LH	232	GLY	C-N-CA	6.45	133.58	121.97
49	LX	92	LEU	N-CA-CB	6.45	119.45	110.17
3	SB	108	LYS	CG-CD-CE	6.45	126.13	111.30
34	L3	41	G	C1'-O4'-C4'	-6.45	103.45	109.90
1	Sa	201	PRO	N-CA-C	-6.45	99.56	111.03
25	SC	3	ARG	NE-CZ-NH2	-6.45	113.40	119.20
32	S1	1134	U	P-O3'-C3'	6.45	129.87	120.20
32	S1	1435	G	O5'-C5'-C4'	-6.45	101.83	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1793	C	O4'-C1'-C2'	-6.45	101.15	107.60
33	L1	176	A	C2'-C3'-O3'	6.45	123.37	113.70
33	L1	2596	A	C3'-C2'-C1'	6.45	107.94	101.50
33	L1	2862	U	O4'-C4'-C3'	-6.45	97.56	104.00
35	L2	135	G	P-O3'-C3'	6.45	129.87	120.20
59	Lo	22	PRO	CB-CA-C	6.45	119.39	110.95
33	L1	1607	C	C1'-O4'-C4'	-6.44	103.46	109.90
33	L1	1886	U	C1'-C2'-O2'	6.44	118.07	108.40
33	L1	2945	G	C1'-O4'-C4'	-6.44	103.46	109.90
32	S1	599	G	O3'-P-O5'	6.44	113.66	104.00
33	L1	2538	G	O4'-C1'-N9	6.44	118.17	108.50
1	Sa	159	TYR	N-CA-C	-6.44	98.40	108.90
1	Sa	203	GLY	CA-C-N	-6.44	113.69	122.77
1	Sa	203	GLY	C-N-CA	-6.44	113.69	122.77
25	SC	36	TYR	N-CA-CB	6.44	120.22	110.30
32	S1	931	A	C5'-C4'-C3'	-6.44	106.34	116.00
32	S1	1575	U	O4'-C1'-N1	6.44	118.16	108.50
33	L1	303	U	O3'-P-O5'	6.44	113.66	104.00
33	L1	975	G	N9-C1'-C2'	-6.44	102.34	112.00
33	L1	1060	U	C5'-C4'-O4'	6.44	119.46	109.80
33	L1	2178	G	C1'-O4'-C4'	-6.44	103.46	109.90
1	Sa	321	ASP	CA-CB-CG	-6.44	106.16	112.60
15	SS	124	ARG	CA-CB-CG	6.44	126.98	114.10
33	L1	1343	C	P-O5'-C5'	6.44	130.56	120.90
33	L1	3333	C	C3'-C2'-C1'	6.44	107.74	101.30
49	LX	128	GLY	CA-C-O	6.44	125.91	118.96
81	LD	200	MET	CA-C-O	6.44	127.44	119.78
32	S1	1659	A	C1'-C2'-O2'	6.44	118.06	108.40
33	L1	1195	C	N1-C1'-C2'	6.44	121.66	112.00
33	L1	2085	A	O5'-C5'-C4'	6.44	120.45	110.80
33	L1	2632	U	O4'-C1'-N1	6.44	118.16	108.50
33	L1	3216	G	N9-C1'-C2'	-6.44	102.34	112.00
33	L1	305	G	O4'-C1'-N9	6.44	118.16	108.50
33	L1	568	C	C3'-C2'-C1'	6.44	107.74	101.30
49	LX	89	ASN	CA-CB-CG	6.44	119.04	112.60
13	SQ	96	ILE	CA-CB-CG1	6.43	121.34	110.40
15	SS	22	SER	CA-C-N	6.43	129.43	120.29
15	SS	22	SER	C-N-CA	6.43	129.43	120.29
27	SH	56	HIS	CG-CD2-NE2	6.43	113.63	107.20
32	S1	791	C	P-O5'-C5'	6.43	129.65	120.00
32	S1	1288	C	C4'-C3'-O3'	6.43	119.05	109.40
32	S1	1467	C	O3'-P-O5'	-6.43	94.35	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1254	A	C3'-C2'-C1'	-6.43	94.86	101.30
33	L1	1524	G	C3'-C2'-C1'	-6.43	94.86	101.30
35	L2	21	A	O4'-C1'-C2'	6.43	114.03	107.60
38	LE	169	TYR	N-CA-C	6.43	120.12	111.24
61	Lq	15	ARG	CB-CG-CD	6.43	126.10	111.30
80	LC	89	LEU	CA-C-N	6.43	131.04	122.93
80	LC	89	LEU	C-N-CA	6.43	131.04	122.93
83	Lm	4	ARG	CA-CB-CG	-6.43	101.23	114.10
31	S2	69	G	C1'-C2'-O2'	6.43	118.05	108.40
32	S1	337	A	N9-C1'-C2'	6.43	121.65	112.00
33	L1	25	U	O4'-C1'-N1	6.43	118.15	108.50
33	L1	143	A	O4'-C1'-C2'	-6.43	101.17	107.60
33	L1	384	A	C4'-C3'-C2'	-6.43	96.17	102.60
35	L2	92	A	P-O3'-C3'	-6.43	110.55	120.20
61	Lq	18	ARG	NE-CZ-NH1	-6.43	115.07	121.50
32	S1	1168	A	P-O3'-C3'	6.43	129.85	120.20
33	L1	1350	G	N9-C1'-C2'	-6.43	102.35	112.00
32	S1	320	A	O5'-C5'-C4'	6.43	121.15	111.50
32	S1	584	A	O4'-C1'-C2'	-6.43	99.37	105.80
32	S1	1261	U	N1-C1'-C2'	-6.43	102.36	112.00
33	L1	282	A	P-O3'-C3'	6.43	129.84	120.20
33	L1	3332	G	C4'-C3'-O3'	-6.43	103.36	113.00
38	LE	48	VAL	CA-C-N	6.43	130.00	120.87
38	LE	48	VAL	C-N-CA	6.43	130.00	120.87
46	LT	28	GLU	CA-C-N	6.43	129.59	120.53
46	LT	28	GLU	C-N-CA	6.43	129.59	120.53
70	Li	88	ARG	CB-CA-C	-6.43	100.79	110.88
83	Lm	73	THR	N-CA-CB	6.43	121.35	110.49
32	S1	608	U	O4'-C1'-N1	6.43	118.14	108.50
39	LF	167	LYS	CA-CB-CG	6.43	126.95	114.10
41	LM	20	LEU	CA-C-N	6.43	126.38	120.21
41	LM	20	LEU	C-N-CA	6.43	126.38	120.21
15	SS	84	GLY	N-CA-C	-6.43	97.95	113.18
23	SU	18	MET	O-C-N	-6.43	115.92	123.25
29	ST	29	HIS	N-CA-CB	6.43	121.35	110.49
32	S1	572	G	O4'-C1'-N9	6.43	118.14	108.50
33	L1	109	G	O4'-C1'-C2'	-6.43	101.17	107.60
33	L1	2424	G	O4'-C1'-C2'	6.43	114.03	107.60
33	L1	3323	U	P-O5'-C5'	-6.43	111.26	120.90
33	L1	3358	A	C4'-C3'-C2'	-6.43	96.17	102.60
34	L3	72	G	C5'-C4'-C3'	6.43	125.64	116.00
55	Lg	4	LYS	N-CA-C	6.43	119.80	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	Lq	11	ARG	NE-CZ-NH2	-6.43	113.42	119.20
64	LG	198	LEU	CA-C-N	6.43	128.89	120.28
64	LG	198	LEU	C-N-CA	6.43	128.89	120.28
69	La	56	LYS	N-CA-C	6.43	119.88	109.40
72	Lk	66	VAL	CA-C-N	6.43	133.27	121.70
72	Lk	66	VAL	C-N-CA	6.43	133.27	121.70
4	SD	151	ASP	N-CA-CB	6.42	121.80	110.37
33	L1	328	G	P-O5'-C5'	-6.42	111.26	120.90
33	L1	1663	G	C1'-O4'-C4'	-6.42	103.47	109.90
44	LR	106	THR	CA-C-N	6.42	128.89	120.28
44	LR	106	THR	C-N-CA	6.42	128.89	120.28
47	LU	60	ARG	CB-CA-C	6.42	120.40	109.80
57	Ll	54	ILE	CB-CA-C	6.42	120.81	112.14
74	LJ	36	GLY	CA-C-N	6.42	133.81	121.54
74	LJ	36	GLY	C-N-CA	6.42	133.81	121.54
80	LC	25	HIS	CB-CG-ND1	6.42	132.34	122.70
32	S1	689	C	N1-C1'-C2'	6.42	121.64	112.00
32	S1	1288	C	C1'-O4'-C4'	6.42	116.12	109.70
33	L1	102	G	C4'-C3'-C2'	-6.42	96.18	102.60
54	Lf	89	TYR	O-C-N	-6.42	114.05	122.59
1	Sa	267	GLY	O-C-N	-6.42	117.89	123.80
32	S1	355	U	C1'-C2'-O2'	-6.42	102.17	111.80
33	L1	248	C	P-O3'-C3'	-6.42	110.57	120.20
33	L1	1692	U	O4'-C1'-N1	6.42	118.13	108.50
33	L1	1868	C	C1'-O4'-C4'	-6.42	103.48	109.90
33	L1	3295	G	O4'-C1'-N9	6.42	117.83	108.20
64	LG	62	SER	CA-C-N	6.42	128.88	120.28
64	LG	62	SER	C-N-CA	6.42	128.88	120.28
33	L1	2350	C	C4'-C3'-C2'	-6.42	96.18	102.60
33	L1	2882	U	C1'-C2'-O2'	6.42	118.03	108.40
70	Li	23	VAL	N-CA-CB	6.42	121.82	111.23
32	S1	1153	C	O4'-C1'-C2'	-6.42	101.18	107.60
33	L1	766	C	C3'-C2'-C1'	6.42	107.72	101.30
33	L1	1546	G	O4'-C1'-N9	6.42	118.13	108.50
33	L1	2500	U	C5'-C4'-C3'	-6.42	106.37	116.00
33	L1	3210	G	C1'-O4'-C4'	6.42	116.32	109.90
41	LM	68	GLY	O-C-N	-6.42	114.36	122.70
42	LP	75	VAL	O-C-N	-6.42	112.73	123.00
19	SY	35	ASN	CA-CB-CG	-6.42	106.18	112.60
33	L1	1664	G	O4'-C1'-C2'	-6.42	96.78	106.40
51	LY	121	LYS	CA-C-N	6.42	128.88	120.28
51	LY	121	LYS	C-N-CA	6.42	128.88	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
68	LW	104	VAL	CA-C-N	-6.42	110.42	121.97
68	LW	104	VAL	C-N-CA	-6.42	110.42	121.97
10	SL	16	HIS	O-C-N	6.42	128.68	122.07
23	SU	11	THR	CA-C-O	6.42	127.94	120.75
33	L1	1337	C	C3'-C2'-C1'	6.42	107.72	101.30
33	L1	1622	G	C3'-C2'-C1'	6.42	107.72	101.30
32	S1	1635	U	O4'-C1'-N1	6.41	118.12	108.50
33	L1	1510	G	O4'-C1'-N9	6.41	117.82	108.20
33	L1	1627	U	O4'-C1'-N1	6.41	118.12	108.50
45	LQ	130	ASP	CA-CB-CG	6.41	119.01	112.60
32	S1	300	U	C5'-C4'-C3'	6.41	125.62	116.00
33	L1	1664	G	C2'-C3'-O3'	6.41	121.12	111.50
33	L1	2268	G	N9-C1'-C2'	6.41	123.62	114.00
32	S1	1617	U	P-O5'-C5'	6.41	130.51	120.90
32	S1	1801	A	C3'-C2'-C1'	-6.41	95.09	101.50
33	L1	949	C	C1'-O4'-C4'	6.41	116.31	109.90
40	LH	61	ARG	CD-NE-CZ	6.41	133.38	124.40
68	LW	82	LYS	O-C-N	6.41	131.12	122.59
6	SF	72	LEU	CB-CA-C	-6.41	100.15	110.79
9	SK	86	GLU	N-CA-C	6.41	118.06	111.14
23	SU	33	LEU	CB-CA-C	6.41	123.73	111.17
25	SC	166	PHE	N-CA-CB	6.41	121.32	110.49
33	L1	347	A	C1'-O4'-C4'	-6.41	103.29	109.70
33	L1	2219	A	C1'-O4'-C4'	6.41	116.31	109.90
45	LQ	192	SER	CA-C-O	6.41	128.31	121.45
80	LC	19	ARG	CA-C-O	-6.41	114.66	122.41
23	SU	77	GLY	O-C-N	6.41	129.37	123.73
31	S2	18	G	C4'-C3'-C2'	-6.41	96.19	102.60
32	S1	577	C	N1-C1'-C2'	6.41	121.61	112.00
33	L1	1636	C	O3'-P-O5'	-6.41	94.39	104.00
33	L1	3071	A	C3'-C2'-C1'	-6.41	94.89	101.30
81	LD	345	THR	N-CA-CB	6.41	121.32	110.49
6	SF	170	ALA	CA-C-N	6.41	128.77	120.44
6	SF	170	ALA	C-N-CA	6.41	128.77	120.44
9	SK	120	ARG	NE-CZ-NH1	6.41	127.91	121.50
28	SN	14	TYR	CA-C-N	6.41	133.96	121.41
28	SN	14	TYR	C-N-CA	6.41	133.96	121.41
32	S1	1592	G	O4'-C1'-C2'	-6.41	99.39	105.80
33	L1	940	G	C2'-C3'-O3'	6.41	119.11	109.50
66	LN	89	TRP	CB-CG-CD2	6.41	135.77	126.80
67	LS	5	ARG	N-CA-CB	6.41	121.32	110.49
33	L1	2465	G	C5'-C4'-C3'	6.40	125.61	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3024	U	C1'-O4'-C4'	6.40	116.30	109.90
56	Lh	8	LYS	N-CA-C	6.40	118.26	111.28
57	L1	56	ARG	CA-C-N	6.40	128.86	120.28
57	L1	56	ARG	C-N-CA	6.40	128.86	120.28
5	SE	31	ARG	CB-CA-C	6.40	120.36	109.80
25	SC	149	MET	N-CA-CB	6.40	121.31	110.49
32	S1	1572	U	N1-C1'-C2'	6.40	121.60	112.00
33	L1	755	C	C2'-C3'-O3'	6.40	119.10	109.50
33	L1	978	C	C4'-C3'-C2'	6.40	109.00	102.60
33	L1	1499	C	C1'-O4'-C4'	-6.40	103.50	109.90
33	L1	1560	A	O3'-P-O5'	-6.40	94.40	104.00
36	LA	35	ILE	CB-CA-C	6.40	119.55	110.84
32	S1	942	C	O4'-C1'-C2'	-6.40	101.20	107.60
32	S1	1738	U	N1-C1'-C2'	6.40	121.60	112.00
33	L1	443	G	C1'-O4'-C4'	-6.40	103.50	109.90
33	L1	560	C	O4'-C1'-C2'	-6.40	101.20	107.60
33	L1	1261	C	C3'-C2'-C1'	-6.40	94.90	101.30
33	L1	1818	C	O5'-C5'-C4'	6.40	121.10	111.50
33	L1	2866	A	C1'-O4'-C4'	-6.40	103.50	109.90
48	LV	124	GLN	N-CA-C	-6.40	97.17	110.80
81	LD	333	LEU	N-CA-C	6.40	118.26	111.28
8	SJ	110	ILE	CA-C-O	-6.40	114.39	121.17
32	S1	1094	U	C4'-C3'-O3'	-6.40	103.40	113.00
32	S1	1508	C	O4'-C1'-N1	6.40	118.10	108.50
33	L1	310	C	C4'-C3'-O3'	6.40	122.60	113.00
33	L1	709	G	O4'-C1'-N9	6.40	118.10	108.50
33	L1	2332	C	O4'-C1'-C2'	6.40	114.00	107.60
2	SA	257	ALA	CA-C-N	6.40	133.22	121.70
2	SA	257	ALA	C-N-CA	6.40	133.22	121.70
11	SM	108	ARG	N-CA-C	6.40	118.25	111.28
25	SC	92	GLN	N-CA-C	-6.40	104.31	111.28
33	L1	1650	G	O4'-C4'-C3'	6.40	110.40	104.00
42	LP	18	VAL	CB-CA-C	-6.40	103.50	112.14
71	Lj	93	LEU	CB-CA-C	-6.40	97.19	110.50
32	S1	1471	C	N1-C1'-C2'	6.40	121.59	112.00
33	L1	1054	U	C1'-O4'-C4'	-6.40	103.50	109.90
1	Sa	73	ASP	CA-CB-CG	6.39	118.99	112.60
32	S1	1201	C	C5'-C4'-O4'	6.39	119.39	109.80
33	L1	341	U	O4'-C1'-N1	6.39	117.79	108.20
33	L1	661	A	O4'-C1'-C2'	-6.39	101.20	107.60
33	L1	1768	U	O4'-C1'-C2'	-6.39	99.41	105.80
33	L1	1875	A	C3'-C2'-C1'	6.39	107.89	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	642	C	C1'-O4'-C4'	-6.39	103.51	109.90
33	L1	903	G	O4'-C1'-N9	6.39	118.09	108.50
33	L1	2080	G	P-O3'-C3'	-6.39	110.61	120.20
3	SB	82	ASN	CA-C-O	6.39	127.72	121.14
32	S1	919	G	C1'-C2'-O2'	-6.39	102.21	111.80
33	L1	381	G	N9-C1'-C2'	-6.39	102.41	112.00
33	L1	2955	U	C5'-C4'-O4'	6.39	119.39	109.80
2	SA	18	ASP	N-CA-CB	6.39	121.29	110.49
5	SE	52	ARG	N-CA-CB	6.39	121.29	110.49
5	SE	111	VAL	N-CA-CB	6.39	121.77	111.23
32	S1	149	G	O4'-C1'-C2'	-6.39	101.21	107.60
32	S1	683	C	N1-C1'-C2'	6.39	121.58	112.00
32	S1	1344	U	P-O5'-C5'	6.39	130.49	120.90
33	L1	2858	G	C3'-C2'-C1'	-6.39	94.91	101.30
33	L1	3183	G	C4'-C3'-C2'	-6.39	96.21	102.60
35	L2	33	U	C4'-C3'-C2'	-6.39	96.21	102.60
46	LT	172	ARG	CA-C-N	6.39	128.84	120.28
46	LT	172	ARG	C-N-CA	6.39	128.84	120.28
64	LG	139	VAL	N-CA-C	6.39	122.63	109.34
67	LS	98	ASP	CA-CB-CG	-6.39	106.21	112.60
78	Le	102	LYS	CA-C-N	6.39	128.84	120.28
78	Le	102	LYS	C-N-CA	6.39	128.84	120.28
78	Le	123	LYS	N-CA-CB	6.39	119.62	110.16
33	L1	706	U	O5'-C5'-C4'	6.39	121.08	111.50
80	LC	267	VAL	CB-CA-C	6.39	120.97	111.26
1	Sa	225	SER	CA-C-N	6.39	131.38	120.72
1	Sa	225	SER	C-N-CA	6.39	131.38	120.72
9	SK	33	PHE	CA-C-O	6.39	129.64	120.51
11	SM	135	HIS	CB-CG-ND1	6.39	132.28	122.70
32	S1	152	G	C3'-C2'-C1'	6.39	107.69	101.30
32	S1	630	U	C2'-C3'-O3'	6.39	123.28	113.70
32	S1	1614	C	C5'-C4'-C3'	-6.39	106.42	116.00
32	S1	1740	G	C4'-C3'-C2'	-6.39	96.21	102.60
33	L1	875	A	C2'-C3'-O3'	6.39	123.28	113.70
33	L1	1081	U	C4'-C3'-O3'	6.39	122.58	113.00
33	L1	1565	G	C4'-C3'-O3'	-6.39	103.42	113.00
33	L1	1860	A	O4'-C1'-C2'	-6.39	99.41	105.80
33	L1	2633	C	O4'-C4'-C3'	-6.39	97.61	104.00
33	L1	3056	C	C3'-C2'-C1'	6.39	107.69	101.30
33	L1	3337	G	O3'-P-O5'	-6.39	94.42	104.00
34	L3	55	A	O4'-C1'-N9	6.39	118.08	108.50
35	L2	119	C	C5'-C4'-C3'	-6.39	106.42	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	LU	155	ASP	O-C-N	-6.39	114.10	122.59
5	SE	226	CYS	O-C-N	-6.38	114.71	123.01
27	SH	84	LYS	CB-CA-C	-6.38	100.92	110.24
32	S1	594	C	O4'-C1'-N1	6.38	118.08	108.50
32	S1	1780	U	C1'-C2'-O2'	6.38	117.98	108.40
33	L1	1257	U	C1'-O4'-C4'	6.38	116.28	109.90
33	L1	2183	A	P-O5'-C5'	6.38	130.48	120.90
33	L1	3363	G	C1'-C2'-O2'	6.38	117.98	108.40
45	LQ	234	ASP	N-CA-C	6.38	119.54	109.39
46	LT	119	MET	O-C-N	-6.38	114.87	122.15
33	L1	152	C	C5'-C4'-C3'	6.38	124.47	114.90
33	L1	1559	G	C4'-C3'-O3'	6.38	119.57	110.00
33	L1	2488	A	C1'-C2'-O2'	6.38	117.97	108.40
33	L1	2806	A	C5'-C4'-C3'	6.38	125.58	116.00
55	Lg	5	LYS	CB-CA-C	6.38	123.12	110.42
64	LG	26	TRP	N-CA-CB	6.38	121.28	110.49
5	SE	21	ARG	NH1-CZ-NH2	-6.38	111.00	119.30
29	ST	77	ALA	N-CA-C	6.38	117.92	110.97
32	S1	624	A	C3'-C2'-C1'	6.38	107.68	101.30
32	S1	1083	C	O3'-P-O5'	6.38	113.57	104.00
33	L1	1055	U	C4'-C3'-O3'	-6.38	103.43	113.00
33	L1	3348	G	O4'-C1'-N9	6.38	118.07	108.50
66	LN	117	ARG	N-CA-C	6.38	118.24	111.28
74	LJ	118	ARG	NE-CZ-NH1	6.38	127.88	121.50
78	Le	234	ASN	O-C-N	6.38	128.64	122.07
32	S1	1048	A	O4'-C1'-N9	6.38	117.77	108.20
1	Sa	13	ALA	CA-C-N	6.38	128.83	120.28
1	Sa	13	ALA	C-N-CA	6.38	128.83	120.28
33	L1	3304	U	O4'-C4'-C3'	-6.38	97.62	104.00
46	LT	61	SER	N-CA-C	6.38	118.23	111.28
32	S1	1012	C	C3'-C2'-C1'	6.38	107.68	101.30
32	S1	1123	G	O4'-C1'-N9	6.38	118.07	108.50
32	S1	1169	G	N9-C1'-C2'	-6.38	102.44	112.00
33	L1	679	C	C3'-C2'-C1'	6.38	107.68	101.30
33	L1	1608	C	O4'-C1'-C2'	-6.38	101.22	107.60
32	S1	1372	C	C3'-C2'-C1'	6.38	107.67	101.30
33	L1	224	C	C1'-C2'-O2'	6.38	117.96	108.40
33	L1	845	G	O4'-C1'-C2'	6.38	113.97	107.60
33	L1	3024	U	O4'-C1'-N1	6.38	118.06	108.50
37	LB	37	ARG	NE-CZ-NH1	6.38	127.88	121.50
51	LY	109	LYS	N-CA-CB	6.38	120.88	110.17
81	LD	367	SER	N-CA-C	6.38	123.90	109.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	SB	210	ILE	CA-C-N	6.37	133.17	121.70
3	SB	210	ILE	C-N-CA	6.37	133.17	121.70
27	SH	119	LYS	N-CA-CB	6.37	121.16	110.32
32	S1	382	A	O4'-C1'-N9	6.37	118.06	108.50
32	S1	1195	U	C3'-C2'-C1'	-6.37	94.93	101.30
33	L1	263	A	P-O5'-C5'	6.37	130.46	120.90
33	L1	1308	A	O3'-P-O5'	6.37	113.56	104.00
33	L1	1866	C	N1-C1'-C2'	6.37	121.56	112.00
50	LZ	52	THR	O-C-N	-6.37	115.50	122.07
33	L1	614	C	O4'-C1'-N1	6.37	118.06	108.50
33	L1	922	U	C1'-O4'-C4'	-6.37	103.53	109.90
33	L1	1815	G	P-O5'-C5'	6.37	130.46	120.90
33	L1	1931	G	C3'-C2'-C1'	6.37	107.67	101.30
41	LM	70	PRO	N-CA-C	-6.37	105.68	114.98
42	LP	71	ARG	N-CA-C	-6.37	98.69	108.76
3	SB	147	ALA	N-CA-CB	6.37	119.40	110.04
3	SB	178	ARG	N-CA-C	-6.37	103.03	111.24
33	L1	92	C	C3'-C2'-C1'	6.37	107.87	101.50
33	L1	297	G	C5'-C4'-O4'	-6.37	100.25	109.80
33	L1	2397	A	O3'-P-O5'	6.37	113.55	104.00
33	L1	2612	A	O4'-C1'-N9	6.37	118.05	108.50
45	LQ	250	ASP	N-CA-CB	6.37	121.33	110.50
32	S1	1469	C	C4'-C3'-C2'	-6.37	96.23	102.60
33	L1	1064	U	O5'-C5'-C4'	6.37	121.05	111.50
33	L1	1429	U	C4'-C3'-C2'	-6.37	96.23	102.60
35	L2	55	G	O4'-C1'-C2'	-6.37	99.43	105.80
15	SS	51	TYR	CA-CB-CG	6.37	125.36	113.90
33	L1	1143	G	N9-C1'-C2'	6.37	121.55	112.00
33	L1	2699	A	C3'-C2'-C1'	6.37	107.67	101.30
33	L1	3048	C	C5'-C4'-O4'	-6.37	100.25	109.80
33	L1	3143	A	C1'-C2'-O2'	-6.37	102.25	111.80
24	SX	72	LYS	O-C-N	6.36	130.48	122.91
32	S1	217	A	O4'-C1'-N9	6.36	118.04	108.50
32	S1	300	U	N1-C1'-C2'	-6.36	102.46	112.00
32	S1	1045	G	O4'-C1'-N9	6.36	118.05	108.50
33	L1	235	G	P-O3'-C3'	6.36	129.75	120.20
33	L1	664	A	C3'-C2'-C1'	-6.36	94.94	101.30
33	L1	744	C	C2'-C3'-O3'	6.36	123.25	113.70
71	Lj	35	GLN	CA-C-O	-6.36	113.46	120.33
72	Lk	68	LYS	N-CA-C	6.36	118.22	111.28
80	LC	364	ASP	CA-C-O	-6.36	112.38	120.27
33	L1	689	G	O4'-C1'-C2'	6.36	113.96	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1311	G	C1'-O4'-C4'	-6.36	103.54	109.90
1	Sa	46	ARG	N-CA-C	6.36	119.03	111.33
24	SX	67	GLN	N-CA-C	-6.36	101.31	110.40
32	S1	34	G	O4'-C1'-C2'	-6.36	101.24	107.60
33	L1	809	A	C4'-C3'-O3'	6.36	118.94	109.40
33	L1	1288	C	N1-C1'-C2'	6.36	121.54	112.00
33	L1	1638	U	N1-C1'-C2'	-6.36	102.46	112.00
40	LH	74	ASN	OD1-CG-ND2	-6.36	116.24	122.60
70	Li	102	ILE	N-CA-C	6.36	122.57	109.34
2	SA	38	MET	N-CA-C	6.36	119.20	111.82
33	L1	1132	A	O4'-C1'-N9	-6.36	98.96	108.50
33	L1	1812	A	O4'-C1'-C2'	6.36	113.96	107.60
33	L1	2866	A	C3'-C2'-C1'	-6.36	94.94	101.30
33	L1	3215	U	N1-C1'-C2'	-6.36	102.46	112.00
5	SE	16	GLY	CA-C-N	6.36	133.68	121.54
5	SE	16	GLY	C-N-CA	6.36	133.68	121.54
32	S1	512	U	O4'-C1'-C2'	-6.36	101.24	107.60
32	S1	687	C	O4'-C1'-C2'	-6.36	101.24	107.60
42	LP	18	VAL	CA-C-N	6.36	128.71	120.44
42	LP	18	VAL	C-N-CA	6.36	128.71	120.44
46	LT	23	TRP	CZ3-CH2-CZ2	-6.36	113.24	121.50
10	SL	8	GLY	N-CA-C	6.36	128.24	113.18
15	SS	143	VAL	N-CA-C	6.36	117.10	110.62
29	ST	6	GLY	N-CA-C	-6.36	105.13	112.50
32	S1	7	G	C1'-O4'-C4'	-6.36	103.54	109.90
32	S1	558	C	C1'-C2'-O2'	-6.36	102.27	111.80
32	S1	1055	G	C5'-C4'-C3'	6.36	125.53	116.00
32	S1	1351	U	O4'-C1'-C2'	-6.36	101.24	107.60
32	S1	1472	G	O4'-C1'-C2'	6.36	113.96	107.60
33	L1	8	C	C1'-C2'-O2'	6.36	117.93	108.40
33	L1	1367	A	O3'-P-O5'	-6.36	94.47	104.00
33	L1	2456	G	C5'-C4'-C3'	6.36	125.53	116.00
33	L1	2501	U	C3'-C2'-C1'	-6.36	94.94	101.30
33	L1	2660	A	O3'-P-O5'	6.36	113.53	104.00
33	L1	3006	G	O4'-C1'-N9	6.36	117.73	108.20
35	L2	45	A	O5'-C5'-C4'	6.36	121.03	111.50
47	LU	10	ARG	O-C-N	-6.36	114.14	122.59
74	LJ	24	ALA	CA-C-N	6.36	128.80	120.28
74	LJ	24	ALA	C-N-CA	6.36	128.80	120.28
80	LC	300	THR	N-CA-CB	6.36	121.23	110.49
81	LD	224	LYS	N-CA-CB	-6.36	100.43	110.22
6	SF	70	ASN	CB-CA-C	6.35	121.34	110.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	416	A	N9-C1'-C2'	-6.35	102.47	112.00
33	L1	838	G	P-O3'-C3'	-6.35	110.67	120.20
33	L1	919	G	N9-C1'-C2'	6.35	121.53	112.00
33	L1	3316	C	C5'-C4'-C3'	6.35	125.53	116.00
35	L2	154	G	C1'-O4'-C4'	-6.35	103.55	109.90
46	LT	58	HIS	N-CA-C	6.35	124.33	110.80
32	S1	1278	C	C3'-C2'-C1'	-6.35	94.95	101.30
33	L1	2455	A	P-O5'-C5'	6.35	130.43	120.90
33	L1	3388	U	C5'-C4'-C3'	6.35	125.53	116.00
70	Li	109	ILE	CB-CA-C	6.35	121.17	110.95
72	Lk	52	GLY	CA-C-N	6.35	129.31	120.29
72	Lk	52	GLY	C-N-CA	6.35	129.31	120.29
7	SI	34	LEU	CA-C-N	6.35	129.01	120.50
7	SI	34	LEU	C-N-CA	6.35	129.01	120.50
32	S1	1434	G	C1'-C2'-O2'	6.35	117.92	108.40
33	L1	827	C	C1'-O4'-C4'	-6.35	103.55	109.90
33	L1	1667	C	C1'-C2'-O2'	6.35	117.92	108.40
33	L1	2133	A	C2'-C3'-O3'	6.35	119.03	109.50
33	L1	2691	U	C4'-C3'-C2'	-6.35	96.25	102.60
33	L1	2828	U	N1-C1'-C2'	6.35	121.52	112.00
56	Lh	57	GLY	CA-C-N	6.35	129.42	120.28
56	Lh	57	GLY	C-N-CA	6.35	129.42	120.28
2	SA	114	ASN	CA-CB-CG	-6.35	106.25	112.60
3	SB	60	GLY	N-CA-C	-6.35	106.92	115.36
32	S1	150	U	N1-C1'-C2'	-6.35	102.48	112.00
32	S1	1127	G	P-O5'-C5'	-6.35	111.38	120.90
33	L1	597	C	C4'-C3'-C2'	-6.35	96.25	102.60
33	L1	810	A	C3'-C2'-C1'	6.35	107.65	101.30
33	L1	1225	A	C1'-C2'-O2'	6.35	117.92	108.40
68	LW	91	LYS	N-CA-C	6.35	118.20	111.28
81	LD	188	LYS	N-CA-C	-6.35	105.40	113.02
32	S1	950	U	C1'-O4'-C4'	-6.35	103.55	109.90
33	L1	1192	A	C1'-O4'-C4'	6.35	116.05	109.70
35	L2	93	A	C2'-C3'-O3'	6.35	119.02	109.50
5	SE	135	ARG	NE-CZ-NH2	6.34	124.91	119.20
19	SY	39	MET	N-CA-C	-6.34	98.18	108.52
33	L1	492	G	P-O5'-C5'	-6.34	111.38	120.90
35	L2	87	C	C1'-C2'-O2'	6.34	117.92	108.40
69	La	14	LEU	N-CA-C	6.34	124.31	110.80
33	L1	845	G	C1'-C2'-O2'	6.34	117.91	108.40
33	L1	852	C	O4'-C1'-C2'	-6.34	101.26	107.60
33	L1	2876	G	P-O3'-C3'	-6.34	110.69	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2973	A	C1'-C2'-O2'	6.34	121.31	111.80
46	LT	100	ARG	NE-CZ-NH2	-6.34	113.49	119.20
19	SY	27	ARG	N-CA-CB	6.34	120.77	110.43
32	S1	300	U	O3'-P-O5'	6.34	113.51	104.00
32	S1	1065	A	P-O3'-C3'	6.34	129.71	120.20
32	S1	1122	U	C4'-C3'-C2'	6.34	108.94	102.60
33	L1	188	U	C4'-C3'-C2'	6.34	108.94	102.60
33	L1	1725	G	P-O3'-C3'	-6.34	110.69	120.20
33	L1	2742	A	C4'-C3'-C2'	-6.34	96.26	102.60
35	L2	99	G	P-O3'-C3'	6.34	129.71	120.20
44	LR	62	LEU	O-C-N	-6.34	115.75	123.30
32	S1	1034	G	O4'-C1'-C2'	-6.34	99.46	105.80
32	S1	1128	C	C3'-C2'-C1'	6.34	107.64	101.30
33	L1	1034	U	O4'-C1'-C2'	-6.34	101.26	107.60
33	L1	1081	U	O3'-P-O5'	6.34	113.51	104.00
33	L1	1955	G	C1'-C2'-O2'	6.34	117.91	108.40
33	L1	2871	U	C3'-C2'-C1'	6.34	107.64	101.30
82	LK	88	THR	O-C-N	-6.34	115.54	122.07
33	L1	1005	C	O4'-C1'-N1	6.34	118.01	108.50
4	SD	175	PHE	CA-CB-CG	-6.34	107.46	113.80
30	S3	16	G	P-O3'-C3'	6.34	129.71	120.20
32	S1	1430	A	C3'-C2'-C1'	6.34	107.64	101.30
33	L1	770	U	O3'-P-O5'	6.34	113.50	104.00
33	L1	1983	U	O4'-C1'-C2'	-6.34	101.26	107.60
34	L3	97	G	C4'-C3'-O3'	-6.34	103.49	113.00
64	LG	183	VAL	CA-C-N	6.34	133.37	121.97
64	LG	183	VAL	C-N-CA	6.34	133.37	121.97
80	LC	140	ASP	CB-CA-C	6.34	120.20	109.55
32	S1	142	G	O3'-P-O5'	-6.33	94.50	104.00
33	L1	1409	G	O4'-C1'-C2'	6.33	113.94	107.60
33	L1	1820	C	O4'-C4'-C3'	-6.33	97.67	104.00
33	L1	3057	A	C4'-C3'-O3'	-6.33	103.50	113.00
23	SU	25	ARG	CB-CG-CD	6.33	125.87	111.30
23	SU	53	TYR	N-CA-C	6.33	124.29	110.80
32	S1	1804	A	O3'-P-O5'	6.33	113.50	104.00
33	L1	140	C	C1'-O4'-C4'	-6.33	103.57	109.90
33	L1	715	A	P-O3'-C3'	6.33	129.70	120.20
33	L1	963	U	C3'-C2'-C1'	6.33	107.63	101.30
33	L1	1166	C	C5'-C4'-C3'	6.33	125.50	116.00
33	L1	2791	U	C1'-C2'-O2'	6.33	117.90	108.40
33	L1	3057	A	O4'-C1'-N9	-6.33	99.00	108.50
57	L1	85	THR	CA-C-O	-6.33	112.79	119.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
64	LG	62	SER	N-CA-CB	-6.33	100.83	110.01
70	Li	30	LEU	O-C-N	-6.33	114.17	122.59
74	LJ	136	THR	CA-C-O	6.33	126.72	119.18
77	Lc	46	ASN	CA-C-O	6.33	129.57	120.51
83	Lm	27	LYS	N-CA-C	-6.33	104.29	111.07
3	SB	22	ASN	N-CA-CB	6.33	119.19	110.01
4	SD	81	THR	N-CA-CB	6.33	120.40	110.46
32	S1	1015	C	P-O5'-C5'	-6.33	111.40	120.90
32	S1	1541	C	C3'-C2'-C1'	-6.33	94.97	101.30
32	S1	1699	C	C1'-O4'-C4'	-6.33	103.57	109.90
33	L1	281	G	N9-C1'-C2'	6.33	121.50	112.00
33	L1	2176	A	O5'-C5'-C4'	-6.33	102.00	111.50
35	L2	110	C	C4'-C3'-O3'	6.33	118.90	109.40
48	LV	159	LYS	N-CA-C	6.33	120.10	112.38
57	Ll	51	VAL	N-CA-CB	6.33	121.68	111.23
66	LN	99	ARG	CA-C-O	-6.33	114.17	120.82
81	LD	404	THR	N-CA-C	6.33	118.18	111.28
1	Sa	101	THR	CA-C-N	6.33	132.74	122.29
1	Sa	101	THR	C-N-CA	6.33	132.74	122.29
13	SQ	86	PRO	N-CA-C	6.33	125.51	112.47
32	S1	1625	U	C2'-C3'-O3'	6.33	119.00	109.50
33	L1	98	A	O3'-P-O5'	6.33	113.50	104.00
33	L1	1383	G	O3'-P-O5'	6.33	113.50	104.00
33	L1	2769	U	O4'-C1'-N1	6.33	118.00	108.50
82	LK	71	PRO	N-CA-C	-6.33	99.43	112.47
1	Sa	108	CYS	N-CA-CB	6.33	117.78	109.55
13	SQ	125	ALA	CA-C-N	-6.33	111.93	119.84
13	SQ	125	ALA	C-N-CA	-6.33	111.93	119.84
33	L1	1387	G	P-O3'-C3'	-6.33	110.71	120.20
33	L1	2630	A	C1'-C2'-O2'	6.33	121.29	111.80
33	L1	2795	G	P-O5'-C5'	6.33	130.39	120.90
33	L1	3305	U	C4'-C3'-O3'	-6.33	103.51	113.00
33	L1	545	C	C4'-C3'-O3'	-6.33	103.51	113.00
33	L1	1119	G	O4'-C1'-C2'	6.33	112.13	105.80
70	Li	38	ARG	CA-C-O	6.33	127.61	119.95
13	SQ	9	VAL	N-CA-C	6.33	116.48	110.53
15	SS	134	LEU	N-CA-CB	-6.33	100.82	110.12
32	S1	592	U	O4'-C1'-N1	6.33	117.99	108.50
32	S1	1017	U	O4'-C4'-C3'	6.33	110.33	104.00
32	S1	1381	G	C4'-C3'-C2'	-6.33	96.28	102.60
33	L1	308	U	P-O3'-C3'	-6.33	110.71	120.20
33	L1	1673	A	C1'-O4'-C4'	-6.33	103.58	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2373	C	C5'-C4'-O4'	6.33	118.59	109.10
56	Lh	94	CYS	N-CA-C	-6.33	99.60	109.72
60	Lr	78	LYS	O-C-N	-6.33	115.08	122.86
81	LD	371	ALA	O-C-N	-6.33	115.56	122.07
3	SB	191	ASP	N-CA-C	-6.32	100.01	109.94
11	SM	19	ASN	N-CA-C	6.32	119.01	108.96
15	SS	7	ARG	N-CA-CB	6.32	119.43	109.82
25	SC	110	ARG	CA-C-O	6.32	127.07	120.30
27	SH	121	VAL	CG1-CB-CG2	-6.32	96.89	110.80
32	S1	898	U	O4'-C1'-N1	6.32	117.98	108.50
33	L1	900	C	N1-C1'-C2'	6.32	121.48	112.00
33	L1	1582	C	N1-C1'-C2'	6.32	121.48	112.00
67	LS	138	ARG	CA-C-N	6.32	133.08	121.70
67	LS	138	ARG	C-N-CA	6.32	133.08	121.70
73	Lp	35	ARG	N-CA-CB	-6.32	97.46	111.69
13	SQ	74	GLN	N-CA-C	6.32	124.27	110.80
32	S1	1576	C	O4'-C1'-C2'	-6.32	99.48	105.80
33	L1	972	C	O4'-C1'-N1	6.32	117.98	108.50
33	L1	1743	C	O3'-P-O5'	6.32	113.48	104.00
32	S1	399	U	O3'-P-O5'	-6.32	94.52	104.00
33	L1	48	A	C5'-C4'-O4'	6.32	118.58	109.10
33	L1	3002	U	C1'-C2'-O2'	6.32	117.88	108.40
55	Lg	16	VAL	N-CA-C	-6.32	96.19	109.34
11	SM	120	HIS	CG-CD2-NE2	6.32	113.52	107.20
33	L1	2910	C	C1'-O4'-C4'	-6.32	103.58	109.90
48	LV	39	LEU	N-CA-CB	6.32	117.21	111.27
81	LD	355	ARG	N-CA-CB	6.32	120.11	110.44
32	S1	1521	G	P-O3'-C3'	6.32	129.68	120.20
33	L1	840	A	C3'-C2'-C1'	-6.32	94.98	101.30
33	L1	1226	G	O4'-C1'-N9	6.32	117.68	108.20
33	L1	1535	C	O4'-C1'-C2'	-6.32	101.28	107.60
33	L1	2237	A	O4'-C1'-C2'	-6.32	101.28	107.60
33	L1	2615	U	C1'-C2'-O2'	6.32	117.88	108.40
47	LU	49	HIS	CG-CD2-NE2	6.32	113.52	107.20
13	SQ	17	ILE	N-CA-CB	6.32	120.06	110.58
15	SS	98	SER	N-CA-C	-6.32	97.35	110.80
31	S2	45	G	N9-C1'-C2'	-6.32	104.53	114.00
32	S1	36	C	C3'-C2'-C1'	6.32	107.62	101.30
32	S1	1587	G	N9-C1'-C2'	6.32	121.47	112.00
33	L1	1439	U	C1'-C2'-O2'	6.32	117.87	108.40
33	L1	2686	U	C5'-C4'-O4'	-6.32	100.33	109.80
33	L1	2873	G	N9-C1'-C2'	6.32	121.47	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	L2	19	G	N9-C1'-C2'	6.32	121.47	112.00
35	L2	101	G	C1'-O4'-C4'	-6.32	103.58	109.90
50	LZ	65	ILE	N-CA-C	-6.32	100.02	108.35
70	Li	35	THR	N-CA-C	-6.32	98.98	107.88
78	Le	170	VAL	CA-C-O	6.32	124.46	118.90
81	LD	379	LYS	CA-C-N	6.32	128.65	120.44
81	LD	379	LYS	C-N-CA	6.32	128.65	120.44
33	L1	340	A	P-O3'-C3'	6.31	129.67	120.20
33	L1	70	A	C1'-O4'-C4'	-6.31	103.39	109.70
33	L1	513	C	O4'-C1'-N1	6.31	117.97	108.50
33	L1	1291	A	C1'-C2'-O2'	-6.31	98.93	108.40
33	L1	1674	A	P-O5'-C5'	6.31	130.37	120.90
33	L1	2393	G	N9-C1'-C2'	6.31	121.47	112.00
33	L1	2529	C	N1-C1'-C2'	6.31	121.47	112.00
34	L3	68	G	C1'-C2'-O2'	6.31	117.87	108.40
37	LB	185	ALA	CA-C-N	6.31	128.65	120.44
37	LB	185	ALA	C-N-CA	6.31	128.65	120.44
47	LU	65	TRP	N-CA-CB	-6.31	99.72	110.33
47	LU	84	ILE	N-CA-C	6.31	122.47	109.34
49	LX	109	VAL	CA-C-N	6.31	128.74	120.28
49	LX	109	VAL	C-N-CA	6.31	128.74	120.28
57	L1	78	PHE	O-C-N	-6.31	114.98	123.19
33	L1	1610	A	O4'-C1'-C2'	-6.31	101.29	107.60
41	LM	81	ILE	CA-C-O	6.31	128.19	120.74
46	LT	172	ARG	CD-NE-CZ	-6.31	115.56	124.40
33	L1	290	C	P-O3'-C3'	-6.31	110.73	120.20
33	L1	838	G	C5'-C4'-C3'	6.31	125.46	116.00
33	L1	1240	G	P-O3'-C3'	-6.31	110.74	120.20
33	L1	1606	C	C3'-C2'-C1'	6.31	107.61	101.30
33	L1	2563	G	P-O5'-C5'	6.31	130.36	120.90
33	L1	2702	G	C1'-C2'-O2'	6.31	117.86	108.40
33	L1	3353	G	C4'-C3'-O3'	-6.31	99.94	109.40
36	LA	200	VAL	CB-CA-C	-6.31	105.49	112.68
69	La	50	PRO	CA-C-N	6.31	133.59	121.54
69	La	50	PRO	C-N-CA	6.31	133.59	121.54
32	S1	371	A	N9-C1'-C2'	-6.31	102.54	112.00
32	S1	1413	C	N1-C1'-C2'	6.31	121.46	112.00
33	L1	446	C	O4'-C1'-C2'	-6.31	101.29	107.60
33	L1	2704	U	O4'-C1'-C2'	-6.31	101.29	107.60
78	Le	80	SER	CA-C-N	6.31	127.54	120.66
78	Le	80	SER	C-N-CA	6.31	127.54	120.66
80	LC	191	ILE	O-C-N	-6.31	115.75	121.87

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	SC	158	ILE	CA-C-N	6.31	133.59	121.54
25	SC	158	ILE	C-N-CA	6.31	133.59	121.54
14	SP	103	LYS	CA-C-O	-6.30	113.99	121.11
29	ST	25	THR	CA-C-N	6.30	129.02	120.38
29	ST	25	THR	C-N-CA	6.30	129.02	120.38
33	L1	2935	A	C3'-C2'-C1'	6.30	107.61	101.30
33	L1	3280	U	P-O3'-C3'	6.30	129.66	120.20
80	LC	26	ARG	NH1-CZ-NH2	-6.30	111.10	119.30
64	LG	65	LYS	CB-CA-C	6.30	124.91	111.80
1	Sa	211	LEU	N-CA-C	-6.30	99.49	109.07
32	S1	61	A	C3'-C2'-C1'	6.30	107.60	101.30
33	L1	251	G	C1'-O4'-C4'	-6.30	103.60	109.90
2	SA	72	ILE	CB-CA-C	6.30	121.62	111.29
4	SD	116	ASP	CA-CB-CG	-6.30	106.30	112.60
32	S1	62	A	O4'-C1'-C2'	-6.30	101.30	107.60
33	L1	71	C	P-O5'-C5'	6.30	130.35	120.90
33	L1	449	G	C1'-O4'-C4'	-6.30	103.60	109.90
33	L1	667	C	P-O3'-C3'	6.30	129.65	120.20
33	L1	1088	A	N9-C1'-C2'	6.30	121.45	112.00
33	L1	1202	C	N1-C1'-C2'	6.30	121.45	112.00
33	L1	1223	U	C3'-C2'-C1'	-6.30	95.00	101.30
33	L1	1671	G	O4'-C1'-C2'	-6.30	101.30	107.60
33	L1	2563	G	P-O3'-C3'	-6.30	110.75	120.20
33	L1	3151	C	C5'-C4'-C3'	6.30	125.45	116.00
37	LB	16	PHE	CA-CB-CG	-6.30	107.50	113.80
82	LK	136	PRO	CA-N-CD	-6.30	103.18	112.00
32	S1	273	C	P-O5'-C5'	-6.30	111.45	120.90
33	L1	812	G	O4'-C1'-C2'	6.30	113.90	107.60
33	L1	1211	G	C4'-C3'-C2'	-6.30	96.30	102.60
33	L1	1667	C	P-O3'-C3'	-6.30	110.75	120.20
33	L1	3240	C	C2'-C3'-O3'	6.30	118.95	109.50
81	LD	64	HIS	CE1-NE2-CD2	-6.30	102.70	109.00
33	L1	1698	C	C1'-C2'-O2'	6.30	117.85	108.40
33	L1	2394	G	C1'-O4'-C4'	-6.30	103.60	109.90
32	S1	505	U	O4'-C1'-N1	6.29	117.94	108.50
69	La	34	ARG	CB-CA-C	6.29	122.14	109.68
71	Lj	94	PRO	CA-C-O	-6.29	111.43	120.56
77	Lc	103	ARG	N-CA-CB	6.29	119.48	110.16
32	S1	1155	G	C5'-C4'-C3'	6.29	125.44	116.00
32	S1	1468	G	C5'-C4'-C3'	6.29	125.44	116.00
33	L1	958	U	O4'-C1'-C2'	-6.29	101.31	107.60
35	L2	34	C	O4'-C1'-C2'	-6.29	101.31	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	La	44	ALA	N-CA-C	-6.29	99.99	108.86
81	LD	365	LYS	O-C-N	-6.29	115.59	122.07
82	LK	58	LYS	CA-C-O	6.29	127.18	120.70
2	SA	20	GLN	N-CA-CB	6.29	121.12	110.49
13	SQ	33	LYS	CA-C-O	6.29	127.22	120.55
32	S1	94	A	C1'-O4'-C4'	-6.29	103.41	109.70
33	L1	555	G	N9-C1'-C2'	6.29	121.44	112.00
33	L1	642	C	O5'-C5'-C4'	6.29	120.94	111.50
33	L1	1717	G	C5'-C4'-C3'	6.29	125.44	116.00
33	L1	2168	C	O4'-C1'-C2'	-6.29	101.31	107.60
38	LE	136	ALA	N-CA-CB	-6.29	100.89	110.01
44	LR	70	PHE	CA-CB-CG	-6.29	107.51	113.80
60	Lr	42	ARG	CA-C-N	6.29	128.62	120.44
60	Lr	42	ARG	C-N-CA	6.29	128.62	120.44
64	LG	18	HIS	CG-CD2-NE2	6.29	113.49	107.20
8	SJ	95	LYS	CA-C-N	6.29	132.25	123.07
8	SJ	95	LYS	C-N-CA	6.29	132.25	123.07
13	SQ	52	GLY	CA-C-N	6.29	128.71	120.28
13	SQ	52	GLY	C-N-CA	6.29	128.71	120.28
32	S1	1547	G	O4'-C1'-N9	-6.29	99.06	108.50
33	L1	2143	A	O4'-C1'-C2'	6.29	113.89	107.60
33	L1	2168	C	O3'-P-O5'	-6.29	94.56	104.00
45	LQ	264	HIS	CG-CD2-NE2	6.29	113.49	107.20
55	Lg	30	GLY	CA-C-O	-6.29	114.27	120.75
61	Lq	21	ARG	N-CA-C	-6.29	104.23	112.41
81	LD	55	PRO	CA-C-O	-6.29	113.76	121.31
3	SB	148	LYS	CB-CA-C	6.29	122.93	110.42
3	SB	160	SER	CA-C-O	-6.29	111.72	120.21
3	SB	211	HIS	O-C-N	-6.29	112.94	123.00
14	SP	80	LYS	CA-C-N	6.29	131.70	122.39
14	SP	80	LYS	C-N-CA	6.29	131.70	122.39
33	L1	877	U	O3'-P-O5'	-6.29	94.57	104.00
33	L1	966	G	C1'-O4'-C4'	6.29	116.19	109.90
33	L1	1025	G	C5'-C4'-C3'	6.29	125.43	116.00
70	Li	45	PRO	CB-CA-C	6.29	121.94	111.56
32	S1	611	G	C4'-C3'-C2'	6.29	108.89	102.60
32	S1	1473	C	O4'-C1'-C2'	-6.29	101.31	107.60
33	L1	1254	A	P-O3'-C3'	-6.29	110.77	120.20
43	LO	81	MET	CA-C-N	6.29	124.20	120.24
43	LO	81	MET	C-N-CA	6.29	124.20	120.24
2	SA	172	LYS	N-CA-C	6.29	124.19	110.80
31	S2	13	U	N1-C1'-C2'	-6.29	102.57	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	35	U	O3'-P-O5'	-6.29	94.57	104.00
32	S1	128	G	N9-C1'-C2'	-6.29	102.57	112.00
32	S1	1421	U	C4'-C3'-C2'	-6.29	96.31	102.60
33	L1	175	G	C1'-C2'-O2'	6.29	117.83	108.40
33	L1	418	G	C5'-C4'-C3'	-6.29	106.57	116.00
33	L1	1742	G	C4'-C3'-C2'	-6.29	96.31	102.60
33	L1	2441	G	N9-C1'-C2'	-6.29	102.57	112.00
70	Li	80	GLY	CA-C-N	6.29	133.01	121.70
70	Li	80	GLY	C-N-CA	6.29	133.01	121.70
78	Le	102	LYS	O-C-N	-6.29	115.46	122.12
81	LD	94	GLY	CA-C-N	6.29	133.02	121.70
81	LD	94	GLY	C-N-CA	6.29	133.02	121.70
3	SB	111	GLY	N-CA-C	6.28	128.07	113.18
19	SY	39	MET	N-CA-CB	6.28	120.42	110.55
32	S1	190	C	P-O3'-C3'	6.28	129.62	120.20
32	S1	791	C	C5'-C4'-C3'	6.28	124.32	114.90
32	S1	1126	C	C1'-C2'-O2'	6.28	117.83	108.40
32	S1	1363	G	O4'-C1'-N9	6.28	117.92	108.50
33	L1	991	C	O4'-C1'-C2'	-6.28	101.32	107.60
33	L1	1008	U	C3'-C2'-C1'	6.28	107.58	101.30
33	L1	1767	G	C1'-O4'-C4'	6.28	116.18	109.90
32	S1	1276	U	O4'-C1'-N1	6.28	117.92	108.50
33	L1	1563	G	C3'-C2'-C1'	6.28	107.58	101.30
33	L1	3312	G	O4'-C1'-C2'	6.28	113.88	107.60
33	L1	16	A	C1'-C2'-O2'	6.28	117.82	108.40
33	L1	318	G	C4'-C3'-C2'	-6.28	96.32	102.60
33	L1	1019	A	O4'-C1'-N9	6.28	117.92	108.50
33	L1	1237	G	C5'-C4'-O4'	-6.28	100.38	109.80
33	L1	2497	A	C3'-C2'-C1'	6.28	107.58	101.30
64	LG	171	LYS	CB-CA-C	-6.28	101.32	111.06
33	L1	1065	A	O4'-C1'-C2'	-6.28	101.32	107.60
33	L1	3092	A	P-O3'-C3'	6.28	129.62	120.20
2	SA	256	ALA	CA-C-N	6.28	133.53	121.54
2	SA	256	ALA	C-N-CA	6.28	133.53	121.54
7	SI	91	ILE	N-CA-CB	6.28	121.59	111.23
33	L1	58	G	C5'-C4'-C3'	6.28	124.62	115.20
33	L1	229	G	O5'-C5'-C4'	6.28	120.92	111.50
33	L1	1164	G	N9-C1'-C2'	6.28	121.42	112.00
33	L1	1623	C	O3'-P-O5'	-6.28	94.58	104.00
33	L1	1893	G	C5'-C4'-C3'	6.28	125.42	116.00
33	L1	2532	A	N9-C1'-C2'	6.28	121.42	112.00
33	L1	2858	G	N9-C1'-C2'	6.28	121.42	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
70	Li	1	MET	CB-CA-C	6.28	122.03	110.10
4	SD	79	ASP	N-CA-C	6.28	118.96	108.73
25	SC	139	GLY	CA-C-N	6.28	133.53	121.54
25	SC	139	GLY	C-N-CA	6.28	133.53	121.54
31	S2	70	G	O4'-C1'-N9	6.28	117.91	108.50
32	S1	617	G	O4'-C4'-C3'	-6.28	99.82	106.10
32	S1	1297	U	C4'-C3'-C2'	-6.28	96.32	102.60
32	S1	1660	C	P-O5'-C5'	6.28	130.31	120.90
33	L1	138	G	C3'-C2'-C1'	-6.28	95.02	101.30
33	L1	1647	C	C1'-C2'-O2'	6.28	117.81	108.40
33	L1	1819	A	C5'-C4'-C3'	6.28	125.41	116.00
33	L1	3012	A	O4'-C1'-N9	6.28	117.61	108.20
33	L1	3352	C	O3'-P-O5'	-6.28	94.58	104.00
56	Lh	103	THR	N-CA-CB	6.28	119.45	110.16
76	Lw	40	GLU	N-CA-CB	6.28	119.34	110.12
1	Sa	35	THR	N-CA-CB	6.27	119.34	110.12
8	SJ	33	LEU	N-CA-CB	6.27	120.56	110.65
33	L1	2864	U	P-O5'-C5'	6.27	130.31	120.90
57	Ll	91	ALA	CA-C-O	6.27	127.54	119.95
67	LS	139	ASP	N-CA-CB	6.27	121.17	110.50
80	LC	8	HIS	CA-CB-CG	6.27	120.07	113.80
32	S1	857	A	C5'-C4'-C3'	6.27	125.41	116.00
33	L1	590	C	O4'-C1'-C2'	-6.27	101.33	107.60
33	L1	1903	C	C3'-C2'-C1'	6.27	107.57	101.30
33	L1	2182	G	P-O3'-C3'	6.27	129.61	120.20
33	L1	2205	G	O5'-C5'-C4'	6.27	120.91	111.50
33	L1	3101	C	N1-C1'-C2'	6.27	121.41	112.00
80	LC	55	HIS	CE1-NE2-CD2	-6.27	102.73	109.00
33	L1	23	A	O3'-P-O5'	6.27	113.41	104.00
33	L1	130	G	C1'-C2'-O2'	6.27	117.81	108.40
33	L1	155	G	C5'-C4'-C3'	6.27	124.31	114.90
33	L1	1727	A	N9-C1'-C2'	6.27	123.41	114.00
33	L1	3373	C	P-O5'-C5'	-6.27	111.49	120.90
35	L2	112	C	C3'-C2'-C1'	6.27	107.57	101.30
59	Lo	41	ARG	CD-NE-CZ	-6.27	115.62	124.40
64	LG	152	LYS	CA-C-O	6.27	127.07	120.42
25	SC	93	ASN	OD1-CG-ND2	-6.27	116.33	122.60
32	S1	1704	G	O4'-C4'-C3'	6.27	110.27	104.00
33	L1	292	A	P-O3'-C3'	-6.27	110.80	120.20
33	L1	1132	A	C3'-C2'-C1'	6.27	107.57	101.30
33	L1	2351	A	P-O5'-C5'	6.27	130.30	120.90
32	S1	1774	C	C3'-C2'-C1'	6.27	107.57	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	599	C	P-O5'-C5'	-6.27	111.50	120.90
33	L1	931	C	C1'-O4'-C4'	-6.27	103.63	109.90
33	L1	1090	C	C4'-C3'-C2'	-6.27	96.33	102.60
33	L1	1867	U	P-O3'-C3'	-6.27	110.80	120.20
33	L1	2854	C	N1-C1'-C2'	6.27	121.40	112.00
66	LN	8	GLU	N-CA-CB	6.27	123.18	111.52
1	Sa	107	HIS	O-C-N	-6.27	114.26	122.59
4	SD	130	GLN	N-CA-CB	6.27	121.21	110.68
7	SI	72	ARG	CA-CB-CG	6.27	126.63	114.10
36	LA	20	ALA	CA-C-N	6.27	129.19	120.29
36	LA	20	ALA	C-N-CA	6.27	129.19	120.29
33	L1	2807	G	C3'-C2'-C1'	-6.26	95.03	101.30
71	Lj	12	TYR	CA-C-N	6.26	132.97	121.70
71	Lj	12	TYR	C-N-CA	6.26	132.97	121.70
33	L1	1034	U	C5'-C4'-C3'	6.26	125.39	116.00
33	L1	3059	C	N1-C1'-C2'	6.26	121.39	112.00
34	L3	19	A	C3'-C2'-C1'	6.26	107.56	101.30
56	Lh	124	LEU	CA-C-N	6.26	128.67	120.28
56	Lh	124	LEU	C-N-CA	6.26	128.67	120.28
14	SP	93	HIS	CG-CD2-NE2	6.26	113.46	107.20
23	SU	52	LEU	CA-CB-CG	6.26	138.22	116.30
32	S1	1123	G	N9-C1'-C2'	6.26	121.39	112.00
33	L1	1714	A	C2'-C3'-O3'	6.26	118.89	109.50
33	L1	2516	U	C3'-C2'-C1'	6.26	107.56	101.30
33	L1	3000	U	O4'-C1'-C2'	-6.26	101.34	107.60
33	L1	3020	C	O5'-C5'-C4'	6.26	120.89	111.50
34	L3	65	G	P-O5'-C5'	6.26	130.29	120.90
42	LP	172	ARG	NH1-CZ-NH2	-6.26	111.16	119.30
64	LG	101	SER	N-CA-CB	6.26	119.18	109.97
7	SI	67	LYS	N-CA-C	6.26	120.02	112.38
32	S1	114	U	N1-C1'-C2'	-6.26	102.61	112.00
33	L1	465	C	O4'-C1'-C2'	-6.26	101.34	107.60
33	L1	1181	A	P-O3'-C3'	6.26	129.59	120.20
47	LU	45	ASN	N-CA-C	-6.26	100.31	110.20
4	SD	187	ARG	CA-C-O	6.26	127.05	120.42
33	L1	1516	G	O4'-C4'-C3'	-6.26	99.84	106.10
33	L1	2622	G	C1'-C2'-O2'	6.26	117.79	108.40
33	L1	2628	C	C4'-C3'-O3'	6.26	118.79	109.40
78	Le	55	GLY	CA-C-O	-6.26	114.30	120.75
25	SC	105	ASN	CA-C-O	-6.26	114.06	121.32
31	S2	26	G	P-O5'-C5'	6.26	130.28	120.90
32	S1	1659	A	P-O3'-C3'	-6.26	110.81	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1311	G	N9-C1'-C2'	-6.26	102.62	112.00
33	L1	1771	G	O4'-C1'-N9	6.26	117.88	108.50
33	L1	1804	G	C1'-O4'-C4'	-6.26	103.64	109.90
33	L1	2662	A	C4'-C3'-O3'	-6.26	103.61	113.00
69	La	26	VAL	CA-CB-CG1	6.26	121.03	110.40
31	S2	74	C	P-O5'-C5'	6.25	130.28	120.90
32	S1	979	A	C5'-C4'-O4'	6.25	119.18	109.80
32	S1	1373	C	C3'-C2'-C1'	6.25	107.55	101.30
32	S1	1483	G	C3'-C2'-C1'	-6.25	95.05	101.30
32	S1	1541	C	O4'-C1'-N1	6.25	117.88	108.50
32	S1	1783	C	N1-C1'-C2'	6.25	121.38	112.00
33	L1	180	G	P-O3'-C3'	-6.25	110.82	120.20
33	L1	515	C	C3'-C2'-C1'	6.25	107.55	101.30
33	L1	1209	G	O4'-C1'-N9	6.25	117.88	108.50
33	L1	3123	A	O4'-C1'-C2'	-6.25	101.35	107.60
33	L1	3295	G	C5'-C4'-C3'	-6.25	105.82	115.20
45	LQ	268	ASN	N-CA-C	6.25	118.09	111.28
46	LT	4	LEU	CA-C-O	6.25	126.67	119.35
50	LZ	15	ILE	CA-C-N	6.25	129.16	120.65
50	LZ	15	ILE	C-N-CA	6.25	129.16	120.65
68	LW	66	THR	N-CA-CB	6.25	122.43	111.55
13	SQ	128	TYR	N-CA-C	6.25	118.17	111.36
24	SX	77	GLU	CA-C-N	-6.25	115.52	121.46
24	SX	77	GLU	C-N-CA	-6.25	115.52	121.46
32	S1	1494	G	C5'-C4'-C3'	6.25	124.28	114.90
32	S1	1674	C	C1'-O4'-C4'	6.25	116.15	109.90
33	L1	2081	C	C1'-C2'-O2'	6.25	117.78	108.40
60	Lr	31	GLY	N-CA-C	-6.25	102.76	112.45
3	SB	194	PRO	O-C-N	-6.25	114.20	122.64
15	SS	78	PHE	N-CA-C	6.25	117.89	111.14
33	L1	2661	G	P-O5'-C5'	6.25	130.28	120.90
1	Sa	375	GLY	CA-C-O	-6.25	117.23	122.29
15	SS	123	GLY	CA-C-N	-6.25	112.84	122.09
15	SS	123	GLY	C-N-CA	-6.25	112.84	122.09
32	S1	1132	G	C3'-C2'-C1'	-6.25	95.05	101.30
33	L1	339	G	N9-C1'-C2'	6.25	123.37	114.00
33	L1	833	G	C1'-C2'-O2'	6.25	117.77	108.40
33	L1	907	A	O5'-C5'-C4'	6.25	120.87	111.50
33	L1	1168	G	C1'-C2'-O2'	6.25	117.77	108.40
2	SA	246	GLU	CA-C-N	6.25	128.65	120.28
2	SA	246	GLU	C-N-CA	6.25	128.65	120.28
6	SF	89	VAL	N-CA-CB	6.25	117.86	110.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	SC	91	GLY	CA-C-N	6.25	128.65	120.28
25	SC	91	GLY	C-N-CA	6.25	128.65	120.28
32	S1	1083	C	C1'-C2'-O2'	6.25	117.77	108.40
33	L1	410	G	C5'-C4'-C3'	6.25	125.37	116.00
33	L1	1116	G	O3'-P-O5'	-6.25	94.63	104.00
38	LE	62	ARG	N-CA-C	6.25	120.10	112.23
46	LT	69	ALA	CA-C-O	6.25	126.84	119.28
70	Li	20	THR	N-CA-CB	6.25	121.05	110.49
80	LC	99	LEU	CA-C-O	6.25	128.37	121.56
70	Li	43	LYS	CA-C-O	-6.25	111.58	120.51
32	S1	336	U	C4'-C3'-O3'	-6.24	103.64	113.00
33	L1	423	C	C1'-C2'-O2'	-6.24	102.43	111.80
33	L1	1036	C	O4'-C1'-C2'	-6.24	101.36	107.60
33	L1	2037	C	C3'-C2'-C1'	6.24	107.54	101.30
33	L1	2750	A	N9-C1'-C2'	6.24	121.37	112.00
33	L1	2899	A	C1'-O4'-C4'	6.24	116.14	109.90
35	L2	136	G	C3'-C2'-C1'	6.24	107.54	101.30
64	LG	50	PHE	N-CA-C	6.24	124.10	110.80
4	SD	148	ARG	O-C-N	-6.24	115.27	123.13
17	SV	15	PRO	CA-C-N	6.24	132.32	122.21
17	SV	15	PRO	C-N-CA	6.24	132.32	122.21
33	L1	923	A	N9-C1'-C2'	-6.24	104.64	114.00
33	L1	1997	G	N9-C1'-C2'	6.24	121.36	112.00
33	L1	2725	U	C3'-C2'-C1'	-6.24	95.06	101.30
47	LU	132	PRO	CA-C-N	6.24	128.65	120.28
47	LU	132	PRO	C-N-CA	6.24	128.65	120.28
70	Li	50	LYS	N-CA-CB	6.24	119.26	109.83
13	SQ	75	GLU	CA-C-N	6.24	133.46	121.54
13	SQ	75	GLU	C-N-CA	6.24	133.46	121.54
32	S1	1455	U	N1-C1'-C2'	6.24	121.36	112.00
33	L1	98	A	P-O5'-C5'	6.24	130.26	120.90
33	L1	1036	C	O5'-C5'-C4'	-6.24	102.14	111.50
33	L1	1389	C	C5'-C4'-C3'	-6.24	106.64	116.00
33	L1	2797	U	N1-C1'-C2'	6.24	121.36	112.00
34	L3	49	A	O5'-C5'-C4'	-6.24	102.14	111.50
49	LX	150	GLY	CA-C-N	6.24	132.05	122.25
49	LX	150	GLY	C-N-CA	6.24	132.05	122.25
54	Lf	5	LYS	N-CA-C	6.24	118.34	108.79
69	La	24	VAL	CA-CB-CG1	6.24	121.01	110.40
69	La	92	LYS	N-CA-CB	6.24	119.06	110.01
71	Lj	1	MET	CA-C-O	6.24	131.41	120.80
1	Sa	245	TYR	CA-C-N	6.24	131.85	122.87

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Sa	245	TYR	C-N-CA	6.24	131.85	122.87
32	S1	1733	G	O4'-C1'-N9	6.24	117.86	108.50
33	L1	97	G	C1'-C2'-O2'	6.24	117.76	108.40
34	L3	74	A	O4'-C1'-N9	6.24	117.86	108.50
48	LV	108	LEU	CA-C-N	6.24	129.70	120.90
48	LV	108	LEU	C-N-CA	6.24	129.70	120.90
23	SU	22	LEU	CB-CA-C	6.24	121.60	110.81
34	L3	102	G	O4'-C1'-C2'	-6.24	101.36	107.60
7	SI	102	TYR	CA-C-N	6.24	129.00	120.46
7	SI	102	TYR	C-N-CA	6.24	129.00	120.46
32	S1	288	G	C3'-C2'-C1'	-6.24	95.06	101.30
32	S1	578	G	C4'-C3'-C2'	6.24	108.84	102.60
32	S1	584	A	O4'-C4'-C3'	6.24	112.34	106.10
32	S1	1122	U	O4'-C4'-C3'	-6.24	97.77	104.00
33	L1	7	C	C1'-C2'-O2'	6.24	117.75	108.40
33	L1	724	A	O4'-C1'-C2'	-6.24	101.36	107.60
33	L1	1659	G	P-O3'-C3'	6.24	129.55	120.20
33	L1	1919	C	N1-C1'-C2'	6.24	121.35	112.00
3	SB	47	GLU	CA-C-N	6.23	133.19	121.97
3	SB	47	GLU	C-N-CA	6.23	133.19	121.97
32	S1	248	U	P-O3'-C3'	6.23	129.55	120.20
32	S1	397	C	N1-C1'-C2'	6.23	121.35	112.00
33	L1	495	G	P-O5'-C5'	-6.23	111.55	120.90
46	LT	41	ILE	N-CA-C	6.23	116.98	110.62
55	Lg	59	ILE	CB-CA-C	6.23	119.86	110.63
60	Lr	20	HIS	ND1-CE1-NE2	6.23	114.63	108.40
1	Sa	258	PHE	O-C-N	-6.23	114.67	121.53
33	L1	492	G	N9-C1'-C2'	-6.23	102.65	112.00
33	L1	1752	C	C5'-C4'-O4'	-6.23	100.45	109.80
33	L1	2739	A	O4'-C1'-N9	6.23	117.85	108.50
33	L1	3003	C	C1'-O4'-C4'	-6.23	103.67	109.90
33	L1	3281	G	C4'-C3'-O3'	-6.23	103.65	113.00
34	L3	114	C	O4'-C1'-C2'	-6.23	101.37	107.60
42	LP	182	HIS	CA-CB-CG	6.23	120.03	113.80
45	LQ	300	GLU	CB-CG-CD	6.23	123.20	112.60
71	Lj	20	TYR	CA-C-N	-6.23	114.32	123.05
71	Lj	20	TYR	C-N-CA	-6.23	114.32	123.05
80	LC	311	PRO	N-CA-C	-6.23	100.66	111.32
5	SE	87	ASP	N-CA-C	-6.23	104.49	111.28
33	L1	722	C	C2'-C3'-O3'	-6.23	104.35	113.70
33	L1	2468	G	C5'-C4'-C3'	6.23	125.35	116.00
33	L1	2770	U	C1'-O4'-C4'	6.23	116.13	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	L2	110	C	P-O3'-C3'	6.23	129.55	120.20
64	LG	164	GLU	CA-C-O	-6.23	114.28	120.82
84	LI	28	ASP	CA-CB-CG	6.23	118.83	112.60
8	SJ	103	SER	CA-C-N	6.23	131.19	122.41
8	SJ	103	SER	C-N-CA	6.23	131.19	122.41
33	L1	1311	G	O4'-C1'-N9	6.23	117.84	108.50
48	LV	55	LYS	CB-CA-C	6.23	120.74	110.90
51	LY	5	PRO	O-C-N	-6.23	118.31	122.73
68	LW	90	LYS	O-C-N	-6.23	115.65	122.07
79	Ls	65	CYS	N-CA-C	6.23	117.73	111.07
80	LC	251	LYS	N-CA-C	-6.23	99.83	109.24
32	S1	236	U	O4'-C1'-C2'	-6.23	101.37	107.60
33	L1	1564	C	O4'-C4'-C3'	-6.23	97.77	104.00
33	L1	1569	U	P-O3'-C3'	6.23	129.54	120.20
33	L1	1707	C	O5'-C5'-C4'	-6.23	102.16	111.50
33	L1	3086	G	C3'-C2'-C1'	-6.23	95.07	101.30
54	Lf	80	ASP	CA-C-N	6.23	129.25	120.28
54	Lf	80	ASP	C-N-CA	6.23	129.25	120.28
55	Lg	88	ASN	N-CA-C	-6.23	104.60	111.82
71	Lj	5	GLN	N-CA-C	-6.23	97.54	110.80
33	L1	445	C	C1'-C2'-O2'	6.23	117.74	108.40
33	L1	979	C	O4'-C1'-C2'	-6.23	101.37	107.60
33	L1	1871	G	O4'-C1'-N9	6.23	117.84	108.50
33	L1	2784	U	C3'-C2'-C1'	-6.23	95.07	101.30
33	L1	3298	G	O4'-C4'-C3'	-6.23	97.77	104.00
34	L3	54	A	O3'-P-O5'	-6.23	94.66	104.00
47	LU	17	ARG	CB-CA-C	6.23	118.22	108.63
1	Sa	1	MET	CA-C-N	6.22	133.43	121.54
1	Sa	1	MET	C-N-CA	6.22	133.43	121.54
1	Sa	29	ARG	O-C-N	-6.22	115.52	122.12
33	L1	1309	U	C1'-O4'-C4'	-6.22	103.47	109.70
33	L1	1817	U	C1'-C2'-O2'	6.22	117.74	108.40
33	L1	2407	U	C1'-O4'-C4'	-6.22	103.67	109.90
33	L1	2595	G	O4'-C1'-C2'	-6.22	101.38	107.60
33	L1	2798	G	O4'-C1'-C2'	6.22	112.03	105.80
38	LE	58	SER	N-CA-CB	6.22	121.01	110.49
48	LV	14	SER	CB-CA-C	-6.22	97.98	110.30
3	SB	78	ASN	CB-CA-C	6.22	122.80	110.42
31	S2	21	A	O4'-C1'-N9	6.22	117.83	108.50
32	S1	1143	A	C1'-O4'-C4'	6.22	116.12	109.90
32	S1	1320	C	P-O5'-C5'	-6.22	111.57	120.90
33	L1	339	G	C1'-O4'-C4'	-6.22	103.48	109.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	LH	236	SER	N-CA-C	6.22	118.06	111.28
45	LQ	28	ARG	NH1-CZ-NH2	-6.22	111.21	119.30
38	LE	38	VAL	N-CA-CB	-6.22	101.25	110.58
48	LV	107	GLY	N-CA-C	-6.22	106.56	115.64
2	SA	34	CYS	CA-CB-SG	6.22	128.70	114.40
11	SM	82	TRP	CB-CG-CD2	-6.22	118.09	126.80
32	S1	1788	G	C4'-C3'-C2'	-6.22	96.38	102.60
33	L1	21	G	N9-C1'-C2'	-6.22	104.67	114.00
33	L1	1080	C	C3'-C2'-C1'	6.22	107.52	101.30
33	L1	2060	C	O4'-C1'-N1	6.22	117.83	108.50
33	L1	2561	A	O4'-C4'-C3'	-6.22	99.88	106.10
37	LB	12	ALA	N-CA-C	-6.22	100.16	108.74
47	LU	111	ASN	CA-C-N	6.22	128.52	120.44
47	LU	111	ASN	C-N-CA	6.22	128.52	120.44
66	LN	90	GLY	N-CA-C	6.22	127.92	113.18
32	S1	169	A	O3'-P-O5'	6.22	113.33	104.00
33	L1	2639	A	N9-C1'-C2'	6.22	121.33	112.00
70	Li	19	GLN	CA-C-N	6.22	133.42	121.54
70	Li	19	GLN	C-N-CA	6.22	133.42	121.54
73	Lp	15	GLN	CA-C-O	6.22	127.96	120.81
77	Lc	79	TYR	N-CA-C	6.22	117.59	108.14
32	S1	32	U	C3'-C2'-C1'	6.22	107.52	101.30
33	L1	502	G	O4'-C1'-N9	6.22	117.83	108.50
33	L1	686	A	O3'-P-O5'	-6.22	94.68	104.00
33	L1	2178	G	N9-C1'-C2'	6.22	121.32	112.00
48	LV	66	GLY	N-CA-C	6.22	124.52	115.32
76	Lw	38	LYS	N-CA-CB	6.22	119.26	110.12
78	Le	162	ARG	N-CA-C	6.22	118.54	108.41
23	SU	62	PHE	O-C-N	-6.21	116.06	123.27
32	S1	18	C	O4'-C1'-C2'	-6.21	101.39	107.60
32	S1	1648	C	C3'-C2'-C1'	6.21	107.51	101.30
33	L1	332	A	O3'-P-O5'	6.21	113.32	104.00
33	L1	2674	A	C1'-O4'-C4'	6.21	116.11	109.90
33	L1	2756	G	P-O3'-C3'	6.21	129.52	120.20
34	L3	14	C	O5'-C5'-C4'	-6.21	102.18	111.50
35	L2	27	C	O4'-C1'-C2'	-6.21	99.58	105.80
66	LN	118	GLY	CA-C-N	6.21	127.01	119.99
66	LN	118	GLY	C-N-CA	6.21	127.01	119.99
69	La	86	THR	CB-CA-C	-6.21	101.12	110.88
33	L1	1569	U	O4'-C1'-C2'	6.21	112.01	105.80
78	Le	12	GLU	CB-CA-C	-6.21	101.13	110.88
20	SZ	61	GLU	CA-C-N	6.21	132.88	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	SZ	61	GLU	C-N-CA	6.21	132.88	121.70
33	L1	20	G	C1'-O4'-C4'	-6.21	103.69	109.90
33	L1	1245	U	O4'-C1'-N1	6.21	117.82	108.50
34	L3	112	U	O4'-C1'-N1	6.21	117.82	108.50
50	LZ	36	SER	CA-C-O	6.21	127.02	119.38
78	Le	89	VAL	N-CA-CB	6.21	119.98	111.41
5	SE	68	HIS	CG-CD2-NE2	6.21	113.41	107.20
25	SC	34	GLY	CA-C-N	6.21	129.22	120.28
25	SC	34	GLY	C-N-CA	6.21	129.22	120.28
32	S1	859	U	C1'-C2'-O2'	6.21	117.72	108.40
33	L1	887	A	C1'-C2'-O2'	6.21	121.11	111.80
33	L1	1343	C	C4'-C3'-C2'	6.21	108.81	102.60
33	L1	2632	U	P-O3'-C3'	-6.21	110.89	120.20
81	LD	190	SER	CA-C-N	6.21	130.85	122.90
81	LD	190	SER	C-N-CA	6.21	130.85	122.90
1	Sa	168	ASP	CA-C-N	6.21	131.23	120.68
1	Sa	168	ASP	C-N-CA	6.21	131.23	120.68
3	SB	125	PHE	CB-CG-CD1	-6.21	110.15	120.70
3	SB	138	VAL	N-CA-CB	-6.21	103.64	111.46
32	S1	110	G	O4'-C1'-N9	6.21	117.81	108.50
33	L1	886	A	C3'-C2'-C1'	6.21	107.51	101.30
33	L1	1318	C	C1'-O4'-C4'	-6.21	103.69	109.90
34	L3	19	A	P-O3'-C3'	6.21	129.51	120.20
37	LB	44	VAL	N-CA-C	-6.21	99.18	108.12
10	SL	96	ASN	CA-C-N	6.21	133.17	121.69
10	SL	96	ASN	C-N-CA	6.21	133.17	121.69
31	S2	54	U	C5'-C4'-C3'	6.21	125.31	116.00
32	S1	596	A	O4'-C1'-C2'	-6.21	101.39	107.60
33	L1	42	A	O4'-C1'-N9	6.21	117.51	108.20
33	L1	547	C	C3'-C2'-C1'	6.21	107.51	101.30
33	L1	924	A	O4'-C1'-N9	6.21	117.51	108.20
33	L1	972	C	C5'-C4'-C3'	6.21	125.31	116.00
33	L1	1192	A	P-O5'-C5'	6.21	130.21	120.90
33	L1	2562	A	C5'-C4'-O4'	-6.21	100.49	109.80
33	L1	3355	U	O3'-P-O5'	-6.21	94.69	104.00
34	L3	11	A	N9-C1'-C2'	6.21	121.31	112.00
68	LW	77	ASP	CA-CB-CG	-6.21	106.39	112.60
79	Ls	36	VAL	CA-CB-CG1	6.21	120.95	110.40
84	LI	43	VAL	CA-C-N	6.21	133.40	121.54
84	LI	43	VAL	C-N-CA	6.21	133.40	121.54
33	L1	1603	U	O4'-C1'-C2'	6.21	112.00	105.80
33	L1	2507	U	C4'-C3'-C2'	6.21	108.81	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2771	U	O4'-C1'-C2'	6.21	113.81	107.60
42	LP	67	ARG	N-CA-C	6.21	118.31	110.24
33	L1	227	C	P-O3'-C3'	6.20	129.51	120.20
33	L1	562	G	C4'-C3'-C2'	-6.20	96.40	102.60
33	L1	2766	U	O4'-C4'-C3'	-6.20	97.80	104.00
33	L1	3322	A	C1'-C2'-O2'	6.20	117.70	108.40
34	L3	45	U	O4'-C1'-N1	6.20	117.81	108.50
54	Lf	21	VAL	CA-CB-CG1	6.20	120.94	110.40
82	LK	202	ALA	O-C-N	-6.20	114.96	120.48
4	SD	184	THR	O-C-N	-6.20	114.02	122.33
8	SJ	38	VAL	CA-C-N	-6.20	113.94	122.93
8	SJ	38	VAL	C-N-CA	-6.20	113.94	122.93
32	S1	1375	C	N1-C1'-C2'	6.20	121.30	112.00
33	L1	1569	U	C2'-C3'-O3'	6.20	118.80	109.50
33	L1	1699	C	C4'-C3'-O3'	-6.20	103.70	113.00
33	L1	2500	U	C1'-C2'-O2'	6.20	117.70	108.40
69	La	9	LYS	CA-CB-CG	6.20	126.50	114.10
78	Le	80	SER	CA-C-O	-6.20	114.42	120.19
1	Sa	126	GLY	CA-C-N	-6.20	109.26	121.41
1	Sa	126	GLY	C-N-CA	-6.20	109.26	121.41
3	SB	29	LEU	CB-CG-CD2	6.20	129.30	110.70
17	SV	15	PRO	N-CA-C	-6.20	99.70	112.47
32	S1	406	C	C3'-C2'-C1'	6.20	107.50	101.30
32	S1	802	A	P-O5'-C5'	-6.20	110.70	120.00
32	S1	983	A	N9-C1'-C2'	6.20	121.30	112.00
33	L1	308	U	O5'-C5'-C4'	6.20	120.80	111.50
33	L1	827	C	N1-C1'-C2'	6.20	121.30	112.00
33	L1	3202	G	C3'-C2'-C1'	-6.20	95.10	101.30
35	L2	148	C	C1'-O4'-C4'	-6.20	103.70	109.90
47	LU	155	ASP	CA-C-O	6.20	129.38	120.51
5	SE	70	LEU	CA-C-N	6.20	126.39	119.32
5	SE	70	LEU	C-N-CA	6.20	126.39	119.32
11	SM	45	CYS	CA-C-N	6.20	128.59	120.28
11	SM	45	CYS	C-N-CA	6.20	128.59	120.28
11	SM	141	ARG	O-C-N	-6.20	115.55	122.12
14	SP	54	TYR	O-C-N	-6.20	114.94	123.12
14	SP	118	VAL	CA-C-O	-6.20	113.03	120.78
31	S2	51	G	O4'-C1'-C2'	6.20	113.80	107.60
32	S1	316	A	C1'-O4'-C4'	-6.20	103.50	109.70
33	L1	483	U	N1-C1'-C2'	6.20	121.30	112.00
33	L1	2172	C	C3'-C2'-C1'	6.20	107.70	101.50
49	LX	89	ASN	OD1-CG-ND2	-6.20	116.40	122.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	LY	23	SER	CB-CA-C	-6.20	101.41	110.96
72	Lk	37	THR	CA-C-N	6.20	132.86	121.70
72	Lk	37	THR	C-N-CA	6.20	132.86	121.70
74	LJ	122	MET	CB-CA-C	6.20	122.75	110.42
27	SH	25	VAL	CA-C-O	-6.20	113.98	121.54
31	S2	20	C	O4'-C1'-C2'	-6.20	101.40	107.60
33	L1	973	U	C4'-C3'-O3'	-6.20	103.70	113.00
58	Ln	27	ARG	CA-C-N	6.20	131.96	122.11
58	Ln	27	ARG	C-N-CA	6.20	131.96	122.11
72	Lk	59	ARG	N-CA-C	-6.20	104.61	111.36
5	SE	68	HIS	CA-CB-CG	6.20	120.00	113.80
11	SM	95	PHE	CB-CG-CD1	6.20	131.23	120.70
32	S1	1804	A	N9-C1'-C2'	-6.20	102.71	112.00
33	L1	1374	G	C4'-C3'-O3'	-6.20	103.71	113.00
33	L1	2215	A	P-O3'-C3'	-6.20	110.91	120.20
34	L3	110	G	O4'-C4'-C3'	-6.20	97.81	104.00
37	LB	19	HIS	CG-CD2-NE2	6.20	113.40	107.20
59	Lo	4	HIS	O-C-N	-6.20	114.35	122.59
67	LS	132	HIS	ND1-CE1-NE2	6.20	114.59	108.40
32	S1	832	C	C4'-C3'-O3'	-6.19	103.71	113.00
32	S1	1011	C	O4'-C1'-C2'	-6.19	101.41	107.60
33	L1	581	G	N9-C1'-C2'	6.19	121.29	112.00
33	L1	877	U	P-O3'-C3'	-6.19	110.91	120.20
33	L1	2213	G	C1'-C2'-O2'	6.19	117.69	108.40
33	L1	2339	U	P-O3'-C3'	-6.19	110.91	120.20
33	L1	2745	C	C1'-O4'-C4'	-6.19	103.71	109.90
33	L1	3277	C	N1-C1'-C2'	6.19	121.29	112.00
84	LI	148	ALA	CA-C-N	6.19	128.49	120.44
84	LI	148	ALA	C-N-CA	6.19	128.49	120.44
14	SP	119	LYS	CA-C-N	6.19	133.37	121.54
14	SP	119	LYS	C-N-CA	6.19	133.37	121.54
32	S1	765	U	O3'-P-O5'	-6.19	94.71	104.00
33	L1	1206	A	N9-C1'-C2'	6.19	121.29	112.00
33	L1	2595	G	C5'-C4'-C3'	6.19	125.29	116.00
33	L1	2635	G	C5'-C4'-C3'	6.19	125.29	116.00
34	L3	108	G	O4'-C1'-N9	6.19	117.79	108.50
39	LF	181	SER	CA-C-O	-6.19	112.46	119.95
44	LR	10	ARG	O-C-N	-6.19	114.73	122.35
69	La	72	LEU	O-C-N	-6.19	115.56	122.12
5	SE	30	ARG	N-CA-CB	6.19	120.95	110.49
33	L1	2012	C	P-O3'-C3'	6.19	129.49	120.20
33	L1	2791	U	C4'-C3'-C2'	-6.19	96.41	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	LF	97	HIS	CA-CB-CG	-6.19	107.61	113.80
46	LT	36	ASN	CB-CA-C	6.19	119.78	109.38
47	LU	118	GLU	N-CA-C	6.19	118.03	111.28
33	L1	63	G	C4'-C3'-O3'	-6.19	103.72	113.00
33	L1	1704	A	O4'-C1'-C2'	-6.19	101.41	107.60
47	LU	7	LEU	CA-C-O	6.19	126.99	119.38
4	SD	109	PHE	CA-CB-CG	-6.19	107.61	113.80
32	S1	448	C	C3'-C2'-C1'	6.19	107.69	101.50
32	S1	551	U	O4'-C1'-N1	6.19	117.78	108.50
33	L1	778	G	O4'-C1'-C2'	6.19	113.79	107.60
33	L1	1025	G	O4'-C1'-C2'	-6.19	101.41	107.60
33	L1	1819	A	C1'-O4'-C4'	-6.19	103.71	109.90
33	L1	2778	C	P-O3'-C3'	-6.19	110.92	120.20
67	LS	28	ARG	NH1-CZ-NH2	-6.19	111.25	119.30
32	S1	656	G	P-O5'-C5'	6.19	130.18	120.90
33	L1	136	C	O4'-C4'-C3'	6.19	110.19	104.00
33	L1	1310	G	P-O5'-C5'	-6.19	111.62	120.90
33	L1	2197	C	O4'-C1'-C2'	6.19	113.79	107.60
33	L1	2245	G	P-O3'-C3'	6.19	129.48	120.20
33	L1	3240	C	P-O5'-C5'	6.19	130.18	120.90
57	L1	25	ARG	CD-NE-CZ	-6.19	115.74	124.40
1	Sa	101	THR	N-CA-CB	6.18	119.42	110.20
6	SF	145	GLN	O-C-N	6.18	128.68	122.12
7	SI	27	TYR	CB-CG-CD1	6.18	130.08	120.80
32	S1	1660	C	O4'-C4'-C3'	-6.18	97.81	104.00
33	L1	312	U	O4'-C1'-C2'	6.18	113.78	107.60
33	L1	1087	G	C5'-C4'-C3'	6.18	125.28	116.00
33	L1	3057	A	P-O5'-C5'	-6.18	111.62	120.90
34	L3	22	A	O4'-C1'-C2'	6.18	113.78	107.60
38	LE	72	THR	N-CA-C	-6.18	98.65	108.73
67	LS	19	PRO	N-CA-C	6.18	125.21	112.47
67	LS	74	ILE	N-CA-C	6.18	118.94	108.86
69	La	74	LEU	CA-C-N	6.18	130.44	120.30
69	La	74	LEU	C-N-CA	6.18	130.44	120.30
32	S1	397	C	C1'-O4'-C4'	-6.18	103.72	109.90
33	L1	264	C	C5'-C4'-O4'	6.18	119.07	109.80
33	L1	890	G	C1'-O4'-C4'	-6.18	103.72	109.90
33	L1	2342	C	O4'-C1'-C2'	-6.18	101.42	107.60
33	L1	2588	G	C5'-C4'-C3'	6.18	124.17	114.90
78	Le	179	ASN	CA-C-N	6.18	129.80	120.77
78	Le	179	ASN	C-N-CA	6.18	129.80	120.77
5	SE	7	GLU	CA-C-O	-6.18	114.77	120.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	SQ	93	VAL	CA-C-O	6.18	126.82	120.39
15	SS	75	VAL	N-CA-C	-6.18	104.48	110.72
33	L1	771	G	C2'-C3'-O3'	-6.18	104.43	113.70
33	L1	1232	A	P-O5'-C5'	6.18	130.17	120.90
33	L1	1991	U	O3'-P-O5'	-6.18	94.73	104.00
33	L1	2997	C	O4'-C1'-C2'	-6.18	101.42	107.60
33	L1	3019	C	C5'-C4'-C3'	6.18	125.27	116.00
37	LB	65	HIS	N-CA-C	6.18	123.47	109.81
80	LC	70	LYS	CA-C-N	6.18	129.49	120.71
80	LC	70	LYS	C-N-CA	6.18	129.49	120.71
32	S1	932	C	P-O3'-C3'	6.18	129.47	120.20
33	L1	1564	C	O4'-C1'-N1	-6.18	99.23	108.50
33	L1	2680	G	O5'-C5'-C4'	6.18	120.97	111.70
45	LQ	259	LYS	N-CA-CB	6.18	120.94	110.49
64	LG	79	THR	N-CA-C	6.18	119.63	110.48
66	LN	79	ASP	CA-C-O	-6.18	111.67	120.51
78	Le	125	THR	N-CA-CB	6.18	119.20	110.12
11	SM	2	SER	N-CA-C	-6.18	99.64	109.59
32	S1	480	U	C4'-C3'-C2'	-6.18	96.42	102.60
32	S1	1155	G	C1'-O4'-C4'	-6.18	103.72	109.90
32	S1	1508	C	O5'-C5'-C4'	6.18	120.77	111.50
33	L1	1087	G	O4'-C1'-C2'	6.18	113.78	107.60
33	L1	3214	U	O4'-C1'-N1	6.18	117.77	108.50
57	L1	68	ARG	N-CA-CB	6.18	119.15	109.94
81	LD	39	ASP	N-CA-C	6.18	117.81	111.14
11	SM	148	VAL	N-CA-C	-6.18	97.46	107.28
31	S2	46	A	O4'-C1'-C2'	-6.18	101.42	107.60
32	S1	37	U	O4'-C1'-N1	6.18	117.77	108.50
32	S1	1583	G	O4'-C1'-C2'	6.18	113.78	107.60
33	L1	140	C	N1-C1'-C2'	6.18	121.26	112.00
33	L1	330	C	C5'-C4'-C3'	6.18	125.27	116.00
33	L1	674	G	C1'-O4'-C4'	-6.18	103.72	109.90
33	L1	1224	A	C2'-C3'-O3'	6.18	122.96	113.70
33	L1	2053	A	C4'-C3'-O3'	6.18	122.26	113.00
33	L1	2863	U	P-O5'-C5'	-6.18	111.64	120.90
33	L1	3025	A	O4'-C1'-N9	6.18	117.76	108.50
67	LS	155	TYR	CB-CA-C	-6.18	98.90	109.65
74	LJ	14	PHE	CA-CB-CG	6.18	119.98	113.80
1	Sa	240	ARG	N-CA-C	-6.17	98.75	108.63
15	SS	102	ILE	N-CA-C	6.17	116.33	110.53
17	SV	68	GLU	CB-CA-C	6.17	120.58	110.88
27	SH	85	GLU	O-C-N	-6.17	115.84	123.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1602	G	P-O3'-C3'	-6.17	110.94	120.20
32	S1	1643	A	C1'-O4'-C4'	6.17	116.07	109.90
33	L1	897	U	P-O3'-C3'	6.17	129.46	120.20
33	L1	1278	A	P-O3'-C3'	6.17	129.46	120.20
33	L1	1336	A	N9-C1'-C2'	6.17	121.26	112.00
33	L1	2651	G	O4'-C1'-C2'	6.17	113.78	107.60
33	L1	2808	U	P-O5'-C5'	6.17	130.16	120.90
3	SB	178	ARG	CD-NE-CZ	-6.17	115.76	124.40
6	SF	165	ILE	CA-CB-CG2	-6.17	100.01	110.50
32	S1	1802	G	O4'-C1'-N9	6.17	117.76	108.50
1	Sa	273	CYS	N-CA-C	-6.17	99.85	109.72
27	SH	86	ILE	CA-C-N	-6.17	112.45	122.82
27	SH	86	ILE	C-N-CA	-6.17	112.45	122.82
32	S1	1760	A	P-O5'-C5'	6.17	130.16	120.90
33	L1	542	G	C1'-C2'-O2'	6.17	117.66	108.40
33	L1	579	G	O4'-C1'-C2'	-6.17	101.43	107.60
33	L1	2671	A	C4'-C3'-O3'	-6.17	103.74	113.00
10	SL	5	ARG	N-CA-C	6.17	123.94	110.80
33	L1	2578	G	C1'-O4'-C4'	-6.17	103.73	109.90
64	LG	116	PRO	N-CA-CB	6.17	109.73	103.25
79	Ls	256	VAL	CA-C-N	6.17	129.05	120.29
79	Ls	256	VAL	C-N-CA	6.17	129.05	120.29
33	L1	484	C	O4'-C1'-C2'	-6.17	101.43	107.60
33	L1	2002	G	O4'-C1'-N9	6.17	117.75	108.50
33	L1	2858	G	O4'-C1'-C2'	6.17	113.77	107.60
52	Lb	105	ASN	N-CA-CB	6.17	119.19	110.12
1	Sa	62	LEU	CB-CA-C	-6.17	99.38	110.36
8	SJ	78	PRO	N-CA-CB	6.17	109.73	103.25
23	SU	39	ASN	CA-C-N	6.17	133.07	121.97
23	SU	39	ASN	C-N-CA	6.17	133.07	121.97
33	L1	3330	U	O4'-C1'-N1	6.17	117.75	108.50
42	LP	164	LEU	CB-CA-C	-6.17	98.92	109.65
46	LT	25	ASP	N-CA-C	6.17	118.41	109.84
70	Li	18	ASN	N-CA-CB	6.17	120.91	110.49
1	Sa	250	GLY	O-C-N	-6.17	114.69	122.70
57	Ll	79	ARG	NE-CZ-NH2	-6.17	113.65	119.20
13	SQ	125	ALA	CA-C-O	-6.16	111.72	120.16
24	SX	74	ARG	CG-CD-NE	6.16	125.56	112.00
32	S1	875	C	O4'-C1'-C2'	-6.16	101.44	107.60
32	S1	1474	U	O4'-C1'-N1	6.16	117.74	108.50
33	L1	2225	C	C1'-O4'-C4'	-6.16	103.74	109.90
33	L1	2721	C	O4'-C1'-N1	6.16	117.74	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3202	G	O4'-C1'-N9	6.16	117.74	108.50
33	L1	3312	G	O4'-C1'-N9	6.16	117.75	108.50
33	L1	3337	G	C3'-C2'-C1'	-6.16	95.14	101.30
39	LF	127	MET	O-C-N	-6.16	115.97	123.30
43	LO	127	LYS	CA-C-N	6.16	132.79	121.70
43	LO	127	LYS	C-N-CA	6.16	132.79	121.70
82	LK	191	GLU	CA-C-N	6.16	128.54	120.28
82	LK	191	GLU	C-N-CA	6.16	128.54	120.28
32	S1	358	C	O4'-C1'-C2'	-6.16	101.44	107.60
33	L1	396	G	N9-C1'-C2'	6.16	121.24	112.00
73	Lp	20	CYS	O-C-N	-6.16	115.35	122.93
2	SA	34	CYS	CA-C-N	6.16	132.48	122.81
2	SA	34	CYS	C-N-CA	6.16	132.48	122.81
32	S1	614	G	C1'-C2'-O2'	6.16	117.64	108.40
32	S1	1426	C	P-O5'-C5'	-6.16	111.66	120.90
33	L1	129	G	O4'-C1'-C2'	6.16	113.76	107.60
33	L1	1955	G	C1'-O4'-C4'	-6.16	103.74	109.90
33	L1	2972	C	C5'-C4'-C3'	6.16	125.24	116.00
33	L1	3037	G	O4'-C1'-C2'	6.16	113.76	107.60
33	L1	3303	C	C1'-C2'-O2'	6.16	117.64	108.40
36	LA	12	ALA	CB-CA-C	6.16	123.15	110.40
5	SE	86	LYS	CA-C-N	6.16	128.53	120.28
5	SE	86	LYS	C-N-CA	6.16	128.53	120.28
32	S1	363	G	C3'-C2'-C1'	6.16	107.46	101.30
32	S1	1204	G	O4'-C1'-C2'	-6.16	101.44	107.60
32	S1	1660	C	C1'-C2'-O2'	6.16	117.64	108.40
33	L1	71	C	C1'-O4'-C4'	6.16	115.86	109.70
33	L1	374	G	C2'-C3'-O3'	6.16	118.74	109.50
33	L1	1012	U	O4'-C1'-N1	6.16	117.74	108.50
33	L1	2495	C	C4'-C3'-O3'	-6.16	103.76	113.00
33	L1	3335	G	C5'-C4'-O4'	-6.16	100.56	109.80
34	L3	71	A	O4'-C1'-C2'	-6.16	101.44	107.60
35	L2	51	U	C4'-C3'-C2'	-6.16	96.44	102.60
35	L2	105	U	N1-C1'-C2'	6.16	121.24	112.00
42	LP	80	VAL	CA-C-N	6.16	131.50	122.63
42	LP	80	VAL	C-N-CA	6.16	131.50	122.63
79	Ls	234	TYR	CA-C-O	6.16	128.60	120.16
13	SQ	25	THR	CA-C-N	6.16	133.30	121.54
13	SQ	25	THR	C-N-CA	6.16	133.30	121.54
32	S1	884	G	C4'-C3'-C2'	-6.16	96.44	102.60
33	L1	1120	G	N9-C1'-C2'	6.16	121.23	112.00
33	L1	1621	G	P-O3'-C3'	6.16	129.44	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	L3	14	C	O4'-C1'-C2'	-6.16	101.44	107.60
34	L3	75	G	O4'-C1'-N9	6.16	117.44	108.20
35	L2	80	C	P-O5'-C5'	6.16	129.24	120.00
35	L2	155	G	C5'-C4'-O4'	-6.16	99.86	109.10
14	SP	82	ASN	OD1-CG-ND2	6.16	128.75	122.60
32	S1	1135	G	O4'-C1'-C2'	-6.16	101.44	107.60
33	L1	218	G	C2'-C3'-O3'	6.16	118.73	109.50
33	L1	590	C	C5'-C4'-O4'	6.16	119.03	109.80
33	L1	656	G	C1'-O4'-C4'	-6.16	103.75	109.90
33	L1	689	G	C1'-C2'-O2'	6.16	117.63	108.40
33	L1	1458	U	C3'-C2'-C1'	-6.16	95.34	101.50
33	L1	1624	G	P-O3'-C3'	-6.16	110.97	120.20
34	L3	38	U	C5'-C4'-C3'	-6.16	106.77	116.00
58	Ln	34	PHE	N-CA-C	6.16	119.78	108.58
70	Li	79	GLY	CA-C-N	6.16	132.78	121.70
70	Li	79	GLY	C-N-CA	6.16	132.78	121.70
77	Lc	105	LEU	O-C-N	-6.16	114.49	122.37
32	S1	1630	G	O4'-C1'-N9	6.15	117.73	108.50
32	S1	1775	A	C2'-C3'-O3'	6.15	118.73	109.50
33	L1	3289	U	C3'-C2'-C1'	6.15	107.45	101.30
35	L2	100	A	C5'-C4'-C3'	6.15	125.23	116.00
7	SI	32	ARG	CD-NE-CZ	-6.15	115.79	124.40
33	L1	1389	C	N1-C1'-C2'	-6.15	102.77	112.00
33	L1	1415	G	O4'-C1'-C2'	6.15	113.75	107.60
38	LE	46	SER	N-CA-CB	6.15	119.74	110.02
44	LR	13	ARG	N-CA-C	-6.15	97.69	110.80
3	SB	148	LYS	N-CA-C	-6.15	97.70	110.80
23	SU	16	LYS	N-CA-CB	6.15	121.90	111.57
28	SN	27	SER	CA-C-O	6.15	127.07	120.55
32	S1	903	A	C3'-C2'-C1'	6.15	107.65	101.50
33	L1	458	G	C1'-C2'-O2'	6.15	117.63	108.40
33	L1	478	G	C3'-C2'-C1'	6.15	107.45	101.30
37	LB	30	ARG	CB-CA-C	6.15	119.02	110.16
80	LC	295	SER	CB-CA-C	-6.15	99.51	109.72
33	L1	27	C	N1-C1'-C2'	6.15	121.22	112.00
33	L1	1266	G	P-O5'-C5'	6.15	130.12	120.90
33	L1	2218	A	O4'-C1'-C2'	6.15	113.75	107.60
37	LB	150	LEU	N-CA-CB	-6.15	101.56	109.55
32	S1	372	U	O4'-C1'-N1	6.15	117.72	108.50
33	L1	690	G	C3'-C2'-C1'	-6.15	95.15	101.30
33	L1	1143	G	C1'-C2'-O2'	6.15	117.62	108.40
35	L2	99	G	C2'-C3'-O3'	6.15	122.92	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	LQ	44	ASP	O-C-N	-6.15	115.30	122.86
48	LV	114	TYR	CB-CA-C	6.15	121.80	110.24
2	SA	184	ARG	O-C-N	-6.15	115.61	122.12
4	SD	61	VAL	N-CA-C	6.15	117.63	110.62
32	S1	885	C	C3'-C2'-C1'	6.15	107.45	101.30
33	L1	1995	U	P-O3'-C3'	6.15	129.42	120.20
37	LB	177	LYS	CB-CA-C	6.15	117.54	108.87
32	S1	562	U	C1'-O4'-C4'	6.14	116.04	109.90
33	L1	337	C	O4'-C4'-C3'	6.14	110.14	104.00
33	L1	1681	U	O5'-C5'-C4'	6.14	120.72	111.50
33	L1	1805	A	P-O5'-C5'	6.14	130.12	120.90
33	L1	2532	A	C1'-O4'-C4'	-6.14	103.75	109.90
33	L1	2842	C	C3'-C2'-C1'	-6.14	95.16	101.30
33	L1	2877	U	C3'-C2'-O2'	6.14	119.92	110.70
32	S1	467	U	C1'-O4'-C4'	-6.14	103.76	109.90
32	S1	479	A	C5'-C4'-C3'	-6.14	105.99	115.20
32	S1	1348	A	C1'-O4'-C4'	6.14	116.04	109.90
32	S1	1507	G	O4'-C1'-N9	6.14	117.71	108.50
32	S1	1613	G	C1'-O4'-C4'	-6.14	103.76	109.90
33	L1	71	C	P-O3'-C3'	6.14	129.41	120.20
33	L1	1367	A	C4'-C3'-O3'	-6.14	103.79	113.00
33	L1	1424	G	O4'-C1'-C2'	6.14	113.74	107.60
33	L1	1960	C	C5'-C4'-C3'	6.14	125.21	116.00
39	LF	187	THR	CA-CB-CG2	6.14	120.94	110.50
48	LV	117	HIS	CB-CG-CD2	-6.14	123.22	131.20
64	LG	105	LEU	N-CA-CB	6.14	120.19	110.55
80	LC	131	THR	CA-CB-CG2	6.14	120.94	110.50
4	SD	216	HIS	CA-C-N	6.14	130.46	121.31
4	SD	216	HIS	C-N-CA	6.14	130.46	121.31
7	SI	109	LYS	CA-C-N	6.14	128.42	120.44
7	SI	109	LYS	C-N-CA	6.14	128.42	120.44
32	S1	159	U	C3'-C2'-C1'	6.14	107.44	101.30
33	L1	2390	G	C4'-C3'-C2'	6.14	108.74	102.60
82	LK	49	SER	N-CA-C	6.14	118.70	110.35
9	SK	62	LYS	N-CA-C	-6.14	99.74	109.07
9	SK	120	ARG	NE-CZ-NH2	-6.14	113.67	119.20
32	S1	120	G	O4'-C1'-C2'	-6.14	101.46	107.60
32	S1	1285	G	C4'-C3'-C2'	-6.14	96.46	102.60
33	L1	212	G	O4'-C4'-C3'	-6.14	97.86	104.00
33	L1	468	U	O4'-C1'-N1	6.14	117.71	108.50
33	L1	858	U	C4'-C3'-C2'	-6.14	96.46	102.60
33	L1	967	G	P-O3'-C3'	-6.14	110.99	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1849	U	O4'-C1'-N1	6.14	117.71	108.50
37	LB	62	THR	O-C-N	-6.14	115.02	123.12
76	Lw	41	LEU	CA-C-O	-6.14	114.04	120.55
4	SD	213	ALA	CA-C-O	6.14	129.29	120.51
33	L1	161	C	N1-C1'-C2'	6.14	121.21	112.00
33	L1	2742	A	O4'-C1'-N9	6.14	117.71	108.50
79	Ls	190	LEU	O-C-N	-6.14	114.34	122.57
25	SC	90	ASP	CA-C-N	6.14	126.79	119.98
25	SC	90	ASP	C-N-CA	6.14	126.79	119.98
33	L1	2411	G	C3'-C2'-C1'	-6.14	95.16	101.30
72	Lk	79	LYS	N-CA-C	6.14	117.64	111.07
32	S1	1045	G	O4'-C1'-C2'	-6.13	101.47	107.60
32	S1	1116	G	C3'-C2'-C1'	-6.13	95.17	101.30
32	S1	1314	U	N1-C1'-C2'	-6.13	102.80	112.00
33	L1	1116	G	P-O3'-C3'	6.13	129.40	120.20
33	L1	1654	C	P-O3'-C3'	6.13	129.40	120.20
33	L1	2141	A	P-O3'-C3'	6.13	129.40	120.20
33	L1	2902	A	C4'-C3'-C2'	-6.13	96.47	102.60
33	L1	3161	C	C3'-C2'-C1'	6.13	107.43	101.30
33	L1	3377	G	C4'-C3'-O3'	-6.13	103.80	113.00
33	L1	3390	G	P-O5'-C5'	6.13	130.10	120.90
44	LR	87	THR	CA-CB-OG1	6.13	118.80	109.60
60	Lr	28	TYR	N-CA-C	6.13	118.40	108.34
67	LS	160	PRO	CA-C-O	-6.13	111.67	120.56
79	Ls	253	ALA	CA-C-O	-6.13	114.32	121.07
2	SA	1	MET	CA-C-N	6.13	132.74	121.70
2	SA	1	MET	C-N-CA	6.13	132.74	121.70
5	SE	115	ASP	CA-C-N	6.13	128.50	120.28
5	SE	115	ASP	C-N-CA	6.13	128.50	120.28
29	ST	47	GLY	O-C-N	-6.13	117.68	123.87
33	L1	1233	G	O4'-C4'-C3'	-6.13	97.87	104.00
2	SA	120	PHE	CA-CB-CG	-6.13	107.67	113.80
13	SQ	109	LEU	N-CA-CB	-6.13	101.75	110.46
32	S1	1038	C	C3'-C2'-C1'	6.13	107.43	101.30
32	S1	1137	A	P-O3'-C3'	6.13	129.40	120.20
33	L1	147	G	C5'-C4'-C3'	6.13	124.10	114.90
33	L1	385	A	C1'-O4'-C4'	-6.13	103.77	109.90
33	L1	1552	C	O4'-C1'-C2'	6.13	113.73	107.60
33	L1	1756	C	C3'-C2'-C1'	6.13	107.43	101.30
33	L1	2695	A	P-O5'-C5'	6.13	130.10	120.90
33	L1	2997	C	C3'-C2'-C1'	6.13	107.43	101.30
33	L1	3035	C	P-O5'-C5'	6.13	130.10	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	LX	40	VAL	CA-C-O	-6.13	114.57	120.95
80	LC	17	LEU	CB-CA-C	-6.13	98.09	110.17
33	L1	227	C	O4'-C1'-N1	-6.13	99.31	108.50
33	L1	308	U	C4'-C3'-C2'	-6.13	96.47	102.60
33	L1	1044	A	P-O3'-C3'	6.13	129.40	120.20
78	Le	83	ALA	CA-C-N	6.13	132.74	121.70
78	Le	83	ALA	C-N-CA	6.13	132.74	121.70
80	LC	176	GLN	CA-C-O	6.13	128.06	121.44
1	Sa	200	PHE	O-C-N	-6.13	115.03	120.48
32	S1	1095	C	O4'-C1'-C2'	6.13	113.73	107.60
33	L1	2499	U	P-O5'-C5'	6.13	130.09	120.90
33	L1	2708	A	O4'-C1'-C2'	-6.13	99.67	105.80
80	LC	175	LYS	CA-C-N	6.13	129.83	120.82
80	LC	175	LYS	C-N-CA	6.13	129.83	120.82
80	LC	377	THR	CA-C-N	6.13	128.99	120.29
80	LC	377	THR	C-N-CA	6.13	128.99	120.29
13	SQ	67	ARG	CD-NE-CZ	-6.13	115.82	124.40
30	S3	22	A	O4'-C1'-C2'	-6.13	101.47	107.60
32	S1	385	C	N1-C1'-C2'	6.13	121.19	112.00
32	S1	1106	G	O4'-C1'-N9	6.13	117.69	108.50
32	S1	1516	C	C4'-C3'-O3'	6.13	122.19	113.00
33	L1	1648	C	C3'-C2'-C1'	6.13	107.43	101.30
33	L1	2464	G	O4'-C1'-C2'	6.13	113.73	107.60
33	L1	3202	G	C1'-O4'-C4'	-6.13	103.77	109.90
34	L3	72	G	C1'-O4'-C4'	-6.13	103.77	109.90
35	L2	102	U	C4'-C3'-O3'	-6.13	103.81	113.00
9	SK	70	PRO	N-CA-C	-6.12	99.85	112.47
32	S1	442	A	C4'-C3'-C2'	6.12	108.72	102.60
32	S1	1563	A	C1'-O4'-C4'	6.12	116.03	109.90
33	L1	2221	U	C4'-C3'-C2'	-6.12	96.47	102.60
33	L1	3295	G	P-O3'-C3'	6.12	129.39	120.20
35	L2	23	A	O4'-C1'-C2'	6.12	113.72	107.60
67	LS	62	ALA	CA-C-N	6.12	131.50	122.99
67	LS	62	ALA	C-N-CA	6.12	131.50	122.99
11	SM	94	ARG	N-CA-C	-6.12	97.76	110.80
32	S1	1230	A	O4'-C1'-C2'	-6.12	101.48	107.60
33	L1	1151	G	N9-C1'-C2'	6.12	121.19	112.00
33	L1	2468	G	C2'-C3'-O3'	6.12	122.89	113.70
66	LN	52	ARG	CA-C-O	6.12	127.36	121.67
77	Lc	38	VAL	CA-C-O	-6.12	114.58	120.95
3	SB	57	ASN	CA-C-O	-6.12	114.39	120.82
3	SB	137	ILE	CA-C-N	6.12	131.08	123.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	SB	137	ILE	C-N-CA	6.12	131.08	123.12
8	SJ	119	VAL	N-CA-CB	6.12	121.33	111.23
16	SR	65	LEU	N-CA-C	6.12	117.94	110.41
32	S1	192	G	O3'-P-O5'	6.12	113.18	104.00
32	S1	1620	C	O4'-C1'-C2'	-6.12	101.48	107.60
33	L1	179	G	C4'-C3'-C2'	-6.12	96.48	102.60
33	L1	734	C	P-O3'-C3'	6.12	129.38	120.20
33	L1	1054	U	C3'-C2'-C1'	-6.12	95.18	101.30
33	L1	1751	G	C3'-C2'-C1'	6.12	107.42	101.30
34	L3	117	U	O5'-C5'-C4'	6.12	120.68	111.50
46	LT	171	GLU	CB-CA-C	6.12	121.26	110.85
8	SJ	90	GLU	N-CA-C	-6.12	98.44	108.41
8	SJ	106	VAL	O-C-N	6.12	127.91	121.91
16	SR	116	ILE	CB-CA-C	-6.12	101.26	111.29
16	SR	130	ILE	CA-C-O	6.12	128.43	120.78
25	SC	128	ARG	NE-CZ-NH2	6.12	124.71	119.20
29	ST	77	ALA	CA-C-N	6.12	128.48	120.28
29	ST	77	ALA	C-N-CA	6.12	128.48	120.28
33	L1	974	G	P-O5'-C5'	-6.12	111.72	120.90
33	L1	1892	A	C5'-C4'-C3'	-6.12	106.82	116.00
33	L1	2246	G	C1'-C2'-O2'	6.12	117.58	108.40
33	L1	2782	G	O4'-C4'-C3'	-6.12	97.88	104.00
33	L1	3122	U	O4'-C1'-C2'	6.12	111.92	105.80
33	L1	3294	U	O4'-C1'-C2'	-6.12	101.48	107.60
70	Li	69	ARG	CA-C-N	-6.12	109.85	121.54
70	Li	69	ARG	C-N-CA	-6.12	109.85	121.54
32	S1	259	A	C3'-C2'-C1'	6.12	107.42	101.30
32	S1	1059	U	P-O5'-C5'	6.12	130.08	120.90
32	S1	1413	C	C3'-C2'-C1'	6.12	107.42	101.30
33	L1	615	A	N9-C1'-C2'	6.12	121.17	112.00
33	L1	2418	A	O4'-C4'-C3'	6.12	110.12	104.00
32	S1	404	A	P-O5'-C5'	6.12	130.07	120.90
32	S1	1353	G	N9-C1'-C2'	6.12	121.17	112.00
33	L1	459	G	N9-C1'-C2'	6.12	121.17	112.00
33	L1	1129	G	C5'-C4'-C3'	6.12	125.17	116.00
33	L1	1425	G	C1'-C2'-O2'	6.12	117.57	108.40
33	L1	1536	U	N1-C1'-C2'	-6.12	102.83	112.00
33	L1	2133	A	C1'-O4'-C4'	-6.12	103.58	109.70
33	L1	2210	A	C1'-C2'-O2'	6.12	117.58	108.40
38	LE	34	ARG	NE-CZ-NH2	-6.12	113.70	119.20
3	SB	46	THR	N-CA-CB	6.11	120.95	110.68
5	SE	142	LYS	N-CA-C	-6.11	97.87	108.69

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	SJ	20	GLU	N-CA-C	-6.11	100.13	108.38
29	ST	7	GLN	N-CA-C	6.11	118.02	111.36
33	L1	1028	G	C5'-C4'-C3'	6.11	125.17	116.00
33	L1	1297	U	C4'-C3'-C2'	-6.11	96.49	102.60
33	L1	2625	C	O3'-P-O5'	-6.11	94.83	104.00
48	LV	119	GLN	OE1-CD-NE2	-6.11	116.49	122.60
64	LG	97	LYS	N-CA-C	6.11	118.71	109.23
77	Lc	16	LYS	O-C-N	6.11	129.37	122.22
9	SK	59	MET	N-CA-CB	6.11	120.44	110.17
14	SP	41	LEU	CD1-CG-CD2	-6.11	97.36	110.80
32	S1	1096	A	P-O3'-C3'	-6.11	111.03	120.20
32	S1	1350	C	C3'-C2'-C1'	6.11	107.41	101.30
33	L1	2951	U	P-O5'-C5'	6.11	130.07	120.90
28	SN	48	LYS	CA-C-N	6.11	130.81	122.19
28	SN	48	LYS	C-N-CA	6.11	130.81	122.19
33	L1	791	C	O4'-C1'-C2'	-6.11	101.49	107.60
33	L1	1625	G	N9-C1'-C2'	-6.11	102.83	112.00
45	LQ	50	THR	CA-C-O	6.11	128.44	120.74
55	Lg	16	VAL	N-CA-CB	6.11	121.31	111.23
64	LG	134	ILE	O-C-N	-6.11	116.17	122.95
70	Li	10	ARG	CB-CG-CD	6.11	125.36	111.30
80	LC	357	GLU	N-CA-CB	6.11	119.89	110.60
81	LD	313	GLU	O-C-N	6.11	128.89	122.23
13	SQ	9	VAL	CB-CA-C	-6.11	104.02	112.02
29	ST	40	ASP	CA-CB-CG	-6.11	106.49	112.60
33	L1	778	G	C1'-O4'-C4'	-6.11	103.79	109.90
33	L1	1075	G	C3'-C2'-C1'	-6.11	95.19	101.30
33	L1	3339	G	O4'-C1'-N9	6.11	117.66	108.50
60	Lr	66	LYS	CA-C-N	6.11	133.08	122.82
60	Lr	66	LYS	C-N-CA	6.11	133.08	122.82
6	SF	52	TYR	N-CA-C	6.11	118.40	108.08
32	S1	638	G	O4'-C1'-N9	6.11	117.36	108.20
32	S1	1201	C	C4'-C3'-O3'	-6.11	103.84	113.00
33	L1	300	C	N1-C1'-C2'	6.11	121.16	112.00
33	L1	1458	U	C5'-C4'-C3'	-6.11	106.04	115.20
33	L1	2693	G	O4'-C1'-N9	6.11	117.66	108.50
47	LU	19	PHE	CA-C-N	6.11	131.83	121.14
47	LU	19	PHE	C-N-CA	6.11	131.83	121.14
64	LG	18	HIS	CB-CG-ND1	-6.11	113.54	122.70
1	Sa	105	LYS	N-CA-C	-6.11	97.76	108.20
32	S1	287	C	O4'-C1'-C2'	-6.11	101.50	107.60
32	S1	1646	G	O4'-C1'-N9	6.11	117.66	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	271	G	C3'-C2'-C1'	-6.11	95.19	101.30
33	L1	1336	A	C3'-C2'-C1'	6.11	107.41	101.30
33	L1	1565	G	C1'-O4'-C4'	-6.11	103.80	109.90
33	L1	1705	A	O4'-C1'-C2'	-6.11	101.49	107.60
33	L1	2451	G	C3'-C2'-C1'	6.11	107.61	101.50
33	L1	2547	C	O4'-C1'-C2'	6.11	113.71	107.60
47	LU	149	VAL	N-CA-CB	-6.11	101.16	111.23
49	LX	108	ALA	CA-C-N	6.11	128.82	120.46
49	LX	108	ALA	C-N-CA	6.11	128.82	120.46
72	Lk	110	LYS	CA-C-O	6.11	127.73	120.53
31	S2	9	A	O4'-C1'-N9	6.10	117.36	108.20
32	S1	342	C	O4'-C1'-C2'	-6.10	101.50	107.60
33	L1	2569	G	C1'-C2'-O2'	6.10	117.56	108.40
33	L1	2748	G	O4'-C1'-C2'	-6.10	101.50	107.60
66	LN	96	GLN	CA-CB-CG	6.10	126.31	114.10
72	Lk	49	GLU	CA-CB-CG	6.10	126.31	114.10
32	S1	984	A	O4'-C1'-C2'	-6.10	101.50	107.60
33	L1	226	U	P-O3'-C3'	6.10	129.35	120.20
33	L1	237	C	O4'-C1'-N1	-6.10	99.34	108.50
33	L1	1755	A	C1'-O4'-C4'	-6.10	103.80	109.90
33	L1	2630	A	P-O5'-C5'	6.10	130.05	120.90
55	Lg	107	PRO	N-CA-CB	6.10	109.98	103.39
74	LJ	96	VAL	CA-CB-CG1	6.10	120.77	110.40
11	SM	36	VAL	CB-CA-C	6.10	121.63	110.71
33	L1	1867	U	N1-C1'-C2'	6.10	121.15	112.00
35	L2	27	C	C3'-C2'-C1'	6.10	107.60	101.50
35	L2	45	A	O4'-C4'-C3'	-6.10	97.90	104.00
32	S1	357	A	P-O3'-C3'	6.10	129.35	120.20
33	L1	163	U	O4'-C1'-C2'	-6.10	101.50	107.60
33	L1	2759	C	C1'-O4'-C4'	-6.10	103.80	109.90
33	L1	2975	G	C5'-C4'-C3'	6.10	125.15	116.00
43	LO	111	MET	N-CA-CB	6.10	119.19	110.16
46	LT	121	HIS	CE1-NE2-CD2	-6.10	102.90	109.00
71	Lj	80	GLY	CA-C-O	-6.10	113.27	119.37
78	Le	170	VAL	CB-CA-C	6.10	117.53	110.88
80	LC	336	LYS	N-CA-C	-6.10	98.69	109.06
32	S1	54	C	N1-C1'-C2'	-6.10	102.85	112.00
32	S1	1042	C	C3'-C2'-C1'	6.10	107.40	101.30
32	S1	1473	C	C3'-C2'-C1'	6.10	107.40	101.30
33	L1	209	G	P-O5'-C5'	6.10	130.04	120.90
33	L1	1573	G	N9-C1'-C2'	6.10	121.14	112.00
33	L1	1798	C	N1-C1'-C2'	6.10	121.15	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	LA	210	GLY	CA-C-N	6.10	134.50	121.45
36	LA	210	GLY	C-N-CA	6.10	134.50	121.45
40	LH	75	GLN	CA-C-O	6.10	127.22	120.82
32	S1	169	A	P-O3'-C3'	6.10	129.34	120.20
33	L1	227	C	C1'-C2'-O2'	6.10	117.54	108.40
33	L1	1021	U	O4'-C1'-N1	6.10	117.64	108.50
33	L1	2621	G	N9-C1'-C2'	-6.10	104.86	114.00
33	L1	2974	G	O4'-C1'-N9	6.10	117.64	108.50
38	LE	145	ARG	N-CA-CB	6.10	120.79	110.49
74	LJ	33	GLY	CA-C-N	6.10	126.11	119.89
74	LJ	33	GLY	C-N-CA	6.10	126.11	119.89
2	SA	169	ASN	CA-CB-CG	6.09	118.69	112.60
17	SV	28	TRP	CA-C-N	6.09	132.67	121.70
17	SV	28	TRP	C-N-CA	6.09	132.67	121.70
32	S1	2	A	P-O5'-C5'	6.09	130.04	120.90
32	S1	381	G	C1'-C2'-O2'	6.09	117.54	108.40
32	S1	1069	G	P-O5'-C5'	6.09	130.04	120.90
33	L1	139	U	N1-C1'-C2'	6.09	121.14	112.00
33	L1	259	G	O4'-C1'-C2'	-6.09	101.51	107.60
33	L1	1728	G	N9-C1'-C2'	-6.09	102.86	112.00
64	LG	175	ASP	N-CA-CB	6.09	120.79	110.49
5	SE	72	VAL	N-CA-C	6.09	116.27	110.42
11	SM	109	ASP	CA-CB-CG	6.09	118.69	112.60
32	S1	1772	A	O4'-C1'-C2'	-6.09	101.51	107.60
33	L1	1736	C	C3'-C2'-C1'	6.09	107.39	101.30
33	L1	2764	G	C1'-O4'-C4'	-6.09	103.61	109.70
33	L1	3375	G	P-O5'-C5'	6.09	130.04	120.90
35	L2	57	A	O4'-C4'-C3'	-6.09	97.91	104.00
66	LN	106	ASP	CA-CB-CG	-6.09	106.51	112.60
32	S1	12	U	C4'-C3'-O3'	-6.09	103.86	113.00
32	S1	994	U	N1-C1'-C2'	-6.09	102.86	112.00
32	S1	1469	C	O4'-C1'-C2'	-6.09	101.51	107.60
32	S1	1713	C	C1'-O4'-C4'	-6.09	103.81	109.90
33	L1	1290	A	O4'-C1'-C2'	-6.09	99.71	105.80
33	L1	1852	C	C4'-C3'-C2'	6.09	108.69	102.60
33	L1	1897	A	O5'-C5'-C4'	-6.09	102.36	111.50
33	L1	2572	U	C1'-O4'-C4'	6.09	115.99	109.90
40	LH	63	LEU	N-CA-C	6.09	123.77	110.80
78	Le	188	HIS	CE1-NE2-CD2	-6.09	102.91	109.00
81	LD	208	ARG	O-C-N	-6.09	114.49	122.59
32	S1	224	C	O4'-C1'-C2'	-6.09	101.51	107.60
32	S1	906	G	O4'-C1'-C2'	6.09	113.69	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1076	C	C3'-C2'-C1'	6.09	107.39	101.30
33	L1	513	C	O4'-C1'-C2'	-6.09	101.51	107.60
33	L1	1537	A	C1'-O4'-C4'	6.09	115.99	109.90
33	L1	1663	G	N9-C1'-C2'	6.09	121.13	112.00
33	L1	2338	C	N1-C1'-C2'	6.09	123.14	114.00
34	L3	13	A	C4'-C3'-O3'	-6.09	103.87	113.00
66	LN	98	ARG	NH1-CZ-NH2	-6.09	111.39	119.30
74	LJ	138	VAL	CA-C-N	6.09	132.66	121.70
74	LJ	138	VAL	C-N-CA	6.09	132.66	121.70
81	LD	358	LYS	N-CA-CB	6.09	119.07	110.12
3	SB	186	VAL	N-CA-CB	6.09	117.80	110.31
37	LB	22	HIS	N-CA-C	6.09	117.72	111.14
51	LY	8	THR	N-CA-CB	6.09	120.78	110.49
6	SF	27	ASP	CA-CB-CG	6.09	118.69	112.60
11	SM	73	ASN	O-C-N	-6.09	114.32	121.32
31	S2	49	G	C4'-C3'-C2'	-6.09	96.51	102.60
32	S1	373	U	C1'-C2'-O2'	6.09	117.53	108.40
33	L1	723	G	N9-C1'-C2'	-6.09	102.87	112.00
33	L1	917	A	C3'-C2'-C1'	6.09	107.59	101.50
33	L1	1655	G	N9-C1'-C2'	6.09	121.13	112.00
38	LE	92	GLU	CA-C-N	6.09	132.66	121.70
38	LE	92	GLU	C-N-CA	6.09	132.66	121.70
55	Lg	88	ASN	CA-C-N	6.09	128.44	120.28
55	Lg	88	ASN	C-N-CA	6.09	128.44	120.28
83	Lm	1	MET	N-CA-CB	-6.09	100.15	110.50
4	SD	217	GLN	N-CA-C	6.08	118.87	110.35
7	SI	104	ASP	CA-CB-CG	6.08	118.69	112.60
33	L1	2757	G	O3'-P-O5'	6.08	113.13	104.00
41	LM	48	ARG	N-CA-C	6.08	117.48	108.60
80	LC	236	TRP	CD2-CE2-CZ2	-6.08	116.31	122.40
5	SE	206	PHE	N-CA-CB	6.08	120.77	110.49
33	L1	246	C	N1-C1'-C2'	-6.08	102.88	112.00
33	L1	1165	C	N1-C1'-C2'	6.08	121.13	112.00
33	L1	1374	G	C1'-C2'-O2'	6.08	117.53	108.40
33	L1	2109	G	P-O5'-C5'	6.08	130.03	120.90
33	L1	3215	U	C4'-C3'-C2'	-6.08	96.52	102.60
73	Lp	22	LYS	N-CA-C	6.08	123.76	110.80
29	ST	15	ARG	NE-CZ-NH2	6.08	124.67	119.20
32	S1	389	A	O3'-P-O5'	-6.08	94.88	104.00
32	S1	1315	U	O4'-C1'-N1	6.08	117.62	108.50
33	L1	1318	C	C1'-C2'-O2'	6.08	117.52	108.40
33	L1	2345	C	C1'-O4'-C4'	-6.08	103.82	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2653	U	C2'-C3'-O3'	6.08	122.82	113.70
42	LP	30	TYR	N-CA-CB	6.08	119.06	110.12
81	LD	320	ARG	N-CA-C	-6.08	104.73	111.36
1	Sa	170	GLU	N-CA-C	-6.08	104.73	111.36
9	SK	43	VAL	CA-C-O	6.08	126.92	120.48
23	SU	91	TYR	N-CA-C	6.08	120.38	107.67
33	L1	515	C	O4'-C1'-C2'	-6.08	101.52	107.60
33	L1	618	G	P-O5'-C5'	-6.08	111.78	120.90
33	L1	1371	G	O5'-C5'-C4'	6.08	120.62	111.50
70	Li	18	ASN	CA-C-N	6.08	133.15	121.54
70	Li	18	ASN	C-N-CA	6.08	133.15	121.54
74	LJ	64	THR	O-C-N	-6.08	115.33	123.23
1	Sa	7	LEU	N-CA-C	-6.08	99.09	109.24
4	SD	131	PHE	N-CA-C	-6.08	98.61	108.52
8	SJ	101	VAL	CB-CA-C	6.08	119.65	110.90
33	L1	58	G	C1'-O4'-C4'	6.08	115.78	109.70
33	L1	1388	C	C5'-C4'-C3'	6.08	125.12	116.00
33	L1	2759	C	C4'-C3'-C2'	-6.08	96.52	102.60
35	L2	43	G	N9-C1'-C2'	6.08	123.12	114.00
42	LP	160	GLU	CA-C-N	6.08	129.03	120.28
42	LP	160	GLU	C-N-CA	6.08	129.03	120.28
44	LR	36	LEU	N-CA-C	6.08	117.99	111.36
54	Lf	26	LYS	CA-CB-CG	6.08	126.26	114.10
66	LN	32	ASP	N-CA-C	6.08	123.75	110.80
5	SE	72	VAL	N-CA-CB	6.08	117.66	110.55
11	SM	15	VAL	CB-CA-C	6.08	121.26	111.29
32	S1	576	C	C1'-O4'-C4'	-6.08	103.82	109.90
33	L1	88	A	O4'-C1'-C2'	6.08	113.68	107.60
33	L1	2074	C	O4'-C1'-C2'	-6.08	101.52	107.60
1	Sa	7	LEU	CA-C-N	6.08	129.39	120.82
1	Sa	7	LEU	C-N-CA	6.08	129.39	120.82
14	SP	44	LYS	N-CA-C	6.08	119.95	110.17
32	S1	439	C	N1-C1'-C2'	6.08	121.11	112.00
32	S1	1239	C	C3'-C2'-C1'	-6.08	95.22	101.30
33	L1	178	C	P-O3'-C3'	6.08	129.31	120.20
81	LD	381	TRP	N-CA-C	6.08	117.57	111.07
25	SC	105	ASN	CA-CB-CG	-6.07	106.53	112.60
33	L1	55	G	O4'-C1'-C2'	6.07	113.67	107.60
33	L1	198	A	N9-C1'-C2'	-6.07	104.89	114.00
33	L1	730	A	O3'-P-O5'	-6.07	94.89	104.00
33	L1	1752	C	N1-C1'-C2'	6.07	121.11	112.00
33	L1	2395	G	O4'-C1'-C2'	6.07	113.67	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3348	G	C1'-O4'-C4'	6.07	115.97	109.90
33	L1	3381	C	C5'-C4'-C3'	6.07	125.11	116.00
33	L1	1036	C	O4'-C1'-N1	6.07	117.61	108.50
33	L1	1612	C	C1'-O4'-C4'	-6.07	103.83	109.90
33	L1	2498	C	C5'-C4'-C3'	6.07	125.11	116.00
33	L1	3320	G	C1'-O4'-C4'	6.07	115.97	109.90
35	L2	37	A	C4'-C3'-O3'	-6.07	103.89	113.00
47	LU	158	ASN	CA-C-N	6.07	128.91	120.29
47	LU	158	ASN	C-N-CA	6.07	128.91	120.29
79	Ls	227	SER	CA-C-N	6.07	128.21	120.56
79	Ls	227	SER	C-N-CA	6.07	128.21	120.56
82	LK	132	LEU	N-CA-CB	6.07	120.75	110.49
3	SB	75	LYS	CA-C-O	-6.07	112.63	119.79
32	S1	1301	G	O4'-C1'-N9	6.07	117.61	108.50
32	S1	1444	G	O4'-C1'-C2'	-6.07	101.53	107.60
33	L1	1382	C	C4'-C3'-C2'	6.07	108.67	102.60
33	L1	3052	U	P-O3'-C3'	-6.07	111.09	120.20
33	L1	3093	C	P-O5'-C5'	6.07	130.00	120.90
38	LE	70	TYR	CA-C-O	-6.07	114.77	121.33
15	SS	5	THR	N-CA-CB	6.07	118.98	109.94
25	SC	83	ASN	O-C-N	6.07	130.51	123.17
25	SC	146	PRO	CB-CA-C	6.07	121.57	111.56
30	S3	17	A	O4'-C1'-C2'	-6.07	101.53	107.60
32	S1	1663	A	C1'-O4'-C4'	6.07	115.97	109.90
33	L1	31	U	C1'-C2'-O2'	6.07	117.50	108.40
33	L1	1607	C	O4'-C4'-C3'	6.07	110.07	104.00
33	L1	3094	C	P-O3'-C3'	6.07	129.30	120.20
2	SA	9	ALA	CA-C-N	6.07	133.13	121.54
2	SA	9	ALA	C-N-CA	6.07	133.13	121.54
8	SJ	46	GLY	CA-C-N	6.07	128.33	120.44
8	SJ	46	GLY	C-N-CA	6.07	128.33	120.44
20	SZ	7	SER	CA-C-N	6.07	134.56	121.64
20	SZ	7	SER	C-N-CA	6.07	134.56	121.64
33	L1	131	C	C1'-O4'-C4'	6.07	115.97	109.90
33	L1	840	A	C1'-O4'-C4'	-6.07	103.83	109.90
33	L1	1078	U	C1'-C2'-O2'	6.07	117.50	108.40
33	L1	1432	G	O3'-P-O5'	-6.07	94.90	104.00
35	L2	144	A	C3'-C2'-C1'	6.07	107.37	101.30
41	LM	136	ALA	CA-C-N	6.07	128.41	120.28
41	LM	136	ALA	C-N-CA	6.07	128.41	120.28
48	LV	72	GLN	N-CA-C	-6.07	97.88	110.80
2	SA	218	GLU	N-CA-CB	-6.07	100.90	109.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	SB	76	ARG	NH1-CZ-NH2	-6.07	111.42	119.30
13	SQ	28	PHE	O-C-N	-6.07	115.82	122.07
31	S2	15	A	C4'-C3'-O3'	-6.07	103.90	113.00
32	S1	1764	G	N9-C1'-C2'	6.07	121.10	112.00
32	S1	1810	G	O5'-C5'-C4'	6.07	119.90	110.80
33	L1	373	A	O4'-C1'-C2'	-6.07	101.53	107.60
33	L1	491	G	C1'-O4'-C4'	-6.07	103.83	109.90
33	L1	793	C	P-O3'-C3'	-6.07	111.10	120.20
33	L1	811	A	O4'-C4'-C3'	-6.07	97.94	104.00
33	L1	1432	G	P-O3'-C3'	6.07	129.30	120.20
67	LS	158	VAL	N-CA-C	-6.07	104.07	112.50
81	LD	181	TYR	CA-C-N	6.07	133.12	121.54
81	LD	181	TYR	C-N-CA	6.07	133.12	121.54
19	SY	16	ARG	CA-CB-CG	6.06	126.23	114.10
32	S1	54	C	C1'-O4'-C4'	6.06	115.96	109.90
33	L1	3005	C	O4'-C4'-C3'	6.06	110.06	104.00
51	LY	71	GLN	N-CA-C	-6.06	99.08	108.42
70	Li	94	ALA	N-CA-C	6.06	117.56	111.07
80	LC	55	HIS	N-CA-C	-6.06	98.43	108.07
16	SR	80	GLU	CA-C-N	6.06	127.67	120.09
16	SR	80	GLU	C-N-CA	6.06	127.67	120.09
31	S2	13	U	O4'-C1'-N1	6.06	117.59	108.50
32	S1	410	U	N1-C1'-C2'	6.06	121.09	112.00
32	S1	882	G	O4'-C1'-C2'	6.06	113.66	107.60
32	S1	1597	C	C3'-C2'-C1'	6.06	107.36	101.30
33	L1	2087	A	N9-C1'-C2'	-6.06	102.91	112.00
33	L1	2404	C	C3'-C2'-C1'	-6.06	95.24	101.30
33	L1	3011	U	N1-C1'-C2'	-6.06	102.91	112.00
43	LO	22	ILE	N-CA-CB	6.06	121.23	111.23
45	LQ	112	THR	N-CA-C	6.06	123.71	110.80
70	Li	109	ILE	CA-C-N	6.06	133.12	121.54
70	Li	109	ILE	C-N-CA	6.06	133.12	121.54
32	S1	258	U	O4'-C1'-C2'	-6.06	101.54	107.60
32	S1	957	A	C1'-O4'-C4'	6.06	115.96	109.90
33	L1	907	A	N9-C1'-C2'	6.06	121.09	112.00
33	L1	2564	G	O4'-C1'-C2'	6.06	113.66	107.60
67	LS	53	VAL	CB-CA-C	6.06	121.23	111.29
78	Le	110	LEU	N-CA-C	-6.06	97.89	110.80
25	SC	19	ARG	CA-C-N	6.06	127.41	119.84
25	SC	19	ARG	C-N-CA	6.06	127.41	119.84
32	S1	83	U	O4'-C1'-C2'	-6.06	101.54	107.60
32	S1	299	A	C5'-C4'-C3'	6.06	125.09	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	302	C	OP2-P-O3'	-6.06	89.82	108.00
32	S1	338	G	P-O5'-C5'	-6.06	111.81	120.90
33	L1	19	C	C5'-C4'-C3'	6.06	125.09	116.00
33	L1	877	U	O4'-C1'-C2'	6.06	113.66	107.60
33	L1	1513	C	C1'-O4'-C4'	-6.06	103.84	109.90
33	L1	1729	G	C1'-C2'-O2'	6.06	117.49	108.40
33	L1	1938	U	P-O5'-C5'	-6.06	111.81	120.90
33	L1	1991	U	P-O5'-C5'	-6.06	111.81	120.90
33	L1	2376	G	P-O3'-C3'	6.06	129.29	120.20
42	LP	45	PRO	CA-C-N	6.06	128.40	120.28
42	LP	45	PRO	C-N-CA	6.06	128.40	120.28
48	LV	74	LYS	N-CA-CB	6.06	120.73	110.49
80	LC	25	HIS	ND1-CE1-NE2	6.06	114.46	108.40
1	Sa	164	GLN	N-CA-C	-6.06	99.31	108.52
9	SK	131	VAL	N-CA-C	-6.06	99.58	108.97
33	L1	2538	G	O4'-C1'-C2'	6.06	113.66	107.60
33	L1	2654	G	C1'-O4'-C4'	-6.06	103.84	109.90
33	L1	2702	G	C4'-C3'-C2'	-6.06	96.54	102.60
57	L1	30	GLN	N-CA-C	6.06	120.18	113.21
3	SB	160	SER	N-CA-CB	-6.06	100.66	110.71
25	SC	161	SER	O-C-N	-6.06	114.54	122.59
33	L1	2700	A	C4'-C3'-C2'	-6.06	96.54	102.60
33	L1	3107	A	C3'-C2'-C1'	6.06	107.36	101.30
32	S1	565	G	O4'-C1'-C2'	6.05	113.65	107.60
33	L1	58	G	O4'-C1'-N9	6.05	117.28	108.20
33	L1	1959	U	C5'-C4'-O4'	-6.05	100.72	109.80
33	L1	2092	C	O4'-C4'-C3'	-6.05	97.94	104.00
33	L1	2708	A	C2'-C3'-O3'	6.05	118.58	109.50
45	LQ	110	VAL	N-CA-C	6.05	116.83	110.72
77	Lc	85	ARG	CA-CB-CG	6.05	126.21	114.10
32	S1	21	U	O4'-C1'-C2'	-6.05	101.55	107.60
66	LN	20	ASP	N-CA-CB	6.05	120.72	110.49
1	Sa	216	LEU	N-CA-C	-6.05	97.91	110.80
8	SJ	49	VAL	N-CA-CB	6.05	118.03	110.47
32	S1	310	U	O4'-C1'-C2'	-6.05	101.55	107.60
32	S1	343	C	O4'-C1'-C2'	-6.05	101.55	107.60
32	S1	862	U	O4'-C1'-C2'	-6.05	101.55	107.60
33	L1	329	G	O4'-C1'-N9	6.05	117.58	108.50
33	L1	1667	C	C5'-C4'-C3'	-6.05	106.92	116.00
33	L1	1746	G	O4'-C1'-N9	6.05	117.58	108.50
48	LV	140	TYR	CA-C-O	-6.05	113.79	120.33
49	LX	46	LYS	N-CA-CB	6.05	120.72	110.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	S2	73	C	C5'-C4'-C3'	-6.05	106.92	116.00
32	S1	432	A	O4'-C1'-C2'	-6.05	101.55	107.60
32	S1	1229	C	C3'-C2'-C1'	6.05	107.35	101.30
32	S1	1427	A	C1'-O4'-C4'	-6.05	103.85	109.90
33	L1	599	C	N1-C1'-C2'	6.05	121.08	112.00
33	L1	642	C	C3'-C2'-C1'	6.05	107.35	101.30
33	L1	846	A	C1'-O4'-C4'	6.05	115.95	109.90
33	L1	886	A	C1'-O4'-C4'	-6.05	103.85	109.90
33	L1	2362	A	C4'-C3'-C2'	-6.05	96.55	102.60
33	L1	3137	G	C4'-C3'-C2'	-6.05	96.55	102.60
42	LP	6	TYR	CB-CA-C	-6.05	101.38	110.88
59	Lo	1	MET	CG-SD-CE	-6.05	87.59	100.90
81	LD	168	THR	CA-C-O	6.05	126.96	120.55
81	LD	202	ASN	CA-CB-CG	6.05	118.65	112.60
32	S1	528	U	O3'-P-O5'	-6.05	94.93	104.00
33	L1	347	A	O4'-C1'-N9	-6.05	99.13	108.20
33	L1	3093	C	O4'-C1'-N1	-6.05	99.43	108.50
49	LX	62	PRO	N-CA-C	6.05	124.93	112.47
15	SS	14	PRO	N-CA-CB	6.05	109.60	103.25
33	L1	911	G	O4'-C4'-C3'	-6.05	100.05	106.10
33	L1	1469	G	N9-C1'-C2'	6.05	121.07	112.00
33	L1	1960	C	P-O5'-C5'	-6.05	111.83	120.90
48	LV	97	LYS	CB-CA-C	-6.05	100.75	110.79
6	SF	143	VAL	CA-C-N	6.04	128.38	120.28
6	SF	143	VAL	C-N-CA	6.04	128.38	120.28
33	L1	697	A	C5'-C4'-C3'	6.04	125.07	116.00
33	L1	3123	A	C3'-C2'-C1'	6.04	107.34	101.30
75	Lu	56	ASP	CA-CB-CG	-6.04	106.56	112.60
1	Sa	261	GLY	N-CA-C	-6.04	107.06	114.92
11	SM	110	ASP	N-CA-CB	-6.04	101.24	110.12
33	L1	331	G	O4'-C1'-N9	6.04	117.56	108.50
33	L1	1414	C	C1'-O4'-C4'	-6.04	103.86	109.90
33	L1	2152	A	C4'-C3'-O3'	6.04	118.46	109.40
33	L1	2279	C	O4'-C1'-C2'	-6.04	101.56	107.60
33	L1	2864	U	C4'-C3'-C2'	-6.04	96.56	102.60
33	L1	2886	C	N1-C1'-C2'	6.04	121.06	112.00
35	L2	101	G	N9-C1'-C2'	6.04	121.07	112.00
45	LQ	260	GLU	O-C-N	-6.04	114.37	121.32
48	LV	54	HIS	CE1-NE2-CD2	-6.04	102.96	109.00
68	LW	42	GLU	N-CA-C	6.04	117.54	111.07
9	SK	133	PRO	CA-C-N	6.04	133.31	122.13
9	SK	133	PRO	C-N-CA	6.04	133.31	122.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	993	C	C4'-C3'-C2'	-6.04	96.56	102.60
32	S1	1705	C	C1'-O4'-C4'	-6.04	103.86	109.90
33	L1	8	C	P-O5'-C5'	-6.04	111.84	120.90
33	L1	465	C	C3'-C2'-C1'	6.04	107.34	101.30
33	L1	1595	G	P-O3'-C3'	-6.04	111.14	120.20
33	L1	1815	G	C5'-C4'-O4'	-6.04	100.74	109.80
33	L1	2062	U	C1'-O4'-C4'	6.04	115.94	109.90
33	L1	3330	U	C4'-C3'-C2'	-6.04	96.56	102.60
34	L3	20	C	O3'-P-O5'	6.04	113.06	104.00
32	S1	1586	U	O5'-C5'-C4'	-6.04	102.44	111.50
33	L1	420	A	O4'-C1'-N9	6.04	117.56	108.50
33	L1	1080	C	O4'-C4'-C3'	-6.04	97.96	104.00
48	LV	7	GLU	CA-C-O	6.04	127.23	120.89
69	La	10	ALA	CB-CA-C	-6.04	99.98	109.34
31	S2	46	A	P-O3'-C3'	6.04	129.26	120.20
33	L1	513	C	C2'-C3'-O3'	6.04	122.76	113.70
33	L1	1394	C	P-O3'-C3'	6.04	129.26	120.20
33	L1	1768	U	C2'-C3'-O3'	6.04	118.56	109.50
33	L1	2081	C	C3'-C2'-O2'	-6.04	101.64	110.70
33	L1	2703	G	C4'-C3'-C2'	-6.04	96.56	102.60
33	L1	2747	U	O4'-C1'-C2'	-6.04	101.56	107.60
34	L3	82	G	O4'-C1'-N9	6.04	117.56	108.50
57	L1	92	ALA	N-CA-C	-6.04	97.94	110.80
64	LG	150	GLU	N-CA-C	6.04	117.53	111.07
81	LD	314	VAL	CA-CB-CG1	6.04	120.67	110.40
81	LD	377	ALA	CA-C-O	-6.04	114.02	120.42
33	L1	1840	C	O5'-C5'-C4'	-6.04	102.44	111.50
33	L1	2088	C	C4'-C3'-O3'	-6.04	103.94	113.00
61	Lq	14	LYS	O-C-N	-6.04	114.24	122.33
1	Sa	27	GLN	CB-CA-C	6.04	121.11	110.85
32	S1	938	A	C1'-O4'-C4'	-6.04	103.86	109.90
33	L1	229	G	C4'-C3'-C2'	-6.04	96.56	102.60
33	L1	1748	A	O4'-C1'-N9	-6.04	99.15	108.20
33	L1	3220	A	P-O3'-C3'	6.04	129.25	120.20
37	LB	15	VAL	O-C-N	-6.04	116.00	121.91
41	LM	12	ASN	CA-C-N	6.04	133.07	121.54
41	LM	12	ASN	C-N-CA	6.04	133.07	121.54
67	LS	12	VAL	CA-C-N	-6.04	112.18	120.57
67	LS	12	VAL	C-N-CA	-6.04	112.18	120.57
13	SQ	32	LYS	O-C-N	-6.03	115.72	122.12
24	SX	53	GLN	CA-C-N	6.03	133.85	123.05
24	SX	53	GLN	C-N-CA	6.03	133.85	123.05

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1247	G	C3'-C2'-C1'	-6.03	95.27	101.30
32	S1	1647	C	C3'-C2'-O2'	6.03	119.75	110.70
32	S1	1774	C	C4'-C3'-O3'	-6.03	103.95	113.00
33	L1	699	C	C1'-O4'-C4'	-6.03	103.87	109.90
33	L1	1910	G	C1'-O4'-C4'	-6.03	103.87	109.90
33	L1	1990	A	N9-C1'-C2'	6.03	121.05	112.00
33	L1	2668	U	O4'-C1'-N1	6.03	126.60	108.50
33	L1	3290	C	C3'-C2'-C1'	6.03	107.33	101.30
34	L3	76	U	O4'-C4'-C3'	-6.03	97.97	104.00
36	LA	10	LYS	O-C-N	-6.03	115.53	122.89
38	LE	73	ILE	CA-CB-CG1	6.03	120.66	110.40
59	Lo	25	TYR	O-C-N	-6.03	114.57	122.59
76	Lv	58	GLY	N-CA-C	-6.03	99.85	112.04
76	Lw	58	GLY	N-CA-C	-6.03	99.85	112.04
84	LI	130	ASP	CA-CB-CG	-6.03	106.57	112.60
14	SP	114	PRO	N-CA-C	6.03	121.77	111.03
77	Lc	47	ARG	NE-CZ-NH1	6.03	127.53	121.50
80	LC	231	GLY	N-CA-C	6.03	120.33	112.25
32	S1	1775	A	C1'-O4'-C4'	-6.03	103.67	109.70
33	L1	2237	A	O4'-C4'-C3'	6.03	110.03	104.00
33	L1	3163	G	N9-C1'-C2'	6.03	121.05	112.00
42	LP	120	TRP	CB-CG-CD2	-6.03	118.36	126.80
52	Lb	87	TYR	CA-CB-CG	6.03	124.75	113.90
69	La	77	PHE	CB-CA-C	6.03	121.10	110.85
79	Ls	33	ALA	N-CA-CB	6.03	120.23	110.40
81	LD	220	SER	N-CA-C	6.03	119.74	111.54
1	Sa	255	VAL	CB-CA-C	-6.03	101.40	111.29
69	La	86	THR	N-CA-CB	6.03	118.75	110.01
8	SJ	113	ILE	N-CA-C	6.03	116.21	110.42
27	SH	83	VAL	CA-C-N	-6.03	112.34	121.86
27	SH	83	VAL	C-N-CA	-6.03	112.34	121.86
32	S1	1625	U	O4'-C1'-C2'	-6.03	99.77	105.80
33	L1	71	C	C5'-C4'-C3'	-6.03	106.16	115.20
33	L1	1931	G	C2'-C3'-O3'	6.03	122.74	113.70
33	L1	2633	C	C1'-C2'-O2'	6.03	117.44	108.40
33	L1	3060	G	C5'-C4'-C3'	6.03	125.04	116.00
33	L1	3140	A	C3'-C2'-C1'	6.03	107.33	101.30
44	LR	152	PHE	CB-CG-CD1	-6.03	110.45	120.70
47	LU	10	ARG	NE-CZ-NH2	-6.03	113.78	119.20
54	Lf	39	ARG	CB-CG-CD	-6.03	97.44	111.30
28	SN	44	ARG	N-CA-C	6.03	117.85	111.28
32	S1	150	U	O4'-C1'-C2'	-6.03	101.57	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1141	U	O4'-C1'-N1	6.03	117.54	108.50
32	S1	1675	G	O4'-C1'-C2'	-6.03	101.57	107.60
33	L1	264	C	O4'-C1'-C2'	-6.03	101.57	107.60
33	L1	1105	G	C1'-O4'-C4'	6.03	115.73	109.70
33	L1	1880	A	O4'-C1'-N9	6.03	117.54	108.50
33	L1	2486	G	O5'-C5'-C4'	6.03	120.54	111.50
33	L1	2849	A	C3'-C2'-C1'	6.03	107.33	101.30
45	LQ	59	LYS	CA-C-O	-6.03	111.89	120.51
66	LN	8	GLU	N-CA-C	6.03	118.45	108.99
75	Lu	62	VAL	CA-CB-CG1	6.03	120.64	110.40
33	L1	1372	U	N1-C1'-C2'	6.02	121.04	112.00
33	L1	2412	A	C4'-C3'-C2'	-6.02	96.58	102.60
34	L3	49	A	O4'-C1'-N9	6.02	117.54	108.50
35	L2	22	U	N1-C1'-C2'	6.02	121.03	112.00
82	LK	152	TRP	CA-C-N	6.02	132.54	121.70
82	LK	152	TRP	C-N-CA	6.02	132.54	121.70
13	SQ	46	LEU	N-CA-CB	-6.02	100.94	110.28
32	S1	357	A	C3'-C2'-C1'	6.02	107.32	101.30
33	L1	486	G	P-O3'-C3'	-6.02	111.17	120.20
33	L1	1203	C	O4'-C1'-C2'	-6.02	99.78	105.80
33	L1	2151	G	C3'-C2'-C1'	6.02	107.52	101.50
35	L2	93	A	C5'-C4'-C3'	6.02	124.23	115.20
40	LH	75	GLN	O-C-N	-6.02	115.87	122.07
78	Le	241	ARG	NE-CZ-NH1	6.02	127.52	121.50
13	SQ	134	GLY	O-C-N	-6.02	114.87	122.70
33	L1	309	C	P-O5'-C5'	-6.02	111.87	120.90
33	L1	1573	G	C5'-C4'-C3'	6.02	125.03	116.00
33	L1	2213	G	O5'-C5'-C4'	6.02	120.53	111.50
33	L1	2696	C	P-O5'-C5'	6.02	129.93	120.90
33	L1	3031	G	O4'-C1'-N9	6.02	117.53	108.50
39	LF	186	ILE	N-CA-CB	-6.02	101.30	111.23
32	S1	1592	G	C3'-C2'-C1'	-6.02	95.48	101.50
32	S1	1697	G	O4'-C1'-N9	6.02	117.53	108.50
33	L1	122	A	C5'-C4'-C3'	6.02	123.93	114.90
33	L1	2570	U	O4'-C1'-C2'	-6.02	101.58	107.60
80	LC	290	LYS	CA-C-N	6.02	128.63	120.38
80	LC	290	LYS	C-N-CA	6.02	128.63	120.38
81	LD	65	GLN	OE1-CD-NE2	-6.02	116.58	122.60
3	SB	192	TRP	N-CA-C	-6.02	100.38	108.86
32	S1	1300	A	C4'-C3'-C2'	-6.02	96.58	102.60
33	L1	308	U	C5'-C4'-O4'	-6.02	100.77	109.80
33	L1	536	C	C3'-C2'-C1'	6.02	107.32	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1767	G	C4'-C3'-C2'	-6.02	96.58	102.60
33	L1	2899	A	C1'-C2'-O2'	-6.02	99.37	108.40
35	L2	36	C	P-O5'-C5'	6.02	129.93	120.90
64	LG	91	LYS	CA-C-N	6.02	132.26	122.81
64	LG	91	LYS	C-N-CA	6.02	132.26	122.81
81	LD	319	LYS	N-CA-CB	6.02	119.39	110.49
11	SM	81	ASP	N-CA-CB	6.02	118.88	110.04
20	SZ	2	GLY	CA-C-O	6.02	126.60	119.50
33	L1	1014	G	C1'-O4'-C4'	6.02	115.92	109.90
33	L1	2302	G	C1'-C2'-O2'	-6.02	102.78	111.80
40	LH	98	GLU	CA-C-N	6.02	128.66	120.54
40	LH	98	GLU	C-N-CA	6.02	128.66	120.54
5	SE	72	VAL	CB-CA-C	-6.01	104.27	111.97
6	SF	56	ARG	CA-C-N	6.01	133.03	121.54
6	SF	56	ARG	C-N-CA	6.01	133.03	121.54
11	SM	69	ALA	N-CA-C	6.01	117.64	111.14
32	S1	364	A	O5'-C5'-C4'	6.01	119.82	110.80
33	L1	283	A	C1'-O4'-C4'	6.01	115.91	109.90
33	L1	770	U	P-O3'-C3'	6.01	129.22	120.20
33	L1	1371	G	O4'-C1'-N9	-6.01	99.48	108.50
33	L1	1531	G	O4'-C1'-C2'	-6.01	101.59	107.60
33	L1	2313	U	N1-C1'-C2'	-6.01	102.98	112.00
33	L1	2443	C	O4'-C1'-C2'	-6.01	101.59	107.60
33	L1	2842	C	O4'-C1'-C2'	-6.01	101.58	107.60
57	L1	76	SER	N-CA-C	6.01	123.61	110.80
58	Ln	4	GLN	CA-C-N	6.01	128.70	120.46
58	Ln	4	GLN	C-N-CA	6.01	128.70	120.46
76	Lv	39	MET	CG-SD-CE	-6.01	87.67	100.90
14	SP	109	PRO	CA-N-CD	-6.01	103.58	112.00
23	SU	22	LEU	N-CA-C	6.01	119.67	112.93
32	S1	300	U	C1'-O4'-C4'	6.01	115.91	109.90
32	S1	467	U	O4'-C1'-N1	6.01	117.52	108.50
32	S1	1600	G	O4'-C1'-C2'	6.01	113.61	107.60
59	Lo	33	ASN	N-CA-C	6.01	118.43	108.99
8	SJ	10	PRO	CA-C-O	-6.01	111.84	120.56
33	L1	381	G	C4'-C3'-O3'	-6.01	103.98	113.00
33	L1	2069	G	C5'-C4'-C3'	6.01	125.02	116.00
33	L1	2274	A	O3'-P-O5'	-6.01	94.98	104.00
33	L1	2666	G	O4'-C1'-N9	6.01	117.52	108.50
33	L1	3329	G	O4'-C1'-N9	6.01	117.52	108.50
44	LR	97	ALA	N-CA-C	-6.01	98.00	110.80
58	Ln	20	ALA	N-CA-CB	-6.01	100.80	111.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Sa	81	ILE	CA-C-N	6.01	131.12	122.77
1	Sa	81	ILE	C-N-CA	6.01	131.12	122.77
15	SS	58	THR	CA-C-N	6.01	128.25	120.44
15	SS	58	THR	C-N-CA	6.01	128.25	120.44
32	S1	692	C	O4'-C1'-C2'	-6.01	101.59	107.60
32	S1	909	G	N9-C1'-C2'	6.01	121.01	112.00
33	L1	283	A	C5'-C4'-C3'	-6.01	106.99	116.00
33	L1	666	U	N1-C1'-C2'	6.01	121.01	112.00
33	L1	2134	U	C5'-C4'-C3'	6.01	125.02	116.00
33	L1	2716	U	O4'-C1'-C2'	6.01	111.81	105.80
60	Lr	90	HIS	CG-CD2-NE2	6.01	113.21	107.20
72	Lk	84	LYS	N-CA-CB	6.01	118.95	110.12
4	SD	201	HIS	ND1-CE1-NE2	6.01	114.41	108.40
5	SE	36	GLY	CA-C-O	-6.01	112.93	121.52
11	SM	116	LYS	CA-CB-CG	6.01	126.12	114.10
33	L1	951	C	O4'-C1'-N1	6.01	117.51	108.50
33	L1	1841	G	O4'-C1'-N9	6.01	117.51	108.50
34	L3	35	C	C3'-C2'-C1'	6.01	107.31	101.30
41	LM	20	LEU	CA-C-O	6.01	125.27	119.62
23	SU	19	THR	OG1-CB-CG2	-6.01	97.29	109.30
33	L1	736	U	O4'-C1'-C2'	-6.01	101.59	107.60
33	L1	1365	C	C1'-C2'-O2'	6.01	117.41	108.40
41	LM	73	ARG	N-CA-C	-6.01	101.52	110.23
45	LQ	145	LEU	N-CA-CB	-6.01	100.13	111.00
46	LT	119	MET	CA-C-N	6.01	128.25	120.44
46	LT	119	MET	C-N-CA	6.01	128.25	120.44
33	L1	822	U	O4'-C1'-C2'	-6.00	101.59	107.60
33	L1	3317	G	O4'-C1'-C2'	6.00	113.61	107.60
48	LV	114	TYR	CA-C-O	6.00	128.77	121.68
6	SF	153	GLY	O-C-N	6.00	128.07	122.13
7	SI	58	ILE	CB-CA-C	-6.00	104.19	112.24
32	S1	488	C	O3'-P-O5'	-6.00	94.99	104.00
33	L1	49	U	C3'-C2'-C1'	6.00	107.30	101.30
33	L1	1907	A	C1'-C2'-O2'	6.00	117.41	108.40
33	L1	2458	A	O4'-C1'-C2'	6.00	113.60	107.60
33	L1	2738	U	C1'-C2'-O2'	-6.00	99.39	108.40
35	L2	66	C	C3'-C2'-C1'	6.00	107.50	101.50
48	LV	157	PRO	CA-C-N	6.00	128.12	120.56
48	LV	157	PRO	C-N-CA	6.00	128.12	120.56
77	Lc	5	LYS	N-CA-C	-6.00	100.02	108.96
3	SB	177	LEU	N-CA-CB	6.00	118.58	109.94
23	SU	24	SER	N-CA-CB	6.00	120.63	110.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	SC	55	ARG	N-CA-C	6.00	117.90	111.36
25	SC	165	PRO	CA-N-CD	-6.00	103.60	112.00
33	L1	1225	A	N9-C1'-C2'	6.00	121.00	112.00
33	L1	1566	C	C3'-C2'-C1'	6.00	107.30	101.30
33	L1	1873	C	C1'-O4'-C4'	-6.00	103.70	109.70
33	L1	2384	G	O4'-C1'-N9	6.00	117.50	108.50
33	L1	3162	C	C3'-C2'-C1'	6.00	107.30	101.30
48	LV	38	LYS	CA-C-N	-6.00	113.08	122.56
48	LV	38	LYS	C-N-CA	-6.00	113.08	122.56
68	LW	87	TYR	CA-C-O	6.00	126.88	120.70
80	LC	63	PRO	CA-N-CD	-6.00	103.60	112.00
32	S1	653	U	O4'-C1'-C2'	-6.00	101.60	107.60
33	L1	427	U	N1-C1'-C2'	6.00	121.00	112.00
33	L1	705	A	P-O3'-C3'	6.00	129.20	120.20
3	SB	35	SER	CA-C-N	6.00	133.17	121.41
3	SB	35	SER	C-N-CA	6.00	133.17	121.41
15	SS	112	LYS	CA-C-N	6.00	128.92	120.28
15	SS	112	LYS	C-N-CA	6.00	128.92	120.28
32	S1	482	A	P-O5'-C5'	6.00	129.00	120.00
32	S1	767	G	C5'-C4'-C3'	-6.00	105.90	114.90
33	L1	135	G	C4'-C3'-O3'	6.00	122.00	113.00
33	L1	785	U	C4'-C3'-C2'	6.00	108.60	102.60
33	L1	2792	A	P-O3'-C3'	-6.00	111.20	120.20
64	LG	197	ASP	CA-C-N	6.00	133.00	121.54
64	LG	197	ASP	C-N-CA	6.00	133.00	121.54
81	LD	367	SER	C-N-CD	-6.00	100.41	125.00
2	SA	94	PHE	CB-CA-C	-6.00	99.54	110.63
32	S1	1558	A	C1'-O4'-C4'	-6.00	103.90	109.90
33	L1	2100	A	O4'-C1'-C2'	-6.00	101.60	107.60
33	L1	2207	C	O4'-C1'-N1	6.00	117.49	108.50
33	L1	2482	A	C4'-C3'-C2'	-6.00	96.60	102.60
33	L1	2723	G	N9-C1'-C2'	6.00	121.00	112.00
32	S1	655	G	O3'-P-O5'	6.00	112.99	104.00
33	L1	986	G	O5'-C5'-C4'	6.00	120.49	111.50
33	L1	3269	C	O4'-C1'-C2'	-6.00	101.61	107.60
28	SN	37	MET	CA-C-N	5.99	132.99	121.54
28	SN	37	MET	C-N-CA	5.99	132.99	121.54
32	S1	37	U	C3'-C2'-C1'	5.99	107.29	101.30
33	L1	87	A	P-O5'-C5'	5.99	129.89	120.90
33	L1	1428	G	C1'-C2'-O2'	5.99	117.39	108.40
33	L1	2267	G	O4'-C1'-N9	5.99	117.19	108.20
33	L1	2404	C	O4'-C1'-C2'	5.99	113.59	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	LU	104	GLU	CA-C-N	5.99	128.31	120.28
47	LU	104	GLU	C-N-CA	5.99	128.31	120.28
81	LD	149	GLU	N-CA-C	-5.99	105.28	112.59
81	LD	354	ALA	N-CA-C	5.99	120.75	113.38
3	SB	151	LYS	CA-C-O	5.99	129.08	120.51
33	L1	1866	C	P-O3'-C3'	5.99	129.19	120.20
35	L2	101	G	P-O3'-C3'	5.99	129.19	120.20
67	LS	95	GLU	CB-CG-CD	-5.99	102.41	112.60
14	SP	102	GLU	N-CA-C	-5.99	99.43	109.07
31	S2	33	U	O5'-C5'-C4'	5.99	120.49	111.50
32	S1	1091	A	O4'-C1'-C2'	5.99	113.59	107.60
33	L1	198	A	O4'-C1'-C2'	-5.99	99.81	105.80
33	L1	2233	G	C5'-C4'-C3'	5.99	124.98	116.00
33	L1	2246	G	C1'-O4'-C4'	-5.99	103.91	109.90
39	LF	166	VAL	N-CA-C	-5.99	99.49	108.12
57	L1	35	SER	N-CA-C	-5.99	103.34	111.55
78	Le	58	GLU	CB-CA-C	-5.99	101.44	110.90
32	S1	1584	A	O3'-P-O5'	-5.99	95.02	104.00
32	S1	1652	C	P-O3'-C3'	5.99	129.18	120.20
33	L1	1225	A	O4'-C1'-C2'	5.99	113.59	107.60
33	L1	2076	C	C3'-C2'-C1'	-5.99	95.31	101.30
33	L1	2485	U	C4'-C3'-C2'	-5.99	96.61	102.60
33	L1	2765	A	C3'-C2'-C1'	-5.99	95.31	101.30
33	L1	3095	G	C5'-C4'-C3'	-5.99	107.02	116.00
33	L1	3325	G	C1'-C2'-O2'	5.99	117.38	108.40
40	LH	62	ILE	CB-CA-C	5.99	121.11	111.29
67	LS	87	THR	CA-CB-OG1	5.99	118.58	109.60
32	S1	686	A	C5'-C4'-C3'	5.99	124.98	116.00
32	S1	1308	G	C1'-O4'-C4'	5.99	115.89	109.90
32	S1	1575	U	N1-C1'-C2'	5.99	120.98	112.00
33	L1	575	C	C5'-C4'-C3'	-5.99	105.92	114.90
33	L1	1568	A	O4'-C1'-C2'	-5.99	101.61	107.60
33	L1	1587	G	O3'-P-O5'	5.99	112.98	104.00
32	S1	483	C	O4'-C1'-N1	-5.99	99.52	108.50
33	L1	2665	A	C3'-C2'-C1'	5.99	107.29	101.30
36	LA	160	LYS	CA-C-O	5.99	127.75	120.57
37	LB	50	HIS	CE1-NE2-CD2	-5.99	103.01	109.00
64	LG	141	LYS	CA-CB-CG	5.99	126.07	114.10
81	LD	404	THR	N-CA-CB	5.99	118.92	110.12
25	SC	46	ARG	NE-CZ-NH1	5.98	127.48	121.50
31	S2	21	A	C3'-C2'-C1'	5.98	107.28	101.30
33	L1	2945	G	N9-C1'-C2'	5.98	120.98	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	LT	117	LYS	CA-C-O	-5.98	114.21	120.55
57	L1	72	ARG	CA-C-N	5.98	128.22	120.44
57	L1	72	ARG	C-N-CA	5.98	128.22	120.44
1	Sa	79	ASN	CA-CB-CG	-5.98	106.62	112.60
32	S1	35	U	O4'-C4'-C3'	-5.98	98.02	104.00
32	S1	161	G	C1'-C2'-O2'	5.98	117.37	108.40
33	L1	858	U	C1'-C2'-O2'	5.98	117.37	108.40
33	L1	1529	C	P-O3'-C3'	5.98	129.17	120.20
39	LF	155	ARG	CB-CA-C	-5.98	100.86	110.79
45	LQ	250	ASP	CB-CA-C	5.98	121.47	110.10
67	LS	72	THR	N-CA-CB	5.98	120.60	110.49
70	Li	33	GLN	CA-C-N	5.98	132.97	121.54
70	Li	33	GLN	C-N-CA	5.98	132.97	121.54
75	Lt	41	TYR	CB-CA-C	-5.98	101.49	110.88
2	SA	31	THR	CA-C-N	5.98	132.96	121.54
2	SA	31	THR	C-N-CA	5.98	132.96	121.54
9	SK	148	ARG	N-CA-C	5.98	117.80	111.28
15	SS	41	LYS	N-CA-C	5.98	119.05	111.69
32	S1	1324	U	C4'-C3'-O3'	-5.98	104.03	113.00
33	L1	127	G	C3'-C2'-C1'	-5.98	95.32	101.30
33	L1	441	G	C3'-C2'-C1'	-5.98	95.32	101.30
33	L1	3086	G	C2'-C3'-O3'	5.98	122.67	113.70
59	Lo	11	GLN	CG-CD-NE2	5.98	125.37	116.40
60	Lr	79	HIS	CE1-NE2-CD2	-5.98	103.02	109.00
2	SA	198	LYS	CA-C-O	-5.98	113.33	120.56
25	SC	39	ARG	N-CA-C	-5.98	104.70	112.23
1	Sa	180	GLN	OE1-CD-NE2	-5.98	116.62	122.60
3	SB	64	ARG	NE-CZ-NH1	-5.98	115.52	121.50
32	S1	1147	A	C1'-O4'-C4'	5.98	115.88	109.90
33	L1	701	U	C1'-O4'-C4'	5.98	115.88	109.90
33	L1	2597	C	C1'-C2'-O2'	5.98	117.36	108.40
47	LU	116	LYS	CB-CA-C	-5.98	100.87	110.79
75	Lt	56	ASP	CA-CB-CG	-5.98	106.62	112.60
81	LD	310	LEU	CA-C-O	5.98	126.89	120.55
32	S1	512	U	P-O5'-C5'	5.98	129.86	120.90
33	L1	1430	C	C1'-C2'-O2'	5.98	117.36	108.40
33	L1	2771	U	C3'-C2'-C1'	-5.98	95.32	101.30
78	Le	43	THR	N-CA-CB	5.98	118.91	110.12
1	Sa	362	GLY	N-CA-C	-5.97	100.74	111.19
32	S1	219	G	O3'-P-O5'	5.97	112.96	104.00
33	L1	651	A	N9-C1'-C2'	5.97	122.96	114.00
33	L1	994	U	O4'-C1'-C2'	5.97	113.58	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3124	A	C3'-C2'-O2'	5.97	119.66	110.70
33	L1	3140	A	C4'-C3'-C2'	-5.97	96.62	102.60
34	L3	111	U	C1'-O4'-C4'	-5.97	103.92	109.90
35	L2	51	U	C3'-C2'-C1'	5.97	107.28	101.30
36	LA	25	ARG	N-CA-CB	5.97	118.90	110.12
51	LY	88	LYS	N-CA-C	-5.97	102.82	110.53
72	Lk	84	LYS	CA-CB-CG	5.97	126.05	114.10
84	LI	142	GLU	N-CA-C	5.97	118.56	111.33
2	SA	213	GLU	N-CA-C	5.97	123.52	110.80
4	SD	45	ILE	CA-C-N	5.97	128.28	120.28
4	SD	45	ILE	C-N-CA	5.97	128.28	120.28
4	SD	191	ARG	CD-NE-CZ	-5.97	116.04	124.40
12	SO	87	ASP	CA-C-N	5.97	128.88	120.28
12	SO	87	ASP	C-N-CA	5.97	128.88	120.28
32	S1	1792	A	O4'-C1'-C2'	-5.97	101.63	107.60
33	L1	256	G	C1'-O4'-C4'	-5.97	103.93	109.90
33	L1	1968	C	O4'-C1'-C2'	-5.97	101.63	107.60
33	L1	2455	A	C5'-C4'-C3'	5.97	124.96	116.00
33	L1	3307	A	C1'-O4'-C4'	5.97	115.87	109.90
36	LA	165	GLY	N-CA-C	5.97	120.73	112.37
37	LB	34	PHE	O-C-N	-5.97	114.64	122.59
59	Lo	21	ARG	NE-CZ-NH1	-5.97	115.53	121.50
60	Lr	16	GLU	CB-CG-CD	5.97	122.75	112.60
64	LG	163	PHE	CB-CA-C	5.97	120.36	110.81
67	LS	163	ARG	CA-CB-CG	5.97	126.04	114.10
80	LC	25	HIS	N-CA-CB	-5.97	99.94	110.39
1	Sa	62	LEU	CA-C-O	-5.97	114.14	121.78
33	L1	3155	C	C5'-C4'-C3'	-5.97	105.94	114.90
2	SA	52	ILE	N-CA-CB	5.97	118.19	111.21
5	SE	17	ARG	CA-C-N	5.97	126.45	119.94
5	SE	17	ARG	C-N-CA	5.97	126.45	119.94
9	SK	69	SER	O-C-N	-5.97	114.46	121.32
32	S1	616	U	O4'-C1'-N1	5.97	117.45	108.50
32	S1	891	U	C4'-C3'-O3'	-5.97	104.05	113.00
32	S1	1757	G	O5'-C5'-C4'	-5.97	102.55	111.50
33	L1	2529	C	O4'-C1'-C2'	-5.97	101.63	107.60
35	L2	131	C	C3'-C2'-C1'	5.97	107.27	101.30
49	LX	36	ILE	N-CA-C	5.97	116.63	110.36
78	Le	98	HIS	CB-CA-C	5.97	118.88	109.27
78	Le	217	LYS	N-CA-C	-5.97	100.56	110.17
32	S1	571	A	O4'-C1'-C2'	-5.97	101.63	107.60
32	S1	612	U	O4'-C1'-N1	5.97	117.15	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1180	U	O4'-C1'-C2'	-5.97	101.63	107.60
33	L1	1272	G	C5'-C4'-C3'	5.97	124.95	116.00
33	L1	1298	A	O4'-C1'-C2'	-5.97	101.63	107.60
33	L1	2390	G	C2'-C3'-O3'	5.97	122.65	113.70
35	L2	26	U	C5'-C4'-C3'	-5.97	106.25	115.20
32	S1	386	C	O4'-C1'-C2'	-5.97	101.63	107.60
32	S1	568	G	N9-C1'-C2'	-5.97	105.05	114.00
32	S1	1177	G	O4'-C1'-N9	5.97	117.45	108.50
33	L1	291	C	N1-C1'-C2'	5.97	120.95	112.00
33	L1	705	A	O3'-P-O5'	-5.97	95.05	104.00
33	L1	711	A	P-O3'-C3'	5.97	129.15	120.20
33	L1	2171	A	C1'-O4'-C4'	5.97	115.67	109.70
42	LP	128	LYS	CA-C-O	-5.97	113.92	120.36
45	LQ	175	HIS	CA-C-N	5.97	132.41	121.85
45	LQ	175	HIS	C-N-CA	5.97	132.41	121.85
48	LV	100	GLU	CB-CA-C	-5.97	101.51	110.88
68	LW	43	LYS	N-CA-CB	5.97	118.89	110.12
7	SI	75	VAL	CA-C-N	5.96	132.93	121.54
7	SI	75	VAL	C-N-CA	5.96	132.93	121.54
11	SM	114	LEU	CA-C-N	5.96	128.59	120.54
11	SM	114	LEU	C-N-CA	5.96	128.59	120.54
32	S1	973	U	C1'-C2'-O2'	5.96	117.35	108.40
32	S1	1307	U	C4'-C3'-C2'	-5.96	96.64	102.60
33	L1	1123	A	C1'-C2'-O2'	5.96	117.35	108.40
33	L1	2708	A	C5'-C4'-C3'	-5.96	106.25	115.20
48	LV	128	ARG	CA-CB-CG	5.96	126.03	114.10
49	LX	107	ALA	N-CA-CB	5.96	118.99	110.16
82	LK	62	PHE	O-C-N	-5.96	115.80	122.12
1	Sa	80	TRP	O-C-N	-5.96	115.97	123.01
33	L1	1629	A	C1'-C2'-O2'	5.96	117.34	108.40
33	L1	3141	G	O3'-P-O5'	-5.96	95.06	104.00
37	LB	75	LEU	CB-CA-C	-5.96	101.57	111.41
32	S1	1676	G	O4'-C1'-C2'	5.96	113.56	107.60
33	L1	135	G	C5'-C4'-O4'	5.96	118.74	109.80
33	L1	446	C	C1'-O4'-C4'	-5.96	103.94	109.90
33	L1	565	C	C5'-C4'-C3'	5.96	124.94	116.00
33	L1	1483	G	C3'-C2'-C1'	-5.96	95.54	101.50
33	L1	2348	U	C4'-C3'-O3'	-5.96	104.06	113.00
33	L1	2734	C	C5'-C4'-C3'	5.96	124.94	116.00
69	La	18	PHE	O-C-N	-5.96	115.65	122.09
80	LC	116	ARG	CB-CG-CD	5.96	125.01	111.30
1	Sa	26	ARG	N-CA-C	5.96	117.78	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	SM	28	PHE	N-CA-CB	5.96	119.52	110.28
33	L1	1434	G	N9-C1'-C2'	5.96	122.94	114.00
33	L1	1840	C	O3'-P-O5'	-5.96	95.06	104.00
33	L1	2513	U	O4'-C1'-C2'	-5.96	101.64	107.60
33	L1	3287	A	C3'-C2'-C1'	5.96	107.26	101.30
78	Le	192	THR	CA-C-N	5.96	132.70	121.97
78	Le	192	THR	C-N-CA	5.96	132.70	121.97
2	SA	36	PHE	N-CA-C	5.96	117.86	111.36
32	S1	276	G	C4'-C3'-O3'	-5.96	104.06	113.00
32	S1	302	C	O4'-C1'-C2'	-5.96	101.64	107.60
32	S1	1039	C	C3'-C2'-C1'	5.96	107.26	101.30
33	L1	240	U	C1'-C2'-O2'	5.96	117.34	108.40
33	L1	557	C	C1'-O4'-C4'	-5.96	103.94	109.90
33	L1	1942	A	C1'-O4'-C4'	-5.96	103.94	109.90
33	L1	2097	C	C3'-C2'-C1'	5.96	107.26	101.30
33	L1	2824	U	N1-C1'-C2'	-5.96	103.06	112.00
33	L1	3332	G	P-O3'-C3'	5.96	129.14	120.20
66	LN	109	LYS	CA-CB-CG	5.96	126.02	114.10
78	Le	218	LYS	CA-C-N	5.96	130.67	120.72
78	Le	218	LYS	C-N-CA	5.96	130.67	120.72
3	SB	182	LEU	CA-C-N	5.96	133.09	121.41
3	SB	182	LEU	C-N-CA	5.96	133.09	121.41
5	SE	9	GLY	N-CA-C	-5.96	99.06	113.18
6	SF	198	ALA	N-CA-C	5.96	117.85	111.36
25	SC	46	ARG	CA-C-N	5.96	128.88	120.42
25	SC	46	ARG	C-N-CA	5.96	128.88	120.42
32	S1	453	C	C1'-O4'-C4'	5.96	115.86	109.90
32	S1	1401	C	O4'-C1'-C2'	-5.96	101.64	107.60
33	L1	492	G	O4'-C1'-C2'	5.96	113.56	107.60
47	LU	29	THR	CA-C-N	5.96	128.26	120.28
47	LU	29	THR	C-N-CA	5.96	128.26	120.28
70	Li	102	ILE	CA-CB-CG2	5.96	120.63	110.50
9	SK	86	GLU	N-CA-CB	5.96	118.70	110.07
15	SS	33	LEU	N-CA-C	5.96	122.97	109.81
24	SX	70	GLY	CA-C-N	5.96	133.08	121.41
24	SX	70	GLY	C-N-CA	5.96	133.08	121.41
32	S1	10	G	N9-C1'-C2'	5.96	120.93	112.00
32	S1	520	G	P-O5'-C5'	-5.96	111.07	120.00
32	S1	1382	C	N1-C1'-C2'	5.96	120.93	112.00
33	L1	155	G	P-O5'-C5'	5.96	128.93	120.00
33	L1	1118	G	C3'-C2'-C1'	5.96	107.25	101.30
34	L3	106	U	O4'-C1'-N1	5.96	117.43	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	LA	208	THR	N-CA-C	5.96	117.44	111.07
82	LK	80	ALA	CA-C-O	-5.96	113.32	120.41
23	SU	95	TYR	O-C-N	-5.95	114.67	122.59
25	SC	99	LEU	N-CA-C	-5.95	98.15	108.69
32	S1	1071	C	C3'-C2'-O2'	5.95	119.63	110.70
32	S1	1310	C	C3'-C2'-C1'	5.95	107.25	101.30
33	L1	156	A	C5'-C4'-C3'	5.95	123.83	114.90
33	L1	1063	G	C5'-C4'-C3'	5.95	124.93	116.00
33	L1	2774	A	C3'-C2'-C1'	5.95	107.25	101.30
34	L3	75	G	O5'-C5'-C4'	-5.95	102.77	111.70
70	Li	71	ARG	CA-CB-CG	5.95	126.01	114.10
71	Lj	95	PRO	O-C-N	5.95	130.68	122.64
32	S1	1072	U	C4'-C3'-O3'	-5.95	104.07	113.00
33	L1	2661	G	O4'-C1'-N9	5.95	117.43	108.50
34	L3	77	A	C5'-C4'-C3'	5.95	124.93	116.00
38	LE	169	TYR	N-CA-CB	5.95	121.05	111.65
74	LJ	98	ASN	CA-C-N	5.95	128.62	120.35
74	LJ	98	ASN	C-N-CA	5.95	128.62	120.35
5	SE	6	GLY	O-C-N	5.95	130.44	122.70
13	SQ	37	GLU	CB-CA-C	-5.95	101.50	110.90
17	SV	73	ASN	CB-CA-C	5.95	121.05	109.33
32	S1	200	C	P-O5'-C5'	5.95	129.83	120.90
32	S1	1744	C	N1-C1'-C2'	5.95	120.93	112.00
33	L1	1180	C	C5'-C4'-C3'	-5.95	106.27	115.20
33	L1	1920	U	C3'-C2'-C1'	5.95	107.25	101.30
33	L1	2539	G	N9-C1'-C2'	5.95	120.93	112.00
33	L1	2564	G	C3'-C2'-C1'	-5.95	95.35	101.30
33	L1	2683	A	O4'-C1'-C2'	-5.95	101.65	107.60
35	L2	100	A	C4'-C3'-C2'	-5.95	96.65	102.60
45	LQ	162	ALA	CB-CA-C	5.95	120.67	110.79
20	SZ	28	LYS	N-CA-C	5.95	117.56	111.14
32	S1	680	C	N1-C1'-C2'	5.95	120.92	112.00
33	L1	1876	U	C1'-O4'-C4'	-5.95	103.95	109.90
48	LV	54	HIS	CG-CD2-NE2	5.95	113.15	107.20
80	LC	128	LYS	CB-CA-C	5.95	118.76	109.84
80	LC	242	PRO	CA-C-N	5.95	131.97	122.10
80	LC	242	PRO	C-N-CA	5.95	131.97	122.10
32	S1	412	C	C3'-C2'-C1'	5.95	107.25	101.30
32	S1	1247	G	O4'-C1'-N9	5.95	117.42	108.50
32	S1	1606	U	O4'-C1'-C2'	-5.95	101.65	107.60
33	L1	429	G	O4'-C1'-C2'	5.95	113.55	107.60
33	L1	1808	G	C2'-C3'-O3'	5.95	122.62	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2273	C	C4'-C3'-O3'	-5.95	104.08	113.00
33	L1	2638	A	OP1-P-O3'	-5.95	90.16	108.00
33	L1	2758	C	C5'-C4'-C3'	-5.95	107.08	116.00
35	L2	58	A	N9-C1'-C2'	5.95	120.92	112.00
2	SA	44	LYS	CB-CA-C	-5.95	100.25	110.95
20	SZ	27	LYS	N-CA-C	-5.95	105.94	113.43
32	S1	1220	C	P-O3'-C3'	-5.95	111.28	120.20
32	S1	1544	G	O4'-C1'-N9	5.95	117.42	108.50
33	L1	153	U	P-O3'-C3'	5.95	129.12	120.20
33	L1	1269	U	P-O3'-C3'	-5.95	111.28	120.20
33	L1	1458	U	C2'-C3'-O3'	5.95	118.42	109.50
33	L1	1891	A	C4'-C3'-O3'	-5.95	104.08	113.00
33	L1	3027	G	C5'-C4'-C3'	5.95	124.92	116.00
48	LV	153	GLU	CA-C-N	-5.95	110.78	120.71
48	LV	153	GLU	C-N-CA	-5.95	110.78	120.71
64	LG	31	LYS	CA-C-N	5.95	128.84	120.28
64	LG	31	LYS	C-N-CA	5.95	128.84	120.28
76	Lw	56	ALA	O-C-N	-5.95	115.82	122.12
32	S1	336	U	C4'-C3'-C2'	-5.94	96.66	102.60
32	S1	1445	C	C5'-C4'-C3'	5.94	124.92	116.00
41	LM	16	MET	CA-C-N	5.94	130.57	122.19
41	LM	16	MET	C-N-CA	5.94	130.57	122.19
1	Sa	289	ARG	N-CA-C	-5.94	95.75	107.69
3	SB	21	LEU	N-CA-CB	5.94	118.95	110.16
8	SJ	27	HIS	N-CA-C	-5.94	98.69	108.49
15	SS	8	THR	O-C-N	5.94	129.17	122.22
32	S1	89	U	O4'-C1'-N1	5.94	117.41	108.50
32	S1	1729	A	O4'-C1'-C2'	5.94	113.54	107.60
33	L1	384	A	C5'-C4'-C3'	5.94	124.91	116.00
33	L1	433	C	O4'-C1'-C2'	-5.94	101.66	107.60
33	L1	973	U	C1'-C2'-O2'	5.94	117.31	108.40
33	L1	1395	A	C5'-C4'-O4'	-5.94	100.89	109.80
33	L1	3100	C	C1'-C2'-O2'	-5.94	102.89	111.80
33	L1	3151	C	C2'-C3'-O3'	5.94	122.61	113.70
33	L1	3360	U	C4'-C3'-O3'	5.94	118.31	109.40
45	LQ	44	ASP	N-CA-CB	5.94	121.04	111.65
84	LI	7	ARG	CD-NE-CZ	-5.94	116.08	124.40
2	SA	58	THR	O-C-N	-5.94	115.91	122.09
23	SU	40	VAL	N-CA-C	5.94	121.69	109.34
32	S1	1224	C	C2'-C3'-O3'	5.94	122.61	113.70
33	L1	225	G	O3'-P-O5'	-5.94	95.09	104.00
33	L1	476	C	O4'-C1'-C2'	-5.94	101.66	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2212	U	C5'-C4'-C3'	5.94	124.91	116.00
37	LB	188	LYS	CA-C-N	5.94	128.72	120.29
37	LB	188	LYS	C-N-CA	5.94	128.72	120.29
51	LY	24	SER	N-CA-CB	5.94	118.68	110.07
64	LG	62	SER	N-CA-C	5.94	117.43	111.07
76	Lw	56	ALA	CA-C-O	-5.94	114.25	120.55
77	Lc	22	GLN	CA-C-N	5.94	128.24	120.28
77	Lc	22	GLN	C-N-CA	5.94	128.24	120.28
32	S1	239	C	P-O3'-C3'	5.94	129.11	120.20
33	L1	675	C	O4'-C1'-C2'	-5.94	101.66	107.60
45	LQ	294	ALA	CA-C-N	5.94	132.39	121.70
45	LQ	294	ALA	C-N-CA	5.94	132.39	121.70
5	SE	142	LYS	N-CA-CB	5.94	120.78	110.81
32	S1	646	G	C3'-C2'-C1'	5.94	107.44	101.50
33	L1	307	C	C5'-C4'-O4'	-5.94	100.89	109.80
33	L1	1043	U	C5'-C4'-C3'	5.94	124.91	116.00
33	L1	2644	U	C4'-C3'-O3'	-5.94	104.09	113.00
33	L1	2891	C	O4'-C1'-C2'	-5.94	101.66	107.60
67	LS	11	VAL	CA-C-N	5.94	130.41	122.93
67	LS	11	VAL	C-N-CA	5.94	130.41	122.93
67	LS	60	ILE	N-CA-C	5.94	116.66	107.99
67	LS	71	PRO	CB-CA-C	-5.94	101.76	111.56
28	SN	32	ARG	CA-C-O	-5.94	114.19	121.02
33	L1	108	A	C3'-C2'-C1'	5.94	107.44	101.50
33	L1	1197	A	C5'-C4'-O4'	-5.94	100.90	109.80
33	L1	2073	U	C4'-C3'-O3'	-5.94	104.10	113.00
33	L1	2580	C	C1'-O4'-C4'	-5.94	103.96	109.90
77	Lc	114	HIS	ND1-CE1-NE2	5.94	114.34	108.40
32	S1	647	G	C5'-C4'-O4'	-5.93	100.90	109.80
32	S1	1161	C	P-O5'-C5'	-5.93	112.00	120.90
33	L1	215	U	N1-C1'-C2'	5.93	120.90	112.00
33	L1	2952	G	P-O3'-C3'	5.93	129.10	120.20
33	L1	3001	G	C5'-C4'-C3'	5.93	124.90	116.00
37	LB	125	VAL	N-CA-C	5.93	116.31	111.62
44	LR	152	PHE	CB-CG-CD2	5.93	130.79	120.70
48	LV	69	ARG	CB-CG-CD	5.93	124.95	111.30
71	Lj	10	ARG	N-CA-C	-5.93	100.03	109.23
81	LD	66	THR	N-CA-C	-5.93	98.74	108.41
13	SQ	98	VAL	CA-CB-CG2	5.93	120.49	110.40
15	SS	19	LYS	CA-C-O	5.93	126.84	120.55
32	S1	1793	C	O3'-P-O5'	-5.93	95.10	104.00
33	L1	1086	U	N1-C1'-C2'	-5.93	103.10	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	SC	60	HIS	CA-CB-CG	5.93	119.73	113.80
27	SH	123	GLY	N-CA-C	-5.93	101.47	111.08
32	S1	1063	U	P-O3'-C3'	5.93	129.10	120.20
33	L1	2753	C	C4'-C3'-C2'	-5.93	96.67	102.60
31	S2	62	C	O4'-C4'-C3'	-5.93	98.07	104.00
33	L1	31	U	C1'-O4'-C4'	5.93	115.83	109.90
33	L1	2805	A	O4'-C1'-N9	5.93	117.09	108.20
38	LE	94	LEU	N-CA-CB	5.93	120.58	110.50
59	Lo	34	THR	N-CA-C	5.93	123.43	110.80
60	Lr	21	THR	CA-C-N	5.93	129.25	120.95
60	Lr	21	THR	C-N-CA	5.93	129.25	120.95
71	Lj	80	GLY	N-CA-C	5.93	121.54	114.48
80	LC	388	LYS	N-CA-C	-5.93	103.44	112.99
84	LI	175	LYS	N-CA-C	-5.93	105.96	113.43
33	L1	919	G	C2'-C3'-O3'	-5.93	104.81	113.70
39	LF	153	VAL	O-C-N	-5.93	116.10	121.91
15	SS	132	ARG	NE-CZ-NH2	5.93	124.53	119.20
28	SN	28	HIS	CB-CG-CD2	-5.93	123.50	131.20
32	S1	324	U	C3'-C2'-C1'	5.93	107.23	101.30
32	S1	1403	G	O5'-C5'-C4'	5.93	120.39	111.50
32	S1	1657	C	C3'-C2'-C1'	5.93	107.23	101.30
33	L1	705	A	O4'-C4'-C3'	-5.93	98.07	104.00
33	L1	745	G	O4'-C4'-C3'	-5.93	98.07	104.00
33	L1	854	C	C4'-C3'-O3'	-5.93	104.11	113.00
33	L1	930	C	N1-C1'-C2'	5.93	120.89	112.00
34	L3	7	G	O4'-C1'-N9	5.93	117.39	108.50
44	LR	36	LEU	N-CA-CB	5.93	118.93	110.16
64	LG	91	LYS	CB-CG-CD	5.93	124.93	111.30
27	SH	121	VAL	N-CA-CB	-5.92	101.72	111.44
32	S1	1191	U	O4'-C1'-N1	5.92	117.39	108.50
32	S1	1554	G	O4'-C1'-N9	5.92	117.39	108.50
33	L1	1086	U	O3'-P-O5'	-5.92	95.11	104.00
33	L1	1245	U	O4'-C1'-C2'	-5.92	101.67	107.60
33	L1	2022	U	C5'-C4'-C3'	5.92	124.89	116.00
33	L1	2694	A	C4'-C3'-C2'	-5.92	96.67	102.60
44	LR	93	GLN	CA-C-N	5.92	132.86	121.54
44	LR	93	GLN	C-N-CA	5.92	132.86	121.54
50	LZ	54	THR	CA-CB-CG2	-5.92	100.43	110.50
66	LN	20	ASP	CA-C-N	5.92	132.85	121.54
66	LN	20	ASP	C-N-CA	5.92	132.85	121.54
80	LC	178	LYS	N-CA-C	5.92	118.18	108.52
2	SA	19	ILE	N-CA-C	-5.92	99.95	108.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	48	A	N9-C1'-C2'	5.92	122.89	114.00
48	LV	13	LYS	CB-CG-CD	5.92	124.92	111.30
51	LY	10	SER	N-CA-CB	5.92	120.57	110.50
66	LN	98	ARG	CA-CB-CG	5.92	125.94	114.10
25	SC	140	ARG	CA-C-N	5.92	132.85	121.54
25	SC	140	ARG	C-N-CA	5.92	132.85	121.54
31	S2	72	G	P-O5'-C5'	-5.92	112.02	120.90
32	S1	901	U	O4'-C1'-N1	5.92	117.38	108.50
33	L1	682	G	C1'-O4'-C4'	-5.92	103.98	109.90
33	L1	721	A	C5'-C4'-C3'	5.92	124.88	116.00
33	L1	858	U	C1'-O4'-C4'	-5.92	103.98	109.90
33	L1	1060	U	O4'-C1'-C2'	-5.92	101.68	107.60
45	LQ	19	ARG	CA-C-N	5.92	131.82	122.11
45	LQ	19	ARG	C-N-CA	5.92	131.82	122.11
60	Lr	32	LYS	N-CA-CB	-5.92	101.38	110.85
32	S1	1404	U	O4'-C1'-C2'	5.92	113.52	107.60
33	L1	1954	G	C1'-O4'-C4'	-5.92	103.98	109.90
33	L1	2394	G	C3'-C2'-C1'	-5.92	95.38	101.30
8	SJ	67	THR	O-C-N	-5.92	116.41	123.27
23	SU	54	GLU	O-C-N	-5.92	114.72	122.59
23	SU	60	CYS	N-CA-C	-5.92	105.37	113.30
25	SC	153	GLU	CA-C-N	5.92	132.35	121.70
25	SC	153	GLU	C-N-CA	5.92	132.35	121.70
32	S1	618	C	N1-C1'-C2'	5.92	120.88	112.00
32	S1	1195	U	O4'-C1'-C2'	5.92	113.52	107.60
32	S1	1345	G	O4'-C1'-N9	5.92	117.38	108.50
32	S1	1797	C	C1'-O4'-C4'	-5.92	103.98	109.90
33	L1	327	A	C2'-C3'-O3'	5.92	118.38	109.50
44	LR	13	ARG	N-CA-CB	-5.92	100.49	110.49
45	LQ	260	GLU	CB-CA-C	5.92	121.83	110.17
73	Lp	52	LYS	CA-C-N	-5.92	111.05	121.70
73	Lp	52	LYS	C-N-CA	-5.92	111.05	121.70
3	SB	80	LEU	CA-C-O	-5.92	112.05	120.51
10	SL	95	GLU	N-CA-C	-5.92	103.99	113.28
32	S1	1760	A	C3'-C2'-C1'	5.92	107.42	101.50
33	L1	292	A	N9-C1'-C2'	5.92	120.88	112.00
46	LT	58	HIS	CA-CB-CG	-5.92	107.88	113.80
32	S1	23	G	P-O5'-C5'	-5.92	112.03	120.90
32	S1	1540	U	C5'-C4'-C3'	5.92	124.87	116.00
32	S1	1702	G	C1'-C2'-O2'	5.92	117.27	108.40
33	L1	752	U	O4'-C1'-C2'	-5.92	101.69	107.60
33	L1	1151	G	O4'-C1'-C2'	5.92	113.52	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
64	LG	67	HIS	N-CA-C	-5.92	104.76	113.16
69	La	78	THR	CA-CB-OG1	5.92	118.47	109.60
32	S1	273	C	C5'-C4'-C3'	-5.91	107.13	116.00
32	S1	475	A	C3'-C2'-C1'	5.91	107.21	101.30
32	S1	1589	C	C1'-O4'-C4'	-5.91	103.99	109.90
66	LN	99	ARG	NE-CZ-NH1	-5.91	115.59	121.50
82	LK	117	TYR	CB-CG-CD2	-5.91	111.93	120.80
8	SJ	48	LEU	CA-C-N	5.91	128.87	120.53
8	SJ	48	LEU	C-N-CA	5.91	128.87	120.53
11	SM	99	VAL	CA-CB-CG2	5.91	120.45	110.40
47	LU	155	ASP	CA-CB-CG	5.91	118.51	112.60
49	LX	126	PRO	CA-C-N	5.91	128.20	120.28
49	LX	126	PRO	C-N-CA	5.91	128.20	120.28
70	Li	58	ARG	CA-C-O	-5.91	112.06	120.16
1	Sa	307	SER	N-CA-C	-5.91	103.14	110.41
23	SU	41	SER	N-CA-CB	5.91	120.78	111.20
28	SN	30	LEU	O-C-N	5.91	130.91	123.23
32	S1	1143	A	O4'-C1'-N9	5.91	117.36	108.50
32	S1	1603	U	C4'-C3'-C2'	5.91	108.51	102.60
33	L1	972	C	C5'-C4'-O4'	-5.91	100.93	109.80
33	L1	1407	G	O3'-P-O5'	5.91	112.87	104.00
33	L1	2170	G	O5'-C5'-C4'	5.91	120.57	111.70
34	L3	4	U	P-O3'-C3'	5.91	129.07	120.20
44	LR	41	LYS	N-CA-CB	-5.91	101.40	110.44
54	Lf	54	PRO	CA-C-N	5.91	128.20	120.28
54	Lf	54	PRO	C-N-CA	5.91	128.20	120.28
56	Lh	18	PHE	CA-C-O	5.91	127.07	120.92
57	Ll	78	PHE	CA-C-O	5.91	127.79	121.11
58	Ln	61	PRO	N-CA-C	-5.91	103.49	110.70
68	LW	105	ILE	N-CA-C	5.91	121.63	109.34
74	LJ	15	VAL	O-C-N	-5.91	116.50	123.00
81	LD	54	GLN	N-CA-C	5.91	117.14	109.64
1	Sa	323	TYR	N-CA-C	-5.91	99.27	108.90
16	SR	146	HIS	N-CA-CB	5.91	120.73	110.98
20	SZ	11	ALA	N-CA-CB	5.91	118.90	110.16
32	S1	1028	A	C4'-C3'-O3'	5.91	118.26	109.40
32	S1	1042	C	N1-C1'-C2'	5.91	120.86	112.00
32	S1	1632	C	P-O5'-C5'	-5.91	112.04	120.90
33	L1	1663	G	O4'-C1'-C2'	5.91	113.51	107.60
33	L1	2262	C	C4'-C3'-O3'	-5.91	104.14	113.00
33	L1	2337	C	C1'-C2'-O2'	5.91	117.26	108.40
33	L1	2628	C	P-O3'-C3'	5.91	129.06	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2702	G	P-O5'-C5'	5.91	129.76	120.90
33	L1	2750	A	C3'-C2'-C1'	5.91	107.21	101.30
33	L1	3001	G	O3'-P-O5'	5.91	112.86	104.00
33	L1	3231	G	C1'-C2'-O2'	5.91	117.26	108.40
33	L1	3349	C	C1'-O4'-C4'	-5.91	103.99	109.90
72	Lk	75	VAL	CA-CB-CG1	5.91	120.44	110.40
72	Lk	83	HIS	CB-CG-CD2	-5.91	123.52	131.20
76	Lv	56	ALA	O-C-N	-5.91	115.86	122.12
79	Ls	217	LYS	CA-C-N	5.91	128.12	120.44
79	Ls	217	LYS	C-N-CA	5.91	128.12	120.44
15	SS	78	PHE	CA-CB-CG	-5.91	107.89	113.80
33	L1	304	A	N9-C1'-C2'	-5.91	103.14	112.00
33	L1	1279	C	N1-C1'-C2'	-5.91	103.14	112.00
32	S1	157	U	O4'-C1'-C2'	-5.91	101.69	107.60
32	S1	1224	C	O4'-C4'-C3'	-5.91	98.09	104.00
33	L1	13	G	C1'-C2'-O2'	5.91	117.26	108.40
33	L1	516	C	N1-C1'-C2'	5.91	120.86	112.00
33	L1	721	A	C4'-C3'-O3'	5.91	121.86	113.00
33	L1	2741	G	N9-C1'-C2'	5.91	120.86	112.00
33	L1	3019	C	C1'-C2'-O2'	5.91	117.26	108.40
34	L3	41	G	O4'-C1'-C2'	5.91	113.51	107.60
35	L2	91	G	O3'-P-O5'	5.91	112.86	104.00
41	LM	14	PHE	CA-CB-CG	5.91	119.70	113.80
4	SD	201	HIS	CA-CB-CG	-5.90	107.90	113.80
33	L1	3040	G	C1'-C2'-O2'	5.90	117.25	108.40
33	L1	3142	C	C3'-C2'-C1'	5.90	107.40	101.50
39	LF	120	LYS	CB-CA-C	5.90	120.59	110.79
66	LN	17	TYR	N-CA-CB	5.90	120.47	110.49
14	SP	88	ARG	NE-CZ-NH2	-5.90	113.89	119.20
32	S1	350	G	O3'-P-O5'	-5.90	95.14	104.00
33	L1	142	G	N9-C1'-C2'	5.90	120.85	112.00
33	L1	1277	A	C1'-C2'-O2'	5.90	117.25	108.40
33	L1	2376	G	C4'-C3'-C2'	5.90	108.50	102.60
42	LP	144	ASN	CB-CA-C	-5.90	103.89	111.50
46	LT	97	ARG	O-C-N	-5.90	115.72	122.09
13	SQ	97	ARG	CB-CG-CD	5.90	124.87	111.30
24	SX	44	ASN	CA-CB-CG	-5.90	106.70	112.60
32	S1	1116	G	C1'-O4'-C4'	-5.90	104.00	109.90
33	L1	8	C	C4'-C3'-O3'	-5.90	104.15	113.00
33	L1	530	C	O4'-C4'-C3'	-5.90	98.10	104.00
33	L1	3092	A	O4'-C1'-C2'	5.90	111.70	105.80
36	LA	169	GLY	CA-C-O	5.90	126.77	120.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	LV	28	ASN	N-CA-CB	5.90	118.89	110.16
56	Lh	126	ARG	N-CA-CB	5.90	118.89	110.16
32	S1	297	U	N1-C1'-C2'	5.90	120.85	112.00
32	S1	1086	A	O4'-C1'-C2'	-5.90	101.70	107.60
32	S1	1747	A	C5'-C4'-C3'	5.90	124.85	116.00
33	L1	517	G	N9-C1'-C2'	5.90	120.85	112.00
33	L1	22	G	C1'-O4'-C4'	-5.90	104.00	109.90
33	L1	560	C	N1-C1'-C2'	-5.90	103.15	112.00
33	L1	705	A	C1'-O4'-C4'	5.90	115.80	109.90
33	L1	734	C	P-O5'-C5'	5.90	129.75	120.90
33	L1	1336	A	C5'-C4'-C3'	-5.90	107.16	116.00
33	L1	2510	U	P-O5'-C5'	-5.90	112.05	120.90
46	LT	136	ARG	CA-C-N	-5.90	111.36	121.97
46	LT	136	ARG	C-N-CA	-5.90	111.36	121.97
64	LG	151	LYS	CB-CA-C	5.90	120.58	110.79
66	LN	23	ARG	CA-C-N	5.90	132.28	122.73
66	LN	23	ARG	C-N-CA	5.90	132.28	122.73
67	LS	116	HIS	CA-CB-CG	-5.90	107.90	113.80
80	LC	286	TYR	N-CA-C	5.90	118.49	111.71
27	SH	129	PHE	CA-CB-CG	-5.90	107.90	113.80
32	S1	1629	U	O4'-C4'-C3'	-5.90	98.10	104.00
33	L1	614	C	C3'-C2'-C1'	5.90	107.20	101.30
32	S1	67	G	C1'-O4'-C4'	-5.89	104.00	109.90
33	L1	1348	G	C1'-C2'-O2'	5.89	117.24	108.40
33	L1	1621	G	C4'-C3'-C2'	-5.89	96.71	102.60
33	L1	1789	C	O4'-C1'-C2'	-5.89	99.91	105.80
33	L1	2511	U	O4'-C1'-C2'	-5.89	101.71	107.60
2	SA	226	ALA	CA-C-N	5.89	125.37	119.24
2	SA	226	ALA	C-N-CA	5.89	125.37	119.24
15	SS	89	GLY	CA-C-O	5.89	126.16	119.09
32	S1	427	G	O4'-C1'-C2'	-5.89	99.91	105.80
32	S1	1518	C	N1-C1'-C2'	5.89	120.84	112.00
33	L1	997	G	C2'-C3'-O3'	5.89	122.54	113.70
33	L1	1115	A	P-O3'-C3'	5.89	129.04	120.20
33	L1	1280	U	O4'-C1'-C2'	-5.89	101.71	107.60
33	L1	1938	U	O4'-C1'-C2'	-5.89	101.71	107.60
46	LT	32	ILE	CA-C-N	5.89	128.18	120.28
46	LT	32	ILE	C-N-CA	5.89	128.18	120.28
48	LV	151	LEU	O-C-N	-5.89	116.50	123.22
60	Lr	42	ARG	NE-CZ-NH2	-5.89	113.90	119.20
79	Ls	260	TYR	CA-C-N	-5.89	114.34	122.30
79	Ls	260	TYR	C-N-CA	-5.89	114.34	122.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	LD	368	PRO	CB-CA-C	-5.89	101.84	111.56
32	S1	851	G	O4'-C4'-C3'	-5.89	98.11	104.00
33	L1	1010	A	O4'-C1'-N9	5.89	117.34	108.50
33	L1	2275	A	O4'-C4'-C3'	-5.89	100.21	106.10
46	LT	80	LYS	CA-C-O	5.89	126.62	119.49
47	LU	67	VAL	O-C-N	-5.89	116.82	123.18
48	LV	117	HIS	CA-CB-CG	-5.89	107.91	113.80
2	SA	197	HIS	CA-C-N	-5.89	111.03	121.81
2	SA	197	HIS	C-N-CA	-5.89	111.03	121.81
8	SJ	49	VAL	CA-CB-CG1	5.89	120.41	110.40
9	SK	83	ARG	N-CA-C	-5.89	104.77	111.07
29	ST	52	PHE	N-CA-CB	5.89	120.44	110.49
29	ST	59	ARG	CG-CD-NE	-5.89	99.04	112.00
32	S1	5	U	O4'-C1'-C2'	-5.89	101.71	107.60
32	S1	365	C	C3'-C2'-C1'	5.89	107.19	101.30
32	S1	466	G	O5'-C5'-C4'	-5.89	102.67	111.50
33	L1	949	C	C3'-C2'-C1'	5.89	107.19	101.30
35	L2	109	A	C1'-O4'-C4'	-5.89	103.81	109.70
60	Lr	78	LYS	CG-CD-CE	5.89	124.84	111.30
5	SE	137	ALA	N-CA-CB	5.89	120.03	110.43
31	S2	46	A	N9-C1'-C2'	-5.89	103.17	112.00
32	S1	579	C	C3'-C2'-C1'	5.89	107.19	101.30
33	L1	2114	A	P-O5'-C5'	5.89	129.73	120.90
42	LP	163	GLY	O-C-N	-5.89	116.05	122.41
78	Le	148	GLU	CA-C-O	5.89	126.83	119.59
8	SJ	71	HIS	CE1-NE2-CD2	-5.89	103.11	109.00
25	SC	46	ARG	NH1-CZ-NH2	-5.89	111.65	119.30
32	S1	655	G	O4'-C1'-N9	5.89	117.33	108.50
33	L1	1027	C	N1-C1'-C2'	-5.89	103.17	112.00
33	L1	1712	A	O4'-C4'-C3'	-5.89	100.21	106.10
33	L1	2364	C	C5'-C4'-C3'	5.89	124.83	116.00
33	L1	3155	C	O3'-P-O5'	5.89	112.83	104.00
49	LX	146	ALA	CB-CA-C	-5.89	100.84	110.85
33	L1	409	U	C1'-O4'-C4'	-5.88	104.02	109.90
33	L1	1004	C	O3'-P-O5'	-5.88	95.17	104.00
33	L1	1166	C	O4'-C1'-C2'	-5.88	101.72	107.60
33	L1	1284	C	O4'-C1'-C2'	-5.88	101.72	107.60
33	L1	3233	C	O4'-C1'-C2'	-5.88	101.72	107.60
33	L1	3316	C	C4'-C3'-C2'	5.88	108.48	102.60
67	LS	26	ILE	O-C-N	-5.88	115.78	122.72
82	LK	116	PRO	N-CA-C	5.88	124.59	112.47
33	L1	102	G	O4'-C1'-N9	5.88	117.32	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	188	U	C4'-C3'-O3'	-5.88	104.18	113.00
37	LB	34	PHE	CA-C-O	5.88	128.92	120.51
70	Li	45	PRO	N-CA-CB	-5.88	97.07	103.25
79	Ls	236	THR	O-C-N	-5.88	114.77	122.59
4	SD	43	PRO	CA-C-N	5.88	128.44	120.38
4	SD	43	PRO	C-N-CA	5.88	128.44	120.38
8	SJ	72	ILE	N-CA-C	-5.88	99.16	107.75
9	SK	89	ILE	CA-C-N	5.88	128.44	120.38
9	SK	89	ILE	C-N-CA	5.88	128.44	120.38
11	SM	47	LYS	CA-C-N	5.88	129.25	120.31
11	SM	47	LYS	C-N-CA	5.88	129.25	120.31
32	S1	944	A	C4'-C3'-C2'	-5.88	96.72	102.60
32	S1	1207	A	C4'-C3'-C2'	-5.88	96.72	102.60
33	L1	611	C	C3'-C2'-C1'	5.88	107.18	101.30
33	L1	1136	A	N9-C1'-C2'	5.88	120.82	112.00
35	L2	67	C	C2'-C3'-O3'	5.88	122.52	113.70
35	L2	117	U	O3'-P-O5'	-5.88	95.18	104.00
37	LB	38	ASN	N-CA-C	5.88	123.33	110.80
42	LP	192	TRP	CB-CG-CD2	-5.88	118.56	126.80
15	SS	82	TYR	CB-CA-C	-5.88	100.85	110.85
32	S1	174	C	C3'-C2'-C1'	5.88	107.18	101.30
33	L1	2402	G	O3'-P-O5'	-5.88	95.18	104.00
33	L1	3053	G	C4'-C3'-C2'	-5.88	96.72	102.60
35	L2	95	C	P-O3'-C3'	-5.88	111.38	120.20
78	Le	56	GLU	CA-C-N	5.88	128.64	120.29
78	Le	56	GLU	C-N-CA	5.88	128.64	120.29
5	SE	127	ALA	CA-C-O	5.88	127.99	121.11
25	SC	160	PHE	CA-C-N	5.88	132.77	121.54
25	SC	160	PHE	C-N-CA	5.88	132.77	121.54
33	L1	309	C	C1'-O4'-C4'	-5.88	104.02	109.90
33	L1	2745	C	N1-C1'-C2'	5.88	120.82	112.00
33	L1	3057	A	C5'-C4'-O4'	-5.88	100.98	109.80
37	LB	9	ARG	NH1-CZ-NH2	-5.88	111.66	119.30
43	LO	124	LEU	N-CA-C	5.88	117.69	111.28
44	LR	155	ALA	CA-C-N	-5.88	112.49	119.84
44	LR	155	ALA	C-N-CA	-5.88	112.49	119.84
45	LQ	251	PRO	N-CA-CB	5.88	110.02	103.44
73	Lp	46	ARG	N-CA-C	5.88	119.77	109.48
76	Lv	56	ALA	CA-C-O	-5.88	114.32	120.55
33	L1	1017	G	N9-C1'-C2'	5.88	120.81	112.00
33	L1	1803	G	O4'-C1'-N9	5.88	117.02	108.20
33	L1	2576	C	P-O5'-C5'	-5.88	112.09	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3382	A	O4'-C1'-N9	5.88	117.31	108.50
35	L2	88	C	O4'-C1'-C2'	-5.88	99.92	105.80
32	S1	1249	G	C1'-C2'-O2'	5.88	117.21	108.40
33	L1	462	C	O5'-C5'-C4'	5.88	120.31	111.50
33	L1	951	C	O5'-C5'-C4'	-5.88	102.69	111.50
33	L1	2104	G	O4'-C1'-C2'	5.88	113.47	107.60
1	Sa	36	ASP	CA-CB-CG	-5.87	106.73	112.60
1	Sa	223	SER	CB-CA-C	5.87	121.05	109.66
32	S1	913	U	O4'-C4'-C3'	-5.87	98.13	104.00
32	S1	1757	G	P-O5'-C5'	5.87	129.71	120.90
33	L1	517	G	O4'-C1'-C2'	5.87	113.47	107.60
33	L1	595	C	N1-C1'-C2'	5.87	120.81	112.00
33	L1	858	U	C2'-C3'-O3'	-5.87	104.89	113.70
33	L1	1050	A	P-O5'-C5'	-5.87	112.09	120.90
33	L1	1633	C	C3'-C2'-C1'	5.87	107.17	101.30
33	L1	1924	G	C5'-C4'-C3'	5.87	124.81	116.00
33	L1	2562	A	O4'-C1'-N9	5.87	117.31	108.50
33	L1	2706	A	O4'-C1'-N9	5.87	117.31	108.50
33	L1	2762	U	O3'-P-O5'	5.87	112.81	104.00
33	L1	2798	G	C1'-C2'-O2'	5.87	120.61	111.80
33	L1	3364	A	C5'-C4'-C3'	5.87	124.81	116.00
64	LG	161	GLU	CA-C-N	5.87	128.07	120.44
64	LG	161	GLU	C-N-CA	5.87	128.07	120.44
67	LS	145	HIS	CB-CG-CD2	-5.87	123.57	131.20
13	SQ	15	GLN	CB-CG-CD	-5.87	102.62	112.60
23	SU	82	TYR	N-CA-C	5.87	118.43	109.62
32	S1	1182	C	C5'-C4'-C3'	5.87	124.81	116.00
33	L1	537	U	C1'-O4'-C4'	5.87	115.77	109.90
33	L1	2366	A	N9-C1'-C2'	5.87	120.81	112.00
33	L1	3076	C	O4'-C1'-C2'	-5.87	101.73	107.60
37	LB	251	ALA	CA-C-O	-5.87	113.95	120.70
45	LQ	244	HIS	ND1-CE1-NE2	5.87	114.27	108.40
64	LG	109	PRO	CB-CA-C	-5.87	101.87	111.56
15	SS	34	PRO	CA-N-CD	-5.87	103.78	112.00
33	L1	15	C	O4'-C1'-C2'	-5.87	101.73	107.60
23	SU	31	GLU	CA-C-O	-5.87	114.36	120.70
31	S2	6	G	C3'-C2'-C1'	-5.87	95.43	101.30
32	S1	937	A	C3'-C2'-C1'	5.87	107.37	101.50
32	S1	1139	C	C3'-C2'-C1'	5.87	107.17	101.30
32	S1	1278	C	C4'-C3'-O3'	-5.87	104.20	113.00
32	S1	1565	U	N1-C1'-C2'	5.87	120.80	112.00
32	S1	1699	C	C1'-C2'-O2'	5.87	117.20	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	522	C	C5'-C4'-O4'	5.87	118.60	109.80
33	L1	1630	C	C3'-C2'-C1'	5.87	107.17	101.30
33	L1	3342	C	C4'-C3'-C2'	-5.87	96.73	102.60
78	Le	63	GLU	O-C-N	-5.87	114.63	122.49
32	S1	1631	C	O4'-C1'-N1	5.87	117.30	108.50
50	LZ	72	LYS	N-CA-C	-5.87	98.30	110.80
9	SK	92	LEU	N-CA-C	-5.87	103.86	111.02
32	S1	161	G	C3'-C2'-O2'	-5.87	101.90	110.70
32	S1	1343	C	N1-C1'-C2'	5.87	120.80	112.00
33	L1	1301	C	O4'-C1'-C2'	-5.87	101.73	107.60
33	L1	2616	U	P-O3'-C3'	-5.87	111.40	120.20
34	L3	55	A	P-O3'-C3'	5.87	129.00	120.20
38	LE	120	PRO	CB-CA-C	5.87	117.95	111.56
47	LU	54	HIS	CG-CD2-NE2	5.87	113.07	107.20
66	LN	92	LYS	CA-C-N	5.87	128.14	120.28
66	LN	92	LYS	C-N-CA	5.87	128.14	120.28
78	Le	224	VAL	CB-CA-C	-5.87	104.22	112.14
1	Sa	290	GLU	O-C-N	-5.86	114.58	121.32
13	SQ	45	ARG	CA-C-N	5.86	129.22	120.31
13	SQ	45	ARG	C-N-CA	5.86	129.22	120.31
14	SP	89	ARG	NE-CZ-NH2	-5.86	113.92	119.20
32	S1	545	A	C4'-C3'-O3'	5.86	118.80	110.00
32	S1	641	C	O4'-C1'-C2'	-5.86	101.74	107.60
33	L1	98	A	OP2-P-O3'	-5.86	90.41	108.00
33	L1	407	A	O4'-C1'-N9	5.86	117.30	108.50
33	L1	1321	A	C1'-C2'-O2'	-5.86	103.01	111.80
33	L1	2801	A	C3'-C2'-C1'	5.86	107.16	101.30
34	L3	73	U	C3'-C2'-O2'	5.86	119.50	110.70
35	L2	138	G	C4'-C3'-C2'	5.86	108.46	102.60
47	LU	127	SER	CA-C-N	5.86	128.41	120.38
47	LU	127	SER	C-N-CA	5.86	128.41	120.38
80	LC	310	THR	O-C-N	-5.86	115.08	121.53
81	LD	202	ASN	O-C-N	-5.86	114.79	122.59
81	LD	316	ARG	CA-CB-CG	5.86	125.83	114.10
81	LD	400	TRP	CB-CG-CD1	5.86	135.69	126.90
1	Sa	371	TRP	N-CA-C	-5.86	100.63	109.95
32	S1	234	G	C1'-O4'-C4'	-5.86	104.04	109.90
33	L1	506	U	C5'-C4'-C3'	5.86	124.79	116.00
33	L1	1582	C	C1'-O4'-C4'	-5.86	104.04	109.90
33	L1	2643	A	O4'-C4'-C3'	-5.86	98.14	104.00
5	SE	30	ARG	CD-NE-CZ	-5.86	116.19	124.40
5	SE	74	GLU	N-CA-C	-5.86	104.80	111.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	SH	81	VAL	N-CA-CB	-5.86	101.56	111.23
32	S1	468	A	P-O5'-C5'	5.86	129.69	120.90
32	S1	1381	G	O4'-C1'-N9	5.86	117.29	108.50
32	S1	1615	G	C4'-C3'-C2'	-5.86	96.74	102.60
33	L1	496	U	C4'-C3'-C2'	-5.86	96.74	102.60
33	L1	638	G	P-O5'-C5'	5.86	129.69	120.90
33	L1	1825	G	C4'-C3'-C2'	-5.86	96.74	102.60
33	L1	2115	G	C5'-C4'-C3'	5.86	124.79	116.00
33	L1	3036	C	C1'-O4'-C4'	-5.86	104.04	109.90
33	L1	3316	C	P-O3'-C3'	5.86	128.99	120.20
44	LR	75	GLU	N-CA-C	-5.86	97.77	108.02
51	LY	47	ILE	O-C-N	-5.86	118.00	121.69
70	Li	103	VAL	N-CA-CB	5.86	120.90	111.23
4	SD	79	ASP	CA-C-O	5.86	126.63	120.36
33	L1	2114	A	N9-C1'-C2'	5.86	120.79	112.00
33	L1	2566	C	N1-C1'-C2'	5.86	120.79	112.00
23	SU	86	ASP	N-CA-C	-5.86	104.89	111.28
31	S2	14	A	C1'-C2'-O2'	5.86	117.19	108.40
32	S1	421	A	P-O5'-C5'	-5.86	112.11	120.90
33	L1	734	C	O4'-C1'-C2'	-5.86	101.74	107.60
33	L1	1495	G	C1'-O4'-C4'	5.86	115.76	109.90
33	L1	1660	C	P-O5'-C5'	5.86	129.69	120.90
33	L1	2856	U	O4'-C1'-N1	5.86	117.29	108.50
33	L1	3037	G	C1'-C2'-O2'	5.86	117.19	108.40
35	L2	44	A	C1'-C2'-O2'	5.86	117.19	108.40
35	L2	100	A	P-O3'-C3'	5.86	128.99	120.20
77	Lc	88	GLN	CA-C-N	5.86	130.48	122.34
77	Lc	88	GLN	C-N-CA	5.86	130.48	122.34
32	S1	645	G	C1'-O4'-C4'	-5.86	104.05	109.90
33	L1	563	C	C1'-C2'-O2'	5.86	117.18	108.40
33	L1	1135	C	C3'-C2'-C1'	5.86	107.16	101.30
33	L1	1306	A	P-O3'-C3'	-5.86	111.42	120.20
33	L1	2466	G	P-O5'-C5'	-5.86	112.12	120.90
33	L1	2729	C	C4'-C3'-C2'	-5.86	96.75	102.60
46	LT	107	ARG	NE-CZ-NH2	-5.86	113.93	119.20
50	LZ	4	LYS	CA-C-N	5.86	132.33	121.62
50	LZ	4	LYS	C-N-CA	5.86	132.33	121.62
55	Lg	118	VAL	N-CA-C	5.86	121.52	109.34
70	Li	53	GLY	N-CA-C	5.86	122.84	111.66
23	SU	26	LYS	O-C-N	-5.85	115.79	123.28
33	L1	306	A	C1'-O4'-C4'	-5.85	104.05	109.90
33	L1	2075	C	P-O5'-C5'	5.85	129.68	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3034	A	O3'-P-O5'	-5.85	95.22	104.00
34	L3	56	G	O3'-P-O5'	5.85	112.78	104.00
42	LP	49	ARG	NE-CZ-NH1	5.85	127.35	121.50
48	LV	76	ARG	CB-CG-CD	5.85	124.77	111.30
74	LJ	66	GLN	OE1-CD-NE2	-5.85	116.75	122.60
7	SI	53	LYS	N-CA-C	-5.85	103.38	111.28
32	S1	1184	C	O4'-C1'-C2'	-5.85	101.75	107.60
33	L1	1717	G	O4'-C1'-C2'	5.85	113.45	107.60
33	L1	2044	C	O4'-C1'-C2'	-5.85	101.75	107.60
33	L1	2876	G	C1'-C2'-O2'	5.85	117.18	108.40
55	Lg	28	LEU	CB-CA-C	-5.85	101.69	110.88
77	Lc	106	GLU	N-CA-C	5.85	118.89	111.69
80	LC	369	PHE	N-CA-C	5.85	123.27	110.80
33	L1	1205	C	C1'-O4'-C4'	-5.85	104.05	109.90
33	L1	3349	C	C1'-C2'-O2'	5.85	117.18	108.40
80	LC	124	LYS	CB-CA-C	5.85	122.06	110.42
8	SJ	43	LYS	O-C-N	5.85	128.09	122.07
25	SC	166	PHE	CA-C-N	5.85	132.87	121.41
25	SC	166	PHE	C-N-CA	5.85	132.87	121.41
33	L1	1301	C	P-O5'-C5'	5.85	129.67	120.90
33	L1	2169	U	P-O3'-C3'	-5.85	111.43	120.20
33	L1	2655	U	P-O3'-C3'	-5.85	111.43	120.20
33	L1	3323	U	C5'-C4'-C3'	-5.85	107.23	116.00
40	LH	84	LEU	N-CA-C	5.85	117.73	111.36
42	LP	108	ARG	CA-C-O	-5.85	114.22	120.42
46	LT	29	VAL	CB-CA-C	-5.85	104.38	112.04
52	Lb	67	ASP	CA-CB-CG	5.85	118.45	112.60
64	LG	178	LYS	N-CA-C	5.85	117.66	111.28
74	LJ	24	ALA	N-CA-C	5.85	118.68	109.96
15	SS	127	THR	CA-C-O	5.85	128.66	121.94
33	L1	1887	A	C1'-O4'-C4'	5.85	115.75	109.90
35	L2	42	U	C2'-C3'-O3'	5.85	118.27	109.50
36	LA	160	LYS	N-CA-CB	5.85	121.36	112.47
46	LT	41	ILE	CA-C-N	5.85	128.12	120.28
46	LT	41	ILE	C-N-CA	5.85	128.12	120.28
55	Lg	70	ASN	CA-CB-CG	-5.85	106.75	112.60
64	LG	26	TRP	N-CA-C	5.85	123.26	110.80
64	LG	91	LYS	CA-CB-CG	5.85	125.80	114.10
67	LS	114	SER	CB-CA-C	5.85	122.06	110.42
78	Le	69	ARG	NE-CZ-NH2	5.85	124.46	119.20
33	L1	1718	U	P-O3'-C3'	-5.85	111.43	120.20
46	LT	71	GLN	CA-C-N	5.85	132.22	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	LT	71	GLN	C-N-CA	5.85	132.22	121.70
46	LT	75	HIS	CA-CB-CG	5.85	119.65	113.80
71	Lj	25	SER	CB-CA-C	-5.85	98.79	110.42
6	SF	82	LYS	CA-C-N	-5.84	112.45	120.46
6	SF	82	LYS	C-N-CA	-5.84	112.45	120.46
32	S1	962	G	C1'-O4'-C4'	-5.84	104.06	109.90
32	S1	1373	C	P-O5'-C5'	-5.84	112.13	120.90
33	L1	1112	C	C4'-C3'-O3'	-5.84	104.23	113.00
33	L1	1746	G	P-O5'-C5'	-5.84	112.13	120.90
33	L1	2646	A	P-O5'-C5'	-5.84	112.13	120.90
33	L1	3059	C	C5'-C4'-C3'	5.84	124.77	116.00
33	L1	3387	U	O4'-C1'-C2'	-5.84	101.76	107.60
40	LH	180	ALA	CA-C-N	5.84	128.11	120.28
40	LH	180	ALA	C-N-CA	5.84	128.11	120.28
80	LC	192	ALA	CA-C-N	5.84	128.11	120.28
80	LC	192	ALA	C-N-CA	5.84	128.11	120.28
81	LD	322	ASN	N-CA-CB	5.84	119.49	110.43
82	LK	64	ARG	N-CA-CB	5.84	118.71	110.12
8	SJ	110	ILE	N-CA-C	5.84	116.03	110.42
33	L1	1180	C	O4'-C1'-N1	-5.84	99.44	108.20
33	L1	2260	C	C5'-C4'-C3'	5.84	124.76	116.00
42	LP	1	MET	CA-C-N	5.84	132.86	121.41
42	LP	1	MET	C-N-CA	5.84	132.86	121.41
49	LX	87	GLU	N-CA-C	5.84	117.45	111.14
68	LW	39	ALA	N-CA-C	5.84	117.65	111.28
3	SB	95	GLY	CA-C-N	5.84	132.70	121.54
3	SB	95	GLY	C-N-CA	5.84	132.70	121.54
32	S1	436	G	N9-C1'-C2'	5.84	120.76	112.00
32	S1	442	A	C3'-C2'-C1'	5.84	107.34	101.50
33	L1	32	G	C1'-O4'-C4'	-5.84	104.06	109.90
33	L1	570	G	C4'-C3'-C2'	-5.84	96.76	102.60
33	L1	1208	A	N9-C1'-C2'	5.84	120.76	112.00
45	LQ	14	HIS	N-CA-CB	5.84	120.36	110.49
46	LT	67	HIS	ND1-CE1-NE2	5.84	114.24	108.40
47	LU	15	PHE	N-CA-CB	-5.84	102.55	110.67
47	LU	133	ALA	N-CA-C	5.84	117.65	111.28
55	Lg	26	LYS	O-C-N	-5.84	115.96	122.03
64	LG	137	VAL	O-C-N	5.84	129.87	122.57
81	LD	365	LYS	N-CA-CB	5.84	118.48	110.01
33	L1	795	C	O4'-C1'-N1	5.84	117.26	108.50
33	L1	1912	U	C1'-C2'-O2'	5.84	117.16	108.40
33	L1	3027	G	C3'-C2'-C1'	5.84	107.14	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	L2	164	C	O4'-C1'-C2'	-5.84	101.76	107.60
40	LH	60	ARG	N-CA-CB	5.84	120.36	110.49
50	LZ	18	GLY	O-C-N	-5.84	116.58	122.54
33	L1	1005	C	O3'-P-O5'	5.84	112.76	104.00
33	L1	1208	A	C1'-O4'-C4'	5.84	115.74	109.90
33	L1	1226	G	N9-C1'-C2'	-5.84	105.24	114.00
37	LB	70	LYS	CA-C-O	5.84	125.12	118.47
25	SC	193	ASP	O-C-N	-5.84	115.35	122.82
32	S1	1229	C	C1'-O4'-C4'	-5.84	104.06	109.90
32	S1	1588	C	O4'-C1'-C2'	-5.84	101.76	107.60
33	L1	2260	C	C3'-C2'-C1'	-5.84	95.46	101.30
33	L1	2491	A	P-O5'-C5'	5.84	129.66	120.90
33	L1	2512	U	C4'-C3'-C2'	-5.84	96.76	102.60
33	L1	2703	G	C1'-O4'-C4'	-5.84	104.06	109.90
37	LB	125	VAL	N-CA-CB	-5.84	106.85	111.64
47	LU	159	ASP	CA-CB-CG	-5.84	106.76	112.60
50	LZ	14	LYS	N-CA-CB	-5.84	101.02	109.83
72	Lk	88	LYS	CA-C-N	5.84	128.68	120.28
72	Lk	88	LYS	C-N-CA	5.84	128.68	120.28
79	Ls	40	GLN	N-CA-CB	-5.84	101.54	110.12
32	S1	594	C	C4'-C3'-C2'	-5.83	96.77	102.60
33	L1	2424	G	N9-C1'-C2'	5.83	120.75	112.00
33	L1	3234	G	C1'-O4'-C4'	5.83	115.73	109.90
35	L2	40	G	OP1-P-OP2	-5.83	102.09	119.60
45	LQ	35	ARG	CB-CG-CD	5.83	124.72	111.30
13	SQ	23	ARG	N-CA-C	-5.83	99.83	108.99
25	SC	5	PRO	N-CD-CG	5.83	111.95	103.20
25	SC	115	VAL	O-C-N	-5.83	116.88	123.18
32	S1	567	U	C4'-C3'-O3'	-5.83	104.25	113.00
33	L1	892	U	O4'-C1'-C2'	-5.83	101.77	107.60
33	L1	1237	G	C3'-C2'-C1'	-5.83	95.47	101.30
33	L1	1747	A	P-O5'-C5'	-5.83	112.15	120.90
33	L1	2464	G	P-O5'-C5'	-5.83	112.15	120.90
33	L1	2738	U	C1'-O4'-C4'	-5.83	104.07	109.90
34	L3	79	A	C4'-C3'-O3'	-5.83	104.25	113.00
35	L2	101	G	C1'-C2'-O2'	5.83	117.15	108.40
35	L2	104	U	C5'-C4'-C3'	-5.83	107.25	116.00
14	SP	90	ASN	CA-C-N	5.83	128.68	120.28
14	SP	90	ASN	C-N-CA	5.83	128.68	120.28
36	LA	60	PRO	CA-C-N	5.83	130.46	120.72
36	LA	60	PRO	C-N-CA	5.83	130.46	120.72
57	L1	55	ARG	NE-CZ-NH1	5.83	127.33	121.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	Lo	32	ASP	CB-CA-C	5.83	122.02	110.42
64	LG	209	ARG	NE-CZ-NH1	5.83	127.33	121.50
1	Sa	275	LEU	O-C-N	5.83	130.24	123.30
25	SC	148	PHE	N-CA-C	-5.83	103.87	111.74
29	ST	9	VAL	N-CA-C	5.83	121.47	109.34
33	L1	1696	G	C3'-C2'-C1'	5.83	107.13	101.30
33	L1	3033	A	C1'-O4'-C4'	5.83	115.73	109.90
46	LT	87	ALA	N-CA-C	5.83	118.42	111.71
2	SA	254	GLN	N-CA-C	5.83	120.16	112.35
19	SY	21	GLY	N-CA-C	5.83	124.31	115.63
25	SC	179	GLN	N-CA-C	-5.83	105.78	114.64
32	S1	524	A	P-O3'-C3'	-5.83	111.46	120.20
33	L1	272	G	C1'-C2'-O2'	5.83	117.14	108.40
33	L1	563	C	C1'-O4'-C4'	-5.83	104.07	109.90
33	L1	2380	G	C1'-O4'-C4'	-5.83	104.07	109.90
47	LU	131	GLN	CB-CG-CD	-5.83	102.69	112.60
48	LV	77	HIS	ND1-CE1-NE2	5.83	114.23	108.40
1	Sa	146	ASN	OD1-CG-ND2	5.83	128.43	122.60
32	S1	1036	U	O4'-C1'-C2'	-5.83	99.97	105.80
33	L1	1823	C	O3'-P-O5'	-5.83	95.26	104.00
33	L1	2688	G	O3'-P-O5'	5.83	112.74	104.00
78	Le	90	ARG	NE-CZ-NH2	-5.83	113.96	119.20
3	SB	184	ILE	N-CA-CB	5.83	120.84	111.23
9	SK	73	ALA	O-C-N	-5.83	114.84	122.59
23	SU	48	LYS	CA-C-N	5.83	128.09	120.28
23	SU	48	LYS	C-N-CA	5.83	128.09	120.28
32	S1	611	G	O4'-C4'-C3'	-5.83	100.27	106.10
32	S1	1801	A	P-O3'-C3'	5.83	128.94	120.20
33	L1	70	A	C1'-C2'-O2'	5.83	120.54	111.80
33	L1	881	G	N9-C1'-C2'	5.83	120.74	112.00
33	L1	1362	C	C2'-C3'-O3'	5.83	122.44	113.70
33	L1	2395	G	O3'-P-O5'	-5.83	95.26	104.00
39	LF	152	LEU	CB-CA-C	5.83	121.36	110.70
45	LQ	290	SER	CA-C-N	5.83	132.19	121.70
45	LQ	290	SER	C-N-CA	5.83	132.19	121.70
57	L1	51	VAL	CG1-CB-CG2	-5.83	97.98	110.80
80	LC	299	CYS	N-CA-C	5.83	122.35	113.61
7	SI	117	ARG	CD-NE-CZ	-5.82	116.25	124.40
32	S1	292	A	O4'-C1'-N9	5.82	117.23	108.50
32	S1	359	G	N9-C1'-C2'	5.82	120.74	112.00
33	L1	697	A	O3'-P-O5'	-5.82	95.26	104.00
33	L1	2371	A	N9-C1'-C2'	5.82	120.73	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	L3	74	A	C3'-C2'-C1'	-5.82	95.48	101.30
50	LZ	67	ALA	CA-C-N	5.82	128.98	120.71
50	LZ	67	ALA	C-N-CA	5.82	128.98	120.71
69	La	89	VAL	CA-C-O	-5.82	114.89	120.95
72	Lk	47	ILE	N-CA-C	5.82	116.56	110.62
78	Le	83	ALA	N-CA-C	5.82	123.20	110.80
23	SU	95	TYR	N-CA-C	5.82	123.20	110.80
33	L1	1474	U	O4'-C1'-C2'	5.82	113.42	107.60
64	LG	17	SER	O-C-N	-5.82	116.03	122.09
67	LS	111	GLU	CB-CA-C	5.82	120.75	110.85
80	LC	350	THR	CA-C-N	5.82	132.66	121.54
80	LC	350	THR	C-N-CA	5.82	132.66	121.54
5	SE	161	HIS	ND1-CE1-NE2	5.82	114.22	108.40
32	S1	158	C	O4'-C1'-C2'	-5.82	101.78	107.60
32	S1	1179	C	C3'-C2'-C1'	5.82	107.12	101.30
33	L1	186	A	C1'-O4'-C4'	-5.82	104.08	109.90
33	L1	225	G	N9-C1'-C2'	5.82	120.73	112.00
33	L1	904	G	O4'-C1'-C2'	-5.82	101.78	107.60
33	L1	974	G	O4'-C1'-C2'	5.82	113.42	107.60
33	L1	1351	C	C5'-C4'-O4'	-5.82	101.07	109.80
33	L1	1820	C	C5'-C4'-C3'	5.82	124.73	116.00
33	L1	2197	C	N1-C1'-C2'	5.82	120.73	112.00
33	L1	2730	A	O4'-C1'-C2'	-5.82	99.98	105.80
38	LE	144	ARG	CB-CA-C	5.82	119.35	109.75
42	LP	93	LYS	N-CA-C	-5.82	99.91	109.40
46	LT	34	MET	CA-C-O	5.82	126.59	120.42
47	LU	56	PHE	N-CA-CB	-5.82	101.56	110.12
47	LU	83	ARG	CD-NE-CZ	5.82	132.55	124.40
47	LU	92	ARG	CA-C-O	5.82	128.63	121.94
48	LV	27	LYS	CB-CA-C	5.82	120.74	110.85
49	LX	151	ILE	CA-C-O	-5.82	114.67	120.90
80	LC	157	ALA	CA-C-N	5.82	132.66	121.54
80	LC	157	ALA	C-N-CA	5.82	132.66	121.54
82	LK	74	GLY	CA-C-O	-5.82	113.20	121.52
32	S1	35	U	C5'-C4'-C3'	5.82	124.73	116.00
32	S1	1160	G	C1'-C2'-O2'	5.82	117.13	108.40
33	L1	1342	C	O5'-C5'-C4'	5.82	120.23	111.50
34	L3	8	A	C3'-C2'-C1'	-5.82	95.48	101.30
35	L2	116	U	P-O5'-C5'	-5.82	112.17	120.90
80	LC	262	ARG	N-CA-CB	5.82	120.33	110.49
32	S1	5	U	O3'-P-O5'	5.82	112.72	104.00
33	L1	138	G	O4'-C1'-C2'	5.82	113.42	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	661	A	C1'-O4'-C4'	5.82	115.72	109.90
33	L1	856	G	C2'-C3'-O3'	-5.82	104.97	113.70
33	L1	2941	G	N9-C1'-C2'	5.82	120.73	112.00
54	Lf	52	CYS	N-CA-C	5.82	117.86	109.48
55	Lg	102	THR	CA-CB-CG2	5.82	120.39	110.50
74	LJ	63	LEU	N-CA-C	5.82	119.73	109.96
79	Ls	71	ASP	CA-CB-CG	5.82	118.42	112.60
81	LD	84	PRO	CB-CA-C	5.82	121.16	111.56
31	S2	44	A	P-O5'-C5'	5.82	129.62	120.90
32	S1	875	C	C4'-C3'-C2'	-5.82	96.78	102.60
32	S1	919	G	P-O5'-C5'	5.82	129.62	120.90
34	L3	27	A	C4'-C3'-C2'	-5.82	96.78	102.60
57	Ll	23	GLY	CA-C-O	5.82	126.95	119.68
71	Lj	93	LEU	N-CA-C	5.82	118.56	110.07
33	L1	2629	C	O3'-P-O5'	5.81	112.72	104.00
68	LW	62	SER	N-CA-C	-5.81	99.92	109.40
1	Sa	11	HIS	CB-CG-ND1	5.81	131.42	122.70
32	S1	63	G	O4'-C1'-N9	5.81	117.22	108.50
32	S1	1283	C	N1-C1'-C2'	5.81	120.72	112.00
32	S1	1310	C	N1-C1'-C2'	5.81	120.72	112.00
32	S1	1460	G	C1'-O4'-C4'	-5.81	104.09	109.90
32	S1	1798	G	C1'-O4'-C4'	-5.81	104.09	109.90
33	L1	1291	A	C1'-O4'-C4'	5.81	115.71	109.90
33	L1	3020	C	C1'-C2'-O2'	5.81	117.12	108.40
33	L1	3312	G	C4'-C3'-O3'	-5.81	104.28	113.00
41	LM	55	ALA	N-CA-CB	-5.81	102.33	111.05
81	LD	321	LYS	CG-CD-CE	5.81	124.67	111.30
11	SM	33	ILE	CA-C-N	5.81	132.64	121.54
11	SM	33	ILE	C-N-CA	5.81	132.64	121.54
33	L1	2335	U	N1-C1'-C2'	5.81	120.72	112.00
72	Lk	70	LYS	N-CA-CB	5.81	119.29	110.28
13	SQ	37	GLU	N-CA-CB	5.81	118.49	110.07
15	SS	7	ARG	CG-CD-NE	-5.81	99.22	112.00
32	S1	501	U	P-O3'-C3'	-5.81	111.49	120.20
32	S1	996	G	C5'-C4'-C3'	-5.81	107.28	116.00
32	S1	1589	C	O5'-P-OP1	-5.81	90.57	108.00
32	S1	1794	C	P-O5'-C5'	-5.81	112.19	120.90
33	L1	22	G	C1'-C2'-O2'	5.81	117.11	108.40
33	L1	533	G	O4'-C1'-C2'	5.81	113.41	107.60
33	L1	1516	G	O4'-C1'-C2'	5.81	111.61	105.80
33	L1	1698	C	P-O3'-C3'	-5.81	111.48	120.20
33	L1	2489	A	O4'-C1'-N9	5.81	116.91	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2720	U	O4'-C1'-C2'	5.81	113.41	107.60
33	L1	3361	G	O3'-P-O5'	5.81	112.72	104.00
45	LQ	211	MET	N-CA-C	5.81	118.69	110.50
57	L1	16	HIS	ND1-CE1-NE2	5.81	114.21	108.40
81	LD	377	ALA	CA-C-N	5.81	126.27	119.94
81	LD	377	ALA	C-N-CA	5.81	126.27	119.94
1	Sa	296	ASN	N-CA-C	-5.81	100.59	109.65
25	SC	74	GLU	CA-C-N	5.81	127.40	120.14
25	SC	74	GLU	C-N-CA	5.81	127.40	120.14
33	L1	772	U	C4'-C3'-O3'	-5.81	104.29	113.00
33	L1	1516	G	C2'-C3'-O3'	5.81	118.21	109.50
33	L1	1611	G	C4'-C3'-C2'	-5.81	96.79	102.60
33	L1	1628	G	C4'-C3'-O3'	-5.81	104.29	113.00
33	L1	1813	C	O4'-C1'-N1	5.81	117.21	108.50
33	L1	3036	C	O3'-P-O5'	-5.81	95.29	104.00
33	L1	3149	C	C4'-C3'-O3'	-5.81	104.29	113.00
77	Lc	44	LYS	CA-C-O	-5.81	112.94	119.79
78	Le	23	VAL	CA-C-N	5.81	128.06	120.28
78	Le	23	VAL	C-N-CA	5.81	128.06	120.28
3	SB	141	LYS	CB-CA-C	-5.81	103.73	111.63
33	L1	24	C	O3'-P-O5'	-5.81	95.29	104.00
33	L1	2715	U	C4'-C3'-O3'	-5.81	104.29	113.00
55	Lg	86	LYS	CB-CA-C	-5.81	97.89	109.79
79	Ls	77	GLU	CA-CB-CG	5.81	125.71	114.10
23	SU	23	LEU	CB-CG-CD2	5.80	128.11	110.70
32	S1	1758	G	C3'-C2'-O2'	5.80	119.41	110.70
33	L1	82	C	O3'-P-O5'	5.80	112.71	104.00
33	L1	699	C	N1-C1'-C2'	5.80	120.71	112.00
33	L1	1157	A	O4'-C1'-N9	5.80	117.21	108.50
33	L1	1259	C	C3'-C2'-C1'	5.80	107.10	101.30
33	L1	1400	C	N1-C1'-C2'	5.80	120.71	112.00
33	L1	1583	G	C4'-C3'-C2'	-5.80	96.80	102.60
33	L1	2353	C	N1-C1'-C2'	5.80	120.71	112.00
34	L3	24	G	O3'-P-O5'	5.80	112.71	104.00
35	L2	122	C	C1'-O4'-C4'	-5.80	104.10	109.90
45	LQ	45	LYS	N-CA-C	-5.80	100.24	109.59
66	LN	92	LYS	N-CA-C	5.80	123.17	110.80
81	LD	319	LYS	O-C-N	-5.80	115.08	122.34
84	LI	107	GLY	N-CA-C	-5.80	99.42	113.18
17	SV	52	LEU	N-CA-CB	5.80	118.48	110.07
19	SY	13	VAL	CB-CA-C	5.80	120.81	111.29
29	ST	11	LEU	CA-C-N	5.80	128.06	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	ST	11	LEU	C-N-CA	5.80	128.06	120.28
32	S1	2	A	C5'-C4'-O4'	5.80	118.50	109.80
32	S1	1163	C	C3'-C2'-C1'	5.80	107.30	101.50
33	L1	561	G	O4'-C4'-C3'	-5.80	98.20	104.00
33	L1	974	G	C1'-O4'-C4'	-5.80	104.10	109.90
38	LE	140	VAL	N-CA-C	5.80	116.54	110.62
73	Lp	47	PRO	O-C-N	5.80	130.08	123.00
5	SE	168	THR	CA-C-N	5.80	127.39	120.14
5	SE	168	THR	C-N-CA	5.80	127.39	120.14
14	SP	63	GLY	N-CA-C	-5.80	100.39	110.71
15	SS	105	ASN	CA-C-O	-5.80	114.27	120.42
32	S1	1765	A	O4'-C1'-C2'	5.80	111.60	105.80
33	L1	164	C	O4'-C4'-C3'	-5.80	98.20	104.00
33	L1	1130	G	C1'-C2'-O2'	5.80	117.10	108.40
33	L1	1141	U	C5'-C4'-C3'	5.80	124.70	116.00
33	L1	1163	A	C4'-C3'-C2'	-5.80	96.80	102.60
33	L1	1264	A	P-O5'-C5'	-5.80	112.20	120.90
33	L1	1562	A	C4'-C3'-O3'	5.80	118.70	110.00
33	L1	2390	G	P-O3'-C3'	-5.80	111.50	120.20
33	L1	2630	A	C4'-C3'-O3'	5.80	118.10	109.40
37	LB	90	CYS	CB-CA-C	-5.80	102.24	111.17
70	Li	37	LYS	N-CA-CB	5.80	120.30	110.49
78	Le	201	ASN	CA-CB-CG	5.80	118.40	112.60
13	SQ	100	LYS	N-CA-C	5.80	117.68	111.36
32	S1	1517	C	P-O3'-C3'	-5.80	111.50	120.20
33	L1	763	G	O4'-C1'-C2'	-5.80	101.80	107.60
33	L1	875	A	C1'-O4'-C4'	-5.80	104.10	109.90
33	L1	1663	G	O4'-C1'-N9	5.80	117.20	108.50
33	L1	2113	A	C2'-C3'-O3'	5.80	122.40	113.70
33	L1	3092	A	C4'-C3'-C2'	-5.80	96.80	102.60
48	LV	146	HIS	N-CA-C	-5.80	100.25	109.59
57	L1	54	ILE	CA-C-N	5.80	127.98	120.44
57	L1	54	ILE	C-N-CA	5.80	127.98	120.44
32	S1	890	G	C3'-C2'-C1'	-5.80	95.50	101.30
32	S1	1771	U	C1'-O4'-C4'	5.80	115.50	109.70
33	L1	2507	U	C1'-C2'-O2'	5.80	117.10	108.40
47	LU	35	LYS	CA-C-N	5.80	128.27	120.50
47	LU	35	LYS	C-N-CA	5.80	128.27	120.50
69	La	78	THR	CA-C-O	-5.80	114.40	120.55
2	SA	223	ALA	N-CA-CB	5.80	118.64	110.12
32	S1	501	U	C1'-O4'-C4'	-5.80	104.10	109.90
32	S1	1147	A	C4'-C3'-C2'	-5.80	96.80	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	69	U	C4'-C3'-O3'	-5.80	104.31	113.00
33	L1	239	C	C1'-O4'-C4'	5.80	115.70	109.90
33	L1	748	C	N1-C1'-C2'	5.80	120.69	112.00
33	L1	3051	U	O5'-C5'-C4'	-5.80	102.81	111.50
56	Lh	13	LYS	CB-CA-C	5.80	121.96	110.42
58	Ln	30	ASP	N-CA-CB	-5.80	102.16	110.80
33	L1	1236	C	O3'-P-O5'	-5.79	95.31	104.00
33	L1	2152	A	C1'-O4'-C4'	5.79	115.50	109.70
33	L1	2854	C	O4'-C1'-C2'	-5.79	101.81	107.60
14	SP	93	HIS	CE1-NE2-CD2	-5.79	103.21	109.00
33	L1	173	C	P-O3'-C3'	-5.79	111.51	120.20
33	L1	650	A	P-O3'-C3'	5.79	128.89	120.20
33	L1	844	A	N9-C1'-C2'	5.79	120.69	112.00
33	L1	1146	A	C4'-C3'-C2'	-5.79	96.81	102.60
33	L1	1576	C	C2'-C3'-O3'	5.79	122.39	113.70
33	L1	2172	C	O4'-C1'-C2'	-5.79	100.01	105.80
33	L1	2840	A	N9-C1'-C2'	5.79	120.69	112.00
33	L1	3319	G	C4'-C3'-O3'	-5.79	104.31	113.00
34	L3	101	A	O4'-C1'-N9	5.79	117.19	108.50
34	L3	104	C	O4'-C1'-C2'	-5.79	101.81	107.60
43	LO	79	TRP	CB-CG-CD1	-5.79	118.21	126.90
74	LJ	114	ALA	CA-C-N	5.79	128.04	120.28
74	LJ	114	ALA	C-N-CA	5.79	128.04	120.28
1	Sa	201	PRO	O-C-N	5.79	129.66	123.23
11	SM	117	ILE	O-C-N	-5.79	115.25	121.80
32	S1	856	G	C4'-C3'-O3'	-5.79	104.31	113.00
33	L1	1595	G	O3'-P-O5'	5.79	112.69	104.00
33	L1	2622	G	C4'-C3'-C2'	-5.79	96.81	102.60
33	L1	2701	G	OP1-P-O3'	5.79	125.38	108.00
34	L3	3	A	N9-C1'-C2'	-5.79	103.31	112.00
34	L3	33	U	O4'-C1'-N1	5.79	117.19	108.50
37	LB	58	LEU	N-CA-CB	5.79	119.77	110.85
38	LE	53	ARG	N-CA-C	-5.79	100.54	109.52
42	LP	186	PRO	N-CD-CG	5.79	110.75	103.80
44	LR	10	ARG	CD-NE-CZ	5.79	132.51	124.40
44	LR	25	TYR	CB-CA-C	5.79	120.70	110.85
64	LG	204	ALA	CA-C-N	5.79	127.97	120.44
64	LG	204	ALA	C-N-CA	5.79	127.97	120.44
78	Le	217	LYS	N-CA-CB	5.79	120.07	110.63
32	S1	488	C	O4'-C4'-C3'	-5.79	98.21	104.00
32	S1	1387	U	O4'-C1'-C2'	-5.79	101.81	107.60
32	S1	1478	C	C3'-C2'-C1'	5.79	107.29	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	428	G	N9-C1'-C2'	5.79	120.69	112.00
33	L1	861	A	C5'-C4'-C3'	-5.79	107.31	116.00
33	L1	1525	U	C1'-O4'-C4'	-5.79	103.91	109.70
33	L1	1800	G	O4'-C4'-C3'	-5.79	98.21	104.00
42	LP	91	GLN	N-CA-C	-5.79	104.88	111.07
69	La	87	LEU	CA-C-N	5.79	128.04	120.28
69	La	87	LEU	C-N-CA	5.79	128.04	120.28
1	Sa	346	ARG	CD-NE-CZ	-5.79	116.30	124.40
2	SA	40	ARG	NH1-CZ-NH2	-5.79	111.78	119.30
16	SR	146	HIS	CE1-NE2-CD2	-5.79	103.21	109.00
23	SU	36	GLY	N-CA-C	-5.79	99.46	113.18
32	S1	1302	C	O4'-C1'-C2'	-5.79	101.81	107.60
32	S1	1461	G	O4'-C1'-N9	5.79	117.18	108.50
32	S1	1569	U	C3'-C2'-C1'	5.79	107.09	101.30
32	S1	1789	U	C3'-C2'-C1'	-5.79	95.51	101.30
33	L1	1533	U	C5'-C4'-C3'	-5.79	107.32	116.00
33	L1	2276	A	C3'-C2'-O2'	5.79	119.38	110.70
33	L1	2513	U	O4'-C4'-C3'	-5.79	98.21	104.00
33	L1	2999	G	C1'-O4'-C4'	-5.79	104.11	109.90
33	L1	3100	C	O5'-C5'-C4'	5.79	120.38	111.70
33	L1	3223	C	C5'-C4'-C3'	-5.79	107.32	116.00
80	LC	102	LEU	CB-CA-C	-5.79	99.65	109.03
81	LD	227	ARG	CA-CB-CG	5.79	125.68	114.10
1	Sa	15	THR	CA-C-N	5.79	128.61	120.28
1	Sa	15	THR	C-N-CA	5.79	128.61	120.28
16	SR	98	MET	CG-SD-CE	5.79	113.63	100.90
32	S1	852	A	C1'-O4'-C4'	-5.79	104.11	109.90
32	S1	1713	C	P-O5'-C5'	-5.79	112.22	120.90
32	S1	1728	G	N9-C1'-C2'	5.79	120.68	112.00
33	L1	1164	G	C1'-O4'-C4'	-5.79	104.11	109.90
33	L1	2653	U	O4'-C4'-C3'	5.79	109.79	104.00
35	L2	77	U	C5'-C4'-C3'	-5.79	98.64	116.00
80	LC	377	THR	N-CA-CB	5.79	118.72	110.16
4	SD	189	THR	O-C-N	-5.79	116.18	123.12
6	SF	64	LEU	CA-C-N	5.79	128.39	120.46
6	SF	64	LEU	C-N-CA	5.79	128.39	120.46
15	SS	114	GLY	O-C-N	5.79	129.10	122.33
19	SY	18	GLY	CA-C-N	5.79	132.59	121.54
19	SY	18	GLY	C-N-CA	5.79	132.59	121.54
27	SH	70	ASN	CA-CB-CG	-5.79	106.81	112.60
32	S1	1224	C	N1-C1'-C2'	-5.79	103.32	112.00
32	S1	1699	C	N1-C1'-C2'	5.79	120.68	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1966	C	N1-C1'-C2'	5.79	120.68	112.00
33	L1	2448	G	O4'-C1'-N9	5.79	117.18	108.50
33	L1	2501	U	P-O5'-C5'	5.79	129.58	120.90
33	L1	2673	G	C5'-C4'-C3'	5.79	124.68	116.00
33	L1	2740	C	O4'-C1'-C2'	-5.79	101.81	107.60
33	L1	3215	U	C5'-C4'-C3'	-5.79	107.32	116.00
34	L3	77	A	C1'-O4'-C4'	5.79	115.69	109.90
35	L2	117	U	O4'-C1'-C2'	-5.79	101.81	107.60
40	LH	108	LEU	N-CA-C	-5.79	106.14	113.43
47	LU	70	ARG	N-CA-C	5.79	123.12	110.80
80	LC	119	TYR	N-CA-C	5.79	121.05	113.30
1	Sa	340	GLN	CA-C-O	5.78	128.78	120.51
15	SS	15	HIS	ND1-CE1-NE2	5.78	114.18	108.40
32	S1	571	A	C3'-C2'-C1'	5.78	107.08	101.30
32	S1	1296	G	C3'-C2'-C1'	-5.78	95.52	101.30
32	S1	1766	A	N9-C1'-C2'	-5.78	103.32	112.00
33	L1	1612	C	C1'-C2'-O2'	5.78	117.08	108.40
33	L1	3088	A	O5'-C5'-C4'	5.78	120.18	111.50
33	L1	3350	C	O4'-C1'-C2'	5.78	113.38	107.60
34	L3	14	C	C2'-C3'-O3'	5.78	122.38	113.70
52	Lb	110	ASN	CA-CB-CG	-5.78	106.82	112.60
56	Lh	18	PHE	O-C-N	-5.78	115.33	122.68
78	Le	63	GLU	N-CA-C	-5.78	106.39	113.50
83	Lm	42	CYS	N-CA-C	5.78	118.46	111.40
33	L1	487	C	C4'-C3'-O3'	-5.78	104.33	113.00
39	LF	125	VAL	N-CA-C	-5.78	100.15	108.42
79	Ls	190	LEU	CA-C-N	5.78	128.25	120.50
79	Ls	190	LEU	C-N-CA	5.78	128.25	120.50
4	SD	184	THR	CA-C-N	-5.78	111.12	121.93
4	SD	184	THR	C-N-CA	-5.78	111.12	121.93
32	S1	435	C	N1-C1'-C2'	5.78	120.67	112.00
32	S1	787	C	P-O3'-C3'	5.78	128.87	120.20
32	S1	1434	G	C1'-O4'-C4'	-5.78	104.12	109.90
33	L1	310	C	C5'-C4'-O4'	-5.78	101.13	109.80
33	L1	561	G	C4'-C3'-O3'	-5.78	104.33	113.00
33	L1	739	C	N1-C1'-C2'	5.78	120.67	112.00
33	L1	1017	G	C5'-C4'-C3'	5.78	124.67	116.00
33	L1	1535	C	C3'-C2'-C1'	5.78	107.08	101.30
33	L1	2344	A	O4'-C1'-N9	5.78	117.17	108.50
34	L3	25	G	P-O5'-C5'	5.78	129.57	120.90
34	L3	106	U	O3'-P-O5'	-5.78	95.33	104.00
37	LB	187	HIS	CA-C-N	5.78	128.03	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	LB	187	HIS	C-N-CA	5.78	128.03	120.28
43	LO	7	LYS	N-CA-C	5.78	123.11	110.80
43	LO	109	LYS	N-CA-C	-5.78	106.13	112.72
45	LQ	119	GLU	N-CA-C	5.78	123.11	110.80
78	Le	79	VAL	N-CA-C	-5.78	100.15	108.42
2	SA	54	ASN	CB-CG-OD1	5.78	132.36	120.80
17	SV	30	LYS	N-CA-C	-5.78	98.49	110.80
32	S1	154	A	O4'-C1'-N9	5.78	117.17	108.50
33	L1	1774	G	P-O3'-C3'	-5.78	111.53	120.20
5	SE	75	HIS	CB-CA-C	-5.78	100.86	110.68
27	SH	108	ALA	N-CA-C	5.78	119.14	111.75
32	S1	1650	G	O4'-C1'-N9	5.78	117.17	108.50
33	L1	907	A	C5'-C4'-O4'	5.78	118.47	109.80
33	L1	1534	C	C4'-C3'-C2'	-5.78	96.82	102.60
33	L1	2825	G	O4'-C1'-N9	5.78	117.17	108.50
66	LN	94	ILE	N-CA-C	5.78	116.51	110.62
6	SF	68	LEU	CA-C-O	-5.78	114.43	120.55
28	SN	27	SER	CB-CA-C	-5.78	101.20	110.79
32	S1	16	G	C4'-C3'-C2'	-5.78	96.82	102.60
32	S1	502	G	C5'-C4'-C3'	5.78	124.66	116.00
32	S1	1212	A	O4'-C1'-C2'	5.78	113.38	107.60
32	S1	1342	C	C3'-C2'-C1'	5.78	107.08	101.30
33	L1	1623	C	N1-C1'-C2'	5.78	122.66	114.00
33	L1	2761	A	O4'-C1'-C2'	5.78	111.58	105.80
45	LQ	75	VAL	CA-C-O	5.78	127.62	121.04
81	LD	194	ARG	CB-CA-C	5.78	117.75	109.26
1	Sa	285	GLN	N-CA-C	-5.77	99.92	108.99
32	S1	1351	U	C3'-C2'-C1'	5.77	107.07	101.30
33	L1	1462	C	N1-C1'-C2'	5.77	120.66	112.00
33	L1	1596	G	O4'-C1'-C2'	-5.77	101.83	107.60
37	LB	9	ARG	NE-CZ-NH2	5.77	124.40	119.20
45	LQ	249	ALA	CB-CA-C	5.77	121.91	110.42
10	SL	22	TRP	CA-CB-CG	5.77	124.57	113.60
17	SV	107	ASN	N-CA-C	-5.77	99.11	108.52
31	S2	48	C	O4'-C1'-C2'	-5.77	101.83	107.60
32	S1	1054	G	O4'-C1'-N9	5.77	117.16	108.50
32	S1	1642	C	O4'-C1'-N1	-5.77	99.84	108.50
33	L1	1064	U	C1'-C2'-O2'	5.77	117.06	108.40
33	L1	2278	G	C4'-C3'-C2'	5.77	108.37	102.60
33	L1	3228	C	N1-C1'-C2'	5.77	120.66	112.00
48	LV	67	VAL	CA-C-N	5.77	132.72	121.41
48	LV	67	VAL	C-N-CA	5.77	132.72	121.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
77	Lc	121	ALA	N-CA-C	5.77	117.57	111.28
5	SE	12	ARG	NE-CZ-NH2	5.77	124.39	119.20
32	S1	922	U	O4'-C1'-N1	5.77	117.16	108.50
33	L1	1273	U	C1'-O4'-C4'	-5.77	104.13	109.90
33	L1	1815	G	O4'-C1'-N9	5.77	117.16	108.50
58	Ln	48	PHE	N-CA-CB	5.77	120.24	110.49
80	LC	159	ILE	CA-C-N	5.77	128.83	120.98
80	LC	159	ILE	C-N-CA	5.77	128.83	120.98
80	LC	384	TYR	N-CA-C	5.77	120.18	113.20
2	SA	88	GLN	CB-CA-C	-5.77	98.94	110.42
3	SB	70	THR	CA-C-N	5.77	132.56	121.54
3	SB	70	THR	C-N-CA	5.77	132.56	121.54
23	SU	22	LEU	CB-CG-CD2	5.77	128.01	110.70
32	S1	445	A	N9-C1'-C2'	5.77	120.65	112.00
32	S1	1363	G	O4'-C1'-C2'	5.77	113.37	107.60
32	S1	1427	A	C4'-C3'-O3'	-5.77	104.34	113.00
33	L1	3166	C	P-O3'-C3'	5.77	128.85	120.20
33	L1	3174	C	O5'-C5'-C4'	5.77	119.45	110.80
35	L2	153	U	O4'-C1'-C2'	-5.77	101.83	107.60
42	LP	88	GLY	CA-C-O	-5.77	110.53	120.57
51	LY	83	ARG	CA-C-N	-5.77	115.80	122.95
51	LY	83	ARG	C-N-CA	-5.77	115.80	122.95
3	SB	166	GLU	CB-CG-CD	5.77	122.40	112.60
3	SB	214	LYS	CA-C-N	5.77	132.56	121.54
3	SB	214	LYS	C-N-CA	5.77	132.56	121.54
23	SU	78	PHE	N-CA-C	-5.77	99.97	108.79
27	SH	113	HIS	CA-C-O	-5.77	114.44	120.55
32	S1	316	A	C4'-C3'-O3'	5.77	118.05	109.40
32	S1	1040	G	O4'-C4'-C3'	-5.77	98.23	104.00
33	L1	1646	U	C4'-C3'-C2'	-5.77	96.83	102.60
33	L1	2099	G	N9-C1'-C2'	5.77	120.65	112.00
33	L1	2651	G	C5'-C4'-C3'	5.77	124.65	116.00
33	L1	2740	C	C2'-C3'-O3'	5.77	122.35	113.70
33	L1	3147	G	O3'-P-O5'	-5.77	95.35	104.00
37	LB	177	LYS	CA-C-N	5.77	126.25	120.14
37	LB	177	LYS	C-N-CA	5.77	126.25	120.14
55	Lg	18	ARG	N-CA-C	-5.77	100.29	109.23
71	Lj	65	ASP	CA-C-N	5.77	131.51	122.17
71	Lj	65	ASP	C-N-CA	5.77	131.51	122.17
33	L1	215	U	C1'-O4'-C4'	-5.77	104.13	109.90
47	LU	49	HIS	CE1-NE2-CD2	-5.77	103.23	109.00
48	LV	4	TYR	CA-C-N	5.77	132.55	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	LV	4	TYR	C-N-CA	5.77	132.55	121.54
53	Ld	47	ARG	N-CA-C	5.77	117.64	111.36
55	Lg	37	ALA	CA-C-O	5.77	123.64	118.33
80	LC	236	TRP	CH2-CZ2-CE2	5.77	125.00	117.50
5	SE	56	GLU	CB-CA-C	-5.76	97.73	110.99
27	SH	85	GLU	N-CA-C	-5.76	98.10	108.48
32	S1	1299	G	C1'-O4'-C4'	-5.76	104.14	109.90
33	L1	471	C	O3'-P-O5'	-5.76	95.35	104.00
33	L1	916	A	C3'-C2'-O2'	5.76	119.35	110.70
33	L1	2374	G	P-O3'-C3'	5.76	128.85	120.20
35	L2	152	C	P-O5'-C5'	5.76	129.54	120.90
60	Lr	83	HIS	CA-C-N	5.76	125.96	120.31
60	Lr	83	HIS	C-N-CA	5.76	125.96	120.31
68	LW	56	ALA	O-C-N	-5.76	116.19	123.05
72	Lk	95	SER	CA-C-N	5.76	128.63	121.71
72	Lk	95	SER	C-N-CA	5.76	128.63	121.71
33	L1	918	A	P-O5'-C5'	5.76	129.54	120.90
33	L1	1340	G	O4'-C1'-C2'	5.76	113.36	107.60
33	L1	1559	G	O5'-C5'-C4'	5.76	119.44	110.80
33	L1	3348	G	O4'-C1'-C2'	-5.76	101.84	107.60
2	SA	145	ASN	N-CA-C	5.76	117.65	110.91
9	SK	110	GLY	CA-C-N	5.76	130.34	120.72
9	SK	110	GLY	C-N-CA	5.76	130.34	120.72
31	S2	50	G	O3'-P-O5'	-5.76	95.36	104.00
33	L1	281	G	O4'-C1'-C2'	5.76	113.36	107.60
33	L1	440	U	O3'-P-O5'	-5.76	95.36	104.00
33	L1	819	A	O4'-C1'-N9	-5.76	99.56	108.20
33	L1	1672	G	C1'-C2'-O2'	5.76	117.04	108.40
33	L1	2870	U	C1'-C2'-O2'	5.76	117.04	108.40
33	L1	3142	C	C4'-C3'-C2'	-5.76	96.84	102.60
56	Lh	115	GLN	N-CA-CB	-5.76	101.65	110.12
32	S1	1614	C	C1'-O4'-C4'	-5.76	104.14	109.90
33	L1	376	A	P-O3'-C3'	-5.76	111.56	120.20
33	L1	2076	C	C4'-C3'-C2'	-5.76	96.84	102.60
33	L1	2754	G	C5'-C4'-O4'	5.76	118.44	109.80
37	LB	59	ALA	N-CA-C	-5.76	99.51	108.90
70	Li	45	PRO	CA-N-CD	-5.76	103.94	112.00
5	SE	155	ASN	CA-CB-CG	-5.76	106.84	112.60
32	S1	1000	A	O4'-C1'-N9	5.76	117.14	108.50
33	L1	2626	G	C4'-C3'-C2'	-5.76	96.84	102.60
33	L1	2798	G	C5'-C4'-O4'	5.76	117.74	109.10
2	SA	62	LEU	N-CA-C	-5.76	105.00	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1108	U	O4'-C4'-C3'	-5.76	98.24	104.00
32	S1	1736	C	P-O3'-C3'	-5.76	111.56	120.20
33	L1	676	G	C1'-O4'-C4'	-5.76	104.14	109.90
33	L1	1136	A	C3'-C2'-C1'	-5.76	95.54	101.30
33	L1	1254	A	O4'-C1'-C2'	-5.76	101.84	107.60
33	L1	1621	G	C4'-C3'-O3'	5.76	121.64	113.00
33	L1	1710	G	P-O3'-C3'	-5.76	111.57	120.20
33	L1	1741	G	O3'-P-O5'	5.76	112.64	104.00
33	L1	1766	U	O3'-P-O5'	-5.76	95.37	104.00
33	L1	2990	C	O4'-C1'-C2'	-5.76	101.84	107.60
34	L3	40	A	O3'-P-O5'	5.76	112.64	104.00
37	LB	28	ARG	CD-NE-CZ	-5.76	116.34	124.40
58	Ln	22	SER	CB-CA-C	-5.76	98.97	110.42
79	Ls	206	VAL	CB-CA-C	-5.76	104.60	111.97
23	SU	41	SER	CB-CA-C	-5.75	98.50	109.66
25	SC	49	TYR	CB-CG-CD1	5.75	129.43	120.80
33	L1	1571	A	P-O3'-C3'	5.75	128.83	120.20
34	L3	64	G	O4'-C1'-N9	5.75	117.13	108.50
35	L2	62	G	C1'-C2'-O2'	-5.75	103.17	111.80
35	L2	117	U	N1-C1'-C2'	5.75	120.63	112.00
64	LG	78	GLY	CA-C-N	-5.75	111.84	121.39
64	LG	78	GLY	C-N-CA	-5.75	111.84	121.39
81	LD	397	PHE	CA-C-N	5.75	127.92	120.44
81	LD	397	PHE	C-N-CA	5.75	127.92	120.44
3	SB	91	VAL	CB-CA-C	-5.75	101.85	111.29
33	L1	77	U	O4'-C1'-N1	5.75	117.13	108.50
33	L1	843	C	P-O5'-C5'	-5.75	112.27	120.90
33	L1	1350	G	C4'-C3'-C2'	-5.75	96.85	102.60
33	L1	1654	C	C2'-C3'-O3'	5.75	118.13	109.50
33	L1	1887	A	C3'-C2'-C1'	5.75	107.05	101.30
33	L1	3233	C	C1'-C2'-O2'	5.75	117.03	108.40
35	L2	119	C	P-O3'-C3'	5.75	128.83	120.20
39	LF	147	GLY	CA-C-N	5.75	130.42	120.58
39	LF	147	GLY	C-N-CA	5.75	130.42	120.58
45	LQ	252	THR	CA-C-N	5.75	127.99	120.28
45	LQ	252	THR	C-N-CA	5.75	127.99	120.28
8	SJ	111	THR	CA-C-N	5.75	127.92	120.44
8	SJ	111	THR	C-N-CA	5.75	127.92	120.44
32	S1	916	U	P-O5'-C5'	5.75	129.53	120.90
32	S1	1518	C	P-O3'-C3'	-5.75	111.57	120.20
32	S1	1698	A	C1'-O4'-C4'	5.75	115.65	109.90
33	L1	327	A	P-O5'-C5'	-5.75	112.27	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	439	A	C5'-C4'-C3'	-5.75	106.27	114.90
33	L1	808	G	O4'-C1'-N9	5.75	117.13	108.50
33	L1	1806	C	C1'-O4'-C4'	-5.75	104.15	109.90
33	L1	2614	U	C3'-C2'-C1'	5.75	107.05	101.30
33	L1	2627	G	O4'-C1'-C2'	5.75	113.35	107.60
37	LB	82	MET	O-C-N	-5.75	116.22	123.01
42	LP	3	ALA	CA-C-N	5.75	128.56	120.28
42	LP	3	ALA	C-N-CA	5.75	128.56	120.28
45	LQ	215	GLU	CA-C-O	5.75	128.04	120.16
49	LX	134	VAL	O-C-N	-5.75	114.57	122.62
66	LN	62	ILE	N-CA-C	-5.75	100.00	108.23
70	Li	6	THR	N-CA-C	5.75	117.22	111.07
71	Lj	1	MET	N-CA-C	5.75	127.10	111.00
13	SQ	118	GLU	CB-CA-C	-5.75	99.81	109.53
32	S1	1465	C	N1-C1'-C2'	-5.75	105.38	114.00
33	L1	1370	A	C4'-C3'-C2'	5.75	108.35	102.60
33	L1	2078	G	C4'-C3'-C2'	-5.75	96.85	102.60
33	L1	2466	G	O4'-C1'-N9	5.75	117.12	108.50
76	Lv	57	ALA	CA-C-N	-5.75	116.17	122.38
76	Lv	57	ALA	C-N-CA	-5.75	116.17	122.38
84	LI	111	LEU	CA-C-N	5.75	128.46	120.29
84	LI	111	LEU	C-N-CA	5.75	128.46	120.29
32	S1	1380	A	P-O5'-C5'	-5.75	112.28	120.90
32	S1	1397	A	C3'-C2'-C1'	5.75	107.05	101.30
33	L1	1271	U	C1'-C2'-O2'	5.75	117.02	108.40
33	L1	1602	A	P-O3'-C3'	5.75	128.82	120.20
33	L1	2185	U	C4'-C3'-C2'	-5.75	96.85	102.60
33	L1	2846	C	O4'-C1'-N1	-5.75	99.88	108.50
33	L1	2939	G	P-O3'-C3'	-5.75	111.58	120.20
33	L1	2973	A	C1'-O4'-C4'	5.75	115.45	109.70
33	L1	3351	A	O3'-P-O5'	-5.75	95.38	104.00
34	L3	63	U	C4'-C3'-C2'	-5.75	96.85	102.60
47	LU	112	ASN	OD1-CG-ND2	-5.75	116.85	122.60
58	Ln	69	VAL	N-CA-CB	5.75	121.27	111.50
64	LG	163	PHE	O-C-N	-5.75	116.11	122.09
15	SS	88	ASN	CA-CB-CG	-5.75	106.85	112.60
32	S1	1226	U	C3'-C2'-C1'	5.75	107.05	101.30
32	S1	1761	G	C3'-C2'-C1'	5.75	107.05	101.30
33	L1	511	C	P-O5'-C5'	-5.75	112.28	120.90
33	L1	1495	G	O4'-C4'-C3'	-5.75	98.25	104.00
33	L1	1677	G	P-O3'-C3'	5.75	128.82	120.20
33	L1	2207	C	O5'-C5'-C4'	5.75	120.12	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	L3	2	G	O4'-C1'-C2'	-5.75	101.85	107.60
48	LV	47	TYR	N-CA-C	5.75	117.22	111.07
48	LV	111	ASP	CB-CA-C	-5.75	101.25	110.79
68	LW	83	ARG	O-C-N	5.75	130.23	122.59
74	LJ	125	GLU	CA-C-N	5.75	128.45	120.29
74	LJ	125	GLU	C-N-CA	5.75	128.45	120.29
33	L1	667	C	O3'-P-O5'	-5.75	95.38	104.00
33	L1	1498	U	O4'-C4'-C3'	-5.75	98.25	104.00
33	L1	1693	A	C3'-C2'-C1'	5.75	107.05	101.30
33	L1	2732	U	P-O5'-C5'	-5.75	112.28	120.90
34	L3	116	U	C4'-C3'-O3'	5.75	121.62	113.00
44	LR	21	SER	N-CA-CB	5.75	119.73	110.65
44	LR	33	TYR	O-C-N	-5.75	116.03	122.12
59	Lo	43	HIS	ND1-CE1-NE2	5.75	114.14	108.40
80	LC	40	PRO	N-CA-C	5.75	124.31	112.47
19	SY	24	THR	N-CA-CB	5.74	120.20	110.49
32	S1	1711	G	O5'-C5'-C4'	5.74	119.42	110.80
32	S1	1722	C	N1-C1'-C2'	5.74	120.61	112.00
33	L1	450	C	O4'-C4'-C3'	-5.74	98.26	104.00
33	L1	506	U	C2'-C3'-O3'	5.74	122.31	113.70
38	LE	65	GLU	CB-CG-CD	-5.74	102.83	112.60
1	Sa	255	VAL	N-CA-CB	5.74	120.70	111.23
32	S1	834	A	O4'-C1'-C2'	5.74	113.34	107.60
33	L1	1781	C	O4'-C1'-N1	5.74	117.11	108.50
33	L1	2392	G	O5'-C5'-C4'	-5.74	103.09	111.70
46	LT	147	ALA	O-C-N	-5.74	115.60	122.15
47	LU	56	PHE	N-CA-C	-5.74	105.02	111.28
13	SQ	97	ARG	N-CA-C	5.74	123.03	110.80
32	S1	311	G	N9-C1'-C2'	5.74	120.61	112.00
32	S1	1380	A	N9-C1'-C2'	-5.74	103.39	112.00
32	S1	1559	U	O4'-C1'-N1	5.74	117.11	108.50
33	L1	540	G	O5'-C5'-C4'	5.74	120.11	111.50
33	L1	1095	C	C4'-C3'-C2'	-5.74	96.86	102.60
33	L1	1433	U	C4'-C3'-O3'	-5.74	104.39	113.00
33	L1	3323	U	P-O3'-C3'	-5.74	111.59	120.20
4	SD	212	ASP	O-C-N	5.74	129.37	122.94
32	S1	572	G	C3'-C2'-C1'	-5.74	95.56	101.30
33	L1	348	C	C2'-C3'-O3'	5.74	118.11	109.50
33	L1	522	C	C5'-C4'-C3'	-5.74	107.39	116.00
47	LU	33	THR	N-CA-C	-5.74	100.33	109.23
64	LG	44	ALA	N-CA-C	5.74	123.02	110.80
81	LD	369	GLU	CA-C-N	5.74	128.44	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	LD	369	GLU	C-N-CA	5.74	128.44	120.29
31	S2	3	C	O4'-C1'-C2'	-5.74	101.86	107.60
32	S1	53	G	O4'-C1'-C2'	-5.74	101.86	107.60
33	L1	37	U	N1-C1'-C2'	5.74	120.61	112.00
33	L1	1948	G	C4'-C3'-C2'	-5.74	96.86	102.60
33	L1	2760	U	O4'-C1'-C2'	-5.74	101.86	107.60
33	L1	3230	G	O4'-C1'-N9	5.74	117.11	108.50
35	L2	39	C	P-O5'-C5'	5.74	129.51	120.90
35	L2	64	U	C1'-O4'-C4'	-5.74	103.96	109.70
51	LY	94	VAL	O-C-N	-5.74	117.01	123.03
13	SQ	84	PHE	CA-C-N	5.74	132.74	122.13
13	SQ	84	PHE	C-N-CA	5.74	132.74	122.13
32	S1	344	U	O4'-C1'-C2'	-5.74	101.86	107.60
32	S1	422	G	C1'-O4'-C4'	-5.74	104.17	109.90
32	S1	1036	U	N1-C1'-C2'	5.74	122.60	114.00
33	L1	218	G	C3'-C2'-O2'	-5.74	106.00	114.60
33	L1	306	A	C3'-C2'-C1'	-5.74	95.56	101.30
33	L1	1281	C	C1'-O4'-C4'	5.74	115.64	109.90
33	L1	1368	U	O4'-C1'-N1	-5.74	99.90	108.50
33	L1	1438	A	O4'-C1'-C2'	5.74	113.33	107.60
33	L1	2347	A	C4'-C3'-O3'	-5.74	104.40	113.00
33	L1	2655	U	O4'-C4'-C3'	5.74	109.73	104.00
33	L1	3306	A	P-O5'-C5'	-5.74	112.30	120.90
45	LQ	275	GLU	N-CA-C	5.74	117.53	111.28
81	LD	359	LEU	CA-C-N	-5.74	112.59	120.28
81	LD	359	LEU	C-N-CA	-5.74	112.59	120.28
82	LK	19	HIS	CE1-NE2-CD2	-5.74	103.26	109.00
14	SP	105	HIS	O-C-N	-5.73	116.21	122.92
32	S1	1486	U	O4'-C1'-C2'	-5.73	101.87	107.60
33	L1	454	A	N9-C1'-C2'	5.73	120.60	112.00
33	L1	566	G	O4'-C1'-N9	-5.73	99.90	108.50
39	LF	75	HIS	CB-CG-CD2	-5.73	123.75	131.20
48	LV	161	GLU	N-CA-C	5.73	122.48	109.81
9	SK	54	ARG	N-CA-CB	5.73	120.18	110.49
32	S1	296	A	C3'-C2'-C1'	5.73	107.03	101.30
32	S1	1106	G	O4'-C1'-C2'	-5.73	101.87	107.60
32	S1	1262	U	C3'-C2'-C1'	5.73	107.03	101.30
32	S1	1508	C	C5'-C4'-C3'	5.73	124.60	116.00
33	L1	1189	G	O4'-C1'-N9	5.73	117.10	108.50
33	L1	3087	A	O3'-P-O5'	5.73	112.60	104.00
35	L2	54	C	C3'-C2'-C1'	5.73	107.03	101.30
42	LP	56	LYS	N-CA-C	-5.73	98.59	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	LU	90	HIS	CE1-NE2-CD2	-5.73	103.27	109.00
48	LV	37	ARG	CA-C-N	5.73	132.49	121.54
48	LV	37	ARG	C-N-CA	5.73	132.49	121.54
54	Lf	33	THR	CB-CA-C	5.73	122.08	110.38
2	SA	163	ILE	O-C-N	-5.73	115.37	122.88
32	S1	971	A	O4'-C1'-C2'	-5.73	101.87	107.60
32	S1	1745	U	C1'-O4'-C4'	5.73	115.63	109.90
33	L1	303	U	C4'-C3'-C2'	-5.73	96.87	102.60
33	L1	2822	A	P-O3'-C3'	-5.73	111.61	120.20
33	L1	2866	A	O4'-C1'-C2'	5.73	113.33	107.60
33	L1	3237	G	C2'-C3'-O3'	5.73	122.30	113.70
33	L1	3303	C	O4'-C1'-C2'	5.73	113.33	107.60
51	LY	22	PRO	CA-C-N	5.73	128.22	120.65
51	LY	22	PRO	C-N-CA	5.73	128.22	120.65
57	Ll	10	LYS	N-CA-CB	5.73	120.17	110.49
82	LK	73	HIS	N-CA-C	5.73	120.08	113.38
2	SA	17	GLN	N-CA-CB	5.73	119.77	110.32
5	SE	77	ILE	CA-C-N	5.73	132.28	121.97
5	SE	77	ILE	C-N-CA	5.73	132.28	121.97
32	S1	1138	A	O4'-C4'-C3'	-5.73	98.27	104.00
33	L1	1093	U	O4'-C1'-N1	5.73	117.09	108.50
33	L1	2081	C	N1-C1'-C2'	5.73	120.59	112.00
33	L1	2456	G	C1'-O4'-C4'	-5.73	104.17	109.90
33	L1	2858	G	C1'-C2'-O2'	5.73	116.99	108.40
42	LP	20	ARG	NE-CZ-NH1	5.73	127.23	121.50
1	Sa	146	ASN	N-CA-C	5.73	117.98	111.11
1	Sa	149	VAL	CA-C-O	5.73	127.94	120.78
13	SQ	23	ARG	NE-CZ-NH1	-5.73	115.77	121.50
31	S2	33	U	O4'-C4'-C3'	-5.73	98.27	104.00
32	S1	468	A	O4'-C1'-C2'	-5.73	101.87	107.60
33	L1	721	A	P-O3'-C3'	5.73	128.79	120.20
33	L1	2090	G	C4'-C3'-C2'	-5.73	96.87	102.60
33	L1	2875	U	N1-C1'-C2'	-5.73	103.41	112.00
34	L3	2	G	C2'-C3'-O3'	-5.73	105.11	113.70
56	Lh	49	GLY	N-CA-C	-5.73	107.47	114.92
79	Ls	57	GLY	N-CA-C	-5.73	102.89	111.19
84	LI	100	ASN	CA-CB-CG	-5.73	106.87	112.60
3	SB	198	LEU	N-CA-C	5.73	118.78	110.42
33	L1	1343	C	C1'-C2'-O2'	5.73	116.99	108.40
33	L1	3051	U	C1'-O4'-C4'	-5.73	104.17	109.90
35	L2	140	G	O4'-C1'-C2'	5.73	113.33	107.60
44	LR	116	ALA	N-CA-C	-5.73	106.22	113.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	SJ	59	VAL	CA-CB-CG1	5.72	120.13	110.40
20	SZ	5	HIS	CA-CB-CG	5.72	119.52	113.80
32	S1	657	C	O4'-C1'-C2'	-5.72	101.88	107.60
32	S1	922	U	O4'-C1'-C2'	-5.72	101.88	107.60
32	S1	1247	G	C1'-O4'-C4'	-5.72	104.18	109.90
32	S1	1355	U	N1-C1'-C2'	-5.72	103.41	112.00
32	S1	1759	A	P-O3'-C3'	5.72	128.79	120.20
33	L1	1320	G	C1'-O4'-C4'	-5.72	104.18	109.90
33	L1	1696	G	C5'-C4'-C3'	5.72	124.59	116.00
33	L1	2664	G	C1'-C2'-O2'	5.72	116.99	108.40
33	L1	2868	C	O4'-C1'-N1	5.72	116.79	108.20
35	L2	119	C	C4'-C3'-C2'	-5.72	96.88	102.60
57	L1	20	VAL	N-CA-C	-5.72	105.27	110.82
57	L1	52	LYS	O-C-N	-5.72	115.95	122.08
58	Ln	9	LYS	CA-C-O	5.72	126.59	120.24
79	Ls	147	PRO	CB-CA-C	5.72	118.82	111.21
23	SU	23	LEU	CA-C-N	-5.72	110.61	121.54
23	SU	23	LEU	C-N-CA	-5.72	110.61	121.54
32	S1	1784	G	N9-C1'-C2'	5.72	120.58	112.00
33	L1	249	A	O5'-C5'-C4'	5.72	120.08	111.50
33	L1	406	A	O4'-C1'-C2'	-5.72	101.88	107.60
33	L1	2052	G	C4'-C3'-O3'	-5.72	104.42	113.00
53	Ld	49	HIS	CE1-NE2-CD2	-5.72	103.28	109.00
79	Ls	94	THR	CA-C-N	5.72	130.41	120.68
79	Ls	94	THR	C-N-CA	5.72	130.41	120.68
15	SS	104	ARG	NE-CZ-NH2	-5.72	114.05	119.20
32	S1	1069	G	O4'-C4'-C3'	-5.72	98.28	104.00
33	L1	1615	G	C3'-C2'-O2'	5.72	119.28	110.70
33	L1	2587	G	O4'-C1'-C2'	5.72	113.32	107.60
39	LF	180	VAL	CA-CB-CG2	-5.72	100.67	110.40
68	LW	52	ALA	CA-C-N	-5.72	114.25	120.71
68	LW	52	ALA	C-N-CA	-5.72	114.25	120.71
72	Lk	41	HIS	CA-C-N	5.72	132.47	121.54
72	Lk	41	HIS	C-N-CA	5.72	132.47	121.54
79	Ls	244	PHE	CA-C-N	5.72	127.95	120.28
79	Ls	244	PHE	C-N-CA	5.72	127.95	120.28
1	Sa	256	LYS	O-C-N	-5.72	116.38	123.36
9	SK	47	SER	O-C-N	-5.72	117.25	123.26
23	SU	26	LYS	CB-CA-C	-5.72	101.33	110.14
33	L1	3233	C	C2'-C3'-O3'	5.72	122.28	113.70
36	LA	41	ASP	N-CA-C	-5.72	99.60	109.15
36	LA	199	ASN	CA-C-N	-5.72	115.64	122.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	LA	199	ASN	C-N-CA	-5.72	115.64	122.22
41	LM	81	ILE	O-C-N	-5.72	116.42	122.83
48	LV	167	ALA	CA-C-N	5.72	132.46	121.54
48	LV	167	ALA	C-N-CA	5.72	132.46	121.54
54	Lf	28	THR	O-C-N	-5.72	116.41	123.33
80	LC	320	VAL	N-CA-C	-5.72	100.16	108.17
29	ST	29	HIS	CA-CB-CG	-5.72	108.08	113.80
33	L1	177	C	C4'-C3'-O3'	-5.72	104.42	113.00
33	L1	494	C	N1-C1'-C2'	5.72	120.58	112.00
33	L1	912	G	C5'-C4'-C3'	-5.72	107.42	116.00
34	L3	104	C	N1-C1'-C2'	5.72	120.58	112.00
32	S1	1298	G	P-O3'-C3'	-5.72	111.63	120.20
32	S1	1676	G	C3'-C2'-C1'	-5.72	95.58	101.30
32	S1	1784	G	C1'-O4'-C4'	-5.72	104.18	109.90
33	L1	603	G	O4'-C1'-N9	5.72	117.08	108.50
47	LU	130	ARG	CB-CA-C	-5.72	101.30	110.79
15	SS	62	SER	CA-CB-OG	5.71	122.53	111.10
25	SC	113	THR	CA-CB-OG1	5.71	118.17	109.60
32	S1	405	A	P-O5'-C5'	-5.71	112.33	120.90
32	S1	1111	C	O4'-C1'-N1	5.71	117.07	108.50
33	L1	267	G	C1'-C2'-O2'	-5.71	103.23	111.80
33	L1	406	A	C4'-C3'-C2'	-5.71	96.89	102.60
33	L1	2165	A	C3'-C2'-C1'	-5.71	95.59	101.30
33	L1	2491	A	C5'-C4'-C3'	5.71	124.57	116.00
33	L1	2841	G	C1'-C2'-O2'	5.71	116.97	108.40
33	L1	3343	U	C5'-C4'-O4'	-5.71	101.23	109.80
55	Lg	8	ALA	CA-C-N	5.71	131.99	121.70
55	Lg	8	ALA	C-N-CA	5.71	131.99	121.70
32	S1	563	C	C3'-C2'-C1'	5.71	107.01	101.30
32	S1	996	G	C3'-C2'-O2'	-5.71	102.13	110.70
33	L1	712	A	P-O5'-C5'	5.71	129.47	120.90
33	L1	1768	U	C4'-C3'-C2'	-5.71	96.89	102.60
33	L1	2489	A	O4'-C1'-C2'	-5.71	100.09	105.80
2	SA	209	ARG	N-CA-C	5.71	122.96	110.80
9	SK	91	ALA	O-C-N	5.71	127.97	122.03
25	SC	25	ARG	CD-NE-CZ	-5.71	116.41	124.40
31	S2	58	U	C3'-C2'-C1'	5.71	107.01	101.30
32	S1	1254	U	P-O3'-C3'	5.71	128.77	120.20
32	S1	1482	U	O4'-C1'-C2'	-5.71	101.89	107.60
33	L1	241	G	N9-C1'-C2'	5.71	120.57	112.00
33	L1	2087	A	O3'-P-O5'	5.71	112.57	104.00
33	L1	3170	C	C4'-C3'-C2'	-5.71	96.89	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	SJ	94	HIS	N-CA-C	-5.71	98.58	108.69
33	L1	58	G	O3'-P-O5'	-5.71	95.44	104.00
33	L1	1024	G	O4'-C1'-N9	5.71	117.06	108.50
33	L1	1599	A	O4'-C1'-N9	-5.71	99.94	108.50
33	L1	3231	G	C1'-O4'-C4'	-5.71	104.19	109.90
46	LT	33	SER	CA-C-N	5.71	128.40	120.29
46	LT	33	SER	C-N-CA	5.71	128.40	120.29
77	Lc	97	SER	CA-C-N	5.71	126.98	119.84
77	Lc	97	SER	C-N-CA	5.71	126.98	119.84
19	SY	23	VAL	CA-C-O	-5.71	114.32	121.11
32	S1	419	C	C3'-C2'-C1'	5.71	107.01	101.30
32	S1	1743	C	C5'-C4'-C3'	5.71	124.56	116.00
33	L1	1792	G	N9-C1'-C2'	5.71	120.56	112.00
33	L1	2030	U	O4'-C1'-N1	5.71	117.06	108.50
33	L1	2175	A	C5'-C4'-C3'	5.71	124.56	116.00
64	LG	152	LYS	O-C-N	-5.71	115.64	122.15
2	SA	231	ALA	N-CA-C	5.71	117.96	111.11
4	SD	149	TYR	N-CA-C	5.71	122.42	109.81
33	L1	605	A	O4'-C4'-C3'	5.71	109.71	104.00
33	L1	1062	G	O4'-C1'-C2'	-5.71	101.89	107.60
33	L1	1473	U	N1-C1'-C2'	5.71	120.56	112.00
33	L1	1710	G	N9-C1'-C2'	5.71	120.56	112.00
33	L1	1752	C	P-O3'-C3'	5.71	128.76	120.20
33	L1	2350	C	N1-C1'-C2'	5.71	120.56	112.00
33	L1	2734	C	N1-C1'-C2'	5.71	120.56	112.00
33	L1	3144	U	C2'-C3'-O3'	5.71	118.06	109.50
46	LT	11	ALA	CA-C-O	5.71	126.60	120.55
81	LD	316	ARG	CD-NE-CZ	-5.71	116.41	124.40
25	SC	170	PRO	CA-C-N	5.70	126.97	119.84
25	SC	170	PRO	C-N-CA	5.70	126.97	119.84
32	S1	879	C	O4'-C1'-C2'	-5.70	101.90	107.60
33	L1	1508	C	C4'-C3'-O3'	-5.70	104.44	113.00
33	L1	1510	G	C3'-C2'-C1'	-5.70	95.80	101.50
33	L1	1598	U	C3'-C2'-C1'	5.70	107.00	101.30
33	L1	1935	G	N9-C1'-C2'	5.70	120.56	112.00
33	L1	2933	C	O5'-C5'-C4'	-5.70	102.94	111.50
33	L1	3034	A	C3'-C2'-C1'	-5.70	95.60	101.30
33	L1	3357	C	C4'-C3'-C2'	-5.70	96.90	102.60
66	LN	81	LYS	CA-C-N	5.70	128.24	120.54
66	LN	81	LYS	C-N-CA	5.70	128.24	120.54
73	Lp	21	ARG	CB-CG-CD	5.70	124.42	111.30
31	S2	10	G	C4'-C3'-C2'	5.70	108.30	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	642	C	O4'-C1'-N1	5.70	117.05	108.50
79	Ls	77	GLU	CB-CG-CD	-5.70	102.91	112.60
32	S1	1752	U	O4'-C1'-C2'	-5.70	101.90	107.60
33	L1	1409	G	P-O3'-C3'	5.70	128.75	120.20
33	L1	2814	C	C3'-C2'-C1'	5.70	107.00	101.30
35	L2	9	U	O4'-C1'-N1	5.70	117.05	108.50
37	LB	182	ALA	N-CA-CB	5.70	118.50	110.12
49	LX	69	GLN	N-CA-CB	5.70	120.17	110.71
78	Le	165	LEU	CA-C-O	5.70	126.23	119.56
83	Lm	45	PHE	CA-CB-CG	-5.70	108.10	113.80
1	Sa	52	ASN	OD1-CG-ND2	5.70	128.30	122.60
1	Sa	53	PRO	CB-CA-C	5.70	118.44	110.98
16	SR	95	VAL	N-CA-C	5.70	113.70	107.60
32	S1	955	C	O4'-C4'-C3'	-5.70	98.30	104.00
33	L1	1060	U	C2'-C3'-O3'	5.70	122.25	113.70
33	L1	1146	A	P-O5'-C5'	-5.70	112.35	120.90
34	L3	102	G	C1'-O4'-C4'	5.70	115.60	109.90
43	LO	25	HIS	CE1-NE2-CD2	-5.70	103.30	109.00
48	LV	13	LYS	O-C-N	-5.70	114.69	122.33
67	LS	110	THR	N-CA-CB	5.70	118.27	110.01
3	SB	66	ILE	CB-CA-C	-5.70	103.03	112.26
13	SQ	123	VAL	N-CA-CB	5.70	120.63	111.23
17	SV	28	TRP	O-C-N	-5.70	115.01	122.59
33	L1	548	G	N9-C1'-C2'	5.70	120.55	112.00
33	L1	637	C	C1'-C2'-O2'	5.70	116.95	108.40
33	L1	1639	U	O3'-P-O5'	-5.70	95.45	104.00
38	LE	127	MET	N-CA-CB	-5.70	100.86	110.49
42	LP	180	THR	CA-CB-OG1	-5.70	101.06	109.60
45	LQ	145	LEU	CA-C-O	-5.70	114.11	120.66
8	SJ	63	VAL	CA-C-N	5.70	128.85	120.82
8	SJ	63	VAL	C-N-CA	5.70	128.85	120.82
11	SM	53	ASN	CB-CG-ND2	5.70	124.94	116.40
15	SS	103	SER	CA-C-O	5.70	126.46	120.42
32	S1	104	A	O3'-P-O5'	5.70	112.54	104.00
32	S1	143	A	C2'-C3'-O3'	5.70	118.04	109.50
32	S1	301	U	P-O5'-C5'	5.70	129.44	120.90
32	S1	767	G	O3'-P-O5'	-5.70	95.46	104.00
32	S1	902	C	C1'-C2'-O2'	-5.70	103.26	111.80
32	S1	1689	A	C5'-C4'-C3'	5.70	124.54	116.00
33	L1	1749	G	O5'-C5'-C4'	5.70	120.04	111.50
33	L1	3088	A	C5'-C4'-C3'	5.70	124.54	116.00
33	L1	3093	C	C3'-C2'-C1'	5.70	107.00	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3388	U	O4'-C1'-N1	5.70	117.04	108.50
40	LH	85	ALA	CA-C-N	5.70	132.42	121.54
40	LH	85	ALA	C-N-CA	5.70	132.42	121.54
46	LT	18	GLY	O-C-N	-5.70	116.17	122.60
54	Lf	84	ALA	N-CA-C	5.70	117.29	111.14
64	LG	58	PRO	N-CD-CG	5.70	111.74	103.20
29	ST	26	ALA	CA-C-N	5.69	127.91	120.28
29	ST	26	ALA	C-N-CA	5.69	127.91	120.28
33	L1	1626	U	N1-C1'-C2'	5.69	120.54	112.00
74	LJ	13	VAL	CA-C-N	5.69	128.92	120.95
74	LJ	13	VAL	C-N-CA	5.69	128.92	120.95
3	SB	23	GLU	CB-CG-CD	5.69	122.28	112.60
9	SK	43	VAL	O-C-N	-5.69	117.20	123.18
23	SU	8	PRO	CB-CA-C	5.69	120.95	111.56
25	SC	16	LYS	N-CA-C	5.69	122.39	109.81
32	S1	1690	U	O4'-C1'-C2'	-5.69	101.91	107.60
33	L1	327	A	O5'-C5'-C4'	5.69	120.24	111.70
33	L1	1304	G	C1'-O4'-C4'	-5.69	104.21	109.90
33	L1	1931	G	O4'-C1'-N9	5.69	117.04	108.50
33	L1	2506	G	O4'-C1'-N9	5.69	117.04	108.50
33	L1	2602	U	O4'-C1'-N1	5.69	117.04	108.50
33	L1	3170	C	C1'-C2'-O2'	5.69	116.94	108.40
35	L2	96	A	N9-C1'-C2'	5.69	120.54	112.00
42	LP	55	ALA	N-CA-C	-5.69	100.01	109.46
80	LC	10	ARG	CA-C-N	5.69	129.19	121.05
80	LC	10	ARG	C-N-CA	5.69	129.19	121.05
14	SP	96	LYS	CA-C-N	5.69	130.94	122.74
14	SP	96	LYS	C-N-CA	5.69	130.94	122.74
25	SC	72	ILE	N-CA-CB	5.69	117.21	110.55
32	S1	1561	G	C3'-C2'-C1'	5.69	106.99	101.30
33	L1	468	U	C4'-C3'-C2'	-5.69	96.91	102.60
33	L1	826	C	C1'-C2'-O2'	5.69	116.94	108.40
33	L1	1624	G	O4'-C4'-C3'	-5.69	98.31	104.00
33	L1	1957	G	C5'-C4'-C3'	5.69	124.53	116.00
33	L1	2641	A	N9-C1'-C2'	5.69	120.53	112.00
45	LQ	250	ASP	CA-C-N	5.69	125.05	118.85
45	LQ	250	ASP	C-N-CA	5.69	125.05	118.85
45	LQ	253	MET	N-CA-CB	5.69	118.48	110.12
60	Lr	68	ILE	O-C-N	-5.69	116.76	122.62
2	SA	162	ASP	CB-CA-C	5.69	120.25	110.86
15	SS	94	HIS	N-CA-CB	5.69	120.10	110.49
24	SX	68	PRO	CA-C-N	5.69	132.41	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	SX	68	PRO	C-N-CA	5.69	132.41	121.54
32	S1	396	G	C1'-O4'-C4'	-5.69	104.21	109.90
32	S1	873	G	O4'-C1'-N9	5.69	117.03	108.50
32	S1	934	A	C1'-C2'-O2'	5.69	116.93	108.40
33	L1	688	G	N9-C1'-C2'	5.69	120.53	112.00
7	SI	103	VAL	N-CA-C	5.69	116.42	110.62
13	SQ	33	LYS	CA-C-N	-5.69	110.97	120.30
13	SQ	33	LYS	C-N-CA	-5.69	110.97	120.30
20	SZ	18	THR	CA-C-O	-5.69	112.37	120.16
32	S1	1054	G	C3'-C2'-O2'	5.69	119.23	110.70
33	L1	2073	U	N1-C1'-C2'	5.69	120.53	112.00
33	L1	2233	G	O5'-C5'-C4'	5.69	120.03	111.50
33	L1	2729	C	C5'-C4'-O4'	5.69	117.63	109.10
33	L1	2770	U	O4'-C1'-C2'	-5.69	101.91	107.60
38	LE	115	GLY	CA-C-O	5.69	126.95	121.49
39	LF	75	HIS	CA-CB-CG	5.69	119.49	113.80
74	LJ	124	LYS	CG-CD-CE	5.69	124.38	111.30
77	Lc	67	ARG	CD-NE-CZ	-5.69	116.44	124.40
32	S1	205	U	P-O5'-C5'	5.69	129.43	120.90
33	L1	293	A	O4'-C1'-C2'	5.69	113.29	107.60
33	L1	330	C	O4'-C1'-N1	5.69	117.03	108.50
33	L1	2227	A	C1'-O4'-C4'	-5.69	104.21	109.90
33	L1	3332	G	N9-C1'-C2'	5.69	120.53	112.00
69	La	22	LYS	N-CA-C	-5.69	98.82	108.26
76	Lw	57	ALA	CA-C-N	-5.69	116.24	122.38
76	Lw	57	ALA	C-N-CA	-5.69	116.24	122.38
80	LC	272	GLN	CA-C-O	5.69	127.58	121.55
3	SB	127	MET	N-CA-C	5.68	118.25	111.71
32	S1	631	C	O4'-C1'-N1	5.68	117.03	108.50
33	L1	1442	U	C1'-O4'-C4'	-5.68	104.22	109.90
33	L1	3319	G	C1'-C2'-O2'	5.68	116.93	108.40
56	Lh	64	THR	CA-CB-OG1	5.68	118.13	109.60
72	Lk	42	PHE	CB-CG-CD1	5.68	130.36	120.70
8	SJ	91	MET	N-CA-CB	5.68	120.23	110.68
25	SC	135	HIS	ND1-CE1-NE2	5.68	114.08	108.40
32	S1	476	U	N1-C1'-C2'	-5.68	103.48	112.00
32	S1	1644	C	P-O3'-C3'	-5.68	111.68	120.20
32	S1	1700	G	O3'-P-O5'	-5.68	95.48	104.00
33	L1	789	A	C4'-C3'-C2'	-5.68	96.92	102.60
33	L1	1236	C	C1'-C2'-O2'	5.68	116.92	108.40
39	LF	41	LEU	N-CA-C	5.68	118.43	109.96
80	LC	259	HIS	CB-CG-ND1	5.68	131.22	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	LK	55	GLN	CA-C-N	5.68	127.90	120.28
82	LK	55	GLN	C-N-CA	5.68	127.90	120.28
77	Lc	83	ASP	CA-CB-CG	-5.68	106.92	112.60
79	Ls	222	VAL	N-CA-CB	5.68	118.27	110.54
20	SZ	1	MET	CA-C-N	5.68	130.90	120.79
20	SZ	1	MET	C-N-CA	5.68	130.90	120.79
33	L1	71	C	C2'-C3'-O3'	5.68	118.02	109.50
33	L1	1419	G	N9-C1'-C2'	5.68	120.52	112.00
33	L1	2484	G	O5'-C5'-C4'	5.68	120.02	111.50
33	L1	3061	C	O4'-C1'-C2'	-5.68	101.92	107.60
48	LV	153	GLU	N-CA-CB	5.68	120.66	110.32
51	LY	89	VAL	O-C-N	-5.68	116.36	121.87
68	LW	86	LYS	CA-C-N	5.68	128.16	120.44
68	LW	86	LYS	C-N-CA	5.68	128.16	120.44
74	LJ	34	PRO	N-CA-CB	5.68	108.09	103.32
17	SV	14	LYS	N-CA-C	-5.68	97.26	109.81
32	S1	1614	C	C5'-C4'-O4'	5.68	118.32	109.80
33	L1	2739	A	C5'-C4'-O4'	-5.68	101.28	109.80
33	L1	2747	U	C4'-C3'-C2'	-5.68	96.92	102.60
47	LU	49	HIS	N-CA-CB	-5.68	102.34	110.80
33	L1	628	C	C3'-C2'-C1'	5.68	106.98	101.30
33	L1	1171	U	P-O3'-C3'	-5.68	111.69	120.20
33	L1	1553	C	C3'-C2'-C1'	5.68	106.98	101.30
33	L1	1948	G	O3'-P-O5'	5.68	112.52	104.00
56	Lh	72	PHE	CA-CB-CG	-5.68	108.12	113.80
10	SL	34	ASN	CA-C-N	5.67	132.38	121.54
10	SL	34	ASN	C-N-CA	5.67	132.38	121.54
32	S1	552	G	P-O5'-C5'	5.67	129.41	120.90
33	L1	364	A	C1'-O4'-C4'	-5.67	104.23	109.90
33	L1	408	U	O4'-C1'-N1	5.67	117.01	108.50
33	L1	707	G	C3'-C2'-C1'	5.67	106.97	101.30
33	L1	3149	C	P-O3'-C3'	-5.67	111.69	120.20
33	L1	3379	C	O4'-C1'-N1	5.67	117.01	108.50
35	L2	135	G	N9-C1'-C2'	5.67	120.51	112.00
54	Lf	49	ALA	CA-C-O	5.67	126.20	119.56
57	L1	64	MET	N-CA-C	-5.67	102.24	111.04
23	SU	22	LEU	O-C-N	5.67	129.63	122.37
32	S1	624	A	O3'-P-O5'	-5.67	95.49	104.00
33	L1	44	A	P-O3'-C3'	5.67	128.71	120.20
33	L1	1567	G	C3'-C2'-C1'	-5.67	95.63	101.30
80	LC	315	PHE	CA-C-O	-5.67	113.87	119.49
33	L1	92	C	O4'-C1'-C2'	-5.67	100.13	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	L2	58	A	O4'-C1'-C2'	-5.67	101.93	107.60
51	LY	61	SER	N-CA-C	-5.67	105.24	111.82
3	SB	19	ALA	N-CA-C	5.67	117.26	111.14
32	S1	1765	A	C1'-C2'-O2'	5.67	120.31	111.80
53	Ld	53	SER	CA-C-N	5.67	127.42	120.22
53	Ld	53	SER	C-N-CA	5.67	127.42	120.22
72	Lk	64	LEU	CA-C-N	5.67	132.37	121.54
72	Lk	64	LEU	C-N-CA	5.67	132.37	121.54
81	LD	64	HIS	CB-CA-C	-5.67	101.21	110.85
3	SB	187	LYS	CA-C-O	-5.67	114.48	121.11
9	SK	37	ASN	CB-CG-ND2	-5.67	107.90	116.40
25	SC	109	ARG	NE-CZ-NH2	-5.67	114.10	119.20
32	S1	348	A	O4'-C1'-N9	5.67	117.00	108.50
32	S1	557	G	C1'-O4'-C4'	-5.67	104.23	109.90
33	L1	204	G	N9-C1'-C2'	-5.67	103.50	112.00
33	L1	735	C	C3'-C2'-C1'	5.67	106.97	101.30
33	L1	1119	G	C1'-C2'-O2'	5.67	120.30	111.80
33	L1	1899	U	O3'-P-O5'	5.67	112.50	104.00
33	L1	2724	A	O4'-C1'-N9	-5.67	100.00	108.50
66	LN	99	ARG	N-CA-CB	5.67	118.23	110.01
3	SB	34	TYR	CB-CG-CD2	5.67	129.30	120.80
11	SM	102	ALA	CA-C-O	5.67	126.56	120.55
13	SQ	44	LYS	N-CA-C	5.67	117.26	111.14
32	S1	306	U	O4'-C1'-C2'	-5.67	101.93	107.60
32	S1	646	G	O4'-C1'-C2'	-5.67	100.13	105.80
32	S1	1443	U	C4'-C3'-C2'	-5.67	96.93	102.60
32	S1	1591	A	O4'-C1'-C2'	-5.67	101.93	107.60
33	L1	581	G	C5'-C4'-C3'	5.67	124.50	116.00
33	L1	1154	U	C3'-C2'-C1'	5.67	106.97	101.30
33	L1	1178	C	N1-C1'-C2'	5.67	120.50	112.00
33	L1	1372	U	O4'-C1'-N1	5.67	117.00	108.50
33	L1	2630	A	O4'-C1'-C2'	5.67	111.47	105.80
35	L2	45	A	O3'-P-O5'	5.67	112.50	104.00
46	LT	143	HIS	ND1-CE1-NE2	5.67	114.07	108.40
64	LG	55	ASP	CB-CA-C	-5.67	101.38	110.79
1	Sa	265	GLY	N-CA-C	-5.67	100.63	110.71
11	SM	8	GLU	N-CA-C	-5.67	98.73	110.80
32	S1	573	C	P-O5'-C5'	5.67	129.40	120.90
32	S1	916	U	N1-C1'-C2'	-5.67	103.50	112.00
33	L1	582	C	C1'-C2'-O2'	5.67	116.90	108.40
33	L1	938	U	O4'-C1'-N1	5.67	117.00	108.50
33	L1	1543	A	O4'-C1'-C2'	-5.67	101.94	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	LQ	264	HIS	CE1-NE2-CD2	-5.67	103.33	109.00
68	LW	34	LYS	CB-CA-C	-5.67	99.15	110.42
33	L1	119	A	C5'-C4'-C3'	5.66	123.40	114.90
33	L1	2162	C	C5'-C4'-C3'	5.66	124.49	116.00
42	LP	130	PHE	CA-CB-CG	-5.66	108.14	113.80
44	LR	3	ILE	N-CA-C	-5.66	107.31	111.90
48	LV	158	VAL	CA-C-O	-5.66	115.17	121.17
32	S1	97	G	N9-C1'-C2'	5.66	120.49	112.00
32	S1	1602	G	C1'-O4'-C4'	-5.66	104.24	109.90
33	L1	933	U	C4'-C3'-C2'	-5.66	96.94	102.60
33	L1	1569	U	O4'-C1'-N1	5.66	116.69	108.20
33	L1	2625	C	C5'-C4'-C3'	-5.66	107.51	116.00
33	L1	2956	U	O3'-P-O5'	-5.66	95.51	104.00
34	L3	93	U	O4'-C1'-N1	5.66	116.99	108.50
82	LK	52	LEU	CA-C-N	5.66	129.41	120.47
82	LK	52	LEU	C-N-CA	5.66	129.41	120.47
1	Sa	116	PHE	CA-CB-CG	-5.66	108.14	113.80
17	SV	41	VAL	N-CA-C	5.66	116.30	110.36
32	S1	23	G	C4'-C3'-O3'	-5.66	104.51	113.00
32	S1	1061	G	C5'-C4'-C3'	5.66	124.49	116.00
32	S1	1132	G	O4'-C1'-N9	5.66	116.99	108.50
32	S1	1746	U	O5'-C5'-C4'	5.66	119.99	111.50
33	L1	787	G	C1'-O4'-C4'	5.66	115.36	109.70
33	L1	2101	A	C3'-C2'-C1'	5.66	106.96	101.30
33	L1	2337	C	O5'-C5'-C4'	5.66	119.99	111.50
33	L1	3378	U	O4'-C1'-C2'	-5.66	101.94	107.60
68	LW	113	VAL	N-CA-C	5.66	116.91	109.21
70	Li	19	GLN	CB-CA-C	5.66	121.69	110.42
1	Sa	176	GLY	N-CA-C	-5.66	101.56	111.46
7	SI	106	ALA	CA-C-N	5.66	127.80	120.44
7	SI	106	ALA	C-N-CA	5.66	127.80	120.44
29	ST	19	ALA	CA-C-N	5.66	128.18	120.54
29	ST	19	ALA	C-N-CA	5.66	128.18	120.54
32	S1	1755	G	O3'-P-O5'	-5.66	95.51	104.00
33	L1	2453	G	P-O5'-C5'	-5.66	112.41	120.90
33	L1	2562	A	O4'-C1'-C2'	-5.66	101.94	107.60
35	L2	110	C	C2'-C3'-O3'	5.66	117.99	109.50
37	LB	19	HIS	ND1-CE1-NE2	5.66	114.06	108.40
40	LH	58	ARG	NH1-CZ-NH2	-5.66	111.94	119.30
78	Le	199	GLU	CB-CA-C	-5.66	101.57	110.85
33	L1	604	C	O4'-C1'-N1	5.66	116.99	108.50
33	L1	1786	G	C4'-C3'-C2'	-5.66	96.94	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	LT	180	ARG	NE-CZ-NH1	5.66	127.16	121.50
55	Lg	81	VAL	N-CA-C	5.66	116.63	108.48
81	LD	208	ARG	NE-CZ-NH1	-5.66	115.84	121.50
1	Sa	62	LEU	CA-C-N	5.66	132.34	121.54
1	Sa	62	LEU	C-N-CA	5.66	132.34	121.54
28	SN	15	GLY	N-CA-C	-5.66	99.78	113.18
32	S1	1126	C	N1-C1'-C2'	5.66	120.48	112.00
32	S1	1372	C	P-O5'-C5'	5.66	129.38	120.90
32	S1	1576	C	C2'-C3'-O3'	5.66	117.98	109.50
33	L1	717	G	C5'-C4'-C3'	-5.66	107.52	116.00
33	L1	1599	A	C1'-C2'-O2'	5.66	116.88	108.40
33	L1	1601	G	N9-C1'-C2'	5.66	120.48	112.00
33	L1	2022	U	O4'-C1'-N1	5.66	116.98	108.50
33	L1	2373	C	O5'-C5'-C4'	-5.66	103.22	111.70
33	L1	2998	A	P-O3'-C3'	5.66	128.68	120.20
33	L1	3021	U	C1'-C2'-O2'	5.66	116.88	108.40
34	L3	88	U	O4'-C1'-N1	5.66	116.98	108.50
37	LB	40	TYR	N-CA-CB	5.66	118.86	110.49
52	Lb	81	ASN	CA-CB-CG	-5.66	106.94	112.60
78	Le	223	TYR	CA-C-N	5.66	128.21	120.46
78	Le	223	TYR	C-N-CA	5.66	128.21	120.46
5	SE	44	TRP	N-CA-C	-5.65	105.02	111.07
32	S1	570	C	C1'-O4'-C4'	-5.65	104.25	109.90
32	S1	1700	G	O4'-C1'-N9	5.65	116.98	108.50
33	L1	815	G	C5'-C4'-C3'	5.65	124.48	116.00
33	L1	839	A	C5'-C4'-O4'	-5.65	101.32	109.80
33	L1	2746	G	C3'-C2'-C1'	-5.65	95.65	101.30
79	Ls	39	ASN	CA-C-N	5.65	127.86	120.28
79	Ls	39	ASN	C-N-CA	5.65	127.86	120.28
7	SI	63	ARG	O-C-N	-5.65	116.80	123.41
29	ST	29	HIS	ND1-CE1-NE2	5.65	114.05	108.40
32	S1	880	G	C1'-O4'-C4'	5.65	115.55	109.90
32	S1	1056	A	C4'-C3'-O3'	-5.65	104.52	113.00
32	S1	1513	A	O4'-C1'-N9	5.65	116.98	108.50
33	L1	421	A	O4'-C1'-C2'	-5.65	100.15	105.80
33	L1	2640	A	C3'-C2'-C1'	-5.65	95.65	101.30
35	L2	80	C	O5'-C5'-C4'	5.65	119.28	110.80
64	LG	152	LYS	CB-CG-CD	5.65	124.30	111.30
81	LD	113	ARG	N-CA-C	5.65	122.84	110.80
31	S2	34	G	N9-C1'-C2'	5.65	120.48	112.00
32	S1	1519	G	C3'-C2'-C1'	-5.65	95.65	101.30
32	S1	1613	G	C4'-C3'-C2'	-5.65	96.95	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	167	C	O4'-C4'-C3'	-5.65	100.45	106.10
33	L1	474	G	O4'-C1'-C2'	5.65	113.25	107.60
33	L1	816	G	C1'-O4'-C4'	-5.65	104.25	109.90
33	L1	972	C	C1'-O4'-C4'	5.65	115.55	109.90
33	L1	1579	C	C3'-C2'-C1'	5.65	106.95	101.30
68	LW	105	ILE	CA-CB-CG1	5.65	120.01	110.40
75	Lt	58	LEU	N-CA-CB	5.65	118.43	110.12
1	Sa	54	THR	N-CA-C	-5.65	99.52	108.73
14	SP	94	PHE	N-CA-C	-5.65	98.13	108.02
33	L1	139	U	O4'-C4'-C3'	5.65	109.65	104.00
33	L1	2618	G	C1'-O4'-C4'	5.65	115.55	109.90
33	L1	2720	U	C4'-C3'-C2'	-5.65	96.95	102.60
33	L1	3382	A	O4'-C1'-C2'	-5.65	101.95	107.60
70	Li	66	ARG	NE-CZ-NH2	5.65	124.28	119.20
1	Sa	251	ASP	CA-C-O	-5.65	114.98	121.19
1	Sa	338	THR	CA-C-N	5.65	132.33	121.54
1	Sa	338	THR	C-N-CA	5.65	132.33	121.54
11	SM	120	HIS	ND1-CE1-NE2	5.65	114.05	108.40
32	S1	512	U	O4'-C1'-N1	5.65	116.97	108.50
32	S1	1185	U	O4'-C1'-N1	5.65	116.97	108.50
33	L1	540	G	C1'-O4'-C4'	-5.65	104.25	109.90
33	L1	2156	U	P-O5'-C5'	5.65	129.37	120.90
33	L1	3147	G	N9-C1'-C2'	5.65	120.47	112.00
45	LQ	239	LEU	CA-C-O	5.65	127.67	121.40
46	LT	88	ARG	CG-CD-NE	-5.65	99.57	112.00
52	Lb	111	TYR	N-CA-C	5.65	120.69	111.37
59	Lo	34	THR	N-CA-CB	-5.65	100.95	110.49
80	LC	72	THR	N-CA-CB	5.65	122.02	111.52
32	S1	1207	A	O5'-C5'-C4'	-5.65	103.03	111.50
33	L1	1415	G	C3'-C2'-C1'	-5.65	95.65	101.30
52	Lb	67	ASP	O-C-N	-5.65	115.08	122.59
78	Le	69	ARG	CB-CA-C	5.65	119.74	110.88
6	SF	72	LEU	N-CA-CB	5.64	118.42	110.12
9	SK	43	VAL	CA-CB-CG2	-5.64	100.80	110.40
33	L1	622	U	P-O3'-C3'	5.64	128.67	120.20
33	L1	906	U	O4'-C4'-C3'	-5.64	98.36	104.00
33	L1	2094	A	P-O3'-C3'	5.64	128.67	120.20
68	LW	41	LEU	N-CA-C	5.64	117.23	111.14
78	Le	73	MET	N-CA-CB	5.64	120.03	110.49
80	LC	76	VAL	N-CA-C	5.64	116.87	108.46
82	LK	114	PRO	CA-C-N	5.64	126.19	120.38
82	LK	114	PRO	C-N-CA	5.64	126.19	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	201	G	P-O3'-C3'	-5.64	111.74	120.20
32	S1	1802	G	N9-C1'-C2'	5.64	120.46	112.00
33	L1	1526	A	C1'-C2'-O2'	5.64	120.26	111.80
33	L1	1706	C	P-O3'-C3'	5.64	128.66	120.20
33	L1	1889	G	N9-C1'-C2'	5.64	120.46	112.00
33	L1	3329	G	O4'-C1'-C2'	5.64	113.24	107.60
34	L3	1	G	C3'-C2'-C1'	5.64	107.14	101.50
45	LQ	217	GLU	CB-CA-C	5.64	119.30	111.63
67	LS	82	ARG	N-CA-CB	5.64	120.56	110.80
70	Li	69	ARG	N-CA-C	-5.64	98.78	110.80
25	SC	13	SER	O-C-N	-5.64	116.14	122.12
39	LF	44	ASP	CA-CB-CG	-5.64	106.96	112.60
80	LC	127	LYS	O-C-N	-5.64	115.09	122.59
1	Sa	65	HIS	CG-CD2-NE2	5.64	112.84	107.20
2	SA	210	ASP	N-CA-C	5.64	122.27	109.81
32	S1	1071	C	P-O3'-C3'	5.64	128.66	120.20
33	L1	1180	C	O4'-C4'-C3'	5.64	111.74	106.10
33	L1	1646	U	C3'-C2'-C1'	5.64	106.94	101.30
33	L1	3067	G	O4'-C1'-N9	5.64	116.96	108.50
25	SC	60	HIS	N-CA-CB	5.64	118.41	110.12
32	S1	588	C	O5'-C5'-C4'	-5.64	103.04	111.50
33	L1	1307	A	O4'-C1'-N9	5.64	116.66	108.20
33	L1	2348	U	C5'-C4'-C3'	-5.64	107.54	116.00
33	L1	3322	A	O5'-P-OP2	-5.64	91.09	108.00
38	LE	145	ARG	NE-CZ-NH2	5.64	124.27	119.20
42	LP	44	ARG	CB-CA-C	-5.64	105.37	110.44
64	LG	112	ILE	CA-C-N	5.64	128.30	120.29
64	LG	112	ILE	C-N-CA	5.64	128.30	120.29
81	LD	393	GLU	CA-C-N	5.64	127.77	120.44
81	LD	393	GLU	C-N-CA	5.64	127.77	120.44
11	SM	114	LEU	CB-CA-C	5.64	121.49	110.67
31	S2	21	A	O4'-C1'-C2'	-5.64	101.96	107.60
32	S1	1536	U	O3'-P-O5'	-5.64	95.55	104.00
33	L1	2707	A	C3'-C2'-C1'	-5.64	95.86	101.50
33	L1	3049	A	C1'-O4'-C4'	5.64	115.54	109.90
69	La	53	VAL	CA-C-N	5.64	132.11	121.97
69	La	53	VAL	C-N-CA	5.64	132.11	121.97
32	S1	159	U	N1-C1'-C2'	5.63	120.45	112.00
32	S1	322	U	O4'-C1'-N1	5.63	116.95	108.50
32	S1	1353	G	O4'-C1'-C2'	-5.63	101.97	107.60
33	L1	769	C	P-O3'-C3'	5.63	128.65	120.20
33	L1	1064	U	O4'-C1'-N1	5.63	116.95	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1068	A	P-O3'-C3'	-5.63	111.75	120.20
33	L1	1547	G	C3'-C2'-C1'	5.63	106.93	101.30
33	L1	2061	C	O4'-C1'-C2'	5.63	113.23	107.60
45	LQ	46	ASN	CA-C-O	-5.63	115.33	121.87
49	LX	95	ILE	N-CA-C	-5.63	100.30	108.36
49	LX	98	LEU	N-CA-CB	-5.63	102.33	110.56
69	La	90	ASP	CA-C-N	5.63	127.83	120.28
69	La	90	ASP	C-N-CA	5.63	127.83	120.28
79	Ls	201	VAL	N-CA-CB	-5.63	104.36	111.46
81	LD	198	GLY	N-CA-C	5.63	120.62	113.24
2	SA	99	GLY	N-CA-C	-5.63	107.55	115.32
32	S1	1129	A	O4'-C1'-C2'	-5.63	101.97	107.60
33	L1	326	C	C3'-C2'-C1'	5.63	106.93	101.30
33	L1	407	A	P-O5'-C5'	5.63	129.35	120.90
33	L1	538	C	C1'-O4'-C4'	5.63	115.33	109.70
33	L1	607	U	O4'-C4'-C3'	-5.63	98.37	104.00
33	L1	1781	C	O4'-C1'-C2'	-5.63	101.97	107.60
33	L1	2133	A	P-O5'-C5'	-5.63	112.45	120.90
35	L2	103	C	C5'-C4'-C3'	5.63	124.45	116.00
39	LF	39	LYS	N-CA-C	5.63	118.98	110.64
11	SM	72	HIS	CE1-NE2-CD2	-5.63	103.37	109.00
15	SS	80	LYS	N-CA-C	5.63	117.09	111.07
32	S1	409	C	O4'-C4'-C3'	-5.63	98.37	104.00
32	S1	1614	C	O4'-C1'-C2'	-5.63	101.97	107.60
33	L1	10	C	C1'-C2'-O2'	5.63	116.85	108.40
33	L1	389	A	C5'-C4'-C3'	5.63	124.45	116.00
33	L1	444	C	C1'-O4'-C4'	-5.63	104.27	109.90
33	L1	555	G	C1'-C2'-O2'	5.63	116.85	108.40
33	L1	1016	G	P-O3'-C3'	-5.63	111.75	120.20
33	L1	1822	C	O4'-C1'-C2'	-5.63	101.97	107.60
33	L1	2955	U	O4'-C1'-C2'	-5.63	101.97	107.60
33	L1	3048	C	O4'-C4'-C3'	5.63	109.63	104.00
34	L3	115	A	O5'-C5'-C4'	-5.63	103.05	111.50
64	LG	141	LYS	N-CA-C	-5.63	98.64	107.93
11	SM	70	VAL	O-C-N	5.63	127.33	121.87
11	SM	133	GLY	CA-C-O	-5.63	110.77	120.57
32	S1	690	G	O4'-C4'-C3'	-5.63	98.37	104.00
49	LX	78	THR	CA-CB-OG1	5.63	118.05	109.60
79	Ls	34	ASP	CA-CB-CG	5.63	118.23	112.60
5	SE	122	LEU	CA-C-N	-5.63	114.45	120.92
5	SE	122	LEU	C-N-CA	-5.63	114.45	120.92
14	SP	70	ARG	N-CA-C	-5.63	100.50	109.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	SU	48	LYS	CA-C-O	-5.63	114.91	120.82
32	S1	953	G	N9-C1'-C2'	-5.63	103.56	112.00
32	S1	1403	G	P-O5'-C5'	5.63	129.34	120.90
33	L1	185	A	N9-C1'-C2'	5.63	120.44	112.00
33	L1	903	G	N9-C1'-C2'	-5.63	103.56	112.00
33	L1	958	U	O5'-C5'-C4'	-5.63	103.06	111.50
33	L1	1317	G	C1'-C2'-O2'	-5.63	99.96	108.40
33	L1	1373	A	O4'-C1'-C2'	5.63	113.23	107.60
33	L1	1710	G	O4'-C1'-C2'	5.63	113.23	107.60
33	L1	2069	G	O4'-C1'-C2'	-5.63	101.97	107.60
33	L1	2636	U	C1'-O4'-C4'	5.63	115.53	109.90
33	L1	3067	G	O3'-P-O5'	5.63	112.44	104.00
33	L1	3360	U	P-O5'-C5'	-5.63	112.46	120.90
45	LQ	25	LYS	N-CA-C	5.63	117.09	111.07
55	Lg	26	LYS	N-CA-CB	5.63	118.13	109.91
68	LW	47	GLU	CB-CA-C	5.63	120.42	110.85
74	LJ	132	GLU	CA-C-N	5.63	128.17	120.46
74	LJ	132	GLU	C-N-CA	5.63	128.17	120.46
82	LK	115	PRO	CA-C-N	5.63	126.88	119.84
82	LK	115	PRO	C-N-CA	5.63	126.88	119.84
1	Sa	74	TRP	CB-CG-CD1	5.63	135.34	126.90
16	SR	144	ALA	N-CA-CB	5.63	118.39	110.12
32	S1	30	G	C4'-C3'-C2'	-5.63	96.97	102.60
32	S1	882	G	C1'-C2'-O2'	5.63	116.84	108.40
33	L1	3041	A	C1'-C2'-O2'	5.63	116.84	108.40
33	L1	3362	A	N9-C1'-C2'	-5.63	103.56	112.00
34	L3	26	C	C1'-O4'-C4'	-5.63	104.27	109.90
43	LO	11	LYS	CA-C-N	5.63	132.28	121.54
43	LO	11	LYS	C-N-CA	5.63	132.28	121.54
56	Lh	114	ALA	CA-C-N	5.63	127.82	120.28
56	Lh	114	ALA	C-N-CA	5.63	127.82	120.28
78	Le	136	VAL	CA-C-N	5.63	131.40	122.62
78	Le	136	VAL	C-N-CA	5.63	131.40	122.62
2	SA	193	ILE	CA-C-O	5.62	126.97	120.67
32	S1	438	G	O3'-P-O5'	5.62	112.44	104.00
51	LY	40	HIS	ND1-CE1-NE2	5.62	114.03	108.40
7	SI	107	SER	CA-C-N	5.62	127.81	120.28
7	SI	107	SER	C-N-CA	5.62	127.81	120.28
14	SP	70	ARG	CA-C-N	5.62	129.42	121.66
14	SP	70	ARG	C-N-CA	5.62	129.42	121.66
17	SV	39	ASN	OD1-CG-ND2	-5.62	116.98	122.60
32	S1	1063	U	C4'-C3'-O3'	-5.62	104.57	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1321	C	C1'-C2'-O2'	5.62	116.83	108.40
48	LV	87	LYS	CG-CD-CE	5.62	124.23	111.30
4	SD	205	PHE	N-CA-C	-5.62	99.36	108.41
9	SK	71	TYR	O-C-N	-5.62	116.41	123.27
11	SM	63	GLU	CA-C-N	5.62	130.19	120.58
11	SM	63	GLU	C-N-CA	5.62	130.19	120.58
11	SM	95	PHE	N-CA-CB	5.62	119.99	110.49
32	S1	1780	U	C4'-C3'-C2'	-5.62	96.98	102.60
33	L1	281	G	P-O5'-C5'	5.62	129.33	120.90
33	L1	961	C	O3'-P-O5'	-5.62	95.57	104.00
33	L1	1262	U	O3'-P-O5'	5.62	112.43	104.00
33	L1	2412	A	P-O5'-C5'	5.62	129.33	120.90
33	L1	2696	C	C1'-C2'-O2'	5.62	116.83	108.40
33	L1	2863	U	C1'-C2'-O2'	5.62	116.83	108.40
33	L1	3088	A	O4'-C1'-N9	-5.62	100.07	108.50
36	LA	95	ASN	CA-CB-CG	-5.62	106.98	112.60
38	LE	35	ALA	N-CA-C	-5.62	106.40	113.20
74	LJ	42	ILE	CA-C-N	5.62	127.17	120.14
74	LJ	42	ILE	C-N-CA	5.62	127.17	120.14
32	S1	1054	G	P-O5'-C5'	-5.62	112.47	120.90
33	L1	277	U	N1-C1'-C2'	5.62	120.43	112.00
33	L1	2482	A	C5'-C4'-C3'	5.62	124.43	116.00
2	SA	218	GLU	CA-C-N	5.62	127.74	120.44
2	SA	218	GLU	C-N-CA	5.62	127.74	120.44
3	SB	22	ASN	N-CA-C	5.62	117.08	111.07
5	SE	79	GLU	N-CA-CB	5.62	121.24	112.25
23	SU	98	ILE	N-CA-C	-5.62	104.07	111.09
32	S1	167	A	O4'-C1'-C2'	-5.62	100.18	105.80
32	S1	1567	G	P-O3'-C3'	5.62	128.63	120.20
33	L1	649	A	C1'-C2'-O2'	-5.62	103.37	111.80
33	L1	959	U	C3'-C2'-C1'	5.62	106.92	101.30
33	L1	2235	G	O4'-C4'-C3'	5.62	109.62	104.00
38	LE	26	GLY	CA-C-N	5.62	132.27	121.54
38	LE	26	GLY	C-N-CA	5.62	132.27	121.54
66	LN	8	GLU	CB-CG-CD	5.62	122.15	112.60
68	LW	101	TRP	N-CA-CB	5.62	119.98	110.49
80	LC	169	ARG	CD-NE-CZ	-5.62	116.53	124.40
80	LC	315	PHE	CB-CG-CD2	-5.62	111.15	120.70
3	SB	139	SER	CB-CA-C	-5.62	102.89	109.80
32	S1	618	C	O4'-C1'-C2'	-5.62	101.98	107.60
33	L1	1331	C	C5'-C4'-C3'	-5.62	107.57	116.00
33	L1	1350	G	C5'-C4'-O4'	-5.62	101.37	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3107	A	C1'-C2'-O2'	5.62	116.83	108.40
33	L1	3385	G	O4'-C1'-N9	5.62	116.93	108.50
35	L2	64	U	O4'-C1'-C2'	-5.62	100.18	105.80
45	LQ	196	ARG	CA-C-N	5.62	132.27	121.54
45	LQ	196	ARG	C-N-CA	5.62	132.27	121.54
51	LY	45	ARG	O-C-N	-5.62	114.77	122.46
82	LK	2	VAL	N-CA-C	-5.62	102.33	109.58
1	Sa	216	LEU	N-CA-CB	5.62	119.98	110.49
32	S1	201	G	O3'-P-O5'	-5.62	95.58	104.00
32	S1	582	U	C3'-C2'-C1'	5.62	107.12	101.50
32	S1	1446	C	P-O5'-C5'	5.62	129.32	120.90
32	S1	1621	U	O4'-C1'-C2'	-5.62	101.98	107.60
33	L1	763	G	C3'-C2'-C1'	5.62	106.92	101.30
33	L1	812	G	N9-C1'-C2'	5.62	120.42	112.00
33	L1	1885	G	C1'-O4'-C4'	-5.62	104.28	109.90
33	L1	2420	U	N1-C1'-C2'	5.62	120.42	112.00
33	L1	2621	G	P-O3'-C3'	-5.62	111.78	120.20
37	LB	20	THR	CA-C-N	5.62	127.81	120.28
37	LB	20	THR	C-N-CA	5.62	127.81	120.28
37	LB	21	HIS	ND1-CE1-NE2	5.62	114.02	108.40
40	LH	226	ARG	CA-C-N	5.62	127.74	120.44
40	LH	226	ARG	C-N-CA	5.62	127.74	120.44
42	LP	90	THR	CA-C-N	5.62	127.74	120.44
42	LP	90	THR	C-N-CA	5.62	127.74	120.44
45	LQ	35	ARG	N-CA-C	5.62	118.60	111.69
79	Ls	250	ASN	CA-C-N	5.62	127.75	120.56
79	Ls	250	ASN	C-N-CA	5.62	127.75	120.56
83	Lm	6	LYS	CA-C-O	-5.62	112.48	120.51
25	SC	12	TYR	N-CA-CB	5.61	118.37	110.12
32	S1	50	C	C4'-C3'-C2'	-5.61	96.99	102.60
32	S1	295	C	O4'-C1'-C2'	-5.61	101.99	107.60
32	S1	568	G	O3'-P-O5'	-5.61	95.58	104.00
32	S1	1777	G	C5'-C4'-C3'	-5.61	106.78	115.20
33	L1	542	G	C3'-C2'-C1'	-5.61	95.69	101.30
33	L1	818	G	O4'-C1'-N9	5.61	116.92	108.50
33	L1	2388	C	C4'-C3'-O3'	-5.61	104.58	113.00
33	L1	2732	U	O3'-P-O5'	-5.61	95.58	104.00
33	L1	2877	U	O3'-P-O5'	-5.61	95.58	104.00
37	LB	122	ASP	CA-C-N	5.61	132.26	121.54
37	LB	122	ASP	C-N-CA	5.61	132.26	121.54
4	SD	152	PRO	N-CA-CB	-5.61	97.36	103.25
33	L1	98	A	C5'-C4'-C3'	5.61	124.42	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	111	C	O3'-P-O5'	-5.61	95.58	104.00
32	S1	310	U	O4'-C1'-N1	5.61	116.92	108.50
32	S1	1328	G	C5'-C4'-C3'	5.61	124.42	116.00
33	L1	1153	A	N9-C1'-C2'	5.61	120.42	112.00
33	L1	1571	A	C1'-C2'-O2'	5.61	120.21	111.80
33	L1	1610	A	N9-C1'-C2'	-5.61	103.58	112.00
33	L1	3033	A	N9-C1'-C2'	-5.61	103.58	112.00
33	L1	3137	G	O4'-C1'-C2'	5.61	113.21	107.60
36	LA	200	VAL	N-CA-C	5.61	114.69	106.55
43	LO	28	HIS	CE1-NE2-CD2	-5.61	103.39	109.00
46	LT	181	LEU	CA-C-N	5.61	127.10	120.09
46	LT	181	LEU	C-N-CA	5.61	127.10	120.09
48	LV	83	ARG	NE-CZ-NH1	-5.61	115.89	121.50
78	Le	179	ASN	N-CA-CB	5.61	120.10	111.46
32	S1	373	U	C4'-C3'-C2'	-5.61	96.99	102.60
33	L1	540	G	P-O3'-C3'	-5.61	111.79	120.20
33	L1	1715	C	C2'-C3'-O3'	5.61	117.91	109.50
33	L1	1959	U	O5'-C5'-C4'	5.61	119.91	111.50
33	L1	2507	U	P-O3'-C3'	-5.61	111.79	120.20
81	LD	43	PHE	N-CA-C	5.61	117.20	111.14
1	Sa	178	GLY	CA-C-N	5.61	131.42	120.99
1	Sa	178	GLY	C-N-CA	5.61	131.42	120.99
1	Sa	277	ASP	CA-CB-CG	5.61	118.21	112.60
32	S1	94	A	N9-C1'-C2'	5.61	122.41	114.00
32	S1	1802	G	O4'-C1'-C2'	5.61	113.21	107.60
33	L1	642	C	OP1-P-O3'	-5.61	91.18	108.00
33	L1	1768	U	P-O3'-C3'	5.61	128.61	120.20
33	L1	2199	C	P-O3'-C3'	5.61	128.61	120.20
33	L1	2492	C	N1-C1'-C2'	5.61	120.41	112.00
37	LB	224	THR	CA-C-N	5.61	131.82	122.57
37	LB	224	THR	C-N-CA	5.61	131.82	122.57
38	LE	139	ARG	N-CA-CB	-5.61	101.28	110.14
45	LQ	85	PRO	CB-CA-C	-5.61	102.97	111.44
64	LG	32	HIS	CA-CB-CG	-5.61	108.19	113.80
3	SB	76	ARG	CA-C-O	5.61	127.24	121.07
32	S1	35	U	P-O3'-C3'	5.61	128.61	120.20
33	L1	528	C	C2'-C3'-O3'	5.61	122.11	113.70
33	L1	925	U	P-O5'-C5'	5.61	129.31	120.90
33	L1	1607	C	C3'-C2'-C1'	5.61	106.91	101.30
33	L1	1680	A	C3'-C2'-C1'	5.61	106.91	101.30
33	L1	1855	A	O4'-C4'-C3'	-5.61	100.50	106.10
33	L1	2494	A	O4'-C1'-N9	5.61	116.91	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2649	C	C1'-O4'-C4'	-5.61	104.29	109.90
33	L1	2850	G	C1'-C2'-O2'	5.61	116.81	108.40
35	L2	96	A	P-O3'-C3'	-5.61	111.79	120.20
44	LR	20	LYS	CA-C-N	-5.61	114.89	123.07
44	LR	20	LYS	C-N-CA	-5.61	114.89	123.07
57	Ll	6	GLY	O-C-N	-5.61	115.89	122.34
60	Lr	66	LYS	CA-C-O	5.61	127.11	120.89
33	L1	306	A	O4'-C1'-N9	5.60	116.91	108.50
33	L1	974	G	P-O3'-C3'	5.60	128.61	120.20
33	L1	2997	C	C5'-C4'-C3'	-5.60	107.59	116.00
35	L2	138	G	O4'-C1'-C2'	-5.60	102.00	107.60
40	LH	156	ILE	CA-CB-CG1	5.60	119.93	110.40
66	LN	101	SER	CA-C-O	-5.60	112.50	120.51
78	Le	227	GLY	O-C-N	-5.60	116.82	122.59
1	Sa	55	ASP	CA-CB-CG	-5.60	107.00	112.60
3	SB	54	ARG	N-CA-C	-5.60	104.63	112.25
32	S1	30	G	C5'-C4'-C3'	5.60	124.41	116.00
32	S1	124	G	C5'-C4'-C3'	5.60	124.40	116.00
32	S1	1099	G	C4'-C3'-C2'	-5.60	97.00	102.60
32	S1	1118	A	C3'-C2'-O2'	-5.60	106.20	114.60
33	L1	2280	C	C3'-C2'-C1'	5.60	106.90	101.30
60	Lr	62	ALA	N-CA-C	5.60	117.54	108.41
67	LS	28	ARG	CG-CD-NE	5.60	124.33	112.00
77	Lc	115	PHE	CA-CB-CG	5.60	119.40	113.80
82	LK	156	ASP	N-CA-CB	5.60	118.36	110.12
33	L1	391	U	P-O5'-C5'	5.60	129.30	120.90
33	L1	2680	G	O4'-C1'-C2'	-5.60	100.20	105.80
34	L3	14	C	C4'-C3'-C2'	5.60	108.20	102.60
32	S1	571	A	C4'-C3'-O3'	-5.60	104.60	113.00
32	S1	1075	G	O4'-C1'-N9	5.60	116.90	108.50
32	S1	1238	A	C4'-C3'-C2'	-5.60	97.00	102.60
32	S1	1785	U	O4'-C1'-N1	5.60	116.90	108.50
33	L1	485	G	O4'-C1'-N9	5.60	116.90	108.50
33	L1	1298	A	P-O5'-C5'	5.60	129.30	120.90
36	LA	156	PHE	O-C-N	-5.60	116.40	123.01
45	LQ	247	ILE	CA-C-O	-5.60	111.28	120.80
54	Lf	29	LEU	O-C-N	-5.60	116.78	123.27
57	Ll	74	PHE	N-CA-C	5.60	117.07	110.97
70	Li	46	VAL	CA-CB-CG2	-5.60	100.88	110.40
83	Lm	30	GLU	N-CA-C	-5.60	106.12	113.12
2	SA	157	PRO	N-CA-CB	5.60	108.51	103.19
33	L1	279	G	O5'-C5'-C4'	5.60	119.90	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	496	U	O4'-C1'-C2'	-5.60	102.00	107.60
33	L1	606	C	C2'-C3'-O3'	5.60	122.10	113.70
33	L1	1507	A	C3'-C2'-C1'	-5.60	95.70	101.30
33	L1	3307	A	C4'-C3'-O3'	-5.60	104.61	113.00
46	LT	104	ARG	NE-CZ-NH2	5.60	124.24	119.20
49	LX	108	ALA	N-CA-CB	5.60	118.19	110.07
55	Lg	29	HIS	CA-CB-CG	5.60	119.40	113.80
82	LK	197	GLN	N-CA-C	-5.60	98.88	110.80
25	SC	162	LEU	CB-CA-C	-5.60	99.28	110.42
32	S1	1660	C	C4'-C3'-C2'	5.60	108.20	102.60
32	S1	1779	U	O4'-C1'-N1	5.60	116.59	108.20
36	LA	201	ARG	CB-CA-C	-5.60	102.06	110.90
32	S1	933	G	C1'-O4'-C4'	5.59	115.29	109.70
32	S1	1508	C	C4'-C3'-C2'	-5.59	97.01	102.60
33	L1	459	G	O4'-C1'-N9	5.59	116.89	108.50
33	L1	2302	G	P-O5'-C5'	5.59	129.29	120.90
33	L1	2629	C	C1'-C2'-O2'	5.59	116.79	108.40
33	L1	3113	G	N9-C1'-C2'	-5.59	103.61	112.00
33	L1	3356	C	O4'-C1'-C2'	-5.59	102.01	107.60
49	LX	54	PRO	CA-C-N	5.59	131.31	122.36
49	LX	54	PRO	C-N-CA	5.59	131.31	122.36
51	LY	40	HIS	CA-C-N	5.59	133.88	121.80
51	LY	40	HIS	C-N-CA	5.59	133.88	121.80
54	Lf	87	LYS	N-CA-C	5.59	119.72	113.01
84	LI	159	PHE	N-CA-C	-5.59	103.09	108.07
30	S3	12	A	C3'-C2'-C1'	-5.59	95.71	101.30
32	S1	1468	G	O4'-C1'-N9	5.59	116.89	108.50
33	L1	112	C	O5'-C5'-C4'	-5.59	103.31	111.70
33	L1	505	G	C5'-C4'-C3'	5.59	124.39	116.00
33	L1	1373	A	O3'-P-O5'	5.59	112.39	104.00
33	L1	2972	C	O4'-C4'-C3'	5.59	109.59	104.00
80	LC	305	THR	CA-C-N	5.59	132.22	121.54
80	LC	305	THR	C-N-CA	5.59	132.22	121.54
2	SA	1	MET	N-CA-CB	-5.59	100.99	110.50
11	SM	98	VAL	CB-CA-C	5.59	122.02	111.40
16	SR	126	ALA	CB-CA-C	5.59	119.04	109.65
33	L1	917	A	C1'-C2'-O2'	-5.59	103.41	111.80
33	L1	1420	G	O3'-P-O5'	-5.59	95.61	104.00
33	L1	2005	C	O4'-C1'-C2'	-5.59	102.01	107.60
33	L1	2382	C	N1-C1'-C2'	5.59	120.39	112.00
36	LA	162	LEU	N-CA-CB	-5.59	101.19	111.37
38	LE	100	ASP	CA-C-N	5.59	130.06	120.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	LE	100	ASP	C-N-CA	5.59	130.06	120.72
66	LN	21	TYR	O-C-N	-5.59	115.15	122.59
67	LS	7	HIS	ND1-CE1-NE2	5.59	113.99	108.40
67	LS	90	HIS	CE1-NE2-CD2	-5.59	103.41	109.00
78	Le	38	LYS	O-C-N	-5.59	116.19	122.12
81	LD	51	ASN	N-CA-C	5.59	119.36	112.54
5	SE	85	LEU	O-C-N	5.59	128.05	122.12
33	L1	1615	G	N9-C1'-C2'	5.59	120.39	112.00
33	L1	1764	G	O4'-C1'-N9	5.59	116.88	108.50
33	L1	2681	A	O4'-C4'-C3'	-5.59	98.41	104.00
38	LE	14	ILE	CB-CA-C	-5.59	105.19	111.45
45	LQ	256	SER	CB-CA-C	5.59	120.90	109.55
48	LV	10	ASN	O-C-N	5.59	126.61	121.80
11	SM	38	ARG	CA-C-N	5.59	127.70	120.44
11	SM	38	ARG	C-N-CA	5.59	127.70	120.44
32	S1	1749	C	C3'-C2'-O2'	-5.59	102.32	110.70
33	L1	1855	A	C3'-C2'-C1'	-5.59	95.91	101.50
33	L1	2839	A	N9-C1'-C2'	-5.59	105.62	114.00
47	LU	66	ASN	CA-C-O	5.59	127.30	121.38
52	Lb	64	GLY	N-CA-C	-5.59	99.94	113.18
27	SH	121	VAL	CA-C-O	-5.59	114.41	120.67
32	S1	377	G	C4'-C3'-C2'	5.59	108.19	102.60
32	S1	610	A	O4'-C4'-C3'	-5.59	100.51	106.10
32	S1	1468	G	O3'-P-O5'	5.59	112.38	104.00
33	L1	1385	C	C1'-O4'-C4'	-5.59	104.31	109.90
33	L1	1809	A	O5'-C5'-C4'	5.59	119.88	111.50
33	L1	1852	C	C1'-C2'-O2'	5.59	116.78	108.40
33	L1	2658	U	C5'-C4'-O4'	5.59	117.48	109.10
33	L1	3020	C	N1-C1'-C2'	5.59	120.38	112.00
34	L3	39	C	O3'-P-O5'	-5.59	95.62	104.00
37	LB	207	VAL	N-CA-CB	-5.59	102.94	110.54
38	LE	137	GLY	O-C-N	-5.59	116.47	122.73
41	LM	17	SER	CA-C-N	5.59	128.70	120.82
41	LM	17	SER	C-N-CA	5.59	128.70	120.82
45	LQ	9	LYS	CA-C-N	5.59	127.77	120.28
45	LQ	9	LYS	C-N-CA	5.59	127.77	120.28
64	LG	110	PHE	O-C-N	-5.59	116.55	122.30
32	S1	691	A	O4'-C1'-N9	5.58	116.58	108.20
2	SA	181	LEU	N-CA-CB	-5.58	101.62	110.28
4	SD	169	ILE	CB-CA-C	-5.58	104.16	111.25
32	S1	1308	G	O4'-C1'-C2'	-5.58	102.02	107.60
33	L1	594	C	P-O5'-C5'	-5.58	112.52	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	781	C	C5'-C4'-C3'	-5.58	107.62	116.00
33	L1	962	C	P-O5'-C5'	-5.58	112.53	120.90
33	L1	1518	A	C4'-C3'-C2'	-5.58	97.02	102.60
33	L1	1730	U	N1-C1'-C2'	-5.58	103.63	112.00
33	L1	1945	A	O4'-C4'-C3'	-5.58	98.42	104.00
33	L1	2797	U	C1'-C2'-O2'	5.58	116.78	108.40
33	L1	3278	G	O4'-C1'-N9	5.58	116.88	108.50
64	LG	92	ARG	CD-NE-CZ	-5.58	116.58	124.40
71	Lj	88	LYS	CA-C-N	-5.58	113.91	122.62
71	Lj	88	LYS	C-N-CA	-5.58	113.91	122.62
13	SQ	18	GLU	O-C-N	-5.58	116.22	122.75
32	S1	449	A	P-O3'-C3'	-5.58	111.83	120.20
32	S1	686	A	O4'-C1'-C2'	-5.58	102.02	107.60
33	L1	659	C	P-O5'-C5'	-5.58	112.53	120.90
33	L1	2933	C	P-O3'-C3'	-5.58	111.83	120.20
37	LB	206	PRO	N-CA-C	5.58	122.07	113.75
73	Lp	36	LYS	N-CA-CB	5.58	118.32	110.12
5	SE	70	LEU	CA-C-O	-5.58	112.52	120.16
50	LZ	21	ILE	O-C-N	-5.58	116.86	123.05
13	SQ	81	ARG	CA-C-N	-5.58	110.88	121.54
13	SQ	81	ARG	C-N-CA	-5.58	110.88	121.54
23	SU	15	ARG	CB-CA-C	5.58	120.16	110.79
32	S1	903	A	O4'-C1'-C2'	-5.58	100.22	105.80
32	S1	1301	G	P-O5'-C5'	-5.58	112.53	120.90
32	S1	1688	G	C3'-C2'-C1'	-5.58	95.72	101.30
32	S1	1790	G	C3'-C2'-C1'	5.58	106.88	101.30
33	L1	2839	A	C1'-O4'-C4'	5.58	115.28	109.70
68	LW	79	ALA	N-CA-C	5.58	122.68	110.80
80	LC	54	THR	N-CA-CB	5.58	119.92	110.49
1	Sa	343	HIS	CA-C-N	5.58	130.55	121.74
1	Sa	343	HIS	C-N-CA	5.58	130.55	121.74
7	SI	141	ARG	NE-CZ-NH2	-5.58	114.18	119.20
32	S1	878	U	O3'-P-O5'	-5.58	95.64	104.00
32	S1	1544	G	C1'-C2'-O2'	5.58	116.77	108.40
32	S1	1677	U	P-O3'-C3'	5.58	128.56	120.20
33	L1	910	G	C4'-C3'-O3'	5.58	117.77	109.40
33	L1	1019	A	O4'-C4'-C3'	-5.58	98.42	104.00
33	L1	1432	G	N9-C1'-C2'	5.58	122.36	114.00
33	L1	2906	U	C1'-O4'-C4'	-5.58	104.32	109.90
33	L1	3059	C	C5'-C4'-O4'	-5.58	101.44	109.80
4	SD	94	LYS	CG-CD-CE	5.58	124.12	111.30
29	ST	7	GLN	OE1-CD-NE2	5.58	128.18	122.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	S2	60	C	C4'-C3'-O3'	-5.58	104.64	113.00
32	S1	466	G	C1'-O4'-C4'	-5.58	104.33	109.90
32	S1	571	A	C2'-C3'-O3'	5.58	122.06	113.70
32	S1	1633	C	N1-C1'-C2'	5.58	120.36	112.00
33	L1	1407	G	C4'-C3'-C2'	-5.58	97.03	102.60
33	L1	2487	A	C3'-C2'-C1'	-5.58	95.72	101.30
40	LH	152	ASP	CA-CB-CG	5.58	118.18	112.60
60	Lr	59	HIS	CA-CB-CG	5.58	119.38	113.80
60	Lr	61	LYS	N-CA-C	5.58	119.62	112.26
64	LG	20	TYR	CB-CG-CD2	-5.58	112.44	120.80
64	LG	63	THR	CA-C-N	5.58	127.75	120.28
64	LG	63	THR	C-N-CA	5.58	127.75	120.28
66	LN	23	ARG	O-C-N	5.58	130.00	122.59
15	SS	42	THR	CA-CB-OG1	5.57	117.96	109.60
28	SN	10	HIS	N-CA-C	-5.57	97.49	109.81
32	S1	621	U	P-O3'-C3'	5.57	128.56	120.20
33	L1	2098	A	C5'-C4'-C3'	-5.57	107.64	116.00
38	LE	51	LYS	O-C-N	-5.57	116.38	122.84
49	LX	126	PRO	N-CA-CB	5.57	108.81	103.52
67	LS	49	LYS	CB-CA-C	-5.57	102.31	110.95
67	LS	166	LYS	N-CA-CB	-5.57	101.07	110.49
80	LC	120	LYS	N-CA-CB	5.57	119.91	110.49
32	S1	973	U	N1-C1'-C2'	5.57	120.36	112.00
33	L1	2671	A	P-O3'-C3'	-5.57	111.84	120.20
34	L3	20	C	N1-C1'-C2'	5.57	120.36	112.00
36	LA	212	ARG	N-CA-C	5.57	118.81	109.95
56	Lh	58	TYR	CA-C-N	5.57	132.33	121.41
56	Lh	58	TYR	C-N-CA	5.57	132.33	121.41
64	LG	76	THR	CA-C-N	5.57	126.81	119.84
64	LG	76	THR	C-N-CA	5.57	126.81	119.84
1	Sa	6	GLU	N-CA-CB	5.57	118.21	109.69
2	SA	58	THR	CA-C-N	5.57	127.75	120.28
2	SA	58	THR	C-N-CA	5.57	127.75	120.28
10	SL	122	VAL	CA-C-O	-5.57	117.28	121.68
11	SM	48	ALA	CA-C-N	5.57	132.18	121.54
11	SM	48	ALA	C-N-CA	5.57	132.18	121.54
32	S1	1483	G	C1'-O4'-C4'	-5.57	104.33	109.90
32	S1	1564	A	O4'-C1'-C2'	-5.57	100.23	105.80
33	L1	482	C	O4'-C1'-C2'	-5.57	102.03	107.60
33	L1	639	A	C5'-C4'-C3'	-5.57	107.64	116.00
33	L1	1611	G	C5'-C4'-C3'	-5.57	107.64	116.00
33	L1	1688	U	P-O3'-C3'	5.57	128.56	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1731	A	C1'-O4'-C4'	-5.57	104.33	109.90
36	LA	109	PHE	CA-CB-CG	-5.57	108.23	113.80
66	LN	10	GLY	CA-C-O	5.57	125.23	119.27
67	LS	32	TRP	CB-CA-C	5.57	118.94	109.80
78	Le	137	THR	N-CA-C	-5.57	100.70	109.50
84	LI	110	ARG	N-CA-C	5.57	122.66	110.80
10	SL	89	CYS	CA-C-N	5.57	128.20	120.29
10	SL	89	CYS	C-N-CA	5.57	128.20	120.29
32	S1	1758	G	O3'-P-O5'	-5.57	95.65	104.00
33	L1	1551	C	C1'-O4'-C4'	-5.57	104.33	109.90
33	L1	3015	U	O4'-C1'-N1	5.57	116.85	108.50
48	LV	128	ARG	O-C-N	-5.57	115.18	122.59
80	LC	173	GLY	O-C-N	-5.57	116.79	122.19
32	S1	3	C	O3'-P-O5'	5.57	112.35	104.00
32	S1	855	G	P-O5'-C5'	-5.57	112.55	120.90
33	L1	638	G	C1'-O4'-C4'	-5.57	104.13	109.70
33	L1	2356	A	C4'-C3'-O3'	-5.57	104.65	113.00
33	L1	3039	U	C1'-C2'-O2'	5.57	116.75	108.40
33	L1	3121	C	O3'-P-O5'	-5.57	95.65	104.00
33	L1	3124	A	C3'-C2'-C1'	5.57	106.87	101.30
39	LF	188	GLU	N-CA-CB	5.57	119.90	110.49
67	LS	42	LYS	O-C-N	5.57	128.02	122.12
3	SB	134	CYS	O-C-N	-5.57	116.90	123.41
32	S1	915	C	O3'-P-O5'	-5.57	95.65	104.00
33	L1	3390	G	C2'-C3'-O3'	5.57	117.85	109.50
34	L3	15	C	P-O3'-C3'	-5.57	111.85	120.20
42	LP	44	ARG	NH1-CZ-NH2	-5.57	112.07	119.30
66	LN	31	VAL	CA-C-N	5.57	132.17	121.54
66	LN	31	VAL	C-N-CA	5.57	132.17	121.54
31	S2	23	A	C1'-C2'-O2'	5.56	116.75	108.40
32	S1	960	A	O4'-C1'-C2'	-5.56	102.04	107.60
33	L1	391	U	C1'-O4'-C4'	-5.56	104.34	109.90
33	L1	956	G	O4'-C4'-C3'	-5.56	98.44	104.00
33	L1	1052	A	C1'-O4'-C4'	5.56	115.46	109.90
33	L1	1802	A	O4'-C1'-C2'	5.56	113.16	107.60
32	S1	937	A	C1'-O4'-C4'	5.56	115.26	109.70
32	S1	1359	C	O4'-C1'-C2'	-5.56	102.04	107.60
32	S1	1727	C	C1'-C2'-O2'	5.56	116.74	108.40
33	L1	351	G	N9-C1'-C2'	5.56	122.34	114.00
33	L1	1382	C	C1'-C2'-O2'	5.56	116.74	108.40
33	L1	1754	C	P-O5'-C5'	-5.56	112.56	120.90
33	L1	2431	U	C1'-C2'-O2'	5.56	116.74	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3068	U	O4'-C1'-N1	5.56	116.84	108.50
80	LC	364	ASP	CA-CB-CG	5.56	118.16	112.60
82	LK	120	THR	N-CA-CB	5.56	118.22	110.04
3	SB	200	PRO	N-CA-C	5.56	123.93	112.47
33	L1	1150	G	O4'-C1'-C2'	5.56	113.16	107.60
33	L1	1259	C	C1'-O4'-C4'	5.56	115.46	109.90
71	Lj	38	GLY	N-CA-C	5.56	126.36	113.18
8	SJ	23	GLN	CA-C-N	5.56	130.75	122.74
8	SJ	23	GLN	C-N-CA	5.56	130.75	122.74
15	SS	2	ALA	CA-C-N	5.56	128.04	120.54
15	SS	2	ALA	C-N-CA	5.56	128.04	120.54
17	SV	31	GLY	CA-C-N	5.56	127.73	120.28
17	SV	31	GLY	C-N-CA	5.56	127.73	120.28
25	SC	58	ALA	N-CA-CB	5.56	119.89	110.49
32	S1	40	A	O4'-C1'-C2'	-5.56	102.04	107.60
32	S1	365	C	O4'-C1'-C2'	-5.56	102.04	107.60
32	S1	526	U	O5'-C5'-C4'	5.56	127.18	110.50
32	S1	1043	C	O4'-C1'-C2'	-5.56	102.04	107.60
32	S1	1755	G	P-O3'-C3'	5.56	128.54	120.20
33	L1	123	U	C5'-C4'-O4'	5.56	118.14	109.80
33	L1	543	C	O3'-P-O5'	5.56	112.34	104.00
33	L1	1893	G	O4'-C1'-C2'	5.56	113.16	107.60
33	L1	2658	U	N1-C1'-C2'	-5.56	105.66	114.00
60	Lr	19	LYS	CA-C-N	5.56	128.74	120.95
60	Lr	19	LYS	C-N-CA	5.56	128.74	120.95
71	Lj	44	GLU	N-CA-C	5.56	118.27	111.82
80	LC	140	ASP	CA-CB-CG	-5.56	107.04	112.60
81	LD	402	GLY	O-C-N	-5.56	116.40	122.68
14	SP	94	PHE	CB-CG-CD1	-5.56	111.25	120.70
24	SX	72	LYS	CA-C-N	-5.56	112.82	120.71
24	SX	72	LYS	C-N-CA	-5.56	112.82	120.71
32	S1	180	A	C4'-C3'-C2'	-5.56	97.04	102.60
32	S1	918	G	O4'-C1'-C2'	-5.56	100.24	105.80
32	S1	1250	C	N1-C1'-C2'	5.56	120.34	112.00
45	LQ	296	ASP	CB-CA-C	-5.56	101.56	110.79
66	LN	65	VAL	CA-C-O	5.56	127.40	119.95
79	Ls	51	ASP	N-CA-C	5.56	117.14	111.14
1	Sa	252	ILE	N-CA-C	-5.56	97.38	106.32
33	L1	1485	A	O4'-C1'-N9	5.56	116.53	108.20
75	Lu	58	LEU	N-CA-CB	5.56	118.29	110.12
2	SA	88	GLN	CB-CG-CD	-5.55	103.16	112.60
13	SQ	9	VAL	N-CA-CB	5.55	117.68	110.57

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	385	C	C3'-C2'-C1'	5.55	106.85	101.30
32	S1	1069	G	C4'-C3'-C2'	-5.55	97.05	102.60
32	S1	1322	G	O4'-C4'-C3'	-5.55	98.45	104.00
33	L1	793	C	N1-C1'-C2'	5.55	120.33	112.00
33	L1	967	G	O4'-C1'-C2'	-5.55	102.05	107.60
33	L1	1548	U	N1-C1'-C2'	5.55	120.33	112.00
33	L1	1638	U	O4'-C1'-C2'	-5.55	102.05	107.60
33	L1	3145	G	C4'-C3'-O3'	-5.55	104.67	113.00
33	L1	3209	U	C5'-C4'-C3'	5.55	124.33	116.00
42	LP	103	GLU	N-CA-C	5.55	117.33	111.28
56	Lh	10	ILE	O-C-N	-5.55	116.12	121.90
57	Ll	83	GLU	CA-C-N	5.55	132.15	121.54
57	Ll	83	GLU	C-N-CA	5.55	132.15	121.54
79	Ls	231	ALA	N-CA-C	5.55	117.33	111.28
6	SF	71	SER	CA-C-N	5.55	127.72	120.28
6	SF	71	SER	C-N-CA	5.55	127.72	120.28
29	ST	22	ARG	NE-CZ-NH1	5.55	127.05	121.50
32	S1	856	G	N9-C1'-C2'	5.55	120.33	112.00
32	S1	1383	U	C1'-O4'-C4'	-5.55	104.35	109.90
33	L1	787	G	N9-C1'-C2'	-5.55	105.67	114.00
33	L1	936	A	O4'-C1'-C2'	-5.55	102.05	107.60
33	L1	1261	C	N1-C1'-C2'	5.55	120.33	112.00
33	L1	1280	U	C1'-C2'-O2'	5.55	116.73	108.40
49	LX	151	ILE	N-CA-CB	-5.55	102.25	111.36
58	Ln	44	THR	N-CA-C	5.55	122.63	110.80
1	Sa	25	LEU	O-C-N	-5.55	116.09	122.09
32	S1	315	U	O4'-C1'-N1	5.55	116.83	108.50
32	S1	342	C	N1-C1'-C2'	5.55	120.33	112.00
32	S1	411	A	O4'-C1'-C2'	-5.55	102.05	107.60
32	S1	831	C	P-O5'-C5'	-5.55	112.57	120.90
32	S1	892	A	C4'-C3'-O3'	-5.55	104.67	113.00
33	L1	470	G	C1'-C2'-O2'	5.55	116.73	108.40
33	L1	1217	G	O4'-C1'-C2'	5.55	113.15	107.60
33	L1	1732	G	N9-C1'-C2'	5.55	122.33	114.00
33	L1	2022	U	O4'-C1'-C2'	-5.55	102.05	107.60
33	L1	2496	U	C4'-C3'-C2'	-5.55	97.05	102.60
80	LC	68	HIS	CA-CB-CG	-5.55	108.25	113.80
84	LI	38	MET	N-CA-C	5.55	117.49	110.33
11	SM	61	ALA	CB-CA-C	-5.55	102.17	110.88
28	SN	55	TYR	N-CA-C	-5.55	105.08	113.51
32	S1	913	U	P-O5'-C5'	5.55	129.22	120.90
32	S1	1318	U	N1-C1'-C2'	5.55	120.32	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	428	G	C3'-C2'-C1'	5.55	106.85	101.30
33	L1	471	C	P-O5'-C5'	5.55	129.22	120.90
33	L1	1046	U	O4'-C1'-N1	5.55	116.82	108.50
33	L1	2567	C	P-O3'-C3'	5.55	128.52	120.20
33	L1	2637	U	C5'-C4'-O4'	5.55	118.12	109.80
33	L1	2806	A	C3'-C2'-C1'	5.55	106.85	101.30
33	L1	3112	U	N1-C1'-C2'	-5.55	103.68	112.00
33	L1	3335	G	C2'-C3'-O3'	5.55	122.02	113.70
45	LQ	276	GLN	N-CA-C	5.55	117.01	111.07
78	Le	212	PRO	N-CA-C	5.55	119.90	111.19
13	SQ	139	ASP	N-CA-CB	-5.55	101.11	110.49
32	S1	992	G	O4'-C1'-N9	5.55	116.82	108.50
32	S1	1036	U	C3'-C2'-C1'	5.55	107.05	101.50
33	L1	2087	A	P-O3'-C3'	-5.55	111.88	120.20
34	L3	24	G	O4'-C1'-N9	5.55	116.82	108.50
48	LV	47	TYR	CA-C-O	5.55	126.64	120.82
5	SE	23	GLY	CA-C-N	5.55	127.98	120.38
5	SE	23	GLY	C-N-CA	5.55	127.98	120.38
33	L1	587	A	O4'-C1'-C2'	-5.55	102.05	107.60
33	L1	1953	C	C3'-C2'-C1'	5.55	106.85	101.30
33	L1	3326	U	C3'-C2'-O2'	-5.55	106.28	114.60
35	L2	162	C	O4'-C1'-C2'	-5.55	102.05	107.60
39	LF	170	ASP	N-CA-CB	5.55	119.86	110.49
57	L1	21	ARG	NE-CZ-NH1	-5.55	115.95	121.50
59	Lo	9	ILE	CA-C-N	5.55	127.71	120.28
59	Lo	9	ILE	C-N-CA	5.55	127.71	120.28
4	SD	133	GLN	CB-CA-C	-5.54	101.52	109.84
27	SH	86	ILE	N-CA-C	-5.54	99.83	108.81
33	L1	1764	G	C4'-C3'-O3'	-5.54	104.68	113.00
73	Lp	40	GLY	CA-C-N	5.54	130.00	122.07
73	Lp	40	GLY	C-N-CA	5.54	130.00	122.07
8	SJ	88	ARG	CA-C-N	5.54	131.16	123.07
8	SJ	88	ARG	C-N-CA	5.54	131.16	123.07
10	SL	121	VAL	O-C-N	-5.54	116.05	122.09
12	SO	136	PRO	N-CA-C	5.54	117.46	110.70
25	SC	145	ILE	CA-CB-CG2	5.54	119.92	110.50
32	S1	979	A	N9-C1'-C2'	5.54	120.32	112.00
33	L1	459	G	C1'-O4'-C4'	-5.54	104.36	109.90
33	L1	1545	G	C1'-O4'-C4'	-5.54	104.36	109.90
33	L1	1558	A	P-O3'-C3'	5.54	128.51	120.20
33	L1	2140	C	N1-C1'-C2'	5.54	120.32	112.00
17	SV	34	LYS	N-CA-C	-5.54	99.00	110.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	118	U	P-O5'-C5'	5.54	129.21	120.90
32	S1	341	G	C2'-C3'-O3'	5.54	122.01	113.70
32	S1	1075	G	P-O5'-C5'	-5.54	112.59	120.90
33	L1	220	G	C1'-C2'-O2'	5.54	116.71	108.40
33	L1	2177	U	C5'-C4'-O4'	-5.54	101.49	109.80
33	L1	2839	A	P-O3'-C3'	-5.54	111.89	120.20
33	L1	3093	C	P-O3'-C3'	5.54	128.51	120.20
55	Lg	26	LYS	CB-CG-CD	5.54	124.05	111.30
66	LN	117	ARG	CA-C-N	5.54	126.25	119.99
66	LN	117	ARG	C-N-CA	5.54	126.25	119.99
25	SC	142	ILE	CA-C-N	5.54	131.94	121.97
25	SC	142	ILE	C-N-CA	5.54	131.94	121.97
31	S2	10	G	N9-C1'-C2'	5.54	120.31	112.00
33	L1	676	G	N9-C1'-C2'	5.54	120.31	112.00
33	L1	2755	U	C1'-C2'-O2'	5.54	116.71	108.40
33	L1	2763	C	C5'-C4'-O4'	-5.54	101.49	109.80
54	Lf	101	ASP	CA-CB-CG	5.54	118.14	112.60
78	Le	85	PRO	O-C-N	-5.54	115.16	122.64
32	S1	9	U	O4'-C1'-C2'	-5.54	100.26	105.80
32	S1	431	C	C3'-C2'-C1'	5.54	106.84	101.30
32	S1	1287	U	P-O5'-C5'	-5.54	112.59	120.90
32	S1	1421	U	O4'-C1'-C2'	-5.54	102.06	107.60
33	L1	281	G	C1'-O4'-C4'	-5.54	104.36	109.90
33	L1	1207	A	O4'-C1'-C2'	5.54	113.14	107.60
33	L1	2620	U	O4'-C1'-N1	5.54	116.51	108.20
33	L1	3363	G	N9-C1'-C2'	5.54	120.31	112.00
35	L2	54	C	C4'-C3'-C2'	-5.54	97.06	102.60
25	SC	80	ARG	CA-C-N	5.54	130.36	122.72
25	SC	80	ARG	C-N-CA	5.54	130.36	122.72
31	S2	47	U	O4'-C1'-C2'	-5.54	100.26	105.80
33	L1	785	U	C1'-O4'-C4'	-5.54	104.16	109.70
33	L1	1729	G	N9-C1'-C2'	5.54	120.31	112.00
33	L1	2543	G	C3'-C2'-C1'	5.54	106.84	101.30
33	L1	2594	A	N9-C1'-C2'	-5.54	103.69	112.00
36	LA	168	VAL	O-C-N	-5.54	117.05	122.97
47	LU	137	PRO	CA-C-N	5.54	128.63	122.15
47	LU	137	PRO	C-N-CA	5.54	128.63	122.15
57	Ll	16	HIS	CA-CB-CG	-5.54	108.26	113.80
67	LS	90	HIS	ND1-CE1-NE2	5.54	113.94	108.40
1	Sa	204	HIS	CG-CD2-NE2	5.54	112.73	107.20
2	SA	7	ALA	N-CA-CB	5.54	119.84	110.49
23	SU	26	LYS	N-CA-C	5.54	117.45	108.26

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	SN	22	ARG	CA-C-N	5.54	128.04	120.46
28	SN	22	ARG	C-N-CA	5.54	128.04	120.46
28	SN	44	ARG	O-C-N	5.54	127.99	122.12
31	S2	62	C	C4'-C3'-C2'	5.54	108.14	102.60
33	L1	135	G	C1'-O4'-C4'	-5.54	104.36	109.90
33	L1	912	G	O4'-C4'-C3'	-5.54	98.47	104.00
33	L1	2353	C	C1'-C2'-O2'	5.54	116.70	108.40
33	L1	2450	G	P-O3'-C3'	5.54	128.50	120.20
33	L1	2716	U	C4'-C3'-O3'	5.54	117.70	109.40
38	LE	88	VAL	N-CA-C	5.54	120.86	109.34
39	LF	40	HIS	CE1-NE2-CD2	-5.54	103.46	109.00
45	LQ	37	ARG	N-CA-C	5.54	122.59	110.80
46	LT	187	ARG	N-CA-CB	5.54	118.26	110.12
57	Ll	16	HIS	CB-CA-C	5.54	119.08	110.67
60	Lr	80	TYR	O-C-N	-5.54	115.23	122.59
69	La	34	ARG	N-CA-C	5.54	118.22	108.75
81	LD	79	ARG	NE-CZ-NH2	-5.54	114.22	119.20
3	SB	92	VAL	CA-C-N	5.53	132.11	121.54
3	SB	92	VAL	C-N-CA	5.53	132.11	121.54
7	SI	123	LEU	N-CA-CB	5.53	119.84	110.49
12	SO	136	PRO	CA-C-O	-5.53	112.54	120.56
15	SS	26	LYS	N-CA-C	5.53	118.07	111.71
32	S1	380	C	P-O3'-C3'	5.53	128.50	120.20
32	S1	477	A	P-O5'-C5'	-5.53	112.60	120.90
32	S1	1584	A	C3'-C2'-O2'	-5.53	102.40	110.70
33	L1	590	C	C4'-C3'-O3'	5.53	121.30	113.00
33	L1	860	G	O4'-C1'-C2'	5.53	113.13	107.60
33	L1	916	A	P-O3'-C3'	-5.53	111.90	120.20
33	L1	2229	G	C3'-C2'-C1'	-5.53	95.77	101.30
33	L1	2631	A	O4'-C1'-C2'	-5.53	102.07	107.60
33	L1	2862	U	C1'-O4'-C4'	5.53	115.43	109.90
33	L1	2933	C	P-O5'-C5'	-5.53	112.60	120.90
33	L1	3049	A	C4'-C3'-O3'	-5.53	104.70	113.00
54	Lf	54	PRO	O-C-N	5.53	128.16	122.18
66	LN	94	ILE	CA-C-O	-5.53	115.19	120.95
78	Le	208	LYS	CA-C-N	5.53	128.57	120.71
78	Le	208	LYS	C-N-CA	5.53	128.57	120.71
80	LC	116	ARG	NE-CZ-NH1	-5.53	115.97	121.50
32	S1	36	C	P-O5'-C5'	-5.53	112.60	120.90
32	S1	1281	G	C4'-C3'-C2'	-5.53	97.07	102.60
33	L1	163	U	C4'-C3'-C2'	-5.53	97.07	102.60
33	L1	1454	C	O4'-C1'-N1	5.53	116.80	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Sa	65	HIS	N-CA-CB	5.53	118.10	109.97
1	Sa	228	THR	CA-C-O	5.53	127.21	120.57
8	SJ	51	GLY	O-C-N	5.53	127.49	122.18
19	SY	32	ASP	CB-CA-C	5.53	119.66	109.71
33	L1	1059	A	C1'-O4'-C4'	-5.53	104.37	109.90
33	L1	2206	U	O4'-C1'-C2'	5.53	113.13	107.60
33	L1	2546	C	C1'-O4'-C4'	-5.53	104.37	109.90
33	L1	3076	C	C4'-C3'-O3'	-5.53	104.70	113.00
33	L1	3292	U	C4'-C3'-C2'	-5.53	97.07	102.60
33	L1	3317	G	C4'-C3'-O3'	-5.53	104.70	113.00
41	LM	107	ASN	N-CA-CB	-5.53	103.33	109.74
54	Lf	39	ARG	CG-CD-NE	-5.53	99.83	112.00
68	LW	88	LEU	N-CA-C	-5.53	104.89	111.69
80	LC	215	ASP	CA-CB-CG	-5.53	107.07	112.60
1	Sa	117	ALA	CA-C-N	5.53	125.36	119.28
1	Sa	117	ALA	C-N-CA	5.53	125.36	119.28
2	SA	86	TYR	CA-C-O	5.53	126.41	120.55
14	SP	105	HIS	ND1-CE1-NE2	5.53	113.93	108.40
32	S1	966	U	O4'-C1'-N1	5.53	116.79	108.50
32	S1	1108	U	O4'-C1'-N1	5.53	116.79	108.50
33	L1	2749	A	C4'-C3'-O3'	-5.53	104.71	113.00
35	L2	56	A	C1'-O4'-C4'	5.53	115.43	109.90
41	LM	101	ASN	CA-CB-CG	-5.53	107.07	112.60
67	LS	33	ALA	N-CA-C	5.53	115.84	108.38
1	Sa	63	GLN	CG-CD-NE2	5.53	124.69	116.40
10	SL	38	LYS	CG-CD-CE	5.53	124.01	111.30
11	SM	111	LEU	CA-C-O	5.53	126.41	120.55
25	SC	101	LEU	N-CA-CB	5.53	119.83	110.49
29	ST	48	ARG	O-C-N	-5.53	116.53	123.27
33	L1	1567	G	O4'-C1'-C2'	5.53	113.13	107.60
33	L1	1731	A	C3'-C2'-C1'	5.53	106.83	101.30
33	L1	2666	G	O3'-P-O5'	5.53	112.29	104.00
33	L1	2946	U	C3'-C2'-C1'	5.53	106.83	101.30
33	L1	3231	G	O4'-C1'-C2'	5.53	113.13	107.60
33	L1	3336	A	O4'-C1'-C2'	-5.53	102.07	107.60
38	LE	2	SER	N-CA-C	5.53	122.57	110.80
42	LP	97	ASN	N-CA-CB	5.53	118.34	110.44
69	La	24	VAL	CA-C-O	5.53	127.14	120.67
11	SM	108	ARG	NE-CZ-NH2	-5.53	114.23	119.20
33	L1	744	C	O4'-C1'-C2'	-5.53	102.08	107.60
33	L1	2247	A	C2'-C3'-O3'	5.53	121.99	113.70
33	L1	2274	A	O4'-C1'-N9	-5.53	99.91	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2744	C	C4'-C3'-O3'	-5.53	104.71	113.00
33	L1	3136	A	O4'-C1'-C2'	-5.53	102.08	107.60
64	LG	78	GLY	O-C-N	-5.53	117.73	123.31
2	SA	185	MET	N-CA-C	5.52	117.30	111.28
5	SE	95	VAL	N-CA-C	5.52	120.83	109.34
6	SF	149	LEU	CA-C-N	5.52	127.68	120.28
6	SF	149	LEU	C-N-CA	5.52	127.68	120.28
32	S1	390	G	O3'-P-O5'	5.52	112.29	104.00
32	S1	1319	U	O4'-C4'-C3'	-5.52	98.48	104.00
33	L1	2896	C	C1'-O4'-C4'	5.52	115.42	109.90
47	LU	16	ALA	O-C-N	-5.52	116.72	122.96
13	SQ	93	VAL	CA-CB-CG2	5.52	119.79	110.40
31	S2	24	A	O4'-C1'-C2'	5.52	113.12	107.60
32	S1	1645	C	O4'-C1'-N1	5.52	116.48	108.20
33	L1	494	C	O4'-C1'-C2'	-5.52	102.08	107.60
33	L1	571	G	C2'-C3'-O3'	5.52	117.78	109.50
33	L1	1771	G	C4'-C3'-C2'	-5.52	97.08	102.60
51	LY	39	ARG	CA-CB-CG	5.52	125.15	114.10
52	Lb	76	LYS	CB-CA-C	-5.52	104.47	111.70
59	Lo	19	GLN	N-CA-CB	-5.52	102.00	110.12
67	LS	40	LYS	N-CA-CB	5.52	118.02	110.01
70	Li	66	ARG	O-C-N	-5.52	115.91	122.65
2	SA	35	ASP	CA-C-N	5.52	128.13	120.29
2	SA	35	ASP	C-N-CA	5.52	128.13	120.29
6	SF	81	LYS	N-CA-C	-5.52	100.90	109.24
32	S1	1662	G	P-O3'-C3'	-5.52	111.92	120.20
33	L1	1063	G	C3'-C2'-C1'	5.52	106.82	101.30
33	L1	1224	A	C5'-C4'-O4'	-5.52	101.52	109.80
33	L1	1701	G	C1'-O4'-C4'	-5.52	104.38	109.90
33	L1	1874	A	C5'-C4'-C3'	-5.52	106.92	115.20
33	L1	2786	G	O5'-C5'-C4'	5.52	119.78	111.50
33	L1	3288	A	P-O5'-C5'	5.52	129.18	120.90
34	L3	56	G	C1'-O4'-C4'	-5.52	104.38	109.90
10	SL	118	ARG	O-C-N	5.52	129.93	122.59
32	S1	1143	A	C5'-C4'-C3'	-5.52	107.72	116.00
33	L1	1424	G	C3'-C2'-C1'	-5.52	95.78	101.30
33	L1	2070	C	O5'-C5'-C4'	-5.52	103.22	111.50
33	L1	2392	G	C5'-C4'-C3'	5.52	123.48	115.20
33	L1	2687	C	C3'-C2'-C1'	5.52	106.82	101.30
64	LG	30	ALA	N-CA-CB	-5.52	101.98	110.20
79	Ls	51	ASP	CB-CA-C	5.52	119.62	110.90
32	S1	1237	G	N9-C1'-C2'	-5.52	103.72	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2236	U	O4'-C1'-N1	5.52	116.78	108.50
33	L1	2577	G	N9-C1'-C2'	5.52	120.28	112.00
33	L1	2841	G	C4'-C3'-C2'	-5.52	97.08	102.60
33	L1	3376	C	P-O3'-C3'	-5.52	111.92	120.20
33	L1	3377	G	O4'-C4'-C3'	-5.52	98.48	104.00
39	LF	162	GLN	N-CA-CB	5.52	118.72	110.22
66	LN	81	LYS	CB-CG-CD	5.52	123.99	111.30
66	LN	132	ALA	CA-C-N	5.52	127.93	120.65
66	LN	132	ALA	C-N-CA	5.52	127.93	120.65
67	LS	5	ARG	NE-CZ-NH2	-5.52	114.23	119.20
74	LJ	39	PRO	N-CD-CG	5.52	111.48	103.20
2	SA	110	GLY	CA-C-N	-5.52	113.13	120.63
2	SA	110	GLY	C-N-CA	-5.52	113.13	120.63
3	SB	148	LYS	CA-C-O	-5.52	112.62	120.51
32	S1	1575	U	C1'-C2'-O2'	5.52	116.67	108.40
33	L1	279	G	N9-C1'-C2'	-5.52	103.73	112.00
33	L1	578	C	N1-C1'-C2'	5.52	120.27	112.00
47	LU	126	ILE	CA-C-N	5.52	127.94	120.38
47	LU	126	ILE	C-N-CA	5.52	127.94	120.38
53	Ld	41	ARG	CB-CA-C	-5.52	102.19	110.90
59	Lo	23	ILE	N-CA-CB	-5.52	103.49	111.21
70	Li	41	GLY	C-N-CD	-5.52	108.47	120.60
81	LD	168	THR	CB-CA-C	-5.52	101.63	110.79
1	Sa	301	VAL	CB-CA-C	-5.51	102.25	111.29
3	SB	165	ASN	OD1-CG-ND2	-5.51	117.08	122.60
5	SE	94	PRO	CA-C-N	5.51	131.90	121.97
5	SE	94	PRO	C-N-CA	5.51	131.90	121.97
15	SS	9	VAL	N-CA-C	5.51	116.15	110.36
32	S1	532	U	O3'-P-O5'	-5.51	95.73	104.00
32	S1	1018	A	O4'-C1'-C2'	-5.51	102.08	107.60
32	S1	1113	G	O4'-C1'-C2'	5.51	111.31	105.80
32	S1	1156	A	OP1-P-O3'	-5.51	91.46	108.00
33	L1	758	A	O4'-C1'-N9	5.51	116.77	108.50
33	L1	1047	C	N1-C1'-C2'	5.51	120.27	112.00
33	L1	1392	U	C5'-C4'-C3'	-5.51	107.73	116.00
33	L1	1588	G	O4'-C1'-N9	5.51	116.77	108.50
33	L1	2065	G	O4'-C1'-C2'	-5.51	102.09	107.60
33	L1	2336	C	C3'-C2'-O2'	5.51	118.97	110.70
33	L1	2569	G	O4'-C1'-N9	5.51	116.77	108.50
33	L1	2813	A	C3'-C2'-C1'	-5.51	95.79	101.30
35	L2	69	G	P-O3'-C3'	5.51	128.47	120.20
35	L2	106	U	O4'-C1'-N1	5.51	116.77	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
79	Ls	250	ASN	CB-CA-C	5.51	120.22	110.85
1	Sa	344	GLU	N-CA-C	5.51	118.03	109.60
8	SJ	54	ASP	CB-CA-C	-5.51	102.22	110.88
32	S1	1348	A	O4'-C1'-C2'	-5.51	102.09	107.60
33	L1	1714	A	O4'-C1'-C2'	5.51	111.31	105.80
82	LK	70	LYS	CA-C-N	5.51	126.73	119.84
82	LK	70	LYS	C-N-CA	5.51	126.73	119.84
23	SU	28	PHE	CA-C-O	-5.51	114.42	120.43
32	S1	108	C	O4'-C1'-C2'	-5.51	102.09	107.60
32	S1	146	A	P-O3'-C3'	5.51	128.47	120.20
32	S1	942	C	C4'-C3'-C2'	-5.51	97.09	102.60
32	S1	1172	G	C1'-O4'-C4'	-5.51	104.39	109.90
33	L1	207	U	C4'-C3'-C2'	-5.51	97.09	102.60
33	L1	542	G	C5'-C4'-C3'	5.51	124.27	116.00
33	L1	819	A	P-O5'-C5'	-5.51	112.63	120.90
33	L1	1921	U	P-O5'-C5'	-5.51	112.63	120.90
33	L1	2174	C	C4'-C3'-C2'	-5.51	97.09	102.60
33	L1	3034	A	O4'-C1'-C2'	5.51	113.11	107.60
23	SU	53	TYR	CA-C-O	-5.51	112.63	120.51
29	ST	44	LEU	N-CA-C	-5.51	101.14	108.74
32	S1	1029	U	O4'-C1'-C2'	-5.51	102.09	107.60
32	S1	1148	A	C1'-C2'-O2'	-5.51	100.14	108.40
33	L1	22	G	O3'-P-O5'	5.51	112.26	104.00
33	L1	260	U	C5'-C4'-C3'	-5.51	107.74	116.00
33	L1	619	C	P-O3'-C3'	-5.51	111.94	120.20
33	L1	1077	C	N1-C1'-C2'	5.51	120.27	112.00
33	L1	2476	G	C5'-C4'-C3'	5.51	124.26	116.00
33	L1	2515	C	C5'-C4'-C3'	-5.51	107.73	116.00
33	L1	2536	G	C1'-O4'-C4'	-5.51	104.39	109.90
33	L1	3347	U	N1-C1'-C2'	5.51	120.26	112.00
34	L3	92	C	N1-C1'-C2'	5.51	120.26	112.00
35	L2	107	G	C1'-O4'-C4'	-5.51	104.39	109.90
43	LO	67	ARG	N-CA-C	5.51	118.05	111.71
48	LV	128	ARG	N-CA-CB	5.51	119.80	110.49
80	LC	29	VAL	N-CA-C	5.51	116.19	109.30
5	SE	254	ASP	CA-C-N	5.51	127.93	120.44
5	SE	254	ASP	C-N-CA	5.51	127.93	120.44
32	S1	440	A	N9-C1'-C2'	5.51	120.26	112.00
32	S1	985	G	N9-C1'-C2'	5.51	120.26	112.00
33	L1	2161	G	C5'-C4'-C3'	5.51	124.26	116.00
33	L1	2467	A	O5'-C5'-C4'	5.51	119.96	111.70
33	L1	2803	A	N9-C1'-C2'	5.51	122.26	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
48	LV	66	GLY	CA-C-N	-5.51	113.49	120.98
48	LV	66	GLY	C-N-CA	-5.51	113.49	120.98
55	Lg	117	LYS	CA-C-N	5.51	131.88	121.97
55	Lg	117	LYS	C-N-CA	5.51	131.88	121.97
72	Lk	91	GLU	CA-C-N	5.51	128.99	123.04
72	Lk	91	GLU	C-N-CA	5.51	128.99	123.04
5	SE	93	THR	CA-C-N	5.51	126.72	119.84
5	SE	93	THR	C-N-CA	5.51	126.72	119.84
25	SC	99	LEU	CA-C-N	5.51	130.38	122.40
25	SC	99	LEU	C-N-CA	5.51	130.38	122.40
25	SC	125	HIS	CE1-NE2-CD2	-5.51	103.49	109.00
32	S1	1687	G	O4'-C1'-C2'	-5.51	102.09	107.60
32	S1	1704	G	O4'-C1'-N9	5.51	116.76	108.50
33	L1	1281	C	P-O3'-C3'	5.51	128.46	120.20
33	L1	2081	C	P-O3'-C3'	5.51	128.46	120.20
33	L1	3087	A	C4'-C3'-C2'	5.51	108.11	102.60
34	L3	21	U	P-O3'-C3'	5.51	128.46	120.20
35	L2	94	C	C1'-C2'-O2'	5.51	120.06	111.80
45	LQ	157	ASN	CA-C-N	5.51	128.21	120.28
45	LQ	157	ASN	C-N-CA	5.51	128.21	120.28
69	La	41	CYS	CB-CA-C	5.51	122.34	111.22
5	SE	71	PRO	O-C-N	5.50	128.57	122.24
33	L1	2172	C	C2'-C3'-O3'	5.50	117.76	109.50
33	L1	2498	C	O4'-C1'-C2'	-5.50	102.09	107.60
34	L3	41	G	P-O3'-C3'	5.50	128.46	120.20
10	SL	4	THR	CA-C-N	5.50	132.05	121.54
10	SL	4	THR	C-N-CA	5.50	132.05	121.54
20	SZ	21	VAL	CA-C-O	-5.50	113.90	120.78
27	SH	56	HIS	ND1-CE1-NE2	5.50	113.90	108.40
32	S1	735	G	C5'-C4'-C3'	5.50	123.16	114.90
32	S1	772	C	P-O3'-C3'	5.50	128.46	120.20
33	L1	2149	G	O4'-C1'-C2'	5.50	113.10	107.60
33	L1	2220	U	O4'-C1'-C2'	-5.50	102.10	107.60
33	L1	2512	U	C5'-C4'-C3'	5.50	124.26	116.00
36	LA	93	ASN	CA-CB-CG	-5.50	107.10	112.60
68	LW	94	LYS	CA-C-N	5.50	127.66	120.28
68	LW	94	LYS	C-N-CA	5.50	127.66	120.28
15	SS	61	ALA	N-CA-C	-5.50	105.28	111.28
33	L1	56	A	C1'-O4'-C4'	5.50	115.40	109.90
33	L1	1423	C	P-O3'-C3'	-5.50	111.95	120.20
52	Lb	129	ARG	O-C-N	5.50	129.40	122.19
59	Lo	48	LYS	CB-CA-C	-5.50	99.96	109.86

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Le	61	ASP	CA-CB-CG	-5.50	107.10	112.60
31	S2	38	C	O5'-C5'-C4'	5.50	119.75	111.50
33	L1	1254	A	P-O5'-C5'	5.50	129.15	120.90
33	L1	2362	A	C3'-C2'-C1'	-5.50	95.80	101.30
48	LV	157	PRO	N-CD-CG	5.50	111.45	103.20
2	SA	169	ASN	OD1-CG-ND2	5.50	128.10	122.60
32	S1	270	U	O4'-C1'-C2'	-5.50	102.10	107.60
32	S1	1804	A	O4'-C1'-N9	5.50	116.75	108.50
33	L1	125	G	P-O5'-C5'	-5.50	112.65	120.90
33	L1	406	A	N9-C1'-C2'	-5.50	103.75	112.00
33	L1	1122	C	P-O5'-C5'	5.50	129.15	120.90
33	L1	1501	A	P-O3'-C3'	5.50	128.45	120.20
33	L1	1572	C	C3'-C2'-C1'	5.50	106.80	101.30
33	L1	2404	C	C1'-C2'-O2'	5.50	116.65	108.40
57	L1	71	PRO	N-CA-CB	5.50	109.11	103.23
60	Lr	47	GLN	N-CA-C	5.50	119.28	112.24
67	LS	117	ARG	CA-C-O	5.50	128.37	120.51
69	La	34	ARG	CA-C-N	5.50	132.04	121.54
69	La	34	ARG	C-N-CA	5.50	132.04	121.54
15	SS	17	PHE	CA-CB-CG	-5.50	108.30	113.80
32	S1	1512	C	P-O3'-C3'	5.50	128.44	120.20
33	L1	876	C	C3'-C2'-C1'	5.50	106.80	101.30
33	L1	1888	G	N9-C1'-C2'	-5.50	103.75	112.00
33	L1	2796	G	C1'-C2'-O2'	-5.50	100.16	108.40
33	L1	2856	U	O4'-C1'-C2'	-5.50	102.10	107.60
33	L1	2860	U	N1-C1'-C2'	5.50	120.25	112.00
33	L1	2916	G	N9-C1'-C2'	5.50	120.25	112.00
33	L1	3068	U	O3'-P-O5'	5.50	112.25	104.00
33	L1	3233	C	O3'-P-O5'	-5.50	95.75	104.00
33	L1	3317	G	C1'-O4'-C4'	5.50	115.40	109.90
33	L1	3317	G	C2'-C3'-O3'	5.50	121.95	113.70
35	L2	162	C	O3'-P-O5'	-5.50	95.75	104.00
79	Ls	249	LYS	CA-CB-CG	5.50	125.09	114.10
11	SM	134	GLN	CB-CG-CD	5.50	121.94	112.60
32	S1	1004	U	OP2-P-O3'	5.50	124.48	108.00
33	L1	747	A	C5'-C4'-O4'	5.50	118.04	109.80
33	L1	868	A	C1'-C2'-O2'	5.50	116.64	108.40
33	L1	1283	C	C4'-C3'-C2'	5.50	108.09	102.60
33	L1	1780	C	C3'-C2'-C1'	5.50	106.80	101.30
33	L1	2032	C	N1-C1'-C2'	5.50	120.24	112.00
33	L1	2129	U	C1'-O4'-C4'	-5.50	104.41	109.90
35	L2	23	A	C3'-C2'-C1'	-5.50	95.81	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	LE	10	PRO	N-CA-C	5.50	123.79	112.47
15	SS	11	ASP	CA-CB-CG	-5.49	107.11	112.60
32	S1	1363	G	P-O5'-C5'	5.49	129.14	120.90
32	S1	1623	C	C3'-C2'-C1'	5.49	106.79	101.30
33	L1	553	C	C1'-C2'-O2'	-5.49	103.56	111.80
33	L1	1077	C	C1'-O4'-C4'	-5.49	104.41	109.90
33	L1	1264	A	O4'-C4'-C3'	-5.49	98.51	104.00
33	L1	1867	U	C4'-C3'-O3'	5.49	121.24	113.00
33	L1	3152	C	O4'-C1'-N1	5.49	116.44	108.20
56	Lh	103	THR	CA-C-N	5.49	127.58	120.44
56	Lh	103	THR	C-N-CA	5.49	127.58	120.44
67	LS	158	VAL	CB-CA-C	-5.49	96.62	111.34
68	LW	54	GLY	O-C-N	-5.49	115.56	122.70
72	Lk	80	LEU	N-CA-CB	5.49	119.77	110.49
80	LC	76	VAL	CB-CA-C	5.49	118.96	110.50
17	SV	21	GLY	CA-C-N	5.49	132.03	121.54
17	SV	21	GLY	C-N-CA	5.49	132.03	121.54
32	S1	1172	G	N9-C1'-C2'	5.49	120.24	112.00
33	L1	387	A	P-O3'-C3'	5.49	128.44	120.20
48	LV	131	TYR	CB-CA-C	5.49	119.04	109.65
81	LD	199	LYS	CA-C-O	-5.49	113.89	120.10
3	SB	16	VAL	CA-C-N	5.49	127.64	120.28
3	SB	16	VAL	C-N-CA	5.49	127.64	120.28
3	SB	120	TYR	O-C-N	5.49	127.94	122.12
9	SK	80	VAL	CA-C-N	5.49	127.64	120.28
9	SK	80	VAL	C-N-CA	5.49	127.64	120.28
13	SQ	140	ARG	CD-NE-CZ	5.49	132.09	124.40
31	S2	2	C	C1'-O4'-C4'	-5.49	104.41	109.90
32	S1	1705	C	N1-C1'-C2'	5.49	120.24	112.00
33	L1	2527	G	C4'-C3'-O3'	5.49	118.24	110.00
33	L1	2722	U	C4'-C3'-C2'	-5.49	97.11	102.60
35	L2	111	G	N9-C1'-C2'	5.49	120.24	112.00
37	LB	174	ARG	O-C-N	5.49	127.94	122.12
82	LK	73	HIS	ND1-CE1-NE2	5.49	113.89	108.40
3	SB	166	GLU	N-CA-CB	5.49	119.35	110.40
9	SK	143	GLY	N-CA-C	5.49	126.19	113.18
11	SM	9	PHE	N-CA-C	5.49	122.49	110.80
32	S1	17	C	C1'-C2'-O2'	5.49	116.63	108.40
32	S1	201	G	P-O5'-C5'	5.49	128.23	120.00
32	S1	628	G	C3'-C2'-C1'	5.49	106.79	101.30
32	S1	1146	G	C5'-C4'-C3'	-5.49	107.77	116.00
32	S1	1243	C	O4'-C1'-C2'	-5.49	102.11	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	124	C	C1'-O4'-C4'	-5.49	104.41	109.90
33	L1	781	C	C3'-C2'-C1'	5.49	106.79	101.30
33	L1	1117	U	C5'-C4'-C3'	-5.49	107.77	116.00
33	L1	1873	C	C4'-C3'-C2'	-5.49	97.11	102.60
33	L1	1890	C	C2'-C3'-O3'	5.49	121.93	113.70
33	L1	2461	A	C1'-C2'-O2'	5.49	116.63	108.40
33	L1	2802	G	P-O5'-C5'	5.49	129.13	120.90
46	LT	57	ILE	CA-C-N	5.49	132.02	121.54
46	LT	57	ILE	C-N-CA	5.49	132.02	121.54
48	LV	124	GLN	CA-C-O	5.49	128.36	120.51
51	LY	52	ASP	N-CA-C	-5.49	105.89	112.59
54	Lf	47	ILE	CB-CA-C	-5.49	102.51	110.63
55	Lg	11	ARG	N-CA-C	-5.49	99.11	110.80
56	Lh	60	SER	O-C-N	-5.49	116.26	122.68
69	La	99	ASP	CA-CB-CG	5.49	118.09	112.60
32	S1	946	A	P-O5'-C5'	-5.49	112.67	120.90
32	S1	1300	A	C1'-O4'-C4'	-5.49	104.41	109.90
33	L1	241	G	C1'-O4'-C4'	-5.49	104.41	109.90
33	L1	2135	U	C4'-C3'-C2'	5.49	108.09	102.60
59	Lo	22	PRO	O-C-N	5.49	129.69	123.00
25	SC	165	PRO	O-C-N	-5.49	115.23	122.64
32	S1	5	U	P-O5'-C5'	-5.49	112.67	120.90
32	S1	881	G	O4'-C1'-C2'	-5.49	102.11	107.60
33	L1	235	G	O4'-C1'-N9	5.49	116.73	108.50
33	L1	337	C	C5'-C4'-C3'	-5.49	107.77	116.00
33	L1	1874	A	C1'-O4'-C4'	5.49	115.19	109.70
35	L2	102	U	C4'-C3'-C2'	-5.49	97.11	102.60
46	LT	68	GLU	CA-C-N	5.49	132.31	122.38
46	LT	68	GLU	C-N-CA	5.49	132.31	122.38
56	Lh	127	LEU	O-C-N	-5.49	115.52	122.27
5	SE	108	LYS	CA-CB-CG	5.48	125.07	114.10
12	SO	145	THR	CA-C-N	5.48	127.63	120.28
12	SO	145	THR	C-N-CA	5.48	127.63	120.28
32	S1	1227	A	C1'-O4'-C4'	5.48	115.38	109.90
33	L1	1268	G	P-O5'-C5'	5.48	129.12	120.90
33	L1	1664	G	C4'-C3'-C2'	-5.48	94.17	102.40
33	L1	3352	C	C4'-C3'-O3'	5.48	121.23	113.00
41	LM	11	GLY	CA-C-N	5.48	132.01	121.54
41	LM	11	GLY	C-N-CA	5.48	132.01	121.54
49	LX	52	ARG	NE-CZ-NH1	-5.48	116.02	121.50
80	LC	169	ARG	CB-CG-CD	5.48	123.91	111.30
6	SF	41	HIS	N-CA-CB	5.48	119.75	110.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	SP	77	HIS	CE1-NE2-CD2	-5.48	103.52	109.00
19	SY	2	ASP	N-CA-CB	5.48	119.75	110.49
32	S1	1024	A	O4'-C4'-C3'	-5.48	98.52	104.00
32	S1	1677	U	C4'-C3'-C2'	-5.48	97.12	102.60
33	L1	220	G	C1'-O4'-C4'	-5.48	104.42	109.90
33	L1	396	G	O4'-C1'-C2'	5.48	113.08	107.60
33	L1	952	C	P-O3'-C3'	-5.48	111.98	120.20
33	L1	967	G	C5'-C4'-C3'	-5.48	107.78	116.00
33	L1	2439	A	C4'-C3'-C2'	-5.48	97.12	102.60
43	LO	12	ARG	O-C-N	-5.48	115.30	122.59
54	Lf	53	PRO	N-CA-CB	5.48	106.07	103.22
68	LW	34	LYS	N-CA-CB	5.48	119.75	110.49
15	SS	142	ASP	N-CA-CB	-5.48	101.78	110.22
32	S1	665	C	O4'-C1'-C2'	-5.48	102.12	107.60
32	S1	957	A	O4'-C1'-C2'	-5.48	102.12	107.60
33	L1	583	C	O4'-C1'-C2'	-5.48	102.12	107.60
33	L1	2748	G	C3'-C2'-C1'	-5.48	95.82	101.30
33	L1	3377	G	C1'-O4'-C4'	5.48	115.38	109.90
45	LQ	204	VAL	N-CA-C	5.48	120.74	109.34
46	LT	93	ILE	O-C-N	-5.48	116.56	121.87
49	LX	84	LYS	N-CA-CB	5.48	118.17	110.12
57	L1	58	THR	CA-C-N	5.48	128.07	120.29
57	L1	58	THR	C-N-CA	5.48	128.07	120.29
33	L1	1364	C	O4'-C4'-C3'	5.48	109.48	104.00
38	LE	100	ASP	CA-C-O	5.48	126.27	119.97
45	LQ	277	ARG	NH1-CZ-NH2	-5.48	112.18	119.30
59	Lo	22	PRO	N-CA-CB	5.48	109.13	103.38
67	LS	159	ARG	CB-CA-C	5.48	120.96	110.17
4	SD	217	GLN	OE1-CD-NE2	-5.48	117.12	122.60
5	SE	252	TYR	N-CA-C	5.48	120.41	111.37
11	SM	72	HIS	CG-CD2-NE2	5.48	112.68	107.20
32	S1	940	U	C4'-C3'-C2'	5.48	108.08	102.60
33	L1	649	A	C3'-C2'-C1'	-5.48	96.02	101.50
33	L1	1539	G	P-O5'-C5'	5.48	129.12	120.90
33	L1	1583	G	C1'-O4'-C4'	5.48	115.38	109.90
33	L1	2390	G	C3'-C2'-O2'	5.48	118.92	110.70
33	L1	2506	G	O4'-C4'-C3'	-5.48	98.52	104.00
33	L1	2577	G	C1'-C2'-O2'	5.48	116.61	108.40
33	L1	2580	C	C1'-C2'-O2'	5.48	116.62	108.40
33	L1	3156	G	C5'-C4'-C3'	-5.48	107.78	116.00
35	L2	95	C	O4'-C1'-C2'	-5.48	100.32	105.80
37	LB	209	HIS	N-CA-CB	-5.48	103.53	111.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	LQ	39	ARG	N-CA-CB	5.48	117.95	110.01
48	LV	51	VAL	CA-C-N	5.48	127.96	120.46
48	LV	51	VAL	C-N-CA	5.48	127.96	120.46
74	LJ	104	ASN	CA-CB-CG	5.48	118.08	112.60
1	Sa	209	LEU	N-CA-C	-5.48	106.44	113.23
32	S1	1007	G	C5'-C4'-C3'	5.48	124.21	116.00
33	L1	716	A	O4'-C1'-N9	-5.48	100.29	108.50
33	L1	3070	G	C4'-C3'-O3'	-5.48	104.79	113.00
35	L2	36	C	C3'-C2'-C1'	5.48	106.78	101.30
42	LP	156	HIS	N-CA-C	5.48	119.95	113.16
17	SV	78	ARG	CD-NE-CZ	-5.47	116.74	124.40
24	SX	68	PRO	N-CA-C	-5.47	101.19	112.47
32	S1	829	G	O4'-C1'-N9	5.47	116.71	108.50
32	S1	1425	G	O4'-C1'-C2'	-5.47	102.13	107.60
32	S1	1789	U	N1-C1'-C2'	5.47	120.21	112.00
33	L1	1239	U	C1'-C2'-O2'	-5.47	103.59	111.80
33	L1	2693	G	N9-C1'-C2'	5.47	120.21	112.00
36	LA	28	THR	CA-C-O	-5.47	112.88	118.90
46	LT	62	ARG	NH1-CZ-NH2	-5.47	112.18	119.30
77	Lc	19	LEU	N-CA-CB	5.47	118.26	110.16
82	LK	204	ILE	N-CA-C	-5.47	105.62	113.07
1	Sa	242	VAL	N-CA-CB	5.47	119.07	110.31
2	SA	61	LYS	CG-CD-CE	5.47	123.89	111.30
5	SE	82	VAL	CA-C-N	5.47	126.68	119.84
5	SE	82	VAL	C-N-CA	5.47	126.68	119.84
32	S1	1144	A	P-O3'-C3'	5.47	128.41	120.20
32	S1	1214	C	C1'-O4'-C4'	-5.47	104.43	109.90
32	S1	1541	C	C4'-C3'-C2'	-5.47	97.13	102.60
33	L1	591	G	N9-C1'-C2'	5.47	120.21	112.00
33	L1	1430	C	C5'-C4'-C3'	5.47	124.21	116.00
33	L1	1908	C	N1-C1'-C2'	5.47	120.21	112.00
33	L1	2079	A	N9-C1'-C2'	-5.47	103.79	112.00
33	L1	2665	A	P-O3'-C3'	-5.47	111.99	120.20
33	L1	3175	C	O5'-C5'-C4'	5.47	119.71	111.50
38	LE	113	ASP	N-CA-CB	5.47	119.74	110.49
45	LQ	267	TYR	N-CA-C	5.47	116.93	111.07
49	LX	95	ILE	O-C-N	-5.47	116.95	123.03
75	Lt	41	TYR	CB-CG-CD1	5.47	129.01	120.80
81	LD	206	ILE	CA-C-N	5.47	129.70	122.42
81	LD	206	ILE	C-N-CA	5.47	129.70	122.42
4	SD	149	TYR	CA-CB-CG	5.47	123.75	113.90
14	SP	42	GLY	O-C-N	-5.47	114.25	123.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1569	U	O4'-C4'-C3'	5.47	109.47	104.00
33	L1	70	A	C3'-C2'-O2'	-5.47	106.39	114.60
33	L1	1196	U	O4'-C1'-C2'	-5.47	102.13	107.60
33	L1	1500	C	N1-C1'-C2'	5.47	120.21	112.00
33	L1	2649	C	N1-C1'-C2'	5.47	120.21	112.00
35	L2	107	G	P-O3'-C3'	-5.47	111.99	120.20
5	SE	135	ARG	CB-CG-CD	5.47	123.88	111.30
27	SH	91	ALA	CA-C-N	5.47	131.99	121.54
27	SH	91	ALA	C-N-CA	5.47	131.99	121.54
33	L1	793	C	O4'-C1'-C2'	-5.47	102.13	107.60
33	L1	2210	A	C4'-C3'-O3'	-5.47	104.80	113.00
33	L1	2869	C	O3'-P-O5'	-5.47	95.80	104.00
33	L1	3122	U	C4'-C3'-C2'	-5.47	97.13	102.60
34	L3	14	C	C5'-C4'-O4'	-5.47	101.60	109.80
57	L1	70	VAL	N-CA-CB	5.47	114.72	110.45
80	LC	55	HIS	ND1-CE1-NE2	5.47	113.87	108.40
80	LC	112	GLU	CB-CG-CD	5.47	121.90	112.60
81	LD	117	ARG	CA-CB-CG	-5.47	103.16	114.10
32	S1	82	G	C3'-C2'-C1'	5.47	106.77	101.30
32	S1	159	U	O4'-C1'-C2'	-5.47	102.13	107.60
32	S1	1662	G	C5'-C4'-C3'	-5.47	107.80	116.00
33	L1	125	G	C1'-O4'-C4'	-5.47	104.43	109.90
33	L1	330	C	O4'-C1'-C2'	-5.47	102.13	107.60
33	L1	1193	A	N9-C1'-C2'	5.47	120.20	112.00
33	L1	1246	G	O4'-C1'-N9	5.47	116.70	108.50
33	L1	2619	C	P-O3'-C3'	5.47	128.40	120.20
33	L1	3062	G	P-O5'-C5'	5.47	129.10	120.90
39	LF	148	ASN	CA-CB-CG	-5.47	107.13	112.60
5	SE	4	ARG	CA-C-O	-5.47	115.15	120.89
20	SZ	1	MET	CG-SD-CE	-5.47	88.88	100.90
32	S1	391	A	C4'-C3'-O3'	5.47	117.60	109.40
32	S1	1166	C	N1-C1'-C2'	5.47	120.20	112.00
32	S1	1473	C	O4'-C1'-N1	5.47	116.70	108.50
33	L1	1439	U	C1'-O4'-C4'	-5.47	104.43	109.90
33	L1	1466	U	P-O5'-C5'	5.47	129.10	120.90
33	L1	2059	C	C1'-O4'-C4'	-5.47	104.43	109.90
67	LS	154	VAL	O-C-N	5.47	129.40	122.57
81	LD	313	GLU	CA-CB-CG	5.47	125.03	114.10
81	LD	328	ALA	N-CA-C	5.47	118.10	108.75
5	SE	207	THR	CA-CB-OG1	5.46	117.80	109.60
23	SU	10	VAL	CA-CB-CG1	5.46	119.69	110.40
32	S1	15	U	O4'-C1'-N1	5.46	116.70	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	391	A	O4'-C1'-C2'	-5.46	100.34	105.80
32	S1	441	A	P-O3'-C3'	5.46	128.40	120.20
32	S1	605	A	C4'-C3'-O3'	-5.46	104.80	113.00
33	L1	24	C	P-O5'-C5'	-5.46	112.70	120.90
33	L1	586	A	N9-C1'-C2'	5.46	120.20	112.00
33	L1	609	C	O4'-C1'-C2'	-5.46	102.14	107.60
33	L1	1000	A	C5'-C4'-C3'	5.46	124.19	116.00
33	L1	1316	C	C2'-C3'-O3'	5.46	121.89	113.70
33	L1	1325	G	O4'-C1'-C2'	5.46	113.06	107.60
33	L1	3342	C	O4'-C1'-C2'	-5.46	102.14	107.60
33	L1	3379	C	C5'-C4'-O4'	-5.46	101.60	109.80
35	L2	42	U	C3'-C2'-O2'	-5.46	106.40	114.60
52	Lb	106	GLN	CG-CD-OE1	5.46	131.73	120.80
52	Lb	113	ARG	N-CA-CB	5.46	120.10	110.37
55	Lg	12	LYS	CA-C-N	-5.46	112.30	121.75
55	Lg	12	LYS	C-N-CA	-5.46	112.30	121.75
14	SP	119	LYS	CA-C-O	-5.46	112.70	120.51
33	L1	448	G	N9-C1'-C2'	5.46	120.19	112.00
33	L1	793	C	C1'-C2'-O2'	5.46	116.59	108.40
33	L1	1088	A	O4'-C1'-C2'	-5.46	102.14	107.60
33	L1	2639	A	P-O3'-C3'	5.46	128.40	120.20
46	LT	57	ILE	CA-CB-CG1	5.46	119.69	110.40
54	Lf	48	LEU	CB-CA-C	-5.46	101.89	110.79
60	Lr	63	LYS	N-CA-C	-5.46	101.05	109.52
71	Lj	31	THR	O-C-N	-5.46	116.05	123.15
2	SA	163	ILE	CA-C-O	5.46	127.05	120.66
3	SB	116	ARG	CD-NE-CZ	-5.46	116.75	124.40
25	SC	15	LYS	CA-C-N	5.46	135.12	121.80
25	SC	15	LYS	C-N-CA	5.46	135.12	121.80
32	S1	589	A	C1'-C2'-O2'	5.46	116.59	108.40
32	S1	1010	A	O4'-C1'-N9	5.46	116.69	108.50
32	S1	1064	U	C1'-O4'-C4'	5.46	115.36	109.90
32	S1	1242	A	N9-C1'-C2'	-5.46	103.81	112.00
33	L1	1679	U	N1-C1'-C2'	-5.46	103.81	112.00
33	L1	2076	C	O4'-C4'-C3'	-5.46	98.54	104.00
33	L1	2581	C	C4'-C3'-C2'	-5.46	97.14	102.60
81	LD	217	THR	CA-C-N	5.46	128.14	120.28
81	LD	217	THR	C-N-CA	5.46	128.14	120.28
33	L1	687	C	N1-C1'-C2'	5.46	120.19	112.00
33	L1	1072	C	C4'-C3'-O3'	-5.46	104.81	113.00
33	L1	1235	A	N9-C1'-C2'	5.46	120.19	112.00
35	L2	41	A	C1'-O4'-C4'	-5.46	104.24	109.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	LO	22	ILE	CA-C-N	-5.46	113.04	121.45
43	LO	22	ILE	C-N-CA	-5.46	113.04	121.45
56	Lh	14	ARG	CA-C-N	5.46	131.80	121.97
56	Lh	14	ARG	C-N-CA	5.46	131.80	121.97
74	LJ	124	LYS	CA-CB-CG	5.46	125.02	114.10
15	SS	133	ASP	N-CA-CB	5.46	117.98	110.07
32	S1	301	U	P-O3'-C3'	5.46	128.39	120.20
33	L1	299	G	C4'-C3'-O3'	-5.46	104.81	113.00
33	L1	1634	G	C2'-C3'-O3'	5.46	121.89	113.70
33	L1	2643	A	C5'-C4'-O4'	5.46	117.99	109.80
33	L1	3328	A	C4'-C3'-O3'	-5.46	104.81	113.00
34	L3	69	A	C4'-C3'-C2'	-5.46	97.14	102.60
36	LA	29	GLU	N-CA-C	5.46	117.94	110.24
41	LM	53	PRO	N-CA-CB	5.46	108.18	103.27
46	LT	178	GLU	CA-C-N	5.46	127.59	120.28
46	LT	178	GLU	C-N-CA	5.46	127.59	120.28
47	LU	45	ASN	CA-C-O	-5.46	114.83	121.05
48	LV	32	THR	N-CA-C	-5.46	105.33	111.28
48	LV	124	GLN	O-C-N	-5.46	115.33	122.59
49	LX	73	LEU	N-CA-CB	5.46	118.41	109.95
59	Lo	7	PHE	CB-CG-CD2	5.46	129.98	120.70
83	Lm	30	GLU	CB-CA-C	5.46	118.57	109.56
32	S1	975	A	C4'-C3'-C2'	-5.46	97.14	102.60
32	S1	1031	A	C3'-C2'-C1'	5.46	106.96	101.50
32	S1	1121	A	O4'-C1'-N9	5.46	116.69	108.50
32	S1	1339	C	O4'-C1'-C2'	-5.46	102.14	107.60
32	S1	1371	U	C1'-C2'-O2'	5.46	116.59	108.40
33	L1	68	U	O5'-C5'-C4'	5.46	119.69	111.50
33	L1	1630	C	P-O5'-C5'	5.46	129.09	120.90
33	L1	1742	G	O4'-C4'-C3'	-5.46	98.54	104.00
33	L1	1991	U	N1-C1'-C2'	5.46	120.18	112.00
33	L1	2653	U	O4'-C1'-C2'	5.46	113.06	107.60
33	L1	2765	A	O4'-C1'-N9	5.46	116.69	108.50
35	L2	160	C	C3'-C2'-C1'	5.46	106.76	101.30
59	Lo	5	LYS	O-C-N	-5.46	115.56	122.27
79	Ls	31	ALA	N-CA-C	5.46	118.12	109.50
1	Sa	270	ASP	N-CA-CB	5.46	118.13	109.51
2	SA	57	LYS	N-CA-C	5.46	118.15	111.82
5	SE	54	VAL	N-CA-C	-5.46	106.51	113.22
19	SY	40	ARG	CA-C-O	5.46	127.32	121.16
32	S1	1379	U	C1'-O4'-C4'	-5.46	104.44	109.90
33	L1	1197	A	C1'-C2'-O2'	5.46	116.58	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	L3	98	G	C1'-O4'-C4'	-5.46	104.44	109.90
41	LM	68	GLY	CA-C-N	5.46	133.75	123.55
41	LM	68	GLY	C-N-CA	5.46	133.75	123.55
32	S1	1693	C	O3'-P-O5'	-5.45	95.82	104.00
33	L1	853	U	C5'-C4'-C3'	5.45	124.18	116.00
33	L1	1154	U	P-O3'-C3'	-5.45	112.02	120.20
33	L1	2290	A	O4'-C4'-C3'	5.45	109.45	104.00
33	L1	2368	G	O4'-C1'-N9	5.45	116.68	108.50
33	L1	2991	U	C4'-C3'-O3'	-5.45	104.82	113.00
34	L3	117	U	C5'-C4'-O4'	-5.45	101.62	109.80
35	L2	57	A	C4'-C3'-C2'	-5.45	97.15	102.60
44	LR	34	ARG	NH1-CZ-NH2	-5.45	112.21	119.30
55	Lg	83	ILE	CA-CB-CG2	5.45	119.77	110.50
64	LG	91	LYS	N-CA-CB	5.45	120.32	111.21
76	Lw	6	ALA	N-CA-C	5.45	116.91	111.07
32	S1	1632	C	O4'-C1'-C2'	-5.45	102.15	107.60
33	L1	1615	G	O4'-C1'-C2'	5.45	113.05	107.60
33	L1	2691	U	C2'-C3'-O3'	5.45	117.68	109.50
33	L1	2786	G	C3'-C2'-O2'	5.45	118.88	110.70
2	SA	13	SER	CA-C-O	-5.45	115.25	120.92
11	SM	34	LYS	N-CA-CB	-5.45	101.28	110.49
11	SM	106	LYS	CA-C-N	5.45	127.58	120.28
11	SM	106	LYS	C-N-CA	5.45	127.58	120.28
33	L1	1757	G	C4'-C3'-C2'	-5.45	97.15	102.60
33	L1	2109	G	C1'-C2'-O2'	5.45	116.57	108.40
33	L1	2231	G	O4'-C1'-C2'	-5.45	102.15	107.60
33	L1	2829	U	O4'-C1'-C2'	-5.45	100.35	105.80
45	LQ	122	GLY	O-C-N	-5.45	116.10	122.31
48	LV	118	ILE	N-CA-CB	5.45	120.39	111.45
52	Lb	108	SER	N-CA-CB	5.45	119.70	110.49
57	Ll	8	PHE	N-CA-CB	5.45	118.13	110.12
61	Lq	9	ARG	CA-C-O	-5.45	114.64	120.42
78	Le	54	ALA	O-C-N	-5.45	115.94	122.15
81	LD	53	ARG	NE-CZ-NH2	5.45	124.11	119.20
13	SQ	43	SER	CA-C-N	5.45	127.85	120.44
13	SQ	43	SER	C-N-CA	5.45	127.85	120.44
32	S1	440	A	C5'-C4'-C3'	-5.45	107.83	116.00
33	L1	316	A	O4'-C1'-C2'	-5.45	102.15	107.60
33	L1	424	G	O4'-C1'-C2'	-5.45	100.35	105.80
33	L1	906	U	N1-C1'-C2'	-5.45	103.83	112.00
33	L1	1119	G	C4'-C3'-O3'	5.45	117.57	109.40
34	L3	73	U	C4'-C3'-C2'	-5.45	97.15	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	LE	9	ASN	N-CA-C	5.45	121.85	109.81
64	LG	198	LEU	O-C-N	-5.45	115.34	122.59
68	LW	39	ALA	O-C-N	-5.45	116.34	122.12
74	LJ	119	ASN	O-C-N	5.45	129.07	122.48
12	SO	87	ASP	N-CA-CB	5.45	119.69	110.49
32	S1	208	U	O3'-P-O5'	-5.45	95.83	104.00
32	S1	1245	G	O4'-C1'-N9	5.45	116.67	108.50
32	S1	1611	U	C3'-C2'-C1'	5.45	106.75	101.30
33	L1	338	C	C4'-C3'-O3'	-5.45	104.83	113.00
33	L1	635	U	O4'-C1'-C2'	-5.45	102.15	107.60
33	L1	729	G	P-O3'-C3'	-5.45	112.03	120.20
33	L1	1691	U	C4'-C3'-C2'	-5.45	97.15	102.60
33	L1	2669	C	O5'-C5'-C4'	5.45	119.67	111.50
33	L1	3088	A	O3'-P-O5'	5.45	112.17	104.00
55	Lg	26	LYS	CA-CB-CG	5.45	124.99	114.10
58	Ln	18	LYS	CA-C-N	5.45	131.94	121.54
58	Ln	18	LYS	C-N-CA	5.45	131.94	121.54
31	S2	20	C	O3'-P-O5'	5.45	112.17	104.00
32	S1	603	A	O4'-C1'-C2'	5.45	113.05	107.60
33	L1	652	C	C1'-O4'-C4'	5.45	115.14	109.70
33	L1	2234	G	C4'-C3'-C2'	-5.45	97.15	102.60
36	LA	204	TYR	CA-CB-CG	5.45	123.70	113.90
45	LQ	187	GLU	N-CA-CB	5.45	119.69	110.49
46	LT	134	ASN	CA-C-N	5.45	127.58	120.28
46	LT	134	ASN	C-N-CA	5.45	127.58	120.28
60	Lr	86	LYS	N-CA-CB	5.45	119.85	111.46
67	LS	136	CYS	N-CA-C	5.45	118.07	109.96
32	S1	1740	G	C5'-C4'-C3'	5.44	124.17	116.00
33	L1	855	U	P-O3'-C3'	-5.44	112.03	120.20
33	L1	938	U	O4'-C1'-C2'	-5.44	102.16	107.60
34	L3	54	A	O4'-C1'-C2'	-5.44	102.16	107.60
70	Li	71	ARG	N-CA-CB	5.44	119.69	110.49
81	LD	355	ARG	N-CA-C	-5.44	106.41	113.16
9	SK	136	THR	N-CA-C	-5.44	100.82	109.96
32	S1	1131	G	C5'-C4'-O4'	5.44	117.96	109.80
32	S1	1519	G	C4'-C3'-O3'	-5.44	104.83	113.00
33	L1	390	G	C1'-O4'-C4'	5.44	115.34	109.90
33	L1	546	C	C2'-C3'-O3'	5.44	121.86	113.70
33	L1	1242	U	P-O3'-C3'	5.44	128.36	120.20
33	L1	1775	C	C4'-C3'-C2'	-5.44	97.16	102.60
35	L2	40	G	N9-C1'-C2'	5.44	120.16	112.00
36	LA	44	LYS	CA-C-N	5.44	128.12	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	LA	44	LYS	C-N-CA	5.44	128.12	120.28
82	LK	117	TYR	CB-CG-CD1	5.44	128.97	120.80
2	SA	231	ALA	O-C-N	5.44	127.75	122.09
9	SK	72	ALA	CA-C-N	-5.44	111.15	121.54
9	SK	72	ALA	C-N-CA	-5.44	111.15	121.54
32	S1	494	G	C4'-C3'-C2'	-5.44	97.16	102.60
32	S1	1751	U	O4'-C1'-C2'	-5.44	102.16	107.60
33	L1	296	C	C3'-C2'-C1'	5.44	106.94	101.50
33	L1	1164	G	P-O5'-C5'	5.44	129.06	120.90
33	L1	1388	C	P-O3'-C3'	5.44	128.36	120.20
33	L1	1517	C	O4'-C1'-C2'	-5.44	100.36	105.80
33	L1	1567	G	O4'-C1'-N9	5.44	116.66	108.50
33	L1	2131	U	N1-C1'-C2'	-5.44	103.84	112.00
33	L1	2166	U	C1'-C2'-O2'	5.44	116.56	108.40
33	L1	2225	C	C4'-C3'-O3'	-5.44	104.84	113.00
33	L1	2629	C	C3'-C2'-O2'	5.44	118.86	110.70
42	LP	62	TYR	N-CA-C	-5.44	99.45	108.75
67	LS	112	MET	N-CA-CB	5.44	118.21	110.16
81	LD	47	LEU	N-CA-C	5.44	116.89	111.07
81	LD	183	ASP	CA-CB-CG	-5.44	107.16	112.60
1	Sa	164	GLN	CA-C-N	5.44	130.42	121.39
1	Sa	164	GLN	C-N-CA	5.44	130.42	121.39
3	SB	29	LEU	CB-CA-C	5.44	118.70	111.14
33	L1	508	G	O4'-C4'-C3'	-5.44	98.56	104.00
33	L1	1059	A	O5'-C5'-C4'	-5.44	103.34	111.50
33	L1	1297	U	P-O5'-C5'	5.44	129.06	120.90
33	L1	2041	G	O4'-C1'-N9	5.44	116.66	108.50
33	L1	2590	C	P-O3'-C3'	-5.44	112.04	120.20
34	L3	71	A	C4'-C3'-O3'	-5.44	104.84	113.00
81	LD	333	LEU	O-C-N	5.44	127.89	122.12
4	SD	131	PHE	CA-CB-CG	-5.44	108.36	113.80
5	SE	120	VAL	N-CA-CB	5.44	121.06	110.95
23	SU	78	PHE	CB-CG-CD2	-5.44	111.46	120.70
32	S1	1218	U	C1'-C2'-O2'	5.44	116.56	108.40
33	L1	239	C	O4'-C1'-C2'	-5.44	102.16	107.60
33	L1	526	A	C5'-C4'-C3'	-5.44	107.84	116.00
33	L1	546	C	O5'-C5'-C4'	5.44	119.66	111.50
33	L1	1279	C	P-O5'-C5'	-5.44	112.74	120.90
33	L1	1889	G	C1'-O4'-C4'	-5.44	104.46	109.90
33	L1	2644	U	P-O5'-C5'	5.44	129.06	120.90
35	L2	86	C	O4'-C1'-C2'	-5.44	100.36	105.80
46	LT	176	ARG	N-CA-C	-5.44	106.02	113.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
52	Lb	95	GLU	CA-C-O	-5.44	114.66	120.42
70	Li	52	GLN	O-C-N	-5.44	116.00	122.63
71	Lj	14	ARG	N-CA-C	-5.44	101.14	109.41
5	SE	35	ARG	NE-CZ-NH1	-5.44	116.06	121.50
32	S1	1610	C	C1'-O4'-C4'	5.44	115.34	109.90
33	L1	632	C	C4'-C3'-O3'	-5.44	104.85	113.00
33	L1	1724	C	O4'-C1'-C2'	-5.44	102.16	107.60
33	L1	3337	G	C5'-C4'-O4'	-5.44	101.65	109.80
35	L2	117	U	C1'-C2'-O2'	5.44	116.56	108.40
36	LA	24	LYS	N-CA-C	5.44	117.96	111.71
11	SM	117	ILE	CB-CG1-CD1	5.43	125.21	113.80
32	S1	179	A	P-O3'-C3'	5.43	128.35	120.20
33	L1	577	G	O4'-C1'-C2'	-5.43	102.17	107.60
33	L1	715	A	C2'-C3'-O3'	5.43	121.85	113.70
33	L1	1182	A	P-O3'-C3'	-5.43	112.05	120.20
37	LB	193	ARG	O-C-N	-5.43	115.99	122.46
73	Lp	50	LYS	CA-C-O	-5.43	112.74	120.51
1	Sa	200	PHE	N-CA-CB	5.43	118.39	110.30
4	SD	188	ASN	CA-CB-CG	5.43	118.03	112.60
33	L1	831	G	P-O3'-C3'	-5.43	112.05	120.20
33	L1	1525	U	O5'-C5'-C4'	5.43	119.85	111.70
33	L1	1699	C	C4'-C3'-C2'	5.43	108.03	102.60
33	L1	2028	C	N1-C1'-C2'	5.43	120.15	112.00
33	L1	2881	C	C4'-C3'-C2'	-5.43	97.17	102.60
35	L2	30	C	C4'-C3'-C2'	-5.43	97.17	102.60
35	L2	102	U	C2'-C3'-O3'	5.43	121.85	113.70
55	Lg	14	GLU	N-CA-C	-5.43	99.23	110.80
55	Lg	85	ARG	N-CA-C	5.43	119.10	108.18
78	Le	101	THR	CA-C-N	5.43	127.56	120.28
78	Le	101	THR	C-N-CA	5.43	127.56	120.28
78	Le	144	LYS	N-CA-C	5.43	117.01	111.14
32	S1	679	C	C3'-C2'-C1'	5.43	106.73	101.30
32	S1	1562	C	N1-C1'-C2'	5.43	120.15	112.00
33	L1	2956	U	C1'-O4'-C4'	5.43	115.13	109.70
37	LB	50	HIS	CG-CD2-NE2	5.43	112.63	107.20
33	L1	882	U	P-O3'-C3'	5.43	128.34	120.20
33	L1	3044	C	O4'-C1'-C2'	-5.43	102.17	107.60
33	L1	3292	U	N1-C1'-C2'	-5.43	103.86	112.00
35	L2	89	G	P-O5'-C5'	5.43	129.05	120.90
41	LM	87	PRO	CA-C-N	5.43	131.08	122.94
41	LM	87	PRO	C-N-CA	5.43	131.08	122.94
76	Lw	35	ASP	CA-CB-CG	-5.43	107.17	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	606	U	O4'-C1'-N1	5.43	116.64	108.50
32	S1	667	U	N1-C1'-C2'	5.43	120.14	112.00
32	S1	943	G	C1'-C2'-O2'	5.43	116.54	108.40
33	L1	1249	A	P-O3'-C3'	5.43	128.34	120.20
33	L1	1437	G	C1'-O4'-C4'	-5.43	104.27	109.70
35	L2	56	A	N9-C1'-C2'	-5.43	103.86	112.00
35	L2	138	G	O4'-C1'-N9	-5.43	100.36	108.50
56	Lh	27	ILE	N-CA-C	5.43	116.16	110.62
59	Lo	4	HIS	CG-CD2-NE2	5.43	112.63	107.20
64	LG	21	HIS	CA-CB-CG	-5.43	108.37	113.80
69	La	79	HIS	N-CA-C	5.43	117.28	111.36
81	LD	158	ILE	O-C-N	-5.43	117.02	123.04
5	SE	45	VAL	N-CA-CB	5.43	114.16	110.52
32	S1	380	C	O4'-C1'-N1	5.43	116.64	108.50
32	S1	840	U	C5'-C4'-C3'	-5.43	107.86	116.00
33	L1	383	A	O4'-C1'-C2'	-5.43	102.17	107.60
33	L1	495	G	C3'-C2'-C1'	-5.43	95.87	101.30
33	L1	630	C	N1-C1'-C2'	5.43	120.14	112.00
33	L1	1317	G	C1'-O4'-C4'	5.43	115.33	109.90
33	L1	1524	G	O4'-C1'-N9	5.43	116.64	108.50
33	L1	1768	U	O4'-C4'-C3'	-5.43	100.67	106.10
33	L1	1844	U	P-O5'-C5'	5.43	129.04	120.90
33	L1	2722	U	O4'-C1'-N1	5.43	116.64	108.50
33	L1	2765	A	C4'-C3'-O3'	5.43	121.14	113.00
33	L1	3121	C	P-O5'-C5'	5.43	129.04	120.90
33	L1	3212	C	C1'-O4'-C4'	-5.43	104.47	109.90
33	L1	3361	G	P-O3'-C3'	-5.43	112.06	120.20
66	LN	6	PHE	CA-CB-CG	5.43	119.23	113.80
78	Le	178	HIS	CE1-NE2-CD2	-5.43	103.57	109.00
31	S2	26	G	C1'-C2'-O2'	5.42	116.54	108.40
32	S1	615	U	N1-C1'-C2'	5.42	120.14	112.00
32	S1	938	A	C3'-C2'-C1'	5.42	106.72	101.30
32	S1	1745	U	C2'-C3'-O3'	-5.42	105.56	113.70
33	L1	1388	C	O4'-C1'-N1	5.42	116.64	108.50
33	L1	2464	G	C4'-C3'-C2'	-5.42	97.18	102.60
33	L1	2866	A	C4'-C3'-O3'	-5.42	104.86	113.00
33	L1	3387	U	O4'-C1'-N1	5.42	116.64	108.50
45	LQ	14	HIS	CA-C-N	5.42	127.55	120.28
45	LQ	14	HIS	C-N-CA	5.42	127.55	120.28
84	LI	41	LYS	CB-CG-CD	5.42	123.78	111.30
2	SA	39	GLU	CA-C-N	5.42	128.09	120.28
2	SA	39	GLU	C-N-CA	5.42	128.09	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	SB	90	LYS	CA-CB-CG	-5.42	103.25	114.10
32	S1	1143	A	O4'-C1'-C2'	-5.42	102.18	107.60
32	S1	1338	U	O3'-P-O5'	-5.42	95.86	104.00
33	L1	232	C	O4'-C1'-C2'	-5.42	102.18	107.60
33	L1	1754	C	C3'-C2'-C1'	5.42	106.72	101.30
33	L1	2576	C	O4'-C1'-C2'	-5.42	102.18	107.60
33	L1	2773	G	O4'-C4'-C3'	5.42	109.42	104.00
35	L2	70	G	O5'-C5'-C4'	5.42	119.64	111.50
46	LT	3	SER	CA-C-O	5.42	126.26	120.46
29	ST	22	ARG	NE-CZ-NH2	-5.42	114.32	119.20
32	S1	966	U	N1-C1'-C2'	5.42	120.13	112.00
32	S1	1774	C	O4'-C1'-C2'	-5.42	102.18	107.60
33	L1	501	U	N1-C1'-C2'	5.42	120.13	112.00
33	L1	545	C	C5'-C4'-C3'	5.42	124.13	116.00
33	L1	601	G	C4'-C3'-C2'	-5.42	97.18	102.60
33	L1	745	G	C1'-O4'-C4'	5.42	115.32	109.90
33	L1	1345	U	O4'-C1'-C2'	-5.42	102.18	107.60
33	L1	1663	G	C4'-C3'-C2'	-5.42	97.18	102.60
33	L1	1849	U	O3'-P-O5'	-5.42	95.87	104.00
33	L1	2126	C	O4'-C1'-N1	5.42	116.63	108.50
45	LQ	28	ARG	CD-NE-CZ	-5.42	116.81	124.40
45	LQ	52	LYS	CA-CB-CG	5.42	124.94	114.10
45	LQ	107	ALA	N-CA-CB	-5.42	102.15	110.12
48	LV	33	ALA	N-CA-C	5.42	116.87	111.07
67	LS	104	ALA	N-CA-CB	-5.42	102.15	110.12
80	LC	122	TRP	CB-CG-CD2	-5.42	119.21	126.80
81	LD	316	ARG	CA-C-O	5.42	127.83	119.21
81	LD	363	ARG	CB-CG-CD	5.42	123.77	111.30
83	Lm	1	MET	CB-CA-C	5.42	120.40	110.10
33	L1	77	U	C4'-C3'-O3'	-5.42	104.87	113.00
33	L1	2871	U	P-O5'-C5'	-5.42	112.77	120.90
33	L1	3250	C	N1-C1'-C2'	5.42	120.13	112.00
38	LE	118	TYR	CB-CA-C	5.42	119.79	110.79
32	S1	405	A	O4'-C4'-C3'	-5.42	100.68	106.10
32	S1	1107	G	O4'-C1'-N9	5.42	116.63	108.50
32	S1	1288	C	P-O5'-C5'	-5.42	112.77	120.90
33	L1	1122	C	C4'-C3'-O3'	-5.42	104.87	113.00
33	L1	2129	U	O4'-C1'-N1	5.42	116.63	108.50
33	L1	2460	A	C1'-O4'-C4'	-5.42	104.28	109.70
37	LB	67	PHE	N-CA-CB	5.42	119.65	110.49
40	LH	62	ILE	CA-C-N	5.42	131.89	121.54
40	LH	62	ILE	C-N-CA	5.42	131.89	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	Lg	105	GLU	CA-CB-CG	5.42	124.94	114.10
56	Lh	11	VAL	N-CA-C	5.42	117.86	111.09
68	LW	99	ARG	CA-C-N	5.42	131.89	121.54
68	LW	99	ARG	C-N-CA	5.42	131.89	121.54
3	SB	68	GLU	CA-CB-CG	-5.42	103.27	114.10
4	SD	50	ASN	OD1-CG-ND2	-5.42	117.18	122.60
4	SD	223	GLY	CA-C-N	5.42	128.54	120.31
4	SD	223	GLY	C-N-CA	5.42	128.54	120.31
5	SE	94	PRO	CA-N-CD	-5.42	104.42	112.00
33	L1	629	U	N1-C1'-C2'	5.42	120.12	112.00
33	L1	755	C	O4'-C1'-C2'	5.42	111.22	105.80
33	L1	786	U	O4'-C1'-N1	5.42	116.33	108.20
33	L1	1176	U	O4'-C1'-C2'	-5.42	102.18	107.60
33	L1	1540	G	N9-C1'-C2'	5.42	120.12	112.00
33	L1	1882	A	C5'-C4'-C3'	5.42	124.13	116.00
33	L1	2088	C	C1'-O4'-C4'	-5.42	104.48	109.90
38	LE	100	ASP	CB-CA-C	5.42	121.07	110.67
57	Ll	13	ASN	N-CA-C	-5.42	101.29	109.85
60	Lr	11	TYR	N-CA-C	5.42	118.30	110.28
67	LS	32	TRP	CA-CB-CG	5.42	123.89	113.60
79	Ls	96	GLY	O-C-N	-5.42	115.66	122.70
32	S1	1556	U	O3'-P-O5'	5.42	112.12	104.00
33	L1	651	A	P-O3'-C3'	5.42	128.32	120.20
47	LU	11	THR	CA-CB-OG1	5.42	117.72	109.60
77	Lc	102	SER	CA-C-N	5.42	127.98	120.29
77	Lc	102	SER	C-N-CA	5.42	127.98	120.29
32	S1	1458	U	C1'-O4'-C4'	-5.41	104.49	109.90
32	S1	1581	A	N9-C1'-C2'	-5.41	105.88	114.00
33	L1	244	G	O4'-C1'-C2'	5.41	113.01	107.60
33	L1	421	A	P-O3'-C3'	-5.41	112.08	120.20
33	L1	1693	A	O5'-C5'-C4'	5.41	119.62	111.50
33	L1	1886	U	C4'-C3'-O3'	-5.41	104.88	113.00
33	L1	3150	G	C3'-C2'-C1'	-5.41	95.89	101.30
42	LP	65	ARG	N-CA-CB	-5.41	102.20	110.65
45	LQ	7	PHE	CA-C-N	5.41	130.02	121.09
45	LQ	7	PHE	C-N-CA	5.41	130.02	121.09
46	LT	181	LEU	CA-C-O	-5.41	115.12	120.70
56	Lh	40	ASP	CA-CB-CG	-5.41	107.19	112.60
74	LJ	98	ASN	N-CA-C	-5.41	99.27	110.80
32	S1	6	G	O5'-C5'-C4'	-5.41	103.38	111.50
32	S1	585	U	O4'-C1'-C2'	-5.41	102.19	107.60
32	S1	1541	C	O5'-C5'-C4'	-5.41	103.38	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	534	G	C2'-C3'-O3'	5.41	121.82	113.70
33	L1	1191	U	P-O5'-C5'	-5.41	112.78	120.90
33	L1	2808	U	P-O3'-C3'	-5.41	112.08	120.20
3	SB	132	LYS	N-CA-CB	5.41	119.63	110.49
8	SJ	125	ILE	N-CA-CB	5.41	116.83	110.82
25	SC	52	SER	N-CA-CB	5.41	118.07	110.12
25	SC	131	ILE	CA-C-N	5.41	127.97	120.29
25	SC	131	ILE	C-N-CA	5.41	127.97	120.29
32	S1	316	A	C2'-C3'-O3'	5.41	117.62	109.50
32	S1	359	G	O4'-C1'-C2'	-5.41	102.19	107.60
33	L1	29	G	O5'-C5'-C4'	5.41	119.62	111.50
33	L1	350	A	O4'-C4'-C3'	-5.41	100.69	106.10
33	L1	1096	C	O4'-C1'-N1	5.41	116.61	108.50
33	L1	1666	C	C5'-C4'-C3'	-5.41	107.88	116.00
33	L1	1866	C	C5'-C4'-C3'	5.41	124.12	116.00
36	LA	164	MET	O-C-N	-5.41	117.83	123.56
38	LE	58	SER	CA-C-O	-5.41	112.77	120.51
45	LQ	177	ASP	O-C-N	-5.41	115.70	122.35
48	LV	128	ARG	NH1-CZ-NH2	-5.41	112.27	119.30
69	La	98	PRO	CA-C-N	5.41	131.44	121.70
69	La	98	PRO	C-N-CA	5.41	131.44	121.70
7	SI	89	GLN	CA-C-O	-5.41	114.72	120.40
19	SY	24	THR	N-CA-C	-5.41	99.28	110.80
32	S1	679	C	O4'-C1'-C2'	-5.41	102.19	107.60
32	S1	883	G	C4'-C3'-C2'	-5.41	97.19	102.60
32	S1	1325	A	C3'-C2'-O2'	-5.41	106.49	114.60
33	L1	1949	G	C3'-C2'-C1'	-5.41	95.89	101.30
33	L1	2462	G	C5'-C4'-C3'	5.41	124.11	116.00
33	L1	2622	G	O4'-C4'-C3'	5.41	109.41	104.00
33	L1	2730	A	C5'-C4'-C3'	-5.41	107.09	115.20
34	L3	75	G	C5'-C4'-O4'	5.41	117.21	109.10
48	LV	56	GLN	OE1-CD-NE2	5.41	128.01	122.60
60	Lr	4	VAL	CA-C-N	5.41	125.35	119.78
60	Lr	4	VAL	C-N-CA	5.41	125.35	119.78
64	LG	12	LYS	CB-CA-C	-5.41	99.66	110.42
66	LN	23	ARG	CB-CA-C	-5.41	99.66	110.42
68	LW	55	LYS	CA-CB-CG	5.41	124.92	114.10
74	LJ	122	MET	CA-C-N	5.41	128.53	120.90
74	LJ	122	MET	C-N-CA	5.41	128.53	120.90
77	Lc	74	TYR	CA-C-O	-5.41	112.94	119.27
8	SJ	97	VAL	CA-C-O	-5.41	114.53	120.48
25	SC	104	GLU	N-CA-C	-5.41	101.08	109.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1599	C	N1-C1'-C2'	5.41	120.11	112.00
33	L1	1602	A	O3'-P-O5'	-5.41	95.89	104.00
33	L1	2787	A	C1'-O4'-C4'	-5.41	104.49	109.90
33	L1	3365	U	O4'-C1'-N1	5.41	116.61	108.50
42	LP	7	VAL	CA-C-N	5.41	127.53	120.28
42	LP	7	VAL	C-N-CA	5.41	127.53	120.28
47	LU	120	LYS	N-CA-C	-5.41	104.96	113.02
1	Sa	8	LYS	CA-C-N	5.41	129.43	120.94
1	Sa	8	LYS	C-N-CA	5.41	129.43	120.94
25	SC	65	ASP	O-C-N	-5.41	115.40	122.59
32	S1	1083	C	C1'-O4'-C4'	-5.41	104.50	109.90
33	L1	19	C	O4'-C1'-N1	-5.41	100.39	108.50
33	L1	1113	C	C4'-C3'-C2'	-5.41	97.19	102.60
33	L1	1268	G	C2'-C3'-O3'	5.41	117.61	109.50
33	L1	2737	A	C3'-C2'-C1'	5.41	106.70	101.30
48	LV	132	ARG	CD-NE-CZ	5.41	131.97	124.40
71	Lj	86	ARG	NE-CZ-NH2	-5.41	114.33	119.20
81	LD	394	PHE	CA-C-O	-5.41	115.14	120.82
32	S1	41	A	C3'-C2'-C1'	5.40	106.70	101.30
32	S1	915	C	C1'-O4'-C4'	5.40	115.30	109.90
32	S1	1107	G	P-O3'-C3'	-5.40	112.09	120.20
33	L1	160	G	C1'-O4'-C4'	-5.40	104.50	109.90
33	L1	2343	U	C1'-O4'-C4'	-5.40	104.50	109.90
33	L1	2747	U	C5'-C4'-C3'	-5.40	107.89	116.00
38	LE	53	ARG	CD-NE-CZ	-5.40	116.83	124.40
7	SI	35	ILE	CA-C-O	-5.40	115.42	121.36
32	S1	321	C	O4'-C1'-C2'	-5.40	102.20	107.60
32	S1	1073	C	C3'-C2'-C1'	-5.40	95.90	101.30
32	S1	1136	A	C1'-C2'-O2'	5.40	116.50	108.40
32	S1	1446	C	O3'-P-O5'	5.40	112.11	104.00
33	L1	2538	G	C3'-C2'-C1'	-5.40	95.90	101.30
39	LF	5	LEU	N-CA-C	5.40	115.67	108.38
47	LU	5	HIS	N-CA-C	-5.40	99.29	110.80
64	LG	51	TYR	CA-CB-CG	-5.40	104.17	113.90
80	LC	225	LYS	CB-CA-C	-5.40	100.75	109.72
11	SM	138	THR	N-CA-C	-5.40	101.22	108.19
12	SO	81	ALA	N-CA-CB	-5.40	102.30	110.40
28	SN	51	GLY	CA-C-O	5.40	124.79	118.96
32	S1	584	A	C5'-C4'-C3'	-5.40	107.10	115.20
32	S1	784	C	P-O3'-C3'	5.40	128.30	120.20
32	S1	923	U	O4'-C1'-N1	5.40	116.60	108.50
32	S1	998	A	C1'-O4'-C4'	-5.40	104.50	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	418	G	O4'-C1'-C2'	-5.40	102.20	107.60
33	L1	1128	U	N1-C1'-C2'	5.40	120.10	112.00
33	L1	2518	A	O5'-C5'-C4'	5.40	119.60	111.50
33	L1	2796	G	P-O5'-C5'	-5.40	112.80	120.90
34	L3	116	U	C1'-C2'-O2'	5.40	116.50	108.40
35	L2	89	G	C1'-C2'-O2'	-5.40	103.70	111.80
37	LB	77	VAL	O-C-N	-5.40	117.16	122.67
41	LM	49	LEU	N-CA-CB	-5.40	101.36	110.49
46	LT	49	PHE	CA-C-O	5.40	126.14	120.42
81	LD	117	ARG	NE-CZ-NH1	-5.40	116.10	121.50
84	LI	15	LYS	O-C-N	-5.40	115.38	121.43
5	SE	49	LYS	CA-C-N	5.40	131.85	121.54
5	SE	49	LYS	C-N-CA	5.40	131.85	121.54
13	SQ	121	GLN	CA-C-O	5.40	126.75	120.49
15	SS	4	SER	CA-C-O	-5.40	114.83	120.55
31	S2	44	A	O4'-C1'-C2'	5.40	113.00	107.60
32	S1	658	C	O4'-C1'-C2'	-5.40	102.20	107.60
33	L1	69	U	O5'-C5'-C4'	5.40	119.60	111.50
33	L1	238	C	O5'-C5'-C4'	5.40	119.60	111.50
33	L1	484	C	C1'-C2'-O2'	-5.40	100.30	108.40
33	L1	1174	G	C4'-C3'-C2'	-5.40	97.20	102.60
33	L1	2561	A	C4'-C3'-O3'	5.40	117.50	109.40
33	L1	3247	C	C1'-O4'-C4'	-5.40	104.50	109.90
37	LB	71	HIS	CB-CG-CD2	-5.40	124.18	131.20
47	LU	116	LYS	N-CA-CB	5.40	118.06	110.12
70	Li	100	GLN	CB-CA-C	5.40	119.75	110.79
25	SC	157	HIS	N-CA-CB	5.40	119.61	110.49
33	L1	631	C	C1'-O4'-C4'	-5.40	104.50	109.90
33	L1	1141	U	O4'-C1'-N1	5.40	116.59	108.50
35	L2	115	G	N9-C1'-C2'	-5.40	103.91	112.00
47	LU	155	ASP	CA-C-N	5.40	129.00	120.47
47	LU	155	ASP	C-N-CA	5.40	129.00	120.47
76	Lv	54	LEU	CA-C-N	5.40	127.51	120.28
76	Lv	54	LEU	C-N-CA	5.40	127.51	120.28
27	SH	124	LYS	CA-C-N	5.39	128.41	120.91
27	SH	124	LYS	C-N-CA	5.39	128.41	120.91
32	S1	274	A	O3'-P-O5'	-5.39	95.91	104.00
32	S1	533	C	P-O5'-C5'	-5.39	111.91	120.00
33	L1	907	A	O4'-C1'-N9	-5.39	100.41	108.50
33	L1	2488	A	O4'-C1'-N9	5.39	116.59	108.50
40	LH	225	VAL	N-CA-CB	5.39	120.67	111.50
51	LY	36	THR	CA-CB-OG1	5.39	117.69	109.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	SJ	56	SER	N-CA-C	5.39	116.84	111.07
15	SS	39	ILE	CB-CA-C	-5.39	105.07	111.97
32	S1	1349	A	O4'-C1'-N9	5.39	116.59	108.50
33	L1	509	G	O4'-C4'-C3'	-5.39	98.61	104.00
33	L1	1035	C	O4'-C4'-C3'	-5.39	98.61	104.00
33	L1	1525	U	P-O3'-C3'	5.39	128.29	120.20
33	L1	2566	C	C1'-O4'-C4'	-5.39	104.51	109.90
33	L1	2730	A	C1'-O4'-C4'	5.39	115.09	109.70
51	LY	40	HIS	CE1-NE2-CD2	-5.39	103.61	109.00
59	Lo	30	ARG	N-CA-C	5.39	122.28	110.80
60	Lr	27	GLN	CG-CD-OE1	5.39	131.58	120.80
64	LG	20	TYR	CB-CG-CD1	5.39	128.89	120.80
33	L1	770	U	O4'-C1'-N1	5.39	116.59	108.50
33	L1	1429	U	C3'-C2'-C1'	5.39	106.69	101.30
33	L1	2398	A	P-O3'-C3'	-5.39	112.11	120.20
37	LB	225	VAL	CA-CB-CG1	5.39	119.56	110.40
45	LQ	84	LEU	O-C-N	5.39	125.78	120.71
56	Lh	70	ASN	CA-CB-CG	-5.39	107.21	112.60
4	SD	191	ARG	NE-CZ-NH2	5.39	124.05	119.20
25	SC	83	ASN	N-CA-C	-5.39	101.10	109.24
32	S1	1313	G	O4'-C1'-N9	5.39	116.58	108.50
33	L1	1043	U	C1'-C2'-O2'	5.39	116.49	108.40
33	L1	1299	G	C1'-O4'-C4'	-5.39	104.51	109.90
33	L1	1442	U	P-O5'-C5'	5.39	128.99	120.90
33	L1	1589	G	C5'-C4'-C3'	5.39	123.28	115.20
36	LA	126	GLY	N-CA-C	-5.39	107.83	115.43
68	LW	106	ALA	CA-C-N	5.39	131.83	121.54
68	LW	106	ALA	C-N-CA	5.39	131.83	121.54
70	Li	68	SER	CA-C-N	5.39	131.83	121.54
70	Li	68	SER	C-N-CA	5.39	131.83	121.54
75	Lt	42	TRP	N-CA-C	5.39	119.57	112.35
32	S1	1540	U	C3'-C2'-C1'	-5.39	95.91	101.30
33	L1	400	G	C1'-C2'-O2'	5.39	119.88	111.80
33	L1	1097	A	N9-C1'-C2'	5.39	120.08	112.00
33	L1	1409	G	C1'-O4'-C4'	-5.39	104.51	109.90
33	L1	1744	C	C1'-O4'-C4'	-5.39	104.51	109.90
33	L1	2168	C	C2'-C3'-O3'	5.39	121.78	113.70
78	Le	195	PRO	N-CA-C	5.39	123.57	112.47
9	SK	139	THR	N-CA-C	-5.39	103.19	110.68
12	SO	42	LYS	N-CA-C	5.39	122.27	110.80
32	S1	422	G	N9-C1'-C2'	5.39	120.08	112.00
32	S1	1437	C	O4'-C1'-C2'	-5.39	100.41	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	812	G	C3'-C2'-O2'	5.39	118.78	110.70
33	L1	1913	C	C1'-O4'-C4'	-5.39	104.51	109.90
33	L1	2030	U	O4'-C1'-C2'	-5.39	102.21	107.60
33	L1	2516	U	C2'-C3'-O3'	5.39	121.78	113.70
33	L1	2903	G	P-O5'-C5'	-5.39	112.82	120.90
33	L1	3000	U	C5'-C4'-C3'	5.39	124.08	116.00
38	LE	8	LEU	CA-C-N	5.39	134.94	121.80
38	LE	8	LEU	C-N-CA	5.39	134.94	121.80
39	LF	93	PHE	CA-CB-CG	-5.39	108.41	113.80
41	LM	10	ALA	N-CA-C	-5.39	101.11	108.38
43	LO	92	LYS	N-CA-C	5.39	118.04	110.23
57	Ll	68	ARG	N-CA-C	5.39	117.57	111.11
60	Lr	13	LYS	CA-C-N	5.39	131.83	121.54
60	Lr	13	LYS	C-N-CA	5.39	131.83	121.54
25	SC	177	LYS	CB-CA-C	5.38	119.73	110.79
32	S1	328	U	O4'-C1'-N1	5.38	116.58	108.50
32	S1	417	U	C1'-O4'-C4'	-5.38	104.52	109.90
32	S1	1713	C	C1'-C2'-O2'	5.38	116.48	108.40
33	L1	147	G	O3'-P-O5'	-5.38	95.92	104.00
33	L1	643	G	P-O5'-C5'	-5.38	112.82	120.90
33	L1	1362	C	O4'-C1'-N1	5.38	116.58	108.50
33	L1	1726	G	N9-C1'-C2'	5.38	120.08	112.00
33	L1	2219	A	P-O5'-C5'	5.38	128.98	120.90
33	L1	2412	A	O4'-C1'-N9	5.38	116.58	108.50
33	L1	3049	A	O3'-P-O5'	-5.38	95.92	104.00
35	L2	82	G	P-O5'-C5'	5.38	128.08	120.00
40	LH	89	PHE	CA-C-N	5.38	131.82	121.54
40	LH	89	PHE	C-N-CA	5.38	131.82	121.54
44	LR	156	PRO	O-C-N	5.38	129.91	122.64
47	LU	92	ARG	CB-CA-C	-5.38	99.25	110.40
72	Lk	58	LYS	O-C-N	-5.38	116.41	122.12
73	Lp	44	GLN	CG-CD-NE2	5.38	124.48	116.40
74	LJ	137	CYS	O-C-N	-5.38	115.84	122.25
76	Lv	6	ALA	N-CA-C	5.38	116.83	111.07
81	LD	357	GLU	N-CA-CB	5.38	119.59	110.49
3	SB	211	HIS	CA-C-O	-5.38	111.65	120.80
7	SI	63	ARG	NE-CZ-NH2	-5.38	114.36	119.20
31	S2	49	G	P-O5'-C5'	5.38	128.97	120.90
32	S1	605	A	C5'-C4'-C3'	5.38	124.08	116.00
35	L2	75	A	P-O5'-C5'	5.38	128.07	120.00
46	LT	126	LYS	N-CA-CB	5.38	118.03	110.12
55	Lg	2	SER	CA-CB-OG	5.38	121.87	111.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
82	LK	199	GLU	N-CA-C	5.38	117.15	111.28
31	S2	25	U	C5'-C4'-C3'	5.38	124.07	116.00
33	L1	282	A	N9-C1'-C2'	-5.38	105.93	114.00
33	L1	374	G	C1'-O4'-C4'	-5.38	104.32	109.70
33	L1	2171	A	C3'-C2'-C1'	5.38	106.88	101.50
33	L1	2201	G	N9-C1'-C2'	-5.38	103.93	112.00
33	L1	3025	A	N9-C1'-C2'	5.38	120.07	112.00
33	L1	3241	C	C1'-O4'-C4'	-5.38	104.52	109.90
33	L1	3296	C	P-O3'-C3'	-5.38	112.13	120.20
68	LW	89	THR	N-CA-CB	5.38	118.13	110.06
82	LK	119	ARG	N-CA-C	-5.38	101.20	109.76
84	LI	19	LYS	CA-C-N	5.38	127.75	120.38
84	LI	19	LYS	C-N-CA	5.38	127.75	120.38
9	SK	85	LYS	CA-C-N	5.38	127.76	120.44
9	SK	85	LYS	C-N-CA	5.38	127.76	120.44
16	SR	123	HIS	N-CA-C	5.38	118.03	110.23
32	S1	182	C	O4'-C4'-C3'	-5.38	98.62	104.00
41	LM	89	ARG	CG-CD-NE	-5.38	100.16	112.00
15	SS	145	ILE	CB-CA-C	-5.38	105.08	111.97
25	SC	64	LEU	CA-C-N	5.38	131.81	121.54
25	SC	64	LEU	C-N-CA	5.38	131.81	121.54
31	S2	9	A	P-O3'-C3'	5.38	128.27	120.20
32	S1	355	U	C3'-C2'-C1'	5.38	106.88	101.50
33	L1	1526	A	C3'-C2'-C1'	-5.38	96.12	101.50
33	L1	2230	C	O5'-C5'-C4'	5.38	119.57	111.50
33	L1	3351	A	C3'-C2'-C1'	-5.38	95.92	101.30
35	L2	51	U	O4'-C1'-N1	5.38	116.57	108.50
35	L2	63	A	O5'-C5'-C4'	5.38	119.77	111.70
39	LF	172	ARG	NE-CZ-NH1	5.38	126.88	121.50
5	SE	75	HIS	CA-C-N	5.38	128.88	120.82
5	SE	75	HIS	C-N-CA	5.38	128.88	120.82
19	SY	47	ARG	NE-CZ-NH2	5.38	124.04	119.20
20	SZ	61	GLU	N-CA-C	5.38	122.25	110.80
32	S1	414	A	O4'-C1'-N9	5.38	116.56	108.50
32	S1	959	G	N9-C1'-C2'	-5.38	103.94	112.00
33	L1	164	C	C1'-O4'-C4'	-5.38	104.52	109.90
33	L1	173	C	N1-C1'-C2'	5.38	120.06	112.00
33	L1	1269	U	C4'-C3'-O3'	-5.38	104.94	113.00
33	L1	1320	G	O4'-C1'-C2'	5.38	112.98	107.60
33	L1	1407	G	O4'-C1'-C2'	-5.38	102.22	107.60
33	L1	2278	G	C1'-O4'-C4'	5.38	115.08	109.70
33	L1	2503	A	C4'-C3'-O3'	-5.38	104.94	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3214	U	O4'-C1'-C2'	-5.38	102.22	107.60
34	L3	41	G	O4'-C1'-N9	-5.38	100.44	108.50
37	LB	126	PHE	CB-CA-C	-5.38	100.45	109.48
46	LT	10	LEU	CB-CA-C	-5.38	101.71	110.85
55	Lg	117	LYS	N-CA-C	5.38	118.06	111.82
66	LN	89	TRP	N-CA-C	5.38	122.25	110.80
81	LD	312	LYS	CA-C-N	5.38	130.38	121.99
81	LD	312	LYS	C-N-CA	5.38	130.38	121.99
33	L1	2831	U	O4'-C1'-N1	5.38	116.56	108.50
33	L1	2839	A	O3'-P-O5'	-5.38	95.94	104.00
40	LH	234	MET	CG-SD-CE	-5.38	89.08	100.90
45	LQ	70	ILE	O-C-N	-5.38	115.01	122.05
28	SN	32	ARG	CA-C-N	5.37	131.81	121.54
28	SN	32	ARG	C-N-CA	5.37	131.81	121.54
32	S1	84	G	O4'-C1'-N9	5.37	116.56	108.50
33	L1	77	U	N1-C1'-C2'	-5.37	103.94	112.00
33	L1	608	G	C3'-C2'-C1'	5.37	106.67	101.30
33	L1	738	A	O4'-C1'-C2'	-5.37	102.23	107.60
33	L1	1686	U	O4'-C1'-N1	5.37	116.56	108.50
33	L1	2231	G	O5'-C5'-C4'	5.37	119.56	111.50
33	L1	2439	A	C5'-C4'-C3'	5.37	124.06	116.00
33	L1	2536	G	N9-C1'-C2'	5.37	120.06	112.00
33	L1	2785	U	O3'-P-O5'	-5.37	95.94	104.00
37	LB	17	LYS	N-CA-CB	5.37	117.74	110.38
45	LQ	50	THR	N-CA-CB	5.37	118.78	111.20
60	Lr	83	HIS	N-CA-C	5.37	117.44	110.40
66	LN	62	ILE	CA-CB-CG2	-5.37	101.36	110.50
72	Lk	71	ARG	NE-CZ-NH1	5.37	126.87	121.50
72	Lk	73	LEU	N-CA-C	5.37	117.22	111.36
6	SF	57	PHE	N-CA-C	5.37	122.24	110.80
27	SH	113	HIS	CB-CA-C	-5.37	101.87	110.79
31	S2	55	C	P-O3'-C3'	5.37	128.26	120.20
33	L1	131	C	O3'-P-O5'	-5.37	95.94	104.00
33	L1	423	C	C1'-O4'-C4'	-5.37	104.33	109.70
33	L1	547	C	C4'-C3'-C2'	-5.37	97.23	102.60
33	L1	713	G	C4'-C3'-O3'	-5.37	104.94	113.00
33	L1	1758	U	O4'-C1'-N1	5.37	116.56	108.50
35	L2	30	C	C3'-C2'-O2'	5.37	118.76	110.70
45	LQ	107	ALA	CA-C-O	5.37	126.24	120.55
50	LZ	19	LYS	N-CA-C	-5.37	100.76	108.60
32	S1	226	C	C3'-C2'-C1'	5.37	106.67	101.30
23	SU	68	THR	N-CA-C	-5.37	98.72	108.65

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	SC	147	SER	N-CA-C	-5.37	99.36	110.80
31	S2	49	G	N9-C1'-C2'	5.37	120.05	112.00
32	S1	32	U	O4'-C1'-N1	5.37	116.55	108.50
32	S1	386	C	N1-C1'-C2'	5.37	120.05	112.00
32	S1	997	A	C5'-C4'-C3'	-5.37	107.95	116.00
32	S1	1802	G	C1'-C2'-O2'	5.37	116.45	108.40
33	L1	1197	A	O4'-C1'-N9	5.37	116.55	108.50
33	L1	1672	G	C5'-C4'-C3'	5.37	124.05	116.00
44	LR	83	VAL	CB-CA-C	5.37	119.39	112.14
45	LQ	288	LEU	CA-C-N	5.37	131.79	121.54
45	LQ	288	LEU	C-N-CA	5.37	131.79	121.54
64	LG	20	TYR	CB-CA-C	-5.37	102.45	110.88
69	La	77	PHE	CA-C-N	5.37	127.47	120.28
69	La	77	PHE	C-N-CA	5.37	127.47	120.28
78	Le	147	ARG	CA-CB-CG	5.37	124.84	114.10
15	SS	70	ARG	CA-C-N	5.37	128.47	120.90
15	SS	70	ARG	C-N-CA	5.37	128.47	120.90
32	S1	408	G	C3'-C2'-C1'	5.37	106.67	101.30
33	L1	1262	U	C4'-C3'-C2'	-5.37	97.23	102.60
4	SD	83	PRO	CB-CA-C	5.37	120.41	111.56
5	SE	252	TYR	N-CA-CB	5.37	118.53	109.78
28	SN	14	TYR	O-C-N	-5.37	115.45	122.59
29	ST	48	ARG	N-CA-C	5.37	118.20	109.24
32	S1	646	G	C1'-O4'-C4'	5.37	115.06	109.70
33	L1	1004	C	C1'-O4'-C4'	-5.37	104.53	109.90
33	L1	1297	U	O5'-C5'-C4'	-5.37	103.45	111.50
33	L1	1553	C	N1-C1'-C2'	5.37	120.05	112.00
34	L3	118	C	O4'-C1'-C2'	-5.37	102.23	107.60
35	L2	30	C	P-O5'-C5'	5.37	128.95	120.90
49	LX	114	ASP	CA-C-O	5.37	129.43	122.45
57	Ll	72	ARG	CA-C-O	5.37	126.45	120.82
60	Lr	20	HIS	N-CA-C	5.37	118.01	109.96
67	LS	156	ARG	N-CA-CB	5.37	118.70	110.70
77	Lc	98	PRO	CA-N-CD	-5.37	104.49	112.00
79	Ls	32	VAL	N-CA-C	5.37	115.50	107.51
83	Lm	24	LYS	CA-C-N	5.37	127.74	120.44
83	Lm	24	LYS	C-N-CA	5.37	127.74	120.44
32	S1	1098	A	P-O3'-C3'	-5.36	112.16	120.20
33	L1	875	A	O4'-C1'-N9	5.36	116.55	108.50
33	L1	1276	C	C3'-C2'-C1'	5.36	106.66	101.30
33	L1	1876	U	O4'-C1'-C2'	5.36	112.96	107.60
35	L2	87	C	O4'-C1'-N1	5.36	116.55	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	LE	148	ALA	N-CA-C	-5.36	99.94	109.06
68	LW	20	SER	CB-CA-C	5.36	119.53	110.79
69	La	40	HIS	N-CA-CB	-5.36	101.43	110.49
2	SA	219	GLU	CA-C-O	-5.36	115.19	120.82
3	SB	172	VAL	CA-CB-CG2	5.36	119.52	110.40
25	SC	70	ARG	CA-C-O	-5.36	115.19	121.46
32	S1	412	C	O4'-C1'-C2'	-5.36	102.24	107.60
33	L1	1790	A	P-O5'-C5'	-5.36	112.86	120.90
33	L1	2008	G	O4'-C1'-N9	5.36	116.54	108.50
33	L1	2718	A	P-O5'-C5'	5.36	128.94	120.90
38	LE	164	TRP	CA-C-N	5.36	127.47	120.28
38	LE	164	TRP	C-N-CA	5.36	127.47	120.28
39	LF	183	LYS	N-CA-CB	5.36	119.55	110.49
84	LI	30	LYS	O-C-N	-5.36	116.93	123.10
1	Sa	65	HIS	O-C-N	5.36	129.43	122.89
7	SI	52	LEU	CA-C-N	5.36	130.35	122.63
7	SI	52	LEU	C-N-CA	5.36	130.35	122.63
32	S1	614	G	C3'-C2'-C1'	-5.36	95.94	101.30
32	S1	1218	U	C4'-C3'-C2'	-5.36	97.24	102.60
33	L1	611	C	O4'-C4'-C3'	5.36	109.36	104.00
33	L1	1626	U	C5'-C4'-C3'	5.36	124.04	116.00
33	L1	1774	G	C5'-C4'-C3'	5.36	124.04	116.00
42	LP	43	THR	O-C-N	-5.36	116.30	122.09
73	Lp	20	CYS	N-CA-C	5.36	118.00	109.96
76	Lw	54	LEU	CA-C-N	5.36	127.46	120.28
76	Lw	54	LEU	C-N-CA	5.36	127.46	120.28
32	S1	580	G	O4'-C1'-C2'	-5.36	102.24	107.60
32	S1	1606	U	C3'-C2'-C1'	5.36	106.66	101.30
33	L1	832	C	N1-C1'-C2'	-5.36	103.96	112.00
33	L1	1694	A	C3'-C2'-C1'	5.36	106.66	101.30
42	LP	13	ARG	CG-CD-NE	-5.36	100.21	112.00
4	SD	92	ILE	CB-CA-C	5.36	121.11	111.36
20	SZ	42	ARG	N-CA-C	5.36	118.17	109.06
25	SC	192	GLU	CA-C-N	5.36	128.69	120.82
25	SC	192	GLU	C-N-CA	5.36	128.69	120.82
31	S2	26	G	C1'-O4'-C4'	-5.36	104.54	109.90
32	S1	1299	G	N9-C1'-C2'	5.36	120.04	112.00
33	L1	105	A	C1'-O4'-C4'	5.36	115.26	109.90
33	L1	137	C	C3'-C2'-C1'	5.36	106.66	101.30
33	L1	2318	U	O3'-P-O5'	-5.36	95.96	104.00
34	L3	2	G	C5'-C4'-C3'	5.36	124.04	116.00
3	SB	29	LEU	CA-C-O	-5.36	111.87	120.65

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	SR	133	LYS	N-CA-C	5.36	120.21	113.25
31	S2	24	A	O4'-C1'-N9	5.36	116.53	108.50
32	S1	19	A	C3'-C2'-C1'	5.36	106.66	101.30
32	S1	209	U	O4'-C1'-N1	5.36	116.53	108.50
32	S1	850	G	C5'-C4'-C3'	-5.36	107.97	116.00
33	L1	100	C	O4'-C1'-C2'	-5.36	102.24	107.60
33	L1	141	C	O3'-P-O5'	-5.36	95.97	104.00
33	L1	1019	A	C4'-C3'-C2'	-5.36	97.24	102.60
33	L1	1271	U	O5'-C5'-C4'	5.36	119.53	111.50
33	L1	1524	G	C1'-O4'-C4'	-5.36	104.55	109.90
34	L3	75	G	C2'-C3'-O3'	5.36	117.53	109.50
35	L2	119	C	P-O5'-C5'	5.36	128.93	120.90
47	LU	144	THR	N-CA-CB	5.36	119.13	110.40
54	Lf	47	ILE	CA-C-O	-5.36	114.77	120.39
54	Lf	90	ARG	NE-CZ-NH1	5.36	126.86	121.50
55	Lg	107	PRO	CA-C-N	5.36	127.99	120.28
55	Lg	107	PRO	C-N-CA	5.36	127.99	120.28
55	Lg	116	THR	CB-CA-C	-5.36	101.74	110.85
32	S1	1667	A	C3'-C2'-C1'	5.35	106.65	101.30
32	S1	1720	G	C1'-C2'-O2'	5.35	116.43	108.40
33	L1	391	U	O4'-C1'-C2'	5.35	112.95	107.60
33	L1	2206	U	C4'-C3'-C2'	5.35	107.95	102.60
45	LQ	27	ARG	O-C-N	-5.35	116.44	122.12
49	LX	103	LYS	O-C-N	-5.35	116.05	122.15
84	LI	173	PHE	N-CA-C	-5.35	103.64	111.30
19	SY	16	ARG	CA-C-N	5.35	131.76	121.54
19	SY	16	ARG	C-N-CA	5.35	131.76	121.54
32	S1	1563	A	P-O3'-C3'	5.35	128.23	120.20
33	L1	1400	C	C4'-C3'-C2'	-5.35	97.25	102.60
33	L1	2142	A	C3'-C2'-C1'	5.35	106.65	101.30
33	L1	2400	A	N9-C1'-C2'	5.35	120.03	112.00
33	L1	2456	G	C4'-C3'-O3'	-5.35	104.97	113.00
33	L1	3289	U	O5'-C5'-C4'	5.35	119.53	111.50
35	L2	39	C	C1'-O4'-C4'	-5.35	104.55	109.90
47	LU	45	ASN	N-CA-CB	5.35	118.14	110.06
48	LV	61	ARG	CA-CB-CG	5.35	124.81	114.10
81	LD	115	TRP	CB-CA-C	-5.35	104.60	111.50
16	SR	133	LYS	CA-C-O	-5.35	113.71	118.63
32	S1	523	C	O5'-C5'-C4'	5.35	118.83	110.80
33	L1	1866	C	O4'-C1'-N1	5.35	116.53	108.50
33	L1	2302	G	P-O3'-C3'	5.35	128.23	120.20
35	L2	78	U	O3'-P-O5'	5.35	112.03	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	Lh	58	TYR	O-C-N	5.35	128.48	122.22
79	Ls	242	HIS	CA-C-N	5.35	127.45	120.28
79	Ls	242	HIS	C-N-CA	5.35	127.45	120.28
5	SE	83	PRO	N-CA-C	5.35	123.49	112.47
5	SE	106	ARG	N-CA-CB	5.35	120.25	111.31
8	SJ	86	TRP	CA-CB-CG	5.35	123.77	113.60
10	SL	43	SER	CA-C-N	-5.35	115.45	122.99
10	SL	43	SER	C-N-CA	-5.35	115.45	122.99
30	S3	22	A	C4'-C3'-O3'	5.35	121.02	113.00
32	S1	646	G	C1'-C2'-O2'	-5.35	103.77	111.80
32	S1	913	U	C4'-C3'-C2'	5.35	107.95	102.60
33	L1	499	A	P-O3'-C3'	5.35	128.22	120.20
33	L1	1181	A	C1'-O4'-C4'	5.35	115.25	109.90
33	L1	1530	C	C3'-C2'-C1'	5.35	106.65	101.30
33	L1	2688	G	N9-C1'-C2'	5.35	120.02	112.00
33	L1	3058	U	O4'-C1'-N1	-5.35	100.48	108.50
40	LH	77	THR	CA-C-N	5.35	127.98	120.28
40	LH	77	THR	C-N-CA	5.35	127.98	120.28
43	LO	25	HIS	ND1-CE1-NE2	5.35	113.75	108.40
45	LQ	223	PHE	CA-C-N	5.35	127.40	120.44
45	LQ	223	PHE	C-N-CA	5.35	127.40	120.44
54	Lf	84	ALA	CA-C-O	5.35	126.21	120.70
70	Li	36	LYS	N-CA-C	5.35	122.19	110.80
72	Lk	102	SER	N-CA-C	5.35	117.19	111.36
81	LD	201	ARG	NE-CZ-NH2	-5.35	114.39	119.20
31	S2	66	C	O4'-C1'-C2'	-5.35	102.25	107.60
32	S1	234	G	O4'-C1'-C2'	5.35	112.95	107.60
32	S1	320	A	O4'-C1'-C2'	-5.35	102.25	107.60
32	S1	1245	G	C3'-C2'-C1'	5.35	106.65	101.30
32	S1	1302	C	C5'-C4'-C3'	5.35	124.02	116.00
33	L1	366	G	C5'-C4'-C3'	5.35	124.02	116.00
33	L1	578	C	C5'-C4'-O4'	-5.35	101.78	109.80
33	L1	607	U	C2'-C3'-O3'	-5.35	105.68	113.70
33	L1	869	A	N9-C1'-C2'	5.35	120.02	112.00
33	L1	875	A	C1'-C2'-O2'	5.35	116.42	108.40
33	L1	921	C	O4'-C1'-C2'	-5.35	102.25	107.60
33	L1	1483	G	C1'-C2'-O2'	5.35	119.82	111.80
33	L1	1736	C	C4'-C3'-C2'	-5.35	97.25	102.60
33	L1	2057	G	C1'-C2'-O2'	5.35	116.42	108.40
33	L1	2955	U	P-O5'-C5'	5.35	128.92	120.90
67	LS	66	ILE	N-CA-CB	5.35	118.41	111.19
71	Lj	80	GLY	CA-C-N	5.35	131.75	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
71	Lj	80	GLY	C-N-CA	5.35	131.75	121.54
32	S1	414	A	C5'-C4'-C3'	-5.35	107.98	116.00
33	L1	814	U	C1'-C2'-O2'	5.35	116.42	108.40
33	L1	1495	G	C4'-C3'-O3'	-5.35	104.98	113.00
35	L2	156	G	C3'-C2'-O2'	5.35	118.72	110.70
46	LT	22	VAL	CA-C-N	5.35	130.96	122.94
46	LT	22	VAL	C-N-CA	5.35	130.96	122.94
58	Ln	65	THR	N-CA-CB	5.35	119.52	110.49
71	Lj	41	THR	CA-CB-CG2	5.35	119.59	110.50
14	SP	87	VAL	CA-C-N	5.34	129.14	121.50
14	SP	87	VAL	C-N-CA	5.34	129.14	121.50
25	SC	99	LEU	O-C-N	-5.34	116.84	123.36
32	S1	627	A	N9-C1'-C2'	-5.34	105.98	114.00
32	S1	1506	G	OP1-P-O3'	5.34	124.03	108.00
32	S1	1656	C	C3'-C2'-C1'	5.34	106.64	101.30
33	L1	1081	U	C3'-C2'-O2'	5.34	118.72	110.70
33	L1	2665	A	O4'-C1'-C2'	-5.34	102.25	107.60
36	LA	170	ASN	CA-CB-CG	-5.34	107.25	112.60
48	LV	29	THR	N-CA-CB	5.34	118.56	110.28
57	L1	28	HIS	CB-CG-CD2	5.34	138.15	131.20
32	S1	501	U	O4'-C1'-C2'	-5.34	102.26	107.60
45	LQ	151	ILE	O-C-N	-5.34	116.42	122.72
46	LT	42	ARG	NE-CZ-NH1	5.34	126.84	121.50
67	LS	160	PRO	O-C-N	5.34	127.76	121.46
69	La	79	HIS	CE1-NE2-CD2	-5.34	103.66	109.00
81	LD	99	MET	N-CA-CB	-5.34	102.62	111.49
1	Sa	141	ALA	CA-C-N	5.34	127.44	120.28
1	Sa	141	ALA	C-N-CA	5.34	127.44	120.28
17	SV	100	LEU	N-CA-C	-5.34	103.34	110.55
25	SC	46	ARG	CB-CG-CD	5.34	123.58	111.30
32	S1	1543	U	C1'-O4'-C4'	5.34	115.04	109.70
33	L1	583	C	C3'-C2'-C1'	5.34	106.64	101.30
33	L1	841	G	C1'-O4'-C4'	-5.34	104.36	109.70
33	L1	1166	C	C3'-C2'-C1'	5.34	106.64	101.30
33	L1	1267	A	O4'-C1'-C2'	5.34	112.94	107.60
33	L1	1767	G	O5'-C5'-C4'	5.34	119.51	111.50
33	L1	2353	C	C4'-C3'-O3'	-5.34	104.99	113.00
33	L1	2744	C	C1'-C2'-O2'	5.34	116.41	108.40
34	L3	116	U	O3'-P-O5'	-5.34	95.99	104.00
10	SL	7	MET	CA-C-N	5.34	131.88	121.41
10	SL	7	MET	C-N-CA	5.34	131.88	121.41
32	S1	366	G	C4'-C3'-C2'	-5.34	97.26	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1803	G	C3'-C2'-C1'	-5.34	95.96	101.30
33	L1	103	G	C5'-C4'-C3'	5.34	124.01	116.00
33	L1	575	C	P-O5'-C5'	5.34	128.01	120.00
33	L1	1191	U	O4'-C1'-C2'	-5.34	102.26	107.60
33	L1	1342	C	O3'-P-O5'	5.34	112.01	104.00
33	L1	1921	U	C5'-C4'-C3'	-5.34	107.19	115.20
33	L1	2166	U	P-O5'-C5'	-5.34	112.89	120.90
33	L1	3245	G	O4'-C1'-N9	5.34	116.51	108.50
44	LR	24	VAL	CB-CA-C	5.34	119.59	112.22
54	Lf	19	GLN	CA-C-N	5.34	127.43	120.28
54	Lf	19	GLN	C-N-CA	5.34	127.43	120.28
1	Sa	59	CYS	N-CA-CB	5.34	118.15	110.20
5	SE	174	VAL	N-CA-C	-5.34	105.51	110.53
5	SE	244	PHE	CB-CA-C	5.34	120.92	110.67
32	S1	1056	A	C1'-O4'-C4'	-5.34	104.56	109.90
33	L1	2868	C	N1-C1'-C2'	-5.34	105.99	114.00
45	LQ	198	TYR	CA-C-N	5.34	131.58	121.97
45	LQ	198	TYR	C-N-CA	5.34	131.58	121.97
64	LG	58	PRO	CA-N-CD	-5.34	104.53	112.00
4	SD	137	PRO	N-CD-CG	-5.34	95.20	103.20
33	L1	23	A	C3'-C2'-C1'	-5.34	95.96	101.30
33	L1	713	G	C1'-O4'-C4'	-5.34	104.56	109.90
33	L1	1092	G	C3'-C2'-C1'	-5.34	95.96	101.30
33	L1	1114	A	O4'-C1'-C2'	5.34	112.94	107.60
33	L1	2207	C	P-O5'-C5'	5.34	128.90	120.90
33	L1	2673	G	C4'-C3'-C2'	-5.34	97.26	102.60
33	L1	3323	U	O4'-C1'-C2'	-5.34	102.26	107.60
34	L3	64	G	O3'-P-O5'	-5.34	95.99	104.00
37	LB	179	MET	CG-SD-CE	-5.34	89.16	100.90
82	LK	151	GLY	CA-C-N	5.34	131.73	121.54
82	LK	151	GLY	C-N-CA	5.34	131.73	121.54
9	SK	71	TYR	N-CA-C	-5.33	100.33	109.24
32	S1	442	A	C1'-C2'-O2'	-5.33	103.80	111.80
33	L1	2595	G	O3'-P-O5'	-5.33	96.00	104.00
33	L1	2785	U	C4'-C3'-C2'	-5.33	97.27	102.60
33	L1	3034	A	P-O3'-C3'	5.33	128.20	120.20
47	LU	74	VAL	CA-CB-CG1	5.33	119.47	110.40
32	S1	1320	C	O4'-C1'-C2'	-5.33	102.27	107.60
32	S1	1761	G	P-O5'-C5'	-5.33	112.90	120.90
33	L1	22	G	C3'-C2'-C1'	-5.33	95.97	101.30
33	L1	1893	G	C1'-O4'-C4'	-5.33	104.57	109.90
33	L1	2013	G	O4'-C1'-C2'	5.33	112.93	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3042	U	O4'-C1'-N1	5.33	116.50	108.50
34	L3	68	G	O3'-P-O5'	-5.33	96.00	104.00
37	LB	123	ARG	NE-CZ-NH2	-5.33	114.40	119.20
60	Lr	85	ILE	CB-CA-C	-5.33	102.54	111.29
80	LC	3	HIS	CA-C-N	5.33	131.30	121.70
80	LC	3	HIS	C-N-CA	5.33	131.30	121.70
83	Lm	71	MET	CG-SD-CE	-5.33	89.17	100.90
23	SU	65	LYS	N-CA-C	5.33	122.16	110.80
29	ST	79	VAL	CB-CA-C	-5.33	104.94	112.14
33	L1	606	C	O4'-C1'-N1	5.33	116.50	108.50
33	L1	814	U	O4'-C1'-C2'	5.33	112.93	107.60
33	L1	2215	A	N9-C1'-C2'	5.33	120.00	112.00
33	L1	2829	U	C2'-C3'-O3'	5.33	117.50	109.50
77	Lc	14	LYS	N-CA-C	-5.33	101.47	109.95
78	Le	68	LYS	CA-CB-CG	5.33	124.76	114.10
82	LK	58	LYS	CB-CA-C	-5.33	102.48	110.90
2	SA	9	ALA	O-C-N	5.33	130.24	122.94
5	SE	94	PRO	N-CD-CG	5.33	111.19	103.20
33	L1	705	A	C2'-C3'-O3'	5.33	121.69	113.70
33	L1	907	A	P-O3'-C3'	-5.33	112.20	120.20
33	L1	2765	A	C5'-C4'-O4'	-5.33	101.81	109.80
33	L1	3206	C	N1-C1'-C2'	5.33	120.00	112.00
34	L3	71	A	C1'-O4'-C4'	5.33	115.23	109.90
46	LT	143	HIS	N-CA-C	5.33	118.00	111.82
66	LN	46	CYS	O-C-N	-5.33	117.31	123.33
27	SH	26	LEU	CA-C-N	5.33	131.56	121.97
27	SH	26	LEU	C-N-CA	5.33	131.56	121.97
33	L1	494	C	O4'-C1'-N1	5.33	116.49	108.50
33	L1	1260	G	P-O3'-C3'	5.33	128.19	120.20
33	L1	2095	C	N1-C1'-C2'	5.33	119.99	112.00
33	L1	2346	U	O4'-C1'-C2'	-5.33	102.27	107.60
33	L1	2656	C	O4'-C1'-N1	5.33	116.49	108.50
33	L1	2696	C	C5'-C4'-C3'	5.33	123.99	116.00
33	L1	2765	A	O4'-C1'-C2'	5.33	112.93	107.60
33	L1	3337	G	C5'-C4'-C3'	5.33	123.99	116.00
37	LB	70	LYS	CA-C-N	5.33	131.72	121.54
37	LB	70	LYS	C-N-CA	5.33	131.72	121.54
45	LQ	24	PHE	CA-C-N	5.33	127.37	120.44
45	LQ	24	PHE	C-N-CA	5.33	127.37	120.44
73	Lp	46	ARG	CA-C-O	-5.33	113.78	120.23
74	LJ	79	ALA	CA-C-N	5.33	127.86	120.29
74	LJ	79	ALA	C-N-CA	5.33	127.86	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	SM	124	ARG	NE-CZ-NH2	-5.33	114.41	119.20
12	SO	68	GLY	CA-C-N	5.33	131.72	121.54
12	SO	68	GLY	C-N-CA	5.33	131.72	121.54
32	S1	601	G	O4'-C1'-N9	5.33	116.49	108.50
32	S1	1344	U	O4'-C1'-N1	5.33	116.49	108.50
33	L1	511	C	C5'-C4'-C3'	5.33	123.99	116.00
33	L1	631	C	C1'-C2'-O2'	5.33	116.39	108.40
33	L1	842	C	N1-C1'-C2'	5.33	119.99	112.00
33	L1	2436	G	O4'-C4'-C3'	-5.33	100.77	106.10
1	Sa	211	LEU	N-CA-CB	5.33	120.55	111.66
2	SA	12	LEU	CA-C-N	5.33	130.24	122.41
2	SA	12	LEU	C-N-CA	5.33	130.24	122.41
32	S1	511	U	N1-C1'-C2'	5.33	119.99	112.00
32	S1	833	U	C1'-C2'-O2'	5.33	116.39	108.40
32	S1	987	U	O4'-C1'-N1	5.33	116.49	108.50
32	S1	1776	A	C2'-C3'-O3'	5.33	117.49	109.50
33	L1	539	C	O4'-C1'-C2'	-5.33	102.27	107.60
33	L1	1140	C	C3'-C2'-C1'	5.33	106.62	101.30
33	L1	1615	G	C5'-C4'-C3'	-5.33	108.01	116.00
33	L1	1798	C	P-O5'-C5'	5.33	128.89	120.90
33	L1	2514	A	O4'-C1'-C2'	-5.33	102.27	107.60
33	L1	3217	G	P-O3'-C3'	5.33	128.19	120.20
38	LE	118	TYR	CA-CB-CG	-5.33	104.31	113.90
55	Lg	105	GLU	N-CA-CB	-5.33	101.49	110.49
56	Lh	115	GLN	N-CA-C	-5.33	105.48	111.28
68	LW	57	GLY	N-CA-C	5.33	118.88	111.00
78	Le	128	MET	CA-C-N	5.33	127.95	120.28
78	Le	128	MET	C-N-CA	5.33	127.95	120.28
32	S1	1016	C	O4'-C1'-N1	5.32	116.49	108.50
33	L1	311	G	O5'-C5'-C4'	-5.32	103.52	111.50
33	L1	1668	U	C4'-C3'-C2'	-5.32	97.28	102.60
33	L1	1884	U	O4'-C1'-N1	5.32	116.49	108.50
33	L1	2088	C	O4'-C1'-C2'	5.32	112.92	107.60
33	L1	2171	A	P-O3'-C3'	5.32	128.19	120.20
33	L1	2561	A	C5'-C4'-C3'	5.32	123.19	115.20
34	L3	84	U	P-O3'-C3'	5.32	128.18	120.20
67	LS	18	THR	O-C-N	-5.32	116.63	122.06
76	Lw	38	LYS	CB-CA-C	-5.32	101.95	110.79
81	LD	400	TRP	CB-CG-CD2	-5.32	119.35	126.80
32	S1	890	G	P-O5'-C5'	-5.32	112.92	120.90
32	S1	1276	U	C4'-C3'-O3'	-5.32	105.02	113.00
33	L1	1077	C	O4'-C1'-C2'	5.32	112.92	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1614	G	C1'-C2'-O2'	5.32	116.38	108.40
33	L1	2463	U	O4'-C1'-N1	5.32	116.48	108.50
55	Lg	47	PHE	CA-CB-CG	-5.32	108.48	113.80
9	SK	107	PRO	N-CA-CB	5.32	108.84	103.25
32	S1	32	U	C4'-C3'-C2'	-5.32	97.28	102.60
32	S1	137	A	C2'-C3'-O3'	5.32	117.48	109.50
32	S1	1642	C	O3'-P-O5'	-5.32	96.02	104.00
32	S1	1665	U	C5'-C4'-O4'	-5.32	101.82	109.80
33	L1	297	G	P-O3'-C3'	5.32	128.18	120.20
33	L1	2434	G	C4'-C3'-C2'	-5.32	97.28	102.60
33	L1	3024	U	C5'-C4'-O4'	5.32	117.78	109.80
33	L1	3229	C	C1'-O4'-C4'	-5.32	104.58	109.90
33	L1	3382	A	C5'-C4'-C3'	5.32	123.98	116.00
35	L2	77	U	O3'-P-O5'	-5.32	96.02	104.00
42	LP	166	SER	N-CA-C	5.32	117.08	111.28
46	LT	177	ARG	CD-NE-CZ	5.32	131.85	124.40
60	Lr	81	SER	N-CA-C	5.32	118.12	109.24
67	LS	58	GLY	O-C-N	-5.32	120.00	123.35
84	LI	81	GLY	CA-C-N	5.32	127.68	120.44
84	LI	81	GLY	C-N-CA	5.32	127.68	120.44
5	SE	104	ARG	CA-C-O	-5.32	112.90	120.51
32	S1	331	U	C5'-C4'-C3'	5.32	123.98	116.00
32	S1	1791	A	C4'-C3'-C2'	-5.32	97.28	102.60
33	L1	557	C	O3'-P-O5'	-5.32	96.02	104.00
46	LT	133	LYS	N-CA-C	5.32	120.04	113.50
78	Le	212	PRO	CA-C-N	5.32	128.90	121.24
78	Le	212	PRO	C-N-CA	5.32	128.90	121.24
1	Sa	144	ASP	CA-CB-CG	5.32	117.92	112.60
12	SO	67	THR	CA-C-N	5.32	131.27	121.70
12	SO	67	THR	C-N-CA	5.32	131.27	121.70
23	SU	62	PHE	N-CA-C	-5.32	99.74	108.41
32	S1	1666	G	C4'-C3'-O3'	-5.32	105.02	113.00
33	L1	952	C	N1-C1'-C2'	5.32	119.98	112.00
33	L1	1275	A	O4'-C1'-C2'	-5.32	102.28	107.60
33	L1	1366	G	O4'-C1'-N9	5.32	116.48	108.50
33	L1	2461	A	N9-C1'-C2'	5.32	119.97	112.00
33	L1	2532	A	O4'-C1'-C2'	5.32	112.92	107.60
33	L1	2655	U	O5'-C5'-C4'	5.32	119.48	111.50
33	L1	2670	A	O5'-C5'-C4'	5.32	119.48	111.50
33	L1	2931	C	C5'-C4'-C3'	-5.32	108.02	116.00
33	L1	3299	A	N9-C1'-C2'	-5.32	104.03	112.00
37	LB	66	PRO	CA-C-N	5.32	131.69	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	LB	66	PRO	C-N-CA	5.32	131.69	121.54
49	LX	47	THR	CB-CA-C	5.32	121.00	110.42
60	Lr	21	THR	N-CA-C	5.32	116.93	108.79
64	LG	125	VAL	N-CA-C	5.32	115.70	107.78
78	Le	121	VAL	O-C-N	-5.32	114.94	122.76
81	LD	316	ARG	CA-C-N	5.32	131.95	121.58
81	LD	316	ARG	C-N-CA	5.32	131.95	121.58
7	SI	113	ASP	O-C-N	-5.32	115.03	122.37
32	S1	2	A	O5'-C5'-C4'	5.32	119.47	111.50
32	S1	108	C	C4'-C3'-C2'	-5.32	97.28	102.60
32	S1	275	C	O4'-C1'-N1	5.32	116.47	108.50
32	S1	572	G	O3'-P-O5'	5.32	111.97	104.00
32	S1	1118	A	O4'-C4'-C3'	-5.32	100.78	106.10
32	S1	1736	C	C1'-C2'-O2'	5.32	116.37	108.40
32	S1	1754	A	C2'-C3'-O3'	5.32	121.67	113.70
33	L1	410	G	N9-C1'-C2'	5.32	119.97	112.00
33	L1	545	C	O4'-C1'-C2'	-5.32	102.28	107.60
33	L1	1307	A	C5'-C4'-C3'	5.32	123.17	115.20
33	L1	2708	A	P-O5'-C5'	5.32	128.87	120.90
46	LT	64	ARG	CA-C-N	5.32	127.94	120.28
46	LT	64	ARG	C-N-CA	5.32	127.94	120.28
66	LN	33	GLN	CA-CB-CG	5.32	124.73	114.10
67	LS	4	PHE	N-CA-C	5.32	122.12	110.80
77	Lc	18	ASP	CA-C-N	5.32	127.84	120.29
77	Lc	18	ASP	C-N-CA	5.32	127.84	120.29
27	SH	92	ARG	NH1-CZ-NH2	-5.31	112.39	119.30
33	L1	2990	C	C5'-C4'-C3'	5.31	123.97	116.00
34	L3	54	A	O4'-C1'-N9	5.31	116.47	108.50
35	L2	81	A	C5'-C4'-C3'	5.31	122.87	114.90
64	LG	138	ASN	CA-C-N	5.31	131.54	121.97
64	LG	138	ASN	C-N-CA	5.31	131.54	121.97
32	S1	400	G	O4'-C1'-N9	5.31	116.47	108.50
32	S1	1438	U	C2'-C3'-O3'	5.31	117.47	109.50
32	S1	1558	A	C4'-C3'-O3'	-5.31	105.03	113.00
33	L1	219	A	C5'-C4'-C3'	5.31	123.17	115.20
33	L1	1902	G	O3'-P-O5'	-5.31	96.03	104.00
33	L1	2763	C	C4'-C3'-C2'	5.31	107.91	102.60
32	S1	1173	U	N1-C1'-C2'	5.31	119.97	112.00
32	S1	1662	G	N9-C1'-C2'	5.31	119.97	112.00
33	L1	182	C	C1'-O4'-C4'	-5.31	104.59	109.90
33	L1	1362	C	N1-C1'-C2'	5.31	119.97	112.00
33	L1	2434	G	O4'-C4'-C3'	-5.31	98.69	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	LE	169	TYR	CB-CA-C	-5.31	103.91	112.09
55	Lg	61	VAL	CA-C-O	5.31	126.21	120.47
71	Lj	1	MET	CG-SD-CE	5.31	112.58	100.90
78	Le	212	PRO	N-CA-CB	5.31	108.28	103.34
81	LD	318	GLU	CG-CD-OE2	-5.31	106.18	118.40
11	SM	36	VAL	CA-C-O	-5.31	115.65	121.28
25	SC	77	ALA	CA-C-N	5.31	129.09	120.60
25	SC	77	ALA	C-N-CA	5.31	129.09	120.60
29	ST	65	ASP	N-CA-CB	5.31	118.51	110.28
32	S1	1286	U	N1-C1'-C2'	5.31	119.96	112.00
32	S1	1744	C	O3'-P-O5'	5.31	111.96	104.00
33	L1	297	G	C1'-O4'-C4'	-5.31	104.59	109.90
33	L1	881	G	P-O3'-C3'	5.31	128.16	120.20
33	L1	1047	C	O3'-P-O5'	-5.31	96.04	104.00
33	L1	2185	U	C1'-C2'-O2'	5.31	116.36	108.40
33	L1	3387	U	C3'-C2'-C1'	5.31	106.61	101.30
35	L2	147	C	C1'-O4'-C4'	-5.31	104.59	109.90
45	LQ	187	GLU	N-CA-C	5.31	122.11	110.80
46	LT	22	VAL	N-CA-CB	5.31	116.32	110.53
49	LX	35	LYS	CB-CA-C	-5.31	101.65	110.68
80	LC	5	LYS	CB-CG-CD	5.31	123.51	111.30
80	LC	32	PHE	CA-CB-CG	-5.31	108.49	113.80
80	LC	321	VAL	CA-CB-CG2	-5.31	101.37	110.40
13	SQ	21	TYR	CB-CA-C	-5.31	99.86	110.42
13	SQ	39	SER	O-C-N	5.31	129.65	122.59
31	S2	1	U	O4'-C4'-C3'	5.31	109.31	104.00
31	S2	21	A	O5'-C5'-C4'	5.31	119.46	111.50
32	S1	192	G	O4'-C4'-C3'	-5.31	98.69	104.00
33	L1	128	C	C3'-C2'-C1'	5.31	106.61	101.30
33	L1	1222	U	O3'-P-O5'	5.31	111.96	104.00
33	L1	3152	C	N1-C1'-C2'	-5.31	106.04	114.00
78	Le	173	GLU	N-CA-CB	5.31	119.87	111.43
80	LC	59	GLU	CA-C-N	5.31	131.52	121.97
80	LC	59	GLU	C-N-CA	5.31	131.52	121.97
1	Sa	65	HIS	CE1-NE2-CD2	-5.31	103.69	109.00
33	L1	556	U	C1'-O4'-C4'	5.31	115.21	109.90
47	LU	74	VAL	O-C-N	-5.31	117.45	123.18
48	LV	152	SER	CB-CA-C	-5.31	101.65	110.14
11	SM	31	THR	N-CA-CB	5.30	118.39	110.22
11	SM	82	TRP	CD2-CE2-CZ2	-5.30	117.10	122.40
13	SQ	88	LYS	CB-CG-CD	5.30	123.50	111.30
31	S2	20	C	P-O3'-C3'	5.30	128.16	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	501	U	C1'-C2'-O2'	5.30	116.36	108.40
32	S1	597	U	O4'-C1'-C2'	-5.30	102.30	107.60
32	S1	878	U	C4'-C3'-O3'	-5.30	105.04	113.00
32	S1	1139	C	O4'-C1'-C2'	-5.30	102.30	107.60
32	S1	1240	A	C1'-O4'-C4'	-5.30	104.59	109.90
33	L1	98	A	O5'-C5'-C4'	-5.30	103.54	111.50
33	L1	1553	C	O4'-C1'-C2'	-5.30	102.30	107.60
33	L1	1604	U	C5'-C4'-C3'	-5.30	107.24	115.20
37	LB	24	LYS	CB-CA-C	5.30	120.32	109.55
37	LB	83	TYR	N-CA-C	-5.30	101.23	109.24
64	LG	170	THR	CA-C-N	-5.30	114.66	122.83
64	LG	170	THR	C-N-CA	-5.30	114.66	122.83
66	LN	17	TYR	CB-CA-C	5.30	120.97	110.42
78	Le	10	VAL	CA-C-O	-5.30	115.14	118.69
32	S1	961	U	C4'-C3'-O3'	-5.30	105.05	113.00
33	L1	495	G	O4'-C1'-C2'	5.30	112.90	107.60
33	L1	1742	G	C5'-C4'-C3'	5.30	123.95	116.00
33	L1	2737	A	P-O5'-C5'	-5.30	112.95	120.90
35	L2	95	C	C5'-C4'-O4'	-5.30	101.15	109.10
35	L2	119	C	O4'-C1'-C2'	-5.30	102.30	107.60
37	LB	10	LYS	O-C-N	5.30	127.75	122.08
64	LG	145	LYS	N-CA-C	5.30	116.87	111.14
78	Le	57	TYR	CA-CB-CG	-5.30	104.36	113.90
1	Sa	258	PHE	CA-C-N	5.30	125.62	119.47
1	Sa	258	PHE	C-N-CA	5.30	125.62	119.47
2	SA	227	PRO	CA-C-N	5.30	127.64	120.38
2	SA	227	PRO	C-N-CA	5.30	127.64	120.38
29	ST	82	GLN	CB-CG-CD	5.30	121.61	112.60
32	S1	631	C	N1-C1'-C2'	-5.30	104.05	112.00
32	S1	1128	C	O4'-C1'-C2'	-5.30	102.30	107.60
32	S1	1374	G	P-O5'-C5'	-5.30	112.95	120.90
32	S1	1389	G	C1'-O4'-C4'	-5.30	104.60	109.90
32	S1	1691	C	C1'-C2'-O2'	5.30	116.35	108.40
33	L1	121	A	C4'-C3'-O3'	5.30	117.95	110.00
33	L1	592	U	P-O3'-C3'	-5.30	112.25	120.20
33	L1	968	A	C4'-C3'-C2'	5.30	107.90	102.60
33	L1	1422	G	N9-C1'-C2'	-5.30	104.05	112.00
33	L1	1531	G	C1'-C2'-O2'	5.30	116.35	108.40
33	L1	1560	A	C5'-C4'-C3'	-5.30	106.95	114.90
33	L1	1577	A	C5'-C4'-O4'	5.30	117.75	109.80
33	L1	2450	G	C3'-C2'-C1'	-5.30	96.00	101.30
33	L1	2544	C	P-O5'-C5'	-5.30	112.95	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3051	U	C3'-C2'-C1'	-5.30	96.00	101.30
33	L1	3129	G	C1'-O4'-C4'	-5.30	104.60	109.90
42	LP	128	LYS	O-C-N	5.30	129.61	123.30
64	LG	54	ASP	N-CA-C	5.30	122.09	110.80
70	Li	46	VAL	O-C-N	-5.30	115.94	122.57
71	Lj	24	LYS	N-CA-CB	5.30	119.45	110.49
7	SI	127	PRO	N-CA-C	-5.30	106.63	113.57
24	SX	64	VAL	N-CA-C	-5.30	104.27	110.05
32	S1	433	G	O4'-C1'-N9	5.30	116.45	108.50
32	S1	456	A	C1'-O4'-C4'	5.30	115.00	109.70
32	S1	628	G	C4'-C3'-O3'	-5.30	105.05	113.00
32	S1	1543	U	P-O3'-C3'	-5.30	112.25	120.20
33	L1	2906	U	C4'-C3'-O3'	-5.30	105.05	113.00
34	L3	67	C	P-O3'-C3'	5.30	128.15	120.20
37	LB	71	HIS	CB-CG-ND1	5.30	130.65	122.70
40	LH	179	LYS	N-CA-CB	-5.30	102.33	110.12
64	LG	1	MET	O-C-N	-5.30	114.52	123.00
81	LD	309	PRO	CA-C-O	-5.30	112.06	119.74
81	LD	323	PRO	CA-C-N	-5.30	112.65	120.28
81	LD	323	PRO	C-N-CA	-5.30	112.65	120.28
82	LK	1	MET	CB-CA-C	5.30	120.17	110.10
33	L1	3277	C	O4'-C1'-C2'	-5.30	102.30	107.60
36	LA	24	LYS	CA-C-N	5.30	127.38	120.28
36	LA	24	LYS	C-N-CA	5.30	127.38	120.28
82	LK	114	PRO	O-C-N	-5.30	115.21	121.46
32	S1	1282	G	C3'-C2'-C1'	5.30	106.60	101.30
32	S1	1526	C	C5'-C4'-C3'	5.30	122.85	114.90
33	L1	563	C	O3'-P-O5'	5.30	111.95	104.00
33	L1	856	G	N9-C1'-C2'	5.30	119.94	112.00
33	L1	2698	A	C4'-C3'-O3'	-5.30	105.06	113.00
42	LP	180	THR	CA-CB-CG2	5.30	119.50	110.50
54	Lf	81	LEU	CA-C-N	5.30	130.22	120.79
54	Lf	81	LEU	C-N-CA	5.30	130.22	120.79
58	Ln	3	LYS	CA-C-O	5.30	125.89	119.11
59	Lo	3	SER	CA-C-N	5.30	131.66	121.54
59	Lo	3	SER	C-N-CA	5.30	131.66	121.54
67	LS	59	GLN	CA-C-N	5.30	129.68	122.90
67	LS	59	GLN	C-N-CA	5.30	129.68	122.90
80	LC	100	ARG	O-C-N	-5.30	116.90	123.36
7	SI	104	ASP	CA-C-O	-5.29	114.94	120.55
32	S1	437	C	C3'-C2'-C1'	5.29	106.59	101.30
33	L1	800	C	C3'-C2'-C1'	5.29	106.59	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	Lf	86	GLY	O-C-N	-5.29	115.82	122.70
5	SE	101	ALA	CA-C-N	5.29	131.23	121.70
5	SE	101	ALA	C-N-CA	5.29	131.23	121.70
8	SJ	17	ILE	N-CA-C	-5.29	99.89	107.78
29	ST	15	ARG	NE-CZ-NH1	-5.29	116.21	121.50
32	S1	443	U	C5'-C4'-C3'	-5.29	107.26	115.20
32	S1	563	C	O4'-C1'-C2'	-5.29	102.31	107.60
33	L1	462	C	C1'-C2'-O2'	5.29	116.34	108.40
33	L1	1503	G	P-O3'-C3'	5.29	128.14	120.20
33	L1	1656	C	N1-C1'-C2'	5.29	119.94	112.00
33	L1	1670	G	C1'-C2'-O2'	5.29	116.34	108.40
33	L1	2211	G	O4'-C1'-C2'	5.29	112.89	107.60
41	LM	105	ILE	N-CA-CB	5.29	117.87	110.56
45	LQ	183	PHE	CB-CG-CD1	-5.29	111.70	120.70
50	LZ	15	ILE	CA-C-O	5.29	126.69	120.71
58	Ln	3	LYS	CA-C-N	5.29	131.90	121.58
58	Ln	3	LYS	C-N-CA	5.29	131.90	121.58
59	Lo	38	ASN	N-CA-C	5.29	122.07	110.80
72	Lk	105	GLY	CA-C-O	-5.29	115.30	120.75
5	SE	258	LYS	O-C-N	-5.29	115.23	121.32
16	SR	77	PRO	CB-CA-C	-5.29	104.38	112.11
25	SC	5	PRO	CA-N-CD	-5.29	104.59	112.00
32	S1	424	A	O4'-C1'-N9	5.29	116.44	108.50
32	S1	665	C	P-O5'-C5'	5.29	128.84	120.90
60	Lr	21	THR	CA-CB-OG1	5.29	117.54	109.60
71	Lj	44	GLU	N-CA-CB	5.29	118.48	110.28
74	LJ	132	GLU	CB-CA-C	-5.29	102.51	110.92
77	Lc	105	LEU	CA-C-O	5.29	126.10	119.59
33	L1	1248	A	C1'-C2'-O2'	5.29	119.74	111.80
52	Lb	79	LYS	O-C-N	-5.29	117.95	123.56
60	Lr	84	PRO	CA-C-N	5.29	131.49	121.97
60	Lr	84	PRO	C-N-CA	5.29	131.49	121.97
66	LN	117	ARG	NE-CZ-NH1	-5.29	116.21	121.50
3	SB	121	GLY	N-CA-C	5.29	119.08	112.73
13	SQ	135	GLY	CA-C-N	5.29	125.21	119.76
13	SQ	135	GLY	C-N-CA	5.29	125.21	119.76
32	S1	944	A	C1'-O4'-C4'	-5.29	104.61	109.90
33	L1	470	G	O3'-P-O5'	-5.29	96.07	104.00
33	L1	1494	A	N9-C1'-C2'	-5.29	104.07	112.00
33	L1	1630	C	P-O3'-C3'	5.29	128.13	120.20
33	L1	3231	G	P-O5'-C5'	5.29	128.83	120.90
46	LT	52	ARG	CA-CB-CG	5.29	124.68	114.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	Lo	26	TRP	N-CA-C	5.29	122.06	110.80
32	S1	1016	C	O4'-C1'-C2'	-5.29	102.31	107.60
32	S1	1583	G	O3'-P-O5'	-5.29	96.07	104.00
33	L1	1757	G	N9-C1'-C2'	-5.29	104.07	112.00
33	L1	1763	C	C3'-C2'-C1'	5.29	106.59	101.30
33	L1	2273	C	O5'-C5'-C4'	-5.29	103.57	111.50
78	Le	63	GLU	CA-C-N	5.29	127.63	120.44
78	Le	63	GLU	C-N-CA	5.29	127.63	120.44
1	Sa	328	LEU	CA-C-O	5.29	126.14	120.70
4	SD	133	GLN	CA-C-O	5.29	126.72	120.96
5	SE	40	GLU	CA-C-O	-5.29	114.84	121.02
32	S1	1085	U	O4'-C1'-N1	5.29	116.43	108.50
32	S1	1207	A	C3'-C2'-C1'	5.29	106.59	101.30
32	S1	1664	U	P-O3'-C3'	-5.29	112.27	120.20
33	L1	132	U	N1-C1'-C2'	5.29	119.93	112.00
33	L1	755	C	C3'-C2'-C1'	-5.29	96.22	101.50
33	L1	1867	U	O4'-C4'-C3'	-5.29	98.71	104.00
33	L1	2025	C	N1-C1'-C2'	5.29	119.93	112.00
33	L1	2740	C	P-O3'-C3'	-5.29	112.27	120.20
33	L1	2852	G	P-O5'-C5'	5.29	128.83	120.90
34	L3	100	A	P-O3'-C3'	-5.29	112.27	120.20
56	Lh	56	ILE	CB-CA-C	-5.29	105.00	112.14
67	LS	27	TYR	N-CA-C	5.29	117.44	109.41
81	LD	368	PRO	N-CD-CG	5.29	111.13	103.20
4	SD	211	GLU	CA-C-N	5.28	132.69	122.07
4	SD	211	GLU	C-N-CA	5.28	132.69	122.07
9	SK	105	LYS	O-C-N	-5.28	116.28	123.15
10	SL	31	HIS	CA-C-N	5.28	131.63	121.54
10	SL	31	HIS	C-N-CA	5.28	131.63	121.54
13	SQ	34	VAL	CA-CB-CG1	5.28	119.38	110.40
32	S1	414	A	C4'-C3'-C2'	-5.28	97.32	102.60
32	S1	1171	C	O4'-C1'-C2'	-5.28	102.32	107.60
32	S1	1219	C	O4'-C1'-C2'	-5.28	102.32	107.60
32	S1	1676	G	O4'-C1'-N9	5.28	116.42	108.50
33	L1	24	C	O4'-C1'-C2'	-5.28	102.32	107.60
33	L1	63	G	O4'-C1'-C2'	-5.28	102.32	107.60
33	L1	184	C	O4'-C1'-C2'	-5.28	102.32	107.60
33	L1	1728	G	C3'-C2'-C1'	5.28	106.58	101.30
33	L1	1906	A	N9-C1'-C2'	-5.28	104.08	112.00
33	L1	2013	G	O4'-C1'-N9	5.28	116.42	108.50
35	L2	43	G	O4'-C1'-C2'	-5.28	100.52	105.80
45	LQ	258	LYS	CB-CA-C	5.28	120.14	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	Lh	42	ARG	NH1-CZ-NH2	-5.28	112.43	119.30
67	LS	40	LYS	CG-CD-CE	5.28	123.45	111.30
78	Le	114	PHE	CA-CB-CG	-5.28	108.52	113.80
80	LC	121	ASN	N-CA-CB	5.28	119.42	110.49
6	SF	148	TYR	N-CA-C	5.28	117.04	111.28
23	SU	11	THR	CB-CA-C	-5.28	101.49	109.99
33	L1	1954	G	C5'-C4'-O4'	-5.28	101.88	109.80
15	SS	134	LEU	CB-CA-C	-5.28	102.02	110.79
32	S1	1214	C	C4'-C3'-O3'	-5.28	105.08	113.00
32	S1	1539	A	C3'-C2'-C1'	5.28	106.58	101.30
32	S1	1614	C	N1-C1'-C2'	5.28	119.92	112.00
32	S1	1799	G	C1'-O4'-C4'	-5.28	104.62	109.90
33	L1	1128	U	C4'-C3'-C2'	-5.28	97.32	102.60
33	L1	2390	G	O4'-C4'-C3'	-5.28	98.72	104.00
33	L1	2772	A	C4'-C3'-C2'	-5.28	97.32	102.60
33	L1	2862	U	C5'-C4'-C3'	5.28	123.92	116.00
34	L3	110	G	C5'-C4'-C3'	5.28	123.92	116.00
43	LO	51	GLY	O-C-N	-5.28	116.71	122.68
67	LS	90	HIS	CA-CB-CG	5.28	119.08	113.80
81	LD	64	HIS	CA-CB-CG	5.28	119.08	113.80
81	LD	227	ARG	NE-CZ-NH2	5.28	123.95	119.20
4	SD	52	LEU	N-CA-CB	5.28	117.88	110.12
27	SH	3	ARG	CA-C-O	-5.28	112.96	120.51
33	L1	565	C	C1'-C2'-O2'	5.28	116.32	108.40
34	L3	96	U	O4'-C1'-C2'	-5.28	102.32	107.60
35	L2	58	A	O4'-C4'-C3'	-5.28	98.72	104.00
51	LY	73	TYR	CB-CG-CD1	5.28	128.72	120.80
71	Lj	3	GLY	CA-C-N	-5.28	114.65	122.41
71	Lj	3	GLY	C-N-CA	-5.28	114.65	122.41
2	SA	89	ARG	CB-CA-C	5.28	119.55	110.79
2	SA	96	GLN	CA-C-N	5.28	127.35	120.28
2	SA	96	GLN	C-N-CA	5.28	127.35	120.28
31	S2	65	U	C4'-C3'-C2'	-5.28	97.32	102.60
32	S1	795	A	C5'-C4'-C3'	5.28	122.82	114.90
32	S1	1553	A	C5'-C4'-C3'	-5.28	108.08	116.00
33	L1	1062	G	C4'-C3'-C2'	-5.28	97.32	102.60
33	L1	1347	U	O5'-C5'-C4'	5.28	119.42	111.50
33	L1	1785	G	P-O3'-C3'	-5.28	112.28	120.20
33	L1	1903	C	N1-C1'-C2'	-5.28	104.08	112.00
33	L1	2641	A	O3'-P-O5'	-5.28	96.08	104.00
42	LP	28	TRP	CA-C-N	5.28	127.30	120.44
42	LP	28	TRP	C-N-CA	5.28	127.30	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	LQ	130	ASP	CA-C-N	5.28	131.62	121.54
45	LQ	130	ASP	C-N-CA	5.28	131.62	121.54
48	LV	37	ARG	CB-CA-C	5.28	120.12	110.10
3	SB	64	ARG	NE-CZ-NH2	5.28	123.95	119.20
3	SB	126	VAL	CB-CA-C	-5.28	102.64	111.29
32	S1	448	C	O5'-C5'-C4'	5.28	119.61	111.70
32	S1	552	G	O4'-C1'-C2'	-5.28	102.33	107.60
32	S1	1446	C	C5'-C4'-C3'	5.28	123.91	116.00
33	L1	1037	U	C1'-C2'-O2'	5.28	116.31	108.40
33	L1	1289	G	C4'-C3'-C2'	5.28	107.88	102.60
33	L1	2724	A	C1'-C2'-O2'	5.28	116.31	108.40
33	L1	3071	A	C5'-C4'-C3'	-5.28	108.09	116.00
35	L2	63	A	O4'-C4'-C3'	-5.28	100.82	106.10
37	LB	58	LEU	CB-CA-C	-5.28	100.21	109.71
40	LH	124	LYS	N-CA-CB	5.28	118.13	109.90
45	LQ	195	HIS	CA-CB-CG	-5.28	108.53	113.80
66	LN	98	ARG	N-CA-CB	5.28	117.97	110.06
80	LC	272	GLN	N-CA-CB	5.28	117.80	110.04
2	SA	187	LEU	CA-C-O	-5.27	113.57	119.79
4	SD	167	ASN	CA-CB-CG	-5.27	107.33	112.60
8	SJ	64	ARG	CG-CD-NE	-5.27	100.40	112.00
32	S1	840	U	O4'-C1'-C2'	-5.27	102.33	107.60
32	S1	1478	C	O4'-C1'-C2'	-5.27	100.53	105.80
33	L1	749	C	C5'-C4'-C3'	5.27	123.91	116.00
33	L1	785	U	C3'-C2'-C1'	-5.27	96.23	101.50
33	L1	1691	U	O4'-C4'-C3'	-5.27	98.73	104.00
35	L2	152	C	O4'-C1'-C2'	-5.27	102.33	107.60
45	LQ	107	ALA	O-C-N	-5.27	116.53	122.12
3	SB	29	LEU	CA-C-N	5.27	131.61	121.54
3	SB	29	LEU	C-N-CA	5.27	131.61	121.54
15	SS	132	ARG	CB-CG-CD	5.27	123.43	111.30
25	SC	184	GLY	CA-C-O	-5.27	116.06	122.75
27	SH	64	GLU	N-CA-CB	5.27	120.00	110.83
31	S2	24	A	O3'-P-O5'	-5.27	96.09	104.00
32	S1	162	A	O4'-C1'-C2'	-5.27	102.33	107.60
32	S1	1065	A	C1'-O4'-C4'	5.27	115.17	109.90
32	S1	1229	C	C4'-C3'-C2'	-5.27	97.33	102.60
32	S1	1461	G	O4'-C1'-C2'	5.27	112.87	107.60
33	L1	141	C	C1'-C2'-O2'	5.27	116.31	108.40
33	L1	588	G	O4'-C1'-C2'	5.27	112.87	107.60
33	L1	610	G	O4'-C1'-N9	5.27	116.41	108.50
33	L1	921	C	N1-C1'-C2'	-5.27	104.09	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	952	C	C4'-C3'-C2'	-5.27	97.33	102.60
33	L1	1346	C	O3'-P-O5'	-5.27	96.09	104.00
33	L1	1800	G	O4'-C1'-N9	5.27	116.41	108.50
33	L1	2461	A	O4'-C1'-C2'	-5.27	102.33	107.60
33	L1	2716	U	C3'-C2'-C1'	-5.27	96.23	101.50
70	Li	64	ARG	N-CA-CB	-5.27	100.98	110.37
78	Le	140	TYR	N-CA-C	5.27	117.22	109.42
79	Ls	70	ALA	N-CA-C	5.27	117.03	111.28
32	S1	1417	A	O4'-C1'-C2'	-5.27	102.33	107.60
33	L1	560	C	O4'-C1'-N1	5.27	116.41	108.50
64	LG	87	ARG	CA-C-O	5.27	126.33	120.43
4	SD	207	THR	CA-C-O	5.27	127.17	121.06
31	S2	40	U	O4'-C1'-C2'	-5.27	102.33	107.60
32	S1	1504	U	C1'-O4'-C4'	5.27	115.17	109.90
33	L1	464	G	O4'-C1'-N9	5.27	116.40	108.50
33	L1	2020	G	O4'-C1'-N9	5.27	116.40	108.50
33	L1	2125	A	P-O3'-C3'	-5.27	112.29	120.20
33	L1	2744	C	C3'-C2'-C1'	5.27	106.57	101.30
33	L1	3190	U	P-O3'-C3'	5.27	128.10	120.20
60	Lr	80	TYR	CB-CA-C	5.27	120.91	110.42
77	Lc	5	LYS	N-CA-CB	-5.27	103.23	111.56
79	Ls	222	VAL	N-CA-C	5.27	116.00	110.62
80	LC	366	SER	CA-C-N	5.27	131.19	121.70
80	LC	366	SER	C-N-CA	5.27	131.19	121.70
1	Sa	113	GLU	CA-C-N	-5.27	114.80	122.65
1	Sa	113	GLU	C-N-CA	-5.27	114.80	122.65
23	SU	8	PRO	CA-N-CD	-5.27	104.62	112.00
24	SX	65	LEU	CB-CA-C	5.27	120.90	110.42
25	SC	78	LEU	N-CA-CB	-5.27	101.37	110.32
32	S1	1498	A	C5'-C4'-C3'	5.27	122.80	114.90
32	S1	1578	A	O3'-P-O5'	5.27	111.90	104.00
33	L1	458	G	N9-C1'-C2'	5.27	119.90	112.00
33	L1	498	G	OP1-P-O3'	5.27	123.80	108.00
33	L1	1120	G	C1'-C2'-O2'	5.27	116.30	108.40
33	L1	1349	G	O4'-C1'-C2'	5.27	112.87	107.60
33	L1	1466	U	C3'-C2'-C1'	-5.27	96.03	101.30
33	L1	1664	G	P-O3'-C3'	5.27	128.10	120.20
33	L1	2201	G	P-O3'-C3'	5.27	128.10	120.20
33	L1	2261	U	O4'-C1'-N1	5.27	116.40	108.50
33	L1	2838	C	O4'-C1'-C2'	-5.27	102.33	107.60
33	L1	3027	G	C1'-O4'-C4'	5.27	115.17	109.90
45	LQ	123	ASN	CA-C-N	5.27	130.93	122.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	LQ	123	ASN	C-N-CA	5.27	130.93	122.50
72	Lk	93	MET	CA-CB-CG	5.27	124.63	114.10
79	Ls	10	LYS	CB-CG-CD	5.27	123.42	111.30
32	S1	979	A	P-O5'-C5'	-5.27	113.00	120.90
32	S1	1036	U	O3'-P-O5'	5.27	111.90	104.00
33	L1	1588	G	C3'-C2'-C1'	-5.27	96.03	101.30
33	L1	2792	A	C4'-C3'-C2'	-5.27	97.33	102.60
33	L1	3234	G	P-O3'-C3'	-5.27	112.30	120.20
71	Lj	53	ILE	CB-CA-C	5.27	118.51	111.19
32	S1	377	G	C3'-C2'-C1'	-5.26	96.04	101.30
32	S1	997	A	O4'-C1'-C2'	-5.26	102.33	107.60
33	L1	68	U	P-O3'-C3'	-5.26	112.30	120.20
33	L1	228	C	O3'-P-O5'	5.26	111.90	104.00
33	L1	320	U	O3'-P-O5'	-5.26	96.10	104.00
33	L1	1043	U	O4'-C1'-C2'	-5.26	102.33	107.60
33	L1	2532	A	C1'-C2'-O2'	5.26	116.30	108.40
34	L3	25	G	C5'-C4'-O4'	-5.26	101.90	109.80
71	Lj	92	ASN	N-CA-CB	5.26	119.39	110.49
80	LC	130	PHE	CA-C-N	5.26	131.18	121.70
80	LC	130	PHE	C-N-CA	5.26	131.18	121.70
33	L1	1713	A	C4'-C3'-O3'	-5.26	105.11	113.00
33	L1	2478	G	O4'-C1'-N9	-5.26	100.61	108.50
33	L1	2483	A	O4'-C1'-C2'	5.26	112.86	107.60
33	L1	2677	A	C4'-C3'-O3'	-5.26	105.11	113.00
46	LT	177	ARG	N-CA-CB	5.26	117.64	110.01
64	LG	185	ASP	CA-CB-CG	-5.26	107.34	112.60
1	Sa	192	ARG	CB-CA-C	-5.26	102.13	110.81
7	SI	84	ILE	CA-C-N	5.26	130.42	123.00
7	SI	84	ILE	C-N-CA	5.26	130.42	123.00
8	SJ	116	GLU	CB-CA-C	5.26	117.16	110.16
11	SM	5	ALA	N-CA-C	5.26	122.01	110.80
16	SR	69	LEU	CA-C-N	5.26	131.59	121.54
16	SR	69	LEU	C-N-CA	5.26	131.59	121.54
32	S1	1060	U	P-O3'-C3'	5.26	128.09	120.20
32	S1	1283	C	C3'-C2'-C1'	5.26	106.56	101.30
33	L1	444	C	C5'-C4'-C3'	5.26	123.89	116.00
33	L1	1005	C	N1-C1'-C2'	-5.26	104.11	112.00
33	L1	1921	U	C4'-C3'-O3'	5.26	117.29	109.40
33	L1	2210	A	O4'-C1'-N9	5.26	116.39	108.50
33	L1	2562	A	O3'-P-O5'	5.26	111.89	104.00
33	L1	2748	G	P-O3'-C3'	-5.26	112.31	120.20
33	L1	2910	C	C4'-C3'-O3'	-5.26	105.11	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	Lo	21	ARG	CA-CB-CG	5.26	124.62	114.10
74	LJ	85	ALA	CA-C-N	5.26	127.59	120.44
74	LJ	85	ALA	C-N-CA	5.26	127.59	120.44
78	Le	88	VAL	CA-C-O	-5.26	114.96	120.27
1	Sa	28	ARG	CA-CB-CG	5.26	124.62	114.10
3	SB	178	ARG	NE-CZ-NH2	5.26	123.93	119.20
32	S1	423	G	O4'-C1'-C2'	-5.26	102.34	107.60
32	S1	1505	U	O4'-C1'-N1	5.26	116.39	108.50
32	S1	1720	G	C1'-O4'-C4'	-5.26	104.64	109.90
33	L1	98	A	C5'-C4'-O4'	-5.26	101.91	109.80
33	L1	1310	G	O3'-P-O5'	-5.26	96.11	104.00
33	L1	2097	C	N1-C1'-C2'	5.26	119.89	112.00
35	L2	42	U	C4'-C3'-O3'	5.26	117.29	109.40
48	LV	145	CYS	N-CA-CB	5.26	121.31	111.53
70	Li	37	LYS	CB-CA-C	5.26	120.89	110.42
70	Li	66	ARG	NE-CZ-NH1	-5.26	116.24	121.50
78	Le	131	ARG	N-CA-C	-5.26	106.88	113.72
2	SA	114	ASN	CA-C-N	5.26	127.85	120.28
2	SA	114	ASN	C-N-CA	5.26	127.85	120.28
19	SY	40	ARG	N-CA-CB	5.26	119.26	110.85
32	S1	824	U	O4'-C1'-C2'	-5.26	102.34	107.60
33	L1	1282	A	O4'-C4'-C3'	5.26	109.26	104.00
33	L1	2493	C	C3'-C2'-C1'	5.26	106.56	101.30
33	L1	2651	G	C4'-C3'-C2'	-5.26	97.34	102.60
33	L1	2722	U	O4'-C4'-C3'	-5.26	98.74	104.00
38	LE	89	LYS	CB-CG-CD	5.26	123.39	111.30
66	LN	111	MET	CG-SD-CE	-5.26	89.33	100.90
10	SL	18	ARG	N-CA-CB	5.26	117.85	110.12
14	SP	88	ARG	N-CA-C	5.26	118.12	109.76
33	L1	879	A	O5'-C5'-C4'	-5.26	103.61	111.50
33	L1	1580	C	C1'-O4'-C4'	-5.26	104.64	109.90
33	L1	1868	C	O4'-C1'-N1	5.26	116.39	108.50
33	L1	2517	U	O4'-C1'-N1	5.26	116.08	108.20
33	L1	2807	G	O5'-C5'-C4'	-5.26	103.61	111.50
33	L1	3250	C	P-O3'-C3'	5.26	128.08	120.20
47	LU	111	ASN	N-CA-CB	5.26	117.85	110.12
60	Lr	16	GLU	N-CA-CB	-5.26	102.80	110.53
78	Le	130	ARG	NE-CZ-NH2	5.26	123.93	119.20
1	Sa	294	ASN	CA-C-N	5.25	131.06	122.81
1	Sa	294	ASN	C-N-CA	5.25	131.06	122.81
33	L1	442	C	P-O3'-C3'	-5.25	112.32	120.20
59	Lo	5	LYS	CB-CA-C	-5.25	100.58	110.67

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Le	153	ARG	CA-C-N	-5.25	116.70	122.38
78	Le	153	ARG	C-N-CA	-5.25	116.70	122.38
81	LD	323	PRO	N-CA-C	-5.25	106.23	113.53
1	Sa	189	THR	CA-C-O	5.25	126.07	120.24
2	SA	177	CYS	CA-C-O	-5.25	114.85	120.42
14	SP	60	PRO	N-CA-C	5.25	123.29	112.47
30	S3	17	A	C3'-C2'-O2'	5.25	118.58	110.70
32	S1	1266	U	O4'-C1'-C2'	-5.25	102.35	107.60
32	S1	1369	C	C3'-C2'-C1'	5.25	106.55	101.30
33	L1	228	C	C1'-O4'-C4'	5.25	115.15	109.90
34	L3	30	G	O4'-C1'-C2'	5.25	112.85	107.60
34	L3	108	G	O3'-P-O5'	5.25	111.88	104.00
35	L2	138	G	N9-C1'-C2'	5.25	119.88	112.00
64	LG	76	THR	N-CA-CB	5.25	119.72	110.37
76	Lw	40	GLU	CA-C-O	-5.25	114.98	120.55
79	Ls	77	GLU	CB-CA-C	5.25	119.20	110.90
32	S1	478	A	O3'-P-O5'	-5.25	96.12	104.00
33	L1	545	C	C1'-O4'-C4'	-5.25	104.65	109.90
33	L1	1194	C	C4'-C3'-O3'	5.25	117.28	109.40
33	L1	2574	A	N9-C1'-C2'	5.25	119.88	112.00
33	L1	2735	G	C1'-C2'-O2'	5.25	116.28	108.40
33	L1	2779	G	P-O5'-C5'	-5.25	113.02	120.90
33	L1	3008	U	C1'-O4'-C4'	5.25	115.15	109.90
33	L1	3063	C	C1'-O4'-C4'	-5.25	104.65	109.90
35	L2	159	U	C4'-C3'-O3'	-5.25	105.12	113.00
80	LC	99	LEU	CB-CA-C	5.25	119.20	109.54
1	Sa	22	ARG	CB-CA-C	-5.25	102.64	110.88
33	L1	2908	C	C4'-C3'-C2'	-5.25	97.35	102.60
45	LQ	180	PHE	N-CA-C	5.25	117.46	110.53
72	Lk	76	ALA	O-C-N	-5.25	116.17	122.15
14	SP	77	HIS	CB-CG-ND1	5.25	130.57	122.70
33	L1	796	C	O4'-C1'-C2'	-5.25	102.35	107.60
33	L1	858	U	O5'-C5'-C4'	5.25	119.37	111.50
33	L1	3133	C	N1-C1'-C2'	5.25	119.87	112.00
38	LE	63	ARG	CA-C-O	5.25	128.02	120.51
57	Ll	2	GLY	CA-C-N	5.25	130.29	120.95
57	Ll	2	GLY	C-N-CA	5.25	130.29	120.95
72	Lk	76	ALA	CA-C-O	5.25	125.98	120.42
74	LJ	98	ASN	O-C-N	5.25	129.57	122.59
4	SD	136	ILE	CG1-CB-CG2	-5.25	94.96	110.70
28	SN	13	ASN	CA-C-N	5.25	131.56	121.54
28	SN	13	ASN	C-N-CA	5.25	131.56	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	ST	42	ASN	O-C-N	-5.25	116.71	122.38
32	S1	1806	C	P-O5'-C5'	5.25	127.87	120.00
33	L1	263	A	O4'-C1'-N9	-5.25	100.33	108.20
33	L1	640	C	C1'-O4'-C4'	-5.25	104.65	109.90
33	L1	1180	C	N1-C1'-C2'	5.25	121.87	114.00
33	L1	1441	U	N1-C1'-C2'	5.25	119.87	112.00
33	L1	1626	U	C1'-O4'-C4'	-5.25	104.65	109.90
33	L1	1875	A	O5'-C5'-C4'	5.25	119.57	111.70
33	L1	1911	A	N9-C1'-C2'	-5.25	104.13	112.00
33	L1	2422	U	C4'-C3'-O3'	-5.25	105.13	113.00
33	L1	2512	U	O4'-C4'-C3'	-5.25	98.75	104.00
33	L1	2994	U	P-O5'-C5'	5.25	128.77	120.90
36	LA	45	ASP	CA-CB-CG	-5.25	107.35	112.60
41	LM	73	ARG	CA-CB-CG	5.25	124.59	114.10
46	LT	60	ARG	O-C-N	-5.25	116.08	122.11
58	Ln	5	ILE	CA-CB-CG1	5.25	119.32	110.40
59	Lo	18	ARG	N-CA-CB	5.25	117.83	110.12
59	Lo	42	ARG	NE-CZ-NH1	5.25	126.75	121.50
70	Li	71	ARG	CD-NE-CZ	-5.25	117.05	124.40
81	LD	355	ARG	CA-C-N	-5.25	114.71	121.79
81	LD	355	ARG	C-N-CA	-5.25	114.71	121.79
1	Sa	107	HIS	CA-C-N	-5.25	113.53	121.92
1	Sa	107	HIS	C-N-CA	-5.25	113.53	121.92
32	S1	959	G	O4'-C4'-C3'	-5.25	98.75	104.00
32	S1	1541	C	P-O5'-C5'	5.25	128.77	120.90
32	S1	1801	A	C1'-O4'-C4'	-5.25	104.45	109.70
33	L1	568	C	C1'-O4'-C4'	-5.25	104.66	109.90
33	L1	693	C	O4'-C1'-C2'	-5.25	102.36	107.60
33	L1	2520	U	O4'-C1'-C2'	-5.25	102.36	107.60
33	L1	3314	G	N9-C1'-C2'	5.25	119.87	112.00
6	SF	145	GLN	N-CA-C	-5.24	105.56	111.28
25	SC	16	LYS	CB-CA-C	5.24	120.50	110.17
25	SC	41	LYS	CA-C-N	5.24	129.17	120.94
25	SC	41	LYS	C-N-CA	5.24	129.17	120.94
32	S1	439	C	C5'-C4'-C3'	-5.24	108.14	116.00
32	S1	513	G	O4'-C1'-N9	-5.24	100.63	108.50
32	S1	1084	U	C1'-O4'-C4'	5.24	115.14	109.90
32	S1	1101	C	C4'-C3'-C2'	-5.24	97.36	102.60
33	L1	26	A	C1'-O4'-C4'	-5.24	104.66	109.90
33	L1	271	G	O4'-C1'-C2'	5.24	112.84	107.60
33	L1	1041	C	C1'-O4'-C4'	5.24	115.14	109.90
33	L1	1449	A	O3'-P-O5'	-5.24	96.14	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2654	G	C4'-C3'-O3'	-5.24	105.14	113.00
33	L1	2694	A	C5'-C4'-C3'	5.24	123.87	116.00
37	LB	28	ARG	N-CA-C	5.24	121.97	110.80
55	Lg	19	GLU	CB-CG-CD	5.24	121.52	112.60
79	Ls	227	SER	O-C-N	5.24	127.48	122.03
80	LC	123	CYS	CA-CB-SG	5.24	126.46	114.40
32	S1	1719	C	O4'-C1'-C2'	-5.24	102.36	107.60
33	L1	650	A	C4'-C3'-O3'	-5.24	105.14	113.00
33	L1	2354	G	C4'-C3'-C2'	5.24	107.84	102.60
33	L1	3152	C	C4'-C3'-C2'	-5.24	97.36	102.60
35	L2	112	C	O4'-C1'-C2'	-5.24	102.36	107.60
36	LA	16	ILE	CA-C-N	5.24	131.41	121.97
36	LA	16	ILE	C-N-CA	5.24	131.41	121.97
43	LO	3	THR	CA-CB-CG2	5.24	119.41	110.50
1	Sa	269	ASP	CB-CA-C	5.24	120.73	110.67
17	SV	21	GLY	CA-C-O	5.24	126.08	120.94
32	S1	141	G	P-O3'-C3'	5.24	128.06	120.20
33	L1	398	G	C2'-C3'-O3'	5.24	117.36	109.50
33	L1	803	G	C3'-C2'-C1'	-5.24	96.06	101.30
33	L1	1245	U	N1-C1'-C2'	-5.24	104.14	112.00
33	L1	2582	G	N9-C1'-C2'	5.24	119.86	112.00
33	L1	2818	G	C3'-C2'-C1'	5.24	106.74	101.50
33	L1	3086	G	C1'-C2'-O2'	5.24	116.26	108.40
33	L1	3309	U	O4'-C1'-N1	-5.24	100.34	108.20
59	Lo	6	THR	CB-CA-C	5.24	118.07	109.90
3	SB	91	VAL	N-CA-CB	5.24	119.87	111.23
31	S2	75	A	C3'-C2'-C1'	-5.24	96.26	101.50
32	S1	138	C	C1'-O4'-C4'	-5.24	104.66	109.90
32	S1	1320	C	O3'-P-O5'	5.24	111.86	104.00
32	S1	1622	A	P-O5'-C5'	5.24	128.76	120.90
33	L1	264	C	C1'-O4'-C4'	-5.24	104.66	109.90
33	L1	335	G	C3'-C2'-O2'	-5.24	106.74	114.60
33	L1	658	C	O4'-C1'-C2'	-5.24	102.36	107.60
33	L1	974	G	C4'-C3'-O3'	-5.24	105.14	113.00
33	L1	1381	G	O3'-P-O5'	-5.24	96.14	104.00
33	L1	2666	G	O4'-C1'-C2'	5.24	112.84	107.60
35	L2	83	A	C5'-C4'-C3'	-5.24	107.04	114.90
51	LY	119	ASP	O-C-N	-5.24	116.57	122.12
71	Lj	39	VAL	CA-CB-CG1	5.24	119.31	110.40
74	LJ	29	ALA	O-C-N	-5.24	115.30	121.32
78	Le	69	ARG	O-C-N	5.24	127.47	122.07
80	LC	235	ARG	CD-NE-CZ	5.24	131.73	124.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	LD	70	SER	N-CA-C	5.24	118.60	110.17
13	SQ	26	LEU	N-CA-C	5.24	121.95	110.80
31	S2	6	G	O5'-C5'-C4'	5.24	119.36	111.50
32	S1	1573	C	O4'-C1'-C2'	-5.24	102.36	107.60
33	L1	3001	G	C3'-C2'-C1'	-5.24	96.06	101.30
34	L3	67	C	O4'-C1'-N1	5.24	116.36	108.50
3	SB	169	ASP	N-CA-C	-5.24	100.77	109.46
12	SO	110	ASP	CA-C-N	5.24	131.54	121.54
12	SO	110	ASP	C-N-CA	5.24	131.54	121.54
25	SC	49	TYR	CB-CG-CD2	-5.24	112.95	120.80
25	SC	58	ALA	CA-C-N	5.24	129.83	121.66
25	SC	58	ALA	C-N-CA	5.24	129.83	121.66
33	L1	443	G	P-O5'-C5'	-5.24	113.05	120.90
33	L1	676	G	C5'-C4'-O4'	5.24	117.65	109.80
33	L1	998	G	C3'-C2'-C1'	-5.24	96.06	101.30
33	L1	1759	C	P-O5'-C5'	-5.24	113.05	120.90
33	L1	1821	G	C1'-C2'-O2'	5.24	116.25	108.40
33	L1	2710	C	N1-C1'-C2'	5.24	119.85	112.00
33	L1	3362	A	C4'-C3'-C2'	5.24	107.84	102.60
37	LB	44	VAL	CA-C-O	5.24	125.91	120.36
39	LF	75	HIS	CB-CA-C	-5.24	102.66	110.88
46	LT	84	THR	CA-CB-CG2	5.24	119.40	110.50
47	LU	102	ASN	CA-CB-CG	-5.24	107.36	112.60
32	S1	357	A	N9-C1'-C2'	-5.23	104.15	112.00
33	L1	502	G	N9-C1'-C2'	-5.23	104.15	112.00
33	L1	1299	G	C4'-C3'-C2'	-5.23	97.37	102.60
33	L1	2863	U	N1-C1'-C2'	5.23	119.85	112.00
41	LM	86	LYS	O-C-N	-5.23	116.53	121.35
48	LV	52	ILE	CA-C-N	5.23	128.26	120.31
48	LV	52	ILE	C-N-CA	5.23	128.26	120.31
83	Lm	17	ARG	CB-CG-CD	5.23	123.34	111.30
83	Lm	26	ILE	N-CA-C	5.23	117.63	111.09
33	L1	812	G	P-O5'-C5'	5.23	128.75	120.90
33	L1	1814	C	C1'-O4'-C4'	-5.23	104.67	109.90
33	L1	2646	A	C1'-O4'-C4'	5.23	115.13	109.90
33	L1	2670	A	C3'-C2'-C1'	5.23	106.53	101.30
33	L1	3113	G	O4'-C1'-C2'	-5.23	102.37	107.60
33	L1	3148	A	P-O5'-C5'	5.23	128.75	120.90
36	LA	96	LYS	N-CA-C	-5.23	105.58	111.28
78	Le	207	PHE	CA-CB-CG	-5.23	108.57	113.80
2	SA	226	ALA	N-CA-C	5.23	119.86	112.75
9	SK	72	ALA	N-CA-CB	5.23	119.33	110.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	SC	43	GLU	CA-C-O	-5.23	115.01	120.55
27	SH	109	GLY	N-CA-C	-5.23	103.14	110.88
32	S1	39	A	C5'-C4'-C3'	-5.23	108.15	116.00
32	S1	1200	A	O3'-P-O5'	-5.23	96.16	104.00
32	S1	1376	A	N9-C1'-C2'	5.23	119.85	112.00
33	L1	779	U	O4'-C1'-N1	5.23	116.35	108.50
33	L1	833	G	N9-C1'-C2'	5.23	119.85	112.00
33	L1	1115	A	C3'-C2'-O2'	5.23	118.54	110.70
33	L1	1388	C	C1'-O4'-C4'	-5.23	104.67	109.90
33	L1	1821	G	O3'-P-O5'	-5.23	96.15	104.00
33	L1	1851	U	O4'-C1'-N1	5.23	116.35	108.50
33	L1	1940	U	C5'-C4'-O4'	5.23	117.64	109.80
33	L1	2799	U	N1-C1'-C2'	5.23	119.85	112.00
33	L1	3048	C	C3'-C2'-C1'	5.23	106.53	101.30
44	LR	123	PHE	CA-C-O	5.23	126.01	120.10
47	LU	137	PRO	N-CA-C	5.23	123.25	112.47
66	LN	81	LYS	N-CA-CB	-5.23	102.15	109.94
5	SE	76	GLN	CB-CA-C	-5.23	102.06	110.74
32	S1	415	C	O4'-C1'-N1	5.23	116.34	108.50
32	S1	567	U	C1'-O4'-C4'	5.23	115.13	109.90
33	L1	396	G	C4'-C3'-O3'	-5.23	105.16	113.00
33	L1	1730	U	P-O3'-C3'	-5.23	112.36	120.20
33	L1	2059	C	O4'-C1'-N1	-5.23	100.66	108.50
37	LB	50	HIS	N-CA-C	5.23	117.81	110.23
80	LC	118	PHE	CA-CB-CG	5.23	119.03	113.80
6	SF	190	ASP	CA-CB-CG	-5.23	107.37	112.60
19	SY	8	ALA	N-CA-CB	5.23	119.32	110.49
32	S1	1385	C	C5'-C4'-O4'	5.23	117.64	109.80
32	S1	1756	A	C4'-C3'-O3'	5.23	120.84	113.00
33	L1	641	C	C1'-O4'-C4'	5.23	115.13	109.90
33	L1	1175	G	O4'-C1'-N9	5.23	116.34	108.50
33	L1	2361	C	C5'-C4'-O4'	-5.23	101.96	109.80
33	L1	2562	A	N9-C1'-C2'	-5.23	104.16	112.00
33	L1	2620	U	C4'-C3'-C2'	5.23	107.83	102.60
33	L1	2715	U	O4'-C1'-N1	5.23	116.34	108.50
33	L1	2801	A	O4'-C1'-C2'	-5.23	102.37	107.60
33	L1	3305	U	C5'-C4'-O4'	5.23	117.64	109.80
34	L3	87	G	O4'-C1'-N9	5.23	116.34	108.50
47	LU	47	ALA	N-CA-CB	-5.23	102.56	110.92
56	Lh	3	VAL	CB-CA-C	-5.23	108.81	114.35
74	LJ	62	LYS	N-CA-CB	-5.23	102.49	110.65
78	Le	196	HIS	N-CA-C	5.23	118.65	111.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
80	LC	232	VAL	N-CA-C	5.23	115.95	110.62
32	S1	235	C	O4'-C1'-C2'	-5.23	102.37	107.60
33	L1	949	C	O4'-C1'-N1	5.23	116.34	108.50
23	SU	73	GLY	O-C-N	5.22	129.49	122.70
33	L1	50	A	O4'-C1'-N9	5.22	116.34	108.50
33	L1	744	C	P-O3'-C3'	5.22	128.03	120.20
33	L1	770	U	O4'-C1'-C2'	-5.22	102.38	107.60
33	L1	869	A	C3'-C2'-C1'	-5.22	96.08	101.30
33	L1	1530	C	C1'-C2'-O2'	5.22	116.23	108.40
33	L1	1989	G	P-O3'-C3'	-5.22	112.36	120.20
33	L1	2627	G	C1'-O4'-C4'	-5.22	104.67	109.90
33	L1	2636	U	C3'-C2'-C1'	5.22	106.53	101.30
33	L1	2694	A	O4'-C1'-N9	5.22	116.34	108.50
40	LH	126	ILE	CA-CB-CG1	5.22	119.28	110.40
45	LQ	247	ILE	N-CA-CB	-5.22	102.62	111.50
47	LU	55	LYS	CA-C-N	5.22	127.28	120.28
47	LU	55	LYS	C-N-CA	5.22	127.28	120.28
67	LS	62	ALA	N-CA-CB	5.22	119.51	111.46
32	S1	192	G	C4'-C3'-C2'	-5.22	97.38	102.60
32	S1	197	G	O4'-C1'-N9	5.22	116.33	108.50
32	S1	990	G	C3'-C2'-C1'	5.22	106.52	101.30
32	S1	1401	C	C3'-C2'-C1'	5.22	106.52	101.30
33	L1	188	U	N1-C1'-C2'	-5.22	104.17	112.00
33	L1	434	C	O4'-C1'-C2'	-5.22	102.38	107.60
33	L1	1079	G	P-O5'-C5'	5.22	128.73	120.90
33	L1	1912	U	C4'-C3'-O3'	-5.22	105.17	113.00
33	L1	3131	A	N9-C1'-C2'	5.22	119.83	112.00
35	L2	15	C	P-O3'-C3'	-5.22	112.36	120.20
72	Lk	96	VAL	CG1-CB-CG2	-5.22	99.31	110.80
15	SS	44	ARG	O-C-N	5.22	124.69	120.83
32	S1	1628	C	C4'-C3'-C2'	-5.22	97.38	102.60
33	L1	1736	C	P-O5'-C5'	-5.22	113.07	120.90
33	L1	2004	U	O4'-C1'-C2'	-5.22	102.38	107.60
66	LN	93	LEU	N-CA-CB	5.22	117.80	110.12
72	Lk	37	THR	CA-CB-OG1	5.22	117.43	109.60
1	Sa	11	HIS	CG-CD2-NE2	5.22	112.42	107.20
1	Sa	154	THR	N-CA-C	5.22	118.25	109.95
5	SE	260	THR	N-CA-CB	5.22	119.31	110.49
8	SJ	93	VAL	CA-C-N	5.22	131.10	122.33
8	SJ	93	VAL	C-N-CA	5.22	131.10	122.33
27	SH	70	ASN	CB-CA-C	5.22	118.32	109.50
31	S2	63	C	C5'-C4'-C3'	5.22	123.83	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	439	C	C1'-O4'-C4'	-5.22	104.68	109.90
33	L1	599	C	C5'-C4'-O4'	5.22	117.63	109.80
33	L1	642	C	O4'-C1'-C2'	-5.22	102.38	107.60
33	L1	1126	U	O4'-C1'-N1	5.22	116.33	108.50
33	L1	2461	A	C3'-C2'-O2'	-5.22	102.87	110.70
33	L1	2852	G	C3'-C2'-C1'	5.22	106.52	101.30
33	L1	3362	A	C1'-O4'-C4'	5.22	115.12	109.90
38	LE	59	PHE	CA-CB-CG	-5.22	108.58	113.80
46	LT	59	SER	N-CA-CB	5.22	119.31	110.49
49	LX	131	LYS	CA-CB-CG	5.22	124.54	114.10
52	Lb	101	LYS	N-CA-CB	5.22	119.31	110.49
64	LG	187	GLU	CA-C-O	-5.22	115.47	121.47
27	SH	83	VAL	CA-C-O	-5.22	116.46	121.63
33	L1	2615	U	C4'-C3'-C2'	-5.22	97.38	102.60
33	L1	3065	U	O3'-P-O5'	-5.22	96.17	104.00
38	LE	3	THR	N-CA-C	5.22	121.91	110.80
43	LO	48	TYR	N-CA-C	5.22	116.97	111.28
68	LW	86	LYS	N-CA-C	-5.22	106.17	112.54
81	LD	364	THR	N-CA-CB	5.22	117.88	110.16
82	LK	77	HIS	ND1-CE1-NE2	5.22	113.62	108.40
7	SI	114	ILE	CB-CA-C	5.22	115.65	111.06
32	S1	1021	C	C4'-C3'-C2'	-5.22	97.38	102.60
32	S1	1191	U	C1'-O4'-C4'	5.22	115.12	109.90
32	S1	1387	U	O4'-C4'-C3'	-5.22	98.78	104.00
33	L1	649	A	O4'-C1'-C2'	-5.22	100.58	105.80
33	L1	2436	G	C2'-C3'-O3'	5.22	117.32	109.50
48	LV	145	CYS	O-C-N	-5.22	117.22	123.27
51	LY	16	LYS	O-C-N	-5.22	116.20	122.15
69	La	79	HIS	CB-CA-C	-5.22	101.98	110.85
70	Li	32	TYR	CA-C-N	5.22	128.25	120.95
70	Li	32	TYR	C-N-CA	5.22	128.25	120.95
1	Sa	88	GLY	N-CA-C	-5.21	107.92	115.27
32	S1	638	G	N9-C1'-C2'	-5.21	106.18	114.00
32	S1	1302	C	C4'-C3'-C2'	-5.21	97.39	102.60
32	S1	1553	A	O4'-C1'-C2'	-5.21	102.39	107.60
33	L1	906	U	O5'-C5'-C4'	5.21	119.32	111.50
33	L1	1751	G	C4'-C3'-O3'	-5.21	105.18	113.00
33	L1	2215	A	O3'-P-O5'	5.21	111.82	104.00
33	L1	2685	C	C4'-C3'-C2'	-5.21	97.39	102.60
33	L1	2845	U	O3'-P-O5'	5.21	111.82	104.00
34	L3	116	U	O4'-C1'-N1	5.21	116.32	108.50
67	LS	150	LYS	CA-C-N	5.21	131.09	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	LS	150	LYS	C-N-CA	5.21	131.09	121.70
13	SQ	138	ARG	N-CA-C	-5.21	100.53	109.24
33	L1	424	G	P-O5'-C5'	-5.21	113.08	120.90
33	L1	3066	G	C1'-O4'-C4'	-5.21	104.69	109.90
67	LS	6	PHE	CA-CB-CG	5.21	119.01	113.80
1	Sa	60	ARG	NE-CZ-NH1	5.21	126.71	121.50
1	Sa	220	MET	CA-C-O	5.21	127.63	121.58
5	SE	103	GLN	CB-CG-CD	5.21	121.46	112.60
8	SJ	47	ASP	CA-C-N	5.21	127.22	120.44
8	SJ	47	ASP	C-N-CA	5.21	127.22	120.44
10	SL	51	LEU	N-CA-CB	5.21	117.88	110.06
32	S1	161	G	O4'-C1'-N9	5.21	116.32	108.50
33	L1	557	C	C3'-C2'-C1'	5.21	106.51	101.30
33	L1	584	G	C4'-C3'-O3'	-5.21	105.18	113.00
33	L1	937	G	C3'-C2'-C1'	-5.21	96.09	101.30
33	L1	2341	U	N1-C1'-C2'	5.21	119.82	112.00
33	L1	2432	U	C4'-C3'-O3'	-5.21	105.18	113.00
33	L1	2744	C	C2'-C3'-O3'	5.21	121.52	113.70
33	L1	2783	U	C5'-C4'-O4'	-5.21	101.98	109.80
33	L1	3269	C	C3'-C2'-C1'	5.21	106.51	101.30
36	LA	148	ASN	CA-CB-CG	-5.21	107.39	112.60
39	LF	2	LYS	CA-C-N	5.21	129.02	121.98
39	LF	2	LYS	C-N-CA	5.21	129.02	121.98
47	LU	57	TYR	N-CA-CB	5.21	119.30	110.49
70	Li	86	ALA	CA-C-N	5.21	127.13	120.56
70	Li	86	ALA	C-N-CA	5.21	127.13	120.56
81	LD	342	LYS	CA-C-O	-5.21	114.75	120.43
4	SD	54	TYR	CA-CB-CG	-5.21	104.52	113.90
17	SV	99	GLN	N-CA-CB	5.21	121.31	113.65
32	S1	977	G	P-O5'-C5'	-5.21	113.08	120.90
33	L1	678	G	C3'-C2'-C1'	5.21	106.51	101.30
31	S2	9	A	C1'-C2'-O2'	5.21	119.61	111.80
32	S1	284	U	O4'-C1'-N1	5.21	116.31	108.50
32	S1	380	C	C1'-C2'-O2'	5.21	116.21	108.40
32	S1	679	C	N1-C1'-C2'	5.21	119.81	112.00
32	S1	1073	C	C3'-C2'-O2'	5.21	118.51	110.70
32	S1	1209	C	O4'-C4'-C3'	-5.21	98.79	104.00
32	S1	1474	U	C4'-C3'-C2'	-5.21	97.39	102.60
33	L1	719	U	C4'-C3'-O3'	-5.21	105.19	113.00
33	L1	1318	C	P-O3'-C3'	-5.21	112.39	120.20
33	L1	2081	C	O4'-C1'-C2'	-5.21	102.39	107.60
35	L2	23	A	C1'-C2'-O2'	5.21	116.21	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	L2	100	A	C4'-C3'-O3'	5.21	120.81	113.00
37	LB	83	TYR	CB-CA-C	-5.21	98.61	110.07
45	LQ	3	LEU	N-CA-CB	5.21	119.29	110.49
57	Ll	78	PHE	CA-CB-CG	-5.21	108.59	113.80
81	LD	391	TYR	CA-C-N	5.21	127.26	120.28
81	LD	391	TYR	C-N-CA	5.21	127.26	120.28
1	Sa	262	GLN	CB-CG-CD	-5.21	103.75	112.60
29	ST	1	MET	CA-C-N	5.21	127.26	120.28
29	ST	1	MET	C-N-CA	5.21	127.26	120.28
32	S1	329	G	O4'-C1'-N9	5.21	116.31	108.50
32	S1	1091	A	C4'-C3'-C2'	-5.21	97.39	102.60
32	S1	1199	C	P-O5'-C5'	-5.21	113.09	120.90
32	S1	1727	C	C4'-C3'-C2'	5.21	107.81	102.60
33	L1	868	A	O4'-C1'-C2'	5.21	112.81	107.60
33	L1	1948	G	C5'-C4'-C3'	5.21	123.81	116.00
33	L1	2730	A	P-O3'-C3'	-5.21	112.39	120.20
33	L1	3289	U	C4'-C3'-C2'	-5.21	97.39	102.60
35	L2	42	U	O3'-P-O5'	5.21	111.81	104.00
38	LE	113	ASP	CA-C-N	-5.21	113.74	121.24
38	LE	113	ASP	C-N-CA	-5.21	113.74	121.24
44	LR	137	ILE	CB-CA-C	5.21	118.16	110.77
46	LT	85	ARG	NE-CZ-NH1	-5.21	116.29	121.50
48	LV	81	GLN	CB-CG-CD	-5.21	103.75	112.60
57	Ll	93	ALA	CA-C-N	5.21	131.07	121.70
57	Ll	93	ALA	C-N-CA	5.21	131.07	121.70
5	SE	216	LEU	CA-C-N	5.21	125.87	119.99
5	SE	216	LEU	C-N-CA	5.21	125.87	119.99
23	SU	80	LEU	CB-CG-CD2	5.21	126.32	110.70
32	S1	1183	G	O4'-C1'-C2'	-5.21	102.39	107.60
33	L1	470	G	C5'-C4'-C3'	5.21	123.81	116.00
33	L1	1295	A	C1'-O4'-C4'	5.21	115.11	109.90
33	L1	3241	C	C3'-C2'-C1'	5.21	106.50	101.30
34	L3	76	U	O4'-C1'-N1	5.21	116.31	108.50
1	Sa	11	HIS	CE1-NE2-CD2	-5.20	103.80	109.00
9	SK	106	THR	N-CA-CB	-5.20	101.11	110.37
9	SK	141	ARG	CA-C-N	5.20	131.48	121.54
9	SK	141	ARG	C-N-CA	5.20	131.48	121.54
32	S1	1511	A	C3'-C2'-O2'	5.20	118.51	110.70
32	S1	1571	G	O3'-P-O5'	5.20	111.81	104.00
33	L1	1296	C	C1'-O4'-C4'	5.20	115.10	109.90
33	L1	1296	C	C3'-C2'-O2'	-5.20	102.89	110.70
33	L1	1739	G	O4'-C1'-N9	5.20	116.01	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2077	C	P-O5'-C5'	-5.20	113.09	120.90
33	L1	2877	U	O4'-C1'-C2'	5.20	112.80	107.60
33	L1	2910	C	C4'-C3'-C2'	-5.20	97.40	102.60
43	LO	143	THR	CA-C-O	-5.20	115.86	121.38
56	Lh	122	ASN	CA-C-O	-5.20	115.36	120.82
64	LG	146	TYR	N-CA-C	-5.20	105.80	113.61
67	LS	86	ARG	N-CA-CB	-5.20	101.69	110.49
69	La	41	CYS	CA-C-O	-5.20	115.30	121.60
78	Le	73	MET	CA-C-O	-5.20	113.07	120.51
79	Ls	116	VAL	CB-CA-C	-5.20	103.58	111.33
7	SI	123	LEU	CA-C-O	-5.20	113.07	120.51
32	S1	139	U	O4'-C1'-C2'	-5.20	102.40	107.60
32	S1	621	U	O4'-C1'-N1	5.20	116.30	108.50
32	S1	936	C	O4'-C1'-C2'	-5.20	102.40	107.60
33	L1	1487	A	C3'-C2'-C1'	5.20	106.70	101.50
33	L1	3085	C	C3'-C2'-C1'	5.20	106.50	101.30
59	Lo	34	THR	OG1-CB-CG2	5.20	119.70	109.30
3	SB	74	GLN	CG-CD-OE1	5.20	131.20	120.80
31	S2	28	G	N9-C1'-C2'	-5.20	104.20	112.00
32	S1	431	C	O4'-C1'-C2'	-5.20	102.40	107.60
33	L1	2070	C	C1'-O4'-C4'	5.20	115.10	109.90
33	L1	2676	A	P-O3'-C3'	5.20	128.00	120.20
33	L1	3047	A	C4'-C3'-C2'	-5.20	97.40	102.60
33	L1	3152	C	C5'-C4'-C3'	5.20	123.00	115.20
43	LO	125	ILE	O-C-N	-5.20	115.24	122.31
73	Lp	51	ILE	CA-C-O	-5.20	114.28	120.78
79	Ls	186	PHE	CB-CG-CD1	-5.20	111.86	120.70
1	Sa	248	HIS	CA-CB-CG	-5.20	108.60	113.80
3	SB	60	GLY	CA-C-O	-5.20	113.25	119.02
8	SJ	117	PRO	N-CA-C	-5.20	107.39	114.98
32	S1	436	G	P-O3'-C3'	5.20	128.00	120.20
33	L1	846	A	C3'-C2'-C1'	-5.20	96.10	101.30
33	L1	1151	G	O5'-C5'-C4'	5.20	119.30	111.50
33	L1	1625	G	C4'-C3'-C2'	-5.20	97.40	102.60
33	L1	2700	A	C4'-C3'-O3'	-5.20	105.20	113.00
38	LE	111	HIS	CA-C-N	-5.20	114.49	121.66
38	LE	111	HIS	C-N-CA	-5.20	114.49	121.66
44	LR	12	LYS	CA-C-N	5.20	131.47	121.54
44	LR	12	LYS	C-N-CA	5.20	131.47	121.54
82	LK	164	LYS	CA-C-O	-5.20	114.91	120.42
7	SI	65	ARG	NE-CZ-NH1	5.20	126.70	121.50
17	SV	101	ILE	CA-C-N	-5.20	114.51	122.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	SV	101	ILE	C-N-CA	-5.20	114.51	122.62
32	S1	1319	U	O4'-C1'-N1	5.20	116.30	108.50
33	L1	325	A	C3'-C2'-C1'	-5.20	96.10	101.30
33	L1	1628	G	C1'-C2'-O2'	-5.20	100.61	108.40
33	L1	2882	U	O3'-P-O5'	-5.20	96.20	104.00
33	L1	3280	U	C2'-C3'-O3'	5.20	121.50	113.70
34	L3	30	G	C1'-O4'-C4'	-5.20	104.70	109.90
36	LA	25	ARG	CA-C-N	5.20	128.21	120.31
36	LA	25	ARG	C-N-CA	5.20	128.21	120.31
41	LM	53	PRO	CB-CA-C	-5.20	105.09	111.64
5	SE	244	PHE	N-CA-C	-5.20	105.79	111.82
8	SJ	64	ARG	NE-CZ-NH2	5.20	123.88	119.20
10	SL	8	GLY	CA-C-O	-5.20	111.53	120.57
24	SX	72	LYS	N-CA-C	5.20	118.29	111.28
32	S1	1206	A	P-O3'-C3'	5.20	127.99	120.20
32	S1	1320	C	P-O3'-C3'	5.20	127.99	120.20
32	S1	1509	C	C3'-C2'-C1'	5.20	106.50	101.30
33	L1	1196	U	C2'-C3'-O3'	5.20	121.49	113.70
33	L1	1626	U	C1'-C2'-O2'	5.20	116.19	108.40
33	L1	2800	C	O4'-C1'-C2'	5.20	112.80	107.60
33	L1	3161	C	N1-C1'-C2'	5.20	119.79	112.00
34	L3	21	U	P-O5'-C5'	-5.20	113.11	120.90
60	Lr	95	GLY	N-CA-C	-5.20	107.49	116.01
70	Li	56	HIS	CA-C-N	5.20	131.46	121.54
70	Li	56	HIS	C-N-CA	5.20	131.46	121.54
80	LC	262	ARG	N-CA-C	-5.20	99.73	110.80
5	SE	137	ALA	O-C-N	-5.19	117.40	123.27
32	S1	1581	A	O4'-C1'-N9	5.19	115.99	108.20
33	L1	859	G	C4'-C3'-O3'	-5.19	105.21	113.00
33	L1	1718	U	C2'-C3'-O3'	5.19	121.49	113.70
33	L1	2511	U	O3'-P-O5'	-5.19	96.21	104.00
35	L2	129	C	O4'-C1'-C2'	-5.19	102.41	107.60
39	LF	40	HIS	CG-CD2-NE2	5.19	112.39	107.20
40	LH	176	VAL	O-C-N	-5.19	116.95	122.61
67	LS	81	LEU	N-CA-CB	-5.19	101.86	111.52
67	LS	106	GLU	CB-CG-CD	-5.19	103.77	112.60
29	ST	59	ARG	CA-C-N	5.19	127.55	120.54
29	ST	59	ARG	C-N-CA	5.19	127.55	120.54
32	S1	293	C	O4'-C1'-C2'	-5.19	102.41	107.60
32	S1	501	U	C3'-C2'-O2'	5.19	118.49	110.70
32	S1	791	C	O3'-P-O5'	5.19	111.79	104.00
33	L1	434	C	N1-C1'-C2'	5.19	119.79	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1386	G	C1'-O4'-C4'	-5.19	104.71	109.90
33	L1	1610	A	O4'-C4'-C3'	5.19	109.19	104.00
33	L1	3057	A	C3'-C2'-C1'	5.19	106.49	101.30
50	LZ	33	PHE	O-C-N	-5.19	117.12	123.30
57	L1	30	GLN	CA-C-N	5.19	129.69	121.18
57	L1	30	GLN	C-N-CA	5.19	129.69	121.18
70	Li	35	THR	CA-C-N	5.19	131.46	121.54
70	Li	35	THR	C-N-CA	5.19	131.46	121.54
32	S1	476	U	C3'-C2'-C1'	5.19	106.49	101.30
32	S1	932	C	N1-C1'-C2'	5.19	119.79	112.00
32	S1	1682	U	C3'-C2'-C1'	5.19	106.49	101.30
33	L1	1810	G	O4'-C1'-N9	5.19	115.99	108.20
33	L1	2332	C	C5'-C4'-C3'	5.19	123.78	116.00
33	L1	3056	C	O4'-C1'-N1	5.19	116.28	108.50
40	LH	112	GLN	N-CA-CB	5.19	117.99	110.26
45	LQ	303	ASP	N-CA-CB	5.19	119.26	110.49
12	SO	80	LEU	CB-CA-C	-5.19	99.14	109.99
13	SQ	30	THR	CA-CB-CG2	-5.19	101.68	110.50
25	SC	18	ARG	CA-CB-CG	-5.19	103.72	114.10
28	SN	28	HIS	O-C-N	-5.19	117.25	123.06
32	S1	1658	U	C2'-C3'-O3'	5.19	121.48	113.70
33	L1	383	A	C3'-C2'-C1'	5.19	106.49	101.30
33	L1	2620	U	C1'-O4'-C4'	5.19	114.89	109.70
33	L1	2877	U	O4'-C1'-N1	5.19	116.28	108.50
35	L2	152	C	C1'-C2'-O2'	5.19	116.18	108.40
36	LA	160	LYS	CB-CA-C	5.19	119.43	111.39
44	LR	155	ALA	N-CA-C	-5.19	97.52	108.73
64	LG	184	ILE	CA-CB-CG1	5.19	119.22	110.40
80	LC	10	ARG	N-CA-C	5.19	117.19	109.25
33	L1	700	C	O4'-C1'-N1	-5.19	100.72	108.50
33	L1	1237	G	O4'-C1'-N9	5.19	116.28	108.50
33	L1	1496	G	C2'-C3'-O3'	5.19	117.28	109.50
33	L1	1744	C	C3'-C2'-C1'	5.19	106.49	101.30
33	L1	2106	U	C2'-C3'-O3'	5.19	121.48	113.70
33	L1	2397	A	C3'-C2'-C1'	5.19	106.49	101.30
33	L1	2614	U	C4'-C3'-C2'	-5.19	97.41	102.60
33	L1	2787	A	O4'-C4'-C3'	5.19	109.19	104.00
33	L1	2906	U	O5'-C5'-C4'	-5.19	103.72	111.50
33	L1	3144	U	C5'-C4'-C3'	5.19	122.98	115.20
34	L3	30	G	O4'-C1'-N9	5.19	116.28	108.50
13	SQ	82	MET	N-CA-CB	5.19	119.25	110.49
33	L1	1331	C	C4'-C3'-C2'	-5.19	97.41	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2631	A	P-O3'-C3'	-5.19	112.42	120.20
33	L1	2856	U	C5'-C4'-C3'	-5.19	108.22	116.00
35	L2	41	A	N9-C1'-C2'	5.19	121.78	114.00
37	LB	56	ALA	O-C-N	-5.19	117.13	121.54
59	Lo	34	THR	O-C-N	-5.19	115.69	122.59
61	Lq	15	ARG	NE-CZ-NH1	5.19	126.69	121.50
6	SF	73	MET	N-CA-C	-5.18	105.63	111.28
11	SM	76	GLN	CB-CG-CD	-5.18	103.79	112.60
31	S2	57	A	O4'-C1'-N9	5.18	115.98	108.20
32	S1	1245	G	C4'-C3'-C2'	-5.18	97.42	102.60
32	S1	1750	A	N9-C1'-C2'	-5.18	104.22	112.00
33	L1	177	C	C1'-C2'-O2'	5.18	116.17	108.40
33	L1	639	A	C4'-C3'-O3'	-5.18	105.22	113.00
33	L1	1007	A	C3'-C2'-C1'	5.18	106.48	101.30
33	L1	1154	U	N1-C1'-C2'	5.18	119.78	112.00
33	L1	1627	U	C3'-C2'-C1'	5.18	106.48	101.30
33	L1	1736	C	O4'-C1'-C2'	-5.18	102.42	107.60
33	L1	2659	A	C4'-C3'-C2'	5.18	107.78	102.60
33	L1	2686	U	C1'-C2'-O2'	5.18	116.17	108.40
64	LG	170	THR	N-CA-C	5.18	116.62	110.19
81	LD	217	THR	N-CA-CB	5.18	118.88	110.17
5	SE	12	ARG	N-CA-CB	5.18	117.66	109.94
7	SI	50	LEU	N-CA-CB	5.18	120.80	111.37
32	S1	486	U	O4'-C1'-N1	5.18	116.28	108.50
32	S1	623	A	C1'-O4'-C4'	5.18	115.08	109.90
33	L1	302	G	C1'-O4'-C4'	5.18	114.88	109.70
33	L1	551	A	C3'-C2'-C1'	5.18	106.48	101.30
33	L1	582	C	C1'-O4'-C4'	-5.18	104.72	109.90
33	L1	966	G	C3'-C2'-C1'	5.18	106.48	101.30
33	L1	1144	C	N1-C1'-C2'	5.18	119.78	112.00
33	L1	1872	C	N1-C1'-C2'	5.18	119.77	112.00
33	L1	2336	C	C1'-O4'-C4'	-5.18	104.72	109.90
35	L2	48	A	O4'-C4'-C3'	-5.18	98.82	104.00
44	LR	9	GLY	N-CA-C	-5.18	108.53	115.32
45	LQ	16	TYR	CA-C-N	-5.18	111.64	121.54
45	LQ	16	TYR	C-N-CA	-5.18	111.64	121.54
66	LN	95	VAL	CA-C-O	-5.18	115.56	120.95
68	LW	117	ARG	CB-CG-CD	5.18	123.22	111.30
78	Le	130	ARG	CA-C-O	5.18	125.95	119.78
6	SF	85	ALA	N-CA-CB	5.18	117.74	110.12
33	L1	429	G	O4'-C1'-N9	5.18	116.27	108.50
33	L1	1810	G	O4'-C1'-C2'	-5.18	100.62	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1905	A	O4'-C1'-N9	5.18	116.27	108.50
33	L1	2103	U	O3'-P-O5'	-5.18	96.23	104.00
33	L1	2822	A	N9-C1'-C2'	5.18	119.77	112.00
48	LV	117	HIS	ND1-CE1-NE2	5.18	113.58	108.40
48	LV	147	ILE	O-C-N	-5.18	117.56	123.10
6	SF	70	ASN	CA-CB-CG	-5.18	107.42	112.60
32	S1	1516	C	O4'-C1'-N1	5.18	116.27	108.50
33	L1	390	G	O4'-C1'-N9	5.18	116.27	108.50
33	L1	704	G	C3'-C2'-C1'	5.18	106.48	101.30
33	L1	1180	C	C2'-C3'-O3'	5.18	117.27	109.50
33	L1	1428	G	C5'-C4'-O4'	5.18	117.57	109.80
33	L1	2622	G	C4'-C3'-O3'	5.18	120.77	113.00
33	L1	2665	A	C3'-C2'-O2'	5.18	118.47	110.70
33	L1	3347	U	C4'-C3'-C2'	-5.18	97.42	102.60
38	LE	58	SER	N-CA-C	-5.18	99.77	110.80
42	LP	11	TRP	CB-CG-CD1	5.18	134.67	126.90
60	Lr	47	GLN	CA-C-N	5.18	131.44	121.54
60	Lr	47	GLN	C-N-CA	5.18	131.44	121.54
64	LG	188	LEU	CB-CA-C	-5.18	100.11	110.42
67	LS	48	ARG	N-CA-C	-5.18	105.72	111.36
67	LS	164	LYS	CG-CD-CE	5.18	123.21	111.30
78	Le	54	ALA	N-CA-C	5.18	117.01	111.36
79	Ls	225	VAL	CB-CA-C	-5.18	105.15	112.14
81	LD	163	GLU	CB-CA-C	-5.18	102.72	110.90
32	S1	180	A	P-O5'-C5'	-5.18	113.13	120.90
32	S1	238	G	O4'-C1'-N9	5.18	116.27	108.50
32	S1	618	C	P-O5'-C5'	5.18	128.67	120.90
32	S1	1388	A	C4'-C3'-O3'	-5.18	105.23	113.00
32	S1	1434	G	C5'-C4'-C3'	-5.18	108.23	116.00
32	S1	1563	A	C4'-C3'-C2'	5.18	107.78	102.60
33	L1	230	G	C1'-C2'-O2'	5.18	116.17	108.40
33	L1	2721	C	P-O5'-C5'	-5.18	113.13	120.90
35	L2	100	A	C1'-C2'-O2'	-5.18	100.63	108.40
48	LV	59	PRO	O-C-N	5.18	128.96	123.01
4	SD	144	GLY	CA-C-N	5.18	128.22	120.87
4	SD	144	GLY	C-N-CA	5.18	128.22	120.87
5	SE	86	LYS	CA-C-O	-5.18	115.56	121.00
32	S1	653	U	O5'-C5'-C4'	-5.18	103.74	111.50
33	L1	60	G	C1'-O4'-C4'	-5.18	104.72	109.90
33	L1	487	C	C2'-C3'-O3'	5.18	121.46	113.70
33	L1	492	G	C1'-O4'-C4'	5.18	115.08	109.90
33	L1	936	A	C3'-C2'-C1'	-5.18	96.12	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2503	A	N9-C1'-C2'	5.18	119.77	112.00
33	L1	2641	A	P-O3'-C3'	-5.18	112.44	120.20
33	L1	2804	A	C4'-C3'-C2'	5.18	107.78	102.60
35	L2	80	C	C5'-C4'-C3'	5.18	122.66	114.90
40	LH	195	CYS	O-C-N	-5.18	117.15	123.10
68	LW	49	ILE	O-C-N	-5.18	116.85	121.87
28	SN	54	LYS	N-CA-C	-5.17	96.51	111.00
33	L1	766	C	O4'-C1'-C2'	-5.17	102.43	107.60
33	L1	2159	U	C3'-C2'-C1'	5.17	106.47	101.30
35	L2	151	C	C3'-C2'-C1'	5.17	106.47	101.30
46	LT	36	ASN	CA-C-O	5.17	124.59	118.90
46	LT	42	ARG	CA-C-N	5.17	127.64	120.29
46	LT	42	ARG	C-N-CA	5.17	127.64	120.29
56	Lh	12	LYS	CB-CG-CD	5.17	123.20	111.30
80	LC	313	GLY	N-CA-C	-5.17	108.19	114.92
31	S2	50	G	C1'-C2'-O2'	5.17	116.16	108.40
33	L1	2077	C	O4'-C1'-N1	5.17	116.26	108.50
33	L1	2115	G	C2'-C3'-O3'	-5.17	105.94	113.70
33	L1	2946	U	O4'-C1'-C2'	-5.17	102.43	107.60
33	L1	3045	A	C3'-C2'-C1'	5.17	106.47	101.30
35	L2	107	G	O4'-C1'-C2'	5.17	112.77	107.60
59	Lo	20	ASN	CB-CG-OD1	-5.17	110.45	120.80
78	Le	229	ALA	N-CA-C	5.17	116.96	110.24
3	SB	56	GLN	CA-C-N	5.17	127.16	120.44
3	SB	56	GLN	C-N-CA	5.17	127.16	120.44
8	SJ	108	LYS	CA-C-O	5.17	126.25	120.82
11	SM	82	TRP	CE2-CD2-CE3	5.17	123.97	118.80
13	SQ	60	ARG	O-C-N	-5.17	114.68	122.28
15	SS	58	THR	CA-C-O	-5.17	113.69	119.79
15	SS	111	GLN	N-CA-CB	5.17	117.72	110.12
27	SH	89	TRP	CA-CB-CG	5.17	123.42	113.60
32	S1	153	U	O4'-C1'-N1	5.17	116.26	108.50
32	S1	404	A	C1'-C2'-O2'	5.17	116.16	108.40
32	S1	1096	A	O5'-C5'-C4'	-5.17	103.94	111.70
33	L1	905	G	C4'-C3'-C2'	-5.17	97.43	102.60
33	L1	1034	U	O4'-C4'-C3'	-5.17	98.83	104.00
33	L1	1623	C	C5'-C4'-O4'	-5.17	101.34	109.10
33	L1	1660	C	N1-C1'-C2'	5.17	119.76	112.00
33	L1	2219	A	C3'-C2'-C1'	5.17	106.47	101.30
33	L1	3163	G	O4'-C1'-C2'	-5.17	102.43	107.60
33	L1	3296	C	O4'-C1'-C2'	-5.17	100.63	105.80
46	LT	9	ARG	NH1-CZ-NH2	-5.17	112.58	119.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
55	Lg	53	GLY	N-CA-C	-5.17	107.67	115.32
68	LW	38	ILE	O-C-N	5.17	126.89	121.87
72	Lk	109	ASP	CA-CB-CG	5.17	117.77	112.60
73	Lp	51	ILE	CB-CG1-CD1	5.17	124.66	113.80
78	Le	51	GLU	CB-CG-CD	5.17	121.39	112.60
78	Le	130	ARG	CB-CA-C	-5.17	102.41	110.94
5	SE	40	GLU	O-C-N	5.17	128.46	122.20
32	S1	363	G	O3'-P-O5'	-5.17	96.25	104.00
33	L1	2036	C	O4'-C1'-C2'	-5.17	102.43	107.60
66	LN	123	GLN	N-CA-C	5.17	116.60	111.07
79	Ls	229	SER	N-CA-C	5.17	116.92	111.28
11	SM	29	ALA	CA-C-O	-5.17	114.94	120.42
11	SM	70	VAL	N-CA-C	5.17	115.89	110.62
14	SP	48	GLU	O-C-N	-5.17	116.47	123.19
32	S1	38	C	N1-C1'-C2'	5.17	119.75	112.00
32	S1	1729	A	P-O3'-C3'	5.17	127.95	120.20
33	L1	210	G	O4'-C4'-C3'	-5.17	100.93	106.10
33	L1	2714	U	C4'-C3'-C2'	-5.17	97.43	102.60
33	L1	2792	A	C3'-C2'-C1'	-5.17	96.13	101.30
33	L1	2839	A	C3'-C2'-C1'	-5.17	96.33	101.50
34	L3	115	A	O4'-C4'-C3'	-5.17	98.83	104.00
35	L2	59	U	N1-C1'-C2'	5.17	119.75	112.00
41	LM	127	ASP	CA-CB-CG	5.17	117.77	112.60
51	LY	53	ASP	N-CA-C	-5.17	103.22	110.35
79	Ls	6	THR	N-CA-C	5.17	117.65	111.71
79	Ls	249	LYS	CA-C-N	5.17	127.63	120.29
79	Ls	249	LYS	C-N-CA	5.17	127.63	120.29
2	SA	43	TYR	CB-CA-C	5.17	120.70	110.42
3	SB	65	ARG	CA-C-N	5.17	128.77	120.30
3	SB	65	ARG	C-N-CA	5.17	128.77	120.30
3	SB	201	THR	CA-C-O	-5.17	113.50	120.47
4	SD	75	LYS	CA-C-N	5.17	128.93	121.18
4	SD	75	LYS	C-N-CA	5.17	128.93	121.18
8	SJ	93	VAL	O-C-N	5.17	128.58	122.69
32	S1	856	G	C1'-C2'-O2'	5.17	116.15	108.40
32	S1	918	G	N9-C1'-C2'	-5.17	106.25	114.00
32	S1	1124	G	P-O5'-C5'	-5.17	113.15	120.90
33	L1	875	A	C4'-C3'-C2'	5.17	107.77	102.60
33	L1	979	C	C5'-C4'-C3'	5.17	123.75	116.00
33	L1	1942	A	O4'-C1'-N9	5.17	116.25	108.50
33	L1	2020	G	C5'-C4'-C3'	5.17	123.75	116.00
33	L1	2620	U	O3'-P-O5'	5.17	111.75	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	LE	31	ARG	CB-CA-C	-5.17	100.14	110.42
56	Lh	95	ALA	CB-CA-C	-5.17	100.08	109.38
64	LG	143	ASP	CA-C-O	-5.17	113.12	120.51
25	SC	73	PHE	CA-C-N	5.17	127.20	120.28
25	SC	73	PHE	C-N-CA	5.17	127.20	120.28
32	S1	1200	A	C1'-O4'-C4'	-5.17	104.53	109.70
33	L1	15	C	P-O3'-C3'	-5.17	112.45	120.20
33	L1	1718	U	P-O5'-C5'	5.17	128.65	120.90
38	LE	70	TYR	CA-C-N	5.17	130.31	122.98
38	LE	70	TYR	C-N-CA	5.17	130.31	122.98
42	LP	147	ARG	CA-C-O	5.17	125.47	119.32
64	LG	188	LEU	N-CA-CB	-5.17	101.76	110.49
67	LS	61	LEU	CB-CA-C	-5.17	102.74	110.90
3	SB	77	PHE	N-CA-C	-5.16	98.24	107.28
10	SL	5	ARG	NE-CZ-NH1	-5.16	116.34	121.50
28	SN	40	ARG	NE-CZ-NH2	5.16	123.85	119.20
32	S1	336	U	C1'-O4'-C4'	5.16	115.06	109.90
32	S1	593	C	N1-C1'-C2'	5.16	119.75	112.00
32	S1	847	U	O4'-C1'-N1	5.16	116.25	108.50
32	S1	958	G	O4'-C1'-N9	5.16	116.25	108.50
32	S1	1301	G	N9-C1'-C2'	-5.16	104.26	112.00
32	S1	1738	U	C5'-C4'-C3'	5.16	123.75	116.00
33	L1	464	G	P-O5'-C5'	5.16	128.65	120.90
33	L1	467	C	C2'-C3'-O3'	5.16	121.45	113.70
33	L1	1625	G	O4'-C4'-C3'	-5.16	98.84	104.00
33	L1	1798	C	C4'-C3'-C2'	-5.16	97.44	102.60
33	L1	2281	U	N1-C1'-C2'	5.16	121.75	114.00
33	L1	2681	A	C3'-C2'-C1'	5.16	106.46	101.30
33	L1	3360	U	C1'-O4'-C4'	-5.16	104.54	109.70
55	Lg	101	VAL	CA-C-O	-5.16	114.32	120.78
69	La	11	VAL	CG1-CB-CG2	5.16	122.16	110.80
69	La	76	ASN	N-CA-CB	5.16	117.80	110.16
78	Le	164	PRO	CA-C-N	5.16	130.91	122.65
78	Le	164	PRO	C-N-CA	5.16	130.91	122.65
27	SH	119	LYS	CB-CA-C	5.16	121.21	110.32
33	L1	255	C	C3'-C2'-C1'	5.16	106.46	101.30
33	L1	571	G	P-O5'-C5'	5.16	128.64	120.90
46	LT	8	LYS	N-CA-C	5.16	116.91	111.28
47	LU	131	GLN	OE1-CD-NE2	-5.16	117.44	122.60
4	SD	79	ASP	N-CA-CB	5.16	118.83	110.42
7	SI	127	PRO	CA-C-N	5.16	131.40	121.54
7	SI	127	PRO	C-N-CA	5.16	131.40	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	SK	92	LEU	CB-CG-CD1	5.16	126.18	110.70
32	S1	334	G	N9-C1'-C2'	5.16	119.74	112.00
32	S1	1552	U	O4'-C1'-C2'	-5.16	102.44	107.60
33	L1	59	A	O3'-P-O5'	-5.16	96.26	104.00
33	L1	937	G	C4'-C3'-O3'	-5.16	105.26	113.00
33	L1	1058	A	C4'-C3'-O3'	5.16	117.14	109.40
33	L1	1132	A	O4'-C1'-C2'	-5.16	102.44	107.60
33	L1	1681	U	N1-C1'-C2'	-5.16	104.26	112.00
33	L1	1750	A	P-O5'-C5'	-5.16	113.16	120.90
33	L1	2100	A	C3'-C2'-C1'	5.16	106.46	101.30
33	L1	2338	C	C2'-C3'-O3'	5.16	117.24	109.50
33	L1	2388	C	N1-C1'-C2'	5.16	119.74	112.00
33	L1	2568	G	C3'-C2'-C1'	5.16	106.46	101.30
33	L1	3169	C	C3'-C2'-C1'	5.16	106.46	101.30
33	L1	3352	C	C1'-O4'-C4'	5.16	115.06	109.90
39	LF	150	ILE	CA-C-O	-5.16	115.58	120.95
41	LM	42	VAL	CA-C-O	5.16	125.81	120.39
51	LY	35	SER	N-CA-CB	5.16	118.30	110.45
71	Lj	81	ASN	CA-C-N	5.16	131.25	123.04
71	Lj	81	ASN	C-N-CA	5.16	131.25	123.04
71	Lj	99	GLY	CA-C-N	5.16	131.40	121.54
71	Lj	99	GLY	C-N-CA	5.16	131.40	121.54
3	SB	113	LEU	CA-C-N	-5.16	113.67	121.05
3	SB	113	LEU	C-N-CA	-5.16	113.67	121.05
3	SB	125	PHE	CB-CG-CD2	5.16	129.47	120.70
25	SC	66	GLU	N-CA-C	5.16	121.79	110.80
27	SH	91	ALA	N-CA-CB	5.16	118.28	110.28
32	S1	19	A	C4'-C3'-O3'	-5.16	105.26	113.00
32	S1	1803	G	C1'-C2'-O2'	5.16	116.14	108.40
33	L1	479	C	O4'-C1'-C2'	-5.16	102.44	107.60
33	L1	888	U	C1'-O4'-C4'	5.16	115.06	109.90
33	L1	2333	U	O4'-C4'-C3'	-5.16	98.84	104.00
45	LQ	28	ARG	CB-CG-CD	5.16	123.17	111.30
70	Li	41	GLY	CA-C-N	5.16	139.38	127.00
70	Li	41	GLY	C-N-CA	5.16	139.38	127.00
33	L1	235	G	O4'-C1'-C2'	-5.16	102.44	107.60
33	L1	2669	C	O4'-C1'-C2'	5.16	112.76	107.60
33	L1	3344	U	C1'-C2'-O2'	5.16	116.14	108.40
60	Lr	68	ILE	CA-C-O	-5.16	116.42	121.58
64	LG	128	THR	N-CA-C	5.16	121.78	110.80
64	LG	198	LEU	N-CA-C	5.16	121.78	110.80
68	LW	121	ILE	N-CA-C	-5.16	96.56	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	SL	3	LYS	CA-C-N	-5.16	113.49	122.36
10	SL	3	LYS	C-N-CA	-5.16	113.49	122.36
32	S1	112	U	O4'-C1'-N1	5.16	116.23	108.50
32	S1	623	A	C1'-C2'-O2'	-5.16	100.67	108.40
32	S1	973	U	P-O5'-C5'	-5.16	113.17	120.90
33	L1	1146	A	C2'-C3'-O3'	5.16	117.23	109.50
33	L1	1472	C	O5'-C5'-C4'	5.16	119.23	111.50
33	L1	1717	G	N9-C1'-C2'	-5.16	104.27	112.00
33	L1	2012	C	N1-C1'-C2'	5.16	119.73	112.00
33	L1	2440	U	P-O5'-C5'	5.16	128.63	120.90
33	L1	3002	U	N1-C1'-C2'	5.16	119.73	112.00
33	L1	3233	C	C4'-C3'-C2'	5.16	107.76	102.60
35	L2	147	C	C1'-C2'-O2'	5.16	116.13	108.40
43	LO	21	ARG	CA-C-N	5.16	131.25	121.97
43	LO	21	ARG	C-N-CA	5.16	131.25	121.97
48	LV	1	MET	CA-C-N	5.16	131.25	121.97
48	LV	1	MET	C-N-CA	5.16	131.25	121.97
49	LX	43	HIS	N-CA-CB	5.16	117.67	110.56
57	L1	82	THR	CA-C-N	5.16	128.79	121.42
57	L1	82	THR	C-N-CA	5.16	128.79	121.42
67	LS	120	PHE	N-CA-C	5.16	121.20	109.81
71	Lj	78	PRO	N-CA-C	-5.16	103.10	111.19
78	Le	198	LYS	CA-C-O	5.16	125.38	119.35
1	Sa	201	PRO	CA-C-N	-5.15	111.70	121.54
1	Sa	201	PRO	C-N-CA	-5.15	111.70	121.54
3	SB	38	GLU	N-CA-C	-5.15	102.85	110.48
5	SE	89	VAL	N-CA-C	5.15	115.37	110.42
11	SM	68	MET	N-CA-CB	5.15	117.48	110.01
19	SY	26	VAL	N-CA-C	-5.15	100.77	107.88
32	S1	896	C	C3'-C2'-C1'	5.15	106.45	101.30
33	L1	19	C	O4'-C4'-C3'	-5.15	98.85	104.00
33	L1	301	G	C1'-O4'-C4'	-5.15	104.75	109.90
33	L1	319	C	N1-C1'-C2'	5.15	119.73	112.00
33	L1	2437	A	O4'-C1'-N9	-5.15	100.77	108.50
33	L1	2915	U	O4'-C1'-N1	5.15	116.23	108.50
39	LF	40	HIS	CA-CB-CG	-5.15	108.65	113.80
11	SM	126	TYR	N-CA-C	-5.15	105.66	111.28
11	SM	139	THR	N-CA-CB	5.15	119.20	110.49
31	S2	5	U	O4'-C1'-N1	5.15	116.23	108.50
32	S1	855	G	C1'-C2'-O2'	5.15	116.13	108.40
32	S1	896	C	O4'-C1'-C2'	-5.15	102.45	107.60
33	L1	2033	C	N1-C1'-C2'	5.15	119.73	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2773	G	C4'-C3'-C2'	-5.15	97.45	102.60
33	L1	3084	G	O4'-C1'-N9	5.15	116.23	108.50
60	Lr	83	HIS	CE1-NE2-CD2	-5.15	103.85	109.00
74	LJ	109	ASP	CB-CA-C	-5.15	102.79	110.88
81	LD	306	VAL	CA-C-O	-5.15	116.86	121.09
82	LK	58	LYS	N-CA-C	-5.15	105.58	111.14
2	SA	54	ASN	OD1-CG-ND2	-5.15	117.45	122.60
4	SD	54	TYR	N-CA-CB	5.15	119.20	110.49
20	SZ	28	LYS	O-C-N	-5.15	116.53	122.09
32	S1	914	U	N1-C1'-C2'	5.15	119.72	112.00
32	S1	1226	U	C1'-O4'-C4'	5.15	115.05	109.90
32	S1	1264	U	O4'-C1'-N1	5.15	116.22	108.50
32	S1	1701	G	O4'-C1'-C2'	5.15	112.75	107.60
33	L1	97	G	N9-C1'-C2'	5.15	119.73	112.00
33	L1	564	A	O4'-C1'-C2'	-5.15	102.45	107.60
33	L1	753	G	O4'-C1'-N9	5.15	116.22	108.50
33	L1	1022	G	O4'-C1'-C2'	5.15	112.75	107.60
33	L1	1269	U	C1'-C2'-O2'	5.15	116.13	108.40
33	L1	1783	G	O4'-C1'-N9	5.15	116.23	108.50
33	L1	2975	G	O4'-C1'-C2'	5.15	112.75	107.60
35	L2	154	G	P-O3'-C3'	5.15	127.93	120.20
37	LB	79	ALA	N-CA-C	-5.15	102.57	110.14
49	LX	68	ASP	CB-CA-C	-5.15	101.62	110.22
57	Ll	90	ALA	O-C-N	-5.15	115.74	122.59
81	LD	347	ALA	CA-C-N	5.15	131.38	121.54
81	LD	347	ALA	C-N-CA	5.15	131.38	121.54
32	S1	1259	G	O3'-P-O5'	5.15	111.72	104.00
33	L1	3091	U	C3'-C2'-C1'	5.15	106.45	101.30
38	LE	107	GLY	CA-C-O	5.15	129.53	120.57
77	Lc	99	ASP	N-CA-CB	5.15	119.25	110.50
80	LC	157	ALA	O-C-N	-5.15	116.78	122.91
1	Sa	192	ARG	N-CA-C	-5.15	100.12	108.41
2	SA	217	GLN	O-C-N	5.15	127.58	122.12
3	SB	51	ARG	CA-C-O	-5.15	115.20	121.58
7	SI	136	GLY	N-CA-C	-5.15	101.39	111.12
31	S2	30	G	C1'-O4'-C4'	-5.15	104.75	109.90
32	S1	11	A	C4'-C3'-C2'	-5.15	97.45	102.60
32	S1	626	A	N9-C1'-C2'	5.15	121.72	114.00
32	S1	767	G	O5'-C5'-C4'	5.15	118.52	110.80
32	S1	1022	U	C1'-C2'-O2'	5.15	116.12	108.40
32	S1	1730	G	P-O3'-C3'	5.15	127.92	120.20
33	L1	478	G	N9-C1'-C2'	5.15	119.72	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1369	G	C5'-C4'-O4'	-5.15	102.08	109.80
33	L1	1747	A	C3'-C2'-C1'	-5.15	96.15	101.30
33	L1	2124	G	P-O3'-C3'	5.15	127.92	120.20
33	L1	2689	U	O4'-C1'-C2'	-5.15	102.45	107.60
34	L3	116	U	C2'-C3'-O3'	5.15	121.42	113.70
39	LF	184	GLY	N-CA-C	-5.15	98.37	113.30
42	LP	74	PRO	CA-N-CD	-5.15	104.79	112.00
51	LY	110	LEU	CA-C-O	-5.15	114.96	120.42
70	Li	32	TYR	N-CA-CB	5.15	118.82	110.43
74	LJ	118	ARG	O-C-N	-5.15	115.74	122.59
82	LK	120	THR	CA-CB-CG2	5.15	119.25	110.50
24	SX	74	ARG	NE-CZ-NH1	5.15	126.65	121.50
33	L1	576	C	P-O5'-C5'	-5.15	112.28	120.00
33	L1	996	A	C5'-C4'-C3'	-5.15	108.28	116.00
33	L1	2132	A	C4'-C3'-O3'	5.15	117.12	109.40
34	L3	101	A	O3'-P-O5'	-5.15	96.28	104.00
55	Lg	85	ARG	CA-CB-CG	5.15	124.39	114.10
60	Lr	10	THR	CA-C-N	5.15	128.18	120.87
60	Lr	10	THR	C-N-CA	5.15	128.18	120.87
82	LK	111	GLU	N-CA-CB	-5.15	102.04	110.43
32	S1	447	C	C4'-C3'-C2'	-5.14	97.45	102.60
32	S1	1389	G	C4'-C3'-O3'	-5.14	105.28	113.00
32	S1	1649	C	C1'-O4'-C4'	5.14	115.05	109.90
33	L1	2653	U	C5'-C4'-C3'	-5.14	108.28	116.00
48	LV	69	ARG	N-CA-CB	-5.14	103.28	111.62
2	SA	177	CYS	CB-CA-C	-5.14	102.11	110.85
5	SE	124	VAL	CA-CB-CG1	5.14	119.14	110.40
32	S1	17	C	O4'-C1'-C2'	-5.14	102.46	107.60
32	S1	119	U	C4'-C3'-C2'	-5.14	97.46	102.60
32	S1	801	U	O3'-P-O5'	-5.14	96.28	104.00
32	S1	1364	C	O4'-C4'-C3'	-5.14	98.86	104.00
32	S1	1761	G	C4'-C3'-C2'	-5.14	97.46	102.60
33	L1	460	A	C1'-O4'-C4'	5.14	115.04	109.90
33	L1	474	G	O4'-C1'-N9	5.14	116.22	108.50
33	L1	972	C	C4'-C3'-O3'	-5.14	105.29	113.00
33	L1	1731	A	C5'-C4'-C3'	5.14	123.71	116.00
33	L1	2099	G	C1'-C2'-O2'	5.14	116.11	108.40
33	L1	2420	U	O4'-C1'-C2'	-5.14	102.46	107.60
37	LB	228	ASP	CA-CB-CG	-5.14	107.46	112.60
38	LE	102	GLY	N-CA-C	-5.14	107.95	115.72
46	LT	98	ARG	NH1-CZ-NH2	-5.14	112.61	119.30
77	Lc	84	LEU	N-CA-C	5.14	118.33	111.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
80	LC	157	ALA	CA-C-O	5.14	128.46	122.03
81	LD	196	GLY	CA-C-N	5.14	131.36	121.18
81	LD	196	GLY	C-N-CA	5.14	131.36	121.18
20	SZ	5	HIS	O-C-N	-5.14	115.95	122.27
33	L1	854	C	P-O5'-C5'	5.14	128.61	120.90
33	L1	2902	A	P-O3'-C3'	5.14	127.91	120.20
46	LT	187	ARG	CA-C-N	5.14	127.12	120.44
46	LT	187	ARG	C-N-CA	5.14	127.12	120.44
57	L1	21	ARG	N-CA-CB	5.14	117.68	110.12
19	SY	50	ASP	N-CA-CB	5.14	117.59	109.83
23	SU	96	ARG	CD-NE-CZ	-5.14	117.20	124.40
32	S1	575	G	C1'-O4'-C4'	-5.14	104.76	109.90
33	L1	227	C	C3'-C2'-C1'	5.14	106.44	101.30
33	L1	2245	G	O4'-C1'-N9	5.14	116.21	108.50
33	L1	2989	A	C3'-C2'-C1'	5.14	106.44	101.30
33	L1	3049	A	C3'-C2'-O2'	5.14	118.41	110.70
42	LP	4	TYR	CB-CA-C	-5.14	101.12	110.63
42	LP	134	LEU	N-CA-CB	5.14	119.77	110.83
43	LO	28	HIS	ND1-CE1-NE2	5.14	113.54	108.40
47	LU	30	TYR	CA-C-N	5.14	129.37	120.58
47	LU	30	TYR	C-N-CA	5.14	129.37	120.58
67	LS	58	GLY	CA-C-O	5.14	125.23	120.81
2	SA	88	GLN	O-C-N	-5.14	115.76	122.59
10	SL	17	ARG	NE-CZ-NH2	-5.14	114.58	119.20
33	L1	1025	G	N9-C1'-C2'	5.14	119.71	112.00
33	L1	1132	A	C1'-C2'-O2'	5.14	116.11	108.40
42	LP	179	HIS	ND1-CE1-NE2	5.14	113.54	108.40
68	LW	93	LEU	N-CA-CB	5.14	117.63	109.82
2	SA	215	LYS	CA-C-O	5.14	127.86	120.51
27	SH	89	TRP	CA-C-N	5.14	131.28	122.09
27	SH	89	TRP	C-N-CA	5.14	131.28	122.09
28	SN	28	HIS	CA-CB-CG	-5.14	108.66	113.80
32	S1	123	U	C1'-O4'-C4'	5.14	115.04	109.90
33	L1	994	U	C5'-C4'-O4'	5.14	117.50	109.80
33	L1	1861	A	O4'-C1'-N9	5.14	116.20	108.50
33	L1	2340	G	O4'-C1'-C2'	5.14	112.74	107.60
33	L1	2492	C	C5'-C4'-C3'	-5.14	108.29	116.00
42	LP	142	ILE	CA-CB-CG2	-5.14	101.77	110.50
48	LV	129	ARG	CA-CB-CG	5.14	124.38	114.10
70	Li	88	ARG	CA-CB-CG	5.14	124.37	114.10
80	LC	3	HIS	CE1-NE2-CD2	-5.14	103.86	109.00
5	SE	258	LYS	CA-C-O	-5.13	113.13	120.16

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	SJ	3	ALA	CA-C-N	5.13	130.01	122.77
8	SJ	3	ALA	C-N-CA	5.13	130.01	122.77
14	SP	118	VAL	N-CA-CB	5.13	119.70	111.23
32	S1	854	C	C3'-C2'-C1'	5.13	106.44	101.30
32	S1	951	U	O4'-C1'-N1	5.13	116.20	108.50
32	S1	1294	U	P-O3'-C3'	5.13	127.90	120.20
32	S1	1747	A	C4'-C3'-C2'	-5.13	97.47	102.60
33	L1	264	C	N1-C1'-C2'	5.13	119.70	112.00
33	L1	447	C	O4'-C1'-C2'	-5.13	102.47	107.60
33	L1	507	C	C4'-C3'-O3'	-5.13	105.30	113.00
33	L1	1071	G	O4'-C1'-N9	5.13	116.20	108.50
33	L1	1094	G	P-O5'-C5'	-5.13	113.20	120.90
33	L1	1128	U	C1'-O4'-C4'	-5.13	104.77	109.90
33	L1	1195	C	O4'-C1'-C2'	-5.13	102.47	107.60
33	L1	1526	A	C5'-C4'-O4'	5.13	116.80	109.10
33	L1	1558	A	C5'-C4'-C3'	5.13	122.60	114.90
33	L1	1636	C	P-O5'-C5'	-5.13	113.20	120.90
33	L1	1687	C	P-O5'-C5'	5.13	128.60	120.90
33	L1	1742	G	O5'-C5'-C4'	-5.13	103.80	111.50
33	L1	1936	G	P-O3'-C3'	-5.13	112.50	120.20
33	L1	2951	U	C2'-C3'-O3'	5.13	121.40	113.70
38	LE	120	PRO	O-C-N	-5.13	117.59	123.03
41	LM	35	LYS	CA-C-N	5.13	131.34	121.54
41	LM	35	LYS	C-N-CA	5.13	131.34	121.54
42	LP	11	TRP	CB-CG-CD2	-5.13	119.61	126.80
79	Ls	7	LYS	CA-C-N	5.13	128.14	120.90
79	Ls	7	LYS	C-N-CA	5.13	128.14	120.90
17	SV	55	VAL	CA-C-N	5.13	124.31	118.97
17	SV	55	VAL	C-N-CA	5.13	124.31	118.97
31	S2	49	G	C1'-C2'-O2'	5.13	116.10	108.40
32	S1	1225	A	C5'-C4'-O4'	5.13	117.50	109.80
33	L1	533	G	C4'-C3'-C2'	-5.13	97.47	102.60
33	L1	2743	A	C1'-C2'-O2'	5.13	116.10	108.40
33	L1	2904	A	N9-C1'-C2'	-5.13	104.30	112.00
51	LY	111	ASP	CA-CB-CG	-5.13	107.47	112.60
80	LC	5	LYS	CB-CA-C	-5.13	100.35	110.10
2	SA	230	GLY	N-CA-C	-5.13	106.55	112.50
12	SO	34	GLU	CA-C-N	5.13	127.16	120.28
12	SO	34	GLU	C-N-CA	5.13	127.16	120.28
32	S1	19	A	O4'-C1'-N9	5.13	116.20	108.50
32	S1	888	U	O4'-C1'-N1	5.13	116.20	108.50
32	S1	1109	U	N1-C1'-C2'	5.13	119.70	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1585	A	C1'-O4'-C4'	-5.13	104.57	109.70
33	L1	2058	C	C5'-C4'-O4'	-5.13	102.10	109.80
33	L1	2764	G	C3'-C2'-C1'	-5.13	96.37	101.50
33	L1	3226	G	C3'-C2'-C1'	5.13	106.43	101.30
33	L1	3232	C	C1'-C2'-O2'	5.13	116.10	108.40
38	LE	106	PHE	CA-CB-CG	5.13	118.93	113.80
46	LT	109	TYR	CB-CG-CD2	-5.13	113.10	120.80
49	LX	131	LYS	N-CA-CB	5.13	118.80	110.43
51	LY	77	TRP	CB-CG-CD2	-5.13	119.62	126.80
56	Lh	13	LYS	N-CA-C	5.13	121.73	110.80
69	La	76	ASN	CB-CA-C	-5.13	102.13	110.85
78	Le	90	ARG	CA-C-N	5.13	127.70	120.42
78	Le	90	ARG	C-N-CA	5.13	127.70	120.42
23	SU	95	TYR	CG-CD1-CE1	-5.13	113.50	121.20
32	S1	208	U	O4'-C1'-N1	5.13	116.19	108.50
32	S1	944	A	C1'-C2'-O2'	5.13	116.09	108.40
52	Lb	73	SER	O-C-N	5.13	129.10	123.25
81	LD	187	ALA	N-CA-CB	-5.13	103.56	110.95
2	SA	34	CYS	N-CA-CB	-5.13	102.75	111.31
2	SA	135	HIS	N-CA-C	-5.13	105.81	111.71
3	SB	96	LEU	N-CA-C	5.13	121.72	110.80
3	SB	108	LYS	CA-C-N	5.13	131.34	121.54
3	SB	108	LYS	C-N-CA	5.13	131.34	121.54
11	SM	117	ILE	N-CA-C	-5.13	104.68	111.09
32	S1	3	C	C5'-C4'-C3'	-5.13	108.31	116.00
32	S1	314	C	N1-C1'-C2'	5.13	119.69	112.00
32	S1	557	G	C3'-C2'-C1'	5.13	106.43	101.30
32	S1	856	G	C1'-O4'-C4'	-5.13	104.77	109.90
33	L1	7	C	C2'-C3'-O3'	5.13	121.39	113.70
33	L1	271	G	C1'-C2'-O2'	5.13	116.09	108.40
33	L1	2807	G	C1'-O4'-C4'	-5.13	104.77	109.90
33	L1	3043	U	O4'-C1'-N1	5.13	116.19	108.50
34	L3	96	U	P-O3'-C3'	-5.13	112.51	120.20
35	L2	100	A	O4'-C1'-N9	5.13	116.19	108.50
35	L2	102	U	O4'-C4'-C3'	5.13	109.13	104.00
37	LB	215	ASN	CA-CB-CG	-5.13	107.47	112.60
42	LP	93	LYS	CB-CG-CD	5.13	123.09	111.30
78	Le	8	VAL	CA-C-O	5.13	126.61	121.17
82	LK	57	MET	CA-CB-CG	5.13	124.36	114.10
5	SE	44	TRP	CD2-CE2-CZ2	-5.13	117.27	122.40
5	SE	76	GLN	N-CA-CB	5.13	118.14	109.78
28	SN	13	ASN	CB-CG-ND2	-5.13	108.71	116.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	409	C	C4'-C3'-O3'	-5.13	105.31	113.00
32	S1	1762	C	O4'-C1'-C2'	-5.13	102.47	107.60
33	L1	242	U	O4'-C1'-C2'	-5.13	102.47	107.60
33	L1	1262	U	C3'-C2'-C1'	-5.13	96.17	101.30
33	L1	1800	G	O4'-C1'-C2'	5.13	112.73	107.60
54	Lf	54	PRO	N-CA-C	5.13	122.08	113.78
67	LS	91	ASN	CA-CB-CG	5.13	117.73	112.60
32	S1	626	A	C4'-C3'-O3'	5.12	117.09	109.40
33	L1	1706	C	O4'-C1'-C2'	-5.12	100.67	105.80
33	L1	2715	U	O4'-C1'-C2'	5.12	112.72	107.60
33	L1	3111	C	C4'-C3'-C2'	-5.12	97.47	102.60
42	LP	77	LYS	N-CA-CB	5.12	119.28	111.70
78	Le	49	ARG	NE-CZ-NH2	5.12	123.81	119.20
33	L1	1638	U	C4'-C3'-O3'	-5.12	105.31	113.00
33	L1	1726	G	O3'-P-O5'	5.12	111.69	104.00
33	L1	2794	A	O5'-C5'-C4'	5.12	119.19	111.50
33	L1	3319	G	O5'-C5'-C4'	5.12	119.19	111.50
34	L3	65	G	P-O3'-C3'	-5.12	112.52	120.20
38	LE	127	MET	CG-SD-CE	5.12	112.17	100.90
40	LH	99	ASP	O-C-N	-5.12	116.76	122.09
42	LP	1	MET	CG-SD-CE	-5.12	89.63	100.90
72	Lk	111	LYS	N-CA-C	-5.12	106.58	114.16
74	LJ	115	ARG	NH1-CZ-NH2	-5.12	112.64	119.30
80	LC	236	TRP	CE2-CD2-CE3	5.12	123.92	118.80
5	SE	34	ARG	CB-CA-C	5.12	119.83	110.10
5	SE	147	PRO	N-CA-C	-5.12	101.92	112.47
31	S2	18	G	C2'-C3'-O3'	5.12	117.18	109.50
32	S1	181	C	O4'-C4'-C3'	-5.12	98.88	104.00
32	S1	1022	U	O4'-C1'-C2'	-5.12	102.48	107.60
32	S1	1101	C	C5'-C4'-O4'	5.12	117.48	109.80
32	S1	1538	C	O3'-P-O5'	5.12	111.68	104.00
33	L1	316	A	C4'-C3'-C2'	5.12	107.72	102.60
33	L1	416	A	O4'-C1'-N9	5.12	116.18	108.50
33	L1	1627	U	C4'-C3'-C2'	-5.12	97.48	102.60
45	LQ	252	THR	OG1-CB-CG2	5.12	119.54	109.30
59	Lo	26	TRP	CA-C-O	-5.12	113.19	120.51
67	LS	143	GLN	OE1-CD-NE2	5.12	127.72	122.60
3	SB	70	THR	CA-CB-OG1	5.12	117.28	109.60
32	S1	1	U	C1'-O4'-C4'	5.12	115.02	109.90
32	S1	360	G	P-O3'-C3'	-5.12	112.52	120.20
33	L1	111	C	N1-C1'-C2'	5.12	119.68	112.00
33	L1	1317	G	C4'-C3'-C2'	5.12	107.72	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
37	LB	116	VAL	CB-CA-C	-5.12	104.49	111.15
64	LG	199	LYS	CA-C-N	5.12	127.10	120.44
64	LG	199	LYS	C-N-CA	5.12	127.10	120.44
78	Le	182	CYS	CA-C-N	5.12	131.19	121.97
78	Le	182	CYS	C-N-CA	5.12	131.19	121.97
3	SB	138	VAL	CA-C-N	5.12	130.82	121.97
3	SB	138	VAL	C-N-CA	5.12	130.82	121.97
8	SJ	26	GLN	CA-C-N	-5.12	116.17	123.03
8	SJ	26	GLN	C-N-CA	-5.12	116.17	123.03
25	SC	90	ASP	N-CA-CB	5.12	118.21	110.28
32	S1	1439	G	O4'-C1'-N9	5.12	116.18	108.50
33	L1	535	G	O4'-C1'-N9	5.12	116.18	108.50
33	L1	736	U	N1-C1'-C2'	-5.12	104.32	112.00
33	L1	1201	C	C1'-O4'-C4'	5.12	114.82	109.70
33	L1	1206	A	O4'-C4'-C3'	-5.12	98.88	104.00
33	L1	2508	U	C1'-C2'-O2'	5.12	116.08	108.40
33	L1	3274	G	C3'-C2'-C1'	5.12	106.42	101.30
35	L2	14	G	O4'-C1'-N9	5.12	116.18	108.50
36	LA	18	GLY	O-C-N	-5.12	115.48	122.55
70	Li	98	GLU	CA-C-N	5.12	127.14	120.28
70	Li	98	GLU	C-N-CA	5.12	127.14	120.28
80	LC	124	LYS	CG-CD-CE	5.12	123.07	111.30
32	S1	826	C	N1-C1'-C2'	5.12	119.68	112.00
33	L1	348	C	C5'-C4'-C3'	-5.12	107.52	115.20
33	L1	367	A	P-O5'-C5'	5.12	128.58	120.90
33	L1	609	C	C5'-C4'-C3'	-5.12	108.32	116.00
33	L1	1389	C	O4'-C4'-C3'	5.12	109.12	104.00
33	L1	1737	C	N1-C1'-C2'	5.12	119.68	112.00
33	L1	2369	G	C3'-C2'-C1'	-5.12	96.18	101.30
34	L3	74	A	C1'-O4'-C4'	-5.12	104.78	109.90
46	LT	137	VAL	CA-C-N	5.12	127.40	120.44
46	LT	137	VAL	C-N-CA	5.12	127.40	120.44
80	LC	126	LYS	CA-C-O	5.12	127.83	120.51
81	LD	83	VAL	N-CA-C	5.12	114.59	108.96
8	SJ	79	CYS	N-CA-CB	5.12	119.75	111.21
13	SQ	34	VAL	CA-C-O	-5.12	114.94	120.47
32	S1	1134	U	N1-C1'-C2'	-5.12	104.33	112.00
33	L1	29	G	O3'-P-O5'	5.12	111.67	104.00
33	L1	88	A	C1'-O4'-C4'	-5.12	104.78	109.90
33	L1	174	G	O4'-C1'-C2'	5.12	112.72	107.60
33	L1	183	C	C4'-C3'-C2'	-5.12	97.48	102.60
33	L1	886	A	O4'-C4'-C3'	5.12	109.12	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1096	C	N1-C1'-C2'	5.12	119.67	112.00
33	L1	2623	G	C4'-C3'-O3'	5.12	120.67	113.00
33	L1	3152	C	C1'-O4'-C4'	5.12	114.82	109.70
36	LA	63	ARG	CD-NE-CZ	5.12	131.56	124.40
37	LB	129	ALA	N-CA-CB	-5.12	103.37	110.38
40	LH	226	ARG	NE-CZ-NH2	-5.12	114.60	119.20
43	LO	98	VAL	CA-C-N	5.12	131.31	121.54
43	LO	98	VAL	C-N-CA	5.12	131.31	121.54
59	Lo	7	PHE	CB-CG-CD1	-5.12	112.00	120.70
64	LG	138	ASN	N-CA-C	-5.12	99.91	110.80
78	Le	92	ARG	CG-CD-NE	-5.12	100.75	112.00
80	LC	66	LYS	CA-C-O	-5.12	113.19	120.51
82	LK	57	MET	N-CA-CB	5.12	117.64	110.12
8	SJ	33	LEU	CA-C-O	-5.11	115.03	120.40
11	SM	103	VAL	N-CA-CB	5.11	116.53	110.55
25	SC	71	ARG	CG-CD-NE	-5.11	100.75	112.00
31	S2	73	C	O5'-C5'-C4'	5.11	119.17	111.50
32	S1	116	G	C2'-C3'-O3'	5.11	117.17	109.50
32	S1	1197	A	P-O5'-C5'	-5.11	113.23	120.90
33	L1	459	G	C1'-C2'-O2'	5.11	116.07	108.40
33	L1	863	G	P-O5'-C5'	-5.11	113.23	120.90
33	L1	1577	A	C3'-C2'-C1'	-5.11	96.19	101.30
33	L1	1613	C	C1'-O4'-C4'	-5.11	104.79	109.90
33	L1	1712	A	C2'-C3'-O3'	5.11	117.17	109.50
33	L1	1736	C	C4'-C3'-O3'	-5.11	105.33	113.00
33	L1	2381	G	C3'-C2'-C1'	-5.11	96.19	101.30
35	L2	111	G	O4'-C1'-C2'	5.11	112.71	107.60
42	LP	139	HIS	CA-C-N	5.11	127.13	120.28
42	LP	139	HIS	C-N-CA	5.11	127.13	120.28
69	La	68	VAL	O-C-N	-5.11	116.02	121.80
77	Lc	103	ARG	CB-CA-C	-5.11	102.16	110.85
78	Le	2	ALA	CA-C-N	5.11	127.09	120.44
78	Le	2	ALA	C-N-CA	5.11	127.09	120.44
81	LD	156	LEU	O-C-N	5.11	129.04	123.01
25	SC	60	HIS	CA-C-O	5.11	125.97	120.55
29	ST	20	THR	N-CA-CB	5.11	117.56	109.94
32	S1	610	A	C2'-C3'-O3'	5.11	117.17	109.50
32	S1	957	A	O4'-C1'-N9	5.11	116.17	108.50
33	L1	1906	A	O4'-C1'-N9	5.11	116.17	108.50
35	L2	153	U	C4'-C3'-O3'	-5.11	105.33	113.00
76	Lw	34	ILE	O-C-N	5.11	129.00	122.61
32	S1	890	G	C1'-O4'-C4'	-5.11	104.79	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1287	U	C3'-C2'-C1'	5.11	106.41	101.30
33	L1	597	C	O4'-C1'-C2'	-5.11	102.49	107.60
33	L1	1041	C	C4'-C3'-C2'	-5.11	97.49	102.60
33	L1	2419	C	C4'-C3'-C2'	-5.11	97.49	102.60
33	L1	3246	U	C1'-O4'-C4'	-5.11	104.79	109.90
34	L3	40	A	C3'-C2'-O2'	5.11	118.37	110.70
34	L3	120	C	C2'-C3'-O3'	5.11	117.17	109.50
46	LT	31	GLU	CB-CA-C	5.11	119.54	110.85
48	LV	43	LYS	CB-CA-C	5.11	120.48	110.67
54	Lf	102	SER	N-CA-CB	5.11	119.13	110.49
67	LS	98	ASP	O-C-N	5.11	128.98	123.10
19	SY	52	LEU	CA-C-O	-5.11	114.26	120.54
33	L1	685	G	C3'-C2'-C1'	5.11	106.41	101.30
33	L1	1755	A	C2'-C3'-O3'	5.11	121.36	113.70
33	L1	2219	A	C5'-C4'-O4'	-5.11	102.14	109.80
33	L1	3018	A	P-O3'-C3'	-5.11	112.54	120.20
37	LB	207	VAL	CA-CB-CG1	5.11	119.08	110.40
38	LE	76	GLU	CA-C-N	5.11	127.13	120.28
38	LE	76	GLU	C-N-CA	5.11	127.13	120.28
67	LS	121	PRO	CA-C-N	5.11	127.96	120.71
67	LS	121	PRO	C-N-CA	5.11	127.96	120.71
78	Le	194	GLY	O-C-N	-5.11	116.66	121.77
1	Sa	61	THR	CA-C-N	5.11	132.19	123.05
1	Sa	61	THR	C-N-CA	5.11	132.19	123.05
2	SA	48	ASP	N-CA-C	-5.11	106.46	113.56
5	SE	208	SER	N-CA-CB	-5.11	102.67	110.49
10	SL	100	LEU	CA-C-N	5.11	128.73	121.02
10	SL	100	LEU	C-N-CA	5.11	128.73	121.02
32	S1	1071	C	C3'-C2'-C1'	-5.11	96.19	101.30
33	L1	515	C	N1-C1'-C2'	5.11	119.66	112.00
33	L1	917	A	C3'-C2'-O2'	-5.11	106.94	114.60
33	L1	1078	U	C4'-C3'-C2'	-5.11	97.49	102.60
33	L1	1140	C	P-O5'-C5'	5.11	128.56	120.90
33	L1	1829	G	C1'-C2'-O2'	5.11	116.06	108.40
33	L1	2051	G	P-O3'-C3'	-5.11	112.54	120.20
49	LX	50	LYS	N-CA-CB	5.11	119.12	110.49
71	Lj	43	GLU	CB-CA-C	-5.11	102.86	110.88
78	Le	68	LYS	N-CA-CB	-5.11	102.61	110.12
78	Le	179	ASN	N-CA-C	-5.11	101.14	108.60
81	LD	403	VAL	CA-C-O	5.11	124.71	119.35
2	SA	185	MET	CA-C-N	5.11	127.67	120.42
2	SA	185	MET	C-N-CA	5.11	127.67	120.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
9	SK	129	GLU	CA-C-O	5.11	125.99	120.32
10	SL	40	PHE	CA-CB-CG	-5.11	108.69	113.80
11	SM	100	SER	CA-C-N	5.11	127.12	120.28
11	SM	100	SER	C-N-CA	5.11	127.12	120.28
13	SQ	11	LYS	N-CA-CB	5.11	117.41	110.01
13	SQ	106	LEU	CA-C-N	5.11	127.12	120.28
13	SQ	106	LEU	C-N-CA	5.11	127.12	120.28
28	SN	29	GLY	CA-C-N	-5.11	115.28	122.94
28	SN	29	GLY	C-N-CA	-5.11	115.28	122.94
29	ST	24	ILE	CA-C-N	5.11	127.12	120.28
29	ST	24	ILE	C-N-CA	5.11	127.12	120.28
32	S1	13	C	C1'-O4'-C4'	-5.11	104.79	109.90
32	S1	466	G	O4'-C1'-C2'	5.11	112.71	107.60
32	S1	1331	C	O4'-C1'-N1	5.11	116.16	108.50
32	S1	1561	G	C1'-O4'-C4'	5.11	115.00	109.90
33	L1	86	U	N1-C1'-C2'	5.11	119.66	112.00
33	L1	1680	A	C4'-C3'-O3'	-5.11	105.34	113.00
33	L1	1708	C	C1'-C2'-O2'	5.11	116.06	108.40
33	L1	1831	A	O4'-C1'-C2'	-5.11	102.49	107.60
50	LZ	70	VAL	N-CA-C	5.11	119.96	109.34
55	Lg	107	PRO	N-CA-C	-5.11	106.76	113.65
66	LN	123	GLN	OE1-CD-NE2	-5.11	117.49	122.60
69	La	39	GLY	N-CA-C	-5.11	104.90	113.02
82	LK	64	ARG	N-CA-C	-5.11	105.72	111.28
17	SV	16	ALA	CA-C-O	-5.10	115.63	121.40
31	S2	66	C	C3'-C2'-C1'	5.10	106.40	101.30
32	S1	1456	U	O4'-C1'-N1	5.10	116.16	108.50
33	L1	400	G	C4'-C3'-O3'	5.10	117.06	109.40
33	L1	801	G	C5'-C4'-C3'	5.10	123.66	116.00
33	L1	1046	U	P-O5'-C5'	-5.10	113.24	120.90
33	L1	2495	C	C1'-O4'-C4'	-5.10	104.80	109.90
37	LB	207	VAL	CA-C-N	5.10	127.54	120.29
37	LB	207	VAL	C-N-CA	5.10	127.54	120.29
80	LC	365	THR	CA-CB-CG2	5.10	119.18	110.50
32	S1	1397	A	C1'-O4'-C4'	5.10	115.00	109.90
32	S1	1467	C	P-O3'-C3'	5.10	127.85	120.20
33	L1	746	C	N1-C1'-C2'	5.10	119.65	112.00
33	L1	1694	A	C1'-O4'-C4'	5.10	115.00	109.90
33	L1	1994	C	N1-C1'-C2'	5.10	119.65	112.00
33	L1	2389	A	O4'-C1'-C2'	5.10	112.70	107.60
33	L1	2435	U	N1-C1'-C2'	5.10	119.65	112.00
33	L1	2795	G	C1'-O4'-C4'	-5.10	104.80	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3165	C	N1-C1'-C2'	5.10	119.66	112.00
34	L3	62	U	O4'-C1'-N1	5.10	116.15	108.50
36	LA	168	VAL	CA-C-O	5.10	127.77	121.75
40	LH	102	ALA	N-CA-CB	-5.10	102.62	110.12
42	LP	46	ASP	CA-CB-CG	5.10	117.70	112.60
42	LP	172	ARG	NE-CZ-NH1	5.10	126.60	121.50
60	Lr	41	ARG	NE-CZ-NH2	-5.10	114.61	119.20
64	LG	136	LYS	N-CA-C	-5.10	99.93	110.80
78	Le	159	ASN	CA-CB-CG	-5.10	107.50	112.60
82	LK	198	LEU	N-CA-CB	-5.10	102.62	110.12
2	SA	45	ARG	O-C-N	-5.10	115.81	122.59
11	SM	101	ASN	N-CA-CB	5.10	117.62	110.12
25	SC	95	LEU	O-C-N	-5.10	114.26	121.91
32	S1	332	A	N9-C1'-C2'	-5.10	104.35	112.00
32	S1	1293	U	C4'-C3'-C2'	-5.10	97.50	102.60
32	S1	1626	C	C1'-C2'-O2'	5.10	116.05	108.40
32	S1	1770	G	P-O5'-C5'	-5.10	113.25	120.90
33	L1	707	G	C1'-C2'-O2'	5.10	116.05	108.40
33	L1	1655	G	C3'-C2'-O2'	-5.10	103.05	110.70
33	L1	2498	C	P-O3'-C3'	-5.10	112.55	120.20
35	L2	162	C	O4'-C1'-N1	5.10	116.15	108.50
37	LB	92	ARG	CB-CA-C	-5.10	102.32	110.79
49	LX	34	LYS	CA-CB-CG	5.10	124.30	114.10
50	LZ	33	PHE	CA-C-N	5.10	127.62	120.28
50	LZ	33	PHE	C-N-CA	5.10	127.62	120.28
15	SS	18	VAL	CA-CB-CG2	-5.10	101.73	110.40
15	SS	95	PHE	CA-CB-CG	-5.10	108.70	113.80
32	S1	124	G	O4'-C1'-C2'	5.10	112.70	107.60
32	S1	1619	A	C5'-C4'-C3'	5.10	123.65	116.00
33	L1	29	G	P-O3'-C3'	5.10	127.85	120.20
33	L1	242	U	C1'-O4'-C4'	-5.10	104.80	109.90
33	L1	293	A	C3'-C2'-C1'	-5.10	96.20	101.30
33	L1	1257	U	P-O3'-C3'	5.10	127.85	120.20
33	L1	1577	A	O5'-C5'-C4'	-5.10	103.85	111.50
33	L1	2152	A	O3'-P-O5'	-5.10	96.35	104.00
33	L1	3151	C	C4'-C3'-C2'	-5.10	97.50	102.60
33	L1	3168	C	C1'-O4'-C4'	5.10	115.00	109.90
40	LH	133	ASN	O-C-N	-5.10	116.72	122.12
43	LO	39	HIS	CG-CD2-NE2	5.10	112.30	107.20
46	LT	101	VAL	N-CA-C	5.10	115.31	110.42
48	LV	77	HIS	CA-C-N	-5.10	113.61	122.64
48	LV	77	HIS	C-N-CA	-5.10	113.61	122.64

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
68	LW	106	ALA	N-CA-CB	5.10	119.11	110.49
72	Lk	41	HIS	CE1-NE2-CD2	-5.10	103.90	109.00
5	SE	97	LYS	N-CA-C	-5.10	105.62	111.07
5	SE	244	PHE	CA-C-O	-5.10	114.11	119.97
8	SJ	40	ASN	N-CA-C	5.10	116.92	111.36
13	SQ	46	LEU	CA-C-N	5.10	127.36	120.38
13	SQ	46	LEU	C-N-CA	5.10	127.36	120.38
32	S1	658	C	N1-C1'-C2'	5.10	119.64	112.00
32	S1	1206	A	C3'-C2'-C1'	-5.10	96.20	101.30
32	S1	1360	G	C4'-C3'-O3'	-5.10	105.35	113.00
33	L1	1684	U	C4'-C3'-C2'	-5.10	97.50	102.60
33	L1	2167	G	C1'-O4'-C4'	5.10	114.80	109.70
33	L1	2790	C	P-O3'-C3'	-5.10	112.55	120.20
35	L2	27	C	P-O5'-C5'	-5.10	113.25	120.90
37	LB	33	ASP	N-CA-CB	-5.10	102.62	110.01
40	LH	131	GLY	CA-C-N	5.10	127.42	120.54
40	LH	131	GLY	C-N-CA	5.10	127.42	120.54
44	LR	93	GLN	N-CA-CB	5.10	119.11	110.49
54	Lf	81	LEU	O-C-N	-5.10	116.26	122.22
60	Lr	10	THR	O-C-N	-5.10	117.97	123.42
73	Lp	33	ASN	O-C-N	-5.10	116.54	122.96
78	Le	49	ARG	CD-NE-CZ	-5.10	117.26	124.40
84	LI	179	GLU	CB-CG-CD	5.10	121.27	112.60
5	SE	105	THR	N-CA-C	-5.10	107.45	113.97
32	S1	565	G	O4'-C4'-C3'	-5.10	98.90	104.00
32	S1	932	C	C1'-C2'-O2'	5.10	116.04	108.40
32	S1	1446	C	O4'-C1'-C2'	-5.10	102.50	107.60
33	L1	1496	G	C3'-C2'-C1'	-5.10	96.40	101.50
33	L1	2599	U	O5'-C5'-C4'	5.10	119.14	111.50
33	L1	3162	C	C4'-C3'-C2'	-5.10	97.50	102.60
2	SA	18	ASP	N-CA-C	-5.09	99.95	110.80
2	SA	41	TYR	CB-CA-C	-5.09	103.83	111.73
2	SA	186	VAL	CA-C-N	5.09	129.34	120.68
2	SA	186	VAL	C-N-CA	5.09	129.34	120.68
3	SB	70	THR	N-CA-C	5.09	121.65	110.80
19	SY	5	VAL	CA-C-O	5.09	127.76	121.75
32	S1	290	C	O5'-C5'-C4'	-5.09	103.86	111.50
32	S1	399	U	O4'-C1'-N1	5.09	116.14	108.50
32	S1	1241	G	C1'-O4'-C4'	-5.09	104.81	109.90
32	S1	1760	A	C1'-O4'-C4'	5.09	114.79	109.70
33	L1	2112	C	P-O3'-C3'	5.09	127.84	120.20
33	L1	2802	G	O5'-C5'-C4'	5.09	119.14	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	3004	G	C1'-O4'-C4'	-5.09	104.81	109.90
34	L3	39	C	C3'-C2'-C1'	5.09	106.39	101.30
35	L2	141	G	C1'-O4'-C4'	-5.09	104.81	109.90
37	LB	165	MET	CG-SD-CE	-5.09	89.69	100.90
64	LG	18	HIS	CE1-NE2-CD2	-5.09	103.91	109.00
66	LN	48	ILE	N-CA-CB	-5.09	102.94	112.36
79	Ls	162	GLU	CB-CG-CD	-5.09	103.94	112.60
80	LC	257	ALA	CA-C-N	5.09	127.11	120.28
80	LC	257	ALA	C-N-CA	5.09	127.11	120.28
11	SM	102	ALA	O-C-N	-5.09	116.72	122.12
33	L1	195	G	N9-C1'-C2'	5.09	119.64	112.00
33	L1	1698	C	C1'-O4'-C4'	-5.09	104.81	109.90
67	LS	117	ARG	N-CA-C	5.09	121.65	110.80
2	SA	77	ASP	CA-CB-CG	-5.09	107.51	112.60
3	SB	194	PRO	N-CA-C	5.09	122.96	112.47
7	SI	53	LYS	CG-CD-CE	5.09	123.01	111.30
7	SI	85	TYR	CA-C-N	5.09	130.98	122.73
7	SI	85	TYR	C-N-CA	5.09	130.98	122.73
16	SR	83	GLU	CA-C-N	5.09	124.70	119.56
16	SR	83	GLU	C-N-CA	5.09	124.70	119.56
33	L1	1690	C	C1'-O4'-C4'	5.09	114.99	109.90
33	L1	2234	G	P-O3'-C3'	5.09	127.84	120.20
33	L1	2918	U	C5'-C4'-O4'	5.09	117.44	109.80
66	LN	21	TYR	N-CA-C	5.09	121.65	110.80
80	LC	230	GLU	CA-C-O	5.09	126.97	121.06
3	SB	68	GLU	CA-C-O	-5.09	115.15	120.55
32	S1	1131	G	C4'-C3'-C2'	-5.09	97.51	102.60
32	S1	1229	C	N1-C1'-C2'	5.09	119.63	112.00
33	L1	2002	G	P-O3'-C3'	5.09	127.83	120.20
33	L1	3338	U	O4'-C4'-C3'	-5.09	98.91	104.00
43	LO	130	GLU	O-C-N	-5.09	117.37	123.27
45	LQ	182	GLY	CA-C-N	5.09	131.26	121.54
45	LQ	182	GLY	C-N-CA	5.09	131.26	121.54
47	LU	55	LYS	N-CA-C	5.09	118.26	111.75
48	LV	54	HIS	O-C-N	-5.09	114.28	121.91
64	LG	108	GLY	N-CA-C	5.09	122.72	112.34
32	S1	318	C	C1'-O4'-C4'	-5.09	104.81	109.90
41	LM	89	ARG	N-CA-CB	5.09	118.59	110.65
69	La	8	GLY	CA-C-N	5.09	131.05	122.76
69	La	8	GLY	C-N-CA	5.09	131.05	122.76
70	Li	4	ARG	O-C-N	-5.09	116.73	122.12
2	SA	250	ASP	O-C-N	5.09	127.51	122.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	SZ	24	GLN	CA-CB-CG	5.09	124.27	114.10
32	S1	965	U	C4'-C3'-C2'	-5.09	97.51	102.60
33	L1	1034	U	C1'-C2'-O2'	5.09	116.03	108.40
33	L1	1247	G	C5'-C4'-O4'	5.09	117.43	109.80
33	L1	1299	G	P-O5'-C5'	-5.09	113.27	120.90
33	L1	2223	A	C1'-O4'-C4'	-5.09	104.81	109.90
33	L1	2658	U	C1'-O4'-C4'	-5.09	104.61	109.70
33	L1	2685	C	C5'-C4'-O4'	-5.09	102.17	109.80
35	L2	104	U	O4'-C1'-N1	5.09	116.13	108.50
37	LB	17	LYS	CB-CG-CD	5.09	123.00	111.30
49	LX	36	ILE	CA-C-N	5.09	127.09	120.28
49	LX	36	ILE	C-N-CA	5.09	127.09	120.28
80	LC	312	MET	CG-SD-CE	-5.09	89.71	100.90
82	LK	153	ASN	CA-C-O	-5.09	112.15	120.80
2	SA	18	ASP	CA-CB-CG	-5.08	107.52	112.60
27	SH	128	PHE	CA-CB-CG	-5.08	108.72	113.80
32	S1	178	A	N9-C1'-C2'	-5.08	104.37	112.00
32	S1	668	C	O4'-C1'-C2'	-5.08	102.52	107.60
32	S1	1687	G	O3'-P-O5'	-5.08	96.37	104.00
33	L1	809	A	O4'-C1'-N9	-5.08	100.57	108.20
33	L1	1389	C	C1'-C2'-O2'	5.08	116.03	108.40
33	L1	2003	C	N1-C1'-C2'	5.08	119.63	112.00
80	LC	357	GLU	CB-CA-C	5.08	121.19	111.48
80	LC	368	LYS	CA-CB-CG	5.08	124.27	114.10
32	S1	875	C	O5'-C5'-C4'	-5.08	103.88	111.50
32	S1	1058	G	C4'-C3'-C2'	-5.08	97.52	102.60
32	S1	1511	A	O4'-C4'-C3'	-5.08	98.92	104.00
32	S1	1585	A	C5'-C4'-C3'	-5.08	108.38	116.00
33	L1	759	C	P-O5'-C5'	5.08	128.53	120.90
33	L1	1188	C	N1-C1'-C2'	-5.08	104.37	112.00
33	L1	1241	G	O4'-C1'-N9	-5.08	100.87	108.50
33	L1	2389	A	C1'-C2'-O2'	5.08	116.03	108.40
33	L1	3330	U	N1-C1'-C2'	-5.08	104.38	112.00
41	LM	91	LYS	CA-C-N	5.08	127.05	120.44
41	LM	91	LYS	C-N-CA	5.08	127.05	120.44
44	LR	151	HIS	N-CA-C	5.08	117.47	109.39
51	LY	39	ARG	NE-CZ-NH2	5.08	123.78	119.20
64	LG	39	ALA	N-CA-CB	5.08	119.08	110.49
81	LD	64	HIS	CG-CD2-NE2	5.08	112.28	107.20
82	LK	129	LEU	N-CA-C	5.08	117.94	111.69
1	Sa	166	VAL	N-CA-CB	-5.08	104.09	111.21
11	SM	30	LEU	CA-C-N	5.08	127.60	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	SM	30	LEU	C-N-CA	5.08	127.60	120.28
27	SH	28	ARG	N-CA-CB	5.08	119.41	110.37
32	S1	218	G	O4'-C1'-N9	5.08	116.12	108.50
32	S1	1705	C	O4'-C1'-C2'	5.08	112.68	107.60
33	L1	587	A	C3'-C2'-O2'	5.08	118.32	110.70
33	L1	924	A	C1'-C2'-O2'	5.08	119.42	111.80
33	L1	931	C	N1-C1'-C2'	5.08	119.62	112.00
33	L1	974	G	O4'-C1'-N9	5.08	116.12	108.50
33	L1	1108	U	O4'-C1'-N1	5.08	116.12	108.50
33	L1	2507	U	P-O5'-C5'	-5.08	113.28	120.90
33	L1	3148	A	O3'-P-O5'	-5.08	96.38	104.00
46	LT	73	GLY	N-CA-C	5.08	125.22	113.18
78	Le	203	PHE	CA-C-N	5.08	130.74	123.17
78	Le	203	PHE	C-N-CA	5.08	130.74	123.17
84	LI	118	ALA	N-CA-C	5.08	121.62	110.80
11	SM	34	LYS	CB-CA-C	5.08	120.53	110.42
33	L1	272	G	O4'-C1'-C2'	5.08	112.68	107.60
33	L1	3017	A	P-O3'-C3'	5.08	127.82	120.20
42	LP	82	GLY	N-CA-C	-5.08	104.33	111.09
5	SE	5	GLY	N-CA-C	-5.08	98.57	113.30
33	L1	494	C	C4'-C3'-O3'	-5.08	105.38	113.00
33	L1	1026	A	C1'-O4'-C4'	-5.08	104.82	109.90
33	L1	1449	A	O4'-C1'-N9	5.08	115.82	108.20
33	L1	2455	A	N9-C1'-C2'	-5.08	104.38	112.00
41	LM	15	ARG	NE-CZ-NH1	-5.08	116.42	121.50
43	LO	82	VAL	CA-C-O	-5.08	114.53	118.85
46	LT	171	GLU	CB-CG-CD	5.08	121.23	112.60
67	LS	84	GLN	CB-CA-C	-5.08	102.66	110.78
32	S1	64	U	N1-C1'-C2'	5.08	119.62	112.00
33	L1	1749	G	C1'-C2'-O2'	5.08	116.02	108.40
38	LE	11	MET	O-C-N	-5.08	116.03	122.27
64	LG	190	LYS	CA-C-N	5.08	131.24	121.54
64	LG	190	LYS	C-N-CA	5.08	131.24	121.54
5	SE	237	ASP	CA-C-N	5.08	127.04	120.44
5	SE	237	ASP	C-N-CA	5.08	127.04	120.44
17	SV	18	SER	CA-C-O	-5.08	113.25	120.51
25	SC	19	ARG	CB-CA-C	-5.08	100.17	110.17
27	SH	104	LEU	N-CA-C	-5.08	99.83	108.26
32	S1	1691	C	C5'-C4'-C3'	5.08	123.61	116.00
33	L1	1171	U	O4'-C1'-N1	5.08	116.11	108.50
33	L1	1786	G	N9-C1'-C2'	5.08	119.61	112.00
33	L1	1792	G	C5'-C4'-C3'	5.08	123.61	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	2058	C	N1-C1'-C2'	5.08	119.61	112.00
33	L1	2995	G	C4'-C3'-C2'	-5.08	97.53	102.60
35	L2	41	A	C2'-C3'-O3'	5.08	117.11	109.50
45	LQ	293	GLY	N-CA-C	-5.08	101.15	113.18
48	LV	94	ASP	N-CA-C	-5.08	105.75	111.28
51	LY	27	ARG	CA-C-N	5.08	128.49	120.47
51	LY	27	ARG	C-N-CA	5.08	128.49	120.47
70	Li	66	ARG	CB-CA-C	-5.08	99.12	110.19
1	Sa	173	LEU	N-CA-CB	5.07	119.20	110.68
5	SE	31	ARG	N-CA-C	-5.07	102.56	110.42
32	S1	1375	C	C3'-C2'-C1'	5.07	106.37	101.30
32	S1	1545	A	O4'-C4'-C3'	-5.07	98.93	104.00
32	S1	1577	A	O3'-P-O5'	-5.07	96.39	104.00
33	L1	89	C	N1-C1'-C2'	5.07	119.61	112.00
33	L1	607	U	N1-C1'-C2'	-5.07	104.39	112.00
33	L1	1332	C	C1'-C2'-O2'	5.07	116.01	108.40
33	L1	2526	G	P-O3'-C3'	5.07	127.81	120.20
33	L1	2705	A	O5'-C5'-C4'	-5.07	104.09	111.70
46	LT	78	TYR	CA-CB-CG	-5.07	104.77	113.90
58	Ln	39	SER	O-C-N	-5.07	116.74	122.12
5	SE	43	LYS	N-CA-C	5.07	116.81	111.28
11	SM	11	HIS	CA-C-O	5.07	126.47	120.89
15	SS	82	TYR	CA-CB-CG	-5.07	104.77	113.90
32	S1	645	G	P-O3'-C3'	5.07	127.81	120.20
33	L1	2101	A	P-O3'-C3'	5.07	127.81	120.20
33	L1	2798	G	C3'-C2'-O2'	-5.07	106.99	114.60
33	L1	3109	G	C1'-C2'-O2'	5.07	116.01	108.40
46	LT	15	LEU	CA-C-N	5.07	129.39	122.34
46	LT	15	LEU	C-N-CA	5.07	129.39	122.34
78	Le	109	ARG	NH1-CZ-NH2	-5.07	112.71	119.30
11	SM	82	TRP	N-CA-CB	5.07	119.06	110.49
29	ST	7	GLN	O-C-N	-5.07	116.37	122.15
32	S1	835	U	O4'-C1'-N1	5.07	116.11	108.50
32	S1	1322	G	O4'-C1'-C2'	-5.07	102.53	107.60
32	S1	1484	U	O4'-C1'-N1	5.07	116.11	108.50
33	L1	1116	G	O4'-C1'-N9	5.07	116.11	108.50
33	L1	2998	A	C4'-C3'-C2'	-5.07	97.53	102.60
35	L2	143	C	O4'-C1'-C2'	-5.07	102.53	107.60
46	LT	170	ARG	CA-C-N	5.07	127.49	120.29
46	LT	170	ARG	C-N-CA	5.07	127.49	120.29
49	LX	135	LYS	CG-CD-CE	5.07	122.96	111.30
74	LJ	91	ARG	N-CA-C	-5.07	101.36	109.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
78	Le	232	ARG	CA-C-N	5.07	127.33	120.44
78	Le	232	ARG	C-N-CA	5.07	127.33	120.44
19	SY	33	ASP	N-CA-CB	5.07	119.39	111.84
23	SU	33	LEU	CB-CG-CD1	5.07	125.91	110.70
25	SC	135	HIS	CA-CB-CG	5.07	118.87	113.80
32	S1	681	G	N9-C1'-C2'	5.07	119.60	112.00
32	S1	1447	C	P-O3'-C3'	5.07	127.80	120.20
33	L1	2231	G	O4'-C4'-C3'	5.07	109.07	104.00
45	LQ	116	LEU	N-CA-C	-5.07	100.00	110.80
6	SF	124	ILE	O-C-N	-5.07	117.79	123.26
9	SK	120	ARG	N-CA-CB	5.07	117.42	110.07
23	SU	100	ASN	CA-C-O	5.07	125.92	120.55
32	S1	24	U	O4'-C1'-N1	5.07	116.10	108.50
32	S1	391	A	O4'-C4'-C3'	-5.07	101.03	106.10
33	L1	1962	C	N1-C1'-C2'	5.07	119.60	112.00
33	L1	2757	G	C4'-C3'-O3'	5.07	117.00	109.40
33	L1	2822	A	O4'-C1'-C2'	-5.07	102.53	107.60
33	L1	3098	U	P-O3'-C3'	5.07	127.80	120.20
42	LP	37	VAL	N-CA-C	-5.07	100.27	107.77
49	LX	60	SER	CB-CA-C	-5.07	102.56	110.37
80	LC	165	HIS	CB-CG-ND1	5.07	130.30	122.70
81	LD	42	ARG	N-CA-C	-5.07	105.84	111.36
1	Sa	333	VAL	CA-C-N	-5.07	112.67	122.09
1	Sa	333	VAL	C-N-CA	-5.07	112.67	122.09
2	SA	180	TRP	CA-C-N	5.07	128.01	120.31
2	SA	180	TRP	C-N-CA	5.07	128.01	120.31
13	SQ	97	ARG	NE-CZ-NH1	-5.07	116.43	121.50
32	S1	480	U	P-O3'-C3'	5.07	127.80	120.20
32	S1	493	C	C3'-C2'-O2'	5.07	118.30	110.70
32	S1	1591	A	P-O3'-C3'	5.07	127.80	120.20
32	S1	1640	C	C4'-C3'-O3'	-5.07	105.40	113.00
33	L1	912	G	O4'-C1'-C2'	-5.07	102.53	107.60
33	L1	1433	U	C1'-C2'-O2'	5.07	116.00	108.40
33	L1	1763	C	O4'-C1'-C2'	-5.07	102.53	107.60
33	L1	1869	U	C1'-C2'-O2'	5.07	116.00	108.40
33	L1	3239	G	C3'-C2'-C1'	-5.07	96.23	101.30
39	LF	95	TYR	N-CA-CB	5.07	120.30	111.13
40	LH	69	VAL	O-C-N	-5.07	115.33	121.10
48	LV	51	VAL	CG1-CB-CG2	-5.07	99.66	110.80
49	LX	32	LYS	CG-CD-CE	5.07	122.95	111.30
67	LS	158	VAL	CG1-CB-CG2	5.07	121.95	110.80
72	Lk	87	LYS	N-CA-CB	5.07	117.57	110.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
73	Lp	28	HIS	N-CA-CB	5.07	119.39	110.37
33	L1	1217	G	C4'-C3'-C2'	-5.06	97.54	102.60
33	L1	1251	U	C1'-C2'-O2'	5.06	116.00	108.40
33	L1	1257	U	C3'-C2'-O2'	5.06	118.30	110.70
33	L1	2567	C	C1'-O4'-C4'	-5.06	104.84	109.90
40	LH	177	LYS	CA-C-N	5.06	126.03	122.33
40	LH	177	LYS	C-N-CA	5.06	126.03	122.33
42	LP	50	ARG	N-CA-C	5.06	118.77	112.59
64	LG	18	HIS	N-CA-CB	5.06	117.66	110.06
1	Sa	80	TRP	CG-CD2-CE3	-5.06	128.84	133.90
23	SU	38	ALA	CB-CA-C	-5.06	103.37	111.17
25	SC	58	ALA	O-C-N	5.06	129.32	122.59
32	S1	1183	G	C1'-O4'-C4'	5.06	114.96	109.90
32	S1	1351	U	C4'-C3'-C2'	5.06	107.66	102.60
33	L1	138	G	O3'-P-O5'	-5.06	96.41	104.00
33	L1	875	A	C5'-C4'-C3'	-5.06	108.41	116.00
33	L1	944	G	O4'-C1'-N9	5.06	116.09	108.50
33	L1	1746	G	C4'-C3'-O3'	-5.06	105.41	113.00
33	L1	2547	C	C4'-C3'-C2'	5.06	107.66	102.60
33	L1	3163	G	C3'-C2'-C1'	5.06	106.36	101.30
33	L1	3319	G	C2'-C3'-O3'	5.06	121.29	113.70
33	L1	3383	C	C4'-C3'-C2'	-5.06	97.54	102.60
35	L2	61	C	C1'-O4'-C4'	-5.06	104.84	109.90
42	LP	69	GLY	N-CA-C	-5.06	101.18	113.18
47	LU	51	GLY	CA-C-O	5.06	124.43	118.96
15	SS	108	GLN	N-CA-CB	5.06	117.35	110.01
15	SS	127	THR	N-CA-CB	5.06	117.68	110.44
32	S1	182	C	C4'-C3'-C2'	-5.06	97.54	102.60
32	S1	1076	C	C4'-C3'-O3'	-5.06	105.41	113.00
33	L1	2587	G	C1'-O4'-C4'	-5.06	104.84	109.90
33	L1	2918	U	C4'-C3'-C2'	-5.06	97.54	102.60
35	L2	80	C	O3'-P-O5'	-5.06	96.41	104.00
49	LX	140	TYR	CA-C-N	5.06	129.58	122.09
49	LX	140	TYR	C-N-CA	5.06	129.58	122.09
55	Lg	84	SER	N-CA-C	-5.06	101.85	109.85
72	Lk	74	LYS	CB-CA-C	5.06	119.19	110.79
82	LK	140	TYR	N-CA-C	-5.06	101.72	109.41
1	Sa	268	SER	CB-CA-C	-5.06	100.73	110.24
5	SE	237	ASP	CA-CB-CG	-5.06	107.54	112.60
17	SV	24	LYS	CB-CA-C	-5.06	100.35	110.42
32	S1	1049	U	N1-C1'-C2'	5.06	119.59	112.00
32	S1	1638	U	O4'-C1'-N1	5.06	116.09	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	246	C	O4'-C1'-N1	5.06	116.09	108.50
33	L1	388	G	C4'-C3'-C2'	-5.06	97.54	102.60
33	L1	610	G	O3'-P-O5'	-5.06	96.41	104.00
33	L1	3350	C	C5'-C4'-C3'	5.06	123.59	116.00
35	L2	142	G	C3'-C2'-C1'	-5.06	96.24	101.30
36	LA	16	ILE	N-CA-CB	-5.06	104.09	110.57
42	LP	78	GLY	O-C-N	-5.06	116.12	122.70
45	LQ	248	ARG	N-CA-C	5.06	121.58	110.80
50	LZ	74	ARG	N-CA-C	-5.06	99.73	108.69
67	LS	32	TRP	CG-CD2-CE3	-5.06	128.84	133.90
81	LD	203	ARG	CB-CG-CD	-5.06	99.66	111.30
84	LI	93	PRO	CA-C-N	5.06	127.06	120.28
84	LI	93	PRO	C-N-CA	5.06	127.06	120.28
1	Sa	128	LEU	CA-CB-CG	5.06	134.00	116.30
2	SA	91	VAL	CA-CB-CG1	5.06	119.00	110.40
13	SQ	10	LYS	CA-C-N	5.06	127.02	120.44
13	SQ	10	LYS	C-N-CA	5.06	127.02	120.44
33	L1	335	G	O4'-C4'-C3'	-5.06	101.04	106.10
33	L1	349	A	O5'-C5'-C4'	-5.06	103.91	111.50
33	L1	597	C	O4'-C1'-N1	5.06	116.08	108.50
33	L1	1310	G	O4'-C1'-C2'	5.06	110.86	105.80
33	L1	1424	G	C5'-C4'-C3'	-5.06	108.41	116.00
33	L1	1487	A	P-O5'-C5'	5.06	128.49	120.90
33	L1	1502	U	O4'-C1'-C2'	-5.06	102.54	107.60
33	L1	3051	U	C5'-C4'-C3'	5.06	123.58	116.00
33	L1	3361	G	N9-C1'-C2'	5.06	119.59	112.00
34	L3	1	G	C1'-O4'-C4'	-5.06	104.64	109.70
36	LA	124	GLY	O-C-N	-5.06	119.25	121.07
37	LB	225	VAL	O-C-N	-5.06	117.56	122.97
49	LX	99	LYS	N-CA-C	-5.06	104.41	110.88
57	Ll	1	MET	CG-SD-CE	-5.06	89.77	100.90
73	Lp	35	ARG	O-C-N	-5.06	115.11	121.83
77	Lc	9	GLY	CA-C-N	5.06	127.47	120.29
77	Lc	9	GLY	C-N-CA	5.06	127.47	120.29
80	LC	180	HIS	CA-C-N	5.06	128.05	120.87
80	LC	180	HIS	C-N-CA	5.06	128.05	120.87
81	LD	209	LYS	CB-CA-C	5.06	118.26	110.62
32	S1	666	C	O4'-C1'-C2'	-5.06	102.54	107.60
32	S1	1210	U	O4'-C1'-N1	5.06	116.08	108.50
33	L1	307	C	O4'-C4'-C3'	-5.06	98.94	104.00
33	L1	1626	U	O5'-C5'-C4'	-5.06	103.92	111.50
33	L1	1714	A	P-O3'-C3'	5.06	127.78	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1960	C	O5'-C5'-C4'	5.06	119.08	111.50
33	L1	2066	G	C4'-C3'-C2'	-5.06	97.54	102.60
33	L1	2204	U	O4'-C4'-C3'	-5.06	98.94	104.00
33	L1	2637	U	C5'-C4'-C3'	-5.06	108.42	116.00
33	L1	2693	G	P-O3'-C3'	5.06	127.78	120.20
1	Sa	33	LEU	CA-C-N	5.05	127.05	120.28
1	Sa	33	LEU	C-N-CA	5.05	127.05	120.28
2	SA	20	GLN	CA-C-N	5.05	131.19	121.54
2	SA	20	GLN	C-N-CA	5.05	131.19	121.54
5	SE	138	ILE	N-CA-C	-5.05	100.47	107.80
13	SQ	63	ARG	N-CA-CB	5.05	119.03	110.49
32	S1	577	C	C1'-C2'-O2'	5.05	115.98	108.40
32	S1	1032	A	O4'-C1'-C2'	-5.05	102.55	107.60
32	S1	1661	C	O4'-C1'-C2'	-5.05	102.55	107.60
32	S1	1688	G	C1'-O4'-C4'	5.05	114.95	109.90
33	L1	96	C	N1-C1'-C2'	5.05	119.58	112.00
33	L1	970	A	O5'-C5'-C4'	-5.05	103.92	111.50
33	L1	1506	A	C1'-C2'-O2'	5.05	115.98	108.40
33	L1	2942	A	C1'-C2'-O2'	5.05	115.98	108.40
33	L1	3143	A	C2'-C3'-O3'	5.05	117.08	109.50
33	L1	3245	G	C4'-C3'-O3'	-5.05	105.42	113.00
36	LA	119	ILE	CA-C-O	-5.05	114.87	118.71
49	LX	91	THR	CA-C-N	5.05	128.88	120.94
49	LX	91	THR	C-N-CA	5.05	128.88	120.94
60	Lr	27	GLN	CG-CD-NE2	-5.05	108.82	116.40
60	Lr	60	LYS	O-C-N	-5.05	116.71	122.93
77	Lc	30	LEU	CA-C-N	5.05	125.56	120.00
77	Lc	30	LEU	C-N-CA	5.05	125.56	120.00
1	Sa	270	ASP	CA-C-N	5.05	131.31	121.41
1	Sa	270	ASP	C-N-CA	5.05	131.31	121.41
2	SA	96	GLN	N-CA-C	-5.05	105.96	111.82
32	S1	430	G	O4'-C1'-N9	5.05	116.08	108.50
32	S1	1062	C	C5'-C4'-C3'	5.05	123.58	116.00
32	S1	1261	U	O3'-P-O5'	5.05	111.58	104.00
33	L1	963	U	C5'-C4'-O4'	5.05	117.38	109.80
33	L1	1168	G	C5'-C4'-C3'	5.05	123.58	116.00
33	L1	2098	A	N9-C1'-C2'	5.05	119.58	112.00
33	L1	2683	A	C1'-O4'-C4'	5.05	114.95	109.90
33	L1	2782	G	P-O3'-C3'	-5.05	112.62	120.20
33	L1	2972	C	C4'-C3'-C2'	-5.05	97.55	102.60
46	LT	114	LYS	N-CA-CB	-5.05	104.28	111.00
77	Lc	97	SER	O-C-N	-5.05	115.51	121.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	SC	136	ILE	CA-C-N	5.05	130.79	121.70
25	SC	136	ILE	C-N-CA	5.05	130.79	121.70
25	SC	185	GLY	CA-C-N	5.05	130.79	121.70
25	SC	185	GLY	C-N-CA	5.05	130.79	121.70
27	SH	64	GLU	CA-C-O	5.05	126.16	120.70
32	S1	1028	A	C4'-C3'-C2'	-5.05	97.55	102.60
32	S1	1070	A	C4'-C3'-C2'	-5.05	97.55	102.60
32	S1	1133	C	O4'-C1'-C2'	-5.05	102.55	107.60
32	S1	1755	G	N9-C1'-C2'	5.05	119.58	112.00
33	L1	715	A	C4'-C3'-C2'	-5.05	97.55	102.60
33	L1	1391	A	C1'-O4'-C4'	-5.05	104.85	109.90
33	L1	2344	A	C3'-C2'-C1'	-5.05	96.25	101.30
35	L2	143	C	P-O5'-C5'	5.05	128.48	120.90
36	LA	33	LEU	CA-C-N	-5.05	114.61	122.09
36	LA	33	LEU	C-N-CA	-5.05	114.61	122.09
36	LA	200	VAL	CA-C-O	5.05	127.06	121.70
40	LH	257	MET	N-CA-C	5.05	116.79	111.28
41	LM	89	ARG	CB-CA-C	-5.05	101.78	110.16
48	LV	29	THR	N-CA-C	5.05	117.68	111.82
48	LV	100	GLU	CB-CG-CD	-5.05	104.01	112.60
77	Lc	120	PHE	N-CA-CB	5.05	117.55	110.12
1	Sa	335	ASN	N-CA-C	-5.05	100.67	108.90
2	SA	51	TYR	CA-CB-CG	-5.05	104.81	113.90
5	SE	135	ARG	N-CA-C	5.05	117.68	111.82
13	SQ	69	ILE	N-CA-C	5.05	115.17	110.42
25	SC	123	SER	CB-CA-C	-5.05	99.87	110.17
32	S1	1209	C	O5'-C5'-C4'	-5.05	103.92	111.50
32	S1	1625	U	C3'-C2'-C1'	5.05	106.55	101.50
33	L1	61	A	P-O3'-C3'	5.05	127.77	120.20
33	L1	478	G	C1'-O4'-C4'	-5.05	104.85	109.90
33	L1	1741	G	C1'-O4'-C4'	-5.05	104.65	109.70
37	LB	73	LYS	CB-CA-C	5.05	120.47	110.42
37	LB	222	ALA	CA-C-N	5.05	127.46	120.29
37	LB	222	ALA	C-N-CA	5.05	127.46	120.29
38	LE	154	GLN	N-CA-C	5.05	119.15	112.89
60	Lr	102	THR	CB-CA-C	5.05	120.21	109.10
6	SF	82	LYS	CA-C-O	-5.05	115.20	120.55
7	SI	93	LYS	CA-C-N	5.05	127.00	120.44
7	SI	93	LYS	C-N-CA	5.05	127.00	120.44
29	ST	75	ARG	CA-C-O	-5.05	115.18	120.63
32	S1	397	C	C3'-C2'-C1'	5.05	106.35	101.30
32	S1	582	U	N1-C1'-C2'	5.05	121.57	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	877	G	P-O5'-C5'	-5.05	113.33	120.90
33	L1	1307	A	N9-C1'-C2'	-5.05	106.43	114.00
33	L1	1369	G	C1'-C2'-O2'	5.05	115.97	108.40
33	L1	1692	U	O4'-C1'-C2'	-5.05	102.55	107.60
35	L2	155	G	O4'-C1'-N9	-5.05	100.63	108.20
74	LJ	132	GLU	CA-C-O	5.05	126.62	121.07
3	SB	79	PHE	CB-CA-C	5.05	118.22	110.14
32	S1	7	G	C1'-C2'-O2'	5.05	115.97	108.40
32	S1	1299	G	C1'-C2'-O2'	5.05	115.97	108.40
32	S1	1354	C	C3'-C2'-C1'	5.05	106.35	101.30
32	S1	1382	C	C1'-C2'-O2'	5.05	115.97	108.40
33	L1	253	G	C1'-O4'-C4'	-5.05	104.85	109.90
33	L1	552	G	O4'-C1'-C2'	-5.05	102.55	107.60
33	L1	863	G	C5'-C4'-C3'	5.05	123.57	116.00
33	L1	1264	A	O5'-C5'-C4'	5.05	119.07	111.50
33	L1	1320	G	O4'-C4'-C3'	5.05	109.05	104.00
33	L1	1678	U	O5'-C5'-C4'	-5.05	103.93	111.50
33	L1	2376	G	O4'-C1'-C2'	5.05	110.85	105.80
46	LT	52	ARG	N-CA-C	-5.05	99.57	108.20
56	Lh	52	LEU	CB-CA-C	5.05	118.65	109.62
70	Li	11	HIS	N-CA-C	-5.05	100.05	110.80
80	LC	320	VAL	O-C-N	-5.05	117.88	123.18
24	SX	66	CYS	N-CA-CB	5.04	117.46	110.04
32	S1	1433	A	N9-C1'-C2'	-5.04	106.43	114.00
32	S1	1437	C	C1'-O4'-C4'	5.04	114.75	109.70
33	L1	266	A	C1'-C2'-O2'	5.04	119.37	111.80
33	L1	430	G	C4'-C3'-O3'	-5.04	105.43	113.00
33	L1	684	C	O4'-C4'-C3'	-5.04	98.95	104.00
33	L1	746	C	C1'-O4'-C4'	-5.04	104.86	109.90
33	L1	939	A	O4'-C1'-C2'	5.04	112.64	107.60
33	L1	2492	C	O4'-C1'-C2'	-5.04	102.56	107.60
33	L1	3158	C	C3'-C2'-C1'	5.04	106.34	101.30
33	L1	3344	U	C2'-C3'-O3'	5.04	121.27	113.70
43	LO	127	LYS	CB-CA-C	5.04	120.46	110.42
70	Li	15	THR	CA-CB-CG2	-5.04	101.92	110.50
3	SB	159	SER	CA-C-N	5.04	130.67	121.89
3	SB	159	SER	C-N-CA	5.04	130.67	121.89
3	SB	201	THR	O-C-N	5.04	129.60	123.14
4	SD	206	GLU	CB-CG-CD	5.04	121.17	112.60
25	SC	180	LYS	O-C-N	-5.04	114.87	122.28
32	S1	12	U	O4'-C1'-N1	5.04	116.06	108.50
32	S1	1099	G	C1'-O4'-C4'	-5.04	104.86	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	S1	1467	C	O4'-C1'-N1	5.04	116.07	108.50
33	L1	186	A	O4'-C4'-C3'	5.04	109.04	104.00
33	L1	844	A	C3'-C2'-O2'	5.04	118.27	110.70
33	L1	1038	C	O4'-C1'-N1	5.04	116.07	108.50
33	L1	2232	C	N1-C1'-C2'	5.04	119.56	112.00
33	L1	2721	C	C5'-C4'-O4'	-5.04	102.23	109.80
34	L3	45	U	C3'-C2'-C1'	5.04	106.34	101.30
34	L3	119	C	C3'-C2'-C1'	5.04	106.34	101.30
35	L2	65	A	O4'-C1'-N9	5.04	116.06	108.50
37	LB	19	HIS	N-CA-CB	5.04	117.84	110.58
83	Lm	19	GLY	N-CA-C	5.04	125.13	113.18
32	S1	652	G	O4'-C4'-C3'	-5.04	98.96	104.00
32	S1	1101	C	N1-C1'-C2'	5.04	119.56	112.00
32	S1	1157	A	O4'-C1'-C2'	-5.04	102.56	107.60
32	S1	1328	G	O4'-C4'-C3'	5.04	109.04	104.00
33	L1	764	A	N9-C1'-C2'	5.04	119.56	112.00
33	L1	772	U	C5'-C4'-C3'	5.04	123.56	116.00
33	L1	1028	G	P-O5'-C5'	-5.04	113.34	120.90
33	L1	1515	U	C1'-O4'-C4'	-5.04	104.86	109.90
33	L1	1541	G	O4'-C1'-N9	5.04	116.06	108.50
33	L1	1923	G	C5'-C4'-C3'	-5.04	108.44	116.00
33	L1	3072	A	O4'-C1'-C2'	-5.04	102.56	107.60
34	L3	55	A	C4'-C3'-C2'	-5.04	97.56	102.60
38	LE	93	LEU	CA-C-N	5.04	130.78	121.70
38	LE	93	LEU	C-N-CA	5.04	130.78	121.70
40	LH	59	GLN	CA-C-O	5.04	127.80	121.50
45	LQ	114	ARG	N-CA-C	5.04	116.95	108.73
54	Lf	37	THR	N-CA-C	5.04	116.58	111.14
58	Ln	30	ASP	CA-C-N	5.04	131.17	121.54
58	Ln	30	ASP	C-N-CA	5.04	131.17	121.54
60	Lr	82	GLN	O-C-N	-5.04	116.91	122.86
12	SO	64	LYS	CA-C-O	5.04	125.58	119.38
33	L1	663	G	C1'-O4'-C4'	-5.04	104.86	109.90
33	L1	808	G	C4'-C3'-O3'	-5.04	105.44	113.00
33	L1	1227	A	O5'-C5'-C4'	5.04	119.06	111.50
36	LA	24	LYS	CB-CA-C	5.04	119.95	110.63
64	LG	122	GLN	CA-CB-CG	5.04	124.18	114.10
81	LD	150	THR	O-C-N	-5.04	117.10	122.85
81	LD	309	PRO	N-CA-C	-5.04	106.65	113.40
15	SS	5	THR	O-C-N	5.04	127.33	122.09
27	SH	68	ARG	O-C-N	5.04	126.27	120.58
32	S1	1231	A	P-O5'-C5'	-5.04	113.34	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	702	G	C1'-O4'-C4'	-5.04	104.86	109.90
33	L1	721	A	C1'-C2'-O2'	5.04	115.96	108.40
33	L1	1000	A	P-O5'-C5'	-5.04	113.34	120.90
33	L1	2850	G	O4'-C1'-C2'	5.04	112.64	107.60
33	L1	3005	C	O4'-C1'-C2'	5.04	112.64	107.60
46	LT	4	LEU	CA-C-N	5.04	127.03	120.28
46	LT	4	LEU	C-N-CA	5.04	127.03	120.28
80	LC	373	ARG	N-CA-CB	5.04	119.07	110.50
32	S1	833	U	O4'-C1'-N1	5.04	116.06	108.50
33	L1	338	C	C5'-C4'-C3'	-5.04	108.44	116.00
38	LE	78	ALA	CB-CA-C	-5.04	102.94	110.90
4	SD	134	LYS	N-CA-CB	5.04	122.53	114.27
10	SL	27	TYR	CA-C-N	5.04	131.16	121.54
10	SL	27	TYR	C-N-CA	5.04	131.16	121.54
32	S1	51	A	C3'-C2'-C1'	5.04	106.33	101.30
32	S1	834	A	C1'-O4'-C4'	-5.04	104.86	109.90
32	S1	1071	C	C2'-C3'-O3'	5.04	121.25	113.70
32	S1	1442	A	P-O5'-C5'	5.04	128.45	120.90
33	L1	334	A	C4'-C3'-O3'	-5.04	105.45	113.00
33	L1	473	G	N9-C1'-C2'	-5.04	104.44	112.00
33	L1	1621	G	C2'-C3'-O3'	-5.04	106.15	113.70
33	L1	1666	C	C1'-O4'-C4'	-5.04	104.86	109.90
33	L1	1801	G	O5'-C5'-C4'	5.04	119.05	111.50
33	L1	2087	A	O4'-C1'-C2'	-5.04	102.56	107.60
33	L1	2727	U	P-O5'-C5'	5.04	128.45	120.90
33	L1	3212	C	P-O5'-C5'	5.04	128.45	120.90
35	L2	92	A	O3'-P-O5'	-5.04	96.45	104.00
37	LB	225	VAL	N-CA-C	5.04	116.85	108.99
45	LQ	248	ARG	N-CA-CB	-5.04	101.98	110.49
70	Li	25	THR	CA-C-O	-5.04	112.66	121.67
11	SM	127	TRP	CA-C-O	-5.03	115.08	120.42
32	S1	13	C	C4'-C3'-C2'	-5.03	97.57	102.60
32	S1	1347	U	N1-C1'-C2'	5.03	119.55	112.00
33	L1	87	A	C3'-C2'-O2'	5.03	118.25	110.70
33	L1	1675	G	C3'-C2'-O2'	5.03	118.25	110.70
33	L1	1675	G	O5'-C5'-C4'	5.03	119.05	111.50
33	L1	1684	U	N1-C1'-C2'	-5.03	104.45	112.00
33	L1	2599	U	C1'-O4'-C4'	5.03	114.93	109.90
40	LH	119	THR	CA-C-N	5.03	127.25	120.50
40	LH	119	THR	C-N-CA	5.03	127.25	120.50
44	LR	122	THR	CA-C-N	5.03	127.53	120.28
44	LR	122	THR	C-N-CA	5.03	127.53	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	LU	84	ILE	CA-C-N	5.03	130.74	122.64
47	LU	84	ILE	C-N-CA	5.03	130.74	122.64
47	LU	90	HIS	ND1-CE1-NE2	5.03	113.43	108.40
60	Lr	33	ASP	CA-C-N	5.03	131.15	121.54
60	Lr	33	ASP	C-N-CA	5.03	131.15	121.54
79	Ls	202	PHE	CA-CB-CG	-5.03	108.77	113.80
13	SQ	117	VAL	O-C-N	-5.03	117.26	123.00
29	ST	80	LYS	N-CA-CB	5.03	118.08	110.28
33	L1	306	A	O3'-P-O5'	-5.03	96.45	104.00
33	L1	629	U	O5'-C5'-C4'	-5.03	103.95	111.50
33	L1	903	G	O4'-C1'-C2'	-5.03	102.57	107.60
33	L1	960	C	C1'-O4'-C4'	-5.03	104.87	109.90
33	L1	2585	C	C1'-C2'-O2'	5.03	115.95	108.40
33	L1	3372	C	C4'-C3'-C2'	-5.03	97.57	102.60
45	LQ	19	ARG	CA-C-O	5.03	125.58	119.49
81	LD	46	ARG	CB-CA-C	-5.03	102.76	110.81
81	LD	64	HIS	N-CA-C	5.03	116.84	111.36
4	SD	232	ASN	CA-CB-CG	-5.03	107.57	112.60
5	SE	26	ASP	CA-CB-CG	-5.03	107.57	112.60
31	S2	47	U	C1'-C2'-O2'	5.03	119.35	111.80
32	S1	9	U	O3'-P-O5'	-5.03	96.45	104.00
33	L1	548	G	C1'-O4'-C4'	-5.03	104.87	109.90
33	L1	1961	C	N1-C1'-C2'	5.03	119.55	112.00
33	L1	2469	C	C5'-C4'-C3'	5.03	123.54	116.00
42	LP	4	TYR	N-CA-C	5.03	117.50	111.71
42	LP	29	GLU	CA-C-N	5.03	127.02	120.28
42	LP	29	GLU	C-N-CA	5.03	127.02	120.28
42	LP	81	TYR	CB-CG-CD1	-5.03	113.25	120.80
77	Lc	61	VAL	O-C-N	5.03	127.01	121.83
2	SA	191	GLY	N-CA-C	5.03	117.78	111.09
15	SS	43	ALA	CA-C-N	-5.03	115.00	121.79
15	SS	43	ALA	C-N-CA	-5.03	115.00	121.79
31	S2	56	A	C1'-O4'-C4'	5.03	114.93	109.90
32	S1	1789	U	C4'-C3'-C2'	-5.03	97.57	102.60
33	L1	759	C	C1'-O4'-C4'	-5.03	104.87	109.90
33	L1	1487	A	C4'-C3'-O3'	5.03	116.94	109.40
33	L1	2240	C	N1-C1'-C2'	5.03	119.54	112.00
38	LE	33	THR	N-CA-CB	5.03	118.99	110.49
45	LQ	51	PRO	CA-C-N	5.03	131.15	121.54
45	LQ	51	PRO	C-N-CA	5.03	131.15	121.54
52	Lb	103	VAL	CA-C-N	5.03	127.95	120.31
52	Lb	103	VAL	C-N-CA	5.03	127.95	120.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	La	75	VAL	CA-C-N	-5.03	113.15	120.29
69	La	75	VAL	C-N-CA	-5.03	113.15	120.29
31	S2	31	C	N1-C1'-C2'	5.03	119.54	112.00
32	S1	593	C	P-O3'-C3'	-5.03	112.66	120.20
32	S1	1040	G	O4'-C1'-N9	5.03	116.04	108.50
33	L1	254	G	C1'-C2'-O2'	5.03	115.94	108.40
33	L1	823	A	C1'-C2'-O2'	-5.03	100.86	108.40
35	L2	123	C	C4'-C3'-C2'	-5.03	97.57	102.60
36	LA	83	TYR	CD1-CG-CD2	5.03	125.64	118.10
38	LE	13	ASP	CA-C-N	5.03	128.28	120.34
38	LE	13	ASP	C-N-CA	5.03	128.28	120.34
45	LQ	7	PHE	N-CA-CB	5.03	117.96	110.22
45	LQ	183	PHE	CB-CA-C	5.03	120.42	110.42
64	LG	134	ILE	N-CA-C	-5.03	101.36	108.65
15	SS	104	ARG	NE-CZ-NH1	5.03	126.53	121.50
32	S1	369	G	O4'-C1'-C2'	-5.03	102.58	107.60
32	S1	857	A	C4'-C3'-O3'	-5.03	105.46	113.00
32	S1	1214	C	O4'-C1'-C2'	-5.03	102.58	107.60
33	L1	941	C	C2'-C3'-O3'	-5.03	106.16	113.70
33	L1	1361	G	O4'-C1'-N9	5.03	116.04	108.50
33	L1	1670	G	P-O5'-C5'	-5.03	113.36	120.90
33	L1	2226	C	C5'-C4'-O4'	5.03	117.34	109.80
33	L1	3246	U	C1'-C2'-O2'	5.03	115.94	108.40
68	LW	89	THR	CA-CB-OG1	5.03	117.14	109.60
32	S1	852	A	P-O5'-C5'	-5.02	113.36	120.90
33	L1	494	C	O4'-C4'-C3'	-5.02	98.98	104.00
33	L1	994	U	C4'-C3'-O3'	-5.02	105.46	113.00
33	L1	2698	A	O3'-P-O5'	-5.02	96.47	104.00
33	L1	3388	U	O4'-C1'-C2'	-5.02	102.58	107.60
37	LB	92	ARG	O-C-N	-5.02	116.79	122.12
44	LR	72	LYS	N-CA-CB	-5.02	102.00	110.49
69	La	77	PHE	N-CA-CB	-5.02	102.72	110.16
79	Ls	228	VAL	CB-CA-C	5.02	118.40	111.97
7	SI	144	PHE	N-CA-CB	5.02	118.87	110.53
14	SP	98	TYR	CB-CG-CD2	-5.02	113.27	120.80
32	S1	118	U	P-O3'-C3'	-5.02	112.67	120.20
32	S1	419	C	O5'-C5'-C4'	-5.02	103.97	111.50
32	S1	1316	A	C1'-C2'-O2'	5.02	115.94	108.40
32	S1	1544	G	O4'-C1'-C2'	5.02	112.62	107.60
33	L1	700	C	O3'-P-O5'	-5.02	96.47	104.00
33	L1	802	G	O4'-C1'-N9	5.02	116.03	108.50
33	L1	844	A	P-O3'-C3'	-5.02	112.67	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	L1	1754	C	O3'-P-O5'	-5.02	96.47	104.00
33	L1	1933	U	N1-C1'-C2'	5.02	119.53	112.00
44	LR	49	LEU	N-CA-CB	-5.02	102.46	109.94
49	LX	96	VAL	CA-C-N	5.02	131.13	121.54
49	LX	96	VAL	C-N-CA	5.02	131.13	121.54
81	LD	78	SER	N-CA-CB	5.02	117.68	109.69
13	SQ	78	ARG	N-CA-C	5.02	121.50	110.80
15	SS	134	LEU	N-CA-C	5.02	116.75	111.28
32	S1	1362	A	C5'-C4'-O4'	5.02	117.33	109.80
32	S1	1736	C	O4'-C1'-N1	-5.02	100.97	108.50
33	L1	2523	G	O4'-C1'-C2'	5.02	112.62	107.60
33	L1	2984	A	C5'-C4'-C3'	-5.02	107.67	115.20
64	LG	11	ILE	CA-CB-CG2	-5.02	101.97	110.50
67	LS	105	VAL	CB-CA-C	-5.02	105.54	111.97
77	Lc	38	VAL	CA-CB-CG2	5.02	118.94	110.40
15	SS	125	LEU	CA-C-N	5.02	128.59	121.66
15	SS	125	LEU	C-N-CA	5.02	128.59	121.66
32	S1	849	G	P-O3'-C3'	5.02	127.73	120.20
32	S1	982	A	C5'-C4'-O4'	5.02	117.33	109.80
33	L1	819	A	C5'-C4'-C3'	-5.02	107.67	115.20
33	L1	1086	U	C2'-C3'-O3'	5.02	121.23	113.70
33	L1	2336	C	P-O5'-C5'	5.02	128.43	120.90
33	L1	2668	U	O4'-C1'-C2'	-5.02	92.34	107.40
33	L1	3138	C	C3'-C2'-C1'	5.02	106.32	101.30
80	LC	320	VAL	CB-CA-C	5.02	118.31	110.83
32	S1	857	A	O3'-P-O5'	-5.02	96.47	104.00
32	S1	1039	C	O4'-C1'-C2'	-5.02	102.58	107.60
33	L1	746	C	O5'-C5'-C4'	-5.02	103.97	111.50
33	L1	2254	A	O4'-C1'-C2'	-5.02	102.58	107.60
40	LH	66	ARG	CA-C-O	5.02	125.53	119.31
60	Lr	48	SER	N-CA-CB	5.02	118.97	110.49
66	LN	65	VAL	CA-C-N	5.02	126.11	119.84
66	LN	65	VAL	C-N-CA	5.02	126.11	119.84
81	LD	250	HIS	CA-C-N	5.02	128.33	120.75
81	LD	250	HIS	C-N-CA	5.02	128.33	120.75
84	LI	7	ARG	CA-C-N	5.02	127.00	120.28
84	LI	7	ARG	C-N-CA	5.02	127.00	120.28
3	SB	100	ALA	CA-C-N	5.02	127.00	120.28
3	SB	100	ALA	C-N-CA	5.02	127.00	120.28
33	L1	1445	U	O4'-C1'-N1	5.02	116.02	108.50
33	L1	3121	C	C1'-O4'-C4'	-5.02	104.88	109.90
33	L1	3331	G	C5'-C4'-C3'	5.02	123.52	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	LH	223	ASP	CA-CB-CG	-5.02	107.58	112.60
45	LQ	215	GLU	O-C-N	-5.02	115.55	121.32
66	LN	131	THR	CA-CB-OG1	5.02	117.12	109.60
71	Lj	87	ALA	CA-C-O	5.02	126.75	121.33
1	Sa	247	GLY	CA-C-N	5.01	128.81	120.94
1	Sa	247	GLY	C-N-CA	5.01	128.81	120.94
5	SE	56	GLU	CA-C-O	5.01	125.20	118.38
11	SM	108	ARG	CA-C-N	5.01	127.00	120.28
11	SM	108	ARG	C-N-CA	5.01	127.00	120.28
19	SY	9	VAL	CA-CB-CG1	5.01	118.92	110.40
32	S1	1077	C	O4'-C1'-C2'	-5.01	102.58	107.60
32	S1	1265	A	C1'-C2'-O2'	5.01	115.92	108.40
32	S1	1696	C	C3'-C2'-C1'	5.01	106.31	101.30
33	L1	423	C	O3'-P-O5'	5.01	111.52	104.00
33	L1	1270	G	O4'-C1'-C2'	5.01	112.61	107.60
33	L1	1361	G	C4'-C3'-O3'	-5.01	105.48	113.00
33	L1	1631	G	C3'-C2'-O2'	5.01	118.22	110.70
33	L1	1758	U	P-O5'-C5'	-5.01	113.38	120.90
33	L1	2820	U	O3'-P-O5'	-5.01	96.48	104.00
33	L1	3236	A	C1'-O4'-C4'	-5.01	104.89	109.90
38	LE	31	ARG	CD-NE-CZ	5.01	131.42	124.40
38	LE	88	VAL	CA-C-N	-5.01	111.96	121.54
38	LE	88	VAL	C-N-CA	-5.01	111.96	121.54
57	Ll	57	LYS	CA-C-N	5.01	129.92	121.14
57	Ll	57	LYS	C-N-CA	5.01	129.92	121.14
67	LS	20	THR	N-CA-CB	5.01	118.57	110.85
74	LJ	91	ARG	NE-CZ-NH2	5.01	123.71	119.20
79	Ls	51	ASP	CA-C-N	5.01	131.12	121.54
79	Ls	51	ASP	C-N-CA	5.01	131.12	121.54
11	SM	79	VAL	CG1-CB-CG2	-5.01	99.77	110.80
12	SO	108	ASP	CA-C-N	5.01	131.12	121.54
12	SO	108	ASP	C-N-CA	5.01	131.12	121.54
32	S1	198	G	O4'-C1'-N9	5.01	116.02	108.50
32	S1	416	A	C1'-O4'-C4'	5.01	114.91	109.90
32	S1	1037	G	C4'-C3'-O3'	-5.01	105.48	113.00
42	LP	181	HIS	CE1-NE2-CD2	-5.01	103.99	109.00
48	LV	97	LYS	N-CA-C	-5.01	105.82	111.28
51	LY	22	PRO	N-CA-C	5.01	122.80	112.47
54	Lf	49	ALA	O-C-N	-5.01	116.32	122.34
64	LG	188	LEU	N-CA-C	5.01	121.48	110.80
68	LW	42	GLU	CA-C-N	5.01	127.00	120.28
68	LW	42	GLU	C-N-CA	5.01	127.00	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
81	LD	19	ALA	CA-C-N	5.01	131.11	121.54
81	LD	19	ALA	C-N-CA	5.01	131.11	121.54
1	Sa	66	SER	CA-C-O	5.01	125.91	120.55
32	S1	353	G	C4'-C3'-C2'	-5.01	97.59	102.60
32	S1	409	C	C5'-C4'-C3'	-5.01	108.48	116.00
32	S1	929	A	C4'-C3'-C2'	-5.01	97.59	102.60
32	S1	1200	A	O4'-C1'-N9	5.01	115.72	108.20
32	S1	1543	U	N1-C1'-C2'	-5.01	106.48	114.00
33	L1	971	G	C4'-C3'-C2'	-5.01	97.59	102.60
33	L1	1052	A	P-O3'-C3'	5.01	127.72	120.20
33	L1	2594	A	P-O5'-C5'	5.01	128.42	120.90
34	L3	83	A	N9-C1'-C2'	-5.01	104.48	112.00
56	Lh	121	THR	O-C-N	-5.01	115.92	122.59
69	La	56	LYS	CA-C-N	5.01	132.10	122.03
69	La	56	LYS	C-N-CA	5.01	132.10	122.03
69	La	79	HIS	CG-CD2-NE2	5.01	112.21	107.20
1	Sa	243	ARG	CA-C-N	5.01	130.43	122.62
1	Sa	243	ARG	C-N-CA	5.01	130.43	122.62
2	SA	86	TYR	CB-CA-C	-5.01	102.48	110.79
4	SD	137	PRO	N-CA-C	5.01	122.79	112.47
5	SE	27	ARG	NE-CZ-NH2	5.01	123.71	119.20
32	S1	657	C	N1-C1'-C2'	5.01	119.51	112.00
32	S1	1508	C	C5'-C4'-O4'	-5.01	102.28	109.80
32	S1	1561	G	O3'-P-O5'	5.01	111.51	104.00
32	S1	1603	U	O4'-C1'-N1	5.01	116.01	108.50
33	L1	317	G	C4'-C3'-C2'	-5.01	97.59	102.60
33	L1	932	A	O4'-C1'-N9	5.01	116.01	108.50
33	L1	1146	A	C3'-C2'-O2'	-5.01	107.09	114.60
33	L1	1146	A	O4'-C1'-N9	5.01	115.72	108.20
33	L1	1285	U	C4'-C3'-C2'	-5.01	97.59	102.60
33	L1	1766	U	O4'-C4'-C3'	-5.01	98.99	104.00
33	L1	2493	C	P-O3'-C3'	5.01	127.72	120.20
33	L1	2657	C	C3'-C2'-C1'	5.01	106.31	101.30
34	L3	22	A	C3'-C2'-C1'	-5.01	96.29	101.30
36	LA	8	ALA	N-CA-C	5.01	116.82	111.36
36	LA	32	GLU	O-C-N	-5.01	116.01	122.77
41	LM	115	SER	N-CA-C	5.01	116.74	111.28
42	LP	93	LYS	CA-C-O	-5.01	115.29	120.70
43	LO	51	GLY	N-CA-C	5.01	120.22	114.16
53	Ld	50	ASN	CA-C-N	5.01	131.11	121.54
53	Ld	50	ASN	C-N-CA	5.01	131.11	121.54
58	Ln	27	ARG	NH1-CZ-NH2	-5.01	112.79	119.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
66	LN	27	ILE	CB-CA-C	-5.01	104.30	111.31
32	S1	794	G	C4'-C3'-O3'	5.01	117.51	110.00
33	L1	971	G	OP2-P-O3'	-5.01	92.98	108.00
33	L1	1747	A	P-O3'-C3'	-5.01	112.69	120.20
34	L3	61	C	O4'-C1'-N1	5.01	116.01	108.50
79	Ls	121	PRO	N-CA-CB	5.01	108.32	103.51
32	S1	472	A	O4'-C1'-N9	5.01	116.01	108.50
32	S1	1592	G	C5'-C4'-O4'	5.01	116.61	109.10
33	L1	180	G	O4'-C1'-N9	5.01	116.01	108.50
33	L1	442	C	C3'-C2'-C1'	5.01	106.31	101.30
33	L1	677	U	N1-C1'-C2'	5.01	119.51	112.00
33	L1	1654	C	N1-C1'-C2'	5.01	121.51	114.00
33	L1	2023	C	O4'-C1'-C2'	-5.01	102.59	107.60
33	L1	2302	G	O5'-C5'-C4'	5.01	119.21	111.70
33	L1	2428	G	O4'-C1'-C2'	5.01	112.61	107.60
33	L1	2885	U	O4'-C1'-N1	5.01	116.01	108.50
33	L1	2905	A	O4'-C4'-C3'	5.01	109.01	104.00
42	LP	126	THR	CA-C-O	5.01	127.67	120.51
9	SK	124	LYS	CA-C-N	-5.00	116.37	122.93
9	SK	124	LYS	C-N-CA	-5.00	116.37	122.93
27	SH	26	LEU	CB-CA-C	-5.00	99.73	111.09
33	L1	1374	G	P-O5'-C5'	-5.00	113.39	120.90
44	LR	70	PHE	N-CA-C	-5.00	107.21	113.72
47	LU	111	ASN	CA-CB-CG	-5.00	107.59	112.60
1	Sa	271	GLY	CA-C-N	5.00	131.22	122.81
1	Sa	271	GLY	C-N-CA	5.00	131.22	122.81
1	Sa	341	ASN	O-C-N	5.00	129.25	122.59
3	SB	44	MET	CB-CA-C	-5.00	101.60	111.06
4	SD	94	LYS	N-CA-C	5.00	121.45	110.80
4	SD	214	LEU	N-CA-C	-5.00	99.81	108.52
13	SQ	20	TYR	CA-C-N	5.00	131.10	121.54
13	SQ	20	TYR	C-N-CA	5.00	131.10	121.54
25	SC	61	LEU	N-CA-C	5.00	116.42	111.07
25	SC	188	ASP	O-C-N	-5.00	117.28	123.33
32	S1	1073	C	N1-C1'-C2'	5.00	119.50	112.00
32	S1	1631	C	C1'-O4'-C4'	-5.00	104.90	109.90
33	L1	181	G	O4'-C1'-N9	5.00	116.00	108.50
33	L1	1143	G	P-O5'-C5'	5.00	128.41	120.90
33	L1	2292	U	O4'-C1'-C2'	5.00	110.80	105.80
33	L1	2848	U	O4'-C1'-C2'	-5.00	102.60	107.60
33	L1	2905	A	C4'-C3'-O3'	-5.00	105.50	113.00
35	L2	35	G	C4'-C3'-C2'	-5.00	97.60	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
66	LN	14	LEU	O-C-N	-5.00	117.47	123.27
81	LD	78	SER	CB-CA-C	-5.00	101.65	109.70
81	LD	93	GLN	CA-C-N	5.00	131.22	121.41
81	LD	93	GLN	C-N-CA	5.00	131.22	121.41
81	LD	334	ASN	CA-C-N	5.00	124.60	119.05
81	LD	334	ASN	C-N-CA	5.00	124.60	119.05
4	SD	155	LYS	CB-CG-CD	5.00	122.81	111.30
32	S1	548	C	O5'-C5'-C4'	-5.00	103.30	110.80
32	S1	677	C	O4'-C1'-C2'	-5.00	102.60	107.60
32	S1	1224	C	OP2-P-O3'	-5.00	93.00	108.00
32	S1	1740	G	P-O5'-C5'	5.00	128.40	120.90
33	L1	828	U	O4'-C1'-C2'	-5.00	102.60	107.60
33	L1	852	C	C4'-C3'-C2'	-5.00	97.60	102.60
33	L1	1160	G	C1'-O4'-C4'	-5.00	104.90	109.90
33	L1	1430	C	C4'-C3'-C2'	-5.00	97.60	102.60
33	L1	2837	C	C4'-C3'-O3'	-5.00	105.50	113.00
33	L1	3051	U	N1-C1'-C2'	5.00	119.50	112.00
33	L1	3228	C	O4'-C4'-C3'	5.00	109.00	104.00
55	Lg	77	ARG	CB-CA-C	-5.00	103.03	110.88
55	Lg	111	LEU	CD1-CG-CD2	5.00	121.81	110.80
60	Lr	100	LYS	N-CA-C	5.00	117.41	109.96
64	LG	163	PHE	N-CA-CB	5.00	117.39	109.94

All (111) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	Sa	128	LEU	CA
2	SA	199	TRP	CA
4	SD	56	LEU	CA
11	SM	116	LYS	CA
13	SQ	139	ASP	CA
15	SS	80	LYS	CA
20	SZ	24	GLN	CA
23	SU	34	HIS	CA
23	SU	65	LYS	CA
23	SU	91	TYR	CA
25	SC	17	PRO	CA
25	SC	60	HIS	CA
25	SC	65	ASP	CA
25	SC	76	GLU	CA
25	SC	163	THR	CB
25	SC	171	PRO	CA

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Mol	Chain	Res	Type	Atom
28	SN	38	CYS	CA
29	ST	41	GLU	CA
29	ST	54	LEU	CA
32	S1	119	U	C1'
32	S1	297	U	C1'
32	S1	562	U	C3'
32	S1	934	A	C1'
32	S1	968	A	C3'
32	S1	1341	G	C3'
32	S1	1440	U	C3'
32	S1	1450	A	C2'
32	S1	1766	A	C1'
33	L1	138	G	C3'
33	L1	492	G	C3'
33	L1	513	C	C3'
33	L1	522	C	C3'
33	L1	639	A	C1'
33	L1	641	C	C3'
33	L1	704	G	C4'
33	L1	708	C	C3'
33	L1	785	U	C2'
33	L1	946	U	C3'
33	L1	978	C	C3'
33	L1	996	A	C1'
33	L1	1050	A	C3'
33	L1	1263	A	C1'
33	L1	1270	G	C1'
33	L1	1289	G	C3'
33	L1	1366	G	C1'
33	L1	1369	G	C1'
33	L1	1384	G	C1'
33	L1	1388	C	C3'
33	L1	1540	G	C3'
33	L1	1616	G	C1'
33	L1	1698	C	C3'
33	L1	1746	G	C1'
33	L1	1752	C	C3'
33	L1	1764	G	C1'
33	L1	1767	G	C2',C3',C4'
33	L1	1852	C	C3'
33	L1	2131	U	C3'
33	L1	2206	U	C3'

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Mol	Chain	Res	Type	Atom
33	L1	2361	C	C3'
33	L1	2383	G	C3'
33	L1	2460	A	C1'
33	L1	2483	A	C1'
33	L1	2518	A	C1'
33	L1	2760	U	C2'
33	L1	2763	C	C3'
33	L1	2793	G	C1'
33	L1	2972	C	C3'
33	L1	3023	G	C1'
33	L1	3045	A	C3'
33	L1	3093	C	C3'
33	L1	3295	G	C1'
34	L3	1	G	C3'
34	L3	10	C	C4'
35	L2	98	C	C3'
35	L2	124	G	C3'
35	L2	138	G	C3'
35	L2	144	A	C3'
38	LE	1	MET	CA
45	LQ	17	PHE	CA
45	LQ	119	GLU	CA
45	LQ	143	ARG	CA
45	LQ	259	LYS	CA
46	LT	187	ARG	CA
47	LU	83	ARG	CA
49	LX	46	LYS	CA
56	Lh	13	LYS	CA
60	Lr	46	LYS	CA
64	LG	26	TRP	CA
64	LG	152	LYS	CA
66	LN	1	MET	CA
66	LN	117	ARG	CA
67	LS	117	ARG	CA
67	LS	161	PRO	CA
70	Li	70	ASN	CA
70	Li	71	ARG	CA
72	Lk	66	VAL	CA
73	Lp	51	ILE	CB,CA
74	LJ	124	LYS	CA
79	Ls	231	ALA	CA
80	LC	67	LEU	CA

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Mol	Chain	Res	Type	Atom
80	LC	123	CYS	CA
80	LC	129	ALA	CA
80	LC	350	THR	CA
80	LC	369	PHE	CA
81	LD	90	ARG	CA
81	LD	344	ALA	CA
82	LK	136	PRO	CA
82	LK	153	ASN	CA

All (1482) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
36	LA	1	MET	Peptide
36	LA	163	CYS	Peptide
36	LA	204	TYR	Sidechain
36	LA	208	THR	Peptide
37	LB	128	ARG	Sidechain
37	LB	180	LEU	Peptide
37	LB	189	TYR	Sidechain
37	LB	19	HIS	Sidechain
37	LB	190	ARG	Sidechain
37	LB	196	TRP	Mainchain
37	LB	225	VAL	Peptide
37	LB	226	ARG	Sidechain
37	LB	244	GLY	Peptide
37	LB	28	ARG	Sidechain
37	LB	29	PHE	Sidechain
37	LB	33	ASP	Mainchain
37	LB	36	GLU	Peptide
37	LB	39	GLY	Peptide
37	LB	40	TYR	Peptide,Sidechain
37	LB	54	ARG	Sidechain
37	LB	62	THR	Peptide
37	LB	64	ARG	Sidechain
37	LB	68	ARG	Peptide
37	LB	69	TYR	Peptide,Sidechain
37	LB	70	LYS	Peptide
37	LB	73	LYS	Mainchain
37	LB	93	ARG	Sidechain
80	LC	1	MET	Mainchain
80	LC	10	ARG	Sidechain
80	LC	100	ARG	Sidechain

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Mol	Chain	Res	Type	Group
80	LC	109	HIS	Peptide
80	LC	115	ARG	Sidechain
80	LC	119	TYR	Sidechain
80	LC	120	LYS	Peptide,Mainchain
80	LC	121	ASN	Peptide
80	LC	130	PHE	Peptide,Mainchain
80	LC	137	TYR	Sidechain
80	LC	138	ASP	Peptide
80	LC	156	TYR	Sidechain
80	LC	157	ALA	Peptide
80	LC	169	ARG	Sidechain
80	LC	17	LEU	Peptide,Mainchain
80	LC	235	ARG	Sidechain
80	LC	24	ARG	Sidechain
80	LC	243	ARG	Sidechain
80	LC	245	THR	Peptide
80	LC	250	ARG	Sidechain
80	LC	259	HIS	Peptide
80	LC	291	SER	Peptide,Mainchain
80	LC	292	GLY	Peptide,Mainchain
80	LC	294	GLU	Peptide
80	LC	295	SER	Peptide,Mainchain
80	LC	298	ALA	Peptide
80	LC	304	ARG	Sidechain
80	LC	318	TYR	Peptide
80	LC	349	GLN	Peptide,Mainchain
80	LC	350	THR	Peptide,Mainchain
80	LC	352	ARG	Sidechain,Mainchain
80	LC	357	GLU	Peptide,Mainchain
80	LC	362	PHE	Peptide
80	LC	369	PHE	Sidechain
80	LC	372	GLY	Mainchain
80	LC	374	PHE	Sidechain
80	LC	385	GLY	Peptide,Mainchain
80	LC	4	ARG	Sidechain
80	LC	40	PRO	Peptide
80	LC	42	HIS	Peptide
80	LC	5	LYS	Peptide
80	LC	58	ARG	Sidechain
80	LC	59	GLU	Peptide
80	LC	61	GLU	Peptide
80	LC	69	LYS	Mainchain

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Mol	Chain	Res	Type	Group
80	LC	8	HIS	Sidechain
80	LC	92	TYR	Sidechain
81	LD	104	ARG	Peptide,Mainchain
81	LD	107	ALA	Peptide
81	LD	108	PRO	Peptide
81	LD	117	ARG	Sidechain
81	LD	118	ARG	Sidechain
81	LD	12	LYS	Peptide
81	LD	144	ARG	Sidechain
81	LD	153	GLU	Peptide
81	LD	18	MET	Peptide,Mainchain
81	LD	181	TYR	Sidechain
81	LD	194	ARG	Sidechain
81	LD	20	THR	Peptide,Mainchain
81	LD	201	ARG	Sidechain
81	LD	208	ARG	Sidechain
81	LD	215	TYR	Sidechain
81	LD	227	ARG	Sidechain
81	LD	23	SER	Peptide,Mainchain
81	LD	304	GLN	Peptide,Mainchain
81	LD	310	LEU	Mainchain
81	LD	316	ARG	Sidechain
81	LD	318	GLU	Sidechain
81	LD	320	ARG	Sidechain
81	LD	323	PRO	Mainchain
81	LD	328	ALA	Peptide,Mainchain
81	LD	329	ALA	Peptide,Mainchain
81	LD	331	LEU	Peptide
81	LD	355	ARG	Peptide,Sidechain
81	LD	363	ARG	Sidechain
81	LD	369	GLU	Mainchain
81	LD	37	ARG	Sidechain
81	LD	371	ALA	Mainchain
81	LD	383	LYS	Peptide
81	LD	4	GLN	Peptide
81	LD	42	ARG	Sidechain
81	LD	46	ARG	Sidechain
81	LD	51	ASN	Peptide
81	LD	53	ARG	Sidechain
81	LD	6	ARG	Sidechain
81	LD	60	ARG	Sidechain
81	LD	61	ARG	Sidechain

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Mol	Chain	Res	Type	Group
81	LD	79	ARG	Sidechain
81	LD	83	VAL	Peptide
81	LD	84	PRO	Peptide,Mainchain
81	LD	85	GLY	Peptide
81	LD	90	ARG	Mainchain
81	LD	94	GLY	Mainchain
81	LD	95	ALA	Peptide,Mainchain
81	LD	96	PHE	Peptide
38	LE	118	TYR	Sidechain
38	LE	128	ASP	Peptide
38	LE	136	ALA	Mainchain
38	LE	142	ARG	Sidechain
38	LE	143	ARG	Sidechain
38	LE	144	ARG	Sidechain
38	LE	155	ARG	Sidechain
38	LE	31	ARG	Sidechain
38	LE	55	THR	Peptide
38	LE	6	LYS	Peptide
38	LE	62	ARG	Peptide,Sidechain
38	LE	7	GLN	Peptide
38	LE	74	ARG	Sidechain
38	LE	88	VAL	Mainchain
38	LE	89	LYS	Peptide
38	LE	9	ASN	Peptide
38	LE	96	ARG	Sidechain
39	LF	1	MET	Peptide
39	LF	123	ARG	Sidechain
39	LF	136	SER	Peptide
39	LF	168	ASN	Peptide
39	LF	169	LYS	Peptide
39	LF	172	ARG	Sidechain
39	LF	187	THR	Peptide,Mainchain
39	LF	2	LYS	Peptide,Mainchain
39	LF	31	ARG	Sidechain
39	LF	36	ARG	Sidechain
39	LF	42	ASN	Peptide
39	LF	70	ARG	Sidechain
39	LF	95	TYR	Sidechain
64	LG	10	GLY	Peptide
64	LG	100	GLN	Peptide
64	LG	106	ILE	Peptide
64	LG	114	GLY	Peptide

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Mol	Chain	Res	Type	Group
64	LG	116	PRO	Peptide,Mainchain
64	LG	12	LYS	Peptide,Mainchain
64	LG	122	GLN	Peptide
64	LG	124	TYR	Sidechain
64	LG	133	ASP	Peptide
64	LG	139	VAL	Peptide
64	LG	142	PHE	Sidechain
64	LG	143	ASP	Peptide
64	LG	144	ASP	Peptide
64	LG	146	TYR	Peptide
64	LG	16	ARG	Sidechain
64	LG	163	PHE	Sidechain
64	LG	169	ALA	Peptide
64	LG	171	LYS	Mainchain
64	LG	175	ASP	Peptide
64	LG	183	VAL	Peptide
64	LG	184	ILE	Peptide,Mainchain
64	LG	185	ASP	Peptide,Mainchain
64	LG	20	TYR	Sidechain
64	LG	206	PHE	Sidechain
64	LG	209	ARG	Sidechain
64	LG	216	GLU	Peptide
64	LG	23	ARG	Sidechain
64	LG	26	TRP	Mainchain
64	LG	27	ALA	Peptide
64	LG	29	LYS	Peptide,Mainchain
64	LG	36	LEU	Peptide
64	LG	40	GLU	Peptide
64	LG	41	LYS	Peptide
64	LG	44	ALA	Peptide,Mainchain
64	LG	49	LYS	Peptide,Mainchain
64	LG	51	TYR	Peptide,Sidechain,Mainchain
64	LG	59	ARG	Sidechain
64	LG	62	SER	Mainchain
64	LG	66	PRO	Peptide
64	LG	68	PRO	Peptide,Mainchain
64	LG	78	GLY	Peptide
64	LG	79	THR	Peptide,Mainchain
64	LG	8	ALA	Peptide
64	LG	87	ARG	Sidechain
64	LG	88	TYR	Peptide
64	LG	9	LEU	Peptide

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Mol	Chain	Res	Type	Group
64	LG	92	ARG	Sidechain
64	LG	98	GLN	Peptide
40	LH	106	ARG	Sidechain
40	LH	110	ARG	Sidechain
40	LH	113	ALA	Peptide
40	LH	115	ALA	Peptide
40	LH	126	ILE	Peptide
40	LH	130	TYR	Sidechain
40	LH	134	HIS	Sidechain
40	LH	137	TYR	Sidechain
40	LH	154	ASP	Peptide
40	LH	202	GLU	Peptide
40	LH	222	PHE	Peptide
40	LH	233	VAL	Peptide,Mainchain
40	LH	256	ARG	Peptide
40	LH	60	ARG	Sidechain
40	LH	63	LEU	Peptide
40	LH	66	ARG	Sidechain
40	LH	76	PHE	Sidechain
40	LH	87	ASN	Peptide,Mainchain
40	LH	90	LYS	Peptide
40	LH	93	LEU	Peptide
40	LH	94	LYS	Peptide
40	LH	95	TYR	Peptide
40	LH	96	ARG	Peptide,Sidechain
40	LH	97	PRO	Mainchain
40	LH	98	GLU	Peptide
84	LI	104	SER	Peptide
84	LI	109	ASP	Peptide
84	LI	116	ARG	Mainchain
84	LI	139	ARG	Sidechain
84	LI	141	LYS	Peptide
84	LI	153	ARG	Sidechain
84	LI	154	ARG	Sidechain
84	LI	172	GLY	Peptide
84	LI	24	ARG	Sidechain
84	LI	3	ARG	Peptide,Sidechain
84	LI	4	ARG	Sidechain
84	LI	7	ARG	Sidechain
84	LI	75	TYR	Sidechain
84	LI	88	ARG	Sidechain
84	LI	9	TYR	Sidechain

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Mol	Chain	Res	Type	Group
84	LI	98	ARG	Sidechain
74	LJ	115	ARG	Sidechain
74	LJ	118	ARG	Peptide,Sidechain
74	LJ	120	ARG	Peptide,Sidechain
74	LJ	123	ALA	Peptide
74	LJ	34	PRO	Peptide
74	LJ	40	LYS	Peptide
74	LJ	58	ARG	Sidechain
74	LJ	75	VAL	Peptide
74	LJ	91	ARG	Sidechain
74	LJ	93	ARG	Sidechain
82	LK	11	ARG	Peptide,Sidechain,Mainchain
82	LK	115	PRO	Peptide
82	LK	116	PRO	Peptide
82	LK	117	TYR	Sidechain
82	LK	125	ILE	Peptide
82	LK	132	LEU	Peptide
82	LK	135	GLN	Peptide,Mainchain
82	LK	154	TYR	Sidechain
82	LK	159	ARG	Sidechain
82	LK	165	ARG	Sidechain
82	LK	175	ARG	Sidechain
82	LK	192	GLU	Peptide
82	LK	196	THR	Peptide
82	LK	205	LYS	Peptide
82	LK	206	TYR	Sidechain
82	LK	5	SER	Peptide
82	LK	54	ARG	Sidechain
82	LK	61	ARG	Sidechain
82	LK	69	THR	Peptide
82	LK	70	LYS	Peptide
82	LK	71	PRO	Peptide
82	LK	87	ARG	Sidechain
82	LK	90	ARG	Sidechain
65	LL	103	UNK	Mainchain
65	LL	108	UNK	Peptide
65	LL	115	UNK	Peptide
65	LL	122	UNK	Peptide
65	LL	128	UNK	Peptide,Mainchain
65	LL	146	UNK	Peptide,Mainchain
65	LL	148	UNK	Peptide
65	LL	150	UNK	Peptide

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Mol	Chain	Res	Type	Group
65	LL	151	UNK	Peptide
65	LL	153	UNK	Peptide
65	LL	155	UNK	Peptide
65	LL	156	UNK	Peptide
65	LL	16	UNK	Peptide
65	LL	169	UNK	Peptide
65	LL	191	UNK	Peptide
65	LL	192	UNK	Mainchain
65	LL	193	UNK	Peptide
65	LL	20	UNK	Peptide,Mainchain
65	LL	22	UNK	Peptide
65	LL	24	UNK	Peptide
65	LL	28	UNK	Peptide
65	LL	52	UNK	Peptide
65	LL	54	UNK	Mainchain
65	LL	55	UNK	Peptide
65	LL	57	UNK	Peptide
65	LL	58	UNK	Peptide
65	LL	59	UNK	Peptide
65	LL	61	UNK	Peptide
65	LL	82	UNK	Peptide
65	LL	83	UNK	Peptide
65	LL	85	UNK	Peptide,Mainchain
65	LL	86	UNK	Peptide
65	LL	87	UNK	Peptide,Mainchain
65	LL	93	UNK	Peptide
41	LM	38	TYR	Sidechain
41	LM	71	ASP	Mainchain
41	LM	73	ARG	Sidechain
41	LM	8	GLY	Peptide
41	LM	89	ARG	Sidechain
66	LN	1	MET	Peptide
66	LN	103	ASN	Peptide
66	LN	105	PHE	Sidechain
66	LN	107	ARG	Sidechain
66	LN	11	ARG	Sidechain
66	LN	117	ARG	Sidechain
66	LN	122	ARG	Sidechain
66	LN	16	ASN	Peptide
66	LN	2	PRO	Peptide
66	LN	20	ASP	Peptide
66	LN	22	GLY	Peptide

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Mol	Chain	Res	Type	Group
66	LN	30	VAL	Peptide
66	LN	31	VAL	Peptide
66	LN	45	ARG	Sidechain
66	LN	51	LYS	Peptide
66	LN	6	PHE	Peptide
66	LN	87	SER	Peptide
66	LN	88	SER	Peptide
66	LN	89	TRP	Peptide,Mainchain
66	LN	90	GLY	Peptide
43	LO	116	ARG	Peptide,Sidechain
43	LO	12	ARG	Sidechain
43	LO	127	LYS	Peptide,Mainchain
43	LO	137	GLY	Peptide,Mainchain
43	LO	14	HIS	Peptide,Sidechain
43	LO	22	ILE	Peptide
43	LO	24	LYS	Peptide
43	LO	29	PRO	Peptide
43	LO	3	THR	Peptide
43	LO	40	HIS	Peptide,Mainchain
43	LO	42	ARG	Sidechain
43	LO	59	ARG	Sidechain
43	LO	70	CYS	Peptide
43	LO	77	ARG	Sidechain
43	LO	8	ASN	Peptide
42	LP	114	ARG	Sidechain
42	LP	12	ARG	Sidechain
42	LP	127	TYR	Sidechain
42	LP	129	TYR	Sidechain
42	LP	13	ARG	Sidechain
42	LP	137	VAL	Peptide
42	LP	162	ARG	Sidechain
42	LP	171	TYR	Sidechain
42	LP	177	LYS	Peptide
42	LP	193	LYS	Peptide
42	LP	194	ARG	Sidechain
42	LP	20	ARG	Sidechain
42	LP	24	ARG	Sidechain
42	LP	26	ARG	Sidechain
42	LP	30	TYR	Sidechain
42	LP	31	ARG	Sidechain
42	LP	41	ARG	Sidechain
42	LP	47	LYS	Peptide

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Mol	Chain	Res	Type	Group
42	LP	50	ARG	Sidechain
42	LP	6	TYR	Sidechain
42	LP	62	TYR	Sidechain
42	LP	63	ARG	Sidechain
42	LP	67	ARG	Sidechain
42	LP	74	PRO	Peptide,Mainchain
42	LP	80	VAL	Peptide
42	LP	81	TYR	Sidechain
42	LP	94	PHE	Sidechain
42	LP	95	GLN	Peptide
45	LQ	100	TYR	Sidechain
45	LQ	112	THR	Peptide,Mainchain
45	LQ	113	LEU	Peptide
45	LQ	114	ARG	Peptide
45	LQ	116	LEU	Peptide,Mainchain
45	LQ	124	VAL	Mainchain
45	LQ	129	GLU	Peptide
45	LQ	130	ASP	Peptide
45	LQ	131	TYR	Sidechain
45	LQ	132	TYR	Sidechain
45	LQ	133	VAL	Peptide
45	LQ	137	ASP	Peptide,Mainchain
45	LQ	138	GLU	Peptide
45	LQ	152	ARG	Peptide,Sidechain
45	LQ	158	ARG	Sidechain
45	LQ	16	TYR	Peptide,Sidechain,Mainchain
45	LQ	170	GLY	Peptide
45	LQ	183	PHE	Sidechain
45	LQ	185	LYS	Peptide
45	LQ	187	GLU	Peptide
45	LQ	190	LEU	Peptide
45	LQ	198	TYR	Sidechain
45	LQ	2	SER	Peptide
45	LQ	201	GLY	Peptide
45	LQ	203	HIS	Peptide
45	LQ	217	GLU	Peptide
45	LQ	218	LYS	Peptide
45	LQ	223	PHE	Sidechain
45	LQ	226	TYR	Peptide
45	LQ	233	ALA	Peptide
45	LQ	235	GLY	Mainchain
45	LQ	237	GLU	Mainchain

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Mol	Chain	Res	Type	Group
45	LQ	238	SER	Peptide,Mainchain
45	LQ	247	ILE	Peptide
45	LQ	248	ARG	Peptide
45	LQ	249	ALA	Mainchain
45	LQ	256	SER	Mainchain
45	LQ	257	THR	Peptide,Mainchain
45	LQ	260	GLU	Peptide
45	LQ	266	ARG	Sidechain
45	LQ	267	TYR	Sidechain
45	LQ	27	ARG	Sidechain
45	LQ	28	ARG	Sidechain
45	LQ	290	SER	Mainchain
45	LQ	291	SER	Peptide
45	LQ	35	ARG	Sidechain
45	LQ	44	ASP	Peptide
45	LQ	53	TYR	Sidechain
45	LQ	55	PHE	Peptide
45	LQ	67	TYR	Sidechain
45	LQ	80	TYR	Sidechain
44	LR	1	MET	Peptide
44	LR	10	ARG	Sidechain
44	LR	12	LYS	Peptide
44	LR	129	ARG	Sidechain
44	LR	13	ARG	Sidechain
44	LR	14	THR	Peptide
44	LR	142	PRO	Peptide
44	LR	150	ARG	Sidechain
44	LR	157	GLY	Peptide
44	LR	159	PRO	Peptide
44	LR	16	ARG	Peptide
44	LR	162	HIS	Peptide
44	LR	20	LYS	Peptide
44	LR	25	TYR	Sidechain
44	LR	33	TYR	Sidechain
44	LR	44	PHE	Sidechain
44	LR	51	ARG	Sidechain
44	LR	53	PHE	Peptide
44	LR	59	ARG	Sidechain
44	LR	60	PRO	Peptide
44	LR	65	ARG	Sidechain
44	LR	66	ARG	Sidechain
44	LR	71	MET	Peptide

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Mol	Chain	Res	Type	Group
44	LR	74	LYS	Peptide
44	LR	91	ARG	Sidechain
44	LR	97	ALA	Peptide,Mainchain
67	LS	109	TYR	Sidechain
67	LS	119	ARG	Sidechain
67	LS	121	PRO	Peptide
67	LS	137	LYS	Peptide
67	LS	138	ARG	Sidechain
67	LS	139	ASP	Peptide
67	LS	14	ARG	Peptide
67	LS	144	PHE	Sidechain
67	LS	145	HIS	Sidechain
67	LS	150	LYS	Peptide,Mainchain
67	LS	151	PHE	Peptide,Sidechain
67	LS	153	LEU	Peptide
67	LS	156	ARG	Peptide
67	LS	157	LYS	Peptide
67	LS	159	ARG	Peptide,Sidechain
67	LS	161	PRO	Peptide
67	LS	165	LEU	Peptide
67	LS	18	THR	Peptide
67	LS	28	ARG	Peptide,Sidechain
67	LS	4	PHE	Peptide
67	LS	43	PHE	Sidechain
67	LS	5	ARG	Sidechain
67	LS	57	ASN	Peptide
67	LS	64	ASN	Mainchain
67	LS	67	PHE	Peptide
67	LS	69	LYS	Peptide
67	LS	70	ASN	Mainchain
67	LS	73	THR	Peptide
67	LS	74	ILE	Peptide
67	LS	77	TYR	Sidechain
67	LS	80	TRP	Peptide
67	LS	83	TYR	Sidechain
67	LS	9	TYR	Sidechain
67	LS	93	TYR	Sidechain
67	LS	95	GLU	Mainchain
67	LS	96	TYR	Sidechain
67	LS	97	ARG	Sidechain
46	LT	100	ARG	Sidechain
46	LT	103	ARG	Sidechain

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Mol	Chain	Res	Type	Group
46	LT	107	ARG	Sidechain
46	LT	136	ARG	Mainchain
46	LT	137	VAL	Peptide
46	LT	151	ARG	Sidechain
46	LT	172	ARG	Sidechain
46	LT	187	ARG	Sidechain
46	LT	55	GLN	Peptide
46	LT	58	HIS	Peptide
46	LT	59	SER	Peptide
46	LT	60	ARG	Sidechain
46	LT	67	HIS	Sidechain
46	LT	71	GLN	Peptide,Mainchain
46	LT	76	SER	Peptide
46	LT	78	TYR	Sidechain
46	LT	81	ARG	Peptide,Sidechain
46	LT	82	ARG	Peptide,Sidechain
46	LT	84	THR	Peptide
46	LT	90	PRO	Mainchain
46	LT	91	THR	Peptide
46	LT	97	ARG	Sidechain
46	LT	98	ARG	Sidechain
47	LU	10	ARG	Peptide,Sidechain
47	LU	125	VAL	Peptide
47	LU	126	ILE	Peptide,Mainchain
47	LU	130	ARG	Sidechain
47	LU	135	PRO	Peptide
47	LU	136	LYS	Peptide
47	LU	138	GLY	Peptide,Mainchain
47	LU	140	MET	Peptide,Mainchain
47	LU	15	PHE	Sidechain
47	LU	152	ILE	Peptide
47	LU	154	TYR	Peptide
47	LU	17	ARG	Sidechain
47	LU	57	TYR	Sidechain
47	LU	60	ARG	Sidechain
47	LU	63	ARG	Sidechain
47	LU	69	LYS	Peptide
47	LU	70	ARG	Sidechain
48	LV	1	MET	Peptide
48	LV	112	THR	Peptide
48	LV	114	TYR	Sidechain
48	LV	128	ARG	Sidechain

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Mol	Chain	Res	Type	Group
48	LV	140	TYR	Sidechain
48	LV	153	GLU	Peptide
48	LV	162	PRO	Peptide
48	LV	166	ILE	Peptide,Mainchain
48	LV	168	ALA	Peptide
48	LV	170	LYS	Peptide,Mainchain
48	LV	25	HIS	Sidechain
48	LV	3	LYS	Peptide
48	LV	36	ILE	Mainchain
48	LV	4	TYR	Sidechain
48	LV	46	ARG	Sidechain
48	LV	47	TYR	Sidechain
48	LV	62	ARG	Sidechain
48	LV	63	TYR	Sidechain
48	LV	67	VAL	Peptide
48	LV	69	ARG	Sidechain,Mainchain
48	LV	7	GLU	Sidechain
48	LV	74	LYS	Peptide
48	LV	75	SER	Peptide
48	LV	76	ARG	Sidechain
48	LV	77	HIS	Peptide
48	LV	90	ARG	Sidechain
68	LW	100	ASP	Peptide
68	LW	104	VAL	Peptide,Mainchain
68	LW	105	ILE	Peptide
68	LW	106	ALA	Peptide
68	LW	110	ASP	Peptide
68	LW	114	TYR	Sidechain
68	LW	27	CYS	Peptide
68	LW	28	SER	Peptide,Mainchain
68	LW	30	PRO	Peptide
68	LW	32	GLU	Peptide
68	LW	33	ASP	Peptide
68	LW	37	GLU	Peptide
68	LW	48	ARG	Sidechain
68	LW	54	GLY	Peptide
68	LW	60	GLY	Peptide
68	LW	80	PHE	Mainchain
68	LW	83	ARG	Sidechain
68	LW	84	TYR	Sidechain
68	LW	87	TYR	Mainchain
68	LW	92	TYR	Sidechain

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Mol	Chain	Res	Type	Group
68	LW	96	HIS	Peptide
68	LW	97	ASN	Peptide
49	LX	113	TYR	Sidechain
49	LX	125	ARG	Sidechain
49	LX	31	ARG	Sidechain
49	LX	33	SER	Mainchain
49	LX	34	LYS	Peptide
49	LX	42	PHE	Sidechain
49	LX	45	PRO	Peptide
49	LX	52	ARG	Peptide
49	LX	58	ARG	Sidechain
49	LX	70	TYR	Sidechain
49	LX	75	TYR	Sidechain
51	LY	109	LYS	Mainchain
51	LY	120	ARG	Sidechain
51	LY	2	LYS	Peptide
51	LY	21	ALA	Peptide
51	LY	22	PRO	Peptide
51	LY	27	ARG	Sidechain
51	LY	39	ARG	Sidechain
51	LY	49	ILE	Peptide
51	LY	62	TYR	Sidechain
51	LY	86	ARG	Sidechain
51	LY	9	SER	Peptide,Mainchain
50	LZ	16	TYR	Peptide,Sidechain
50	LZ	22	ARG	Sidechain
50	LZ	25	ARG	Sidechain
50	LZ	3	LEU	Peptide
50	LZ	50	LYS	Peptide
50	LZ	53	TRP	Peptide,Mainchain
50	LZ	58	ARG	Sidechain
50	LZ	64	ASP	Peptide
50	LZ	71	LYS	Peptide
50	LZ	73	ARG	Sidechain
69	La	12	ILE	Peptide
69	La	13	LEU	Peptide
69	La	20	GLY	Peptide
69	La	21	ARG	Peptide,Sidechain
69	La	25	ILE	Peptide
69	La	26	VAL	Peptide
69	La	27	ARG	Peptide,Sidechain
69	La	29	PHE	Peptide,Mainchain

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Mol	Chain	Res	Type	Group
69	La	30	GLU	Peptide
69	La	31	GLU	Mainchain
69	La	37	PRO	Peptide
69	La	38	TYR	Sidechain
69	La	46	LEU	Peptide
69	La	47	ALA	Peptide
69	La	48	LYS	Peptide
69	La	49	TYR	Peptide
69	La	54	ILE	Peptide
69	La	55	ARG	Peptide,Sidechain
69	La	64	LYS	Peptide
69	La	67	ARG	Sidechain
69	La	7	PRO	Mainchain
69	La	8	GLY	Peptide,Mainchain
69	La	85	TYR	Sidechain
52	Lb	123	ARG	Sidechain
52	Lb	128	TYR	Sidechain
77	Lc	106	GLU	Peptide
77	Lc	111	ARG	Sidechain
77	Lc	116	PRO	Peptide
77	Lc	118	ARG	Sidechain
77	Lc	5	LYS	Peptide,Mainchain
77	Lc	52	ARG	Sidechain
77	Lc	71	ARG	Sidechain
77	Lc	74	TYR	Sidechain
77	Lc	79	TYR	Sidechain
77	Lc	80	ALA	Peptide
77	Lc	85	ARG	Sidechain
77	Lc	94	ARG	Sidechain
77	Lc	95	ARG	Sidechain
77	Lc	98	PRO	Peptide,Mainchain
53	Ld	47	ARG	Sidechain
53	Ld	49	HIS	Peptide
78	Le	108	LEU	Peptide
78	Le	111	ARG	Sidechain
78	Le	131	ARG	Sidechain
78	Le	135	TYR	Sidechain
78	Le	138	TYR	Sidechain
78	Le	147	ARG	Sidechain
78	Le	151	TYR	Sidechain
78	Le	153	ARG	Sidechain
78	Le	161	GLN	Peptide

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Mol	Chain	Res	Type	Group
78	Le	162	ARG	Peptide,Mainchain
78	Le	163	ILE	Peptide
78	Le	204	LEU	Mainchain
78	Le	216	LEU	Peptide
78	Le	217	LYS	Peptide
78	Le	220	ARG	Sidechain
78	Le	57	TYR	Sidechain
78	Le	61	ASP	Peptide
78	Le	69	ARG	Sidechain
78	Le	74	LYS	Peptide
78	Le	83	ALA	Peptide,Mainchain
78	Le	98	HIS	Sidechain
54	Lf	102	SER	Peptide
54	Lf	25	GLY	Peptide
54	Lf	27	TYR	Sidechain
54	Lf	56	ARG	Sidechain
54	Lf	89	TYR	Sidechain
54	Lf	90	ARG	Sidechain
55	Lg	101	VAL	Peptide
55	Lg	102	THR	Peptide
55	Lg	118	VAL	Peptide
55	Lg	119	VAL	Peptide
55	Lg	2	SER	Peptide
55	Lg	20	TYR	Sidechain
55	Lg	25	HIS	Sidechain
55	Lg	58	ARG	Sidechain
55	Lg	6	ARG	Peptide
55	Lg	73	ARG	Sidechain
55	Lg	8	ALA	Peptide
56	Lh	104	ARG	Sidechain
56	Lh	106	ARG	Sidechain
56	Lh	13	LYS	Mainchain
56	Lh	130	GLN	Peptide
56	Lh	131	GLU	Peptide
56	Lh	14	ARG	Sidechain
56	Lh	15	VAL	Peptide
56	Lh	26	TYR	Sidechain
56	Lh	47	PHE	Sidechain
56	Lh	58	TYR	Sidechain
56	Lh	65	ARG	Sidechain
56	Lh	72	PHE	Sidechain
56	Lh	93	TYR	Sidechain

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Mol	Chain	Res	Type	Group
70	Li	10	ARG	Peptide,Sidechain,Mainchain
70	Li	106	VAL	Peptide
70	Li	107	LEU	Peptide,Mainchain
70	Li	11	HIS	Peptide,Sidechain
70	Li	110	GLN	Peptide,Mainchain
70	Li	112	THR	Peptide
70	Li	117	THR	Peptide
70	Li	12	SER	Peptide
70	Li	16	LYS	Peptide
70	Li	17	SER	Peptide
70	Li	29	LYS	Mainchain
70	Li	30	LEU	Peptide
70	Li	32	TYR	Sidechain
70	Li	34	TYR	Peptide
70	Li	38	ARG	Sidechain
70	Li	39	ALA	Peptide
70	Li	42	PRO	Peptide,Mainchain
70	Li	44	CYS	Peptide,Mainchain
70	Li	53	GLY	Peptide
70	Li	54	ILE	Peptide
70	Li	61	GLU	Peptide
70	Li	62	TYR	Peptide
70	Li	64	ARG	Peptide
70	Li	65	PRO	Peptide
70	Li	66	ARG	Peptide
70	Li	7	TYR	Sidechain
70	Li	70	ASN	Peptide,Mainchain
70	Li	71	ARG	Sidechain
70	Li	73	THR	Peptide
70	Li	79	GLY	Peptide
70	Li	81	VAL	Peptide
70	Li	82	LEU	Peptide
70	Li	88	ARG	Sidechain
70	Li	9	LYS	Peptide
70	Li	95	PHE	Sidechain
71	Lj	1	MET	Peptide
71	Lj	103	ARG	Peptide,Sidechain
71	Lj	12	TYR	Mainchain
71	Lj	14	ARG	Sidechain
71	Lj	20	TYR	Sidechain
71	Lj	24	LYS	Peptide,Mainchain
71	Lj	25	SER	Peptide,Mainchain

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Mol	Chain	Res	Type	Group
71	Lj	37	GLU	Peptide
71	Lj	39	VAL	Peptide
71	Lj	4	ARG	Peptide
71	Lj	40	ASN	Peptide
71	Lj	41	THR	Peptide
71	Lj	44	GLU	Peptide
71	Lj	47	TRP	Peptide
71	Lj	48	TYR	Peptide
71	Lj	49	ALA	Peptide
71	Lj	55	TYR	Sidechain
71	Lj	57	TYR	Sidechain
71	Lj	6	GLY	Peptide
71	Lj	61	THR	Peptide
71	Lj	8	ARG	Mainchain
71	Lj	80	GLY	Peptide
71	Lj	94	PRO	Peptide
72	Lk	111	LYS	Peptide
72	Lk	37	THR	Peptide
72	Lk	39	ARG	Sidechain
72	Lk	40	VAL	Peptide
72	Lk	56	TYR	Sidechain
72	Lk	59	ARG	Sidechain
72	Lk	66	VAL	Mainchain
72	Lk	93	MET	Mainchain
72	Lk	95	SER	Peptide,Mainchain
57	Ll	11	ARG	Peptide,Mainchain
57	Ll	12	ARG	Peptide
57	Ll	21	ARG	Sidechain
57	Ll	43	ARG	Sidechain
57	Ll	45	ARG	Sidechain
57	Ll	47	TYR	Sidechain
57	Ll	51	VAL	Peptide
57	Ll	56	ARG	Sidechain
57	Ll	68	ARG	Sidechain
57	Ll	87	ARG	Peptide
83	Lm	1	MET	Peptide
83	Lm	10	ILE	Peptide
83	Lm	17	ARG	Sidechain
83	Lm	18	TYR	Sidechain
83	Lm	23	ARG	Sidechain
83	Lm	4	ARG	Sidechain
83	Lm	49	ARG	Sidechain

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Mol	Chain	Res	Type	Group
83	Lm	6	LYS	Peptide
83	Lm	69	TYR	Sidechain
83	Lm	7	LYS	Peptide,Mainchain
83	Lm	72	ASN	Peptide
58	Ln	16	ARG	Sidechain
58	Ln	24	ARG	Peptide
58	Ln	26	LYS	Peptide
58	Ln	40	LYS	Peptide
58	Ln	41	TYR	Peptide
58	Ln	42	LEU	Peptide
58	Ln	43	TYR	Peptide
58	Ln	44	THR	Peptide
58	Ln	47	VAL	Peptide,Mainchain
58	Ln	48	PHE	Peptide
59	Lo	18	ARG	Sidechain
59	Lo	3	SER	Peptide
59	Lo	30	ARG	Peptide,Mainchain
59	Lo	34	THR	Peptide
59	Lo	37	TYR	Sidechain
59	Lo	38	ASN	Peptide
59	Lo	4	HIS	Sidechain
59	Lo	41	ARG	Sidechain
59	Lo	42	ARG	Sidechain
59	Lo	45	ARG	Sidechain
59	Lo	7	PHE	Sidechain
73	Lp	13	TYR	Sidechain
73	Lp	21	ARG	Sidechain
73	Lp	24	TYR	Sidechain
73	Lp	28	HIS	Peptide
73	Lp	35	ARG	Sidechain
73	Lp	39	CYS	Peptide
73	Lp	46	ARG	Sidechain
73	Lp	49	LYS	Peptide
73	Lp	52	LYS	Peptide,Mainchain
61	Lq	12	ARG	Sidechain
61	Lq	15	ARG	Sidechain
61	Lq	17	ARG	Sidechain
61	Lq	23	ARG	Peptide,Mainchain
60	Lr	101	GLY	Peptide,Mainchain
60	Lr	104	LEU	Peptide
60	Lr	11	TYR	Sidechain
60	Lr	2	VAL	Peptide

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Mol	Chain	Res	Type	Group
60	Lr	28	TYR	Peptide
60	Lr	32	LYS	Peptide,Mainchain
60	Lr	45	ARG	Peptide
60	Lr	46	LYS	Peptide,Mainchain
60	Lr	55	LYS	Peptide
60	Lr	58	PHE	Peptide
60	Lr	60	LYS	Peptide
60	Lr	61	LYS	Peptide,Mainchain
60	Lr	63	LYS	Peptide
60	Lr	64	THR	Peptide
60	Lr	68	ILE	Peptide
60	Lr	79	HIS	Peptide
60	Lr	80	TYR	Sidechain
60	Lr	83	HIS	Sidechain
60	Lr	85	ILE	Peptide
60	Lr	86	LYS	Peptide
60	Lr	87	ARG	Sidechain
60	Lr	89	LYS	Peptide,Mainchain
60	Lr	94	GLY	Peptide
79	Ls	186	PHE	Sidechain
79	Ls	208	ASP	Peptide
79	Ls	234	TYR	Sidechain
79	Ls	235	PRO	Peptide
79	Ls	236	THR	Peptide
79	Ls	244	PHE	Sidechain
79	Ls	257	GLU	Peptide
79	Ls	259	GLU	Peptide
79	Ls	260	TYR	Peptide
79	Ls	45	ARG	Sidechain
79	Ls	5	ARG	Sidechain
79	Ls	52	SER	Peptide
79	Ls	63	ARG	Sidechain
75	Lt	53	ARG	Peptide
75	Lt	61	SER	Peptide
75	Lu	41	TYR	Sidechain
75	Lu	53	ARG	Peptide
75	Lu	61	SER	Peptide
76	Lv	56	ALA	Peptide
76	Lw	34	ILE	Peptide
76	Lw	56	ALA	Peptide
62	Lx	17	UNK	Peptide
62	Lx	3	UNK	Peptide,Mainchain

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Mol	Chain	Res	Type	Group
62	Lx	6	UNK	Peptide
62	Lx	8	UNK	Peptide
62	Ly	19	UNK	Peptide
63	Lz	1	UNK	Peptide
63	Lz	2	UNK	Mainchain
2	SA	109	PRO	Mainchain
2	SA	160	TYR	Sidechain
2	SA	17	GLN	Peptide
2	SA	184	ARG	Sidechain
2	SA	19	ILE	Peptide
2	SA	196	GLY	Peptide
2	SA	197	HIS	Peptide
2	SA	198	LYS	Peptide
2	SA	199	TRP	Peptide
2	SA	200	ASP	Peptide
2	SA	204	ASP	Mainchain
2	SA	207	PHE	Peptide
2	SA	211	PRO	Peptide,Mainchain
2	SA	213	GLU	Peptide
2	SA	235	TYR	Sidechain
2	SA	27	VAL	Peptide
2	SA	28	HIS	Sidechain
2	SA	41	TYR	Sidechain
2	SA	45	ARG	Peptide
2	SA	72	ILE	Peptide
2	SA	74	ASN	Peptide
2	SA	89	ARG	Sidechain
2	SA	97	TYR	Sidechain
3	SB	107	TYR	Sidechain
3	SB	116	ARG	Sidechain
3	SB	129	SER	Peptide
3	SB	152	PHE	Sidechain
3	SB	156	TYR	Sidechain
3	SB	157	MET	Peptide
3	SB	161	GLY	Peptide
3	SB	167	TYR	Sidechain
3	SB	171	ALA	Peptide
3	SB	173	ARG	Sidechain
3	SB	174	HIS	Mainchain
3	SB	178	ARG	Sidechain
3	SB	179	GLN	Peptide
3	SB	192	TRP	Peptide

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Mol	Chain	Res	Type	Group
3	SB	193	ASP	Peptide
3	SB	210	ILE	Mainchain
3	SB	212	PRO	Peptide,Mainchain
3	SB	218	GLU	Peptide
3	SB	27	ARG	Sidechain
3	SB	34	TYR	Sidechain
3	SB	45	ARG	Sidechain
3	SB	54	ARG	Peptide
3	SB	64	ARG	Sidechain
3	SB	76	ARG	Sidechain
3	SB	77	PHE	Peptide
3	SB	78	ASN	Peptide
3	SB	79	PHE	Peptide
3	SB	81	GLU	Mainchain
3	SB	93	ASN	Peptide
3	SB	94	ARG	Sidechain
3	SB	96	LEU	Peptide
25	SC	105	ASN	Peptide
25	SC	109	ARG	Sidechain
25	SC	116	PHE	Sidechain
25	SC	128	ARG	Sidechain
25	SC	132	ARG	Sidechain
25	SC	135	HIS	Sidechain
25	SC	136	ILE	Mainchain
25	SC	137	ARG	Peptide
25	SC	14	THR	Peptide
25	SC	143	VAL	Peptide,Mainchain
25	SC	144	ASN	Peptide,Mainchain
25	SC	146	PRO	Mainchain
25	SC	150	VAL	Peptide
25	SC	158	ILE	Peptide
25	SC	159	ASP	Peptide
25	SC	16	LYS	Peptide
25	SC	161	SER	Peptide,Mainchain
25	SC	162	LEU	Peptide
25	SC	164	SER	Mainchain
25	SC	173	ARG	Sidechain
25	SC	176	ARG	Sidechain
25	SC	18	ARG	Peptide
25	SC	194	GLU	Mainchain
25	SC	24	GLU	Mainchain
25	SC	25	ARG	Sidechain

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Mol	Chain	Res	Type	Group
25	SC	29	GLU	Sidechain
25	SC	33	VAL	Mainchain
25	SC	36	TYR	Sidechain
25	SC	42	ARG	Sidechain
25	SC	44	LEU	Peptide,Mainchain
25	SC	53	ARG	Sidechain
25	SC	55	ARG	Sidechain
25	SC	6	ARG	Sidechain
25	SC	65	ASP	Peptide
25	SC	70	ARG	Sidechain
25	SC	8	TYR	Sidechain
25	SC	81	ARG	Sidechain
25	SC	84	ARG	Sidechain
25	SC	85	TYR	Sidechain
4	SD	131	PHE	Peptide,Mainchain
4	SD	132	GLY	Peptide,Mainchain
4	SD	134	LYS	Peptide
4	SD	136	ILE	Mainchain
4	SD	150	PRO	Peptide,Mainchain
4	SD	153	ILE	Peptide,Mainchain
4	SD	172	PHE	Sidechain
4	SD	191	ARG	Sidechain
4	SD	201	HIS	Sidechain
4	SD	211	GLU	Peptide
4	SD	212	ASP	Peptide
4	SD	221	ARG	Sidechain
4	SD	239	PRO	Peptide,Mainchain
4	SD	240	LYS	Peptide,Mainchain
4	SD	49	ARG	Sidechain
4	SD	54	TYR	Sidechain
4	SD	59	ARG	Sidechain
4	SD	75	LYS	Mainchain
4	SD	77	ARG	Sidechain
4	SD	82	TYR	Sidechain
4	SD	90	ILE	Peptide
4	SD	93	PRO	Peptide,Mainchain
4	SD	94	LYS	Peptide
4	SD	99	TYR	Sidechain
5	SE	101	ALA	Peptide,Mainchain
5	SE	104	ARG	Sidechain
5	SE	137	ALA	Peptide
5	SE	146	VAL	Peptide

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Mol	Chain	Res	Type	Group
5	SE	149	ARG	Sidechain
5	SE	15	PHE	Sidechain
5	SE	150	ARG	Sidechain
5	SE	152	TYR	Sidechain
5	SE	183	ARG	Sidechain
5	SE	206	PHE	Sidechain
5	SE	240	ARG	Sidechain
5	SE	252	TYR	Sidechain
5	SE	28	GLY	Peptide,Mainchain
5	SE	30	ARG	Sidechain
5	SE	31	ARG	Sidechain
5	SE	38	ARG	Sidechain
5	SE	4	ARG	Peptide
5	SE	8	ARG	Sidechain
5	SE	90	MET	Peptide,Mainchain
5	SE	94	PRO	Peptide
6	SF	118	ARG	Sidechain
6	SF	131	ARG	Sidechain
6	SF	132	ARG	Sidechain
6	SF	138	SER	Peptide
6	SF	148	TYR	Sidechain
6	SF	160	ARG	Sidechain
6	SF	165	ILE	Peptide
6	SF	44	TYR	Sidechain
6	SF	55	LYS	Peptide
6	SF	58	ARG	Peptide,Sidechain
6	SF	62	CYS	Peptide
6	SF	66	GLU	Mainchain
6	SF	78	ASN	Peptide
26	SG	10	UNK	Peptide,Mainchain
26	SG	100	UNK	Peptide,Mainchain
26	SG	101	UNK	Mainchain
26	SG	103	UNK	Peptide,Mainchain
26	SG	104	UNK	Peptide,Mainchain
26	SG	107	UNK	Peptide
26	SG	109	UNK	Peptide
26	SG	11	UNK	Peptide,Mainchain
26	SG	128	UNK	Mainchain
26	SG	21	UNK	Peptide,Mainchain
26	SG	35	UNK	Peptide,Mainchain
26	SG	37	UNK	Peptide
26	SG	38	UNK	Peptide

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Mol	Chain	Res	Type	Group
26	SG	52	UNK	Peptide,Mainchain
26	SG	53	UNK	Peptide
26	SG	55	UNK	Mainchain
26	SG	56	UNK	Peptide
26	SG	71	UNK	Peptide
26	SG	75	UNK	Peptide,Mainchain
26	SG	80	UNK	Peptide
26	SG	81	UNK	Peptide,Mainchain
26	SG	83	UNK	Peptide,Mainchain
26	SG	86	UNK	Peptide,Mainchain
26	SG	87	UNK	Peptide,Mainchain
26	SG	9	UNK	Peptide,Mainchain
26	SG	96	UNK	Peptide,Mainchain
26	SG	97	UNK	Peptide,Mainchain
27	SH	105	THR	Peptide
27	SH	106	THR	Peptide
27	SH	120	ASN	Mainchain
27	SH	30	SER	Peptide
27	SH	78	ARG	Mainchain
27	SH	82	GLY	Peptide,Mainchain
27	SH	83	VAL	Peptide
27	SH	84	LYS	Peptide
27	SH	85	GLU	Peptide
27	SH	92	ARG	Sidechain
7	SI	125	ALA	Peptide
7	SI	129	ARG	Sidechain
7	SI	141	ARG	Sidechain
7	SI	148	TYR	Peptide
7	SI	98	TYR	Sidechain
8	SJ	10	PRO	Peptide
8	SJ	126	SER	Peptide,Mainchain
8	SJ	21	SER	Peptide
8	SJ	28	ARG	Peptide
8	SJ	30	ARG	Sidechain
8	SJ	66	PRO	Peptide
8	SJ	75	ARG	Sidechain
8	SJ	76	LYS	Peptide
8	SJ	77	SER	Peptide
8	SJ	78	PRO	Peptide,Mainchain
8	SJ	79	CYS	Peptide
8	SJ	81	GLU	Peptide
8	SJ	87	ASP	Peptide

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Mol	Chain	Res	Type	Group
8	SJ	89	PHE	Peptide
9	SK	132	THR	Peptide
9	SK	133	PRO	Peptide
9	SK	141	ARG	Peptide
9	SK	144	GLY	Peptide
9	SK	49	ARG	Sidechain
9	SK	64	ASP	Peptide
9	SK	65	ARG	Sidechain
9	SK	69	SER	Mainchain
9	SK	71	TYR	Peptide
9	SK	72	ALA	Peptide
9	SK	73	ALA	Peptide
9	SK	83	ARG	Sidechain
9	SK	88	GLY	Mainchain
9	SK	91	ALA	Mainchain
10	SL	118	ARG	Peptide
10	SL	121	VAL	Peptide
10	SL	123	LYS	Peptide
10	SL	27	TYR	Peptide
10	SL	3	LYS	Mainchain
10	SL	32	LEU	Peptide
10	SL	4	THR	Peptide
10	SL	5	ARG	Sidechain
10	SL	81	ALA	Peptide
10	SL	84	VAL	Peptide,Mainchain
11	SM	113	ARG	Peptide,Sidechain
11	SM	114	LEU	Mainchain
11	SM	118	ARG	Sidechain
11	SM	126	TYR	Sidechain
11	SM	13	LEU	Peptide
11	SM	132	ARG	Sidechain
11	SM	133	GLY	Mainchain
11	SM	134	GLN	Peptide
11	SM	136	THR	Peptide
11	SM	138	THR	Peptide
11	SM	144	LYS	Peptide
11	SM	147	GLY	Peptide
11	SM	148	VAL	Peptide
11	SM	34	LYS	Peptide
11	SM	82	TRP	Peptide
11	SM	89	ASP	Peptide,Mainchain
11	SM	9	PHE	Peptide

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Mol	Chain	Res	Type	Group
11	SM	90	TYR	Sidechain
11	SM	94	ARG	Sidechain
11	SM	95	PHE	Sidechain
11	SM	97	GLN	Mainchain
11	SM	98	VAL	Mainchain
28	SN	10	HIS	Mainchain
28	SN	22	ARG	Sidechain
28	SN	30	LEU	Peptide
28	SN	34	TYR	Peptide,Mainchain
28	SN	55	TYR	Peptide
12	SO	104	ARG	Sidechain
12	SO	106	ARG	Sidechain
12	SO	121	ARG	Sidechain
12	SO	124	ARG	Mainchain
12	SO	141	TYR	Sidechain
12	SO	31	ALA	Peptide
12	SO	55	ARG	Sidechain
12	SO	56	ASP	Mainchain
12	SO	64	LYS	Mainchain
12	SO	67	THR	Peptide,Mainchain
12	SO	80	LEU	Peptide,Mainchain
12	SO	99	ARG	Sidechain
14	SP	41	LEU	Mainchain
14	SP	53	THR	Peptide
14	SP	83	ARG	Sidechain
14	SP	89	ARG	Sidechain
14	SP	91	TYR	Sidechain
14	SP	98	TYR	Sidechain
13	SQ	109	LEU	Mainchain
13	SQ	112	ALA	Peptide
13	SQ	116	GLY	Peptide
13	SQ	119	ARG	Sidechain
13	SQ	123	VAL	Peptide
13	SQ	124	SER	Peptide
13	SQ	130	ARG	Peptide
13	SQ	136	PRO	Peptide
13	SQ	14	ARG	Sidechain
13	SQ	140	ARG	Sidechain
13	SQ	21	TYR	Peptide,Mainchain
13	SQ	23	ARG	Sidechain
13	SQ	26	LEU	Peptide,Mainchain
13	SQ	38	VAL	Peptide

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Mol	Chain	Res	Type	Group
13	SQ	47	ARG	Sidechain
13	SQ	60	ARG	Peptide
13	SQ	61	ILE	Peptide
13	SQ	63	ARG	Peptide
13	SQ	65	PRO	Peptide
13	SQ	67	ARG	Peptide,Sidechain
13	SQ	73	LEU	Peptide,Mainchain
13	SQ	74	GLN	Peptide
13	SQ	76	GLU	Peptide
13	SQ	81	ARG	Peptide
13	SQ	82	MET	Peptide,Mainchain
13	SQ	83	ASP	Peptide
13	SQ	86	PRO	Peptide
13	SQ	94	GLU	Peptide,Mainchain
13	SQ	96	ILE	Peptide
13	SQ	97	ARG	Peptide,Sidechain
16	SR	106	TYR	Sidechain
16	SR	139	ARG	Sidechain
16	SR	74	LYS	Peptide
16	SR	90	ARG	Sidechain
15	SS	123	GLY	Mainchain
15	SS	13	ASN	Mainchain
15	SS	132	ARG	Sidechain
15	SS	138	ALA	Peptide,Mainchain
15	SS	14	PRO	Mainchain
15	SS	17	PHE	Sidechain
15	SS	27	ARG	Sidechain
15	SS	29	GLY	Peptide
15	SS	33	LEU	Peptide
15	SS	4	SER	Mainchain
15	SS	42	THR	Peptide
15	SS	48	LEU	Peptide
15	SS	50	PRO	Peptide
15	SS	62	SER	Mainchain
15	SS	65	ARG	Sidechain
15	SS	68	TYR	Sidechain
15	SS	80	LYS	Peptide
15	SS	82	TYR	Sidechain
15	SS	92	PRO	Peptide,Mainchain
15	SS	93	PRO	Peptide,Mainchain
15	SS	98	SER	Peptide,Mainchain
29	ST	15	ARG	Sidechain

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Mol	Chain	Res	Type	Group
29	ST	26	ALA	Peptide
29	ST	28	ASP	Peptide
29	ST	40	ASP	Peptide
29	ST	8	MET	Peptide
29	ST	9	VAL	Peptide
23	SU	100	ASN	Peptide
23	SU	17	PHE	Sidechain
23	SU	22	LEU	Peptide
23	SU	25	ARG	Sidechain
23	SU	26	LYS	Peptide
23	SU	30	LEU	Peptide
23	SU	32	VAL	Peptide
23	SU	33	LEU	Peptide,Mainchain
23	SU	34	HIS	Peptide,Mainchain
23	SU	37	ARG	Peptide
23	SU	38	ALA	Peptide
23	SU	39	ASN	Peptide
23	SU	41	SER	Peptide
23	SU	5	LYS	Peptide
23	SU	53	TYR	Peptide
23	SU	68	THR	Peptide,Mainchain
23	SU	7	ALA	Peptide,Mainchain
23	SU	70	PHE	Peptide
23	SU	71	GLY	Peptide,Mainchain
23	SU	74	LYS	Peptide
23	SU	75	SER	Peptide
23	SU	76	THR	Peptide
23	SU	77	GLY	Peptide
23	SU	78	PHE	Sidechain
23	SU	79	GLY	Peptide,Mainchain
23	SU	8	PRO	Mainchain
23	SU	82	TYR	Peptide,Mainchain
23	SU	91	TYR	Sidechain
23	SU	92	GLU	Peptide
23	SU	95	TYR	Peptide,Sidechain
17	SV	104	ARG	Sidechain
17	SV	107	ASN	Peptide
17	SV	30	LYS	Peptide
17	SV	39	ASN	Mainchain
17	SV	78	ARG	Sidechain
18	SW	106	UNK	Peptide
18	SW	107	UNK	Peptide,Mainchain

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Mol	Chain	Res	Type	Group
18	SW	108	UNK	Peptide
18	SW	13	UNK	Peptide
18	SW	14	UNK	Peptide,Mainchain
18	SW	76	UNK	Peptide
18	SW	79	UNK	Peptide
18	SW	80	UNK	Peptide
18	SW	81	UNK	Peptide
18	SW	87	UNK	Peptide
24	SX	53	GLN	Mainchain
24	SX	65	LEU	Peptide
24	SX	74	ARG	Mainchain
19	SY	1	MET	Peptide
19	SY	21	GLY	Peptide
19	SY	22	GLN	Peptide
19	SY	23	VAL	Peptide
19	SY	27	ARG	Sidechain
19	SY	54	LEU	Peptide
20	SZ	1	MET	Peptide
20	SZ	10	ARG	Sidechain
20	SZ	18	THR	Peptide
20	SZ	22	ALA	Peptide
20	SZ	24	GLN	Peptide
20	SZ	3	LYS	Peptide
20	SZ	44	PHE	Peptide,Mainchain
20	SZ	46	THR	Peptide
1	Sa	105	LYS	Peptide
1	Sa	107	HIS	Peptide
1	Sa	133	SER	Peptide
1	Sa	143	ARG	Sidechain
1	Sa	148	PRO	Peptide
1	Sa	151	ARG	Sidechain
1	Sa	159	TYR	Sidechain
1	Sa	172	ARG	Sidechain
1	Sa	173	LEU	Peptide
1	Sa	200	PHE	Peptide
1	Sa	203	GLY	Peptide
1	Sa	206	ALA	Peptide
1	Sa	241	ALA	Peptide
1	Sa	243	ARG	Sidechain
1	Sa	245	TYR	Sidechain
1	Sa	247	GLY	Mainchain
1	Sa	26	ARG	Sidechain

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Mol	Chain	Res	Type	Group
1	Sa	274	ARG	Sidechain
1	Sa	287	TYR	Sidechain
1	Sa	301	VAL	Peptide
1	Sa	344	GLU	Peptide
1	Sa	346	ARG	Sidechain
1	Sa	63	GLN	Sidechain
1	Sa	70	TYR	Sidechain
1	Sa	82	VAL	Mainchain
21	Sc	3	UNK	Peptide

5.2 Too-close contacts [i](#)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	Sa	2842	0	2692	125	0
2	SA	1946	0	1877	290	0
3	SB	1539	0	1537	63	0
4	SD	1607	0	1677	243	0
5	SE	2028	0	2104	263	0
6	SF	1485	0	1525	105	0
7	SI	1017	0	1080	77	0
8	SJ	887	0	861	49	0
9	SK	830	0	808	110	0
10	SL	952	0	875	85	0
11	SM	1167	0	1142	137	0
12	SO	977	0	1056	201	0
13	SQ	1129	0	1160	68	0
14	SP	639	0	625	272	0
15	SS	1155	0	1173	104	0
16	SR	711	0	758	23	0
17	SV	740	0	746	201	0
18	SW	460	0	111	24	0
19	SY	442	0	467	35	0
20	SZ	469	0	501	26	0
21	Sc	126	0	26	9	0
22	Sb	181	0	39	0	0
23	SU	732	0	740	113	0
24	SX	375	0	368	97	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
25	SC	1535	0	1556	109	0
26	SG	716	0	160	75	0
27	SH	1042	0	1086	318	0
28	SN	313	0	269	32	0
29	ST	650	0	636	33	0
30	S3	236	0	120	15	0
31	S2	1599	0	797	276	0
32	S1	33897	0	16592	1750	0
33	L1	69592	0	34889	3160	0
34	L3	2565	0	1293	390	0
35	L2	3192	0	1590	160	0
36	LA	1718	0	1841	321	0
37	LB	1933	0	1932	338	0
38	LE	1376	0	1417	202	0
39	LF	1500	0	1564	35	0
40	LH	1564	0	1658	26	0
41	LM	1020	0	1059	64	0
42	LP	1630	0	1704	88	0
43	LO	1086	0	1127	61	0
44	LR	1284	0	1376	79	0
45	LQ	2395	0	2338	200	0
46	LT	1569	0	1676	389	0
47	LU	1266	0	1268	24	0
48	LV	1335	0	1339	175	0
49	LX	987	0	1083	39	0
50	LZ	578	0	566	25	0
51	LY	1048	0	1130	69	0
52	Lb	576	0	616	22	0
53	Ld	199	0	193	6	0
54	Lf	825	0	830	217	0
55	Lg	944	0	992	124	0
56	Lh	1089	0	1164	152	0
57	Li	725	0	718	63	0
58	Ln	547	0	578	5	0
59	Lo	460	0	490	26	0
60	Lr	838	0	887	21	0
61	Lq	238	0	289	2	0
62	Lx	101	0	24	1	0
62	Ly	101	0	23	0	0
63	Lz	71	0	16	3	0
64	LG	1730	0	1824	120	0
65	LL	910	0	202	83	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
66	LN	1081	0	1171	203	0
67	LS	1419	0	1466	220	0
68	LW	839	0	863	36	0
69	La	732	0	754	94	0
70	Li	964	0	1054	45	0
71	Lj	797	0	804	116	0
72	Lk	613	0	684	93	0
73	Lp	344	0	371	69	0
74	LJ	959	0	1039	21	0
75	Lt	432	0	463	109	0
75	Lu	432	0	463	90	0
76	Lv	441	0	453	120	0
76	Lw	441	0	453	97	0
77	Lc	1006	0	1100	25	0
78	Le	1984	0	2090	158	0
79	Ls	1993	0	2086	220	0
80	LC	3102	0	3191	71	0
81	LD	2866	0	2968	338	0
82	LK	1650	0	1771	135	0
83	Lm	715	0	756	171	0
84	LI	1468	0	1506	78	0
All	All	195694	0	140366	10229	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 31.

All (10229) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:LE:91:TYR:CD1	38:LE:91:TYR:CG	1.78	1.70
38:LE:91:TYR:CD2	38:LE:91:TYR:CE2	1.75	1.69
38:LE:91:TYR:CE2	38:LE:91:TYR:CZ	1.80	1.68
38:LE:91:TYR:CD1	38:LE:91:TYR:CE1	1.78	1.68
17:SV:48:TYR:CD1	17:SV:81:ILE:HG23	1.16	1.66
48:LV:114:TYR:CE1	48:LV:114:TYR:CZ	1.80	1.66
48:LV:114:TYR:CE1	48:LV:114:TYR:CD1	1.80	1.66
32:S1:320:A:P	33:L1:854:C:H4'	1.36	1.66
66:LN:110:VAL:CG1	82:LK:201:LEU:HD23	1.25	1.66
2:SA:64:LEU:CG	5:SE:44:TRP:CD1	1.77	1.65
33:L1:1364:C:H4'	81:LD:337:PHE:CZ	1.23	1.65
38:LE:91:TYR:CZ	38:LE:91:TYR:CE1	1.78	1.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1181:A:H4'	71:Lj:70:CYS:SG	1.31	1.64
11:SM:126:TYR:CE1	11:SM:126:TYR:CZ	1.86	1.63
84:LI:110:ARG:HG2	84:LI:116:ARG:CG	1.26	1.63
38:LE:91:TYR:CG	38:LE:91:TYR:CD2	1.81	1.62
73:Lp:52:LYS:CA	73:Lp:52:LYS:CB	1.75	1.62
65:LL:153:UNK:C	65:LL:153:UNK:CA	1.76	1.62
33:L1:1753:A:C2'	33:L1:1753:A:C1'	1.76	1.62
65:LL:152:UNK:C	65:LL:152:UNK:CA	1.77	1.62
65:LL:151:UNK:C	65:LL:151:UNK:CA	1.75	1.61
32:S1:991:G:H5'	37:LB:133:TYR:CE1	1.28	1.61
33:L1:1364:C:C4'	81:LD:337:PHE:HZ	1.12	1.60
32:S1:1129:A:C4'	83:Lm:24:LYS:HE2	1.22	1.60
33:L1:3299:A:C1'	33:L1:3299:A:C2'	1.77	1.60
32:S1:1664:U:H4'	33:L1:2119:A:C4'	1.27	1.60
64:LG:185:ASP:CA	64:LG:185:ASP:CB	1.76	1.60
66:LN:41:PRO:CG	66:LN:75:MET:HG3	1.28	1.60
75:Lt:18:ASP:CA	76:Lv:2:LYS:HE2	1.21	1.60
33:L1:1246:G:C1'	33:L1:1246:G:C2'	1.77	1.60
33:L1:1222:U:C2'	33:L1:1222:U:C1'	1.74	1.59
75:Lt:10:LEU:CD1	76:Lv:8:LEU:HD12	1.18	1.59
25:SC:163:THR:CA	25:SC:163:THR:CB	1.77	1.59
45:LQ:256:SER:CA	45:LQ:256:SER:C	1.75	1.58
33:L1:2355:A:C1'	33:L1:2355:A:C2'	1.81	1.58
12:SO:90:PHE:CZ	54:Lf:20:LEU:CD2	1.77	1.58
32:S1:956:A:C8	54:Lf:9:LYS:HB3	1.33	1.58
33:L1:299:G:C1'	33:L1:299:G:C2'	1.78	1.58
33:L1:2766:U:C1'	33:L1:2766:U:C2'	1.77	1.58
84:LI:110:ARG:H	84:LI:116:ARG:CZ	1.09	1.58
2:SA:64:LEU:HD12	5:SE:44:TRP:CG	1.34	1.57
33:L1:262:A:C1'	33:L1:262:A:C2'	1.81	1.57
65:LL:154:UNK:C	65:LL:154:UNK:CA	1.81	1.57
65:LL:192:UNK:CA	65:LL:192:UNK:C	1.77	1.57
75:Lt:10:LEU:CG	76:Lv:8:LEU:HD12	1.16	1.57
68:LW:29:LYS:CA	68:LW:29:LYS:CB	1.77	1.57
25:SC:171:PRO:CG	25:SC:171:PRO:CD	1.81	1.57
35:L2:90:U:C1'	35:L2:90:U:C2'	1.76	1.57
33:L1:1258:C:C1'	33:L1:1258:C:C2'	1.74	1.57
2:SA:64:LEU:HG	5:SE:44:TRP:CD1	1.30	1.56
23:SU:72:GLY:N	23:SU:72:GLY:CA	1.67	1.56
33:L1:2780:G:C1'	33:L1:2780:G:C2'	1.75	1.56
82:LK:135:GLN:CB	82:LK:135:GLN:CA	1.76	1.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1759:A:C1'	32:S1:1759:A:C2'	1.82	1.56
38:LE:34:ARG:CB	38:LE:34:ARG:CA	1.77	1.56
75:Lt:18:ASP:HA	76:Lv:2:LYS:CE	1.23	1.56
7:SI:133:LYS:CE	32:S1:1592:G:C3'	1.81	1.56
12:SO:90:PHE:CZ	54:Lf:20:LEU:HD22	1.07	1.56
32:S1:61:A:C2'	32:S1:61:A:C1'	1.76	1.56
60:Lr:32:LYS:CA	60:Lr:32:LYS:CB	1.77	1.55
59:Lo:30:ARG:CA	59:Lo:30:ARG:CB	1.75	1.55
2:SA:64:LEU:CD1	5:SE:44:TRP:CD1	1.79	1.55
7:SI:133:LYS:HE3	32:S1:1592:G:C3'	1.35	1.55
33:L1:283:A:C2'	33:L1:283:A:C1'	1.75	1.55
32:S1:373:U:C2'	32:S1:373:U:C1'	1.78	1.55
32:S1:956:A:P	54:Lf:12:GLU:HB2	1.43	1.55
32:S1:1664:U:C5'	33:L1:2119:A:H5''	1.24	1.54
32:S1:976:A:N6	33:L1:849:A:C8	1.68	1.54
33:L1:381:G:C2'	33:L1:381:G:C1'	1.75	1.54
35:L2:124:G:C1'	35:L2:124:G:C2'	1.79	1.54
4:SD:153:ILE:N	4:SD:153:ILE:CA	1.67	1.54
26:SG:128:UNK:HA	32:S1:642:C:C4'	1.37	1.54
33:L1:3124:A:C1'	33:L1:3124:A:C2'	1.77	1.54
73:Lp:53:ASN:N	73:Lp:53:ASN:CA	1.68	1.54
1:Sa:346:ARG:NH1	32:S1:1398:U:C5'	1.71	1.54
32:S1:860:A:C1'	46:LT:173:LYS:HD2	1.37	1.54
33:L1:2474:A:C2'	33:L1:2474:A:C1'	1.74	1.54
33:L1:3227:U:C1'	33:L1:3227:U:C2'	1.86	1.54
33:L1:99:A:H5'	42:LP:182:HIS:CE1	1.40	1.53
34:L3:73:U:C1'	34:L3:73:U:C2'	1.74	1.53
33:L1:102:G:C2'	33:L1:102:G:C1'	1.81	1.53
73:Lp:51:ILE:C	73:Lp:51:ILE:HA	1.17	1.53
32:S1:1108:U:C2'	32:S1:1108:U:C1'	1.76	1.53
33:L1:2599:U:C1'	33:L1:2599:U:C2'	1.82	1.53
38:LE:153:HIS:NE2	38:LE:153:HIS:CD2	1.70	1.53
32:S1:632:G:C1'	32:S1:632:G:C2'	1.82	1.53
32:S1:860:A:H1'	46:LT:173:LYS:CD	1.11	1.53
32:S1:956:A:P	54:Lf:9:LYS:HG2	1.49	1.53
32:S1:635:G:C2'	32:S1:635:G:C1'	1.82	1.52
32:S1:927:A:C4'	37:LB:140:ASN:ND2	1.69	1.52
32:S1:1664:U:C4'	33:L1:2119:A:H4'	1.30	1.52
30:S3:16:G:C1'	30:S3:16:G:C2'	1.79	1.52
33:L1:1057:A:C1'	33:L1:1057:A:C2'	1.76	1.52
34:L3:116:U:H4'	45:LQ:80:TYR:CE1	1.37	1.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:SY:47:ARG:C	19:SY:48:GLU:N	1.67	1.52
32:S1:1225:A:C2'	32:S1:1225:A:C1'	1.86	1.52
33:L1:2216:G:C5	72:Lk:77:LYS:CE	1.89	1.52
23:SU:82:TYR:N	23:SU:82:TYR:CA	1.71	1.51
31:S2:8:U:C1'	31:S2:8:U:C2'	1.78	1.51
75:Lu:14:ILE:CD1	76:Lw:2:LYS:HA	1.39	1.51
5:SE:258:LYS:NZ	27:SH:69:LEU:HB2	1.25	1.51
11:SM:14:ARG:NH1	38:LE:109:GLN:CB	1.73	1.51
33:L1:2125:A:C1'	33:L1:2125:A:C2'	1.85	1.51
33:L1:2216:G:C6	72:Lk:77:LYS:HE3	1.45	1.51
75:Lu:10:LEU:CG	76:Lw:8:LEU:HD12	1.09	1.51
32:S1:860:A:C1'	46:LT:173:LYS:CD	1.87	1.51
33:L1:2252:C:C1'	33:L1:2252:C:C2'	1.77	1.51
33:L1:1613:C:P	33:L1:1613:C:OP1	1.14	1.50
67:LS:151:PHE:CB	67:LS:151:PHE:CG	1.90	1.50
73:Lp:51:ILE:C	73:Lp:51:ILE:CA	1.81	1.50
26:SG:12:UNK:N	26:SG:12:UNK:CA	1.67	1.50
32:S1:978:A:C2	33:L1:849:A:H2	1.28	1.50
69:La:27:ARG:CA	69:La:27:ARG:C	1.82	1.50
84:LI:110:ARG:CG	84:LI:116:ARG:CD	1.86	1.50
32:S1:299:A:C1'	32:S1:299:A:C2'	1.75	1.50
5:SE:258:LYS:CE	27:SH:69:LEU:HB2	1.38	1.49
14:SP:124:VAL:C	46:LT:165:LYS:HG3	1.28	1.49
33:L1:1081:U:C1'	33:L1:1081:U:C2'	1.84	1.49
33:L1:1679:U:C1'	33:L1:1679:U:C2'	1.85	1.49
33:L1:2952:G:C2'	33:L1:2952:G:C1'	1.79	1.49
33:L1:3203:G:C1'	33:L1:3203:G:C2'	1.80	1.49
33:L1:3326:U:C1'	33:L1:3326:U:C2'	1.75	1.49
65:LL:154:UNK:CA	65:LL:154:UNK:N	1.68	1.49
33:L1:1849:U:C2'	33:L1:1849:U:C1'	1.83	1.49
45:LQ:202:GLY:N	45:LQ:202:GLY:CA	1.72	1.49
75:Lt:10:LEU:CG	76:Lv:8:LEU:CD1	1.90	1.49
33:L1:2783:U:C1'	33:L1:2783:U:C2'	1.79	1.49
4:SD:153:ILE:CA	4:SD:153:ILE:C	1.86	1.49
32:S1:329:G:H21	33:L1:2085:A:C5'	1.26	1.49
33:L1:2361:C:C1'	33:L1:2361:C:C2'	1.78	1.49
33:L1:3156:G:C1'	33:L1:3156:G:C2'	1.84	1.49
26:SG:64:UNK:C	26:SG:65:UNK:N	1.72	1.49
33:L1:1646:U:C1'	33:L1:1646:U:C2'	1.84	1.49
4:SD:240:LYS:N	4:SD:240:LYS:CA	1.70	1.48
33:L1:2450:G:C2'	33:L1:2450:G:C1'	1.81	1.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:LG:50:PHE:N	64:LG:50:PHE:CA	1.75	1.48
32:S1:1332:G:C1'	32:S1:1332:G:C2'	1.75	1.48
12:SO:93:LYS:HE3	54:Lf:23:LYS:CA	1.44	1.48
33:L1:2779:G:C1'	33:L1:2779:G:C2'	1.91	1.47
32:S1:843:G:N2	33:L1:2063:U:C5	1.83	1.47
32:S1:1308:G:C1'	32:S1:1308:G:C2'	1.77	1.47
5:SE:250:GLN:C	5:SE:251:GLU:N	1.68	1.47
31:S2:72:G:C1'	31:S2:72:G:C2'	1.89	1.47
66:LN:41:PRO:HG3	66:LN:75:MET:CG	1.40	1.47
25:SC:106:PHE:CE1	25:SC:106:PHE:CD1	2.03	1.47
34:L3:3:A:C1'	34:L3:3:A:O4'	1.63	1.47
32:S1:860:A:C5'	46:LT:177:ARG:HB2	1.46	1.46
33:L1:1050:A:C2'	33:L1:1050:A:C1'	1.80	1.46
33:L1:2973:A:C1'	33:L1:2973:A:C2'	1.75	1.46
33:L1:1568:A:C1'	33:L1:1568:A:C2'	1.75	1.46
33:L1:1767:G:C1'	33:L1:1767:G:C2'	1.79	1.46
68:LW:29:LYS:CA	68:LW:29:LYS:N	1.78	1.46
5:SE:30:ARG:CD	5:SE:30:ARG:NE	1.78	1.46
6:SF:99:LEU:HD11	17:SV:66:LEU:CD1	1.46	1.45
33:L1:997:G:C2'	33:L1:997:G:C1'	1.85	1.45
33:L1:3304:U:C1'	33:L1:3304:U:C2'	1.79	1.45
2:SA:109:PRO:C	2:SA:110:GLY:CA	1.86	1.45
35:L2:158:G:C1'	35:L2:158:G:C2'	1.74	1.45
76:Lv:40:GLU:CG	79:Ls:99:LYS:HZ1	1.24	1.45
32:S1:1663:A:C3'	33:L1:1918:A:H1'	1.28	1.45
33:L1:1577:A:C2'	33:L1:1577:A:C1'	1.80	1.45
17:SV:48:TYR:CD1	17:SV:81:ILE:CG2	2.01	1.44
32:S1:1566:U:C1'	32:S1:1566:U:O4'	1.63	1.44
12:SO:90:PHE:HE1	54:Lf:20:LEU:CB	1.30	1.44
32:S1:956:A:C1'	54:Lf:9:LYS:NZ	1.79	1.44
33:L1:1083:C:C1'	33:L1:1083:C:C2'	1.77	1.44
35:L2:38:U:H4'	57:Ll:72:ARG:NH2	1.21	1.44
13:SQ:104:GLU:CG	20:SZ:31:ARG:NH1	1.78	1.44
17:SV:48:TYR:CE1	17:SV:81:ILE:HG23	1.53	1.44
7:SI:133:LYS:HE2	32:S1:1592:G:C5'	1.48	1.43
28:SN:51:GLY:C	28:SN:52:PHE:N	1.72	1.43
32:S1:1673:C:C1'	33:L1:1914:C:O2'	1.63	1.43
75:Lu:10:LEU:CD2	76:Lw:8:LEU:HD12	1.46	1.43
33:L1:716:A:C1'	33:L1:716:A:O4'	1.63	1.43
33:L1:1364:C:O3'	81:LD:337:PHE:CE1	1.70	1.43
34:L3:48:G:C1'	34:L3:48:G:C2'	1.89	1.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:Lu:10:LEU:CG	76:Lw:8:LEU:CD1	1.96	1.43
12:SO:90:PHE:CE1	54:Lf:20:LEU:HB2	1.53	1.43
14:SP:122:ASP:O	46:LT:162:LYS:CG	1.67	1.43
65:LL:55:UNK:N	65:LL:55:UNK:CA	1.82	1.43
32:S1:991:G:C5'	37:LB:133:TYR:HE1	1.30	1.42
33:L1:72:A:C1'	33:L1:72:A:C2'	1.77	1.42
27:SH:94:LEU:CD1	27:SH:95:PRO:HD2	1.46	1.42
32:S1:1678:G:C1'	32:S1:1678:G:C2'	1.81	1.42
7:SI:133:LYS:NZ	32:S1:1592:G:H4'	1.22	1.42
76:Lv:40:GLU:CB	79:Ls:99:LYS:HZ1	1.31	1.42
76:Lv:40:GLU:C	79:Ls:99:LYS:NZ	1.76	1.42
7:SI:133:LYS:CE	32:S1:1592:G:C4'	1.98	1.42
14:SP:89:ARG:HG3	46:LT:151:ARG:NH2	1.24	1.42
33:L1:3354:A:C1'	33:L1:3354:A:C2'	1.87	1.42
34:L3:116:U:C4'	45:LQ:80:TYR:OH	1.65	1.42
32:S1:1686:C:C5'	33:L1:3334:A:OP1	1.65	1.41
31:S2:75:A:OP2	33:L1:2957:U:C4'	1.66	1.41
32:S1:887:U:C6	83:Lm:85:ARG:NH2	1.81	1.41
33:L1:1395:A:C1'	33:L1:1395:A:C2'	1.84	1.41
33:L1:2486:G:C2'	33:L1:2486:G:C1'	1.87	1.41
14:SP:93:HIS:CE1	33:L1:2080:G:C4'	2.04	1.41
33:L1:2216:G:C2'	33:L1:2216:G:C1'	1.84	1.41
37:LB:96:LEU:HD22	83:Lm:83:ILE:CG2	1.47	1.41
65:LL:192:UNK:C	65:LL:192:UNK:N	1.76	1.41
14:SP:94:PHE:H	46:LT:151:ARG:CG	1.33	1.41
17:SV:96:HIS:CD2	17:SV:101:ILE:HA	1.55	1.41
26:SG:11:UNK:N	26:SG:11:UNK:CA	1.83	1.41
33:L1:986:G:C2'	33:L1:986:G:C1'	1.93	1.41
33:L1:1691:U:C2'	33:L1:1691:U:C1'	1.98	1.41
78:Le:40:ALA:CA	81:LD:362:LYS:HE2	1.50	1.41
13:SQ:104:GLU:HG3	20:SZ:31:ARG:NH1	1.13	1.41
33:L1:280:G:C1'	33:L1:280:G:C2'	1.92	1.41
33:L1:3094:C:C1'	33:L1:3094:C:O4'	1.65	1.41
32:S1:1676:G:C8	33:L1:1932:A:O3'	1.71	1.40
33:L1:1312:A:C1'	33:L1:1312:A:O4'	1.64	1.40
1:Sa:140:GLN:CB	1:Sa:140:GLN:NE2	1.82	1.40
12:SO:93:LYS:CE	54:Lf:23:LYS:HA	1.51	1.40
35:L2:37:A:H4'	57:Ll:72:ARG:NH1	1.31	1.40
76:Lv:40:GLU:HG2	79:Ls:99:LYS:NZ	1.26	1.40
33:L1:2318:U:C1'	33:L1:2318:U:C2'	1.87	1.40
32:S1:701:C:P	32:S1:701:C:OP1	1.00	1.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:989:G:H5'	37:LB:173:GLY:CA	1.49	1.40
33:L1:2362:A:C2'	33:L1:2362:A:C1'	1.78	1.40
14:SP:92:LEU:HA	46:LT:151:ARG:NH2	1.30	1.40
32:S1:701:C:P	32:S1:701:C:OP2	1.00	1.40
32:S1:823:A:P	32:S1:823:A:OP2	1.00	1.40
32:S1:1792:A:C1'	32:S1:1792:A:C2'	1.82	1.40
32:S1:1659:A:C1'	32:S1:1659:A:O4'	1.64	1.39
31:S2:74:C:H1'	33:L1:2404:C:C5'	1.49	1.39
32:S1:636:U:C1'	32:S1:636:U:O4'	1.68	1.39
33:L1:62:A:C1'	33:L1:62:A:C2'	1.81	1.39
33:L1:271:G:O2'	72:Lk:66:VAL:CG2	1.70	1.39
37:LB:96:LEU:CD2	83:Lm:83:ILE:HG23	1.50	1.39
32:S1:764:U:OP2	32:S1:764:U:P	1.00	1.39
33:L1:1533:U:C1'	33:L1:1533:U:O4'	1.65	1.39
71:Lj:72:TRP:CZ2	82:LK:30:LYS:HE3	1.57	1.39
32:S1:1682:U:C1'	32:S1:1682:U:O4'	1.64	1.39
33:L1:716:A:C1'	33:L1:716:A:C2'	1.99	1.39
33:L1:1295:A:C1'	33:L1:1295:A:C2'	1.79	1.39
66:LN:110:VAL:HG11	82:LK:201:LEU:CD2	1.53	1.39
8:SJ:68:LYS:HE2	32:S1:1524:A:C4'	1.51	1.39
32:S1:823:A:N7	46:LT:172:ARG:CB	1.83	1.39
32:S1:861:A:C5	46:LT:171:GLU:OE1	1.75	1.39
33:L1:1867:U:C5'	46:LT:57:ILE:O	1.71	1.39
35:L2:97:U:C2'	35:L2:97:U:C1'	1.99	1.39
32:S1:329:G:N2	33:L1:2085:A:C5'	1.83	1.38
32:S1:354:G:N1	33:L1:847:G:H4'	1.34	1.38
32:S1:929:A:H5'	37:LB:137:ILE:CA	1.52	1.38
33:L1:1018:C:C1'	33:L1:1018:C:O4'	1.68	1.38
32:S1:764:U:P	32:S1:764:U:OP1	1.00	1.38
32:S1:977:G:C5'	33:L1:851:A:N1	1.80	1.38
32:S1:1745:U:C5'	33:L1:1931:G:H5''	1.41	1.38
33:L1:1826:G:C1'	33:L1:1826:G:C2'	1.90	1.38
33:L1:3234:G:C1'	33:L1:3234:G:C2'	1.86	1.38
32:S1:860:A:C1'	46:LT:173:LYS:CG	2.00	1.38
33:L1:475:U:C1'	33:L1:475:U:O4'	1.63	1.38
84:LI:110:ARG:NE	84:LI:116:ARG:HB2	1.36	1.38
12:SO:103:GLU:HB2	54:Lf:80:ASP:CG	1.45	1.38
32:S1:887:U:C5'	83:Lm:88:GLU:HB3	1.54	1.38
3:SB:154:ASP:C	3:SB:155:GLY:N	1.79	1.38
32:S1:860:A:N9	46:LT:173:LYS:HB3	1.30	1.37
16:SR:86:ARG:C	16:SR:87:THR:N	1.80	1.37

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
84:LI:110:ARG:CG	84:LI:116:ARG:HD2	1.44	1.37
2:SA:109:PRO:CA	2:SA:110:GLY:N	1.86	1.37
32:S1:1266:U:C1'	32:S1:1266:U:O4'	1.65	1.37
32:S1:1547:G:C1'	32:S1:1547:G:O4'	1.63	1.37
33:L1:2247:A:C1'	33:L1:2247:A:C2'	2.00	1.37
44:LR:41:LYS:N	81:LD:325:LYS:HD3	1.39	1.37
32:S1:1747:A:C8	33:L1:1930:G:N3	1.93	1.36
33:L1:2160:C:OP1	42:LP:76:PRO:CG	1.73	1.36
31:S2:75:A:H5''	33:L1:2956:U:C1'	1.53	1.36
32:S1:861:A:C6	46:LT:171:GLU:OE1	1.78	1.36
32:S1:1351:U:C1'	32:S1:1351:U:O4'	1.64	1.36
33:L1:641:C:C1'	33:L1:641:C:O4'	1.63	1.36
32:S1:918:G:N1	33:L1:2202:A:OP2	1.58	1.36
33:L1:1350:G:C1'	33:L1:1350:G:C2'	1.74	1.36
84:LI:110:ARG:HG2	84:LI:116:ARG:CD	1.47	1.36
3:SB:153:LYS:CD	3:SB:153:LYS:CE	2.03	1.36
14:SP:56:ASP:CA	46:LT:123:MET:CE	2.00	1.36
32:S1:976:A:N6	33:L1:849:A:H8	0.86	1.36
33:L1:2391:C:C1'	33:L1:2391:C:O4'	1.64	1.36
32:S1:956:A:P	54:Lf:9:LYS:CG	2.10	1.36
32:S1:978:A:OP1	33:L1:852:C:C1'	1.71	1.36
12:SO:57:GLN:HB2	54:Lf:100:GLY:C	1.27	1.35
14:SP:94:PHE:N	46:LT:151:ARG:HG3	1.35	1.35
27:SH:64:GLU:O	27:SH:65:LEU:CG	1.73	1.35
32:S1:1343:C:C1'	32:S1:1343:C:O4'	1.63	1.35
31:S2:3:C:P	33:L1:2626:G:H5'	1.57	1.35
33:L1:2875:U:C1'	33:L1:2875:U:O4'	1.65	1.35
29:ST:82:GLN:CA	33:L1:2540:C:O2'	1.72	1.35
32:S1:1664:U:C5'	33:L1:2119:A:C5'	2.02	1.35
4:SD:167:ASN:C	4:SD:168:LYS:N	1.85	1.35
12:SO:109:LYS:NZ	83:Lm:77:VAL:HG11	1.42	1.35
33:L1:265:G:C1'	33:L1:265:G:O4'	1.64	1.35
33:L1:1370:A:C1'	33:L1:1370:A:O4'	1.68	1.35
32:S1:929:A:O4'	37:LB:137:ILE:CD1	1.75	1.35
33:L1:1563:G:C1'	33:L1:1563:G:O4'	1.68	1.35
33:L1:2640:A:C2'	33:L1:2640:A:C1'	1.93	1.35
12:SO:109:LYS:NZ	83:Lm:77:VAL:CG1	1.87	1.34
14:SP:60:PRO:CB	33:L1:2083:U:OP1	1.72	1.34
27:SH:94:LEU:CG	27:SH:95:PRO:HD2	1.56	1.34
32:S1:992:G:C5'	37:LB:149:LYS:NZ	1.84	1.34
75:Lt:18:ASP:OD2	76:Lv:30:VAL:CG1	1.73	1.34

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:72:ILE:CG1	5:SE:66:TYR:CE1	2.10	1.34
10:SL:65:ILE:CD1	32:S1:438:G:OP1	1.73	1.34
14:SP:122:ASP:H	46:LT:162:LYS:CE	1.41	1.34
33:L1:49:U:C1'	33:L1:49:U:O4'	1.64	1.34
34:L3:20:C:O2'	45:LQ:252:THR:CG2	1.74	1.34
21:Sc:24:UNK:CB	33:L1:1920:U:C3'	2.01	1.34
32:S1:902:C:C1'	32:S1:902:C:O4'	1.65	1.34
32:S1:1512:C:C1'	32:S1:1512:C:O4'	1.63	1.34
32:S1:354:G:C6	33:L1:847:G:H4'	1.60	1.34
32:S1:1747:A:C1'	33:L1:1915:G:N3	1.89	1.34
32:S1:1747:A:C5'	33:L1:1930:G:N7	1.87	1.34
11:SM:14:ARG:NH1	38:LE:109:GLN:OE1	1.60	1.33
32:S1:978:A:C2	33:L1:849:A:C2	2.15	1.33
32:S1:301:U:C1'	32:S1:301:U:O4'	1.64	1.33
32:S1:1737:A:P	33:L1:2102:C:H6	1.50	1.33
33:L1:2590:C:C1'	33:L1:2590:C:O4'	1.66	1.33
33:L1:2668:U:C2'	33:L1:2668:U:C1'	2.03	1.33
25:SC:43:GLU:C	25:SC:44:LEU:N	1.86	1.33
33:L1:1265:G:C1'	33:L1:1265:G:C2'	2.03	1.33
11:SM:14:ARG:CZ	38:LE:109:GLN:HB3	1.57	1.33
14:SP:93:HIS:ND1	33:L1:2080:G:H4'	1.36	1.33
2:SA:113:THR:HG22	32:S1:1298:G:O2'	1.28	1.33
11:SM:14:ARG:NH1	38:LE:109:GLN:HB3	1.35	1.33
32:S1:509:A:C1'	32:S1:509:A:O4'	1.64	1.33
32:S1:977:G:C4	33:L1:850:A:C5	2.02	1.33
32:S1:1740:G:C1'	32:S1:1740:G:C2'	1.84	1.33
33:L1:2135:U:C1'	33:L1:2135:U:O4'	1.66	1.33
33:L1:3328:A:C1'	33:L1:3328:A:O4'	1.66	1.33
35:L2:37:A:C4'	57:L1:72:ARG:HH12	1.42	1.33
75:Lu:6:VAL:CA	76:Lw:12:LEU:HD21	1.58	1.33
75:Lu:10:LEU:CD2	76:Lw:8:LEU:CD1	2.02	1.33
32:S1:187:C:N4	32:S1:188:U:C4	1.97	1.32
32:S1:1758:G:OP1	33:L1:2298:A:H5''	1.25	1.32
33:L1:1778:C:C1'	33:L1:1778:C:O4'	1.64	1.32
25:SC:10:LYS:HZ3	32:S1:505:U:C5'	1.39	1.32
32:S1:593:C:C1'	32:S1:593:C:O4'	1.70	1.32
32:S1:895:U:O2'	37:LB:155:LYS:NZ	1.58	1.32
33:L1:1608:C:C1'	33:L1:1608:C:O4'	1.63	1.32
76:Lv:40:GLU:CB	79:Ls:99:LYS:NZ	1.90	1.32
14:SP:90:ASN:O	33:L1:2081:C:C4'	1.77	1.32
32:S1:956:A:C4'	54:Lf:9:LYS:HZ2	1.42	1.32

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1664:U:H5''	33:L1:2119:A:C5'	1.59	1.32
33:L1:917:A:C1'	33:L1:917:A:O4'	1.68	1.32
33:L1:2203:A:C1'	33:L1:2203:A:C2'	2.04	1.32
35:L2:119:C:C1'	35:L2:119:C:O4'	1.64	1.32
66:LN:95:VAL:HG13	82:LK:206:TYR:C	1.52	1.32
32:S1:860:A:C4	46:LT:173:LYS:HB3	1.63	1.32
32:S1:956:A:OP1	54:Lf:12:GLU:CB	1.77	1.32
33:L1:1181:A:H5''	71:Lj:70:CYS:CB	1.59	1.32
34:L3:116:U:H4'	45:LQ:80:TYR:CZ	1.64	1.32
9:SK:93:HIS:C	9:SK:94:ILE:N	1.85	1.32
15:SS:2:ALA:HB2	32:S1:1364:C:C4'	1.59	1.32
33:L1:426:A:C5'	56:Lh:16:LYS:HE2	1.60	1.32
75:Lu:14:ILE:CD1	76:Lw:2:LYS:CA	2.05	1.32
33:L1:2231:G:C1'	33:L1:2231:G:C2'	1.92	1.31
32:S1:823:A:N7	46:LT:172:ARG:HB2	1.01	1.31
14:SP:94:PHE:H	46:LT:151:ARG:CD	1.40	1.31
27:SH:94:LEU:HD13	27:SH:95:PRO:CD	1.61	1.31
32:S1:1759:A:C1'	32:S1:1759:A:O4'	1.77	1.31
33:L1:1723:C:C1'	33:L1:1723:C:O4'	1.67	1.31
31:S2:69:G:C5'	33:L1:2965:C:OP1	1.77	1.31
33:L1:288:G:H5''	42:LP:98:LYS:CE	1.59	1.31
33:L1:527:G:C1'	33:L1:527:G:O4'	1.64	1.31
75:Lt:17:ASP:OD2	76:Lv:1:MET:CA	1.76	1.31
81:LD:370:GLU:O	81:LD:374:VAL:HG23	1.26	1.31
5:SE:258:LYS:CE	27:SH:69:LEU:CB	2.06	1.31
29:ST:82:GLN:CB	33:L1:2540:C:O2'	1.67	1.31
33:L1:1630:C:C1'	33:L1:1630:C:O4'	1.65	1.31
33:L1:1817:U:C1'	33:L1:1817:U:O4'	1.67	1.31
75:Lt:14:ILE:CD1	76:Lv:2:LYS:HA	1.58	1.31
1:Sa:343:HIS:CB	32:S1:1400:G:OP1	1.77	1.30
25:SC:63:THR:OG1	25:SC:63:THR:CB	1.79	1.30
32:S1:582:U:C1'	32:S1:582:U:O4'	1.72	1.30
32:S1:600:C:C1'	32:S1:600:C:O4'	1.65	1.30
32:S1:618:C:C1'	32:S1:618:C:O4'	1.64	1.30
32:S1:823:A:C5	46:LT:172:ARG:HB2	1.35	1.30
32:S1:918:G:C2	33:L1:2202:A:OP2	1.82	1.30
32:S1:1012:C:C1'	32:S1:1012:C:O4'	1.63	1.30
32:S1:1674:C:C1'	32:S1:1674:C:O4'	1.68	1.30
33:L1:2543:G:C1'	33:L1:2543:G:O4'	1.64	1.30
35:L2:140:G:H5''	49:LX:66:LYS:CD	1.61	1.30
1:Sa:140:GLN:NE2	1:Sa:140:GLN:HB3	1.37	1.30

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:563:C:C1'	32:S1:563:C:O4'	1.67	1.30
32:S1:576:C:O4'	32:S1:576:C:C1'	1.65	1.30
32:S1:956:A:C8	54:Lf:9:LYS:CB	2.14	1.30
32:S1:990:G:H5'	37:LB:131:GLY:O	1.14	1.30
33:L1:529:C:OP1	66:LN:69:THR:CG2	1.79	1.30
33:L1:3081:G:C1'	33:L1:3081:G:O4'	1.67	1.30
84:LI:110:ARG:CD	84:LI:114:GLY:O	1.79	1.30
7:SI:133:LYS:NZ	32:S1:1592:G:C4'	1.91	1.30
12:SO:69:SER:HB2	24:SX:49:PHE:CE2	1.67	1.30
27:SH:52:PHE:O	27:SH:53:VAL:HG23	1.14	1.30
32:S1:1747:A:C8	33:L1:1930:G:C2	2.20	1.30
33:L1:1547:G:C1'	33:L1:1547:G:O4'	1.65	1.30
14:SP:121:GLY:CA	46:LT:162:LYS:NZ	1.93	1.30
27:SH:94:LEU:HD22	27:SH:95:PRO:CD	1.61	1.30
32:S1:823:A:C1'	32:S1:823:A:O4'	1.69	1.30
41:LM:91:LYS:NZ	80:LC:72:THR:OG1	1.57	1.30
75:Lu:14:ILE:HD13	76:Lw:2:LYS:O	1.30	1.30
7:SI:130:CYS:O	32:S1:1592:G:H2'	1.26	1.30
32:S1:633:U:C1'	32:S1:633:U:C2'	2.09	1.30
32:S1:893:U:C1'	32:S1:893:U:O4'	1.64	1.30
33:L1:264:C:C1'	33:L1:264:C:O4'	1.68	1.30
32:S1:1676:G:C8	33:L1:1933:U:P	2.22	1.29
33:L1:584:G:C1'	33:L1:584:G:O4'	1.70	1.29
33:L1:803:G:C1'	33:L1:803:G:C2'	1.98	1.29
33:L1:1193:A:C1'	33:L1:1193:A:O4'	1.68	1.29
75:Lt:6:VAL:C	76:Lv:12:LEU:CD2	2.03	1.29
75:Lu:6:VAL:C	76:Lw:12:LEU:CD2	2.05	1.29
33:L1:697:A:OP1	65:LL:30:UNK:CB	1.81	1.29
33:L1:1183:C:P	71:Lj:11:LEU:HD11	1.73	1.29
33:L1:2802:G:C1'	33:L1:2802:G:O4'	1.74	1.29
34:L3:46:C:H4'	45:LQ:96:TYR:CE1	1.66	1.29
34:L3:56:G:H21	45:LQ:54:ARG:NH2	1.27	1.29
33:L1:9:C:O4'	33:L1:9:C:C1'	1.71	1.29
33:L1:1218:U:C5'	67:LS:93:TYR:O	1.79	1.29
14:SP:92:LEU:HA	46:LT:151:ARG:CZ	1.61	1.29
26:SG:127:UNK:C	32:S1:642:C:H4'	1.62	1.29
41:LM:91:LYS:NZ	80:LC:72:THR:CB	1.94	1.29
75:Lt:10:LEU:HG	76:Lv:8:LEU:CD1	1.51	1.29
84:LI:110:ARG:N	84:LI:116:ARG:CZ	1.94	1.29
5:SE:258:LYS:HZ1	27:SH:69:LEU:CB	1.44	1.29
25:SC:171:PRO:CD	25:SC:171:PRO:CB	2.10	1.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:SG:123:UNK:CB	27:SH:52:PHE:CE1	2.16	1.29
32:S1:329:G:N2	33:L1:2085:A:C4'	1.94	1.29
33:L1:1241:G:C1'	33:L1:1241:G:O4'	1.71	1.29
33:L1:1647:C:C1'	33:L1:1647:C:O4'	1.67	1.29
33:L1:2786:G:C1'	33:L1:2786:G:O4'	1.72	1.29
78:Le:36:LYS:O	81:LD:362:LYS:HE3	1.20	1.29
14:SP:54:TYR:O	46:LT:144:LYS:NZ	1.65	1.28
32:S1:1719:C:C1'	32:S1:1719:C:O4'	1.64	1.28
14:SP:94:PHE:N	46:LT:151:ARG:CG	1.91	1.28
32:S1:349:U:C5'	46:LT:141:SER:OG	1.81	1.28
32:S1:1129:A:O4'	83:Lm:24:LYS:HE2	1.23	1.28
33:L1:3316:C:C1'	33:L1:3316:C:O4'	1.64	1.28
34:L3:116:U:C4'	45:LQ:80:TYR:CZ	2.14	1.28
31:S2:26:G:C8	33:L1:2260:C:H5'	1.68	1.28
32:S1:1739:U:C1'	32:S1:1739:U:O4'	1.72	1.28
33:L1:271:G:O2'	72:Lk:66:VAL:HG22	1.12	1.28
33:L1:446:C:C1'	33:L1:446:C:O4'	1.67	1.28
33:L1:1061:A:C1'	33:L1:1061:A:O4'	1.67	1.28
81:LD:379:LYS:O	81:LD:383:LYS:HG3	1.31	1.28
8:SJ:68:LYS:HE2	32:S1:1524:A:C3'	1.63	1.28
12:SO:57:GLN:CA	54:Lf:100:GLY:O	1.80	1.28
25:SC:29:GLU:OE2	25:SC:29:GLU:CD	1.76	1.28
71:Lj:90:ARG:NH1	82:LK:34:ASN:HA	1.48	1.28
10:SL:5:ARG:O	27:SH:84:LYS:HB2	1.32	1.27
11:SM:12:ILE:HG12	38:LE:117:LYS:O	1.21	1.27
32:S1:886:A:OP1	83:Lm:81:SER:CB	1.82	1.27
32:S1:1745:U:C5'	33:L1:1931:G:C5'	2.10	1.27
33:L1:2744:C:C1'	33:L1:2744:C:O4'	1.65	1.27
32:S1:861:A:N6	46:LT:171:GLU:OE1	1.63	1.27
32:S1:886:A:OP1	83:Lm:81:SER:HB3	1.33	1.27
32:S1:1589:C:C1'	32:S1:1589:C:O4'	1.64	1.27
32:S1:1747:A:C4'	33:L1:1915:G:H21	1.46	1.27
2:SA:72:ILE:HB	5:SE:66:TYR:CE1	1.70	1.27
33:L1:232:C:C1'	33:L1:232:C:O4'	1.66	1.27
33:L1:238:C:C1'	33:L1:238:C:O4'	1.68	1.27
81:LD:332:LYS:O	81:LD:335:PRO:CD	1.82	1.27
32:S1:1674:C:OP1	33:L1:1914:C:H5'	1.29	1.27
33:L1:796:C:C1'	33:L1:796:C:O4'	1.63	1.27
81:LD:333:LEU:O	81:LD:337:PHE:CD2	1.87	1.27
4:SD:219:ALA:O	32:S1:653:U:H5'	1.34	1.26
11:SM:14:ARG:HD2	38:LE:109:GLN:CG	1.65	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:SP:121:GLY:CA	46:LT:162:LYS:HZ1	1.44	1.26
32:S1:956:A:O5'	54:Lf:9:LYS:HG2	1.26	1.26
33:L1:288:G:OP1	42:LP:98:LYS:HG3	1.28	1.26
33:L1:1181:A:C4'	71:Lj:70:CYS:SG	2.23	1.26
14:SP:54:TYR:C	46:LT:144:LYS:HZ2	1.42	1.26
33:L1:529:C:OP1	66:LN:69:THR:HG21	1.24	1.26
33:L1:1806:C:C1'	33:L1:1806:C:O4'	1.63	1.26
35:L2:121:C:C1'	35:L2:121:C:O4'	1.64	1.26
81:LD:377:ALA:O	81:LD:381:TRP:CD1	1.88	1.26
24:SX:51:HIS:CG	24:SX:72:LYS:HZ1	1.53	1.26
32:S1:989:G:H5'	37:LB:173:GLY:N	1.48	1.26
33:L1:632:C:C1'	33:L1:632:C:O4'	1.69	1.26
33:L1:1538:A:C1'	33:L1:1538:A:O4'	1.65	1.26
75:Lu:10:LEU:HG	76:Lw:8:LEU:CD1	1.57	1.26
1:Sa:343:HIS:HB3	32:S1:1400:G:OP1	1.29	1.26
6:SF:80:GLY:N	32:S1:1479:U:H6	1.34	1.26
32:S1:861:A:H62	46:LT:171:GLU:CG	1.47	1.26
32:S1:988:G:O2'	37:LB:173:GLY:CA	1.84	1.26
81:LD:366:LEU:O	81:LD:370:GLU:HG3	1.09	1.26
81:LD:377:ALA:O	81:LD:381:TRP:HD1	1.18	1.26
14:SP:124:VAL:N	46:LT:165:LYS:CB	1.98	1.26
32:S1:1736:C:OP1	33:L1:2103:U:H6	1.18	1.26
33:L1:1754:C:C1'	33:L1:1754:C:O4'	1.73	1.26
5:SE:31:ARG:NE	27:SH:67:GLY:CA	1.99	1.25
32:S1:1088:G:C1'	32:S1:1088:G:O4'	1.65	1.25
32:S1:1746:U:C2	33:L1:1930:G:N2	2.03	1.25
32:S1:1748:U:OP1	33:L1:1916:U:O2'	1.53	1.25
33:L1:1664:G:C1'	33:L1:1664:G:O4'	1.65	1.25
34:L3:26:C:C1'	34:L3:26:C:O4'	1.63	1.25
35:L2:128:C:C1'	35:L2:128:C:O4'	1.65	1.25
10:SL:118:ARG:N	32:S1:590:G:OP2	1.69	1.25
14:SP:92:LEU:CD2	46:LT:151:ARG:HH12	1.46	1.25
32:S1:200:C:C1'	32:S1:200:C:O4'	1.73	1.25
33:L1:1364:C:H1'	81:LD:333:LEU:CD2	1.66	1.25
66:LN:95:VAL:HG13	82:LK:206:TYR:O	1.32	1.25
84:LI:110:ARG:N	84:LI:116:ARG:NH2	1.83	1.25
32:S1:999:G:O2'	37:LB:246:LEU:HD22	1.10	1.25
14:SP:93:HIS:HE1	33:L1:2080:G:O4'	1.15	1.25
20:SZ:10:ARG:HG2	32:S1:1255:U:OP2	1.09	1.25
32:S1:956:A:OP1	54:Lf:12:GLU:HB2	1.12	1.25
32:S1:989:G:C5'	37:LB:173:GLY:H	1.48	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:596:C:C1'	33:L1:596:C:O4'	1.70	1.25
33:L1:2724:A:C1'	33:L1:2724:A:O4'	1.63	1.25
75:Lt:10:LEU:CD1	76:Lv:8:LEU:CD1	2.09	1.25
75:Lu:6:VAL:CA	76:Lw:12:LEU:CD2	2.13	1.25
75:Lu:10:LEU:CD1	76:Lw:8:LEU:HD12	1.66	1.25
2:SA:64:LEU:HG	5:SE:44:TRP:NE1	1.50	1.25
32:S1:504:C:C1'	32:S1:504:C:O4'	1.65	1.25
32:S1:929:A:C5'	37:LB:137:ILE:HG13	1.64	1.25
32:S1:956:A:C4'	54:Lf:9:LYS:NZ	1.97	1.25
33:L1:995:C:C1'	33:L1:995:C:O4'	1.72	1.25
33:L1:2216:G:C4	72:Lk:77:LYS:NZ	2.02	1.25
34:L3:116:U:C4'	45:LQ:80:TYR:CE1	2.18	1.25
32:S1:317:U:O4'	32:S1:317:U:C1'	1.63	1.25
33:L1:1530:C:C1'	33:L1:1530:C:O4'	1.67	1.25
33:L1:3036:C:C1'	33:L1:3036:C:O4'	1.64	1.25
33:L1:3101:C:O4'	33:L1:3101:C:C1'	1.68	1.25
9:SK:84:CYS:CB	9:SK:84:CYS:SG	1.16	1.24
25:SC:10:LYS:HD3	32:S1:505:U:O5'	1.37	1.24
32:S1:1129:A:C4'	83:Lm:24:LYS:CE	2.14	1.24
33:L1:1131:U:C1'	33:L1:1131:U:O4'	1.65	1.24
33:L1:1823:C:C1'	33:L1:1823:C:O4'	1.69	1.24
1:Sa:346:ARG:CZ	32:S1:1398:U:H5''	1.66	1.24
15:SS:9:VAL:HA	15:SS:138:ALA:CB	1.65	1.24
32:S1:1214:C:C1'	32:S1:1214:C:O4'	1.67	1.24
32:S1:1663:A:C3'	33:L1:1918:A:C1'	2.11	1.24
33:L1:1450:G:C1'	33:L1:1450:G:O4'	1.67	1.24
33:L1:3090:C:O4'	33:L1:3090:C:C1'	1.64	1.24
81:LD:383:LYS:O	81:LD:386:ILE:HG13	1.36	1.24
84:LI:110:ARG:HD3	84:LI:114:GLY:O	1.12	1.24
6:SF:56:ARG:HD2	19:SY:50:ASP:CG	1.62	1.24
15:SS:2:ALA:HB2	32:S1:1364:C:O4'	1.37	1.24
33:L1:2179:U:O4'	33:L1:2179:U:C1'	1.64	1.24
76:Lv:40:GLU:CG	79:Ls:99:LYS:NZ	1.82	1.24
33:L1:1587:G:O4'	33:L1:1587:G:C1'	1.64	1.24
35:L2:25:C:C1'	35:L2:25:C:O4'	1.66	1.24
11:SM:14:ARG:CG	38:LE:111:HIS:CD2	2.11	1.24
17:SV:95:VAL:O	17:SV:96:HIS:CD2	1.89	1.24
32:S1:437:C:C1'	32:S1:437:C:O4'	1.66	1.24
81:LD:333:LEU:O	81:LD:337:PHE:HD2	1.16	1.24
2:SA:72:ILE:CB	5:SE:66:TYR:CE1	2.21	1.23
6:SF:80:GLY:CA	32:S1:1479:U:H1'	1.65	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:823:A:C5	46:LT:172:ARG:CB	2.07	1.23
33:L1:3093:C:C1'	33:L1:3093:C:O4'	1.71	1.23
31:S2:75:A:OP2	33:L1:2957:U:C1'	1.83	1.23
32:S1:859:U:C5'	46:LT:180:ARG:HB2	1.67	1.23
32:S1:991:G:C5'	37:LB:133:TYR:CE1	2.09	1.23
33:L1:307:C:C1'	33:L1:307:C:O4'	1.68	1.23
33:L1:590:C:C1'	33:L1:590:C:O4'	1.68	1.23
33:L1:637:C:C1'	33:L1:637:C:O4'	1.68	1.23
33:L1:2418:A:C1'	33:L1:2418:A:O4'	1.70	1.23
33:L1:3347:U:C1'	33:L1:3347:U:O4'	1.68	1.23
12:SO:103:GLU:O	54:Lf:78:ASN:ND2	1.72	1.23
14:SP:93:HIS:CE1	33:L1:2080:G:O4'	1.89	1.23
17:SV:63:PRO:CG	17:SV:66:LEU:HD12	1.68	1.23
32:S1:1129:A:O4'	83:Lm:24:LYS:CE	1.87	1.23
32:S1:1310:C:C1'	32:S1:1310:C:O4'	1.72	1.23
33:L1:136:C:C1'	33:L1:136:C:O4'	1.64	1.23
33:L1:289:C:P	42:LP:98:LYS:NZ	2.11	1.23
33:L1:2216:G:C5	72:Lk:77:LYS:HE3	1.61	1.23
84:LI:110:ARG:H	84:LI:116:ARG:NH2	1.36	1.23
17:SV:95:VAL:C	17:SV:101:ILE:HG12	1.63	1.23
25:SC:10:LYS:CE	32:S1:505:U:OP1	1.84	1.23
25:SC:63:THR:OG1	25:SC:63:THR:CG2	1.86	1.23
32:S1:1736:C:O3'	33:L1:2102:C:H6	1.19	1.23
33:L1:1607:C:C1'	33:L1:1607:C:O4'	1.65	1.23
33:L1:3175:C:C1'	33:L1:3175:C:O4'	1.69	1.23
33:L1:3320:G:C1'	33:L1:3320:G:O4'	1.78	1.23
32:S1:929:A:C5'	37:LB:137:ILE:HA	1.69	1.23
32:S1:1674:C:H5'	33:L1:1913:C:O2'	1.38	1.23
33:L1:487:C:C1'	33:L1:487:C:O4'	1.68	1.23
33:L1:1252:C:C1'	33:L1:1252:C:O4'	1.63	1.23
33:L1:1333:C:OP1	71:Lj:56:VAL:HG11	1.08	1.23
12:SO:90:PHE:HZ	54:Lf:20:LEU:CD2	1.29	1.22
12:SO:103:GLU:HB2	54:Lf:80:ASP:OD1	1.36	1.22
32:S1:483:C:C1'	32:S1:483:C:O4'	1.66	1.22
32:S1:860:A:O4'	46:LT:173:LYS:CG	1.82	1.22
32:S1:887:U:H5''	83:Lm:85:ARG:O	1.06	1.22
14:SP:90:ASN:O	33:L1:2081:C:C5'	1.88	1.22
26:SG:123:UNK:CB	27:SH:52:PHE:CZ	2.22	1.22
32:S1:861:A:H62	46:LT:171:GLU:CD	1.46	1.22
32:S1:886:A:C4	83:Lm:85:ARG:NH2	2.05	1.22
32:S1:1614:C:C1'	32:S1:1614:C:O4'	1.64	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:631:C:C1'	33:L1:631:C:O4'	1.69	1.22
33:L1:763:G:C1'	33:L1:763:G:O4'	1.65	1.22
34:L3:87:G:OP1	67:LS:117:ARG:NH2	1.72	1.22
31:S2:3:C:O4'	33:L1:2625:C:H5''	1.31	1.22
35:L2:41:A:C1'	35:L2:41:A:O4'	1.68	1.22
17:SV:49:ASP:O	17:SV:53:SER:OG	1.57	1.22
26:SG:5:UNK:HA	46:LT:189:CYS:CA	1.69	1.22
33:L1:99:A:H5'	42:LP:182:HIS:ND1	1.52	1.22
33:L1:1867:U:H5''	46:LT:57:ILE:O	1.16	1.22
32:S1:3:C:C1'	32:S1:3:C:O4'	1.74	1.22
33:L1:968:A:OP1	43:LO:9:ARG:HG2	1.36	1.22
33:L1:2218:A:OP1	72:Lk:77:LYS:HD2	1.40	1.22
33:L1:3335:G:C1'	33:L1:3335:G:O4'	1.71	1.22
81:LD:378:GLY:O	81:LD:382:TYR:HD2	1.20	1.22
32:S1:823:A:P	46:LT:165:LYS:O	1.96	1.21
32:S1:1632:C:C1'	32:S1:1632:C:O4'	1.64	1.21
32:S1:1673:C:O2'	33:L1:1914:C:C4'	1.87	1.21
34:L3:114:C:O2'	45:LQ:74:ILE:HA	1.08	1.21
34:L3:115:A:O2'	45:LQ:75:VAL:HG11	1.39	1.21
31:S2:74:C:O2	33:L1:2404:C:C5'	1.86	1.21
32:S1:844:C:H5'	33:L1:2061:C:O2'	1.06	1.21
32:S1:1290:U:C1'	32:S1:1290:U:O4'	1.65	1.21
34:L3:10:C:C1'	34:L3:10:C:O4'	1.68	1.21
35:L2:30:C:C1'	35:L2:30:C:O4'	1.73	1.21
11:SM:14:ARG:HG3	38:LE:111:HIS:CD2	1.38	1.21
14:SP:124:VAL:H	46:LT:165:LYS:CB	1.51	1.21
32:S1:989:G:H5''	33:L1:2172:C:O2	1.40	1.21
32:S1:1536:U:C1'	32:S1:1536:U:O4'	1.64	1.21
32:S1:1757:G:C1'	32:S1:1757:G:O4'	1.68	1.21
33:L1:1135:C:C1'	33:L1:1135:C:O4'	1.66	1.21
33:L1:1900:C:C1'	33:L1:1900:C:O4'	1.65	1.21
32:S1:152:G:C1'	32:S1:152:G:O4'	1.70	1.21
32:S1:928:A:H5''	37:LB:109:GLU:OE2	1.40	1.21
33:L1:1694:A:C5'	73:Lp:32:VAL:HG23	1.70	1.21
33:L1:2237:A:C1'	33:L1:2237:A:O4'	1.68	1.21
33:L1:2493:C:O4'	33:L1:2493:C:C1'	1.71	1.21
25:SC:195:GLU:O	33:L1:2251:A:H3'	1.38	1.21
31:S2:74:C:O2	33:L1:2404:C:H5''	1.37	1.21
33:L1:1666:C:C1'	33:L1:1666:C:O4'	1.69	1.21
33:L1:2734:C:C1'	33:L1:2734:C:O4'	1.64	1.21
6:SF:94:GLU:C	17:SV:102:TYR:OH	1.84	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:S2:26:G:O4'	33:L1:2260:C:C5'	1.88	1.20
31:S2:72:G:O5'	33:L1:2972:C:H5'	1.37	1.20
32:S1:349:U:C4'	46:LT:141:SER:OG	1.88	1.20
32:S1:918:G:N1	33:L1:2203:A:C8	2.07	1.20
32:S1:1184:C:C1'	32:S1:1184:C:O4'	1.68	1.20
32:S1:1797:C:C1'	32:S1:1797:C:O4'	1.64	1.20
33:L1:30:C:C1'	33:L1:30:C:O4'	1.69	1.20
33:L1:1344:A:C1'	33:L1:1344:A:O4'	1.77	1.20
33:L1:1634:G:C1'	33:L1:1634:G:O4'	1.68	1.20
33:L1:1744:C:C1'	33:L1:1744:C:O4'	1.65	1.20
33:L1:2700:A:O3'	33:L1:2701:G:P	1.98	1.20
33:L1:3097:G:N3	80:LC:331:CYS:SG	2.14	1.20
34:L3:47:C:OP1	45:LQ:95:ASN:HA	1.36	1.20
5:SE:240:ARG:NH1	32:S1:1302:C:O2'	1.74	1.20
14:SP:124:VAL:CA	46:LT:165:LYS:CG	2.18	1.20
17:SV:100:LEU:O	17:SV:101:ILE:HG13	1.06	1.20
32:S1:349:U:H5'	46:LT:141:SER:OG	1.32	1.20
33:L1:433:C:C1'	33:L1:433:C:O4'	1.63	1.20
33:L1:2216:G:N7	72:Lk:77:LYS:HE2	1.57	1.20
12:SO:57:GLN:NE2	54:Lf:99:PRO:O	1.74	1.20
25:SC:10:LYS:HE2	32:S1:505:U:OP1	1.35	1.20
26:SG:10:UNK:O	26:SG:11:UNK:CA	1.89	1.20
32:S1:1663:A:O3'	33:L1:1918:A:H1'	1.41	1.20
33:L1:423:C:C1'	33:L1:423:C:O4'	1.64	1.20
12:SO:150:VAL:CG1	33:L1:1714:A:H1'	1.69	1.20
31:S2:69:G:O2'	33:L1:2966:G:P	1.98	1.20
33:L1:692:U:C1'	33:L1:692:U:O4'	1.67	1.20
33:L1:1320:G:O6	66:LN:1:MET:N	1.73	1.20
33:L1:2149:G:OP1	37:LB:241:ARG:CD	1.90	1.20
44:LR:40:THR:OG1	81:LD:325:LYS:HD2	1.04	1.20
33:L1:507:C:C1'	33:L1:507:C:O4'	1.77	1.20
33:L1:641:C:H1'	56:Lh:22:HIS:CE1	1.77	1.20
33:L1:811:A:C1'	33:L1:811:A:O4'	1.65	1.20
66:LN:41:PRO:HG2	66:LN:75:MET:CE	1.71	1.20
32:S1:844:C:C5'	33:L1:2061:C:O2'	1.90	1.19
33:L1:963:U:C1'	33:L1:963:U:O4'	1.73	1.19
33:L1:1822:C:C1'	33:L1:1822:C:O4'	1.65	1.19
33:L1:2114:A:C1'	33:L1:2114:A:O4'	1.67	1.19
35:L2:96:A:C1'	35:L2:96:A:O4'	1.71	1.19
75:Lu:10:LEU:HD21	76:Lw:8:LEU:CD1	1.61	1.19
5:SE:30:ARG:NE	27:SH:67:GLY:H	1.39	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:SP:94:PHE:O	46:LT:151:ARG:HD3	1.42	1.19
26:SG:128:UNK:CA	32:S1:642:C:C4'	2.19	1.19
26:SG:128:UNK:C	32:S1:642:C:C1'	2.20	1.19
32:S1:1572:U:C1'	32:S1:1572:U:O4'	1.78	1.19
33:L1:19:C:C1'	33:L1:19:C:O4'	1.70	1.19
33:L1:700:C:C1'	33:L1:700:C:O4'	1.77	1.19
5:SE:258:LYS:NZ	27:SH:69:LEU:CB	1.97	1.19
14:SP:124:VAL:N	46:LT:165:LYS:HB2	1.52	1.19
32:S1:1737:A:P	33:L1:2102:C:C6	2.36	1.19
33:L1:1576:C:C1'	33:L1:1576:C:O4'	1.79	1.19
33:L1:2097:C:C1'	33:L1:2097:C:O4'	1.63	1.19
8:SJ:68:LYS:CE	32:S1:1524:A:C4'	2.20	1.19
32:S1:887:U:C5'	83:Lm:85:ARG:O	1.90	1.19
33:L1:1318:C:C1'	33:L1:1318:C:O4'	1.74	1.19
33:L1:1368:U:C1'	33:L1:1368:U:O4'	1.72	1.19
75:Lu:6:VAL:C	76:Lw:12:LEU:HD22	1.63	1.19
10:SL:65:ILE:HD11	32:S1:438:G:OP1	1.02	1.19
14:SP:104:ARG:NH2	32:S1:113:A:H1'	1.57	1.19
33:L1:360:G:OP1	57:Ll:54:ILE:HG12	1.43	1.19
33:L1:1862:C:O4'	33:L1:1862:C:C1'	1.67	1.19
5:SE:234:LEU:HD12	32:S1:14:C:OP2	1.39	1.18
32:S1:860:A:O4'	46:LT:173:LYS:HG2	1.02	1.18
33:L1:231:C:C1'	33:L1:231:C:O4'	1.64	1.18
59:Lo:30:ARG:CB	59:Lo:30:ARG:O	1.91	1.18
27:SH:94:LEU:CD2	27:SH:95:PRO:HD2	1.73	1.18
32:S1:290:C:C1'	32:S1:290:C:O4'	1.64	1.18
32:S1:989:G:OP1	37:LB:175:THR:CB	1.89	1.18
32:S1:1747:A:H5'	33:L1:1930:G:C5	1.75	1.18
81:LD:338:GLY:O	81:LD:342:LYS:CG	1.89	1.18
7:SI:133:LYS:CE	32:S1:1592:G:H3'	1.50	1.18
14:SP:56:ASP:CA	46:LT:123:MET:HE1	1.65	1.18
31:S2:3:C:P	33:L1:2626:G:C5'	2.11	1.18
32:S1:1279:A:C1'	32:S1:1279:A:O4'	1.66	1.18
4:SD:200:LYS:NZ	32:S1:740:U:H5''	1.59	1.18
7:SI:133:LYS:HE2	32:S1:1592:G:C4'	1.67	1.18
32:S1:320:A:P	33:L1:854:C:C4'	2.30	1.18
33:L1:288:G:C5'	42:LP:98:LYS:HE3	1.72	1.18
33:L1:804:A:C1'	33:L1:804:A:O4'	1.72	1.18
33:L1:843:C:C1'	33:L1:843:C:O4'	1.65	1.18
60:Lr:32:LYS:CB	60:Lr:32:LYS:O	1.89	1.18
31:S2:26:G:O4'	33:L1:2260:C:O4'	1.62	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:918:G:O6	33:L1:2201:G:O2'	1.58	1.18
33:L1:292:A:H5''	72:Lk:68:LYS:HZ3	1.06	1.18
33:L1:384:A:O4'	33:L1:384:A:C1'	1.70	1.18
33:L1:557:C:C1'	33:L1:557:C:O4'	1.66	1.18
34:L3:47:C:OP1	45:LQ:95:ASN:CA	1.91	1.18
34:L3:116:U:O4'	45:LQ:80:TYR:OH	1.59	1.18
8:SJ:75:ARG:HA	8:SJ:88:ARG:O	1.40	1.17
12:SO:90:PHE:HZ	54:Lf:20:LEU:HD23	1.01	1.17
27:SH:52:PHE:O	27:SH:53:VAL:CG2	1.91	1.17
32:S1:349:U:H5'	46:LT:141:SER:CB	1.74	1.17
32:S1:1076:C:C1'	32:S1:1076:C:O4'	1.66	1.17
33:L1:2708:A:C1'	33:L1:2708:A:O4'	1.76	1.17
4:SD:153:ILE:CA	4:SD:153:ILE:O	1.86	1.17
32:S1:1761:G:C1'	32:S1:1761:G:O4'	1.64	1.17
33:L1:124:C:C1'	33:L1:124:C:O4'	1.65	1.17
33:L1:177:C:C1'	33:L1:177:C:O4'	1.73	1.17
34:L3:7:G:H4'	45:LQ:37:ARG:CZ	1.74	1.17
34:L3:21:U:O4	34:L3:56:G:O6	1.63	1.17
27:SH:15:TYR:CD2	27:SH:65:LEU:HD21	1.77	1.17
32:S1:843:G:N2	33:L1:2063:U:C4	2.11	1.17
32:S1:887:U:H5'	83:Lm:88:GLU:CB	1.73	1.17
33:L1:424:G:C1'	33:L1:424:G:O4'	1.63	1.17
33:L1:2759:C:C1'	33:L1:2759:C:O4'	1.66	1.17
4:SD:219:ALA:O	32:S1:653:U:C5'	1.92	1.17
33:L1:305:G:C5'	72:Lk:64:LEU:HD23	1.74	1.17
33:L1:2900:G:C1'	33:L1:2900:G:O4'	1.66	1.17
34:L3:1:G:C1'	34:L3:1:G:O4'	1.65	1.17
6:SF:56:ARG:HD2	19:SY:50:ASP:OD1	1.44	1.17
14:SP:98:TYR:CE1	46:LT:155:LEU:HD21	1.78	1.17
20:SZ:10:ARG:CG	32:S1:1255:U:OP2	1.93	1.17
31:S2:75:A:P	33:L1:2957:U:O4'	2.03	1.17
32:S1:956:A:OP2	54:Lf:9:LYS:O	1.60	1.17
33:L1:3149:C:C1'	33:L1:3149:C:O4'	1.71	1.17
66:LN:40:ALA:HB3	66:LN:43:MET:HB2	1.22	1.17
25:SC:63:THR:OG1	25:SC:63:THR:HG23	1.43	1.16
32:S1:1744:C:O2	33:L1:1932:A:OP1	1.62	1.16
33:L1:167:C:C1'	33:L1:167:C:O4'	1.68	1.16
33:L1:1309:U:C1'	33:L1:1309:U:O4'	1.77	1.16
33:L1:1818:C:O4'	33:L1:1818:C:C1'	1.83	1.16
33:L1:2160:C:OP1	42:LP:76:PRO:HG3	1.33	1.16
33:L1:2437:A:C1'	33:L1:2437:A:O4'	1.75	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:LN:110:VAL:CG1	82:LK:201:LEU:CD2	2.10	1.16
6:SF:80:GLY:HA3	32:S1:1479:U:C1'	1.74	1.16
8:SJ:68:LYS:HE2	32:S1:1524:A:O3'	1.42	1.16
15:SS:5:THR:OG1	32:S1:1363:G:H4'	1.44	1.16
32:S1:187:C:N4	32:S1:188:U:O4	1.75	1.16
32:S1:956:A:N6	54:Lf:7:ALA:HB1	1.59	1.16
32:S1:992:G:H5''	37:LB:149:LYS:NZ	1.28	1.16
32:S1:1747:A:H1'	33:L1:1915:G:N3	1.46	1.16
35:L2:57:A:C1'	35:L2:57:A:O4'	1.75	1.16
25:SC:29:GLU:CD	25:SC:29:GLU:OE1	1.88	1.16
32:S1:147:C:C1'	32:S1:147:C:O4'	1.70	1.16
32:S1:861:A:N7	46:LT:171:GLU:OE1	1.78	1.16
32:S1:929:A:H5'	37:LB:137:ILE:CB	1.75	1.16
33:L1:1478:A:H4'	55:Lg:65:LYS:CD	1.74	1.16
65:LL:54:UNK:C	65:LL:55:UNK:CA	2.22	1.16
78:Le:35:GLU:C	78:Le:36:LYS:N	2.03	1.16
5:SE:142:LYS:CE	32:S1:1304:A:H5'	1.74	1.16
11:SM:14:ARG:HD2	38:LE:109:GLN:CD	1.69	1.16
14:SP:89:ARG:CG	46:LT:151:ARG:NH2	2.08	1.16
15:SS:2:ALA:HB1	32:S1:1363:G:C2'	1.73	1.16
32:S1:320:A:O5'	33:L1:854:C:C4'	1.90	1.16
32:S1:1686:C:H5'	33:L1:3334:A:OP1	1.01	1.16
33:L1:1181:A:OP1	71:Lj:72:TRP:CH2	1.99	1.16
41:LM:96:MET:CE	50:LZ:22:ARG:HD2	1.74	1.16
84:LI:110:ARG:HG3	84:LI:116:ARG:CD	1.57	1.16
11:SM:12:ILE:CG1	38:LE:117:LYS:O	1.94	1.16
14:SP:124:VAL:CA	46:LT:165:LYS:HG3	1.76	1.16
17:SV:48:TYR:CE1	17:SV:81:ILE:HA	1.81	1.16
31:S2:72:G:C3'	33:L1:2972:C:H5''	1.75	1.16
32:S1:320:A:OP2	33:L1:854:C:H4'	1.41	1.16
33:L1:1660:C:C1'	33:L1:1660:C:O4'	1.63	1.16
35:L2:43:G:C1'	35:L2:43:G:O4'	1.67	1.16
32:S1:348:A:H1'	33:L1:2085:A:C5'	1.73	1.15
32:S1:990:G:C5'	37:LB:131:GLY:O	1.92	1.15
32:S1:1674:C:OP1	33:L1:1914:C:C5'	1.94	1.15
33:L1:348:C:C1'	33:L1:348:C:O4'	1.72	1.15
33:L1:576:C:OP1	81:LD:342:LYS:NZ	1.75	1.15
33:L1:2597:C:C1'	33:L1:2597:C:O4'	1.65	1.15
34:L3:114:C:O2'	45:LQ:74:ILE:CA	1.93	1.15
35:L2:98:C:C4	57:Ll:73:ARG:NH2	2.13	1.15
35:L2:140:G:H5''	49:LX:66:LYS:HD2	1.23	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:Lt:17:ASP:OD2	76:Lv:1:MET:N	1.79	1.15
75:Lu:7:ALA:N	76:Lw:12:LEU:HD22	1.60	1.15
76:Lv:41:LEU:N	79:Ls:99:LYS:HZ3	1.42	1.15
4:SD:181:VAL:HG11	4:SD:225:VAL:HG13	1.22	1.15
32:S1:187:C:C4	32:S1:188:U:C5	2.34	1.15
32:S1:1736:C:O3'	33:L1:2102:C:C6	1.98	1.15
33:L1:1593:C:C1'	33:L1:1593:C:O4'	1.79	1.15
33:L1:2199:C:C1'	33:L1:2199:C:O4'	1.65	1.15
2:SA:113:THR:CG2	32:S1:1298:G:O2'	1.93	1.15
12:SO:97:ALA:HB3	54:Lf:19:GLN:OE1	1.41	1.15
32:S1:1346:C:C1'	32:S1:1346:C:O4'	1.71	1.15
32:S1:1462:C:C1'	32:S1:1462:C:O4'	1.66	1.15
33:L1:305:G:H4'	72:Lk:64:LEU:CD2	1.75	1.15
7:SI:133:LYS:CE	32:S1:1592:G:C5'	2.22	1.15
33:L1:267:G:C1'	33:L1:267:G:O4'	1.77	1.15
33:L1:563:C:C1'	33:L1:563:C:O4'	1.73	1.15
33:L1:636:C:O4'	33:L1:636:C:C1'	1.64	1.15
33:L1:1078:U:C1'	33:L1:1078:U:O4'	1.66	1.15
33:L1:3035:C:O4'	33:L1:3035:C:C1'	1.64	1.15
14:SP:54:TYR:C	46:LT:144:LYS:NZ	2.01	1.15
14:SP:124:VAL:C	46:LT:165:LYS:CG	2.19	1.15
3:SB:116:ARG:HH21	5:SE:161:HIS:CD2	1.64	1.14
31:S2:26:G:C8	33:L1:2260:C:C5'	2.30	1.14
32:S1:992:G:C5'	37:LB:149:LYS:HZ1	1.50	1.14
67:LS:12:VAL:HA	78:Le:74:LYS:HB3	1.20	1.14
32:S1:989:G:H5'	37:LB:173:GLY:HA2	1.23	1.14
33:L1:1179:C:O2'	82:LK:94:PRO:HD3	1.46	1.14
33:L1:1365:C:P	81:LD:337:PHE:CE1	2.41	1.14
33:L1:2290:A:C1'	33:L1:2290:A:O4'	1.73	1.14
35:L2:38:U:C4'	57:Ll:72:ARG:NH2	2.10	1.14
11:SM:14:ARG:HD2	38:LE:109:GLN:HG2	1.25	1.14
14:SP:93:HIS:C	46:LT:151:ARG:HG3	1.71	1.14
17:SV:95:VAL:O	17:SV:96:HIS:CG	2.01	1.14
31:S2:71:A:H5'	33:L1:2971:A:H1'	1.19	1.14
32:S1:138:C:C1'	32:S1:138:C:O4'	1.67	1.14
33:L1:99:A:C5'	42:LP:182:HIS:CE1	2.30	1.14
33:L1:2753:C:C1'	33:L1:2753:C:O4'	1.71	1.14
33:L1:3005:C:C1'	33:L1:3005:C:O4'	1.63	1.14
75:Lu:6:VAL:N	76:Lw:12:LEU:HD21	1.63	1.14
1:Sa:209:LEU:HD12	1:Sa:253:ASN:OD1	1.48	1.14
5:SE:142:LYS:HE3	32:S1:1304:A:H5'	1.17	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:SO:90:PHE:CE1	54:Lf:20:LEU:HD22	1.82	1.14
12:SO:103:GLU:HB2	54:Lf:80:ASP:OD2	1.48	1.14
26:SG:128:UNK:C	32:S1:642:C:H1'	1.74	1.14
31:S2:72:G:C3'	33:L1:2972:C:OP1	1.94	1.14
32:S1:1129:A:H4'	83:Lm:24:LYS:CE	1.76	1.14
33:L1:69:U:C1'	33:L1:69:U:O4'	1.67	1.14
33:L1:2396:A:C1'	33:L1:2396:A:O4'	1.63	1.14
12:SO:58:HIS:HB2	54:Lf:23:LYS:HZ1	1.05	1.14
21:Sc:24:UNK:CB	33:L1:1920:U:O3'	1.96	1.14
33:L1:883:G:C8	48:LV:133:ALA:HB1	1.83	1.14
33:L1:3218:C:C1'	33:L1:3218:C:O4'	1.67	1.14
35:L2:138:G:C1'	35:L2:138:G:O4'	1.71	1.14
5:SE:31:ARG:NE	27:SH:67:GLY:HA3	1.63	1.13
5:SE:258:LYS:HZ2	27:SH:69:LEU:HD12	0.98	1.13
12:SO:124:ARG:NH1	33:L1:849:A:O2'	1.80	1.13
32:S1:888:U:OP2	83:Lm:89:GLN:OE1	1.61	1.13
33:L1:1394:C:O4'	33:L1:1394:C:C1'	1.65	1.13
33:L1:2984:A:C1'	33:L1:2984:A:O4'	1.68	1.13
75:Lt:10:LEU:HD11	76:Lv:8:LEU:HD12	1.19	1.13
31:S2:26:G:C1'	33:L1:2260:C:O4'	1.96	1.13
32:S1:376:G:C1'	32:S1:376:G:O4'	1.95	1.13
32:S1:859:U:C5'	46:LT:180:ARG:CB	2.25	1.13
32:S1:989:G:OP1	37:LB:175:THR:HB	0.96	1.13
33:L1:227:C:C1'	33:L1:227:C:O4'	1.72	1.13
33:L1:665:G:C1'	33:L1:665:G:O4'	1.72	1.13
2:SA:109:PRO:O	2:SA:110:GLY:N	1.79	1.13
12:SO:107:LYS:HB2	54:Lf:78:ASN:ND2	1.64	1.13
17:SV:48:TYR:CE1	17:SV:81:ILE:CG2	2.26	1.13
32:S1:1745:U:H5'	33:L1:1931:G:C5'	1.65	1.13
32:S1:1748:U:P	33:L1:1916:U:O2'	2.06	1.13
33:L1:1333:C:OP1	71:Lj:56:VAL:CG1	1.97	1.13
84:LI:110:ARG:CG	84:LI:116:ARG:CG	2.14	1.13
5:SE:142:LYS:NZ	32:S1:1304:A:H5''	1.63	1.13
25:SC:10:LYS:CD	32:S1:505:U:O5'	1.96	1.13
27:SH:64:GLU:C	27:SH:65:LEU:HG	1.74	1.13
32:S1:860:A:N9	46:LT:173:LYS:CB	2.12	1.13
32:S1:1747:A:C5'	33:L1:1930:G:C5	2.18	1.13
33:L1:1564:C:C1'	33:L1:1564:C:O4'	1.77	1.13
35:L2:98:C:C1'	35:L2:98:C:O4'	1.94	1.13
41:LM:91:LYS:HZ3	80:LC:72:THR:CB	1.53	1.13
66:LN:41:PRO:CG	66:LN:75:MET:CG	2.10	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:LD:378:GLY:O	81:LD:382:TYR:CD2	1.99	1.13
12:SO:150:VAL:HG11	33:L1:1714:A:H1'	1.13	1.12
26:SG:11:UNK:O	26:SG:12:UNK:CA	1.94	1.13
26:SG:128:UNK:CA	32:S1:642:C:C1'	2.19	1.13
14:SP:95:VAL:HG23	46:LT:152:GLU:HB2	1.23	1.12
26:SG:5:UNK:HA	46:LT:189:CYS:HA	1.28	1.12
32:S1:349:U:H4'	46:LT:141:SER:OG	1.46	1.12
33:L1:543:C:C1'	33:L1:543:C:O4'	1.72	1.12
78:Le:36:LYS:HA	81:LD:358:LYS:HE3	1.17	1.12
5:SE:258:LYS:HE2	27:SH:69:LEU:HB2	1.25	1.12
31:S2:75:A:C5'	33:L1:2956:U:H1'	1.71	1.12
32:S1:1783:C:C1'	32:S1:1783:C:O4'	1.84	1.12
33:L1:689:G:OP1	65:LL:40:UNK:CB	1.96	1.12
33:L1:3227:U:C1'	33:L1:3227:U:O4'	1.98	1.12
36:LA:57:ILE:HD11	36:LA:179:GLN:HB3	1.31	1.12
10:SL:98:GLU:HG2	10:SL:99:VAL:HG23	1.31	1.12
14:SP:124:VAL:CA	46:LT:165:LYS:CB	2.26	1.12
17:SV:96:HIS:HD2	17:SV:101:ILE:CA	1.60	1.12
31:S2:75:A:H5''	33:L1:2956:U:O4'	1.47	1.12
32:S1:928:A:OP1	37:LB:109:GLU:OE2	1.67	1.12
32:S1:1747:A:H1'	33:L1:1915:G:C4	1.84	1.12
33:L1:99:A:C5'	42:LP:182:HIS:ND1	2.12	1.12
33:L1:3357:C:C1'	33:L1:3357:C:O4'	1.68	1.12
32:S1:956:A:N9	54:Lf:9:LYS:HE3	1.64	1.12
33:L1:291:C:O3'	72:Lk:68:LYS:HE2	1.49	1.12
33:L1:634:A:O2'	71:Lj:69:ARG:CZ	1.98	1.12
33:L1:1364:C:C1'	81:LD:333:LEU:HD22	1.78	1.12
12:SO:109:LYS:HZ3	83:Lm:77:VAL:CG1	1.50	1.12
33:L1:1181:A:OP1	71:Lj:72:TRP:CZ3	2.03	1.12
33:L1:1755:A:O4'	33:L1:1755:A:C1'	1.66	1.12
33:L1:2149:G:OP1	37:LB:241:ARG:HD3	0.94	1.12
64:LG:49:LYS:O	64:LG:50:PHE:CA	1.96	1.12
81:LD:366:LEU:O	81:LD:370:GLU:CG	1.98	1.12
9:SK:116:ARG:CZ	9:SK:129:GLU:OE2	1.98	1.11
31:S2:72:G:C4'	33:L1:2972:C:H5''	1.79	1.11
33:L1:1612:C:C1'	33:L1:1612:C:O4'	1.67	1.11
33:L1:1628:G:C1'	33:L1:1628:G:O4'	1.73	1.11
12:SO:107:LYS:HD2	54:Lf:78:ASN:ND2	1.66	1.11
27:SH:94:LEU:HD22	27:SH:95:PRO:HD3	1.12	1.11
32:S1:1746:U:C6	33:L1:1931:G:H1'	1.85	1.11
33:L1:1364:C:C3'	81:LD:337:PHE:CZ	2.32	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1574:C:C1'	33:L1:1574:C:O4'	1.64	1.11
33:L1:2157:C:OP1	37:LB:231:PRO:HB3	1.49	1.11
34:L3:28:U:H1'	34:L3:54:A:H61	1.13	1.11
81:LD:383:LYS:O	81:LD:386:ILE:CG1	1.96	1.11
14:SP:93:HIS:CE1	33:L1:2080:G:H4'	1.73	1.11
17:SV:95:VAL:HA	17:SV:101:ILE:HD13	1.25	1.11
31:S2:12:U:H5'	33:L1:2246:G:C6	1.78	1.11
44:LR:40:THR:OG1	81:LD:325:LYS:CD	1.99	1.11
2:SA:72:ILE:HG13	5:SE:66:TYR:CZ	1.84	1.11
7:SI:133:LYS:HZ1	32:S1:1592:G:C4'	1.54	1.11
12:SO:57:GLN:HA	54:Lf:100:GLY:O	0.94	1.11
13:SQ:59:ARG:HH11	32:S1:1225:A:H1'	1.07	1.11
14:SP:41:LEU:HD12	14:SP:103:LYS:HD3	1.33	1.11
32:S1:321:C:OP2	33:L1:855:U:H4'	1.46	1.11
32:S1:988:G:O2'	37:LB:173:GLY:HA3	1.45	1.11
36:LA:137:VAL:HG12	36:LA:139:HIS:H	1.16	1.11
38:LE:14:ILE:HD11	38:LE:133:LEU:HB3	1.23	1.11
11:SM:14:ARG:NH1	38:LE:109:GLN:HB2	1.60	1.11
33:L1:426:A:H5''	56:Lh:16:LYS:HE2	1.13	1.11
33:L1:628:C:C1'	33:L1:628:C:O4'	1.69	1.11
33:L1:2628:C:C1'	33:L1:2628:C:O4'	1.88	1.11
33:L1:3344:U:O4'	33:L1:3344:U:C1'	1.64	1.11
76:Lv:40:GLU:C	79:Ls:99:LYS:HZ3	1.41	1.11
12:SO:58:HIS:HB2	54:Lf:23:LYS:NZ	1.66	1.10
12:SO:99:ARG:O	54:Lf:80:ASP:CG	1.94	1.10
32:S1:632:G:H1'	33:L1:849:A:H1'	1.24	1.10
32:S1:843:G:C2	33:L1:2063:U:H5	1.69	1.10
32:S1:989:G:H5''	33:L1:2172:C:C2	1.79	1.10
32:S1:1663:A:H5'	33:L1:1919:C:H5'	1.27	1.10
33:L1:2158:C:OP1	37:LB:8:GLN:NE2	1.80	1.10
2:SA:120:PHE:CE1	5:SE:102:GLY:HA3	1.87	1.10
12:SO:103:GLU:CB	54:Lf:80:ASP:OD1	1.98	1.10
17:SV:100:LEU:O	17:SV:101:ILE:CG1	1.99	1.10
32:S1:187:C:C4	32:S1:188:U:C4	2.38	1.10
32:S1:1736:C:OP1	33:L1:2103:U:C6	2.04	1.10
33:L1:180:G:OP1	35:L2:98:C:N4	1.83	1.10
33:L1:1694:A:H5''	73:Lp:32:VAL:CG2	1.81	1.10
69:La:28:VAL:HG23	69:La:31:GLU:HA	1.33	1.10
14:SP:92:LEU:HD22	46:LT:151:ARG:NH1	1.64	1.10
32:S1:956:A:OP2	54:Lf:9:LYS:CG	1.97	1.10
64:LG:185:ASP:CB	64:LG:185:ASP:O	1.98	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:Lt:10:LEU:HD11	76:Lv:8:LEU:CD1	1.73	1.10
2:SA:114:ASN:HD21	32:S1:1298:G:H1'	1.04	1.10
11:SM:14:ARG:CZ	38:LE:109:GLN:OE1	1.98	1.10
14:SP:89:ARG:HE	46:LT:151:ARG:NH1	1.47	1.10
25:SC:10:LYS:HD3	32:S1:505:U:C5'	1.81	1.10
25:SC:10:LYS:HE2	32:S1:505:U:P	1.91	1.10
27:SH:14:MET:HE2	27:SH:22:LYS:HB3	1.22	1.10
33:L1:242:U:C1'	33:L1:242:U:O4'	1.70	1.10
33:L1:425:G:C1'	33:L1:425:G:O4'	1.64	1.10
33:L1:2585:C:C1'	33:L1:2585:C:O4'	1.71	1.10
82:LK:135:GLN:CB	82:LK:135:GLN:O	1.97	1.10
3:SB:153:LYS:CD	3:SB:153:LYS:NZ	2.15	1.10
4:SD:208:ILE:HG21	4:SD:225:VAL:HG21	1.32	1.10
10:SL:84:VAL:HG23	10:SL:85:PRO:HA	1.30	1.10
12:SO:107:LYS:HB2	54:Lf:78:ASN:HD21	1.09	1.10
32:S1:927:A:H4'	37:LB:140:ASN:CG	1.64	1.10
33:L1:1179:C:O2'	82:LK:94:PRO:CD	2.00	1.10
33:L1:1364:C:H1'	81:LD:333:LEU:HD22	1.20	1.10
76:Lv:40:GLU:C	79:Ls:99:LYS:HZ2	1.47	1.10
25:SC:10:LYS:CE	32:S1:505:U:P	2.40	1.09
32:S1:927:A:H4'	37:LB:140:ASN:ND2	0.77	1.09
36:LA:55:PRO:HG3	36:LA:186:VAL:HG11	1.27	1.09
41:LM:91:LYS:HZ3	80:LC:72:THR:HB	1.15	1.09
2:SA:64:LEU:HD12	5:SE:44:TRP:CD1	1.57	1.09
5:SE:142:LYS:HZ1	32:S1:1304:A:H5''	1.02	1.09
5:SE:258:LYS:NZ	27:SH:69:LEU:HD12	1.66	1.09
6:SF:78:ASN:O	32:S1:1479:U:C6	2.06	1.09
12:SO:99:ARG:HB3	54:Lf:83:THR:OG1	1.50	1.09
12:SO:109:LYS:HZ1	83:Lm:77:VAL:HG13	0.99	1.09
32:S1:977:G:H5''	33:L1:851:A:N1	1.46	1.09
33:L1:237:C:C1'	33:L1:237:C:O4'	1.86	1.09
33:L1:656:G:C1'	33:L1:656:G:O4'	1.64	1.09
48:LV:114:TYR:CE1	48:LV:155:GLU:CG	2.36	1.09
78:Le:40:ALA:HA	81:LD:362:LYS:CE	1.82	1.09
5:SE:258:LYS:HE2	27:SH:69:LEU:CB	1.75	1.09
6:SF:80:GLY:N	32:S1:1479:U:C6	2.19	1.09
17:SV:63:PRO:HG2	17:SV:66:LEU:CG	1.82	1.09
27:SH:94:LEU:CD2	27:SH:95:PRO:CD	2.30	1.09
32:S1:977:G:C4'	33:L1:848:G:H1'	1.82	1.09
32:S1:1663:A:H3'	33:L1:1918:A:C1'	1.75	1.09
33:L1:1181:A:C5'	71:Lj:70:CYS:HB3	1.82	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:74:ASN:OD1	5:SE:66:TYR:CE2	2.06	1.09
12:SO:97:ALA:CB	54:Lf:19:GLN:HB2	1.81	1.09
14:SP:92:LEU:CA	46:LT:151:ARG:NH2	2.15	1.09
31:S2:72:G:C5'	33:L1:2972:C:P	2.35	1.09
33:L1:1181:A:C5'	71:Lj:70:CYS:CB	2.31	1.09
37:LB:96:LEU:CD2	83:Lm:83:ILE:CG2	2.18	1.09
55:Lg:15:VAL:H	55:Lg:86:LYS:HG3	1.11	1.09
75:Lt:18:ASP:CG	76:Lv:30:VAL:HG11	1.75	1.09
75:Lu:7:ALA:HA	76:Lw:9:LEU:HD12	1.20	1.09
1:Sa:346:ARG:NH1	32:S1:1398:U:H5''	0.76	1.09
11:SM:14:ARG:HB2	38:LE:111:HIS:ND1	1.68	1.09
31:S2:72:G:O5'	33:L1:2972:C:C5'	2.00	1.09
81:LD:338:GLY:O	81:LD:342:LYS:HG3	0.93	1.09
3:SB:44:MET:HB3	3:SB:82:ASN:HD21	1.17	1.08
5:SE:30:ARG:CD	27:SH:67:GLY:H	1.65	1.08
5:SE:258:LYS:HE2	27:SH:69:LEU:CA	1.82	1.08
21:Sc:25:UNK:CB	33:L1:2318:U:C1'	2.29	1.08
34:L3:15:C:C1'	34:L3:15:C:O4'	1.71	1.08
15:SS:2:ALA:CB	32:S1:1364:C:O4'	2.01	1.08
25:SC:10:LYS:CE	32:S1:505:U:O5'	2.02	1.08
31:S2:69:G:O2'	33:L1:2966:G:OP1	1.68	1.08
32:S1:764:U:OP2	32:S1:764:U:OP1	1.70	1.08
33:L1:2647:C:O2	84:LI:115:MET:HE2	1.48	1.08
71:Lj:72:TRP:CE2	82:LK:30:LYS:HE3	1.86	1.08
75:Lt:10:LEU:HG	76:Lv:8:LEU:HD13	1.30	1.08
6:SF:56:ARG:CD	19:SY:50:ASP:CG	2.25	1.08
12:SO:90:PHE:CE1	54:Lf:20:LEU:CB	2.20	1.08
14:SP:121:GLY:HA3	46:LT:162:LYS:NZ	1.57	1.08
25:SC:171:PRO:CD	25:SC:171:PRO:CA	2.31	1.08
26:SG:128:UNK:CA	32:S1:642:C:O4'	2.00	1.08
32:S1:956:A:N7	54:Lf:9:LYS:HB3	1.68	1.08
32:S1:1745:U:H5''	33:L1:1931:G:H5''	1.13	1.08
32:S1:1747:A:O3'	33:L1:1916:U:H1'	1.50	1.08
33:L1:271:G:C2'	72:Lk:66:VAL:HG22	1.83	1.08
33:L1:1183:C:OP1	71:Lj:11:LEU:HD11	1.54	1.08
36:LA:69:ASP:HB3	36:LA:79:MET:HE2	1.33	1.08
75:Lt:14:ILE:HD11	76:Lv:2:LYS:HA	1.27	1.08
78:Le:36:LYS:HB3	81:LD:358:LYS:HG3	1.25	1.08
11:SM:14:ARG:NH1	38:LE:109:GLN:CD	2.11	1.08
14:SP:90:ASN:O	33:L1:2081:C:H5''	1.48	1.08
15:SS:2:ALA:HB1	32:S1:1363:G:O2'	1.53	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1685:U:O2'	33:L1:3334:A:H5''	1.50	1.08
35:L2:140:G:C5'	49:LX:66:LYS:HD2	1.83	1.08
66:LN:129:LYS:HE2	82:LK:182:LEU:HD21	1.21	1.08
2:SA:64:LEU:CD1	5:SE:44:TRP:CG	2.13	1.08
3:SB:153:LYS:HZ3	3:SB:153:LYS:HG3	1.10	1.08
5:SE:30:ARG:HD3	27:SH:67:GLY:C	1.78	1.08
7:SI:133:LYS:CE	32:S1:1592:G:H5'	1.79	1.08
32:S1:956:A:P	54:Lf:12:GLU:CB	2.39	1.08
32:S1:1758:G:OP1	33:L1:2298:A:C5'	2.00	1.08
33:L1:1867:U:OP2	46:LT:56:LYS:NZ	1.86	1.08
35:L2:64:U:C1'	35:L2:64:U:O4'	1.72	1.08
68:LW:28:SER:O	68:LW:29:LYS:CA	2.02	1.08
73:Lp:52:LYS:O	73:Lp:53:ASN:CA	2.02	1.08
75:Lu:10:LEU:HD21	76:Lw:8:LEU:HD11	1.23	1.08
17:SV:101:ILE:HG22	17:SV:102:TYR:H	1.10	1.07
25:SC:10:LYS:NZ	32:S1:505:U:C5'	2.16	1.07
31:S2:11:U:O2'	33:L1:2260:C:N3	1.85	1.07
32:S1:1747:A:H4'	33:L1:1915:G:N2	1.66	1.07
32:S1:1748:U:OP1	33:L1:1928:A:N7	1.87	1.07
35:L2:38:U:C4'	57:Ll:72:ARG:HH21	1.65	1.07
48:LV:114:TYR:CD1	48:LV:155:GLU:CG	2.37	1.07
2:SA:72:ILE:CG1	5:SE:66:TYR:HE1	1.56	1.07
12:SO:57:GLN:N	54:Lf:101:ASP:CA	2.12	1.07
16:SR:142:ILE:HG23	32:S1:1188:A:H61	1.01	1.07
32:S1:979:A:OP2	33:L1:851:A:O2'	1.69	1.07
32:S1:1642:C:C1'	32:S1:1642:C:O4'	1.75	1.07
32:S1:1737:A:OP1	33:L1:2102:C:C5	2.07	1.07
32:S1:1745:U:H5'	33:L1:1931:G:H5''	1.20	1.07
33:L1:1241:G:N2	33:L1:1255:A:N7	2.01	1.07
33:L1:1694:A:H5''	73:Lp:32:VAL:HG23	1.08	1.07
33:L1:1804:G:C1'	33:L1:1804:G:O4'	1.87	1.07
66:LN:41:PRO:HG2	66:LN:75:MET:HE2	1.18	1.07
66:LN:64:ARG:HH12	67:LS:151:PHE:HB3	1.16	1.07
5:SE:31:ARG:HE	27:SH:67:GLY:HA2	1.06	1.07
25:SC:10:LYS:NZ	32:S1:505:U:P	2.27	1.07
26:SG:9:UNK:N	46:LT:188:SER:HB3	1.70	1.07
27:SH:15:TYR:CD2	27:SH:65:LEU:CD2	2.37	1.07
30:S3:13:A:N6	32:S1:1157:A:OP1	1.88	1.07
32:S1:999:G:O2'	37:LB:246:LEU:CD2	2.03	1.07
33:L1:291:C:O2'	72:Lk:68:LYS:HG3	1.54	1.07
33:L1:1218:U:H5'	67:LS:93:TYR:O	0.90	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L3:113:G:H4'	45:LQ:71:ALA:HB1	1.23	1.07
43:LO:142:LEU:O	65:LL:144:UNK:CB	2.02	1.07
81:LD:330:VAL:HG12	81:LD:331:LEU:HG	1.36	1.07
81:LD:383:LYS:O	81:LD:386:ILE:CD1	2.02	1.07
84:LI:110:ARG:CG	84:LI:116:ARG:HG3	1.80	1.07
9:SK:39:THR:HG21	9:SK:103:LYS:HD2	1.31	1.07
31:S2:72:G:C1'	33:L1:2972:C:H5''	1.84	1.07
33:L1:1478:A:H4'	55:Lg:65:LYS:HD3	1.29	1.07
33:L1:1880:A:H2'	33:L1:1881:C:H5'	1.30	1.07
33:L1:3143:A:C1'	33:L1:3143:A:O4'	1.76	1.07
34:L3:6:C:OP1	45:LQ:31:LYS:NZ	1.85	1.07
48:LV:114:TYR:CZ	48:LV:155:GLU:CG	2.37	1.07
84:LI:110:ARG:NE	84:LI:116:ARG:CB	2.17	1.07
5:SE:31:ARG:NE	27:SH:67:GLY:HA2	1.61	1.07
9:SK:81:ALA:HB2	9:SK:111:ALA:HB1	1.34	1.07
15:SS:9:VAL:HG21	15:SS:135:ASP:CB	1.85	1.07
25:SC:10:LYS:NZ	32:S1:505:U:OP1	1.87	1.07
26:SG:128:UNK:CB	26:SG:135:UNK:CB	2.33	1.07
32:S1:1128:C:OP1	83:Lm:28:LYS:HE2	1.55	1.07
33:L1:1035:C:C1'	33:L1:1035:C:O4'	1.75	1.07
33:L1:1551:C:C1'	33:L1:1551:C:O4'	1.77	1.07
48:LV:41:LEU:HD13	48:LV:100:GLU:HG2	1.30	1.07
29:ST:82:GLN:HB3	33:L1:2540:C:O2'	1.44	1.06
32:S1:991:G:OP1	37:LB:133:TYR:O	1.73	1.06
33:L1:707:G:C1'	33:L1:707:G:O4'	1.71	1.06
56:Lh:77:VAL:HG23	56:Lh:82:GLU:HB2	1.35	1.06
66:LN:64:ARG:HD3	67:LS:154:VAL:HG21	1.37	1.06
75:Lt:17:ASP:OD2	76:Lv:1:MET:HA	1.42	1.06
2:SA:72:ILE:CB	5:SE:66:TYR:HE1	1.59	1.06
5:SE:142:LYS:CE	32:S1:1304:A:C5'	2.32	1.06
12:SO:57:GLN:N	54:Lf:101:ASP:HA	1.39	1.06
14:SP:98:TYR:HE1	46:LT:155:LEU:HD21	1.08	1.06
31:S2:26:G:H1'	33:L1:2260:C:O4'	1.52	1.06
32:S1:861:A:N7	46:LT:171:GLU:CD	2.13	1.06
33:L1:288:G:H5''	42:LP:98:LYS:HE3	1.06	1.06
33:L1:430:G:OP1	71:Lj:22:ARG:HG3	1.55	1.06
37:LB:96:LEU:HD23	37:LB:166:ILE:HD13	1.38	1.06
12:SO:90:PHE:CE1	54:Lf:20:LEU:CD2	2.37	1.06
14:SP:104:ARG:NH2	32:S1:113:A:C1'	2.18	1.06
17:SV:48:TYR:CE1	17:SV:81:ILE:CA	2.39	1.06
23:SU:10:VAL:HG22	23:SU:33:LEU:O	1.55	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:701:C:OP1	32:S1:701:C:OP2	1.70	1.06
33:L1:3327:A:C1'	33:L1:3327:A:O4'	1.67	1.06
31:S2:69:G:C2'	33:L1:2965:C:O3'	2.03	1.06
33:L1:1549:A:C1'	33:L1:1549:A:O4'	1.93	1.06
65:LL:54:UNK:O	65:LL:55:UNK:CA	2.04	1.06
6:SF:99:LEU:HD11	17:SV:66:LEU:HD13	1.19	1.06
31:S2:75:A:C5'	33:L1:2956:U:C1'	2.22	1.06
32:S1:823:A:OP2	32:S1:823:A:OP1	1.70	1.06
32:S1:1673:C:O2'	33:L1:1914:C:O4'	1.73	1.06
32:S1:1737:A:OP1	33:L1:2102:C:C6	2.09	1.06
33:L1:1206:A:H4'	34:L3:88:U:H1'	1.28	1.06
78:Le:36:LYS:HB3	81:LD:358:LYS:CG	1.85	1.06
7:SI:133:LYS:HE3	32:S1:1592:G:O3'	1.56	1.05
14:SP:122:ASP:O	46:LT:162:LYS:HG3	0.88	1.05
32:S1:929:A:C4'	37:LB:137:ILE:HG13	1.86	1.05
32:S1:1747:A:H5'	33:L1:1930:G:N7	1.23	1.05
75:Lu:6:VAL:HA	76:Lw:12:LEU:CD2	1.82	1.05
11:SM:12:ILE:HG21	38:LE:120:PRO:O	1.56	1.05
15:SS:9:VAL:CG2	15:SS:135:ASP:HA	1.86	1.05
21:Sc:24:UNK:O	33:L1:1920:U:C4'	2.04	1.05
26:SG:4:UNK:O	46:LT:187:ARG:O	1.72	1.05
32:S1:119:U:O2	32:S1:303:A:C2	2.09	1.05
32:S1:823:A:OP2	46:LT:169:SER:HB2	1.57	1.05
32:S1:843:G:O2'	33:L1:2061:C:C2'	2.04	1.05
32:S1:956:A:O4'	54:Lf:9:LYS:CE	2.04	1.05
32:S1:1129:A:H4'	83:Lm:24:LYS:HE2	1.09	1.05
5:SE:258:LYS:HZ2	27:SH:69:LEU:CD1	1.69	1.05
25:SC:106:PHE:CD1	32:S1:670:C:O2	2.09	1.05
31:S2:3:C:O4'	33:L1:2625:C:C5'	2.04	1.05
31:S2:11:U:C1'	33:L1:2260:C:N3	2.14	1.05
32:S1:320:A:O5'	33:L1:854:C:H4'	1.51	1.05
32:S1:956:A:C1'	54:Lf:9:LYS:HZ1	1.51	1.05
33:L1:830:A:O2'	73:Lp:52:LYS:HB3	1.54	1.05
33:L1:2196:G:H21	37:LB:224:THR:HG21	1.19	1.05
48:LV:114:TYR:CG	48:LV:155:GLU:CG	2.39	1.05
2:SA:72:ILE:HG13	5:SE:66:TYR:CE1	1.83	1.05
14:SP:60:PRO:HB2	33:L1:2083:U:OP1	0.90	1.05
33:L1:99:A:H5'	42:LP:182:HIS:CG	1.91	1.05
33:L1:2216:G:C5	72:Lk:77:LYS:HE2	1.77	1.05
33:L1:2650:A:OP2	84:LI:119:PHE:CE1	2.09	1.05
76:Lv:40:GLU:HG2	79:Ls:99:LYS:CE	1.87	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:SP:122:ASP:H	46:LT:162:LYS:NZ	1.55	1.05
33:L1:292:A:H5''	72:Lk:68:LYS:NZ	1.71	1.05
36:LA:87:GLU:HG2	36:LA:91:LYS:HD3	1.33	1.05
38:LE:91:TYR:CD2	38:LE:92:GLU:CB	2.40	1.05
66:LN:110:VAL:HG13	82:LK:201:LEU:HD23	1.06	1.05
75:Lu:7:ALA:O	76:Lw:9:LEU:CD1	2.03	1.05
6:SF:56:ARG:HD3	19:SY:50:ASP:HB3	1.38	1.04
17:SV:48:TYR:OH	17:SV:84:LEU:HD12	1.56	1.04
32:S1:896:C:H5''	37:LB:255:ALA:H	0.99	1.04
32:S1:1758:G:P	33:L1:2298:A:H5''	1.96	1.04
33:L1:634:A:OP1	82:LK:98:ALA:HB3	1.57	1.04
35:L2:155:G:C1'	35:L2:155:G:O4'	1.66	1.04
55:Lg:81:VAL:HG11	55:Lg:94:LYS:HE2	1.39	1.04
12:SO:97:ALA:HB2	54:Lf:19:GLN:HB2	1.33	1.04
26:SG:128:UNK:HA	32:S1:642:C:H4'	1.09	1.04
32:S1:329:G:N2	33:L1:2085:A:O5'	1.73	1.04
32:S1:956:A:H61	54:Lf:7:ALA:HB1	0.91	1.04
36:LA:87:GLU:HA	36:LA:91:LYS:HD2	1.33	1.04
48:LV:15:SER:HB3	48:LV:151:LEU:HD12	1.35	1.04
48:LV:127:ARG:HD2	48:LV:141:MET:HE3	1.35	1.04
66:LN:129:LYS:HE2	82:LK:182:LEU:CD2	1.86	1.04
9:SK:109:PRO:HD2	9:SK:112:GLN:HB2	1.33	1.04
9:SK:116:ARG:NE	9:SK:129:GLU:OE1	1.90	1.04
24:SX:70:GLY:HA2	32:S1:877:G:C5'	1.87	1.04
32:S1:354:G:N1	33:L1:847:G:C4'	2.20	1.04
32:S1:1129:A:O4'	83:Lm:24:LYS:CD	2.04	1.04
32:S1:1673:C:O2'	33:L1:1914:C:H4'	1.58	1.04
4:SD:199:GLU:OE1	32:S1:687:C:O2'	1.76	1.04
14:SP:92:LEU:HD22	46:LT:151:ARG:HH12	0.91	1.04
14:SP:122:ASP:C	46:LT:162:LYS:HG3	1.81	1.04
32:S1:1674:C:C5'	33:L1:1913:C:O2'	2.06	1.04
32:S1:1685:U:O2'	33:L1:3334:A:C5'	2.06	1.04
34:L3:116:U:C5'	45:LQ:80:TYR:OH	2.04	1.04
38:LE:91:TYR:CD1	38:LE:92:GLU:CB	2.39	1.04
75:Lt:14:ILE:HD11	76:Lv:2:LYS:CA	1.86	1.04
17:SV:63:PRO:HG2	17:SV:66:LEU:HG	1.31	1.04
33:L1:289:C:P	42:LP:98:LYS:HZ1	1.78	1.04
5:SE:197:LEU:CD2	32:S1:1092:A:OP1	2.06	1.03
12:SO:57:GLN:CB	54:Lf:100:GLY:C	2.06	1.03
31:S2:13:U:O3'	33:L1:2263:U:C6	2.10	1.03
6:SF:78:ASN:O	32:S1:1479:U:C5	2.09	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:SM:14:ARG:CD	38:LE:109:GLN:CD	2.30	1.03
26:SG:11:UNK:N	26:SG:11:UNK:O	1.89	1.03
31:S2:12:U:O2'	33:L1:2261:U:N3	1.67	1.03
33:L1:2148:U:H4'	37:LB:240:ALA:CB	1.88	1.03
36:LA:43:GLN:HB2	36:LA:195:LYS:HE2	1.34	1.03
75:Lt:6:VAL:CA	76:Lv:12:LEU:CD2	2.35	1.03
14:SP:71:ILE:CD1	27:SH:84:LYS:HE2	1.88	1.03
26:SG:11:UNK:C	26:SG:12:UNK:CA	2.35	1.03
31:S2:13:U:OP1	33:L1:2244:G:C2	2.11	1.03
32:S1:1698:A:N1	32:S1:1721:A:N1	2.06	1.03
32:S1:1745:U:H5'	33:L1:1931:G:P	1.96	1.03
33:L1:640:C:C1'	33:L1:640:C:O4'	1.88	1.03
38:LE:91:TYR:CG	38:LE:92:GLU:CB	2.41	1.03
41:LM:96:MET:HE3	50:LZ:22:ARG:HB3	1.39	1.03
75:Lt:6:VAL:C	76:Lv:12:LEU:HD22	1.80	1.03
75:Lt:6:VAL:N	76:Lv:12:LEU:HD21	1.73	1.03
31:S2:74:C:C1'	33:L1:2404:C:C5'	2.37	1.03
32:S1:929:A:O4'	37:LB:137:ILE:CG1	2.05	1.03
33:L1:428:G:O3'	71:Lj:95:PRO:HA	1.56	1.03
33:L1:1034:U:H2'	33:L1:1035:C:O4'	1.56	1.03
36:LA:55:PRO:HB3	36:LA:186:VAL:HG21	1.38	1.03
38:LE:91:TYR:CE2	38:LE:92:GLU:CB	2.41	1.03
43:LO:142:LEU:HB3	65:LL:118:UNK:CB	1.88	1.03
17:SV:40:SER:HB2	17:SV:44:ASP:OD2	1.56	1.03
32:S1:861:A:N6	46:LT:171:GLU:CG	2.22	1.03
71:Lj:90:ARG:NH1	82:LK:34:ASN:CA	2.22	1.03
7:SI:133:LYS:HE2	32:S1:1592:G:H5'	1.04	1.02
14:SP:90:ASN:O	33:L1:2081:C:C3'	2.01	1.02
15:SS:2:ALA:HB2	32:S1:1364:C:C5'	1.89	1.02
32:S1:956:A:C1'	54:Lf:9:LYS:CE	2.37	1.02
32:S1:1663:A:H3'	33:L1:1918:A:H1'	1.05	1.02
33:L1:563:C:P	64:LG:2:ALA:HB3	1.98	1.02
34:L3:85:G:H4'	67:LS:120:PHE:CE1	1.93	1.02
41:LM:91:LYS:NZ	80:LC:72:THR:HB	1.70	1.02
44:LR:41:LYS:HB2	81:LD:325:LYS:CE	1.89	1.02
27:SH:64:GLU:O	27:SH:65:LEU:HG	0.86	1.02
33:L1:3334:A:C1'	33:L1:3334:A:O4'	1.81	1.02
38:LE:91:TYR:CZ	38:LE:92:GLU:CB	2.41	1.02
75:Lt:10:LEU:CD2	76:Lv:8:LEU:CD1	2.35	1.02
5:SE:31:ARG:CZ	27:SH:67:GLY:HA3	1.89	1.02
14:SP:56:ASP:CA	46:LT:123:MET:HE2	1.85	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:SU:29:VAL:HA	23:SU:78:PHE:CD1	1.95	1.02
32:S1:859:U:H5'	46:LT:180:ARG:HB2	1.41	1.02
32:S1:1024:A:C1'	83:Lm:73:THR:HA	1.89	1.02
35:L2:98:C:N4	57:Ll:73:ARG:HH21	1.55	1.02
14:SP:98:TYR:CE1	46:LT:155:LEU:CD2	2.42	1.02
14:SP:122:ASP:CA	46:LT:162:LYS:HD3	1.89	1.02
24:SX:72:LYS:HA	24:SX:72:LYS:HE3	1.39	1.02
32:S1:859:U:C4'	46:LT:180:ARG:HB2	1.88	1.02
48:LV:114:TYR:CD2	48:LV:155:GLU:CG	2.42	1.02
75:Lt:53:ARG:NH2	79:Ls:232:ILE:HG22	1.75	1.02
81:LD:332:LYS:O	81:LD:335:PRO:HD2	1.56	1.02
1:Sa:140:GLN:NE2	1:Sa:140:GLN:HB2	1.68	1.02
4:SD:153:ILE:O	4:SD:154:ILE:HG13	1.60	1.02
14:SP:89:ARG:CD	46:LT:151:ARG:CZ	2.38	1.02
15:SS:9:VAL:HA	15:SS:138:ALA:HB1	1.35	1.02
32:S1:956:A:C8	54:Lf:9:LYS:HE3	1.95	1.02
33:L1:1867:U:H5'	46:LT:57:ILE:O	1.59	1.02
38:LE:91:TYR:CE1	38:LE:92:GLU:CB	2.42	1.02
66:LN:64:ARG:HD3	67:LS:154:VAL:CG2	1.89	1.02
67:LS:56:SER:HB2	78:Le:123:LYS:NZ	1.74	1.02
75:Lt:14:ILE:HD12	76:Lv:2:LYS:HA	1.40	1.02
2:SA:64:LEU:CG	5:SE:44:TRP:NE1	2.11	1.01
2:SA:72:ILE:CD1	5:SE:66:TYR:CE1	2.43	1.01
32:S1:222:G:C8	33:L1:2063:U:O4'	2.12	1.01
32:S1:1735:C:O2	33:L1:3334:A:O2'	1.78	1.01
33:L1:99:A:C5'	42:LP:182:HIS:CG	2.43	1.01
33:L1:1320:G:O6	82:LK:131:VAL:HG11	1.59	1.01
44:LR:41:LYS:N	81:LD:325:LYS:CD	2.23	1.01
73:Lp:52:LYS:CB	73:Lp:52:LYS:O	2.05	1.01
76:Lv:40:GLU:CA	79:Ls:99:LYS:NZ	2.22	1.01
17:SV:63:PRO:CG	17:SV:66:LEU:CD1	2.37	1.01
32:S1:824:U:O4	46:LT:172:ARG:HD2	1.57	1.01
32:S1:860:A:H1'	46:LT:173:LYS:CG	1.75	1.01
32:S1:1746:U:N1	33:L1:1930:G:N2	1.91	1.01
32:S1:1747:A:H1'	33:L1:1915:G:H1'	1.41	1.01
33:L1:2147:U:O2	37:LB:237:LEU:HD21	1.60	1.01
75:Lt:18:ASP:OD2	76:Lv:30:VAL:HG11	0.84	1.01
6:SF:46:PRO:HG2	7:SI:65:ARG:HH21	1.25	1.01
14:SP:122:ASP:H	46:LT:162:LYS:CD	1.72	1.01
32:S1:977:G:O4'	33:L1:848:G:C1'	2.07	1.01
32:S1:978:A:N3	33:L1:849:A:C2	2.04	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1183:C:OP1	71:Lj:11:LEU:CD1	2.08	1.01
37:LB:96:LEU:HD21	83:Lm:83:ILE:HG23	1.41	1.01
43:LO:141:LEU:HD13	65:LL:144:UNK:O	1.60	1.01
81:LD:335:PRO:HD2	81:LD:336:TYR:H	1.25	1.01
14:SP:122:ASP:N	46:LT:162:LYS:NZ	2.09	1.01
31:S2:72:G:H5''	33:L1:2972:C:P	1.91	1.01
32:S1:348:A:H1'	33:L1:2085:A:H5'	1.43	1.01
33:L1:2059:C:O4'	33:L1:2059:C:C1'	1.80	1.01
4:SD:124:CYS:HA	4:SD:142:TYR:HE2	1.24	1.01
9:SK:93:HIS:O	9:SK:94:ILE:N	1.94	1.01
25:SC:106:PHE:CE1	32:S1:670:C:O2	2.14	1.01
26:SG:128:UNK:O	32:S1:642:C:O4'	1.79	1.01
32:S1:1685:U:C2'	33:L1:3334:A:H5''	1.90	1.01
34:L3:15:C:N4	34:L3:64:G:O6	1.92	1.01
34:L3:18:C:OP2	38:LE:153:HIS:HE1	1.44	1.01
44:LR:41:LYS:HB2	81:LD:325:LYS:HE2	1.41	1.01
81:LD:380:ALA:O	81:LD:384:THR:CG2	2.09	1.01
4:SD:86:PHE:HE1	4:SD:102:LEU:HD12	1.26	1.00
31:S2:72:G:O4'	33:L1:2972:C:H5''	1.60	1.00
32:S1:861:A:H62	46:LT:171:GLU:HG3	1.20	1.00
33:L1:271:G:H5'	72:Lk:65:LYS:HB3	1.43	1.00
33:L1:1406:C:H5''	56:Lh:67:TYR:O	1.60	1.00
14:SP:88:ARG:HH21	33:L1:2082:A:C3'	1.74	1.00
14:SP:122:ASP:C	46:LT:162:LYS:CG	2.35	1.00
25:SC:163:THR:CB	25:SC:163:THR:C	2.33	1.00
26:SG:123:UNK:CB	27:SH:52:PHE:HE1	1.73	1.00
33:L1:250:C:C1'	33:L1:250:C:O4'	1.91	1.00
4:SD:206:GLU:HG3	32:S1:686:A:O2'	1.61	1.00
5:SE:258:LYS:NZ	27:SH:69:LEU:CD1	2.25	1.00
32:S1:1745:U:H5'	33:L1:1931:G:OP1	1.62	1.00
33:L1:289:C:P	42:LP:98:LYS:HZ2	1.82	1.00
75:Lu:14:ILE:HD11	76:Lw:2:LYS:CA	1.87	1.00
32:S1:329:G:H21	33:L1:2085:A:H5''	1.25	1.00
75:Lu:14:ILE:CD1	76:Lw:2:LYS:O	2.10	1.00
81:LD:338:GLY:C	81:LD:342:LYS:HG3	1.87	1.00
32:S1:1659:A:N1	32:S1:1759:A:N1	2.10	1.00
32:S1:1758:G:OP1	33:L1:2298:A:OP1	1.79	1.00
35:L2:140:G:H5''	49:LX:66:LYS:HD3	1.39	1.00
81:LD:370:GLU:O	81:LD:374:VAL:CG2	2.09	1.00
31:S2:14:A:P	33:L1:2263:U:H6	1.85	1.00
75:Lt:10:LEU:HD21	76:Lv:8:LEU:HD11	1.37	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:72:ILE:HD12	5:SE:66:TYR:CE1	1.97	1.00
4:SD:137:PRO:HD2	32:S1:247:A:OP2	1.61	1.00
15:SS:9:VAL:CA	15:SS:138:ALA:CB	2.40	1.00
31:S2:74:C:C1'	33:L1:2404:C:H5''	1.92	1.00
32:S1:977:G:O5'	33:L1:851:A:N1	1.95	1.00
33:L1:1478:A:H5''	55:Lg:65:LYS:HZ3	1.27	1.00
33:L1:2218:A:OP1	72:Lk:77:LYS:CD	2.10	1.00
75:Lu:14:ILE:CD1	76:Lw:2:LYS:C	2.34	1.00
14:SP:89:ARG:HG3	46:LT:151:ARG:CZ	1.90	0.99
34:L3:56:G:N2	45:LQ:54:ARG:NH2	2.09	0.99
45:LQ:201:GLY:C	45:LQ:202:GLY:CA	2.34	0.99
24:SX:51:HIS:CD2	24:SX:72:LYS:HZ1	1.80	0.99
29:ST:82:GLN:HA	33:L1:2540:C:O2'	1.59	0.99
33:L1:305:G:H4'	72:Lk:64:LEU:HD21	1.00	0.99
33:L1:2216:G:C6	72:Lk:77:LYS:CE	2.26	0.99
26:SG:128:UNK:CA	32:S1:642:C:H4'	1.87	0.99
32:S1:860:A:O5'	46:LT:177:ARG:HB2	1.24	0.99
34:L3:46:C:C4'	45:LQ:96:TYR:HE1	1.74	0.99
34:L3:113:G:O2'	45:LQ:71:ALA:CB	2.09	0.99
55:Lg:62:LYS:HG2	55:Lg:96:GLU:HG3	1.39	0.99
26:SG:5:UNK:HA	46:LT:189:CYS:C	1.85	0.99
27:SH:52:PHE:C	27:SH:53:VAL:HG23	1.86	0.99
33:L1:2053:A:H5''	33:L1:2054:A:H5'	1.44	0.99
34:L3:20:C:O2'	45:LQ:252:THR:HG21	1.59	0.99
2:SA:92:LEU:HD21	2:SA:104:ALA:HB2	1.42	0.99
8:SJ:68:LYS:CD	32:S1:1524:A:C4'	2.40	0.99
31:S2:10:G:O3'	33:L1:2247:A:O2'	1.80	0.99
31:S2:72:G:O3'	33:L1:2972:C:OP1	1.81	0.99
32:S1:347:C:C6	46:LT:136:ARG:NH1	2.08	0.99
32:S1:929:A:O4'	37:LB:137:ILE:HD12	1.59	0.99
32:S1:989:G:C5'	37:LB:173:GLY:N	2.14	0.99
33:L1:641:C:H1'	56:Lh:22:HIS:HE1	1.17	0.99
33:L1:1320:G:C8	82:LK:134:LEU:HD13	1.97	0.99
14:SP:124:VAL:H	46:LT:165:LYS:HB2	0.83	0.99
75:Lu:7:ALA:O	76:Lw:9:LEU:HD13	1.60	0.99
11:SM:11:HIS:CD2	38:LE:118:TYR:N	2.28	0.99
14:SP:122:ASP:N	46:LT:162:LYS:CE	2.25	0.99
17:SV:63:PRO:HG3	17:SV:66:LEU:HD12	1.44	0.99
31:S2:3:C:OP1	33:L1:2626:G:C8	2.15	0.99
2:SA:64:LEU:HD12	5:SE:44:TRP:CB	1.92	0.99
8:SJ:75:ARG:HG3	8:SJ:88:ARG:H	1.23	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:929:A:C5'	37:LB:137:ILE:CG1	2.41	0.99
34:L3:43:A:OP1	38:LE:139:ARG:HG3	1.62	0.99
31:S2:11:U:C2'	33:L1:2260:C:N3	2.26	0.99
32:S1:354:G:C6	33:L1:847:G:C4'	2.46	0.99
33:L1:3234:G:C2'	33:L1:3234:G:N9	2.26	0.99
34:L3:21:U:O4	34:L3:56:G:C6	2.15	0.99
56:Lh:20:ARG:NH1	56:Lh:34:ARG:HD2	1.78	0.99
5:SE:30:ARG:CZ	27:SH:66:ASN:HA	1.92	0.99
9:SK:84:CYS:SG	9:SK:84:CYS:HB2	1.59	0.99
12:SO:103:GLU:CB	54:Lf:80:ASP:CG	2.35	0.99
14:SP:94:PHE:N	46:LT:151:ARG:CD	2.21	0.99
3:SB:153:LYS:NZ	3:SB:153:LYS:HG3	1.77	0.98
6:SF:99:LEU:CD1	17:SV:66:LEU:CD1	2.41	0.98
31:S2:34:G:C4'	32:S1:1195:U:C6	2.46	0.98
32:S1:1747:A:H4'	33:L1:1915:G:H21	0.83	0.98
78:Le:36:LYS:O	81:LD:362:LYS:CE	2.10	0.98
6:SF:99:LEU:HD11	17:SV:66:LEU:HD11	1.43	0.98
14:SP:94:PHE:O	46:LT:151:ARG:CD	2.11	0.98
25:SC:10:LYS:CD	32:S1:505:U:C5'	2.39	0.98
32:S1:1747:A:O4'	33:L1:1930:G:C6	2.16	0.98
75:Lt:14:ILE:CD1	76:Lv:2:LYS:CA	2.38	0.98
2:SA:239:ALA:HB3	2:SA:243:TRP:CB	1.93	0.98
14:SP:122:ASP:N	46:LT:162:LYS:HZ3	1.61	0.98
32:S1:1757:G:O3'	33:L1:2297:G:O3'	1.79	0.98
33:L1:305:G:C4'	72:Lk:64:LEU:HD21	1.93	0.98
75:Lt:6:VAL:CA	76:Lv:12:LEU:HD21	1.93	0.98
5:SE:142:LYS:HE3	32:S1:1304:A:C5'	1.90	0.98
10:SL:39:PRO:HB3	10:SL:64:ALA:HA	1.45	0.98
12:SO:57:GLN:HA	54:Lf:100:GLY:C	1.85	0.98
31:S2:13:U:O3'	33:L1:2263:U:H6	1.45	0.98
32:S1:956:A:P	54:Lf:9:LYS:HG3	1.95	0.98
32:S1:1758:G:P	33:L1:2298:A:OP1	2.22	0.98
33:L1:99:A:H5'	42:LP:182:HIS:CD2	1.98	0.98
33:L1:292:A:H5'	72:Lk:68:LYS:CD	1.92	0.98
33:L1:2398:A:O2'	33:L1:2399:G:H5'	1.62	0.98
66:LN:129:LYS:CE	82:LK:182:LEU:HD21	1.92	0.98
15:SS:2:ALA:CB	32:S1:1364:C:C4'	2.41	0.98
17:SV:48:TYR:CG	17:SV:81:ILE:HG23	1.98	0.98
31:S2:26:G:O4'	33:L1:2260:C:C4'	2.11	0.98
71:Lj:90:ARG:HH12	82:LK:34:ASN:HA	1.07	0.98
75:Lu:10:LEU:HG	76:Lw:8:LEU:HD12	1.16	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:SO:150:VAL:CB	33:L1:1714:A:H1'	1.88	0.98
16:SR:142:ILE:HG23	32:S1:1188:A:N6	1.78	0.98
32:S1:977:G:O4'	33:L1:848:G:H1'	1.56	0.98
33:L1:1513:C:C1'	33:L1:1513:C:O4'	1.76	0.98
33:L1:1636:C:H41	70:Li:46:VAL:HG21	1.27	0.98
33:L1:2160:C:P	42:LP:76:PRO:HG2	2.03	0.98
9:SK:116:ARG:CD	9:SK:129:GLU:OE1	2.12	0.98
11:SM:126:TYR:CZ	11:SM:126:TYR:CD1	2.51	0.98
12:SO:90:PHE:CE2	54:Lf:20:LEU:HD22	1.99	0.98
33:L1:1691:U:C2'	33:L1:1691:U:N1	2.26	0.98
1:Sa:343:HIS:HB2	32:S1:1400:G:OP1	1.60	0.98
33:L1:99:A:H5'	42:LP:182:HIS:NE2	1.77	0.98
33:L1:1867:U:P	46:LT:56:LYS:NZ	2.37	0.98
41:LM:34:ALA:HA	41:LM:68:GLY:HA3	1.45	0.98
25:SC:10:LYS:NZ	32:S1:505:U:H5'	1.79	0.98
26:SG:64:UNK:C	26:SG:65:UNK:H	1.49	0.98
27:SH:15:TYR:HD2	27:SH:65:LEU:CD2	1.74	0.98
32:S1:320:A:OP2	33:L1:854:C:C4'	2.11	0.98
55:Lg:23:ASN:HA	55:Lg:78:ARG:HG2	1.46	0.98
32:S1:1664:U:H5'	33:L1:2119:A:H5''	1.43	0.98
2:SA:64:LEU:CB	5:SE:44:TRP:NE1	2.27	0.97
2:SA:110:GLY:HA2	2:SA:113:THR:HB	1.43	0.97
14:SP:124:VAL:CA	46:LT:165:LYS:HB3	1.92	0.97
32:S1:858:G:O5'	46:LT:179:GLU:CG	2.12	0.97
33:L1:3301:G:H4'	48:LV:70:THR:C	1.89	0.97
31:S2:69:G:H5'	33:L1:2965:C:OP1	0.80	0.97
32:S1:329:G:H22	33:L1:2085:A:C4'	1.65	0.97
32:S1:843:G:O2'	33:L1:2061:C:H2'	1.62	0.97
73:Lp:51:ILE:HA	73:Lp:51:ILE:O	1.63	0.97
31:S2:34:G:H4'	32:S1:1195:U:C6	1.98	0.97
32:S1:927:A:C5'	37:LB:140:ASN:ND2	2.27	0.97
33:L1:1298:A:H5''	67:LS:90:HIS:NE2	1.78	0.97
75:Lu:7:ALA:N	76:Lw:12:LEU:CD2	2.23	0.97
25:SC:195:GLU:C	33:L1:2251:A:H3'	1.89	0.97
32:S1:860:A:C1'	46:LT:173:LYS:CB	2.42	0.97
32:S1:1758:G:P	33:L1:2298:A:C5'	2.51	0.97
81:LD:344:ALA:HB3	81:LD:351:ARG:HD2	1.44	0.97
11:SM:11:HIS:NE2	38:LE:118:TYR:N	1.81	0.97
17:SV:95:VAL:HG12	17:SV:96:HIS:N	1.78	0.97
31:S2:74:C:O2	33:L1:2404:C:C4'	2.05	0.97
32:S1:886:A:C4	83:Lm:85:ARG:CZ	2.20	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:888:U:OP2	83:Lm:89:GLN:CD	2.07	0.97
32:S1:896:C:C5'	37:LB:255:ALA:O	2.11	0.97
48:LV:114:TYR:CE2	48:LV:155:GLU:CG	2.47	0.97
76:Lv:40:GLU:HB3	79:Ls:99:LYS:HZ1	1.27	0.97
27:SH:32:LYS:HB3	27:SH:110:ILE:HG21	1.47	0.97
32:S1:989:G:C5'	37:LB:173:GLY:CA	2.43	0.97
33:L1:305:G:H5''	72:Lk:64:LEU:HD23	1.42	0.97
33:L1:1638:U:O4	69:La:26:VAL:HA	1.65	0.97
9:SK:84:CYS:SG	9:SK:84:CYS:HB3	1.59	0.97
17:SV:53:SER:O	17:SV:56:PRO:CD	2.13	0.97
27:SH:94:LEU:HD13	27:SH:95:PRO:HD2	1.12	0.97
32:S1:861:A:N6	46:LT:171:GLU:HG3	1.77	0.97
33:L1:180:G:H5''	35:L2:98:C:N4	1.80	0.97
36:LA:49:SER:HA	36:LA:192:LEU:HD22	1.45	0.97
1:Sa:100:LYS:HG3	7:SI:113:ASP:OD2	1.65	0.97
7:SI:120:ARG:NH2	32:S1:1414:G:OP2	1.96	0.96
12:SO:57:GLN:O	54:Lf:101:ASP:CG	2.08	0.96
32:S1:928:A:H5''	37:LB:109:GLU:CD	1.90	0.96
32:S1:928:A:C5'	37:LB:109:GLU:OE2	2.12	0.96
32:S1:1279:A:N6	32:S1:1437:C:N3	2.11	0.96
75:Lt:18:ASP:CB	76:Lv:2:LYS:HE2	1.93	0.96
75:Lu:10:LEU:HG	76:Lw:8:LEU:HD13	1.41	0.96
12:SO:57:GLN:CB	54:Lf:100:GLY:O	2.09	0.96
13:SQ:104:GLU:HG3	20:SZ:31:ARG:CZ	1.95	0.96
14:SP:90:ASN:O	33:L1:2081:C:H4'	1.64	0.96
15:SS:2:ALA:HB1	32:S1:1363:G:H2'	1.45	0.96
24:SX:72:LYS:CE	32:S1:1054:G:OP1	2.12	0.96
32:S1:859:U:H4'	46:LT:180:ARG:HB2	1.47	0.96
12:SO:109:LYS:HZ1	83:Lm:77:VAL:CG1	1.60	0.96
20:SZ:10:ARG:HG2	32:S1:1255:U:P	2.04	0.96
66:LN:41:PRO:CG	66:LN:75:MET:HE2	1.95	0.96
2:SA:72:ILE:HB	5:SE:66:TYR:CD1	2.00	0.96
12:SO:90:PHE:CE1	54:Lf:20:LEU:CG	2.48	0.96
33:L1:883:G:C8	48:LV:133:ALA:CB	2.48	0.96
43:LO:142:LEU:CB	65:LL:118:UNK:CB	2.43	0.96
13:SQ:104:GLU:HG2	20:SZ:31:ARG:NH1	1.78	0.96
30:S3:16:G:C2'	30:S3:16:G:N9	2.28	0.96
4:SD:200:LYS:HZ1	32:S1:740:U:H5''	1.22	0.96
75:Lt:18:ASP:HA	76:Lv:2:LYS:HE3	1.47	0.96
27:SH:65:LEU:HD22	27:SH:70:ASN:ND2	1.78	0.96
34:L3:46:C:H4'	45:LQ:96:TYR:HE1	0.81	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1686:C:H5''	33:L1:3334:A:OP1	1.64	0.96
33:L1:2148:U:H4'	37:LB:240:ALA:HB1	1.45	0.96
6:SF:118:ARG:HD3	19:SY:56:GLU:OE2	1.66	0.96
31:S2:26:G:O4'	33:L1:2260:C:H5'	1.62	0.96
34:L3:7:G:H5'	45:LQ:37:ARG:CD	1.94	0.96
34:L3:116:U:O4'	45:LQ:80:TYR:CZ	2.16	0.96
68:LW:29:LYS:CB	68:LW:29:LYS:C	2.38	0.96
14:SP:53:THR:CA	46:LT:148:GLU:OE1	2.13	0.96
26:SG:11:UNK:O	26:SG:12:UNK:HA	1.63	0.96
32:S1:977:G:H3'	33:L1:850:A:C6	2.00	0.96
32:S1:1747:A:H8	33:L1:1930:G:N3	1.48	0.96
33:L1:1259:C:H2'	33:L1:1260:G:C8	2.01	0.96
34:L3:6:C:H4'	45:LQ:49:ASN:HD21	1.30	0.96
78:Le:35:GLU:O	78:Le:36:LYS:N	1.98	0.96
1:Sa:15:THR:O	1:Sa:18:VAL:N	1.99	0.95
9:SK:90:THR:HA	9:SK:93:HIS:CE1	2.00	0.95
12:SO:103:GLU:CA	54:Lf:80:ASP:OD1	2.14	0.95
17:SV:64:SER:HB2	17:SV:82:LYS:NZ	1.81	0.95
31:S2:34:G:C5'	32:S1:1195:U:C6	2.48	0.95
31:S2:70:G:C4'	33:L1:2966:G:H5'	1.94	0.95
32:S1:929:A:H5'	37:LB:137:ILE:HA	0.99	0.95
33:L1:1181:A:H5''	71:Lj:70:CYS:HB3	0.99	0.95
34:L3:85:G:H4'	67:LS:120:PHE:CD1	2.01	0.95
6:SF:74:MET:O	32:S1:1479:U:O4	1.83	0.95
15:SS:9:VAL:HG11	15:SS:135:ASP:OD1	1.66	0.95
26:SG:8:UNK:CA	46:LT:186:GLU:C	2.39	0.95
32:S1:222:G:H8	33:L1:2063:U:O4'	1.40	0.95
66:LN:64:ARG:HD3	67:LS:154:VAL:CB	1.95	0.95
25:SC:63:THR:OG1	25:SC:63:THR:N	1.98	0.95
27:SH:40:VAL:HB	27:SH:42:GLN:HE22	1.29	0.95
31:S2:24:A:C1'	33:L1:2261:U:H5''	1.96	0.95
32:S1:859:U:H5'	46:LT:180:ARG:CA	1.96	0.95
33:L1:1694:A:OP1	73:Lp:32:VAL:HG21	1.64	0.95
5:SE:258:LYS:NZ	27:SH:69:LEU:CG	2.28	0.95
14:SP:55:ILE:O	46:LT:141:SER:O	1.85	0.95
32:S1:348:A:H5''	46:LT:140:GLU:N	1.79	0.95
7:SI:120:ARG:HH22	32:S1:1414:G:P	1.88	0.95
12:SO:58:HIS:CB	54:Lf:23:LYS:NZ	2.29	0.95
29:ST:23:ILE:HG21	29:ST:58:ILE:HG21	1.45	0.95
33:L1:1265:G:C2'	33:L1:1265:G:N9	2.28	0.95
5:SE:258:LYS:CE	27:SH:69:LEU:H	1.80	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:556:G:H1	32:S1:576:C:H42	1.15	0.95
75:Lu:7:ALA:CA	76:Lw:9:LEU:HD12	1.95	0.95
27:SH:94:LEU:CD1	27:SH:95:PRO:CD	2.30	0.95
31:S2:34:G:H4'	32:S1:1195:U:N1	1.80	0.95
32:S1:1128:C:C4'	83:Lm:24:LYS:HA	1.94	0.95
71:Lj:7:GLN:H	82:LK:2:VAL:H	1.11	0.95
17:SV:51:LEU:O	17:SV:55:VAL:HG23	1.67	0.95
31:S2:34:G:H5'	32:S1:1195:U:C6	2.01	0.95
33:L1:2898:A:H1'	53:Ld:47:ARG:HH11	1.30	0.95
75:Lu:6:VAL:HA	76:Lw:12:LEU:HD23	1.45	0.95
11:SM:12:ILE:H	38:LE:118:TYR:HA	1.31	0.95
32:S1:1747:A:O2'	33:L1:1916:U:C1'	2.14	0.95
33:L1:292:A:P	72:Lk:68:LYS:HE2	2.07	0.95
44:LR:132:THR:HA	81:LD:325:LYS:HZ2	1.32	0.95
8:SJ:68:LYS:CE	32:S1:1524:A:O3'	2.13	0.94
32:S1:1747:A:O2'	33:L1:1916:U:N1	2.00	0.94
2:SA:109:PRO:O	2:SA:110:GLY:CA	2.14	0.94
14:SP:123:HIS:O	46:LT:162:LYS:HG2	1.67	0.94
17:SV:63:PRO:CD	17:SV:66:LEU:HD12	1.96	0.94
32:S1:860:A:H5''	46:LT:177:ARG:HB2	1.47	0.94
75:Lu:10:LEU:HD22	79:Ls:251:VAL:HG21	1.49	0.94
84:LI:110:ARG:CD	84:LI:116:ARG:HB2	1.97	0.94
32:S1:861:A:H2'	46:LT:170:ARG:HD3	1.46	0.94
32:S1:929:A:O4'	37:LB:137:ILE:HG13	1.66	0.94
32:S1:956:A:OP2	54:Lf:9:LYS:C	2.09	0.94
32:S1:978:A:OP1	33:L1:852:C:H1'	0.78	0.94
32:S1:1698:A:C2	32:S1:1721:A:C2	2.55	0.94
81:LD:379:LYS:O	81:LD:383:LYS:CG	2.15	0.94
84:LI:110:ARG:HG3	84:LI:116:ARG:HD2	0.97	0.94
12:SO:97:ALA:CB	54:Lf:19:GLN:OE1	2.15	0.94
32:S1:860:A:OP2	46:LT:173:LYS:O	1.85	0.94
32:S1:1676:G:H8	33:L1:1933:U:P	1.86	0.94
33:L1:271:G:O4'	72:Lk:66:VAL:HA	1.68	0.94
4:SD:67:GLN:O	4:SD:69:HIS:CD2	2.20	0.94
4:SD:124:CYS:HA	4:SD:142:TYR:CE2	2.03	0.94
12:SO:107:LYS:CB	54:Lf:78:ASN:HD21	1.79	0.94
17:SV:101:ILE:HG22	17:SV:102:TYR:N	1.76	0.94
2:SA:64:LEU:HD11	5:SE:44:TRP:CD1	2.03	0.94
5:SE:197:LEU:HD21	32:S1:1092:A:OP1	1.68	0.94
14:SP:95:VAL:HB	46:LT:152:GLU:HA	1.49	0.94
33:L1:271:G:H1'	72:Lk:66:VAL:HG13	1.49	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:145:ASN:OD1	5:SE:78:VAL:HG12	1.68	0.94
31:S2:69:G:O2'	33:L1:2965:C:O3'	1.84	0.94
32:S1:1023:C:O2'	83:Lm:77:VAL:HB	1.67	0.94
33:L1:415:G:H21	33:L1:631:C:C5'	1.81	0.94
65:LL:154:UNK:N	65:LL:154:UNK:HA	1.79	0.94
2:SA:113:THR:HG22	32:S1:1298:G:HO2'	1.15	0.94
14:SP:121:GLY:CA	46:LT:162:LYS:HZ3	1.79	0.94
23:SU:54:GLU:O	50:LZ:1:MET:N	2.00	0.94
32:S1:918:G:H1	33:L1:2203:A:H8	1.01	0.94
32:S1:988:G:O2'	37:LB:173:GLY:HA2	1.66	0.94
32:S1:1225:A:C2'	32:S1:1225:A:N9	2.29	0.94
33:L1:2216:G:C5	72:Lk:77:LYS:NZ	2.25	0.94
48:LV:125:LYS:HA	48:LV:144:PRO:HD2	1.48	0.94
5:SE:30:ARG:NE	27:SH:67:GLY:N	2.15	0.94
14:SP:91:TYR:C	33:L1:2081:C:H5''	1.93	0.94
32:S1:1664:U:C5'	33:L1:2119:A:C4'	2.41	0.94
32:S1:1747:A:H1'	33:L1:1915:G:C1'	1.98	0.94
33:L1:1365:C:OP1	81:LD:337:PHE:CD1	2.21	0.94
75:Lt:7:ALA:N	76:Lv:12:LEU:CD2	2.30	0.94
1:Sa:344:GLU:HG3	32:S1:1399:G:OP1	1.67	0.94
33:L1:1867:U:P	46:LT:56:LYS:HZ2	1.91	0.94
32:S1:976:A:N6	33:L1:849:A:OP1	1.86	0.93
33:L1:2160:C:P	42:LP:76:PRO:CG	2.56	0.93
81:LD:303:VAL:HG12	81:LD:304:GLN:HB2	1.50	0.93
31:S2:69:G:H5'	33:L1:2965:C:P	2.09	0.93
60:Lr:32:LYS:O	60:Lr:32:LYS:HB3	1.67	0.93
66:LN:95:VAL:CG1	82:LK:206:TYR:C	2.41	0.93
73:Lp:50:LYS:HA	73:Lp:51:ILE:HD12	1.50	0.93
4:SD:201:HIS:CE1	32:S1:687:C:H4'	2.02	0.93
6:SF:56:ARG:HD3	19:SY:50:ASP:CB	1.99	0.93
11:SM:14:ARG:CB	38:LE:111:HIS:CG	2.43	0.93
31:S2:72:G:C3'	33:L1:2972:C:C5'	2.46	0.93
32:S1:956:A:N7	54:Lf:9:LYS:CB	2.29	0.93
32:S1:1663:A:O3'	33:L1:1918:A:N3	2.00	0.93
73:Lp:52:LYS:O	73:Lp:53:ASN:HA	1.66	0.93
81:LD:306:VAL:HB	81:LD:309:PRO:HD3	1.50	0.93
2:SA:72:ILE:CD1	5:SE:66:TYR:HE1	1.81	0.93
14:SP:121:GLY:C	46:LT:162:LYS:HZ3	1.77	0.93
32:S1:896:C:H5''	37:LB:255:ALA:N	1.83	0.93
34:L3:20:C:O2'	45:LQ:252:THR:HG22	1.66	0.93
75:Lu:14:ILE:HD13	76:Lw:2:LYS:C	1.90	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:SM:11:HIS:HE2	38:LE:118:TYR:H	0.94	0.93
26:SG:64:UNK:C	26:SG:65:UNK:CA	2.47	0.93
32:S1:859:U:H5'	46:LT:180:ARG:CB	1.96	0.93
36:LA:54:LEU:HD13	36:LA:134:PRO:HD2	1.47	0.93
2:SA:128:LEU:HD11	2:SA:134:ASP:CB	1.98	0.93
2:SA:129:THR:HG23	2:SA:130:ASP:H	1.34	0.93
13:SQ:104:GLU:CG	20:SZ:31:ARG:HH11	1.59	0.93
17:SV:48:TYR:HE1	17:SV:81:ILE:CA	1.80	0.93
33:L1:426:A:C4'	56:Lh:16:LYS:HE2	1.99	0.93
5:SE:258:LYS:HE2	27:SH:69:LEU:N	1.83	0.93
31:S2:72:G:H3'	33:L1:2972:C:P	2.07	0.93
32:S1:955:C:C2	54:Lf:9:LYS:HE2	2.04	0.93
32:S1:989:G:C5'	37:LB:173:GLY:HA2	1.98	0.93
32:S1:989:G:C4'	37:LB:173:GLY:H	1.81	0.93
33:L1:641:C:O2'	33:L1:642:C:H6	1.49	0.93
35:L2:98:C:C5	57:Ll:73:ARG:NH2	2.37	0.93
1:Sa:90:LEU:HD11	1:Sa:123:VAL:HG11	1.49	0.93
48:LV:127:ARG:HD2	48:LV:141:MET:CE	1.98	0.93
5:SE:15:PHE:HZ	5:SE:221:LYS:HE3	1.34	0.93
33:L1:529:C:OP1	66:LN:69:THR:HG23	1.69	0.93
33:L1:2289:U:C5	41:LM:74:LYS:NZ	2.37	0.93
75:Lu:14:ILE:HD12	76:Lw:2:LYS:CA	1.80	0.93
32:S1:843:G:C2	33:L1:2063:U:C5	2.51	0.93
33:L1:271:G:O2'	72:Lk:66:VAL:HG21	1.67	0.93
34:L3:113:G:O2'	45:LQ:71:ALA:HB3	1.67	0.93
78:Le:40:ALA:CA	81:LD:362:LYS:CE	2.44	0.93
21:Sc:24:UNK:CB	33:L1:1920:U:H3'	1.98	0.92
32:S1:1676:G:H5''	33:L1:1934:U:OP2	1.68	0.92
33:L1:1364:C:C4'	81:LD:337:PHE:CZ	2.02	0.92
81:LD:333:LEU:HB3	81:LD:337:PHE:HE2	1.32	0.92
84:LI:110:ARG:HG2	84:LI:116:ARG:HG3	0.93	0.92
14:SP:88:ARG:NH2	33:L1:2082:A:O3'	2.02	0.92
33:L1:2216:G:N9	72:Lk:77:LYS:NZ	2.15	0.92
34:L3:86:G:H4'	67:LS:119:ARG:HD2	1.51	0.92
84:LI:110:ARG:CG	84:LI:116:ARG:NE	2.31	0.92
2:SA:239:ALA:CB	2:SA:243:TRP:HB2	2.00	0.92
4:SD:159:THR:HG23	4:SD:227:THR:HG22	1.49	0.92
14:SP:56:ASP:N	46:LT:123:MET:CE	2.31	0.92
32:S1:929:A:O4'	37:LB:137:ILE:HD11	1.69	0.92
32:S1:978:A:N3	33:L1:849:A:H2	1.24	0.92
33:L1:1364:C:O3'	81:LD:337:PHE:CZ	2.23	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L3:46:C:OP1	45:LQ:158:ARG:NH1	2.02	0.92
34:L3:113:G:C4'	45:LQ:71:ALA:HB1	1.99	0.92
41:LM:96:MET:HE3	50:LZ:22:ARG:CB	1.99	0.92
33:L1:360:G:OP1	57:L1:54:ILE:CG1	2.17	0.92
33:L1:1320:G:H8	82:LK:134:LEU:CD1	1.83	0.92
81:LD:330:VAL:CG1	81:LD:331:LEU:HG	1.99	0.92
14:SP:121:GLY:HA3	46:LT:162:LYS:HZ1	0.75	0.92
15:SS:9:VAL:HA	15:SS:138:ALA:HB2	1.49	0.92
17:SV:25:LYS:O	17:SV:26:LYS:CB	2.18	0.92
17:SV:96:HIS:HB2	17:SV:100:LEU:O	1.69	0.92
26:SG:9:UNK:N	46:LT:188:SER:CB	2.32	0.92
31:S2:26:G:C1'	33:L1:2260:C:H5'	1.98	0.92
32:S1:976:A:H61	33:L1:849:A:H8	0.98	0.92
5:SE:30:ARG:NE	27:SH:66:ASN:HA	1.84	0.92
5:SE:142:LYS:NZ	32:S1:1304:A:C5'	2.31	0.92
5:SE:255:LEU:HD23	27:SH:71:LYS:O	1.69	0.92
8:SJ:75:ARG:CA	8:SJ:88:ARG:O	2.17	0.92
32:S1:956:A:H61	54:Lf:7:ALA:CB	1.82	0.92
33:L1:1505:G:N2	33:L1:1516:G:O6	2.03	0.92
33:L1:308:U:H3'	33:L1:309:C:H5'	1.52	0.92
48:LV:113:LEU:HD22	48:LV:157:PRO:HD2	1.50	0.92
64:LG:49:LYS:O	64:LG:50:PHE:HA	1.69	0.92
66:LN:64:ARG:CZ	67:LS:151:PHE:CG	2.53	0.92
66:LN:110:VAL:HG11	82:LK:201:LEU:HD23	1.08	0.92
11:SM:14:ARG:HB2	38:LE:111:HIS:CG	2.05	0.92
17:SV:54:GLU:C	17:SV:56:PRO:HD3	1.94	0.92
23:SU:25:ARG:HD2	23:SU:27:GLN:CD	1.93	0.92
37:LB:96:LEU:HD22	83:Lm:83:ILE:HG23	1.06	0.92
2:SA:72:ILE:CD1	5:SE:66:TYR:OH	2.16	0.92
6:SF:99:LEU:CD1	17:SV:66:LEU:HD13	1.99	0.92
31:S2:72:G:C4'	33:L1:2972:C:C5'	2.46	0.92
32:S1:929:A:H5'	37:LB:137:ILE:CG1	1.97	0.92
33:L1:463:G:H22	33:L1:472:U:H3	1.18	0.92
9:SK:116:ARG:NE	9:SK:129:GLU:CD	2.28	0.92
11:SM:12:ILE:HG23	38:LE:117:LYS:O	1.70	0.92
14:SP:104:ARG:HH22	32:S1:113:A:C1'	1.80	0.92
32:S1:858:G:O5'	46:LT:179:GLU:HG2	1.67	0.92
32:S1:859:U:H5''	46:LT:180:ARG:CB	1.94	0.92
33:L1:289:C:OP1	42:LP:98:LYS:NZ	2.03	0.92
33:L1:2898:A:H1'	53:Ld:47:ARG:NH1	1.83	0.92
34:L3:18:C:OP2	38:LE:153:HIS:CE1	2.22	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L3:48:G:O6	45:LQ:58:ASN:HB3	1.70	0.92
36:LA:62:MET:CE	36:LA:171:LEU:HD21	2.00	0.92
66:LN:9:ILE:HD12	66:LN:64:ARG:HA	1.49	0.92
31:S2:73:C:OP1	33:L1:2973:A:OP1	1.86	0.91
32:S1:918:G:C2	33:L1:2202:A:P	2.63	0.91
34:L3:53:U:H4'	34:L3:54:A:H5'	1.48	0.91
35:L2:101:G:H4'	77:Lc:67:ARG:HH12	1.34	0.91
35:L2:140:G:C4'	49:LX:66:LYS:HD2	1.99	0.91
1:Sa:82:VAL:CG2	1:Sa:83:SER:H	1.83	0.91
2:SA:128:LEU:HD11	2:SA:134:ASP:HB2	1.52	0.91
5:SE:142:LYS:CE	32:S1:1304:A:OP1	2.18	0.91
29:ST:53:ALA:N	32:S1:1069:G:H21	1.68	0.91
32:S1:1024:A:H1'	83:Lm:73:THR:HA	1.49	0.91
14:SP:104:ARG:NH2	32:S1:113:A:O4'	2.03	0.91
33:L1:885:A:OP1	33:L1:1843:A:N6	2.02	0.91
44:LR:40:THR:C	81:LD:325:LYS:HD3	1.94	0.91
52:Lb:116:LEU:HD11	56:Lh:88:MET:HE2	1.53	0.91
78:Lc:36:LYS:CB	81:LD:358:LYS:HG3	2.00	0.91
1:Sa:346:ARG:HH11	32:S1:1398:U:H5''	1.28	0.91
9:SK:109:PRO:CD	9:SK:112:GLN:HB2	2.01	0.91
31:S2:74:C:H1'	33:L1:2404:C:H5''	0.98	0.91
33:L1:2256:G:H21	33:L1:2257:A:N6	1.68	0.91
81:LD:380:ALA:O	81:LD:384:THR:HG23	1.68	0.91
27:SH:42:GLN:HG3	27:SH:129:PHE:CE1	2.05	0.91
34:L3:87:G:H5''	67:LS:117:ARG:HH21	1.35	0.91
64:LG:188:LEU:HD11	66:LN:104:ASP:HA	1.49	0.91
2:SA:239:ALA:HB3	2:SA:243:TRP:HB2	1.52	0.91
11:SM:14:ARG:NH1	38:LE:109:GLN:CG	2.34	0.91
36:LA:189:LEU:O	65:LL:192:UNK:CA	2.18	0.91
69:La:27:ARG:C	69:La:27:ARG:HA	1.95	0.91
76:Lv:40:GLU:HB3	79:Ls:99:LYS:NZ	1.84	0.91
2:SA:120:PHE:CE1	5:SE:102:GLY:CA	2.54	0.91
3:SB:153:LYS:NZ	3:SB:153:LYS:CG	2.33	0.91
32:S1:929:A:C4'	37:LB:137:ILE:CG1	2.49	0.91
32:S1:989:G:C5'	33:L1:2172:C:C2	2.51	0.91
32:S1:1663:A:H5'	33:L1:1919:C:C5'	1.99	0.91
32:S1:1747:A:C1'	33:L1:1915:G:H1'	1.88	0.91
34:L3:86:G:H4'	67:LS:119:ARG:CG	2.00	0.91
55:Lg:62:LYS:HG2	55:Lg:96:GLU:CG	2.00	0.91
14:SP:89:ARG:HG3	46:LT:151:ARG:HH22	1.22	0.91
37:LB:202:VAL:HG12	37:LB:217:GLN:HB3	1.51	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:Lt:10:LEU:HD11	76:Lv:8:LEU:CG	1.99	0.91
10:SL:96:ASN:HB3	32:S1:1141:U:OP2	1.70	0.91
12:SO:69:SER:CB	24:SX:49:PHE:CE2	2.53	0.91
14:SP:104:ARG:HH22	32:S1:113:A:H1'	1.27	0.91
32:S1:843:G:N2	33:L1:2063:U:H5	1.46	0.91
32:S1:860:A:H2'	32:S1:861:A:O4'	1.71	0.91
3:SB:116:ARG:HH21	5:SE:161:HIS:HD2	1.13	0.91
16:SR:68:LYS:HD3	32:S1:1559:U:OP2	1.69	0.91
29:ST:2:GLN:NE2	33:L1:2544:C:H2'	1.86	0.91
32:S1:823:A:OP1	46:LT:165:LYS:O	1.88	0.91
32:S1:1664:U:H4'	33:L1:2119:A:C5'	2.00	0.91
7:SI:133:LYS:HE2	32:S1:1592:G:C3'	1.66	0.90
14:SP:95:VAL:HG23	46:LT:152:GLU:CB	2.01	0.90
14:SP:122:ASP:O	46:LT:162:LYS:CD	2.19	0.90
14:SP:122:ASP:N	46:LT:162:LYS:HD3	1.84	0.90
32:S1:887:U:H6	83:Lm:85:ARG:HH21	1.08	0.90
33:L1:292:A:C5'	72:Lk:68:LYS:HZ3	1.83	0.90
37:LB:104:ILE:HG12	37:LB:139:HIS:NE2	1.85	0.90
44:LR:40:THR:HG1	81:LD:325:LYS:HD2	1.36	0.90
14:SP:57:LYS:N	46:LT:142:ILE:O	2.04	0.90
32:S1:1659:A:H61	32:S1:1759:A:N6	1.69	0.90
33:L1:180:G:H5''	35:L2:98:C:H41	1.34	0.90
33:L1:1880:A:C2'	33:L1:1881:C:H5'	2.00	0.90
33:L1:2201:G:N2	33:L1:2203:A:H61	1.67	0.90
36:LA:60:PRO:HA	36:LA:150:THR:HG21	1.52	0.90
11:SM:14:ARG:HG3	38:LE:111:HIS:HD2	1.27	0.90
26:SG:8:UNK:CA	46:LT:186:GLU:O	2.20	0.90
26:SG:128:UNK:O	32:S1:642:C:C1'	2.20	0.90
32:S1:860:A:C1'	46:LT:173:LYS:HB3	2.01	0.90
32:S1:860:A:C8	46:LT:173:LYS:HB3	2.05	0.90
33:L1:537:U:O3'	67:LS:134:LYS:NZ	2.04	0.90
33:L1:841:G:H1	33:L1:858:U:H3	1.16	0.90
33:L1:2160:C:OP1	42:LP:76:PRO:HG2	1.72	0.90
11:SM:12:ILE:O	38:LE:117:LYS:C	2.09	0.90
32:S1:1747:A:C4'	33:L1:1915:G:N2	2.28	0.90
33:L1:288:G:H5''	42:LP:98:LYS:HE2	1.51	0.90
33:L1:292:A:C5'	72:Lk:68:LYS:NZ	2.34	0.90
33:L1:579:G:H1'	64:LG:54:ASP:OD2	1.71	0.90
33:L1:817:U:O3'	57:L1:35:SER:CB	2.19	0.90
36:LA:70:ALA:HB3	36:LA:107:HIS:CD2	2.06	0.90
14:SP:57:LYS:N	46:LT:141:SER:O	2.02	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:SP:60:PRO:HB2	33:L1:2083:U:P	2.10	0.90
26:SG:10:UNK:C	26:SG:11:UNK:CA	2.47	0.90
32:S1:1674:C:H5'	33:L1:1913:C:HO2'	1.35	0.90
36:LA:91:LYS:HG2	36:LA:94:LYS:HE2	1.53	0.90
37:LB:104:ILE:HD12	37:LB:148:ILE:HD11	1.52	0.90
81:LD:332:LYS:O	81:LD:335:PRO:CG	2.18	0.90
32:S1:896:C:H5''	37:LB:255:ALA:O	1.72	0.90
32:S1:918:G:N1	33:L1:2203:A:N7	2.14	0.90
32:S1:956:A:OP2	54:Lf:9:LYS:HG3	1.65	0.90
32:S1:1747:A:O2'	33:L1:1915:G:N3	2.03	0.90
33:L1:292:A:OP1	72:Lk:68:LYS:NZ	2.05	0.90
33:L1:1364:C:O2'	81:LD:337:PHE:CZ	2.24	0.90
33:L1:1523:G:H5''	49:LX:79:THR:HG22	1.52	0.90
14:SP:98:TYR:HE1	46:LT:155:LEU:CD2	1.79	0.90
14:SP:121:GLY:C	46:LT:162:LYS:NZ	2.30	0.90
24:SX:51:HIS:CG	24:SX:72:LYS:NZ	2.38	0.90
4:SD:137:PRO:CD	32:S1:247:A:OP2	2.19	0.90
32:S1:858:G:H3'	46:LT:176:ARG:HD3	1.53	0.90
32:S1:1673:C:H1'	33:L1:1914:C:O2'	0.73	0.90
75:Lt:53:ARG:HH12	75:Lt:58:LEU:HD13	1.37	0.90
12:SO:109:LYS:HZ3	83:Lm:77:VAL:HG11	0.73	0.90
14:SP:90:ASN:C	33:L1:2081:C:H5''	1.96	0.90
25:SC:10:LYS:HZ3	32:S1:505:U:H5'	1.33	0.90
32:S1:349:U:H5'	46:LT:141:SER:HB2	1.52	0.90
33:L1:426:A:H5''	56:Lh:16:LYS:CE	2.02	0.90
33:L1:1364:C:C3'	81:LD:337:PHE:HZ	1.75	0.90
38:LE:14:ILE:HD11	38:LE:133:LEU:CB	2.01	0.90
66:LN:64:ARG:NH1	67:LS:151:PHE:HB3	1.86	0.90
67:LS:92:MET:HE1	67:LS:116:HIS:CE1	2.07	0.90
5:SE:24:ARG:O	27:SH:69:LEU:HG	1.72	0.90
12:SO:107:LYS:HD2	54:Lf:78:ASN:HD22	1.28	0.90
17:SV:25:LYS:O	17:SV:26:LYS:CG	2.21	0.90
32:S1:348:A:H3'	46:LT:140:GLU:OE2	1.42	0.90
32:S1:955:C:O2	54:Lf:9:LYS:HE2	1.71	0.90
32:S1:989:G:N3	83:Lm:75:SER:OG	2.04	0.90
33:L1:1265:G:C2'	33:L1:1265:G:C4	2.55	0.90
65:LL:153:UNK:C	65:LL:153:UNK:CB	2.50	0.90
81:LD:303:VAL:HG12	81:LD:304:GLN:CB	2.01	0.90
2:SA:114:ASN:ND2	32:S1:1298:G:H1'	1.86	0.89
7:SI:130:CYS:O	32:S1:1592:G:C2'	2.17	0.89
33:L1:2921:A:H61	33:L1:2929:C:H42	1.12	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:LV:99:ALA:HB2	48:LV:149:LEU:HD23	1.53	0.89
32:S1:978:A:H4'	33:L1:851:A:O5'	1.69	0.89
33:L1:305:G:C4'	72:Lk:64:LEU:CD2	2.49	0.89
33:L1:359:A:H5'	57:Ll:35:SER:O	1.71	0.89
3:SB:18:TYR:HE2	8:SJ:120:GLU:OE2	1.55	0.89
13:SQ:59:ARG:NH1	32:S1:1225:A:H1'	1.86	0.89
17:SV:53:SER:O	17:SV:56:PRO:CG	2.21	0.89
56:Lh:35:ARG:HG2	56:Lh:36:PRO:HD2	1.54	0.89
56:Lh:44:ARG:HA	56:Lh:53:MET:CE	2.01	0.89
78:Le:40:ALA:HA	81:LD:362:LYS:HE2	0.90	0.89
1:Sa:97:THR:C	1:Sa:98:SER:N	2.30	0.89
11:SM:12:ILE:HG13	38:LE:117:LYS:HG2	1.52	0.89
14:SP:89:ARG:NE	46:LT:151:ARG:NH1	2.20	0.89
5:SE:240:ARG:CZ	32:S1:1302:C:O2'	2.19	0.89
14:SP:89:ARG:HD2	46:LT:151:ARG:CZ	2.01	0.89
45:LQ:17:PHE:N	45:LQ:20:PHE:CE2	2.40	0.89
78:Le:36:LYS:HA	81:LD:358:LYS:CE	2.01	0.89
4:SD:100:ARG:HB2	4:SD:114:VAL:HG21	1.54	0.89
11:SM:14:ARG:HB2	38:LE:111:HIS:CE1	2.07	0.89
17:SV:25:LYS:O	17:SV:26:LYS:HG3	1.72	0.89
27:SH:94:LEU:HD13	27:SH:95:PRO:CG	2.02	0.89
34:L3:87:G:OP1	67:LS:117:ARG:CZ	2.21	0.89
75:Lu:7:ALA:HA	76:Lw:9:LEU:CD1	2.03	0.89
2:SA:103:ILE:HD13	2:SA:107:HIS:HA	1.54	0.89
5:SE:142:LYS:HE3	32:S1:1304:A:OP1	1.71	0.89
5:SE:234:LEU:CD1	32:S1:14:C:OP2	2.20	0.89
23:SU:29:VAL:HA	23:SU:78:PHE:CE1	2.08	0.89
27:SH:22:LYS:HG2	27:SH:61:ILE:HD11	1.54	0.89
69:La:28:VAL:HG23	69:La:31:GLU:CA	2.02	0.89
75:Lu:10:LEU:CD1	76:Lw:8:LEU:HB3	2.01	0.89
12:SO:97:ALA:HB2	54:Lf:19:GLN:CB	2.02	0.89
14:SP:71:ILE:HD12	27:SH:84:LYS:HE2	1.53	0.89
31:S2:72:G:H3'	33:L1:2972:C:O5'	1.72	0.89
66:LN:64:ARG:CZ	67:LS:151:PHE:CB	2.50	0.89
14:SP:88:ARG:NH2	33:L1:2082:A:C3'	2.36	0.89
33:L1:1181:A:C4'	71:Lj:70:CYS:CB	2.50	0.89
37:LB:211:HIS:NE2	37:LB:219:ILE:HD12	1.87	0.89
4:SD:85:GLY:C	4:SD:101:LEU:HD13	1.97	0.89
5:SE:30:ARG:CD	27:SH:67:GLY:N	2.35	0.89
14:SP:89:ARG:CG	46:LT:151:ARG:CZ	2.50	0.89
17:SV:64:SER:CB	17:SV:82:LYS:NZ	2.35	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:S2:75:A:O4'	33:L1:2956:U:O4'	1.91	0.89
32:S1:886:A:N3	83:Lm:85:ARG:NH2	2.11	0.89
56:Lh:6:LEU:HD22	56:Lh:71:LYS:HB2	1.54	0.89
11:SM:12:ILE:CG2	38:LE:117:LYS:O	2.21	0.88
15:SS:9:VAL:HG21	15:SS:135:ASP:CA	2.02	0.88
17:SV:64:SER:HB2	17:SV:82:LYS:HZ2	1.35	0.88
23:SU:33:LEU:HD12	23:SU:35:PRO:CD	2.03	0.88
27:SH:33:VAL:HG22	27:SH:37:PHE:CE2	2.07	0.88
31:S2:26:G:H8	33:L1:2260:C:H5'	1.24	0.88
33:L1:305:G:C5'	72:Lk:64:LEU:CD2	2.50	0.88
34:L3:116:U:O2'	45:LQ:80:TYR:CE1	2.25	0.88
42:LP:9:GLU:OE2	72:Lk:99:LYS:NZ	2.06	0.88
2:SA:64:LEU:CD1	5:SE:44:TRP:CB	2.51	0.88
4:SD:153:ILE:C	4:SD:153:ILE:HA	1.98	0.88
12:SO:149:LEU:O	54:Lf:82:GLY:O	1.90	0.88
14:SP:121:GLY:HA2	46:LT:162:LYS:NZ	1.89	0.88
17:SV:63:PRO:HD2	17:SV:66:LEU:HB2	1.55	0.88
17:SV:101:ILE:CG2	17:SV:102:TYR:H	1.86	0.88
33:L1:414:G:H1	35:L2:11:U:H3	1.21	0.88
33:L1:1637:G:H3'	69:La:25:ILE:HG21	1.53	0.88
12:SO:93:LYS:HE3	54:Lf:23:LYS:N	1.89	0.88
14:SP:89:ARG:HD2	46:LT:151:ARG:NE	1.88	0.88
24:SX:69:THR:O	32:S1:877:G:P	2.31	0.88
30:S3:13:A:H61	32:S1:1157:A:P	1.96	0.88
75:Lt:14:ILE:HD13	76:Lv:2:LYS:O	1.71	0.88
75:Lu:10:LEU:HD11	76:Lw:8:LEU:CG	2.04	0.88
12:SO:150:VAL:HG11	33:L1:1714:A:C1'	2.00	0.88
27:SH:47:ILE:HG22	27:SH:60:LYS:HB3	1.52	0.88
33:L1:2216:G:H2'	72:Lk:77:LYS:NZ	1.87	0.88
34:L3:7:G:H5'	45:LQ:37:ARG:HD3	1.55	0.88
44:LR:41:LYS:HB3	81:LD:325:LYS:NZ	1.89	0.88
48:LV:113:LEU:HD12	48:LV:152:SER:O	1.73	0.88
2:SA:145:ASN:CG	5:SE:78:VAL:HG12	1.99	0.88
23:SU:20:ASN:H	23:SU:25:ARG:HG3	1.39	0.88
44:LR:41:LYS:H	81:LD:325:LYS:CD	1.86	0.88
81:LD:332:LYS:C	81:LD:335:PRO:HD3	1.99	0.88
12:SO:107:LYS:CB	54:Lf:78:ASN:ND2	2.34	0.88
15:SS:2:ALA:C	32:S1:1363:G:O2'	2.16	0.88
17:SV:95:VAL:HA	17:SV:101:ILE:CD1	2.04	0.88
41:LM:140:VAL:HG21	50:LZ:24:ILE:HD12	1.54	0.88
44:LR:41:LYS:H	81:LD:325:LYS:HD3	1.36	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:LN:64:ARG:NE	67:LS:154:VAL:HB	1.88	0.88
75:Lt:7:ALA:N	76:Lv:12:LEU:HD22	1.86	0.88
75:Lu:53:ARG:HH12	75:Lu:58:LEU:HD13	1.37	0.88
84:LI:110:ARG:H	84:LI:116:ARG:NE	1.70	0.88
10:SL:66:ARG:HH22	32:S1:438:G:H4'	1.36	0.88
14:SP:124:VAL:N	46:LT:165:LYS:HB3	1.89	0.88
32:S1:215:A:OP2	32:S1:834:A:H4'	1.72	0.88
33:L1:1179:C:C2'	82:LK:94:PRO:HD3	2.02	0.88
33:L1:1369:G:OP2	44:LR:1:MET:SD	2.31	0.88
27:SH:65:LEU:HD13	27:SH:66:ASN:H	1.38	0.88
35:L2:140:G:C5'	49:LX:66:LYS:CD	2.45	0.88
75:Lt:6:VAL:C	76:Lv:12:LEU:HD21	1.98	0.88
32:S1:1747:A:C2'	33:L1:1916:U:O4'	2.22	0.88
35:L2:97:U:H5''	57:L1:73:ARG:HH12	1.39	0.88
37:LB:166:ILE:HG21	83:Lm:83:ILE:HD13	1.55	0.88
37:LB:177:LYS:HE2	83:Lm:30:GLU:OE1	1.73	0.88
71:Lj:90:ARG:HH12	82:LK:34:ASN:CA	1.85	0.88
82:LK:135:GLN:CB	82:LK:135:GLN:C	2.46	0.88
24:SX:57:VAL:HG11	24:SX:62:GLN:HG3	1.56	0.88
26:SG:127:UNK:HA	26:SG:128:UNK:N	1.87	0.88
32:S1:823:A:C8	46:LT:172:ARG:HB2	2.06	0.88
33:L1:641:C:C1'	56:Lh:22:HIS:CE1	2.57	0.88
68:LW:28:SER:C	68:LW:29:LYS:CA	2.47	0.88
14:SP:58:LYS:O	46:LT:144:LYS:HA	1.72	0.87
26:SG:5:UNK:CA	46:LT:189:CYS:HA	2.02	0.87
32:S1:956:A:OP1	54:Lf:12:GLU:CA	2.22	0.87
34:L3:43:A:H1'	38:LE:142:ARG:HH21	1.37	0.87
32:S1:1664:U:OP1	33:L1:1917:A:H2	1.56	0.87
33:L1:830:A:H1'	73:Lp:52:LYS:HA	1.55	0.87
33:L1:2647:C:O2'	84:LI:115:MET:HE1	1.73	0.87
37:LB:166:ILE:CG2	83:Lm:83:ILE:HD13	2.04	0.87
37:LB:202:VAL:CG1	37:LB:217:GLN:HB3	2.03	0.87
78:Le:36:LYS:HG2	81:LD:358:LYS:NZ	1.89	0.87
1:Sa:82:VAL:CG2	1:Sa:83:SER:N	2.34	0.87
8:SJ:92:ARG:HG2	28:SN:52:PHE:N	1.88	0.87
32:S1:1673:C:C4'	33:L1:1914:C:H4'	2.04	0.87
33:L1:716:A:H1'	33:L1:2776:U:O2'	1.73	0.87
14:SP:92:LEU:CD2	46:LT:151:ARG:NH1	2.28	0.87
17:SV:42:LEU:HB3	17:SV:47:THR:HG21	1.56	0.87
17:SV:96:HIS:HD2	17:SV:101:ILE:HA	0.72	0.87
31:S2:70:G:H4'	33:L1:2966:G:H5'	1.55	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:977:G:H4'	33:L1:848:G:H1'	1.56	0.87
75:Lt:10:LEU:HD21	76:Lv:8:LEU:CD1	2.02	0.87
2:SA:72:ILE:CG1	5:SE:66:TYR:CZ	2.50	0.87
2:SA:135:HIS:HA	2:SA:138:ILE:HG12	1.53	0.87
24:SX:70:GLY:CA	32:S1:877:G:H4'	2.05	0.87
32:S1:347:C:O2'	33:L1:2086:A:OP1	1.93	0.87
32:S1:956:A:O4'	54:Lf:9:LYS:NZ	0.72	0.87
33:L1:1320:G:N7	82:LK:134:LEU:HD22	1.90	0.87
33:L1:2149:G:H4'	37:LB:227:ARG:HH22	1.39	0.87
33:L1:2355:A:N1	33:L1:2984:A:C2	2.42	0.87
2:SA:64:LEU:HG	5:SE:44:TRP:HD1	1.15	0.87
3:SB:76:ARG:HA	13:SQ:33:LYS:CG	2.05	0.87
11:SM:11:HIS:C	38:LE:117:LYS:NZ	2.28	0.87
12:SO:57:GLN:CA	54:Lf:100:GLY:C	2.36	0.87
16:SR:142:ILE:CG2	32:S1:1188:A:H61	1.86	0.87
33:L1:636:C:OP1	71:Lj:68:ILE:CG2	2.23	0.87
40:LH:64:LYS:HG3	49:LX:42:PHE:CE1	2.09	0.87
66:LN:41:PRO:HG2	66:LN:75:MET:HG3	1.56	0.87
3:SB:116:ARG:NH2	5:SE:161:HIS:CD2	2.42	0.87
17:SV:56:PRO:HD2	17:SV:57:LYS:H	1.40	0.87
43:LO:61:PHE:CD2	65:LL:152:UNK:HA	2.09	0.87
21:Sc:24:UNK:O	33:L1:1920:U:H4'	1.10	0.87
31:S2:74:C:H1'	33:L1:2404:C:H5'	1.54	0.87
32:S1:1747:A:N9	33:L1:1930:G:C2	2.43	0.87
33:L1:1179:C:C3'	82:LK:94:PRO:HD3	2.05	0.87
33:L1:1320:G:C8	82:LK:134:LEU:CD1	2.58	0.87
33:L1:2216:G:C4	72:Lk:77:LYS:CE	2.52	0.87
33:L1:2237:A:C2	33:L1:2240:C:N4	2.42	0.87
34:L3:86:G:H4'	67:LS:119:ARG:CD	2.05	0.87
5:SE:27:ARG:O	27:SH:69:LEU:HD23	1.75	0.87
17:SV:95:VAL:HG12	17:SV:96:HIS:H	1.35	0.87
33:L1:1364:C:O3'	81:LD:337:PHE:HE1	1.19	0.87
33:L1:3115:A:O2'	39:LF:63:ARG:HD3	1.75	0.87
4:SD:147:ILE:CD1	4:SD:169:ILE:HD11	2.03	0.86
6:SF:56:ARG:CD	19:SY:50:ASP:HB3	2.05	0.86
31:S2:24:A:N9	33:L1:2261:U:H5''	1.01	0.86
32:S1:858:G:C3'	46:LT:176:ARG:HD3	2.05	0.86
34:L3:56:G:H21	45:LQ:54:ARG:HH22	1.16	0.86
84:LI:110:ARG:HG3	84:LI:116:ARG:NE	1.89	0.86
2:SA:64:LEU:CD1	5:SE:44:TRP:HB2	2.05	0.86
26:SG:128:UNK:C	32:S1:642:C:O4'	2.18	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1128:C:C6	83:Lm:28:LYS:HE3	2.09	0.86
32:S1:1664:U:C4'	33:L1:2119:A:C5'	2.46	0.86
66:LN:64:ARG:CZ	67:LS:154:VAL:HB	2.05	0.86
81:LD:339:THR:HA	81:LD:342:LYS:HD2	1.57	0.86
6:SF:84:MET:HG2	32:S1:1479:U:H4'	1.57	0.86
7:SI:58:ILE:HG21	15:SS:12:VAL:HA	1.55	0.86
9:SK:81:ALA:HB2	9:SK:111:ALA:CB	2.05	0.86
11:SM:12:ILE:CG1	38:LE:117:LYS:HG2	2.05	0.86
23:SU:20:ASN:HB3	23:SU:23:LEU:HD12	1.56	0.86
31:S2:34:G:H5'	32:S1:1195:U:C5	2.10	0.86
32:S1:896:C:C5'	37:LB:255:ALA:H	1.88	0.86
32:S1:989:G:N2	83:Lm:75:SER:OG	2.08	0.86
32:S1:1747:A:O2'	33:L1:1916:U:C6	2.28	0.86
34:L3:58:G:H5'	45:LQ:29:GLN:NE2	1.89	0.86
48:LV:1:MET:HB3	48:LV:16:LYS:HD3	1.57	0.86
2:SA:135:HIS:CD2	2:SA:138:ILE:HD11	2.10	0.86
13:SQ:33:LYS:HG2	13:SQ:36:GLU:OE1	1.75	0.86
14:SP:57:LYS:CA	46:LT:143:HIS:C	2.36	0.86
33:L1:1034:U:C2'	33:L1:1035:C:O4'	2.23	0.86
34:L3:7:G:OP1	45:LQ:37:ARG:HD2	1.75	0.86
34:L3:28:U:H1'	34:L3:54:A:N6	1.90	0.86
67:LS:151:PHE:CG	67:LS:151:PHE:CA	2.57	0.86
24:SX:34:PHE:CE2	24:SX:81:PHE:HB3	2.10	0.86
26:SG:127:UNK:C	26:SG:128:UNK:CA	2.53	0.86
33:L1:2240:C:O4'	37:LB:222:ALA:HA	1.74	0.86
33:L1:2640:A:C2'	33:L1:2640:A:N9	2.37	0.86
73:Lp:52:LYS:CB	73:Lp:52:LYS:C	2.48	0.86
31:S2:72:G:C2'	33:L1:2972:C:H5''	2.05	0.86
81:LD:379:LYS:HB3	81:LD:383:LYS:HE3	1.58	0.86
5:SE:153:TRP:NE1	5:SE:243:LYS:HZ1	1.73	0.86
17:SV:95:VAL:C	17:SV:101:ILE:CG1	2.48	0.86
29:ST:53:ALA:H	32:S1:1069:G:H21	1.23	0.86
32:S1:991:G:P	37:LB:133:TYR:CE1	2.64	0.86
32:S1:1757:G:O3'	33:L1:2298:A:P	2.33	0.86
34:L3:41:G:H1'	34:L3:44:C:N4	1.90	0.86
5:SE:30:ARG:HD3	27:SH:67:GLY:O	1.74	0.86
6:SF:46:PRO:CG	7:SI:65:ARG:HH21	1.88	0.86
33:L1:1593:C:OP1	73:Lp:30:ARG:HB2	1.75	0.86
33:L1:2201:G:N2	33:L1:2203:A:N6	2.23	0.86
35:L2:38:U:P	57:Ll:72:ARG:HH22	1.99	0.86
3:SB:154:ASP:C	3:SB:155:GLY:CA	2.49	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:373:U:C2'	32:S1:373:U:N1	2.38	0.86
32:S1:1673:C:H4'	33:L1:1914:C:H4'	1.56	0.86
33:L1:1263:A:H61	79:Ls:33:ALA:H	1.21	0.86
33:L1:2216:G:N7	72:Lk:77:LYS:CE	2.25	0.86
36:LA:68:GLY:HA3	36:LA:102:LEU:HD22	1.57	0.86
27:SH:11:LEU:HG	27:SH:15:TYR:HE1	1.41	0.86
32:S1:1747:A:C8	33:L1:1930:G:N2	2.44	0.86
33:L1:2157:C:H1'	37:LB:11:GLY:H	1.39	0.86
7:SI:133:LYS:HE3	32:S1:1592:G:H3'	1.04	0.85
15:SS:2:ALA:O	32:S1:1363:G:O2'	1.92	0.85
27:SH:37:PHE:CG	27:SH:43:LYS:HE3	2.11	0.85
32:S1:329:G:H21	33:L1:2085:A:C4'	1.73	0.85
32:S1:956:A:C1'	54:Lf:9:LYS:HZ2	1.61	0.85
33:L1:288:G:OP1	42:LP:98:LYS:CG	2.21	0.85
34:L3:55:A:H2	38:LE:140:VAL:HG21	1.41	0.85
2:SA:229:TYR:O	2:SA:232:VAL:HG23	1.76	0.85
4:SD:102:LEU:HG	4:SD:103:TYR:H	1.41	0.85
4:SD:208:ILE:HG21	4:SD:225:VAL:CG2	2.05	0.85
12:SO:99:ARG:O	54:Lf:80:ASP:CB	2.19	0.85
33:L1:2361:C:C2'	33:L1:2361:C:N1	2.38	0.85
34:L3:113:G:O2'	45:LQ:71:ALA:C	2.15	0.85
43:LO:61:PHE:CG	65:LL:152:UNK:HA	2.11	0.85
59:Lo:30:ARG:CB	59:Lo:30:ARG:N	2.38	0.85
81:LD:377:ALA:C	81:LD:381:TRP:HD1	1.83	0.85
15:SS:9:VAL:HG22	15:SS:138:ALA:HB3	1.58	0.85
31:S2:73:C:O2'	33:L1:2810:A:C4	2.30	0.85
32:S1:320:A:C5'	33:L1:855:U:H5'	2.05	0.85
32:S1:1678:G:C2'	32:S1:1678:G:N9	2.38	0.85
33:L1:2059:C:H2'	33:L1:2060:C:H5'	1.58	0.85
9:SK:39:THR:CG2	9:SK:103:LYS:HD2	2.04	0.85
14:SP:57:LYS:O	46:LT:141:SER:O	1.95	0.85
17:SV:71:ARG:HD2	17:SV:78:ARG:HH12	1.39	0.85
32:S1:858:G:C2'	46:LT:176:ARG:HD3	2.06	0.85
33:L1:2362:A:C2'	33:L1:2362:A:N9	2.39	0.85
65:LL:151:UNK:C	65:LL:151:UNK:HA	2.06	0.85
9:SK:109:PRO:HG2	9:SK:112:GLN:N	1.91	0.85
14:SP:47:ARG:HG2	14:SP:66:SER:HB2	1.58	0.85
17:SV:95:VAL:CG1	17:SV:96:HIS:H	1.89	0.85
33:L1:576:C:P	81:LD:342:LYS:NZ	2.49	0.85
33:L1:2647:C:O2	84:LI:115:MET:CE	2.24	0.85
75:Lu:7:ALA:CA	76:Lw:9:LEU:CD1	2.55	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:Lu:10:LEU:HD12	76:Lw:8:LEU:HB3	1.55	0.85
12:SO:103:GLU:OE1	54:Lf:87:LYS:HE2	1.77	0.85
26:SG:123:UNK:CB	27:SH:52:PHE:HZ	1.86	0.85
27:SH:94:LEU:CG	27:SH:95:PRO:CD	2.47	0.85
33:L1:716:A:C2'	33:L1:716:A:N9	2.39	0.85
36:LA:79:MET:O	36:LA:83:TYR:HB3	1.76	0.85
8:SJ:95:LYS:NZ	32:S1:1388:A:OP1	2.09	0.85
32:S1:918:G:N3	33:L1:2202:A:H2'	1.91	0.85
33:L1:1320:G:OP1	82:LK:134:LEU:HD21	1.77	0.85
34:L3:47:C:OP1	45:LQ:96:TYR:N	2.10	0.85
78:Le:36:LYS:HG2	81:LD:358:LYS:CE	2.07	0.85
1:Sa:343:HIS:CE1	32:S1:1399:G:O2'	2.29	0.85
10:SL:41:ALA:HB2	10:SL:62:ASN:HA	1.58	0.85
25:SC:171:PRO:CD	25:SC:171:PRO:HB3	2.05	0.85
31:S2:26:G:H8	33:L1:2260:C:C5'	1.80	0.85
3:SB:153:LYS:HZ3	3:SB:153:LYS:CG	1.88	0.85
12:SO:103:GLU:N	54:Lf:80:ASP:OD1	2.10	0.85
12:SO:107:LYS:CD	54:Lf:78:ASN:ND2	2.40	0.85
17:SV:71:ARG:HB2	17:SV:78:ARG:HH22	1.39	0.85
24:SX:69:THR:O	32:S1:877:G:O5'	1.95	0.85
32:S1:887:U:H4'	83:Lm:88:GLU:HG2	1.57	0.85
66:LN:41:PRO:CG	66:LN:75:MET:SD	2.65	0.85
71:Lj:72:TRP:CZ2	82:LK:30:LYS:CE	2.53	0.85
84:LI:110:ARG:CD	84:LI:116:ARG:HD2	2.07	0.85
9:SK:116:ARG:NH2	9:SK:129:GLU:OE2	2.09	0.85
12:SO:94:LYS:O	54:Lf:19:GLN:OE1	1.65	0.85
12:SO:107:LYS:CD	54:Lf:78:ASN:HD22	1.90	0.85
24:SX:72:LYS:CD	32:S1:1054:G:OP1	2.24	0.85
32:S1:1747:A:H2'	33:L1:1916:U:O4'	1.75	0.85
33:L1:426:A:C5'	56:Lh:16:LYS:CE	2.52	0.85
35:L2:38:U:H4'	57:LI:72:ARG:HH22	1.37	0.85
36:LA:43:GLN:CB	36:LA:195:LYS:HE2	2.07	0.85
38:LE:163:LYS:O	38:LE:167:VAL:HG23	1.77	0.85
1:Sa:82:VAL:HG22	1:Sa:83:SER:N	1.92	0.84
5:SE:258:LYS:CE	27:SH:69:LEU:N	2.39	0.84
32:S1:992:G:C5'	37:LB:149:LYS:HZ2	1.53	0.84
75:Lt:10:LEU:CD2	76:Lv:8:LEU:HD11	2.02	0.84
14:SP:49:ALA:HB2	14:SP:100:ARG:HH22	1.43	0.84
26:SG:8:UNK:CB	46:LT:186:GLU:O	2.26	0.84
33:L1:291:C:O2'	72:Lk:68:LYS:CG	2.25	0.84
34:L3:6:C:OP1	45:LQ:31:LYS:CE	2.26	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:L2:37:A:O3'	57:L1:72:ARG:NH2	2.10	0.84
44:LR:132:THR:HA	81:LD:325:LYS:NZ	1.91	0.84
2:SA:109:PRO:C	2:SA:110:GLY:N	0.75	0.84
4:SD:195:ILE:HG23	4:SD:208:ILE:HD11	1.59	0.84
27:SH:14:MET:HE2	27:SH:22:LYS:CB	2.07	0.84
31:S2:72:G:H3'	33:L1:2972:C:OP1	1.76	0.84
33:L1:1181:A:P	71:Lj:72:TRP:CZ3	2.70	0.84
33:L1:1259:C:H2'	33:L1:1260:G:H8	1.42	0.84
15:SS:9:VAL:CG2	15:SS:135:ASP:CA	2.55	0.84
33:L1:2125:A:C2'	33:L1:2125:A:N9	2.40	0.84
35:L2:38:U:H4'	57:L1:72:ARG:HH21	1.03	0.84
66:LN:64:ARG:HH12	67:LS:151:PHE:CB	1.90	0.84
1:Sa:100:LYS:CG	7:SI:113:ASP:OD2	2.26	0.84
32:S1:1128:C:O4'	83:Lm:24:LYS:O	1.95	0.84
41:LM:96:MET:HE3	50:LZ:22:ARG:HD2	1.58	0.84
11:SM:92:ASP:HB2	11:SM:94:ARG:H	1.42	0.84
12:SO:58:HIS:CB	54:Lf:23:LYS:HZ1	1.85	0.84
15:SS:2:ALA:CB	32:S1:1363:G:O2'	2.26	0.84
24:SX:70:GLY:HA2	32:S1:877:G:H5'	1.56	0.84
32:S1:918:G:O6	33:L1:2201:G:C2'	2.25	0.84
33:L1:262:A:C2'	33:L1:262:A:N9	2.40	0.84
33:L1:803:G:C2'	33:L1:803:G:N9	2.40	0.84
33:L1:1391:A:H61	33:L1:1423:C:H42	1.24	0.84
33:L1:1637:G:OP2	69:La:25:ILE:N	2.10	0.84
6:SF:95:ILE:N	17:SV:102:TYR:OH	2.11	0.84
33:L1:424:G:H5''	33:L1:425:G:C8	2.13	0.84
33:L1:1263:A:H5''	79:Ls:45:ARG:NH1	1.93	0.84
33:L1:2289:U:OP2	41:LM:74:LYS:HD2	1.76	0.84
56:Lh:3:VAL:HB	56:Lh:4:PRO:HD3	1.58	0.84
4:SD:133:GLN:O	4:SD:136:ILE:HG23	1.77	0.84
14:SP:95:VAL:CG2	46:LT:152:GLU:HB2	2.06	0.84
17:SV:49:ASP:C	17:SV:53:SER:OG	2.20	0.84
17:SV:96:HIS:N	17:SV:101:ILE:HG12	1.91	0.84
33:L1:870:G:H1	33:L1:895:U:H3	1.24	0.84
33:L1:2607:U:O2'	37:LB:226:ARG:NH2	2.11	0.84
36:LA:79:MET:HA	36:LA:140:GLN:NE2	1.92	0.84
65:LL:154:UNK:C	65:LL:154:UNK:CB	2.56	0.84
66:LN:110:VAL:HG11	82:LK:201:LEU:HD21	1.59	0.84
2:SA:232:VAL:O	2:SA:233:ALA:HB2	1.77	0.84
4:SD:181:VAL:HG11	4:SD:225:VAL:CG1	2.06	0.84
7:SI:133:LYS:HE2	32:S1:1592:G:H3'	1.40	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:SP:122:ASP:N	46:LT:162:LYS:CD	2.40	0.84
31:S2:3:C:OP1	33:L1:2626:G:H8	1.57	0.84
32:S1:928:A:OP1	37:LB:109:GLU:CD	2.21	0.84
32:S1:991:G:H5'	37:LB:133:TYR:CD1	2.11	0.84
33:L1:428:G:H5''	71:Lj:95:PRO:HB3	1.59	0.84
75:Lu:14:ILE:HD12	76:Lw:2:LYS:HA	0.85	0.84
4:SD:86:PHE:CE2	4:SD:87:MET:HG2	2.13	0.84
8:SJ:92:ARG:CG	28:SN:52:PHE:N	2.40	0.84
31:S2:72:G:H3'	33:L1:2972:C:C5'	2.08	0.84
33:L1:1387:G:O3'	81:LD:144:ARG:NH2	2.11	0.84
41:LM:140:VAL:HG21	50:LZ:24:ILE:CD1	2.07	0.84
45:LQ:155:THR:HG21	45:LQ:195:HIS:CE1	2.13	0.84
4:SD:200:LYS:HZ2	32:S1:740:U:H5''	1.39	0.83
17:SV:100:LEU:C	17:SV:101:ILE:HG13	2.02	0.83
31:S2:75:A:C5'	33:L1:2956:U:O4'	2.23	0.83
32:S1:823:A:OP2	46:LT:169:SER:CB	2.25	0.83
33:L1:1640:A:OP2	33:L1:1817:U:H1'	1.78	0.83
36:LA:52:VAL:HG22	36:LA:155:LYS:HD2	1.56	0.83
71:Lj:72:TRP:HZ2	82:LK:30:LYS:HE3	1.30	0.83
3:SB:76:ARG:HA	13:SQ:33:LYS:HG3	1.59	0.83
4:SD:153:ILE:O	4:SD:153:ILE:HG12	1.78	0.83
9:SK:116:ARG:CZ	9:SK:129:GLU:CD	2.51	0.83
11:SM:12:ILE:CB	38:LE:117:LYS:O	2.26	0.83
33:L1:840:A:OP1	83:Lm:4:ARG:HD3	1.78	0.83
33:L1:1880:A:H2'	33:L1:1881:C:C5'	2.08	0.83
36:LA:133:PHE:O	36:LA:135:THR:HG23	1.77	0.83
68:LW:29:LYS:N	68:LW:29:LYS:HA	1.91	0.83
2:SA:64:LEU:HB2	5:SE:44:TRP:NE1	1.93	0.83
14:SP:92:LEU:CA	46:LT:151:ARG:CZ	2.50	0.83
55:Lg:15:VAL:HB	55:Lg:86:LYS:HB2	1.59	0.83
2:SA:165:ILE:CG2	2:SA:178:LEU:HD21	2.08	0.83
8:SJ:75:ARG:HG3	8:SJ:88:ARG:N	1.93	0.83
14:SP:91:TYR:C	33:L1:2081:C:C5'	2.52	0.83
17:SV:75:SER:O	17:SV:79:GLN:HG3	1.79	0.83
33:L1:1265:G:C4	33:L1:1265:G:H2'	2.14	0.83
33:L1:1432:G:N3	81:LD:108:PRO:HB3	1.94	0.83
33:L1:2148:U:H5'	37:LB:242:ARG:O	1.78	0.83
56:Lh:87:MET:SD	56:Lh:116:LEU:HD22	2.18	0.83
2:SA:109:PRO:C	2:SA:110:GLY:C	2.46	0.83
15:SS:9:VAL:CA	15:SS:138:ALA:HB1	2.06	0.83
33:L1:563:C:OP2	64:LG:2:ALA:HB3	1.78	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1826:G:C2'	33:L1:1826:G:N9	2.41	0.83
37:LB:96:LEU:HD12	37:LB:108:PRO:HG2	1.60	0.83
67:LS:61:LEU:HG	78:Le:79:VAL:HG13	1.59	0.83
81:LD:330:VAL:HG12	81:LD:331:LEU:N	1.92	0.83
4:SD:58:TYR:CD1	32:S1:451:U:OP1	2.32	0.83
17:SV:72:ILE:O	17:SV:72:ILE:HG22	1.79	0.83
24:SX:51:HIS:CD2	24:SX:72:LYS:CE	2.61	0.83
31:S2:72:G:N2	33:L1:2972:C:C6	2.41	0.83
32:S1:860:A:C1'	46:LT:173:LYS:HG2	1.86	0.83
32:S1:976:A:C6	33:L1:849:A:C8	2.66	0.83
33:L1:1179:C:C4'	82:LK:94:PRO:HD3	2.09	0.83
69:La:26:VAL:HG13	69:La:27:ARG:HG2	1.60	0.83
79:Ls:121:PRO:HG2	79:Ls:186:PHE:CE1	2.14	0.83
5:SE:30:ARG:HD3	27:SH:67:GLY:CA	2.06	0.83
8:SJ:68:LYS:HD3	32:S1:1524:A:C4'	2.08	0.83
27:SH:33:VAL:HG22	27:SH:37:PHE:HE2	1.39	0.83
32:S1:888:U:OP2	83:Lm:89:GLN:CG	2.19	0.83
75:Lt:6:VAL:CA	76:Lv:12:LEU:HD23	2.09	0.83
78:Le:20:ARG:O	78:Le:24:TRP:CD1	2.31	0.83
4:SD:210:VAL:HG12	4:SD:212:ASP:H	1.43	0.83
12:SO:107:LYS:HB3	83:Lm:38:PHE:CZ	2.13	0.83
14:SP:89:ARG:HD2	46:LT:151:ARG:CD	2.08	0.83
24:SX:70:GLY:HA2	32:S1:877:G:H4'	1.61	0.83
81:LD:380:ALA:O	81:LD:384:THR:HG22	1.77	0.83
10:SL:41:ALA:CB	10:SL:62:ASN:HA	2.09	0.83
14:SP:93:HIS:HD1	33:L1:2080:G:H4'	1.44	0.83
27:SH:52:PHE:CD2	27:SH:53:VAL:HG23	2.14	0.83
33:L1:1577:A:C2'	33:L1:1577:A:N9	2.42	0.83
33:L1:2147:U:O2	37:LB:237:LEU:CD2	2.27	0.83
44:LR:41:LYS:HB3	81:LD:325:LYS:HZ3	1.43	0.83
81:LD:332:LYS:O	81:LD:335:PRO:HD3	1.79	0.83
7:SI:58:ILE:CG2	15:SS:11:ASP:O	2.27	0.83
12:SO:64:LYS:C	12:SO:64:LYS:HD3	2.03	0.83
14:SP:93:HIS:CA	46:LT:151:ARG:HG3	2.09	0.83
33:L1:52:G:H22	33:L1:1549:A:H61	1.27	0.83
33:L1:1179:C:H4'	82:LK:94:PRO:HD3	1.61	0.83
33:L1:2157:C:O2'	37:LB:8:GLN:O	1.95	0.83
65:LL:152:UNK:C	65:LL:152:UNK:CB	2.56	0.83
75:Lt:6:VAL:C	76:Lv:12:LEU:HD23	2.03	0.83
2:SA:239:ALA:HB3	2:SA:243:TRP:HB3	1.61	0.82
32:S1:347:C:P	46:LT:136:ARG:HD2	2.15	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1761:C:H2'	33:L1:1762:G:H5'	1.58	0.82
33:L1:3304:U:C2'	33:L1:3304:U:N1	2.40	0.82
73:Lp:52:LYS:O	73:Lp:52:LYS:HB2	1.78	0.82
78:Le:36:LYS:CB	81:LD:358:LYS:CG	2.55	0.82
2:SA:112:PHE:HZ	2:SA:126:LEU:HD12	1.44	0.82
4:SD:206:GLU:CG	32:S1:686:A:O2'	2.26	0.82
14:SP:94:PHE:H	46:LT:151:ARG:NE	1.76	0.82
15:SS:8:THR:HG21	15:SS:142:ASP:HB2	1.62	0.82
17:SV:88:GLY:O	17:SV:89:ALA:HB3	1.77	0.82
32:S1:1674:C:H1'	33:L1:1913:C:O2	1.79	0.82
33:L1:2203:A:C2'	33:L1:2203:A:N9	2.41	0.82
33:L1:2607:U:H4'	37:LB:226:ARG:NH2	1.92	0.82
36:LA:48:PHE:CD2	36:LA:192:LEU:HD21	2.14	0.82
36:LA:107:HIS:ND1	36:LA:129:LYS:HD3	1.94	0.82
69:La:9:LYS:C	69:La:25:ILE:HD12	2.04	0.82
81:LD:309:PRO:HA	81:LD:313:GLU:CD	2.03	0.82
81:LD:332:LYS:C	81:LD:335:PRO:CD	2.53	0.82
1:Sa:128:LEU:HA	32:S1:1392:G:OP1	1.77	0.82
25:SC:63:THR:OG1	25:SC:63:THR:CA	2.25	0.82
32:S1:633:U:H2'	32:S1:633:U:C6	2.15	0.82
32:S1:989:G:C4'	37:LB:173:GLY:N	2.39	0.82
32:S1:1673:C:H1'	33:L1:1914:C:C2'	2.09	0.82
33:L1:1207:A:H5'	34:L3:88:U:C2	2.14	0.82
66:LN:64:ARG:NH1	67:LS:151:PHE:CB	2.42	0.82
3:SB:153:LYS:CD	3:SB:153:LYS:HZ2	1.91	0.82
14:SP:45:THR:HG21	14:SP:47:ARG:HE	1.45	0.82
31:S2:22:G:H22	33:L1:2262:C:H5''	1.44	0.82
32:S1:775:A:C3'	32:S1:776:A:H5'	2.08	0.82
32:S1:956:A:N9	54:Lf:9:LYS:CE	2.42	0.82
33:L1:986:G:C2'	33:L1:986:G:N9	2.41	0.82
37:LB:139:HIS:O	37:LB:142:ASP:HB2	1.79	0.82
37:LB:177:LYS:CE	83:Lm:30:GLU:OE1	2.27	0.82
81:LD:362:LYS:O	81:LD:366:LEU:HG	1.77	0.82
8:SJ:84:ASN:ND2	32:S1:1201:C:H4'	1.94	0.82
12:SO:103:GLU:CB	54:Lf:80:ASP:OD2	2.25	0.82
27:SH:110:ILE:O	27:SH:110:ILE:HG23	1.78	0.82
33:L1:292:A:H5'	72:Lk:68:LYS:CG	2.09	0.82
33:L1:1526:A:H5'	49:LX:123:LEU:HD21	1.62	0.82
33:L1:2237:A:H2	33:L1:2240:C:N4	1.77	0.82
33:L1:2355:A:C2'	33:L1:2355:A:N9	2.41	0.82
33:L1:2486:G:C2'	33:L1:2486:G:N9	2.42	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2777:U:H3	33:L1:2787:A:H61	1.26	0.82
37:LB:104:ILE:O	37:LB:107:VAL:HG12	1.79	0.82
37:LB:166:ILE:CG2	83:Lm:83:ILE:CD1	2.57	0.82
67:LS:56:SER:HB2	78:Le:123:LYS:HZ3	1.44	0.82
78:Le:36:LYS:HG2	81:LD:358:LYS:CD	2.08	0.82
2:SA:64:LEU:CG	5:SE:44:TRP:HD1	1.58	0.82
2:SA:147:PRO:HD3	5:SE:76:GLN:HG3	1.59	0.82
32:S1:887:U:H4'	83:Lm:88:GLU:CG	2.10	0.82
32:S1:1674:C:C1'	33:L1:1913:C:O2	2.28	0.82
4:SD:160:ILE:HD11	4:SD:169:ILE:HD13	1.62	0.82
17:SV:48:TYR:CZ	17:SV:81:ILE:HA	2.14	0.82
33:L1:1568:A:C2'	33:L1:1568:A:N9	2.42	0.82
36:LA:49:SER:CA	36:LA:192:LEU:HD22	2.09	0.82
36:LA:69:ASP:HB3	36:LA:79:MET:CE	2.09	0.82
36:LA:79:MET:SD	36:LA:86:VAL:HG13	2.20	0.82
4:SD:101:LEU:HD21	4:SD:109:PHE:HB3	1.59	0.82
12:SO:100:LYS:O	54:Lf:80:ASP:CG	2.01	0.82
24:SX:34:PHE:HE2	24:SX:81:PHE:HB3	1.42	0.82
25:SC:10:LYS:NZ	32:S1:505:U:O5'	2.12	0.82
27:SH:4:VAL:HG23	27:SH:5:SER:N	1.94	0.82
31:S2:72:G:H5''	33:L1:2972:C:OP1	1.78	0.82
33:L1:697:A:P	65:LL:30:UNK:CB	2.68	0.82
33:L1:1183:C:P	71:Lj:11:LEU:CD1	2.65	0.82
50:LZ:4:LYS:N	80:LC:304:ARG:NH2	2.27	0.82
75:Lu:10:LEU:HD11	76:Lw:8:LEU:HD12	1.61	0.82
1:Sa:343:HIS:HB2	32:S1:1400:G:P	2.18	0.82
2:SA:64:LEU:CD1	5:SE:44:TRP:HD1	1.69	0.82
2:SA:159:ARG:O	5:SE:37:PRO:HG3	1.77	0.82
31:S2:26:G:C1'	33:L1:2260:C:C4'	2.58	0.82
32:S1:1736:C:O2'	33:L1:2101:A:O2'	1.76	0.82
75:Lt:14:ILE:CD1	76:Lv:2:LYS:O	2.28	0.82
5:SE:130:VAL:H	32:S1:11:A:H4'	1.44	0.82
14:SP:88:ARG:CZ	33:L1:2083:U:O5'	2.28	0.82
17:SV:25:LYS:O	17:SV:26:LYS:HB2	1.78	0.82
32:S1:844:C:H5'	33:L1:2061:C:HO2'	1.00	0.82
32:S1:1022:U:O2'	83:Lm:78:THR:OG1	1.96	0.82
33:L1:1207:A:H5''	34:L3:88:U:C4	2.15	0.82
35:L2:97:U:C2'	35:L2:97:U:N1	2.42	0.82
48:LV:127:ARG:HA	48:LV:141:MET:HE3	1.59	0.82
75:Lt:10:LEU:CD2	76:Lv:8:LEU:HD12	2.00	0.82
2:SA:145:ASN:HD21	5:SE:78:VAL:CG1	1.93	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:S2:72:G:H21	33:L1:2971:A:H2'	1.44	0.81
32:S1:1747:A:O4'	33:L1:1930:G:C5	2.33	0.81
67:LS:12:VAL:HG23	67:LS:61:LEU:HB3	1.60	0.81
67:LS:28:ARG:HG3	78:Le:74:LYS:HG2	1.62	0.81
2:SA:92:LEU:CD2	2:SA:104:ALA:HB2	2.09	0.81
27:SH:65:LEU:CD1	27:SH:66:ASN:H	1.92	0.81
31:S2:26:G:N9	33:L1:2260:C:H5'	1.95	0.81
31:S2:71:A:OP2	33:L1:2971:A:C2	2.34	0.81
32:S1:299:A:C2'	32:S1:299:A:N9	2.43	0.81
32:S1:1686:C:OP2	50:LZ:70:VAL:HA	1.78	0.81
33:L1:968:A:OP1	43:LO:9:ARG:CG	2.24	0.81
66:LN:9:ILE:CD1	66:LN:64:ARG:HA	2.09	0.81
84:LI:110:ARG:CZ	84:LI:116:ARG:HB2	2.10	0.81
2:SA:128:LEU:HD23	2:SA:129:THR:N	1.94	0.81
4:SD:200:LYS:NZ	32:S1:740:U:C5'	2.43	0.81
8:SJ:92:ARG:NE	28:SN:50:ILE:O	2.12	0.81
9:SK:84:CYS:CB	9:SK:84:CYS:HG	1.93	0.81
11:SM:12:ILE:HG12	38:LE:117:LYS:C	2.04	0.81
17:SV:42:LEU:O	17:SV:47:THR:CG2	2.27	0.81
17:SV:42:LEU:O	17:SV:47:THR:OG1	1.98	0.81
23:SU:82:TYR:N	23:SU:82:TYR:O	2.12	0.81
24:SX:36:ASP:HB2	24:SX:82:ARG:HB2	1.62	0.81
24:SX:51:HIS:CD2	24:SX:72:LYS:NZ	2.49	0.81
27:SH:65:LEU:HD22	27:SH:70:ASN:CG	2.06	0.81
29:ST:82:GLN:HB3	33:L1:2541:A:OP1	1.78	0.81
31:S2:69:G:H2'	33:L1:2965:C:O3'	1.81	0.81
31:S2:73:C:O2'	33:L1:2810:A:N3	2.12	0.81
32:S1:199:G:H2'	32:S1:200:C:C6	2.15	0.81
32:S1:1571:G:H2'	32:S1:1572:U:C5	2.15	0.81
33:L1:99:A:H5''	42:LP:182:HIS:ND1	1.95	0.81
33:L1:2131:U:H5	33:L1:2136:A:N7	1.79	0.81
33:L1:2216:G:C8	72:Lk:77:LYS:NZ	2.46	0.81
34:L3:46:C:P	45:LQ:158:ARG:HH12	2.04	0.81
34:L3:46:C:HO2'	45:LQ:200:TYR:HE1	1.28	0.81
56:Lh:94:CYS:HA	56:Lh:120:VAL:HG21	1.60	0.81
81:LD:309:PRO:C	81:LD:313:GLU:HG2	2.06	0.81
2:SA:72:ILE:CD1	5:SE:66:TYR:CZ	2.62	0.81
4:SD:167:ASN:C	4:SD:168:LYS:CA	2.53	0.81
27:SH:114:GLU:OE2	27:SH:115:GLU:HG2	1.80	0.81
32:S1:979:A:OP2	33:L1:851:A:C2'	2.23	0.81
33:L1:1629:A:N6	69:La:26:VAL:HG23	1.96	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:La:27:ARG:HG3	69:La:42:LEU:HG	1.61	0.81
32:S1:348:A:OP1	46:LT:139:MET:HB2	1.80	0.81
33:L1:2158:C:P	37:LB:8:GLN:NE2	2.52	0.81
33:L1:2216:G:C2'	33:L1:2216:G:N9	2.43	0.81
36:LA:79:MET:HA	36:LA:140:GLN:HE22	1.45	0.81
4:SD:153:ILE:N	4:SD:153:ILE:CB	2.44	0.81
12:SO:104:ARG:HG3	54:Lf:76:GLY:HA3	1.60	0.81
15:SS:6:ALA:HB2	32:S1:1363:G:H1'	1.63	0.81
31:S2:70:G:OP1	33:L1:2965:C:C6	2.34	0.81
32:S1:860:A:C5'	46:LT:177:ARG:CB	2.30	0.81
32:S1:886:A:OP1	83:Lm:81:SER:CA	2.27	0.81
33:L1:62:A:C2'	33:L1:62:A:N9	2.42	0.81
33:L1:1310:G:OP1	82:LK:68:ASN:HB2	1.80	0.81
33:L1:1406:C:C5'	56:Lh:67:TYR:O	2.29	0.81
33:L1:2135:U:O4'	33:L1:2135:U:N1	2.13	0.81
59:Lo:30:ARG:CB	59:Lo:30:ARG:C	2.53	0.81
66:LN:14:LEU:HD22	66:LN:15:VAL:H	1.43	0.81
2:SA:55:LEU:H	2:SA:55:LEU:HD12	1.45	0.81
7:SI:133:LYS:NZ	32:S1:1592:G:C5'	2.40	0.81
10:SL:5:ARG:O	27:SH:84:LYS:CB	2.24	0.81
25:SC:170:PRO:C	25:SC:171:PRO:HG2	2.05	0.81
33:L1:2766:U:C2'	33:L1:2766:U:N1	2.43	0.81
45:LQ:202:GLY:N	45:LQ:203:HIS:N	2.28	0.81
67:LS:12:VAL:CA	78:Le:74:LYS:HB3	2.09	0.81
48:LV:35:ALA:HB2	48:LV:59:PRO:HD2	1.62	0.81
75:Lt:17:ASP:CG	76:Lv:1:MET:HA	2.05	0.81
2:SA:127:ILE:HB	2:SA:149:ILE:HD11	1.62	0.81
17:SV:55:VAL:N	17:SV:56:PRO:HD3	1.95	0.81
33:L1:1483:G:H1	33:L1:1867:U:H3	1.28	0.81
66:LN:40:ALA:CB	66:LN:43:MET:HB2	2.07	0.81
4:SD:67:GLN:HB3	4:SD:69:HIS:CD2	2.15	0.81
10:SL:118:ARG:CA	32:S1:590:G:OP2	2.30	0.81
33:L1:2147:U:O2'	37:LB:243:THR:HG22	1.81	0.81
33:L1:2959:G:H1	33:L1:2977:U:H3	1.29	0.81
34:L3:55:A:C2	38:LE:140:VAL:HG21	2.17	0.81
56:Lh:68:LEU:HD12	56:Lh:69:PRO:HD2	1.63	0.81
5:SE:27:ARG:O	27:SH:69:LEU:CD2	2.29	0.80
14:SP:93:HIS:ND1	33:L1:2080:G:C4'	2.22	0.80
32:S1:330:G:O4'	33:L1:2083:U:O3'	1.80	0.80
33:L1:549:G:OP1	81:LD:396:ASN:CG	2.25	0.80
34:L3:20:C:O2'	45:LQ:252:THR:HG23	1.80	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L3:116:U:H5''	45:LQ:80:TYR:OH	1.81	0.80
44:LR:41:LYS:CB	81:LD:325:LYS:NZ	2.44	0.80
1:Sa:346:ARG:CZ	32:S1:1398:U:C5'	2.41	0.80
12:SO:93:LYS:HE3	54:Lf:23:LYS:HA	0.82	0.80
32:S1:857:A:H2'	46:LT:176:ARG:NH2	1.95	0.80
32:S1:1615:G:H2'	32:S1:1616:U:C6	2.16	0.80
33:L1:1395:A:C2'	33:L1:1395:A:N9	2.44	0.80
56:Lh:87:MET:HA	56:Lh:118:ILE:HD11	1.60	0.80
5:SE:30:ARG:NE	5:SE:30:ARG:CG	2.40	0.80
15:SS:4:SER:O	15:SS:8:THR:HG22	1.80	0.80
24:SX:39:CYS:HA	24:SX:77:GLU:CD	2.05	0.80
31:S2:13:U:O5'	33:L1:2244:G:N2	2.14	0.80
31:S2:72:G:O4'	33:L1:2972:C:C5'	2.30	0.80
32:S1:988:G:O3'	37:LB:176:GLU:HG3	1.12	0.80
33:L1:1405:G:O3'	56:Lh:69:PRO:HD3	1.82	0.80
33:L1:2053:A:H5''	33:L1:2054:A:C5'	2.10	0.80
43:LO:64:LEU:HD12	65:LL:156:UNK:HA	1.63	0.80
66:LN:4:LYS:HG3	67:LS:164:LYS:HG3	1.62	0.80
67:LS:56:SER:HB2	78:Le:123:LYS:HZ2	1.42	0.80
78:Le:36:LYS:HA	78:Le:39:ALA:HB3	1.64	0.80
9:SK:105:LYS:HE2	9:SK:131:VAL:HG22	1.64	0.80
9:SK:111:ALA:O	9:SK:115:LEU:HG	1.82	0.80
27:SH:14:MET:SD	27:SH:63:VAL:HB	2.21	0.80
36:LA:87:GLU:CA	36:LA:91:LYS:HD2	2.09	0.80
29:ST:5:GLU:OE2	33:L1:2539:G:H1'	1.81	0.80
31:S2:74:C:C2	33:L1:2404:C:H5''	2.16	0.80
33:L1:384:A:C2'	33:L1:385:A:H5'	2.11	0.80
33:L1:1849:U:C2'	33:L1:1849:U:N1	2.45	0.80
36:LA:53:LYS:C	36:LA:54:LEU:HD12	2.06	0.80
37:LB:104:ILE:HG22	37:LB:160:SER:O	1.82	0.80
43:LO:64:LEU:CD1	65:LL:156:UNK:HA	2.10	0.80
45:LQ:202:GLY:N	45:LQ:203:HIS:H	1.79	0.80
2:SA:72:ILE:HD11	5:SE:66:TYR:OH	1.81	0.80
17:SV:48:TYR:CE1	17:SV:81:ILE:CB	2.64	0.80
27:SH:20:ARG:O	27:SH:63:VAL:HG12	1.81	0.80
32:S1:183:C:H2'	32:S1:184:C:C6	2.17	0.80
32:S1:918:G:C6	33:L1:2202:A:OP2	2.35	0.80
32:S1:1675:G:H1'	33:L1:1932:A:C4	2.08	0.80
32:S1:1740:G:C2'	32:S1:1740:G:N9	2.43	0.80
33:L1:1298:A:H5''	67:LS:90:HIS:CE1	2.15	0.80
33:L1:1364:C:H1'	81:LD:333:LEU:HD21	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1965:C:H42	33:L1:2047:A:H61	1.29	0.80
33:L1:3124:A:C2'	33:L1:3124:A:N9	2.43	0.80
34:L3:48:G:N2	34:L3:50:A:N6	2.29	0.80
38:LE:34:ARG:CB	38:LE:34:ARG:HA	2.08	0.80
64:LG:125:VAL:H	64:LG:183:VAL:HG21	1.46	0.80
14:SP:123:HIS:O	46:LT:162:LYS:CG	2.29	0.80
27:SH:65:LEU:CD2	27:SH:70:ASN:HA	2.12	0.80
31:S2:12:U:C5'	33:L1:2246:G:C6	2.64	0.80
32:S1:860:A:H5'	46:LT:177:ARG:CG	2.12	0.80
32:S1:1022:U:O2'	83:Lm:78:THR:CG2	2.29	0.80
33:L1:810:A:H62	33:L1:937:G:H1	1.28	0.80
34:L3:57:C:O3'	45:LQ:29:GLN:HG2	1.76	0.80
34:L3:96:U:O2'	78:Le:130:ARG:HD2	1.81	0.80
35:L2:102:U:P	77:Lc:67:ARG:HH22	2.05	0.80
36:LA:57:ILE:CD1	36:LA:179:GLN:HB3	2.10	0.80
84:LI:110:ARG:N	84:LI:116:ARG:NE	2.29	0.80
6:SF:56:ARG:CD	19:SY:50:ASP:CB	2.56	0.80
36:LA:112:SER:O	36:LA:115:ILE:HG12	1.82	0.80
10:SL:5:ARG:HB2	27:SH:84:LYS:O	1.81	0.80
13:SQ:51:ALA:O	13:SQ:55:THR:HG23	1.81	0.80
29:ST:53:ALA:H	32:S1:1069:G:N2	1.78	0.80
31:S2:23:A:N3	33:L1:2262:C:OP1	2.00	0.80
31:S2:75:A:C1'	33:L1:2956:U:O4'	2.30	0.80
33:L1:69:U:H2'	33:L1:70:A:C8	2.16	0.80
33:L1:576:C:P	81:LD:342:LYS:HZ3	2.04	0.80
34:L3:6:C:OP2	45:LQ:31:LYS:HG2	1.82	0.80
34:L3:116:U:H4'	45:LQ:80:TYR:HE1	0.98	0.80
48:LV:15:SER:HB3	48:LV:151:LEU:CD1	2.11	0.80
1:Sa:140:GLN:NE2	1:Sa:140:GLN:CD	2.40	0.80
17:SV:50:LYS:O	17:SV:54:GLU:HB2	1.82	0.80
31:S2:26:G:C1'	33:L1:2260:C:C5'	2.58	0.80
33:L1:1050:A:C2'	33:L1:1050:A:N9	2.45	0.80
66:LN:95:VAL:CG1	82:LK:206:TYR:O	2.24	0.80
26:SG:11:UNK:N	26:SG:11:UNK:C	2.45	0.79
33:L1:996:A:N6	33:L1:1061:A:H1'	1.97	0.79
34:L3:46:C:C4'	45:LQ:96:TYR:CE1	2.57	0.79
48:LV:89:ALA:O	48:LV:92:ILE:HG22	1.81	0.79
84:LI:110:ARG:HE	84:LI:116:ARG:CB	1.90	0.79
2:SA:127:ILE:HD12	2:SA:149:ILE:HD12	1.61	0.79
5:SE:15:PHE:CZ	5:SE:221:LYS:HE3	2.17	0.79
15:SS:9:VAL:HG21	15:SS:135:ASP:CG	2.08	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:SV:53:SER:O	17:SV:56:PRO:HD3	1.79	0.79
24:SX:70:GLY:HA2	32:S1:877:G:C4'	2.12	0.79
25:SC:106:PHE:CG	32:S1:670:C:O2	2.35	0.79
32:S1:347:C:OP1	33:L1:1942:A:OP1	1.99	0.79
33:L1:180:G:H5'	35:L2:98:C:C5	2.18	0.79
66:LN:64:ARG:CG	67:LS:154:VAL:HG11	2.12	0.79
32:S1:918:G:N1	33:L1:2203:A:H8	1.62	0.79
33:L1:377:C:H42	33:L1:388:G:H1	1.29	0.79
33:L1:2147:U:H4'	37:LB:244:GLY:H	1.45	0.79
33:L1:3201:A:OP1	66:LN:99:ARG:HG2	1.83	0.79
34:L3:83:A:H61	34:L3:93:U:H3	1.25	0.79
36:LA:55:PRO:HG3	36:LA:186:VAL:CG1	2.10	0.79
56:Lh:112:ARG:O	56:Lh:116:LEU:HG	1.81	0.79
72:Lk:68:LYS:NZ	72:Lk:91:GLU:OE2	2.15	0.79
81:LD:327:VAL:HG12	81:LD:328:ALA:N	1.95	0.79
28:SN:51:GLY:CA	28:SN:52:PHE:N	2.46	0.79
33:L1:3295:G:N2	33:L1:3304:U:H1'	1.97	0.79
36:LA:179:GLN:O	36:LA:182:ILE:HG22	1.82	0.79
51:LY:70:VAL:CG1	51:LY:80:HIS:HB2	2.13	0.79
55:Lg:49:GLN:HG2	55:Lg:54:THR:O	1.83	0.79
2:SA:120:PHE:CZ	5:SE:102:GLY:HA3	2.18	0.79
32:S1:929:A:P	37:LB:109:GLU:HB3	2.22	0.79
32:S1:1747:A:O4'	33:L1:1915:G:N3	2.16	0.79
34:L3:75:G:H21	34:L3:101:A:H62	1.30	0.79
36:LA:73:VAL:HG12	36:LA:74:ASP:H	1.46	0.79
38:LE:31:ARG:HH11	38:LE:35:ALA:H	1.27	0.79
1:Sa:343:HIS:CB	32:S1:1400:G:P	2.70	0.79
9:SK:109:PRO:HG2	9:SK:112:GLN:H	1.45	0.79
17:SV:76:LEU:HD23	17:SV:79:GLN:OE1	1.82	0.79
32:S1:887:U:H5'	83:Lm:88:GLU:HB3	0.80	0.79
32:S1:1664:U:H5'	33:L1:2119:A:C5'	2.05	0.79
33:L1:1650:G:H2'	33:L1:1651:A:C8	2.17	0.79
33:L1:2059:C:C2'	33:L1:2060:C:H5'	2.11	0.79
33:L1:2218:A:OP2	72:Lk:77:LYS:NZ	2.14	0.79
64:LG:143:ASP:HA	64:LG:210:ASP:HB3	1.64	0.79
75:Lu:10:LEU:CD1	76:Lw:8:LEU:CD1	2.47	0.79
4:SD:195:ILE:HG12	4:SD:208:ILE:HD11	1.65	0.79
12:SO:90:PHE:HE1	54:Lf:20:LEU:HB2	0.65	0.79
17:SV:63:PRO:HG2	17:SV:66:LEU:CD1	2.07	0.79
23:SU:33:LEU:HD12	23:SU:35:PRO:HD3	1.63	0.79
33:L1:299:G:C2'	33:L1:299:G:N9	2.46	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:LP:9:GLU:HB3	72:Lk:100:MET:HE1	1.65	0.79
2:SA:145:ASN:ND2	5:SE:78:VAL:HG12	1.97	0.79
9:SK:90:THR:HA	9:SK:93:HIS:HE1	1.46	0.79
24:SX:39:CYS:HB3	24:SX:42:CYS:HB3	1.63	0.79
31:S2:34:G:N2	32:S1:1645:C:C4	2.50	0.79
32:S1:1747:A:C2'	33:L1:1915:G:N3	2.45	0.79
33:L1:1523:G:O3'	49:LX:79:THR:HG21	1.83	0.79
34:L3:47:C:P	45:LQ:95:ASN:HA	2.22	0.79
46:LT:136:ARG:O	46:LT:137:VAL:HG22	1.82	0.79
56:Lh:36:PRO:CG	56:Lh:53:MET:HE2	2.12	0.79
75:Lt:6:VAL:HA	76:Lv:12:LEU:HD23	1.63	0.79
75:Lt:7:ALA:HA	76:Lv:9:LEU:HD12	1.64	0.79
75:Lu:7:ALA:C	76:Lw:9:LEU:CD1	2.55	0.79
4:SD:102:LEU:HB2	4:SD:112:GLN:HE21	1.48	0.79
14:SP:94:PHE:C	46:LT:151:ARG:HD3	2.07	0.79
33:L1:1694:A:C5'	73:Lp:32:VAL:CG2	2.50	0.79
79:Ls:98:LEU:HD22	79:Ls:99:LYS:HG3	1.65	0.79
33:L1:3156:G:C2'	33:L1:3156:G:N9	2.46	0.79
36:LA:59:ARG:HH11	36:LA:175:GLU:HG2	1.46	0.79
9:SK:81:ALA:CB	9:SK:111:ALA:HB1	2.12	0.78
17:SV:95:VAL:O	17:SV:101:ILE:HG12	1.81	0.78
33:L1:1081:U:C2'	33:L1:1081:U:N1	2.46	0.78
33:L1:1646:U:C2'	33:L1:1646:U:N1	2.46	0.78
33:L1:2668:U:C2'	33:L1:2668:U:N1	2.45	0.78
36:LA:57:ILE:HG22	36:LA:150:THR:CG2	2.12	0.78
75:Lt:7:ALA:O	76:Lv:9:LEU:CD1	2.30	0.78
5:SE:1:MET:HE2	5:SE:224:PHE:CE2	2.17	0.78
7:SI:58:ILE:HG21	15:SS:11:ASP:O	1.84	0.78
11:SM:14:ARG:HH12	38:LE:109:GLN:HB2	1.46	0.78
31:S2:24:A:H2'	33:L1:2261:U:OP1	1.83	0.78
33:L1:1478:A:O3'	55:Lg:65:LYS:NZ	2.16	0.78
33:L1:1521:U:OP1	59:Lo:22:PRO:HG2	1.83	0.78
33:L1:2668:U:C2'	33:L1:2668:U:C6	2.66	0.78
34:L3:106:U:H2'	34:L3:107:C:C6	2.18	0.78
79:Ls:121:PRO:HB2	79:Ls:186:PHE:CZ	2.18	0.78
81:LD:335:PRO:O	81:LD:339:THR:HG23	1.83	0.78
6:SF:98:LEU:HD11	17:SV:102:TYR:CE2	2.13	0.78
32:S1:918:G:N1	33:L1:2202:A:P	2.54	0.78
33:L1:180:G:C5'	35:L2:98:C:N4	2.46	0.78
13:SQ:38:VAL:HG12	13:SQ:39:SER:H	1.48	0.78
14:SP:95:VAL:CG2	46:LT:152:GLU:CB	2.61	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:348:A:O2'	46:LT:140:GLU:C	2.23	0.78
33:L1:1218:U:H5'	67:LS:93:TYR:C	2.03	0.78
33:L1:3326:U:C2'	33:L1:3326:U:N1	2.45	0.78
36:LA:60:PRO:HA	36:LA:150:THR:CG2	2.14	0.78
55:Lg:63:LEU:HD23	55:Lg:96:GLU:HG2	1.65	0.78
75:Lu:14:ILE:HD11	76:Lw:2:LYS:CB	2.13	0.78
5:SE:153:TRP:CE2	5:SE:243:LYS:NZ	2.51	0.78
10:SL:93:ILE:HG12	10:SL:95:GLU:H	1.48	0.78
11:SM:35:GLY:HA2	11:SM:99:VAL:HG23	1.64	0.78
33:L1:1034:U:H2'	33:L1:1035:C:C6	2.18	0.78
33:L1:3233:C:H3'	33:L1:3234:G:H5''	1.65	0.78
34:L3:2:G:N2	34:L3:25:G:O6	2.17	0.78
34:L3:47:C:OP1	45:LQ:95:ASN:C	2.26	0.78
5:SE:258:LYS:CE	27:SH:69:LEU:CG	2.61	0.78
32:S1:633:U:C2'	32:S1:633:U:C6	2.67	0.78
32:S1:633:U:C2'	32:S1:633:U:N1	2.47	0.78
33:L1:1405:G:H4'	56:Lh:68:LEU:CD1	2.13	0.78
36:LA:98:LEU:O	36:LA:98:LEU:HD23	1.83	0.78
37:LB:136:VAL:HG11	37:LB:139:HIS:CE1	2.18	0.78
12:SO:99:ARG:CB	54:Lf:83:THR:OG1	2.31	0.78
13:SQ:97:ARG:HD2	13:SQ:98:VAL:HA	1.65	0.78
32:S1:1023:C:O2'	83:Lm:77:VAL:CB	2.31	0.78
33:L1:830:A:O2'	73:Lp:52:LYS:CB	2.32	0.78
33:L1:1365:C:H4'	81:LD:336:TYR:HB3	1.65	0.78
71:Lj:7:GLN:N	82:LK:2:VAL:H	1.81	0.78
2:SA:112:PHE:CZ	2:SA:126:LEU:HD12	2.18	0.78
24:SX:72:LYS:HD3	32:S1:1054:G:P	2.24	0.78
31:S2:72:G:C3'	33:L1:2972:C:P	2.69	0.78
32:S1:918:G:C6	33:L1:2203:A:N7	2.52	0.78
32:S1:1332:G:C2'	32:S1:1332:G:N9	2.47	0.78
33:L1:1217:G:H4'	67:LS:94:LYS:HG2	1.64	0.78
38:LE:14:ILE:CD1	38:LE:133:LEU:HB3	2.09	0.78
12:SO:151:ALA:CB	54:Lf:22:MET:HE2	2.14	0.78
31:S2:11:U:O2'	33:L1:2260:C:C4	2.37	0.78
33:L1:430:G:OP1	71:Lj:22:ARG:CG	2.31	0.78
33:L1:1298:A:C5'	67:LS:90:HIS:NE2	2.47	0.78
33:L1:1835:A:H2	33:L1:1849:U:H3	1.31	0.78
34:L3:46:C:O2'	45:LQ:200:TYR:HE1	1.66	0.78
32:S1:989:G:C2	83:Lm:75:SER:OG	2.37	0.78
33:L1:384:A:H2'	33:L1:385:A:H5'	1.64	0.78
36:LA:71:GLN:CD	36:LA:75:GLN:HB3	2.08	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:Ls:234:TYR:H	79:Ls:235:PRO:HD2	1.49	0.78
2:SA:63:GLN:O	2:SA:67:ARG:HG2	1.84	0.77
2:SA:92:LEU:HD21	2:SA:104:ALA:CB	2.12	0.77
2:SA:159:ARG:HA	5:SE:37:PRO:CG	2.15	0.77
32:S1:184:C:H42	32:S1:196:G:H1	1.29	0.77
33:L1:1207:A:C5'	34:L3:88:U:N3	2.47	0.77
33:L1:2201:G:C2	33:L1:2203:A:N6	2.52	0.77
34:L3:116:U:H2'	34:L3:117:U:H5'	1.66	0.77
36:LA:137:VAL:HG12	36:LA:139:HIS:N	1.97	0.77
4:SD:201:HIS:CG	32:S1:687:C:H5''	2.18	0.77
14:SP:47:ARG:CD	14:SP:66:SER:HB2	2.15	0.77
14:SP:47:ARG:NE	14:SP:66:SER:HB2	1.99	0.77
14:SP:122:ASP:C	46:LT:162:LYS:CD	2.57	0.77
15:SS:6:ALA:HB2	32:S1:1363:G:C1'	2.14	0.77
27:SH:32:LYS:O	27:SH:35:ILE:HG22	1.85	0.77
33:L1:1563:G:O6	33:L1:1576:C:N4	2.16	0.77
36:LA:59:ARG:HD3	36:LA:175:GLU:OE2	1.83	0.77
55:Lg:48:ALA:HB2	55:Lg:94:LYS:NZ	1.99	0.77
67:LS:28:ARG:HD2	78:Le:72:ARG:HA	1.66	0.77
31:S2:8:U:C2'	31:S2:8:U:N1	2.46	0.77
34:L3:48:G:O6	45:LQ:58:ASN:CB	2.32	0.77
5:SE:30:ARG:CD	5:SE:30:ARG:CZ	2.63	0.77
14:SP:54:TYR:N	46:LT:144:LYS:HZ1	1.82	0.77
14:SP:56:ASP:N	46:LT:123:MET:HE1	1.96	0.77
32:S1:861:A:N6	46:LT:171:GLU:HA	1.99	0.77
32:S1:1745:U:C5'	33:L1:1931:G:OP1	2.31	0.77
33:L1:643:G:H5''	56:Lh:37:LYS:CG	2.15	0.77
35:L2:158:G:C2'	35:L2:158:G:N9	2.47	0.77
36:LA:67:LEU:CD2	36:LA:147:VAL:HG21	2.14	0.77
55:Lg:48:ALA:HB2	55:Lg:94:LYS:HZ2	1.48	0.77
16:SR:139:ARG:HG2	32:S1:1566:U:O2	1.83	0.77
24:SX:69:THR:O	32:S1:877:G:OP1	2.02	0.77
26:SG:127:UNK:CA	26:SG:128:UNK:N	2.43	0.77
31:S2:39:G:P	32:S1:1006:A:H5'	2.20	0.77
32:S1:929:A:C1'	37:LB:137:ILE:CD1	2.62	0.77
32:S1:1674:C:C4'	33:L1:1913:C:O2'	2.32	0.77
34:L3:41:G:H1'	34:L3:44:C:H42	1.47	0.77
35:L2:124:G:C2'	35:L2:124:G:N9	2.46	0.77
78:Le:19:ARG:O	78:Le:23:VAL:HG23	1.85	0.77
81:LD:330:VAL:HG12	81:LD:331:LEU:CG	2.14	0.77
26:SG:127:UNK:C	26:SG:128:UNK:HA	2.15	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:635:G:C2'	32:S1:635:G:N9	2.47	0.77
32:S1:956:A:H8	54:Lf:9:LYS:HB3	0.96	0.77
32:S1:956:A:C5'	54:Lf:9:LYS:NZ	2.48	0.77
32:S1:1128:C:O2	83:Lm:25:GLN:OE1	2.03	0.77
33:L1:292:A:H5'	72:Lk:68:LYS:CE	2.15	0.77
33:L1:1179:C:O3'	82:LK:94:PRO:HG3	1.83	0.77
34:L3:116:U:C4'	45:LQ:80:TYR:HE1	1.76	0.77
43:LO:64:LEU:HA	65:LL:155:UNK:H	1.50	0.77
55:Lg:15:VAL:CB	55:Lg:86:LYS:HB2	2.14	0.77
67:LS:12:VAL:HA	78:Le:74:LYS:CB	2.09	0.77
12:SO:149:LEU:C	54:Lf:82:GLY:O	2.27	0.77
32:S1:1757:G:O3'	33:L1:2298:A:OP1	2.01	0.77
33:L1:1181:A:OP1	71:Lj:72:TRP:HH2	1.62	0.77
33:L1:1332:C:OP1	71:Lj:103:ARG:NH1	2.18	0.77
33:L1:2218:A:OP1	72:Lk:77:LYS:CE	2.33	0.77
33:L1:2700:A:C6	33:L1:2701:G:C6	2.72	0.77
40:LH:126:ILE:HG22	40:LH:201:ASN:HD22	1.49	0.77
55:Lg:15:VAL:CG2	55:Lg:86:LYS:HB2	2.14	0.77
75:Lu:10:LEU:CD2	76:Lw:8:LEU:HD11	1.92	0.77
23:SU:20:ASN:HA	23:SU:96:ARG:H	1.49	0.77
32:S1:1023:C:O2'	83:Lm:77:VAL:CG2	2.33	0.77
33:L1:180:G:H5'	35:L2:98:C:C4	2.19	0.77
33:L1:1181:A:H5''	71:Lj:70:CYS:HB2	1.67	0.77
33:L1:2474:A:C2'	33:L1:2474:A:N9	2.47	0.77
36:LA:79:MET:HG2	36:LA:83:TYR:CD2	2.20	0.77
36:LA:174:ASP:O	36:LA:177:GLN:HG2	1.85	0.77
39:LF:113:ILE:HD12	39:LF:163:LYS:HD2	1.66	0.77
48:LV:13:LYS:HE2	48:LV:154:LYS:HG3	1.67	0.77
48:LV:113:LEU:HD13	48:LV:156:GLU:N	2.00	0.77
67:LS:94:LYS:HD3	67:LS:108:MET:SD	2.25	0.77
17:SV:48:TYR:HE1	17:SV:81:ILE:C	1.93	0.77
27:SH:64:GLU:O	27:SH:65:LEU:CB	2.33	0.77
31:S2:72:G:C1'	33:L1:2972:C:C5'	2.63	0.77
32:S1:186:A:N6	32:S1:194:G:H1'	2.00	0.77
32:S1:860:A:C8	46:LT:173:LYS:CB	2.63	0.77
32:S1:956:A:O5'	54:Lf:9:LYS:CG	2.19	0.77
33:L1:415:G:H21	33:L1:631:C:H5'	1.49	0.77
33:L1:2231:G:C2'	33:L1:2231:G:N9	2.48	0.77
33:L1:3048:C:H2'	33:L1:3049:A:H5''	1.67	0.77
36:LA:52:VAL:HG22	36:LA:155:LYS:CD	2.14	0.77
36:LA:54:LEU:HD13	36:LA:134:PRO:CD	2.14	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:LO:14:HIS:CG	43:LO:15:VAL:H	2.03	0.77
78:Le:184:GLU:HB3	81:LD:358:LYS:HD3	1.66	0.77
4:SD:94:LYS:H	4:SD:94:LYS:CE	1.97	0.77
32:S1:918:G:C2	33:L1:2203:A:H8	2.03	0.77
32:S1:989:G:H1	32:S1:1022:U:H3	1.31	0.77
32:S1:1664:U:H5'	33:L1:2119:A:O3'	1.84	0.77
33:L1:817:U:O3'	57:L1:35:SER:HB3	1.83	0.77
34:L3:21:U:O4	34:L3:56:G:N1	2.18	0.77
40:LH:64:LYS:HG3	49:LX:42:PHE:CZ	2.20	0.77
48:LV:59:PRO:HA	48:LV:76:ARG:HE	1.47	0.77
78:Le:20:ARG:O	78:Le:24:TRP:HD1	1.66	0.77
79:Ls:35:ASN:HB3	79:Ls:188:TYR:CD1	2.19	0.77
2:SA:151:PHE:HA	2:SA:165:ILE:HB	1.66	0.76
2:SA:229:TYR:O	2:SA:232:VAL:CG2	2.32	0.76
6:SF:78:ASN:C	32:S1:1479:U:C5	2.63	0.76
1:Sa:90:LEU:HD11	1:Sa:123:VAL:CG1	2.13	0.76
18:SW:8:UNK:O	18:SW:12:UNK:N	2.19	0.76
33:L1:2240:C:H4'	37:LB:221:HIS:O	1.85	0.76
34:L3:6:C:C4'	45:LQ:49:ASN:HD21	1.97	0.76
48:LV:15:SER:CB	48:LV:151:LEU:HD12	2.14	0.76
9:SK:116:ARG:HD2	9:SK:129:GLU:OE1	1.84	0.76
17:SV:63:PRO:HG3	17:SV:66:LEU:CD1	2.11	0.76
24:SX:70:GLY:C	32:S1:877:G:H4'	2.11	0.76
35:L2:37:A:H4'	57:L1:72:ARG:HH12	0.63	0.76
3:SB:44:MET:HB3	3:SB:82:ASN:ND2	1.98	0.76
10:SL:51:LEU:HD21	32:S1:1141:U:H4'	1.66	0.76
26:SG:128:UNK:HA	32:S1:642:C:O4'	1.75	0.76
32:S1:1163:C:C5	32:S1:1589:C:H2'	2.20	0.76
33:L1:426:A:H4'	56:Lh:16:LYS:CE	2.16	0.76
33:L1:2768:C:H4'	60:Lr:38:GLN:OE1	1.85	0.76
34:L3:14:C:H2'	34:L3:15:C:C6	2.19	0.76
75:Lu:29:THR:O	76:Lw:29:SER:OG	2.03	0.76
78:Le:39:ALA:HB3	81:LD:358:LYS:HE3	1.67	0.76
6:SF:80:GLY:CA	32:S1:1479:U:C6	2.68	0.76
7:SI:133:LYS:HZ3	32:S1:1592:G:H4'	1.47	0.76
32:S1:632:G:N2	33:L1:849:A:N7	2.33	0.76
32:S1:860:A:C2'	46:LT:173:LYS:HD2	2.14	0.76
32:S1:1737:A:OP1	33:L1:2102:C:H5	1.68	0.76
32:S1:1792:A:C2'	32:S1:1792:A:N9	2.48	0.76
33:L1:2149:G:C4'	37:LB:227:ARG:HH22	1.98	0.76
33:L1:2160:C:P	42:LP:76:PRO:HG3	2.24	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:LA:48:PHE:HD2	36:LA:192:LEU:HD21	1.49	0.76
3:SB:154:ASP:CA	3:SB:155:GLY:N	2.49	0.76
9:SK:39:THR:HG21	9:SK:103:LYS:CD	2.14	0.76
11:SM:126:TYR:CZ	11:SM:126:TYR:CD2	2.74	0.76
32:S1:349:U:OP2	46:LT:142:ILE:N	2.19	0.76
32:S1:632:G:H1'	33:L1:849:A:C1'	2.12	0.76
36:LA:60:PRO:HB3	36:LA:149:GLU:O	1.86	0.76
9:SK:85:LYS:HE2	9:SK:119:ALA:HB2	1.66	0.76
12:SO:64:LYS:HD3	12:SO:64:LYS:O	1.85	0.76
13:SQ:52:GLY:O	13:SQ:56:HIS:CD2	2.39	0.76
32:S1:1746:U:H1'	33:L1:1931:G:N3	1.76	0.76
33:L1:1298:A:H5'	67:LS:90:HIS:CD2	2.21	0.76
75:Lu:49:LEU:HD11	79:Ls:258:THR:HG23	1.68	0.76
8:SJ:72:ILE:CD1	28:SN:33:LYS:HE2	2.16	0.76
32:S1:858:G:O3'	46:LT:179:GLU:O	1.90	0.76
32:S1:1735:C:H1'	33:L1:3334:A:O2'	1.85	0.76
33:L1:1057:A:C2'	33:L1:1057:A:N9	2.49	0.76
33:L1:1405:G:H4'	56:Lh:68:LEU:HD11	1.68	0.76
33:L1:2502:U:C6	33:L1:2502:U:H3'	2.21	0.76
66:LN:41:PRO:HG2	66:LN:75:MET:CG	2.05	0.76
4:SD:153:ILE:O	4:SD:154:ILE:CG1	2.34	0.76
7:SI:32:ARG:CZ	32:S1:1343:C:H5''	2.16	0.76
14:SP:92:LEU:HA	46:LT:151:ARG:HH22	1.51	0.76
31:S2:13:U:C5'	33:L1:2244:G:H22	1.98	0.76
32:S1:348:A:C5'	46:LT:140:GLU:N	2.41	0.76
32:S1:1205:G:C5	32:S1:1607:C:C4	2.73	0.76
32:S1:1659:A:H61	32:S1:1759:A:H61	1.34	0.76
36:LA:186:VAL:O	36:LA:190:VAL:HG23	1.86	0.76
51:LY:90:ASN:HD21	51:LY:92:SER:HB2	1.51	0.76
65:LL:154:UNK:C	65:LL:154:UNK:HA	2.11	0.76
71:Lj:17:ILE:HG23	71:Lj:99:GLY:H	1.51	0.76
75:Lu:10:LEU:HD11	76:Lw:8:LEU:CD1	2.14	0.76
78:Le:36:LYS:CA	81:LD:358:LYS:HE3	2.08	0.76
2:SA:114:ASN:HD21	32:S1:1298:G:C1'	1.93	0.76
6:SF:118:ARG:HD2	19:SY:56:GLU:HB3	1.68	0.76
10:SL:65:ILE:HG23	10:SL:66:ARG:HD2	1.66	0.76
13:SQ:104:GLU:HG3	20:SZ:31:ARG:HH11	0.75	0.76
18:SW:111:UNK:O	18:SW:115:UNK:N	2.19	0.76
36:LA:106:TYR:CE2	36:LA:140:GLN:HA	2.19	0.76
13:SQ:59:ARG:HH11	32:S1:1225:A:C1'	1.96	0.75
14:SP:41:LEU:HG	14:SP:103:LYS:NZ	2.01	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:SH:47:ILE:CG2	27:SH:60:LYS:HB3	2.15	0.75
31:S2:34:G:H4'	32:S1:1195:U:H1'	1.66	0.75
31:S2:75:A:C8	33:L1:2956:U:O5'	2.39	0.75
32:S1:887:U:O5'	83:Lm:85:ARG:NE	2.15	0.75
32:S1:1663:A:O3'	33:L1:1918:A:C1'	2.22	0.75
33:L1:283:A:C2'	33:L1:283:A:N9	2.48	0.75
33:L1:305:G:H5'	72:Lk:64:LEU:HD23	1.66	0.75
33:L1:379:U:H3	33:L1:386:G:H1	1.31	0.75
33:L1:919:G:H5'	33:L1:920:A:OP1	1.86	0.75
34:L3:46:C:H2'	34:L3:47:C:H5'	1.68	0.75
36:LA:57:ILE:HG12	36:LA:179:GLN:HG2	1.67	0.75
66:LN:64:ARG:NH2	67:LS:151:PHE:CG	2.54	0.75
78:Le:40:ALA:N	81:LD:362:LYS:HE2	1.99	0.75
81:LD:303:VAL:CG1	81:LD:304:GLN:HB2	2.16	0.75
3:SB:116:ARG:NH2	5:SE:161:HIS:HD2	1.82	0.75
4:SD:133:GLN:N	4:SD:136:ILE:HG13	2.02	0.75
25:SC:162:LEU:HB3	25:SC:163:THR:HA	1.66	0.75
32:S1:320:A:H5'	33:L1:855:U:H5'	1.66	0.75
33:L1:1222:U:C2'	33:L1:1222:U:N1	2.48	0.75
33:L1:1298:A:C5'	67:LS:90:HIS:CD2	2.68	0.75
33:L1:2157:C:O2'	37:LB:11:GLY:N	2.19	0.75
33:L1:2157:C:H4'	37:LB:7:ALA:O	1.86	0.75
33:L1:2216:G:H2'	72:Lk:77:LYS:HZ3	1.51	0.75
60:Lr:32:LYS:CB	60:Lr:32:LYS:N	2.50	0.75
66:LN:124:GLU:OE2	82:LK:194:LEU:HD12	1.85	0.75
75:Lt:10:LEU:HD11	76:Lv:8:LEU:HG	1.68	0.75
76:Lv:44:SER:CB	79:Ls:99:LYS:HD3	2.15	0.75
78:Le:40:ALA:CB	81:LD:362:LYS:HE2	2.15	0.75
81:LD:338:GLY:C	81:LD:342:LYS:HE3	2.12	0.75
23:SU:25:ARG:NH1	23:SU:26:LYS:H	1.84	0.75
31:S2:34:G:H4'	32:S1:1195:U:C1'	2.17	0.75
32:S1:887:U:C5'	83:Lm:88:GLU:CB	2.48	0.75
34:L3:6:C:H4'	45:LQ:49:ASN:ND2	2.01	0.75
34:L3:83:A:N6	34:L3:93:U:H3	1.84	0.75
81:LD:306:VAL:HB	81:LD:309:PRO:CD	2.15	0.75
2:SA:80:VAL:HG22	2:SA:127:ILE:CG2	2.17	0.75
18:SW:4:UNK:O	18:SW:8:UNK:N	2.19	0.75
18:SW:99:UNK:O	18:SW:103:UNK:N	2.19	0.75
33:L1:2149:G:H4'	37:LB:227:ARG:NH2	2.00	0.75
34:L3:86:G:H4'	67:LS:119:ARG:HG2	1.66	0.75
34:L3:114:C:C2'	45:LQ:74:ILE:HA	2.15	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:LR:41:LYS:CB	81:LD:325:LYS:HZ3	1.99	0.75
55:Lg:62:LYS:CE	55:Lg:96:GLU:HB2	2.16	0.75
71:Lj:72:TRP:CE2	82:LK:30:LYS:CE	2.68	0.75
12:SO:150:VAL:HG13	54:Lf:88:TYR:H	1.52	0.75
29:ST:82:GLN:C	33:L1:2540:C:O2'	2.29	0.75
32:S1:199:G:H2'	32:S1:200:C:C5	2.22	0.75
33:L1:1179:C:H4'	82:LK:94:PRO:CD	2.17	0.75
33:L1:1181:A:OP1	71:Lj:72:TRP:HZ3	1.66	0.75
33:L1:2650:A:OP2	84:LI:119:PHE:CZ	2.39	0.75
51:LY:99:HIS:HD2	51:LY:101:SER:H	1.32	0.75
65:LL:192:UNK:N	65:LL:193:UNK:N	2.34	0.75
2:SA:72:ILE:HG13	5:SE:66:TYR:OH	1.85	0.75
4:SD:160:ILE:HD11	4:SD:169:ILE:CD1	2.17	0.75
6:SF:98:LEU:CD1	17:SV:102:TYR:CE2	2.58	0.75
12:SO:100:LYS:O	54:Lf:80:ASP:OD1	2.04	0.75
17:SV:88:GLY:O	17:SV:89:ALA:CB	2.34	0.75
25:SC:10:LYS:CD	32:S1:505:U:H5'	2.17	0.75
33:L1:835:G:H1	33:L1:865:U:H3	1.31	0.75
33:L1:1405:G:O2'	56:Lh:68:LEU:HD12	1.87	0.75
33:L1:2398:A:C2'	33:L1:2399:G:H5'	2.16	0.75
35:L2:140:G:H4'	49:LX:66:LYS:HD2	1.69	0.75
36:LA:189:LEU:HD23	65:LL:192:UNK:CA	2.16	0.75
48:LV:99:ALA:HB1	48:LV:151:LEU:HD21	1.66	0.75
4:SD:159:THR:CG2	4:SD:227:THR:HG22	2.17	0.75
12:SO:93:LYS:CD	54:Lf:23:LYS:HA	2.16	0.75
12:SO:151:ALA:HB3	54:Lf:22:MET:HE2	1.66	0.75
32:S1:861:A:N7	46:LT:171:GLU:OE2	2.20	0.75
32:S1:1685:U:O2	33:L1:3334:A:O3'	2.04	0.75
33:L1:2318:U:C2'	33:L1:2318:U:N1	2.50	0.75
34:L3:58:G:H2'	34:L3:59:U:C6	2.21	0.75
64:LG:49:LYS:C	64:LG:50:PHE:CA	2.59	0.75
81:LD:303:VAL:HG12	81:LD:304:GLN:N	2.00	0.75
8:SJ:92:ARG:HG2	28:SN:52:PHE:CA	2.16	0.75
14:SP:95:VAL:HG21	46:LT:152:GLU:HG3	1.67	0.75
15:SS:9:VAL:HG22	15:SS:135:ASP:HA	1.68	0.75
18:SW:7:UNK:O	18:SW:11:UNK:N	2.18	0.75
18:SW:107:UNK:O	18:SW:108:UNK:CB	2.30	0.75
23:SU:12:LEU:HD23	23:SU:30:LEU:HD22	1.68	0.75
34:L3:114:C:H4'	45:LQ:74:ILE:HD12	1.69	0.75
36:LA:89:LEU:HD21	36:LA:111:ALA:CB	2.17	0.75
36:LA:110:LEU:HD23	36:LA:110:LEU:O	1.87	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:SB:18:TYR:CE2	8:SJ:120:GLU:OE2	2.40	0.75
3:SB:76:ARG:HA	13:SQ:33:LYS:CD	2.17	0.75
5:SE:30:ARG:CZ	27:SH:67:GLY:H	2.00	0.75
6:SF:46:PRO:HG2	7:SI:65:ARG:NH2	2.02	0.75
17:SV:34:LYS:HZ1	17:SV:76:LEU:HD22	1.52	0.75
17:SV:48:TYR:HE1	17:SV:81:ILE:O	1.68	0.75
24:SX:72:LYS:HE3	24:SX:72:LYS:CA	2.17	0.75
31:S2:25:U:O2'	33:L1:2260:C:P	2.37	0.75
32:S1:1588:C:H2'	32:S1:1589:C:C6	2.22	0.75
33:L1:1127:U:H3	33:L1:1137:G:H22	1.30	0.75
33:L1:3320:G:H2'	33:L1:3322:A:C8	2.22	0.75
41:LM:69:LYS:H	41:LM:72:LEU:HB2	1.51	0.75
81:LD:335:PRO:HD2	81:LD:336:TYR:N	2.00	0.75
82:LK:135:GLN:O	82:LK:135:GLN:CG	2.35	0.75
6:SF:118:ARG:HD2	19:SY:56:GLU:CB	2.17	0.74
12:SO:93:LYS:HG2	54:Lf:19:GLN:O	1.86	0.74
24:SX:57:VAL:CG1	24:SX:62:GLN:HA	2.17	0.74
24:SX:72:LYS:HD3	32:S1:1054:G:OP1	1.84	0.74
32:S1:1024:A:O4'	83:Lm:73:THR:C	2.30	0.74
33:L1:639:A:H5''	33:L1:640:C:H4'	1.69	0.74
41:LM:96:MET:HE2	50:LZ:22:ARG:HD2	1.66	0.74
44:LR:97:ALA:O	44:LR:98:MET:HB2	1.87	0.74
48:LV:35:ALA:HB3	48:LV:58:ILE:CD1	2.17	0.74
32:S1:1128:C:H4'	83:Lm:24:LYS:HA	1.66	0.74
33:L1:174:G:H1	33:L1:240:U:H3	1.35	0.74
33:L1:506:U:H2'	33:L1:507:C:C6	2.22	0.74
33:L1:1061:A:H2'	33:L1:1062:G:C8	2.21	0.74
37:LB:96:LEU:HD22	83:Lm:83:ILE:HG22	1.64	0.74
67:LS:99:THR:HG22	67:LS:100:THR:HG22	1.69	0.74
79:Ls:121:PRO:HG2	79:Ls:186:PHE:CZ	2.22	0.74
84:LI:110:ARG:HD2	84:LI:114:GLY:O	1.87	0.74
4:SD:181:VAL:CG1	4:SD:225:VAL:HG13	2.12	0.74
17:SV:25:LYS:C	17:SV:26:LYS:HG3	2.11	0.74
25:SC:10:LYS:HZ3	32:S1:505:U:H5''	1.47	0.74
32:S1:929:A:C1'	37:LB:137:ILE:HD11	2.16	0.74
32:S1:1698:A:C2	32:S1:1721:A:N1	2.53	0.74
33:L1:2160:C:OP1	42:LP:76:PRO:CD	2.35	0.74
33:L1:2240:C:C4'	37:LB:222:ALA:HA	2.17	0.74
33:L1:3301:G:O2'	48:LV:70:THR:CG2	2.35	0.74
34:L3:35:C:H1'	45:LQ:200:TYR:CE2	2.22	0.74
34:L3:115:A:HO2'	45:LQ:75:VAL:HG11	1.50	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
66:LN:99:ARG:HA	82:LK:205:LYS:HE2	1.69	0.74
67:LS:12:VAL:HG13	78:Le:74:LYS:HE2	1.69	0.74
71:Lj:69:ARG:HH12	82:LK:99:ARG:HD3	1.52	0.74
75:Lt:7:ALA:N	76:Lv:12:LEU:HD23	2.02	0.74
3:SB:76:ARG:HA	13:SQ:33:LYS:HD2	1.69	0.74
14:SP:47:ARG:CG	14:SP:66:SER:HB2	2.16	0.74
18:SW:98:UNK:O	18:SW:102:UNK:N	2.19	0.74
32:S1:929:A:OP1	37:LB:110:GLY:N	2.20	0.74
34:L3:3:A:H1'	34:L3:21:U:O2'	1.87	0.74
65:LL:54:UNK:O	65:LL:55:UNK:HA	1.87	0.74
71:Lj:7:GLN:H	82:LK:2:VAL:N	1.85	0.74
6:SF:77:ARG:HA	32:S1:1479:U:O4	1.88	0.74
12:SO:109:LYS:NZ	83:Lm:77:VAL:HG13	1.68	0.74
17:SV:53:SER:C	17:SV:56:PRO:HD3	2.13	0.74
27:SH:11:LEU:HG	27:SH:15:TYR:CE1	2.23	0.74
27:SH:32:LYS:NZ	32:S1:692:C:H4'	2.02	0.74
33:L1:271:G:C5'	72:Lk:65:LYS:HB3	2.16	0.74
33:L1:2196:G:H21	37:LB:224:THR:CG2	2.00	0.74
33:L1:2617:G:O2'	33:L1:2630:A:N6	2.20	0.74
33:L1:2898:A:C1'	53:Ld:47:ARG:HH11	2.01	0.74
34:L3:43:A:H1'	38:LE:142:ARG:NH2	2.02	0.74
55:Lg:15:VAL:HB	55:Lg:86:LYS:CD	2.17	0.74
78:Le:163:ILE:HD11	81:LD:336:TYR:HD1	1.52	0.74
4:SD:177:VAL:HG13	4:SD:195:ILE:O	1.88	0.74
32:S1:887:U:C4'	83:Lm:88:GLU:HB3	2.17	0.74
33:L1:308:U:H3'	33:L1:309:C:C5'	2.16	0.74
34:L3:14:C:H2'	34:L3:15:C:C5	2.22	0.74
81:LD:383:LYS:O	81:LD:386:ILE:HD11	1.88	0.74
4:SD:240:LYS:N	4:SD:240:LYS:CB	2.50	0.74
14:SP:47:ARG:HG2	14:SP:66:SER:CB	2.17	0.74
32:S1:354:G:C2	33:L1:847:G:H4'	2.23	0.74
32:S1:887:U:C6	83:Lm:85:ARG:CZ	2.71	0.74
33:L1:1325:G:O2'	67:LS:113:ALA:HB1	1.88	0.74
33:L1:3354:A:C2'	33:L1:3354:A:N9	2.51	0.74
36:LA:182:ILE:HD13	36:LA:186:VAL:HG23	1.68	0.74
51:LY:81:VAL:O	51:LY:84:ILE:HG22	1.88	0.74
64:LG:185:ASP:CA	64:LG:185:ASP:CG	2.60	0.74
70:Li:107:LEU:O	70:Li:108:LYS:HB2	1.85	0.74
75:Lu:14:ILE:HD11	76:Lw:2:LYS:HB3	1.70	0.74
2:SA:128:LEU:HD11	2:SA:134:ASP:HB3	1.70	0.74
6:SF:73:MET:HE3	6:SF:74:MET:HE1	1.68	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:SH:52:PHE:O	27:SH:53:VAL:CB	2.35	0.74
36:LA:182:ILE:O	36:LA:186:VAL:HG23	1.88	0.74
37:LB:91:GLY:O	37:LB:102:LEU:HB3	1.87	0.74
48:LV:60:PHE:CD2	48:LV:67:VAL:HG11	2.23	0.74
51:LY:70:VAL:HG12	51:LY:80:HIS:O	1.87	0.74
81:LD:306:VAL:HG12	81:LD:308:LYS:H	1.51	0.74
84:LI:103:LEU:HA	84:LI:116:ARG:HH22	1.52	0.74
1:Sa:364:TRP:CZ3	32:S1:1398:U:C4'	2.71	0.74
11:SM:35:GLY:HA2	11:SM:99:VAL:CG2	2.17	0.74
14:SP:88:ARG:CZ	33:L1:2082:A:O3'	2.36	0.74
14:SP:93:HIS:NE2	46:LT:154:THR:OG1	2.10	0.74
15:SS:9:VAL:CG1	15:SS:135:ASP:HA	2.18	0.74
31:S2:72:G:C5'	33:L1:2972:C:C5'	2.65	0.74
33:L1:1613:C:OP1	33:L1:1613:C:O5'	2.04	0.74
33:L1:2001:U:H3	33:L1:2010:G:H1	1.36	0.74
33:L1:3048:C:C2'	33:L1:3049:A:H5''	2.18	0.74
36:LA:55:PRO:CB	36:LA:186:VAL:HG21	2.18	0.74
40:LH:64:LYS:N	49:LX:42:PHE:O	2.20	0.74
51:LY:72:VAL:HG22	51:LY:79:ILE:HG22	1.70	0.74
66:LN:64:ARG:NH2	67:LS:151:PHE:CD2	2.56	0.74
2:SA:80:VAL:HG22	2:SA:127:ILE:HG22	1.69	0.74
2:SA:103:ILE:CD1	2:SA:107:HIS:HA	2.18	0.74
25:SC:163:THR:CB	25:SC:164:SER:N	2.51	0.74
26:SG:127:UNK:C	26:SG:128:UNK:N	2.51	0.74
28:SN:51:GLY:N	28:SN:52:PHE:N	2.36	0.74
32:S1:929:A:C5'	37:LB:137:ILE:CB	2.62	0.74
32:S1:1748:U:C6	33:L1:1915:G:O2'	2.41	0.74
33:L1:57:G:H4'	42:LP:155:VAL:HG22	1.68	0.74
33:L1:1368:U:H4'	44:LR:5:LEU:HB3	1.69	0.74
33:L1:2077:C:H5''	46:LT:113:LYS:HB2	1.69	0.74
46:LT:58:HIS:CE1	46:LT:61:SER:H	2.05	0.74
71:Lj:90:ARG:NH1	82:LK:34:ASN:C	2.45	0.74
75:Lt:48:LYS:HZ3	76:Lw:35:ASP:N	1.85	0.74
2:SA:106:ARG:N	2:SA:106:ARG:HD2	2.01	0.73
4:SD:86:PHE:CD2	4:SD:87:MET:HG2	2.22	0.73
4:SD:125:LYS:H	4:SD:142:TYR:HD2	1.35	0.73
6:SF:95:ILE:N	17:SV:102:TYR:HH	1.85	0.73
9:SK:33:PHE:HB2	9:SK:35:SER:HB3	1.70	0.73
12:SO:150:VAL:CG1	54:Lf:88:TYR:H	1.99	0.73
24:SX:38:LYS:O	24:SX:77:GLU:HG3	1.88	0.73
32:S1:61:A:C2'	32:S1:61:A:N9	2.50	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:450:A:H62	32:S1:465:G:H21	1.33	0.73
32:S1:992:G:H5''	37:LB:149:LYS:HZ2	1.16	0.73
32:S1:1747:A:C1'	33:L1:1915:G:C1'	2.58	0.73
33:L1:1388:C:H4'	81:LD:144:ARG:O	1.88	0.73
36:LA:182:ILE:HD13	36:LA:182:ILE:O	1.87	0.73
41:LM:65:VAL:HG21	41:LM:72:LEU:HD12	1.68	0.73
41:LM:69:LYS:CB	41:LM:72:LEU:HD23	2.17	0.73
66:LN:41:PRO:HG2	66:LN:75:MET:SD	2.25	0.73
27:SH:15:TYR:CE2	27:SH:65:LEU:CD2	2.71	0.73
27:SH:15:TYR:CE2	27:SH:65:LEU:HD21	2.22	0.73
31:S2:75:A:H5''	33:L1:2956:U:H1'	1.36	0.73
32:S1:823:A:N7	46:LT:172:ARG:CA	2.45	0.73
32:S1:918:G:N2	33:L1:2203:A:H8	1.86	0.73
32:S1:955:C:C2	54:Lf:9:LYS:CE	2.70	0.73
32:S1:956:A:O5'	54:Lf:12:GLU:HB2	1.86	0.73
33:L1:1181:A:H4'	71:Lj:70:CYS:CB	2.17	0.73
34:L3:48:G:C2'	34:L3:48:G:N9	2.51	0.73
60:Lr:61:LYS:O	60:Lr:61:LYS:HG3	1.87	0.73
64:LG:100:GLN:HG2	71:Lj:33:LEU:HD21	1.69	0.73
4:SD:160:ILE:HD11	4:SD:169:ILE:CG1	2.18	0.73
9:SK:39:THR:CG2	9:SK:103:LYS:HA	2.18	0.73
11:SM:14:ARG:CD	38:LE:109:GLN:OE1	2.35	0.73
32:S1:861:A:N1	46:LT:174:ILE:CD1	2.30	0.73
32:S1:1663:A:O2'	33:L1:2120:A:OP1	2.06	0.73
33:L1:3203:G:C2'	33:L1:3203:G:N9	2.52	0.73
36:LA:106:TYR:OH	36:LA:137:VAL:HB	1.89	0.73
10:SL:98:GLU:CG	10:SL:99:VAL:HG23	2.16	0.73
15:SS:9:VAL:HG21	15:SS:135:ASP:HB3	1.70	0.73
32:S1:1128:C:C5	83:Lm:28:LYS:HE3	2.23	0.73
33:L1:52:G:N2	33:L1:1549:A:N6	2.36	0.73
33:L1:528:C:H5'	66:LN:68:LYS:HD2	1.68	0.73
33:L1:1350:G:C2'	33:L1:1350:G:N9	2.50	0.73
34:L3:15:C:N3	34:L3:64:G:N1	2.36	0.73
34:L3:43:A:OP1	38:LE:139:ARG:CG	2.37	0.73
34:L3:48:G:C6	45:LQ:58:ASN:HB3	2.23	0.73
5:SE:197:LEU:HD22	32:S1:1092:A:OP1	1.87	0.73
6:SF:40:LYS:HE2	7:SI:122:LEU:HD13	1.70	0.73
8:SJ:92:ARG:HE	28:SN:50:ILE:C	1.95	0.73
11:SM:14:ARG:NE	38:LE:109:GLN:OE1	2.21	0.73
32:S1:347:C:P	33:L1:1942:A:OP1	2.47	0.73
32:S1:988:G:C2'	37:LB:173:GLY:HA2	2.17	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1405:G:O3'	56:Lh:69:PRO:CD	2.37	0.73
33:L1:2149:G:O2'	37:LB:227:ARG:NH2	2.22	0.73
33:L1:2157:C:O3'	37:LB:8:GLN:HA	1.88	0.73
33:L1:2269:U:H2'	33:L1:2270:A:H5'	1.71	0.73
43:LO:59:ARG:HG3	65:LL:148:UNK:HA	1.71	0.73
55:Lg:15:VAL:N	55:Lg:86:LYS:HG3	1.96	0.73
56:Lh:94:CYS:SG	56:Lh:120:VAL:HB	2.28	0.73
14:SP:92:LEU:HD23	46:LT:151:ARG:HH12	1.50	0.73
32:S1:320:A:C5'	33:L1:854:C:O3'	2.36	0.73
32:S1:918:G:H22	33:L1:2203:A:H8	1.37	0.73
32:S1:956:A:C8	54:Lf:9:LYS:CE	2.71	0.73
32:S1:1128:C:OP1	83:Lm:28:LYS:CE	2.35	0.73
36:LA:71:GLN:NE2	36:LA:75:GLN:HB3	2.03	0.73
66:LN:64:ARG:CD	67:LS:154:VAL:CB	2.66	0.73
67:LS:151:PHE:CG	67:LS:151:PHE:N	2.55	0.73
1:Sa:346:ARG:NH1	32:S1:1398:U:C4'	2.51	0.73
12:SO:58:HIS:CB	54:Lf:23:LYS:HZ2	1.98	0.73
31:S2:3:C:O4'	33:L1:2625:C:C4'	2.32	0.73
32:S1:918:G:O6	33:L1:2203:A:N7	2.22	0.73
33:L1:429:G:H5''	71:Lj:22:ARG:NH1	2.02	0.73
33:L1:1364:C:C3'	81:LD:337:PHE:CE1	2.62	0.73
33:L1:1478:A:H4'	55:Lg:65:LYS:HD2	1.67	0.73
33:L1:3319:G:H21	80:LC:313:GLY:HA2	1.53	0.73
34:L3:41:G:H4'	34:L3:42:A:C8	2.23	0.73
41:LM:96:MET:CE	50:LZ:22:ARG:CD	2.63	0.73
67:LS:81:LEU:HD12	67:LS:92:MET:HB3	1.70	0.73
81:LD:328:ALA:HA	81:LD:329:ALA:HB3	1.69	0.73
81:LD:375:LYS:O	81:LD:379:LYS:HG3	1.89	0.73
10:SL:5:ARG:HA	14:SP:77:HIS:HB2	1.71	0.73
17:SV:93:VAL:HG12	17:SV:94:SER:N	2.02	0.73
32:S1:929:A:O5'	37:LB:137:ILE:HG13	1.88	0.73
33:L1:985:C:H41	33:L1:1105:G:H21	1.36	0.73
55:Lg:15:VAL:HB	55:Lg:86:LYS:CG	2.18	0.73
2:SA:232:VAL:O	2:SA:233:ALA:CB	2.37	0.73
12:SO:57:GLN:C	54:Lf:101:ASP:CG	2.53	0.73
14:SP:56:ASP:N	46:LT:123:MET:HE3	2.03	0.73
27:SH:37:PHE:HA	27:SH:42:GLN:HE21	1.53	0.73
31:S2:3:C:OP2	33:L1:2626:G:H5'	1.88	0.73
32:S1:1676:G:H8	33:L1:1932:A:O3'	1.63	0.73
33:L1:292:A:P	72:Lk:68:LYS:CE	2.77	0.73
33:L1:381:G:C2'	33:L1:381:G:N9	2.50	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:974:G:H2'	33:L1:975:G:C8	2.23	0.73
33:L1:1752:C:O2'	33:L1:1753:A:H5'	1.88	0.73
33:L1:1834:C:H4'	33:L1:1835:A:C8	2.24	0.73
36:LA:60:PRO:HA	36:LA:150:THR:CB	2.19	0.73
44:LR:40:THR:CB	81:LD:325:LYS:HD2	2.19	0.73
66:LN:117:ARG:HH12	82:LK:194:LEU:HD22	1.54	0.73
75:Lu:29:THR:C	76:Lw:29:SER:OG	2.32	0.73
1:Sa:83:SER:HA	1:Sa:114:CYS:SG	2.29	0.73
3:SB:44:MET:CB	3:SB:82:ASN:HD21	1.99	0.73
7:SI:54:ALA:HB1	15:SS:11:ASP:HB3	1.71	0.73
32:S1:843:G:N3	33:L1:2062:U:H5''	1.94	0.73
32:S1:928:A:H1'	37:LB:147:ARG:NH1	2.02	0.73
36:LA:62:MET:SD	36:LA:171:LEU:HD21	2.29	0.73
55:Lg:81:VAL:C	55:Lg:97:LEU:HD11	2.14	0.73
66:LN:109:LYS:HE2	82:LK:198:LEU:CD2	2.19	0.73
17:SV:49:ASP:HA	17:SV:53:SER:OG	1.89	0.72
27:SH:22:LYS:HG2	27:SH:61:ILE:CD1	2.18	0.72
32:S1:349:U:C5'	46:LT:141:SER:CB	2.48	0.72
32:S1:978:A:H4'	33:L1:850:A:C3'	2.13	0.72
32:S1:1747:A:H1'	33:L1:1915:G:N9	2.03	0.72
33:L1:635:U:H5'	71:Lj:69:ARG:HD3	1.71	0.72
34:L3:3:A:H3'	34:L3:4:U:H5	1.54	0.72
44:LR:41:LYS:CB	81:LD:325:LYS:CE	2.66	0.72
78:Le:24:TRP:O	78:Le:28:LYS:HG3	1.89	0.72
4:SD:167:ASN:CA	4:SD:168:LYS:N	2.52	0.72
12:SO:69:SER:HB2	24:SX:49:PHE:CD2	2.22	0.72
27:SH:64:GLU:C	27:SH:65:LEU:CG	2.41	0.72
32:S1:956:A:H1'	54:Lf:9:LYS:HZ1	1.48	0.72
32:S1:1758:G:P	33:L1:2298:A:P	2.86	0.72
34:L3:28:U:H2'	34:L3:29:C:H5'	1.71	0.72
2:SA:64:LEU:CB	5:SE:44:TRP:CD1	2.69	0.72
4:SD:121:PHE:HB3	4:SD:161:LYS:HE2	1.72	0.72
14:SP:55:ILE:O	46:LT:141:SER:C	2.31	0.72
17:SV:63:PRO:HD3	17:SV:66:LEU:HD12	1.69	0.72
23:SU:25:ARG:HD3	23:SU:26:LYS:N	2.03	0.72
27:SH:15:TYR:CD2	27:SH:65:LEU:HD23	2.22	0.72
32:S1:183:C:H2'	32:S1:184:C:H6	1.53	0.72
33:L1:1387:G:H4'	81:LD:247:PRO:C	2.14	0.72
1:Sa:15:THR:O	1:Sa:18:VAL:HB	1.90	0.72
1:Sa:97:THR:C	1:Sa:98:SER:CB	2.62	0.72
2:SA:72:ILE:CG1	5:SE:66:TYR:OH	2.38	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:SD:208:ILE:HD13	4:SD:209:HIS:N	2.05	0.72
31:S2:12:U:O2'	33:L1:2245:G:O6	1.95	0.72
32:S1:860:A:C4	46:LT:173:LYS:CB	2.59	0.72
32:S1:1129:A:C1'	83:Lm:24:LYS:HD3	2.20	0.72
32:S1:1676:G:C5'	33:L1:1933:U:O5'	2.32	0.72
33:L1:1263:A:N3	79:Ls:45:ARG:NH2	2.36	0.72
34:L3:25:G:N2	34:L3:117:U:H1'	2.04	0.72
31:S2:75:A:P	33:L1:2957:U:C4'	2.72	0.72
33:L1:426:A:H4'	56:Lh:16:LYS:HE2	1.71	0.72
34:L3:116:U:C2'	34:L3:117:U:H5'	2.19	0.72
2:SA:72:ILE:HD12	5:SE:66:TYR:CZ	2.24	0.72
11:SM:14:ARG:CG	38:LE:109:GLN:CD	2.61	0.72
11:SM:126:TYR:CE1	11:SM:126:TYR:OH	2.41	0.72
12:SO:57:GLN:N	54:Lf:100:GLY:O	2.22	0.72
17:SV:42:LEU:O	17:SV:47:THR:HG23	1.89	0.72
32:S1:843:G:O2'	33:L1:2061:C:O2'	2.07	0.72
32:S1:977:G:O5'	33:L1:850:A:N6	2.23	0.72
33:L1:1365:C:OP1	81:LD:337:PHE:CE1	2.38	0.72
34:L3:119:C:O2	45:LQ:250:ASP:OD1	2.08	0.72
37:LB:112:VAL:HG13	37:LB:133:TYR:HB2	1.71	0.72
38:LE:21:LEU:CD1	38:LE:39:LEU:HD22	2.20	0.72
56:Lh:68:LEU:CD1	56:Lh:69:PRO:HD2	2.19	0.72
67:LS:115:ARG:CZ	67:LS:115:ARG:HA	2.19	0.72
80:LC:69:LYS:O	80:LC:70:LYS:CB	2.33	0.72
27:SH:37:PHE:CD1	27:SH:43:LYS:HE3	2.25	0.72
64:LG:92:ARG:HB2	64:LG:155:ALA:HB2	1.72	0.72
32:S1:990:G:H5''	37:LB:132:ASP:HA	1.69	0.72
33:L1:1694:A:H5'	73:Lp:32:VAL:HG23	1.67	0.72
33:L1:1740:U:H2'	33:L1:1742:G:C8	2.25	0.72
36:LA:43:GLN:HG3	36:LA:49:SER:O	1.89	0.72
69:La:13:LEU:HG	69:La:34:ARG:HH22	1.53	0.72
78:Le:184:GLU:CB	81:LD:358:LYS:HD3	2.20	0.72
10:SL:43:SER:HB3	10:SL:61:PRO:HB2	1.72	0.72
15:SS:6:ALA:HB2	32:S1:1363:G:O4'	1.90	0.72
32:S1:1758:G:OP1	33:L1:2298:A:P	2.47	0.72
32:S1:1759:A:C2'	32:S1:1759:A:N9	2.52	0.72
33:L1:2952:G:C2'	33:L1:2952:G:N9	2.53	0.72
43:LO:142:LEU:HB2	65:LL:118:UNK:CB	2.20	0.72
32:S1:999:G:HO2'	37:LB:246:LEU:HD22	1.49	0.72
33:L1:415:G:H21	33:L1:631:C:H5''	1.55	0.72
8:SJ:72:ILE:HD13	28:SN:33:LYS:HE2	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:S2:11:U:O2'	33:L1:2260:C:N4	2.23	0.71
31:S2:70:G:H4'	33:L1:2966:G:C5'	2.19	0.71
33:L1:1179:C:O2'	82:LK:94:PRO:N	2.23	0.71
33:L1:1295:A:C2'	33:L1:1295:A:N9	2.53	0.71
81:LD:378:GLY:C	81:LD:382:TYR:HD2	1.98	0.71
2:SA:64:LEU:HD23	2:SA:64:LEU:O	1.89	0.71
2:SA:81:GLN:NE2	2:SA:128:LEU:HD12	2.05	0.71
15:SS:2:ALA:HA	32:S1:1363:G:O3'	1.90	0.71
31:S2:75:A:H5'	33:L1:2956:U:H1'	1.71	0.71
32:S1:334:G:H1	32:S1:342:C:H42	1.38	0.71
33:L1:2902:A:H5''	39:LF:172:ARG:HH22	1.55	0.71
4:SD:160:ILE:CG1	4:SD:169:ILE:HG23	2.20	0.71
4:SD:181:VAL:HG13	4:SD:226:PHE:O	1.89	0.71
24:SX:57:VAL:CG1	24:SX:62:GLN:HG3	2.20	0.71
32:S1:918:G:C6	33:L1:2201:G:O2'	2.31	0.71
33:L1:1260:G:N2	74:LJ:122:MET:SD	2.63	0.71
33:L1:2996:A:C2	33:L1:3143:A:N6	2.59	0.71
36:LA:67:LEU:HD21	36:LA:147:VAL:HG21	1.71	0.71
69:La:25:ILE:CA	69:La:27:ARG:H	2.04	0.71
70:Li:108:LYS:HB3	70:Li:109:ILE:HG22	1.72	0.71
1:Sa:97:THR:C	1:Sa:98:SER:OG	2.33	0.71
2:SA:120:PHE:HE1	5:SE:102:GLY:CA	2.04	0.71
4:SD:58:TYR:HD1	32:S1:451:U:OP1	1.72	0.71
14:SP:68:ARG:HE	32:S1:311:G:P	2.13	0.71
17:SV:48:TYR:HE1	17:SV:81:ILE:HA	1.34	0.71
25:SC:144:ASN:O	25:SC:145:ILE:HB	1.87	0.71
33:L1:1520:A:O2'	33:L1:1521:U:H5'	1.90	0.71
33:L1:2201:G:H21	33:L1:2203:A:N6	1.86	0.71
33:L1:2898:A:C1'	53:Ld:47:ARG:NH1	2.52	0.71
55:Lg:15:VAL:HB	55:Lg:86:LYS:CB	2.19	0.71
75:Lu:10:LEU:HD12	76:Lw:5:ALA:HA	1.72	0.71
5:SE:30:ARG:CZ	27:SH:66:ASN:CA	2.68	0.71
24:SX:74:ARG:HD2	24:SX:75:LEU:N	2.05	0.71
31:S2:73:C:N3	33:L1:2405:C:OP1	2.24	0.71
32:S1:186:A:H61	32:S1:194:G:H1'	1.54	0.71
32:S1:918:G:N3	33:L1:2202:A:H8	1.85	0.71
33:L1:288:G:O3'	42:LP:98:LYS:NZ	2.17	0.71
33:L1:636:C:OP1	71:Lj:68:ILE:HG22	1.89	0.71
33:L1:2398:A:C6	33:L1:2399:G:C5	2.78	0.71
51:LY:105:VAL:HG11	51:LY:108:LEU:CD2	2.21	0.71
71:Lj:24:LYS:O	71:Lj:25:SER:C	2.26	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Sa:15:THR:HA	1:Sa:18:VAL:HG23	1.73	0.71
2:SA:64:LEU:HD11	5:SE:44:TRP:HB2	1.71	0.71
2:SA:65:ALA:CB	2:SA:165:ILE:HD11	2.21	0.71
17:SV:48:TYR:CZ	17:SV:84:LEU:HD12	2.26	0.71
25:SC:44:LEU:O	25:SC:45:TRP:CB	2.31	0.71
32:S1:1736:C:HO2'	33:L1:2101:A:HO2'	0.88	0.71
33:L1:381:G:H1'	33:L1:384:A:H61	1.56	0.71
33:L1:2425:U:H3	33:L1:2606:G:H1	1.38	0.71
34:L3:27:A:OP2	45:LQ:57:THR:N	2.23	0.71
36:LA:102:LEU:HD12	36:LA:102:LEU:O	1.90	0.71
64:LG:171:LYS:C	66:LN:109:LYS:HD2	2.15	0.71
6:SF:80:GLY:HA3	32:S1:1479:U:H1'	0.79	0.71
12:SO:103:GLU:C	54:Lf:78:ASN:HB3	2.14	0.71
14:SP:41:LEU:CD1	14:SP:103:LYS:HD3	2.18	0.71
17:SV:48:TYR:CD1	17:SV:81:ILE:HG22	2.20	0.71
28:SN:47:ALA:C	28:SN:49:ASP:H	1.99	0.71
32:S1:331:U:P	33:L1:2083:U:OP2	2.48	0.71
32:S1:861:A:N1	46:LT:174:ILE:HD13	2.04	0.71
32:S1:1659:A:C2	32:S1:1759:A:C2	2.78	0.71
32:S1:1674:C:H1'	33:L1:1931:G:N2	2.05	0.71
33:L1:1265:G:H3'	33:L1:1265:G:N3	2.06	0.71
33:L1:2157:C:H1'	37:LB:11:GLY:N	2.05	0.71
36:LA:192:LEU:HG	36:LA:194:LYS:H	1.55	0.71
48:LV:1:MET:HB3	48:LV:16:LYS:CD	2.20	0.71
81:LD:315:LYS:HG3	81:LD:319:LYS:HG3	1.72	0.71
6:SF:80:GLY:CA	32:S1:1479:U:H6	2.02	0.71
8:SJ:7:ALA:O	32:S1:1377:G:O2'	2.06	0.71
9:SK:81:ALA:HB1	9:SK:115:LEU:CD2	2.21	0.71
10:SL:65:ILE:HD13	32:S1:438:G:OP1	1.84	0.71
17:SV:64:SER:O	17:SV:67:SER:OG	2.07	0.71
24:SX:74:ARG:C	24:SX:75:LEU:HD23	2.16	0.71
25:SC:171:PRO:HB3	25:SC:171:PRO:HD3	1.71	0.71
30:S3:13:A:N6	32:S1:1157:A:P	2.58	0.71
31:S2:26:G:O4'	33:L1:2260:C:O5'	2.08	0.71
32:S1:354:G:N1	33:L1:847:G:C5'	2.53	0.71
33:L1:428:G:O2'	71:Lj:94:PRO:HA	1.89	0.71
33:L1:1406:C:O2'	56:Lh:66:HIS:ND1	1.99	0.71
33:L1:1817:U:H2'	33:L1:1818:C:H5'	1.72	0.71
33:L1:3227:U:O4'	33:L1:3227:U:C6	2.43	0.71
36:LA:43:GLN:HG2	36:LA:44:LYS:N	2.05	0.71
37:LB:137:ILE:HD13	37:LB:147:ARG:NH1	2.06	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:Lh:30:LYS:HE3	56:Lh:31:THR:HG22	1.70	0.71
81:LD:358:LYS:HE2	81:LD:362:LYS:HZ1	1.56	0.71
2:SA:165:ILE:HG22	2:SA:178:LEU:HD21	1.71	0.71
27:SH:51:GLU:O	27:SH:52:PHE:HB2	1.91	0.71
32:S1:348:A:H5'	46:LT:140:GLU:H	1.54	0.71
33:L1:280:G:C2'	33:L1:280:G:N9	2.54	0.71
34:L3:58:G:H2'	34:L3:59:U:H6	1.56	0.71
36:LA:91:LYS:HG2	36:LA:94:LYS:CE	2.21	0.71
66:LN:64:ARG:HG3	67:LS:154:VAL:HG11	1.72	0.71
2:SA:71:ALA:HB2	5:SE:65:ILE:HB	1.73	0.71
3:SB:113:LEU:O	3:SB:114:ALA:C	2.31	0.71
27:SH:11:LEU:CG	27:SH:15:TYR:HE1	2.03	0.71
32:S1:1664:U:H5'	33:L1:2119:A:C4'	2.17	0.71
45:LQ:202:GLY:N	45:LQ:202:GLY:C	2.48	0.71
66:LN:64:ARG:HG2	66:LN:65:VAL:HG23	1.73	0.71
66:LN:99:ARG:CA	82:LK:205:LYS:HE2	2.20	0.71
66:LN:110:VAL:HG13	82:LK:201:LEU:CD2	2.02	0.71
75:Lu:10:LEU:HD11	76:Lw:8:LEU:HG	1.71	0.71
79:Ls:144:LEU:HD21	79:Ls:163:LEU:HD11	1.73	0.71
2:SA:64:LEU:HG	5:SE:44:TRP:HE1	1.50	0.70
7:SI:58:ILE:HG21	15:SS:12:VAL:CA	2.21	0.70
15:SS:6:ALA:O	15:SS:9:VAL:HG23	1.90	0.70
24:SX:72:LYS:HA	24:SX:72:LYS:CE	2.07	0.70
32:S1:1745:U:C5'	33:L1:1931:G:P	2.78	0.70
33:L1:82:C:H2'	33:L1:83:U:C6	2.26	0.70
33:L1:292:A:OP1	72:Lk:68:LYS:CE	2.39	0.70
33:L1:1691:U:H3	33:L1:1751:G:H1	1.38	0.70
35:L2:102:U:P	77:Lc:67:ARG:NH2	2.64	0.70
70:Li:111:LYS:HG2	70:Li:112:THR:H	1.56	0.70
2:SA:165:ILE:HG21	2:SA:178:LEU:HD21	1.71	0.70
12:SO:107:LYS:CG	54:Lf:78:ASN:ND2	2.54	0.70
31:S2:11:U:H4'	33:L1:2247:A:C5	2.08	0.70
33:L1:506:U:H2'	33:L1:507:C:C5	2.25	0.70
33:L1:2707:A:H4'	45:LQ:35:ARG:HG3	1.72	0.70
81:LD:332:LYS:O	81:LD:335:PRO:HG2	1.89	0.70
1:Sa:211:LEU:HA	1:Sa:223:SER:HA	1.72	0.70
1:Sa:344:GLU:CG	32:S1:1399:G:OP1	2.38	0.70
14:SP:57:LYS:H	46:LT:142:ILE:C	1.99	0.70
17:SV:49:ASP:CA	17:SV:53:SER:OG	2.39	0.70
31:S2:70:G:P	33:L1:2965:C:C6	2.84	0.70
33:L1:1879:A:H2'	33:L1:1880:A:H5'	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:LV:41:LEU:HD13	48:LV:100:GLU:CG	2.14	0.70
65:LL:54:UNK:C	65:LL:55:UNK:HA	2.16	0.70
66:LN:113:ALA:HB1	82:LK:198:LEU:HG	1.72	0.70
2:SA:131:PRO:HG3	2:SA:152:CYS:HB2	1.73	0.70
13:SQ:93:VAL:HB	13:SQ:95:GLU:HG3	1.72	0.70
32:S1:977:G:C3'	33:L1:850:A:C6	2.66	0.70
32:S1:1673:C:C2'	33:L1:1914:C:H4'	2.20	0.70
32:S1:1745:U:O2	33:L1:1932:A:C8	2.43	0.70
33:L1:292:A:C5'	72:Lk:68:LYS:CE	2.70	0.70
33:L1:715:A:H2	33:L1:2789:G:H21	1.39	0.70
33:L1:1083:C:C2'	33:L1:1083:C:N1	2.53	0.70
41:LM:69:LYS:CA	41:LM:72:LEU:HD23	2.21	0.70
1:Sa:89:ARG:HE	1:Sa:103:ALA:HB1	1.56	0.70
2:SA:81:GLN:HG3	2:SA:128:LEU:HG	1.73	0.70
5:SE:258:LYS:HE3	27:SH:69:LEU:H	1.55	0.70
6:SF:56:ARG:HD3	19:SY:50:ASP:CG	2.12	0.70
25:SC:171:PRO:CB	25:SC:171:PRO:HD3	2.18	0.70
32:S1:1659:A:N6	32:S1:1759:A:H61	1.88	0.70
34:L3:115:A:O3'	45:LQ:75:VAL:HG21	1.92	0.70
37:LB:96:LEU:CD2	37:LB:166:ILE:HD13	2.18	0.70
56:Lh:44:ARG:HA	56:Lh:53:MET:HE1	1.72	0.70
66:LN:64:ARG:CD	67:LS:154:VAL:HG11	2.22	0.70
66:LN:95:VAL:HG13	82:LK:206:TYR:OXT	1.92	0.70
1:Sa:364:TRP:CE3	32:S1:1398:U:H4'	2.26	0.70
3:SB:24:MET:CE	13:SQ:30:THR:HG22	2.22	0.70
11:SM:14:ARG:CD	38:LE:109:GLN:CG	2.57	0.70
11:SM:55:ARG:HH21	17:SV:38:ASN:ND2	1.90	0.70
32:S1:1129:A:C1'	83:Lm:24:LYS:HE2	2.21	0.70
32:S1:1663:A:O3'	33:L1:1918:A:C4	2.44	0.70
33:L1:271:G:C1'	72:Lk:66:VAL:HG22	2.22	0.70
33:L1:1263:A:H5''	79:Ls:45:ARG:HH11	1.57	0.70
33:L1:1692:U:H3	33:L1:1750:A:H61	1.36	0.70
33:L1:2113:A:H2'	33:L1:2114:A:C8	2.26	0.70
33:L1:2381:G:OP2	82:LK:95:HIS:CD2	2.45	0.70
33:L1:3301:G:C5'	48:LV:70:THR:C	2.64	0.70
34:L3:45:U:H2'	34:L3:46:C:H5	1.57	0.70
36:LA:92:MET:HE1	36:LA:117:LYS:HB2	1.72	0.70
1:Sa:97:THR:O	1:Sa:98:SER:OG	2.08	0.70
9:SK:90:THR:O	9:SK:93:HIS:CE1	2.44	0.70
11:SM:10:GLN:O	38:LE:118:TYR:CD2	2.43	0.70
11:SM:139:THR:HG21	32:S1:1178:C:C5	2.27	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:SO:124:ARG:HG2	32:S1:632:G:H5'	1.72	0.70
12:SO:128:TYR:HE1	32:S1:971:A:OP2	1.74	0.70
27:SH:94:LEU:HD13	27:SH:95:PRO:HG2	1.73	0.70
31:S2:72:G:C5'	33:L1:2972:C:OP1	2.36	0.70
32:S1:1678:G:C2'	32:S1:1678:G:C4	2.74	0.70
32:S1:1746:U:C6	33:L1:1931:G:C1'	2.66	0.70
33:L1:1394:C:O4'	33:L1:1394:C:N1	2.23	0.70
33:L1:2148:U:OP1	37:LB:242:ARG:HG3	1.92	0.70
33:L1:2621:G:OP1	84:LI:115:MET:SD	2.49	0.70
33:L1:3296:C:N3	80:LC:25:HIS:CE1	2.59	0.70
34:L3:21:U:C5	34:L3:22:A:C2	2.79	0.70
34:L3:48:G:C6	45:LQ:58:ASN:O	2.45	0.70
36:LA:175:GLU:O	36:LA:178:ILE:HG22	1.91	0.70
36:LA:192:LEU:HD23	36:LA:194:LYS:HB3	1.74	0.70
31:S2:71:A:C5'	33:L1:2971:A:H1'	2.10	0.70
31:S2:72:G:C2'	31:S2:72:G:N9	2.55	0.70
32:S1:1129:A:O4'	83:Lm:24:LYS:HD3	1.88	0.70
32:S1:1395:C:H2'	32:S1:1396:U:H4'	1.73	0.70
33:L1:1478:A:C4'	55:Lg:65:LYS:HD3	2.14	0.70
33:L1:3301:G:H4'	48:LV:70:THR:CA	2.21	0.70
41:LM:96:MET:HE3	50:LZ:22:ARG:CD	2.20	0.70
81:LD:327:VAL:HG12	81:LD:328:ALA:H	1.56	0.70
1:Sa:90:LEU:HD11	1:Sa:123:VAL:HG21	1.74	0.70
7:SI:133:LYS:HZ1	32:S1:1592:G:H4'	0.68	0.70
26:SG:8:UNK:CB	46:LT:189:CYS:SG	2.80	0.70
32:S1:858:G:O5'	46:LT:179:GLU:HG3	1.89	0.70
32:S1:858:G:H2'	46:LT:176:ARG:HD3	1.72	0.70
33:L1:689:G:P	65:LL:40:UNK:CB	2.79	0.70
33:L1:1923:G:C8	83:Lm:16:THR:HA	2.27	0.70
55:Lg:52:MET:HG3	55:Lg:92:ASP:OD2	1.91	0.70
64:LG:51:TYR:O	64:LG:52:PRO:C	2.30	0.70
8:SJ:84:ASN:HD21	32:S1:1201:C:H4'	1.56	0.70
9:SK:43:VAL:H	9:SK:106:THR:CG2	2.05	0.70
14:SP:60:PRO:O	33:L1:2083:U:OP1	2.09	0.70
16:SR:83:GLU:O	16:SR:87:THR:HG22	1.91	0.70
32:S1:180:A:H61	32:S1:200:C:H42	1.39	0.70
32:S1:990:G:C5'	33:L1:2172:C:N4	2.49	0.70
33:L1:308:U:C3'	33:L1:309:C:C5'	2.70	0.70
33:L1:2149:G:H5''	37:LB:241:ARG:NH1	2.06	0.70
12:SO:100:LYS:NZ	54:Lf:15:ASN:OD1	2.24	0.69
14:SP:122:ASP:CA	46:LT:162:LYS:CD	2.68	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:SU:20:ASN:CG	23:SU:23:LEU:HD11	2.17	0.69
33:L1:881:G:C2	33:L1:2982:U:H5''	2.26	0.69
36:LA:106:TYR:CE1	36:LA:143:LEU:HG	2.26	0.69
38:LE:74:ARG:HB3	38:LE:74:ARG:CZ	2.22	0.69
41:LM:34:ALA:HA	41:LM:68:GLY:CA	2.20	0.69
51:LY:76:ARG:HA	51:LY:76:ARG:HE	1.57	0.69
56:Lh:94:CYS:HB2	56:Lh:120:VAL:HG11	1.73	0.69
75:Lu:7:ALA:O	76:Lw:9:LEU:HD11	1.90	0.69
79:Ls:29:LEU:HB3	79:Ls:92:ILE:HG23	1.74	0.69
79:Ls:121:PRO:HG2	79:Ls:186:PHE:CD1	2.25	0.69
6:SF:80:GLY:CA	32:S1:1479:U:C1'	2.51	0.69
9:SK:105:LYS:CE	9:SK:131:VAL:HG22	2.22	0.69
32:S1:844:C:P	33:L1:2061:C:O2'	2.47	0.69
32:S1:956:A:C1'	54:Lf:9:LYS:HE3	2.12	0.69
33:L1:817:U:H5'	57:Ll:45:ARG:HH12	1.57	0.69
33:L1:1261:C:H5'	74:LJ:123:ALA:HA	1.73	0.69
34:L3:33:U:H3'	34:L3:34:C:H5''	1.74	0.69
35:L2:98:C:H6	35:L2:98:C:H5''	1.56	0.69
36:LA:132:LYS:O	36:LA:134:PRO:HD3	1.92	0.69
9:SK:39:THR:HG22	9:SK:103:LYS:HA	1.74	0.69
9:SK:81:ALA:O	9:SK:115:LEU:HD23	1.92	0.69
32:S1:1745:U:H2'	33:L1:1931:G:C8	2.27	0.69
33:L1:640:C:OP1	33:L1:650:A:H1'	1.91	0.69
33:L1:1852:C:H4'	73:Lp:48:LYS:HA	1.74	0.69
33:L1:3097:G:H1'	80:LC:331:CYS:SG	2.32	0.69
51:LY:55:VAL:HG22	51:LY:103:VAL:HG22	1.73	0.69
11:SM:18:THR:HA	38:LE:109:GLN:NE2	2.07	0.69
32:S1:989:G:H4'	37:LB:173:GLY:H	1.57	0.69
32:S1:1747:A:H8	33:L1:1930:G:C4	2.11	0.69
33:L1:30:C:H1'	33:L1:1549:A:N1	2.07	0.69
33:L1:2148:U:H3	33:L1:2175:A:H61	1.39	0.69
37:LB:104:ILE:CG2	37:LB:160:SER:HA	2.23	0.69
43:LO:63:ARG:HH12	65:LL:152:UNK:CA	2.04	0.69
51:LY:33:ALA:O	51:LY:104:VAL:HG13	1.93	0.69
71:Lj:90:ARG:CZ	82:LK:34:ASN:HA	2.22	0.69
75:Lt:17:ASP:OD2	76:Lv:1:MET:C	2.35	0.69
78:Le:36:LYS:HG2	81:LD:358:LYS:HD2	1.74	0.69
23:SU:25:ARG:HD2	23:SU:27:GLN:HG3	1.75	0.69
32:S1:1747:A:O2'	33:L1:1916:U:O4'	2.10	0.69
33:L1:1638:U:O4	69:La:26:VAL:O	2.11	0.69
33:L1:1888:G:H21	33:L1:3057:A:N6	1.90	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2688:G:H5'	38:LE:155:ARG:HE	1.58	0.69
36:LA:68:GLY:HA2	36:LA:83:TYR:OH	1.92	0.69
36:LA:112:SER:HA	36:LA:115:ILE:HG12	1.75	0.69
56:Lh:36:PRO:HG3	56:Lh:53:MET:HE2	1.73	0.69
32:S1:1664:U:H5'	33:L1:2119:A:C3'	2.21	0.69
33:L1:180:G:C5'	35:L2:98:C:C4	2.75	0.69
33:L1:1405:G:O2'	56:Lh:68:LEU:CD1	2.40	0.69
5:SE:31:ARG:CD	27:SH:67:GLY:CA	2.71	0.69
7:SI:91:ILE:HG21	7:SI:95:LEU:HD22	1.73	0.69
27:SH:4:VAL:HG23	27:SH:5:SER:H	1.58	0.69
31:S2:13:U:OP1	33:L1:2244:G:N2	2.25	0.69
32:S1:886:A:P	83:Lm:81:SER:HB3	2.33	0.69
35:L2:43:G:O4'	35:L2:43:G:N9	2.25	0.69
45:LQ:247:ILE:HG23	45:LQ:248:ARG:HG2	1.74	0.69
78:Le:39:ALA:O	81:LD:362:LYS:NZ	2.25	0.69
4:SD:220:THR:HA	32:S1:653:U:H4'	1.75	0.69
6:SF:154:ALA:C	6:SF:165:ILE:HD12	2.18	0.69
26:SG:10:UNK:O	26:SG:11:UNK:CB	2.39	0.69
27:SH:22:LYS:HG2	27:SH:61:ILE:CG1	2.23	0.69
27:SH:65:LEU:CB	27:SH:70:ASN:HA	2.23	0.69
28:SN:51:GLY:C	28:SN:52:PHE:CA	2.66	0.69
29:ST:2:GLN:HE21	33:L1:2544:C:H2'	1.55	0.69
32:S1:977:G:C5	33:L1:850:A:C5	2.75	0.69
32:S1:1735:C:H4'	33:L1:2103:U:H5''	1.74	0.69
33:L1:1620:U:H2'	33:L1:1621:G:C8	2.27	0.69
33:L1:2352:G:H5''	48:LV:87:LYS:HB2	1.75	0.69
34:L3:93:U:H2'	34:L3:94:C:C6	2.26	0.69
36:LA:53:LYS:HG3	36:LA:54:LEU:H	1.57	0.69
66:LN:12:VAL:O	66:LN:56:THR:HG22	1.92	0.69
79:Ls:29:LEU:HD21	79:Ls:192:ILE:HG13	1.75	0.69
1:Sa:90:LEU:CD1	1:Sa:123:VAL:HG11	2.20	0.69
5:SE:15:PHE:HD2	5:SE:182:PRO:HD2	1.58	0.69
30:S3:22:A:C5	32:S1:1642:C:N4	2.61	0.69
32:S1:180:A:N6	32:S1:200:C:H42	1.91	0.69
33:L1:52:G:H22	33:L1:1549:A:N6	1.89	0.69
33:L1:817:U:C5'	57:Ll:45:ARG:HH12	2.06	0.69
33:L1:1174:G:C5'	34:L3:84:U:H3	2.06	0.69
37:LB:96:LEU:HD22	83:Lm:83:ILE:HG21	1.69	0.69
66:LN:64:ARG:CD	67:LS:154:VAL:HB	2.22	0.69
66:LN:64:ARG:HG2	66:LN:65:VAL:N	2.08	0.69
2:SA:135:HIS:CA	2:SA:138:ILE:HG12	2.23	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:SD:94:LYS:H	4:SD:94:LYS:HE3	1.56	0.69
4:SD:195:ILE:HG23	4:SD:208:ILE:CD1	2.22	0.69
11:SM:81:ASP:HB2	11:SM:93:GLY:HA2	1.73	0.69
32:S1:1676:G:C5'	33:L1:1934:U:OP2	2.41	0.69
33:L1:293:A:H4'	72:Lk:58:LYS:HZ1	1.57	0.69
33:L1:885:A:OP2	48:LV:133:ALA:HB2	1.92	0.69
33:L1:997:G:C2'	33:L1:997:G:N9	2.54	0.69
33:L1:1394:C:H4'	33:L1:1395:A:C5'	2.23	0.69
33:L1:1867:U:O5'	46:LT:56:LYS:NZ	2.24	0.69
33:L1:2750:A:H2'	33:L1:2751:A:C8	2.27	0.69
45:LQ:17:PHE:N	45:LQ:20:PHE:CD2	2.61	0.69
54:Lf:54:PRO:HB3	62:Lx:1:UNK:H2	1.58	0.69
76:Lw:59:ARG:HB3	79:Ls:245:LEU:HD13	1.73	0.69
32:S1:859:U:H4'	46:LT:180:ARG:CB	2.21	0.68
33:L1:216:G:O6	51:LY:60:GLY:HA2	1.93	0.68
33:L1:1628:G:O4'	33:L1:1628:G:N9	2.26	0.68
34:L3:58:G:C5'	45:LQ:29:GLN:NE2	2.55	0.68
37:LB:96:LEU:CD2	83:Lm:83:ILE:HG21	2.21	0.68
44:LR:132:THR:CA	81:LD:325:LYS:HZ2	2.04	0.68
55:Lg:82:ARG:HB2	55:Lg:97:LEU:HD21	1.75	0.68
4:SD:194:VAL:O	4:SD:210:VAL:HG13	1.93	0.68
14:SP:94:PHE:C	46:LT:151:ARG:HG2	2.17	0.68
25:SC:10:LYS:CE	32:S1:505:U:C5'	2.68	0.68
33:L1:528:C:H2'	33:L1:529:C:C6	2.27	0.68
35:L2:93:A:C6	35:L2:95:C:C5	2.81	0.68
48:LV:113:LEU:HG	48:LV:153:GLU:HA	1.74	0.68
64:LG:152:LYS:O	64:LG:155:ALA:HB3	1.92	0.68
66:LN:32:ASP:HA	67:LS:145:HIS:CD2	2.28	0.68
75:Lt:14:ILE:CD1	76:Lv:2:LYS:C	2.65	0.68
84:LI:110:ARG:NE	84:LI:116:ARG:HD2	2.09	0.68
5:SE:30:ARG:HE	27:SH:66:ASN:HA	1.58	0.68
14:SP:57:LYS:N	46:LT:142:ILE:C	2.51	0.68
15:SS:9:VAL:HG21	15:SS:135:ASP:HA	1.62	0.68
23:SU:62:PHE:CB	23:SU:80:LEU:HD23	2.24	0.68
32:S1:860:A:H5'	46:LT:177:ARG:CD	2.23	0.68
32:S1:992:G:H5'	37:LB:149:LYS:HZ1	1.54	0.68
32:S1:1664:U:OP1	33:L1:1917:A:C2	2.44	0.68
33:L1:641:C:C2	33:L1:642:C:C6	2.82	0.68
55:Lg:1:MET:HE3	55:Lg:54:THR:HG23	1.74	0.68
64:LG:185:ASP:O	64:LG:186:ALA:HB2	1.92	0.68
79:Ls:112:ALA:HB3	79:Ls:188:TYR:CD2	2.28	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
84:LI:110:ARG:CD	84:LI:116:ARG:CB	2.69	0.68
4:SD:101:LEU:HD21	4:SD:109:PHE:CB	2.23	0.68
17:SV:63:PRO:CD	17:SV:66:LEU:HB2	2.22	0.68
31:S2:74:C:N1	33:L1:2404:C:H4'	2.03	0.68
32:S1:887:U:C5	83:Lm:85:ARG:NH2	2.56	0.68
33:L1:1320:G:C8	82:LK:134:LEU:HD22	2.27	0.68
38:LE:91:TYR:CG	38:LE:92:GLU:CA	2.76	0.68
66:LN:110:VAL:HG21	82:LK:201:LEU:HD21	1.76	0.68
67:LS:41:SER:HB3	78:Le:224:VAL:HG22	1.76	0.68
79:Ls:119:VAL:O	79:Ls:121:PRO:HD3	1.93	0.68
2:SA:152:CYS:O	2:SA:166:PRO:HA	1.94	0.68
5:SE:197:LEU:HD22	32:S1:1091:A:H5''	1.76	0.68
33:L1:2115:G:H2'	33:L1:2116:G:H4'	1.74	0.68
33:L1:2398:A:N1	33:L1:2399:G:C4	2.61	0.68
34:L3:87:G:C5'	67:LS:117:ARG:HH21	2.05	0.68
56:Lh:87:MET:CA	56:Lh:118:ILE:HD11	2.24	0.68
78:Le:147:ARG:NH2	81:LD:359:LEU:HD21	2.08	0.68
2:SA:135:HIS:CG	2:SA:138:ILE:HD11	2.28	0.68
4:SD:102:LEU:HG	4:SD:103:TYR:N	2.08	0.68
5:SE:153:TRP:NE1	5:SE:243:LYS:NZ	2.41	0.68
5:SE:197:LEU:HD11	32:S1:1302:C:O2	1.93	0.68
11:SM:14:ARG:CB	38:LE:111:HIS:CD2	2.71	0.68
23:SU:25:ARG:HD2	23:SU:27:GLN:CG	2.23	0.68
31:S2:3:C:C4'	33:L1:2625:C:H5''	2.24	0.68
32:S1:184:C:N4	32:S1:196:G:H1	1.91	0.68
32:S1:857:A:N3	46:LT:176:ARG:NH2	2.42	0.68
32:S1:987:U:H3	32:S1:1024:A:H61	1.41	0.68
32:S1:1017:U:OP1	37:LB:249:GLN:CA	2.41	0.68
33:L1:3296:C:N4	80:LC:176:GLN:HE22	1.91	0.68
44:LR:97:ALA:O	44:LR:98:MET:CB	2.36	0.68
1:Sa:343:HIS:CD2	32:S1:1400:G:H5'	2.28	0.68
4:SD:86:PHE:CE1	4:SD:102:LEU:HD12	2.19	0.68
20:SZ:10:ARG:CB	32:S1:1255:U:OP2	2.41	0.68
31:S2:70:G:C5'	33:L1:2966:G:O5'	2.40	0.68
32:S1:918:G:C6	33:L1:2201:G:C2'	2.64	0.68
32:S1:1024:A:O4'	83:Lm:73:THR:CA	2.42	0.68
32:S1:1768:U:HO2'	33:L1:2257:A:HO2'	1.39	0.68
33:L1:1851:U:OP1	73:Lp:52:LYS:HG3	1.94	0.68
33:L1:2647:C:C1'	84:LI:115:MET:HE1	2.24	0.68
34:L3:115:A:H4'	45:LQ:75:VAL:HG22	1.75	0.68
37:LB:166:ILE:HG22	83:Lm:83:ILE:CD1	2.24	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
68:LW:104:VAL:O	68:LW:105:ILE:C	2.34	0.68
84:LI:112:GLN:O	84:LI:113:THR:HG23	1.93	0.68
4:SD:100:ARG:HH12	4:SD:122:LYS:HA	1.58	0.68
26:SG:8:UNK:C	46:LT:186:GLU:C	2.67	0.68
32:S1:928:A:P	37:LB:109:GLU:OE2	2.52	0.68
32:S1:1659:A:N6	32:S1:1759:A:N6	2.42	0.68
33:L1:1387:G:H4'	81:LD:247:PRO:O	1.94	0.68
33:L1:3115:A:O2'	39:LF:63:ARG:CD	2.42	0.68
34:L3:51:G:H2'	34:L3:52:U:H5'	1.75	0.68
34:L3:87:G:P	67:LS:117:ARG:NH2	2.66	0.68
38:LE:21:LEU:HD12	38:LE:39:LEU:HD22	1.76	0.68
48:LV:125:LYS:CA	48:LV:144:PRO:HD2	2.24	0.68
78:Le:184:GLU:HB3	81:LD:358:LYS:CD	2.24	0.68
84:LI:110:ARG:CD	84:LI:116:ARG:CG	2.72	0.68
14:SP:94:PHE:N	46:LT:151:ARG:NE	2.39	0.68
31:S2:75:A:H5''	33:L1:2956:U:C4'	2.24	0.68
33:L1:428:G:O3'	71:Lj:95:PRO:CA	2.37	0.68
33:L1:720:G:H5''	43:LO:109:LYS:HD2	1.76	0.68
44:LR:128:LEU:HD22	81:LD:313:GLU:HG3	1.76	0.68
66:LN:89:TRP:H	66:LN:91:LYS:H	1.42	0.68
75:Lt:10:LEU:HD12	76:Lv:8:LEU:HB3	1.74	0.68
75:Lu:17:ASP:O	76:Lw:2:LYS:HE3	1.90	0.68
76:Lv:44:SER:HB2	79:Ls:99:LYS:HD3	1.75	0.68
4:SD:166:THR:HG23	4:SD:168:LYS:N	2.08	0.68
5:SE:31:ARG:HE	27:SH:67:GLY:CA	1.78	0.68
6:SF:200:ARG:HB3	9:SK:79:ASP:OD2	1.93	0.68
14:SP:95:VAL:CB	46:LT:152:GLU:HA	2.22	0.68
23:SU:69:HIS:HB2	23:SU:72:GLY:H	1.59	0.68
31:S2:72:G:C4'	33:L1:2972:C:OP1	2.42	0.68
32:S1:918:G:O6	33:L1:2201:G:C1'	2.42	0.68
32:S1:928:A:H5'	37:LB:139:HIS:H	1.58	0.68
33:L1:3296:C:C2	80:LC:25:HIS:HE1	2.11	0.68
38:LE:38:VAL:HG23	38:LE:120:PRO:CB	2.24	0.68
4:SD:87:MET:HE2	4:SD:123:LEU:H	1.59	0.67
14:SP:44:LYS:HE2	14:SP:117:ARG:HD3	1.76	0.67
24:SX:72:LYS:NZ	32:S1:1054:G:OP1	2.28	0.67
25:SC:106:PHE:CZ	32:S1:670:C:O2	2.47	0.67
33:L1:549:G:OP1	81:LD:396:ASN:OD1	2.12	0.67
35:L2:93:A:C5	35:L2:95:C:H5	2.13	0.67
36:LA:111:ALA:O	36:LA:115:ILE:HG23	1.94	0.67
27:SH:94:LEU:CB	27:SH:95:PRO:HD2	2.25	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:S2:75:A:O5'	33:L1:2957:U:H5'	1.93	0.67
33:L1:1432:G:N3	81:LD:108:PRO:CB	2.56	0.67
34:L3:5:G:OP2	45:LQ:26:ARG:NH1	2.28	0.67
34:L3:45:U:H2'	34:L3:46:C:C5	2.30	0.67
36:LA:189:LEU:O	36:LA:189:LEU:HD23	1.94	0.67
55:Lg:15:VAL:HG11	55:Lg:86:LYS:HZ2	1.58	0.67
69:La:27:ARG:CZ	69:La:42:LEU:HD21	2.24	0.67
78:Le:39:ALA:HB3	81:LD:358:LYS:CE	2.24	0.67
78:Le:40:ALA:N	81:LD:362:LYS:CE	2.57	0.67
11:SM:17:ASN:OD1	38:LE:125:TYR:CD2	2.47	0.67
31:S2:11:U:O4'	33:L1:2247:A:C4	2.40	0.67
32:S1:956:A:H8	54:Lf:9:LYS:CB	1.77	0.67
33:L1:2355:A:N1	33:L1:2984:A:H2	1.93	0.67
33:L1:3301:G:C4'	48:LV:70:THR:C	2.66	0.67
34:L3:28:U:C1'	34:L3:54:A:H61	2.00	0.67
36:LA:89:LEU:HD21	36:LA:111:ALA:HB1	1.76	0.67
70:Li:20:THR:HG22	70:Li:34:TYR:H	1.60	0.67
4:SD:181:VAL:HG13	4:SD:226:PHE:C	2.19	0.67
11:SM:14:ARG:HG2	38:LE:109:GLN:NE2	2.09	0.67
14:SP:98:TYR:CE1	46:LT:155:LEU:CG	2.78	0.67
15:SS:5:THR:HG22	15:SS:139:GLY:HA2	1.75	0.67
23:SU:62:PHE:HB3	23:SU:80:LEU:HD23	1.77	0.67
31:S2:11:U:P	33:L1:2247:A:HO2'	2.15	0.67
32:S1:188:U:O2	32:S1:193:G:C2	2.47	0.67
32:S1:887:U:H4'	83:Lm:88:GLU:CB	2.24	0.67
32:S1:1664:U:H5''	33:L1:2119:A:H5''	0.68	0.67
32:S1:1664:U:P	33:L1:1918:A:H1'	2.34	0.67
33:L1:634:A:O2'	71:Lj:69:ARG:NE	2.27	0.67
33:L1:2779:G:C2'	33:L1:2779:G:N9	2.57	0.67
64:LG:49:LYS:C	64:LG:50:PHE:HA	2.19	0.67
1:Sa:128:LEU:HD23	1:Sa:159:TYR:HB3	1.76	0.67
5:SE:30:ARG:CD	27:SH:67:GLY:CA	2.71	0.67
7:SI:87:ILE:HG21	32:S1:1354:C:OP1	1.95	0.67
32:S1:200:C:H3'	32:S1:201:G:H5''	1.74	0.67
32:S1:348:A:C3'	46:LT:140:GLU:OE2	2.17	0.67
33:L1:228:C:H3'	33:L1:229:G:H5'	1.77	0.67
33:L1:308:U:C3'	33:L1:309:C:H5'	2.24	0.67
33:L1:1636:C:N4	70:Li:46:VAL:HG21	2.06	0.67
33:L1:2607:U:O3'	37:LB:226:ARG:NH2	2.27	0.67
56:Lh:35:ARG:HD2	56:Lh:36:PRO:O	1.95	0.67
3:SB:24:MET:HE1	13:SQ:30:THR:HG22	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:SD:101:LEU:HD23	4:SD:102:LEU:N	2.10	0.67
4:SD:150:PRO:O	4:SD:151:ASP:HB2	1.92	0.67
4:SD:153:ILE:C	4:SD:154:ILE:HG13	2.20	0.67
5:SE:258:LYS:HE3	27:SH:69:LEU:HG	1.75	0.67
12:SO:99:ARG:O	54:Lf:80:ASP:OD2	2.11	0.67
27:SH:96:SER:OG	27:SH:99:PHE:N	2.27	0.67
31:S2:11:U:OP1	33:L1:2247:A:H4'	1.95	0.67
32:S1:887:U:N1	83:Lm:85:ARG:NH2	2.30	0.67
33:L1:99:A:P	42:LP:182:HIS:CE1	2.87	0.67
33:L1:1217:G:O3'	67:LS:94:LYS:HA	1.94	0.67
33:L1:1391:A:C2	33:L1:1424:G:C4	2.83	0.67
33:L1:2216:G:N1	72:Lk:77:LYS:HE3	2.07	0.67
48:LV:99:ALA:HB1	48:LV:151:LEU:HD11	1.77	0.67
68:LW:104:VAL:O	68:LW:105:ILE:O	2.13	0.67
10:SL:82:ALA:H	10:SL:85:PRO:HD3	1.58	0.67
32:S1:354:G:H1	33:L1:847:G:C5'	2.07	0.67
32:S1:860:A:H5'	46:LT:177:ARG:CB	2.24	0.67
33:L1:915:G:H1	37:LB:208:GLU:CD	2.03	0.67
33:L1:1263:A:N6	79:Ls:33:ALA:H	1.91	0.67
33:L1:1476:G:H5''	46:LT:23:TRP:CD1	2.29	0.67
33:L1:3068:U:H3	33:L1:3075:G:H1	1.43	0.67
34:L3:21:U:C4	34:L3:56:G:O6	2.47	0.67
36:LA:51:SER:OG	36:LA:190:VAL:HG11	1.95	0.67
45:LQ:256:SER:C	45:LQ:256:SER:HA	2.09	0.67
2:SA:78:ILE:HG23	2:SA:125:LEU:CD1	2.24	0.67
2:SA:114:ASN:OD1	32:S1:1298:G:O4'	2.13	0.67
6:SF:80:GLY:N	32:S1:1479:U:O2'	2.28	0.67
10:SL:74:VAL:HB	10:SL:104:PHE:CZ	2.29	0.67
27:SH:1:MET:C	32:S1:638:G:H4'	2.19	0.67
31:S2:11:U:OP1	33:L1:2247:A:C4'	2.42	0.67
33:L1:1638:U:O4	69:La:26:VAL:CA	2.42	0.67
33:L1:1992:U:H3	33:L1:2019:G:H1	1.42	0.67
34:L3:25:G:H22	34:L3:117:U:H1'	1.59	0.67
34:L3:37:G:H21	34:L3:43:A:N6	1.92	0.67
34:L3:56:G:H2'	34:L3:57:C:H5'	1.76	0.67
50:LZ:4:LYS:N	80:LC:304:ARG:HH22	1.90	0.67
55:Lg:15:VAL:HG23	55:Lg:86:LYS:N	2.10	0.67
67:LS:12:VAL:HG12	78:Le:75:GLY:H	1.60	0.67
81:LD:333:LEU:HB3	81:LD:337:PHE:CE2	2.24	0.67
83:Lm:1:MET:HG3	83:Lm:7:LYS:HE2	1.77	0.67
14:SP:89:ARG:NE	46:LT:151:ARG:CZ	2.57	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:ST:2:GLN:NE2	33:L1:2544:C:C2'	2.57	0.67
33:L1:1181:A:C5'	71:Lj:70:CYS:SG	2.82	0.67
33:L1:1261:C:C5'	74:LJ:124:LYS:H	2.08	0.67
33:L1:2237:A:O4'	33:L1:2237:A:N9	2.28	0.67
33:L1:2287:U:H3	33:L1:2295:G:H1	1.41	0.67
33:L1:2621:G:P	84:LI:115:MET:SD	2.93	0.67
34:L3:35:C:C1'	45:LQ:200:TYR:HE2	2.08	0.67
34:L3:115:A:O3'	45:LQ:75:VAL:CG2	2.43	0.67
35:L2:41:A:O4'	35:L2:41:A:N9	2.27	0.67
70:Li:46:VAL:HG23	70:Li:47:THR:N	2.10	0.67
76:Lv:40:GLU:CA	79:Ls:99:LYS:HZ2	2.01	0.67
76:Lv:42:MET:SD	79:Ls:214:LEU:HD22	2.34	0.67
76:Lw:45:GLN:OE1	79:Ls:235:PRO:CB	2.42	0.67
78:Le:169:LYS:HE2	81:LD:339:THR:CG2	2.25	0.67
81:LD:381:TRP:HA	81:LD:384:THR:CG2	2.24	0.67
13:SQ:104:GLU:CG	20:SZ:31:ARG:CZ	2.62	0.67
32:S1:632:G:C1'	33:L1:849:A:H1'	2.14	0.67
32:S1:929:A:C4'	37:LB:137:ILE:CD1	2.72	0.67
32:S1:956:A:O5'	54:Lf:12:GLU:CB	2.41	0.67
32:S1:1676:G:N9	33:L1:1932:A:O3'	2.26	0.67
34:L3:21:U:C5	34:L3:22:A:N1	2.63	0.67
34:L3:35:C:C1'	45:LQ:200:TYR:CE2	2.78	0.67
36:LA:87:GLU:HB3	36:LA:91:LYS:HB2	1.76	0.67
38:LE:34:ARG:CB	38:LE:34:ARG:C	2.66	0.67
41:LM:96:MET:HE3	50:LZ:22:ARG:CG	2.24	0.67
44:LR:128:LEU:HD13	81:LD:313:GLU:CD	2.20	0.67
64:LG:185:ASP:O	64:LG:185:ASP:HB3	1.92	0.67
78:Le:169:LYS:HE2	81:LD:339:THR:HG21	1.77	0.67
1:Sa:166:VAL:HG12	1:Sa:167:PRO:HD2	1.75	0.66
2:SA:118:THR:HG22	2:SA:119:SER:H	1.60	0.66
5:SE:15:PHE:HZ	5:SE:221:LYS:CE	2.06	0.66
5:SE:197:LEU:CD1	32:S1:1302:C:O2	2.43	0.66
23:SU:10:VAL:HG21	23:SU:40:VAL:HA	1.77	0.66
32:S1:1024:A:C1'	83:Lm:73:THR:CA	2.71	0.66
33:L1:1081:U:C6	33:L1:1081:U:H3'	2.29	0.66
33:L1:1901:G:H2'	33:L1:1902:G:H5''	1.75	0.66
33:L1:2984:A:O4'	33:L1:2984:A:N9	2.27	0.66
34:L3:7:G:H4'	45:LQ:37:ARG:NE	2.09	0.66
36:LA:66:MET:HE3	36:LA:84:MET:CE	2.25	0.66
75:Lt:14:ILE:HD11	76:Lv:2:LYS:C	2.20	0.66
5:SE:15:PHE:CZ	5:SE:221:LYS:CE	2.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:823:A:N7	46:LT:172:ARG:CG	2.55	0.66
33:L1:643:G:H5''	56:Lh:37:LYS:HG2	1.75	0.66
34:L3:3:A:C4	34:L3:4:U:C5	2.84	0.66
36:LA:92:MET:CE	36:LA:117:LYS:HB2	2.24	0.66
36:LA:123:LEU:O	36:LA:123:LEU:HD23	1.96	0.66
55:Lg:83:ILE:HD12	55:Lg:94:LYS:HE3	1.76	0.66
56:Lh:87:MET:HB2	56:Lh:116:LEU:HD13	1.76	0.66
81:LD:306:VAL:CB	81:LD:309:PRO:HD3	2.24	0.66
5:SE:197:LEU:HD11	32:S1:1302:C:C2	2.29	0.66
17:SV:54:GLU:C	17:SV:56:PRO:CD	2.66	0.66
27:SH:40:VAL:HB	27:SH:42:GLN:NE2	2.09	0.66
31:S2:70:G:P	33:L1:2965:C:H6	2.18	0.66
33:L1:1292:U:H2'	33:L1:1293:C:C6	2.30	0.66
33:L1:1365:C:P	81:LD:337:PHE:CD1	2.88	0.66
66:LN:64:ARG:NH2	67:LS:151:PHE:HB2	2.10	0.66
81:LD:309:PRO:HB3	81:LD:313:GLU:OE1	1.94	0.66
4:SD:124:CYS:HB2	4:SD:160:ILE:HG22	1.78	0.66
5:SE:240:ARG:CZ	32:S1:1302:C:HO2'	2.06	0.66
10:SL:41:ALA:HB2	10:SL:62:ASN:CA	2.24	0.66
25:SC:195:GLU:C	33:L1:2251:A:C3'	2.66	0.66
31:S2:2:C:H4'	33:L1:2625:C:H1'	1.78	0.66
32:S1:1685:U:C2'	33:L1:3334:A:C5'	2.66	0.66
33:L1:2166:U:H5'	37:LB:193:ARG:HD2	1.78	0.66
34:L3:3:A:H1'	34:L3:21:U:H1'	1.76	0.66
66:LN:64:ARG:HH22	67:LS:151:PHE:HB2	1.59	0.66
84:LI:112:GLN:O	84:LI:113:THR:CG2	2.42	0.66
8:SJ:66:PRO:HG2	32:S1:1387:U:O2'	1.93	0.66
15:SS:5:THR:CA	15:SS:139:GLY:HA2	2.26	0.66
26:SG:8:UNK:CB	46:LT:189:CYS:HG	2.07	0.66
32:S1:861:A:H2'	46:LT:170:ARG:CD	2.24	0.66
32:S1:1205:G:N7	32:S1:1607:C:N4	2.43	0.66
32:S1:1587:G:H2'	32:S1:1588:C:C6	2.31	0.66
33:L1:2149:G:H1	33:L1:2174:C:H42	1.44	0.66
34:L3:27:A:OP2	45:LQ:56:VAL:HA	1.94	0.66
34:L3:114:C:O2'	45:LQ:75:VAL:N	2.29	0.66
37:LB:84:THR:CG2	83:Lm:63:VAL:H	2.08	0.66
48:LV:9:ASN:ND2	48:LV:10:ASN:H	1.93	0.66
76:Lw:45:GLN:OE1	79:Ls:235:PRO:CG	2.44	0.66
4:SD:180:VAL:HG22	4:SD:194:VAL:HG12	1.76	0.66
5:SE:142:LYS:CE	32:S1:1304:A:H5''	2.14	0.66
14:SP:71:ILE:CD1	27:SH:84:LYS:CE	2.69	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:SH:94:LEU:HD21	27:SH:128:PHE:CE1	2.31	0.66
31:S2:8:U:C5	31:S2:13:U:O4	2.48	0.66
33:L1:2700:A:C5	33:L1:2701:G:C5	2.83	0.66
33:L1:3094:C:O4'	33:L1:3094:C:N1	2.29	0.66
54:Lf:55:LEU:CD2	69:La:72:LEU:HA	2.25	0.66
69:La:12:ILE:HD13	69:La:22:LYS:HZ3	1.61	0.66
75:Lt:14:ILE:HB	76:Lv:5:ALA:HB3	1.78	0.66
2:SA:55:LEU:HD12	2:SA:55:LEU:N	2.10	0.66
2:SA:113:THR:HG21	32:S1:1298:G:O2'	1.89	0.66
2:SA:213:GLU:C	2:SA:215:LYS:H	2.04	0.66
4:SD:219:ALA:O	32:S1:653:U:C4'	2.44	0.66
6:SF:74:MET:O	32:S1:1479:U:C4	2.48	0.66
11:SM:99:VAL:HG11	32:S1:1574:U:H4'	1.76	0.66
17:SV:63:PRO:CG	17:SV:66:LEU:CG	2.64	0.66
32:S1:161:G:H2'	32:S1:162:A:H5'	1.78	0.66
33:L1:1533:U:H3	33:L1:1589:G:H22	1.44	0.66
33:L1:2216:G:C2'	72:Lk:77:LYS:NZ	2.59	0.66
33:L1:3301:G:H5''	48:LV:70:THR:C	2.21	0.66
48:LV:35:ALA:HB2	48:LV:59:PRO:CD	2.25	0.66
51:LY:59:ARG:HD3	51:LY:102:LYS:HA	1.77	0.66
69:La:10:ALA:HB3	69:La:25:ILE:CA	2.26	0.66
75:Lt:14:ILE:HB	76:Lv:5:ALA:CB	2.25	0.66
2:SA:109:PRO:HG2	32:S1:1325:A:O4'	1.95	0.66
9:SK:116:ARG:NH1	18:SW:7:UNK:CB	2.59	0.66
12:SO:150:VAL:CB	33:L1:1714:A:C1'	2.64	0.66
14:SP:91:TYR:CA	33:L1:2081:C:H5''	2.25	0.66
32:S1:990:G:H5'	33:L1:2172:C:N4	2.09	0.66
32:S1:991:G:O5'	37:LB:133:TYR:CE1	2.49	0.66
32:S1:1678:G:H2'	32:S1:1678:G:N3	2.10	0.66
33:L1:1804:G:H5''	70:Li:10:ARG:HH12	1.61	0.66
33:L1:1896:A:N6	33:L1:1904:A:H61	1.93	0.66
33:L1:2398:A:C6	33:L1:2399:G:C4	2.83	0.66
38:LE:31:ARG:CG	38:LE:34:ARG:H	2.08	0.66
71:Lj:95:PRO:O	71:Lj:96:THR:C	2.35	0.66
81:LD:330:VAL:CG1	81:LD:331:LEU:N	2.59	0.66
11:SM:18:THR:H	38:LE:109:GLN:NE2	1.93	0.66
23:SU:34:HIS:O	23:SU:35:PRO:O	2.14	0.66
31:S2:72:G:H2'	33:L1:2972:C:O3'	1.96	0.66
33:L1:528:C:C5'	66:LN:68:LYS:HD2	2.26	0.66
33:L1:1722:G:H21	33:L1:1785:G:H5''	1.60	0.66
33:L1:2398:A:C2'	33:L1:2399:G:C5'	2.74	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L3:54:A:H5''	38:LE:6:LYS:NZ	2.11	0.66
75:Lu:10:LEU:CD1	76:Lw:8:LEU:CB	2.74	0.66
76:Lv:44:SER:HB2	79:Ls:99:LYS:CD	2.26	0.66
4:SD:200:LYS:HZ2	32:S1:740:U:C5'	2.06	0.66
5:SE:30:ARG:NH1	27:SH:66:ASN:N	2.44	0.66
6:SF:56:ARG:HE	19:SY:52:LEU:HD21	1.61	0.66
7:SI:133:LYS:HZ3	32:S1:1592:G:C5'	2.08	0.66
8:SJ:75:ARG:CB	8:SJ:88:ARG:O	2.44	0.66
9:SK:105:LYS:HE2	9:SK:131:VAL:CG2	2.26	0.66
11:SM:12:ILE:O	38:LE:117:LYS:O	2.14	0.66
32:S1:180:A:H61	32:S1:200:C:N4	1.94	0.66
32:S1:887:U:C4'	83:Lm:88:GLU:CG	2.74	0.66
32:S1:1659:A:N1	32:S1:1759:A:C6	2.64	0.66
33:L1:1364:C:C2'	81:LD:337:PHE:CZ	2.79	0.66
33:L1:3047:A:H5''	80:LC:224:THR:HG21	1.77	0.66
33:L1:3296:C:N3	80:LC:25:HIS:HE1	1.94	0.66
34:L3:34:C:N3	34:L3:46:C:C2	2.64	0.66
34:L3:120:C:O2	45:LQ:249:ALA:HB2	1.96	0.66
35:L2:41:A:H5'	35:L2:41:A:C8	2.31	0.66
37:LB:96:LEU:CD1	37:LB:108:PRO:HG2	2.26	0.66
55:Lg:17:THR:HB	55:Lg:84:SER:HA	1.78	0.66
56:Lh:16:LYS:HG2	56:Lh:51:THR:HG23	1.76	0.66
1:Sa:15:THR:O	1:Sa:18:VAL:CB	2.44	0.65
2:SA:118:THR:HG22	2:SA:119:SER:N	2.11	0.65
2:SA:143:LEU:O	2:SA:143:LEU:HD23	1.95	0.65
2:SA:239:ALA:HB2	2:SA:243:TRP:HB2	1.78	0.65
12:SO:69:SER:C	24:SX:49:PHE:CZ	2.74	0.65
27:SH:42:GLN:HG3	27:SH:129:PHE:CZ	2.31	0.65
32:S1:1128:C:C6	83:Lm:28:LYS:CE	2.78	0.65
33:L1:629:U:H2'	33:L1:630:C:C6	2.31	0.65
33:L1:881:G:C2	33:L1:2982:U:C5'	2.79	0.65
33:L1:962:C:H5'	33:L1:963:U:C4	2.31	0.65
33:L1:1207:A:H5'	34:L3:88:U:N3	2.09	0.65
33:L1:1394:C:H4'	33:L1:1395:A:O5'	1.96	0.65
55:Lg:62:LYS:HE3	55:Lg:96:GLU:H	1.60	0.65
64:LG:184:ILE:O	64:LG:185:ASP:CB	2.44	0.65
69:La:27:ARG:NH2	69:La:42:LEU:HD21	2.11	0.65
2:SA:78:ILE:HG23	2:SA:125:LEU:HD12	1.78	0.65
4:SD:152:PRO:C	4:SD:153:ILE:HG22	2.22	0.65
11:SM:14:ARG:CD	38:LE:109:GLN:HG2	2.15	0.65
15:SS:85:ARG:HA	15:SS:85:ARG:HE	1.61	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:SC:10:LYS:HD3	32:S1:505:U:C4'	2.26	0.65
27:SH:61:ILE:HG13	27:SH:61:ILE:O	1.96	0.65
32:S1:228:G:H1	32:S1:236:U:H3	1.42	0.65
32:S1:1022:U:HO2'	83:Lm:78:THR:CB	2.09	0.65
32:S1:1747:A:C2'	33:L1:1916:U:C1'	2.73	0.65
33:L1:464:G:O2'	78:Le:1:MET:HE1	1.95	0.65
33:L1:1450:G:O4'	33:L1:1450:G:N9	2.27	0.65
33:L1:1650:G:H2'	33:L1:1651:A:H8	1.59	0.65
34:L3:54:A:H5''	38:LE:6:LYS:HZ2	1.60	0.65
45:LQ:31:LYS:HD3	45:LQ:55:PHE:CE2	2.31	0.65
48:LV:113:LEU:HD22	48:LV:157:PRO:CD	2.24	0.65
64:LG:91:LYS:HA	64:LG:159:GLU:OE2	1.95	0.65
11:SM:55:ARG:HH21	17:SV:38:ASN:HD21	1.44	0.65
17:SV:73:ASN:H	17:SV:78:ARG:HH21	1.44	0.65
24:SX:40:GLN:NE2	24:SX:40:GLN:H	1.94	0.65
25:SC:10:LYS:HZ3	32:S1:505:U:P	2.02	0.65
33:L1:1217:G:O3'	67:LS:93:TYR:O	2.14	0.65
33:L1:1981:U:H3	33:L1:2029:G:H1	1.45	0.65
34:L3:3:A:C2	34:L3:4:U:C6	2.84	0.65
55:Lg:15:VAL:HG23	55:Lg:86:LYS:HB2	1.79	0.65
66:LN:110:VAL:CG2	82:LK:201:LEU:CD2	2.75	0.65
78:Le:36:LYS:N	78:Le:37:ILE:N	2.44	0.65
79:Ls:183:ILE:HG22	79:Ls:185:PRO:HD3	1.78	0.65
12:SO:94:LYS:HE3	54:Lf:16:ASN:HB3	1.78	0.65
17:SV:63:PRO:HD2	17:SV:63:PRO:O	1.97	0.65
32:S1:918:G:H21	33:L1:2202:A:H3'	1.62	0.65
32:S1:927:A:C4'	37:LB:140:ASN:CG	2.39	0.65
32:S1:977:G:H3'	33:L1:850:A:N6	2.12	0.65
33:L1:99:A:C5'	42:LP:182:HIS:CD2	2.71	0.65
33:L1:1236:C:O2	74:LJ:122:MET:SD	2.54	0.65
33:L1:3236:A:C8	33:L1:3236:A:OP2	2.49	0.65
34:L3:48:G:C5	45:LQ:58:ASN:O	2.49	0.65
38:LE:88:VAL:O	38:LE:89:LYS:C	2.35	0.65
51:LY:55:VAL:HG22	51:LY:103:VAL:CG2	2.27	0.65
51:LY:99:HIS:CD2	51:LY:101:SER:H	2.13	0.65
66:LN:6:PHE:CZ	67:LS:161:PRO:HB2	2.31	0.65
66:LN:110:VAL:HG11	82:LK:201:LEU:CG	2.23	0.65
31:S2:10:G:N1	33:L1:2260:C:O2'	2.26	0.65
31:S2:74:C:C2	33:L1:2404:C:C5'	2.65	0.65
32:S1:824:U:O4	46:LT:172:ARG:CD	2.38	0.65
32:S1:1673:C:O2'	33:L1:1914:C:C1'	2.43	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1676:G:H5'	33:L1:1933:U:H3'	1.77	0.65
33:L1:2157:C:C1'	37:LB:11:GLY:H	2.07	0.65
52:Lb:116:LEU:CD1	56:Lh:88:MET:HE2	2.25	0.65
82:LK:18:HIS:O	82:LK:129:LEU:HB2	1.96	0.65
2:SA:127:ILE:HA	2:SA:149:ILE:O	1.97	0.65
4:SD:150:PRO:O	4:SD:151:ASP:CB	2.35	0.65
12:SO:97:ALA:HB2	54:Lf:19:GLN:CG	2.26	0.65
14:SP:44:LYS:CE	14:SP:117:ARG:HD3	2.26	0.65
17:SV:48:TYR:CE1	17:SV:81:ILE:O	2.50	0.65
32:S1:353:G:O6	33:L1:846:A:H4'	1.97	0.65
33:L1:506:U:H4'	64:LG:66:PRO:HG3	1.78	0.65
33:L1:1179:C:H5''	82:LK:33:LEU:CD1	2.26	0.65
33:L1:2148:U:C4'	37:LB:240:ALA:HB1	2.23	0.65
36:LA:112:SER:HA	36:LA:115:ILE:CG2	2.27	0.65
81:LD:333:LEU:C	81:LD:337:PHE:HD2	2.00	0.65
2:SA:136:GLN:OE1	32:S1:1325:A:N7	2.30	0.65
5:SE:130:VAL:HG23	32:S1:11:A:H5'	1.78	0.65
12:SO:103:GLU:C	54:Lf:78:ASN:CB	2.66	0.65
14:SP:124:VAL:CA	46:LT:165:LYS:CD	2.73	0.65
27:SH:15:TYR:CZ	27:SH:63:VAL:HG23	2.31	0.65
27:SH:32:LYS:HZ1	32:S1:692:C:H4'	1.60	0.65
32:S1:860:A:C5'	46:LT:177:ARG:CG	2.73	0.65
33:L1:383:A:C6	33:L1:384:A:C2	2.84	0.65
33:L1:691:U:H2'	33:L1:692:U:C5	2.32	0.65
33:L1:2398:A:H2'	33:L1:2399:G:C5'	2.25	0.65
46:LT:137:VAL:H	46:LT:140:GLU:CD	2.05	0.65
65:LL:54:UNK:O	65:LL:55:UNK:CB	2.45	0.65
66:LN:4:LYS:HE3	67:LS:164:LYS:HB2	1.77	0.65
79:Ls:73:THR:HG23	79:Ls:74:GLY:H	1.61	0.65
4:SD:153:ILE:O	4:SD:153:ILE:CB	2.43	0.65
5:SE:142:LYS:HE3	32:S1:1304:A:P	2.37	0.65
11:SM:12:ILE:CG2	38:LE:120:PRO:O	2.34	0.65
25:SC:162:LEU:HB3	25:SC:163:THR:CA	2.27	0.65
32:S1:1205:G:C4	32:S1:1607:C:N3	2.64	0.65
32:S1:1662:G:H5''	33:L1:1919:C:P	2.17	0.65
33:L1:1336:A:H2'	33:L1:1337:C:C6	2.32	0.65
33:L1:1365:C:OP1	81:LD:337:PHE:HD1	1.78	0.65
33:L1:3098:U:OP1	80:LC:329:LYS:HE2	1.96	0.65
79:Ls:35:ASN:HB3	79:Ls:188:TYR:HD1	1.60	0.65
1:Sa:105:LYS:NZ	7:SI:29:LYS:NZ	2.44	0.65
1:Sa:140:GLN:NE2	1:Sa:140:GLN:CG	2.59	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:SM:14:ARG:HB3	38:LE:109:GLN:OE1	1.97	0.65
13:SQ:21:TYR:O	13:SQ:22:SER:CB	2.44	0.65
13:SQ:52:GLY:O	13:SQ:55:THR:OG1	2.13	0.65
14:SP:47:ARG:HD2	14:SP:64:THR:OG1	1.96	0.65
32:S1:860:A:C5	32:S1:861:A:C4	2.85	0.65
33:L1:428:G:H5''	71:Lj:95:PRO:CB	2.25	0.65
33:L1:507:C:O2'	64:LG:62:SER:HB2	1.97	0.65
33:L1:513:C:H2'	33:L1:514:G:C8	2.32	0.65
33:L1:641:C:O2	56:Lh:22:HIS:HE1	1.78	0.65
33:L1:3299:A:C2'	33:L1:3299:A:N9	2.55	0.65
39:LF:111:ILE:O	39:LF:163:LYS:NZ	2.30	0.65
67:LS:22:GLU:HG3	67:LS:23:HIS:H	1.62	0.65
78:Le:163:ILE:HD11	81:LD:336:TYR:CD1	2.32	0.65
9:SK:109:PRO:CG	9:SK:112:GLN:HB2	2.27	0.65
26:SG:81:UNK:O	26:SG:82:UNK:C	2.37	0.65
33:L1:381:G:H1'	33:L1:384:A:N6	2.12	0.65
33:L1:1179:C:O2'	82:LK:94:PRO:CB	2.45	0.65
33:L1:1237:G:O4'	74:LJ:122:MET:SD	2.55	0.65
33:L1:1394:C:H4'	33:L1:1395:A:H5'	1.79	0.65
33:L1:2509:A:H2'	33:L1:2510:U:C5	2.32	0.65
34:L3:32:A:H2	34:L3:34:C:H41	1.42	0.65
34:L3:73:U:C2'	34:L3:73:U:N1	2.57	0.65
34:L3:116:U:O2'	45:LQ:80:TYR:CD1	2.46	0.65
79:Ls:130:ASN:HD21	79:Ls:154:THR:HB	1.61	0.65
9:SK:116:ARG:CZ	18:SW:7:UNK:CB	2.74	0.64
12:SO:58:HIS:CG	12:SO:59:GLY:H	2.15	0.64
33:L1:360:G:P	57:Ll:54:ILE:HG12	2.37	0.64
33:L1:2783:U:C2'	33:L1:2783:U:N1	2.60	0.64
55:Lg:63:LEU:HD21	55:Lg:95:GLU:C	2.22	0.64
65:LL:151:UNK:C	65:LL:151:UNK:CB	2.74	0.64
66:LN:64:ARG:CZ	67:LS:151:PHE:HB2	2.26	0.64
75:Lu:33:ALA:HB2	76:Lw:29:SER:HB2	1.79	0.64
75:Lu:58:LEU:HD12	79:Ls:257:GLU:CB	2.28	0.64
83:Lm:3:LYS:C	83:Lm:4:ARG:HG3	2.20	0.64
84:LI:110:ARG:HG2	84:LI:116:ARG:NE	2.03	0.64
4:SD:181:VAL:O	4:SD:192:VAL:HG13	1.97	0.64
5:SE:194:LYS:HZ3	5:SE:248:PRO:HG2	1.61	0.64
5:SE:194:LYS:NZ	5:SE:248:PRO:HG2	2.12	0.64
6:SF:79:ASN:HB3	32:S1:1479:U:O2'	1.97	0.64
11:SM:36:VAL:HB	11:SM:40:PHE:CD2	2.32	0.64
31:S2:70:G:C5'	33:L1:2966:G:C5'	2.74	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:887:U:C5'	83:Lm:85:ARG:C	2.68	0.64
35:L2:64:U:C2	77:Lc:59:LEU:HD13	2.32	0.64
36:LA:83:TYR:HE2	36:LA:86:VAL:N	1.94	0.64
79:Ls:98:LEU:HB3	79:Ls:195:VAL:HG11	1.78	0.64
79:Ls:144:LEU:HD12	79:Ls:177:LEU:HB2	1.79	0.64
4:SD:122:LYS:HE2	4:SD:142:TYR:OH	1.96	0.64
5:SE:31:ARG:CZ	27:SH:67:GLY:CA	2.59	0.64
11:SM:16:LEU:HD13	11:SM:100:SER:HB3	1.79	0.64
17:SV:64:SER:CB	17:SV:82:LYS:HZ3	2.11	0.64
31:S2:2:C:C4'	33:L1:2625:C:H1'	2.25	0.64
31:S2:14:A:OP1	33:L1:2263:U:H3'	1.97	0.64
33:L1:69:U:O4'	33:L1:69:U:N1	2.31	0.64
33:L1:1461:U:O2'	55:Lg:41:ILE:HD13	1.98	0.64
33:L1:1532:A:H3'	33:L1:1533:U:C5	2.32	0.64
33:L1:1636:C:H41	70:Li:46:VAL:CG2	2.07	0.64
37:LB:145:THR:HG21	37:LB:157:ILE:HG23	1.79	0.64
44:LR:41:LYS:H	81:LD:325:LYS:HZ3	1.44	0.64
56:Lh:80:VAL:O	56:Lh:83:LEU:HB2	1.97	0.64
66:LN:64:ARG:HD3	67:LS:154:VAL:CG1	2.28	0.64
71:Lj:24:LYS:O	71:Lj:25:SER:O	2.15	0.64
1:Sa:364:TRP:CZ3	32:S1:1398:U:H4'	2.31	0.64
4:SD:136:ILE:HG22	4:SD:149:TYR:HB2	1.78	0.64
9:SK:81:ALA:HB1	9:SK:115:LEU:HG	1.80	0.64
13:SQ:81:ARG:O	13:SQ:82:MET:O	2.15	0.64
24:SX:72:LYS:CE	24:SX:72:LYS:CA	2.71	0.64
31:S2:70:G:H4'	33:L1:2966:G:O4'	1.97	0.64
31:S2:70:G:C5'	33:L1:2966:G:H5'	2.27	0.64
33:L1:1478:A:C5'	55:Lg:65:LYS:HZ3	2.06	0.64
33:L1:1532:A:H3'	33:L1:1533:U:C6	2.32	0.64
33:L1:2900:G:O4'	33:L1:2900:G:N9	2.29	0.64
34:L3:48:G:N7	45:LQ:58:ASN:O	2.30	0.64
35:L2:39:C:O3'	57:Ll:68:ARG:NE	2.31	0.64
35:L2:93:A:C6	35:L2:95:C:H5	2.16	0.64
44:LR:132:THR:OG1	81:LD:325:LYS:NZ	2.28	0.64
67:LS:30:LYS:CD	78:Le:72:ARG:HH21	2.10	0.64
84:LI:113:THR:OG1	84:LI:115:MET:HG2	1.97	0.64
15:SS:2:ALA:N	32:S1:1364:C:H5'	2.12	0.64
32:S1:1745:U:OP2	33:L1:1931:G:OP1	2.16	0.64
33:L1:563:C:P	64:LG:2:ALA:CB	2.81	0.64
36:LA:112:SER:CA	36:LA:115:ILE:HG12	2.28	0.64
37:LB:112:VAL:CG1	37:LB:133:TYR:HB2	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
76:Lv:34:ILE:HD13	76:Lv:39:MET:HE3	1.78	0.64
81:LD:381:TRP:HA	81:LD:384:THR:HG23	1.80	0.64
2:SA:76:GLN:HG3	2:SA:76:GLN:O	1.96	0.64
15:SS:9:VAL:HG13	15:SS:134:LEU:O	1.98	0.64
32:S1:354:G:N2	33:L1:847:G:H5'	2.12	0.64
32:S1:1758:G:P	33:L1:2298:A:H5'	2.35	0.64
33:L1:180:G:OP1	35:L2:98:C:C4	2.48	0.64
33:L1:1526:A:C5'	49:LX:123:LEU:HD21	2.28	0.64
33:L1:1989:G:H1	33:L1:2022:U:H3	1.45	0.64
33:L1:2160:C:OP2	42:LP:76:PRO:HG2	1.96	0.64
36:LA:67:LEU:C	36:LA:83:TYR:HE1	2.04	0.64
36:LA:109:PHE:HA	36:LA:136:LEU:HD21	1.80	0.64
76:Lv:45:GLN:HG3	79:Ls:211:GLU:HG3	1.79	0.64
79:Ls:234:TYR:N	79:Ls:235:PRO:HD2	2.09	0.64
4:SD:121:PHE:CB	4:SD:161:LYS:HE2	2.28	0.64
11:SM:35:GLY:O	11:SM:36:VAL:HG12	1.97	0.64
17:SV:51:LEU:O	17:SV:55:VAL:CG2	2.43	0.64
27:SH:65:LEU:CD2	27:SH:70:ASN:ND2	2.56	0.64
32:S1:1663:A:C5'	33:L1:1919:C:H5'	2.17	0.64
33:L1:549:G:OP1	81:LD:396:ASN:ND2	2.31	0.64
33:L1:1646:U:H2'	33:L1:1647:C:C6	2.33	0.64
33:L1:2509:A:H2'	33:L1:2510:U:C6	2.33	0.64
34:L3:35:C:H2'	34:L3:36:C:H5'	1.80	0.64
37:LB:211:HIS:CD2	37:LB:219:ILE:HD12	2.33	0.64
39:LF:91:MET:HE1	39:LF:160:ILE:HD12	1.80	0.64
48:LV:1:MET:HB3	48:LV:16:LYS:CG	2.27	0.64
48:LV:1:MET:H1	48:LV:16:LYS:HG2	1.63	0.64
48:LV:40:PRO:HG2	48:LV:43:LYS:HB3	1.78	0.64
51:LY:38:LEU:HD11	51:LY:106:THR:O	1.98	0.64
67:LS:6:PHE:CD2	67:LS:105:VAL:HG11	2.33	0.64
67:LS:37:VAL:HG21	78:Le:235:TYR:CD1	2.33	0.64
84:LI:110:ARG:N	84:LI:116:ARG:HH21	1.91	0.64
1:Sa:364:TRP:HZ3	32:S1:1398:U:C4'	2.10	0.64
2:SA:113:THR:CG2	32:S1:1299:G:H5'	2.28	0.64
4:SD:240:LYS:CA	4:SD:240:LYS:H	2.01	0.64
23:SU:29:VAL:HG22	23:SU:78:PHE:CZ	2.33	0.64
27:SH:43:LYS:HB3	27:SH:62:VAL:O	1.97	0.64
32:S1:860:A:O4'	46:LT:173:LYS:CD	2.31	0.64
32:S1:977:G:C3'	33:L1:850:A:N6	2.61	0.64
32:S1:1542:G:OP1	32:S1:1547:G:C6	2.51	0.64
33:L1:801:G:H2'	33:L1:802:G:C8	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2668:U:C6	33:L1:2668:U:H2'	2.32	0.64
36:LA:116:ILE:O	36:LA:119:ILE:HG22	1.98	0.64
41:LM:69:LYS:N	41:LM:72:LEU:HB2	2.12	0.64
43:LO:64:LEU:HD22	65:LL:155:UNK:N	2.13	0.64
64:LG:68:PRO:O	64:LG:69:THR:CB	2.46	0.64
76:Lv:40:GLU:HG2	79:Ls:99:LYS:HZ2	1.19	0.64
4:SD:124:CYS:SG	4:SD:162:ILE:HD12	2.38	0.64
14:SP:41:LEU:HB2	14:SP:103:LYS:CD	2.28	0.64
14:SP:64:THR:OG1	14:SP:85:ILE:HG22	1.97	0.64
24:SX:65:LEU:HD23	24:SX:66:CYS:H	1.63	0.64
29:ST:23:ILE:HG23	29:ST:36:ILE:HD12	1.80	0.64
33:L1:731:G:H4'	44:LR:44:PHE:CZ	2.33	0.64
33:L1:3101:C:H42	33:L1:3135:A:H61	1.45	0.64
67:LS:28:ARG:HA	78:Le:74:LYS:HB2	1.78	0.64
69:La:25:ILE:HG12	69:La:27:ARG:N	2.13	0.64
76:Lw:55:LEU:HD21	79:Ls:248:TYR:CD2	2.33	0.64
5:SE:152:TYR:CD1	5:SE:220:VAL:HG12	2.33	0.64
5:SE:258:LYS:HZ1	27:SH:69:LEU:HB2	0.97	0.64
6:SF:158:ALA:HB2	6:SF:165:ILE:HB	1.79	0.64
12:SO:69:SER:C	24:SX:49:PHE:CE2	2.76	0.64
12:SO:128:TYR:CE1	32:S1:971:A:OP2	2.51	0.64
17:SV:64:SER:HA	17:SV:82:LYS:HZ1	1.63	0.64
32:S1:823:A:N7	46:LT:172:ARG:N	2.45	0.64
33:L1:359:A:C5'	57:Ll:35:SER:O	2.44	0.64
33:L1:806:C:H5''	81:LD:106:PHE:HD2	1.63	0.64
33:L1:2148:U:C5'	37:LB:242:ARG:O	2.46	0.64
36:LA:87:GLU:HG2	36:LA:91:LYS:CD	2.20	0.64
44:LR:132:THR:CB	81:LD:325:LYS:NZ	2.61	0.64
2:SA:72:ILE:HB	5:SE:66:TYR:HE1	1.22	0.63
2:SA:81:GLN:HE21	2:SA:128:LEU:HD12	1.62	0.63
4:SD:191:ARG:HH12	4:SD:213:ALA:HA	1.61	0.63
4:SD:200:LYS:HZ1	32:S1:740:U:C5'	2.04	0.63
5:SE:152:TYR:CG	5:SE:220:VAL:HG12	2.33	0.63
6:SF:45:LEU:HD13	7:Sl:68:ASP:HA	1.79	0.63
23:SU:20:ASN:CB	23:SU:23:LEU:HD12	2.28	0.63
27:SH:38:LEU:HD11	27:SH:45:GLY:CA	2.27	0.63
32:S1:146:A:H3'	32:S1:147:C:C5	2.33	0.63
32:S1:823:A:OP2	46:LT:169:SER:CA	2.45	0.63
33:L1:429:G:C5'	71:Lj:22:ARG:NH1	2.56	0.63
33:L1:641:C:C4	33:L1:642:C:C5	2.86	0.63
33:L1:1246:G:C2'	33:L1:1246:G:N9	2.58	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1817:U:C2	33:L1:1818:C:C6	2.85	0.63
36:LA:42:PRO:HD2	36:LA:199:ASN:O	1.97	0.63
36:LA:48:PHE:O	36:LA:192:LEU:HD13	1.98	0.63
36:LA:53:LYS:HG3	36:LA:54:LEU:N	2.13	0.63
36:LA:73:VAL:HG12	36:LA:74:ASP:N	2.13	0.63
59:Lo:30:ARG:O	59:Lo:30:ARG:CG	2.46	0.63
81:LD:327:VAL:CG1	81:LD:328:ALA:H	2.11	0.63
1:Sa:99:GLN:HE21	1:Sa:99:GLN:HA	1.63	0.63
3:SB:23:GLU:OE2	28:SN:22:ARG:NH1	2.31	0.63
4:SD:159:THR:OG1	4:SD:173:ILE:HB	1.99	0.63
14:SP:94:PHE:O	46:LT:151:ARG:CG	2.45	0.63
25:SC:106:PHE:CE1	32:S1:670:C:C2	2.86	0.63
26:SG:9:UNK:O	26:SG:10:UNK:O	2.13	0.63
31:S2:73:C:C2'	33:L1:2810:A:N3	2.60	0.63
32:S1:1662:G:O2'	32:S1:1756:A:N6	2.30	0.63
33:L1:637:C:C5	33:L1:638:G:H1'	2.33	0.63
33:L1:728:G:H3'	33:L1:729:G:H8	1.64	0.63
33:L1:2157:C:H4'	37:LB:8:GLN:HA	1.79	0.63
34:L3:35:C:O4'	45:LQ:200:TYR:HE2	1.81	0.63
44:LR:132:THR:CA	81:LD:325:LYS:NZ	2.62	0.63
51:LY:72:VAL:HG22	51:LY:79:ILE:CG2	2.28	0.63
68:LW:29:LYS:C	68:LW:29:LYS:HB3	2.22	0.63
78:Le:20:ARG:C	78:Le:24:TRP:HD1	2.06	0.63
79:Ls:33:ALA:HB2	79:Ls:190:LEU:CD2	2.29	0.63
2:SA:74:ASN:OD1	5:SE:66:TYR:CZ	2.50	0.63
2:SA:79:ILE:O	2:SA:126:LEU:HG	1.98	0.63
26:SG:82:UNK:C	26:SG:83:UNK:O	2.44	0.63
31:S2:13:U:P	33:L1:2244:G:C2	2.91	0.63
32:S1:320:A:H5'	33:L1:854:C:O3'	1.99	0.63
32:S1:330:G:O3'	33:L1:2083:U:OP2	2.16	0.63
33:L1:803:G:C2'	33:L1:803:G:C4	2.81	0.63
33:L1:803:G:N3	33:L1:803:G:O2'	2.31	0.63
33:L1:974:G:H2'	33:L1:975:G:H8	1.62	0.63
33:L1:1263:A:O4'	79:Ls:45:ARG:CZ	2.47	0.63
33:L1:3335:G:C8	33:L1:3335:G:H3'	2.31	0.63
36:LA:57:ILE:HG22	36:LA:150:THR:HG23	1.80	0.63
43:LO:63:ARG:NH1	65:LL:152:UNK:C	2.62	0.63
66:LN:30:VAL:HG21	67:LS:154:VAL:HG13	1.79	0.63
67:LS:66:ILE:HG22	78:Le:69:ARG:HB2	1.80	0.63
4:SD:160:ILE:HD11	4:SD:169:ILE:CG2	2.28	0.63
14:SP:92:LEU:C	46:LT:151:ARG:CZ	2.71	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:SP:123:HIS:O	46:LT:162:LYS:O	2.16	0.63
17:SV:95:VAL:CA	17:SV:101:ILE:HD13	2.15	0.63
32:S1:1034:G:N3	32:S1:1036:U:C5	2.66	0.63
33:L1:1034:U:C2'	33:L1:1035:C:C6	2.81	0.63
33:L1:1184:U:C4	82:LK:23:ARG:HD3	2.32	0.63
33:L1:1756:C:H42	33:L1:1764:G:H1	1.45	0.63
35:L2:97:U:C5'	57:L1:73:ARG:HH12	2.11	0.63
37:LB:97:SER:HB3	37:LB:100:ASN:ND2	2.14	0.63
2:SA:199:TRP:HA	2:SA:199:TRP:CE3	2.34	0.63
3:SB:78:ASN:HB2	3:SB:79:PHE:HB3	1.80	0.63
4:SD:136:ILE:CG1	4:SD:136:ILE:O	2.42	0.63
4:SD:167:ASN:C	4:SD:168:LYS:HA	2.23	0.63
5:SE:197:LEU:HD11	32:S1:1302:C:H1'	1.79	0.63
9:SK:105:LYS:HE3	9:SK:112:GLN:OE1	1.98	0.63
13:SQ:33:LYS:O	13:SQ:33:LYS:HD3	1.98	0.63
32:S1:956:A:N7	54:Lf:9:LYS:HB2	2.12	0.63
33:L1:1524:G:P	49:LX:79:THR:HG21	2.39	0.63
34:L3:48:G:O6	45:LQ:58:ASN:O	2.17	0.63
48:LV:35:ALA:HB3	48:LV:58:ILE:HD12	1.80	0.63
8:SJ:66:PRO:O	32:S1:1387:U:H4'	1.99	0.63
12:SO:103:GLU:H	54:Lf:80:ASP:CG	2.07	0.63
23:SU:18:MET:HE2	23:SU:91:TYR:CG	2.33	0.63
24:SX:72:LYS:HE2	32:S1:1054:G:OP1	1.98	0.63
26:SG:128:UNK:HA	32:S1:642:C:C3'	2.00	0.63
27:SH:4:VAL:CG2	27:SH:5:SER:N	2.60	0.63
31:S2:70:G:OP2	33:L1:2964:U:H2'	1.98	0.63
32:S1:188:U:C2	32:S1:193:G:N1	2.66	0.63
32:S1:1616:U:H2'	32:S1:1617:U:C6	2.33	0.63
33:L1:1692:U:H3	33:L1:1750:A:N6	1.97	0.63
33:L1:1750:A:H8	33:L1:1750:A:H5'	1.63	0.63
33:L1:2165:A:H5''	37:LB:17:LYS:NZ	2.13	0.63
33:L1:2607:U:C4'	37:LB:226:ARG:NH2	2.62	0.63
34:L3:73:U:O5'	34:L3:73:U:H6	1.82	0.63
35:L2:38:U:P	57:L1:72:ARG:NH2	2.71	0.63
35:L2:98:C:O4'	35:L2:98:C:N1	2.31	0.63
36:LA:112:SER:HA	36:LA:115:ILE:CG1	2.28	0.63
81:LD:327:VAL:CG1	81:LD:328:ALA:N	2.61	0.63
2:SA:127:ILE:HD11	2:SA:151:PHE:CZ	2.34	0.63
10:SL:84:VAL:CG2	10:SL:85:PRO:HA	2.20	0.63
11:SM:14:ARG:HH12	38:LE:109:GLN:CB	1.96	0.63
27:SH:7:LEU:HD23	27:SH:22:LYS:HZ1	1.64	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:110:G:H1	32:S1:309:C:H42	1.47	0.63
32:S1:1024:A:O4'	83:Lm:74:ALA:N	2.31	0.63
33:L1:329:G:N7	33:L1:330:C:C5	2.67	0.63
33:L1:1435:C:OP1	33:L1:1435:C:H4'	1.97	0.63
35:L2:98:C:H5''	35:L2:98:C:C6	2.32	0.63
55:Lg:62:LYS:CD	55:Lg:96:GLU:HB2	2.29	0.63
56:Lh:90:ASN:OD1	56:Lh:118:ILE:HG13	1.99	0.63
67:LS:12:VAL:N	78:Le:74:LYS:HG3	2.14	0.63
81:LD:333:LEU:C	81:LD:337:PHE:CD2	2.76	0.63
23:SU:71:GLY:O	23:SU:72:GLY:CA	2.46	0.63
26:SG:127:UNK:C	32:S1:642:C:C4'	2.58	0.63
32:S1:187:C:C5	32:S1:188:U:C5	2.85	0.63
32:S1:483:C:H2'	32:S1:484:A:H5'	1.81	0.63
32:S1:887:U:H5''	83:Lm:85:ARG:C	2.12	0.63
32:S1:1747:A:C8	33:L1:1930:G:C4	2.85	0.63
33:L1:99:A:H4'	42:LP:182:HIS:CG	2.34	0.63
33:L1:831:G:H4'	73:Lp:52:LYS:HD3	1.80	0.63
33:L1:1265:G:C2'	33:L1:1265:G:N3	2.62	0.63
33:L1:1383:G:H2'	33:L1:1384:G:C8	2.34	0.63
33:L1:1916:U:O2	33:L1:1928:A:H5'	1.98	0.63
33:L1:2381:G:OP1	82:LK:87:ARG:NH2	2.32	0.63
33:L1:2702:G:N2	47:LU:49:HIS:CE1	2.67	0.63
78:Le:36:LYS:C	78:Le:37:ILE:N	2.57	0.63
2:SA:64:LEU:CB	5:SE:44:TRP:HE1	2.09	0.63
7:SI:88:ARG:HH11	7:SI:96:VAL:HA	1.64	0.63
12:SO:114:ARG:NH1	32:S1:945:A:N7	2.46	0.63
13:SQ:104:GLU:HG2	20:SZ:31:ARG:HH12	1.56	0.63
24:SX:69:THR:HG23	24:SX:71:GLY:N	2.13	0.63
31:S2:24:A:C2'	33:L1:2261:U:O5'	2.46	0.63
32:S1:187:C:N3	32:S1:188:U:C5	2.67	0.63
33:L1:1450:G:H1'	33:L1:2354:G:O6	1.98	0.63
33:L1:1507:A:C2	33:L1:1518:A:O2'	2.45	0.63
33:L1:1722:G:H21	33:L1:1785:G:C5'	2.11	0.63
33:L1:1761:C:C2'	33:L1:1762:G:H5'	2.29	0.63
33:L1:1826:G:C2'	33:L1:1826:G:C4	2.82	0.63
33:L1:3236:A:H3'	33:L1:3237:G:H8	1.64	0.63
34:L3:43:A:C1'	38:LE:142:ARG:HH21	2.11	0.63
36:LA:19:GLU:OE2	36:LA:35:ILE:HD12	1.99	0.63
70:Li:107:LEU:O	70:Li:108:LYS:CB	2.31	0.63
4:SD:87:MET:HB2	4:SD:142:TYR:OH	1.99	0.62
14:SP:98:TYR:CE2	14:SP:119:LYS:HB2	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:SC:6:ARG:HH21	25:SC:85:TYR:HB3	1.63	0.62
32:S1:1022:U:O2'	83:Lm:78:THR:HG21	1.98	0.62
33:L1:563:C:OP1	64:LG:2:ALA:HB3	1.98	0.62
33:L1:771:G:H2'	33:L1:772:U:C6	2.33	0.62
33:L1:2398:A:N6	33:L1:2399:G:C6	2.67	0.62
38:LE:86:LEU:HD23	38:LE:89:LYS:NZ	2.14	0.62
48:LV:1:MET:HB2	48:LV:16:LYS:NZ	2.13	0.62
56:Lh:10:ILE:HD12	56:Lh:69:PRO:HB3	1.80	0.62
59:Lo:43:HIS:HB3	59:Lo:46:ARG:HG2	1.81	0.62
66:LN:4:LYS:HG2	67:LS:161:PRO:HB3	1.79	0.62
75:Lu:6:VAL:C	76:Lw:12:LEU:HD21	1.96	0.62
2:SA:126:LEU:HD23	2:SA:126:LEU:C	2.25	0.62
4:SD:199:GLU:HB3	4:SD:201:HIS:CE1	2.34	0.62
17:SV:94:SER:C	17:SV:101:ILE:HG21	2.23	0.62
23:SU:12:LEU:HD12	23:SU:12:LEU:H	1.64	0.62
24:SX:57:VAL:HG13	24:SX:62:GLN:HA	1.80	0.62
25:SC:171:PRO:CD	25:SC:171:PRO:N	2.62	0.62
31:S2:8:U:C5	31:S2:13:U:C4	2.87	0.62
32:S1:1747:A:C4'	33:L1:1930:G:C5	2.82	0.62
33:L1:271:G:C4'	72:Lk:66:VAL:HG22	2.29	0.62
33:L1:288:G:O5'	42:LP:98:LYS:HE3	1.99	0.62
33:L1:634:A:O2'	71:Lj:69:ARG:NH1	2.31	0.62
33:L1:1928:A:H2'	33:L1:1929:A:H5'	1.79	0.62
34:L3:86:G:C4'	67:LS:119:ARG:HD2	2.28	0.62
48:LV:35:ALA:HB3	48:LV:58:ILE:HD11	1.79	0.62
69:La:12:ILE:HD13	69:La:22:LYS:NZ	2.14	0.62
14:SP:122:ASP:H	46:LT:162:LYS:HE2	1.54	0.62
17:SV:56:PRO:HD2	17:SV:57:LYS:N	2.09	0.62
26:SG:82:UNK:O	26:SG:83:UNK:O	2.17	0.62
32:S1:861:A:N6	46:LT:171:GLU:CD	2.22	0.62
33:L1:360:G:OP1	57:Ll:54:ILE:CD1	2.46	0.62
33:L1:634:A:O3'	71:Lj:69:ARG:NH1	2.32	0.62
33:L1:920:A:H62	37:LB:3:ARG:NH1	1.97	0.62
33:L1:1817:U:C2'	33:L1:1818:C:H5'	2.28	0.62
34:L3:5:G:P	45:LQ:26:ARG:HH12	2.22	0.62
34:L3:85:G:C5'	67:LS:120:PHE:HE1	2.12	0.62
55:Lg:48:ALA:O	55:Lg:52:MET:HG2	1.99	0.62
67:LS:79:ILE:HG22	67:LS:94:LYS:HB2	1.80	0.62
1:Sa:364:TRP:HZ3	32:S1:1398:U:O4'	1.83	0.62
5:SE:24:ARG:O	27:SH:69:LEU:CG	2.46	0.62
14:SP:95:VAL:HG12	46:LT:155:LEU:HG	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:SS:5:THR:HG22	15:SS:139:GLY:CA	2.29	0.62
31:S2:74:C:H6	33:L1:2810:A:H2	1.48	0.62
32:S1:888:U:P	83:Lm:89:GLN:OE1	2.55	0.62
32:S1:978:A:H4'	33:L1:851:A:P	2.40	0.62
32:S1:1179:C:N4	32:S1:1471:C:H42	1.97	0.62
32:S1:1506:G:H3'	32:S1:1507:G:C8	2.35	0.62
32:S1:1747:A:C5	33:L1:1930:G:N2	2.68	0.62
33:L1:280:G:O6	42:LP:183:LYS:HD3	1.99	0.62
33:L1:1368:U:H5''	44:LR:5:LEU:HD13	1.81	0.62
36:LA:67:LEU:HD22	36:LA:144:GLU:OE1	2.00	0.62
48:LV:106:LYS:O	48:LV:106:LYS:HD3	2.00	0.62
9:SK:103:LYS:HZ2	9:SK:103:LYS:HB3	1.64	0.62
12:SO:103:GLU:O	54:Lf:78:ASN:CG	2.42	0.62
14:SP:94:PHE:C	46:LT:151:ARG:CG	2.71	0.62
24:SX:51:HIS:CD2	24:SX:72:LYS:HE2	2.34	0.62
31:S2:75:A:H8	33:L1:2956:U:O5'	1.80	0.62
32:S1:992:G:H5''	37:LB:149:LYS:HZ1	1.14	0.62
32:S1:1308:G:C2'	32:S1:1308:G:N9	2.57	0.62
33:L1:2053:A:C5'	33:L1:2054:A:H5'	2.26	0.62
33:L1:2707:A:C8	33:L1:2709:G:C5	2.88	0.62
37:LB:145:THR:CG2	37:LB:157:ILE:HG23	2.29	0.62
66:LN:47:GLN:CD	67:LS:99:THR:HG23	2.24	0.62
6:SF:154:ALA:O	6:SF:165:ILE:HD12	1.99	0.62
12:SO:99:ARG:HH11	12:SO:123:HIS:CD2	2.18	0.62
15:SS:2:ALA:CA	32:S1:1363:G:O2'	2.47	0.62
23:SU:22:LEU:N	23:SU:23:LEU:HG	2.14	0.62
31:S2:23:A:N1	33:L1:2261:U:H4'	2.14	0.62
33:L1:659:C:H5''	56:Lh:28:GLY:HA3	1.81	0.62
33:L1:711:A:N6	33:L1:720:G:H1'	2.14	0.62
33:L1:2450:G:C2'	33:L1:2450:G:N9	2.60	0.62
36:LA:71:GLN:HB3	36:LA:75:GLN:HB2	1.81	0.62
37:LB:168:GLN:HE21	83:Lm:79:VAL:HG21	1.64	0.62
4:SD:136:ILE:HG22	4:SD:149:TYR:CB	2.29	0.62
4:SD:153:ILE:O	4:SD:153:ILE:CG1	2.46	0.62
5:SE:258:LYS:HE2	27:SH:69:LEU:H	1.44	0.62
6:SF:99:LEU:CD1	17:SV:66:LEU:HD11	2.22	0.62
8:SJ:92:ARG:CG	28:SN:52:PHE:CA	2.77	0.62
14:SP:47:ARG:HB3	14:SP:65:VAL:O	1.99	0.62
14:SP:60:PRO:HB3	33:L1:2083:U:OP1	1.93	0.62
27:SH:52:PHE:O	27:SH:52:PHE:CD2	2.53	0.62
32:S1:887:U:O3'	83:Lm:89:GLN:N	2.21	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1174:G:H5'	34:L3:84:U:H3	1.63	0.62
33:L1:1219:C:H42	33:L1:1294:A:H61	1.46	0.62
33:L1:3227:U:C2'	33:L1:3227:U:N1	2.60	0.62
34:L3:114:C:HO2'	45:LQ:75:VAL:N	1.97	0.62
36:LA:71:GLN:HG3	36:LA:79:MET:CE	2.30	0.62
75:Lu:10:LEU:HD11	76:Lw:8:LEU:CB	2.30	0.62
2:SA:79:ILE:HG23	2:SA:126:LEU:HG	1.80	0.62
2:SA:127:ILE:HA	2:SA:149:ILE:HG13	1.80	0.62
5:SE:30:ARG:HD3	27:SH:67:GLY:N	2.06	0.62
12:SO:101:HIS:HA	54:Lf:74:PHE:HZ	1.64	0.62
14:SP:94:PHE:O	46:LT:151:ARG:HG2	1.99	0.62
24:SX:74:ARG:CD	24:SX:75:LEU:N	2.62	0.62
32:S1:861:A:C2'	46:LT:170:ARG:HD3	2.12	0.62
32:S1:1547:G:C8	32:S1:1547:G:H3'	2.34	0.62
33:L1:1395:A:H2'	33:L1:1395:A:C8	2.35	0.62
33:L1:1722:G:N2	33:L1:1785:G:H5'	2.14	0.62
33:L1:2701:G:N2	33:L1:2760:U:C2	2.68	0.62
33:L1:2759:C:H4'	47:LU:49:HIS:HB3	1.82	0.62
36:LA:59:ARG:HH11	36:LA:175:GLU:CG	2.12	0.62
37:LB:209:HIS:CD2	37:LB:210:PRO:HD2	2.35	0.62
39:LF:33:LYS:O	39:LF:148:ASN:ND2	2.33	0.62
42:LP:17:ASP:CG	72:Lk:96:VAL:HB	2.25	0.62
4:SD:135:GLY:N	32:S1:247:A:OP1	2.32	0.62
4:SD:195:ILE:CG2	4:SD:208:ILE:HD11	2.29	0.62
12:SO:146:ALA:O	33:L1:1715:C:OP2	2.18	0.62
27:SH:102:ILE:HD12	27:SH:128:PHE:CE1	2.35	0.62
32:S1:861:A:C5	46:LT:171:GLU:CD	2.64	0.62
33:L1:70:A:H3'	43:LO:38:MET:SD	2.40	0.62
33:L1:2607:U:H4'	37:LB:226:ARG:HH22	1.64	0.62
33:L1:2827:C:H42	33:L1:2866:A:H61	1.46	0.62
37:LB:135:ILE:HG22	37:LB:149:LYS:HB3	1.81	0.62
38:LE:38:VAL:HG22	38:LE:110:GLU:CD	2.24	0.62
9:SK:43:VAL:HG22	9:SK:109:PRO:HG3	1.80	0.62
27:SH:65:LEU:CD2	27:SH:70:ASN:CA	2.77	0.62
33:L1:817:U:C5'	57:Ll:45:ARG:NH1	2.63	0.62
33:L1:1241:G:H1'	33:L1:1255:A:N6	2.15	0.62
33:L1:1364:C:C1'	81:LD:333:LEU:CD2	2.50	0.62
33:L1:1547:G:H21	33:L1:2160:C:H42	1.45	0.62
33:L1:2087:A:H2'	33:L1:2088:C:H5'	1.81	0.62
33:L1:2647:C:O2'	84:LI:115:MET:CE	2.47	0.62
36:LA:115:ILE:HG13	36:LA:116:ILE:N	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:Lh:68:LEU:CD2	56:Lh:70:ASN:HD22	2.12	0.62
79:Ls:164:ILE:HD13	79:Ls:170:VAL:HA	1.82	0.62
4:SD:92:ILE:HB	4:SD:93:PRO:HD3	1.82	0.61
17:SV:93:VAL:CG1	17:SV:94:SER:N	2.63	0.61
27:SH:14:MET:CE	27:SH:22:LYS:HB3	2.13	0.61
27:SH:79:PHE:CZ	27:SH:83:VAL:HG11	2.35	0.61
32:S1:348:A:P	46:LT:137:VAL:H	2.23	0.61
32:S1:860:A:C1'	46:LT:173:LYS:HD3	2.17	0.61
32:S1:956:A:OP2	54:Lf:9:LYS:CA	2.47	0.61
32:S1:1758:G:OP2	33:L1:2298:A:H5'	2.00	0.61
33:L1:429:G:C5'	71:Lj:22:ARG:HH12	2.08	0.61
35:L2:102:U:O5'	35:L2:102:U:H6	1.82	0.61
36:LA:122:LEU:CD1	36:LA:129:LYS:HZ1	2.13	0.61
40:LH:135:VAL:HA	40:LH:196:LEU:HD23	1.81	0.61
48:LV:113:LEU:CG	48:LV:153:GLU:HA	2.30	0.61
56:Lh:16:LYS:HE3	56:Lh:51:THR:OG1	1.99	0.61
56:Lh:116:LEU:O	56:Lh:117:ASP:HB2	2.00	0.61
17:SV:64:SER:HA	17:SV:82:LYS:NZ	2.15	0.61
24:SX:72:LYS:HD3	32:S1:1053:C:O3'	2.00	0.61
31:S2:13:U:H5'	33:L1:2244:G:H22	1.64	0.61
32:S1:222:G:H1'	33:L1:2063:U:P	2.26	0.61
32:S1:1757:G:OP1	33:L1:2297:G:H1'	2.00	0.61
33:L1:2706:A:H61	45:LQ:30:GLY:C	2.08	0.61
33:L1:2899:A:C8	33:L1:2901:C:C6	2.88	0.61
34:L3:56:G:H21	45:LQ:54:ARG:CZ	2.10	0.61
34:L3:56:G:C2'	34:L3:57:C:H5'	2.30	0.61
37:LB:96:LEU:HD12	37:LB:108:PRO:CG	2.29	0.61
60:Lr:61:LYS:O	60:Lr:61:LYS:CG	2.31	0.61
66:LN:64:ARG:NH2	67:LS:151:PHE:CB	2.63	0.61
71:Lj:69:ARG:NH1	82:LK:99:ARG:HD3	2.14	0.61
71:Lj:69:ARG:NH1	82:LK:99:ARG:HH11	1.97	0.61
2:SA:79:ILE:HG23	2:SA:126:LEU:CG	2.31	0.61
14:SP:41:LEU:HG	14:SP:103:LYS:HZ2	1.63	0.61
24:SX:38:LYS:HG3	24:SX:44:ASN:O	2.00	0.61
31:S2:26:G:C8	33:L1:2260:C:C4'	2.82	0.61
32:S1:349:U:OP2	46:LT:138:LEU:O	2.17	0.61
32:S1:859:U:O5'	46:LT:176:ARG:HA	2.00	0.61
33:L1:1206:A:H4'	34:L3:88:U:C1'	2.17	0.61
34:L3:20:C:H4'	45:LQ:252:THR:HG23	1.82	0.61
46:LT:136:ARG:O	46:LT:137:VAL:CG2	2.48	0.61
2:SA:120:PHE:HZ	5:SE:101:ALA:HB1	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:SO:57:GLN:O	54:Lf:101:ASP:OD1	2.18	0.61
13:SQ:29:HIS:HB2	28:SN:22:ARG:HG3	1.83	0.61
25:SC:150:VAL:HG13	25:SC:160:PHE:CE2	2.34	0.61
32:S1:977:G:C4	33:L1:850:A:C4	2.80	0.61
32:S1:1004:U:C5	32:S1:1005:C:C4	2.88	0.61
33:L1:282:A:N6	33:L1:2786:G:H21	1.97	0.61
33:L1:576:C:P	81:LD:342:LYS:HZ1	2.24	0.61
33:L1:881:G:N1	33:L1:2982:U:H5''	2.16	0.61
33:L1:1115:A:H2'	33:L1:1116:G:C8	2.35	0.61
33:L1:2647:C:H1'	84:LI:115:MET:CE	2.31	0.61
36:LA:192:LEU:CD2	36:LA:194:LYS:HB3	2.30	0.61
45:LQ:252:THR:O	45:LQ:256:SER:HB2	2.00	0.61
48:LV:59:PRO:HB3	48:LV:76:ARG:CG	2.30	0.61
2:SA:78:ILE:HG13	2:SA:125:LEU:HD11	1.82	0.61
12:SO:109:LYS:CE	83:Lm:77:VAL:HG11	2.29	0.61
18:SW:115:UNK:O	18:SW:116:UNK:C	2.47	0.61
19:SY:46:VAL:HG22	19:SY:47:ARG:N	2.15	0.61
20:SZ:10:ARG:NH1	32:S1:1254:U:OP2	2.33	0.61
31:S2:26:G:N9	33:L1:2260:C:C4'	2.63	0.61
32:S1:888:U:P	83:Lm:89:GLN:CD	2.73	0.61
32:S1:929:A:C4'	37:LB:137:ILE:HD12	2.29	0.61
33:L1:276:U:H3	33:L1:285:G:H1	1.47	0.61
33:L1:1638:U:C4	69:La:26:VAL:O	2.53	0.61
33:L1:1707:C:H42	54:Lf:56:ARG:HD2	1.65	0.61
33:L1:2170:G:C6	37:LB:125:VAL:HG13	2.36	0.61
33:L1:2731:G:OP1	47:LU:85:ILE:HG21	1.99	0.61
34:L3:93:U:H4'	67:LS:84:GLN:NE2	2.16	0.61
36:LA:182:ILE:HD13	36:LA:186:VAL:CG2	2.31	0.61
41:LM:72:LEU:HD21	41:LM:113:LYS:NZ	2.15	0.61
65:LL:153:UNK:C	65:LL:153:UNK:HA	2.17	0.61
69:La:27:ARG:HG3	69:La:42:LEU:CG	2.30	0.61
76:Lw:59:ARG:H	79:Ls:245:LEU:HD22	1.65	0.61
80:LC:130:PHE:O	80:LC:131:THR:O	2.19	0.61
81:LD:332:LYS:O	81:LD:336:TYR:CD2	2.53	0.61
1:Sa:364:TRP:CZ3	32:S1:1398:U:O4'	2.54	0.61
2:SA:64:LEU:HB2	5:SE:44:TRP:CE2	2.36	0.61
4:SD:100:ARG:CB	4:SD:114:VAL:HG21	2.28	0.61
6:SF:164:THR:HG21	17:SV:100:LEU:HD11	1.81	0.61
10:SL:41:ALA:HB2	10:SL:62:ASN:CB	2.30	0.61
14:SP:86:ILE:HD12	14:SP:112:VAL:HG22	1.82	0.61
31:S2:13:U:P	33:L1:2244:G:N2	2.73	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:187:C:N3	32:S1:188:U:C4	2.69	0.61
32:S1:886:A:OP1	83:Lm:81:SER:HA	2.01	0.61
32:S1:1108:U:C2'	32:S1:1108:U:N1	2.60	0.61
33:L1:819:A:OP2	57:Ll:28:HIS:CE1	2.53	0.61
33:L1:1034:U:H2'	33:L1:1035:C:C1'	2.31	0.61
33:L1:1265:G:N3	33:L1:1265:G:C3'	2.64	0.61
33:L1:1629:A:H62	69:La:26:VAL:HG23	1.63	0.61
33:L1:1635:A:C2	33:L1:1736:C:H4'	2.36	0.61
33:L1:2607:U:C3'	37:LB:226:ARG:NH2	2.63	0.61
33:L1:2647:C:H1'	84:LI:115:MET:HE1	1.81	0.61
34:L3:3:A:H3'	34:L3:4:U:C5	2.35	0.61
36:LA:42:PRO:HG2	36:LA:198:GLN:O	2.01	0.61
36:LA:112:SER:C	36:LA:115:ILE:HG12	2.25	0.61
48:LV:1:MET:HB2	48:LV:16:LYS:HZ2	1.65	0.61
66:LN:14:LEU:C	66:LN:14:LEU:HD13	2.24	0.61
75:Lu:10:LEU:CD1	76:Lw:8:LEU:CG	2.76	0.61
76:Lv:44:SER:OG	79:Ls:99:LYS:HB3	1.99	0.61
82:LK:135:GLN:O	82:LK:135:GLN:HG3	2.00	0.61
84:LI:109:ASP:C	84:LI:116:ARG:NH2	2.58	0.61
1:Sa:209:LEU:CD1	1:Sa:253:ASN:OD1	2.38	0.61
15:SS:9:VAL:CG1	15:SS:135:ASP:OD1	2.45	0.61
17:SV:55:VAL:N	17:SV:56:PRO:CD	2.64	0.61
19:SY:47:ARG:O	19:SY:48:GLU:N	2.27	0.61
32:S1:800:U:C3'	32:S1:801:U:C5'	2.79	0.61
32:S1:1745:U:H5''	33:L1:1931:G:C5'	2.00	0.61
33:L1:1320:G:C8	82:LK:134:LEU:CD2	2.83	0.61
33:L1:1855:A:C2	73:Lp:21:ARG:HB3	2.36	0.61
33:L1:2252:C:C2'	33:L1:2252:C:N1	2.60	0.61
33:L1:3143:A:O4'	33:L1:3143:A:N9	2.32	0.61
34:L3:115:A:O2'	45:LQ:75:VAL:CG1	2.33	0.61
56:Lh:19:LYS:HE2	56:Lh:31:THR:OG1	2.00	0.61
56:Lh:35:ARG:CG	56:Lh:36:PRO:HD2	2.30	0.61
64:LG:185:ASP:O	64:LG:186:ALA:CB	2.32	0.61
65:LL:55:UNK:N	65:LL:55:UNK:C	2.60	0.61
76:Lv:40:GLU:CG	79:Ls:99:LYS:HZ2	1.81	0.61
78:Le:36:LYS:HB3	81:LD:358:LYS:HG2	1.76	0.61
2:SA:77:ASP:C	2:SA:78:ILE:HD12	2.26	0.61
5:SE:258:LYS:HZ2	27:SH:69:LEU:CG	2.07	0.61
23:SU:17:PHE:CD2	23:SU:28:PHE:HA	2.35	0.61
24:SX:72:LYS:HG3	32:S1:1054:G:OP2	2.01	0.61
27:SH:38:LEU:CD1	27:SH:45:GLY:HA2	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:SH:112:ASP:OD2	27:SH:114:GLU:HG3	2.00	0.61
32:S1:1224:C:H4'	32:S1:1225:A:OP1	2.01	0.61
33:L1:975:G:H5'	33:L1:1375:G:H21	1.65	0.61
33:L1:1436:A:N7	56:Lh:20:ARG:NH2	2.48	0.61
33:L1:2780:G:C2'	33:L1:2780:G:N9	2.61	0.61
36:LA:107:HIS:CD2	36:LA:115:ILE:HG22	2.36	0.61
54:Lf:55:LEU:HD22	69:La:72:LEU:HA	1.81	0.61
59:Lo:34:THR:HG21	59:Lo:36:ARG:HG2	1.81	0.61
67:LS:54:LYS:HB3	67:LS:57:ASN:H	1.66	0.61
69:La:46:LEU:N	70:Li:46:VAL:HG12	2.16	0.61
79:Ls:122:VAL:HA	79:Ls:166:LYS:HG2	1.81	0.61
84:LI:110:ARG:CA	84:LI:116:ARG:NE	2.64	0.61
4:SD:67:GLN:HB3	4:SD:69:HIS:HD2	1.61	0.61
4:SD:136:ILE:O	4:SD:137:PRO:C	2.37	0.61
17:SV:48:TYR:HD1	17:SV:81:ILE:CG2	2.02	0.61
32:S1:1616:U:O5'	32:S1:1616:U:H6	1.84	0.61
32:S1:1685:U:O2'	33:L1:3334:A:P	2.59	0.61
33:L1:1638:U:O4	69:La:26:VAL:C	2.44	0.61
33:L1:1867:U:H3'	33:L1:1867:U:C6	2.35	0.61
48:LV:15:SER:C	48:LV:16:LYS:HG3	2.25	0.61
50:LZ:4:LYS:H	80:LC:304:ARG:NH2	1.97	0.61
65:LL:20:UNK:CB	65:LL:21:UNK:HA	2.31	0.61
66:LN:6:PHE:CE1	67:LS:161:PRO:HB2	2.35	0.61
69:La:26:VAL:CG2	69:La:27:ARG:HE	2.14	0.61
70:Li:7:TYR:CE1	70:Li:43:LYS:HE3	2.36	0.61
75:Lu:14:ILE:HB	76:Lw:5:ALA:HB3	1.83	0.61
2:SA:58:THR:HG22	2:SA:62:LEU:HD21	1.83	0.61
12:SO:90:PHE:CZ	54:Lf:20:LEU:HD23	1.87	0.61
14:SP:93:HIS:CE1	33:L1:2080:G:C5'	2.83	0.61
16:SR:139:ARG:H	16:SR:140:PRO:HD2	1.66	0.61
27:SH:4:VAL:CG2	27:SH:5:SER:H	2.14	0.61
27:SH:94:LEU:HD21	27:SH:102:ILE:HD12	1.83	0.61
32:S1:348:A:C8	46:LT:140:GLU:HG2	2.29	0.61
32:S1:886:A:O5'	83:Lm:85:ARG:HD3	2.00	0.61
32:S1:1129:A:C1'	83:Lm:24:LYS:CE	2.79	0.61
33:L1:1263:A:H61	79:Ls:33:ALA:N	1.97	0.61
33:L1:1868:C:H5''	46:LT:55:GLN:O	2.01	0.61
33:L1:2149:G:H21	33:L1:2155:G:H21	1.47	0.61
33:L1:3307:A:N7	80:LC:125:SER:HB2	2.16	0.61
34:L3:49:A:C2	34:L3:50:A:C6	2.89	0.61
36:LA:109:PHE:CE2	36:LA:136:LEU:HD22	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:Ls:163:LEU:HD22	79:Ls:164:ILE:HG13	1.81	0.61
14:SP:94:PHE:CA	46:LT:151:ARG:HD3	2.30	0.60
14:SP:95:VAL:CG2	46:LT:152:GLU:HA	2.30	0.60
24:SX:74:ARG:C	24:SX:75:LEU:CG	2.72	0.60
32:S1:485:A:N6	32:S1:510:A:H61	1.99	0.60
33:L1:1598:U:H1'	33:L1:1601:G:O6	2.01	0.60
33:L1:1604:U:H3'	33:L1:1606:C:H5	1.66	0.60
34:L3:47:C:OP1	45:LQ:95:ASN:CB	2.48	0.60
48:LV:35:ALA:HB2	48:LV:59:PRO:CG	2.31	0.60
75:Lt:33:ALA:HB2	76:Lv:29:SER:HB2	1.82	0.60
84:LI:110:ARG:HE	84:LI:116:ARG:CD	2.14	0.60
7:SI:131:GLU:HG2	7:SI:132:PRO:HD2	1.83	0.60
17:SV:48:TYR:CZ	17:SV:81:ILE:HG12	2.36	0.60
23:SU:49:LEU:HD12	23:SU:49:LEU:O	2.02	0.60
31:S2:14:A:P	33:L1:2263:U:C6	2.77	0.60
32:S1:151:A:H2'	32:S1:152:G:C8	2.36	0.60
32:S1:988:G:O3'	37:LB:176:GLU:CG	1.79	0.60
33:L1:384:A:C3'	33:L1:385:A:H5'	2.31	0.60
33:L1:1148:G:H4'	56:Lh:45:ARG:O	2.02	0.60
33:L1:1819:A:H2'	33:L1:1820:C:H5'	1.83	0.60
36:LA:143:LEU:O	36:LA:143:LEU:HD13	2.00	0.60
37:LB:229:ALA:HB1	37:LB:233:GLN:CG	2.30	0.60
48:LV:113:LEU:HD13	48:LV:156:GLU:H	1.65	0.60
51:LY:105:VAL:HG11	51:LY:108:LEU:HD23	1.82	0.60
52:Lb:119:PRO:HG3	64:LG:44:ALA:HB2	1.83	0.60
55:Lg:1:MET:HB3	55:Lg:85:ARG:HA	1.82	0.60
55:Lg:52:MET:SD	55:Lg:83:ILE:HG12	2.41	0.60
55:Lg:62:LYS:HE3	55:Lg:96:GLU:HB2	1.82	0.60
55:Lg:101:VAL:O	55:Lg:102:THR:HG23	2.01	0.60
56:Lh:119:VAL:C	56:Lh:120:VAL:HG22	2.26	0.60
66:LN:64:ARG:CG	66:LN:65:VAL:N	2.63	0.60
69:La:27:ARG:C	69:La:27:ARG:CB	2.73	0.60
75:Lt:18:ASP:CA	76:Lv:2:LYS:CE	2.12	0.60
2:SA:1:MET:HA	2:SA:2:ALA:HB3	1.83	0.60
2:SA:78:ILE:HD12	2:SA:78:ILE:N	2.16	0.60
4:SD:43:PRO:HA	4:SD:83:PRO:HA	1.83	0.60
6:SF:56:ARG:HG3	19:SY:47:ARG:NH2	2.17	0.60
15:SS:8:THR:CG2	15:SS:142:ASP:HB2	2.31	0.60
15:SS:63:ILE:HD12	15:SS:106:ILE:HD12	1.83	0.60
27:SH:36:LYS:HB3	27:SH:36:LYS:HZ2	1.65	0.60
27:SH:65:LEU:HD23	27:SH:70:ASN:CA	2.30	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:S2:69:G:C5'	33:L1:2965:C:H5''	2.29	0.60
32:S1:185:G:N1	32:S1:194:G:N1	2.49	0.60
33:L1:1058:A:H2'	33:L1:1059:A:C8	2.36	0.60
33:L1:2604:A:H2'	33:L1:2605:G:C8	2.36	0.60
41:LM:69:LYS:HB3	41:LM:72:LEU:HD23	1.83	0.60
76:Lv:41:LEU:N	79:Ls:99:LYS:NZ	2.21	0.60
83:Lm:2:THR:CG2	83:Lm:4:ARG:NH2	2.64	0.60
9:SK:92:LEU:C	9:SK:92:LEU:HD22	2.27	0.60
9:SK:96:LEU:O	9:SK:97:ARG:HB3	2.01	0.60
10:SL:41:ALA:HB1	10:SL:61:PRO:O	2.00	0.60
18:SW:102:UNK:O	18:SW:103:UNK:C	2.47	0.60
31:S2:26:G:C8	33:L1:2260:C:H4'	2.37	0.60
31:S2:34:G:N2	32:S1:1645:C:N3	2.49	0.60
32:S1:918:G:N2	33:L1:2202:A:H3'	2.16	0.60
32:S1:978:A:N1	33:L1:849:A:C2	2.33	0.60
33:L1:640:C:H6	33:L1:640:C:C5'	2.14	0.60
33:L1:2380:G:C5'	82:LK:95:HIS:NE2	2.63	0.60
36:LA:58:PRO:HD3	36:LA:182:ILE:HG21	1.82	0.60
36:LA:143:LEU:HD13	36:LA:143:LEU:C	2.27	0.60
37:LB:177:LYS:HE3	83:Lm:30:GLU:OE1	2.01	0.60
48:LV:35:ALA:CB	48:LV:59:PRO:HD2	2.31	0.60
56:Lh:83:LEU:HD11	56:Lh:109:ILE:HG23	1.82	0.60
67:LS:37:VAL:HG21	78:Le:235:TYR:CE1	2.36	0.60
7:SI:130:CYS:O	32:S1:1592:G:H8	1.85	0.60
9:SK:52:LEU:HD11	9:SK:92:LEU:HD23	1.83	0.60
15:SS:8:THR:O	15:SS:9:VAL:C	2.42	0.60
32:S1:775:A:C3'	32:S1:776:A:C5'	2.79	0.60
32:S1:956:A:C5'	54:Lf:9:LYS:HZ2	2.06	0.60
33:L1:308:U:C3'	33:L1:309:C:H5''	2.32	0.60
33:L1:962:C:OP2	33:L1:963:U:C5	2.54	0.60
33:L1:996:A:H62	33:L1:1061:A:H1'	1.66	0.60
33:L1:1391:A:C2	33:L1:1424:G:C5	2.90	0.60
41:LM:136:ALA:HB3	41:LM:139:ILE:HD11	1.83	0.60
48:LV:114:TYR:CE1	48:LV:155:GLU:CB	2.85	0.60
56:Lh:79:ASN:ND2	56:Lh:81:SER:H	1.99	0.60
2:SA:79:ILE:CG2	2:SA:126:LEU:HB2	2.32	0.60
6:SF:56:ARG:HH11	19:SY:52:LEU:HD21	1.67	0.60
9:SK:43:VAL:HG13	9:SK:109:PRO:HB3	1.84	0.60
14:SP:98:TYR:CE1	46:LT:155:LEU:HG	2.37	0.60
27:SH:52:PHE:CD2	27:SH:53:VAL:CG2	2.84	0.60
27:SH:101:TYR:CZ	27:SH:129:PHE:HB3	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:S2:13:U:O2'	33:L1:2262:C:C6	2.55	0.60
31:S2:26:G:N9	33:L1:2260:C:C5'	2.61	0.60
31:S2:72:G:C5'	33:L1:2972:C:H5'	2.29	0.60
33:L1:426:A:H4'	56:Lh:16:LYS:HE3	1.83	0.60
33:L1:2507:U:H2'	33:L1:2508:U:C6	2.37	0.60
33:L1:2751:A:C5	33:L1:2752:G:H1'	2.36	0.60
33:L1:3047:A:H5''	80:LC:224:THR:CG2	2.30	0.60
33:L1:3151:C:H5'	80:LC:134:ALA:HB2	1.84	0.60
34:L3:75:G:N2	34:L3:101:A:H62	1.99	0.60
36:LA:67:LEU:HD21	36:LA:147:VAL:CG2	2.32	0.60
36:LA:87:GLU:HA	36:LA:91:LYS:CD	2.22	0.60
42:LP:189:ARG:HH22	42:LP:192:TRP:NE1	2.00	0.60
64:LG:101:SER:O	71:Lj:80:GLY:HA2	1.99	0.60
66:LN:4:LYS:CG	67:LS:161:PRO:HB3	2.32	0.60
2:SA:129:THR:HG23	2:SA:130:ASP:N	2.12	0.60
4:SD:87:MET:HE3	4:SD:100:ARG:NH1	2.17	0.60
14:SP:95:VAL:HG11	46:LT:155:LEU:HD12	1.82	0.60
32:S1:800:U:C3'	32:S1:801:U:H5'	2.31	0.60
32:S1:956:A:C3'	54:Lf:9:LYS:HZ2	2.13	0.60
33:L1:1911:A:H2'	33:L1:1912:U:C6	2.36	0.60
33:L1:2169:U:H5''	37:LB:54:ARG:HG2	1.82	0.60
33:L1:3097:G:C4	80:LC:331:CYS:SG	2.94	0.60
34:L3:48:G:N2	34:L3:50:A:H62	1.97	0.60
34:L3:116:U:C3'	45:LQ:80:TYR:CE1	2.85	0.60
36:LA:87:GLU:CG	36:LA:91:LYS:HD3	2.20	0.60
36:LA:137:VAL:HG12	36:LA:138:SER:N	2.16	0.60
37:LB:147:ARG:HH21	37:LB:155:LYS:CD	2.14	0.60
48:LV:2:VAL:HG11	48:LV:18:MET:SD	2.41	0.60
55:Lg:16:VAL:HG12	55:Lg:17:THR:H	1.66	0.60
66:LN:64:ARG:HD3	67:LS:154:VAL:HG11	1.84	0.60
66:LN:109:LYS:HE2	82:LK:198:LEU:HD22	1.83	0.60
10:SL:94:GLU:OE2	10:SL:100:LEU:HD23	2.01	0.60
15:SS:1:MET:O	15:SS:5:THR:HG23	2.01	0.60
17:SV:65:VAL:HA	17:SV:68:GLU:HB2	1.84	0.60
27:SH:10:ALA:O	27:SH:13:THR:HG22	2.02	0.60
32:S1:1542:G:OP1	32:S1:1547:G:C5	2.55	0.60
32:S1:1674:C:OP1	33:L1:1914:C:C4'	2.49	0.60
32:S1:1747:A:C4	33:L1:1930:G:N2	2.70	0.60
33:L1:99:A:C4'	42:LP:182:HIS:CG	2.85	0.60
33:L1:2789:G:H2'	33:L1:2790:C:C6	2.37	0.60
37:LB:137:ILE:HG23	37:LB:138:SER:N	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:LO:64:LEU:CA	65:LL:155:UNK:H	2.13	0.60
55:Lg:80:ARG:HB3	55:Lg:97:LEU:HD12	1.82	0.60
67:LS:6:PHE:HB2	67:LS:105:VAL:HG21	1.84	0.60
2:SA:147:PRO:CD	5:SE:76:GLN:HG3	2.32	0.60
5:SE:30:ARG:CG	27:SH:67:GLY:CA	2.79	0.60
11:SM:126:TYR:CZ	11:SM:126:TYR:CG	2.89	0.60
12:SO:150:VAL:HB	33:L1:1714:A:C1'	2.30	0.60
18:SW:7:UNK:O	18:SW:8:UNK:C	2.47	0.60
26:SG:5:UNK:CA	46:LT:189:CYS:C	2.71	0.60
27:SH:78:ARG:O	27:SH:79:PHE:C	2.41	0.60
31:S2:24:A:C1'	33:L1:2261:U:C5'	2.67	0.60
33:L1:102:G:C2'	33:L1:102:G:N9	2.61	0.60
33:L1:299:G:H1	33:L1:312:U:H3	1.49	0.60
33:L1:816:G:H4'	57:L1:47:TYR:CE2	2.36	0.60
33:L1:1851:U:H5''	73:Lp:52:LYS:CB	2.32	0.60
33:L1:2620:U:C4	33:L1:2623:G:H5''	2.36	0.60
34:L3:27:A:P	45:LQ:56:VAL:HA	2.42	0.60
37:LB:166:ILE:HG22	83:Lm:83:ILE:HD11	1.84	0.60
51:LY:56:GLN:HB3	51:LY:66:GLU:HG2	1.84	0.60
56:Lh:6:LEU:HD21	56:Lh:69:PRO:O	2.01	0.60
78:Le:36:LYS:HG2	81:LD:358:LYS:HZ2	1.67	0.60
79:Ls:121:PRO:HG2	79:Ls:186:PHE:CE2	2.37	0.60
79:Ls:144:LEU:HD21	79:Ls:163:LEU:HD21	1.82	0.60
81:LD:335:PRO:CD	81:LD:336:TYR:H	2.10	0.60
2:SA:133:THR:HG23	2:SA:134:ASP:OD1	2.02	0.60
4:SD:85:GLY:O	4:SD:101:LEU:HD13	2.01	0.60
4:SD:201:HIS:CG	32:S1:687:C:C5'	2.85	0.60
8:SJ:68:LYS:NZ	32:S1:1524:A:O3'	2.35	0.60
38:LE:91:TYR:CD2	38:LE:92:GLU:HA	2.36	0.60
51:LY:72:VAL:CG2	51:LY:79:ILE:HG22	2.32	0.60
73:Lp:52:LYS:CA	73:Lp:52:LYS:HB3	2.15	0.60
76:Lv:40:GLU:HG2	79:Ls:99:LYS:CD	2.32	0.60
14:SP:49:ALA:CB	14:SP:100:ARG:HH22	2.14	0.59
17:SV:53:SER:O	17:SV:56:PRO:HG2	2.01	0.59
32:S1:119:U:C2	32:S1:303:A:C2	2.90	0.59
32:S1:1747:A:C3'	33:L1:1916:U:H1'	2.31	0.59
33:L1:1192:A:H2	82:LK:137:GLY:O	1.84	0.59
33:L1:1303:C:H2'	33:L1:1304:G:C8	2.37	0.59
33:L1:1944:G:H5''	46:LT:101:VAL:HG21	1.83	0.59
36:LA:91:LYS:CG	36:LA:94:LYS:HE2	2.29	0.59
36:LA:99:VAL:O	36:LA:100:LYS:HD2	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:LF:187:THR:HG23	39:LF:187:THR:O	2.02	0.59
51:LY:105:VAL:HG11	51:LY:108:LEU:HD21	1.84	0.59
68:LW:28:SER:O	68:LW:29:LYS:CB	2.49	0.59
83:Lm:2:THR:HG22	83:Lm:4:ARG:CZ	2.31	0.59
2:SA:71:ALA:CB	5:SE:65:ILE:HB	2.32	0.59
4:SD:71:LEU:HD22	4:SD:75:LYS:C	2.28	0.59
9:SK:99:THR:C	9:SK:124:LYS:HE2	2.27	0.59
16:SR:139:ARG:H	16:SR:140:PRO:CD	2.16	0.59
18:SW:114:UNK:O	18:SW:115:UNK:C	2.47	0.59
32:S1:978:A:C4'	33:L1:850:A:C3'	2.61	0.59
33:L1:952:C:H4'	44:LR:10:ARG:HB2	1.83	0.59
33:L1:1722:G:N2	33:L1:1785:G:C5'	2.65	0.59
33:L1:2165:A:H5''	37:LB:17:LYS:HZ2	1.66	0.59
33:L1:2642:G:H4'	47:LU:56:PHE:CD2	2.37	0.59
34:L3:48:G:H21	34:L3:50:A:H62	1.50	0.59
36:LA:105:LYS:HD3	36:LA:129:LYS:HZ3	1.66	0.59
38:LE:38:VAL:HG23	38:LE:120:PRO:HB3	1.84	0.59
39:LF:2:LYS:HZ1	66:LN:33:GLN:HB3	1.67	0.59
46:LT:168:ALA:O	46:LT:172:ARG:HG3	2.02	0.59
48:LV:39:LEU:O	48:LV:114:TYR:HA	2.01	0.59
2:SA:138:ILE:HG13	2:SA:139:LYS:N	2.17	0.59
5:SE:258:LYS:CE	27:SH:69:LEU:CA	2.58	0.59
12:SO:38:MET:SD	26:SG:110:UNK:CB	2.90	0.59
24:SX:36:ASP:OD2	24:SX:45:ILE:HD11	2.02	0.59
31:S2:24:A:H2'	33:L1:2261:U:P	2.40	0.59
32:S1:119:U:O2	32:S1:303:A:N1	2.33	0.59
32:S1:320:A:H5''	33:L1:855:U:H5'	1.84	0.59
33:L1:68:U:H2'	33:L1:69:U:H5'	1.83	0.59
33:L1:463:G:H2'	33:L1:464:G:C8	2.37	0.59
33:L1:636:C:OP1	71:Lj:68:ILE:HG21	2.02	0.59
33:L1:1272:G:C2'	33:L1:1277:A:H61	2.15	0.59
33:L1:1526:A:C2	49:LX:133:TYR:CE1	2.90	0.59
33:L1:3339:G:H2'	33:L1:3340:G:C8	2.38	0.59
36:LA:71:GLN:HE21	36:LA:108:ALA:HB2	1.68	0.59
36:LA:122:LEU:HD13	36:LA:129:LYS:HZ1	1.67	0.59
37:LB:137:ILE:HD13	37:LB:147:ARG:HH12	1.65	0.59
51:LY:72:VAL:HG13	51:LY:79:ILE:HG22	1.83	0.59
78:Le:184:GLU:CG	81:LD:358:LYS:HD3	2.32	0.59
3:SB:28:GLU:C	3:SB:29:LEU:HD22	2.27	0.59
3:SB:76:ARG:CA	13:SQ:33:LYS:HG3	2.30	0.59
12:SO:151:ALA:HB1	54:Lf:22:MET:HG2	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:SP:71:ILE:HD11	27:SH:84:LYS:CD	2.31	0.59
14:SP:90:ASN:ND2	33:L1:2082:A:OP2	2.32	0.59
14:SP:92:LEU:N	46:LT:151:ARG:NH2	2.51	0.59
27:SH:52:PHE:C	27:SH:53:VAL:CG2	2.59	0.59
27:SH:79:PHE:CZ	27:SH:85:GLU:O	2.56	0.59
31:S2:74:C:C1'	33:L1:2404:C:H4'	2.32	0.59
32:S1:990:G:O3'	37:LB:133:TYR:CD1	2.31	0.59
33:L1:287:A:OP1	42:LP:97:ASN:OD1	2.21	0.59
33:L1:1034:U:H3'	33:L1:1035:C:C6	2.37	0.59
33:L1:1405:G:H4'	56:Lh:68:LEU:HD12	1.84	0.59
33:L1:1851:U:H5''	73:Lp:52:LYS:CA	2.31	0.59
33:L1:2157:C:O2'	37:LB:11:GLY:CA	2.51	0.59
33:L1:2507:U:H1'	72:Lk:85:ARG:HH21	1.66	0.59
34:L3:56:G:C6	34:L3:57:C:C4	2.91	0.59
36:LA:57:ILE:HG23	36:LA:59:ARG:O	2.02	0.59
55:Lg:15:VAL:HB	55:Lg:86:LYS:HD3	1.83	0.59
66:LN:113:ALA:HB1	82:LK:198:LEU:CG	2.31	0.59
69:La:26:VAL:HG22	69:La:27:ARG:HE	1.67	0.59
2:SA:117:GLN:NE2	32:S1:1327:C:O2'	2.35	0.59
12:SO:69:SER:HB2	24:SX:49:PHE:CZ	2.34	0.59
12:SO:97:ALA:O	54:Lf:15:ASN:ND2	2.36	0.59
12:SO:114:ARG:HH11	32:S1:945:A:H62	1.49	0.59
12:SO:150:VAL:HB	33:L1:1714:A:H1'	1.79	0.59
17:SV:64:SER:CA	17:SV:82:LYS:NZ	2.65	0.59
27:SH:94:LEU:HD21	27:SH:128:PHE:CD1	2.38	0.59
31:S2:24:A:N1	33:L1:2260:C:O2'	2.35	0.59
31:S2:25:U:C5'	33:L1:2261:U:OP1	2.22	0.59
33:L1:1174:G:OP1	34:L3:84:U:C4	2.56	0.59
33:L1:1254:A:H2'	33:L1:1255:A:H5'	1.85	0.59
33:L1:1679:U:C2'	33:L1:1679:U:N1	2.62	0.59
34:L3:7:G:OP1	45:LQ:37:ARG:CD	2.49	0.59
36:LA:147:VAL:HG23	36:LA:148:ASN:N	2.16	0.59
81:LD:358:LYS:CE	81:LD:362:LYS:HZ1	2.15	0.59
83:Lm:2:THR:CG2	83:Lm:4:ARG:CZ	2.80	0.59
4:SD:175:PHE:CE1	4:SD:195:ILE:HD13	2.38	0.59
5:SE:194:LYS:HB2	5:SE:245:VAL:HG22	1.84	0.59
5:SE:258:LYS:CE	27:SH:69:LEU:HG	2.31	0.59
6:SF:131:ARG:HH21	6:SF:133:GLN:HA	1.68	0.59
14:SP:41:LEU:HB2	14:SP:103:LYS:CE	2.33	0.59
15:SS:14:PRO:HD2	15:SS:15:HIS:CE1	2.37	0.59
27:SH:27:ILE:HG13	32:S1:641:C:OP2	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:956:A:OP2	54:Lf:9:LYS:HG2	1.73	0.59
32:S1:1308:G:C1'	32:S1:1308:G:O2'	2.46	0.59
33:L1:2700:A:N6	33:L1:2701:G:C6	2.70	0.59
44:LR:40:THR:HA	81:LD:325:LYS:CB	2.33	0.59
75:Lu:12:ALA:HB2	75:Lu:46:PHE:CE2	2.37	0.59
1:Sa:89:ARG:HH21	1:Sa:103:ALA:HB3	1.67	0.59
2:SA:81:GLN:NE2	2:SA:126:LEU:HD11	2.18	0.59
2:SA:109:PRO:O	2:SA:110:GLY:C	2.43	0.59
4:SD:137:PRO:HD3	32:S1:247:A:OP2	2.01	0.59
18:SW:98:UNK:O	18:SW:99:UNK:C	2.47	0.59
27:SH:14:MET:CG	27:SH:19:LYS:HB2	2.33	0.59
32:S1:860:A:C8	32:S1:861:A:C2	2.91	0.59
33:L1:428:G:H4'	71:Lj:95:PRO:CD	2.33	0.59
33:L1:1387:G:O4'	81:LD:248:GLY:HA3	2.02	0.59
33:L1:1817:U:H2'	33:L1:1818:C:C5'	2.32	0.59
33:L1:1910:G:H21	46:LT:82:ARG:HG3	1.68	0.59
33:L1:2869:C:H6	33:L1:2869:C:H5'	1.68	0.59
35:L2:98:C:N4	57:Ll:73:ARG:NH2	2.37	0.59
48:LV:125:LYS:HA	48:LV:144:PRO:CD	2.28	0.59
51:LY:78:VAL:HG12	51:LY:79:ILE:N	2.18	0.59
52:Lb:123:ARG:CB	56:Lh:87:MET:CE	2.81	0.59
67:LS:156:ARG:HG2	67:LS:157:LYS:H	1.67	0.59
68:LW:85:LEU:HG	68:LW:114:TYR:HB3	1.83	0.59
75:Lt:48:LYS:NZ	76:Lw:35:ASP:CA	2.66	0.59
78:Le:178:HIS:H	78:Le:178:HIS:CD2	2.19	0.59
80:LC:21:ARG:HH21	80:LC:272:GLN:NE2	2.01	0.59
2:SA:145:ASN:HD21	5:SE:78:VAL:HG12	1.57	0.59
2:SA:189:MET:CE	5:SE:62:ILE:HD11	2.33	0.59
8:SJ:92:ARG:HG3	28:SN:52:PHE:N	2.17	0.59
11:SM:11:HIS:O	38:LE:117:LYS:NZ	2.22	0.59
18:SW:11:UNK:O	18:SW:12:UNK:C	2.47	0.59
31:S2:70:G:H8	33:L1:2965:C:H4'	1.66	0.59
32:S1:887:U:O4'	83:Lm:88:GLU:CD	2.46	0.59
32:S1:1659:A:N1	32:S1:1759:A:C2	2.71	0.59
33:L1:99:A:C4'	42:LP:182:HIS:CD2	2.85	0.59
33:L1:1123:A:H61	33:L1:1141:U:H3	1.50	0.59
33:L1:1364:C:O2'	81:LD:337:PHE:CE2	2.50	0.59
33:L1:1819:A:C2'	33:L1:1820:C:H5'	2.32	0.59
36:LA:106:TYR:HE2	36:LA:140:GLN:CB	2.16	0.59
38:LE:31:ARG:HG3	38:LE:34:ARG:HG3	1.83	0.59
41:LM:32:THR:O	41:LM:69:LYS:HB2	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:LU:128:THR:O	47:LU:132:PRO:HD2	2.02	0.59
2:SA:85:PRO:HA	2:SA:88:GLN:HG3	1.85	0.59
2:SA:125:LEU:HD12	2:SA:125:LEU:C	2.28	0.59
6:SF:94:GLU:CB	17:SV:102:TYR:OH	2.51	0.59
18:SW:100:UNK:O	18:SW:101:UNK:C	2.47	0.59
24:SX:72:LYS:CD	32:S1:1054:G:P	2.90	0.59
31:S2:13:U:C5'	33:L1:2244:G:N2	2.66	0.59
33:L1:1549:A:O4'	33:L1:1549:A:N9	2.35	0.59
33:L1:2802:G:O4'	33:L1:2802:G:N9	2.33	0.59
34:L3:48:G:H22	34:L3:50:A:H61	1.49	0.59
69:La:10:ALA:HB3	69:La:25:ILE:HA	1.84	0.59
73:Lp:53:ASN:N	73:Lp:53:ASN:C	2.59	0.59
76:Lv:44:SER:OG	79:Ls:99:LYS:CB	2.51	0.59
78:Le:185:ASP:CG	81:LD:358:LYS:NZ	2.60	0.59
1:Sa:343:HIS:CG	32:S1:1399:G:O3'	2.56	0.59
2:SA:149:ILE:O	2:SA:149:ILE:HG13	2.02	0.59
4:SD:192:VAL:HG12	4:SD:193:GLY:N	2.18	0.59
32:S1:354:G:C2	33:L1:847:G:H5''	2.38	0.59
32:S1:1062:C:H2'	32:S1:1063:U:H1'	1.85	0.59
32:S1:1747:A:O3'	33:L1:1916:U:C1'	2.36	0.59
33:L1:1767:G:C2'	33:L1:1767:G:N9	2.60	0.59
34:L3:58:G:H5'	45:LQ:29:GLN:HE22	1.62	0.59
48:LV:127:ARG:HA	48:LV:141:MET:CE	2.32	0.59
51:LY:56:GLN:O	51:LY:103:VAL:CG2	2.50	0.59
52:Lb:116:LEU:HD11	56:Lh:88:MET:CE	2.30	0.59
55:Lg:11:ARG:HA	55:Lg:11:ARG:HE	1.68	0.59
66:LN:64:ARG:NH1	67:LS:151:PHE:CG	2.71	0.59
69:La:94:VAL:HG22	69:La:99:ASP:HA	1.85	0.59
73:Lp:50:LYS:C	73:Lp:51:ILE:HG22	2.28	0.59
2:SA:23:LEU:O	2:SA:28:HIS:CE1	2.56	0.58
2:SA:109:PRO:C	2:SA:111:THR:N	2.61	0.58
6:SF:118:ARG:CD	19:SY:56:GLU:OE2	2.46	0.58
9:SK:85:LYS:HE2	9:SK:119:ALA:CB	2.33	0.58
10:SL:69:ALA:O	10:SL:70:ARG:HD2	2.03	0.58
14:SP:92:LEU:HD23	46:LT:151:ARG:HH22	1.66	0.58
18:SW:99:UNK:O	18:SW:100:UNK:C	2.47	0.58
23:SU:30:LEU:O	23:SU:78:PHE:CD2	2.56	0.58
32:S1:860:A:H1'	46:LT:173:LYS:CB	2.23	0.58
32:S1:929:A:OP1	37:LB:109:GLU:HB3	2.03	0.58
32:S1:1023:C:H4'	83:Lm:77:VAL:HB	1.84	0.58
33:L1:329:G:C8	33:L1:330:C:C5	2.91	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1651:A:H4'	69:La:59:ALA:HB1	1.84	0.58
33:L1:2385:A:N6	33:L1:2995:G:H1'	2.18	0.58
33:L1:2902:A:H5''	39:LF:172:ARG:NH2	2.17	0.58
33:L1:3301:G:C1'	48:LV:70:THR:HG23	2.33	0.58
36:LA:195:LYS:HD3	36:LA:199:ASN:HD22	1.68	0.58
42:LP:31:ARG:HH21	42:LP:124:ASP:CG	2.10	0.58
44:LR:128:LEU:HD13	81:LD:313:GLU:CG	2.33	0.58
52:Lb:123:ARG:HB2	56:Lh:87:MET:CE	2.33	0.58
75:Lu:7:ALA:C	76:Lw:9:LEU:HD11	2.26	0.58
79:Ls:121:PRO:CG	79:Ls:186:PHE:CE1	2.86	0.58
1:Sa:231:ARG:HH11	1:Sa:244:THR:HB	1.67	0.58
12:SO:97:ALA:CB	54:Lf:19:GLN:CB	2.65	0.58
14:SP:88:ARG:HG2	14:SP:112:VAL:HG11	1.85	0.58
27:SH:119:LYS:HB3	27:SH:121:VAL:HG23	1.84	0.58
31:S2:26:G:C8	33:L1:2260:C:H5''	2.34	0.58
32:S1:1736:C:H5'	33:L1:2103:U:H5'	1.85	0.58
32:S1:1745:U:H2'	33:L1:1931:G:N9	2.06	0.58
32:S1:1747:A:O4'	33:L1:1930:G:N1	2.37	0.58
32:S1:1748:U:C1'	33:L1:1915:G:O3'	2.38	0.58
33:L1:1034:U:O2'	33:L1:1035:C:O4'	2.21	0.58
34:L3:85:G:C4'	67:LS:120:PHE:CE1	2.78	0.58
36:LA:57:ILE:HG22	36:LA:150:THR:HG21	1.85	0.58
38:LE:158:LYS:HD2	38:LE:159:GLU:N	2.18	0.58
48:LV:106:LYS:HD3	48:LV:106:LYS:C	2.27	0.58
48:LV:113:LEU:HB3	48:LV:156:GLU:H	1.67	0.58
55:Lg:1:MET:CG	55:Lg:52:MET:HB3	2.33	0.58
64:LG:26:TRP:CG	64:LG:26:TRP:O	2.54	0.58
75:Lt:12:ALA:HB2	75:Lt:46:PHE:CE2	2.37	0.58
79:Ls:121:PRO:HB2	79:Ls:186:PHE:CE1	2.38	0.58
81:LD:204:ARG:HD3	81:LD:205:TYR:CE1	2.39	0.58
2:SA:58:THR:CG2	2:SA:62:LEU:HD21	2.33	0.58
4:SD:160:ILE:HD11	4:SD:169:ILE:HG12	1.85	0.58
12:SO:58:HIS:HB3	54:Lf:23:LYS:NZ	2.18	0.58
12:SO:151:ALA:O	54:Lf:84:ALA:C	2.12	0.58
29:ST:49:PHE:CE1	29:ST:65:ASP:HB3	2.39	0.58
31:S2:47:U:N3	31:S2:58:U:H1'	2.17	0.58
32:S1:1678:G:C4	32:S1:1678:G:H2'	2.39	0.58
33:L1:82:C:C2	33:L1:83:U:C5	2.92	0.58
33:L1:1190:C:H4'	67:LS:115:ARG:CZ	2.32	0.58
33:L1:1637:G:C8	69:La:25:ILE:HG22	2.37	0.58
33:L1:2618:G:H2'	33:L1:2619:C:C6	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:3143:A:C2	33:L1:3145:G:N2	2.71	0.58
36:LA:189:LEU:HA	65:LL:192:UNK:C	2.34	0.58
41:LM:72:LEU:HD11	41:LM:105:ILE:CD1	2.33	0.58
47:LU:64:VAL:HG13	47:LU:72:ILE:HD11	1.85	0.58
48:LV:9:ASN:HD21	48:LV:154:LYS:CE	2.16	0.58
51:LY:70:VAL:HG13	51:LY:71:GLN:N	2.18	0.58
55:Lg:1:MET:HB2	55:Lg:91:GLU:C	2.28	0.58
56:Lh:36:PRO:HG2	56:Lh:53:MET:HE2	1.85	0.58
66:LN:64:ARG:CD	67:LS:154:VAL:CG1	2.81	0.58
84:LI:109:ASP:O	84:LI:110:ARG:C	2.46	0.58
2:SA:79:ILE:HG23	2:SA:126:LEU:CB	2.33	0.58
8:SJ:68:LYS:CE	32:S1:1524:A:C5'	2.81	0.58
11:SM:16:LEU:HD13	11:SM:100:SER:CB	2.33	0.58
14:SP:45:THR:CG2	14:SP:47:ARG:HE	2.14	0.58
14:SP:95:VAL:HG21	46:LT:152:GLU:CG	2.32	0.58
23:SU:71:GLY:O	23:SU:72:GLY:HA2	2.03	0.58
27:SH:40:VAL:O	27:SH:40:VAL:HG12	2.02	0.58
27:SH:65:LEU:CD1	27:SH:66:ASN:N	2.64	0.58
32:S1:662:C:H42	32:S1:678:A:H61	1.51	0.58
32:S1:1205:G:C8	32:S1:1607:C:N4	2.72	0.58
33:L1:1826:G:H2'	33:L1:1826:G:N3	2.19	0.58
33:L1:2664:G:H2'	33:L1:2665:A:C8	2.39	0.58
33:L1:3004:G:H2'	33:L1:3005:C:C6	2.39	0.58
34:L3:2:G:N2	34:L3:3:A:N6	2.50	0.58
34:L3:86:G:H5'	67:LS:119:ARG:HB3	1.86	0.58
35:L2:62:G:N2	35:L2:63:A:N1	2.50	0.58
37:LB:90:CYS:HA	37:LB:101:VAL:CG1	2.33	0.58
38:LE:82:LEU:HD12	38:LE:86:LEU:HD21	1.83	0.58
48:LV:1:MET:CB	48:LV:16:LYS:HD3	2.31	0.58
48:LV:99:ALA:CB	48:LV:149:LEU:HD23	2.29	0.58
64:LG:109:PRO:HB3	64:LG:144:ASP:HA	1.83	0.58
67:LS:61:LEU:HG	78:Le:79:VAL:HG22	1.86	0.58
79:Ls:35:ASN:HB3	79:Ls:188:TYR:CE1	2.37	0.58
9:SK:37:ASN:HB2	9:SK:98:ALA:HB1	1.86	0.58
27:SH:7:LEU:HD23	27:SH:7:LEU:O	2.03	0.58
31:S2:75:A:O4'	33:L1:2956:U:C1'	2.49	0.58
32:S1:1083:C:N3	32:S1:1084:U:H1'	2.18	0.58
33:L1:14:U:H2'	33:L1:15:C:C6	2.39	0.58
33:L1:1596:G:C5'	33:L1:1752:C:H4'	2.34	0.58
33:L1:3097:G:H2'	33:L1:3098:U:C6	2.39	0.58
36:LA:107:HIS:CE1	36:LA:129:LYS:HD3	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:LB:137:ILE:CG2	37:LB:147:ARG:HG2	2.34	0.58
37:LB:180:LEU:HD12	83:Lm:26:ILE:HD12	1.85	0.58
50:LZ:3:LEU:C	80:LC:304:ARG:NH2	2.61	0.58
65:LL:154:UNK:N	65:LL:154:UNK:CB	2.62	0.58
75:Lt:62:VAL:HG21	79:Ls:227:SER:HA	1.84	0.58
78:Le:36:LYS:CG	81:LD:358:LYS:CD	2.82	0.58
32:S1:347:C:C2	33:L1:2085:A:OP1	2.57	0.58
32:S1:349:U:H3'	46:LT:132:PHE:CD1	2.39	0.58
33:L1:1517:C:H1'	59:Lo:44:TRP:CH2	2.38	0.58
51:LY:58:VAL:HG12	51:LY:59:ARG:NH1	2.18	0.58
66:LN:19:LYS:O	66:LN:21:TYR:HA	2.04	0.58
75:Lt:7:ALA:O	76:Lv:9:LEU:HD13	2.01	0.58
4:SD:230:LYS:HG2	4:SD:231:GLY:H	1.68	0.58
12:SO:100:LYS:CB	54:Lf:82:GLY:H	2.17	0.58
12:SO:103:GLU:CG	54:Lf:80:ASP:OD2	2.52	0.58
32:S1:632:G:N2	33:L1:849:A:C8	2.67	0.58
33:L1:817:U:H5'	57:Ll:45:ARG:NH1	2.17	0.58
33:L1:1622:G:C3'	33:L1:1623:C:H5'	2.34	0.58
33:L1:1730:U:H2'	33:L1:1731:A:H5'	1.84	0.58
33:L1:3237:G:C6	33:L1:3238:U:H1'	2.39	0.58
34:L3:37:G:H2'	34:L3:38:U:C6	2.39	0.58
39:LF:2:LYS:NZ	66:LN:33:GLN:HB3	2.18	0.58
48:LV:113:LEU:HD21	48:LV:153:GLU:CD	2.29	0.58
64:LG:50:PHE:N	64:LG:50:PHE:HA	1.97	0.58
66:LN:64:ARG:HH22	67:LS:151:PHE:CB	2.17	0.58
67:LS:28:ARG:HE	78:Le:74:LYS:CD	2.15	0.58
79:Ls:144:LEU:O	79:Ls:144:LEU:HD23	2.04	0.58
5:SE:30:ARG:NE	27:SH:66:ASN:CA	2.63	0.58
14:SP:122:ASP:O	46:LT:162:LYS:HE2	2.03	0.58
23:SU:20:ASN:CG	23:SU:23:LEU:CD1	2.77	0.58
25:SC:170:PRO:O	25:SC:171:PRO:HG2	2.03	0.58
32:S1:860:A:H5'	46:LT:177:ARG:HD2	1.84	0.58
32:S1:956:A:C8	54:Lf:9:LYS:CG	2.86	0.58
32:S1:1566:U:O4'	32:S1:1566:U:N1	2.35	0.58
33:L1:283:A:C2'	33:L1:283:A:C8	2.86	0.58
33:L1:711:A:C8	33:L1:720:G:N2	2.72	0.58
33:L1:2218:A:P	72:Lk:77:LYS:NZ	2.77	0.58
33:L1:2231:G:C2'	33:L1:2231:G:C4	2.86	0.58
33:L1:2607:U:O2'	37:LB:226:ARG:CZ	2.52	0.58
33:L1:2897:G:H21	53:Ld:47:ARG:HE	1.51	0.58
33:L1:3301:G:H1'	48:LV:69:ARG:HD3	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:L2:96:A:C4	35:L2:97:U:H1'	2.39	0.58
56:Lh:95:ALA:H	56:Lh:120:VAL:CG2	2.16	0.58
67:LS:11:VAL:C	78:Le:74:LYS:HG3	2.27	0.58
75:Lu:10:LEU:HD11	76:Lw:8:LEU:HB3	1.86	0.58
2:SA:140:GLU:HG2	32:S1:1325:A:N6	2.18	0.58
8:SJ:72:ILE:CD1	28:SN:33:LYS:CE	2.82	0.58
25:SC:163:THR:CA	25:SC:163:THR:CG2	2.78	0.58
31:S2:11:U:O4'	33:L1:2247:A:N3	2.36	0.58
32:S1:535:C:C4'	32:S1:536:U:OP2	2.38	0.58
32:S1:1024:A:O4'	83:Lm:73:THR:HA	2.02	0.58
33:L1:639:A:C5'	33:L1:640:C:H4'	2.34	0.58
33:L1:716:A:C1'	33:L1:716:A:C4'	2.79	0.58
33:L1:3123:A:C2'	39:LF:64:ARG:HH12	2.16	0.58
34:L3:115:A:C2'	45:LQ:75:VAL:HG11	2.33	0.58
36:LA:79:MET:SD	36:LA:86:VAL:HA	2.44	0.58
37:LB:202:VAL:HG11	37:LB:217:GLN:HB3	1.84	0.58
39:LF:92:ARG:HH12	63:Lz:5:UNK:CB	2.16	0.58
44:LR:128:LEU:HD13	81:LD:313:GLU:HA	1.84	0.58
48:LV:13:LYS:HB3	48:LV:154:LYS:HE2	1.86	0.58
75:Lt:49:LEU:CD2	79:Ls:232:ILE:HB	2.34	0.58
2:SA:128:LEU:O	2:SA:150:ALA:HB1	2.03	0.58
2:SA:136:GLN:OE1	32:S1:1325:A:C8	2.57	0.58
5:SE:252:TYR:HB3	27:SH:99:PHE:HB3	1.86	0.58
7:SI:144:PHE:CE1	32:S1:1588:C:H1'	2.38	0.58
12:SO:107:LYS:HD2	54:Lf:78:ASN:CG	2.26	0.58
14:SP:122:ASP:O	46:LT:162:LYS:CE	2.50	0.58
17:SV:96:HIS:N	17:SV:101:ILE:CG1	2.64	0.58
33:L1:507:C:OP1	64:LG:66:PRO:CD	2.52	0.58
33:L1:779:U:H2'	33:L1:780:U:C6	2.38	0.58
33:L1:1664:G:H2'	33:L1:1665:G:C8	2.38	0.58
33:L1:2157:C:OP1	37:LB:231:PRO:CB	2.39	0.58
36:LA:54:LEU:HD11	36:LA:133:PHE:HA	1.86	0.58
38:LE:42:LEU:HD23	38:LE:42:LEU:O	2.03	0.58
51:LY:12:ARG:HG2	51:LY:12:ARG:HH11	1.69	0.58
66:LN:89:TRP:N	66:LN:91:LYS:H	2.02	0.58
78:Le:39:ALA:C	81:LD:362:LYS:NZ	2.61	0.58
78:Le:68:LYS:HG3	78:Le:74:LYS:HD2	1.86	0.58
1:Sa:346:ARG:HH22	32:S1:1398:U:P	2.26	0.57
2:SA:65:ALA:HB2	2:SA:165:ILE:HD11	1.85	0.57
2:SA:109:PRO:CB	2:SA:110:GLY:N	2.66	0.57
31:S2:11:U:O2	33:L1:2260:C:H2'	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:S2:25:U:C6	33:L1:2261:U:OP1	2.50	0.57
32:S1:221:U:C6	33:L1:2063:U:C4	2.73	0.57
32:S1:690:G:C8	32:S1:690:G:H3'	2.39	0.57
33:L1:1868:C:C5'	46:LT:55:GLN:O	2.52	0.57
33:L1:2599:U:C2'	33:L1:2599:U:N1	2.61	0.57
34:L3:113:G:N3	45:LQ:72:GLY:HA3	2.19	0.57
35:L2:38:U:C5'	57:L1:72:ARG:NH2	2.67	0.57
36:LA:23:LYS:HZ3	36:LA:35:ILE:HB	1.69	0.57
36:LA:60:PRO:CB	36:LA:150:THR:HB	2.34	0.57
44:LR:64:MET:O	44:LR:68:SER:HB2	2.03	0.57
46:LT:136:ARG:O	46:LT:137:VAL:CB	2.50	0.57
49:LX:96:VAL:HG11	49:LX:105:ILE:HD12	1.84	0.57
66:LN:89:TRP:O	66:LN:91:LYS:N	2.37	0.57
75:Lt:29:THR:O	76:Lv:29:SER:OG	2.18	0.57
75:Lu:10:LEU:CD1	76:Lw:5:ALA:HA	2.34	0.57
75:Lu:14:ILE:HD11	76:Lw:2:LYS:C	2.18	0.57
79:Ls:121:PRO:CG	79:Ls:186:PHE:CZ	2.87	0.57
81:LD:380:ALA:HA	81:LD:383:LYS:HD2	1.85	0.57
5:SE:142:LYS:HE2	32:S1:1304:A:H5'	1.78	0.57
9:SK:37:ASN:ND2	9:SK:37:ASN:C	2.61	0.57
12:SO:93:LYS:CG	54:Lf:19:GLN:O	2.52	0.57
14:SP:123:HIS:O	46:LT:162:LYS:HA	2.04	0.57
24:SX:66:CYS:HB3	24:SX:75:LEU:CD2	2.33	0.57
27:SH:106:THR:HG22	27:SH:121:VAL:CG1	2.33	0.57
32:S1:331:U:OP1	33:L1:2083:U:OP2	2.21	0.57
32:S1:1738:U:H2'	32:S1:1739:U:C6	2.39	0.57
33:L1:1219:C:OP2	67:LS:138:ARG:CZ	2.52	0.57
33:L1:1691:U:C2'	33:L1:1691:U:C6	2.86	0.57
33:L1:1922:C:H3'	83:Lm:6:LYS:HD2	1.85	0.57
35:L2:53:G:H4'	77:Lc:44:LYS:HZ1	1.69	0.57
36:LA:49:SER:HA	36:LA:192:LEU:CD2	2.29	0.57
36:LA:59:ARG:HD2	36:LA:175:GLU:HG2	1.86	0.57
36:LA:106:TYR:CZ	36:LA:140:GLN:HA	2.40	0.57
36:LA:195:LYS:HD3	36:LA:199:ASN:ND2	2.19	0.57
38:LE:86:LEU:HA	38:LE:89:LYS:NZ	2.20	0.57
39:LF:113:ILE:CD1	39:LF:163:LYS:HD2	2.33	0.57
43:LO:64:LEU:HD13	65:LL:156:UNK:HA	1.84	0.57
48:LV:59:PRO:HA	48:LV:76:ARG:NE	2.19	0.57
75:Lu:60:LEU:O	75:Lu:60:LEU:HD23	2.03	0.57
32:S1:119:U:O2	32:S1:303:A:H2	1.78	0.57
32:S1:860:A:C6	32:S1:861:A:C5	2.92	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1803:G:H2'	32:S1:1804:A:C8	2.40	0.57
33:L1:355:C:H4'	81:LD:87:GLY:HA3	1.85	0.57
33:L1:3028:A:H2'	33:L1:3029:G:O4'	2.03	0.57
33:L1:3124:A:C1'	33:L1:3124:A:O2'	2.50	0.57
34:L3:3:A:N3	34:L3:4:U:C6	2.72	0.57
34:L3:20:C:O2	34:L3:20:C:H2'	2.04	0.57
34:L3:73:U:C1'	34:L3:73:U:O2'	2.47	0.57
36:LA:119:ILE:HG12	36:LA:123:LEU:HB2	1.86	0.57
56:Lh:19:LYS:HD3	56:Lh:23:SER:HB3	1.87	0.57
56:Lh:68:LEU:HD12	56:Lh:69:PRO:CD	2.34	0.57
1:Sa:346:ARG:NH2	32:S1:1398:U:OP1	2.35	0.57
5:SE:132:THR:HG22	32:S1:10:G:N3	2.19	0.57
5:SE:258:LYS:HE2	27:SH:69:LEU:C	2.28	0.57
9:SK:112:GLN:HA	9:SK:115:LEU:HD12	1.85	0.57
12:SO:103:GLU:C	54:Lf:78:ASN:ND2	2.57	0.57
14:SP:45:THR:HG22	14:SP:102:GLU:HB3	1.87	0.57
23:SU:48:LYS:O	23:SU:52:LEU:HB2	2.04	0.57
25:SC:195:GLU:OXT	33:L1:2250:A:O2'	2.22	0.57
26:SG:12:UNK:N	26:SG:12:UNK:CB	2.60	0.57
31:S2:27:G:OP2	33:L1:2259:U:O2'	2.06	0.57
31:S2:75:A:OP2	33:L1:2957:U:C5'	2.49	0.57
32:S1:183:C:C2	32:S1:184:C:C5	2.91	0.57
32:S1:928:A:C5'	37:LB:139:HIS:H	2.17	0.57
32:S1:1129:A:H1'	83:Lm:24:LYS:HD3	1.86	0.57
32:S1:1542:G:H21	32:S1:1543:U:H3	1.52	0.57
33:L1:98:A:O3'	42:LP:182:HIS:CE1	2.56	0.57
33:L1:1216:G:H21	67:LS:92:MET:CE	2.18	0.57
33:L1:3011:U:H1'	80:LC:15:GLY:CA	2.35	0.57
33:L1:3295:G:H21	33:L1:3304:U:H1'	1.66	0.57
34:L3:60:G:H1'	45:LQ:256:SER:HA	1.87	0.57
36:LA:43:GLN:HA	36:LA:195:LYS:HG2	1.87	0.57
36:LA:62:MET:HE1	36:LA:171:LEU:HD21	1.84	0.57
36:LA:141:GLU:HG3	36:LA:142:SER:N	2.20	0.57
66:LN:110:VAL:HG21	82:LK:201:LEU:CD2	2.33	0.57
67:LS:12:VAL:CG1	78:Le:75:GLY:H	2.17	0.57
2:SA:229:TYR:C	2:SA:232:VAL:HG23	2.29	0.57
5:SE:30:ARG:HG2	27:SH:67:GLY:HA2	1.86	0.57
10:SL:56:ILE:O	10:SL:56:ILE:HG23	2.04	0.57
15:SS:5:THR:OG1	32:S1:1363:G:C4'	2.36	0.57
17:SV:78:ARG:H	17:SV:78:ARG:HD2	1.69	0.57
32:S1:887:U:C1'	83:Lm:85:ARG:HH21	2.16	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1384:G:H1	33:L1:1429:U:H3	1.53	0.57
33:L1:1640:A:OP2	33:L1:1817:U:C2	2.57	0.57
33:L1:2216:G:C2'	72:Lk:77:LYS:HZ3	2.15	0.57
34:L3:16:A:N6	34:L3:62:U:H3	2.02	0.57
34:L3:21:U:C4	34:L3:57:C:N3	2.73	0.57
34:L3:114:C:HO2'	45:LQ:75:VAL:H	1.52	0.57
36:LA:70:ALA:HB3	36:LA:107:HIS:NE2	2.18	0.57
55:Lg:67:ILE:HG23	55:Lg:75:VAL:HG13	1.87	0.57
69:La:81:MET:HE2	70:Li:38:ARG:NH2	2.20	0.57
70:Li:81:VAL:HG13	70:Li:82:LEU:HA	1.86	0.57
79:Ls:192:ILE:HG21	79:Ls:207:LEU:HD13	1.86	0.57
81:LD:306:VAL:HB	81:LD:309:PRO:CG	2.34	0.57
4:SD:166:THR:CG2	4:SD:168:LYS:HB2	2.34	0.57
9:SK:98:ALA:C	9:SK:124:LYS:HE3	2.30	0.57
15:SS:123:GLY:HA2	32:S1:1507:G:OP1	2.05	0.57
27:SH:65:LEU:HD22	27:SH:70:ASN:HA	1.84	0.57
32:S1:843:G:N2	33:L1:2063:U:O4	2.14	0.57
32:S1:1736:C:O2'	33:L1:2102:C:O4'	2.18	0.57
32:S1:1758:G:OP2	33:L1:2298:A:C5'	2.53	0.57
33:L1:1637:G:OP1	69:La:10:ALA:N	2.37	0.57
33:L1:2241:G:OP1	37:LB:219:ILE:O	2.23	0.57
33:L1:2465:G:H4'	36:LA:206:LYS:NZ	2.18	0.57
35:L2:97:U:C2'	35:L2:97:U:C2	2.88	0.57
48:LV:2:VAL:HG22	48:LV:3:LYS:H	1.68	0.57
55:Lg:15:VAL:HG22	55:Lg:85:ARG:H	1.68	0.57
64:LG:184:ILE:O	64:LG:185:ASP:HB2	2.04	0.57
75:Lt:58:LEU:HD22	79:Ls:228:VAL:HA	1.86	0.57
76:Lv:44:SER:HB3	79:Ls:99:LYS:HD3	1.86	0.57
81:LD:383:LYS:HA	81:LD:386:ILE:HD11	1.87	0.57
5:SE:71:PRO:HB3	5:SE:261:LYS:HE3	1.86	0.57
15:SS:9:VAL:N	15:SS:138:ALA:HB1	2.20	0.57
32:S1:887:U:C4'	83:Lm:88:GLU:CB	2.79	0.57
33:L1:68:U:H5''	42:LP:179:HIS:H	1.68	0.57
33:L1:287:A:H5''	42:LP:97:ASN:HB3	1.87	0.57
33:L1:804:A:O4'	33:L1:804:A:N9	2.36	0.57
33:L1:997:G:C2'	33:L1:997:G:C8	2.88	0.57
33:L1:2256:G:N2	33:L1:2257:A:N6	2.46	0.57
33:L1:2704:U:H6	33:L1:2704:U:O5'	1.88	0.57
33:L1:3148:A:H2'	33:L1:3149:C:C6	2.39	0.57
34:L3:106:U:H2'	34:L3:107:C:H6	1.69	0.57
34:L3:115:A:H4'	45:LQ:75:VAL:CG2	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:LB:168:GLN:HE22	83:Lm:75:SER:HB3	1.69	0.57
38:LE:91:TYR:CD2	38:LE:92:GLU:CA	2.87	0.57
41:LM:52:LEU:CD1	41:LM:52:LEU:H	2.17	0.57
56:Lh:68:LEU:HD23	56:Lh:70:ASN:HD22	1.68	0.57
6:SF:118:ARG:CD	19:SY:56:GLU:CB	2.82	0.57
10:SL:49:ILE:HG12	10:SL:50:VAL:H	1.69	0.57
14:SP:98:TYR:CZ	46:LT:155:LEU:HD21	2.38	0.57
27:SH:94:LEU:CB	27:SH:95:PRO:CD	2.80	0.57
29:ST:56:GLY:C	32:S1:1063:U:OP1	2.47	0.57
31:S2:11:U:OP1	33:L1:2247:A:O4'	2.22	0.57
32:S1:1181:G:H1	32:S1:1469:C:H42	1.52	0.57
33:L1:529:C:P	66:LN:69:THR:CG2	2.92	0.57
33:L1:999:U:H2'	33:L1:1000:A:C8	2.39	0.57
33:L1:1179:C:O2'	82:LK:94:PRO:CA	2.52	0.57
33:L1:1395:A:C2'	33:L1:1395:A:C8	2.87	0.57
33:L1:2077:C:C5'	46:LT:113:LYS:HB2	2.34	0.57
33:L1:2216:G:H2'	72:Lk:77:LYS:HZ2	1.68	0.57
33:L1:2252:C:C2'	33:L1:2252:C:C6	2.87	0.57
35:L2:45:A:H61	35:L2:107:G:C2'	2.18	0.57
35:L2:99:G:H3'	35:L2:99:G:H8	1.70	0.57
48:LV:1:MET:N	48:LV:16:LYS:HB3	2.18	0.57
68:LW:41:LEU:HD21	68:LW:67:ARG:HE	1.69	0.57
79:Ls:163:LEU:CD2	79:Ls:174:GLU:HG3	2.35	0.57
81:LD:335:PRO:CD	81:LD:336:TYR:N	2.68	0.57
84:LI:110:ARG:HE	84:LI:116:ARG:HD2	1.70	0.57
4:SD:166:THR:HG21	4:SD:168:LYS:HB2	1.87	0.57
7:SI:132:PRO:HG2	32:S1:1616:U:C5	2.40	0.57
24:SX:74:ARG:CD	24:SX:75:LEU:H	2.18	0.57
27:SH:102:ILE:CG2	27:SH:113:HIS:HB3	2.34	0.57
30:S3:16:G:C2'	30:S3:16:G:C4	2.88	0.57
31:S2:8:U:C1'	31:S2:8:U:O2'	2.50	0.57
32:S1:1736:C:H6	33:L1:2102:C:O3'	1.87	0.57
33:L1:52:G:N2	33:L1:1549:A:H61	1.95	0.57
33:L1:180:G:C5'	35:L2:98:C:C5	2.87	0.57
33:L1:1055:U:H2'	33:L1:1056:U:C6	2.40	0.57
33:L1:1432:G:N3	81:LD:108:PRO:CG	2.68	0.57
34:L3:5:G:O3'	45:LQ:55:PHE:CE1	2.58	0.57
34:L3:38:U:H1'	34:L3:42:A:H61	1.70	0.57
55:Lg:15:VAL:HG23	55:Lg:85:ARG:C	2.30	0.57
65:LL:153:UNK:CA	65:LL:153:UNK:O	2.44	0.57
69:La:28:VAL:HG23	69:La:31:GLU:C	2.29	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:Lt:10:LEU:CD1	76:Lv:8:LEU:CG	2.68	0.57
75:Lu:58:LEU:HD12	79:Ls:257:GLU:HB3	1.85	0.57
79:Ls:121:PRO:CB	79:Ls:186:PHE:CZ	2.87	0.57
2:SA:127:ILE:HB	2:SA:149:ILE:CD1	2.34	0.57
2:SA:143:LEU:HD23	2:SA:143:LEU:C	2.30	0.57
12:SO:150:VAL:CG1	54:Lf:88:TYR:N	2.68	0.57
33:L1:72:A:C2'	33:L1:72:A:N9	2.63	0.57
33:L1:1181:A:P	71:Lj:72:TRP:CH2	2.95	0.57
33:L1:2148:U:H2'	33:L1:2149:G:C8	2.40	0.57
33:L1:2149:G:C3'	37:LB:227:ARG:HH22	2.18	0.57
33:L1:2290:A:O4'	33:L1:2290:A:N9	2.37	0.57
33:L1:2607:U:H4'	37:LB:226:ARG:HH21	1.70	0.57
33:L1:2984:A:O4'	33:L1:2984:A:C8	2.57	0.57
34:L3:7:G:H4'	45:LQ:37:ARG:NH1	2.19	0.57
38:LE:31:ARG:HG3	38:LE:34:ARG:CG	2.34	0.57
48:LV:126:GLN:OE1	48:LV:126:GLN:HA	2.05	0.57
50:LZ:3:LEU:C	80:LC:304:ARG:HH22	2.13	0.57
70:Li:7:TYR:HE1	70:Li:43:LYS:HE3	1.70	0.57
70:Li:49:LYS:HA	70:Li:54:ILE:O	2.05	0.57
78:Le:185:ASP:CG	81:LD:358:LYS:HZ2	2.13	0.57
79:Ls:144:LEU:HD12	79:Ls:177:LEU:HD12	1.87	0.57
2:SA:79:ILE:O	2:SA:79:ILE:HG23	2.05	0.56
2:SA:127:ILE:HD12	2:SA:149:ILE:CD1	2.35	0.56
4:SD:101:LEU:HD21	4:SD:109:PHE:CD2	2.40	0.56
11:SM:12:ILE:HG23	38:LE:118:TYR:HA	1.87	0.56
14:SP:122:ASP:C	46:LT:162:LYS:HD3	2.21	0.56
15:SS:2:ALA:CB	32:S1:1363:G:C2'	2.66	0.56
29:ST:2:GLN:HE21	33:L1:2544:C:C2'	2.16	0.56
32:S1:861:A:C6	46:LT:171:GLU:HA	2.40	0.56
33:L1:1147:U:O2'	33:L1:1148:G:H8	1.88	0.56
33:L1:1414:C:H5''	56:Lh:98:ALA:HA	1.87	0.56
33:L1:1448:U:O2'	33:L1:2357:A:N6	2.33	0.56
33:L1:1678:U:O4	68:LW:93:LEU:HD12	2.04	0.56
33:L1:1752:C:C2'	33:L1:1753:A:H5'	2.35	0.56
33:L1:2196:G:N2	37:LB:224:THR:HG21	2.03	0.56
36:LA:35:ILE:HD11	36:LA:167:ALA:HB3	1.86	0.56
37:LB:84:THR:HG23	83:Lm:63:VAL:H	1.68	0.56
37:LB:104:ILE:HG21	37:LB:160:SER:HA	1.86	0.56
48:LV:154:LYS:HE2	48:LV:154:LYS:H	1.70	0.56
52:Lb:123:ARG:CB	56:Lh:87:MET:HE1	2.34	0.56
55:Lg:1:MET:HG2	55:Lg:54:THR:CG2	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:Le:36:LYS:CG	81:LD:358:LYS:HG3	2.35	0.56
4:SD:67:GLN:O	4:SD:69:HIS:CG	2.58	0.56
6:SF:200:ARG:O	9:SK:79:ASP:OD1	2.23	0.56
15:SS:6:ALA:CB	32:S1:1363:G:H1'	2.33	0.56
15:SS:9:VAL:CG2	15:SS:138:ALA:HB3	2.33	0.56
16:SR:139:ARG:HH22	32:S1:1460:G:H5''	1.69	0.56
32:S1:978:A:C4'	33:L1:851:A:O5'	2.47	0.56
33:L1:463:G:N2	33:L1:472:U:H3	1.95	0.56
33:L1:1218:U:H4'	67:LS:93:TYR:HB3	1.86	0.56
33:L1:1637:G:H3'	69:La:25:ILE:CG2	2.32	0.56
34:L3:97:G:H5'	78:Le:130:ARG:CZ	2.35	0.56
35:L2:40:G:OP2	77:Lc:92:ILE:HD13	2.06	0.56
36:LA:57:ILE:HD11	36:LA:179:GLN:CB	2.21	0.56
39:LF:149:ASP:O	39:LF:153:VAL:HG23	2.05	0.56
41:LM:72:LEU:H	41:LM:72:LEU:HD22	1.69	0.56
43:LO:64:LEU:HB3	65:LL:155:UNK:C	2.36	0.56
48:LV:39:LEU:C	48:LV:114:TYR:HB2	2.30	0.56
51:LY:84:ILE:HG23	51:LY:84:ILE:O	2.04	0.56
1:Sa:15:THR:C	1:Sa:18:VAL:H	2.14	0.56
1:Sa:105:LYS:HZ1	7:SI:29:LYS:NZ	2.01	0.56
4:SD:160:ILE:CD1	4:SD:169:ILE:HG12	2.35	0.56
4:SD:160:ILE:HG12	4:SD:169:ILE:HG23	1.85	0.56
4:SD:183:VAL:O	4:SD:183:VAL:HG13	2.05	0.56
7:SI:91:ILE:CG1	32:S1:1616:U:H5'	2.35	0.56
12:SO:95:ALA:O	54:Lf:83:THR:HG21	1.92	0.56
15:SS:107:LEU:HD13	15:SS:124:ARG:HE	1.68	0.56
23:SU:20:ASN:N	23:SU:25:ARG:HG3	2.17	0.56
27:SH:10:ALA:HB1	27:SH:22:LYS:HD2	1.86	0.56
31:S2:26:G:C4'	33:L1:2260:C:H5'	2.29	0.56
32:S1:210:A:C2'	32:S1:211:G:H5'	2.36	0.56
32:S1:485:A:H61	32:S1:510:A:H61	1.53	0.56
32:S1:929:A:C1'	37:LB:137:ILE:HD12	2.34	0.56
32:S1:988:G:HO2'	37:LB:173:GLY:CA	2.11	0.56
32:S1:1736:C:O3'	33:L1:2101:A:H2'	1.98	0.56
33:L1:98:A:O3'	42:LP:182:HIS:HE1	1.87	0.56
33:L1:164:C:H2'	33:L1:165:C:C6	2.41	0.56
33:L1:271:G:C4'	72:Lk:66:VAL:HA	2.35	0.56
33:L1:354:C:O2'	81:LD:87:GLY:O	2.24	0.56
33:L1:1193:A:H61	33:L1:1321:A:H61	1.54	0.56
33:L1:1462:C:H4'	55:Lg:59:ILE:HG12	1.88	0.56
33:L1:1523:G:O3'	49:LX:79:THR:CG2	2.51	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1852:C:H4'	73:Lp:48:LYS:CA	2.35	0.56
33:L1:2149:G:N2	33:L1:2155:G:H21	2.03	0.56
33:L1:2157:C:H2'	37:LB:11:GLY:HA2	1.88	0.56
33:L1:2215:A:H2'	33:L1:2216:G:H5'	1.86	0.56
33:L1:3301:G:H5''	48:LV:71:ALA:N	2.19	0.56
34:L3:19:A:N6	34:L3:59:U:H3	2.03	0.56
34:L3:113:G:O2'	45:LQ:71:ALA:HB1	2.03	0.56
36:LA:66:MET:HG2	36:LA:84:MET:HE2	1.87	0.56
40:LH:126:ILE:HD12	40:LH:127:VAL:HA	1.87	0.56
43:LO:63:ARG:HH12	65:LL:152:UNK:CB	2.18	0.56
48:LV:117:HIS:CE1	48:LV:119:GLN:HG3	2.41	0.56
64:LG:107:THR:HA	64:LG:117:ILE:HG12	1.85	0.56
66:LN:50:PHE:CD2	66:LN:53:LEU:HD22	2.41	0.56
67:LS:99:THR:HG22	67:LS:100:THR:CG2	2.33	0.56
69:La:81:MET:HE2	70:Li:38:ARG:HH21	1.71	0.56
75:Lu:59:ILE:HG23	79:Ls:250:ASN:CG	2.30	0.56
79:Ls:27:LYS:HE2	79:Ls:98:LEU:HD12	1.86	0.56
81:LD:332:LYS:HB3	81:LD:336:TYR:HE2	1.70	0.56
2:SA:67:ARG:NH1	5:SE:61:LYS:CE	2.67	0.56
2:SA:133:THR:HG23	2:SA:134:ASP:N	2.21	0.56
10:SL:67:LYS:HZ2	32:S1:1753:U:H4'	1.70	0.56
23:SU:19:THR:HB	23:SU:93:PRO:HA	1.87	0.56
31:S2:75:A:OP2	33:L1:2957:U:O4'	0.56	0.56
33:L1:273:U:H3	33:L1:288:G:H22	1.53	0.56
33:L1:282:A:N6	33:L1:2787:A:H1'	2.19	0.56
33:L1:375:G:N2	33:L1:389:A:H61	2.03	0.56
33:L1:883:G:C2	48:LV:134:HIS:CE1	2.94	0.56
33:L1:1298:A:H5''	67:LS:90:HIS:CD2	2.35	0.56
33:L1:2148:U:OP1	37:LB:242:ARG:CG	2.53	0.56
33:L1:2669:C:H41	33:L1:2690:G:H2'	1.70	0.56
36:LA:36:GLY:HA2	36:LA:165:GLY:HA2	1.86	0.56
37:LB:104:ILE:HD13	37:LB:146:SER:CB	2.35	0.56
37:LB:134:ALA:HB1	37:LB:148:ILE:CG2	2.35	0.56
79:Ls:99:LYS:HG2	79:Ls:209:LEU:CD2	2.35	0.56
79:Ls:144:LEU:CD2	79:Ls:163:LEU:HD21	2.36	0.56
1:Sa:97:THR:CA	1:Sa:98:SER:N	2.68	0.56
10:SL:83:PHE:HD2	10:SL:84:VAL:HG22	1.71	0.56
14:SP:119:LYS:HG3	14:SP:120:GLU:H	1.71	0.56
27:SH:102:ILE:HG23	27:SH:102:ILE:O	2.05	0.56
27:SH:102:ILE:HG22	27:SH:113:HIS:CG	2.40	0.56
32:S1:1392:G:H3'	32:S1:1393:G:C5'	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:250:C:N3	33:L1:251:G:C6	2.74	0.56
33:L1:1563:G:H3'	33:L1:1564:C:C5	2.40	0.56
33:L1:2164:G:N2	37:LB:11:GLY:O	2.38	0.56
33:L1:3049:A:C2	33:L1:3092:A:N7	2.73	0.56
43:LO:63:ARG:NH1	65:LL:152:UNK:CA	2.68	0.56
55:Lg:2:SER:HA	55:Lg:4:LYS:H	1.70	0.56
55:Lg:11:ARG:HE	55:Lg:11:ARG:CA	2.19	0.56
64:LG:138:ASN:O	64:LG:139:VAL:HG23	2.04	0.56
66:LN:3:PHE:CZ	66:LN:5:ARG:HB3	2.41	0.56
66:LN:64:ARG:NH1	67:LS:154:VAL:CG2	2.68	0.56
76:Lv:40:GLU:CA	79:Ls:99:LYS:HZ3	2.04	0.56
1:Sa:343:HIS:CD2	32:S1:1400:G:C5'	2.88	0.56
2:SA:64:LEU:HA	5:SE:44:TRP:HE1	1.71	0.56
10:SL:94:GLU:OE1	10:SL:97:ASP:HB2	2.06	0.56
14:SP:54:TYR:H	46:LT:144:LYS:HZ1	1.51	0.56
14:SP:123:HIS:O	46:LT:162:LYS:CA	2.54	0.56
27:SH:71:LYS:HZ3	27:SH:71:LYS:HB2	1.70	0.56
32:S1:200:C:H3'	32:S1:201:G:C5'	2.36	0.56
32:S1:348:A:C5'	46:LT:140:GLU:H	2.16	0.56
32:S1:989:G:H4'	37:LB:173:GLY:N	2.18	0.56
32:S1:1676:G:H5'	33:L1:1933:U:O5'	2.04	0.56
33:L1:123:U:H2'	33:L1:124:C:C6	2.40	0.56
33:L1:803:G:H2'	33:L1:804:A:N7	2.20	0.56
33:L1:1351:C:OP1	81:LD:328:ALA:HB2	2.05	0.56
33:L1:2157:C:C2'	37:LB:11:GLY:H	2.17	0.56
34:L3:87:G:H5''	67:LS:117:ARG:NH2	2.15	0.56
51:LY:90:ASN:HD21	51:LY:92:SER:CB	2.18	0.56
56:Lh:20:ARG:NH1	56:Lh:34:ARG:CD	2.64	0.56
75:Lt:48:LYS:NZ	76:Lw:35:ASP:N	2.53	0.56
78:Le:147:ARG:HH21	81:LD:359:LEU:HD21	1.70	0.56
3:SB:131:ALA:HB2	3:SB:190:LEU:HD12	1.87	0.56
5:SE:197:LEU:CD2	32:S1:1091:A:H5''	2.35	0.56
9:SK:99:THR:O	9:SK:124:LYS:HE2	2.06	0.56
11:SM:14:ARG:N	38:LE:111:HIS:NE2	2.53	0.56
13:SQ:71:LEU:HD21	13:SQ:77:GLU:H	1.70	0.56
14:SP:54:TYR:N	46:LT:144:LYS:NZ	2.50	0.56
15:SS:2:ALA:CA	32:S1:1363:G:O3'	2.54	0.56
31:S2:17:G:H3'	31:S2:18:G:H5''	1.87	0.56
32:S1:1745:U:O2	33:L1:1932:A:O4'	2.23	0.56
32:S1:1745:U:H1'	33:L1:1932:A:H8	1.69	0.56
33:L1:1595:G:OP2	73:Lp:35:ARG:HD3	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1858:U:H3	33:L1:1864:G:H1	1.52	0.56
33:L1:2396:A:H1'	33:L1:2943:A:H61	1.71	0.56
34:L3:113:G:H4'	45:LQ:71:ALA:CB	2.17	0.56
36:LA:54:LEU:CD1	36:LA:134:PRO:HD2	2.29	0.56
36:LA:92:MET:HE1	36:LA:117:LYS:CB	2.36	0.56
37:LB:98:ILE:HD11	83:Lm:80:ARG:HA	1.87	0.56
39:LF:187:THR:O	39:LF:187:THR:CG2	2.48	0.56
41:LM:33:GLY:O	41:LM:68:GLY:C	2.49	0.56
54:Lf:66:LEU:HD22	70:Li:30:LEU:HA	1.88	0.56
56:Lh:21:PRO:HD3	56:Lh:33:TRP:CZ3	2.41	0.56
79:Ls:150:ILE:CD1	79:Ls:155:VAL:HG12	2.36	0.56
81:LD:334:ASN:N	81:LD:335:PRO:HD3	2.20	0.56
2:SA:198:LYS:HB3	2:SA:218:GLU:HA	1.88	0.56
4:SD:90:ILE:HD12	4:SD:111:LEU:HD21	1.87	0.56
5:SE:30:ARG:CG	27:SH:67:GLY:N	2.67	0.56
15:SS:4:SER:C	15:SS:8:THR:HG22	2.30	0.56
27:SH:94:LEU:CD2	27:SH:128:PHE:CE1	2.89	0.56
32:S1:161:G:C2'	32:S1:162:A:H5'	2.36	0.56
32:S1:1676:G:O5'	33:L1:1933:U:OP1	2.23	0.56
33:L1:2441:G:C5	33:L1:2509:A:C2	2.94	0.56
36:LA:79:MET:HA	36:LA:140:GLN:CD	2.30	0.56
48:LV:9:ASN:HD21	48:LV:154:LYS:HE3	1.71	0.56
61:Lq:25:LYS:H	61:Lq:25:LYS:HD2	1.70	0.56
73:Lp:52:LYS:CA	73:Lp:52:LYS:HB2	2.15	0.56
81:LD:332:LYS:O	81:LD:336:TYR:HD2	1.87	0.56
4:SD:103:TYR:CE1	4:SD:109:PHE:CZ	2.94	0.56
5:SE:258:LYS:HZ1	27:SH:69:LEU:CD1	2.08	0.56
9:SK:99:THR:HG23	9:SK:100:GLY:N	2.19	0.56
9:SK:109:PRO:HG2	9:SK:112:GLN:CA	2.35	0.56
9:SK:125:ILE:HG23	9:SK:125:ILE:O	2.05	0.56
14:SP:89:ARG:CB	46:LT:151:ARG:NH2	2.68	0.56
17:SV:95:VAL:CA	17:SV:101:ILE:CD1	2.79	0.56
23:SU:32:VAL:O	23:SU:33:LEU:HD13	2.05	0.56
25:SC:106:PHE:CD2	32:S1:670:C:O2	2.58	0.56
27:SH:7:LEU:HD23	27:SH:22:LYS:NZ	2.21	0.56
31:S2:40:U:N3	31:S2:41:G:N7	2.53	0.56
32:S1:956:A:OP1	54:Lf:12:GLU:CG	2.52	0.56
32:S1:1678:G:C2'	32:S1:1678:G:N3	2.68	0.56
33:L1:576:C:OP1	81:LD:342:LYS:CE	2.54	0.56
33:L1:634:A:HO2'	71:Lj:69:ARG:CZ	2.13	0.56
48:LV:70:THR:HG22	48:LV:80:GLY:HA2	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Sa:15:THR:O	1:Sa:18:VAL:CA	2.54	0.56
2:SA:76:GLN:HG3	2:SA:78:ILE:HD11	1.87	0.56
4:SD:102:LEU:HB2	4:SD:112:GLN:NE2	2.19	0.56
5:SE:30:ARG:HD3	27:SH:67:GLY:H	1.57	0.56
13:SQ:21:TYR:O	13:SQ:22:SER:HB3	2.05	0.56
13:SQ:57:LEU:O	13:SQ:61:ILE:HD12	2.05	0.56
14:SP:91:TYR:O	33:L1:2081:C:H5'	2.06	0.56
27:SH:49:GLU:HG3	27:SH:50:PHE:HD1	1.71	0.56
32:S1:858:G:C2'	46:LT:176:ARG:CD	2.81	0.56
32:S1:860:A:C2'	32:S1:861:A:C5'	2.82	0.56
32:S1:956:A:C5'	54:Lf:9:LYS:HZ3	2.12	0.56
33:L1:721:A:H62	33:L1:784:G:H1'	1.71	0.56
33:L1:1365:C:C4'	81:LD:336:TYR:HB3	2.34	0.56
33:L1:1707:C:C5	33:L1:1728:G:OP2	2.59	0.56
33:L1:2619:C:C5	33:L1:2620:U:C4	2.94	0.56
36:LA:192:LEU:HG	36:LA:193:LEU:N	2.21	0.56
41:LM:72:LEU:HD22	41:LM:72:LEU:N	2.21	0.56
41:LM:140:VAL:HG21	50:LZ:24:ILE:HD11	1.87	0.56
48:LV:113:LEU:N	48:LV:113:LEU:HD23	2.21	0.56
60:Lr:32:LYS:CA	60:Lr:32:LYS:CG	2.77	0.56
66:LN:30:VAL:CG2	67:LS:154:VAL:HG22	2.35	0.56
4:SD:153:ILE:HG23	4:SD:154:ILE:HD11	1.88	0.55
5:SE:30:ARG:CZ	27:SH:67:GLY:N	2.66	0.55
11:SM:14:ARG:CG	38:LE:109:GLN:OE1	2.55	0.55
23:SU:25:ARG:HH11	23:SU:26:LYS:H	1.53	0.55
32:S1:886:A:OP1	83:Lm:81:SER:OG	2.22	0.55
32:S1:977:G:C4	33:L1:850:A:C6	2.69	0.55
32:S1:978:A:N3	33:L1:850:A:H1'	2.18	0.55
33:L1:292:A:C5'	72:Lk:68:LYS:CD	2.77	0.55
33:L1:854:C:OP2	83:Lm:1:MET:N	2.39	0.55
33:L1:961:C:O2	33:L1:967:G:C2	2.59	0.55
33:L1:1179:C:O3'	82:LK:94:PRO:CG	2.52	0.55
33:L1:1269:U:H2'	33:L1:1270:G:C8	2.41	0.55
33:L1:1365:C:P	81:LD:337:PHE:HE1	2.03	0.55
33:L1:2562:A:N6	33:L1:2582:G:O2'	2.39	0.55
34:L3:21:U:O4	34:L3:26:C:O2	2.24	0.55
34:L3:48:G:H21	34:L3:50:A:N6	2.03	0.55
34:L3:115:A:C4'	45:LQ:75:VAL:HG13	2.36	0.55
35:L2:40:G:OP1	57:Ll:68:ARG:NH2	2.39	0.55
35:L2:40:G:P	57:Ll:68:ARG:HH21	2.29	0.55
36:LA:60:PRO:CA	36:LA:150:THR:HG21	2.32	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:LA:105:LYS:HB2	36:LA:129:LYS:HE2	1.88	0.55
36:LA:137:VAL:CG1	36:LA:139:HIS:H	2.05	0.55
40:LH:96:ARG:C	40:LH:98:GLU:H	2.13	0.55
48:LV:126:GLN:O	48:LV:141:MET:HB3	2.05	0.55
52:Lb:123:ARG:HH11	56:Lh:87:MET:HE2	1.71	0.55
54:Lf:39:ARG:HH12	70:Li:66:ARG:HA	1.70	0.55
66:LN:41:PRO:CD	66:LN:75:MET:HE2	2.35	0.55
80:LC:117:ARG:HH21	80:LC:122:TRP:CD1	2.24	0.55
81:LD:356:LYS:HB3	81:LD:359:LEU:H	1.72	0.55
81:LD:381:TRP:CA	81:LD:384:THR:HG23	2.36	0.55
2:SA:130:ASP:O	2:SA:133:THR:HG22	2.06	0.55
11:SM:14:ARG:HG2	38:LE:109:GLN:CD	2.29	0.55
16:SR:146:HIS:HD1	32:S1:1185:U:HO2'	1.54	0.55
23:SU:33:LEU:HA	23:SU:35:PRO:HD2	1.88	0.55
30:S3:13:A:N6	32:S1:1156:A:O3'	2.38	0.55
32:S1:1280:U:H3	32:S1:1442:A:H61	1.55	0.55
33:L1:830:A:O4'	73:Lp:51:ILE:O	2.24	0.55
36:LA:189:LEU:CD1	65:LL:194:UNK:CA	2.84	0.55
37:LB:191:VAL:HB	37:LB:192:LYS:HD3	1.87	0.55
40:LH:64:LYS:CG	49:LX:42:PHE:CZ	2.89	0.55
43:LO:12:ARG:NH2	65:LL:18:UNK:CB	2.68	0.55
47:LU:34:TYR:CE1	47:LU:93:VAL:HG23	2.41	0.55
48:LV:23:ARG:HG3	48:LV:23:ARG:O	2.06	0.55
55:Lg:57:ILE:HA	55:Lg:92:ASP:HB3	1.88	0.55
56:Lh:30:LYS:HG3	56:Lh:31:THR:N	2.21	0.55
79:Ls:116:VAL:HG22	79:Ls:172:SER:HA	1.88	0.55
84:LI:103:LEU:HA	84:LI:116:ARG:NH2	2.21	0.55
4:SD:147:ILE:HD12	4:SD:169:ILE:HD11	1.85	0.55
20:SZ:13:LYS:NZ	32:S1:1254:U:OP1	2.38	0.55
24:SX:74:ARG:O	24:SX:75:LEU:HD23	2.06	0.55
32:S1:222:G:C4	33:L1:2063:U:OP1	2.60	0.55
33:L1:716:A:C1'	33:L1:2776:U:O2'	2.51	0.55
33:L1:1226:G:OP2	79:Ls:59:ASN:HB2	2.06	0.55
33:L1:1261:C:H5'	74:LJ:124:LYS:H	1.70	0.55
33:L1:1299:G:OP1	67:LS:85:SER:HB2	2.07	0.55
33:L1:1596:G:H5'	33:L1:1752:C:H4'	1.88	0.55
33:L1:1888:G:H21	33:L1:3057:A:H62	1.53	0.55
33:L1:2247:A:C2'	33:L1:2247:A:N9	2.67	0.55
33:L1:2692:G:H5''	33:L1:2693:G:C4	2.41	0.55
36:LA:67:LEU:HD22	36:LA:147:VAL:HG21	1.87	0.55
66:LN:9:ILE:HD12	66:LN:64:ARG:CA	2.32	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:113:THR:HG21	32:S1:1299:G:H5'	1.88	0.55
13:SQ:73:LEU:O	13:SQ:74:GLN:C	2.40	0.55
15:SS:5:THR:HG1	32:S1:1363:G:H4'	1.63	0.55
17:SV:23:GLN:O	17:SV:24:LYS:HG3	2.06	0.55
27:SH:111:MET:SD	27:SH:116:ALA:HA	2.47	0.55
32:S1:187:C:N3	32:S1:188:U:C6	2.74	0.55
32:S1:320:A:O5'	33:L1:854:C:O3'	2.19	0.55
32:S1:632:G:C2'	32:S1:632:G:N9	2.63	0.55
32:S1:1083:C:C4	32:S1:1084:U:C2	2.94	0.55
33:L1:692:U:H2'	33:L1:693:C:C6	2.41	0.55
33:L1:1181:A:C4'	71:Lj:70:CYS:HB2	2.34	0.55
33:L1:1320:G:OP1	82:LK:134:LEU:CD2	2.50	0.55
33:L1:2663:U:H2'	33:L1:2664:G:C8	2.41	0.55
33:L1:2962:C:H42	33:L1:2974:G:H1	1.54	0.55
34:L3:3:A:C1'	34:L3:21:U:H1'	2.36	0.55
34:L3:37:G:H21	34:L3:43:A:H62	1.54	0.55
34:L3:93:U:H4'	67:LS:84:GLN:HE22	1.71	0.55
37:LB:90:CYS:SG	37:LB:101:VAL:CG1	2.94	0.55
38:LE:21:LEU:HD11	38:LE:39:LEU:HD22	1.89	0.55
44:LR:150:ARG:HH22	44:LR:160:HIS:CD2	2.24	0.55
64:LG:51:TYR:O	64:LG:52:PRO:O	2.24	0.55
64:LG:96:LEU:HB3	64:LG:139:VAL:HG22	1.87	0.55
66:LN:60:ILE:HG22	66:LN:81:LYS:HD2	1.88	0.55
69:La:27:ARG:CG	69:La:42:LEU:HG	2.35	0.55
70:Li:42:PRO:HB3	70:Li:50:LYS:HA	1.89	0.55
75:Lu:53:ARG:HH12	75:Lu:58:LEU:CD1	2.16	0.55
76:Lv:54:LEU:O	76:Lv:54:LEU:HD23	2.07	0.55
81:LD:309:PRO:C	81:LD:313:GLU:CG	2.79	0.55
10:SL:93:ILE:HG12	10:SL:95:GLU:N	2.19	0.55
14:SP:94:PHE:CA	46:LT:151:ARG:CD	2.83	0.55
14:SP:124:VAL:CA	46:LT:165:LYS:HD2	2.37	0.55
15:SS:8:THR:HB	15:SS:12:VAL:HG13	1.87	0.55
18:SW:76:UNK:CB	32:S1:1810:G:H5'	2.36	0.55
23:SU:12:LEU:HG	23:SU:30:LEU:HD13	1.87	0.55
23:SU:19:THR:CG2	23:SU:93:PRO:HB3	2.37	0.55
27:SH:29:PRO:HA	27:SH:32:LYS:HB2	1.89	0.55
27:SH:33:VAL:CG2	27:SH:37:PHE:HE2	2.16	0.55
32:S1:138:C:C6	32:S1:138:C:OP1	2.60	0.55
32:S1:181:C:H2'	32:S1:182:C:H5'	1.87	0.55
32:S1:979:A:OP1	33:L1:851:A:O3'	2.23	0.55
32:S1:1205:G:C5	32:S1:1607:C:N3	2.75	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1547:G:O4'	32:S1:1547:G:N9	2.35	0.55
33:L1:19:C:O4'	33:L1:19:C:C6	2.60	0.55
33:L1:641:C:OP1	56:Lh:42:ARG:HG2	2.06	0.55
33:L1:881:G:C1'	33:L1:883:G:H21	2.18	0.55
33:L1:2274:A:P	33:L1:2300:G:H22	2.29	0.55
33:L1:3327:A:O4'	33:L1:3327:A:N9	2.38	0.55
34:L3:35:C:C5	34:L3:36:C:C5	2.94	0.55
34:L3:119:C:N4	34:L3:120:C:C5	2.75	0.55
36:LA:79:MET:HG2	36:LA:83:TYR:HD2	1.68	0.55
42:LP:9:GLU:CB	72:Lk:100:MET:HE1	2.35	0.55
43:LO:119:VAL:HG22	65:LL:160:UNK:CB	2.36	0.55
66:LN:109:LYS:HE2	82:LK:198:LEU:HD21	1.87	0.55
71:Lj:90:ARG:HH11	82:LK:34:ASN:C	2.13	0.55
75:Lt:48:LYS:HZ3	76:Lw:35:ASP:CA	2.19	0.55
76:Lw:23:LEU:HD23	76:Lw:39:MET:HG3	1.88	0.55
2:SA:106:ARG:HD2	2:SA:106:ARG:H	1.72	0.55
32:S1:918:G:O6	33:L1:2201:G:H1'	2.05	0.55
32:S1:1016:C:O3'	37:LB:248:GLY:O	2.23	0.55
33:L1:24:C:H2'	33:L1:25:U:C5	2.42	0.55
33:L1:637:C:C6	33:L1:638:G:H1'	2.41	0.55
33:L1:963:U:O4'	33:L1:963:U:N1	2.36	0.55
33:L1:1112:C:OP1	44:LR:150:ARG:HB2	2.06	0.55
33:L1:1432:G:N3	81:LD:108:PRO:HG3	2.21	0.55
33:L1:3301:G:O2'	48:LV:70:THR:HG23	2.05	0.55
34:L3:41:G:H4'	34:L3:42:A:N7	2.22	0.55
34:L3:46:C:C2'	34:L3:47:C:H5'	2.34	0.55
37:LB:166:ILE:CG2	83:Lm:83:ILE:HD11	2.34	0.55
40:LH:69:VAL:HG21	49:LX:46:LYS:H	1.71	0.55
67:LS:30:LYS:HD2	78:Le:72:ARG:HH21	1.70	0.55
68:LW:84:TYR:HA	68:LW:87:TYR:HB2	1.87	0.55
76:Lw:54:LEU:HD11	79:Ls:241:PRO:HA	1.89	0.55
80:LC:69:LYS:O	80:LC:70:LYS:HB2	2.05	0.55
1:Sa:90:LEU:HD11	1:Sa:123:VAL:CG2	2.35	0.55
12:SO:93:LYS:HB3	54:Lf:19:GLN:HG2	1.88	0.55
14:SP:89:ARG:HD2	46:LT:151:ARG:HD2	1.89	0.55
14:SP:91:TYR:C	33:L1:2081:C:H5'	2.30	0.55
18:SW:101:UNK:O	18:SW:102:UNK:C	2.47	0.55
33:L1:634:A:H5''	82:LK:99:ARG:HB2	1.89	0.55
33:L1:1292:U:H2'	33:L1:1293:C:H6	1.72	0.55
33:L1:2157:C:C2'	37:LB:11:GLY:HA2	2.37	0.55
33:L1:2219:A:H2'	33:L1:2220:U:C6	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L3:27:A:OP2	45:LQ:56:VAL:CA	2.55	0.55
34:L3:51:G:C2'	34:L3:52:U:H5'	2.36	0.55
37:LB:104:ILE:HD13	37:LB:146:SER:HB2	1.87	0.55
55:Lg:39:ASN:O	55:Lg:43:GLU:HG3	2.06	0.55
64:LG:132:VAL:HG12	64:LG:133:ASP:H	1.71	0.55
79:Ls:235:PRO:HD3	79:Ls:239:ALA:HB3	1.89	0.55
80:LC:290:LYS:HG2	80:LC:293:GLN:H	1.71	0.55
10:SL:94:GLU:C	10:SL:96:ASN:H	2.15	0.55
12:SO:149:LEU:HB3	54:Lf:87:LYS:C	2.05	0.55
23:SU:30:LEU:HD21	23:SU:78:PHE:HA	1.88	0.55
31:S2:75:A:C8	33:L1:2956:U:C5'	2.89	0.55
32:S1:633:U:O2	32:S1:634:A:C8	2.60	0.55
32:S1:1205:G:C2	32:S1:1607:C:C2	2.95	0.55
33:L1:659:C:H2'	33:L1:660:A:C8	2.42	0.55
33:L1:1079:G:H2'	33:L1:1080:C:C6	2.41	0.55
33:L1:2530:G:H2'	33:L1:2531:G:C8	2.40	0.55
33:L1:3158:C:H3'	33:L1:3159:C:C6	2.42	0.55
33:L1:3301:G:O2'	48:LV:70:THR:HG21	2.07	0.55
35:L2:41:A:C8	35:L2:41:A:C5'	2.89	0.55
48:LV:38:LYS:HA	48:LV:114:TYR:CD2	2.41	0.55
64:LG:91:LYS:HD2	64:LG:152:LYS:HB3	1.89	0.55
75:Lu:49:LEU:HD21	79:Ls:258:THR:HG23	1.89	0.55
4:SD:216:HIS:CG	4:SD:217:GLN:H	2.25	0.55
5:SE:258:LYS:HE3	27:SH:69:LEU:N	2.13	0.55
12:SO:120:SER:HA	12:SO:123:HIS:CE1	2.41	0.55
31:S2:14:A:H2'	31:S2:15:A:H5'	1.88	0.55
31:S2:74:C:C1'	33:L1:2404:C:C4'	2.85	0.55
31:S2:75:A:H5''	33:L1:2956:U:C3'	2.37	0.55
32:S1:1290:U:O4'	32:S1:1290:U:N1	2.36	0.55
32:S1:1572:U:O5'	32:S1:1572:U:H6	1.90	0.55
33:L1:902:U:O2'	73:Lp:53:ASN:HB2	2.05	0.55
33:L1:1261:C:H5''	74:LJ:124:LYS:H	1.71	0.55
33:L1:1753:A:C4	33:L1:1754:C:C5	2.94	0.55
33:L1:2355:A:C2'	33:L1:2355:A:C4	2.89	0.55
33:L1:2380:G:H5''	82:LK:95:HIS:NE2	2.21	0.55
33:L1:2450:G:N2	33:L1:2499:U:C2	2.75	0.55
45:LQ:247:ILE:O	45:LQ:249:ALA:HA	2.07	0.55
48:LV:1:MET:H3	48:LV:16:LYS:HB3	1.71	0.55
2:SA:81:GLN:HE22	2:SA:137:PRO:HB2	1.72	0.55
14:SP:92:LEU:HA	46:LT:151:ARG:NH1	2.13	0.55
17:SV:48:TYR:OH	17:SV:81:ILE:HA	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:SU:25:ARG:HD3	23:SU:26:LYS:CA	2.37	0.55
27:SH:94:LEU:HD13	27:SH:95:PRO:N	2.21	0.55
32:S1:594:C:H2'	32:S1:595:A:C8	2.42	0.55
33:L1:830:A:O2'	73:Lp:52:LYS:CA	2.55	0.55
33:L1:1225:A:H2'	79:Ls:11:LYS:HD3	1.89	0.55
33:L1:2208:A:H2'	33:L1:2209:A:C8	2.42	0.55
33:L1:2216:G:C4	72:Lk:77:LYS:HE3	2.31	0.55
33:L1:2216:G:C8	72:Lk:77:LYS:CE	2.89	0.55
33:L1:2385:A:H61	33:L1:2995:G:H1'	1.70	0.55
37:LB:211:HIS:CD2	37:LB:219:ILE:HB	2.42	0.55
38:LE:14:ILE:CD1	38:LE:133:LEU:HD13	2.37	0.55
44:LR:41:LYS:H	81:LD:325:LYS:NZ	2.05	0.55
64:LG:49:LYS:O	64:LG:50:PHE:CB	2.54	0.55
75:Lt:31:VAL:HG13	75:Lt:36:ILE:HG23	1.88	0.55
81:LD:94:GLY:HA2	81:LD:95:ALA:HB3	1.88	0.55
81:LD:303:VAL:HG12	81:LD:304:GLN:CA	2.37	0.55
7:SI:55:PHE:H	15:SS:11:ASP:CB	2.20	0.54
9:SK:81:ALA:HB1	9:SK:115:LEU:CG	2.37	0.54
10:SL:65:ILE:HG23	10:SL:66:ARG:N	2.23	0.54
12:SO:151:ALA:HB1	54:Lf:22:MET:HE2	1.88	0.54
27:SH:38:LEU:HD13	27:SH:43:LYS:O	2.06	0.54
32:S1:955:C:C6	54:Lf:9:LYS:HD3	2.31	0.54
33:L1:2179:U:H5'	33:L1:2309:U:OP2	2.08	0.54
33:L1:3301:G:H4'	48:LV:70:THR:O	2.06	0.54
33:L1:3320:G:H2'	33:L1:3322:A:H8	1.72	0.54
33:L1:3338:U:H2'	33:L1:3339:G:C8	2.43	0.54
36:LA:182:ILE:HD13	36:LA:182:ILE:C	2.31	0.54
64:LG:188:LEU:HD13	66:LN:105:PHE:CD2	2.43	0.54
65:LL:152:UNK:C	65:LL:152:UNK:HA	2.17	0.54
75:Lu:31:VAL:HG13	75:Lu:36:ILE:HG23	1.88	0.54
76:Lv:4:ILE:HD13	79:Ls:214:LEU:HD21	1.89	0.54
5:SE:134:ILE:HG23	5:SE:135:ARG:H	1.72	0.54
11:SM:18:THR:H	38:LE:109:GLN:HE22	1.54	0.54
12:SO:100:LYS:N	54:Lf:80:ASP:O	2.32	0.54
17:SV:52:LEU:HA	17:SV:71:ARG:NH1	2.23	0.54
25:SC:169:GLY:H	25:SC:170:PRO:HD3	1.71	0.54
33:L1:830:A:H1'	73:Lp:52:LYS:CA	2.31	0.54
33:L1:2740:C:H2'	33:L1:2741:G:C8	2.42	0.54
34:L3:116:U:H2'	34:L3:117:U:C5'	2.36	0.54
40:LH:224:GLU:HA	40:LH:225:VAL:HG13	1.88	0.54
43:LO:63:ARG:HA	65:LL:153:UNK:HA	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:LV:112:THR:CA	48:LV:113:LEU:HD23	2.37	0.54
51:LY:70:VAL:HG12	51:LY:80:HIS:C	2.31	0.54
67:LS:109:TYR:O	67:LS:113:ALA:HB2	2.06	0.54
1:Sa:343:HIS:HB2	32:S1:1399:G:O3'	2.07	0.54
4:SD:181:VAL:HG12	4:SD:182:MET:N	2.22	0.54
5:SE:31:ARG:NH2	27:SH:67:GLY:HA3	2.22	0.54
12:SO:100:LYS:CB	54:Lf:82:GLY:N	2.70	0.54
14:SP:88:ARG:CZ	33:L1:2083:U:P	2.96	0.54
24:SX:48:VAL:HG21	24:SX:56:VAL:HG21	1.89	0.54
27:SH:78:ARG:O	27:SH:79:PHE:O	2.26	0.54
32:S1:858:G:H3'	46:LT:176:ARG:CD	2.31	0.54
32:S1:1685:U:H2'	33:L1:3334:A:C5'	2.37	0.54
33:L1:546:C:OP1	78:Le:69:ARG:NH2	2.40	0.54
33:L1:1848:G:H1'	57:Ll:9:GLY:HA3	1.89	0.54
33:L1:2147:U:HO2'	37:LB:243:THR:HG22	1.72	0.54
33:L1:2218:A:P	72:Lk:77:LYS:HZ2	2.30	0.54
33:L1:3356:C:H2'	33:L1:3357:C:C6	2.42	0.54
34:L3:86:G:H5'	67:LS:119:ARG:CB	2.37	0.54
43:LO:109:LYS:O	43:LO:113:PRO:HD2	2.08	0.54
52:Lb:127:VAL:HG21	56:Lh:115:GLN:HB3	1.88	0.54
66:LN:63:LYS:HB2	66:LN:63:LYS:NZ	2.22	0.54
66:LN:95:VAL:CG1	82:LK:206:TYR:OXT	2.52	0.54
76:Lw:54:LEU:O	76:Lw:54:LEU:HD23	2.07	0.54
4:SD:175:PHE:HE1	4:SD:208:ILE:HG13	1.71	0.54
16:SR:116:ILE:HD13	16:SR:117:LYS:HG2	1.90	0.54
17:SV:98:SER:C	17:SV:100:LEU:H	2.16	0.54
25:SC:32:LEU:O	25:SC:32:LEU:HD23	2.07	0.54
32:S1:348:A:O2'	46:LT:140:GLU:O	2.26	0.54
32:S1:1024:A:H1'	83:Lm:73:THR:CA	2.31	0.54
33:L1:384:A:C5	33:L1:385:A:C4	2.96	0.54
33:L1:1943:G:H5''	46:LT:135:LYS:H	1.71	0.54
33:L1:2700:A:H2'	33:L1:2701:G:O4'	2.08	0.54
33:L1:2708:A:O4'	33:L1:2708:A:N9	2.40	0.54
36:LA:129:LYS:N	36:LA:129:LYS:HE3	2.23	0.54
55:Lg:60:ASP:HB2	55:Lg:94:LYS:O	2.07	0.54
56:Lh:75:PHE:CD2	56:Lh:86:LEU:HD21	2.43	0.54
64:LG:188:LEU:HD13	66:LN:105:PHE:HB2	1.90	0.54
66:LN:7:VAL:HA	66:LN:30:VAL:HB	1.88	0.54
75:Lt:53:ARG:HH12	75:Lt:58:LEU:CD1	2.16	0.54
81:LD:342:LYS:C	81:LD:343:MET:HG2	2.33	0.54
81:LD:368:PRO:HA	81:LD:371:ALA:HB3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:LD:377:ALA:C	81:LD:381:TRP:CD1	2.70	0.54
84:LI:104:SER:H	84:LI:109:ASP:HB3	1.72	0.54
5:SE:30:ARG:CD	27:SH:67:GLY:O	2.52	0.54
5:SE:30:ARG:NH1	27:SH:66:ASN:CA	2.70	0.54
12:SO:85:PRO:HB2	54:Lf:24:SER:HB3	1.89	0.54
28:SN:47:ALA:C	28:SN:49:ASP:N	2.66	0.54
32:S1:215:A:OP2	32:S1:834:A:C4'	2.52	0.54
32:S1:977:G:C5	33:L1:850:A:C6	2.90	0.54
33:L1:309:C:C4	33:L1:310:C:C4	2.95	0.54
33:L1:384:A:C6	33:L1:385:A:C2	2.95	0.54
33:L1:638:G:H3'	33:L1:639:A:C4'	2.37	0.54
33:L1:817:U:H5''	57:L1:35:SER:HB2	1.87	0.54
33:L1:1174:G:H5''	34:L3:84:U:H3	1.72	0.54
33:L1:1333:C:OP1	71:Lj:56:VAL:HG21	2.08	0.54
33:L1:1651:A:H4'	69:La:59:ALA:CB	2.37	0.54
34:L3:38:U:H1'	34:L3:42:A:N6	2.23	0.54
35:L2:37:A:C4'	57:L1:72:ARG:NH1	2.23	0.54
36:LA:56:HIS:NE2	36:LA:149:GLU:HG2	2.22	0.54
36:LA:189:LEU:HD11	65:LL:194:UNK:CA	2.38	0.54
52:Lb:127:VAL:CG2	56:Lh:115:GLN:HB3	2.37	0.54
71:Lj:36:ILE:HG21	71:Lj:39:VAL:HG12	1.90	0.54
73:Lp:28:HIS:CD2	73:Lp:29:PRO:HD2	2.42	0.54
78:Le:184:GLU:HG2	81:LD:358:LYS:HD3	1.89	0.54
2:SA:43:TYR:HB3	2:SA:44:LYS:HD3	1.89	0.54
4:SD:124:CYS:HB2	4:SD:160:ILE:CG2	2.37	0.54
4:SD:239:PRO:O	4:SD:240:LYS:HG2	2.07	0.54
5:SE:31:ARG:HB2	27:SH:68:ARG:HA	1.90	0.54
6:SF:118:ARG:HD2	19:SY:56:GLU:HB2	1.89	0.54
9:SK:90:THR:CA	9:SK:93:HIS:CE1	2.85	0.54
13:SQ:61:ILE:HD12	13:SQ:61:ILE:H	1.71	0.54
17:SV:50:LYS:HA	17:SV:54:GLU:CD	2.33	0.54
27:SH:15:TYR:HD2	27:SH:65:LEU:HD23	1.59	0.54
31:S2:13:U:H1'	33:L1:2261:U:H2'	1.90	0.54
32:S1:193:G:O6	32:S1:194:G:C2	2.61	0.54
32:S1:556:G:H1	32:S1:576:C:N4	1.96	0.54
32:S1:1128:C:C1'	83:Lm:24:LYS:O	2.42	0.54
32:S1:1191:U:H3	32:S1:1202:G:H1	1.55	0.54
33:L1:786:U:H5'	44:LR:70:PHE:CE1	2.42	0.54
33:L1:1851:U:H5'	73:Lp:52:LYS:C	2.32	0.54
33:L1:1889:G:H1	33:L1:2341:U:H3	1.54	0.54
33:L1:2021:G:H2'	33:L1:2022:U:C5	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2649:C:OP1	84:LI:119:PHE:CE2	2.61	0.54
33:L1:2650:A:P	84:LI:119:PHE:CE1	3.01	0.54
33:L1:2699:A:H2'	33:L1:2700:A:C8	2.42	0.54
33:L1:2780:G:C1'	33:L1:2780:G:O2'	2.49	0.54
34:L3:29:C:N4	45:LQ:58:ASN:HD22	2.05	0.54
34:L3:116:U:C2'	45:LQ:80:TYR:CE1	2.91	0.54
37:LB:221:HIS:CD2	37:LB:222:ALA:H	2.25	0.54
46:LT:176:ARG:CD	46:LT:179:GLU:HG3	2.38	0.54
52:Lb:123:ARG:HB2	56:Lh:87:MET:HE1	1.88	0.54
55:Lg:1:MET:C	55:Lg:1:MET:HE2	2.33	0.54
55:Lg:44:ILE:HD12	55:Lg:67:ILE:HD11	1.89	0.54
56:Lh:20:ARG:HH11	56:Lh:34:ARG:HD2	1.66	0.54
2:SA:136:GLN:HB3	2:SA:137:PRO:CD	2.38	0.54
5:SE:15:PHE:CD2	5:SE:182:PRO:HD2	2.42	0.54
9:SK:89:ILE:HA	9:SK:92:LEU:HD12	1.88	0.54
10:SL:39:PRO:HB3	10:SL:64:ALA:CA	2.28	0.54
10:SL:99:VAL:O	10:SL:99:VAL:HG12	2.08	0.54
16:SR:142:ILE:CG2	32:S1:1188:A:N6	2.60	0.54
23:SU:25:ARG:CD	23:SU:27:GLN:HG3	2.38	0.54
32:S1:1129:A:OP1	83:Lm:23:ARG:NH1	2.34	0.54
32:S1:1748:U:H1'	33:L1:1916:U:OP1	1.78	0.54
33:L1:57:G:H5'	42:LP:155:VAL:HA	1.90	0.54
33:L1:288:G:C5'	42:LP:98:LYS:CE	2.48	0.54
33:L1:1217:G:H1'	67:LS:92:MET:HE2	1.90	0.54
33:L1:1509:G:H1	33:L1:1515:U:H3	1.55	0.54
33:L1:1593:C:OP1	73:Lp:30:ARG:CB	2.53	0.54
33:L1:2650:A:OP2	84:LI:119:PHE:HE1	1.83	0.54
33:L1:2774:A:H2'	33:L1:2775:C:O4'	2.08	0.54
33:L1:3301:G:O3'	48:LV:70:THR:O	2.26	0.54
33:L1:3335:G:H2'	33:L1:3336:A:H5'	1.88	0.54
36:LA:54:LEU:HG	36:LA:153:THR:HA	1.90	0.54
48:LV:58:ILE:HG23	48:LV:58:ILE:O	2.07	0.54
55:Lg:15:VAL:HA	55:Lg:85:ARG:O	2.07	0.54
67:LS:115:ARG:HA	67:LS:115:ARG:NE	2.22	0.54
70:Li:72:ARG:HD3	70:Li:73:THR:H	1.73	0.54
1:Sa:90:LEU:HD23	1:Sa:91:ILE:N	2.22	0.54
2:SA:80:VAL:O	2:SA:102:ALA:HA	2.07	0.54
6:SF:118:ARG:CD	19:SY:56:GLU:HB3	2.37	0.54
10:SL:51:LEU:HD21	32:S1:1141:U:C4'	2.37	0.54
12:SO:99:ARG:HB3	54:Lf:83:THR:CB	2.36	0.54
26:SG:8:UNK:O	46:LT:189:CYS:SG	2.65	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:SH:65:LEU:HD22	27:SH:70:ASN:CB	2.37	0.54
31:S2:70:G:H5''	33:L1:2966:G:O5'	2.08	0.54
31:S2:72:G:H2'	33:L1:2973:A:P	2.48	0.54
32:S1:843:G:C2'	33:L1:2061:C:O2'	2.56	0.54
32:S1:1168:A:H2'	32:S1:1169:G:C8	2.43	0.54
32:S1:1547:G:C8	32:S1:1547:G:C3'	2.90	0.54
32:S1:1685:U:O2	33:L1:3334:A:H4'	2.08	0.54
33:L1:1207:A:N6	33:L1:1304:G:H2'	2.23	0.54
33:L1:1679:U:O4	68:LW:94:LYS:C	2.50	0.54
33:L1:2766:U:H3'	33:L1:2766:U:C6	2.42	0.54
33:L1:3175:C:O2	33:L1:3175:C:H2'	2.07	0.54
33:L1:3334:A:O4'	33:L1:3334:A:N9	2.37	0.54
36:LA:67:LEU:HG	36:LA:104:LYS:HG3	1.89	0.54
37:LB:102:LEU:HB2	37:LB:103:PRO:HD2	1.89	0.54
42:LP:9:GLU:HA	42:LP:12:ARG:HE	1.73	0.54
47:LU:156:VAL:HA	47:LU:159:ASP:OD2	2.07	0.54
55:Lg:63:LEU:HD23	55:Lg:96:GLU:CG	2.37	0.54
65:LL:20:UNK:CB	65:LL:21:UNK:CA	2.86	0.54
66:LN:32:ASP:HB3	67:LS:145:HIS:HB2	1.90	0.54
67:LS:61:LEU:CG	78:Le:79:VAL:HG22	2.37	0.54
67:LS:61:LEU:HB2	78:Le:79:VAL:HG22	1.90	0.54
67:LS:61:LEU:HD12	78:Le:79:VAL:HG22	1.90	0.54
80:LC:34:LYS:HZ2	80:LC:36:ASP:CG	2.15	0.54
82:LK:121:LYS:H	82:LK:121:LYS:HD2	1.72	0.54
1:Sa:346:ARG:HH11	32:S1:1398:U:C4'	2.16	0.54
4:SD:160:ILE:HD11	4:SD:169:ILE:HG21	1.89	0.54
8:SJ:68:LYS:HE2	32:S1:1524:A:C5'	2.30	0.54
11:SM:38:ARG:HG2	15:SS:45:PHE:CZ	2.43	0.54
14:SP:91:TYR:N	33:L1:2081:C:H5''	2.23	0.54
24:SX:68:PRO:O	24:SX:69:THR:HG22	2.08	0.54
31:S2:13:U:O2'	33:L1:2262:C:O5'	2.26	0.54
32:S1:928:A:H5'	37:LB:139:HIS:N	2.22	0.54
32:S1:956:A:OP2	54:Lf:9:LYS:CB	2.55	0.54
32:S1:1129:A:O4'	83:Lm:24:LYS:CG	2.55	0.54
33:L1:271:G:O4'	72:Lk:66:VAL:CA	2.50	0.54
33:L1:423:C:O4'	33:L1:423:C:N1	2.36	0.54
33:L1:883:G:N7	48:LV:133:ALA:HB1	2.22	0.54
33:L1:1174:G:C5'	34:L3:84:U:N3	2.70	0.54
33:L1:1248:A:O4'	33:L1:1249:A:C8	2.61	0.54
33:L1:1309:U:O4'	33:L1:1309:U:N1	2.38	0.54
33:L1:2380:G:H5''	82:LK:96:LYS:HZ2	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:3320:G:C2'	33:L1:3322:A:C8	2.90	0.54
34:L3:4:U:H3	34:L3:115:A:N6	2.06	0.54
34:L3:16:A:H61	34:L3:62:U:H3	1.55	0.54
35:L2:44:A:C5	35:L2:108:A:C2	2.96	0.54
36:LA:74:ASP:O	36:LA:77:GLU:HB2	2.08	0.54
37:LB:147:ARG:HH21	37:LB:155:LYS:HD2	1.71	0.54
64:LG:91:LYS:CD	64:LG:152:LYS:HB3	2.37	0.54
67:LS:153:LEU:HA	67:LS:156:ARG:H	1.73	0.54
79:Ls:68:VAL:HG11	79:Ls:76:LYS:HD2	1.90	0.54
81:LD:310:LEU:O	81:LD:314:VAL:CG2	2.56	0.54
83:Lm:7:LYS:O	83:Lm:8:ALA:CB	2.48	0.54
2:SA:159:ARG:HA	5:SE:37:PRO:CB	2.38	0.54
10:SL:95:GLU:O	10:SL:96:ASN:HB2	2.07	0.54
17:SV:95:VAL:C	17:SV:96:HIS:CG	2.82	0.54
20:SZ:10:ARG:HD2	32:S1:1255:U:O5'	2.08	0.54
32:S1:1480:G:N1	32:S1:1541:C:O2	2.40	0.54
32:S1:1748:U:C6	33:L1:1929:A:N1	2.76	0.54
33:L1:127:G:H1	33:L1:139:U:H3	1.56	0.54
33:L1:716:A:C8	33:L1:716:A:H3'	2.43	0.54
33:L1:996:A:N7	33:L1:1062:G:C2	2.76	0.54
33:L1:1174:G:OP1	34:L3:84:U:N3	2.41	0.54
33:L1:1206:A:C5'	34:L3:88:U:O4'	2.55	0.54
33:L1:1367:A:H2'	33:L1:1368:U:C6	2.42	0.54
33:L1:2865:G:H4'	84:LI:109:ASP:OD1	2.08	0.54
33:L1:3053:G:H21	33:L1:3093:C:N4	2.06	0.54
33:L1:3122:U:H1'	33:L1:3123:A:H5''	1.90	0.54
69:La:31:GLU:CD	69:La:32:GLY:H	2.16	0.54
79:Ls:27:LYS:HE3	79:Ls:197:ASP:HB2	1.89	0.54
79:Ls:228:VAL:O	79:Ls:232:ILE:HG23	2.08	0.54
80:LC:63:PRO:HD2	80:LC:64:GLY:H	1.73	0.54
81:LD:309:PRO:CA	81:LD:313:GLU:HG2	2.36	0.54
83:Lm:77:VAL:HG22	83:Lm:80:ARG:HH21	1.73	0.54
84:LI:112:GLN:C	84:LI:113:THR:HG23	2.33	0.54
4:SD:208:ILE:CG2	4:SD:225:VAL:HG21	2.23	0.53
12:SO:97:ALA:H	54:Lf:19:GLN:CD	2.16	0.53
14:SP:88:ARG:NE	33:L1:2082:A:O3'	2.41	0.53
17:SV:42:LEU:HB3	17:SV:47:THR:CG2	2.34	0.53
17:SV:64:SER:CA	17:SV:82:LYS:HZ1	2.21	0.53
23:SU:29:VAL:CA	23:SU:78:PHE:CD1	2.83	0.53
23:SU:62:PHE:HB2	23:SU:80:LEU:HD23	1.91	0.53
31:S2:75:A:C4'	33:L1:2956:U:O4'	2.54	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:30:G:H2'	32:S1:31:C:C5	2.43	0.53
32:S1:496:A:C2	32:S1:500:G:O6	2.61	0.53
32:S1:800:U:C3'	32:S1:801:U:H5''	2.39	0.53
32:S1:1759:A:O4'	32:S1:1759:A:C8	2.61	0.53
33:L1:78:U:O4	33:L1:105:A:N1	2.42	0.53
33:L1:929:A:H2'	33:L1:930:C:C6	2.43	0.53
33:L1:1753:A:C2'	33:L1:1753:A:N9	2.65	0.53
33:L1:2148:U:H4'	37:LB:240:ALA:HB2	1.86	0.53
35:L2:96:A:H2'	35:L2:97:U:C5'	2.38	0.53
36:LA:68:GLY:CA	36:LA:102:LEU:HD22	2.32	0.53
36:LA:113:GLU:O	36:LA:116:ILE:HG22	2.08	0.53
36:LA:140:GLN:HE21	36:LA:144:GLU:CG	2.21	0.53
38:LE:108:ILE:HG23	38:LE:108:ILE:O	2.08	0.53
48:LV:113:LEU:HD21	48:LV:153:GLU:HA	1.90	0.53
56:Lh:73:LYS:HB3	56:Lh:93:TYR:CD2	2.43	0.53
1:Sa:105:LYS:NZ	7:SI:29:LYS:HZ3	2.06	0.53
9:SK:37:ASN:ND2	9:SK:52:LEU:CD1	2.71	0.53
11:SM:35:GLY:C	11:SM:36:VAL:HG12	2.33	0.53
24:SX:70:GLY:CA	32:S1:877:G:H5'	2.35	0.53
25:SC:29:GLU:OE2	25:SC:29:GLU:OE1	2.25	0.53
31:S2:72:G:C4'	33:L1:2972:C:P	2.96	0.53
32:S1:1129:A:C1'	83:Lm:24:LYS:CD	2.84	0.53
33:L1:722:C:O2'	33:L1:723:G:H5''	2.07	0.53
33:L1:1975:G:C2	33:L1:2037:C:N4	2.76	0.53
33:L1:2152:A:C8	33:L1:2170:G:N2	2.76	0.53
33:L1:3319:G:H21	80:LC:313:GLY:CA	2.19	0.53
34:L3:2:G:N2	34:L3:3:A:C6	2.76	0.53
34:L3:43:A:OP1	38:LE:139:ARG:NE	2.42	0.53
34:L3:116:U:C3'	34:L3:117:U:H5'	2.37	0.53
36:LA:67:LEU:HD21	36:LA:104:LYS:HD3	1.90	0.53
66:LN:96:GLN:HA	66:LN:99:ARG:HG3	1.90	0.53
75:Lu:58:LEU:HD21	79:Ls:253:ALA:C	2.34	0.53
76:Lv:45:GLN:HG3	79:Ls:211:GLU:CG	2.38	0.53
81:LD:338:GLY:HA3	81:LD:342:LYS:HE3	1.91	0.53
84:LI:104:SER:OG	84:LI:109:ASP:O	2.26	0.53
1:Sa:15:THR:HA	1:Sa:18:VAL:CG2	2.37	0.53
1:Sa:219:ASN:CB	1:Sa:220:MET:HE3	2.38	0.53
2:SA:159:ARG:HA	5:SE:37:PRO:HG2	1.90	0.53
11:SM:34:LYS:HB3	11:SM:100:SER:HB3	1.91	0.53
11:SM:113:ARG:O	11:SM:114:LEU:C	2.50	0.53
14:SP:124:VAL:H	46:LT:165:LYS:CG	2.16	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:SW:116:UNK:O	18:SW:117:UNK:C	2.47	0.53
23:SU:25:ARG:CD	23:SU:26:LYS:N	2.70	0.53
27:SH:42:GLN:CD	27:SH:101:TYR:HE2	2.17	0.53
31:S2:26:G:H4'	33:L1:2259:U:C2	2.42	0.53
31:S2:75:A:C5	33:L1:2956:U:H5	2.23	0.53
32:S1:438:G:H2'	32:S1:439:C:H5'	1.89	0.53
33:L1:638:G:H3'	33:L1:639:A:C5'	2.38	0.53
33:L1:1015:A:H2'	33:L1:1016:G:C8	2.43	0.53
33:L1:1286:G:H4'	79:Ls:87:GLY:HA3	1.90	0.53
33:L1:1478:A:H5''	55:Lg:65:LYS:NZ	2.11	0.53
33:L1:1728:G:C6	54:Lf:29:LEU:O	2.61	0.53
33:L1:2269:U:C2'	33:L1:2270:A:H5'	2.37	0.53
34:L3:6:C:O2'	45:LQ:47:LYS:HE2	2.08	0.53
34:L3:45:U:O2	34:L3:46:C:C5	2.61	0.53
35:L2:93:A:C5	35:L2:95:C:C5	2.96	0.53
36:LA:57:ILE:HG13	36:LA:182:ILE:HG21	1.90	0.53
36:LA:106:TYR:CD1	36:LA:143:LEU:HD12	2.43	0.53
81:LD:305:SER:C	81:LD:306:VAL:HG23	2.34	0.53
4:SD:66:MET:O	4:SD:68:ARG:HG3	2.09	0.53
6:SF:34:LEU:HD22	6:SF:64:LEU:HD11	1.89	0.53
9:SK:43:VAL:HG23	9:SK:106:THR:HG22	1.90	0.53
12:SO:150:VAL:HG13	54:Lf:88:TYR:N	2.23	0.53
15:SS:59:ARG:HA	15:SS:62:SER:HB3	1.90	0.53
26:SG:8:UNK:C	46:LT:188:SER:HB3	2.38	0.53
27:SH:75:ILE:HG23	27:SH:75:ILE:O	2.07	0.53
32:S1:621:U:H3	32:S1:1093:A:H61	1.57	0.53
32:S1:633:U:C6	33:L1:849:A:OP1	2.61	0.53
33:L1:381:G:C1'	33:L1:381:G:O2'	2.49	0.53
33:L1:2166:U:C5'	37:LB:193:ARG:HD2	2.37	0.53
33:L1:2502:U:C6	33:L1:2502:U:C3'	2.92	0.53
33:L1:3049:A:H5'	33:L1:3049:A:C8	2.44	0.53
36:LA:171:LEU:HD22	36:LA:175:GLU:OE1	2.08	0.53
36:LA:189:LEU:HG	65:LL:193:UNK:N	2.24	0.53
38:LE:14:ILE:HD13	38:LE:133:LEU:HD13	1.90	0.53
43:LO:64:LEU:HD22	65:LL:155:UNK:CA	2.39	0.53
46:LT:91:THR:O	46:LT:95:TRP:CE3	2.62	0.53
55:Lg:1:MET:O	55:Lg:85:ARG:HB2	2.09	0.53
55:Lg:48:ALA:CB	55:Lg:94:LYS:HD2	2.38	0.53
69:La:11:VAL:CG1	69:La:34:ARG:HG3	2.38	0.53
75:Lt:14:ILE:HD11	76:Lv:2:LYS:O	2.08	0.53
79:Ls:163:LEU:CD1	79:Ls:178:LEU:HD21	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:145:ASN:HD21	5:SE:78:VAL:HB	1.74	0.53
8:SJ:73:THR:HB	8:SJ:91:MET:HB2	1.91	0.53
9:SK:109:PRO:HD2	9:SK:112:GLN:CB	2.23	0.53
10:SL:66:ARG:NH2	32:S1:438:G:H4'	2.17	0.53
10:SL:139:LYS:O	10:SL:142:SER:O	2.25	0.53
11:SM:14:ARG:H	38:LE:111:HIS:CE1	2.26	0.53
11:SM:130:ARG:HG3	11:SM:134:GLN:HE21	1.71	0.53
12:SO:97:ALA:HB3	54:Lf:19:GLN:CD	2.26	0.53
14:SP:124:VAL:C	46:LT:165:LYS:HZ2	2.17	0.53
16:SR:67:LYS:HD2	32:S1:1557:C:C5	2.43	0.53
27:SH:27:ILE:HG23	27:SH:30:SER:H	1.74	0.53
32:S1:956:A:P	54:Lf:9:LYS:O	2.62	0.53
32:S1:1017:U:H2'	32:S1:1018:A:C8	2.44	0.53
33:L1:158:A:H1'	33:L1:262:A:H62	1.73	0.53
33:L1:2715:U:H2'	33:L1:2716:U:C6	2.44	0.53
36:LA:57:ILE:HG12	36:LA:58:PRO:HD2	1.91	0.53
37:LB:167:GLY:HA2	83:Lm:79:VAL:HG11	1.89	0.53
78:Le:167:ASN:HA	81:LD:355:ARG:HD3	1.89	0.53
81:LD:383:LYS:CA	81:LD:386:ILE:HD11	2.38	0.53
83:Lm:6:LYS:HG2	83:Lm:7:LYS:H	1.72	0.53
2:SA:103:ILE:HG23	2:SA:103:ILE:O	2.08	0.53
4:SD:43:PRO:HA	4:SD:84:ALA:H	1.73	0.53
6:SF:40:LYS:CE	7:SI:122:LEU:CD1	2.87	0.53
13:SQ:77:GLU:HG3	13:SQ:78:ARG:H	1.72	0.53
23:SU:18:MET:HA	23:SU:91:TYR:O	2.09	0.53
31:S2:74:C:C1'	33:L1:2404:C:H5'	2.25	0.53
32:S1:859:U:H5''	46:LT:180:ARG:HB3	1.85	0.53
33:L1:68:U:C2'	33:L1:69:U:H5'	2.38	0.53
33:L1:643:G:H5''	56:Lh:37:LYS:HG3	1.87	0.53
33:L1:701:U:H2'	33:L1:702:G:C8	2.43	0.53
33:L1:883:G:C8	48:LV:133:ALA:HB2	2.41	0.53
33:L1:1205:C:H42	33:L1:2859:C:H5''	1.73	0.53
33:L1:1694:A:OP1	73:Lp:32:VAL:CG2	2.48	0.53
33:L1:1707:C:H42	54:Lf:56:ARG:CD	2.22	0.53
33:L1:1867:U:O5'	33:L1:1867:U:C6	2.62	0.53
33:L1:2157:C:O2	37:LB:11:GLY:CA	2.57	0.53
35:L2:96:A:C5	35:L2:97:U:H1'	2.43	0.53
35:L2:124:G:C2'	35:L2:124:G:C8	2.92	0.53
37:LB:219:ILE:O	37:LB:219:ILE:HG23	2.08	0.53
48:LV:106:LYS:HD2	48:LV:108:LEU:HG	1.91	0.53
55:Lg:23:ASN:HB3	55:Lg:78:ARG:CZ	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:LG:28:ILE:CD1	64:LG:29:LYS:H	2.21	0.53
79:Ls:116:VAL:HG13	79:Ls:172:SER:HA	1.90	0.53
6:SF:142:ARG:HH11	19:SY:55:LEU:CD2	2.21	0.53
8:SJ:95:LYS:CE	32:S1:1388:A:OP1	2.57	0.53
11:SM:35:GLY:CA	11:SM:99:VAL:HG23	2.34	0.53
12:SO:97:ALA:N	54:Lf:19:GLN:OE1	2.41	0.53
13:SQ:90:ALA:HA	13:SQ:120:GLN:OE1	2.08	0.53
23:SU:26:LYS:HD2	23:SU:84:ASN:H	1.74	0.53
25:SC:163:THR:CB	25:SC:163:THR:N	2.70	0.53
27:SH:14:MET:HG3	27:SH:19:LYS:HB2	1.90	0.53
28:SN:30:LEU:HD13	28:SN:37:MET:HB2	1.91	0.53
31:S2:69:G:C3'	33:L1:2965:C:O3'	2.45	0.53
32:S1:210:A:H2'	32:S1:211:G:H5'	1.91	0.53
33:L1:415:G:H4'	33:L1:431:G:H21	1.73	0.53
33:L1:1191:U:O2'	33:L1:1193:A:C2	2.57	0.53
33:L1:2380:G:OP2	82:LK:96:LYS:NZ	2.40	0.53
33:L1:2746:G:H2'	33:L1:2747:U:C6	2.44	0.53
33:L1:3296:C:C2	80:LC:25:HIS:CE1	2.95	0.53
36:LA:83:TYR:HE2	36:LA:86:VAL:CA	2.22	0.53
60:Lr:70:LEU:HD21	60:Lr:91:PHE:CZ	2.42	0.53
84:LI:34:TYR:CD2	84:LI:92:HIS:CE1	2.97	0.53
1:Sa:97:THR:N	1:Sa:98:SER:N	2.57	0.53
2:SA:81:GLN:CB	2:SA:103:ILE:HG22	2.38	0.53
4:SD:168:LYS:HB2	4:SD:168:LYS:NZ	2.24	0.53
16:SR:116:ILE:HG23	16:SR:117:LYS:H	1.74	0.53
23:SU:34:HIS:O	23:SU:35:PRO:CB	2.53	0.53
24:SX:57:VAL:HG13	24:SX:62:GLN:CA	2.39	0.53
25:SC:150:VAL:HG12	25:SC:151:ARG:HB3	1.89	0.53
26:SG:12:UNK:N	26:SG:12:UNK:C	2.63	0.53
31:S2:13:U:OP1	33:L1:2244:G:N3	2.41	0.53
32:S1:956:A:C5'	54:Lf:12:GLU:CB	2.58	0.53
32:S1:956:A:C4	54:Lf:9:LYS:HE3	2.41	0.53
33:L1:428:G:H5''	71:Lj:95:PRO:CG	2.39	0.53
33:L1:641:C:C2	33:L1:642:C:C5	2.96	0.53
33:L1:716:A:C8	33:L1:716:A:C3'	2.92	0.53
33:L1:1060:U:C5	33:L1:1061:A:C2	2.97	0.53
33:L1:1165:C:H5'	56:Lh:58:TYR:CE2	2.44	0.53
33:L1:1265:G:C8	79:Ls:38:SER:HB3	2.44	0.53
33:L1:1450:G:OP1	48:LV:63:TYR:HA	2.08	0.53
33:L1:2256:G:H21	33:L1:2257:A:H62	1.51	0.53
35:L2:36:C:O2'	35:L2:37:A:H5'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:L2:155:G:H2'	35:L2:156:G:C8	2.43	0.53
37:LB:158:VAL:CG2	37:LB:159:PRO:HD2	2.38	0.53
55:Lg:69:THR:HG23	55:Lg:70:ASN:N	2.24	0.53
67:LS:12:VAL:HG13	78:Le:74:LYS:CE	2.39	0.53
71:Lj:72:TRP:NE1	82:LK:30:LYS:CE	2.71	0.53
73:Lp:52:LYS:C	73:Lp:53:ASN:CA	2.68	0.53
84:LI:76:MET:HA	84:LI:147:HIS:CE1	2.44	0.53
2:SA:145:ASN:ND2	5:SE:78:VAL:CG1	2.60	0.53
4:SD:103:TYR:CE1	4:SD:109:PHE:CE1	2.97	0.53
27:SH:37:PHE:CB	27:SH:43:LYS:HE3	2.38	0.53
27:SH:38:LEU:HD11	27:SH:45:GLY:HA2	1.89	0.53
27:SH:38:LEU:CD2	27:SH:46:TYR:HD1	2.22	0.53
32:S1:193:G:C6	32:S1:194:G:C2	2.97	0.53
32:S1:1536:U:H2'	32:S1:1537:U:C6	2.44	0.53
32:S1:1745:U:C2	33:L1:1932:A:O4'	2.62	0.53
32:S1:1747:A:N9	33:L1:1930:G:N2	2.55	0.53
33:L1:339:G:H4'	33:L1:340:A:H5'	1.90	0.53
33:L1:1851:U:C5'	73:Lp:52:LYS:C	2.82	0.53
33:L1:2372:A:C6	33:L1:2869:C:H1'	2.44	0.53
33:L1:2610:G:C8	37:LB:230:PRO:HG2	2.44	0.53
33:L1:2973:A:C2'	33:L1:2973:A:N9	2.61	0.53
35:L2:38:U:C3'	57:Ll:72:ARG:HH21	2.22	0.53
37:LB:104:ILE:HD13	37:LB:146:SER:OG	2.09	0.53
48:LV:99:ALA:CB	48:LV:151:LEU:HD21	2.37	0.53
66:LN:4:LYS:HZ2	66:LN:11:ARG:HD2	1.73	0.53
75:Lt:49:LEU:HD11	79:Ls:232:ILE:O	2.08	0.53
1:Sa:82:VAL:HG23	1:Sa:83:SER:H	1.70	0.53
3:SB:68:GLU:O	3:SB:72:VAL:HG23	2.09	0.53
3:SB:113:LEU:HD12	3:SB:114:ALA:H	1.74	0.53
3:SB:190:LEU:HD23	3:SB:191:ASP:H	1.74	0.53
25:SC:3:ARG:HD2	32:S1:482:A:C3'	2.38	0.53
32:S1:187:C:C2	32:S1:188:U:C6	2.97	0.53
32:S1:483:C:O4'	32:S1:483:C:N1	2.38	0.53
32:S1:1685:U:H1'	33:L1:3335:G:P	2.49	0.53
33:L1:384:A:N6	33:L1:385:A:C2	2.77	0.53
33:L1:650:A:OP2	56:Lh:40:ASP:HB3	2.09	0.53
33:L1:819:A:OP2	57:Ll:28:HIS:HE1	1.91	0.53
34:L3:5:G:OP2	45:LQ:26:ARG:NH2	2.42	0.53
36:LA:111:ALA:C	36:LA:115:ILE:HG23	2.34	0.53
36:LA:129:LYS:HE3	36:LA:129:LYS:H	1.73	0.53
38:LE:31:ARG:HG2	38:LE:32:LEU:N	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:LX:77:LEU:O	49:LX:151:ILE:HD11	2.09	0.53
55:Lg:1:MET:HG3	55:Lg:52:MET:HE3	1.91	0.53
56:Lh:77:VAL:O	56:Lh:77:VAL:HG13	2.09	0.53
59:Lo:30:ARG:CB	59:Lo:30:ARG:H	2.22	0.53
64:LG:90:GLY:H	64:LG:159:GLU:CD	2.17	0.53
66:LN:6:PHE:CG	66:LN:7:VAL:N	2.77	0.53
75:Lt:6:VAL:HG11	79:Ls:234:TYR:CE2	2.44	0.53
75:Lt:7:ALA:O	76:Lv:9:LEU:HD11	2.06	0.53
81:LD:312:LYS:C	81:LD:313:GLU:OE2	2.52	0.53
4:SD:67:GLN:CB	4:SD:69:HIS:CD2	2.90	0.52
6:SF:56:ARG:HD2	19:SY:50:ASP:CB	2.31	0.52
11:SM:14:ARG:CZ	38:LE:109:GLN:CB	2.43	0.52
14:SP:119:LYS:CG	14:SP:120:GLU:H	2.22	0.52
23:SU:30:LEU:CD2	23:SU:78:PHE:HA	2.39	0.52
33:L1:262:A:C2'	33:L1:262:A:C4	2.92	0.52
33:L1:1320:G:H8	82:LK:134:LEU:CG	2.23	0.52
33:L1:1344:A:H2'	33:L1:1345:U:C6	2.44	0.52
33:L1:2157:C:H1'	37:LB:10:LYS:HB2	1.89	0.52
33:L1:2355:A:C4	33:L1:2355:A:H2'	2.44	0.52
33:L1:2700:A:C6	33:L1:2701:G:C5	2.97	0.52
33:L1:2708:A:C2	47:LU:49:HIS:CE1	2.97	0.52
37:LB:168:GLN:HE21	83:Lm:79:VAL:CG2	2.22	0.52
38:LE:31:ARG:HG2	38:LE:34:ARG:H	1.73	0.52
48:LV:114:TYR:CE1	48:LV:155:GLU:C	2.87	0.52
55:Lg:86:LYS:O	55:Lg:87:ARG:HB2	2.09	0.52
66:LN:30:VAL:HG21	67:LS:154:VAL:HG22	1.90	0.52
66:LN:64:ARG:NH1	67:LS:151:PHE:CD1	2.76	0.52
75:Lt:8:CYS:HB3	79:Ls:234:TYR:CE2	2.44	0.52
81:LD:338:GLY:CA	81:LD:342:LYS:HE3	2.39	0.52
81:LD:344:ALA:HB3	81:LD:351:ARG:CD	2.29	0.52
2:SA:109:PRO:HA	2:SA:110:GLY:N	2.09	0.52
6:SF:164:THR:O	6:SF:167:GLU:HB2	2.08	0.52
11:SM:26:ILE:HG22	11:SM:54:LYS:O	2.09	0.52
12:SO:151:ALA:O	54:Lf:84:ALA:CA	2.56	0.52
14:SP:41:LEU:HB2	14:SP:103:LYS:HG2	1.91	0.52
14:SP:61:PHE:HB2	14:SP:86:ILE:HD11	1.91	0.52
14:SP:124:VAL:C	46:LT:165:LYS:CD	2.82	0.52
23:SU:71:GLY:C	23:SU:72:GLY:CA	2.76	0.52
27:SH:40:VAL:O	27:SH:41:MET:HG2	2.10	0.52
27:SH:102:ILE:HG23	27:SH:113:HIS:HB3	1.91	0.52
32:S1:395:A:H61	32:S1:410:U:H3	1.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:274:U:C2	33:L1:288:G:N2	2.76	0.52
33:L1:298:G:H2'	33:L1:299:G:H8	1.74	0.52
33:L1:680:G:H2'	44:LR:106:THR:HG21	1.90	0.52
33:L1:1256:A:H2'	33:L1:1257:U:C6	2.44	0.52
33:L1:1320:G:C8	82:LK:134:LEU:CG	2.91	0.52
33:L1:2777:U:H3	33:L1:2787:A:N6	2.02	0.52
33:L1:2996:A:N1	33:L1:3143:A:C6	2.76	0.52
34:L3:7:G:H4'	45:LQ:37:ARG:NH2	2.22	0.52
34:L3:115:A:H4'	45:LQ:75:VAL:HG13	1.91	0.52
34:L3:119:C:O2	45:LQ:250:ASP:CG	2.52	0.52
36:LA:105:LYS:CB	36:LA:129:LYS:HE2	2.39	0.52
43:LO:64:LEU:CD2	65:LL:155:UNK:N	2.72	0.52
44:LR:41:LYS:HB2	81:LD:325:LYS:CD	2.39	0.52
45:LQ:246:ALA:HB1	45:LQ:247:ILE:HD12	1.91	0.52
51:LY:74:ARG:HA	51:LY:77:TRP:CZ3	2.44	0.52
55:Lg:1:MET:CE	55:Lg:52:MET:O	2.58	0.52
64:LG:20:TYR:N	64:LG:20:TYR:CD1	2.72	0.52
66:LN:47:GLN:NE2	67:LS:99:THR:HG23	2.24	0.52
67:LS:22:GLU:CG	67:LS:23:HIS:H	2.22	0.52
72:Lk:99:LYS:C	72:Lk:99:LYS:HZ2	2.17	0.52
2:SA:211:PRO:O	2:SA:212:GLU:C	2.51	0.52
4:SD:103:TYR:HE1	4:SD:109:PHE:CE1	2.28	0.52
15:SS:63:ILE:CD1	15:SS:106:ILE:HD12	2.39	0.52
31:S2:75:A:P	33:L1:2957:U:H5'	2.49	0.52
32:S1:860:A:H2'	32:S1:861:A:C5'	2.39	0.52
32:S1:1674:C:H1'	33:L1:1931:G:H22	1.74	0.52
33:L1:273:U:H3	33:L1:288:G:N2	2.07	0.52
33:L1:1263:A:C6	79:Ls:33:ALA:HB3	2.45	0.52
33:L1:1364:C:C4'	81:LD:337:PHE:CE1	2.84	0.52
33:L1:1626:U:C5'	70:Li:4:ARG:HH22	2.23	0.52
33:L1:1673:A:H61	33:L1:1689:G:C2'	2.23	0.52
33:L1:1709:U:H3	33:L1:1732:G:H1	1.56	0.52
33:L1:1835:A:H2	33:L1:1849:U:N3	2.05	0.52
33:L1:3337:G:H2'	33:L1:3338:U:C6	2.44	0.52
33:L1:3374:C:H4'	80:LC:319:GLY:HA2	1.92	0.52
48:LV:59:PRO:HB3	48:LV:76:ARG:CD	2.39	0.52
55:Lg:86:LYS:HB3	55:Lg:87:ARG:CD	2.40	0.52
75:Lu:58:LEU:HD12	79:Ls:257:GLU:HB2	1.90	0.52
79:Ls:162:GLU:OE2	79:Ls:165:LYS:HG2	2.10	0.52
4:SD:85:GLY:CA	4:SD:101:LEU:HD13	2.40	0.52
13:SQ:96:ILE:HG22	13:SQ:106:LEU:HD13	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:SP:122:ASP:N	46:LT:162:LYS:HE2	2.19	0.52
25:SC:160:PHE:CD2	32:S1:482:A:OP1	2.63	0.52
32:S1:348:A:P	46:LT:137:VAL:N	2.83	0.52
32:S1:622:U:H5''	32:S1:623:A:OP2	2.08	0.52
32:S1:1728:G:O6	32:S1:1729:A:N6	2.42	0.52
33:L1:698:A:H2'	33:L1:699:C:C6	2.45	0.52
33:L1:1983:U:H2'	33:L1:1984:C:C6	2.43	0.52
33:L1:3301:G:H4'	48:LV:70:THR:CB	2.39	0.52
34:L3:3:A:C6	34:L3:4:U:C4	2.98	0.52
36:LA:83:TYR:HE2	36:LA:86:VAL:HA	1.74	0.52
36:LA:110:LEU:HD23	36:LA:110:LEU:C	2.33	0.52
36:LA:189:LEU:HG	65:LL:193:UNK:CA	2.39	0.52
38:LE:19:LEU:HD12	38:LE:82:LEU:HD22	1.89	0.52
44:LR:128:LEU:CD2	81:LD:313:GLU:OE1	2.57	0.52
51:LY:81:VAL:HG12	51:LY:82:GLU:N	2.24	0.52
55:Lg:2:SER:H	55:Lg:90:GLU:HG3	1.73	0.52
66:LN:129:LYS:NZ	82:LK:182:LEU:HD21	2.25	0.52
67:LS:99:THR:CG2	67:LS:100:THR:HG22	2.37	0.52
73:Lp:52:LYS:HB2	73:Lp:53:ASN:C	2.35	0.52
81:LD:305:SER:O	81:LD:306:VAL:CG2	2.57	0.52
81:LD:358:LYS:HE2	81:LD:362:LYS:NZ	2.24	0.52
83:Lm:31:VAL:HA	83:Lm:34:HIS:CD2	2.44	0.52
2:SA:62:LEU:HD22	2:SA:178:LEU:HD11	1.92	0.52
4:SD:58:TYR:HB2	32:S1:451:U:P	2.50	0.52
4:SD:67:GLN:CB	4:SD:69:HIS:HD2	2.22	0.52
8:SJ:68:LYS:CE	32:S1:1524:A:C3'	2.58	0.52
9:SK:42:HIS:CE1	32:S1:922:U:H4'	2.43	0.52
11:SM:9:PHE:O	11:SM:10:GLN:HG3	2.09	0.52
11:SM:99:VAL:CG1	32:S1:1574:U:H4'	2.39	0.52
20:SZ:13:LYS:CE	32:S1:1254:U:OP1	2.57	0.52
32:S1:490:G:H1	32:S1:505:U:H3	1.57	0.52
32:S1:978:A:OP1	33:L1:852:C:N1	2.39	0.52
32:S1:1740:G:C2'	32:S1:1740:G:C4	2.93	0.52
33:L1:1567:G:C6	33:L1:1568:A:N3	2.78	0.52
33:L1:1716:G:H3'	46:LT:121:HIS:CE1	2.44	0.52
36:LA:150:THR:HG23	36:LA:150:THR:O	2.10	0.52
38:LE:14:ILE:HG22	38:LE:164:TRP:CG	2.44	0.52
38:LE:34:ARG:CA	38:LE:34:ARG:HB2	2.18	0.52
55:Lg:86:LYS:HB3	55:Lg:87:ARG:HD2	1.92	0.52
66:LN:32:ASP:H	67:LS:145:HIS:CG	2.27	0.52
68:LW:37:GLU:HG3	68:LW:40:SER:H	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:Le:40:ALA:CB	81:LD:362:LYS:HG2	2.38	0.52
79:Ls:116:VAL:HG22	79:Ls:175:SER:HB3	1.91	0.52
82:LK:19:HIS:HA	82:LK:128:ALA:HA	1.92	0.52
84:LI:110:ARG:HG3	84:LI:116:ARG:CZ	2.40	0.52
1:Sa:68:LYS:HD3	1:Sa:364:TRP:CD2	2.43	0.52
2:SA:65:ALA:HB2	2:SA:165:ILE:CD1	2.40	0.52
4:SD:114:VAL:HG12	4:SD:115:LYS:N	2.24	0.52
11:SM:18:THR:HA	38:LE:109:GLN:HE22	1.74	0.52
27:SH:65:LEU:CD2	27:SH:70:ASN:CB	2.88	0.52
32:S1:860:A:H1'	46:LT:173:LYS:HD2	0.52	0.52
32:S1:860:A:H2'	32:S1:861:A:C4'	2.38	0.52
32:S1:890:G:H2'	32:S1:891:U:C6	2.44	0.52
32:S1:1747:A:C1'	33:L1:1930:G:C2	2.93	0.52
32:S1:1747:A:C2'	33:L1:1915:G:H2'	2.39	0.52
33:L1:716:A:O4'	33:L1:716:A:N9	2.37	0.52
33:L1:1896:A:H61	33:L1:1904:A:H61	1.57	0.52
33:L1:3106:U:C5	33:L1:3129:G:C2	2.98	0.52
33:L1:3158:C:H2'	33:L1:3159:C:C6	2.45	0.52
34:L3:55:A:C5	34:L3:56:G:C8	2.97	0.52
37:LB:158:VAL:HG22	37:LB:162:CYS:SG	2.49	0.52
38:LE:31:ARG:HG3	38:LE:34:ARG:CB	2.40	0.52
38:LE:41:GLN:NE2	38:LE:119:ASP:HB3	2.24	0.52
38:LE:86:LEU:HA	38:LE:89:LYS:HZ1	1.75	0.52
56:Lh:94:CYS:CB	56:Lh:120:VAL:HG11	2.38	0.52
66:LN:64:ARG:HH11	67:LS:154:VAL:HG21	1.74	0.52
70:Li:111:LYS:CG	70:Li:112:THR:H	2.21	0.52
75:Lt:7:ALA:CA	76:Lv:12:LEU:HD22	2.40	0.52
75:Lt:23:THR:HG22	75:Lt:26:LYS:HD3	1.92	0.52
76:Lw:51:ILE:HG23	79:Ls:244:PHE:CZ	2.44	0.52
2:SA:116:LEU:N	2:SA:116:LEU:HD12	2.24	0.52
4:SD:208:ILE:HG22	4:SD:220:THR:O	2.09	0.52
5:SE:27:ARG:O	27:SH:69:LEU:HD21	2.08	0.52
5:SE:142:LYS:NZ	32:S1:1304:A:OP1	2.42	0.52
6:SF:40:LYS:HE2	7:SI:122:LEU:CD1	2.38	0.52
14:SP:45:THR:HG21	14:SP:47:ARG:NE	2.18	0.52
17:SV:96:HIS:HB2	17:SV:101:ILE:CG1	2.40	0.52
21:Sc:24:UNK:CB	33:L1:1921:U:P	2.97	0.52
31:S2:34:G:N2	32:S1:1645:C:C2	2.78	0.52
32:S1:354:G:H2'	32:S1:354:G:N3	2.24	0.52
32:S1:1083:C:C2	32:S1:1084:U:H1'	2.44	0.52
32:S1:1747:A:H2'	33:L1:1915:G:O2'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:563:C:OP2	64:LG:2:ALA:CB	2.53	0.52
33:L1:1342:C:H4'	56:Lh:61:ASP:OD1	2.09	0.52
33:L1:2647:C:C2	84:LI:115:MET:CE	2.93	0.52
33:L1:3005:C:N3	33:L1:3142:C:C5	2.78	0.52
34:L3:85:G:C5'	67:LS:120:PHE:CE1	2.93	0.52
36:LA:65:CYS:SG	36:LA:67:LEU:HD11	2.49	0.52
36:LA:69:ASP:OD2	36:LA:144:GLU:HG3	2.09	0.52
41:LM:72:LEU:HD21	41:LM:113:LYS:HZ3	1.74	0.52
44:LR:131:PRO:HB3	81:LD:318:GLU:OE2	2.08	0.52
55:Lg:1:MET:H1	55:Lg:90:GLU:HA	1.74	0.52
64:LG:91:LYS:CB	64:LG:152:LYS:HG2	2.40	0.52
66:LN:85:GLU:HA	66:LN:91:LYS:HD3	1.92	0.52
69:La:25:ILE:HG12	69:La:27:ARG:CA	2.40	0.52
75:Lt:49:LEU:HD21	79:Ls:232:ILE:O	2.09	0.52
78:Le:36:LYS:HE3	78:Le:185:ASP:OD2	2.09	0.52
82:LK:135:GLN:CB	82:LK:135:GLN:N	2.67	0.52
2:SA:135:HIS:O	2:SA:138:ILE:HG12	2.10	0.52
13:SQ:98:VAL:HG13	13:SQ:99:ASP:H	1.75	0.52
24:SX:40:GLN:HG2	24:SX:41:GLY:N	2.25	0.52
26:SG:10:UNK:C	26:SG:11:UNK:CB	2.86	0.52
32:S1:988:G:O3'	37:LB:176:GLU:N	2.42	0.52
32:S1:1462:C:O4'	32:S1:1462:C:C6	2.63	0.52
32:S1:1588:C:H2'	32:S1:1589:C:C5	2.45	0.52
33:L1:82:C:N3	33:L1:83:U:C4	2.78	0.52
33:L1:507:C:H5'	64:LG:62:SER:O	2.10	0.52
33:L1:513:C:H42	33:L1:564:A:H61	1.57	0.52
33:L1:752:U:H2'	33:L1:753:G:C8	2.45	0.52
33:L1:1034:U:C2	33:L1:1035:C:C2	2.98	0.52
33:L1:2218:A:C6	33:L1:2219:A:C2	2.98	0.52
33:L1:2458:A:H62	33:L1:2484:G:H22	1.58	0.52
33:L1:2493:C:H1'	36:LA:209:MET:O	2.09	0.52
33:L1:3227:U:O4'	33:L1:3227:U:N1	2.41	0.52
34:L3:8:A:H61	34:L3:111:U:H3	1.57	0.52
34:L3:27:A:H61	34:L3:52:U:H3	1.57	0.52
34:L3:35:C:H1'	45:LQ:200:TYR:CZ	2.44	0.52
36:LA:76:ALA:O	36:LA:79:MET:HB3	2.10	0.52
42:LP:160:GLU:CD	42:LP:160:GLU:H	2.16	0.52
55:Lg:52:MET:HE1	55:Lg:85:ARG:HB3	1.90	0.52
66:LN:3:PHE:CZ	66:LN:51:LYS:HA	2.45	0.52
4:SD:195:ILE:CG1	4:SD:208:ILE:HD11	2.39	0.52
14:SP:86:ILE:O	14:SP:112:VAL:HG13	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:SU:33:LEU:HD12	23:SU:35:PRO:HD2	1.90	0.52
24:SX:74:ARG:C	24:SX:75:LEU:CD2	2.82	0.52
32:S1:181:C:C2'	32:S1:182:C:H5'	2.39	0.52
32:S1:206:U:H2'	32:S1:207:A:C8	2.44	0.52
32:S1:1674:C:H4'	33:L1:1913:C:O2'	2.08	0.52
32:S1:1747:A:C1'	33:L1:1915:G:C2'	2.87	0.52
33:L1:58:G:C2	35:L2:37:A:C2	2.98	0.52
33:L1:682:G:H2'	33:L1:683:U:C6	2.44	0.52
33:L1:711:A:N6	33:L1:720:G:O2'	2.43	0.52
33:L1:1637:G:OP2	69:La:25:ILE:HB	2.09	0.52
33:L1:1637:G:C3'	69:La:25:ILE:HG21	2.32	0.52
33:L1:1719:U:O4	46:LT:128:LYS:CE	2.57	0.52
33:L1:2772:A:H5''	60:Lr:80:TYR:CZ	2.44	0.52
33:L1:3132:U:O2	33:L1:3132:U:H2'	2.10	0.52
34:L3:6:C:O2'	45:LQ:47:LYS:CE	2.58	0.52
34:L3:46:C:O2'	45:LQ:200:TYR:CE1	2.52	0.52
44:LR:40:THR:HA	81:LD:325:LYS:HB2	1.91	0.52
48:LV:142:SER:O	48:LV:144:PRO:HD3	2.09	0.52
51:LY:90:ASN:CG	51:LY:92:SER:H	2.17	0.52
67:LS:12:VAL:HG21	67:LS:61:LEU:HD13	1.92	0.52
75:Lt:29:THR:C	76:Lv:29:SER:OG	2.53	0.52
81:LD:385:MET:C	81:LD:386:ILE:HG13	2.35	0.52
1:Sa:121:GLN:O	1:Sa:137:LEU:HG	2.10	0.52
1:Sa:128:LEU:HG	1:Sa:159:TYR:HB2	1.92	0.52
2:SA:74:ASN:OD1	5:SE:66:TYR:CD2	2.62	0.52
4:SD:102:LEU:HD22	4:SD:112:GLN:NE2	2.25	0.52
5:SE:247:SER:HB3	5:SE:248:PRO:HD3	1.91	0.52
5:SE:258:LYS:HZ1	27:SH:69:LEU:CG	2.04	0.52
9:SK:35:SER:HB2	9:SK:100:GLY:HA3	1.92	0.52
10:SL:43:SER:O	10:SL:61:PRO:HD2	2.10	0.52
10:SL:75:LYS:O	10:SL:76:ASN:HB2	2.10	0.52
12:SO:109:LYS:CE	83:Lm:77:VAL:CG1	2.86	0.52
14:SP:88:ARG:NH2	33:L1:2083:U:P	2.82	0.52
15:SS:2:ALA:HB2	32:S1:1364:C:H5'	1.84	0.52
25:SC:104:GLU:HB3	32:S1:670:C:H4'	1.91	0.52
26:SG:81:UNK:O	26:SG:82:UNK:O	2.27	0.52
27:SH:101:TYR:CE2	27:SH:129:PHE:HB3	2.45	0.52
29:ST:49:PHE:CD1	29:ST:65:ASP:HB3	2.45	0.52
32:S1:1747:A:N7	33:L1:1930:G:N2	2.57	0.52
33:L1:618:G:C3'	33:L1:619:C:H5'	2.38	0.52
33:L1:1262:U:OP2	79:Ls:49:ARG:NH1	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1368:U:C5'	44:LR:5:LEU:HD22	2.40	0.52
33:L1:1476:G:H2'	33:L1:1477:A:C8	2.45	0.52
33:L1:1637:G:O5'	69:La:25:ILE:HG22	2.09	0.52
33:L1:1948:G:H2'	33:L1:1949:G:H5'	1.91	0.52
33:L1:2418:A:O4'	33:L1:2418:A:N9	2.40	0.52
33:L1:2707:A:H4'	45:LQ:35:ARG:CG	2.37	0.52
33:L1:3334:A:O4'	33:L1:3334:A:C8	2.62	0.52
34:L3:7:G:H1	34:L3:112:U:H3	1.57	0.52
34:L3:7:G:C5'	45:LQ:37:ARG:CD	2.81	0.52
34:L3:19:A:H61	34:L3:59:U:H3	1.56	0.52
36:LA:49:SER:O	36:LA:195:LYS:HE3	2.10	0.52
37:LB:104:ILE:HG22	37:LB:160:SER:C	2.34	0.52
46:LT:56:LYS:HD3	46:LT:57:ILE:H	1.75	0.52
51:LY:53:ASP:OD2	51:LY:108:LEU:HD22	2.10	0.52
51:LY:56:GLN:O	51:LY:103:VAL:HG23	2.10	0.52
75:Lt:60:LEU:HD23	75:Lt:60:LEU:O	2.10	0.52
81:LD:306:VAL:HG12	81:LD:308:LYS:N	2.24	0.52
14:SP:56:ASP:C	46:LT:142:ILE:O	2.53	0.51
27:SH:7:LEU:HA	27:SH:24:GLN:OE1	2.10	0.51
27:SH:44:HIS:CE1	27:SH:64:GLU:HA	2.45	0.51
27:SH:65:LEU:HB2	27:SH:70:ASN:HA	1.92	0.51
31:S2:24:A:C2	33:L1:2260:C:O3'	2.63	0.51
32:S1:1759:A:O4'	32:S1:1759:A:N9	2.40	0.51
32:S1:1783:C:O4'	32:S1:1783:C:C6	2.63	0.51
33:L1:1034:U:H3'	33:L1:1035:C:H6	1.75	0.51
33:L1:1183:C:OP1	71:Lj:11:LEU:CG	2.58	0.51
33:L1:3151:C:C5'	80:LC:134:ALA:HB2	2.40	0.51
35:L2:99:G:H3'	35:L2:99:G:C8	2.44	0.51
37:LB:30:ARG:HE	37:LB:71:HIS:CE1	2.29	0.51
40:LH:96:ARG:C	40:LH:98:GLU:N	2.68	0.51
55:Lg:1:MET:SD	55:Lg:52:MET:HB3	2.50	0.51
55:Lg:2:SER:CA	55:Lg:4:LYS:H	2.23	0.51
70:Li:81:VAL:CG1	70:Li:82:LEU:HA	2.40	0.51
79:Ls:35:ASN:C	79:Ls:188:TYR:CD1	2.89	0.51
4:SD:175:PHE:CE1	4:SD:208:ILE:HG13	2.46	0.51
4:SD:210:VAL:HG12	4:SD:211:GLU:N	2.25	0.51
6:SF:66:GLU:O	6:SF:70:ASN:HB2	2.09	0.51
14:SP:71:ILE:HD11	27:SH:84:LYS:HD2	1.93	0.51
14:SP:92:LEU:C	46:LT:151:ARG:NE	2.68	0.51
15:SS:2:ALA:CB	32:S1:1363:G:O3'	2.59	0.51
17:SV:68:GLU:HA	17:SV:78:ARG:NH2	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:SU:15:ARG:H	23:SU:29:VAL:HG12	1.75	0.51
27:SH:102:ILE:HD12	27:SH:128:PHE:HE1	1.75	0.51
32:S1:956:A:C8	54:Lf:9:LYS:HB2	2.31	0.51
32:S1:977:G:C4'	33:L1:850:A:N6	2.73	0.51
33:L1:686:A:H3'	33:L1:687:C:C5	2.46	0.51
33:L1:803:G:O2'	33:L1:804:A:C8	2.63	0.51
33:L1:841:G:H2'	33:L1:842:C:C6	2.45	0.51
33:L1:1147:U:O2'	33:L1:1148:G:P	2.68	0.51
33:L1:3236:A:H3'	33:L1:3237:G:C8	2.45	0.51
34:L3:83:A:N1	34:L3:93:U:O2	2.44	0.51
35:L2:158:G:C8	35:L2:158:G:H3'	2.45	0.51
37:LB:209:HIS:HD2	37:LB:211:HIS:H	1.58	0.51
38:LE:14:ILE:HG21	38:LE:164:TRP:CB	2.39	0.51
41:LM:67:LYS:HA	41:LM:73:ARG:NH2	2.25	0.51
42:LP:6:TYR:CE1	72:Lk:100:MET:HB3	2.46	0.51
44:LR:128:LEU:HD22	81:LD:313:GLU:OE1	2.10	0.51
55:Lg:15:VAL:H	55:Lg:86:LYS:CG	2.03	0.51
81:LD:309:PRO:O	81:LD:312:LYS:N	2.44	0.51
1:Sa:97:THR:C	1:Sa:98:SER:CA	2.84	0.51
2:SA:147:PRO:HD3	5:SE:76:GLN:CG	2.35	0.51
12:SO:97:ALA:CB	54:Lf:19:GLN:CD	2.84	0.51
14:SP:64:THR:HG22	14:SP:100:ARG:CZ	2.41	0.51
17:SV:96:HIS:CD2	17:SV:101:ILE:CA	2.50	0.51
23:SU:34:HIS:N	23:SU:35:PRO:HG2	2.24	0.51
32:S1:119:U:C2	32:S1:303:A:N1	2.78	0.51
33:L1:899:A:H4'	37:LB:186:TYR:CD2	2.46	0.51
33:L1:915:G:C6	33:L1:917:A:C2	2.98	0.51
33:L1:2405:C:H2'	33:L1:2406:C:C6	2.45	0.51
33:L1:2582:G:H3'	40:LH:60:ARG:HH11	1.75	0.51
33:L1:2724:A:O4'	33:L1:2724:A:N9	2.37	0.51
33:L1:3002:U:H2'	33:L1:3003:C:C6	2.45	0.51
34:L3:114:C:O2'	45:LQ:74:ILE:C	2.51	0.51
36:LA:178:ILE:HG23	36:LA:179:GLN:N	2.24	0.51
36:LA:211:LYS:H	36:LA:211:LYS:CD	2.24	0.51
40:LH:127:VAL:HB	40:LH:198:THR:HG23	1.92	0.51
48:LV:113:LEU:HD12	48:LV:155:GLU:N	2.25	0.51
49:LX:75:TYR:HB3	77:Lc:34:ARG:HB3	1.92	0.51
51:LY:56:GLN:O	51:LY:103:VAL:HG22	2.10	0.51
56:Lh:83:LEU:HB3	56:Lh:116:LEU:HD11	1.92	0.51
56:Lh:90:ASN:OD1	56:Lh:118:ILE:CG1	2.57	0.51
64:LG:184:ILE:C	64:LG:185:ASP:CB	2.83	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:Lu:10:LEU:HB3	76:Lw:9:LEU:HB2	1.91	0.51
75:Lu:23:THR:HG22	75:Lu:26:LYS:HD3	1.92	0.51
1:Sa:364:TRP:CE3	32:S1:1398:U:C4'	2.92	0.51
2:SA:116:LEU:H	2:SA:116:LEU:CD1	2.22	0.51
3:SB:24:MET:HE2	3:SB:76:ARG:HG3	1.92	0.51
4:SD:208:ILE:HD13	4:SD:208:ILE:C	2.34	0.51
5:SE:183:ARG:NH1	5:SE:251:GLU:OE2	2.44	0.51
5:SE:197:LEU:HD22	32:S1:1092:A:P	2.49	0.51
6:SF:73:MET:HE1	32:S1:1618:G:H4'	1.93	0.51
7:SI:93:LYS:O	7:SI:96:VAL:HG12	2.10	0.51
12:SO:64:LYS:HE3	12:SO:73:ARG:HA	1.92	0.51
15:SS:5:THR:HA	15:SS:139:GLY:HA2	1.91	0.51
27:SH:65:LEU:HD23	27:SH:70:ASN:HA	1.87	0.51
32:S1:1686:C:OP1	50:LZ:71:LYS:HB3	2.11	0.51
32:S1:1748:U:H6	33:L1:1929:A:N1	2.08	0.51
33:L1:70:A:H4'	33:L1:71:C:C6	2.45	0.51
33:L1:884:C:O2	33:L1:1846:A:H2'	2.10	0.51
33:L1:1194:C:C4	33:L1:1318:C:C5	2.98	0.51
33:L1:2059:C:C3'	33:L1:2060:C:H5'	2.39	0.51
33:L1:2157:C:H42	33:L1:2164:G:H1	1.58	0.51
33:L1:2380:G:H5''	82:LK:96:LYS:NZ	2.25	0.51
33:L1:2584:U:H2'	33:L1:2585:C:C5	2.45	0.51
33:L1:2610:G:C8	37:LB:230:PRO:CG	2.94	0.51
33:L1:3157:C:H2'	33:L1:3158:C:C6	2.45	0.51
34:L3:113:G:O2'	45:LQ:71:ALA:CA	2.57	0.51
35:L2:96:A:H2'	35:L2:97:U:H5'	1.91	0.51
36:LA:67:LEU:HG	36:LA:104:LYS:CG	2.40	0.51
36:LA:106:TYR:CE2	36:LA:140:GLN:HG2	2.45	0.51
52:Lb:78:LYS:HG3	52:Lb:104:LYS:HZ3	1.76	0.51
55:Lg:15:VAL:HG21	55:Lg:86:LYS:HZ3	1.75	0.51
64:LG:87:ARG:HB3	64:LG:89:MET:O	2.11	0.51
66:LN:41:PRO:HG3	66:LN:75:MET:HG3	0.56	0.51
67:LS:28:ARG:HE	78:Le:74:LYS:HD3	1.74	0.51
67:LS:28:ARG:CA	78:Le:74:LYS:HB2	2.41	0.51
67:LS:28:ARG:HH11	78:Le:71:ALA:C	2.19	0.51
72:Lk:96:VAL:HA	72:Lk:99:LYS:HB2	1.92	0.51
75:Lu:30:VAL:HG13	76:Lw:26:ILE:HG23	1.93	0.51
11:SM:12:ILE:CD1	38:LE:120:PRO:CB	2.89	0.51
12:SO:58:HIS:CD2	12:SO:59:GLY:H	2.27	0.51
12:SO:101:HIS:HA	54:Lf:74:PHE:CZ	2.46	0.51
12:SO:103:GLU:HG3	54:Lf:80:ASP:OD2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:SV:68:GLU:HA	17:SV:78:ARG:CZ	2.39	0.51
17:SV:72:ILE:O	17:SV:72:ILE:CG2	2.51	0.51
27:SH:106:THR:HG22	27:SH:121:VAL:HG12	1.93	0.51
32:S1:148:C:N3	32:S1:162:A:N1	2.58	0.51
32:S1:1747:A:C2'	33:L1:1915:G:C2'	2.89	0.51
33:L1:794:G:H2'	33:L1:795:C:C6	2.46	0.51
35:L2:39:C:H3'	77:Lc:92:ILE:HD13	1.93	0.51
35:L2:102:U:OP1	77:Lc:67:ARG:NH2	2.42	0.51
36:LA:123:LEU:HD23	36:LA:123:LEU:C	2.35	0.51
37:LB:104:ILE:CD1	37:LB:148:ILE:HD11	2.34	0.51
38:LE:156:VAL:HG12	38:LE:157:THR:N	2.23	0.51
44:LR:33:TYR:CD2	44:LR:36:LEU:HD21	2.45	0.51
52:Lb:123:ARG:NH1	56:Lh:87:MET:HE2	2.26	0.51
56:Lh:14:ARG:HG2	56:Lh:14:ARG:HH11	1.76	0.51
59:Lo:34:THR:HG23	59:Lo:34:THR:O	2.11	0.51
67:LS:61:LEU:HA	78:Le:79:VAL:HG11	1.92	0.51
67:LS:123:ILE:H	67:LS:123:ILE:HD13	1.74	0.51
79:Ls:10:LYS:HB3	79:Ls:13:ALA:HB3	1.92	0.51
81:LD:309:PRO:CB	81:LD:313:GLU:CD	2.83	0.51
2:SA:116:LEU:HD12	2:SA:116:LEU:H	1.76	0.51
2:SA:128:LEU:HD23	2:SA:128:LEU:C	2.35	0.51
6:SF:95:ILE:HG23	17:SV:63:PRO:HG3	1.92	0.51
17:SV:36:LYS:HD3	17:SV:42:LEU:HD11	1.93	0.51
17:SV:63:PRO:CD	17:SV:63:PRO:O	2.59	0.51
25:SC:148:PHE:CE2	32:S1:483:C:OP2	2.63	0.51
27:SH:65:LEU:HB3	27:SH:71:LYS:H	1.76	0.51
33:L1:639:A:C2	33:L1:2374:G:O6	2.64	0.51
33:L1:1025:G:H2'	33:L1:1026:A:C8	2.45	0.51
33:L1:1131:U:O4'	33:L1:1131:U:C6	2.64	0.51
33:L1:1528:G:H1'	33:L1:1825:G:C2	2.46	0.51
33:L1:1880:A:C8	33:L1:1881:C:C5	2.98	0.51
34:L3:23:A:O2'	34:L3:24:G:H4'	2.11	0.51
34:L3:64:G:H2'	34:L3:65:G:C8	2.45	0.51
35:L2:119:C:H2'	35:L2:120:G:C8	2.46	0.51
36:LA:112:SER:HA	36:LA:115:ILE:HG23	1.92	0.51
36:LA:192:LEU:H	36:LA:195:LYS:HD2	1.76	0.51
54:Lf:39:ARG:HH12	70:Li:66:ARG:CA	2.23	0.51
78:Le:39:ALA:HB3	81:LD:358:LYS:NZ	2.26	0.51
80:LC:267:VAL:HG22	80:LC:269:ARG:HH11	1.76	0.51
2:SA:78:ILE:CG1	2:SA:125:LEU:HD11	2.41	0.51
4:SD:93:PRO:O	4:SD:94:LYS:C	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:SD:101:LEU:CD2	4:SD:109:PHE:HD2	2.22	0.51
4:SD:200:LYS:HE3	32:S1:741:C:OP1	2.11	0.51
5:SE:142:LYS:CD	32:S1:1304:A:OP1	2.59	0.51
9:SK:37:ASN:O	9:SK:101:GLY:HA2	2.11	0.51
9:SK:99:THR:HA	9:SK:124:LYS:HD2	1.92	0.51
11:SM:18:THR:N	38:LE:109:GLN:HE22	2.09	0.51
12:SO:69:SER:CA	24:SX:49:PHE:CE2	2.93	0.51
17:SV:93:VAL:HG12	17:SV:94:SER:O	2.10	0.51
21:Sc:2:UNK:CB	32:S1:1783:C:OP1	2.59	0.51
27:SH:15:TYR:CE2	27:SH:65:LEU:HD23	2.44	0.51
27:SH:79:PHE:HZ	27:SH:83:VAL:HG11	1.75	0.51
32:S1:887:U:H6	83:Lm:85:ARG:NH2	1.73	0.51
32:S1:1422:G:H2'	32:S1:1423:A:C8	2.44	0.51
32:S1:1615:G:H3'	32:S1:1616:U:C5	2.46	0.51
33:L1:1024:G:H2'	33:L1:1025:G:C8	2.46	0.51
33:L1:1042:C:H2'	33:L1:1043:U:C6	2.45	0.51
33:L1:1241:G:N2	33:L1:1255:A:C8	2.74	0.51
33:L1:1478:A:C4'	55:Lg:65:LYS:NZ	2.74	0.51
33:L1:1800:G:H1'	69:La:56:LYS:CG	2.40	0.51
33:L1:3301:G:H5''	48:LV:71:ALA:CA	2.40	0.51
34:L3:34:C:H2'	34:L3:35:C:H6	1.76	0.51
36:LA:43:GLN:HG2	36:LA:44:LYS:H	1.76	0.51
36:LA:115:ILE:O	36:LA:118:GLN:HB2	2.10	0.51
39:LF:2:LYS:HZ2	66:LN:5:ARG:HE	1.58	0.51
2:SA:126:LEU:HD23	2:SA:127:ILE:N	2.25	0.51
3:SB:44:MET:HG3	3:SB:80:LEU:CD1	2.40	0.51
15:SS:5:THR:CB	15:SS:139:GLY:HA2	2.41	0.51
17:SV:48:TYR:CE1	17:SV:81:ILE:C	2.77	0.51
30:S3:17:A:H3'	30:S3:18:C:C6	2.46	0.51
33:L1:1513:C:O4'	33:L1:1513:C:N1	2.41	0.51
33:L1:2197:C:H2'	33:L1:2198:U:C6	2.46	0.51
34:L3:108:G:H2'	34:L3:109:U:H5'	1.93	0.51
51:LY:72:VAL:CG1	51:LY:79:ILE:HG22	2.40	0.51
56:Lh:87:MET:HE3	56:Lh:116:LEU:HA	1.93	0.51
60:Lr:59:HIS:CD2	60:Lr:60:LYS:O	2.64	0.51
66:LN:14:LEU:HD13	66:LN:15:VAL:N	2.26	0.51
71:Lj:95:PRO:O	71:Lj:96:THR:CG2	2.59	0.51
79:Ls:150:ILE:HD13	79:Ls:155:VAL:HG12	1.93	0.51
2:SA:65:ALA:HB1	2:SA:165:ILE:HD11	1.93	0.51
10:SL:50:VAL:HG22	10:SL:51:LEU:H	1.76	0.51
11:SM:11:HIS:C	38:LE:117:LYS:HZ3	2.15	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:SQ:38:VAL:HG12	13:SQ:39:SER:N	2.22	0.51
15:SS:2:ALA:CA	32:S1:1364:C:H5'	2.41	0.51
27:SH:65:LEU:CD2	27:SH:70:ASN:HD22	2.23	0.51
32:S1:857:A:C4	46:LT:176:ARG:NH2	2.78	0.51
33:L1:49:U:O4'	33:L1:49:U:C6	2.64	0.51
33:L1:1672:G:H3'	68:LW:83:ARG:HG3	1.93	0.51
33:L1:2154:G:H2'	33:L1:2155:G:C8	2.46	0.51
34:L3:56:G:C5	34:L3:57:C:C5	2.99	0.51
70:Li:51:ILE:HG13	70:Li:67:LEU:HD22	1.93	0.51
75:Lt:18:ASP:HA	76:Lv:2:LYS:HE2	0.55	0.51
76:Lv:4:ILE:HD11	79:Ls:218:PHE:HA	1.93	0.51
79:Ls:27:LYS:HE2	79:Ls:98:LEU:H	1.75	0.51
79:Ls:137:GLN:HE21	79:Ls:137:GLN:HA	1.75	0.51
79:Ls:163:LEU:HD21	79:Ls:174:GLU:HG3	1.93	0.51
1:Sa:282:HIS:CD2	1:Sa:283:GLN:H	2.28	0.51
2:SA:109:PRO:HB3	32:S1:1325:A:C4	2.46	0.51
2:SA:127:ILE:CD1	2:SA:151:PHE:CZ	2.94	0.51
5:SE:15:PHE:HE2	5:SE:182:PRO:HG2	1.75	0.51
10:SL:41:ALA:HB1	10:SL:62:ASN:HA	1.88	0.51
12:SO:114:ARG:HD3	32:S1:945:A:H62	1.74	0.51
15:SS:10:LYS:H	15:SS:10:LYS:HD2	1.76	0.51
24:SX:76:THR:HG23	24:SX:76:THR:O	2.09	0.51
27:SH:14:MET:HG2	27:SH:19:LYS:HB2	1.93	0.51
31:S2:41:G:C3'	31:S2:42:C:H5''	2.40	0.51
32:S1:843:G:O2'	33:L1:2061:C:C3'	2.59	0.51
32:S1:956:A:OP1	54:Lf:12:GLU:N	2.44	0.51
32:S1:1675:G:H1'	33:L1:1932:A:N3	2.25	0.51
33:L1:692:U:H5'	81:LD:220:SER:HB3	1.92	0.51
33:L1:881:G:N2	33:L1:2982:U:H5'	2.26	0.51
33:L1:899:A:H5'	37:LB:183:GLY:CA	2.41	0.51
33:L1:2169:U:C2	33:L1:2170:G:N7	2.79	0.51
69:La:78:THR:HG22	70:Li:32:TYR:CZ	2.46	0.51
72:Lk:61:THR:HG22	72:Lk:74:LYS:HB2	1.93	0.51
79:Ls:130:ASN:ND2	79:Ls:132:GLY:H	2.09	0.51
2:SA:72:ILE:HD12	5:SE:66:TYR:HE1	1.52	0.50
2:SA:76:GLN:CG	2:SA:78:ILE:HD11	2.41	0.50
2:SA:120:PHE:HE1	5:SE:102:GLY:C	2.18	0.50
2:SA:232:VAL:HG12	2:SA:233:ALA:N	2.26	0.50
4:SD:153:ILE:HG23	4:SD:154:ILE:CG1	2.41	0.50
6:SF:134:ALA:O	19:SY:41:ASN:HB2	2.10	0.50
11:SM:12:ILE:HD11	38:LE:120:PRO:HB2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:SH:11:LEU:O	27:SH:15:TYR:HD1	1.94	0.50
29:ST:36:ILE:HG23	29:ST:49:PHE:HB2	1.92	0.50
31:S2:24:A:C2	33:L1:2260:C:H2'	2.46	0.50
31:S2:26:G:H8	33:L1:2260:C:H5''	1.70	0.50
31:S2:71:A:OP2	33:L1:2965:C:H1'	2.10	0.50
32:S1:1643:A:C8	32:S1:1643:A:H3'	2.46	0.50
33:L1:656:G:C6	33:L1:2360:A:C8	2.99	0.50
33:L1:677:U:H2'	33:L1:678:G:C8	2.46	0.50
33:L1:707:G:O4'	33:L1:707:G:N9	2.37	0.50
33:L1:963:U:O2	33:L1:963:U:H3'	2.11	0.50
33:L1:1025:G:H2'	33:L1:1026:A:H8	1.77	0.50
33:L1:1103:U:H5''	78:Le:120:LYS:HD3	1.92	0.50
33:L1:1181:A:C5'	71:Lj:70:CYS:HB2	2.32	0.50
33:L1:1261:C:N4	33:L1:1262:U:C5	2.79	0.50
33:L1:1317:G:H2'	33:L1:1318:C:C5	2.46	0.50
33:L1:2163:G:H2'	33:L1:2164:G:H8	1.76	0.50
33:L1:2176:A:OP1	37:LB:6:ARG:NH2	2.44	0.50
33:L1:2252:C:C6	33:L1:2252:C:H2'	2.46	0.50
33:L1:2398:A:H2'	33:L1:2399:G:O4'	2.10	0.50
34:L3:2:G:C2	34:L3:3:A:N6	2.79	0.50
34:L3:6:C:OP1	45:LQ:31:LYS:CD	2.59	0.50
34:L3:27:A:O2'	34:L3:55:A:N6	2.44	0.50
35:L2:43:G:OP2	77:Lc:85:ARG:NH2	2.44	0.50
36:LA:72:HIS:C	36:LA:73:VAL:HG23	2.36	0.50
36:LA:109:PHE:CG	36:LA:136:LEU:HD21	2.46	0.50
39:LF:92:ARG:NH1	63:Lz:5:UNK:CB	2.74	0.50
45:LQ:184:LYS:H	45:LQ:190:LEU:HG	1.76	0.50
51:LY:78:VAL:HG11	51:LY:97:GLY:HA3	1.93	0.50
67:LS:30:LYS:HD3	78:Le:72:ARG:HH21	1.75	0.50
69:La:70:CYS:HB2	69:La:74:LEU:HD12	1.93	0.50
75:Lu:7:ALA:N	76:Lw:12:LEU:HD23	2.18	0.50
78:Le:36:LYS:CA	78:Le:37:ILE:N	2.74	0.50
4:SD:44:LEU:HB2	4:SD:82:TYR:CD1	2.46	0.50
8:SJ:75:ARG:CG	8:SJ:88:ARG:H	2.09	0.50
16:SR:127:GLU:H	16:SR:127:GLU:CD	2.19	0.50
17:SV:78:ARG:HD2	17:SV:78:ARG:N	2.26	0.50
23:SU:22:LEU:H	23:SU:23:LEU:HG	1.75	0.50
27:SH:81:VAL:C	27:SH:83:VAL:HB	2.36	0.50
32:S1:258:U:H2'	32:S1:259:A:C8	2.46	0.50
32:S1:860:A:N7	32:S1:861:A:C2	2.80	0.50
32:S1:887:U:C4'	83:Lm:88:GLU:HG2	2.34	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:387:A:OP1	48:LV:2:VAL:HA	2.11	0.50
33:L1:1258:C:C1'	33:L1:1258:C:O2'	2.53	0.50
33:L1:1387:G:O2'	81:LD:144:ARG:NH2	2.45	0.50
33:L1:1526:A:H4'	49:LX:123:LEU:HG	1.93	0.50
33:L1:1826:G:C4	33:L1:1826:G:H2'	2.46	0.50
33:L1:2337:C:H5''	41:LM:51:ARG:HD2	1.92	0.50
33:L1:2507:U:H1'	72:Lk:85:ARG:NH2	2.26	0.50
33:L1:2700:A:C3'	33:L1:2701:G:P	2.96	0.50
33:L1:3050:A:H1'	80:LC:54:THR:O	2.11	0.50
36:LA:15:GLN:HG3	36:LA:177:GLN:HE22	1.76	0.50
36:LA:71:GLN:N	36:LA:79:MET:HE1	2.26	0.50
45:LQ:84:LEU:HD11	45:LQ:101:CYS:HB3	1.93	0.50
55:Lg:52:MET:CE	55:Lg:83:ILE:HG12	2.42	0.50
59:Lo:30:ARG:O	59:Lo:30:ARG:HG2	2.11	0.50
80:LC:67:LEU:O	80:LC:68:HIS:CG	2.64	0.50
81:LD:313:GLU:C	81:LD:318:GLU:HG3	2.36	0.50
1:Sa:99:GLN:HE21	1:Sa:99:GLN:CA	2.22	0.50
2:SA:110:GLY:O	2:SA:114:ASN:HB2	2.11	0.50
9:SK:103:LYS:HB3	9:SK:103:LYS:NZ	2.27	0.50
11:SM:55:ARG:NH1	17:SV:34:LYS:HB3	2.26	0.50
14:SP:42:GLY:O	14:SP:103:LYS:CE	2.59	0.50
14:SP:89:ARG:HE	46:LT:151:ARG:HH12	1.49	0.50
17:SV:78:ARG:O	17:SV:82:LYS:HG3	2.11	0.50
27:SH:33:VAL:HG13	27:SH:34:ILE:N	2.27	0.50
31:S2:70:G:H4'	33:L1:2966:G:C4'	2.40	0.50
31:S2:73:C:H4'	33:L1:2810:A:C5	2.46	0.50
32:S1:930:G:OP1	37:LB:135:ILE:CD1	2.58	0.50
32:S1:1673:C:H4'	33:L1:1914:C:C4'	2.37	0.50
33:L1:72:A:C2'	33:L1:72:A:C8	2.94	0.50
33:L1:299:G:C1'	33:L1:299:G:O2'	2.54	0.50
33:L1:372:A:H1'	33:L1:373:A:H5'	1.92	0.50
33:L1:428:G:H5''	71:Lj:95:PRO:HG3	1.92	0.50
33:L1:1879:A:C2'	33:L1:1880:A:H5'	2.39	0.50
33:L1:2676:A:OP1	38:LE:97:ASN:HA	2.12	0.50
33:L1:2774:A:OP1	60:Lr:79:HIS:CE1	2.64	0.50
33:L1:3315:A:H4'	55:Lg:21:THR:HB	1.93	0.50
36:LA:140:GLN:HE21	36:LA:144:GLU:HG3	1.76	0.50
41:LM:33:GLY:O	41:LM:68:GLY:O	2.30	0.50
65:LL:154:UNK:CB	65:LL:154:UNK:O	2.59	0.50
69:La:8:GLY:HA2	69:La:9:LYS:HD2	1.93	0.50
69:La:46:LEU:H	70:Li:46:VAL:HG12	1.74	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:Ls:98:LEU:HA	79:Ls:101:VAL:HG12	1.92	0.50
81:LD:378:GLY:C	81:LD:382:TYR:CD2	2.80	0.50
1:Sa:166:VAL:CG1	1:Sa:167:PRO:HD2	2.41	0.50
2:SA:257:ALA:HB1	2:SA:258:ILE:C	2.37	0.50
3:SB:29:LEU:O	3:SB:99:ILE:HD11	2.11	0.50
4:SD:101:LEU:CD2	4:SD:109:PHE:CD2	2.95	0.50
4:SD:180:VAL:HG12	4:SD:181:VAL:N	2.25	0.50
17:SV:93:VAL:CG1	17:SV:94:SER:H	2.25	0.50
24:SX:36:ASP:O	24:SX:79:CYS:HB2	2.11	0.50
32:S1:1172:G:H1	32:S1:1586:U:H3	1.59	0.50
32:S1:1739:U:O5'	32:S1:1739:U:H6	1.94	0.50
33:L1:267:G:N7	42:LP:14:LYS:HB3	2.26	0.50
33:L1:430:G:P	71:Lj:22:ARG:HG3	2.50	0.50
33:L1:641:C:N3	33:L1:642:C:C5	2.79	0.50
33:L1:720:G:H3'	43:LO:109:LYS:HB2	1.93	0.50
33:L1:3024:U:C5	33:L1:3032:G:N2	2.79	0.50
33:L1:3320:G:C4	33:L1:3322:A:C4	3.00	0.50
36:LA:57:ILE:CG2	36:LA:150:THR:HG21	2.41	0.50
36:LA:60:PRO:HB3	36:LA:150:THR:HB	1.94	0.50
36:LA:182:ILE:HG23	36:LA:183:GLN:N	2.27	0.50
42:LP:137:VAL:HG22	42:LP:152:CYS:HA	1.94	0.50
51:LY:50:ARG:HG3	51:LY:51:LYS:H	1.77	0.50
59:Lo:30:ARG:C	59:Lo:30:ARG:CG	2.83	0.50
71:Lj:37:GLU:HG3	71:Lj:38:GLY:H	1.75	0.50
79:Ls:112:ALA:HB3	79:Ls:188:TYR:HD2	1.74	0.50
83:Lm:77:VAL:HA	83:Lm:80:ARG:HE	1.75	0.50
10:SL:111:VAL:HG22	10:SL:112:GLY:H	1.76	0.50
13:SQ:40:ILE:HG22	13:SQ:41:LEU:HG	1.93	0.50
19:SY:47:ARG:N	19:SY:50:ASP:OD1	2.33	0.50
23:SU:19:THR:O	23:SU:95:TYR:HB2	2.12	0.50
24:SX:57:VAL:HG12	24:SX:58:CYS:O	2.11	0.50
25:SC:44:LEU:HB3	25:SC:45:TRP:CD1	2.46	0.50
27:SH:35:ILE:HG23	27:SH:36:LYS:N	2.26	0.50
31:S2:20:C:H3'	31:S2:21:A:H5'	1.93	0.50
32:S1:34:G:C6	32:S1:479:A:C2	3.00	0.50
32:S1:599:G:H2'	32:S1:600:C:C6	2.46	0.50
32:S1:928:A:H1'	37:LB:147:ARG:HH12	1.76	0.50
32:S1:988:G:O2'	37:LB:173:GLY:C	2.52	0.50
33:L1:422:G:N3	33:L1:2362:A:C2	2.80	0.50
33:L1:1478:A:C3'	55:Lg:65:LYS:HZ2	2.23	0.50
33:L1:1756:C:N3	33:L1:1764:G:N2	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2427:C:H42	33:L1:2604:A:H61	1.59	0.50
34:L3:32:A:C2	34:L3:34:C:N4	2.74	0.50
35:L2:95:C:H2'	35:L2:96:A:C8	2.46	0.50
36:LA:79:MET:HG2	36:LA:86:VAL:HG22	1.94	0.50
38:LE:34:ARG:CA	38:LE:34:ARG:HB3	2.18	0.50
48:LV:1:MET:CB	48:LV:16:LYS:HZ2	2.24	0.50
48:LV:35:ALA:CB	48:LV:58:ILE:HD12	2.42	0.50
48:LV:113:LEU:HD11	48:LV:153:GLU:C	2.36	0.50
64:LG:109:PRO:CB	64:LG:144:ASP:HA	2.42	0.50
66:LN:27:ILE:HD11	66:LN:55:LEU:CD2	2.42	0.50
81:LD:150:THR:HA	81:LD:151:VAL:HG13	1.92	0.50
84:LI:41:LYS:HG2	84:LI:44:ASP:OD2	2.12	0.50
3:SB:140:GLY:HA3	3:SB:148:LYS:H	1.76	0.50
4:SD:189:THR:HG22	4:SD:190:GLY:N	2.27	0.50
5:SE:31:ARG:NH2	27:SH:67:GLY:CA	2.74	0.50
9:SK:41:ILE:HG23	9:SK:115:LEU:HD13	1.93	0.50
9:SK:105:LYS:NZ	9:SK:131:VAL:HG22	2.27	0.50
10:SL:49:ILE:CG1	10:SL:50:VAL:H	2.24	0.50
11:SM:10:GLN:O	38:LE:118:TYR:HD2	1.83	0.50
27:SH:27:ILE:HG23	27:SH:30:SER:N	2.26	0.50
27:SH:35:ILE:O	27:SH:39:ILE:HG13	2.12	0.50
31:S2:39:G:P	32:S1:1006:A:C5'	2.82	0.50
33:L1:250:C:O4'	33:L1:250:C:C6	2.65	0.50
33:L1:428:G:H4'	71:Lj:95:PRO:N	2.27	0.50
33:L1:565:C:H2'	33:L1:566:G:H8	1.75	0.50
33:L1:1223:U:H5'	33:L1:1223:U:H6	1.76	0.50
33:L1:1241:G:H1'	33:L1:1255:A:H61	1.75	0.50
33:L1:1271:U:H2'	33:L1:1272:G:H5'	1.94	0.50
33:L1:1851:U:H4'	73:Lp:52:LYS:N	2.27	0.50
33:L1:2170:G:C6	37:LB:125:VAL:CG1	2.95	0.50
33:L1:2172:C:H2'	37:LB:132:ASP:OD2	2.12	0.50
36:LA:69:ASP:HB2	36:LA:83:TYR:CE2	2.47	0.50
36:LA:192:LEU:HB3	36:LA:195:LYS:HG3	1.93	0.50
40:LH:112:GLN:HE21	40:LH:128:VAL:HG11	1.76	0.50
43:LO:14:HIS:CG	43:LO:15:VAL:N	2.76	0.50
67:LS:12:VAL:HG23	67:LS:61:LEU:CB	2.38	0.50
67:LS:157:LYS:O	67:LS:161:PRO:HD2	2.12	0.50
69:La:12:ILE:HG23	69:La:22:LYS:HG3	1.93	0.50
69:La:31:GLU:CG	69:La:32:GLY:H	2.25	0.50
4:SD:166:THR:O	4:SD:167:ASN:HB2	2.12	0.50
5:SE:183:ARG:HH12	5:SE:251:GLU:CD	2.20	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:SM:18:THR:CA	38:LE:109:GLN:HE22	2.25	0.50
14:SP:44:LYS:HA	14:SP:102:GLU:O	2.11	0.50
15:SS:5:THR:CG2	15:SS:139:GLY:HA2	2.41	0.50
17:SV:96:HIS:CB	17:SV:101:ILE:HG12	2.42	0.50
18:SW:114:UNK:O	18:SW:118:UNK:N	2.44	0.50
27:SH:38:LEU:HD11	27:SH:45:GLY:N	2.27	0.50
32:S1:184:C:N3	32:S1:196:G:N2	2.53	0.50
32:S1:918:G:N2	33:L1:2202:A:OP2	2.36	0.50
32:S1:922:U:C5	32:S1:923:U:C5	3.00	0.50
33:L1:328:G:N2	33:L1:329:G:O6	2.40	0.50
33:L1:355:C:C4'	81:LD:87:GLY:HA3	2.42	0.50
33:L1:1722:G:C2	33:L1:1785:G:H5'	2.47	0.50
33:L1:1750:A:OP1	58:Ln:64:LEU:HD12	2.12	0.50
33:L1:2740:C:OP1	47:LU:69:LYS:C	2.54	0.50
34:L3:2:G:H2'	34:L3:3:A:N7	2.27	0.50
34:L3:3:A:C6	34:L3:25:G:O6	2.64	0.50
35:L2:42:U:H2'	77:Lc:90:ARG:HG3	1.94	0.50
36:LA:53:LYS:O	36:LA:54:LEU:HD12	2.11	0.50
36:LA:106:TYR:CE1	36:LA:143:LEU:CG	2.94	0.50
52:Lb:123:ARG:NH1	56:Lh:90:ASN:ND2	2.60	0.50
54:Lf:55:LEU:HD21	69:La:72:LEU:HA	1.94	0.50
67:LS:148:ASP:HA	67:LS:153:LEU:HB2	1.93	0.50
69:La:10:ALA:O	69:La:11:VAL:HG22	2.12	0.50
71:Lj:72:TRP:NE1	82:LK:30:LYS:HE3	2.23	0.50
75:Lt:48:LYS:HZ3	76:Lw:35:ASP:CB	2.24	0.50
1:Sa:233:TRP:CE3	1:Sa:241:ALA:HB2	2.47	0.50
2:SA:238:PRO:O	2:SA:239:ALA:O	2.29	0.50
5:SE:197:LEU:CD2	32:S1:1092:A:P	2.98	0.50
6:SF:162:ILE:CG2	17:SV:69:ARG:HH11	2.24	0.50
10:SL:111:VAL:HG22	10:SL:112:GLY:N	2.27	0.50
26:SG:8:UNK:CA	46:LT:187:ARG:N	2.75	0.50
27:SH:38:LEU:CD2	27:SH:46:TYR:CD1	2.95	0.50
27:SH:52:PHE:O	27:SH:52:PHE:HD2	1.95	0.50
27:SH:81:VAL:HG13	27:SH:124:LYS:NZ	2.26	0.50
31:S2:13:U:C6	33:L1:2245:G:N2	2.80	0.50
31:S2:70:G:H5'	33:L1:2966:G:C5'	2.39	0.50
32:S1:188:U:H3	32:S1:192:G:H1	1.59	0.50
32:S1:222:G:N3	33:L1:2063:U:OP1	2.45	0.50
32:S1:990:G:O3'	37:LB:133:TYR:CG	2.46	0.50
33:L1:250:C:C2	33:L1:251:G:C4	3.00	0.50
33:L1:250:C:H2'	33:L1:251:G:C1'	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1192:A:O2'	82:LK:138:HIS:CD2	2.65	0.50
33:L1:2501:U:H2'	33:L1:2502:U:C6	2.47	0.50
33:L1:2504:A:H3'	33:L1:2505:C:C6	2.46	0.50
33:L1:3233:C:H3'	33:L1:3234:G:C5'	2.41	0.50
34:L3:55:A:C2	38:LE:140:VAL:CG2	2.92	0.50
36:LA:106:TYR:HE2	36:LA:140:GLN:HA	1.73	0.50
39:LF:160:ILE:HG22	39:LF:178:ILE:HG21	1.94	0.50
49:LX:125:ARG:NE	49:LX:125:ARG:HA	2.27	0.50
67:LS:26:ILE:HD13	78:Le:75:GLY:O	2.12	0.50
2:SA:107:HIS:CE1	2:SA:137:PRO:HB3	2.46	0.50
6:SF:94:GLU:HG3	17:SV:102:TYR:OH	2.11	0.50
14:SP:88:ARG:NH1	33:L1:2083:U:O5'	2.44	0.50
15:SS:7:ARG:C	15:SS:9:VAL:N	2.67	0.50
15:SS:9:VAL:HG22	15:SS:135:ASP:CA	2.36	0.50
31:S2:24:A:N1	33:L1:2260:C:H2'	2.27	0.50
32:S1:1189:U:H4'	32:S1:1190:U:H5''	1.94	0.50
33:L1:292:A:P	72:Lk:68:LYS:HZ1	2.31	0.50
33:L1:304:A:H5''	72:Lk:65:LYS:NZ	2.27	0.50
33:L1:305:G:H5''	72:Lk:64:LEU:CD2	2.26	0.50
33:L1:1317:G:O3'	33:L1:1318:C:C6	2.65	0.50
33:L1:1867:U:O5'	33:L1:1867:U:H6	1.94	0.50
33:L1:2450:G:H2'	33:L1:2450:G:N3	2.27	0.50
33:L1:2751:A:N7	33:L1:2752:G:H1'	2.27	0.50
36:LA:101:LYS:HG3	36:LA:101:LYS:O	2.12	0.50
38:LE:86:LEU:HD23	38:LE:89:LYS:HZ1	1.77	0.50
40:LH:108:LEU:HD21	40:LH:195:CYS:SG	2.52	0.50
44:LR:60:PRO:HG2	44:LR:84:GLY:H	1.77	0.50
66:LN:64:ARG:HH11	67:LS:154:VAL:CG2	2.25	0.50
75:Lt:7:ALA:CA	76:Lv:9:LEU:HD12	2.40	0.50
81:LD:383:LYS:O	81:LD:386:ILE:HD12	2.05	0.50
2:SA:120:PHE:HZ	5:SE:101:ALA:CB	2.25	0.49
2:SA:130:ASP:HB3	2:SA:133:THR:HG22	1.94	0.49
3:SB:17:PHE:CZ	3:SB:21:LEU:HD22	2.46	0.49
13:SQ:122:GLU:H	13:SQ:122:GLU:CD	2.20	0.49
24:SX:66:CYS:HB3	24:SX:75:LEU:HD23	1.94	0.49
25:SC:148:PHE:O	25:SC:157:HIS:HA	2.12	0.49
27:SH:11:LEU:CD1	27:SH:15:TYR:HE1	2.25	0.49
27:SH:65:LEU:HB3	27:SH:71:LYS:N	2.27	0.49
31:S2:74:C:OP2	33:L1:2957:U:H5''	2.11	0.49
32:S1:148:C:H2'	32:S1:149:G:C8	2.46	0.49
33:L1:40:G:H21	33:L1:2615:U:H4'	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:123:U:H2'	33:L1:124:C:H6	1.77	0.49
33:L1:1660:C:H42	33:L1:1782:G:H1	1.60	0.49
33:L1:2584:U:H2'	33:L1:2585:C:C6	2.47	0.49
33:L1:2634:U:H2'	33:L1:2635:G:C8	2.46	0.49
33:L1:3320:G:C6	33:L1:3322:A:C2	2.99	0.49
35:L2:155:G:H2'	35:L2:156:G:H8	1.76	0.49
35:L2:159:U:H2'	35:L2:160:C:C6	2.47	0.49
45:LQ:111:LEU:O	45:LQ:112:THR:O	2.28	0.49
55:Lg:48:ALA:HB3	55:Lg:57:ILE:HD13	1.94	0.49
74:LJ:114:ALA:HB1	74:LJ:129:THR:HG23	1.94	0.49
76:Lw:54:LEU:HD22	79:Ls:245:LEU:HG	1.94	0.49
81:LD:383:LYS:C	81:LD:386:ILE:HD11	2.36	0.49
9:SK:90:THR:HA	9:SK:93:HIS:ND1	2.24	0.49
10:SL:82:ALA:N	10:SL:85:PRO:HD3	2.25	0.49
17:SV:96:HIS:HB2	17:SV:101:ILE:HG13	1.93	0.49
24:SX:51:HIS:HA	24:SX:73:ALA:HB3	1.94	0.49
32:S1:348:A:C1'	33:L1:2085:A:H5'	2.30	0.49
32:S1:879:C:H42	32:S1:958:G:H1	1.60	0.49
32:S1:977:G:C8	33:L1:849:A:N7	2.67	0.49
33:L1:8:C:H2'	33:L1:9:C:C6	2.47	0.49
33:L1:60:G:H3'	33:L1:61:A:C8	2.47	0.49
33:L1:529:C:P	66:LN:69:THR:HG23	2.50	0.49
33:L1:841:G:N7	83:Lm:4:ARG:NH1	2.60	0.49
33:L1:1817:U:C4	33:L1:1818:C:C4	3.00	0.49
33:L1:2899:A:C8	33:L1:2901:C:C5	3.00	0.49
35:L2:41:A:H5'	35:L2:41:A:H8	1.77	0.49
37:LB:166:ILE:HG22	83:Lm:83:ILE:HD13	1.87	0.49
38:LE:14:ILE:CG2	38:LE:164:TRP:CG	2.94	0.49
43:LO:12:ARG:HH21	65:LL:18:UNK:CB	2.25	0.49
48:LV:35:ALA:HB2	48:LV:59:PRO:HG2	1.94	0.49
52:Lb:123:ARG:HB3	56:Lh:87:MET:CE	2.42	0.49
64:LG:66:PRO:HD2	64:LG:67:HIS:H	1.77	0.49
64:LG:83:LEU:HD22	64:LG:124:TYR:HB3	1.93	0.49
64:LG:171:LYS:CD	66:LN:106:ASP:HA	2.42	0.49
64:LG:187:GLU:O	64:LG:188:LEU:HD12	2.11	0.49
78:Le:167:ASN:HA	81:LD:355:ARG:HG2	1.94	0.49
6:SF:12:VAL:HG21	6:SF:19:SER:HA	1.93	0.49
9:SK:85:LYS:HE2	9:SK:119:ALA:CA	2.43	0.49
11:SM:12:ILE:HG12	38:LE:117:LYS:CA	2.41	0.49
12:SO:93:LYS:CB	54:Lf:19:GLN:HG2	2.38	0.49
15:SS:2:ALA:CB	32:S1:1364:C:H4'	2.38	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:SH:15:TYR:CZ	27:SH:63:VAL:CG2	2.95	0.49
29:ST:56:GLY:CA	32:S1:1063:U:OP1	2.60	0.49
32:S1:1759:A:C1'	32:S1:1759:A:C4'	2.86	0.49
33:L1:277:U:H1'	33:L1:285:G:N2	2.27	0.49
33:L1:763:G:O4'	33:L1:763:G:C8	2.65	0.49
33:L1:1184:U:C4	82:LK:23:ARG:CD	2.94	0.49
33:L1:1258:C:C2'	33:L1:1258:C:N1	2.65	0.49
33:L1:1362:C:H2'	33:L1:1363:C:C6	2.47	0.49
33:L1:1587:G:O4'	33:L1:1587:G:C8	2.66	0.49
33:L1:1867:U:H5'	46:LT:58:HIS:HA	1.94	0.49
33:L1:3238:U:H2'	33:L1:3239:G:O4'	2.12	0.49
34:L3:49:A:N1	34:L3:51:G:O6	2.46	0.49
36:LA:167:ALA:HB2	36:LA:179:GLN:NE2	2.27	0.49
36:LA:189:LEU:HD12	65:LL:194:UNK:CB	2.42	0.49
37:LB:229:ALA:HB1	37:LB:233:GLN:HG3	1.94	0.49
42:LP:48:ALA:HB1	42:LP:53:TYR:HB2	1.95	0.49
55:Lg:2:SER:HB2	55:Lg:4:LYS:HB2	1.94	0.49
59:Lo:34:THR:CG2	59:Lo:36:ARG:HG2	2.42	0.49
66:LN:4:LYS:HG3	67:LS:164:LYS:CG	2.38	0.49
67:LS:10:GLN:HG2	78:Le:74:LYS:HD3	1.94	0.49
69:La:30:GLU:HG2	69:La:40:HIS:HB3	1.94	0.49
79:Ls:129:GLY:C	79:Ls:156:GLU:HG3	2.37	0.49
79:Ls:147:PRO:HB2	79:Ls:158:ILE:HG21	1.94	0.49
2:SA:166:PRO:O	2:SA:167:ALA:HB2	2.12	0.49
4:SD:67:GLN:O	4:SD:69:HIS:NE2	2.46	0.49
9:SK:106:THR:HA	9:SK:133:PRO:HA	1.94	0.49
10:SL:49:ILE:HG12	10:SL:50:VAL:N	2.27	0.49
12:SO:100:LYS:HB3	54:Lf:82:GLY:N	2.27	0.49
15:SS:62:SER:O	15:SS:63:ILE:C	2.55	0.49
20:SZ:10:ARG:CD	32:S1:1255:U:O5'	2.60	0.49
25:SC:160:PHE:O	32:S1:482:A:C5'	2.60	0.49
27:SH:49:GLU:HG2	27:SH:58:SER:OG	2.13	0.49
27:SH:71:LYS:HB2	27:SH:71:LYS:NZ	2.25	0.49
32:S1:918:G:C6	33:L1:2201:G:C1'	2.95	0.49
33:L1:250:C:H2'	33:L1:251:G:C8	2.48	0.49
33:L1:250:C:C4	33:L1:251:G:C6	3.00	0.49
33:L1:344:C:OP1	81:LD:58:VAL:HG13	2.12	0.49
33:L1:731:G:H4'	44:LR:44:PHE:CE1	2.47	0.49
33:L1:830:A:O2'	73:Lp:52:LYS:N	2.45	0.49
33:L1:1320:G:C6	66:LN:1:MET:N	2.56	0.49
33:L1:2482:A:H2'	33:L1:2483:A:H5'	1.92	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:3237:G:O6	33:L1:3238:U:O2	2.30	0.49
33:L1:3301:G:C5'	48:LV:71:ALA:N	2.75	0.49
34:L3:86:G:O2'	67:LS:119:ARG:HD2	2.13	0.49
36:LA:54:LEU:HB2	36:LA:151:LYS:HE2	1.93	0.49
40:LH:64:LYS:CD	49:LX:42:PHE:CZ	2.95	0.49
42:LP:6:TYR:HE1	72:Lk:100:MET:HB3	1.78	0.49
48:LV:12:THR:HG23	48:LV:13:LYS:N	2.26	0.49
52:Lb:123:ARG:NH1	56:Lh:87:MET:HG2	2.28	0.49
66:LN:32:ASP:HB3	67:LS:97:ARG:HD3	1.94	0.49
2:SA:12:LEU:HG	2:SA:13:SER:H	1.77	0.49
4:SD:100:ARG:HB2	4:SD:114:VAL:CG2	2.34	0.49
6:SF:80:GLY:HA3	32:S1:1479:U:N1	2.27	0.49
7:SI:132:PRO:HG2	32:S1:1616:U:H5	1.77	0.49
21:Sc:22:UNK:CB	33:L1:2313:U:O2'	2.60	0.49
27:SH:22:LYS:CG	27:SH:61:ILE:HD11	2.35	0.49
29:ST:52:PHE:C	32:S1:1069:G:H21	2.20	0.49
32:S1:990:G:H5''	37:LB:131:GLY:O	2.02	0.49
33:L1:180:G:P	35:L2:98:C:N4	2.85	0.49
33:L1:763:G:O4'	33:L1:763:G:N9	2.40	0.49
33:L1:967:G:C2	33:L1:968:A:H1'	2.47	0.49
33:L1:1687:C:H5''	46:LT:58:HIS:CG	2.48	0.49
33:L1:1740:U:H3'	33:L1:1740:U:H6	1.77	0.49
33:L1:2649:C:OP1	84:LI:119:PHE:CD2	2.65	0.49
33:L1:2934:C:O2	33:L1:2936:A:C8	2.66	0.49
33:L1:3047:A:H4'	80:LC:333:VAL:HG12	1.94	0.49
34:L3:55:A:H2	38:LE:140:VAL:CG2	2.20	0.49
37:LB:97:SER:HB3	37:LB:100:ASN:HD21	1.77	0.49
46:LT:58:HIS:HE1	46:LT:61:SER:CB	2.24	0.49
47:LU:27:LEU:HD13	47:LU:27:LEU:H	1.78	0.49
48:LV:15:SER:HB3	48:LV:151:LEU:CG	2.41	0.49
64:LG:83:LEU:CD2	64:LG:124:TYR:O	2.60	0.49
64:LG:97:LYS:HB2	64:LG:139:VAL:CG2	2.43	0.49
66:LN:31:VAL:HA	67:LS:145:HIS:CE1	2.47	0.49
73:Lp:48:LYS:HB3	73:Lp:51:ILE:HD11	1.93	0.49
78:Le:25:ALA:O	78:Le:28:LYS:HB2	2.13	0.49
79:Ls:144:LEU:CD1	79:Ls:177:LEU:HB2	2.41	0.49
1:Sa:82:VAL:HG23	1:Sa:90:LEU:CD2	2.42	0.49
5:SE:15:PHE:CE2	5:SE:182:PRO:HG2	2.48	0.49
31:S2:3:C:OP1	33:L1:2626:G:O5'	2.20	0.49
32:S1:350:G:OP1	46:LT:141:SER:OG	2.28	0.49
32:S1:483:C:H2'	32:S1:484:A:C5'	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:624:A:H3'	32:S1:624:A:OP2	2.13	0.49
32:S1:1677:U:C5	32:S1:1678:G:N7	2.81	0.49
33:L1:185:A:OP1	51:LY:125:ARG:NH1	2.46	0.49
33:L1:262:A:C2	42:LP:1:MET:HE3	2.47	0.49
33:L1:271:G:H5''	72:Lk:65:LYS:HD3	1.94	0.49
33:L1:640:C:H5	33:L1:650:A:HO2'	1.61	0.49
33:L1:650:A:H2'	33:L1:651:A:O4'	2.11	0.49
33:L1:665:G:O4'	33:L1:665:G:N9	2.38	0.49
33:L1:975:G:H2'	33:L1:976:A:C8	2.47	0.49
33:L1:1000:A:H1'	34:L3:102:G:OP1	2.13	0.49
33:L1:1218:U:C5'	67:LS:93:TYR:HB3	2.42	0.49
33:L1:1286:G:OP1	79:Ls:58:LYS:NZ	2.44	0.49
33:L1:1719:U:O4	46:LT:128:LYS:HD2	2.12	0.49
33:L1:1915:G:HO2'	33:L1:1916:U:H5'	1.76	0.49
33:L1:1976:U:H3	33:L1:2035:G:H1	1.61	0.49
33:L1:2382:C:H4'	82:LK:74:GLY:HA3	1.94	0.49
33:L1:2458:A:N6	33:L1:2484:G:H22	2.10	0.49
33:L1:2702:G:H21	47:LU:49:HIS:CE1	2.29	0.49
33:L1:2743:A:C6	33:L1:2744:C:C2	3.01	0.49
34:L3:41:G:N3	34:L3:44:C:N3	2.61	0.49
38:LE:21:LEU:C	38:LE:21:LEU:HD13	2.38	0.49
39:LF:160:ILE:HG22	39:LF:178:ILE:CG2	2.42	0.49
58:Ln:8:ILE:HD13	58:Ln:25:ILE:CD1	2.43	0.49
66:LN:13:ALA:HA	66:LN:55:LEU:HA	1.95	0.49
66:LN:109:LYS:CE	82:LK:198:LEU:HD21	2.42	0.49
76:Lv:55:LEU:HD11	79:Ls:222:VAL:HG11	1.95	0.49
84:LI:109:ASP:O	84:LI:111:LEU:N	2.45	0.49
7:SI:130:CYS:CB	32:S1:1592:G:H5''	2.43	0.49
11:SM:14:ARG:CB	38:LE:109:GLN:OE1	2.60	0.49
12:SO:117:LEU:HD23	32:S1:944:A:N6	2.27	0.49
14:SP:94:PHE:N	46:LT:151:ARG:HE	2.10	0.49
25:SC:106:PHE:CE1	32:S1:477:A:H1'	2.48	0.49
27:SH:65:LEU:O	27:SH:66:ASN:O	2.30	0.49
32:S1:187:C:C2'	32:S1:188:U:O5'	2.61	0.49
32:S1:680:C:H2'	32:S1:681:G:H5''	1.93	0.49
32:S1:1473:C:H2'	32:S1:1474:U:H6	1.78	0.49
32:S1:1659:A:C2	32:S1:1759:A:N1	2.77	0.49
33:L1:237:C:O4'	33:L1:237:C:C6	2.64	0.49
33:L1:270:G:H21	72:Lk:66:VAL:C	2.21	0.49
33:L1:464:G:O2'	78:Le:1:MET:CE	2.60	0.49
33:L1:1042:C:H2'	33:L1:1043:U:H6	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1192:A:H2	82:LK:137:GLY:C	2.21	0.49
33:L1:1840:C:O2	57:L1:9:GLY:HA2	2.13	0.49
33:L1:1901:G:C2'	33:L1:1902:G:H5''	2.42	0.49
33:L1:3223:C:OP1	66:LN:130:LYS:HE3	2.12	0.49
34:L3:7:G:H5'	45:LQ:37:ARG:NE	2.27	0.49
34:L3:49:A:N3	34:L3:50:A:C6	2.81	0.49
41:LM:96:MET:HE1	50:LZ:22:ARG:HD2	1.83	0.49
44:LR:41:LYS:N	81:LD:325:LYS:HZ3	2.11	0.49
54:Lf:46:ILE:HD12	54:Lf:48:LEU:HD21	1.95	0.49
59:Lo:30:ARG:H	59:Lo:30:ARG:HB3	1.78	0.49
66:LN:79:ASP:CG	66:LN:80:VAL:H	2.20	0.49
75:Lt:49:LEU:HD21	79:Ls:232:ILE:CA	2.43	0.49
77:Lc:29:GLU:HA	77:Lc:32:GLN:HE21	1.77	0.49
82:LK:132:LEU:H	82:LK:134:LEU:HD23	1.78	0.49
1:Sa:82:VAL:HG23	1:Sa:90:LEU:HD21	1.95	0.49
1:Sa:219:ASN:HB3	1:Sa:220:MET:HE3	1.93	0.49
2:SA:64:LEU:HD11	5:SE:44:TRP:CB	2.34	0.49
4:SD:45:ILE:HG23	4:SD:46:LEU:HG	1.95	0.49
4:SD:87:MET:HA	4:SD:100:ARG:HD2	1.94	0.49
31:S2:13:U:OP1	33:L1:2245:G:C8	2.66	0.49
31:S2:72:G:C6	33:L1:2972:C:H3'	1.92	0.49
32:S1:188:U:O2	32:S1:193:G:N1	2.45	0.49
32:S1:349:U:H5'	46:LT:141:SER:HG	1.66	0.49
32:S1:354:G:H1	33:L1:847:G:C4'	2.12	0.49
32:S1:928:A:H1'	37:LB:147:ARG:HH11	1.76	0.49
32:S1:1768:U:O2'	33:L1:2257:A:O2'	2.15	0.49
33:L1:82:C:O2	33:L1:102:G:N2	2.46	0.49
33:L1:547:C:H2'	33:L1:548:G:H8	1.77	0.49
33:L1:1127:U:H3	33:L1:1137:G:N2	2.06	0.49
33:L1:1221:A:C2	33:L1:1293:C:O2	2.66	0.49
33:L1:1238:G:H21	74:LJ:132:GLU:HB3	1.78	0.49
33:L1:1374:G:H2'	33:L1:1375:G:C8	2.48	0.49
33:L1:1673:A:OP1	68:LW:82:LYS:C	2.56	0.49
33:L1:2512:U:H2'	33:L1:2513:U:C6	2.48	0.49
33:L1:3086:G:O2'	33:L1:3087:A:H5'	2.12	0.49
33:L1:3169:C:H42	33:L1:3271:A:H61	1.60	0.49
35:L2:136:G:H2'	35:L2:137:C:C6	2.48	0.49
36:LA:59:ARG:CD	36:LA:175:GLU:HG2	2.43	0.49
37:LB:90:CYS:HA	37:LB:101:VAL:HG12	1.93	0.49
38:LE:152:ILE:HD12	38:LE:152:ILE:H	1.78	0.49
41:LM:52:LEU:H	41:LM:52:LEU:HD12	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:LR:107:GLU:CD	44:LR:110:ARG:HH11	2.21	0.49
67:LS:26:ILE:CD1	78:Le:75:GLY:O	2.61	0.49
68:LW:105:ILE:O	68:LW:106:ALA:CB	2.61	0.49
73:Lp:27:LEU:HD13	73:Lp:35:ARG:H	1.77	0.49
1:Sa:346:ARG:CZ	32:S1:1398:U:H5'	2.37	0.49
2:SA:31:THR:HG21	2:SA:153:ASP:CG	2.38	0.49
2:SA:76:GLN:CD	2:SA:78:ILE:HD11	2.37	0.49
4:SD:219:ALA:O	32:S1:653:U:H4'	2.12	0.49
7:SI:143:ARG:NE	32:S1:1593:U:H5''	2.27	0.49
11:SM:35:GLY:C	11:SM:36:VAL:CG1	2.85	0.49
12:SO:100:LYS:CB	54:Lf:79:VAL:O	2.56	0.49
13:SQ:29:HIS:CD2	13:SQ:32:LYS:HD2	2.47	0.49
17:SV:51:LEU:HD22	17:SV:71:ARG:HB3	1.95	0.49
27:SH:10:ALA:HB1	27:SH:22:LYS:CD	2.43	0.49
27:SH:64:GLU:C	27:SH:65:LEU:CD1	2.86	0.49
30:S3:14:A:H8	30:S3:14:A:OP2	1.96	0.49
32:S1:1698:A:H2	32:S1:1721:A:C2	2.24	0.49
32:S1:1758:G:OP1	33:L1:2298:A:O5'	2.31	0.49
33:L1:1179:C:O2'	82:LK:94:PRO:CG	2.60	0.49
33:L1:1391:A:H61	33:L1:1423:C:N4	2.04	0.49
33:L1:1521:U:P	59:Lo:22:PRO:HG2	2.52	0.49
33:L1:1752:C:H2'	33:L1:1753:A:O5'	2.13	0.49
33:L1:2240:C:H4'	37:LB:222:ALA:HA	1.95	0.49
33:L1:2496:U:H4'	33:L1:2497:A:OP1	2.12	0.49
36:LA:68:GLY:O	36:LA:105:LYS:HA	2.13	0.49
37:LB:95:THR:HG23	37:LB:100:ASN:ND2	2.28	0.49
38:LE:104:PHE:CZ	38:LE:131:VAL:HG21	2.47	0.49
42:LP:9:GLU:CG	72:Lk:100:MET:HE1	2.43	0.49
46:LT:179:GLU:O	46:LT:183:PRO:HD2	2.13	0.49
48:LV:96:LEU:O	48:LV:100:GLU:HG3	2.12	0.49
71:Lj:12:TYR:CD1	71:Lj:13:VAL:HB	2.48	0.49
75:Lt:10:LEU:CD1	76:Lv:8:LEU:HB3	2.42	0.49
2:SA:67:ARG:HH12	5:SE:61:LYS:HE2	1.77	0.49
5:SE:31:ARG:HB2	27:SH:67:GLY:C	2.38	0.49
5:SE:194:LYS:CE	5:SE:248:PRO:HG2	2.43	0.49
12:SO:120:SER:HA	12:SO:123:HIS:NE2	2.28	0.49
14:SP:98:TYR:CD1	46:LT:155:LEU:HG	2.48	0.49
17:SV:95:VAL:C	17:SV:101:ILE:CD1	2.86	0.49
25:SC:94:LYS:HZ2	32:S1:513:G:H5''	1.78	0.49
31:S2:11:U:C2	33:L1:2260:C:H2'	2.47	0.49
31:S2:34:G:C4'	32:S1:1195:U:N1	2.62	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:146:A:H3'	32:S1:147:C:C6	2.48	0.49
32:S1:320:A:OP2	33:L1:854:C:C5'	2.60	0.49
32:S1:886:A:C5	83:Lm:85:ARG:CZ	2.90	0.49
32:S1:1748:U:C6	33:L1:1916:U:H5'	1.92	0.49
32:S1:1782:C:H2'	32:S1:1783:C:C6	2.48	0.49
33:L1:31:U:C4	33:L1:32:G:C5	3.01	0.49
33:L1:1179:C:H5''	82:LK:33:LEU:HD11	1.93	0.49
33:L1:2094:A:H2'	33:L1:2095:C:C6	2.47	0.49
33:L1:2230:C:C3'	33:L1:2231:G:H5'	2.41	0.49
33:L1:3097:G:H2'	33:L1:3098:U:H6	1.77	0.49
35:L2:126:G:O6	35:L2:138:G:N2	2.46	0.49
45:LQ:254:ALA:HA	45:LQ:257:THR:OG1	2.13	0.49
64:LG:66:PRO:CD	64:LG:67:HIS:N	2.76	0.49
69:La:25:ILE:CG1	69:La:27:ARG:N	2.75	0.49
4:SD:201:HIS:CD2	32:S1:687:C:H5''	2.48	0.48
4:SD:208:ILE:O	4:SD:208:ILE:HG23	2.12	0.48
9:SK:52:LEU:HD11	9:SK:92:LEU:CD2	2.42	0.48
10:SL:4:THR:C	10:SL:5:ARG:HG3	2.38	0.48
28:SN:11:PRO:HG2	28:SN:12:LYS:H	1.78	0.48
32:S1:636:U:O4'	32:S1:636:U:C6	2.65	0.48
32:S1:981:G:H21	32:S1:1032:A:H61	1.61	0.48
33:L1:967:G:OP1	43:LO:7:LYS:HA	2.13	0.48
33:L1:1060:U:C4	33:L1:1061:A:C2	3.01	0.48
33:L1:1240:G:C8	74:LJ:14:PHE:HB3	2.48	0.48
33:L1:1545:G:H5''	42:LP:34:PRO:HB3	1.95	0.48
33:L1:2518:A:H61	33:L1:2595:G:H1'	1.78	0.48
34:L3:11:A:C4	45:LQ:17:PHE:HB3	2.48	0.48
34:L3:22:A:OP1	34:L3:25:G:C8	2.66	0.48
36:LA:19:GLU:CD	36:LA:23:LYS:HZ2	2.21	0.48
36:LA:98:LEU:HD23	36:LA:98:LEU:C	2.37	0.48
36:LA:189:LEU:HD23	65:LL:192:UNK:C	2.42	0.48
43:LO:49:HIS:C	43:LO:49:HIS:CD2	2.90	0.48
72:Lk:69:ASP:OD1	72:Lk:70:LYS:NZ	2.45	0.48
76:Lw:4:ILE:HG12	79:Ls:247:GLY:H	1.78	0.48
84:LI:110:ARG:NE	84:LI:116:ARG:CG	2.76	0.48
6:SF:135:VAL:CA	19:SY:41:ASN:HD22	2.26	0.48
11:SM:12:ILE:HG23	38:LE:118:TYR:C	2.37	0.48
12:SO:97:ALA:CB	54:Lf:19:GLN:CG	2.90	0.48
14:SP:44:LYS:HE3	14:SP:117:ARG:HD3	1.95	0.48
32:S1:690:G:H2'	32:S1:691:A:C8	2.48	0.48
32:S1:1023:C:C4	83:Lm:74:ALA:HB2	2.34	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1742:A:H2'	32:S1:1743:C:C6	2.48	0.48
33:L1:238:C:H2'	33:L1:239:C:C6	2.47	0.48
33:L1:250:C:H2'	33:L1:251:G:N9	2.27	0.48
33:L1:1206:A:H5'	34:L3:88:U:O4'	2.13	0.48
33:L1:1318:C:O4'	33:L1:1318:C:N1	2.39	0.48
33:L1:1368:U:O4'	33:L1:1368:U:C6	2.66	0.48
33:L1:1551:C:O4'	33:L1:1551:C:C6	2.66	0.48
33:L1:1822:C:H2'	33:L1:1823:C:C6	2.49	0.48
33:L1:2108:C:H3'	33:L1:2108:C:C6	2.47	0.48
33:L1:3131:A:H5''	33:L1:3132:U:H5	1.77	0.48
34:L3:46:C:OP1	45:LQ:158:ARG:NH2	2.46	0.48
35:L2:37:A:C3'	57:L1:72:ARG:HH12	2.19	0.48
36:LA:83:TYR:CE2	36:LA:85:ASP:C	2.90	0.48
45:LQ:256:SER:C	45:LQ:256:SER:N	2.60	0.48
66:LN:8:GLU:HB3	67:LS:158:VAL:HG13	1.95	0.48
69:La:42:LEU:HD12	69:La:43:VAL:N	2.28	0.48
75:Lt:53:ARG:CZ	79:Ls:232:ILE:HG22	2.38	0.48
76:Lw:3:PHE:CE1	76:Lw:38:LYS:HD3	2.49	0.48
78:Le:39:ALA:CB	81:LD:358:LYS:NZ	2.75	0.48
79:Ls:131:THR:HB	79:Ls:133:LEU:HD23	1.94	0.48
81:LD:309:PRO:O	81:LD:313:GLU:CG	2.61	0.48
83:Lm:7:LYS:O	83:Lm:8:ALA:HB2	2.12	0.48
5:SE:31:ARG:CD	27:SH:67:GLY:HA2	2.38	0.48
5:SE:153:TRP:CD2	5:SE:243:LYS:HD2	2.48	0.48
9:SK:103:LYS:HZ2	9:SK:103:LYS:CB	2.25	0.48
15:SS:75:VAL:HG13	32:S1:1507:G:OP2	2.13	0.48
23:SU:17:PHE:CE2	23:SU:28:PHE:CD1	3.01	0.48
23:SU:68:THR:O	23:SU:68:THR:CG2	2.59	0.48
31:S2:8:U:C6	31:S2:13:U:O4	2.67	0.48
32:S1:200:C:C3'	32:S1:201:G:H5''	2.43	0.48
32:S1:238:G:H2'	32:S1:238:G:N3	2.27	0.48
32:S1:1595:A:H61	32:S1:1617:U:H3	1.62	0.48
32:S1:1676:G:H5'	33:L1:1933:U:C3'	2.43	0.48
32:S1:1757:G:C3'	33:L1:2297:G:O3'	2.60	0.48
33:L1:30:C:H1'	33:L1:1549:A:C2	2.48	0.48
33:L1:202:G:O2'	33:L1:203:C:H5'	2.14	0.48
33:L1:806:C:OP1	81:LD:106:PHE:CD2	2.66	0.48
33:L1:1344:A:O4'	33:L1:1344:A:C8	2.67	0.48
33:L1:1385:C:OP1	81:LD:203:ARG:HD2	2.14	0.48
33:L1:1513:C:O4'	33:L1:1513:C:C6	2.66	0.48
33:L1:1563:G:H2'	33:L1:1564:C:C6	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2116:G:C6	33:L1:2331:A:C2	3.01	0.48
33:L1:2380:G:P	82:LK:96:LYS:NZ	2.85	0.48
33:L1:2640:A:C2'	33:L1:2640:A:C4	2.96	0.48
33:L1:2783:U:C2	33:L1:2784:U:C5	3.00	0.48
33:L1:3169:C:N3	33:L1:3271:A:N1	2.60	0.48
34:L3:56:G:N2	45:LQ:54:ARG:HH22	1.89	0.48
36:LA:97:LYS:O	36:LA:98:LEU:HB2	2.12	0.48
39:LF:40:HIS:CE1	39:LF:41:LEU:HD23	2.48	0.48
44:LR:132:THR:CB	81:LD:325:LYS:HZ2	2.23	0.48
51:LY:58:VAL:O	51:LY:63:LYS:HD2	2.14	0.48
52:Lb:123:ARG:NH1	56:Lh:90:ASN:HD21	2.10	0.48
55:Lg:15:VAL:CG1	55:Lg:86:LYS:HZ2	2.25	0.48
64:LG:96:LEU:CB	64:LG:139:VAL:HG22	2.44	0.48
66:LN:8:GLU:HG2	66:LN:9:ILE:H	1.78	0.48
69:La:9:LYS:CA	69:La:25:ILE:HD12	2.44	0.48
81:LD:309:PRO:O	81:LD:310:LEU:C	2.55	0.48
2:SA:189:MET:HE2	5:SE:62:ILE:HD11	1.95	0.48
2:SA:198:LYS:CB	2:SA:218:GLU:HA	2.43	0.48
9:SK:37:ASN:O	9:SK:101:GLY:CA	2.61	0.48
11:SM:18:THR:H	38:LE:109:GLN:CD	2.21	0.48
32:S1:633:U:O2	32:S1:634:A:C4	2.66	0.48
33:L1:30:C:O4'	33:L1:30:C:C6	2.66	0.48
33:L1:394:A:H2'	33:L1:395:A:H5''	1.95	0.48
33:L1:642:C:H4'	33:L1:1436:A:N6	2.29	0.48
33:L1:840:A:OP1	83:Lm:4:ARG:CD	2.58	0.48
33:L1:1015:A:H2'	33:L1:1016:G:H8	1.78	0.48
33:L1:1087:G:H2'	33:L1:1088:A:C8	2.49	0.48
33:L1:1406:C:O2'	56:Lh:66:HIS:HA	2.13	0.48
33:L1:1422:G:N2	33:L1:1423:C:H1'	2.29	0.48
33:L1:1507:A:N6	33:L1:1518:A:N3	2.50	0.48
33:L1:1537:A:C2	33:L1:1584:A:C2	3.00	0.48
33:L1:1550:A:H2'	33:L1:1551:C:C6	2.48	0.48
33:L1:2726:U:O2'	47:LU:54:HIS:CD2	2.66	0.48
33:L1:3299:A:C1'	33:L1:3299:A:O2'	2.54	0.48
35:L2:101:G:H4'	77:Lc:67:ARG:NH1	2.16	0.48
46:LT:89:LEU:HG	46:LT:89:LEU:O	2.12	0.48
55:Lg:22:ILE:HD12	55:Lg:47:PHE:HB2	1.96	0.48
76:Lv:34:ILE:CD1	76:Lv:39:MET:HE3	2.43	0.48
2:SA:71:ALA:HB2	5:SE:65:ILE:CB	2.42	0.48
5:SE:130:VAL:CG2	32:S1:11:A:H5'	2.44	0.48
11:SM:75:ARG:HD2	11:SM:76:GLN:H	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:SR:116:ILE:HG23	16:SR:117:LYS:N	2.29	0.48
17:SV:56:PRO:CD	17:SV:57:LYS:N	2.76	0.48
24:SX:45:ILE:O	24:SX:45:ILE:HG23	2.14	0.48
32:S1:196:G:O2'	32:S1:197:G:H5'	2.14	0.48
32:S1:1022:U:O2'	83:Lm:78:THR:CB	2.59	0.48
32:S1:1736:C:H5'	33:L1:2103:U:C5'	2.43	0.48
33:L1:641:C:H2'	33:L1:641:C:OP2	2.14	0.48
33:L1:985:C:N4	33:L1:1105:G:H21	2.09	0.48
33:L1:2059:C:O4'	33:L1:2059:C:C6	2.66	0.48
35:L2:38:U:OP1	57:Ll:72:ARG:NH2	2.47	0.48
38:LE:40:GLU:OE1	38:LE:46:SER:HA	2.14	0.48
64:LG:97:LYS:HB2	64:LG:139:VAL:HG21	1.95	0.48
71:Lj:13:VAL:CG1	71:Lj:104:VAL:H	2.26	0.48
1:Sa:100:LYS:CB	7:SI:113:ASP:OD2	2.62	0.48
6:SF:131:ARG:HH22	6:SF:200:ARG:C	2.21	0.48
6:SF:165:ILE:HA	6:SF:168:CYS:H	1.78	0.48
11:SM:110:ASP:O	11:SM:113:ARG:HB2	2.14	0.48
12:SO:124:ARG:CZ	33:L1:849:A:O2'	2.57	0.48
27:SH:13:THR:HG23	27:SH:14:MET:N	2.28	0.48
31:S2:25:U:O2'	33:L1:2260:C:H3'	2.12	0.48
32:S1:634:A:C2	32:S1:975:A:C6	3.02	0.48
32:S1:1747:A:O4'	33:L1:1915:G:C2	2.67	0.48
32:S1:1757:G:C4'	33:L1:2297:G:O3'	2.61	0.48
33:L1:124:C:O4'	33:L1:124:C:C6	2.65	0.48
33:L1:716:A:O4'	33:L1:716:A:C8	2.65	0.48
33:L1:830:A:H5'	73:Lp:50:LYS:C	2.39	0.48
33:L1:835:G:H4'	46:LT:87:ALA:HB2	1.96	0.48
33:L1:841:G:N7	83:Lm:4:ARG:NH2	2.59	0.48
33:L1:996:A:C8	33:L1:1062:G:N2	2.80	0.48
33:L1:1387:G:C6	33:L1:1388:C:C4	3.02	0.48
33:L1:1496:G:H22	59:Lo:14:ALA:HB2	1.79	0.48
33:L1:3182:A:P	67:LS:164:LYS:HD3	2.53	0.48
33:L1:3327:A:O4'	33:L1:3327:A:C8	2.66	0.48
34:L3:35:C:O4'	45:LQ:200:TYR:CE2	2.64	0.48
34:L3:111:U:H2'	34:L3:112:U:C6	2.48	0.48
35:L2:37:A:C5'	57:Ll:72:ARG:HH12	2.20	0.48
35:L2:62:G:OP1	35:L2:102:U:N3	2.46	0.48
35:L2:63:A:H5''	35:L2:65:A:C4	2.49	0.48
37:LB:178:PRO:HG2	37:LB:180:LEU:HD11	1.96	0.48
38:LE:21:LEU:HD23	38:LE:129:PHE:CD2	2.48	0.48
45:LQ:200:TYR:CD1	45:LQ:203:HIS:HB3	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:LT:91:THR:O	46:LT:95:TRP:CD2	2.67	0.48
47:LU:91:VAL:HG22	47:LU:92:ARG:O	2.13	0.48
48:LV:8:ALA:O	48:LV:9:ASN:HB2	2.12	0.48
59:Lo:30:ARG:N	59:Lo:30:ARG:HB3	2.26	0.48
66:LN:95:VAL:HA	66:LN:98:ARG:HD2	1.96	0.48
10:SL:74:VAL:CG2	10:SL:104:PHE:CZ	2.97	0.48
11:SM:12:ILE:HD11	38:LE:120:PRO:HG2	1.96	0.48
25:SC:1:MET:O	25:SC:5:PRO:HD3	2.14	0.48
27:SH:15:TYR:CE2	27:SH:63:VAL:CG2	2.97	0.48
31:S2:10:G:N2	33:L1:2260:C:O2	2.32	0.48
31:S2:24:A:H2'	33:L1:2261:U:O5'	2.13	0.48
32:S1:61:A:C1'	32:S1:61:A:O2'	2.53	0.48
32:S1:979:A:OP2	33:L1:851:A:C1'	2.62	0.48
32:S1:1758:G:H2'	32:S1:1759:A:C8	2.48	0.48
33:L1:415:G:O2'	33:L1:631:C:C1'	2.62	0.48
33:L1:696:A:C2	81:LD:52:LYS:NZ	2.77	0.48
33:L1:858:U:C4	33:L1:859:G:C6	3.02	0.48
33:L1:1081:U:C6	33:L1:1081:U:C3'	2.96	0.48
33:L1:1191:U:O2'	33:L1:1193:A:H2	1.97	0.48
33:L1:3018:A:C4'	41:LM:9:SER:O	2.61	0.48
35:L2:90:U:C2'	35:L2:90:U:N1	2.65	0.48
35:L2:124:G:C8	35:L2:124:G:H2'	2.49	0.48
36:LA:17:VAL:HG13	36:LA:18:GLY:N	2.28	0.48
36:LA:49:SER:N	36:LA:192:LEU:HD22	2.29	0.48
38:LE:109:GLN:HG2	38:LE:111:HIS:H	1.78	0.48
41:LM:65:VAL:HG21	41:LM:72:LEU:HB3	1.95	0.48
44:LR:105:PHE:HB2	44:LR:110:ARG:HG3	1.96	0.48
48:LV:109:ASP:O	48:LV:112:THR:HG22	2.14	0.48
50:LZ:22:ARG:HE	50:LZ:32:LEU:HD21	1.77	0.48
64:LG:66:PRO:CD	64:LG:67:HIS:H	2.27	0.48
64:LG:100:GLN:NE2	71:Lj:33:LEU:HD11	2.28	0.48
67:LS:14:ARG:HA	67:LS:14:ARG:HH11	1.79	0.48
79:Ls:121:PRO:CB	79:Ls:186:PHE:CE1	2.97	0.48
2:SA:64:LEU:CA	5:SE:44:TRP:HE1	2.26	0.48
4:SD:134:LYS:C	32:S1:246:G:OP1	2.56	0.48
5:SE:183:ARG:NH2	5:SE:251:GLU:OE1	2.47	0.48
10:SL:51:LEU:HD21	32:S1:1141:U:C5'	2.44	0.48
12:SO:58:HIS:CE1	12:SO:87:ASP:H	2.31	0.48
14:SP:95:VAL:CG2	46:LT:152:GLU:CA	2.92	0.48
17:SV:64:SER:O	17:SV:68:GLU:CD	2.57	0.48
20:SZ:13:LYS:HE2	32:S1:1254:U:OP1	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:SU:20:ASN:CA	23:SU:95:TYR:HB3	2.43	0.48
27:SH:75:ILE:HD12	27:SH:129:PHE:HD2	1.79	0.48
31:S2:75:A:C8	33:L1:2955:U:H2'	2.49	0.48
32:S1:175:A:H2'	32:S1:177:C:OP2	2.13	0.48
32:S1:1663:A:C6	32:S1:1664:U:O2	2.67	0.48
32:S1:1685:U:H2'	33:L1:3334:A:H5''	1.84	0.48
32:S1:1736:C:O4'	32:S1:1736:C:C6	2.64	0.48
33:L1:711:A:C8	43:LO:92:LYS:NZ	2.82	0.48
33:L1:1505:G:C2	33:L1:1516:G:O6	2.65	0.48
33:L1:1637:G:O5'	69:La:25:ILE:CG2	2.62	0.48
33:L1:1740:U:H3'	33:L1:1740:U:C6	2.49	0.48
33:L1:2141:A:H5'	37:LB:199:VAL:HG22	1.96	0.48
33:L1:2243:C:H2'	33:L1:2268:G:C8	2.48	0.48
33:L1:2289:U:H1'	33:L1:2292:U:H5	1.77	0.48
33:L1:2622:G:H2'	33:L1:2623:G:C8	2.48	0.48
33:L1:2628:C:O4'	33:L1:2628:C:C6	2.66	0.48
33:L1:3301:G:H2'	33:L1:3302:A:H5'	1.95	0.48
34:L3:116:U:C3'	45:LQ:80:TYR:HE1	2.23	0.48
43:LO:14:HIS:CD2	43:LO:15:VAL:H	2.30	0.48
56:Lh:89:HIS:CG	56:Lh:93:TYR:CD1	3.02	0.48
66:LN:4:LYS:HB2	67:LS:164:LYS:HE2	1.95	0.48
69:La:25:ILE:CG1	69:La:27:ARG:H	2.27	0.48
71:Lj:14:ARG:HH21	71:Lj:37:GLU:HB3	1.79	0.48
2:SA:64:LEU:HD23	2:SA:64:LEU:C	2.38	0.48
3:SB:18:TYR:OH	8:SJ:120:GLU:OE1	2.27	0.48
4:SD:87:MET:HE2	4:SD:123:LEU:N	2.28	0.48
6:SF:80:GLY:N	32:S1:1479:U:C1'	2.77	0.48
24:SX:69:THR:HG23	24:SX:70:GLY:N	2.29	0.48
25:SC:106:PHE:CD1	32:S1:477:A:H4'	2.49	0.48
27:SH:7:LEU:HD23	27:SH:7:LEU:C	2.39	0.48
27:SH:37:PHE:HB3	27:SH:43:LYS:CE	2.44	0.48
27:SH:118:ARG:C	27:SH:120:ASN:N	2.71	0.48
29:ST:2:GLN:O	29:ST:5:GLU:HB3	2.14	0.48
31:S2:11:U:H1'	33:L1:2260:C:N3	1.40	0.48
32:S1:978:A:O2'	33:L1:851:A:H5'	2.13	0.48
32:S1:991:G:H5'	37:LB:133:TYR:HE1	0.49	0.48
33:L1:817:U:H5''	57:Ll:45:ARG:NH1	2.28	0.48
33:L1:1263:A:C5'	79:Ls:45:ARG:NH1	2.70	0.48
33:L1:2149:G:H4'	37:LB:227:ARG:CZ	2.44	0.48
33:L1:2426:C:C2	33:L1:2606:G:N2	2.82	0.48
33:L1:2707:A:C8	33:L1:2709:G:C6	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:3297:A:H5'	80:LC:338:ARG:NH2	2.29	0.48
36:LA:69:ASP:HB3	36:LA:79:MET:SD	2.53	0.48
37:LB:90:CYS:HA	37:LB:101:VAL:HG13	1.95	0.48
37:LB:211:HIS:HD2	37:LB:219:ILE:HB	1.78	0.48
39:LF:59:TRP:HB3	67:LS:160:PRO:HB3	1.96	0.48
45:LQ:17:PHE:H	45:LQ:20:PHE:HE2	1.44	0.48
48:LV:112:THR:HG23	48:LV:113:LEU:N	2.29	0.48
64:LG:175:ASP:HB3	64:LG:178:LYS:HB3	1.95	0.48
66:LN:6:PHE:CD1	66:LN:8:GLU:N	2.81	0.48
68:LW:81:SER:O	68:LW:114:TYR:CD2	2.66	0.48
69:La:25:ILE:CG1	69:La:27:ARG:CA	2.91	0.48
73:Lp:20:CYS:O	73:Lp:24:TYR:HA	2.13	0.48
78:Le:156:GLY:H	78:Le:162:ARG:HB2	1.78	0.48
81:LD:309:PRO:CA	81:LD:313:GLU:CD	2.83	0.48
4:SD:230:LYS:HG2	4:SD:231:GLY:N	2.29	0.48
6:SF:94:GLU:CA	17:SV:102:TYR:OH	2.59	0.48
9:SK:65:ARG:HD2	9:SK:80:VAL:HG22	1.96	0.48
11:SM:90:TYR:HB2	11:SM:113:ARG:NH2	2.29	0.48
14:SP:95:VAL:HG21	46:LT:152:GLU:CB	2.43	0.48
24:SX:72:LYS:HG3	32:S1:1054:G:P	2.54	0.48
28:SN:21:CYS:HB2	28:SN:35:GLY:HA2	1.96	0.48
31:S2:12:U:O2'	33:L1:2262:C:N3	2.38	0.48
32:S1:1685:U:O2	33:L1:3334:A:C4'	2.62	0.48
33:L1:907:A:H5'	33:L1:1540:G:OP1	2.14	0.48
33:L1:1687:C:H2'	33:L1:1688:U:C6	2.49	0.48
33:L1:1691:U:C2'	33:L1:1691:U:C2	2.96	0.48
33:L1:1723:C:O4'	33:L1:1723:C:C6	2.67	0.48
33:L1:1854:A:C5'	33:L1:1855:A:H3'	2.44	0.48
33:L1:2230:C:C4	33:L1:2231:G:C8	3.02	0.48
33:L1:2647:C:C2'	84:LI:115:MET:HE1	2.42	0.48
33:L1:2688:G:C5'	38:LE:155:ARG:HE	2.26	0.48
33:L1:3058:U:H3'	33:L1:3059:C:C6	2.49	0.48
34:L3:6:C:OP2	45:LQ:31:LYS:CG	2.60	0.48
48:LV:9:ASN:ND2	48:LV:14:SER:OG	2.47	0.48
48:LV:39:LEU:O	48:LV:115:VAL:HG23	2.13	0.48
48:LV:113:LEU:CD2	48:LV:153:GLU:HA	2.44	0.48
55:Lg:1:MET:HA	55:Lg:54:THR:HG21	1.94	0.48
66:LN:112:LEU:HA	66:LN:115:ILE:HD12	1.96	0.48
66:LN:113:ALA:CB	82:LK:198:LEU:HD21	2.44	0.48
67:LS:28:ARG:CZ	78:Le:68:LYS:HA	2.44	0.48
69:La:15:GLN:HA	69:La:21:ARG:HH12	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:Lt:48:LYS:NZ	76:Lw:35:ASP:CB	2.77	0.48
75:Lt:49:LEU:HD22	79:Ls:232:ILE:HB	1.96	0.48
76:Lv:40:GLU:HG2	79:Ls:99:LYS:HD2	1.95	0.48
4:SD:121:PHE:HB3	4:SD:161:LYS:CE	2.43	0.47
11:SM:12:ILE:C	38:LE:117:LYS:O	2.57	0.47
11:SM:26:ILE:O	11:SM:30:LEU:HG	2.14	0.47
11:SM:113:ARG:HD3	11:SM:114:LEU:HG	1.95	0.47
15:SS:2:ALA:CB	32:S1:1364:C:C5'	2.77	0.47
17:SV:95:VAL:CG1	17:SV:96:HIS:N	2.44	0.47
17:SV:95:VAL:N	17:SV:101:ILE:CG2	2.77	0.47
32:S1:927:A:H5'	37:LB:140:ASN:ND2	2.27	0.47
32:S1:1644:C:H4'	32:S1:1645:C:H5''	1.95	0.47
33:L1:19:C:H2'	33:L1:20:G:H8	1.78	0.47
33:L1:228:C:C3'	33:L1:229:G:H5'	2.44	0.47
33:L1:1034:U:H2'	33:L1:1035:C:N1	2.28	0.47
33:L1:1576:C:O4'	33:L1:1576:C:N1	2.42	0.47
33:L1:1750:A:C8	33:L1:1750:A:H3'	2.49	0.47
33:L1:2300:G:C8	33:L1:2300:G:H3'	2.48	0.47
33:L1:2532:A:H61	33:L1:2584:U:H3	1.62	0.47
33:L1:3228:C:C5	33:L1:3229:C:C5	3.01	0.47
33:L1:3342:C:C2	33:L1:3348:G:C2	3.02	0.47
34:L3:3:A:OP1	34:L3:59:U:H4'	2.13	0.47
34:L3:46:C:OP1	45:LQ:158:ARG:CZ	2.59	0.47
35:L2:42:U:H2'	77:Lc:90:ARG:CG	2.44	0.47
36:LA:72:HIS:CD2	36:LA:73:VAL:HG23	2.49	0.47
37:LB:147:ARG:HH21	37:LB:155:LYS:HD3	1.79	0.47
39:LF:104:ILE:HD12	39:LF:133:ILE:HG22	1.95	0.47
41:LM:71:ASP:O	41:LM:75:LYS:CD	2.62	0.47
41:LM:128:LEU:HD22	41:LM:129:TRP:CE2	2.49	0.47
44:LR:33:TYR:HA	44:LR:36:LEU:HG	1.96	0.47
48:LV:18:MET:HE2	48:LV:146:HIS:CD2	2.49	0.47
48:LV:151:LEU:N	48:LV:151:LEU:HD23	2.27	0.47
64:LG:54:ASP:O	64:LG:58:PRO:HD2	2.13	0.47
64:LG:96:LEU:HD12	64:LG:139:VAL:HG13	1.96	0.47
66:LN:6:PHE:CZ	66:LN:27:ILE:HD13	2.48	0.47
66:LN:63:LYS:HB2	66:LN:63:LYS:HZ2	1.79	0.47
67:LS:12:VAL:HG12	78:Le:75:GLY:N	2.25	0.47
75:Lt:45:LEU:CD1	76:Lw:41:LEU:HB2	2.44	0.47
79:Ls:122:VAL:HG12	79:Ls:123:ASP:N	2.28	0.47
81:LD:187:ALA:C	81:LD:189:ASP:H	2.20	0.47
81:LD:305:SER:O	81:LD:306:VAL:HG23	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
81:LD:328:ALA:CA	81:LD:329:ALA:HB3	2.37	0.47
1:Sa:97:THR:C	1:Sa:98:SER:HG	2.15	0.47
1:Sa:178:GLY:C	1:Sa:180:GLN:H	2.22	0.47
2:SA:55:LEU:H	2:SA:55:LEU:CD1	2.23	0.47
23:SU:16:LYS:O	23:SU:29:VAL:HB	2.13	0.47
32:S1:186:A:H61	32:S1:194:G:C1'	2.26	0.47
32:S1:860:A:C5	46:LT:173:LYS:HB3	2.39	0.47
32:S1:887:U:O4'	83:Lm:85:ARG:NH2	2.47	0.47
32:S1:1180:U:H2'	32:S1:1181:G:C8	2.49	0.47
32:S1:1747:A:O2'	33:L1:1915:G:C2	2.54	0.47
32:S1:1758:G:H2'	32:S1:1759:A:H8	1.79	0.47
33:L1:206:C:C2	33:L1:220:G:N2	2.82	0.47
33:L1:641:C:HO2'	33:L1:642:C:H6	0.67	0.47
33:L1:1162:A:OP1	78:Le:113:ILE:HD11	2.14	0.47
33:L1:1179:C:O3'	82:LK:94:PRO:HD3	2.13	0.47
33:L1:1368:U:O4'	33:L1:1368:U:N1	2.44	0.47
33:L1:1387:G:H4'	81:LD:247:PRO:HB2	1.97	0.47
33:L1:1623:C:O2'	33:L1:1624:G:C8	2.58	0.47
33:L1:2192:C:N4	33:L1:2236:U:H2'	2.29	0.47
33:L1:2628:C:O4'	33:L1:2628:C:N1	2.45	0.47
33:L1:2701:G:N2	33:L1:2760:U:O2	2.47	0.47
33:L1:3320:G:O4'	33:L1:3320:G:C8	2.68	0.47
36:LA:54:LEU:CD1	36:LA:133:PHE:HA	2.44	0.47
36:LA:102:LEU:HD12	36:LA:102:LEU:C	2.39	0.47
37:LB:90:CYS:SG	37:LB:101:VAL:HG11	2.54	0.47
37:LB:135:ILE:HG23	37:LB:135:ILE:O	2.14	0.47
43:LO:64:LEU:HA	65:LL:154:UNK:HA	1.95	0.47
48:LV:1:MET:HG2	48:LV:2:VAL:N	2.29	0.47
55:Lg:11:ARG:HA	55:Lg:11:ARG:NE	2.29	0.47
64:LG:91:LYS:HB3	64:LG:152:LYS:HG2	1.95	0.47
66:LN:6:PHE:CZ	66:LN:27:ILE:CD1	2.97	0.47
79:Ls:144:LEU:CD1	79:Ls:174:GLU:HA	2.45	0.47
79:Ls:234:TYR:N	79:Ls:235:PRO:CD	2.77	0.47
1:Sa:97:THR:HG1	1:Sa:98:SER:N	2.12	0.47
2:SA:79:ILE:CD1	2:SA:101:HIS:HD2	2.27	0.47
2:SA:106:ARG:HG2	32:S1:1324:U:OP2	2.14	0.47
5:SE:30:ARG:CG	27:SH:67:GLY:HA2	2.44	0.47
10:SL:5:ARG:HA	14:SP:77:HIS:CB	2.43	0.47
23:SU:10:VAL:HB	23:SU:41:SER:HB3	1.96	0.47
32:S1:348:A:H5''	46:LT:139:MET:HB2	1.96	0.47
32:S1:1748:U:C6	33:L1:1916:U:C5'	2.69	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:406:A:N6	35:L2:19:G:H1'	2.29	0.47
33:L1:1179:C:O3'	82:LK:94:PRO:CD	2.62	0.47
33:L1:1394:C:O4'	33:L1:1394:C:C6	2.66	0.47
33:L1:1595:G:OP2	73:Lp:35:ARG:HB2	2.15	0.47
33:L1:2561:A:H4'	33:L1:2562:A:OP1	2.14	0.47
33:L1:3301:G:O2'	48:LV:70:THR:OG1	2.25	0.47
34:L3:111:U:C4	34:L3:112:U:C4	3.02	0.47
36:LA:83:TYR:HE2	36:LA:85:ASP:C	2.22	0.47
36:LA:109:PHE:CD2	36:LA:136:LEU:CD2	2.98	0.47
36:LA:149:GLU:OE1	36:LA:149:GLU:HA	2.12	0.47
38:LE:74:ARG:HG2	38:LE:75:GLY:H	1.80	0.47
70:Li:32:TYR:CB	70:Li:71:ARG:H	2.27	0.47
77:Lc:91:ALA:HA	77:Lc:94:ARG:HE	1.80	0.47
79:Ls:163:LEU:CD2	79:Ls:164:ILE:HG13	2.44	0.47
1:Sa:232:LEU:HD13	1:Sa:278:MET:SD	2.55	0.47
2:SA:120:PHE:HE1	5:SE:102:GLY:HA3	1.54	0.47
3:SB:68:GLU:OE1	13:SQ:21:TYR:O	2.32	0.47
4:SD:121:PHE:CG	4:SD:161:LYS:HE2	2.50	0.47
5:SE:42:GLU:O	5:SE:46:PRO:HD2	2.14	0.47
5:SE:252:TYR:CB	27:SH:99:PHE:HB3	2.45	0.47
6:SF:56:ARG:NE	19:SY:52:LEU:HD21	2.29	0.47
14:SP:57:LYS:CA	46:LT:146:LYS:N	2.77	0.47
15:SS:118:VAL:CG2	15:SS:124:ARG:HH11	2.26	0.47
23:SU:22:LEU:HD22	23:SU:96:ARG:HG3	1.96	0.47
25:SC:16:LYS:HB2	25:SC:17:PRO:HD2	1.95	0.47
32:S1:989:G:OP1	37:LB:175:THR:CA	2.59	0.47
32:S1:1677:U:C6	32:S1:1678:G:C8	3.02	0.47
33:L1:56:A:H1'	42:LP:162:ARG:CZ	2.44	0.47
33:L1:404:G:N3	35:L2:20:G:C2	2.82	0.47
33:L1:899:A:H5'	37:LB:183:GLY:HA2	1.96	0.47
33:L1:1105:G:H4'	33:L1:1107:G:N7	2.30	0.47
33:L1:1190:C:H4'	67:LS:115:ARG:NH1	2.30	0.47
33:L1:1850:C:H5''	73:Lp:53:ASN:OD1	2.14	0.47
34:L3:6:C:OP1	45:LQ:31:LYS:CG	2.62	0.47
41:LM:72:LEU:H	41:LM:72:LEU:CD2	2.27	0.47
45:LQ:31:LYS:HD3	45:LQ:55:PHE:CZ	2.49	0.47
56:Lh:3:VAL:CB	56:Lh:4:PRO:HD3	2.35	0.47
76:Lw:54:LEU:CD2	79:Ls:245:LEU:HG	2.44	0.47
81:LD:99:MET:HA	81:LD:99:MET:HE3	1.96	0.47
3:SB:96:LEU:HA	3:SB:169:ASP:HB2	1.95	0.47
11:SM:18:THR:N	38:LE:109:GLN:NE2	2.60	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:SV:51:LEU:HB2	17:SV:52:LEU:HD23	1.97	0.47
27:SH:72:CYS:SG	27:SH:129:PHE:CE2	3.07	0.47
28:SN:38:CYS:C	32:S1:1440:U:OP1	2.58	0.47
29:ST:5:GLU:CB	29:ST:81:GLN:HA	2.44	0.47
32:S1:260:A:C2'	32:S1:261:C:H5'	2.44	0.47
32:S1:483:C:C2'	32:S1:484:A:H5'	2.45	0.47
32:S1:1227:A:C4	32:S1:1268:G:N2	2.82	0.47
32:S1:1387:U:H2'	32:S1:1388:A:C8	2.49	0.47
33:L1:308:U:H2'	33:L1:309:C:H4'	1.97	0.47
33:L1:355:C:O2'	81:LD:86:GLY:O	2.24	0.47
33:L1:408:U:H3	35:L2:17:A:H61	1.61	0.47
33:L1:1081:U:C6	33:L1:1082:U:OP2	2.67	0.47
33:L1:1564:C:O4'	33:L1:1564:C:C6	2.67	0.47
33:L1:2147:U:H4'	37:LB:244:GLY:N	2.21	0.47
33:L1:2906:U:H2'	33:L1:2907:U:C6	2.49	0.47
34:L3:32:A:H2	34:L3:34:C:N4	2.10	0.47
34:L3:58:G:H2'	34:L3:59:U:C5	2.48	0.47
36:LA:83:TYR:CE2	36:LA:86:VAL:N	2.81	0.47
36:LA:106:TYR:HE2	36:LA:140:GLN:CA	2.28	0.47
38:LE:38:VAL:HG13	38:LE:110:GLU:HB2	1.96	0.47
40:LH:126:ILE:CG2	40:LH:201:ASN:HD22	2.22	0.47
44:LR:40:THR:HA	81:LD:325:LYS:HB3	1.96	0.47
44:LR:128:LEU:CD1	81:LD:313:GLU:HA	2.45	0.47
48:LV:1:MET:HA	48:LV:4:TYR:CZ	2.49	0.47
55:Lg:1:MET:O	55:Lg:1:MET:SD	2.72	0.47
64:LG:22:ARG:HD3	64:LG:28:ILE:HG12	1.96	0.47
66:LN:14:LEU:HD22	66:LN:15:VAL:N	2.20	0.47
66:LN:32:ASP:CG	66:LN:33:GLN:H	2.19	0.47
69:La:25:ILE:CB	69:La:27:ARG:H	2.27	0.47
75:Lt:14:ILE:HB	76:Lv:5:ALA:HB1	1.97	0.47
75:Lt:59:ILE:CG2	79:Ls:224:MET:HG2	2.44	0.47
75:Lu:9:THR:OG1	79:Ls:251:VAL:HG13	2.14	0.47
76:Lv:55:LEU:CD1	79:Ls:222:VAL:HG11	2.45	0.47
79:Ls:36:VAL:HG22	79:Ls:188:TYR:HB3	1.97	0.47
80:LC:80:GLU:HG3	80:LC:321:VAL:HG22	1.97	0.47
4:SD:152:PRO:O	4:SD:153:ILE:HB	2.13	0.47
4:SD:162:ILE:HG22	4:SD:163:ASP:O	2.15	0.47
4:SD:238:LEU:HD23	4:SD:238:LEU:C	2.40	0.47
5:SE:258:LYS:HZ1	27:SH:69:LEU:HB3	1.63	0.47
11:SM:10:GLN:C	38:LE:118:TYR:CD2	2.57	0.47
14:SP:93:HIS:HE1	33:L1:2080:G:C1'	2.20	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:SS:9:VAL:N	15:SS:138:ALA:CB	2.77	0.47
24:SX:66:CYS:HB3	24:SX:75:LEU:HD22	1.95	0.47
25:SC:32:LEU:HD23	25:SC:32:LEU:C	2.40	0.47
26:SG:81:UNK:O	26:SG:84:UNK:HA	2.15	0.47
30:S3:16:G:C4	30:S3:16:G:H2'	2.50	0.47
32:S1:62:A:H61	32:S1:89:U:H3	1.63	0.47
32:S1:1151:G:H21	32:S1:1643:A:H2	1.62	0.47
32:S1:1552:U:H2'	32:S1:1553:A:C8	2.49	0.47
32:S1:1675:G:C1'	33:L1:1932:A:N3	2.77	0.47
33:L1:412:C:C4'	48:LV:6:ARG:HH12	2.27	0.47
33:L1:700:C:O4'	33:L1:700:C:C6	2.67	0.47
33:L1:885:A:H2'	33:L1:886:A:H5''	1.96	0.47
33:L1:1228:C:O2'	33:L1:1229:A:H5'	2.14	0.47
33:L1:1241:G:O4'	33:L1:1241:G:C8	2.67	0.47
33:L1:1299:G:H5'	67:LS:116:HIS:O	2.14	0.47
33:L1:2199:C:O4'	33:L1:2199:C:C6	2.67	0.47
33:L1:2602:U:H2'	33:L1:2603:C:C6	2.50	0.47
36:LA:41:ASP:HA	36:LA:199:ASN:O	2.15	0.47
37:LB:104:ILE:HG21	37:LB:146:SER:OG	2.15	0.47
37:LB:142:ASP:CG	37:LB:145:THR:H	2.23	0.47
38:LE:41:GLN:OE1	38:LE:120:PRO:HD3	2.14	0.47
45:LQ:48:TYR:CE1	45:LQ:106:LEU:HD23	2.49	0.47
45:LQ:201:GLY:C	45:LQ:202:GLY:HA3	2.34	0.47
56:Lh:5:LEU:HB3	56:Lh:64:THR:CG2	2.44	0.47
68:LW:21:VAL:HB	68:LW:85:LEU:HD21	1.95	0.47
75:Lt:14:ILE:HD13	76:Lv:5:ALA:HB3	1.96	0.47
77:Lc:114:HIS:CG	77:Lc:115:PHE:H	2.32	0.47
77:Lc:117:GLN:HG2	77:Lc:118:ARG:H	1.78	0.47
78:Le:36:LYS:CG	81:LD:358:LYS:CG	2.92	0.47
78:Le:40:ALA:HB2	81:LD:362:LYS:HG2	1.95	0.47
84:LI:110:ARG:HA	84:LI:116:ARG:HE	1.80	0.47
2:SA:159:ARG:C	5:SE:37:PRO:HG3	2.40	0.47
4:SD:153:ILE:HD11	4:SD:174:LYS:CD	2.44	0.47
5:SE:152:TYR:HB2	5:SE:220:VAL:HG12	1.97	0.47
5:SE:153:TRP:CZ2	5:SE:243:LYS:HE3	2.50	0.47
6:SF:191:GLU:HG3	6:SF:194:ARG:HH21	1.78	0.47
8:SJ:66:PRO:HG2	32:S1:1387:U:HO2'	1.79	0.47
10:SL:66:ARG:NH1	32:S1:438:G:H5''	2.28	0.47
15:SS:9:VAL:HG22	15:SS:135:ASP:O	2.14	0.47
15:SS:9:VAL:CB	15:SS:135:ASP:HA	2.42	0.47
24:SX:39:CYS:HA	24:SX:77:GLU:OE2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:SH:98:GLN:HG2	27:SH:98:GLN:O	2.14	0.47
31:S2:74:C:O2	33:L1:2405:C:OP2	2.31	0.47
32:S1:67:G:C2	32:S1:147:C:H5'	2.50	0.47
32:S1:632:G:O2'	33:L1:849:A:O4'	2.33	0.47
32:S1:928:A:N3	37:LB:137:ILE:HD11	2.29	0.47
32:S1:1343:C:H42	32:S1:1391:G:H1	1.63	0.47
32:S1:1748:U:H1'	33:L1:1915:G:O3'	1.82	0.47
33:L1:82:C:H2'	33:L1:83:U:H6	1.77	0.47
33:L1:359:A:H4'	57:L1:45:ARG:HH22	1.79	0.47
33:L1:639:A:H2'	33:L1:639:A:N3	2.30	0.47
33:L1:817:U:C4'	57:L1:35:SER:HB2	2.45	0.47
33:L1:847:G:C6	33:L1:848:G:C6	3.03	0.47
33:L1:1179:C:H4'	82:LK:94:PRO:HD2	1.94	0.47
33:L1:1651:A:H2	33:L1:1797:U:H3	1.62	0.47
33:L1:1824:C:C4	33:L1:1825:G:N7	2.83	0.47
33:L1:1945:A:OP1	46:LT:104:ARG:CD	2.63	0.47
33:L1:2202:A:OP2	33:L1:2203:A:C8	2.67	0.47
33:L1:2433:U:H3'	42:LP:20:ARG:HH21	1.79	0.47
33:L1:2665:A:H2'	33:L1:2666:G:H8	1.79	0.47
33:L1:2684:U:C4	33:L1:2685:C:C4	3.03	0.47
33:L1:2774:A:OP1	60:Lr:79:HIS:HE1	1.98	0.47
33:L1:2843:G:H2'	33:L1:2846:C:H42	1.80	0.47
33:L1:3018:A:H4'	41:LM:9:SER:O	2.15	0.47
33:L1:3301:G:C2'	33:L1:3302:A:H5'	2.44	0.47
34:L3:48:G:H22	34:L3:50:A:N6	2.02	0.47
35:L2:141:G:P	49:LX:66:LYS:HE3	2.55	0.47
36:LA:56:HIS:CE1	36:LA:149:GLU:HG2	2.50	0.47
36:LA:67:LEU:C	36:LA:83:TYR:CE1	2.91	0.47
37:LB:112:VAL:CG1	37:LB:133:TYR:CB	2.93	0.47
37:LB:139:HIS:HB3	37:LB:140:ASN:O	2.14	0.47
37:LB:180:LEU:HD13	83:Lm:14:TYR:OH	2.14	0.47
44:LR:104:ARG:HH22	44:LR:106:THR:HG23	1.80	0.47
56:Lh:75:PHE:CG	56:Lh:86:LEU:HD21	2.49	0.47
56:Lh:119:VAL:O	56:Lh:120:VAL:HG13	2.15	0.47
63:Lz:2:UNK:O	63:Lz:3:UNK:O	2.30	0.47
68:LW:32:GLU:HG3	68:LW:33:ASP:H	1.79	0.47
69:La:24:VAL:HB	69:La:45:GLY:HA2	1.97	0.47
69:La:55:ARG:HH12	69:La:62:THR:H	1.62	0.47
74:LJ:41:LYS:HA	74:LJ:41:LYS:CE	2.44	0.47
76:Lw:54:LEU:HD13	79:Ls:244:PHE:HB3	1.97	0.47
79:Ls:35:ASN:CB	79:Ls:188:TYR:HD1	2.27	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
80:LC:311:PRO:HD3	80:LC:315:PHE:CZ	2.50	0.47
2:SA:76:GLN:OE1	2:SA:78:ILE:HD11	2.15	0.47
4:SD:159:THR:OG1	4:SD:227:THR:HG23	2.15	0.47
6:SF:40:LYS:CE	7:SI:122:LEU:HD13	2.42	0.47
7:SI:58:ILE:CG2	15:SS:12:VAL:HA	2.37	0.47
12:SO:100:LYS:HB3	54:Lf:83:THR:H	1.79	0.47
20:SZ:10:ARG:NH1	32:S1:1254:U:P	2.88	0.47
23:SU:30:LEU:HG	23:SU:78:PHE:HB2	1.97	0.47
24:SX:34:PHE:CD1	24:SX:34:PHE:N	2.83	0.47
31:S2:73:C:H2'	31:S2:74:C:H5'	1.95	0.47
32:S1:349:U:H3'	46:LT:132:PHE:HD1	1.78	0.47
32:S1:450:A:N6	32:S1:465:G:H21	2.08	0.47
32:S1:977:G:N2	33:L1:850:A:O4'	2.48	0.47
32:S1:1152:A:H61	32:S1:1638:U:H3	1.62	0.47
32:S1:1154:G:H2'	32:S1:1156:A:C8	2.50	0.47
32:S1:1482:U:H3	32:S1:1539:A:H61	1.61	0.47
32:S1:1800:A:N6	32:S1:1801:A:N6	2.63	0.47
33:L1:486:G:H2'	33:L1:487:C:C6	2.50	0.47
33:L1:664:A:C2	33:L1:1438:A:C2	3.02	0.47
33:L1:817:U:H5''	57:L1:35:SER:CB	2.44	0.47
33:L1:838:G:H1'	33:L1:861:A:N6	2.28	0.47
33:L1:1418:C:N4	33:L1:1419:G:C6	2.83	0.47
33:L1:1636:C:C6	69:La:24:VAL:CG2	2.98	0.47
33:L1:2506:G:H2'	33:L1:2507:U:C6	2.50	0.47
34:L3:35:C:C1'	45:LQ:200:TYR:OH	2.63	0.47
34:L3:58:G:C2'	34:L3:59:U:H6	2.27	0.47
43:LO:64:LEU:HD13	65:LL:156:UNK:N	2.30	0.47
48:LV:2:VAL:HG22	48:LV:3:LYS:N	2.28	0.47
68:LW:88:LEU:O	68:LW:92:TYR:CE2	2.67	0.47
76:Lv:23:LEU:HD23	76:Lv:39:MET:HG3	1.96	0.47
78:Le:61:ASP:HB3	78:Le:64:LEU:HD12	1.96	0.47
4:SD:131:PHE:HB3	32:S1:247:A:C4'	2.44	0.47
11:SM:14:ARG:CB	38:LE:111:HIS:CE1	2.89	0.47
11:SM:51:ASP:H	11:SM:54:LYS:HD2	1.78	0.47
13:SQ:17:ILE:HA	13:SQ:21:TYR:HA	1.96	0.47
14:SP:93:HIS:CG	33:L1:2080:G:H4'	2.35	0.47
25:SC:10:LYS:HD3	32:S1:505:U:H4'	1.97	0.47
32:S1:858:G:H2'	46:LT:176:ARG:CD	2.43	0.47
32:S1:1062:C:H2'	32:S1:1063:U:C1'	2.45	0.47
33:L1:298:G:H2'	33:L1:299:G:C8	2.49	0.47
33:L1:1295:A:H2'	33:L1:1296:C:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1506:A:H61	33:L1:1519:C:H1'	1.80	0.47
33:L1:1650:G:H1'	69:La:56:LYS:H	1.79	0.47
33:L1:1736:C:H2'	33:L1:1737:C:C6	2.50	0.47
33:L1:2696:C:HO2'	33:L1:2758:C:H6	1.61	0.47
34:L3:4:U:C2	34:L3:115:A:N1	2.83	0.47
36:LA:107:HIS:CG	36:LA:129:LYS:HD3	2.48	0.47
36:LA:109:PHE:CD2	36:LA:136:LEU:HD21	2.49	0.47
37:LB:107:VAL:HG13	37:LB:139:HIS:HE1	1.78	0.47
44:LR:40:THR:C	81:LD:325:LYS:CD	2.77	0.47
56:Lh:31:THR:HG23	56:Lh:32:SER:N	2.30	0.47
56:Lh:43:VAL:HG22	56:Lh:50:CYS:O	2.15	0.47
64:LG:83:LEU:HD22	64:LG:124:TYR:O	2.15	0.47
66:LN:41:PRO:CG	66:LN:75:MET:CE	2.56	0.47
67:LS:112:MET:HA	67:LS:116:HIS:CD2	2.49	0.47
71:Lj:12:TYR:CB	71:Lj:13:VAL:HB	2.44	0.47
78:Le:170:VAL:HG11	81:LD:355:ARG:HD2	1.97	0.47
81:LD:383:LYS:C	81:LD:386:ILE:CD1	2.85	0.47
1:Sa:134:ILE:O	1:Sa:135:PHE:CG	2.68	0.47
2:SA:182:LEU:HD23	2:SA:182:LEU:O	2.15	0.47
4:SD:45:ILE:HD12	4:SD:80:LYS:O	2.14	0.47
4:SD:194:VAL:O	4:SD:194:VAL:HG23	2.15	0.47
4:SD:238:LEU:HD23	4:SD:239:PRO:N	2.29	0.47
10:SL:39:PRO:CB	10:SL:64:ALA:HA	2.31	0.47
10:SL:67:LYS:NZ	32:S1:1753:U:C5'	2.78	0.47
14:SP:41:LEU:HB2	14:SP:103:LYS:HE2	1.96	0.47
15:SS:6:ALA:CB	32:S1:1363:G:O4'	2.62	0.47
19:SY:47:ARG:C	19:SY:48:GLU:CA	2.78	0.47
23:SU:19:THR:HG21	23:SU:93:PRO:HB3	1.97	0.47
24:SX:74:ARG:C	24:SX:75:LEU:HG	2.39	0.47
31:S2:24:A:C6	33:L1:2260:C:O2'	2.68	0.47
32:S1:436:G:H2'	32:S1:437:C:C6	2.49	0.47
32:S1:1351:U:H3	32:S1:1386:U:H1'	1.79	0.47
32:S1:1586:U:H2'	32:S1:1587:G:C8	2.50	0.47
32:S1:1615:G:H3'	32:S1:1616:U:H5	1.79	0.47
32:S1:1673:C:C3'	33:L1:1914:C:H4'	2.45	0.47
33:L1:16:A:H4'	49:LX:58:ARG:CB	2.45	0.47
33:L1:267:G:O4'	33:L1:267:G:N9	2.43	0.47
33:L1:375:G:N2	33:L1:389:A:N6	2.62	0.47
33:L1:1217:G:O2'	67:LS:93:TYR:O	2.32	0.47
33:L1:1265:G:H4'	33:L1:1282:A:N1	2.29	0.47
33:L1:1692:U:H5''	73:Lp:41:HIS:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1725:G:H2'	33:L1:1726:G:C8	2.50	0.47
33:L1:2148:U:C5'	37:LB:240:ALA:HB1	2.45	0.47
33:L1:2169:U:H5''	37:LB:54:ARG:CG	2.45	0.47
33:L1:2882:U:H2'	33:L1:2883:C:C6	2.49	0.47
33:L1:3373:C:H4'	80:LC:317:HIS:H	1.80	0.47
34:L3:20:C:C4'	45:LQ:252:THR:HG23	2.44	0.47
38:LE:35:ALA:O	38:LE:38:VAL:HG12	2.15	0.47
38:LE:164:TRP:O	38:LE:167:VAL:HB	2.16	0.47
41:LM:91:LYS:O	80:LC:72:THR:OG1	2.33	0.47
51:LY:76:ARG:HA	51:LY:76:ARG:NE	2.28	0.47
64:LG:54:ASP:OD1	64:LG:57:LYS:NZ	2.47	0.47
67:LS:74:ILE:HG12	67:LS:97:ARG:HH21	1.80	0.47
74:LJ:99:ILE:HG23	74:LJ:101:HIS:O	2.14	0.47
75:Lu:58:LEU:HD22	79:Ls:254:VAL:HA	1.97	0.47
78:Le:40:ALA:CB	81:LD:362:LYS:CE	2.91	0.47
4:SD:63:SER:O	4:SD:67:GLN:HG3	2.15	0.46
4:SD:133:GLN:H	4:SD:136:ILE:HG13	1.78	0.46
6:SF:164:THR:HG21	17:SV:100:LEU:CD1	2.45	0.46
11:SM:137:LYS:CD	11:SM:137:LYS:H	2.27	0.46
12:SO:69:SER:C	24:SX:49:PHE:HZ	2.21	0.46
25:SC:16:LYS:CB	25:SC:17:PRO:HD2	2.45	0.46
27:SH:110:ILE:H	27:SH:110:ILE:HG22	1.47	0.46
30:S3:16:G:C1'	30:S3:16:G:O2'	2.53	0.46
32:S1:1745:U:P	33:L1:1931:G:OP1	2.73	0.46
33:L1:639:A:P	56:Lh:42:ARG:HG3	2.55	0.46
33:L1:972:C:C6	33:L1:972:C:H3'	2.50	0.46
33:L1:1220:G:C6	33:L1:1221:A:C6	3.04	0.46
33:L1:1350:G:H4'	81:LD:329:ALA:HB1	1.96	0.46
33:L1:1524:G:OP1	49:LX:131:LYS:NZ	2.46	0.46
33:L1:1637:G:P	69:La:25:ILE:HB	2.55	0.46
33:L1:1649:G:H21	69:La:56:LYS:HB2	1.80	0.46
33:L1:1902:G:H4'	33:L1:1903:C:C6	2.49	0.46
33:L1:1945:A:OP1	46:LT:104:ARG:HD2	2.15	0.46
33:L1:2701:G:H2'	33:L1:2702:G:C8	2.49	0.46
33:L1:2919:G:OP1	41:LM:49:LEU:HA	2.14	0.46
33:L1:3068:U:H3'	46:LT:62:ARG:HH12	1.80	0.46
34:L3:4:U:H3	34:L3:115:A:H61	1.62	0.46
34:L3:115:A:O3'	45:LQ:75:VAL:HG22	2.15	0.46
36:LA:119:ILE:HG23	36:LA:120:PRO:N	2.29	0.46
37:LB:103:PRO:HA	37:LB:163:ARG:HA	1.96	0.46
45:LQ:127:THR:HG23	45:LQ:129:GLU:HB3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:Lg:1:MET:HG3	55:Lg:52:MET:HB3	1.96	0.46
64:LG:125:VAL:N	64:LG:183:VAL:HG21	2.24	0.46
66:LN:6:PHE:CD1	67:LS:161:PRO:HB2	2.50	0.46
75:Lt:29:THR:C	76:Lv:29:SER:HG	2.20	0.46
78:Le:184:GLU:HB3	81:LD:358:LYS:CE	2.45	0.46
2:SA:71:ALA:HB2	5:SE:65:ILE:CG2	2.44	0.46
2:SA:129:THR:O	2:SA:131:PRO:HD3	2.15	0.46
3:SB:54:ARG:C	3:SB:56:GLN:H	2.23	0.46
4:SD:123:LEU:HD21	4:SD:161:LYS:HD3	1.96	0.46
5:SE:183:ARG:NH1	5:SE:251:GLU:CD	2.73	0.46
5:SE:197:LEU:CD1	32:S1:1302:C:C2	2.97	0.46
5:SE:244:PHE:O	5:SE:248:PRO:HD2	2.15	0.46
8:SJ:80:GLY:N	8:SJ:83:THR:OG1	2.48	0.46
9:SK:85:LYS:HD3	9:SK:115:LEU:O	2.14	0.46
11:SM:135:HIS:CE1	11:SM:139:THR:OG1	2.69	0.46
16:SR:145:THR:O	32:S1:1186:U:H5'	2.15	0.46
17:SV:42:LEU:HA	17:SV:47:THR:HG23	1.96	0.46
24:SX:61:CYS:O	24:SX:62:GLN:HB2	2.16	0.46
32:S1:860:A:P	46:LT:173:LYS:O	2.73	0.46
32:S1:887:U:H4'	83:Lm:88:GLU:C	2.40	0.46
32:S1:1053:C:H2'	32:S1:1054:G:C8	2.50	0.46
32:S1:1674:C:H2'	32:S1:1675:G:C8	2.50	0.46
33:L1:213:G:OP2	81:LD:204:ARG:HD2	2.16	0.46
33:L1:686:A:N1	33:L1:704:G:H1'	2.30	0.46
33:L1:923:A:H3'	33:L1:925:U:O4	2.14	0.46
33:L1:1766:U:O3'	33:L1:1767:G:H4'	2.15	0.46
33:L1:1778:C:H2'	33:L1:1779:C:C6	2.50	0.46
33:L1:1826:G:N1	35:L2:120:G:OP1	2.46	0.46
33:L1:2148:U:H4'	37:LB:240:ALA:CA	2.44	0.46
33:L1:3034:A:C2	39:LF:117:LEU:O	2.68	0.46
35:L2:128:C:H2'	35:L2:129:C:C6	2.50	0.46
36:LA:52:VAL:HG22	36:LA:155:LYS:HD3	1.97	0.46
38:LE:112:ILE:C	38:LE:112:ILE:HD12	2.40	0.46
46:LT:110:ARG:C	46:LT:113:LYS:H	2.22	0.46
55:Lg:83:ILE:HG13	55:Lg:94:LYS:HG2	1.97	0.46
64:LG:100:GLN:NE2	64:LG:103:LEU:HD12	2.29	0.46
64:LG:171:LYS:NZ	64:LG:179:ASP:OD1	2.48	0.46
73:Lp:52:LYS:HB2	73:Lp:53:ASN:N	2.30	0.46
1:Sa:105:LYS:HZ3	7:SI:29:LYS:NZ	2.13	0.46
1:Sa:249:GLU:CD	1:Sa:274:ARG:HH22	2.23	0.46
6:SF:162:ILE:HG23	17:SV:69:ARG:HE	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:SI:91:ILE:HD12	7:SI:91:ILE:HA	1.93	0.46
9:SK:85:LYS:HG2	9:SK:115:LEU:O	2.15	0.46
17:SV:73:ASN:N	17:SV:78:ARG:HH21	2.09	0.46
19:SY:46:VAL:CG2	19:SY:47:ARG:N	2.77	0.46
23:SU:18:MET:SD	23:SU:94:LYS:CG	3.03	0.46
23:SU:29:VAL:HG22	23:SU:78:PHE:CE1	2.51	0.46
24:SX:37:VAL:HB	24:SX:77:GLU:HG2	1.98	0.46
26:SG:95:UNK:C	26:SG:97:UNK:HA	2.46	0.46
32:S1:1:U:C6	32:S1:2:A:C2	3.04	0.46
32:S1:200:C:C6	32:S1:201:G:H5''	2.50	0.46
32:S1:690:G:C8	32:S1:690:G:C3'	2.98	0.46
32:S1:876:A:H2'	32:S1:877:G:C8	2.50	0.46
32:S1:1279:A:N1	32:S1:1443:U:O2	2.48	0.46
33:L1:360:G:P	57:L1:54:ILE:CD1	3.04	0.46
33:L1:361:G:OP1	57:L1:52:LYS:NZ	2.47	0.46
33:L1:649:A:C3'	56:Lh:40:ASP:OD2	2.63	0.46
33:L1:807:C:H5'	81:LD:98:ASN:HB2	1.98	0.46
33:L1:1194:C:H5''	82:LK:54:ARG:NE	2.31	0.46
33:L1:1369:G:OP2	44:LR:1:MET:CG	2.62	0.46
33:L1:2097:C:H5'	46:LT:89:LEU:HD21	1.97	0.46
33:L1:2518:A:N6	33:L1:2595:G:H1'	2.31	0.46
33:L1:2634:U:H2'	33:L1:2635:G:H8	1.81	0.46
33:L1:3295:G:C2	33:L1:3304:U:O2	2.68	0.46
34:L3:6:C:O2'	45:LQ:47:LYS:NZ	2.47	0.46
34:L3:34:C:N4	34:L3:46:C:C4	2.80	0.46
34:L3:44:C:C5	34:L3:45:U:C5	3.03	0.46
34:L3:113:G:C3'	45:LQ:71:ALA:HB1	2.43	0.46
36:LA:189:LEU:HD12	65:LL:194:UNK:CA	2.46	0.46
46:LT:58:HIS:HE1	46:LT:61:SER:HB2	1.81	0.46
48:LV:114:TYR:CD1	48:LV:156:GLU:N	2.83	0.46
48:LV:127:ARG:HD2	48:LV:141:MET:HE1	1.94	0.46
56:Lh:75:PHE:HB3	56:Lh:86:LEU:HD21	1.97	0.46
56:Lh:95:ALA:H	56:Lh:120:VAL:HG21	1.79	0.46
66:LN:129:LYS:HE2	82:LK:182:LEU:HD22	1.88	0.46
75:Lt:58:LEU:HD11	79:Ls:231:ALA:HB3	1.97	0.46
1:Sa:90:LEU:HD23	1:Sa:90:LEU:C	2.41	0.46
2:SA:76:GLN:HG3	2:SA:78:ILE:CD1	2.46	0.46
4:SD:160:ILE:CD1	4:SD:169:ILE:HD13	2.40	0.46
10:SL:74:VAL:CB	10:SL:104:PHE:CZ	2.97	0.46
17:SV:36:LYS:HB3	17:SV:42:LEU:HD12	1.97	0.46
25:SC:10:LYS:HD2	32:S1:505:U:H5'	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:SH:65:LEU:HD23	27:SH:71:LYS:N	2.31	0.46
31:S2:13:U:H5'	33:L1:2244:G:N2	2.28	0.46
32:S1:918:G:N3	33:L1:2202:A:O5'	2.49	0.46
32:S1:1108:U:C1'	32:S1:1108:U:O2'	2.56	0.46
33:L1:24:C:H2'	33:L1:25:U:C6	2.51	0.46
33:L1:238:C:C4	33:L1:239:C:C4	3.04	0.46
33:L1:262:A:C4	33:L1:262:A:H2'	2.50	0.46
33:L1:640:C:O5'	33:L1:640:C:C6	2.68	0.46
33:L1:641:C:H2'	33:L1:641:C:H5'	1.22	0.46
33:L1:645:C:H42	33:L1:649:A:H8	1.64	0.46
33:L1:680:G:N2	33:L1:789:A:N7	2.63	0.46
33:L1:745:G:C8	33:L1:745:G:H3'	2.50	0.46
33:L1:936:A:C8	33:L1:936:A:H3'	2.50	0.46
33:L1:1218:U:H2'	33:L1:1219:C:C6	2.49	0.46
33:L1:1299:G:H4'	67:LS:117:ARG:N	2.29	0.46
33:L1:1333:C:OP1	71:Lj:56:VAL:CB	2.63	0.46
33:L1:1391:A:N1	33:L1:1424:G:C5	2.83	0.46
33:L1:2149:G:H4'	37:LB:227:ARG:HH12	1.81	0.46
33:L1:2418:A:O4'	33:L1:2418:A:C8	2.67	0.46
33:L1:2465:G:N3	33:L1:2465:G:H2'	2.29	0.46
34:L3:6:C:OP1	45:LQ:31:LYS:HG3	2.15	0.46
34:L3:61:C:OP1	45:LQ:259:LYS:CA	2.64	0.46
48:LV:156:GLU:HB3	48:LV:157:PRO:CD	2.46	0.46
56:Lh:73:LYS:HB3	56:Lh:93:TYR:CE2	2.50	0.46
56:Lh:77:VAL:HG23	56:Lh:82:GLU:CB	2.24	0.46
68:LW:84:TYR:CA	68:LW:87:TYR:HB2	2.44	0.46
83:Lm:2:THR:HG23	83:Lm:4:ARG:HE	1.79	0.46
4:SD:86:PHE:HE1	4:SD:102:LEU:CD1	2.11	0.46
5:SE:142:LYS:HE2	32:S1:1304:A:C5'	2.40	0.46
8:SJ:54:ASP:HB3	8:SJ:61:GLY:H	1.80	0.46
14:SP:93:HIS:HA	46:LT:154:THR:HG22	1.97	0.46
17:SV:42:LEU:CA	17:SV:47:THR:HG23	2.45	0.46
29:ST:2:GLN:NE2	33:L1:2544:C:O2'	2.49	0.46
32:S1:588:C:H2'	32:S1:589:A:C8	2.51	0.46
32:S1:1374:G:H2'	32:S1:1375:C:C6	2.51	0.46
32:S1:1571:G:H2'	32:S1:1572:U:H5	1.76	0.46
33:L1:77:U:O3'	42:LP:185:ARG:HD3	2.16	0.46
33:L1:79:C:H2'	33:L1:80:C:C6	2.51	0.46
33:L1:99:A:H5''	42:LP:182:HIS:CG	2.39	0.46
33:L1:628:C:H2'	33:L1:629:U:C6	2.50	0.46
33:L1:1242:U:O2	33:L1:1255:A:C4	2.68	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1252:C:O4'	33:L1:1252:C:C6	2.68	0.46
33:L1:1447:G:C6	33:L1:1448:U:C2	3.04	0.46
33:L1:1621:G:C2	33:L1:1819:A:C2	3.04	0.46
33:L1:1629:A:N6	69:La:26:VAL:CG2	2.75	0.46
33:L1:1666:C:H2'	33:L1:1667:C:C6	2.51	0.46
36:LA:71:GLN:NE2	36:LA:140:GLN:HB2	2.30	0.46
38:LE:22:ASN:O	38:LE:127:MET:HB2	2.16	0.46
46:LT:137:VAL:N	46:LT:140:GLU:OE2	2.49	0.46
51:LY:76:ARG:HE	51:LY:76:ARG:CA	2.27	0.46
59:Lo:47:THR:C	59:Lo:48:LYS:HE2	2.40	0.46
68:LW:30:PRO:C	68:LW:31:VAL:HG22	2.41	0.46
76:Lv:42:MET:HE2	76:Lv:42:MET:HA	1.98	0.46
81:LD:328:ALA:HA	81:LD:329:ALA:CB	2.42	0.46
2:SA:78:ILE:HG22	2:SA:79:ILE:N	2.30	0.46
2:SA:81:GLN:HE21	2:SA:126:LEU:HD21	1.81	0.46
4:SD:104:ASP:OD2	4:SD:110:ARG:HD2	2.15	0.46
4:SD:153:ILE:CA	4:SD:154:ILE:HG13	2.46	0.46
4:SD:165:GLU:HA	4:SD:165:GLU:OE1	2.15	0.46
9:SK:92:LEU:HD13	9:SK:93:HIS:HB3	1.97	0.46
10:SL:67:LYS:HG2	10:SL:67:LYS:O	2.16	0.46
11:SM:12:ILE:HG12	38:LE:117:LYS:HG2	1.95	0.46
11:SM:117:ILE:HD13	16:SR:127:GLU:HB2	1.97	0.46
12:SO:70:LYS:N	24:SX:49:PHE:HZ	2.14	0.46
13:SQ:93:VAL:HG11	13:SQ:119:ARG:HB3	1.98	0.46
14:SP:65:VAL:O	14:SP:65:VAL:HG13	2.16	0.46
14:SP:124:VAL:O	46:LT:165:LYS:NZ	2.49	0.46
23:SU:10:VAL:HA	23:SU:34:HIS:HB2	1.96	0.46
23:SU:33:LEU:HG	23:SU:35:PRO:HG3	1.97	0.46
24:SX:48:VAL:HG22	24:SX:49:PHE:N	2.31	0.46
26:SG:6:UNK:O	46:LT:188:SER:OG	2.33	0.46
32:S1:37:U:H1'	32:S1:672:G:H22	1.79	0.46
32:S1:187:C:H2'	32:S1:188:U:O4'	2.16	0.46
32:S1:1445:C:H2'	32:S1:1446:C:C6	2.51	0.46
32:S1:1664:U:P	33:L1:1918:A:C4	3.09	0.46
33:L1:343:G:OP1	33:L1:1432:G:N2	2.49	0.46
33:L1:840:A:OP2	83:Lm:4:ARG:CZ	2.63	0.46
33:L1:1174:G:H5''	34:L3:84:U:N3	2.28	0.46
33:L1:1406:C:HO2'	56:Lh:66:HIS:HD1	0.50	0.46
33:L1:1900:C:O4'	33:L1:1900:C:C6	2.68	0.46
33:L1:3198:C:P	66:LN:89:TRP:HA	2.56	0.46
33:L1:3336:A:N6	33:L1:3353:G:H1'	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L3:42:A:C8	38:LE:74:ARG:NH1	2.84	0.46
38:LE:112:ILE:HD12	38:LE:112:ILE:O	2.15	0.46
40:LH:73:LEU:HD11	40:LH:76:PHE:HB3	1.96	0.46
43:LO:64:LEU:HD23	65:LL:154:UNK:C	2.46	0.46
79:Ls:75:ASN:HB3	79:Ls:196:TYR:CD1	2.51	0.46
79:Ls:99:LYS:HG2	79:Ls:209:LEU:HD21	1.97	0.46
1:Sa:346:ARG:HH11	32:S1:1398:U:C5'	1.95	0.46
4:SD:193:GLY:HA3	4:SD:210:VAL:HG11	1.97	0.46
6:SF:80:GLY:HA3	32:S1:1479:U:C6	2.41	0.46
9:SK:81:ALA:HB1	9:SK:115:LEU:HD23	1.94	0.46
11:SM:12:ILE:CD1	38:LE:120:PRO:HB2	2.45	0.46
11:SM:24:GLN:HB3	32:S1:1547:G:N2	2.31	0.46
12:SO:57:GLN:HG3	54:Lf:23:LYS:NZ	2.30	0.46
14:SP:94:PHE:CE1	14:SP:116:PHE:CE1	3.03	0.46
14:SP:121:GLY:HA2	46:LT:162:LYS:HZ3	1.64	0.46
23:SU:17:PHE:CE2	23:SU:86:ASP:O	2.69	0.46
31:S2:67:G:C3'	31:S2:68:C:H5''	2.46	0.46
32:S1:348:A:OP2	46:LT:137:VAL:N	2.49	0.46
32:S1:1180:U:H3	32:S1:1470:G:H1	1.64	0.46
33:L1:354:C:H5''	59:Lo:47:THR:HG21	1.96	0.46
33:L1:377:C:N4	33:L1:388:G:H1	2.06	0.46
33:L1:428:G:C5'	71:Lj:95:PRO:HG3	2.45	0.46
33:L1:638:G:H3'	33:L1:639:A:H4'	1.98	0.46
33:L1:997:G:C8	33:L1:997:G:O5'	2.69	0.46
33:L1:1184:U:OP1	33:L1:1185:G:H5''	2.14	0.46
33:L1:1646:U:H2'	33:L1:1647:C:H6	1.76	0.46
34:L3:6:C:C5'	45:LQ:49:ASN:HD21	2.29	0.46
36:LA:118:GLN:HB3	36:LA:122:LEU:CD1	2.46	0.46
36:LA:144:GLU:O	36:LA:147:VAL:HG22	2.15	0.46
38:LE:88:VAL:HB	38:LE:112:ILE:HD13	1.98	0.46
42:LP:180:THR:C	42:LP:182:HIS:H	2.23	0.46
45:LQ:187:GLU:O	45:LQ:223:PHE:CE1	2.69	0.46
70:Li:44:CYS:O	70:Li:45:PRO:C	2.59	0.46
71:Lj:14:ARG:HH22	71:Lj:15:GLY:HA2	1.81	0.46
71:Lj:57:TYR:CE1	71:Lj:94:PRO:HG2	2.51	0.46
75:Lu:7:ALA:CA	76:Lw:12:LEU:HD22	2.43	0.46
78:Le:40:ALA:HB2	81:LD:362:LYS:CG	2.45	0.46
84:LI:110:ARG:CB	84:LI:114:GLY:O	2.64	0.46
1:Sa:128:LEU:CB	32:S1:1392:G:OP1	2.64	0.46
5:SE:124:VAL:HG11	5:SE:239:TRP:CZ2	2.51	0.46
13:SQ:77:GLU:CG	13:SQ:78:ARG:H	2.27	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:SV:36:LYS:CB	17:SV:42:LEU:HD12	2.46	0.46
17:SV:76:LEU:HD11	32:S1:1541:C:P	2.56	0.46
25:SC:22:GLU:OE1	25:SC:26:LEU:HD13	2.16	0.46
25:SC:84:ARG:C	25:SC:86:GLY:H	2.24	0.46
25:SC:162:LEU:C	25:SC:163:THR:CB	2.89	0.46
27:SH:11:LEU:CD1	27:SH:15:TYR:CE1	2.99	0.46
31:S2:13:U:O5'	33:L1:2244:G:C2	2.68	0.46
31:S2:24:A:C1'	33:L1:2261:U:O5'	2.64	0.46
32:S1:860:A:N7	46:LT:174:ILE:CB	2.77	0.46
32:S1:1747:A:H2'	33:L1:1915:G:C2'	2.46	0.46
33:L1:954:A:C4	33:L1:1373:A:C2	3.03	0.46
33:L1:1181:A:H5'	33:L1:1181:A:C8	2.51	0.46
33:L1:1239:U:OP2	74:LJ:77:SER:HA	2.16	0.46
33:L1:1405:G:C4'	56:Lh:68:LEU:CD1	2.90	0.46
33:L1:1491:G:H1	33:L1:1850:C:H42	1.63	0.46
33:L1:1749:G:C8	58:Ln:64:LEU:HB2	2.50	0.46
33:L1:2899:A:N7	33:L1:2901:C:C6	2.84	0.46
33:L1:3351:A:H4'	68:LW:56:ALA:CB	2.46	0.46
34:L3:72:G:C2	34:L3:73:U:H1'	2.50	0.46
45:LQ:38:ILE:HD11	47:LU:30:TYR:CD1	2.51	0.46
56:Lh:10:ILE:O	56:Lh:13:LYS:HG3	2.16	0.46
64:LG:50:PHE:HB2	64:LG:51:TYR:H	1.59	0.46
66:LN:56:THR:HG21	66:LN:91:LYS:HE2	1.98	0.46
67:LS:28:ARG:HB2	78:Le:73:MET:N	2.30	0.46
67:LS:97:ARG:HG3	67:LS:142:LYS:HA	1.98	0.46
75:Lt:7:ALA:HA	76:Lv:9:LEU:CD1	2.43	0.46
80:LC:39:LYS:HD3	80:LC:39:LYS:H	1.80	0.46
84:LI:109:ASP:HB2	84:LI:116:ARG:NH1	2.30	0.46
1:Sa:66:SER:HB2	1:Sa:87:ASP:OD2	2.16	0.46
2:SA:113:THR:HG23	32:S1:1299:G:H5'	1.98	0.46
2:SA:117:GLN:HE22	32:S1:1327:C:H4'	1.81	0.46
2:SA:145:ASN:ND2	5:SE:76:GLN:O	2.49	0.46
3:SB:132:LYS:NZ	3:SB:190:LEU:O	2.49	0.46
8:SJ:68:LYS:CE	32:S1:1524:A:H5''	2.46	0.46
14:SP:98:TYR:HE1	46:LT:155:LEU:CG	2.20	0.46
14:SP:124:VAL:C	46:LT:165:LYS:NZ	2.74	0.46
17:SV:73:ASN:H	17:SV:78:ARG:NH2	2.13	0.46
17:SV:95:VAL:N	17:SV:101:ILE:HG23	2.31	0.46
23:SU:20:ASN:HB3	23:SU:23:LEU:CD1	2.37	0.46
31:S2:34:G:N2	32:S1:1645:C:C5	2.83	0.46
32:S1:187:C:C4	32:S1:188:U:C6	2.99	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:300:U:C2	32:S1:301:U:H5	2.34	0.46
32:S1:334:G:H1	32:S1:342:C:N4	2.10	0.46
32:S1:861:A:C2'	46:LT:170:ARG:CD	2.79	0.46
32:S1:1561:G:N2	32:S1:1563:A:H3'	2.31	0.46
33:L1:88:A:H61	33:L1:96:C:H42	1.64	0.46
33:L1:99:A:P	42:LP:182:HIS:HE1	2.38	0.46
33:L1:223:C:O2'	33:L1:224:C:H5'	2.16	0.46
33:L1:292:A:P	72:Lk:68:LYS:NZ	2.86	0.46
33:L1:304:A:H5''	72:Lk:65:LYS:HZ1	1.81	0.46
33:L1:637:C:H5''	33:L1:638:G:OP2	2.16	0.46
33:L1:678:G:H2'	33:L1:679:C:C6	2.51	0.46
33:L1:1432:G:H1'	81:LD:108:PRO:HG3	1.97	0.46
33:L1:1513:C:H2'	33:L1:1515:U:C4	2.50	0.46
33:L1:1649:G:N2	69:La:56:LYS:HB2	2.31	0.46
33:L1:2148:U:H2'	33:L1:2149:G:H8	1.81	0.46
33:L1:2170:G:H5''	37:LB:129:ALA:HB2	1.98	0.46
33:L1:2297:G:O2'	33:L1:2298:A:H5'	2.16	0.46
33:L1:2450:G:C2'	33:L1:2450:G:C4	2.99	0.46
33:L1:2607:U:C3'	37:LB:226:ARG:HH22	2.28	0.46
33:L1:2645:A:H2'	33:L1:2646:A:C8	2.51	0.46
33:L1:2737:A:H2'	33:L1:2738:U:C6	2.51	0.46
33:L1:2911:C:H2'	33:L1:2912:A:O4'	2.16	0.46
33:L1:3322:A:C6	33:L1:3323:U:C5	3.04	0.46
34:L3:19:A:N1	34:L3:59:U:O2	2.49	0.46
36:LA:54:LEU:CB	36:LA:151:LYS:HE2	2.46	0.46
36:LA:106:TYR:CE2	36:LA:140:GLN:CA	2.95	0.46
37:LB:10:LYS:HA	37:LB:16:PHE:CG	2.51	0.46
45:LQ:183:PHE:HB3	45:LQ:190:LEU:HG	1.96	0.46
55:Lg:15:VAL:CG2	55:Lg:85:ARG:H	2.28	0.46
56:Lh:71:LYS:HG2	56:Lh:71:LYS:O	2.16	0.46
1:Sa:201:PRO:O	1:Sa:202:SER:CB	2.63	0.46
1:Sa:221:PHE:O	1:Sa:232:LEU:HA	2.16	0.46
2:SA:229:TYR:HA	2:SA:232:VAL:HG23	1.97	0.46
10:SL:41:ALA:HB2	10:SL:62:ASN:CG	2.41	0.46
12:SO:57:GLN:CD	54:Lf:99:PRO:O	2.53	0.46
12:SO:119:GLU:O	12:SO:123:HIS:CD2	2.69	0.46
24:SX:44:ASN:HD22	24:SX:44:ASN:HA	1.50	0.46
24:SX:69:THR:HG23	24:SX:70:GLY:C	2.41	0.46
26:SG:126:UNK:O	26:SG:127:UNK:C	2.51	0.46
27:SH:22:LYS:CG	27:SH:61:ILE:HG12	2.46	0.46
27:SH:102:ILE:HG13	27:SH:127:GLY:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:S2:75:A:P	33:L1:2957:U:C5'	3.04	0.46
32:S1:299:A:C1'	32:S1:299:A:O2'	2.54	0.46
32:S1:349:U:C5'	46:LT:141:SER:HB2	2.29	0.46
32:S1:418:C:O2	32:S1:424:A:C2	2.69	0.46
32:S1:860:A:C2'	46:LT:173:LYS:CD	2.81	0.46
32:S1:1241:G:H21	32:S1:1246:A:H62	1.63	0.46
33:L1:418:G:C6	35:L2:7:A:C8	3.04	0.46
33:L1:678:G:O2'	81:LD:122:HIS:HB3	2.16	0.46
33:L1:936:A:H3'	33:L1:936:A:H8	1.81	0.46
33:L1:992:U:H2'	33:L1:993:A:O4'	2.16	0.46
33:L1:1147:U:O2'	33:L1:1148:G:C8	2.67	0.46
33:L1:1174:G:H5'	34:L3:84:U:N3	2.28	0.46
33:L1:1423:C:C5	81:LD:195:PRO:HD3	2.51	0.46
33:L1:1753:A:H1'	33:L1:1754:C:C6	2.51	0.46
33:L1:2707:A:C4'	45:LQ:35:ARG:HG3	2.42	0.46
34:L3:15:C:O4'	34:L3:15:C:C6	2.68	0.46
35:L2:67:C:O2	35:L2:67:C:H2'	2.16	0.46
36:LA:69:ASP:OD1	36:LA:106:TYR:HB3	2.15	0.46
36:LA:106:TYR:OH	36:LA:140:GLN:HA	2.15	0.46
36:LA:182:ILE:CD1	36:LA:186:VAL:CG2	2.94	0.46
45:LQ:218:LYS:NZ	45:LQ:222:HIS:CE1	2.84	0.46
55:Lg:15:VAL:CB	55:Lg:86:LYS:CB	2.87	0.46
55:Lg:82:ARG:CB	55:Lg:97:LEU:HD21	2.44	0.46
61:Lq:15:ARG:CZ	61:Lq:18:ARG:HD2	2.45	0.46
76:Lw:4:ILE:HD13	79:Ls:243:MET:CE	2.45	0.46
79:Ls:44:ILE:HG21	79:Ls:190:LEU:HG	1.98	0.46
4:SD:75:LYS:HD2	4:SD:77:ARG:HH21	1.80	0.45
5:SE:198:GLN:HG2	32:S1:1091:A:OP1	2.16	0.45
5:SE:229:LYS:O	32:S1:4:C:OP1	2.33	0.45
8:SJ:75:ARG:NH2	8:SJ:89:PHE:CD1	2.84	0.45
9:SK:109:PRO:HG2	9:SK:112:GLN:HB2	1.98	0.45
14:SP:41:LEU:HB2	14:SP:103:LYS:CG	2.46	0.45
14:SP:47:ARG:HB2	14:SP:64:THR:HB	1.97	0.45
14:SP:64:THR:HG21	14:SP:87:VAL:HG21	1.97	0.45
17:SV:34:LYS:NZ	17:SV:76:LEU:HD22	2.27	0.45
18:SW:74:UNK:N	32:S1:1810:G:OP1	2.49	0.45
27:SH:10:ALA:CB	27:SH:22:LYS:CD	2.94	0.45
27:SH:28:ARG:HB2	27:SH:29:PRO:HD3	1.98	0.45
31:S2:13:U:C2	33:L1:2261:U:O2'	2.69	0.45
32:S1:888:U:C5'	83:Lm:89:GLN:HB2	2.40	0.45
32:S1:1351:U:H5	32:S1:1352:A:C5	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:282:A:C2	33:L1:303:U:O2	2.70	0.45
33:L1:344:C:P	81:LD:58:VAL:HG13	2.56	0.45
33:L1:838:G:H2'	33:L1:860:G:H22	1.80	0.45
33:L1:1822:C:H2'	33:L1:1823:C:O4'	2.16	0.45
33:L1:2215:A:C2'	33:L1:2216:G:H5'	2.45	0.45
33:L1:3356:C:H2'	33:L1:3357:C:H6	1.81	0.45
35:L2:53:G:H4'	77:Lc:44:LYS:NZ	2.29	0.45
36:LA:119:ILE:CG1	36:LA:123:LEU:HB2	2.46	0.45
43:LO:141:LEU:CD1	65:LL:144:UNK:O	2.48	0.45
48:LV:1:MET:HB3	48:LV:16:LYS:CB	2.45	0.45
48:LV:2:VAL:CG1	48:LV:18:MET:SD	3.04	0.45
48:LV:69:ARG:HG3	48:LV:70:THR:CG2	2.46	0.45
48:LV:115:VAL:CG1	48:LV:118:ILE:HG13	2.46	0.45
67:LS:107:GLN:HA	67:LS:110:THR:HG22	1.98	0.45
71:Lj:14:ARG:HH11	71:Lj:101:LYS:HG2	1.81	0.45
75:Lu:29:THR:HG23	76:Lw:29:SER:O	2.16	0.45
76:Lv:55:LEU:CG	79:Ls:222:VAL:HG11	2.46	0.45
79:Ls:36:VAL:CG2	79:Ls:189:GLY:N	2.79	0.45
1:Sa:94:ASN:O	1:Sa:98:SER:N	2.49	0.45
1:Sa:99:GLN:HA	1:Sa:99:GLN:NE2	2.31	0.45
2:SA:43:TYR:C	2:SA:44:LYS:HD3	2.41	0.45
10:SL:1:MET:HE2	32:S1:618:C:C5	2.51	0.45
11:SM:51:ASP:HB2	11:SM:54:LYS:HE3	1.98	0.45
23:SU:17:PHE:O	23:SU:91:TYR:CA	2.64	0.45
23:SU:49:LEU:HD12	23:SU:49:LEU:C	2.41	0.45
31:S2:71:A:OP2	33:L1:2971:A:N3	2.49	0.45
32:S1:859:U:H4'	46:LT:180:ARG:NE	2.31	0.45
32:S1:860:A:N7	46:LT:174:ILE:HB	2.30	0.45
33:L1:227:C:O4'	33:L1:227:C:C6	2.68	0.45
33:L1:327:A:OP1	33:L1:328:G:C8	2.69	0.45
33:L1:408:U:H2'	33:L1:409:U:C6	2.50	0.45
33:L1:410:G:H2'	33:L1:411:C:C6	2.51	0.45
33:L1:488:U:H2'	33:L1:489:C:C6	2.52	0.45
33:L1:711:A:H61	33:L1:720:G:H1'	1.81	0.45
33:L1:1179:C:O2'	82:LK:94:PRO:HB3	2.14	0.45
33:L1:1242:U:C4	33:L1:1243:C:C5	3.04	0.45
33:L1:1272:G:H1'	33:L1:1277:A:N6	2.31	0.45
33:L1:1478:A:H4'	55:Lg:65:LYS:CE	2.42	0.45
33:L1:1546:G:H2'	33:L1:1547:G:H8	1.81	0.45
33:L1:2231:G:C4	33:L1:2231:G:H2'	2.52	0.45
33:L1:3304:U:H3'	33:L1:3304:U:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:L3:56:G:N1	34:L3:57:C:C2	2.84	0.45
35:L2:97:U:H5''	57:L1:73:ARG:NH1	2.21	0.45
41:LM:33:GLY:HA3	41:LM:69:LYS:HB2	1.97	0.45
45:LQ:130:ASP:N	45:LQ:131:TYR:HB3	2.31	0.45
48:LV:1:MET:CB	48:LV:16:LYS:CD	2.92	0.45
74:LJ:66:GLN:HE21	74:LJ:66:GLN:N	2.14	0.45
78:Le:67:LEU:HB3	78:Le:68:LYS:HE2	1.98	0.45
78:Le:68:LYS:HE3	78:Le:68:LYS:H	1.82	0.45
79:Ls:61:LEU:HD22	79:Ls:85:LEU:HD12	1.99	0.45
80:LC:1:MET:HB2	80:LC:2:SER:O	2.16	0.45
1:Sa:82:VAL:CG2	1:Sa:90:LEU:HD21	2.47	0.45
7:SI:91:ILE:HG12	32:S1:1616:U:H5'	1.98	0.45
7:SI:135:PHE:CD2	7:SI:142:ALA:HA	2.52	0.45
7:SI:142:ALA:HB3	7:SI:143:ARG:NE	2.30	0.45
10:SL:74:VAL:O	10:SL:74:VAL:HG13	2.16	0.45
23:SU:18:MET:SD	23:SU:94:LYS:HG3	2.56	0.45
25:SC:71:ARG:NH1	25:SC:104:GLU:HB2	2.32	0.45
32:S1:346:C:H5''	33:L1:1941:G:H5''	1.97	0.45
32:S1:860:A:C5	32:S1:861:A:C5	3.04	0.45
32:S1:1114:G:H1	32:S1:1141:U:H3	1.65	0.45
32:S1:1351:U:C5	32:S1:1352:A:C5	3.05	0.45
32:S1:1674:C:OP1	33:L1:1914:C:H4'	2.17	0.45
33:L1:876:C:H3'	33:L1:877:U:H4'	1.98	0.45
33:L1:1595:G:OP2	73:Lp:35:ARG:CD	2.64	0.45
33:L1:1775:C:H2'	33:L1:1777:C:OP2	2.16	0.45
33:L1:2167:G:H4'	37:LB:23:ARG:NH2	2.31	0.45
33:L1:2345:C:C4	33:L1:2346:U:C5	3.04	0.45
33:L1:2532:A:C2	33:L1:2585:C:C2	3.04	0.45
33:L1:3028:A:H2'	33:L1:3029:G:C8	2.50	0.45
34:L3:46:C:P	45:LQ:158:ARG:NH1	2.81	0.45
34:L3:57:C:O3'	45:LQ:29:GLN:CG	2.54	0.45
36:LA:130:ALA:HB3	36:LA:133:PHE:HD1	1.81	0.45
38:LE:23:ILE:HG13	38:LE:127:MET:HE2	1.98	0.45
38:LE:38:VAL:HG22	38:LE:110:GLU:HB3	1.98	0.45
46:LT:146:LYS:O	46:LT:150:ALA:HB3	2.16	0.45
49:LX:120:VAL:HG22	49:LX:134:VAL:HG13	1.98	0.45
56:Lh:83:LEU:HB3	56:Lh:116:LEU:CD1	2.46	0.45
56:Lh:119:VAL:O	56:Lh:119:VAL:HG12	2.15	0.45
67:LS:92:MET:CE	67:LS:116:HIS:CE1	2.92	0.45
75:Lu:62:VAL:HG21	79:Ls:253:ALA:HA	1.98	0.45
76:Lw:42:MET:HE2	76:Lw:42:MET:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:Ls:131:THR:OG1	79:Ls:155:VAL:HG23	2.17	0.45
1:Sa:216:LEU:HD12	1:Sa:216:LEU:HA	1.88	0.45
7:SI:53:LYS:HG2	32:S1:1373:C:OP1	2.16	0.45
10:SL:74:VAL:HG23	10:SL:104:PHE:CZ	2.51	0.45
11:SM:18:THR:CA	38:LE:109:GLN:NE2	2.77	0.45
23:SU:19:THR:CB	23:SU:93:PRO:HA	2.46	0.45
25:SC:44:LEU:O	25:SC:45:TRP:HB2	2.13	0.45
27:SH:112:ASP:CG	27:SH:114:GLU:HG3	2.41	0.45
29:ST:5:GLU:HB2	29:ST:81:GLN:HA	1.98	0.45
31:S2:41:G:H3'	31:S2:42:C:H5''	1.97	0.45
32:S1:3:C:C6	32:S1:3:C:O5'	2.70	0.45
32:S1:1747:A:O4'	33:L1:1930:G:C4	2.69	0.45
33:L1:16:A:H4'	49:LX:58:ARG:HB3	1.97	0.45
33:L1:840:A:OP2	83:Lm:4:ARG:NH2	2.49	0.45
33:L1:843:C:O4'	33:L1:843:C:C6	2.68	0.45
33:L1:1148:G:N2	33:L1:1335:C:O2	2.44	0.45
33:L1:1217:G:C4'	67:LS:94:LYS:HG2	2.40	0.45
33:L1:1226:G:H1'	33:L1:1290:A:N6	2.31	0.45
33:L1:1344:A:O4'	33:L1:1344:A:N9	2.45	0.45
33:L1:1435:C:OP1	33:L1:1435:C:C4'	2.63	0.45
33:L1:1615:G:H2'	33:L1:1616:G:O4'	2.17	0.45
33:L1:2149:G:H4'	37:LB:227:ARG:NH1	2.31	0.45
33:L1:2433:U:H3'	42:LP:20:ARG:NH2	2.31	0.45
33:L1:2989:A:H2'	33:L1:2990:C:C6	2.51	0.45
34:L3:56:G:C6	34:L3:57:C:N3	2.84	0.45
35:L2:98:C:OP2	35:L2:99:G:C8	2.70	0.45
39:LF:3:THR:HG23	39:LF:4:ILE:H	1.81	0.45
44:LR:128:LEU:HD22	81:LD:313:GLU:CG	2.45	0.45
45:LQ:19:ARG:HG3	45:LQ:20:PHE:CE1	2.51	0.45
64:LG:171:LYS:CB	66:LN:109:LYS:HD2	2.46	0.45
66:LN:82:ASN:O	66:LN:86:ASN:N	2.47	0.45
67:LS:101:LEU:H	67:LS:101:LEU:HD22	1.81	0.45
69:La:26:VAL:C	69:La:27:ARG:HD3	2.41	0.45
70:Li:43:LYS:HG3	70:Li:45:PRO:O	2.16	0.45
78:Le:63:GLU:O	78:Le:68:LYS:HD2	2.16	0.45
79:Ls:102:ARG:NH2	79:Ls:208:ASP:OD2	2.50	0.45
2:SA:126:LEU:HD21	2:SA:128:LEU:HB2	1.99	0.45
2:SA:136:GLN:HA	2:SA:136:GLN:NE2	2.32	0.45
2:SA:189:MET:HE2	5:SE:62:ILE:CD1	2.46	0.45
4:SD:195:ILE:HG12	4:SD:208:ILE:CD1	2.43	0.45
7:SI:133:LYS:CD	32:S1:1592:G:H5'	2.45	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:SL:71:VAL:O	10:SL:100:LEU:HD12	2.17	0.45
11:SM:13:LEU:HG	38:LE:117:LYS:HD3	1.64	0.45
14:SP:118:VAL:HG12	14:SP:119:LYS:H	1.82	0.45
15:SS:9:VAL:CA	15:SS:138:ALA:HB2	2.32	0.45
15:SS:118:VAL:HG22	15:SS:124:ARG:HD2	1.99	0.45
17:SV:95:VAL:O	17:SV:101:ILE:HG23	2.17	0.45
23:SU:19:THR:HG23	23:SU:21:ARG:N	2.31	0.45
23:SU:92:GLU:HG3	23:SU:93:PRO:HD3	1.98	0.45
27:SH:65:LEU:HB3	27:SH:70:ASN:HA	1.98	0.45
28:SN:29:GLY:HA2	28:SN:36:LEU:HB2	1.99	0.45
32:S1:1:U:C6	32:S1:2:A:N3	2.84	0.45
32:S1:257:A:H2'	32:S1:258:U:C6	2.52	0.45
32:S1:328:U:H3	32:S1:348:A:H61	1.63	0.45
32:S1:1663:A:C6	32:S1:1664:U:C2	3.04	0.45
33:L1:62:A:P	42:LP:172:ARG:HH22	2.40	0.45
33:L1:692:U:H5'	81:LD:220:SER:CB	2.47	0.45
33:L1:1598:U:OP2	46:LT:38:ARG:HD2	2.17	0.45
37:LB:19:HIS:CD2	37:LB:22:HIS:HB3	2.51	0.45
38:LE:88:VAL:O	38:LE:89:LYS:O	2.33	0.45
55:Lg:1:MET:HE2	55:Lg:2:SER:N	2.31	0.45
55:Lg:15:VAL:HG11	55:Lg:86:LYS:NZ	2.30	0.45
58:Ln:11:PHE:CZ	58:Ln:50:ALA:HA	2.52	0.45
64:LG:102:GLY:HA3	71:Lj:80:GLY:HA2	1.99	0.45
65:LL:93:UNK:O	65:LL:95:UNK:N	2.50	0.45
66:LN:110:VAL:O	66:LN:113:ALA:HB3	2.17	0.45
67:LS:68:GLU:O	67:LS:71:PRO:HD3	2.16	0.45
67:LS:115:ARG:CZ	67:LS:115:ARG:CA	2.92	0.45
78:Le:43:THR:HG23	81:LD:362:LYS:HZ3	1.82	0.45
79:Ls:147:PRO:HB2	79:Ls:158:ILE:CG2	2.47	0.45
6:SF:95:ILE:HA	17:SV:102:TYR:HE1	1.81	0.45
10:SL:74:VAL:HG23	10:SL:104:PHE:CE2	2.51	0.45
11:SM:138:THR:HB	11:SM:139:THR:HG23	1.97	0.45
11:SM:141:ARG:O	11:SM:145:THR:O	2.35	0.45
12:SO:69:SER:CA	24:SX:49:PHE:HE2	2.29	0.45
17:SV:68:GLU:HG2	17:SV:75:SER:HA	1.99	0.45
24:SX:74:ARG:HD3	24:SX:75:LEU:H	1.81	0.45
31:S2:13:U:O2'	33:L1:2262:C:H6	1.97	0.45
32:S1:476:U:H2'	32:S1:477:A:C8	2.52	0.45
32:S1:569:C:C5	32:S1:580:G:H3'	2.52	0.45
32:S1:859:U:H4'	46:LT:180:ARG:HE	1.82	0.45
32:S1:1184:C:O5'	32:S1:1184:C:H6	2.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1616:U:H2'	32:S1:1617:U:H6	1.78	0.45
33:L1:276:U:P	60:Lr:47:GLN:HA	2.57	0.45
33:L1:517:G:C6	33:L1:561:G:C6	3.05	0.45
33:L1:817:U:H5''	57:Ll:45:ARG:HH12	1.78	0.45
33:L1:900:C:H2'	33:L1:901:U:H6	1.82	0.45
33:L1:968:A:P	43:LO:9:ARG:HG2	2.48	0.45
33:L1:1387:G:C1'	81:LD:248:GLY:HA3	2.46	0.45
33:L1:2087:A:H2'	33:L1:2088:C:C5'	2.46	0.45
33:L1:2585:C:O4'	33:L1:2585:C:C6	2.70	0.45
33:L1:3103:G:O2'	33:L1:3104:A:H5'	2.15	0.45
33:L1:3147:G:C6	33:L1:3148:A:C6	3.05	0.45
34:L3:56:G:C2	34:L3:57:C:C2	3.05	0.45
36:LA:189:LEU:HA	65:LL:192:UNK:O	2.16	0.45
39:LF:2:LYS:NZ	66:LN:33:GLN:CB	2.80	0.45
40:LH:131:GLY:O	40:LH:135:VAL:HG23	2.16	0.45
43:LO:82:VAL:HG21	43:LO:143:THR:HG22	1.99	0.45
45:LQ:82:HIS:CE1	45:LQ:86:ARG:HH22	2.34	0.45
46:LT:181:LEU:O	46:LT:185:PRO:HD2	2.15	0.45
48:LV:129:ARG:NE	48:LV:137:ILE:HG12	2.32	0.45
55:Lg:2:SER:C	55:Lg:4:LYS:H	2.25	0.45
55:Lg:75:VAL:HG12	55:Lg:76:PRO:N	2.32	0.45
56:Lh:35:ARG:HD2	56:Lh:36:PRO:C	2.42	0.45
59:Lo:30:ARG:C	59:Lo:30:ARG:HG2	2.41	0.45
64:LG:171:LYS:HD2	66:LN:106:ASP:HA	1.97	0.45
66:LN:4:LYS:HE2	67:LS:161:PRO:O	2.17	0.45
69:La:26:VAL:O	69:La:27:ARG:HD3	2.16	0.45
73:Lp:50:LYS:O	73:Lp:51:ILE:HG22	2.16	0.45
80:LC:306:GLU:H	80:LC:306:GLU:CD	2.23	0.45
81:LD:40:VAL:HG12	81:LD:127:ALA:HB2	1.98	0.45
81:LD:369:GLU:O	81:LD:373:LYS:HG3	2.17	0.45
3:SB:71:SER:HA	3:SB:74:GLN:NE2	2.32	0.45
9:SK:39:THR:O	9:SK:39:THR:HG23	2.17	0.45
13:SQ:66:VAL:O	13:SQ:66:VAL:HG22	2.17	0.45
23:SU:16:LYS:O	23:SU:29:VAL:CB	2.64	0.45
27:SH:94:LEU:CD1	27:SH:95:PRO:CG	2.84	0.45
32:S1:28:A:C2	32:S1:29:U:C2	3.05	0.45
32:S1:348:A:OP1	46:LT:136:ARG:HA	2.16	0.45
32:S1:477:A:H2'	32:S1:478:A:C8	2.52	0.45
33:L1:11:A:H2'	33:L1:12:G:C8	2.51	0.45
33:L1:464:G:O3'	78:Le:1:MET:HE2	2.17	0.45
33:L1:507:C:OP1	64:LG:66:PRO:HD3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:518:G:C6	33:L1:519:C:C4	3.05	0.45
33:L1:557:C:O4'	33:L1:557:C:C6	2.69	0.45
33:L1:566:G:O2'	71:Lj:14:ARG:CZ	2.64	0.45
33:L1:636:C:P	71:Lj:68:ILE:HG22	2.56	0.45
33:L1:850:A:N1	33:L1:851:A:C2	2.85	0.45
33:L1:986:G:C2'	33:L1:986:G:C4	3.00	0.45
33:L1:1318:C:O4'	33:L1:1318:C:C6	2.70	0.45
33:L1:2121:U:O2'	33:L1:2122:C:H5'	2.16	0.45
33:L1:2149:G:H1	33:L1:2174:C:N4	2.09	0.45
33:L1:2899:A:N7	33:L1:2901:C:C2	2.85	0.45
33:L1:3137:G:H2'	33:L1:3138:C:C6	2.52	0.45
40:LH:138:LEU:HB2	40:LH:196:LEU:HD22	1.97	0.45
42:LP:106:ALA:HB3	42:LP:132:ILE:HD13	1.98	0.45
43:LO:39:HIS:CD2	43:LO:40:HIS:CD2	3.05	0.45
43:LO:64:LEU:CD2	65:LL:154:UNK:C	2.94	0.45
43:LO:127:LYS:HE3	43:LO:130:GLU:HB2	1.99	0.45
47:LU:56:PHE:CE2	47:LU:57:TYR:CE1	3.04	0.45
48:LV:156:GLU:HB3	48:LV:157:PRO:HD2	1.99	0.45
56:Lh:91:ARG:NE	56:Lh:91:ARG:HA	2.31	0.45
68:LW:29:LYS:CA	68:LW:29:LYS:CG	2.83	0.45
70:Li:96:LEU:HD13	70:Li:115:LYS:HG2	1.99	0.45
81:LD:9:VAL:HG11	81:LD:157:VAL:HG23	1.97	0.45
2:SA:42:VAL:HA	2:SA:53:ILE:HA	1.99	0.45
3:SB:25:LEU:O	3:SB:29:LEU:HB2	2.17	0.45
4:SD:87:MET:CE	4:SD:123:LEU:H	2.26	0.45
4:SD:147:ILE:HD13	4:SD:169:ILE:HD11	1.94	0.45
5:SE:183:ARG:NH1	5:SE:251:GLU:OE1	2.50	0.45
6:SF:72:LEU:HD13	6:SF:88:ILE:HD11	1.98	0.45
10:SL:74:VAL:HB	10:SL:104:PHE:CE1	2.51	0.45
12:SO:69:SER:C	24:SX:49:PHE:HE2	2.24	0.45
12:SO:103:GLU:C	54:Lf:80:ASP:OD1	2.59	0.45
17:SV:94:SER:C	17:SV:101:ILE:CG2	2.90	0.45
23:SU:10:VAL:HG13	23:SU:32:VAL:HG22	1.98	0.45
23:SU:15:ARG:HG2	23:SU:15:ARG:HH11	1.82	0.45
23:SU:18:MET:O	23:SU:27:GLN:HB2	2.17	0.45
27:SH:40:VAL:C	27:SH:41:MET:HG2	2.42	0.45
27:SH:95:PRO:O	27:SH:97:ARG:N	2.50	0.45
30:S3:18:C:C4	32:S1:1645:C:H5'	2.52	0.45
32:S1:299:A:C2'	32:S1:299:A:C4	3.00	0.45
32:S1:860:A:O2'	46:LT:173:LYS:HD2	2.16	0.45
32:S1:950:U:H2'	32:S1:951:U:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:977:G:O5'	33:L1:851:A:C2	2.67	0.45
32:S1:988:G:HO2'	37:LB:173:GLY:C	2.25	0.45
32:S1:1757:G:OP1	33:L1:2297:G:C1'	2.64	0.45
33:L1:319:C:H2'	33:L1:320:U:C6	2.52	0.45
33:L1:344:C:H41	33:L1:347:A:H5'	1.82	0.45
33:L1:665:G:H1	43:LO:4:ARG:HD3	1.80	0.45
33:L1:1158:C:H1'	33:L1:1199:A:H61	1.81	0.45
33:L1:1195:C:C4	33:L1:1196:U:H1'	2.52	0.45
33:L1:1217:G:C1'	67:LS:92:MET:HE2	2.47	0.45
33:L1:1478:A:H4'	55:Lg:65:LYS:NZ	2.31	0.45
33:L1:1574:C:O4'	33:L1:1574:C:N1	2.42	0.45
33:L1:1596:G:H5'	33:L1:1752:C:C4'	2.47	0.45
33:L1:1640:A:OP2	33:L1:1817:U:O2	2.35	0.45
33:L1:2152:A:C5	33:L1:2170:G:C2	3.05	0.45
33:L1:2604:A:H2'	33:L1:2605:G:H8	1.79	0.45
34:L3:6:C:P	45:LQ:31:LYS:CG	3.05	0.45
34:L3:27:A:C5	34:L3:28:U:C4	3.05	0.45
35:L2:102:U:C5	35:L2:103:C:C2	3.05	0.45
36:LA:107:HIS:CD2	36:LA:115:ILE:CG2	2.99	0.45
37:LB:138:SER:HB2	37:LB:147:ARG:HB3	1.98	0.45
38:LE:168:LYS:HG3	38:LE:168:LYS:O	2.17	0.45
43:LO:141:LEU:HB3	65:LL:144:UNK:O	2.16	0.45
51:LY:73:TYR:O	51:LY:77:TRP:HA	2.16	0.45
66:LN:3:PHE:CE1	66:LN:51:LYS:O	2.70	0.45
67:LS:79:ILE:CG2	67:LS:94:LYS:HB2	2.46	0.45
71:Lj:41:THR:HG22	71:Lj:44:GLU:H	1.82	0.45
75:Lu:13:LEU:HD21	79:Ls:250:ASN:CB	2.46	0.45
75:Lu:62:VAL:HG21	79:Ls:253:ALA:CB	2.47	0.45
2:SA:67:ARG:O	5:SE:65:ILE:HG21	2.17	0.45
3:SB:108:LYS:C	3:SB:110:LEU:H	2.25	0.45
4:SD:136:ILE:HD13	4:SD:148:ARG:HG3	1.98	0.45
11:SM:110:ASP:HA	11:SM:113:ARG:HG3	1.99	0.45
15:SS:124:ARG:CZ	32:S1:1507:G:H5'	2.47	0.45
23:SU:12:LEU:CG	23:SU:30:LEU:HD13	2.46	0.45
23:SU:31:GLU:C	23:SU:33:LEU:HD22	2.42	0.45
25:SC:195:GLU:CA	33:L1:2251:A:C3'	2.95	0.45
27:SH:7:LEU:HG	27:SH:24:GLN:OE1	2.16	0.45
27:SH:37:PHE:CB	27:SH:43:LYS:CE	2.95	0.45
29:ST:19:ALA:HA	29:ST:36:ILE:HD11	1.97	0.45
32:S1:1647:C:C5	32:S1:1648:C:C5	3.05	0.45
32:S1:1736:C:C2'	33:L1:2101:A:HO2'	2.22	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:280:G:H1	42:LP:180:THR:HA	1.81	0.45
33:L1:507:C:O2'	64:LG:62:SER:CB	2.63	0.45
33:L1:507:C:H4'	64:LG:62:SER:C	2.41	0.45
33:L1:962:C:OP2	33:L1:963:U:C6	2.69	0.45
33:L1:1034:U:C3'	33:L1:1035:C:C6	3.00	0.45
33:L1:1283:C:OP1	79:Ls:4:LYS:NZ	2.50	0.45
33:L1:1405:G:O2'	56:Lh:68:LEU:HD13	2.16	0.45
33:L1:1435:C:O4'	33:L1:1435:C:O2	2.28	0.45
33:L1:1450:G:C8	48:LV:27:LYS:HB2	2.52	0.45
33:L1:1644:A:C2	33:L1:1645:G:C4	3.05	0.45
33:L1:1756:C:N4	33:L1:1764:G:H1	2.13	0.45
33:L1:2415:U:H2'	33:L1:2416:U:C6	2.52	0.45
33:L1:2669:C:N4	33:L1:2690:G:H2'	2.31	0.45
33:L1:3042:U:C5	33:L1:3043:U:C5	3.05	0.45
33:L1:3378:U:H6	33:L1:3378:U:H5''	1.82	0.45
34:L3:3:A:O4'	34:L3:3:A:N9	2.39	0.45
34:L3:49:A:C2	34:L3:51:G:N7	2.85	0.45
34:L3:115:A:H4'	45:LQ:75:VAL:CG1	2.47	0.45
35:L2:99:G:N7	57:Ll:70:VAL:HG11	2.31	0.45
36:LA:137:VAL:CG1	36:LA:138:SER:N	2.80	0.45
38:LE:42:LEU:HD12	38:LE:110:GLU:HG2	1.99	0.45
41:LM:42:VAL:HB	41:LM:45:ILE:HG22	1.99	0.45
51:LY:38:LEU:HD11	51:LY:106:THR:C	2.41	0.45
57:Ll:52:LYS:CG	57:Ll:53:ALA:H	2.28	0.45
64:LG:96:LEU:HD12	64:LG:107:THR:HG21	1.99	0.45
69:La:33:THR:OG1	69:La:43:VAL:HG22	2.17	0.45
79:Ls:53:ILE:HG12	79:Ls:54:VAL:H	1.81	0.45
84:LI:110:ARG:CG	84:LI:114:GLY:O	2.57	0.45
6:SF:99:LEU:HD21	17:SV:63:PRO:HD3	1.98	0.45
6:SF:162:ILE:CD1	32:S1:1542:G:H1'	2.47	0.45
8:SJ:72:ILE:HD13	28:SN:33:LYS:CE	2.44	0.45
11:SM:12:ILE:HD11	38:LE:120:PRO:CB	2.47	0.45
11:SM:31:THR:HA	11:SM:36:VAL:CG2	2.47	0.45
15:SS:123:GLY:CA	32:S1:1507:G:OP1	2.64	0.45
17:SV:63:PRO:HG2	17:SV:66:LEU:CB	2.45	0.45
23:SU:19:THR:HG22	23:SU:93:PRO:HB3	1.99	0.45
31:S2:74:C:C2'	33:L1:2404:C:H5'	2.46	0.45
32:S1:207:A:H61	32:S1:258:U:H3	1.65	0.45
32:S1:208:U:H3	32:S1:257:A:H61	1.65	0.45
32:S1:308:U:H2'	32:S1:309:C:C5	2.51	0.45
32:S1:860:A:H5''	46:LT:174:ILE:HA	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1686:C:OP1	50:LZ:71:LYS:CB	2.65	0.45
33:L1:343:G:H5''	33:L1:1432:G:H1	1.82	0.45
33:L1:373:A:H3'	33:L1:374:G:H5''	1.97	0.45
33:L1:383:A:N7	33:L1:384:A:C6	2.85	0.45
33:L1:409:U:H2'	33:L1:410:G:C8	2.52	0.45
33:L1:423:C:N4	33:L1:640:C:OP2	2.49	0.45
33:L1:548:G:H5''	81:LD:400:TRP:CD1	2.52	0.45
33:L1:1112:C:H4'	44:LR:152:PHE:CE1	2.52	0.45
33:L1:1286:G:H5''	79:Ls:87:GLY:CA	2.47	0.45
33:L1:1335:C:H5'	71:Lj:61:THR:O	2.16	0.45
33:L1:2149:G:P	37:LB:241:ARG:HH11	2.39	0.45
33:L1:2157:C:O2	37:LB:11:GLY:HA2	2.17	0.45
36:LA:26:LYS:HZ1	36:LA:213:VAL:HG21	1.81	0.45
36:LA:54:LEU:HD12	36:LA:54:LEU:N	2.31	0.45
36:LA:67:LEU:O	36:LA:83:TYR:CE1	2.70	0.45
36:LA:69:ASP:CB	36:LA:79:MET:SD	3.05	0.45
36:LA:172:SER:OG	36:LA:175:GLU:HG3	2.17	0.45
37:LB:30:ARG:HH21	37:LB:71:HIS:CD2	2.35	0.45
46:LT:171:GLU:HA	46:LT:174:ILE:HG22	1.99	0.45
48:LV:113:LEU:CD2	48:LV:157:PRO:HD2	2.35	0.45
55:Lg:88:ASN:HD22	55:Lg:88:ASN:H	1.65	0.45
71:Lj:6:GLY:HA2	82:LK:1:MET:HE2	1.99	0.45
75:Lt:58:LEU:HD21	79:Ls:227:SER:C	2.42	0.45
78:Le:108:LEU:CD2	78:Le:128:MET:HE1	2.47	0.45
79:Ls:19:CYS:HA	79:Ls:67:LYS:HD2	1.99	0.45
79:Ls:33:ALA:HB2	79:Ls:190:LEU:HD23	1.98	0.45
80:LC:372:GLY:N	80:LC:377:THR:HG21	2.32	0.45
81:LD:144:ARG:HD3	81:LD:146:HIS:HE1	1.82	0.45
81:LD:338:GLY:C	81:LD:342:LYS:CE	2.88	0.45
2:SA:93:LYS:HE3	2:SA:200:ASP:HA	1.98	0.44
4:SD:152:PRO:C	4:SD:153:ILE:CA	2.76	0.44
6:SF:165:ILE:O	6:SF:165:ILE:CG1	2.65	0.44
10:SL:50:VAL:HG22	10:SL:51:LEU:N	2.32	0.44
13:SQ:16:VAL:HG21	13:SQ:38:VAL:HG13	1.99	0.44
13:SQ:29:HIS:HB2	28:SN:22:ARG:CG	2.48	0.44
14:SP:104:ARG:HH21	32:S1:113:A:C1'	2.14	0.44
23:SU:28:PHE:O	23:SU:78:PHE:CD1	2.70	0.44
32:S1:215:A:OP2	32:S1:834:A:C5'	2.65	0.44
32:S1:991:G:P	37:LB:133:TYR:CD1	3.08	0.44
32:S1:1016:C:H4'	37:LB:248:GLY:O	2.17	0.44
32:S1:1674:C:C2	33:L1:1932:A:H1'	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1698:A:H61	32:S1:1721:A:H61	1.64	0.44
32:S1:1747:A:C1'	33:L1:1930:G:N1	2.80	0.44
33:L1:648:G:C6	33:L1:2371:A:C2	3.05	0.44
33:L1:657:A:H4'	33:L1:2360:A:H5''	1.99	0.44
33:L1:844:A:C2	33:L1:856:G:C2	3.05	0.44
33:L1:1055:U:O2'	33:L1:1056:U:H5'	2.17	0.44
33:L1:1193:A:H3'	33:L1:1193:A:H8	1.81	0.44
33:L1:1299:G:H2'	33:L1:1300:C:C6	2.51	0.44
33:L1:1310:G:OP2	33:L1:2886:C:H4'	2.17	0.44
33:L1:1635:A:C2	33:L1:1736:C:C4'	3.00	0.44
33:L1:2125:A:C2'	33:L1:2125:A:C4	3.00	0.44
33:L1:2722:U:H1'	33:L1:2741:G:N2	2.32	0.44
35:L2:98:C:O4'	35:L2:98:C:C6	2.71	0.44
43:LO:59:ARG:HB3	65:LL:148:UNK:C	2.47	0.44
43:LO:89:GLY:HA3	43:LO:103:TYR:CE1	2.51	0.44
44:LR:5:LEU:HG	78:Le:111:ARG:HH21	1.83	0.44
44:LR:41:LYS:CB	81:LD:325:LYS:HE2	2.30	0.44
48:LV:59:PRO:CA	48:LV:76:ARG:HE	2.22	0.44
56:Lh:50:CYS:O	56:Lh:51:THR:HB	2.16	0.44
64:LG:11:ILE:O	64:LG:12:LYS:HB2	2.17	0.44
66:LN:29:ASP:C	66:LN:30:VAL:HG13	2.42	0.44
70:Li:99:GLU:OE1	70:Li:115:LYS:NZ	2.50	0.44
2:SA:120:PHE:CZ	5:SE:101:ALA:HB1	2.48	0.44
9:SK:81:ALA:HA	9:SK:115:LEU:HD21	1.98	0.44
9:SK:112:GLN:O	9:SK:115:LEU:HB2	2.17	0.44
17:SV:55:VAL:HG21	17:SV:71:ARG:HE	1.82	0.44
23:SU:17:PHE:O	23:SU:18:MET:HG2	2.17	0.44
25:SC:106:PHE:HD2	25:SC:106:PHE:HA	1.24	0.44
31:S2:50:G:H2'	31:S2:51:G:C8	2.52	0.44
32:S1:844:C:OP1	33:L1:2061:C:O4'	2.26	0.44
32:S1:1267:G:H2'	32:S1:1268:G:C8	2.52	0.44
32:S1:1308:G:H5'	32:S1:1326:A:OP2	2.16	0.44
32:S1:1748:U:O4'	33:L1:1915:G:H2'	2.17	0.44
33:L1:228:C:H3'	33:L1:229:G:C5'	2.46	0.44
33:L1:423:C:O4'	33:L1:423:C:C6	2.70	0.44
33:L1:686:A:H3'	33:L1:687:C:C6	2.52	0.44
33:L1:1501:A:C2	33:L1:1522:G:C2	3.05	0.44
33:L1:2135:U:O4'	33:L1:2135:U:C6	2.70	0.44
33:L1:2380:G:H5'	82:LK:95:HIS:NE2	2.31	0.44
33:L1:2665:A:H4'	45:LQ:153:THR:HG22	1.98	0.44
33:L1:3271:A:H2'	33:L1:3272:A:C8	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:LA:60:PRO:CA	36:LA:150:THR:HB	2.47	0.44
36:LA:116:ILE:HG23	36:LA:117:LYS:N	2.32	0.44
38:LE:74:ARG:HA	38:LE:78:ALA:HB2	1.98	0.44
47:LU:30:TYR:CD1	47:LU:92:ARG:NH2	2.85	0.44
51:LY:49:ILE:CG2	51:LY:105:VAL:HG21	2.48	0.44
51:LY:70:VAL:HG12	51:LY:80:HIS:HB2	1.97	0.44
66:LN:8:GLU:HG3	67:LS:154:VAL:O	2.17	0.44
66:LN:26:VAL:HG22	66:LN:27:ILE:N	2.32	0.44
66:LN:110:VAL:CB	82:LK:201:LEU:HD23	2.27	0.44
67:LS:28:ARG:HE	78:Le:74:LYS:HD2	1.81	0.44
68:LW:41:LEU:HD21	68:LW:67:ARG:NE	2.31	0.44
79:Ls:98:LEU:CB	79:Ls:195:VAL:HG11	2.46	0.44
81:LD:260:SER:HA	81:LD:263:LYS:HE2	1.99	0.44
81:LD:306:VAL:HG12	81:LD:307:VAL:N	2.31	0.44
81:LD:334:ASN:N	81:LD:335:PRO:CD	2.80	0.44
2:SA:67:ARG:NH1	5:SE:61:LYS:HE2	2.32	0.44
3:SB:23:GLU:OE2	28:SN:22:ARG:HD3	2.18	0.44
3:SB:135:GLU:OE1	3:SB:157:MET:CE	2.66	0.44
4:SD:71:LEU:HB2	4:SD:91:SER:HB3	1.99	0.44
4:SD:101:LEU:HD23	4:SD:102:LEU:O	2.18	0.44
10:SL:43:SER:O	10:SL:60:GLN:HG3	2.16	0.44
17:SV:97:SER:C	17:SV:99:GLN:H	2.26	0.44
23:SU:17:PHE:HB2	23:SU:91:TYR:H	1.82	0.44
23:SU:34:HIS:H	23:SU:35:PRO:HG2	1.82	0.44
27:SH:65:LEU:HD22	27:SH:70:ASN:CA	2.46	0.44
31:S2:34:G:C5'	32:S1:1195:U:C5	2.87	0.44
32:S1:928:A:OP1	37:LB:109:GLU:OE1	2.35	0.44
32:S1:929:A:OP2	37:LB:109:GLU:HB3	2.16	0.44
32:S1:977:G:O4'	33:L1:850:A:N6	2.50	0.44
32:S1:1000:A:O2'	33:L1:2236:U:OP1	2.35	0.44
32:S1:1517:C:H3'	32:S1:1517:C:H6	1.81	0.44
33:L1:271:G:H1'	72:Lk:66:VAL:CG1	2.34	0.44
33:L1:527:G:H4'	66:LN:68:LYS:NZ	2.33	0.44
33:L1:1187:G:OP1	66:LN:52:ARG:HB3	2.17	0.44
33:L1:1436:A:H62	56:Lh:20:ARG:NH2	2.16	0.44
33:L1:1637:G:N7	69:La:25:ILE:O	2.51	0.44
33:L1:1746:G:H4'	58:Ln:39:SER:O	2.17	0.44
33:L1:2138:A:H1'	33:L1:2276:A:H61	1.82	0.44
33:L1:2379:U:C2	33:L1:2380:G:C8	3.04	0.44
33:L1:2495:C:H5''	36:LA:212:ARG:CZ	2.48	0.44
33:L1:2760:U:C5	33:L1:2761:A:C2	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2842:C:HO2'	33:L1:2843:G:H8	1.66	0.44
33:L1:3360:U:H4'	33:L1:3361:G:H5'	1.99	0.44
34:L3:3:A:OP1	34:L3:59:U:H5'	2.18	0.44
34:L3:4:U:OP1	34:L3:57:C:O2	2.35	0.44
34:L3:56:G:C4	34:L3:57:C:C6	3.06	0.44
34:L3:93:U:C4'	67:LS:84:GLN:HE22	2.31	0.44
36:LA:69:ASP:CB	36:LA:79:MET:HG3	2.47	0.44
36:LA:189:LEU:HD23	36:LA:189:LEU:C	2.42	0.44
37:LB:96:LEU:HD12	37:LB:108:PRO:CD	2.47	0.44
37:LB:148:ILE:HG22	37:LB:149:LYS:N	2.32	0.44
55:Lg:82:ARG:HB2	55:Lg:97:LEU:CD2	2.46	0.44
64:LG:139:VAL:HG12	64:LG:140:GLN:O	2.17	0.44
67:LS:123:ILE:H	67:LS:123:ILE:CD1	2.31	0.44
71:Lj:95:PRO:O	71:Lj:96:THR:O	2.35	0.44
78:Le:115:ASN:HD22	78:Le:116:GLY:N	2.15	0.44
79:Ls:144:LEU:CD2	79:Ls:163:LEU:HD11	2.45	0.44
79:Ls:158:ILE:HG23	79:Ls:159:THR:N	2.32	0.44
80:LC:93:VAL:HG12	80:LC:100:ARG:O	2.16	0.44
1:Sa:89:ARG:HH21	1:Sa:103:ALA:CB	2.31	0.44
2:SA:24:ALA:HA	2:SA:28:HIS:CG	2.52	0.44
4:SD:153:ILE:HD12	4:SD:172:PHE:HB3	1.99	0.44
4:SD:160:ILE:CG1	4:SD:169:ILE:CG2	2.94	0.44
6:SF:149:LEU:HB3	6:SF:185:ALA:HA	1.98	0.44
8:SJ:95:LYS:HE3	32:S1:1388:A:OP1	2.17	0.44
17:SV:68:GLU:OE2	17:SV:78:ARG:HD3	2.16	0.44
18:SW:100:UNK:O	18:SW:104:UNK:N	2.50	0.44
23:SU:49:LEU:HA	23:SU:52:LEU:HD23	1.99	0.44
25:SC:193:ASP:O	33:L1:2252:C:N3	2.50	0.44
27:SH:1:MET:HB2	27:SH:2:VAL:H	1.50	0.44
27:SH:10:ALA:C	27:SH:13:THR:HG22	2.43	0.44
27:SH:63:VAL:HG22	27:SH:64:GLU:N	2.31	0.44
27:SH:96:SER:HG	27:SH:99:PHE:HB2	1.82	0.44
30:S3:13:A:O2'	30:S3:14:A:OP1	2.35	0.44
32:S1:825:U:H3	32:S1:857:A:H61	1.65	0.44
32:S1:882:G:N1	32:S1:956:A:C2	2.85	0.44
32:S1:896:C:H5''	37:LB:255:ALA:C	2.42	0.44
32:S1:1118:A:H61	32:S1:1136:A:H3'	1.82	0.44
32:S1:1564:A:C8	32:S1:1568:U:C5	3.06	0.44
32:S1:1586:U:H2'	32:S1:1587:G:H8	1.80	0.44
32:S1:1747:A:C4'	33:L1:1915:G:C2	2.99	0.44
33:L1:614:C:O2	64:LG:63:THR:HG21	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:996:A:C4	33:L1:2640:A:OP2	2.70	0.44
33:L1:2240:C:H5''	37:LB:219:ILE:CG2	2.48	0.44
33:L1:3227:U:C1'	33:L1:3227:U:O2'	2.56	0.44
35:L2:58:A:C6	35:L2:66:C:N4	2.86	0.44
37:LB:112:VAL:HB	83:Lm:79:VAL:HG13	1.98	0.44
37:LB:145:THR:HG22	37:LB:146:SER:N	2.30	0.44
37:LB:158:VAL:HG22	37:LB:159:PRO:HD2	1.98	0.44
40:LH:95:TYR:CG	40:LH:217:ASN:HB2	2.53	0.44
44:LR:41:LYS:H	81:LD:325:LYS:CE	2.29	0.44
45:LQ:184:LYS:HA	45:LQ:187:GLU:HA	1.99	0.44
48:LV:32:THR:HA	48:LV:58:ILE:HG12	1.99	0.44
56:Lh:87:MET:N	56:Lh:118:ILE:HD11	2.33	0.44
59:Lo:47:THR:O	59:Lo:48:LYS:CE	2.66	0.44
64:LG:96:LEU:HD22	64:LG:138:ASN:HB2	1.99	0.44
68:LW:41:LEU:CD2	68:LW:67:ARG:HE	2.31	0.44
71:Lj:37:GLU:CG	71:Lj:38:GLY:H	2.30	0.44
79:Ls:186:PHE:CD2	79:Ls:188:TYR:CZ	3.05	0.44
80:LC:296:HIS:CG	80:LC:297:GLU:H	2.35	0.44
81:LD:315:LYS:O	81:LD:316:ARG:C	2.59	0.44
81:LD:362:LYS:O	81:LD:366:LEU:CG	2.59	0.44
1:Sa:78:LYS:NZ	1:Sa:355:ASP:OD2	2.50	0.44
1:Sa:83:SER:CA	1:Sa:114:CYS:SG	3.03	0.44
1:Sa:234:ASP:N	1:Sa:242:VAL:HG22	2.32	0.44
5:SE:208:SER:O	32:S1:1:U:H5'	2.17	0.44
5:SE:247:SER:CB	5:SE:248:PRO:HD3	2.48	0.44
9:SK:120:ARG:C	9:SK:122:GLY:H	2.24	0.44
10:SL:98:GLU:C	10:SL:100:LEU:H	2.26	0.44
12:SO:90:PHE:CE1	54:Lf:20:LEU:CA	2.97	0.44
13:SQ:56:HIS:CE1	32:S1:1224:C:O2'	2.71	0.44
15:SS:8:THR:C	15:SS:138:ALA:HB1	2.42	0.44
27:SH:22:LYS:CG	27:SH:61:ILE:CG1	2.95	0.44
32:S1:192:G:N1	32:S1:193:G:C5	2.86	0.44
32:S1:390:G:H2'	32:S1:391:A:C8	2.52	0.44
32:S1:1163:C:C5	32:S1:1590:U:C6	3.06	0.44
32:S1:1319:U:C5	32:S1:1320:C:C5	3.06	0.44
32:S1:1518:C:H2'	32:S1:1519:G:O4'	2.18	0.44
32:S1:1663:A:C5	32:S1:1664:U:C2	3.06	0.44
33:L1:204:G:O2'	33:L1:205:C:H5'	2.18	0.44
33:L1:225:G:C2	33:L1:226:U:H1'	2.53	0.44
33:L1:657:A:H61	33:L1:1445:U:H3	1.66	0.44
33:L1:1241:G:H2'	33:L1:1242:U:C5	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2481:C:C5	33:L1:2482:A:C4	3.05	0.44
33:L1:2724:A:O5'	33:L1:2724:A:H8	1.99	0.44
33:L1:2973:A:H4'	33:L1:2974:G:O5'	2.17	0.44
33:L1:3297:A:C5'	80:LC:338:ARG:NH2	2.81	0.44
33:L1:3320:G:O4'	33:L1:3320:G:N9	2.46	0.44
34:L3:27:A:C2'	34:L3:55:A:H62	2.29	0.44
36:LA:56:HIS:NE2	36:LA:149:GLU:HB3	2.32	0.44
36:LA:67:LEU:O	36:LA:84:MET:HB2	2.16	0.44
36:LA:69:ASP:OD2	36:LA:79:MET:HG3	2.17	0.44
36:LA:87:GLU:CB	36:LA:91:LYS:HD2	2.47	0.44
38:LE:42:LEU:HD21	38:LE:113:ASP:OD2	2.18	0.44
45:LQ:155:THR:CG2	45:LQ:195:HIS:CE1	2.93	0.44
46:LT:16:LYS:HD3	73:Lp:37:LYS:HB2	1.99	0.44
48:LV:112:THR:C	48:LV:113:LEU:HD23	2.42	0.44
66:LN:6:PHE:CE2	67:LS:161:PRO:HB2	2.52	0.44
74:LJ:34:PRO:HG2	74:LJ:42:ILE:HG21	1.99	0.44
78:Le:36:LYS:O	78:Le:40:ALA:HB2	2.18	0.44
81:LD:355:ARG:HG3	81:LD:356:LYS:CE	2.47	0.44
6:SF:167:GLU:HG2	17:SV:66:LEU:HG	1.99	0.44
9:SK:33:PHE:HB2	9:SK:35:SER:CB	2.43	0.44
11:SM:30:LEU:O	11:SM:33:ILE:HB	2.18	0.44
12:SO:58:HIS:CG	12:SO:59:GLY:N	2.80	0.44
14:SP:92:LEU:H	46:LT:151:ARG:NH2	2.15	0.44
14:SP:113:SER:HB3	14:SP:114:PRO:HD3	1.98	0.44
15:SS:2:ALA:CB	32:S1:1364:C:H5'	2.46	0.44
24:SX:39:CYS:HA	24:SX:77:GLU:OE1	2.16	0.44
27:SH:89:TRP:CD1	27:SH:90:THR:HG23	2.53	0.44
27:SH:106:THR:HA	27:SH:123:GLY:HA3	2.00	0.44
32:S1:873:G:H1	32:S1:965:U:H3	1.66	0.44
32:S1:1535:U:C3'	32:S1:1536:U:C6	3.00	0.44
33:L1:163:U:C4	33:L1:164:C:C2	3.06	0.44
33:L1:292:A:H5'	72:Lk:68:LYS:HG3	1.93	0.44
33:L1:1083:C:C2'	33:L1:1083:C:C6	3.00	0.44
33:L1:1600:A:H61	49:LX:80:GLU:CD	2.26	0.44
33:L1:1838:A:H4'	59:Lo:45:ARG:NH2	2.33	0.44
33:L1:2398:A:C2	33:L1:2399:G:C4	3.06	0.44
33:L1:3056:C:H1'	33:L1:3088:A:N6	2.33	0.44
34:L3:28:U:C2'	34:L3:29:C:H5'	2.45	0.44
40:LH:135:VAL:HA	40:LH:196:LEU:CD2	2.45	0.44
41:LM:72:LEU:CD2	41:LM:113:LYS:NZ	2.81	0.44
48:LV:1:MET:CB	48:LV:16:LYS:CG	2.95	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:LV:113:LEU:CD1	48:LV:152:SER:O	2.56	0.44
56:Lh:94:CYS:CA	56:Lh:120:VAL:HG21	2.40	0.44
60:Lr:90:HIS:CG	60:Lr:91:PHE:H	2.35	0.44
65:LL:151:UNK:CA	65:LL:151:UNK:O	2.48	0.44
67:LS:61:LEU:HG	78:Le:79:VAL:CG1	2.41	0.44
79:Ls:192:ILE:HG21	79:Ls:207:LEU:CD1	2.47	0.44
4:SD:100:ARG:CB	4:SD:114:VAL:CG2	2.95	0.44
4:SD:142:TYR:CD1	4:SD:143:ASP:N	2.86	0.44
12:SO:124:ARG:HD2	32:S1:632:G:C4'	2.47	0.44
23:SU:16:LYS:HD2	23:SU:18:MET:HE3	1.99	0.44
25:SC:10:LYS:HZ1	32:S1:505:U:P	2.19	0.44
26:SG:6:UNK:C	46:LT:188:SER:O	2.66	0.44
27:SH:36:LYS:HA	27:SH:39:ILE:HD12	1.99	0.44
28:SN:30:LEU:HD13	28:SN:37:MET:CB	2.48	0.44
28:SN:36:LEU:HD23	28:SN:39:CYS:H	1.83	0.44
29:ST:5:GLU:HG3	29:ST:81:GLN:HB3	2.00	0.44
31:S2:71:A:OP2	33:L1:2971:A:H2	1.92	0.44
32:S1:930:G:OP1	37:LB:135:ILE:HD11	2.18	0.44
32:S1:953:G:OP1	54:Lf:4:THR:O	2.36	0.44
33:L1:642:C:H4'	33:L1:1436:A:H61	1.83	0.44
33:L1:1105:G:OP1	78:Le:109:ARG:NH1	2.50	0.44
33:L1:1512:A:N3	33:L1:1512:A:H2'	2.32	0.44
36:LA:32:GLU:HB2	36:LA:168:VAL:CG1	2.48	0.44
38:LE:116:MET:O	38:LE:120:PRO:CD	2.66	0.44
44:LR:128:LEU:HD13	81:LD:313:GLU:CB	2.48	0.44
54:Lf:25:GLY:HA2	54:Lf:99:PRO:HA	2.00	0.44
54:Lf:39:ARG:CZ	70:Li:68:SER:HB2	2.48	0.44
59:Lo:47:THR:O	59:Lo:48:LYS:NZ	2.50	0.44
66:LN:118:GLY:HA2	66:LN:121:ILE:HD12	1.99	0.44
67:LS:61:LEU:HB2	78:Le:79:VAL:CG2	2.48	0.44
67:LS:151:PHE:CB	67:LS:151:PHE:CD1	2.74	0.44
75:Lt:62:VAL:HG13	79:Ls:230:LEU:HD13	1.99	0.44
78:Le:203:PHE:O	78:Le:205:TRP:CD1	2.71	0.44
79:Ls:186:PHE:HD2	79:Ls:188:TYR:CZ	2.35	0.44
80:LC:176:GLN:HG3	80:LC:178:LYS:H	1.82	0.44
2:SA:118:THR:CG2	2:SA:119:SER:N	2.81	0.44
11:SM:117:ILE:HD11	16:SR:128:PHE:HB2	1.99	0.44
12:SO:100:LYS:N	54:Lf:80:ASP:C	2.38	0.44
14:SP:94:PHE:CB	46:LT:151:ARG:HD3	2.48	0.44
17:SV:53:SER:HA	17:SV:56:PRO:HG3	1.99	0.44
25:SC:160:PHE:O	32:S1:482:A:H5''	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:S2:24:A:N1	33:L1:2260:C:C2'	2.80	0.44
32:S1:1615:G:H2'	32:S1:1616:U:C5	2.51	0.44
33:L1:269:C:H2'	33:L1:270:G:O4'	2.18	0.44
33:L1:395:A:H4'	33:L1:397:A:OP1	2.17	0.44
33:L1:461:A:H2'	33:L1:462:C:H5'	1.99	0.44
33:L1:900:C:H2'	33:L1:901:U:C6	2.53	0.44
33:L1:1238:G:H2'	33:L1:1239:U:C5	2.53	0.44
33:L1:1317:G:H2'	33:L1:1318:C:C4	2.53	0.44
33:L1:1372:U:H5'	56:Lh:44:ARG:HH21	1.83	0.44
33:L1:2725:U:H2'	33:L1:2726:U:C6	2.53	0.44
34:L3:14:C:C2'	34:L3:15:C:C6	2.97	0.44
34:L3:58:G:OP2	45:LQ:28:ARG:NH1	2.51	0.44
34:L3:116:U:H4'	45:LQ:80:TYR:OH	1.65	0.44
35:L2:124:G:C1'	35:L2:124:G:O2'	2.55	0.44
36:LA:66:MET:HA	36:LA:84:MET:HG3	2.00	0.44
45:LQ:184:LYS:HB2	45:LQ:190:LEU:HB2	1.99	0.44
46:LT:58:HIS:CG	46:LT:59:SER:N	2.85	0.44
51:LY:57:VAL:HG12	51:LY:63:LYS:HA	2.00	0.44
55:Lg:40:ALA:HA	55:Lg:43:GLU:HG3	1.99	0.44
55:Lg:86:LYS:C	55:Lg:87:ARG:HD2	2.43	0.44
64:LG:175:ASP:HB2	66:LN:109:LYS:CB	2.48	0.44
64:LG:182:LYS:HZ3	64:LG:185:ASP:CG	2.25	0.44
64:LG:185:ASP:CB	64:LG:185:ASP:N	2.71	0.44
70:Li:30:LEU:HD13	70:Li:69:ARG:O	2.18	0.44
78:Le:170:VAL:CG1	81:LD:355:ARG:HD2	2.48	0.44
83:Lm:33:GLN:HE21	83:Lm:34:HIS:CE1	2.36	0.44
4:SD:181:VAL:CG1	4:SD:182:MET:N	2.80	0.44
5:SE:153:TRP:CE2	5:SE:243:LYS:CE	3.00	0.44
12:SO:109:LYS:HE2	83:Lm:77:VAL:HG21	1.99	0.44
14:SP:41:LEU:HG	14:SP:103:LYS:HZ3	1.80	0.44
14:SP:89:ARG:HG3	14:SP:89:ARG:O	2.17	0.44
25:SC:162:LEU:O	25:SC:163:THR:CB	2.66	0.44
27:SH:79:PHE:CE2	27:SH:85:GLU:O	2.71	0.44
31:S2:30:G:H1	31:S2:40:U:H3	1.66	0.44
32:S1:37:U:H1'	32:S1:672:G:N2	2.33	0.44
32:S1:273:C:H3'	32:S1:274:A:H5''	1.99	0.44
32:S1:1392:G:C3'	32:S1:1393:G:H4'	2.48	0.44
32:S1:1507:G:H1	32:S1:1516:C:H42	1.66	0.44
33:L1:49:U:C2	33:L1:50:A:C8	3.06	0.44
33:L1:68:U:C3'	33:L1:69:U:H5'	2.48	0.44
33:L1:404:G:H1'	35:L2:20:G:N2	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1000:A:H61	33:L1:1056:U:H3	1.66	0.44
33:L1:1206:A:C4'	34:L3:88:U:H1'	2.20	0.44
33:L1:1574:C:O4'	33:L1:1574:C:C6	2.70	0.44
33:L1:1593:C:O4'	33:L1:1593:C:C6	2.71	0.44
33:L1:1611:G:H2'	33:L1:1612:C:O4'	2.18	0.44
33:L1:1870:G:OP1	46:LT:17:CYS:HA	2.18	0.44
33:L1:2119:A:O2'	33:L1:2120:A:H5'	2.18	0.44
33:L1:2398:A:C2	33:L1:2399:G:C1'	3.00	0.44
33:L1:3034:A:H2	39:LF:117:LEU:O	2.01	0.44
33:L1:3320:G:C2	33:L1:3322:A:N3	2.86	0.44
34:L3:27:A:N6	34:L3:52:U:H3	2.16	0.44
34:L3:35:C:N1	45:LQ:200:TYR:OH	2.51	0.44
34:L3:46:C:N3	34:L3:47:C:C6	2.86	0.44
35:L2:42:U:H1'	77:Lc:85:ARG:HG2	1.99	0.44
36:LA:106:TYR:CE1	36:LA:143:LEU:CB	3.00	0.44
36:LA:136:LEU:C	36:LA:136:LEU:HD23	2.43	0.44
36:LA:168:VAL:HG12	36:LA:170:ASN:H	1.83	0.44
37:LB:102:LEU:HD23	37:LB:102:LEU:N	2.32	0.44
38:LE:79:MET:HE1	38:LE:168:LYS:HZ3	1.82	0.44
39:LF:5:LEU:HD21	39:LF:69:ILE:HD13	1.99	0.44
39:LF:41:LEU:HD11	39:LF:65:THR:HG23	1.99	0.44
41:LM:70:PRO:CD	41:LM:71:ASP:H	2.25	0.44
43:LO:52:TYR:CD1	44:LR:91:ARG:HG2	2.52	0.44
44:LR:128:LEU:CD1	81:LD:313:GLU:CD	2.90	0.44
51:LY:79:ILE:HG13	51:LY:98:ILE:HG22	1.99	0.44
51:LY:82:GLU:HG2	51:LY:83:ARG:HG3	1.99	0.44
55:Lg:5:LYS:HG3	55:Lg:11:ARG:O	2.18	0.44
55:Lg:81:VAL:HG11	55:Lg:94:LYS:CE	2.29	0.44
60:Lr:38:GLN:CD	60:Lr:38:GLN:H	2.26	0.44
66:LN:8:GLU:CG	66:LN:9:ILE:H	2.30	0.44
66:LN:39:ASP:CG	66:LN:40:ALA:H	2.25	0.44
75:Lt:48:LYS:HZ3	76:Lw:35:ASP:HB2	1.81	0.44
81:LD:303:VAL:CG1	81:LD:304:GLN:N	2.58	0.44
81:LD:315:LYS:HB2	81:LD:315:LYS:NZ	2.33	0.44
1:Sa:219:ASN:HB2	1:Sa:220:MET:HE3	2.00	0.43
2:SA:145:ASN:HD21	5:SE:78:VAL:CB	2.29	0.43
7:SI:58:ILE:HG22	15:SS:11:ASP:O	2.15	0.43
7:SI:133:LYS:CE	32:S1:1592:G:O3'	2.36	0.43
9:SK:43:VAL:H	9:SK:106:THR:HG21	1.82	0.43
9:SK:99:THR:CG2	9:SK:100:GLY:N	2.81	0.43
10:SL:51:LEU:HD21	32:S1:1141:U:H5''	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:SL:83:PHE:CD2	10:SL:84:VAL:N	2.86	0.43
11:SM:71:VAL:HG13	11:SM:72:HIS:N	2.33	0.43
13:SQ:39:SER:O	13:SQ:40:ILE:HD12	2.18	0.43
14:SP:71:ILE:HD11	27:SH:84:LYS:CE	2.43	0.43
24:SX:42:CYS:O	24:SX:43:PHE:HB2	2.17	0.43
31:S2:70:G:OP2	33:L1:2964:U:C2'	2.64	0.43
32:S1:632:G:C1'	32:S1:632:G:O2'	2.56	0.43
32:S1:1034:G:N3	32:S1:1036:U:C6	2.86	0.43
32:S1:1053:C:H2'	32:S1:1054:G:H8	1.83	0.43
32:S1:1129:A:O4'	83:Lm:24:LYS:HG2	2.18	0.43
32:S1:1698:A:C2	32:S1:1721:A:H2	2.25	0.43
32:S1:1728:G:C6	32:S1:1729:A:N6	2.85	0.43
33:L1:227:C:O4'	33:L1:227:C:N1	2.43	0.43
33:L1:428:G:H4'	71:Lj:95:PRO:HD3	1.99	0.43
33:L1:830:A:C5'	73:Lp:50:LYS:C	2.90	0.43
33:L1:838:G:H2'	33:L1:860:G:N2	2.33	0.43
33:L1:854:C:OP2	83:Lm:1:MET:CA	2.66	0.43
33:L1:1395:A:H1'	33:L1:1421:A:N6	2.33	0.43
33:L1:1525:U:H2'	49:LX:125:ARG:NH1	2.33	0.43
33:L1:1587:G:C8	33:L1:1587:G:O5'	2.71	0.43
33:L1:1613:C:N3	33:L1:1614:G:N7	2.65	0.43
33:L1:1945:A:C5	33:L1:1946:C:C5	3.06	0.43
33:L1:2265:A:H2'	33:L1:2266:A:C8	2.53	0.43
33:L1:2703:G:H2'	33:L1:2704:U:C6	2.52	0.43
33:L1:3035:C:O4'	33:L1:3035:C:C6	2.70	0.43
36:LA:57:ILE:CG1	36:LA:58:PRO:HD2	2.48	0.43
37:LB:108:PRO:HB2	83:Lm:86:LEU:HD13	1.99	0.43
44:LR:122:THR:OG1	81:LD:303:VAL:HG21	2.18	0.43
48:LV:28:ASN:HD22	48:LV:85:PRO:HB3	1.83	0.43
60:Lr:37:ALA:HB1	60:Lr:38:GLN:OE1	2.17	0.43
64:LG:155:ALA:HB1	64:LG:159:GLU:OE2	2.18	0.43
66:LN:1:MET:SD	82:LK:135:GLN:HB3	2.58	0.43
66:LN:124:GLU:OE2	82:LK:194:LEU:CD1	2.60	0.43
67:LS:61:LEU:HA	78:Le:79:VAL:CG1	2.47	0.43
74:LJ:34:PRO:HB3	74:LJ:63:LEU:HD11	2.00	0.43
76:Lv:24:THR:HB	76:Lv:39:MET:HE1	1.99	0.43
76:Lw:59:ARG:N	79:Ls:245:LEU:HD22	2.32	0.43
78:Le:36:LYS:O	81:LD:358:LYS:HG2	2.18	0.43
79:Ls:35:ASN:CB	79:Ls:188:TYR:CD1	2.99	0.43
4:SD:199:GLU:HB3	4:SD:201:HIS:HE1	1.82	0.43
6:SF:154:ALA:C	6:SF:165:ILE:CD1	2.90	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:SO:114:ARG:HH11	32:S1:945:A:N6	2.16	0.43
14:SP:54:TYR:H	46:LT:144:LYS:NZ	2.15	0.43
23:SU:22:LEU:HD23	23:SU:23:LEU:HD21	2.01	0.43
23:SU:25:ARG:CD	23:SU:25:ARG:C	2.90	0.43
23:SU:25:ARG:NE	23:SU:27:GLN:HG3	2.32	0.43
27:SH:101:TYR:CD1	27:SH:101:TYR:C	2.95	0.43
31:S2:13:U:O3'	33:L1:2263:U:C5	2.67	0.43
32:S1:633:U:N1	33:L1:849:A:OP1	2.50	0.43
32:S1:1060:U:C4	32:S1:1061:G:N3	2.86	0.43
32:S1:1735:C:C4'	33:L1:2103:U:H5''	2.35	0.43
32:S1:1743:C:C4	32:S1:1744:C:C5	3.06	0.43
33:L1:56:A:OP1	42:LP:157:LYS:NZ	2.50	0.43
33:L1:209:G:OP1	81:LD:227:ARG:NH1	2.51	0.43
33:L1:283:A:C8	33:L1:283:A:H2'	2.51	0.43
33:L1:384:A:C3'	33:L1:385:A:C5'	2.96	0.43
33:L1:491:G:C5	33:L1:492:G:N7	2.86	0.43
33:L1:643:G:OP1	56:Lh:37:LYS:HG2	2.17	0.43
33:L1:1111:U:H2'	33:L1:1112:C:C6	2.53	0.43
33:L1:1629:A:H61	69:La:26:VAL:HG23	1.77	0.43
33:L1:2157:C:C1'	37:LB:10:LYS:HB2	2.48	0.43
33:L1:2197:C:OP1	37:LB:226:ARG:HG3	2.17	0.43
33:L1:2350:C:OP1	48:LV:68:GLY:HA3	2.17	0.43
33:L1:2607:U:C4'	37:LB:226:ARG:HH22	2.28	0.43
33:L1:2724:A:O4'	33:L1:2724:A:C8	2.71	0.43
33:L1:2770:U:H3	33:L1:2793:G:H1	1.66	0.43
33:L1:2925:U:H2'	33:L1:2926:U:C6	2.52	0.43
33:L1:3036:C:C2	33:L1:3037:G:C8	3.06	0.43
34:L3:3:A:C5	34:L3:4:U:C5	3.05	0.43
36:LA:71:GLN:HB2	36:LA:79:MET:HE3	2.00	0.43
36:LA:83:TYR:CE2	36:LA:86:VAL:HA	2.53	0.43
36:LA:143:LEU:HD11	36:LA:147:VAL:HG11	2.00	0.43
37:LB:98:ILE:CG1	83:Lm:83:ILE:HD12	2.48	0.43
37:LB:158:VAL:HG22	37:LB:159:PRO:N	2.32	0.43
46:LT:136:ARG:O	46:LT:137:VAL:HG13	2.18	0.43
48:LV:114:TYR:CE1	48:LV:155:GLU:CA	3.01	0.43
56:Lh:16:LYS:HG3	56:Lh:17:GLN:O	2.18	0.43
67:LS:12:VAL:HG12	78:Le:74:LYS:CB	2.48	0.43
67:LS:45:TYR:CZ	67:LS:123:ILE:HG13	2.53	0.43
73:Lp:18:MET:HA	73:Lp:47:PRO:HA	1.99	0.43
77:Lc:58:VAL:HA	77:Lc:61:VAL:HG12	2.01	0.43
78:Le:36:LYS:CG	81:LD:358:LYS:HD2	2.45	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:Ls:134:ASP:HB3	79:Ls:135:PRO:HD2	2.00	0.43
80:LC:5:LYS:H	80:LC:6:PHE:C	2.26	0.43
4:SD:156:ALA:O	4:SD:157:ASN:HB2	2.17	0.43
4:SD:159:THR:CG2	4:SD:227:THR:CG2	2.94	0.43
11:SM:14:ARG:CZ	38:LE:109:GLN:CD	2.74	0.43
12:SO:100:LYS:NZ	54:Lf:81:LEU:HD12	2.32	0.43
17:SV:53:SER:C	17:SV:56:PRO:CG	2.89	0.43
23:SU:10:VAL:HG22	23:SU:33:LEU:C	2.27	0.43
25:SC:169:GLY:N	25:SC:170:PRO:HD3	2.32	0.43
31:S2:34:G:C5'	32:S1:1195:U:H6	2.21	0.43
32:S1:633:U:O2	32:S1:634:A:N9	2.52	0.43
33:L1:177:C:O4'	33:L1:177:C:C6	2.71	0.43
33:L1:638:G:N3	33:L1:638:G:C2'	2.81	0.43
33:L1:1506:A:H61	33:L1:1519:C:C1'	2.31	0.43
33:L1:1663:G:H2'	33:L1:1664:G:C8	2.53	0.43
33:L1:1672:G:O3'	68:LW:82:LYS:HB3	2.17	0.43
33:L1:2079:A:OP1	46:LT:150:ALA:HB2	2.19	0.43
33:L1:2163:G:H2'	33:L1:2164:G:C8	2.52	0.43
33:L1:2176:A:P	37:LB:6:ARG:NH2	2.92	0.43
33:L1:2502:U:H4'	33:L1:2503:A:OP1	2.18	0.43
33:L1:2567:C:H2'	33:L1:2568:G:H8	1.83	0.43
33:L1:2584:U:O2	33:L1:2585:C:C5	2.72	0.43
33:L1:3320:G:N1	33:L1:3322:A:C2	2.86	0.43
34:L3:8:A:N6	34:L3:111:U:H3	2.15	0.43
35:L2:66:C:H4'	35:L2:67:C:O4'	2.17	0.43
37:LB:137:ILE:HG22	37:LB:147:ARG:O	2.17	0.43
55:Lg:13:ASP:HB3	55:Lg:14:GLU:O	2.19	0.43
55:Lg:55:THR:HG23	55:Lg:56:ASP:N	2.33	0.43
56:Lh:15:VAL:HG13	56:Lh:17:GLN:HG3	1.99	0.43
64:LG:91:LYS:HB3	64:LG:152:LYS:HB3	2.00	0.43
64:LG:184:ILE:CG1	64:LG:185:ASP:HA	2.47	0.43
66:LN:101:SER:O	66:LN:102:LEU:HG	2.18	0.43
75:Lu:7:ALA:HB1	76:Lw:9:LEU:HD11	2.00	0.43
78:Le:39:ALA:HB3	81:LD:358:LYS:HZ1	1.83	0.43
78:Le:140:TYR:CE2	78:Le:142:ASN:HA	2.53	0.43
79:Ls:30:ILE:HG13	79:Ls:89:VAL:HG11	2.00	0.43
79:Ls:123:ASP:OD1	79:Ls:166:LYS:HG3	2.18	0.43
80:LC:309:ILE:HG23	80:LC:363:ILE:HG21	1.99	0.43
81:LD:309:PRO:HB3	81:LD:313:GLU:CD	2.43	0.43
84:LI:109:ASP:HB2	84:LI:116:ARG:CZ	2.48	0.43
1:Sa:343:HIS:CB	32:S1:1399:G:O3'	2.65	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:81:GLN:HB3	2:SA:103:ILE:HG22	1.99	0.43
2:SA:198:LYS:O	2:SA:199:TRP:HB2	2.18	0.43
3:SB:198:LEU:H	3:SB:198:LEU:HD22	1.84	0.43
5:SE:31:ARG:CD	27:SH:67:GLY:HA3	2.40	0.43
10:SL:47:LYS:HB3	10:SL:59:LYS:NZ	2.33	0.43
12:SO:58:HIS:HB3	54:Lf:23:LYS:HZ2	1.75	0.43
13:SQ:29:HIS:CG	13:SQ:32:LYS:HD2	2.53	0.43
13:SQ:104:GLU:HG3	20:SZ:31:ARG:CD	2.48	0.43
16:SR:67:LYS:HD2	32:S1:1557:C:C4	2.54	0.43
17:SV:71:ARG:CD	17:SV:78:ARG:HH12	2.20	0.43
20:SZ:10:ARG:HB3	32:S1:1255:U:OP2	2.18	0.43
24:SX:57:VAL:O	24:SX:59:PRO:HD3	2.19	0.43
31:S2:24:A:C2'	33:L1:2261:U:OP1	2.61	0.43
32:S1:150:U:H3	32:S1:160:A:H61	1.66	0.43
33:L1:16:A:C4'	49:LX:58:ARG:HB3	2.48	0.43
33:L1:291:C:O2'	72:Lk:68:LYS:CB	2.66	0.43
33:L1:309:C:O2'	33:L1:310:C:H5'	2.17	0.43
33:L1:428:G:H4'	71:Lj:95:PRO:CA	2.48	0.43
33:L1:501:U:H3	33:L1:618:G:H1	1.65	0.43
33:L1:513:C:H3'	33:L1:514:G:H5'	2.01	0.43
33:L1:649:A:H3'	56:Lh:40:ASP:OD2	2.18	0.43
33:L1:656:G:O4'	33:L1:656:G:N9	2.41	0.43
33:L1:1183:C:OP1	71:Lj:11:LEU:HD12	2.12	0.43
33:L1:1822:C:O4'	33:L1:1822:C:C6	2.72	0.43
33:L1:2221:U:O5'	33:L1:2221:U:H6	2.01	0.43
33:L1:2702:G:O2'	33:L1:2703:G:H5'	2.17	0.43
33:L1:3292:U:C4	33:L1:3293:U:C5	3.07	0.43
34:L3:73:U:O5'	34:L3:73:U:C6	2.67	0.43
34:L3:104:C:H2'	34:L3:105:C:H6	1.84	0.43
36:LA:206:LYS:HD2	36:LA:207:SER:O	2.19	0.43
48:LV:154:LYS:C	48:LV:158:VAL:HG22	2.43	0.43
49:LX:34:LYS:HA	49:LX:37:ARG:CG	2.49	0.43
66:LN:9:ILE:HD13	66:LN:64:ARG:HA	1.96	0.43
71:Lj:72:TRP:NE1	82:LK:30:LYS:HE2	2.33	0.43
78:Le:167:ASN:O	81:LD:355:ARG:HB3	2.18	0.43
79:Ls:209:LEU:O	79:Ls:209:LEU:HD13	2.17	0.43
81:LD:310:LEU:O	81:LD:314:VAL:HG23	2.18	0.43
81:LD:371:ALA:O	81:LD:375:LYS:HG3	2.19	0.43
2:SA:182:LEU:HD23	2:SA:182:LEU:C	2.43	0.43
3:SB:25:LEU:HG	3:SB:39:VAL:HG11	2.01	0.43
3:SB:154:ASP:C	3:SB:155:GLY:O	2.61	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:SD:114:VAL:HG12	4:SD:115:LYS:O	2.18	0.43
5:SE:90:MET:HE2	5:SE:115:ASP:O	2.19	0.43
11:SM:31:THR:HA	11:SM:36:VAL:HG22	1.99	0.43
12:SO:97:ALA:CA	54:Lf:19:GLN:OE1	2.66	0.43
12:SO:109:LYS:HD2	32:S1:1024:A:OP1	2.19	0.43
13:SQ:98:VAL:HG13	13:SQ:99:ASP:OD1	2.18	0.43
14:SP:100:ARG:HG2	14:SP:101:TYR:N	2.32	0.43
17:SV:76:LEU:HD11	32:S1:1541:C:OP2	2.18	0.43
17:SV:101:ILE:CG2	17:SV:102:TYR:N	2.47	0.43
23:SU:19:THR:HA	23:SU:26:LYS:HA	2.01	0.43
23:SU:95:TYR:H	23:SU:98:ILE:HD13	1.82	0.43
25:SC:106:PHE:CZ	32:S1:670:C:C2	3.07	0.43
26:SG:9:UNK:N	46:LT:188:SER:HB2	2.28	0.43
27:SH:27:ILE:HD13	27:SH:27:ILE:HG21	1.89	0.43
31:S2:12:U:O2'	33:L1:2262:C:C4	2.70	0.43
32:S1:1332:G:C1'	32:S1:1332:G:O2'	2.53	0.43
32:S1:1664:U:C5'	33:L1:2119:A:O3'	2.63	0.43
32:S1:1736:C:H2'	33:L1:2101:A:O3'	2.18	0.43
33:L1:125:G:O2'	42:LP:139:HIS:HE1	2.01	0.43
33:L1:537:U:H4'	67:LS:134:LYS:CE	2.48	0.43
33:L1:1218:U:P	67:LS:93:TYR:O	2.75	0.43
33:L1:1582:C:N4	33:L1:1583:G:C6	2.87	0.43
33:L1:1804:G:O4'	33:L1:1804:G:C8	2.72	0.43
33:L1:1866:C:O2	33:L1:1866:C:H2'	2.19	0.43
33:L1:2104:G:H4'	33:L1:3356:C:H5'	2.00	0.43
33:L1:2665:A:H2'	33:L1:2666:G:C8	2.53	0.43
36:LA:52:VAL:O	36:LA:53:LYS:HB2	2.18	0.43
36:LA:60:PRO:CA	36:LA:150:THR:CB	2.95	0.43
38:LE:27:GLU:HA	38:LE:31:ARG:O	2.18	0.43
41:LM:69:LYS:HG2	41:LM:70:PRO:HD3	2.01	0.43
42:LP:18:VAL:HG21	72:Lk:97:LEU:HD21	2.01	0.43
46:LT:176:ARG:HA	46:LT:179:GLU:HB3	1.99	0.43
48:LV:114:TYR:CD1	48:LV:155:GLU:C	2.97	0.43
51:LY:30:MET:HB2	51:LY:77:TRP:CE2	2.53	0.43
56:Lh:13:LYS:HB2	56:Lh:15:VAL:H	1.82	0.43
66:LN:4:LYS:HE3	67:LS:164:LYS:HD2	2.00	0.43
66:LN:4:LYS:HZ2	66:LN:55:LEU:HB2	1.83	0.43
69:La:10:ALA:HB3	69:La:25:ILE:HB	1.98	0.43
75:Lt:33:ALA:HB2	76:Lv:29:SER:CB	2.49	0.43
78:Le:66:GLN:H	81:LD:405:GLN:C	2.25	0.43
81:LD:309:PRO:CB	81:LD:313:GLU:OE1	2.65	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
84:LI:110:ARG:NE	84:LI:116:ARG:CD	2.71	0.43
1:Sa:89:ARG:NE	1:Sa:103:ALA:HB1	2.30	0.43
2:SA:43:TYR:CB	2:SA:44:LYS:HD3	2.46	0.43
4:SD:152:PRO:C	4:SD:153:ILE:CB	2.92	0.43
5:SE:210:ARG:HB2	32:S1:3:C:C2	2.53	0.43
14:SP:95:VAL:CG2	46:LT:152:GLU:CG	2.94	0.43
16:SR:125:LEU:HB2	16:SR:128:PHE:H	1.84	0.43
17:SV:24:LYS:C	17:SV:25:LYS:HG3	2.44	0.43
23:SU:19:THR:CG2	23:SU:19:THR:O	2.65	0.43
25:SC:5:PRO:HA	25:SC:8:TYR:HD2	1.84	0.43
25:SC:44:LEU:O	25:SC:45:TRP:CD1	2.72	0.43
26:SG:4:UNK:O	46:LT:188:SER:C	2.62	0.43
31:S2:72:G:C6	33:L1:2972:C:C3'	2.45	0.43
32:S1:30:G:H2'	32:S1:31:C:C6	2.53	0.43
32:S1:316:A:C2	32:S1:319:A:C8	3.07	0.43
33:L1:187:G:N2	33:L1:189:C:C2	2.86	0.43
33:L1:285:G:OP1	42:LP:180:THR:HG21	2.19	0.43
33:L1:640:C:H2'	33:L1:641:C:H6	1.84	0.43
33:L1:817:U:O3'	57:L1:35:SER:HB2	2.12	0.43
33:L1:996:A:N3	33:L1:2640:A:OP2	2.51	0.43
33:L1:1254:A:H2'	33:L1:1254:A:N3	2.33	0.43
33:L1:1595:G:C6	33:L1:1596:G:C5	3.07	0.43
33:L1:2004:U:H3'	33:L1:2005:C:H5''	2.00	0.43
33:L1:2398:A:C2	33:L1:2399:G:H1'	2.52	0.43
33:L1:3076:C:C5'	55:Lg:70:ASN:O	2.66	0.43
35:L2:98:C:C6	35:L2:98:C:C5'	3.01	0.43
36:LA:109:PHE:CE1	36:LA:137:VAL:HA	2.54	0.43
64:LG:84:LEU:HD13	64:LG:176:PHE:CD2	2.54	0.43
67:LS:12:VAL:CG2	67:LS:61:LEU:HD13	2.48	0.43
75:Lu:58:LEU:CD1	79:Ls:257:GLU:HB3	2.48	0.43
79:Ls:139:SER:O	79:Ls:143:VAL:HG23	2.17	0.43
81:LD:154:LEU:HD23	81:LD:154:LEU:HA	1.95	0.43
1:Sa:231:ARG:NE	1:Sa:241:ALA:HB1	2.33	0.43
10:SL:22:TRP:HE1	10:SL:25:LYS:C	2.26	0.43
11:SM:12:ILE:HG23	38:LE:118:TYR:O	2.19	0.43
11:SM:91:LYS:HB3	11:SM:92:ASP:H	1.60	0.43
12:SO:32:ASP:OD2	27:SH:53:VAL:HG11	2.19	0.43
12:SO:64:LYS:HE2	12:SO:72:LEU:HB3	2.00	0.43
12:SO:107:LYS:O	83:Lm:38:PHE:HZ	2.01	0.43
13:SQ:139:ASP:HB3	13:SQ:140:ARG:H	1.31	0.43
15:SS:104:ARG:HD3	32:S1:1509:C:H5	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:SV:42:LEU:C	17:SV:47:THR:HG23	2.43	0.43
20:SZ:10:ARG:CG	32:S1:1255:U:P	2.88	0.43
23:SU:19:THR:H	23:SU:94:LYS:H	1.66	0.43
23:SU:78:PHE:HE2	32:S1:161:G:HO2'	1.61	0.43
27:SH:12:LYS:HB3	27:SH:75:ILE:HG22	2.01	0.43
27:SH:32:LYS:HZ3	32:S1:692:C:H4'	1.79	0.43
27:SH:42:GLN:CD	27:SH:101:TYR:CE2	2.96	0.43
32:S1:96:G:H1	32:S1:406:C:H41	1.67	0.43
32:S1:479:A:N6	32:S1:598:A:H5''	2.33	0.43
32:S1:960:A:C8	32:S1:961:U:C5	3.06	0.43
32:S1:1552:U:H3	32:S1:1575:U:H3	1.67	0.43
32:S1:1642:C:O4'	32:S1:1642:C:N1	2.47	0.43
32:S1:1698:A:N1	32:S1:1721:A:C6	2.84	0.43
33:L1:20:G:C6	33:L1:21:G:C6	3.07	0.43
33:L1:52:G:H4'	33:L1:815:G:H4'	2.00	0.43
33:L1:232:C:O4'	33:L1:232:C:C6	2.71	0.43
33:L1:270:G:H21	72:Lk:67:GLY:N	2.17	0.43
33:L1:507:C:H4'	64:LG:62:SER:HB2	2.00	0.43
33:L1:640:C:H6	33:L1:640:C:O5'	1.99	0.43
33:L1:1193:A:H3'	33:L1:1193:A:C8	2.54	0.43
33:L1:1631:G:C6	33:L1:1632:G:C6	3.07	0.43
33:L1:1633:C:C5	33:L1:1634:G:N7	2.87	0.43
33:L1:2312:A:H2'	33:L1:2313:U:O4'	2.19	0.43
33:L1:2465:G:H4'	36:LA:206:LYS:HZ3	1.84	0.43
33:L1:2751:A:H2	45:LQ:40:LEU:HD12	1.83	0.43
33:L1:2875:U:C5'	33:L1:2875:U:C6	3.01	0.43
33:L1:3106:U:H5	33:L1:3129:G:C2	2.37	0.43
33:L1:3235:A:H1'	80:LC:93:VAL:HG21	2.01	0.43
34:L3:34:C:C2	34:L3:35:C:C5	3.06	0.43
34:L3:43:A:H2'	34:L3:44:C:H5'	2.01	0.43
34:L3:68:G:C6	34:L3:69:A:C5	3.06	0.43
36:LA:50:GLY:CA	36:LA:156:PHE:CE1	3.01	0.43
36:LA:190:VAL:O	36:LA:190:VAL:HG12	2.19	0.43
37:LB:187:HIS:O	37:LB:191:VAL:HG23	2.19	0.43
37:LB:196:TRP:CZ3	37:LB:197:PRO:HG3	2.54	0.43
45:LQ:19:ARG:HG3	45:LQ:20:PHE:CD1	2.53	0.43
45:LQ:109:ARG:HG3	45:LQ:236:MET:HE2	2.00	0.43
79:Ls:119:VAL:HA	79:Ls:169:LYS:HA	2.00	0.43
81:LD:381:TRP:C	81:LD:384:THR:HG23	2.44	0.43
82:LK:152:TRP:HA	82:LK:154:TYR:N	2.33	0.43
2:SA:229:TYR:CA	2:SA:232:VAL:HG23	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:SE:153:TRP:CG	5:SE:243:LYS:HD2	2.53	0.43
6:SF:149:LEU:HA	6:SF:152:THR:HG22	2.01	0.43
13:SQ:17:ILE:O	13:SQ:21:TYR:CD2	2.71	0.43
14:SP:64:THR:O	14:SP:84:THR:HA	2.19	0.43
14:SP:124:VAL:N	46:LT:165:LYS:HG3	2.24	0.43
25:SC:10:LYS:CE	32:S1:505:U:H5'	2.40	0.43
25:SC:148:PHE:HA	32:S1:482:A:OP2	2.19	0.43
26:SG:64:UNK:CA	26:SG:65:UNK:N	2.68	0.43
27:SH:83:VAL:HG22	27:SH:84:LYS:N	2.34	0.43
31:S2:70:G:OP2	33:L1:2965:C:H6	2.02	0.43
31:S2:74:C:C6	33:L1:2810:A:H2	2.32	0.43
32:S1:487:A:H61	32:S1:508:U:H3	1.65	0.43
32:S1:508:U:H2'	32:S1:509:A:H8	1.84	0.43
32:S1:875:C:H42	32:S1:962:G:H1	1.66	0.43
33:L1:383:A:N6	33:L1:384:A:C2	2.87	0.43
33:L1:722:C:H5'	43:LO:94:PRO:HD3	2.01	0.43
33:L1:977:G:H5''	44:LR:54:MET:HG2	2.00	0.43
33:L1:1148:G:H1'	33:L1:1163:A:C2	2.54	0.43
33:L1:1443:G:OP1	81:LD:90:ARG:NE	2.46	0.43
33:L1:1548:U:C5	42:LP:105:ARG:NH2	2.86	0.43
33:L1:2561:A:C5	33:L1:2562:A:N6	2.87	0.43
33:L1:2832:G:H1	33:L1:2860:U:H3	1.67	0.43
33:L1:3348:G:OP2	50:LZ:73:ARG:HD3	2.19	0.43
34:L3:34:C:H2'	34:L3:35:C:C6	2.53	0.43
34:L3:36:C:N3	34:L3:41:G:N2	2.66	0.43
36:LA:51:SER:O	36:LA:156:PHE:HD1	2.02	0.43
36:LA:94:LYS:O	36:LA:97:LYS:HB3	2.19	0.43
36:LA:149:GLU:O	36:LA:150:THR:HB	2.19	0.43
40:LH:157:GLU:OE1	42:LP:22:VAL:HG11	2.18	0.43
53:Ld:45:TYR:CD1	53:Ld:49:HIS:CD2	3.07	0.43
55:Lg:32:THR:HG23	55:Lg:35:LYS:HB3	2.01	0.43
56:Lh:95:ALA:H	56:Lh:120:VAL:HG23	1.84	0.43
56:Lh:119:VAL:O	56:Lh:119:VAL:CG1	2.67	0.43
66:LN:39:ASP:HB3	66:LN:71:LEU:HD11	2.00	0.43
66:LN:64:ARG:CG	66:LN:65:VAL:H	2.32	0.43
68:LW:22:SER:HA	68:LW:72:VAL:O	2.19	0.43
70:Li:15:THR:OG1	70:Li:109:ILE:HG23	2.19	0.43
2:SA:64:LEU:HD11	5:SE:44:TRP:HD1	1.58	0.43
2:SA:79:ILE:CD1	2:SA:101:HIS:CD2	3.01	0.43
4:SD:153:ILE:HD13	4:SD:154:ILE:HG12	2.01	0.43
7:SI:138:ARG:HD2	8:SJ:85:THR:HB	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:SK:107:PRO:O	9:SK:109:PRO:HD3	2.18	0.43
14:SP:108:ILE:N	14:SP:109:PRO:CD	2.82	0.43
20:SZ:25:ASP:OD1	20:SZ:25:ASP:N	2.52	0.43
27:SH:33:VAL:CG1	27:SH:34:ILE:N	2.82	0.43
32:S1:302:C:H3'	32:S1:303:A:H8	1.83	0.43
32:S1:690:G:H3'	32:S1:690:G:H8	1.79	0.43
32:S1:887:U:C1'	83:Lm:85:ARG:NH2	2.81	0.43
32:S1:889:C:H2'	32:S1:890:G:C8	2.53	0.43
33:L1:319:C:C4	33:L1:320:U:C4	3.07	0.43
33:L1:537:U:H4'	67:LS:134:LYS:HE3	2.01	0.43
33:L1:721:A:N3	33:L1:721:A:H5''	2.33	0.43
33:L1:745:G:H2'	33:L1:746:C:C6	2.53	0.43
33:L1:1230:G:H2'	33:L1:1231:C:C6	2.53	0.43
33:L1:1407:G:C2	33:L1:1409:G:H3'	2.54	0.43
33:L1:1710:G:H2'	33:L1:1711:G:C8	2.54	0.43
33:L1:2439:A:H61	33:L1:2510:U:H3	1.65	0.43
33:L1:2441:G:N3	33:L1:2441:G:H2'	2.34	0.43
33:L1:2597:C:O4'	33:L1:2597:C:C6	2.72	0.43
36:LA:171:LEU:HD23	36:LA:171:LEU:HA	1.77	0.43
37:LB:112:VAL:HG13	37:LB:133:TYR:CB	2.43	0.43
37:LB:158:VAL:CG2	37:LB:162:CYS:SG	3.07	0.43
44:LR:128:LEU:HD22	81:LD:313:GLU:CD	2.44	0.43
51:LY:81:VAL:HB	51:LY:84:ILE:CG2	2.48	0.43
55:Lg:106:ILE:HG12	55:Lg:109:GLU:HG2	2.01	0.43
64:LG:175:ASP:HB2	66:LN:109:LYS:HA	2.00	0.43
66:LN:96:GLN:HG3	66:LN:97:LYS:N	2.33	0.43
71:Lj:94:PRO:C	71:Lj:97:SER:HB2	2.43	0.43
78:Le:40:ALA:HB2	81:LD:362:LYS:CE	2.48	0.43
78:Le:185:ASP:OD2	81:LD:358:LYS:NZ	2.52	0.43
79:Ls:122:VAL:HG12	79:Ls:123:ASP:H	1.82	0.43
81:LD:333:LEU:O	81:LD:337:PHE:CE2	2.63	0.43
2:SA:112:PHE:CZ	2:SA:126:LEU:CD1	2.96	0.43
2:SA:135:HIS:NE2	2:SA:138:ILE:HD11	2.34	0.43
2:SA:159:ARG:CA	5:SE:37:PRO:CG	2.92	0.43
3:SB:75:LYS:C	13:SQ:33:LYS:HD2	2.43	0.43
5:SE:178:MET:HB2	5:SE:247:SER:HB2	1.99	0.43
9:SK:35:SER:HB2	9:SK:100:GLY:CA	2.48	0.43
23:SU:20:ASN:HA	23:SU:95:TYR:HB3	2.00	0.43
24:SX:40:GLN:CG	24:SX:41:GLY:N	2.82	0.43
24:SX:64:VAL:HG12	24:SX:65:LEU:H	1.84	0.43
25:SC:18:ARG:O	25:SC:19:ARG:HG3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:SC:94:LYS:NZ	32:S1:513:G:H5''	2.34	0.43
32:S1:633:U:C2	32:S1:634:A:C8	3.06	0.43
32:S1:633:U:H4'	32:S1:634:A:OP1	2.19	0.43
32:S1:999:G:HO2'	37:LB:246:LEU:CD2	2.18	0.43
33:L1:263:A:OP1	33:L1:264:C:C6	2.72	0.43
33:L1:282:A:H61	33:L1:2787:A:H1'	1.83	0.43
33:L1:707:G:O4'	33:L1:707:G:C8	2.72	0.43
33:L1:713:G:H2'	33:L1:714:G:C8	2.54	0.43
33:L1:1333:C:OP1	71:Lj:56:VAL:CG2	2.67	0.43
33:L1:1392:U:H3	33:L1:1422:G:H1	1.65	0.43
33:L1:1526:A:H2	49:LX:133:TYR:CE1	2.34	0.43
33:L1:2396:A:O4'	33:L1:2396:A:N9	2.42	0.43
33:L1:3035:C:H2'	33:L1:3036:C:C6	2.54	0.43
34:L3:19:A:N1	34:L3:59:U:C2	2.87	0.43
35:L2:45:A:H61	35:L2:107:G:H2'	1.83	0.43
35:L2:155:G:O4'	35:L2:155:G:N9	2.40	0.43
37:LB:136:VAL:HG22	37:LB:148:ILE:HG12	2.01	0.43
43:LO:3:THR:O	43:LO:3:THR:HG22	2.19	0.43
48:LV:7:GLU:CD	48:LV:16:LYS:NZ	2.77	0.43
55:Lg:1:MET:HB3	55:Lg:85:ARG:CA	2.48	0.43
55:Lg:17:THR:HB	55:Lg:84:SER:CA	2.46	0.43
64:LG:103:LEU:HA	64:LG:120:VAL:O	2.19	0.43
68:LW:21:VAL:HB	68:LW:85:LEU:HD11	2.01	0.43
73:Lp:52:LYS:HB2	73:Lp:53:ASN:O	2.19	0.43
81:LD:375:LYS:O	81:LD:379:LYS:CG	2.62	0.43
3:SB:68:GLU:OE2	13:SQ:23:ARG:NH1	2.52	0.42
4:SD:180:VAL:CG1	4:SD:181:VAL:N	2.82	0.42
7:SI:142:ALA:HB3	7:SI:143:ARG:CZ	2.49	0.42
15:SS:9:VAL:HG11	15:SS:135:ASP:HA	1.97	0.42
23:SU:10:VAL:CG2	23:SU:33:LEU:O	2.44	0.42
23:SU:19:THR:O	23:SU:19:THR:HG22	2.19	0.42
24:SX:51:HIS:CE1	24:SX:72:LYS:HZ1	2.37	0.42
25:SC:3:ARG:C	25:SC:5:PRO:HD2	2.43	0.42
32:S1:188:U:N3	32:S1:193:G:C6	2.87	0.42
32:S1:207:A:N1	32:S1:258:U:O2	2.52	0.42
32:S1:886:A:C5	83:Lm:85:ARG:NH2	2.77	0.42
32:S1:887:U:C5'	83:Lm:85:ARG:HA	2.28	0.42
33:L1:413:G:C6	33:L1:414:G:C6	3.07	0.42
33:L1:596:C:O4'	33:L1:596:C:C6	2.72	0.42
33:L1:616:A:H4'	64:LG:138:ASN:HA	2.01	0.42
33:L1:786:U:H5'	44:LR:70:PHE:CZ	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1489:G:H1'	73:Lp:24:TYR:CB	2.49	0.42
33:L1:1730:U:O5'	33:L1:1730:U:H6	2.02	0.42
33:L1:1851:U:H5''	73:Lp:52:LYS:C	2.43	0.42
33:L1:1904:A:H3'	33:L1:1905:A:C8	2.54	0.42
33:L1:2166:U:C5'	37:LB:193:ARG:CD	2.97	0.42
33:L1:2288:C:O5'	33:L1:2288:C:H6	2.02	0.42
33:L1:2643:A:H2'	33:L1:2644:U:H5'	2.01	0.42
33:L1:2668:U:H4'	33:L1:2669:C:H5'	2.01	0.42
33:L1:2706:A:H5''	33:L1:2707:A:H5'	2.00	0.42
33:L1:3059:C:H2'	33:L1:3060:G:C8	2.53	0.42
34:L3:46:C:C4	34:L3:47:C:C5	3.07	0.42
34:L3:86:G:C4'	67:LS:119:ARG:HG2	2.45	0.42
35:L2:39:C:C6	77:Lc:92:ILE:HD11	2.53	0.42
35:L2:102:U:H5''	35:L2:103:C:OP2	2.19	0.42
35:L2:108:A:C8	35:L2:109:A:C8	3.07	0.42
36:LA:89:LEU:CD2	36:LA:111:ALA:HB1	2.47	0.42
40:LH:179:LYS:HG2	40:LH:191:ALA:HB1	2.01	0.42
41:LM:16:MET:HB2	41:LM:88:TRP:CE3	2.54	0.42
41:LM:121:ILE:HD12	41:LM:136:ALA:HB2	2.01	0.42
51:LY:51:LYS:HD3	51:LY:70:VAL:O	2.17	0.42
56:Lh:86:LEU:HD13	56:Lh:95:ALA:HB2	2.01	0.42
67:LS:28:ARG:NE	78:Le:73:MET:O	2.52	0.42
69:La:26:VAL:HG22	69:La:27:ARG:NE	2.33	0.42
79:Ls:118:LEU:HD13	79:Ls:119:VAL:N	2.34	0.42
80:LC:62:LYS:HB2	80:LC:68:HIS:CE1	2.54	0.42
81:LD:369:GLU:HA	81:LD:372:ALA:HB3	1.99	0.42
2:SA:80:VAL:HG12	2:SA:81:GLN:N	2.33	0.42
2:SA:133:THR:CG2	2:SA:134:ASP:N	2.82	0.42
4:SD:142:TYR:CD1	4:SD:142:TYR:C	2.97	0.42
4:SD:206:GLU:HG3	32:S1:686:A:HO2'	1.78	0.42
9:SK:81:ALA:CB	9:SK:115:LEU:CD2	2.95	0.42
12:SO:100:LYS:HE2	54:Lf:81:LEU:HG	1.69	0.42
12:SO:114:ARG:NH1	32:S1:945:A:H62	2.16	0.42
13:SQ:38:VAL:CG1	13:SQ:39:SER:H	2.26	0.42
14:SP:44:LYS:HD3	14:SP:101:TYR:CD2	2.54	0.42
20:SZ:10:ARG:NH1	32:S1:1254:U:O5'	2.53	0.42
27:SH:2:VAL:HA	32:S1:639:G:OP1	2.20	0.42
32:S1:215:A:OP2	32:S1:834:A:H5''	2.19	0.42
32:S1:955:C:N1	54:Lf:9:LYS:CE	2.62	0.42
32:S1:1023:C:HO2'	83:Lm:77:VAL:CG2	2.32	0.42
32:S1:1676:G:O5'	33:L1:1933:U:P	2.70	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:24:C:OP1	57:L1:46:LYS:NZ	2.52	0.42
33:L1:56:A:H1'	42:LP:162:ARG:NE	2.34	0.42
33:L1:66:A:C4	33:L1:299:G:H1'	2.54	0.42
33:L1:975:G:O2'	33:L1:1376:A:H4'	2.19	0.42
33:L1:989:U:C5	33:L1:990:U:C4	3.07	0.42
33:L1:1286:G:H5''	79:Ls:87:GLY:HA2	2.00	0.42
33:L1:1336:A:O2'	78:Le:113:ILE:HD11	2.19	0.42
33:L1:1346:C:H5''	44:LR:13:ARG:HA	2.01	0.42
33:L1:1546:G:H2'	33:L1:1547:G:C8	2.54	0.42
33:L1:1814:C:H2'	33:L1:1815:G:C8	2.54	0.42
33:L1:2096:U:H4'	46:LT:89:LEU:HD22	2.00	0.42
33:L1:2256:G:N2	33:L1:2257:A:H62	2.15	0.42
33:L1:2361:C:C2'	33:L1:2361:C:C6	3.00	0.42
33:L1:2771:U:H2'	33:L1:2772:A:C8	2.54	0.42
33:L1:2783:U:H2'	33:L1:2784:U:C6	2.54	0.42
34:L3:89:G:H2'	34:L3:90:A:C8	2.54	0.42
45:LQ:131:TYR:O	45:LQ:183:PHE:CE2	2.72	0.42
55:Lg:52:MET:CE	55:Lg:85:ARG:HB3	2.48	0.42
64:LG:132:VAL:HG11	64:LG:208:LEU:HD11	2.01	0.42
67:LS:61:LEU:HD22	67:LS:62:ALA:HB3	2.01	0.42
75:Lt:62:VAL:HG21	79:Ls:227:SER:CB	2.49	0.42
79:Ls:122:VAL:CA	79:Ls:166:LYS:HG2	2.46	0.42
81:LD:395:ASP:HA	81:LD:398:SER:OG	2.19	0.42
84:LI:110:ARG:HB3	84:LI:114:GLY:O	2.19	0.42
5:SE:31:ARG:CB	27:SH:67:GLY:C	2.93	0.42
5:SE:194:LYS:HG2	5:SE:244:PHE:HB3	2.00	0.42
7:SI:135:PHE:CE2	7:SI:142:ALA:HA	2.54	0.42
9:SK:92:LEU:HD21	9:SK:124:LYS:HZ1	1.84	0.42
9:SK:99:THR:O	9:SK:124:LYS:HG3	2.19	0.42
9:SK:105:LYS:HD2	9:SK:112:GLN:CD	2.44	0.42
10:SL:78:LYS:O	10:SL:79:LYS:HB3	2.19	0.42
26:SG:8:UNK:C	46:LT:189:CYS:HG	2.32	0.42
27:SH:52:PHE:HD2	27:SH:53:VAL:HG23	1.75	0.42
27:SH:105:THR:HA	27:SH:110:ILE:HA	2.01	0.42
30:S3:22:A:C4	32:S1:1642:C:N4	2.88	0.42
31:S2:72:G:H2'	33:L1:2973:A:OP1	2.20	0.42
31:S2:74:C:O2'	33:L1:2404:C:H5'	2.19	0.42
32:S1:551:U:H3	32:S1:595:A:H61	1.67	0.42
32:S1:860:A:O2'	32:S1:861:A:H5'	2.19	0.42
32:S1:977:G:N7	33:L1:849:A:N7	2.26	0.42
32:S1:1268:G:N7	32:S1:1269:G:C8	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:1315:U:O2	32:S1:1319:U:C2	2.72	0.42
33:L1:372:A:N3	33:L1:374:G:H5''	2.34	0.42
33:L1:376:A:C8	33:L1:377:C:C5	3.08	0.42
33:L1:640:C:O2'	33:L1:641:C:H5''	2.19	0.42
33:L1:841:G:C6	33:L1:859:G:N2	2.87	0.42
33:L1:972:C:H5'	47:LU:159:ASP:HA	2.01	0.42
33:L1:1241:G:O4'	33:L1:1241:G:N9	2.45	0.42
33:L1:1246:G:C1'	33:L1:1246:G:O2'	2.60	0.42
33:L1:1299:G:OP1	67:LS:86:ARG:HB2	2.19	0.42
33:L1:1407:G:H5''	56:Lh:65:ARG:HG3	2.00	0.42
33:L1:1529:C:O2'	33:L1:1591:A:H2'	2.18	0.42
33:L1:1689:G:H2'	33:L1:1690:C:C6	2.54	0.42
33:L1:1691:U:N1	33:L1:1691:U:H2'	2.29	0.42
33:L1:1752:C:O2'	73:Lp:38:LYS:NZ	2.52	0.42
33:L1:2289:U:C6	41:LM:74:LYS:NZ	2.76	0.42
33:L1:3025:A:C2	33:L1:3033:A:C4	3.07	0.42
34:L3:19:A:N3	34:L3:19:A:H2'	2.33	0.42
34:L3:46:C:O3'	45:LQ:96:TYR:CD1	2.73	0.42
34:L3:107:C:N4	34:L3:108:G:C6	2.87	0.42
35:L2:42:U:H2'	35:L2:42:U:O2	2.19	0.42
36:LA:53:LYS:CG	36:LA:54:LEU:N	2.82	0.42
41:LM:65:VAL:HB	41:LM:72:LEU:O	2.19	0.42
43:LO:111:MET:HG3	43:LO:112:LEU:N	2.34	0.42
52:Lb:123:ARG:HB3	56:Lh:87:MET:HE1	2.01	0.42
60:Lr:74:CYS:H	60:Lr:80:TYR:CB	2.33	0.42
64:LG:81:LEU:HD13	64:LG:127:ALA:HA	2.01	0.42
64:LG:96:LEU:C	64:LG:139:VAL:HG22	2.43	0.42
64:LG:184:ILE:C	64:LG:185:ASP:HB2	2.44	0.42
75:Lu:13:LEU:HD22	79:Ls:251:VAL:HG23	2.01	0.42
80:LC:118:PHE:CD2	80:LC:131:THR:HB	2.55	0.42
81:LD:342:LYS:C	81:LD:343:MET:CG	2.92	0.42
2:SA:81:GLN:HB2	2:SA:103:ILE:CG2	2.50	0.42
2:SA:229:TYR:O	2:SA:232:VAL:CB	2.66	0.42
5:SE:154:GLY:H	5:SE:243:LYS:HD3	1.84	0.42
6:SF:136:ASP:HB2	19:SY:42:VAL:HG12	2.00	0.42
7:SI:133:LYS:HB2	32:S1:1593:U:OP1	2.19	0.42
10:SL:65:ILE:CG2	10:SL:66:ARG:N	2.82	0.42
12:SO:96:VAL:HB	54:Lf:84:ALA:HA	2.01	0.42
12:SO:104:ARG:N	54:Lf:80:ASP:OD1	2.52	0.42
14:SP:57:LYS:CA	46:LT:146:LYS:H	2.32	0.42
15:SS:116:ILE:CG2	15:SS:124:ARG:HB2	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:SV:42:LEU:O	17:SV:47:THR:HG21	2.14	0.42
32:S1:1022:U:HO2'	83:Lm:78:THR:CG2	2.26	0.42
32:S1:1748:U:C6	33:L1:1916:U:C4'	3.03	0.42
33:L1:556:U:H2'	33:L1:557:C:C6	2.54	0.42
33:L1:565:C:O2'	71:Lj:37:GLU:HB2	2.20	0.42
33:L1:581:G:C6	64:LG:21:HIS:CD2	3.08	0.42
33:L1:692:U:O4'	33:L1:692:U:C6	2.73	0.42
33:L1:832:C:H4'	33:L1:868:A:H2	1.84	0.42
33:L1:915:G:H2'	33:L1:917:A:N7	2.34	0.42
33:L1:1185:G:OP1	71:Lj:2:LYS:NZ	2.50	0.42
33:L1:1593:C:H5'	73:Lp:31:ALA:HB2	2.01	0.42
33:L1:1664:G:O4'	33:L1:1664:G:N9	2.43	0.42
33:L1:1679:U:O5'	33:L1:1679:U:H6	2.01	0.42
33:L1:2178:G:C6	33:L1:2179:U:C4	3.07	0.42
33:L1:2300:G:C8	33:L1:2300:G:C3'	3.02	0.42
33:L1:2640:A:C2	33:L1:2642:G:H3'	2.55	0.42
33:L1:2692:G:C8	33:L1:2705:A:C6	3.07	0.42
33:L1:2709:G:C6	33:L1:2710:C:C4	3.07	0.42
33:L1:2899:A:N7	33:L1:2901:C:N1	2.67	0.42
37:LB:145:THR:CG2	37:LB:146:SER:N	2.83	0.42
44:LR:41:LYS:HB3	81:LD:325:LYS:HZ1	1.78	0.42
45:LQ:258:LYS:HG3	45:LQ:259:LYS:N	2.34	0.42
48:LV:37:ARG:O	48:LV:38:LYS:C	2.61	0.42
55:Lg:54:THR:CG2	55:Lg:90:GLU:HG2	2.48	0.42
66:LN:109:LYS:O	66:LN:113:ALA:HB2	2.20	0.42
67:LS:114:SER:CB	67:LS:115:ARG:HH12	2.33	0.42
73:Lp:52:LYS:HB2	73:Lp:53:ASN:CA	2.50	0.42
75:Lt:34:ALA:O	76:Lv:15:ASN:ND2	2.52	0.42
79:Ls:140:PHE:HB3	79:Ls:177:LEU:HD11	2.00	0.42
83:Lm:10:ILE:HD11	83:Lm:13:LYS:HE3	2.02	0.42
1:Sa:282:HIS:CG	1:Sa:283:GLN:N	2.87	0.42
2:SA:24:ALA:O	2:SA:28:HIS:HB2	2.20	0.42
2:SA:182:LEU:C	2:SA:182:LEU:CD2	2.93	0.42
3:SB:64:ARG:NE	13:SQ:21:TYR:CD2	2.88	0.42
4:SD:153:ILE:N	4:SD:153:ILE:CG2	2.82	0.42
13:SQ:88:LYS:O	13:SQ:89:SER:HB2	2.19	0.42
13:SQ:94:GLU:HA	13:SQ:116:GLY:H	1.85	0.42
14:SP:92:LEU:HD23	46:LT:151:ARG:NH2	2.33	0.42
15:SS:43:ALA:HB2	15:SS:97:LYS:HE2	2.00	0.42
25:SC:100:ALA:C	25:SC:102:THR:H	2.27	0.42
25:SC:106:PHE:CE2	32:S1:670:C:O2	2.72	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:SH:13:THR:CG2	27:SH:14:MET:N	2.83	0.42
27:SH:32:LYS:CB	27:SH:110:ILE:HG21	2.33	0.42
27:SH:51:GLU:O	27:SH:52:PHE:CB	2.63	0.42
29:ST:49:PHE:HB3	29:ST:61:GLN:HG3	2.00	0.42
31:S2:12:U:H2'	31:S2:13:U:O4'	2.19	0.42
32:S1:877:G:C5'	32:S1:877:G:C8	3.02	0.42
32:S1:1685:U:O2'	33:L1:3334:A:O5'	2.36	0.42
32:S1:1800:A:C6	32:S1:1801:A:N6	2.88	0.42
33:L1:310:C:C4	33:L1:311:G:N7	2.87	0.42
33:L1:817:U:H4'	57:L1:35:SER:HB2	2.00	0.42
33:L1:940:G:H4'	43:LO:6:LYS:HB3	2.01	0.42
33:L1:1219:C:N3	33:L1:1294:A:N1	2.67	0.42
33:L1:1311:G:N2	33:L1:1316:C:OP1	2.52	0.42
33:L1:1587:G:O4'	33:L1:1587:G:N9	2.41	0.42
33:L1:1593:C:C5'	73:Lp:31:ALA:HB2	2.48	0.42
33:L1:1636:C:C6	69:La:24:VAL:HG23	2.54	0.42
33:L1:2151:G:H4'	33:L1:2152:A:O5'	2.19	0.42
33:L1:2259:U:O5'	33:L1:2259:U:C6	2.72	0.42
33:L1:2274:A:P	33:L1:2300:G:N2	2.92	0.42
33:L1:2326:U:O2'	33:L1:2327:U:H5'	2.19	0.42
33:L1:2766:U:C6	33:L1:2766:U:C3'	3.03	0.42
34:L3:43:A:H4'	38:LE:142:ARG:HG3	2.02	0.42
34:L3:104:C:H2'	34:L3:105:C:C6	2.55	0.42
36:LA:57:ILE:HA	36:LA:58:PRO:HD3	1.78	0.42
36:LA:70:ALA:CB	36:LA:107:HIS:NE2	2.82	0.42
36:LA:85:ASP:O	36:LA:87:GLU:HG3	2.20	0.42
36:LA:106:TYR:C	36:LA:107:HIS:HD1	2.27	0.42
36:LA:198:GLN:HG3	36:LA:201:ARG:HH12	1.85	0.42
37:LB:229:ALA:HB1	37:LB:233:GLN:HG2	2.00	0.42
38:LE:21:LEU:HD23	38:LE:129:PHE:CG	2.54	0.42
42:LP:137:VAL:CG2	42:LP:152:CYS:HA	2.50	0.42
56:Lh:75:PHE:CB	56:Lh:86:LEU:HD21	2.50	0.42
65:LL:109:UNK:HA	77:Lc:115:PHE:CE2	2.54	0.42
75:Lt:45:LEU:HG	76:Lw:38:LYS:HA	2.01	0.42
76:Lw:20:ALA:O	76:Lw:24:THR:HG22	2.20	0.42
79:Ls:151:ASN:OD1	79:Ls:156:GLU:HB2	2.19	0.42
79:Ls:161:VAL:HG22	79:Ls:162:GLU:N	2.34	0.42
81:LD:381:TRP:HA	81:LD:384:THR:HG21	1.98	0.42
1:Sa:66:SER:CB	1:Sa:87:ASP:OD2	2.67	0.42
1:Sa:105:LYS:NZ	7:SI:29:LYS:HZ1	2.17	0.42
2:SA:101:HIS:CG	2:SA:102:ALA:N	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:254:GLN:O	2:SA:257:ALA:HB2	2.20	0.42
4:SD:153:ILE:CD1	4:SD:174:LYS:HD3	2.49	0.42
4:SD:162:ILE:HG22	4:SD:163:ASP:N	2.33	0.42
4:SD:201:HIS:NE2	32:S1:687:C:H4'	2.32	0.42
12:SO:151:ALA:HB1	54:Lf:22:MET:CG	2.47	0.42
13:SQ:29:HIS:HB2	28:SN:22:ARG:CD	2.49	0.42
14:SP:42:GLY:HA3	14:SP:103:LYS:HG2	2.00	0.42
23:SU:68:THR:O	23:SU:68:THR:HG23	2.18	0.42
32:S1:349:U:H5	46:LT:137:VAL:HG12	1.84	0.42
32:S1:976:A:C6	33:L1:849:A:N7	2.86	0.42
32:S1:1687:G:H2'	32:S1:1688:G:H1'	2.00	0.42
32:S1:1728:G:C6	32:S1:1729:A:C6	3.07	0.42
33:L1:250:C:C2	33:L1:251:G:C5	3.08	0.42
33:L1:384:A:O4'	33:L1:384:A:N9	2.46	0.42
33:L1:728:G:H3'	33:L1:729:G:C8	2.49	0.42
33:L1:847:G:C6	33:L1:848:G:C5	3.07	0.42
33:L1:850:A:N1	33:L1:851:A:N3	2.68	0.42
33:L1:876:C:H4'	80:LC:244:LYS:HZ2	1.84	0.42
33:L1:907:A:C5'	33:L1:1540:G:OP1	2.67	0.42
33:L1:969:U:H2'	33:L1:970:A:C8	2.55	0.42
33:L1:976:A:H4'	44:LR:16:ARG:NH1	2.35	0.42
33:L1:1086:U:H2'	33:L1:1087:G:C8	2.54	0.42
33:L1:1225:A:H4'	33:L1:1226:G:OP2	2.20	0.42
33:L1:1682:C:H2'	33:L1:1683:U:C6	2.55	0.42
33:L1:1862:C:H2'	33:L1:1863:A:O4'	2.19	0.42
33:L1:2160:C:OP2	42:LP:76:PRO:CG	2.63	0.42
33:L1:2865:G:O3'	84:LI:109:ASP:CG	2.62	0.42
33:L1:2869:C:H5'	33:L1:2869:C:C6	2.52	0.42
35:L2:40:G:P	57:Ll:68:ARG:NH2	2.92	0.42
39:LF:123:ARG:O	39:LF:163:LYS:HD3	2.19	0.42
47:LU:44:VAL:HA	47:LU:95:HIS:HB3	2.02	0.42
48:LV:112:THR:HA	48:LV:113:LEU:HD23	2.01	0.42
54:Lf:55:LEU:HA	69:La:75:VAL:HG11	2.02	0.42
55:Lg:69:THR:CG2	55:Lg:70:ASN:N	2.83	0.42
57:Ll:93:ALA:H	57:Ll:94:ASN:C	2.28	0.42
67:LS:10:GLN:CB	67:LS:64:ASN:O	2.68	0.42
67:LS:61:LEU:CD1	78:Le:79:VAL:HG22	2.49	0.42
4:SD:129:VAL:HG13	4:SD:137:PRO:HB3	2.01	0.42
4:SD:152:PRO:C	4:SD:153:ILE:CG2	2.92	0.42
4:SD:192:VAL:CG1	4:SD:193:GLY:N	2.82	0.42
4:SD:238:LEU:C	4:SD:238:LEU:CD2	2.93	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:SE:149:ARG:HH21	5:SE:174:VAL:HG21	1.84	0.42
5:SE:198:GLN:HG2	32:S1:1091:A:OP2	2.19	0.42
14:SP:102:GLU:HG2	14:SP:114:PRO:HB2	2.01	0.42
31:S2:72:G:C1'	31:S2:72:G:O2'	2.61	0.42
32:S1:485:A:H61	32:S1:510:A:N6	2.18	0.42
32:S1:563:C:O4'	32:S1:563:C:C6	2.73	0.42
32:S1:843:G:H5''	33:L1:2061:C:C5'	2.50	0.42
32:S1:956:A:H8	54:Lf:9:LYS:CG	2.26	0.42
33:L1:62:A:H5''	42:LP:174:LEU:HD13	2.02	0.42
33:L1:72:A:C6	33:L1:73:A:C2	3.07	0.42
33:L1:639:A:H5''	33:L1:640:C:C4'	2.45	0.42
33:L1:642:C:H42	33:L1:655:G:H1	1.67	0.42
33:L1:697:A:O2'	81:LD:48:LEU:HD11	2.20	0.42
33:L1:779:U:H2'	33:L1:780:U:C5	2.55	0.42
33:L1:998:G:H21	33:L1:1057:A:H62	1.68	0.42
33:L1:1604:U:H3'	33:L1:1606:C:C5	2.51	0.42
33:L1:1867:U:OP2	46:LT:58:HIS:O	2.38	0.42
33:L1:2783:U:H2'	33:L1:2784:U:H6	1.84	0.42
33:L1:2880:G:H2'	33:L1:2881:C:H6	1.84	0.42
33:L1:3106:U:C5	33:L1:3129:G:N2	2.88	0.42
34:L3:1:G:C2'	34:L3:2:G:OP2	2.63	0.42
34:L3:61:C:C2'	34:L3:62:U:H5'	2.49	0.42
34:L3:71:A:C2	34:L3:105:C:C2	3.08	0.42
34:L3:83:A:N1	34:L3:93:U:C2	2.87	0.42
37:LB:134:ALA:HB1	37:LB:148:ILE:HG21	2.00	0.42
37:LB:137:ILE:HG21	37:LB:147:ARG:HG2	2.01	0.42
42:LP:106:ALA:CB	42:LP:132:ILE:HD13	2.50	0.42
48:LV:20:ARG:HA	48:LV:146:HIS:CD2	2.55	0.42
51:LY:21:ALA:HA	51:LY:22:PRO:HD2	1.86	0.42
51:LY:30:MET:SD	51:LY:77:TRP:CZ2	3.13	0.42
56:Lh:77:VAL:HG12	56:Lh:96:GLU:O	2.20	0.42
66:LN:88:SER:HA	66:LN:92:LYS:HD2	2.02	0.42
67:LS:10:GLN:HB2	67:LS:64:ASN:O	2.19	0.42
75:Lt:6:VAL:HA	76:Lv:12:LEU:CD2	2.23	0.42
82:LK:148:LYS:HA	82:LK:154:TYR:CD1	2.55	0.42
1:Sa:231:ARG:HE	1:Sa:241:ALA:HB1	1.83	0.42
1:Sa:237:ILE:HG23	1:Sa:238:THR:N	2.35	0.42
2:SA:6:GLY:O	2:SA:7:ALA:CB	2.67	0.42
2:SA:29:LEU:HD23	2:SA:29:LEU:H	1.85	0.42
2:SA:159:ARG:O	5:SE:37:PRO:CG	2.59	0.42
3:SB:131:ALA:CA	3:SB:190:LEU:HD12	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:SK:41:ILE:HG23	9:SK:115:LEU:CD1	2.50	0.42
12:SO:97:ALA:HB3	54:Lf:19:GLN:HB2	1.90	0.42
13:SQ:103:MET:HE1	20:SZ:32:GLY:HA2	2.02	0.42
31:S2:8:U:C2'	31:S2:8:U:C6	3.03	0.42
31:S2:10:G:O2'	33:L1:2247:A:N3	2.48	0.42
32:S1:205:U:H3	32:S1:260:A:H61	1.67	0.42
32:S1:439:C:C4	32:S1:440:A:C6	3.08	0.42
32:S1:918:G:N3	33:L1:2202:A:P	2.79	0.42
32:S1:992:G:H5''	37:LB:149:LYS:HZ3	1.59	0.42
32:S1:1085:U:C5	32:S1:1096:A:C4	3.08	0.42
32:S1:1284:C:H2'	32:S1:1285:G:C8	2.55	0.42
32:S1:1506:G:C3'	32:S1:1507:G:C8	3.02	0.42
32:S1:1566:U:H3'	32:S1:1566:U:C6	2.55	0.42
32:S1:1695:G:H1	32:S1:1724:U:H3	1.67	0.42
33:L1:34:G:OP2	42:LP:86:HIS:CD2	2.73	0.42
33:L1:262:A:C1'	33:L1:262:A:O2'	2.57	0.42
33:L1:384:A:C6	33:L1:385:A:N3	2.88	0.42
33:L1:837:C:H2'	33:L1:838:G:O4'	2.19	0.42
33:L1:1320:G:OP1	82:LK:134:LEU:HG	2.19	0.42
33:L1:1634:G:N2	33:L1:1708:C:O2	2.53	0.42
33:L1:1663:G:H2'	33:L1:1664:G:H8	1.85	0.42
33:L1:2274:A:O5'	33:L1:2300:G:N2	2.52	0.42
33:L1:2381:G:OP1	82:LK:87:ARG:NH1	2.53	0.42
33:L1:3051:U:H5''	50:LZ:19:LYS:HD2	2.02	0.42
33:L1:3301:G:H1'	48:LV:70:THR:HG23	2.01	0.42
33:L1:3320:G:H3'	33:L1:3322:A:C8	2.55	0.42
33:L1:3328:A:O4'	33:L1:3328:A:N9	2.43	0.42
34:L3:60:G:C1'	45:LQ:256:SER:HA	2.50	0.42
36:LA:83:TYR:HH	36:LA:85:ASP:C	2.27	0.42
37:LB:221:HIS:CG	37:LB:222:ALA:H	2.37	0.42
40:LH:64:LYS:HD2	49:LX:42:PHE:CZ	2.54	0.42
42:LP:17:ASP:HB2	72:Lk:96:VAL:HB	2.02	0.42
49:LX:34:LYS:CA	49:LX:37:ARG:HD2	2.49	0.42
51:LY:26:ARG:HD3	51:LY:74:ARG:HG3	2.01	0.42
55:Lg:11:ARG:NH1	55:Lg:16:VAL:HG21	2.35	0.42
56:Lh:89:HIS:HB3	56:Lh:93:TYR:HD1	1.84	0.42
66:LN:11:ARG:CZ	67:LS:162:THR:HG22	2.50	0.42
67:LS:81:LEU:HD21	67:LS:112:MET:SD	2.59	0.42
78:Le:20:ARG:O	78:Le:23:VAL:HB	2.20	0.42
78:Le:39:ALA:CB	81:LD:358:LYS:CE	2.97	0.42
79:Ls:240:ALA:HB3	79:Ls:241:PRO:HD3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:38:MET:HE1	2:SA:166:PRO:HB3	2.02	0.42
2:SA:152:CYS:SG	2:SA:156:SER:HB2	2.59	0.42
3:SB:135:GLU:HB3	3:SB:157:MET:HE2	2.02	0.42
4:SD:216:HIS:CG	4:SD:217:GLN:N	2.88	0.42
5:SE:27:ARG:NH1	5:SE:249:PHE:O	2.53	0.42
6:SF:94:GLU:CG	17:SV:102:TYR:OH	2.68	0.42
6:SF:94:GLU:O	17:SV:102:TYR:OH	2.27	0.42
12:SO:100:LYS:HE2	54:Lf:81:LEU:CD1	2.46	0.42
14:SP:68:ARG:NE	32:S1:311:G:P	2.89	0.42
17:SV:36:LYS:HA	17:SV:39:ASN:OD1	2.20	0.42
24:SX:51:HIS:CD2	24:SX:72:LYS:HE3	2.51	0.42
27:SH:101:TYR:HE1	27:SH:103:VAL:HG13	1.85	0.42
32:S1:349:U:H5''	46:LT:137:VAL:O	2.20	0.42
32:S1:691:A:H1'	32:S1:692:C:H5	1.83	0.42
32:S1:823:A:N7	46:LT:172:ARG:HG3	2.34	0.42
32:S1:1351:U:C5	32:S1:1352:A:C4	3.07	0.42
32:S1:1359:C:H2'	32:S1:1360:G:C8	2.55	0.42
33:L1:1147:U:O2'	33:L1:1148:G:OP2	2.34	0.42
33:L1:1282:A:H3'	33:L1:1283:C:C6	2.54	0.42
33:L1:1509:G:O2'	33:L1:1875:A:C2	2.72	0.42
33:L1:2398:A:N6	33:L1:2399:G:C5	2.88	0.42
33:L1:2441:G:C4	33:L1:2509:A:C2	3.08	0.42
33:L1:3301:G:C4'	48:LV:70:THR:O	2.67	0.42
34:L3:107:C:H2'	34:L3:108:G:H5'	2.01	0.42
36:LA:123:LEU:C	36:LA:123:LEU:CD2	2.93	0.42
38:LE:38:VAL:HG13	38:LE:110:GLU:CB	2.50	0.42
67:LS:10:GLN:HG2	78:Le:74:LYS:CE	2.50	0.42
79:Ls:186:PHE:CE2	79:Ls:187:SER:O	2.72	0.42
81:LD:314:VAL:HG12	81:LD:315:LYS:NZ	2.35	0.42
2:SA:34:CYS:HA	2:SA:154:THR:O	2.20	0.42
4:SD:208:ILE:HD13	4:SD:209:HIS:O	2.19	0.42
6:SF:200:ARG:O	9:SK:79:ASP:CG	2.62	0.42
9:SK:66:ASP:CB	32:S1:904:G:H5'	2.50	0.42
14:SP:47:ARG:HG2	14:SP:66:SER:CA	2.49	0.42
14:SP:54:TYR:O	46:LT:144:LYS:CE	2.59	0.42
14:SP:89:ARG:O	46:LT:151:ARG:NH2	2.50	0.42
17:SV:63:PRO:CD	17:SV:66:LEU:CD1	2.84	0.42
18:SW:113:UNK:O	18:SW:117:UNK:N	2.53	0.42
24:SX:39:CYS:CB	24:SX:42:CYS:HB3	2.43	0.42
27:SH:11:LEU:HD11	27:SH:15:TYR:CE1	2.54	0.42
29:ST:49:PHE:CE1	29:ST:62:GLY:HA2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:483:C:O4'	32:S1:483:C:C6	2.72	0.42
32:S1:860:A:O2'	46:LT:173:LYS:CD	2.67	0.42
32:S1:886:A:H2'	83:Lm:85:ARG:NH2	1.98	0.42
32:S1:1004:U:H2'	32:S1:1005:C:O4'	2.20	0.42
32:S1:1207:A:C5	32:S1:1564:A:C2	3.07	0.42
32:S1:1746:U:O2	33:L1:1930:G:N2	2.36	0.42
32:S1:1746:U:C1'	33:L1:1931:G:N3	2.37	0.42
33:L1:885:A:C4	33:L1:888:U:H1'	2.55	0.42
33:L1:1435:C:O2	33:L1:1435:C:C5'	2.68	0.42
33:L1:1778:C:H2'	33:L1:1779:C:C5	2.54	0.42
33:L1:2199:C:O4'	33:L1:2199:C:N1	2.42	0.42
33:L1:2231:G:C2'	33:L1:2231:G:N3	2.83	0.42
33:L1:2657:C:OP2	60:Lr:1:MET:HA	2.20	0.42
33:L1:2724:A:N3	33:L1:2739:A:C2	2.88	0.42
33:L1:2963:G:H2'	33:L1:2964:U:C6	2.54	0.42
35:L2:30:C:O4'	35:L2:30:C:C6	2.72	0.42
37:LB:102:LEU:HD12	37:LB:106:SER:OG	2.20	0.42
37:LB:234:LYS:HG2	37:LB:238:ILE:HD13	2.01	0.42
38:LE:14:ILE:HB	38:LE:164:TRP:CD1	2.55	0.42
41:LM:60:MET:HB2	41:LM:129:TRP:CZ2	2.55	0.42
44:LR:131:PRO:HB3	81:LD:318:GLU:CD	2.44	0.42
45:LQ:249:ALA:HB3	45:LQ:250:ASP:HA	2.02	0.42
48:LV:12:THR:HG23	48:LV:13:LYS:HG3	2.00	0.42
52:Lb:66:LYS:HD2	52:Lb:117:THR:HB	2.02	0.42
56:Lh:68:LEU:CG	56:Lh:69:PRO:HD2	2.49	0.42
57:Ll:28:HIS:CD2	57:Ll:31:LYS:HB2	2.54	0.42
64:LG:77:PRO:HG2	64:LG:127:ALA:HB1	2.02	0.42
64:LG:101:SER:O	71:Lj:80:GLY:CA	2.66	0.42
65:LL:115:UNK:HA	65:LL:120:UNK:C	2.50	0.42
67:LS:76:ASN:HD22	67:LS:97:ARG:HE	1.68	0.42
68:LW:44:PHE:CD1	68:LW:92:TYR:CD2	3.07	0.42
68:LW:83:ARG:O	68:LW:87:TYR:CD1	2.73	0.42
69:La:31:GLU:CG	69:La:32:GLY:N	2.83	0.42
75:Lu:59:ILE:CG2	79:Ls:250:ASN:CG	2.93	0.42
78:Le:89:VAL:HG11	78:Le:243:MET:HE1	2.02	0.42
79:Ls:36:VAL:HG22	79:Ls:189:GLY:N	2.35	0.42
2:SA:128:LEU:C	2:SA:128:LEU:CD2	2.93	0.41
3:SB:40:ARG:NH2	3:SB:47:GLU:OE1	2.53	0.41
6:SF:80:GLY:H	32:S1:1479:U:C1'	2.32	0.41
6:SF:158:ALA:CB	6:SF:165:ILE:CG2	2.98	0.41
10:SL:43:SER:OG	10:SL:61:PRO:HG2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:SU:14:THR:HB	23:SU:17:PHE:CE1	2.55	0.41
25:SC:169:GLY:H	25:SC:170:PRO:CD	2.31	0.41
25:SC:169:GLY:N	25:SC:170:PRO:CD	2.83	0.41
27:SH:34:ILE:O	27:SH:38:LEU:HD23	2.19	0.41
32:S1:1457:C:H2'	32:S1:1458:U:C6	2.54	0.41
32:S1:1674:C:H2'	32:S1:1675:G:H8	1.83	0.41
33:L1:8:C:H2'	33:L1:9:C:C5	2.55	0.41
33:L1:25:U:C4	33:L1:26:A:N7	2.88	0.41
33:L1:99:A:H4'	42:LP:182:HIS:CD2	2.52	0.41
33:L1:617:C:H2'	33:L1:618:G:C8	2.55	0.41
33:L1:972:C:C5'	47:LU:159:ASP:HA	2.50	0.41
33:L1:1651:A:C4'	69:La:59:ALA:HB1	2.49	0.41
33:L1:1664:G:O4'	33:L1:1664:G:C8	2.73	0.41
33:L1:1858:U:H1'	33:L1:3067:G:H5''	2.02	0.41
33:L1:2585:C:O4'	33:L1:2585:C:N1	2.46	0.41
33:L1:2607:U:C2'	37:LB:226:ARG:NH2	2.82	0.41
33:L1:3093:C:O4'	33:L1:3093:C:N1	2.43	0.41
33:L1:3097:G:C2	80:LC:331:CYS:SG	2.99	0.41
34:L3:1:G:C4'	45:LQ:248:ARG:HB3	2.49	0.41
34:L3:19:A:C6	34:L3:60:G:C5	3.08	0.41
34:L3:115:A:O2'	45:LQ:75:VAL:HG21	2.20	0.41
35:L2:102:U:OP2	77:Lc:67:ARG:NH2	2.53	0.41
36:LA:58:PRO:HG2	36:LA:178:ILE:HG13	2.02	0.41
36:LA:74:ASP:HA	36:LA:77:GLU:CD	2.45	0.41
36:LA:110:LEU:C	36:LA:110:LEU:CD2	2.93	0.41
38:LE:155:ARG:NH1	38:LE:156:VAL:H	2.18	0.41
39:LF:62:THR:H	39:LF:65:THR:HB	1.85	0.41
40:LH:116:GLU:O	40:LH:125:PRO:HD2	2.19	0.41
43:LO:63:ARG:NH1	65:LL:152:UNK:N	2.67	0.41
48:LV:9:ASN:HD21	48:LV:154:LYS:NZ	2.19	0.41
51:LY:50:ARG:HB3	51:LY:53:ASP:CG	2.45	0.41
64:LG:58:PRO:O	64:LG:62:SER:HB3	2.20	0.41
66:LN:80:VAL:O	66:LN:83:LYS:HB2	2.19	0.41
69:La:25:ILE:HA	69:La:27:ARG:H	1.79	0.41
75:Lu:7:ALA:CA	76:Lw:9:LEU:HD11	2.46	0.41
78:Le:163:ILE:CD1	81:LD:336:TYR:CD1	3.03	0.41
80:LC:78:ILE:HG21	80:LC:315:PHE:CZ	2.55	0.41
81:LD:356:LYS:CG	81:LD:359:LEU:HB2	2.50	0.41
2:SA:151:PHE:HD1	2:SA:165:ILE:HG21	1.85	0.41
2:SA:199:TRP:HA	2:SA:199:TRP:HE3	1.81	0.41
3:SB:158:ILE:N	3:SB:158:ILE:HD12	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:SD:153:ILE:CG1	4:SD:174:LYS:NZ	2.84	0.41
7:SI:141:ARG:O	7:SI:142:ALA:HB2	2.19	0.41
12:SO:99:ARG:NH1	12:SO:123:HIS:CD2	2.85	0.41
12:SO:123:HIS:O	12:SO:126:ALA:HB3	2.20	0.41
14:SP:61:PHE:HB2	14:SP:86:ILE:CD1	2.50	0.41
17:SV:52:LEU:O	17:SV:56:PRO:HG3	2.20	0.41
23:SU:25:ARG:CZ	23:SU:26:LYS:H	2.33	0.41
23:SU:30:LEU:O	23:SU:78:PHE:HD2	1.99	0.41
27:SH:14:MET:O	27:SH:17:ALA:HB3	2.20	0.41
32:S1:182:C:H2'	32:S1:183:C:C6	2.55	0.41
32:S1:1129:A:H4'	83:Lm:24:LYS:HE3	1.83	0.41
32:S1:1687:G:OP2	50:LZ:70:VAL:HG11	2.20	0.41
33:L1:228:C:OP1	81:LD:227:ARG:NH1	2.52	0.41
33:L1:1162:A:OP1	78:Le:113:ILE:CD1	2.68	0.41
33:L1:1193:A:C8	82:LK:54:ARG:NH2	2.88	0.41
33:L1:1492:A:H5''	59:Lo:1:MET:HG3	2.02	0.41
33:L1:1527:A:C6	33:L1:1530:C:C2	3.08	0.41
33:L1:1637:G:H8	69:La:25:ILE:HG22	1.81	0.41
33:L1:1719:U:O4	46:LT:128:LYS:CD	2.68	0.41
33:L1:2875:U:O4'	33:L1:2875:U:C6	2.73	0.41
33:L1:2919:G:H4'	41:LM:51:ARG:O	2.21	0.41
33:L1:3376:C:O5'	33:L1:3376:C:H6	2.03	0.41
34:L3:48:G:C2'	34:L3:48:G:C4	3.03	0.41
34:L3:69:A:N6	34:L3:106:U:H3	2.17	0.41
34:L3:107:C:C2'	34:L3:108:G:H5'	2.51	0.41
35:L2:43:G:H1'	35:L2:109:A:N1	2.35	0.41
36:LA:12:ALA:HB3	36:LA:17:VAL:HG11	2.02	0.41
36:LA:136:LEU:CD2	36:LA:136:LEU:C	2.93	0.41
36:LA:143:LEU:C	36:LA:143:LEU:CD1	2.94	0.41
37:LB:216:HIS:NE2	37:LB:218:HIS:CD2	2.87	0.41
37:LB:216:HIS:O	37:LB:218:HIS:HD2	2.03	0.41
38:LE:66:LYS:H	38:LE:66:LYS:HG3	1.59	0.41
45:LQ:247:ILE:HG12	45:LQ:248:ARG:HD2	2.03	0.41
45:LQ:254:ALA:C	45:LQ:257:THR:H	2.28	0.41
48:LV:112:THR:OG1	48:LV:113:LEU:HD23	2.21	0.41
51:LY:58:VAL:HG12	51:LY:59:ARG:HH11	1.84	0.41
64:LG:69:THR:H	64:LG:72:ARG:HG3	1.85	0.41
67:LS:44:TRP:CD1	67:LS:55:LYS:HA	2.54	0.41
75:Lt:10:LEU:HD22	79:Ls:225:VAL:CG2	2.50	0.41
76:Lw:55:LEU:O	76:Lw:55:LEU:HD23	2.21	0.41
77:Lc:57:ARG:O	77:Lc:61:VAL:HG12	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
78:Le:97:MET:HG3	78:Le:102:LYS:HD2	2.01	0.41
79:Ls:27:LYS:HE2	79:Ls:98:LEU:N	2.35	0.41
79:Ls:116:VAL:HG13	79:Ls:172:SER:CA	2.50	0.41
81:LD:95:ALA:HA	81:LD:97:GLY:HA3	2.02	0.41
82:LK:159:ARG:NH2	82:LK:163:GLU:OE2	2.52	0.41
2:SA:126:LEU:C	2:SA:126:LEU:CD2	2.93	0.41
3:SB:162:GLN:HB3	3:SB:163:PRO:CD	2.50	0.41
4:SD:114:VAL:CG1	4:SD:115:LYS:N	2.83	0.41
4:SD:160:ILE:CD1	4:SD:169:ILE:CD1	2.95	0.41
5:SE:4:ARG:HA	27:SH:97:ARG:HD3	2.02	0.41
7:SI:32:ARG:NH2	32:S1:1385:C:OP1	2.53	0.41
9:SK:81:ALA:C	9:SK:115:LEU:HD23	2.45	0.41
9:SK:92:LEU:HD13	9:SK:93:HIS:N	2.34	0.41
9:SK:93:HIS:CD2	9:SK:94:ILE:N	2.88	0.41
10:SL:43:SER:HB3	10:SL:61:PRO:CB	2.45	0.41
32:S1:235:C:H2'	32:S1:236:U:C6	2.54	0.41
32:S1:576:C:O4'	32:S1:576:C:C6	2.73	0.41
32:S1:834:A:C2	32:S1:847:U:O4	2.74	0.41
32:S1:859:U:H5''	46:LT:180:ARG:H	0.78	0.41
33:L1:396:G:C5'	48:LV:3:LYS:HZ3	2.32	0.41
33:L1:1194:C:H5'	82:LK:54:ARG:HG3	2.02	0.41
33:L1:1222:U:H2'	33:L1:1223:U:H5''	2.02	0.41
33:L1:1824:C:H2'	33:L1:1825:G:H5'	2.02	0.41
33:L1:2157:C:C4'	37:LB:7:ALA:O	2.64	0.41
33:L1:2450:G:C2	33:L1:2499:U:C2	3.08	0.41
33:L1:3231:G:H2'	33:L1:3232:C:C6	2.55	0.41
33:L1:3234:G:C2'	33:L1:3234:G:C4	3.00	0.41
34:L3:28:U:C2'	34:L3:54:A:H61	2.31	0.41
34:L3:68:G:C6	34:L3:108:G:C2	3.09	0.41
34:L3:115:A:H2'	34:L3:115:A:N3	2.35	0.41
35:L2:62:G:O2'	35:L2:104:U:C6	2.72	0.41
35:L2:96:A:C2	35:L2:97:U:H1'	2.55	0.41
36:LA:15:GLN:O	36:LA:20:ALA:HB1	2.21	0.41
36:LA:29:GLU:OE1	36:LA:209:MET:N	2.52	0.41
36:LA:211:LYS:H	36:LA:211:LYS:HD2	1.85	0.41
41:LM:14:PHE:HB2	41:LM:88:TRP:CZ2	2.55	0.41
48:LV:99:ALA:HB2	48:LV:149:LEU:CD2	2.38	0.41
48:LV:113:LEU:CD1	48:LV:155:GLU:N	2.83	0.41
52:Lb:116:LEU:O	52:Lb:116:LEU:HD22	2.21	0.41
64:LG:188:LEU:HD13	66:LN:105:PHE:HD2	1.82	0.41
66:LN:96:GLN:O	66:LN:99:ARG:HG3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
69:La:26:VAL:C	69:La:27:ARG:CG	2.92	0.41
70:Li:2:VAL:HA	70:Li:5:LEU:HD12	2.02	0.41
76:Lv:18:PRO:HG2	76:Lv:21:GLU:HB3	2.02	0.41
1:Sa:90:LEU:CD2	1:Sa:90:LEU:C	2.94	0.41
1:Sa:343:HIS:ND1	32:S1:1399:G:O3'	2.54	0.41
2:SA:235:TYR:C	2:SA:237:ALA:H	2.29	0.41
11:SM:126:TYR:CD2	11:SM:126:TYR:CE2	3.08	0.41
13:SQ:71:LEU:HB3	13:SQ:72:LYS:H	1.46	0.41
15:SS:104:ARG:HD3	32:S1:1509:C:C5	2.56	0.41
25:SC:32:LEU:C	25:SC:32:LEU:CD2	2.93	0.41
27:SH:35:ILE:CG2	27:SH:36:LYS:N	2.83	0.41
28:SN:20:VAL:HG12	28:SN:21:CYS:N	2.35	0.41
29:ST:7:GLN:HB3	29:ST:42:ASN:CG	2.45	0.41
29:ST:82:GLN:N	33:L1:2540:C:H4'	2.34	0.41
31:S2:12:U:O2'	33:L1:2262:C:C2	2.50	0.41
32:S1:632:G:N3	33:L1:849:A:C8	2.89	0.41
32:S1:976:A:C6	33:L1:848:G:O2'	2.73	0.41
32:S1:996:G:C2	32:S1:1017:U:C5	3.08	0.41
32:S1:1023:C:HO2'	83:Lm:77:VAL:HG23	1.85	0.41
32:S1:1801:A:C4	32:S1:1803:G:C8	3.07	0.41
33:L1:507:C:O4'	33:L1:507:C:C6	2.73	0.41
33:L1:719:U:OP2	43:LO:105:LYS:HE2	2.21	0.41
33:L1:840:A:H61	33:L1:859:G:H1'	1.84	0.41
33:L1:1119:G:C5	33:L1:2819:A:C2	3.09	0.41
33:L1:1195:C:C6	33:L1:1195:C:H5''	2.55	0.41
33:L1:1368:U:H5'	44:LR:5:LEU:HD22	2.02	0.41
33:L1:2154:G:OP2	33:L1:2167:G:O6	2.38	0.41
33:L1:2398:A:N1	33:L1:2399:G:N3	2.68	0.41
33:L1:2642:G:H5''	47:LU:56:PHE:HA	2.01	0.41
33:L1:3304:U:C2'	33:L1:3304:U:C2	3.02	0.41
34:L3:15:C:O4'	34:L3:15:C:N1	2.46	0.41
34:L3:20:C:O2	34:L3:59:U:C2	2.74	0.41
36:LA:119:ILE:O	36:LA:123:LEU:HB2	2.21	0.41
36:LA:178:ILE:CG2	36:LA:179:GLN:N	2.83	0.41
37:LB:96:LEU:CD1	37:LB:108:PRO:HD2	2.51	0.41
37:LB:137:ILE:CG2	37:LB:138:SER:N	2.82	0.41
38:LE:156:VAL:CG1	38:LE:157:THR:N	2.82	0.41
41:LM:32:THR:O	41:LM:69:LYS:HD2	2.21	0.41
42:LP:126:THR:HG23	42:LP:127:TYR:CE1	2.55	0.41
45:LQ:47:LYS:NZ	45:LQ:147:ASP:OD2	2.53	0.41
45:LQ:53:TYR:O	45:LQ:55:PHE:HB2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:LV:127:ARG:CD	48:LV:141:MET:HE3	2.26	0.41
51:LY:70:VAL:CG1	51:LY:80:HIS:CB	2.93	0.41
60:Lr:1:MET:HB3	60:Lr:92:GLU:OE1	2.21	0.41
64:LG:28:ILE:O	64:LG:30:ALA:N	2.53	0.41
64:LG:184:ILE:HG13	64:LG:185:ASP:HA	2.02	0.41
67:LS:26:ILE:HD12	67:LS:27:TYR:N	2.36	0.41
67:LS:97:ARG:CZ	67:LS:98:ASP:O	2.69	0.41
76:Lv:55:LEU:O	76:Lv:55:LEU:HD23	2.20	0.41
76:Lw:18:PRO:HG2	76:Lw:21:GLU:HB3	2.02	0.41
78:Le:57:TYR:N	78:Le:57:TYR:CD2	2.88	0.41
79:Ls:98:LEU:HD22	79:Ls:99:LYS:N	2.35	0.41
79:Ls:128:PRO:CG	79:Ls:160:PRO:HD3	2.50	0.41
79:Ls:192:ILE:HD12	79:Ls:192:ILE:N	2.35	0.41
3:SB:110:LEU:HD23	3:SB:110:LEU:HA	1.95	0.41
4:SD:136:ILE:CD1	4:SD:148:ARG:HG3	2.51	0.41
4:SD:230:LYS:CG	4:SD:231:GLY:H	2.32	0.41
10:SL:53:LYS:HE3	32:S1:579:C:OP2	2.20	0.41
13:SQ:104:GLU:CD	20:SZ:31:ARG:CZ	2.93	0.41
23:SU:95:TYR:N	23:SU:98:ILE:HD13	2.36	0.41
31:S2:70:G:OP1	33:L1:2965:C:H6	1.89	0.41
32:S1:294:G:H2'	32:S1:295:C:C6	2.55	0.41
32:S1:1083:C:H2'	32:S1:1084:U:O4'	2.20	0.41
32:S1:1130:A:C5	32:S1:1131:G:H1'	2.55	0.41
32:S1:1517:C:C3'	32:S1:1517:C:C6	3.04	0.41
32:S1:1736:C:O3'	33:L1:2102:C:C1'	2.46	0.41
32:S1:1743:C:N4	32:S1:1744:C:N4	2.68	0.41
33:L1:113:A:C8	33:L1:155:G:OP2	2.73	0.41
33:L1:288:G:H2'	33:L1:289:C:C6	2.56	0.41
33:L1:793:C:H5'	81:LD:118:ARG:HD3	2.03	0.41
33:L1:1182:A:O3'	71:Lj:11:LEU:HD11	2.14	0.41
33:L1:1263:A:O4'	79:Ls:45:ARG:NH2	2.54	0.41
33:L1:1298:A:H4'	67:LS:83:TYR:CE2	2.55	0.41
33:L1:1304:G:C6	33:L1:1305:A:N6	2.89	0.41
33:L1:1387:G:C4'	81:LD:247:PRO:C	2.90	0.41
33:L1:1461:U:H2'	33:L1:1462:C:C6	2.56	0.41
33:L1:1752:C:C2'	33:L1:1753:A:C5'	2.98	0.41
33:L1:2096:U:H2'	33:L1:2097:C:C6	2.56	0.41
33:L1:2684:U:C5	33:L1:2685:C:C5	3.08	0.41
33:L1:2706:A:C5'	33:L1:2707:A:H5'	2.50	0.41
33:L1:3011:U:H1'	80:LC:15:GLY:HA2	2.02	0.41
38:LE:42:LEU:HD23	38:LE:42:LEU:C	2.46	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:LE:79:MET:HE1	38:LE:168:LYS:NZ	2.35	0.41
44:LR:44:PHE:CZ	44:LR:136:THR:HG23	2.56	0.41
44:LR:98:MET:H	44:LR:117:GLY:C	2.29	0.41
51:LY:98:ILE:HG12	51:LY:99:HIS:O	2.19	0.41
55:Lg:1:MET:O	55:Lg:2:SER:C	2.63	0.41
64:LG:189:ILE:HD11	66:LN:105:PHE:CE1	2.56	0.41
66:LN:64:ARG:CZ	67:LS:151:PHE:CD1	3.01	0.41
68:LW:88:LEU:O	68:LW:92:TYR:CD2	2.74	0.41
76:Lv:37:GLU:OE2	79:Ls:206:VAL:HG22	2.20	0.41
78:Le:36:LYS:CA	78:Le:39:ALA:HB3	2.43	0.41
79:Ls:186:PHE:HD2	79:Ls:188:TYR:CE2	2.38	0.41
81:LD:171:ALA:HA	81:LD:174:ILE:HG12	2.01	0.41
82:LK:131:VAL:HA	82:LK:134:LEU:HA	2.02	0.41
1:Sa:346:ARG:HH11	32:S1:1398:U:H4'	1.86	0.41
2:SA:134:ASP:O	2:SA:137:PRO:HG2	2.19	0.41
9:SK:39:THR:HG22	9:SK:102:ASN:O	2.20	0.41
9:SK:122:GLY:O	9:SK:123:MET:HB2	2.20	0.41
10:SL:49:ILE:CG1	10:SL:50:VAL:N	2.83	0.41
11:SM:12:ILE:HG23	38:LE:118:TYR:CA	2.51	0.41
12:SO:64:LYS:HE2	12:SO:72:LEU:C	2.45	0.41
12:SO:96:VAL:O	54:Lf:80:ASP:O	2.37	0.41
12:SO:124:ARG:NE	32:S1:631:C:O2'	2.53	0.41
14:SP:49:ALA:HB2	14:SP:100:ARG:NH2	2.24	0.41
25:SC:150:VAL:HG13	25:SC:160:PHE:CD2	2.55	0.41
27:SH:22:LYS:HZ3	27:SH:61:ILE:HD13	1.85	0.41
28:SN:22:ARG:HG2	28:SN:23:VAL:N	2.35	0.41
31:S2:74:C:H6	33:L1:2810:A:C2	2.32	0.41
32:S1:258:U:H2'	32:S1:259:A:H8	1.84	0.41
32:S1:918:G:C2	33:L1:2203:A:C8	2.85	0.41
32:S1:1225:A:N6	32:S1:1269:G:O2'	2.53	0.41
33:L1:250:C:H2'	33:L1:251:G:O4'	2.19	0.41
33:L1:325:A:H2'	33:L1:326:C:O4'	2.21	0.41
33:L1:487:C:O4'	33:L1:487:C:C6	2.74	0.41
33:L1:637:C:C4	33:L1:638:G:H1'	2.55	0.41
33:L1:643:G:C5'	56:Lh:37:LYS:HG2	2.49	0.41
33:L1:720:G:H2'	43:LO:107:LEU:HD13	2.02	0.41
33:L1:840:A:P	83:Lm:4:ARG:CZ	3.09	0.41
33:L1:1261:C:H5'	74:LJ:124:LYS:N	2.34	0.41
33:L1:1286:G:C6	33:L1:1287:C:C4	3.08	0.41
33:L1:1626:U:H5''	70:Li:4:ARG:HH22	1.86	0.41
33:L1:1637:G:C8	69:La:25:ILE:CG2	3.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:1714:A:H62	54:Lf:29:LEU:HD13	1.86	0.41
33:L1:1865:C:H2'	33:L1:1866:C:O4'	2.20	0.41
33:L1:2081:C:OP1	46:LT:151:ARG:NH2	2.52	0.41
33:L1:2329:C:H2'	33:L1:2330:C:C6	2.55	0.41
33:L1:2411:G:H1	33:L1:2812:C:H42	1.69	0.41
33:L1:2427:C:N3	33:L1:2604:A:N1	2.68	0.41
33:L1:2691:U:H2'	45:LQ:19:ARG:HB2	2.03	0.41
33:L1:3182:A:P	67:LS:164:LYS:HG2	2.60	0.41
34:L3:31:G:H1	34:L3:46:C:H42	1.68	0.41
34:L3:63:U:H4'	34:L3:64:G:H5'	2.03	0.41
34:L3:113:G:H21	45:LQ:73:ASP:HB2	1.86	0.41
35:L2:98:C:OP1	57:Ll:73:ARG:NH1	2.53	0.41
35:L2:119:C:O4'	35:L2:119:C:C6	2.74	0.41
36:LA:72:HIS:CD2	36:LA:73:VAL:CG2	3.03	0.41
37:LB:131:GLY:HA3	37:LB:172:GLY:HA2	2.02	0.41
43:LO:63:ARG:NH1	65:LL:153:UNK:H	2.19	0.41
45:LQ:91:VAL:HG12	45:LQ:92:GLY:H	1.86	0.41
48:LV:103:ALA:HB1	48:LV:108:LEU:HB2	2.02	0.41
51:LY:49:ILE:HG22	51:LY:105:VAL:HG21	2.02	0.41
52:Lb:113:ARG:HB2	52:Lb:114:PRO:HD3	2.02	0.41
56:Lh:75:PHE:HB3	56:Lh:86:LEU:CD2	2.50	0.41
66:LN:117:ARG:HB3	82:LK:199:GLU:OE2	2.20	0.41
67:LS:160:PRO:CB	67:LS:161:PRO:HD3	2.50	0.41
70:Li:32:TYR:HB3	70:Li:71:ARG:H	1.86	0.41
75:Lu:13:LEU:HD21	79:Ls:250:ASN:HB3	2.02	0.41
78:Le:36:LYS:N	78:Le:39:ALA:H	2.18	0.41
79:Ls:163:LEU:HD23	79:Ls:163:LEU:C	2.45	0.41
4:SD:166:THR:HG23	4:SD:167:ASN:N	2.35	0.41
7:SI:129:ARG:O	7:SI:129:ARG:HG2	2.20	0.41
9:SK:37:ASN:N	9:SK:100:GLY:O	2.53	0.41
12:SO:114:ARG:HD3	32:S1:945:A:N6	2.35	0.41
12:SO:149:LEU:HA	54:Lf:83:THR:HA	2.02	0.41
14:SP:123:HIS:O	46:LT:162:LYS:C	2.64	0.41
17:SV:96:HIS:HE2	17:SV:102:TYR:HD2	1.68	0.41
23:SU:25:ARG:CZ	23:SU:26:LYS:O	2.68	0.41
26:SG:5:UNK:CA	46:LT:189:CYS:CA	2.62	0.41
26:SG:64:UNK:C	26:SG:65:UNK:HA	2.41	0.41
27:SH:7:LEU:C	27:SH:7:LEU:CD2	2.93	0.41
27:SH:7:LEU:HD13	27:SH:33:VAL:HG11	2.03	0.41
31:S2:40:U:C2	31:S2:41:G:C8	3.08	0.41
32:S1:198:G:H2'	32:S1:199:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:259:A:H2'	32:S1:260:A:O4'	2.21	0.41
32:S1:1390:A:H2'	32:S1:1391:G:O4'	2.21	0.41
32:S1:1685:U:C1'	33:L1:3334:A:H5''	2.49	0.41
33:L1:73:A:O2'	33:L1:74:G:H5'	2.21	0.41
33:L1:261:C:H4'	33:L1:262:A:OP1	2.20	0.41
33:L1:426:A:C4'	56:Lh:16:LYS:CE	2.74	0.41
33:L1:561:G:H5'	81:LD:370:GLU:OE1	2.20	0.41
33:L1:872:G:H1'	33:L1:894:G:N2	2.35	0.41
33:L1:1075:G:C2	33:L1:1076:G:C5	3.09	0.41
33:L1:1263:A:C8	79:Ls:56:MET:SD	3.14	0.41
33:L1:1630:C:O4'	33:L1:1630:C:C6	2.74	0.41
33:L1:1821:G:O6	33:L1:1822:C:C4	2.74	0.41
33:L1:2117:G:O2'	33:L1:2118:G:H5'	2.21	0.41
33:L1:2567:C:H2'	33:L1:2568:G:C8	2.55	0.41
33:L1:2639:A:OP1	47:LU:10:ARG:NH2	2.54	0.41
33:L1:2962:C:N4	33:L1:2974:G:H1	2.17	0.41
33:L1:3006:G:H5'	80:LC:98:GLY:HA3	2.02	0.41
33:L1:3232:C:H2'	33:L1:3233:C:C6	2.56	0.41
34:L3:8:A:C6	34:L3:9:U:C4	3.09	0.41
34:L3:20:C:HO2'	45:LQ:252:THR:HG21	1.76	0.41
35:L2:42:U:C5'	35:L2:43:G:H5'	2.51	0.41
35:L2:44:A:C6	35:L2:45:A:C5	3.09	0.41
35:L2:88:C:OP2	51:LY:109:LYS:NZ	2.49	0.41
36:LA:56:HIS:NE2	36:LA:149:GLU:CG	2.83	0.41
36:LA:83:TYR:CZ	36:LA:85:ASP:N	2.80	0.41
36:LA:182:ILE:CG2	36:LA:183:GLN:N	2.83	0.41
37:LB:104:ILE:CG2	37:LB:160:SER:CA	2.97	0.41
41:LM:72:LEU:O	41:LM:73:ARG:C	2.63	0.41
45:LQ:217:GLU:OE1	45:LQ:222:HIS:CE1	2.74	0.41
46:LT:116:ASP:CG	46:LT:117:LYS:N	2.78	0.41
55:Lg:15:VAL:HB	55:Lg:86:LYS:NZ	2.36	0.41
55:Lg:22:ILE:HD12	55:Lg:47:PHE:CB	2.50	0.41
55:Lg:55:THR:CG2	55:Lg:56:ASP:N	2.84	0.41
56:Lh:113:ALA:O	56:Lh:116:LEU:HB2	2.20	0.41
68:LW:82:LYS:O	68:LW:84:TYR:N	2.54	0.41
75:Lt:10:LEU:HD22	79:Ls:225:VAL:HG22	2.03	0.41
76:Lv:20:ALA:O	76:Lv:24:THR:HG22	2.20	0.41
79:Ls:30:ILE:CG2	79:Ls:194:ASN:HB3	2.50	0.41
79:Ls:235:PRO:HG3	79:Ls:240:ALA:HA	2.03	0.41
84:LI:55:TRP:NE1	84:LI:162:ARG:HH21	2.17	0.41
1:Sa:209:LEU:HD23	1:Sa:209:LEU:HA	1.98	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:79:ILE:HD12	2:SA:101:HIS:C	2.46	0.41
2:SA:114:ASN:OD1	32:S1:1298:G:C4'	2.69	0.41
4:SD:153:ILE:HG23	4:SD:154:ILE:CD1	2.50	0.41
11:SM:117:ILE:HD12	11:SM:117:ILE:O	2.20	0.41
14:SP:54:TYR:C	46:LT:144:LYS:HZ3	2.16	0.41
17:SV:85:GLU:OE1	17:SV:91:ARG:HG3	2.20	0.41
19:SY:46:VAL:HG22	19:SY:47:ARG:H	1.84	0.41
24:SX:70:GLY:HA2	32:S1:877:G:O5'	2.20	0.41
27:SH:65:LEU:HD23	27:SH:71:LYS:H	1.84	0.41
27:SH:65:LEU:N	27:SH:65:LEU:HD12	2.35	0.41
27:SH:94:LEU:CD1	27:SH:95:PRO:HG2	2.48	0.41
31:S2:2:C:H2'	33:L1:2625:C:H4'	1.25	0.41
31:S2:13:U:H1'	33:L1:2261:U:O2'	2.20	0.41
32:S1:308:U:H2'	32:S1:309:C:H5	1.86	0.41
32:S1:1000:A:H61	32:S1:1014:U:H3	1.69	0.41
32:S1:1566:U:C6	32:S1:1566:U:C3'	3.04	0.41
32:S1:1588:C:H2'	32:S1:1589:C:H6	1.79	0.41
33:L1:229:G:H2'	33:L1:230:G:H8	1.86	0.41
33:L1:281:G:C6	33:L1:283:A:C2	3.09	0.41
33:L1:721:A:OP2	33:L1:721:A:C2	2.74	0.41
33:L1:1034:U:C3'	33:L1:1035:C:H6	2.34	0.41
33:L1:1190:C:C4'	67:LS:115:ARG:NH1	2.84	0.41
33:L1:1260:G:H21	74:LJ:122:MET:CG	2.33	0.41
33:L1:1344:A:H2'	33:L1:1345:U:H6	1.82	0.41
33:L1:1667:C:O2	33:L1:1774:G:C2	2.74	0.41
33:L1:1745:G:C2	33:L1:1746:G:C5	3.09	0.41
33:L1:2157:C:C2'	37:LB:11:GLY:CA	2.99	0.41
33:L1:2450:G:C2'	33:L1:2450:G:N3	2.83	0.41
33:L1:2532:A:N1	33:L1:2585:C:N3	2.68	0.41
33:L1:2610:G:C8	37:LB:230:PRO:HG3	2.55	0.41
33:L1:3296:C:H41	80:LC:176:GLN:HE22	1.65	0.41
33:L1:3336:A:H2'	33:L1:3337:G:C8	2.54	0.41
33:L1:3379:C:H6	33:L1:3379:C:H5'	1.86	0.41
34:L3:3:A:N3	34:L3:3:A:H2'	2.35	0.41
34:L3:25:G:N2	34:L3:116:U:C2	2.88	0.41
34:L3:76:U:H1'	34:L3:101:A:N1	2.36	0.41
36:LA:51:SER:N	36:LA:156:PHE:CD1	2.82	0.41
37:LB:118:HIS:HD1	37:LB:119:HIS:CD2	2.39	0.41
37:LB:165:MET:HE3	37:LB:165:MET:HB2	1.90	0.41
38:LE:42:LEU:HD22	38:LE:81:LEU:CD1	2.49	0.41
41:LM:33:GLY:HA3	41:LM:69:LYS:HG3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:LQ:253:MET:O	45:LQ:257:THR:N	2.53	0.41
48:LV:54:HIS:CD2	48:LV:84:TRP:CE2	3.09	0.41
48:LV:54:HIS:CD2	48:LV:54:HIS:O	2.73	0.41
51:LY:12:ARG:HH11	51:LY:12:ARG:CG	2.32	0.41
51:LY:81:VAL:CG1	51:LY:82:GLU:N	2.84	0.41
55:Lg:62:LYS:HE3	55:Lg:96:GLU:N	2.33	0.41
56:Lh:118:ILE:O	56:Lh:120:VAL:HG22	2.21	0.41
64:LG:199:LYS:HD2	64:LG:200:ASN:N	2.36	0.41
67:LS:11:VAL:O	67:LS:28:ARG:HA	2.21	0.41
71:Lj:52:ARG:NH1	82:LK:7:VAL:CG2	2.83	0.41
74:LJ:90:GLU:OE1	74:LJ:93:ARG:NH1	2.54	0.41
80:LC:349:GLN:H	80:LC:350:THR:CB	2.33	0.41
81:LD:385:MET:O	81:LD:386:ILE:HG13	2.20	0.41
2:SA:47:THR:O	2:SA:48:ASP:HB3	2.21	0.41
2:SA:64:LEU:C	2:SA:64:LEU:CD2	2.94	0.41
2:SA:65:ALA:CB	2:SA:165:ILE:CD1	2.95	0.41
4:SD:153:ILE:HG12	4:SD:154:ILE:HA	2.02	0.41
4:SD:153:ILE:HD11	4:SD:174:LYS:HD3	2.01	0.41
4:SD:160:ILE:O	4:SD:160:ILE:HG23	2.19	0.41
4:SD:205:PHE:HB2	4:SD:222:LEU:CD1	2.51	0.41
4:SD:210:VAL:CG1	4:SD:211:GLU:N	2.83	0.41
5:SE:156:LYS:NZ	32:S1:1303:G:H4'	2.36	0.41
6:SF:98:LEU:HB2	17:SV:102:TYR:CE1	2.56	0.41
6:SF:118:ARG:CD	19:SY:56:GLU:HB2	2.51	0.41
7:SI:130:CYS:O	32:S1:1592:G:C8	2.70	0.41
8:SJ:38:VAL:HG13	28:SN:51:GLY:HA2	2.02	0.41
9:SK:66:ASP:O	32:S1:904:G:OP1	2.39	0.41
9:SK:85:LYS:CE	9:SK:119:ALA:HB2	2.42	0.41
10:SL:93:ILE:O	10:SL:93:ILE:HG23	2.19	0.41
11:SM:71:VAL:HG13	11:SM:72:HIS:H	1.86	0.41
11:SM:136:THR:H	11:SM:137:LYS:HD3	1.86	0.41
11:SM:147:GLY:HA2	32:S1:1467:C:H5'	2.03	0.41
12:SO:100:LYS:HE2	54:Lf:81:LEU:HD12	2.02	0.41
12:SO:104:ARG:HB2	54:Lf:78:ASN:HB2	1.85	0.41
12:SO:124:ARG:HD2	32:S1:632:G:H4'	2.03	0.41
14:SP:49:ALA:CB	14:SP:96:LYS:HA	2.50	0.41
14:SP:116:PHE:HE1	14:SP:118:VAL:C	2.29	0.41
17:SV:50:LYS:HA	17:SV:54:GLU:HG3	2.03	0.41
19:SY:16:ARG:HG2	19:SY:17:THR:H	1.86	0.41
23:SU:19:THR:CA	23:SU:26:LYS:HA	2.51	0.41
27:SH:26:LEU:CD1	27:SH:59:GLY:HA3	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:SH:34:ILE:HG21	27:SH:46:TYR:CG	2.55	0.41
27:SH:36:LYS:HZ2	27:SH:36:LYS:CB	2.30	0.41
27:SH:96:SER:OG	27:SH:99:PHE:HB2	2.20	0.41
32:S1:175:A:O2'	32:S1:176:A:H5'	2.20	0.41
32:S1:348:A:H5''	46:LT:139:MET:C	2.43	0.41
32:S1:348:A:P	46:LT:136:ARG:CA	3.09	0.41
32:S1:826:C:H2'	32:S1:827:C:C6	2.56	0.41
32:S1:1163:C:C5	32:S1:1590:U:C5	3.09	0.41
32:S1:1346:C:O4'	32:S1:1346:C:C6	2.74	0.41
32:S1:1643:A:C8	32:S1:1643:A:C3'	3.04	0.41
32:S1:1740:G:C4	32:S1:1740:G:H2'	2.56	0.41
32:S1:1747:A:C8	33:L1:1929:A:C6	3.07	0.41
33:L1:112:C:C2	33:L1:317:G:C2	3.08	0.41
33:L1:250:C:N3	33:L1:251:G:N1	2.69	0.41
33:L1:425:G:C4	33:L1:426:A:C8	3.09	0.41
33:L1:425:G:N2	33:L1:637:C:C2	2.89	0.41
33:L1:634:A:P	82:LK:98:ALA:HB3	2.56	0.41
33:L1:639:A:H5''	33:L1:640:C:H5'	2.03	0.41
33:L1:830:A:H4'	73:Lp:51:ILE:N	2.35	0.41
33:L1:899:A:O2'	33:L1:900:C:OP1	2.27	0.41
33:L1:957:U:C2	33:L1:958:U:C5	3.08	0.41
33:L1:967:G:C6	33:L1:968:A:C5	3.09	0.41
33:L1:1050:A:C2'	33:L1:1050:A:C8	3.03	0.41
33:L1:1062:G:H2'	33:L1:1063:G:H4'	2.02	0.41
33:L1:1180:C:P	82:LK:94:PRO:HG3	2.60	0.41
33:L1:1181:A:O5'	71:Lj:72:TRP:CZ3	2.73	0.41
33:L1:1234:G:OP1	79:Ls:115:ARG:CD	2.69	0.41
33:L1:1238:G:H5'	74:LJ:120:ARG:O	2.21	0.41
33:L1:1293:C:H2'	33:L1:1294:A:C8	2.55	0.41
33:L1:1428:G:H5''	81:LD:42:ARG:CZ	2.50	0.41
33:L1:1525:U:H2'	49:LX:125:ARG:HH12	1.86	0.41
33:L1:1638:U:C5	69:La:26:VAL:O	2.74	0.41
33:L1:1694:A:P	73:Lp:32:VAL:HG21	2.57	0.41
33:L1:1922:C:O4'	33:L1:1923:G:C2	2.74	0.41
33:L1:2380:G:P	82:LK:96:LYS:HZ3	2.42	0.41
33:L1:2520:U:H2'	33:L1:2521:C:C6	2.55	0.41
33:L1:2562:A:H2'	33:L1:2563:G:C8	2.55	0.41
33:L1:3385:G:H2'	33:L1:3386:A:H8	1.86	0.41
34:L3:36:C:H2'	34:L3:37:G:O4'	2.21	0.41
35:L2:67:C:H3'	35:L2:68:U:O4'	2.20	0.41
35:L2:111:G:H2'	35:L2:112:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:LA:52:VAL:CG2	36:LA:155:LYS:CD	2.95	0.41
36:LA:62:MET:HE3	36:LA:171:LEU:HD21	1.94	0.41
36:LA:92:MET:CE	36:LA:117:LYS:CB	2.96	0.41
36:LA:189:LEU:C	36:LA:189:LEU:CD2	2.94	0.41
37:LB:83:TYR:CD1	83:Lm:62:LYS:HG2	2.56	0.41
37:LB:96:LEU:CD2	37:LB:96:LEU:C	2.93	0.41
38:LE:74:ARG:CA	38:LE:78:ALA:HB2	2.51	0.41
38:LE:89:LYS:HE2	38:LE:106:PHE:CE2	2.56	0.41
39:LF:129:GLU:HB2	39:LF:152:LEU:HD12	2.02	0.41
42:LP:17:ASP:CB	72:Lk:96:VAL:HB	2.50	0.41
45:LQ:250:ASP:HB2	45:LQ:253:MET:HG3	2.02	0.41
47:LU:27:LEU:H	47:LU:27:LEU:CD1	2.33	0.41
51:LY:53:ASP:OD2	51:LY:108:LEU:CD2	2.69	0.41
51:LY:75:ARG:HH11	51:LY:75:ARG:HD3	1.77	0.41
51:LY:78:VAL:CG1	51:LY:79:ILE:N	2.82	0.41
55:Lg:5:LYS:HB3	55:Lg:6:ARG:HA	2.01	0.41
64:LG:82:ILE:HG21	64:LG:162:LEU:CD1	2.51	0.41
64:LG:171:LYS:HB3	66:LN:109:LYS:HD2	2.01	0.41
66:LN:4:LYS:HG2	67:LS:161:PRO:CB	2.48	0.41
66:LN:41:PRO:HD2	66:LN:75:MET:HE2	2.01	0.41
66:LN:113:ALA:HB1	82:LK:198:LEU:CD2	2.51	0.41
71:Lj:14:ARG:NH2	71:Lj:37:GLU:OE2	2.54	0.41
71:Lj:72:TRP:NE1	82:LK:34:ASN:OD1	2.38	0.41
75:Lt:10:LEU:CD2	79:Ls:225:VAL:HG21	2.51	0.41
78:Le:39:ALA:CB	81:LD:358:LYS:HZ1	2.33	0.41
78:Le:109:ARG:HB2	78:Le:205:TRP:CZ3	2.56	0.41
80:LC:60:VAL:CG2	80:LC:72:THR:HG22	2.51	0.41
1:Sa:134:ILE:C	1:Sa:135:PHE:CD1	2.99	0.41
3:SB:153:LYS:CG	3:SB:153:LYS:HZ2	2.19	0.41
6:SF:95:ILE:HA	17:SV:102:TYR:CE1	2.56	0.41
8:SJ:75:ARG:HG3	8:SJ:88:ARG:C	2.46	0.41
11:SM:135:HIS:O	11:SM:136:THR:HG23	2.20	0.41
16:SR:66:ILE:HG13	16:SR:67:LYS:H	1.86	0.41
17:SV:40:SER:HB2	17:SV:44:ASP:CG	2.40	0.41
24:SX:37:VAL:HA	24:SX:79:CYS:HB2	2.02	0.41
31:S2:13:U:H1'	33:L1:2261:U:C2'	2.50	0.41
31:S2:34:G:C4'	32:S1:1195:U:C5	2.99	0.41
32:S1:143:A:N6	32:S1:167:A:C8	2.89	0.41
32:S1:346:C:C5'	33:L1:1941:G:H5''	2.51	0.41
32:S1:483:C:C5	32:S1:484:A:C8	3.09	0.41
32:S1:887:U:C4'	83:Lm:88:GLU:CD	2.94	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:S1:928:A:H5'	37:LB:138:SER:HB3	1.80	0.41
32:S1:1189:U:C5	32:S1:1464:G:C8	3.09	0.41
32:S1:1793:C:H2'	32:S1:1794:C:C6	2.56	0.41
33:L1:404:G:N2	35:L2:20:G:C4	2.89	0.41
33:L1:424:G:C5'	33:L1:425:G:C8	2.96	0.41
33:L1:535:G:H2'	33:L1:536:C:H6	1.85	0.41
33:L1:1188:C:H5'	66:LN:49:ASN:HB2	2.03	0.41
33:L1:1422:G:O2'	33:L1:1423:C:H5'	2.21	0.41
33:L1:1622:G:C3'	33:L1:1623:C:C5'	2.98	0.41
33:L1:1808:G:O6	70:Li:8:ARG:NH2	2.54	0.41
33:L1:2234:G:H2'	33:L1:2235:G:H8	1.85	0.41
33:L1:2433:U:OP2	42:LP:24:ARG:HD3	2.21	0.41
33:L1:2603:C:H2'	33:L1:2604:A:C8	2.56	0.41
33:L1:3047:A:H4'	80:LC:333:VAL:CG1	2.50	0.41
33:L1:3347:U:H2'	33:L1:3348:G:O4'	2.21	0.41
34:L3:31:G:H1	34:L3:46:C:N4	2.19	0.41
34:L3:53:U:C4'	34:L3:54:A:H5'	2.34	0.41
34:L3:69:A:H61	34:L3:106:U:H3	1.68	0.41
35:L2:25:C:O4'	35:L2:25:C:C6	2.74	0.41
38:LE:31:ARG:CZ	38:LE:33:THR:HA	2.51	0.41
38:LE:42:LEU:C	38:LE:42:LEU:CD2	2.94	0.41
38:LE:82:LEU:HD12	38:LE:86:LEU:CD2	2.51	0.41
43:LO:103:TYR:CD2	43:LO:106:VAL:HG22	2.56	0.41
43:LO:104:THR:HG23	43:LO:125:ILE:HG23	2.02	0.41
48:LV:60:PHE:CZ	48:LV:83:ARG:HB2	2.56	0.41
48:LV:70:THR:CG2	48:LV:80:GLY:HA2	2.51	0.41
48:LV:108:LEU:HB3	48:LV:112:THR:HG21	2.02	0.41
51:LY:55:VAL:O	51:LY:66:GLU:HA	2.21	0.41
54:Lf:22:MET:HE2	54:Lf:85:CYS:HA	1.93	0.41
60:Lr:46:LYS:O	60:Lr:47:GLN:C	2.63	0.41
66:LN:30:VAL:HG23	67:LS:154:VAL:HG22	2.02	0.41
66:LN:79:ASP:O	66:LN:81:LYS:N	2.54	0.41
67:LS:41:SER:CB	78:Le:224:VAL:HG22	2.47	0.41
69:La:28:VAL:HB	69:La:31:GLU:O	2.21	0.41
69:La:33:THR:HG21	69:La:42:LEU:O	2.21	0.41
70:Li:18:ASN:OD1	70:Li:71:ARG:HG2	2.21	0.41
71:Lj:72:TRP:HZ2	82:LK:30:LYS:CE	2.15	0.41
78:Le:79:VAL:HG12	78:Le:80:SER:N	2.36	0.41
79:Ls:102:ARG:HG2	79:Ls:207:LEU:C	2.45	0.41
81:LD:305:SER:C	81:LD:306:VAL:CG2	2.94	0.41
81:LD:356:LYS:HD3	81:LD:359:LEU:HB2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:SA:211:PRO:O	2:SA:212:GLU:O	2.39	0.40
4:SD:136:ILE:HG22	4:SD:149:TYR:HB3	2.01	0.40
5:SE:198:GLN:HG2	32:S1:1091:A:P	2.61	0.40
5:SE:255:LEU:CD2	27:SH:71:LYS:O	2.56	0.40
6:SF:82:LYS:HG2	6:SF:86:VAL:HG23	2.02	0.40
8:SJ:68:LYS:HE3	32:S1:1524:A:H5''	2.03	0.40
9:SK:92:LEU:C	9:SK:92:LEU:CD2	2.93	0.40
17:SV:73:ASN:CA	17:SV:78:ARG:HH21	2.33	0.40
24:SX:34:PHE:O	24:SX:34:PHE:CD2	2.74	0.40
24:SX:62:GLN:HB2	24:SX:62:GLN:HE21	1.63	0.40
25:SC:106:PHE:CD1	32:S1:477:A:C4'	3.05	0.40
32:S1:824:U:C4	46:LT:172:ARG:HB3	2.56	0.40
32:S1:951:U:C5	32:S1:952:U:C5	3.08	0.40
32:S1:1060:U:C5	32:S1:1061:G:C2	3.09	0.40
32:S1:1072:U:C6	32:S1:1073:C:C5	3.09	0.40
32:S1:1673:C:O2'	33:L1:1914:C:C2'	2.69	0.40
33:L1:288:G:C6	33:L1:289:C:N4	2.89	0.40
33:L1:548:G:H2'	33:L1:549:G:C8	2.56	0.40
33:L1:863:G:H4'	33:L1:898:G:H5'	2.02	0.40
33:L1:883:G:OP1	33:L1:2984:A:N6	2.52	0.40
33:L1:918:A:N6	33:L1:920:A:C4	2.89	0.40
33:L1:1184:U:C5	82:LK:23:ARG:CD	3.04	0.40
33:L1:1347:U:H3'	33:L1:1348:G:C5'	2.51	0.40
33:L1:1406:C:P	56:Lh:69:PRO:HD3	2.61	0.40
33:L1:1533:U:O4'	33:L1:1533:U:C6	2.74	0.40
33:L1:1636:C:H2'	33:L1:1637:G:C8	2.56	0.40
33:L1:1637:G:O3'	69:La:8:GLY:C	2.63	0.40
33:L1:1637:G:H5''	69:La:8:GLY:O	2.21	0.40
33:L1:1668:U:H5'	46:LT:60:ARG:NH2	2.36	0.40
33:L1:1679:U:C1'	33:L1:1679:U:O2'	2.60	0.40
33:L1:1714:A:C2	54:Lf:89:TYR:CG	3.09	0.40
33:L1:1804:G:H5'	70:Li:11:HIS:CE1	2.56	0.40
33:L1:2170:G:N1	37:LB:125:VAL:CG1	2.84	0.40
33:L1:2770:U:O2	33:L1:2793:G:N2	2.53	0.40
33:L1:2792:A:C2	33:L1:2793:G:C5	3.09	0.40
33:L1:3018:A:C2	33:L1:3019:C:C2	3.09	0.40
34:L3:17:G:OP1	38:LE:153:HIS:NE2	2.53	0.40
34:L3:27:A:C2'	34:L3:55:A:N6	2.84	0.40
34:L3:85:G:H1'	67:LS:121:PRO:HG3	2.04	0.40
35:L2:96:A:C6	35:L2:97:U:H1'	2.56	0.40
35:L2:158:G:C8	35:L2:158:G:C3'	3.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:LA:149:GLU:O	36:LA:150:THR:CB	2.69	0.40
37:LB:43:GLY:HA2	37:LB:63:PHE:H	1.86	0.40
37:LB:202:VAL:HG12	37:LB:217:GLN:CB	2.37	0.40
38:LE:20:VAL:HG13	38:LE:72:THR:HG22	2.03	0.40
38:LE:38:VAL:HG23	38:LE:120:PRO:HB2	2.01	0.40
45:LQ:7:PHE:HD1	45:LQ:7:PHE:HA	1.77	0.40
46:LT:116:ASP:CG	46:LT:117:LYS:H	2.28	0.40
46:LT:176:ARG:HG2	46:LT:179:GLU:HB2	2.02	0.40
49:LX:46:LYS:O	49:LX:47:THR:HG23	2.21	0.40
54:Lf:17:LYS:HG2	54:Lf:20:LEU:HD12	2.02	0.40
66:LN:35:ARG:HE	67:LS:97:ARG:NH1	2.19	0.40
67:LS:36:GLU:CD	67:LS:40:LYS:HZ2	2.29	0.40
80:LC:40:PRO:HD2	80:LC:194:LYS:HA	2.03	0.40
81:LD:313:GLU:N	81:LD:315:LYS:H	2.20	0.40
81:LD:404:THR:C	81:LD:405:GLN:HG3	2.46	0.40
1:Sa:343:HIS:CG	32:S1:1400:G:P	3.14	0.40
2:SA:45:ARG:HD2	32:S1:1074:C:H4'	2.03	0.40
2:SA:64:LEU:O	2:SA:68:VAL:HG23	2.21	0.40
2:SA:116:LEU:N	2:SA:116:LEU:CD1	2.83	0.40
4:SD:160:ILE:CD1	4:SD:169:ILE:CG2	2.99	0.40
4:SD:208:ILE:CD1	4:SD:208:ILE:C	2.94	0.40
5:SE:31:ARG:HG3	27:SH:67:GLY:HA2	2.02	0.40
13:SQ:60:ARG:HG2	32:S1:1226:U:OP2	2.22	0.40
14:SP:102:GLU:HG2	14:SP:114:PRO:CB	2.51	0.40
15:SS:9:VAL:HG21	15:SS:135:ASP:OD1	2.21	0.40
15:SS:33:LEU:HD23	15:SS:33:LEU:H	1.85	0.40
27:SH:33:VAL:O	27:SH:37:PHE:CD2	2.74	0.40
27:SH:119:LYS:HD3	27:SH:119:LYS:HA	1.99	0.40
32:S1:301:U:O4'	32:S1:301:U:C6	2.74	0.40
32:S1:632:G:O2'	33:L1:849:A:C4'	2.69	0.40
32:S1:860:A:C5	46:LT:170:ARG:HG2	2.52	0.40
32:S1:1167:C:C5	32:S1:1168:A:C5	3.09	0.40
32:S1:1348:A:H2'	32:S1:1349:A:C8	2.56	0.40
32:S1:1572:U:O4'	32:S1:1572:U:C6	2.74	0.40
33:L1:98:A:H2'	42:LP:182:HIS:NE2	2.37	0.40
33:L1:428:G:C5'	71:Lj:95:PRO:CG	2.99	0.40
33:L1:801:G:H4'	65:LL:17:UNK:CB	2.51	0.40
33:L1:966:G:C6	33:L1:967:G:C5	3.09	0.40
33:L1:1160:G:C6	33:L1:1161:G:C4	3.09	0.40
33:L1:1261:C:OP1	74:LJ:124:LYS:HD2	2.21	0.40
33:L1:1824:C:H2'	33:L1:1825:G:C5'	2.50	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:2113:A:H3'	33:L1:2114:A:C8	2.55	0.40
33:L1:2138:A:C4	33:L1:2276:A:C6	3.09	0.40
33:L1:2436:G:O2'	33:L1:2437:A:C8	2.73	0.40
33:L1:2621:G:OP2	84:LI:115:MET:SD	2.78	0.40
33:L1:3140:A:H4'	80:LC:20:LYS:HE3	2.03	0.40
35:L2:124:G:H1'	35:L2:139:A:N6	2.36	0.40
36:LA:106:TYR:CD2	36:LA:140:GLN:HG2	2.57	0.40
38:LE:74:ARG:HB3	38:LE:74:ARG:NH1	2.36	0.40
64:LG:26:TRP:O	64:LG:27:ALA:CB	2.58	0.40
64:LG:100:GLN:HE21	71:Lj:33:LEU:CD1	2.34	0.40
64:LG:151:LYS:NZ	64:LG:210:ASP:OD2	2.54	0.40
66:LN:110:VAL:CG2	82:LK:201:LEU:HD21	2.44	0.40
71:Lj:13:VAL:O	71:Lj:13:VAL:HG13	2.21	0.40
75:Lt:7:ALA:CA	76:Lv:9:LEU:CD1	2.99	0.40
76:Lv:34:ILE:HD13	76:Lv:39:MET:CE	2.46	0.40
78:Le:170:VAL:HG21	78:Le:183:ILE:HG23	2.02	0.40
1:Sa:111:VAL:HA	1:Sa:126:GLY:O	2.20	0.40
2:SA:110:GLY:C	2:SA:114:ASN:H	2.30	0.40
2:SA:229:TYR:O	2:SA:232:VAL:HB	2.21	0.40
4:SD:59:ARG:NH1	32:S1:449:A:OP2	2.55	0.40
4:SD:239:PRO:O	4:SD:240:LYS:CA	2.59	0.40
5:SE:193:PRO:HG3	32:S1:1103:U:H5'	2.04	0.40
6:SF:135:VAL:HA	19:SY:41:ASN:HD22	1.85	0.40
10:SL:40:PHE:O	10:SL:40:PHE:CD2	2.74	0.40
10:SL:67:LYS:HZ2	32:S1:1753:U:C5'	2.33	0.40
12:SO:96:VAL:HG11	12:SO:151:ALA:H	1.86	0.40
14:SP:87:VAL:HG13	14:SP:115:CYS:C	2.46	0.40
14:SP:124:VAL:N	46:LT:165:LYS:CG	2.58	0.40
15:SS:8:THR:HB	15:SS:12:VAL:CG1	2.51	0.40
17:SV:26:LYS:HD3	32:S1:1544:G:OP2	2.22	0.40
17:SV:85:GLU:OE1	17:SV:91:ARG:NH1	2.51	0.40
17:SV:96:HIS:N	17:SV:101:ILE:CD1	2.84	0.40
23:SU:52:LEU:HA	23:SU:86:ASP:HB2	2.04	0.40
25:SC:21:TYR:HB3	25:SC:22:GLU:H	1.76	0.40
27:SH:27:ILE:CG1	32:S1:641:C:OP2	2.69	0.40
32:S1:19:A:C2	32:S1:20:G:C4	3.09	0.40
32:S1:483:C:H42	32:S1:513:G:H1	1.69	0.40
32:S1:956:A:H5'	54:Lf:9:LYS:HZ3	1.82	0.40
33:L1:21:G:O2'	35:L2:41:A:N6	2.55	0.40
33:L1:60:G:H3'	33:L1:61:A:H8	1.85	0.40
33:L1:271:G:H4'	72:Lk:66:VAL:HG22	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:L1:716:A:C1'	33:L1:716:A:C3'	2.89	0.40
33:L1:1123:A:C6	33:L1:1124:U:C4	3.10	0.40
33:L1:1150:G:C6	33:L1:1151:G:N7	2.90	0.40
33:L1:1163:A:C6	33:L1:1370:A:H1'	2.56	0.40
33:L1:1174:G:OP1	34:L3:84:U:C2	2.74	0.40
33:L1:1265:G:C8	79:Ls:38:SER:CB	3.05	0.40
33:L1:1506:A:C2	33:L1:1507:A:C4	3.10	0.40
33:L1:1670:G:H2'	33:L1:1671:G:H8	1.86	0.40
33:L1:1687:C:C5'	46:LT:58:HIS:CG	3.03	0.40
33:L1:1806:C:O4'	33:L1:1806:C:C6	2.75	0.40
33:L1:2177:U:OP1	37:LB:209:HIS:HE1	2.05	0.40
33:L1:2198:U:H2'	33:L1:2199:C:C6	2.57	0.40
33:L1:2362:A:H3'	33:L1:2363:G:H8	1.86	0.40
33:L1:2413:G:C6	33:L1:2414:C:C4	3.09	0.40
33:L1:2918:U:O3'	41:LM:48:ARG:C	2.64	0.40
33:L1:3288:A:H2'	33:L1:3289:U:C6	2.56	0.40
34:L3:52:U:O2'	34:L3:53:U:H5'	2.21	0.40
34:L3:56:G:H2'	34:L3:57:C:C5'	2.48	0.40
36:LA:89:LEU:HD11	36:LA:111:ALA:HA	2.02	0.40
39:LF:160:ILE:CG2	39:LF:178:ILE:HG21	2.50	0.40
48:LV:113:LEU:HD13	48:LV:157:PRO:HD2	2.03	0.40
52:Lb:94:LYS:HG2	52:Lb:97:ARG:HH21	1.86	0.40
56:Lh:30:LYS:HG3	56:Lh:32:SER:H	1.86	0.40
56:Lh:70:ASN:O	56:Lh:71:LYS:HB3	2.21	0.40
59:Lo:23:ILE:H	59:Lo:23:ILE:HG22	1.50	0.40
64:LG:90:GLY:C	64:LG:159:GLU:OE2	2.64	0.40
70:Li:29:LYS:C	70:Li:30:LEU:HG	2.47	0.40
75:Lt:48:LYS:HZ3	76:Lw:35:ASP:H	1.65	0.40
75:Lt:62:VAL:HG21	79:Ls:227:SER:CA	2.50	0.40
77:Lc:70:LEU:O	77:Lc:74:TYR:CD1	2.74	0.40
79:Ls:159:THR:OG1	79:Ls:160:PRO:HD2	2.21	0.40
79:Ls:229:SER:HB3	79:Ls:239:ALA:CB	2.51	0.40
80:LC:10:ARG:HG3	80:LC:10:ARG:O	2.21	0.40
80:LC:93:VAL:O	80:LC:99:LEU:HA	2.20	0.40
1:Sa:90:LEU:CD1	1:Sa:123:VAL:CG1	2.91	0.40
4:SD:133:GLN:C	4:SD:136:ILE:HG23	2.45	0.40
4:SD:137:PRO:HD3	32:S1:247:A:P	2.62	0.40
4:SD:160:ILE:HD12	4:SD:172:PHE:CZ	2.56	0.40
4:SD:206:GLU:CD	32:S1:686:A:O2'	2.65	0.40
5:SE:194:LYS:HG2	5:SE:244:PHE:CB	2.52	0.40
5:SE:194:LYS:HE2	5:SE:248:PRO:HG2	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:SL:51:LEU:H	10:SL:51:LEU:HD23	1.86	0.40
13:SQ:85:VAL:H	13:SQ:86:PRO:HD2	1.85	0.40
15:SS:9:VAL:CA	15:SS:138:ALA:HB3	2.44	0.40
17:SV:61:ILE:HG23	17:SV:104:ARG:HG2	2.02	0.40
23:SU:8:PRO:O	23:SU:9:ALA:CB	2.60	0.40
25:SC:195:GLU:CA	33:L1:2251:A:H3'	2.51	0.40
27:SH:38:LEU:CD1	27:SH:45:GLY:CA	2.93	0.40
27:SH:111:MET:SD	27:SH:116:ALA:CA	3.10	0.40
27:SH:129:PHE:CD1	27:SH:129:PHE:C	2.99	0.40
31:S2:38:C:H4'	32:S1:1006:A:C8	2.56	0.40
31:S2:47:U:C4	31:S2:58:U:H1'	2.57	0.40
32:S1:290:C:H2'	32:S1:291:G:C8	2.57	0.40
32:S1:350:G:OP1	46:LT:132:PHE:HE1	2.04	0.40
32:S1:397:C:H2'	32:S1:398:C:C6	2.56	0.40
32:S1:562:U:OP2	32:S1:562:U:H4'	2.22	0.40
32:S1:1747:A:H2'	33:L1:1915:G:H2'	2.02	0.40
33:L1:19:C:H2'	33:L1:20:G:C8	2.55	0.40
33:L1:177:C:H2'	33:L1:178:C:H6	1.86	0.40
33:L1:213:G:C2	33:L1:224:C:C2	3.10	0.40
33:L1:307:C:O4'	33:L1:307:C:C6	2.75	0.40
33:L1:570:G:H2'	33:L1:571:G:H8	1.86	0.40
33:L1:650:A:OP2	56:Lh:40:ASP:CB	2.69	0.40
33:L1:664:A:H62	33:L1:1435:C:H5	1.69	0.40
33:L1:838:G:H2'	33:L1:839:A:OP2	2.21	0.40
33:L1:1188:C:OP1	66:LN:50:PHE:N	2.55	0.40
33:L1:1387:G:H1'	81:LD:248:GLY:HA3	2.04	0.40
33:L1:1728:G:H8	54:Lf:32:LYS:H	1.70	0.40
33:L1:1851:U:O2'	73:Lp:51:ILE:HG13	2.21	0.40
33:L1:2062:U:H2'	33:L1:2064:C:C5	2.57	0.40
33:L1:2417:G:H2'	33:L1:2418:A:OP2	2.21	0.40
33:L1:2944:C:H5''	33:L1:2945:G:H5'	2.03	0.40
33:L1:3150:G:C8	33:L1:3150:G:H3'	2.57	0.40
33:L1:3209:U:O4	33:L1:3210:G:C6	2.74	0.40
33:L1:3212:C:O2	64:LG:116:PRO:HG2	2.20	0.40
34:L3:5:G:C2	34:L3:115:A:H1'	2.56	0.40
34:L3:21:U:O2	34:L3:21:U:H2'	2.21	0.40
34:L3:28:U:H3	34:L3:51:G:H1	1.69	0.40
37:LB:17:LYS:HG2	37:LB:18:SER:N	2.36	0.40
38:LE:51:LYS:HD3	38:LE:51:LYS:H	1.87	0.40
39:LF:187:THR:O	39:LF:188:GLU:CB	2.48	0.40
47:LU:126:ILE:HD12	47:LU:129:LYS:HB2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:LV:9:ASN:ND2	48:LV:154:LYS:NZ	2.69	0.40
51:LY:44:VAL:HG12	51:LY:125:ARG:HH21	1.86	0.40
54:Lf:66:LEU:HD13	70:Li:30:LEU:HD22	2.03	0.40
56:Lh:26:TYR:HB2	56:Lh:29:LEU:HB2	2.03	0.40
70:Li:29:LYS:HD3	70:Li:29:LYS:H	1.85	0.40
72:Lk:39:ARG:HB2	72:Lk:46:LEU:HD21	2.04	0.40
76:Lv:42:MET:O	76:Lv:46:VAL:HG23	2.22	0.40
78:Le:106:GLN:O	78:Le:109:ARG:HA	2.21	0.40
1:Sa:105:LYS:HZ3	7:SI:29:LYS:HZ3	1.70	0.40
3:SB:113:LEU:HD12	3:SB:114:ALA:N	2.35	0.40
5:SE:29:GLY:O	5:SE:30:ARG:NH2	2.54	0.40
11:SM:12:ILE:CD1	38:LE:120:PRO:HG2	2.52	0.40
12:SO:107:LYS:HB3	83:Lm:38:PHE:CE2	2.53	0.40
15:SS:2:ALA:HB1	32:S1:1363:G:C3'	2.46	0.40
17:SV:68:GLU:CG	17:SV:75:SER:HA	2.52	0.40
19:SY:29:LYS:HD2	19:SY:35:ASN:H	1.86	0.40
29:ST:23:ILE:HB	29:ST:58:ILE:HD13	2.03	0.40
31:S2:24:A:C2	33:L1:2260:C:C2'	3.04	0.40
32:S1:20:G:C6	32:S1:21:U:C2	3.10	0.40
32:S1:123:U:C5	32:S1:124:G:C5	3.10	0.40
32:S1:877:G:C8	32:S1:877:G:H5''	2.57	0.40
32:S1:1127:G:OP2	83:Lm:7:LYS:HD2	2.21	0.40
32:S1:1665:U:H2'	32:S1:1666:G:C8	2.57	0.40
33:L1:66:A:C8	42:LP:175:ARG:NH2	2.89	0.40
33:L1:69:U:O4'	33:L1:69:U:C6	2.75	0.40
33:L1:280:G:C5	33:L1:284:U:H1'	2.56	0.40
33:L1:527:G:O4'	33:L1:527:G:C8	2.74	0.40
33:L1:681:A:N6	33:L1:788:G:C2	2.90	0.40
33:L1:818:G:P	57:Ll:35:SER:HB3	2.61	0.40
33:L1:2077:C:H5''	46:LT:112:ALA:O	2.22	0.40
33:L1:2244:G:N2	33:L1:2263:U:C2	2.90	0.40
33:L1:2493:C:O2	36:LA:209:MET:O	2.40	0.40
33:L1:3035:C:O2	39:LF:119:GLU:HA	2.22	0.40
33:L1:3316:C:O4'	33:L1:3316:C:C6	2.74	0.40
33:L1:3334:A:H61	33:L1:3355:U:H3	1.69	0.40
34:L3:72:G:C2	34:L3:104:C:O2	2.75	0.40
35:L2:36:C:H2'	35:L2:37:A:C8	2.57	0.40
36:LA:71:GLN:CG	36:LA:79:MET:CE	2.99	0.40
36:LA:95:ASN:HA	36:LA:99:VAL:O	2.21	0.40
46:LT:58:HIS:CD2	46:LT:58:HIS:H	2.38	0.40
48:LV:73:ALA:HB3	48:LV:77:HIS:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:LV:116:SER:HB2	48:LV:152:SER:HB2	2.03	0.40
51:LY:72:VAL:CB	51:LY:79:ILE:HG22	2.51	0.40
56:Lh:43:VAL:O	56:Lh:53:MET:HE3	2.22	0.40
57:Ll:67:MET:O	57:Ll:71:PRO:HD2	2.21	0.40
67:LS:10:GLN:NE2	67:LS:64:ASN:HB2	2.37	0.40
76:Lv:44:SER:HB2	79:Ls:99:LYS:HD2	2.03	0.40
81:LD:342:LYS:O	81:LD:343:MET:SD	2.79	0.40
83:Lm:70:THR:HG21	83:Lm:73:THR:CG2	2.52	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	Sa	376/380 (99%)	330 (88%)	24 (6%)	22 (6%)	1	13
2	SA	258/260 (99%)	194 (75%)	31 (12%)	33 (13%)	0	4
3	SB	206/208 (99%)	117 (57%)	35 (17%)	54 (26%)	0	1
4	SD	198/200 (99%)	164 (83%)	17 (9%)	17 (9%)	0	9
5	SE	261/263 (99%)	186 (71%)	45 (17%)	30 (12%)	0	5
6	SF	189/191 (99%)	157 (83%)	25 (13%)	7 (4%)	2	20
7	SI	124/126 (98%)	90 (73%)	17 (14%)	17 (14%)	0	4
8	SJ	126/128 (98%)	103 (82%)	14 (11%)	9 (7%)	1	11
9	SK	117/119 (98%)	85 (73%)	13 (11%)	19 (16%)	0	2
10	SL	140/142 (99%)	93 (66%)	18 (13%)	29 (21%)	0	2
11	SM	150/152 (99%)	101 (67%)	22 (15%)	27 (18%)	0	2
12	SO	119/121 (98%)	95 (80%)	11 (9%)	13 (11%)	0	6
13	SQ	139/141 (99%)	87 (63%)	27 (19%)	25 (18%)	0	2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
14	SP	83/85 (98%)	64 (77%)	12 (14%)	7 (8%)	0	9
15	SS	144/146 (99%)	119 (83%)	13 (9%)	12 (8%)	0	9
16	SR	89/91 (98%)	65 (73%)	15 (17%)	9 (10%)	0	7
17	SV	98/100 (98%)	70 (71%)	12 (12%)	16 (16%)	0	2
19	SY	56/58 (97%)	38 (68%)	8 (14%)	10 (18%)	0	2
20	SZ	60/62 (97%)	43 (72%)	9 (15%)	8 (13%)	0	4
23	SU	96/98 (98%)	70 (73%)	12 (12%)	14 (15%)	0	3
24	SX	48/50 (96%)	36 (75%)	8 (17%)	4 (8%)	0	9
25	SC	193/195 (99%)	127 (66%)	34 (18%)	32 (17%)	0	2
27	SH	128/130 (98%)	100 (78%)	17 (13%)	11 (9%)	0	9
28	SN	46/48 (96%)	30 (65%)	4 (9%)	12 (26%)	0	1
29	ST	80/82 (98%)	67 (84%)	4 (5%)	9 (11%)	0	5
36	LA	214/216 (99%)	191 (89%)	14 (6%)	9 (4%)	2	17
37	LB	253/255 (99%)	224 (88%)	18 (7%)	11 (4%)	2	17
38	LE	168/170 (99%)	129 (77%)	16 (10%)	23 (14%)	0	4
39	LF	188/190 (99%)	165 (88%)	16 (8%)	7 (4%)	2	20
40	LH	199/201 (99%)	149 (75%)	26 (13%)	24 (12%)	0	4
41	LM	138/140 (99%)	123 (89%)	9 (6%)	6 (4%)	2	17
42	LP	192/194 (99%)	169 (88%)	18 (9%)	5 (3%)	4	25
43	LO	142/144 (99%)	106 (75%)	17 (12%)	19 (13%)	0	4
44	LR	161/163 (99%)	127 (79%)	18 (11%)	16 (10%)	0	7
45	LQ	302/304 (99%)	218 (72%)	39 (13%)	45 (15%)	0	3
46	LT	187/189 (99%)	167 (89%)	12 (6%)	8 (4%)	2	17
47	LU	162/164 (99%)	136 (84%)	18 (11%)	8 (5%)	1	16
48	LV	169/171 (99%)	131 (78%)	20 (12%)	18 (11%)	0	6
49	LX	120/122 (98%)	98 (82%)	12 (10%)	10 (8%)	0	9
50	LZ	73/75 (97%)	53 (73%)	13 (18%)	7 (10%)	0	7
51	LY	128/130 (98%)	113 (88%)	9 (7%)	6 (5%)	2	16
52	Lb	71/73 (97%)	48 (68%)	12 (17%)	11 (16%)	0	3
53	Ld	21/23 (91%)	18 (86%)	2 (10%)	1 (5%)	2	16
54	Lf	110/112 (98%)	95 (86%)	8 (7%)	7 (6%)	1	12

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
55	Lg	118/120 (98%)	96 (81%)	13 (11%)	9 (8%)	1	10
56	Lh	131/133 (98%)	113 (86%)	9 (7%)	9 (7%)	1	11
57	Ll	92/94 (98%)	60 (65%)	18 (20%)	14 (15%)	0	3
58	Ln	67/69 (97%)	51 (76%)	11 (16%)	5 (8%)	1	10
59	Lo	49/51 (96%)	33 (67%)	6 (12%)	10 (20%)	0	2
60	Lr	103/105 (98%)	75 (73%)	16 (16%)	12 (12%)	0	4
61	Lq	23/25 (92%)	20 (87%)	3 (13%)	0	100	100
64	LG	217/219 (99%)	149 (69%)	24 (11%)	44 (20%)	0	2
66	LN	132/134 (98%)	96 (73%)	15 (11%)	21 (16%)	0	2
67	LS	165/167 (99%)	115 (70%)	24 (14%)	26 (16%)	0	2
68	LW	106/108 (98%)	73 (69%)	15 (14%)	18 (17%)	0	2
69	La	97/99 (98%)	68 (70%)	15 (16%)	14 (14%)	0	3
70	Li	117/119 (98%)	72 (62%)	13 (11%)	32 (27%)	0	0
71	Lj	102/104 (98%)	74 (72%)	17 (17%)	11 (11%)	0	6
72	Lk	75/77 (97%)	60 (80%)	5 (7%)	10 (13%)	0	4
73	Lp	39/41 (95%)	28 (72%)	8 (20%)	3 (8%)	1	10
74	LJ	126/128 (98%)	97 (77%)	15 (12%)	14 (11%)	0	5
75	Lt	56/58 (97%)	54 (96%)	1 (2%)	1 (2%)	6	34
75	Lu	56/58 (97%)	54 (96%)	1 (2%)	1 (2%)	6	34
76	Lv	57/59 (97%)	54 (95%)	2 (4%)	1 (2%)	6	34
76	Lw	57/59 (97%)	54 (95%)	2 (4%)	1 (2%)	6	34
77	Lc	122/124 (98%)	106 (87%)	7 (6%)	9 (7%)	1	10
78	Le	239/244 (98%)	212 (89%)	17 (7%)	10 (4%)	2	17
79	Ls	260/262 (99%)	233 (90%)	17 (6%)	10 (4%)	2	19
80	LC	387/389 (100%)	298 (77%)	43 (11%)	46 (12%)	0	4
81	LD	368/372 (99%)	306 (83%)	38 (10%)	24 (6%)	1	12
82	LK	204/206 (99%)	179 (88%)	15 (7%)	10 (5%)	1	16
83	Lm	90/92 (98%)	77 (86%)	9 (10%)	4 (4%)	2	17
84	LI	182/184 (99%)	140 (77%)	26 (14%)	16 (9%)	0	8
All	All	10359/10512 (98%)	8138 (79%)	1149 (11%)	1072 (10%)	1	6

All (1072) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	Sa	2	ALA
1	Sa	112	MET
1	Sa	129	ASP
1	Sa	149	VAL
1	Sa	150	SER
1	Sa	151	ARG
1	Sa	202	SER
1	Sa	203	GLY
1	Sa	216	LEU
1	Sa	271	GLY
1	Sa	342	SER
1	Sa	343	HIS
2	SA	3	ALA
2	SA	8	ALA
2	SA	10	ARG
2	SA	11	ALA
2	SA	21	MET
2	SA	172	LYS
2	SA	190	ARG
2	SA	192	THR
2	SA	199	TRP
2	SA	200	ASP
2	SA	210	ASP
2	SA	211	PRO
2	SA	214	ALA
2	SA	215	LYS
2	SA	232	VAL
2	SA	233	ALA
2	SA	235	TYR
2	SA	239	ALA
2	SA	257	ALA
3	SB	31	GLU
3	SB	36	GLY
3	SB	48	ILE
3	SB	55	THR
3	SB	63	GLY
3	SB	71	SER
3	SB	78	ASN
3	SB	81	GLU
3	SB	90	LYS
3	SB	91	VAL
3	SB	93	ASN
3	SB	96	LEU

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Mol	Chain	Res	Type
3	SB	99	ILE
3	SB	111	GLY
3	SB	113	LEU
3	SB	125	PHE
3	SB	126	VAL
3	SB	131	ALA
3	SB	156	TYR
3	SB	162	GLN
3	SB	172	VAL
3	SB	183	GLY
3	SB	184	ILE
3	SB	197	LYS
3	SB	200	PRO
3	SB	206	ASP
3	SB	211	HIS
3	SB	213	PRO
3	SB	215	GLU
3	SB	216	GLU
3	SB	217	ASN
3	SB	218	GLU
4	SD	53	LYS
4	SD	58	TYR
4	SD	137	PRO
4	SD	150	PRO
4	SD	153	ILE
4	SD	154	ILE
5	SE	17	ARG
5	SE	30	ARG
5	SE	37	PRO
5	SE	46	PRO
5	SE	47	VAL
5	SE	50	LEU
5	SE	83	PRO
5	SE	95	VAL
5	SE	109	ALA
5	SE	128	LYS
5	SE	129	GLU
5	SE	134	ILE
5	SE	231	TYR
5	SE	247	SER
5	SE	260	THR
6	SF	41	HIS

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Mol	Chain	Res	Type
6	SF	57	PHE
6	SF	63	PRO
6	SF	178	LYS
7	SI	36	LYS
7	SI	45	ILE
7	SI	76	ARG
7	SI	90	ALA
7	SI	91	ILE
7	SI	142	ALA
8	SJ	3	ALA
9	SK	66	ASP
9	SK	72	ALA
9	SK	73	ALA
9	SK	93	HIS
9	SK	94	ILE
9	SK	138	SER
9	SK	142	LYS
9	SK	144	GLY
10	SL	5	ARG
10	SL	7	MET
10	SL	8	GLY
10	SL	9	ALA
10	SL	24	ASP
10	SL	26	ALA
10	SL	28	LYS
10	SL	30	SER
10	SL	78	LYS
10	SL	96	ASN
10	SL	119	PHE
10	SL	120	LYS
10	SL	123	LYS
10	SL	131	ALA
11	SM	5	ALA
11	SM	8	GLU
11	SM	9	PHE
11	SM	17	ASN
11	SM	74	PRO
11	SM	75	ARG
11	SM	80	PRO
11	SM	83	PHE
11	SM	87	LYS
11	SM	100	SER

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Mol	Chain	Res	Type
11	SM	137	LYS
11	SM	149	SER
12	SO	69	SER
12	SO	109	LYS
12	SO	111	SER
12	SO	137	PRO
13	SQ	22	SER
13	SQ	27	ASP
13	SQ	40	ILE
13	SQ	63	ARG
13	SQ	71	LEU
13	SQ	72	LYS
13	SQ	74	GLN
13	SQ	78	ARG
13	SQ	86	PRO
13	SQ	97	ARG
13	SQ	98	VAL
13	SQ	123	VAL
13	SQ	125	ALA
13	SQ	126	PRO
13	SQ	137	ARG
14	SP	109	PRO
14	SP	110	ALA
14	SP	120	GLU
14	SP	123	HIS
15	SS	10	LYS
15	SS	11	ASP
15	SS	14	PRO
15	SS	34	PRO
15	SS	40	VAL
15	SS	45	PHE
15	SS	46	LYS
15	SS	48	LEU
16	SR	66	ILE
16	SR	70	ARG
16	SR	71	LYS
16	SR	116	ILE
16	SR	139	ARG
17	SV	11	PRO
17	SV	13	SER
17	SV	18	SER
17	SV	24	LYS

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Mol	Chain	Res	Type
17	SV	26	LYS
17	SV	28	TRP
17	SV	29	SER
17	SV	33	GLN
17	SV	101	ILE
19	SY	2	ASP
19	SY	7	LEU
19	SY	13	VAL
19	SY	16	ARG
19	SY	17	THR
19	SY	24	THR
20	SZ	22	ALA
20	SZ	46	THR
20	SZ	57	PRO
20	SZ	59	SER
23	SU	8	PRO
23	SU	34	HIS
23	SU	35	PRO
23	SU	37	ARG
23	SU	40	VAL
23	SU	54	GLU
23	SU	95	TYR
24	SX	62	GLN
24	SX	69	THR
24	SX	79	CYS
25	SC	16	LYS
25	SC	17	PRO
25	SC	58	ALA
25	SC	66	GLU
25	SC	136	ILE
25	SC	137	ARG
25	SC	138	VAL
25	SC	141	GLN
25	SC	147	SER
25	SC	150	VAL
25	SC	154	SER
25	SC	158	ILE
25	SC	159	ASP
25	SC	161	SER
25	SC	164	SER
25	SC	171	PRO
25	SC	173	ARG

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Mol	Chain	Res	Type
27	SH	4	VAL
27	SH	52	PHE
27	SH	53	VAL
27	SH	65	LEU
27	SH	66	ASN
27	SH	96	SER
27	SH	97	ARG
28	SN	11	PRO
28	SN	14	TYR
28	SN	19	ARG
28	SN	20	VAL
28	SN	53	ILE
29	ST	10	ASP
29	ST	11	LEU
29	ST	29	HIS
29	ST	54	LEU
36	LA	73	VAL
36	LA	134	PRO
36	LA	150	THR
36	LA	167	ALA
36	LA	197	TRP
36	LA	198	GLN
37	LB	67	PHE
37	LB	68	ARG
38	LE	2	SER
38	LE	3	THR
38	LE	7	GLN
38	LE	9	ASN
38	LE	10	PRO
38	LE	27	GLU
38	LE	58	SER
38	LE	63	ARG
38	LE	88	VAL
38	LE	89	LYS
38	LE	113	ASP
39	LF	126	ASP
39	LF	140	LYS
39	LF	183	LYS
40	LH	61	ARG
40	LH	63	LEU
40	LH	86	THR
40	LH	90	LYS

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Mol	Chain	Res	Type
40	LH	94	LYS
40	LH	98	GLU
40	LH	225	VAL
40	LH	233	VAL
40	LH	234	MET
41	LM	12	ASN
41	LM	13	LYS
41	LM	36	ASN
42	LP	122	ASN
43	LO	3	THR
43	LO	4	ARG
43	LO	15	VAL
43	LO	22	ILE
44	LR	13	ARG
44	LR	98	MET
44	LR	156	PRO
44	LR	158	VAL
44	LR	161	SER
45	LQ	3	LEU
45	LQ	16	TYR
45	LQ	73	ASP
45	LQ	74	ILE
45	LQ	89	LEU
45	LQ	116	LEU
45	LQ	144	ALA
45	LQ	183	PHE
45	LQ	187	GLU
45	LQ	188	LYS
45	LQ	199	ILE
45	LQ	200	TYR
45	LQ	203	HIS
45	LQ	204	VAL
45	LQ	288	LEU
45	LQ	289	ASN
45	LQ	290	SER
46	LT	54	PRO
46	LT	55	GLN
46	LT	56	LYS
46	LT	57	ILE
46	LT	59	SER
46	LT	72	LYS
47	LU	5	HIS

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Mol	Chain	Res	Type
47	LU	10	ARG
47	LU	70	ARG
47	LU	137	PRO
47	LU	139	PHE
48	LV	8	ALA
48	LV	9	ASN
48	LV	70	THR
48	LV	112	THR
48	LV	168	ALA
49	LX	34	LYS
49	LX	46	LYS
49	LX	50	LYS
49	LX	58	ARG
50	LZ	72	LYS
51	LY	8	THR
51	LY	10	SER
52	Lb	110	ASN
53	Ld	51	LYS
54	Lf	89	TYR
54	Lf	102	SER
55	Lg	87	ARG
55	Lg	101	VAL
55	Lg	102	THR
55	Lg	119	VAL
56	Lh	13	LYS
56	Lh	66	HIS
56	Lh	121	THR
56	Lh	132	ASP
57	Ll	4	GLY
57	Ll	11	ARG
57	Ll	51	VAL
57	Ll	76	SER
57	Ll	84	ALA
57	Ll	87	ARG
57	Ll	90	ALA
57	Ll	93	ALA
58	Ln	19	ASP
58	Ln	31	ALA
58	Ln	44	THR
58	Ln	49	ASP
59	Lo	27	ILE
59	Lo	34	THR

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Mol	Chain	Res	Type
59	Lo	38	ASN
59	Lo	47	THR
60	Lr	14	ASN
60	Lr	48	SER
64	LG	12	LYS
64	LG	26	TRP
64	LG	28	ILE
64	LG	29	LYS
64	LG	37	PRO
64	LG	39	ALA
64	LG	40	GLU
64	LG	44	ALA
64	LG	51	TYR
64	LG	52	PRO
64	LG	54	ASP
64	LG	75	ILE
64	LG	76	THR
64	LG	112	ILE
64	LG	117	ILE
64	LG	122	GLN
64	LG	123	ALA
64	LG	139	VAL
64	LG	173	LEU
64	LG	182	LYS
64	LG	184	ILE
64	LG	188	LEU
64	LG	191	ALA
64	LG	196	PRO
64	LG	198	LEU
66	LN	6	PHE
66	LN	7	VAL
66	LN	17	TYR
66	LN	21	TYR
66	LN	23	ARG
66	LN	31	VAL
66	LN	32	ASP
66	LN	66	PRO
66	LN	80	VAL
66	LN	89	TRP
66	LN	90	GLY
66	LN	102	LEU
67	LS	4	PHE

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Mol	Chain	Res	Type
67	LS	6	PHE
67	LS	17	PRO
67	LS	19	PRO
67	LS	22	GLU
67	LS	23	HIS
67	LS	35	ASN
67	LS	54	LYS
67	LS	70	ASN
67	LS	71	PRO
67	LS	73	THR
67	LS	86	ARG
67	LS	87	THR
67	LS	117	ARG
67	LS	138	ARG
67	LS	151	PHE
67	LS	152	PRO
67	LS	157	LYS
67	LS	161	PRO
67	LS	162	THR
68	LW	29	LYS
68	LW	30	PRO
68	LW	31	VAL
68	LW	34	LYS
68	LW	37	GLU
68	LW	55	LYS
68	LW	58	ASN
68	LW	79	ALA
68	LW	83	ARG
68	LW	100	ASP
68	LW	101	TRP
68	LW	104	VAL
68	LW	105	ILE
68	LW	106	ALA
69	La	11	VAL
69	La	20	GLY
69	La	31	GLU
69	La	37	PRO
69	La	55	ARG
70	Li	11	HIS
70	Li	12	SER
70	Li	18	ASN
70	Li	19	GLN

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Mol	Chain	Res	Type
70	Li	20	THR
70	Li	34	TYR
70	Li	37	LYS
70	Li	40	SER
70	Li	55	PRO
70	Li	57	LEU
70	Li	58	ARG
70	Li	65	PRO
70	Li	69	ARG
70	Li	70	ASN
70	Li	81	VAL
70	Li	101	LYS
70	Li	102	ILE
70	Li	105	LYS
70	Li	107	LEU
70	Li	108	LYS
71	Lj	13	VAL
71	Lj	25	SER
71	Lj	39	VAL
71	Lj	42	LYS
71	Lj	61	THR
71	Lj	62	LYS
72	Lk	66	VAL
73	Lp	51	ILE
74	LJ	32	ILE
74	LJ	37	LEU
74	LJ	67	ASN
74	LJ	76	PRO
74	LJ	78	ALA
74	LJ	94	LYS
74	LJ	96	VAL
75	Lt	62	VAL
75	Lu	62	VAL
77	Lc	45	LEU
77	Lc	117	GLN
78	Le	109	ARG
78	Le	159	ASN
78	Le	205	TRP
79	Ls	12	VAL
79	Ls	63	ARG
79	Ls	236	THR
80	LC	6	PHE

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Mol	Chain	Res	Type
80	LC	40	PRO
80	LC	60	VAL
80	LC	61	GLU
80	LC	63	PRO
80	LC	69	LYS
80	LC	70	LYS
80	LC	124	LYS
80	LC	129	ALA
80	LC	131	THR
80	LC	303	ASP
80	LC	335	PRO
80	LC	351	SER
80	LC	358	ILE
80	LC	369	PHE
80	LC	374	PHE
81	LD	90	ARG
81	LD	95	ALA
81	LD	110	LYS
81	LD	111	THR
81	LD	202	ASN
81	LD	208	ARG
81	LD	330	VAL
81	LD	345	THR
81	LD	348	GLU
81	LD	349	ALA
82	LK	71	PRO
82	LK	126	PRO
82	LK	132	LEU
82	LK	135	GLN
82	LK	136	PRO
82	LK	193	LYS
83	Lm	6	LYS
84	LI	18	PRO
84	LI	39	LYS
84	LI	118	ALA
1	Sa	68	LYS
1	Sa	111	VAL
1	Sa	301	VAL
2	SA	7	ALA
2	SA	15	ARG
2	SA	16	GLU
2	SA	18	ASP

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Mol	Chain	Res	Type
2	SA	26	ASP
2	SA	129	THR
2	SA	201	VAL
2	SA	203	VAL
2	SA	209	ARG
2	SA	212	GLU
2	SA	213	GLU
2	SA	236	ALA
3	SB	32	ASP
3	SB	61	GLU
3	SB	62	LYS
3	SB	80	LEU
3	SB	95	GLY
3	SB	98	ALA
3	SB	107	TYR
3	SB	109	LEU
3	SB	140	GLY
3	SB	149	SER
3	SB	173	ARG
4	SD	56	LEU
4	SD	151	ASP
4	SD	213	ALA
5	SE	16	GLY
5	SE	92	ILE
5	SE	259	PRO
6	SF	136	ASP
7	SI	41	PRO
7	SI	92	ALA
7	SI	138	ARG
8	SJ	30	ARG
8	SJ	58	LYS
8	SJ	66	PRO
8	SJ	127	ASP
9	SK	75	LEU
9	SK	76	ALA
9	SK	88	GLY
9	SK	89	ILE
9	SK	97	ARG
9	SK	133	PRO
9	SK	143	GLY
10	SL	22	TRP
10	SL	27	TYR

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Mol	Chain	Res	Type
10	SL	99	VAL
10	SL	117	VAL
10	SL	118	ARG
11	SM	7	GLU
11	SM	15	VAL
11	SM	79	VAL
11	SM	91	LYS
11	SM	94	ARG
11	SM	95	PHE
11	SM	99	VAL
12	SO	32	ASP
12	SO	41	ALA
12	SO	57	GLN
12	SO	149	LEU
13	SQ	5	ARG
13	SQ	7	LYS
13	SQ	26	LEU
13	SQ	85	VAL
15	SS	99	SER
17	SV	34	LYS
17	SV	44	ASP
19	SY	4	GLN
19	SY	25	GLN
23	SU	39	ASN
23	SU	71	GLY
24	SX	68	PRO
25	SC	20	PRO
25	SC	44	LEU
25	SC	45	TRP
25	SC	142	ILE
25	SC	143	VAL
25	SC	146	PRO
25	SC	151	ARG
25	SC	156	LYS
25	SC	162	LEU
25	SC	167	GLY
27	SH	50	PHE
27	SH	92	ARG
27	SH	95	PRO
28	SN	16	ALA
28	SN	33	LYS
28	SN	48	LYS

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Mol	Chain	Res	Type
29	ST	9	VAL
29	ST	52	PHE
36	LA	98	LEU
37	LB	11	GLY
37	LB	23	ARG
37	LB	38	ASN
37	LB	63	PHE
37	LB	253	THR
38	LE	8	LEU
38	LE	74	ARG
38	LE	108	ILE
38	LE	124	ILE
39	LF	186	ILE
40	LH	64	LYS
40	LH	73	LEU
40	LH	118	LYS
40	LH	126	ILE
40	LH	146	LEU
40	LH	201	ASN
41	LM	9	SER
42	LP	56	LYS
43	LO	10	LYS
43	LO	11	LYS
43	LO	28	HIS
43	LO	99	THR
43	LO	127	LYS
44	LR	20	LYS
44	LR	94	GLU
44	LR	119	GLU
44	LR	160	HIS
45	LQ	14	HIS
45	LQ	52	LYS
45	LQ	55	PHE
45	LQ	59	LYS
45	LQ	119	GLU
45	LQ	141	PRO
45	LQ	207	TYR
45	LQ	218	LYS
45	LQ	284	ARG
46	LT	91	THR
46	LT	137	VAL
47	LU	80	VAL

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Mol	Chain	Res	Type
47	LU	125	VAL
48	LV	31	GLU
48	LV	38	LYS
48	LV	68	GLY
48	LV	74	LYS
48	LV	79	ASN
48	LV	128	ARG
48	LV	166	ILE
48	LV	169	ARG
49	LX	47	THR
49	LX	49	LYS
51	LY	21	ALA
52	Lb	67	ASP
52	Lb	90	SER
52	Lb	91	VAL
52	Lb	93	ARG
54	Lf	23	LYS
55	Lg	2	SER
55	Lg	11	ARG
55	Lg	16	VAL
56	Lh	59	GLY
56	Lh	65	ARG
57	Li	26	SER
57	Li	41	ALA
57	Li	61	THR
57	Li	77	ASN
59	Lo	4	HIS
59	Lo	25	TYR
59	Lo	35	ILE
59	Lo	39	ALA
60	Lr	34	SER
60	Lr	37	ALA
60	Lr	76	SER
60	Lr	80	TYR
64	LG	69	THR
64	LG	116	PRO
64	LG	129	SER
64	LG	138	ASN
64	LG	144	ASP
64	LG	186	ALA
64	LG	189	ILE
64	LG	194	ALA

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Mol	Chain	Res	Type
66	LN	3	PHE
66	LN	88	SER
67	LS	3	ALA
67	LS	16	LEU
67	LS	52	LYS
67	LS	68	GLU
67	LS	130	THR
68	LW	107	ALA
68	LW	108	ASN
69	La	54	ILE
69	La	98	PRO
70	Li	30	LEU
70	Li	36	LYS
70	Li	43	LYS
70	Li	63	LYS
70	Li	103	VAL
70	Li	112	THR
71	Lj	100	LYS
72	Lk	42	PHE
72	Lk	80	LEU
72	Lk	81	GLY
72	Lk	94	SER
74	LJ	55	LYS
74	LJ	77	SER
74	LJ	92	ASP
74	LJ	122	MET
78	Le	62	LYS
78	Le	206	PRO
79	Ls	52	SER
79	Ls	211	GLU
80	LC	62	LYS
80	LC	103	ASN
80	LC	123	CYS
80	LC	126	LYS
80	LC	137	TYR
80	LC	205	GLU
80	LC	350	THR
80	LC	353	LEU
80	LC	365	THR
81	LD	3	THR
81	LD	20	THR
81	LD	94	GLY

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Mol	Chain	Res	Type
83	Lm	18	TYR
84	LI	99	ILE
84	LI	110	ARG
84	LI	115	MET
1	Sa	340	GLN
3	SB	70	THR
3	SB	157	MET
3	SB	194	PRO
3	SB	195	LYS
5	SE	117	ASN
5	SE	119	HIS
7	SI	30	PRO
7	SI	31	GLY
7	SI	32	ARG
7	SI	81	THR
7	SI	146	LYS
8	SJ	13	LYS
8	SJ	25	VAL
9	SK	107	PRO
9	SK	109	PRO
10	SL	10	GLY
10	SL	107	LYS
11	SM	49	ASP
11	SM	98	VAL
11	SM	151	LYS
12	SO	78	HIS
12	SO	86	GLU
12	SO	87	ASP
14	SP	56	ASP
14	SP	82	ASN
16	SR	90	ARG
17	SV	89	ALA
17	SV	96	HIS
19	SY	8	ALA
20	SZ	19	PRO
20	SZ	47	ALA
23	SU	65	LYS
25	SC	18	ARG
25	SC	170	PRO
28	SN	47	ALA
29	ST	68	LEU
37	LB	34	PHE

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Mol	Chain	Res	Type
37	LB	66	PRO
37	LB	140	ASN
38	LE	4	GLU
38	LE	31	ARG
39	LF	109	THR
40	LH	97	PRO
40	LH	200	LYS
41	LM	49	LEU
43	LO	66	ASN
43	LO	138	GLY
44	LR	11	ASN
44	LR	78	ASN
44	LR	140	ARG
44	LR	149	VAL
45	LQ	23	LYS
45	LQ	131	TYR
45	LQ	197	LYS
45	LQ	212	ALA
45	LQ	248	ARG
47	LU	94	GLU
48	LV	63	TYR
48	LV	77	HIS
49	LX	67	LEU
50	LZ	63	LYS
52	Lb	108	SER
54	Lf	77	ASN
55	Lg	105	GLU
56	Lh	17	GLN
56	Lh	90	ASN
57	Li	75	LYS
57	Li	89	ARG
59	Lo	24	PRO
60	Lr	94	GLY
60	Lr	97	LYS
64	LG	41	LYS
64	LG	42	PRO
64	LG	77	PRO
64	LG	143	ASP
64	LG	185	ASP
66	LN	20	ASP
66	LN	65	VAL
66	LN	67	LYS

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Mol	Chain	Res	Type
66	LN	78	ALA
66	LN	105	PHE
68	LW	97	ASN
69	La	14	LEU
69	La	19	ALA
69	La	51	LYS
69	La	97	GLY
70	Li	82	LEU
72	Lk	38	LYS
72	Lk	65	LYS
72	Lk	95	SER
74	LJ	124	LYS
76	Lv	19	SER
76	Lw	19	SER
77	Lc	90	ARG
77	Lc	113	VAL
77	Lc	116	PRO
78	Le	167	ASN
79	Ls	73	THR
79	Ls	258	THR
80	LC	35	ASP
80	LC	215	ASP
80	LC	242	PRO
80	LC	262	ARG
80	LC	270	ALA
80	LC	296	HIS
80	LC	375	GLN
81	LD	62	ALA
81	LD	84	PRO
81	LD	87	GLY
81	LD	113	ARG
81	LD	160	ASP
84	LI	44	ASP
1	Sa	31	THR
1	Sa	237	ILE
1	Sa	241	ALA
2	SA	167	ALA
2	SA	259	PRO
3	SB	30	ALA
3	SB	64	ARG
4	SD	94	LYS
4	SD	149	TYR

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Mol	Chain	Res	Type
4	SD	241	GLY
5	SE	55	LYS
5	SE	150	ARG
5	SE	221	LYS
5	SE	258	LYS
6	SF	79	ASN
7	SI	132	PRO
9	SK	52	LEU
9	SK	145	ARG
10	SL	23	ALA
10	SL	32	LEU
10	SL	129	LEU
11	SM	139	THR
11	SM	140	GLY
11	SM	150	LYS
13	SQ	42	PRO
16	SR	117	LYS
16	SR	118	PRO
19	SY	19	SER
20	SZ	16	GLY
23	SU	59	ASN
25	SC	166	PHE
28	SN	38	CYS
38	LE	65	GLU
38	LE	145	ARG
39	LF	49	GLU
40	LH	60	ARG
40	LH	72	ALA
40	LH	91	MET
40	LH	199	VAL
40	LH	232	GLY
41	LM	6	ARG
42	LP	78	GLY
43	LO	5	PHE
43	LO	12	ARG
43	LO	117	PRO
44	LR	142	PRO
45	LQ	17	PHE
45	LQ	90	GLU
45	LQ	112	THR
45	LQ	117	ASP
45	LQ	118	GLN

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Mol	Chain	Res	Type
45	LQ	123	ASN
45	LQ	132	TYR
45	LQ	293	GLY
49	LX	97	ASP
50	LZ	51	LEU
50	LZ	71	LYS
52	Lb	87	TYR
54	Lf	67	ALA
58	Ln	38	CYS
60	Lr	35	LEU
60	Lr	56	PRO
60	Lr	91	PHE
66	LN	79	ASP
69	La	59	ALA
70	Li	39	ALA
70	Li	104	LYS
70	Li	106	VAL
71	Lj	49	ALA
71	Lj	50	GLY
71	Lj	81	ASN
72	Lk	43	VAL
74	LJ	75	VAL
77	Lc	80	ALA
77	Lc	98	PRO
78	Le	108	LEU
79	Ls	74	GLY
80	LC	4	ARG
80	LC	111	SER
80	LC	158	THR
80	LC	204	LYS
80	LC	359	LYS
80	LC	368	LYS
80	LC	386	ARG
81	LD	109	THR
81	LD	331	LEU
81	LD	343	MET
81	LD	389	SER
82	LK	42	ARG
83	Lm	2	THR
83	Lm	73	THR
84	LI	85	PHE
84	LI	113	THR

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Mol	Chain	Res	Type
3	SB	65	ARG
3	SB	152	PHE
3	SB	185	LYS
3	SB	214	LYS
4	SD	92	ILE
4	SD	163	ASP
5	SE	93	THR
5	SE	108	LYS
5	SE	112	VAL
5	SE	248	PRO
7	SI	148	TYR
10	SL	83	PHE
11	SM	136	THR
12	SO	148	THR
13	SQ	21	TYR
13	SQ	140	ARG
15	SS	33	LEU
16	SR	63	MET
17	SV	23	GLN
20	SZ	60	SER
23	SU	24	SER
29	ST	33	GLN
37	LB	71	HIS
38	LE	6	LYS
43	LO	7	LYS
43	LO	114	PRO
43	LO	134	LYS
44	LR	159	PRO
45	LQ	2	SER
45	LQ	249	ALA
45	LQ	292	ALA
48	LV	3	LYS
48	LV	37	ARG
50	LZ	60	GLN
50	LZ	66	HIS
51	LY	4	ASN
52	Lb	62	PRO
54	Lf	7	ALA
54	Lf	75	HIS
56	Lh	51	THR
60	Lr	46	LYS
64	LG	88	TYR

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Mol	Chain	Res	Type
64	LG	217	MET
67	LS	139	ASP
68	LW	111	ARG
71	Lj	40	ASN
77	Lc	108	THR
78	Le	164	PRO
78	Le	175	LEU
79	Ls	136	SER
80	LC	121	ASN
80	LC	216	GLU
80	LC	260	PRO
80	LC	355	LEU
81	LD	182	ALA
82	LK	131	VAL
84	LI	40	LYS
84	LI	84	ALA
84	LI	98	ARG
4	SD	234	PRO
5	SE	107	PHE
6	SF	138	SER
7	SI	123	LEU
8	SJ	77	SER
10	SL	56	ILE
10	SL	115	PRO
13	SQ	68	GLY
15	SS	13	ASN
17	SV	25	LYS
17	SV	30	LYS
23	SU	64	PHE
38	LE	33	THR
40	LH	69	VAL
43	LO	35	ALA
45	LQ	140	ARG
45	LQ	208	MET
48	LV	2	VAL
50	LZ	45	ARG
52	Lb	81	ASN
64	LG	137	VAL
66	LN	34	ASN
69	La	17	ARG
69	La	49	TYR
70	Li	64	ARG

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Mol	Chain	Res	Type
73	Lp	29	PRO
74	LJ	118	ARG
78	Le	160	LYS
80	LC	297	GLU
80	LC	348	LYS
84	LI	93	PRO
84	LI	114	GLY
84	LI	116	ARG
1	Sa	255	VAL
3	SB	37	VAL
4	SD	152	PRO
5	SE	111	VAL
10	SL	54	ILE
15	SS	53	PRO
25	SC	69	PRO
28	SN	10	HIS
29	ST	43	GLY
36	LA	133	PHE
42	LP	148	ILE
45	LQ	215	GLU
59	Lo	2	PRO
64	LG	45	ILE
70	Li	79	GLY
73	Lp	28	HIS
1	Sa	127	GLY
1	Sa	166	VAL
11	SM	6	GLY
14	SP	60	PRO
25	SC	165	PRO
27	SH	29	PRO
28	SN	15	GLY
36	LA	60	PRO
38	LE	25	VAL
38	LE	75	GLY
51	LY	22	PRO
13	SQ	66	VAL
23	SU	92	GLU
39	LF	122	VAL
40	LH	117	GLY
44	LR	157	GLY
49	LX	62	PRO
52	Lb	60	ILE

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Mol	Chain	Res	Type
72	Lk	40	VAL
77	Lc	97	SER
79	Ls	113	PRO
80	LC	12	GLY
81	LD	386	ILE
82	LK	116	PRO
8	SJ	9	ALA
10	SL	85	PRO
12	SO	66	VAL
42	LP	34	PRO
43	LO	93	ALA
51	LY	49	ILE
52	Lb	83	PRO
55	Lg	15	VAL
82	LK	94	PRO
84	LI	160	PRO
4	SD	132	GLY
13	SQ	65	PRO
49	LX	54	PRO
64	LG	68	PRO
64	LG	90	GLY

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	Sa	301/323 (93%)	272 (90%)	29 (10%)	8	25
2	SA	190/204 (93%)	167 (88%)	23 (12%)	5	17
3	SB	150/175 (86%)	130 (87%)	20 (13%)	4	14
4	SD	176/176 (100%)	150 (85%)	26 (15%)	3	13
5	SE	211/211 (100%)	188 (89%)	23 (11%)	6	21
6	SF	158/159 (99%)	142 (90%)	16 (10%)	7	23
7	SI	103/103 (100%)	93 (90%)	10 (10%)	8	24
8	SJ	91/113 (80%)	81 (89%)	10 (11%)	6	20

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	SK	78/94 (83%)	67 (86%)	11 (14%)	3	13
10	SL	79/113 (70%)	70 (89%)	9 (11%)	5	18
11	SM	116/133 (87%)	87 (75%)	29 (25%)	0	4
12	SO	106/106 (100%)	95 (90%)	11 (10%)	7	22
13	SQ	123/127 (97%)	101 (82%)	22 (18%)	2	9
14	SP	63/74 (85%)	53 (84%)	10 (16%)	2	11
15	SS	121/121 (100%)	96 (79%)	25 (21%)	1	6
16	SR	77/77 (100%)	65 (84%)	12 (16%)	2	12
17	SV	76/87 (87%)	71 (93%)	5 (7%)	15	37
19	SY	49/52 (94%)	44 (90%)	5 (10%)	7	23
20	SZ	44/49 (90%)	38 (86%)	6 (14%)	3	14
23	SU	70/84 (83%)	42 (60%)	28 (40%)	0	1
24	SX	44/44 (100%)	40 (91%)	4 (9%)	9	27
25	SC	154/167 (92%)	134 (87%)	20 (13%)	4	15
27	SH	113/113 (100%)	93 (82%)	20 (18%)	2	9
28	SN	27/40 (68%)	23 (85%)	4 (15%)	3	13
29	ST	68/68 (100%)	58 (85%)	10 (15%)	3	13
36	LA	192/192 (100%)	175 (91%)	17 (9%)	9	28
37	LB	193/195 (99%)	179 (93%)	14 (7%)	13	34
38	LE	148/149 (99%)	125 (84%)	23 (16%)	2	12
39	LF	164/164 (100%)	150 (92%)	14 (8%)	10	29
40	LH	164/173 (95%)	135 (82%)	29 (18%)	2	9
41	LM	103/109 (94%)	90 (87%)	13 (13%)	4	16
42	LP	167/167 (100%)	149 (89%)	18 (11%)	6	21
43	LO	104/110 (94%)	87 (84%)	17 (16%)	2	10
44	LR	138/138 (100%)	115 (83%)	23 (17%)	2	10
45	LQ	242/251 (96%)	199 (82%)	43 (18%)	2	9
46	LT	166/166 (100%)	143 (86%)	23 (14%)	3	14
47	LU	129/140 (92%)	111 (86%)	18 (14%)	3	13
48	LV	136/144 (94%)	113 (83%)	23 (17%)	2	10
49	LX	109/109 (100%)	97 (89%)	12 (11%)	6	20

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
50	LZ	54/66 (82%)	48 (89%)	6 (11%)	6	20
51	LY	115/115 (100%)	98 (85%)	17 (15%)	3	13
52	Lb	64/64 (100%)	59 (92%)	5 (8%)	11	32
53	Ld	21/21 (100%)	19 (90%)	2 (10%)	8	25
54	Lf	90/98 (92%)	72 (80%)	18 (20%)	1	7
55	Lg	99/103 (96%)	83 (84%)	16 (16%)	2	11
56	Lh	119/122 (98%)	111 (93%)	8 (7%)	15	36
57	Ll	72/77 (94%)	63 (88%)	9 (12%)	4	16
58	Ln	59/63 (94%)	48 (81%)	11 (19%)	1	8
59	Lo	48/48 (100%)	38 (79%)	10 (21%)	1	6
60	Lr	91/94 (97%)	74 (81%)	17 (19%)	1	8
61	Lq	24/24 (100%)	22 (92%)	2 (8%)	10	30
64	LG	185/185 (100%)	151 (82%)	34 (18%)	1	8
66	LN	116/116 (100%)	85 (73%)	31 (27%)	0	3
67	LS	153/153 (100%)	119 (78%)	34 (22%)	1	6
68	LW	89/94 (95%)	70 (79%)	19 (21%)	1	6
69	La	73/83 (88%)	55 (75%)	18 (25%)	1	4
70	Li	105/107 (98%)	75 (71%)	30 (29%)	0	2
71	Lj	80/89 (90%)	63 (79%)	17 (21%)	1	6
72	Lk	62/62 (100%)	46 (74%)	16 (26%)	0	3
73	Lp	38/38 (100%)	26 (68%)	12 (32%)	0	2
74	LJ	104/105 (99%)	79 (76%)	25 (24%)	1	4
75	Lt	46/46 (100%)	44 (96%)	2 (4%)	26	47
75	Lu	46/46 (100%)	45 (98%)	1 (2%)	45	64
76	Lv	48/48 (100%)	48 (100%)	0	100	100
76	Lw	48/48 (100%)	47 (98%)	1 (2%)	47	65
77	Lc	107/109 (98%)	99 (92%)	8 (8%)	12	33
78	Le	206/206 (100%)	175 (85%)	31 (15%)	3	12
79	Ls	222/222 (100%)	197 (89%)	25 (11%)	5	19
80	LC	328/335 (98%)	271 (83%)	57 (17%)	2	9
81	LD	294/302 (97%)	257 (87%)	37 (13%)	4	16

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
82	LK	173/173 (100%)	142 (82%)	31 (18%)	2	9
83	Lm	73/73 (100%)	65 (89%)	8 (11%)	6	20
84	LI	152/156 (97%)	142 (93%)	10 (7%)	15	37
All	All	8547/8911 (96%)	7304 (86%)	1243 (14%)	5	13

All (1243) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	Sa	11	HIS
1	Sa	35	THR
1	Sa	72	LEU
1	Sa	85	SER
1	Sa	90	LEU
1	Sa	99	GLN
1	Sa	106	LEU
1	Sa	107	HIS
1	Sa	112	MET
1	Sa	116	PHE
1	Sa	128	LEU
1	Sa	134	ILE
1	Sa	143	ARG
1	Sa	148	PRO
1	Sa	151	ARG
1	Sa	175	THR
1	Sa	199	GLU
1	Sa	200	PHE
1	Sa	211	LEU
1	Sa	220	MET
1	Sa	225	SER
1	Sa	227	ASP
1	Sa	228	THR
1	Sa	230	VAL
1	Sa	235	LEU
1	Sa	242	VAL
1	Sa	258	PHE
1	Sa	301	VAL
1	Sa	350	LEU
2	SA	10	ARG
2	SA	16	GLU
2	SA	20	GLN
2	SA	33	ASN

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Mol	Chain	Res	Type
2	SA	44	LYS
2	SA	53	ILE
2	SA	55	LEU
2	SA	61	LYS
2	SA	73	GLU
2	SA	76	GLN
2	SA	91	VAL
2	SA	93	LYS
2	SA	126	LEU
2	SA	156	SER
2	SA	162	ASP
2	SA	169	ASN
2	SA	170	LYS
2	SA	172	LYS
2	SA	181	LEU
2	SA	199	TRP
2	SA	227	PRO
2	SA	255	PRO
2	SA	258	ILE
3	SB	43	PRO
3	SB	59	LEU
3	SB	75	LYS
3	SB	78	ASN
3	SB	79	PHE
3	SB	84	VAL
3	SB	91	VAL
3	SB	92	VAL
3	SB	97	CYS
3	SB	99	ILE
3	SB	108	LYS
3	SB	123	LEU
3	SB	153	LYS
3	SB	158	ILE
3	SB	159	SER
3	SB	166	GLU
3	SB	168	ILE
3	SB	184	ILE
3	SB	194	PRO
3	SB	197	LYS
4	SD	44	LEU
4	SD	53	LYS
4	SD	62	ILE

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Mol	Chain	Res	Type
4	SD	77	ARG
4	SD	80	LYS
4	SD	83	PRO
4	SD	94	LYS
4	SD	104	ASP
4	SD	106	LYS
4	SD	133	GLN
4	SD	134	LYS
4	SD	136	ILE
4	SD	137	PRO
4	SD	138	TYR
4	SD	149	TYR
4	SD	150	PRO
4	SD	151	ASP
4	SD	153	ILE
4	SD	168	LYS
4	SD	189	THR
4	SD	191	ARG
4	SD	208	ILE
4	SD	216	HIS
4	SD	236	VAL
4	SD	240	LYS
4	SD	242	LYS
5	SE	30	ARG
5	SE	34	ARG
5	SE	35	ARG
5	SE	46	PRO
5	SE	52	ARG
5	SE	83	PRO
5	SE	90	MET
5	SE	91	LYS
5	SE	128	LYS
5	SE	130	VAL
5	SE	135	ARG
5	SE	139	ILE
5	SE	146	VAL
5	SE	159	GLN
5	SE	165	CYS
5	SE	187	ILE
5	SE	202	ILE
5	SE	220	VAL
5	SE	221	LYS

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Mol	Chain	Res	Type
5	SE	226	CYS
5	SE	231	TYR
5	SE	241	ASP
5	SE	259	PRO
6	SF	30	LEU
6	SF	37	SER
6	SF	59	LYS
6	SF	75	HIS
6	SF	81	LYS
6	SF	88	ILE
6	SF	113	ILE
6	SF	124	ILE
6	SF	132	ARG
6	SF	144	ASN
6	SF	145	GLN
6	SF	155	ARG
6	SF	178	LYS
6	SF	183	SER
6	SF	187	LYS
6	SF	197	LYS
7	SI	25	VAL
7	SI	27	TYR
7	SI	114	ILE
7	SI	121	THR
7	SI	124	VAL
7	SI	129	ARG
7	SI	130	CYS
7	SI	141	ARG
7	SI	144	PHE
7	SI	149	ARG
8	SJ	30	ARG
8	SJ	36	LYS
8	SJ	37	SER
8	SJ	43	LYS
8	SJ	59	VAL
8	SJ	76	LYS
8	SJ	89	PHE
8	SJ	92	ARG
8	SJ	98	ILE
8	SJ	106	VAL
9	SK	36	PHE
9	SK	53	VAL

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Mol	Chain	Res	Type
9	SK	65	ARG
9	SK	67	GLU
9	SK	77	SER
9	SK	84	CYS
9	SK	87	LEU
9	SK	92	LEU
9	SK	103	LYS
9	SK	118	LEU
9	SK	134	VAL
10	SL	4	THR
10	SL	5	ARG
10	SL	37	LYS
10	SL	51	LEU
10	SL	78	LYS
10	SL	79	LYS
10	SL	84	VAL
10	SL	98	GLU
10	SL	107	LYS
11	SM	9	PHE
11	SM	11	HIS
11	SM	12	ILE
11	SM	14	ARG
11	SM	21	ASP
11	SM	23	LYS
11	SM	24	GLN
11	SM	25	LYS
11	SM	36	VAL
11	SM	38	ARG
11	SM	42	ASN
11	SM	58	GLU
11	SM	78	LYS
11	SM	79	VAL
11	SM	81	ASP
11	SM	87	LYS
11	SM	92	ASP
11	SM	95	PHE
11	SM	98	VAL
11	SM	100	SER
11	SM	101	ASN
11	SM	104	ASP
11	SM	108	ARG
11	SM	114	LEU

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Mol	Chain	Res	Type
11	SM	115	LYS
11	SM	117	ILE
11	SM	135	HIS
11	SM	136	THR
11	SM	138	THR
12	SO	32	ASP
12	SO	42	LYS
12	SO	56	ASP
12	SO	64	LYS
12	SO	70	LYS
12	SO	72	LEU
12	SO	76	LYS
12	SO	78	HIS
12	SO	117	LEU
12	SO	124	ARG
12	SO	134	LYS
13	SQ	16	VAL
13	SQ	23	ARG
13	SQ	28	PHE
13	SQ	33	LYS
13	SQ	49	LYS
13	SQ	61	ILE
13	SQ	66	VAL
13	SQ	71	LEU
13	SQ	75	GLU
13	SQ	79	GLU
13	SQ	86	PRO
13	SQ	87	GLU
13	SQ	88	LYS
13	SQ	97	ARG
13	SQ	98	VAL
13	SQ	102	THR
13	SQ	113	ASP
13	SQ	114	LEU
13	SQ	122	GLU
13	SQ	123	VAL
13	SQ	137	ARG
13	SQ	139	ASP
14	SP	41	LEU
14	SP	60	PRO
14	SP	78	SER
14	SP	86	ILE

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Mol	Chain	Res	Type
14	SP	96	LYS
14	SP	100	ARG
14	SP	102	GLU
14	SP	116	PHE
14	SP	118	VAL
14	SP	120	GLU
15	SS	3	ASP
15	SS	4	SER
15	SS	8	THR
15	SS	16	GLU
15	SS	18	VAL
15	SS	34	PRO
15	SS	42	THR
15	SS	46	LYS
15	SS	47	GLU
15	SS	51	TYR
15	SS	55	TRP
15	SS	56	TYR
15	SS	58	THR
15	SS	81	ILE
15	SS	85	ARG
15	SS	91	ARG
15	SS	92	PRO
15	SS	93	PRO
15	SS	106	ILE
15	SS	118	VAL
15	SS	124	ARG
15	SS	125	LEU
15	SS	128	SER
15	SS	133	ASP
15	SS	144	THR
16	SR	59	LYS
16	SR	61	LYS
16	SR	65	LEU
16	SR	67	LYS
16	SR	98	MET
16	SR	99	ILE
16	SR	110	THR
16	SR	115	GLU
16	SR	116	ILE
16	SR	130	ILE
16	SR	139	ARG

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Mol	Chain	Res	Type
16	SR	140	PRO
17	SV	52	LEU
17	SV	61	ILE
17	SV	68	GLU
17	SV	69	ARG
17	SV	78	ARG
19	SY	1	MET
19	SY	5	VAL
19	SY	16	ARG
19	SY	31	LEU
19	SY	41	ASN
20	SZ	24	GLN
20	SZ	27	LYS
20	SZ	28	LYS
20	SZ	36	LYS
20	SZ	45	VAL
20	SZ	54	LYS
23	SU	5	LYS
23	SU	10	VAL
23	SU	15	ARG
23	SU	18	MET
23	SU	19	THR
23	SU	21	ARG
23	SU	22	LEU
23	SU	25	ARG
23	SU	26	LYS
23	SU	27	GLN
23	SU	30	LEU
23	SU	32	VAL
23	SU	33	LEU
23	SU	34	HIS
23	SU	44	ASP
23	SU	49	LEU
23	SU	63	VAL
23	SU	64	PHE
23	SU	65	LYS
23	SU	70	PHE
23	SU	75	SER
23	SU	76	THR
23	SU	78	PHE
23	SU	80	LEU
23	SU	90	LYS

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Mol	Chain	Res	Type
23	SU	91	TYR
23	SU	94	LYS
23	SU	95	TYR
24	SX	40	GLN
24	SX	53	GLN
24	SX	66	CYS
24	SX	76	THR
25	SC	24	GLU
25	SC	35	GLU
25	SC	40	CYS
25	SC	48	GLN
25	SC	52	SER
25	SC	53	ARG
25	SC	59	ARG
25	SC	63	THR
25	SC	64	LEU
25	SC	67	LYS
25	SC	68	ASN
25	SC	76	GLU
25	SC	111	LEU
25	SC	150	VAL
25	SC	160	PHE
25	SC	161	SER
25	SC	162	LEU
25	SC	176	ARG
25	SC	180	LYS
25	SC	181	LYS
27	SH	1	MET
27	SH	2	VAL
27	SH	18	GLU
27	SH	28	ARG
27	SH	29	PRO
27	SH	30	SER
27	SH	36	LYS
27	SH	43	LYS
27	SH	51	GLU
27	SH	55	ASP
27	SH	64	GLU
27	SH	65	LEU
27	SH	71	LYS
27	SH	93	LEU
27	SH	94	LEU

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Mol	Chain	Res	Type
27	SH	103	VAL
27	SH	104	LEU
27	SH	107	SER
27	SH	113	HIS
27	SH	125	VAL
28	SN	11	PRO
28	SN	12	LYS
28	SN	26	ASN
28	SN	36	LEU
29	ST	11	LEU
29	ST	22	ARG
29	ST	23	ILE
29	ST	28	ASP
29	ST	36	ILE
29	ST	38	HIS
29	ST	49	PHE
29	ST	71	LEU
29	ST	74	LYS
29	ST	82	GLN
36	LA	10	LYS
36	LA	17	VAL
36	LA	33	LEU
36	LA	39	ASN
36	LA	46	LYS
36	LA	61	LYS
36	LA	94	LYS
36	LA	96	LYS
36	LA	100	LYS
36	LA	129	LYS
36	LA	160	LYS
36	LA	164	MET
36	LA	182	ILE
36	LA	200	VAL
36	LA	206	LYS
36	LA	211	LYS
36	LA	213	VAL
37	LB	21	HIS
37	LB	34	PHE
37	LB	37	ARG
37	LB	52	PRO
37	LB	58	LEU
37	LB	68	ARG

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Mol	Chain	Res	Type
37	LB	69	TYR
37	LB	70	LYS
37	LB	83	TYR
37	LB	84	THR
37	LB	102	LEU
37	LB	177	LYS
37	LB	227	ARG
37	LB	247	ARG
38	LE	7	GLN
38	LE	8	LEU
38	LE	23	ILE
38	LE	31	ARG
38	LE	34	ARG
38	LE	38	VAL
38	LE	51	LYS
38	LE	57	ARG
38	LE	66	LYS
38	LE	69	CYS
38	LE	70	TYR
38	LE	89	LYS
38	LE	94	LEU
38	LE	96	ARG
38	LE	106	PHE
38	LE	108	ILE
38	LE	110	GLU
38	LE	112	ILE
38	LE	127	MET
38	LE	145	ARG
38	LE	150	VAL
38	LE	155	ARG
38	LE	158	LYS
39	LF	1	MET
39	LF	5	LEU
39	LF	39	LYS
39	LF	40	HIS
39	LF	44	ASP
39	LF	70	ARG
39	LF	81	THR
39	LF	84	THR
39	LF	85	LYS
39	LF	90	LYS
39	LF	108	ASN

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Mol	Chain	Res	Type
39	LF	135	ARG
39	LF	173	LYS
39	LF	176	ASP
40	LH	61	ARG
40	LH	62	ILE
40	LH	63	LEU
40	LH	68	LYS
40	LH	73	LEU
40	LH	82	LYS
40	LH	87	ASN
40	LH	96	ARG
40	LH	98	GLU
40	LH	103	LYS
40	LH	104	LYS
40	LH	126	ILE
40	LH	128	VAL
40	LH	132	LEU
40	LH	143	LYS
40	LH	167	ARG
40	LH	179	LYS
40	LH	187	HIS
40	LH	189	LYS
40	LH	190	THR
40	LH	207	PHE
40	LH	214	ILE
40	LH	215	LYS
40	LH	217	ASN
40	LH	219	ASN
40	LH	221	LYS
40	LH	225	VAL
40	LH	228	LYS
40	LH	245	ARG
41	LM	13	LYS
41	LM	39	ILE
41	LM	49	LEU
41	LM	64	THR
41	LM	72	LEU
41	LM	75	LYS
41	LM	76	VAL
41	LM	78	PRO
41	LM	87	PRO
41	LM	91	LYS

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Mol	Chain	Res	Type
41	LM	92	ASP
41	LM	123	LYS
41	LM	137	ASN
42	LP	21	PHE
42	LP	36	ILE
42	LP	64	VAL
42	LP	77	LYS
42	LP	87	GLN
42	LP	89	ILE
42	LP	96	ARG
42	LP	97	ASN
42	LP	113	LEU
42	LP	116	LEU
42	LP	126	THR
42	LP	137	VAL
42	LP	156	HIS
42	LP	172	ARG
42	LP	180	THR
42	LP	182	HIS
42	LP	192	TRP
42	LP	193	LYS
43	LO	6	LYS
43	LO	9	ARG
43	LO	10	LYS
43	LO	19	HIS
43	LO	21	ARG
43	LO	22	ILE
43	LO	26	ARG
43	LO	27	LYS
43	LO	47	LYS
43	LO	49	HIS
43	LO	76	GLU
43	LO	77	ARG
43	LO	85	GLU
43	LO	113	PRO
43	LO	117	PRO
43	LO	120	VAL
43	LO	130	GLU
44	LR	4	ASP
44	LR	6	VAL
44	LR	10	ARG
44	LR	14	THR

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Mol	Chain	Res	Type
44	LR	15	LYS
44	LR	20	LYS
44	LR	27	LYS
44	LR	56	LYS
44	LR	67	LEU
44	LR	74	LYS
44	LR	76	GLU
44	LR	77	LYS
44	LR	82	VAL
44	LR	87	THR
44	LR	91	ARG
44	LR	94	GLU
44	LR	103	LEU
44	LR	106	THR
44	LR	107	GLU
44	LR	124	ASP
44	LR	125	GLN
44	LR	143	LYS
44	LR	161	SER
45	LQ	2	SER
45	LQ	8	VAL
45	LQ	12	LYS
45	LQ	13	THR
45	LQ	19	ARG
45	LQ	23	LYS
45	LQ	26	ARG
45	LQ	28	ARG
45	LQ	31	LYS
45	LQ	43	GLN
45	LQ	54	ARG
45	LQ	60	ASP
45	LQ	61	ILE
45	LQ	75	VAL
45	LQ	91	VAL
45	LQ	93	LEU
45	LQ	104	LEU
45	LQ	119	GLU
45	LQ	145	LEU
45	LQ	158	ARG
45	LQ	176	SER
45	LQ	184	LYS
45	LQ	193	ASP

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Mol	Chain	Res	Type
45	LQ	199	ILE
45	LQ	200	TYR
45	LQ	219	PHE
45	LQ	223	PHE
45	LQ	225	GLU
45	LQ	234	ASP
45	LQ	236	MET
45	LQ	241	LYS
45	LQ	242	LYS
45	LQ	244	HIS
45	LQ	247	ILE
45	LQ	248	ARG
45	LQ	250	ASP
45	LQ	252	THR
45	LQ	256	SER
45	LQ	259	LYS
45	LQ	281	LEU
45	LQ	290	SER
45	LQ	301	GLU
45	LQ	302	ASP
46	LT	6	LEU
46	LT	21	LYS
46	LT	23	TRP
46	LT	38	ARG
46	LT	46	LYS
46	LT	51	ILE
46	LT	55	GLN
46	LT	56	LYS
46	LT	75	HIS
46	LT	89	LEU
46	LT	91	THR
46	LT	93	ILE
46	LT	95	TRP
46	LT	105	LEU
46	LT	113	LYS
46	LT	114	LYS
46	LT	122	ASP
46	LT	131	MET
46	LT	137	VAL
46	LT	153	LYS
46	LT	155	LEU
46	LT	171	GLU

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Mol	Chain	Res	Type
46	LT	176	ARG
47	LU	9	SER
47	LU	13	ASP
47	LU	27	LEU
47	LU	49	HIS
47	LU	56	PHE
47	LU	60	ARG
47	LU	63	ARG
47	LU	74	VAL
47	LU	77	ASN
47	LU	88	ARG
47	LU	89	ILE
47	LU	112	ASN
47	LU	122	ARG
47	LU	125	VAL
47	LU	154	TYR
47	LU	158	ASN
47	LU	160	LEU
47	LU	161	LYS
48	LV	4	TYR
48	LV	7	GLU
48	LV	24	VAL
48	LV	28	ASN
48	LV	29	THR
48	LV	37	ARG
48	LV	55	LYS
48	LV	61	ARG
48	LV	70	THR
48	LV	74	LYS
48	LV	75	SER
48	LV	76	ARG
48	LV	79	ASN
48	LV	84	TRP
48	LV	93	LEU
48	LV	113	LEU
48	LV	114	TYR
48	LV	128	ARG
48	LV	146	HIS
48	LV	153	GLU
48	LV	154	LYS
48	LV	158	VAL
48	LV	159	LYS

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Mol	Chain	Res	Type
49	LX	43	HIS
49	LX	47	THR
49	LX	55	LYS
49	LX	66	LYS
49	LX	95	ILE
49	LX	98	LEU
49	LX	103	LYS
49	LX	115	ILE
49	LX	122	THR
49	LX	124	ILE
49	LX	133	TYR
49	LX	149	ILE
50	LZ	15	ILE
50	LZ	19	LYS
50	LZ	35	ASN
50	LZ	40	ARG
50	LZ	59	LYS
50	LZ	71	LYS
51	LY	1	MET
51	LY	8	THR
51	LY	9	SER
51	LY	11	ARG
51	LY	12	ARG
51	LY	23	SER
51	LY	31	SER
51	LY	47	ILE
51	LY	51	LYS
51	LY	65	ARG
51	LY	76	ARG
51	LY	86	ARG
51	LY	95	ASN
51	LY	112	LYS
51	LY	114	ARG
51	LY	120	ARG
51	LY	129	LYS
52	Lb	80	GLN
52	Lb	86	LEU
52	Lb	87	TYR
52	Lb	91	VAL
52	Lb	116	LEU
53	Ld	43	GLN
53	Ld	51	LYS

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Mol	Chain	Res	Type
54	Lf	14	ILE
54	Lf	17	LYS
54	Lf	20	LEU
54	Lf	21	VAL
54	Lf	26	LYS
54	Lf	27	TYR
54	Lf	32	LYS
54	Lf	33	THR
54	Lf	54	PRO
54	Lf	60	ILE
54	Lf	68	LYS
54	Lf	75	HIS
54	Lf	77	ASN
54	Lf	85	CYS
54	Lf	90	ARG
54	Lf	91	VAL
54	Lf	95	SER
54	Lf	104	ILE
55	Lg	1	MET
55	Lg	4	LYS
55	Lg	13	ASP
55	Lg	14	GLU
55	Lg	15	VAL
55	Lg	17	THR
55	Lg	25	HIS
55	Lg	32	THR
55	Lg	33	PHE
55	Lg	41	ILE
55	Lg	50	LYS
55	Lg	57	ILE
55	Lg	59	ILE
55	Lg	86	LYS
55	Lg	88	ASN
55	Lg	105	GLU
56	Lh	10	ILE
56	Lh	29	LEU
56	Lh	50	CYS
56	Lh	94	CYS
56	Lh	105	LYS
56	Lh	118	ILE
56	Lh	119	VAL
56	Lh	120	VAL

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Mol	Chain	Res	Type
57	Ll	12	ARG
57	Ll	14	LYS
57	Ll	30	GLN
57	Ll	33	THR
57	Ll	50	SER
57	Ll	52	LYS
57	Ll	55	ARG
57	Ll	63	ARG
57	Ll	72	ARG
58	Ln	6	HIS
58	Ln	18	LYS
58	Ln	22	SER
58	Ln	32	VAL
58	Ln	36	VAL
58	Ln	44	THR
58	Ln	47	VAL
58	Ln	48	PHE
58	Ln	52	LYS
58	Ln	55	LYS
58	Ln	64	LEU
59	Lo	1	MET
59	Lo	7	PHE
59	Lo	21	ARG
59	Lo	23	ILE
59	Lo	27	ILE
59	Lo	31	THR
59	Lo	33	ASN
59	Lo	37	TYR
59	Lo	45	ARG
59	Lo	48	LYS
60	Lr	10	THR
60	Lr	14	ASN
60	Lr	19	LYS
60	Lr	24	LYS
60	Lr	33	ASP
60	Lr	40	LYS
60	Lr	44	ASP
60	Lr	46	LYS
60	Lr	47	GLN
60	Lr	50	TYR
60	Lr	53	GLN
60	Lr	60	LYS

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Mol	Chain	Res	Type
60	Lr	61	LYS
60	Lr	71	LYS
60	Lr	78	LYS
60	Lr	80	TYR
60	Lr	93	ILE
61	Lq	11	ARG
61	Lq	25	LYS
64	LG	4	THR
64	LG	11	ILE
64	LG	19	THR
64	LG	22	ARG
64	LG	29	LYS
64	LG	38	LYS
64	LG	50	PHE
64	LG	52	PRO
64	LG	55	ASP
64	LG	59	ARG
64	LG	69	THR
64	LG	82	ILE
64	LG	83	LEU
64	LG	91	LYS
64	LG	93	VAL
64	LG	98	GLN
64	LG	105	LEU
64	LG	111	LYS
64	LG	115	VAL
64	LG	122	GLN
64	LG	125	VAL
64	LG	139	VAL
64	LG	143	ASP
64	LG	150	GLU
64	LG	152	LYS
64	LG	153	THR
64	LG	158	THR
64	LG	166	ASP
64	LG	173	LEU
64	LG	183	VAL
64	LG	184	ILE
64	LG	188	LEU
64	LG	190	LYS
64	LG	219	PHE
66	LN	3	PHE

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Mol	Chain	Res	Type
66	LN	5	ARG
66	LN	6	PHE
66	LN	7	VAL
66	LN	8	GLU
66	LN	12	VAL
66	LN	14	LEU
66	LN	15	VAL
66	LN	17	TYR
66	LN	25	VAL
66	LN	31	VAL
66	LN	32	ASP
66	LN	49	ASN
66	LN	50	PHE
66	LN	51	LYS
66	LN	53	LEU
66	LN	55	LEU
66	LN	62	ILE
66	LN	63	LYS
66	LN	64	ARG
66	LN	89	TRP
66	LN	94	ILE
66	LN	96	GLN
66	LN	98	ARG
66	LN	99	ARG
66	LN	103	ASN
66	LN	105	PHE
66	LN	106	ASP
66	LN	109	LYS
66	LN	112	LEU
66	LN	116	LYS
67	LS	21	ASP
67	LS	23	HIS
67	LS	28	ARG
67	LS	31	LEU
67	LS	40	LYS
67	LS	50	LEU
67	LS	51	LYS
67	LS	52	LYS
67	LS	53	VAL
67	LS	55	LYS
67	LS	56	SER
67	LS	61	LEU

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Mol	Chain	Res	Type
67	LS	65	GLU
67	LS	68	GLU
67	LS	69	LYS
67	LS	74	ILE
67	LS	76	ASN
67	LS	79	ILE
67	LS	86	ARG
67	LS	94	LYS
67	LS	97	ARG
67	LS	107	GLN
67	LS	115	ARG
67	LS	116	HIS
67	LS	118	VAL
67	LS	119	ARG
67	LS	120	PHE
67	LS	123	ILE
67	LS	132	HIS
67	LS	138	ARG
67	LS	152	PRO
67	LS	158	VAL
67	LS	162	THR
67	LS	166	LYS
68	LW	21	VAL
68	LW	29	LYS
68	LW	31	VAL
68	LW	34	LYS
68	LW	35	ILE
68	LW	50	LYS
68	LW	55	LYS
68	LW	63	VAL
68	LW	67	ARG
68	LW	71	LYS
68	LW	76	SER
68	LW	81	SER
68	LW	83	ARG
68	LW	95	LYS
68	LW	99	ARG
68	LW	102	LEU
68	LW	103	ARG
68	LW	111	ARG
68	LW	117	ARG
69	La	9	LYS

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Mol	Chain	Res	Type
69	La	11	VAL
69	La	13	LEU
69	La	14	LEU
69	La	24	VAL
69	La	26	VAL
69	La	27	ARG
69	La	34	ARG
69	La	42	LEU
69	La	43	VAL
69	La	52	LYS
69	La	54	ILE
69	La	55	ARG
69	La	56	LYS
69	La	68	VAL
69	La	72	LEU
69	La	73	LYS
69	La	81	MET
70	Li	3	GLN
70	Li	9	LYS
70	Li	15	THR
70	Li	16	LYS
70	Li	18	ASN
70	Li	19	GLN
70	Li	20	THR
70	Li	23	VAL
70	Li	24	LYS
70	Li	29	LYS
70	Li	45	PRO
70	Li	57	LEU
70	Li	58	ARG
70	Li	63	LYS
70	Li	64	ARG
70	Li	66	ARG
70	Li	67	LEU
70	Li	70	ASN
70	Li	72	ARG
70	Li	73	THR
70	Li	82	LEU
70	Li	99	GLU
70	Li	100	GLN
70	Li	102	ILE
70	Li	103	VAL

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Mol	Chain	Res	Type
70	Li	106	VAL
70	Li	108	LYS
70	Li	109	ILE
70	Li	115	LYS
70	Li	118	LYS
71	Lj	5	GLN
71	Lj	12	TYR
71	Lj	14	ARG
71	Lj	17	ILE
71	Lj	21	LYS
71	Lj	23	SER
71	Lj	30	ASN
71	Lj	39	VAL
71	Lj	40	ASN
71	Lj	41	THR
71	Lj	42	LYS
71	Lj	47	TRP
71	Lj	48	TYR
71	Lj	75	VAL
71	Lj	76	THR
71	Lj	77	ARG
71	Lj	104	VAL
72	Lk	37	THR
72	Lk	40	VAL
72	Lk	42	PHE
72	Lk	58	LYS
72	Lk	62	GLU
72	Lk	68	LYS
72	Lk	74	LYS
72	Lk	75	VAL
72	Lk	78	ARG
72	Lk	87	LYS
72	Lk	88	LYS
72	Lk	93	MET
72	Lk	99	LYS
72	Lk	100	MET
72	Lk	101	ARG
72	Lk	110	LYS
73	Lp	13	TYR
73	Lp	14	ASN
73	Lp	21	ARG
73	Lp	22	LYS

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Mol	Chain	Res	Type
73	Lp	26	ARG
73	Lp	27	LEU
73	Lp	28	HIS
73	Lp	35	ARG
73	Lp	36	LYS
73	Lp	44	GLN
73	Lp	46	ARG
73	Lp	53	ASN
74	LJ	14	PHE
74	LJ	16	ARG
74	LJ	18	THR
74	LJ	32	ILE
74	LJ	35	LEU
74	LJ	41	LYS
74	LJ	42	ILE
74	LJ	49	GLU
74	LJ	50	THR
74	LJ	55	LYS
74	LJ	57	LEU
74	LJ	58	ARG
74	LJ	62	LYS
74	LJ	66	GLN
74	LJ	71	LYS
74	LJ	83	ILE
74	LJ	84	LYS
74	LJ	87	LYS
74	LJ	94	LYS
74	LJ	96	VAL
74	LJ	98	ASN
74	LJ	104	ASN
74	LJ	119	ASN
74	LJ	124	LYS
74	LJ	125	GLU
75	Lt	37	LYS
75	Lt	41	TYR
75	Lu	37	LYS
76	Lw	41	LEU
77	Lc	16	LYS
77	Lc	35	ILE
77	Lc	44	LYS
77	Lc	45	LEU
77	Lc	70	LEU

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Mol	Chain	Res	Type
77	Lc	75	LYS
77	Lc	90	ARG
77	Lc	107	LYS
78	Le	32	VAL
78	Le	61	ASP
78	Le	62	LYS
78	Le	66	GLN
78	Le	67	LEU
78	Le	68	LYS
78	Le	72	ARG
78	Le	74	LYS
78	Le	80	SER
78	Le	84	LYS
78	Le	98	HIS
78	Le	107	LEU
78	Le	109	ARG
78	Le	115	ASN
78	Le	129	LEU
78	Le	132	VAL
78	Le	143	LEU
78	Le	144	LYS
78	Le	152	LYS
78	Le	165	LEU
78	Le	171	ILE
78	Le	178	HIS
78	Le	183	ILE
78	Le	185	ASP
78	Le	190	ILE
78	Le	192	THR
78	Le	205	TRP
78	Le	225	GLU
78	Le	228	ASP
78	Le	232	ARG
78	Le	234	ASN
79	Ls	4	LYS
79	Ls	22	LEU
79	Ls	27	LYS
79	Ls	30	ILE
79	Ls	40	GLN
79	Ls	44	ILE
79	Ls	51	ASP
79	Ls	58	LYS

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Mol	Chain	Res	Type
79	Ls	59	ASN
79	Ls	63	ARG
79	Ls	71	ASP
79	Ls	76	LYS
79	Ls	92	ILE
79	Ls	98	LEU
79	Ls	137	GLN
79	Ls	152	LYS
79	Ls	174	GLU
79	Ls	192	ILE
79	Ls	205	GLU
79	Ls	214	LEU
79	Ls	217	LYS
79	Ls	229	SER
79	Ls	230	LEU
79	Ls	233	SER
79	Ls	256	VAL
80	LC	4	ARG
80	LC	8	HIS
80	LC	26	ARG
80	LC	28	LYS
80	LC	29	VAL
80	LC	39	LYS
80	LC	40	PRO
80	LC	44	THR
80	LC	47	LEU
80	LC	60	VAL
80	LC	67	LEU
80	LC	72	THR
80	LC	76	VAL
80	LC	85	VAL
80	LC	87	VAL
80	LC	94	LYS
80	LC	95	THR
80	LC	97	ARG
80	LC	101	THR
80	LC	113	ASP
80	LC	117	ARG
80	LC	118	PHE
80	LC	124	LYS
80	LC	125	SER
80	LC	126	LYS

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Mol	Chain	Res	Type
80	LC	131	THR
80	LC	132	LYS
80	LC	162	VAL
80	LC	168	ILE
80	LC	176	GLN
80	LC	177	LYS
80	LC	178	LYS
80	LC	182	MET
80	LC	186	VAL
80	LC	191	ILE
80	LC	194	LYS
80	LC	203	GLU
80	LC	204	LYS
80	LC	208	VAL
80	LC	211	VAL
80	LC	238	VAL
80	LC	246	HIS
80	LC	267	VAL
80	LC	290	LYS
80	LC	291	SER
80	LC	306	GLU
80	LC	316	PRO
80	LC	322	LYS
80	LC	324	ASP
80	LC	332	CYS
80	LC	333	VAL
80	LC	347	LEU
80	LC	348	LYS
80	LC	357	GLU
80	LC	363	ILE
80	LC	369	PHE
80	LC	378	ASP
81	LD	8	LEU
81	LD	33	ARG
81	LD	36	LEU
81	LD	43	PHE
81	LD	44	VAL
81	LD	60	ARG
81	LD	61	ARG
81	LD	66	THR
81	LD	82	ARG
81	LD	90	ARG

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Mol	Chain	Res	Type
81	LD	99	MET
81	LD	109	THR
81	LD	114	LYS
81	LD	116	HIS
81	LD	117	ARG
81	LD	137	VAL
81	LD	140	LEU
81	LD	151	VAL
81	LD	165	ILE
81	LD	176	LYS
81	LD	188	LYS
81	LD	190	SER
81	LD	200	MET
81	LD	227	ARG
81	LD	228	ASN
81	LD	239	ARG
81	LD	241	ASN
81	LD	313	GLU
81	LD	315	LYS
81	LD	319	LYS
81	LD	320	ARG
81	LD	322	ASN
81	LD	352	ILE
81	LD	355	ARG
81	LD	359	LEU
81	LD	368	PRO
81	LD	403	VAL
82	LK	18	HIS
82	LK	19	HIS
82	LK	52	LEU
82	LK	54	ARG
82	LK	62	PHE
82	LK	63	LEU
82	LK	65	LYS
82	LK	66	ARG
82	LK	76	ILE
82	LK	87	ARG
82	LK	89	ILE
82	LK	90	ARG
82	LK	92	MET
82	LK	101	GLU
82	LK	119	ARG

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Mol	Chain	Res	Type
82	LK	121	LYS
82	LK	123	MET
82	LK	125	ILE
82	LK	129	LEU
82	LK	135	GLN
82	LK	153	ASN
82	LK	157	THR
82	LK	158	ILE
82	LK	164	LYS
82	LK	174	ASP
82	LK	181	LYS
82	LK	185	LYS
82	LK	188	LYS
82	LK	193	LYS
82	LK	200	ILE
82	LK	205	LYS
83	Lm	6	LYS
83	Lm	21	SER
83	Lm	29	MET
83	Lm	31	VAL
83	Lm	33	GLN
83	Lm	41	PHE
83	Lm	64	LYS
83	Lm	87	ARG
84	LI	7	ARG
84	LI	15	LYS
84	LI	28	ASP
84	LI	41	LYS
84	LI	57	LYS
84	LI	88	ARG
84	LI	109	ASP
84	LI	141	LYS
84	LI	179	GLU
84	LI	183	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (207) such sidechains are listed below:

Mol	Chain	Res	Type
1	Sa	99	GLN
1	Sa	246	HIS
1	Sa	282	HIS
1	Sa	343	HIS

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Mol	Chain	Res	Type
1	Sa	367	ASN
2	SA	63	GLN
2	SA	74	ASN
2	SA	81	GLN
2	SA	96	GLN
2	SA	101	HIS
2	SA	107	HIS
2	SA	114	ASN
2	SA	117	GLN
2	SA	136	GLN
2	SA	145	ASN
2	SA	197	HIS
3	SB	74	GLN
3	SB	82	ASN
3	SB	179	GLN
4	SD	69	HIS
4	SD	112	GLN
4	SD	133	GLN
4	SD	140	ASN
4	SD	157	ASN
4	SD	188	ASN
4	SD	209	HIS
5	SE	68	HIS
5	SE	96	GLN
5	SE	155	ASN
5	SE	159	GLN
5	SE	161	HIS
5	SE	218	ASN
6	SF	10	GLN
6	SF	144	ASN
6	SF	161	ASN
7	SI	38	ASN
8	SJ	84	ASN
8	SJ	109	GLN
9	SK	37	ASN
10	SL	45	HIS
11	SM	76	GLN
11	SM	97	GLN
11	SM	134	GLN
11	SM	135	HIS
12	SO	123	HIS
14	SP	93	HIS

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Mol	Chain	Res	Type
15	SS	88	ASN
15	SS	94	HIS
15	SS	108	GLN
16	SR	88	HIS
17	SV	38	ASN
19	SY	22	GLN
19	SY	34	GLN
19	SY	35	ASN
19	SY	41	ASN
20	SZ	17	GLN
20	SZ	35	HIS
23	SU	27	GLN
24	SX	40	GLN
24	SX	51	HIS
24	SX	62	GLN
25	SC	48	GLN
25	SC	92	GLN
25	SC	112	GLN
25	SC	157	HIS
25	SC	178	ASN
27	SH	8	ASN
27	SH	16	ASN
27	SH	42	GLN
27	SH	70	ASN
27	SH	98	GLN
27	SH	113	HIS
29	ST	29	HIS
29	ST	35	ASN
29	ST	82	GLN
36	LA	15	GLN
36	LA	72	HIS
36	LA	93	ASN
36	LA	95	ASN
36	LA	118	GLN
36	LA	148	ASN
36	LA	170	ASN
36	LA	177	GLN
36	LA	179	GLN
36	LA	196	ASN
36	LA	199	ASN
37	LB	8	GLN
37	LB	50	HIS

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Mol	Chain	Res	Type
37	LB	71	HIS
37	LB	119	HIS
37	LB	168	GLN
37	LB	187	HIS
37	LB	209	HIS
37	LB	218	HIS
37	LB	221	HIS
38	LE	153	HIS
39	LF	161	ASN
39	LF	165	HIS
40	LH	74	ASN
40	LH	112	GLN
40	LH	151	HIS
40	LH	255	GLN
42	LP	33	GLN
42	LP	97	ASN
42	LP	122	ASN
42	LP	139	HIS
42	LP	181	HIS
43	LO	39	HIS
43	LO	40	HIS
44	LR	93	GLN
44	LR	160	HIS
44	LR	162	HIS
45	LQ	42	ASN
45	LQ	49	ASN
45	LQ	58	ASN
45	LQ	82	HIS
45	LQ	195	HIS
45	LQ	222	HIS
45	LQ	244	HIS
45	LQ	286	ASN
46	LT	27	ASN
46	LT	58	HIS
47	LU	39	HIS
47	LU	54	HIS
47	LU	66	ASN
47	LU	79	GLN
47	LU	90	HIS
47	LU	95	HIS
47	LU	111	ASN
47	LU	112	ASN

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Mol	Chain	Res	Type
48	LV	9	ASN
48	LV	28	ASN
48	LV	54	HIS
48	LV	98	ASN
48	LV	102	ASN
48	LV	122	GLN
48	LV	134	HIS
49	LX	43	HIS
49	LX	69	GLN
50	LZ	44	ASN
51	LY	4	ASN
51	LY	99	HIS
52	Lb	88	HIS
54	Lf	13	ASN
55	Lg	39	ASN
55	Lg	70	ASN
55	Lg	88	ASN
56	Lh	22	HIS
56	Lh	70	ASN
56	Lh	79	ASN
56	Lh	100	ASN
56	Lh	130	GLN
57	Li	16	HIS
57	Li	77	ASN
59	Lo	19	GLN
59	Lo	43	HIS
60	Lr	59	HIS
60	Lr	79	HIS
64	LG	18	HIS
64	LG	21	HIS
64	LG	32	HIS
64	LG	140	GLN
67	LS	57	ASN
67	LS	84	GLN
67	LS	107	GLN
67	LS	116	HIS
67	LS	145	HIS
68	LW	96	HIS
69	La	79	HIS
70	Li	33	GLN
70	Li	56	HIS
71	Lj	5	GLN

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Mol	Chain	Res	Type
71	Lj	40	ASN
73	Lp	41	HIS
76	Lv	15	ASN
76	Lw	15	ASN
77	Lc	32	GLN
77	Lc	69	GLN
77	Lc	88	GLN
78	Le	106	GLN
78	Le	115	ASN
78	Le	178	HIS
78	Le	222	HIS
78	Le	234	ASN
79	Ls	35	ASN
79	Ls	130	ASN
79	Ls	137	GLN
79	Ls	194	ASN
80	LC	8	HIS
80	LC	25	HIS
80	LC	37	GLN
80	LC	38	GLN
80	LC	121	ASN
80	LC	147	GLN
80	LC	165	HIS
80	LC	176	GLN
80	LC	180	HIS
80	LC	259	HIS
80	LC	296	HIS
80	LC	381	GLN
81	LD	45	HIS
81	LD	64	HIS
82	LK	135	GLN
82	LK	138	HIS
83	Lm	34	HIS
84	LI	14	ASN
84	LI	144	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
30	S3	10/11 (90%)	3 (30%)	1 (10%)
31	S2	74/75 (98%)	22 (29%)	5 (6%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
32	S1	1477/1743 (84%)	431 (29%)	156 (10%)
33	L1	3179/3352 (94%)	906 (28%)	414 (13%)
34	L3	120/120 (100%)	49 (40%)	17 (14%)
35	L2	142/159 (89%)	56 (39%)	28 (19%)
All	All	5002/5460 (91%)	1467 (29%)	621 (12%)

All (1467) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
30	S3	13	A
30	S3	14	A
30	S3	18	C
31	S2	2	C
31	S2	8	U
31	S2	17	G
31	S2	18	G
31	S2	19	U
31	S2	20	C
31	S2	21	A
31	S2	22	G
31	S2	32	U
31	S2	33	U
31	S2	37	G
31	S2	38	C
31	S2	42	C
31	S2	45	G
31	S2	47	U
31	S2	51	G
31	S2	56	A
31	S2	60	C
31	S2	68	C
31	S2	73	C
31	S2	74	C
31	S2	75	A
32	S1	2	A
32	S1	3	C
32	S1	4	C
32	S1	5	U
32	S1	26	A
32	S1	29	U
32	S1	30	G
32	S1	32	U

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Mol	Chain	Res	Type
32	S1	34	G
32	S1	37	U
32	S1	42	G
32	S1	45	U
32	S1	47	A
32	S1	57	G
32	S1	58	U
32	S1	59	G
32	S1	60	C
32	S1	61	A
32	S1	64	U
32	S1	65	A
32	S1	68	A
32	S1	85	A
32	S1	99	U
32	S1	105	A
32	S1	106	A
32	S1	115	A
32	S1	116	G
32	S1	117	U
32	S1	120	G
32	S1	138	C
32	S1	139	U
32	S1	140	C
32	S1	141	G
32	S1	144	U
32	S1	147	C
32	S1	149	G
32	S1	151	A
32	S1	152	G
32	S1	154	A
32	S1	156	U
32	S1	160	A
32	S1	161	G
32	S1	167	A
32	S1	168	U
32	S1	171	G
32	S1	172	U
32	S1	173	G
32	S1	174	C
32	S1	175	A
32	S1	176	A

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Mol	Chain	Res	Type
32	S1	177	C
32	S1	178	A
32	S1	179	A
32	S1	180	A
32	S1	181	C
32	S1	182	C
32	S1	185	G
32	S1	186	A
32	S1	188	U
32	S1	193	G
32	S1	194	G
32	S1	196	G
32	S1	198	G
32	S1	200	C
32	S1	220	C
32	S1	225	G
32	S1	232	C
32	S1	233	U
32	S1	234	G
32	S1	238	G
32	S1	256	G
32	S1	258	U
32	S1	259	A
32	S1	274	A
32	S1	279	C
32	S1	283	G
32	S1	292	A
32	S1	293	C
32	S1	298	C
32	S1	299	A
32	S1	302	C
32	S1	317	U
32	S1	320	A
32	S1	324	U
32	S1	328	U
32	S1	341	G
32	S1	342	C
32	S1	349	U
32	S1	354	G
32	S1	356	G
32	S1	358	C
32	S1	363	G

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Mol	Chain	Res	Type
32	S1	373	U
32	S1	377	G
32	S1	389	A
32	S1	390	G
32	S1	391	A
32	S1	404	A
32	S1	405	A
32	S1	408	G
32	S1	417	U
32	S1	420	A
32	S1	425	A
32	S1	427	G
32	S1	428	C
32	S1	429	A
32	S1	430	G
32	S1	436	G
32	S1	439	C
32	S1	443	U
32	S1	448	C
32	S1	449	A
32	S1	453	C
32	S1	456	A
32	S1	457	C
32	S1	458	A
32	S1	459	C
32	S1	460	G
32	S1	463	G
32	S1	464	A
32	S1	471	G
32	S1	472	A
32	S1	473	C
32	S1	477	A
32	S1	478	A
32	S1	480	U
32	S1	485	A
32	S1	486	U
32	S1	488	C
32	S1	489	C
32	S1	490	G
32	S1	491	G
32	S1	493	C
32	S1	494	G

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Mol	Chain	Res	Type
32	S1	495	C
32	S1	496	A
32	S1	500	G
32	S1	501	U
32	S1	502	G
32	S1	503	U
32	S1	504	C
32	S1	506	G
32	S1	508	U
32	S1	509	A
32	S1	510	A
32	S1	512	U
32	S1	552	G
32	S1	555	G
32	S1	558	C
32	S1	559	A
32	S1	560	A
32	S1	563	C
32	S1	569	C
32	S1	581	G
32	S1	582	U
32	S1	583	A
32	S1	584	A
32	S1	585	U
32	S1	586	U
32	S1	593	C
32	S1	595	A
32	S1	598	A
32	S1	601	G
32	S1	608	U
32	S1	610	A
32	S1	611	G
32	S1	612	U
32	S1	615	U
32	S1	617	G
32	S1	618	C
32	S1	622	U
32	S1	623	A
32	S1	624	A
32	S1	627	A
32	S1	628	G
32	S1	631	C

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Mol	Chain	Res	Type
32	S1	633	U
32	S1	634	A
32	S1	648	C
32	S1	649	C
32	S1	650	G
32	S1	653	U
32	S1	664	G
32	S1	666	C
32	S1	681	G
32	S1	682	A
32	S1	683	C
32	S1	684	C
32	S1	687	C
32	S1	690	G
32	S1	692	C
32	S1	828	G
32	S1	835	U
32	S1	836	U
32	S1	838	U
32	S1	845	C
32	S1	854	C
32	S1	862	U
32	S1	881	G
32	S1	903	A
32	S1	904	G
32	S1	917	U
32	S1	918	G
32	S1	919	G
32	S1	935	A
32	S1	939	C
32	S1	940	U
32	S1	947	G
32	S1	949	A
32	S1	950	U
32	S1	965	U
32	S1	968	A
32	S1	969	U
32	S1	970	U
32	S1	971	A
32	S1	982	A
32	S1	1009	U
32	S1	1012	C

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Mol	Chain	Res	Type
32	S1	1031	A
32	S1	1032	A
32	S1	1033	C
32	S1	1037	G
32	S1	1044	A
32	S1	1049	U
32	S1	1055	G
32	S1	1061	G
32	S1	1062	C
32	S1	1063	U
32	S1	1064	U
32	S1	1065	A
32	S1	1066	U
32	S1	1068	G
32	S1	1069	G
32	S1	1071	C
32	S1	1072	U
32	S1	1073	C
32	S1	1081	A
32	S1	1085	U
32	S1	1092	A
32	S1	1096	A
32	S1	1097	A
32	S1	1098	A
32	S1	1100	U
32	S1	1101	C
32	S1	1113	G
32	S1	1114	G
32	S1	1123	G
32	S1	1143	A
32	S1	1156	A
32	S1	1163	C
32	S1	1184	C
32	S1	1189	U
32	S1	1191	U
32	S1	1194	C
32	S1	1195	U
32	S1	1198	A
32	S1	1200	A
32	S1	1201	C
32	S1	1202	G
32	S1	1203	G

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Mol	Chain	Res	Type
32	S1	1204	G
32	S1	1205	G
32	S1	1206	A
32	S1	1207	A
32	S1	1213	C
32	S1	1219	C
32	S1	1225	A
32	S1	1226	U
32	S1	1232	G
32	S1	1238	A
32	S1	1241	G
32	S1	1243	C
32	S1	1246	A
32	S1	1247	G
32	S1	1250	C
32	S1	1262	U
32	S1	1263	C
32	S1	1266	U
32	S1	1267	G
32	S1	1269	G
32	S1	1272	G
32	S1	1274	G
32	S1	1278	C
32	S1	1279	A
32	S1	1285	G
32	S1	1288	C
32	S1	1289	U
32	S1	1290	U
32	S1	1294	U
32	S1	1295	G
32	S1	1309	U
32	S1	1310	C
32	S1	1314	U
32	S1	1316	A
32	S1	1318	U
32	S1	1325	A
32	S1	1328	G
32	S1	1329	A
32	S1	1341	G
32	S1	1342	C
32	S1	1346	C
32	S1	1353	G

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Mol	Chain	Res	Type
32	S1	1358	G
32	S1	1359	C
32	S1	1361	G
32	S1	1362	A
32	S1	1370	C
32	S1	1371	U
32	S1	1372	C
32	S1	1378	C
32	S1	1379	U
32	S1	1383	U
32	S1	1392	G
32	S1	1393	G
32	S1	1394	A
32	S1	1395	C
32	S1	1396	U
32	S1	1402	C
32	S1	1403	G
32	S1	1404	U
32	S1	1407	A
32	S1	1408	G
32	S1	1411	C
32	S1	1415	G
32	S1	1416	A
32	S1	1422	G
32	S1	1423	A
32	S1	1424	G
32	S1	1426	C
32	S1	1431	A
32	S1	1433	A
32	S1	1434	G
32	S1	1438	U
32	S1	1439	G
32	S1	1440	U
32	S1	1444	G
32	S1	1446	C
32	S1	1447	C
32	S1	1448	U
32	S1	1450	A
32	S1	1454	G
32	S1	1457	C
32	S1	1458	U
32	S1	1459	G

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Mol	Chain	Res	Type
32	S1	1466	A
32	S1	1474	U
32	S1	1475	A
32	S1	1477	A
32	S1	1478	C
32	S1	1483	G
32	S1	1507	G
32	S1	1508	C
32	S1	1509	C
32	S1	1510	G
32	S1	1513	A
32	S1	1514	G
32	S1	1517	C
32	S1	1537	U
32	S1	1538	C
32	S1	1539	A
32	S1	1542	G
32	S1	1543	U
32	S1	1544	G
32	S1	1545	A
32	S1	1546	U
32	S1	1550	G
32	S1	1557	C
32	S1	1558	A
32	S1	1565	U
32	S1	1568	U
32	S1	1572	U
32	S1	1576	C
32	S1	1581	A
32	S1	1586	U
32	S1	1587	G
32	S1	1589	C
32	S1	1590	U
32	S1	1591	A
32	S1	1592	G
32	S1	1598	G
32	S1	1609	G
32	S1	1610	C
32	S1	1611	U
32	S1	1614	C
32	S1	1615	G
32	S1	1616	U

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Mol	Chain	Res	Type
32	S1	1617	U
32	S1	1622	A
32	S1	1623	C
32	S1	1625	U
32	S1	1626	C
32	S1	1640	C
32	S1	1641	A
32	S1	1644	C
32	S1	1653	G
32	S1	1658	U
32	S1	1662	G
32	S1	1664	U
32	S1	1667	A
32	S1	1673	C
32	S1	1674	C
32	S1	1678	G
32	S1	1686	C
32	S1	1688	G
32	S1	1695	G
32	S1	1730	G
32	S1	1731	A
32	S1	1733	G
32	S1	1734	U
32	S1	1742	A
32	S1	1745	U
32	S1	1746	U
32	S1	1755	G
32	S1	1760	A
32	S1	1761	G
32	S1	1764	G
32	S1	1766	A
32	S1	1767	G
32	S1	1771	U
32	S1	1772	A
32	S1	1774	C
32	S1	1775	A
32	S1	1776	A
32	S1	1777	G
32	S1	1778	G
32	S1	1779	U
32	S1	1781	U
32	S1	1793	C

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Mol	Chain	Res	Type
32	S1	1796	G
32	S1	1802	G
32	S1	1803	G
33	L1	2	C
33	L1	3	G
33	L1	8	C
33	L1	21	G
33	L1	26	A
33	L1	29	G
33	L1	39	A
33	L1	42	A
33	L1	43	U
33	L1	45	U
33	L1	59	A
33	L1	62	A
33	L1	63	G
33	L1	65	A
33	L1	69	U
33	L1	71	C
33	L1	72	A
33	L1	73	A
33	L1	76	A
33	L1	82	C
33	L1	91	G
33	L1	92	C
33	L1	108	A
33	L1	109	G
33	L1	128	C
33	L1	131	C
33	L1	133	G
33	L1	134	U
33	L1	135	G
33	L1	136	C
33	L1	138	G
33	L1	139	U
33	L1	159	G
33	L1	164	C
33	L1	168	A
33	L1	169	G
33	L1	177	C
33	L1	184	C
33	L1	188	U

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Mol	Chain	Res	Type
33	L1	189	C
33	L1	208	G
33	L1	209	G
33	L1	210	G
33	L1	216	G
33	L1	217	A
33	L1	228	C
33	L1	229	G
33	L1	247	C
33	L1	248	C
33	L1	259	G
33	L1	262	A
33	L1	263	A
33	L1	264	C
33	L1	267	G
33	L1	279	G
33	L1	281	G
33	L1	283	A
33	L1	284	U
33	L1	293	A
33	L1	296	C
33	L1	297	G
33	L1	302	G
33	L1	306	A
33	L1	309	C
33	L1	325	A
33	L1	327	A
33	L1	328	G
33	L1	340	A
33	L1	348	C
33	L1	349	A
33	L1	365	A
33	L1	368	U
33	L1	372	A
33	L1	373	A
33	L1	374	G
33	L1	376	A
33	L1	396	G
33	L1	397	A
33	L1	398	G
33	L1	400	G
33	L1	401	C

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Mol	Chain	Res	Type
33	L1	407	A
33	L1	423	C
33	L1	424	G
33	L1	425	G
33	L1	432	G
33	L1	435	G
33	L1	453	U
33	L1	464	G
33	L1	465	C
33	L1	466	U
33	L1	467	C
33	L1	469	U
33	L1	474	G
33	L1	479	C
33	L1	482	C
33	L1	483	U
33	L1	484	C
33	L1	485	G
33	L1	488	U
33	L1	489	C
33	L1	492	G
33	L1	493	G
33	L1	506	U
33	L1	507	C
33	L1	513	C
33	L1	514	G
33	L1	521	G
33	L1	522	C
33	L1	523	C
33	L1	524	A
33	L1	525	A
33	L1	527	G
33	L1	534	G
33	L1	535	G
33	L1	539	C
33	L1	543	C
33	L1	544	C
33	L1	549	G
33	L1	550	C
33	L1	552	G
33	L1	554	C
33	L1	555	G

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Mol	Chain	Res	Type
33	L1	563	C
33	L1	564	A
33	L1	571	G
33	L1	581	G
33	L1	585	A
33	L1	586	A
33	L1	588	G
33	L1	590	C
33	L1	591	G
33	L1	598	U
33	L1	601	G
33	L1	607	U
33	L1	608	G
33	L1	638	G
33	L1	639	A
33	L1	640	C
33	L1	641	C
33	L1	642	C
33	L1	651	A
33	L1	652	C
33	L1	653	A
33	L1	667	C
33	L1	668	U
33	L1	669	G
33	L1	677	U
33	L1	678	G
33	L1	679	C
33	L1	680	G
33	L1	681	A
33	L1	682	G
33	L1	683	U
33	L1	684	C
33	L1	685	G
33	L1	686	A
33	L1	687	C
33	L1	692	U
33	L1	694	U
33	L1	695	G
33	L1	696	A
33	L1	704	G
33	L1	705	A
33	L1	706	U

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Mol	Chain	Res	Type
33	L1	707	G
33	L1	708	C
33	L1	709	G
33	L1	711	A
33	L1	712	A
33	L1	715	A
33	L1	716	A
33	L1	720	G
33	L1	721	A
33	L1	722	C
33	L1	723	G
33	L1	725	G
33	L1	726	C
33	L1	731	G
33	L1	734	C
33	L1	735	C
33	L1	736	U
33	L1	737	C
33	L1	739	C
33	L1	745	G
33	L1	746	C
33	L1	756	C
33	L1	766	C
33	L1	767	U
33	L1	768	U
33	L1	770	U
33	L1	772	U
33	L1	773	G
33	L1	785	U
33	L1	786	U
33	L1	787	G
33	L1	788	G
33	L1	789	A
33	L1	790	G
33	L1	796	C
33	L1	802	G
33	L1	803	G
33	L1	811	A
33	L1	820	A
33	L1	841	G
33	L1	842	C
33	L1	843	C

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Mol	Chain	Res	Type
33	L1	852	C
33	L1	860	G
33	L1	861	A
33	L1	864	C
33	L1	867	G
33	L1	868	A
33	L1	877	U
33	L1	882	U
33	L1	887	A
33	L1	897	U
33	L1	898	G
33	L1	899	A
33	L1	900	C
33	L1	910	G
33	L1	911	G
33	L1	912	G
33	L1	917	A
33	L1	919	G
33	L1	920	A
33	L1	924	A
33	L1	927	G
33	L1	937	G
33	L1	940	G
33	L1	947	C
33	L1	962	C
33	L1	963	U
33	L1	964	C
33	L1	965	A
33	L1	969	U
33	L1	972	C
33	L1	978	C
33	L1	979	C
33	L1	980	C
33	L1	988	G
33	L1	990	U
33	L1	994	U
33	L1	996	A
33	L1	997	G
33	L1	998	G
33	L1	999	U
33	L1	1000	A
33	L1	1004	C

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Mol	Chain	Res	Type
33	L1	1011	U
33	L1	1014	G
33	L1	1017	G
33	L1	1025	G
33	L1	1026	A
33	L1	1027	C
33	L1	1028	G
33	L1	1045	U
33	L1	1046	U
33	L1	1050	A
33	L1	1051	A
33	L1	1053	C
33	L1	1057	A
33	L1	1058	A
33	L1	1059	A
33	L1	1061	A
33	L1	1063	G
33	L1	1064	U
33	L1	1067	G
33	L1	1079	G
33	L1	1082	U
33	L1	1083	C
33	L1	1084	G
33	L1	1097	A
33	L1	1104	C
33	L1	1108	U
33	L1	1117	U
33	L1	1118	G
33	L1	1119	G
33	L1	1120	G
33	L1	1133	A
33	L1	1134	G
33	L1	1135	C
33	L1	1140	C
33	L1	1146	A
33	L1	1147	U
33	L1	1148	G
33	L1	1156	A
33	L1	1164	G
33	L1	1181	A
33	L1	1182	A
33	L1	1183	C

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Mol	Chain	Res	Type
33	L1	1184	U
33	L1	1185	G
33	L1	1194	C
33	L1	1196	U
33	L1	1197	A
33	L1	1198	G
33	L1	1199	A
33	L1	1201	C
33	L1	1202	C
33	L1	1205	C
33	L1	1212	U
33	L1	1223	U
33	L1	1224	A
33	L1	1225	A
33	L1	1226	G
33	L1	1235	A
33	L1	1236	C
33	L1	1240	G
33	L1	1241	G
33	L1	1246	G
33	L1	1247	G
33	L1	1248	A
33	L1	1249	A
33	L1	1250	G
33	L1	1252	C
33	L1	1255	A
33	L1	1256	A
33	L1	1262	U
33	L1	1263	A
33	L1	1267	A
33	L1	1269	U
33	L1	1273	U
33	L1	1274	A
33	L1	1278	A
33	L1	1282	A
33	L1	1283	C
33	L1	1290	A
33	L1	1291	A
33	L1	1309	U
33	L1	1312	A
33	L1	1313	U
33	L1	1314	G

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Mol	Chain	Res	Type
33	L1	1317	G
33	L1	1318	C
33	L1	1320	G
33	L1	1348	G
33	L1	1349	G
33	L1	1365	C
33	L1	1370	A
33	L1	1371	G
33	L1	1388	C
33	L1	1389	C
33	L1	1395	A
33	L1	1410	A
33	L1	1411	G
33	L1	1421	A
33	L1	1422	G
33	L1	1433	U
33	L1	1435	C
33	L1	1436	A
33	L1	1437	G
33	L1	1440	C
33	L1	1449	A
33	L1	1450	G
33	L1	1457	A
33	L1	1458	U
33	L1	1459	A
33	L1	1468	A
33	L1	1483	G
33	L1	1484	A
33	L1	1485	A
33	L1	1486	G
33	L1	1487	A
33	L1	1488	G
33	L1	1496	G
33	L1	1509	G
33	L1	1517	C
33	L1	1527	A
33	L1	1528	G
33	L1	1530	C
33	L1	1533	U
33	L1	1534	C
33	L1	1539	G
33	L1	1540	G

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Mol	Chain	Res	Type
33	L1	1541	G
33	L1	1543	A
33	L1	1544	G
33	L1	1545	G
33	L1	1546	G
33	L1	1550	A
33	L1	1553	C
33	L1	1554	C
33	L1	1555	G
33	L1	1564	C
33	L1	1565	G
33	L1	1566	C
33	L1	1567	G
33	L1	1568	A
33	L1	1570	C
33	L1	1571	A
33	L1	1572	C
33	L1	1577	A
33	L1	1578	U
33	L1	1584	A
33	L1	1585	A
33	L1	1586	A
33	L1	1599	A
33	L1	1604	U
33	L1	1606	C
33	L1	1620	U
33	L1	1621	G
33	L1	1622	G
33	L1	1623	C
33	L1	1624	G
33	L1	1627	U
33	L1	1629	A
33	L1	1630	C
33	L1	1631	G
33	L1	1632	G
33	L1	1633	C
33	L1	1634	G
33	L1	1635	A
33	L1	1636	C
33	L1	1637	G
33	L1	1638	U
33	L1	1645	G

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Mol	Chain	Res	Type
33	L1	1646	U
33	L1	1654	C
33	L1	1655	G
33	L1	1659	G
33	L1	1666	C
33	L1	1669	C
33	L1	1673	A
33	L1	1676	A
33	L1	1680	A
33	L1	1681	U
33	L1	1683	U
33	L1	1684	U
33	L1	1685	U
33	L1	1686	U
33	L1	1689	G
33	L1	1690	C
33	L1	1691	U
33	L1	1698	C
33	L1	1699	C
33	L1	1700	U
33	L1	1701	G
33	L1	1706	C
33	L1	1707	C
33	L1	1708	C
33	L1	1710	G
33	L1	1715	C
33	L1	1716	G
33	L1	1726	G
33	L1	1727	A
33	L1	1728	G
33	L1	1729	G
33	L1	1731	A
33	L1	1732	G
33	L1	1734	G
33	L1	1735	U
33	L1	1736	C
33	L1	1740	U
33	L1	1742	G
33	L1	1743	C
33	L1	1744	C
33	L1	1746	G
33	L1	1748	A

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Mol	Chain	Res	Type
33	L1	1749	G
33	L1	1750	A
33	L1	1752	C
33	L1	1753	A
33	L1	1754	C
33	L1	1755	A
33	L1	1756	C
33	L1	1757	G
33	L1	1758	U
33	L1	1762	G
33	L1	1763	C
33	L1	1766	U
33	L1	1767	G
33	L1	1768	U
33	L1	1769	C
33	L1	1774	G
33	L1	1775	C
33	L1	1777	C
33	L1	1778	C
33	L1	1779	C
33	L1	1790	A
33	L1	1793	A
33	L1	1802	A
33	L1	1803	G
33	L1	1805	A
33	L1	1806	C
33	L1	1807	C
33	L1	1809	A
33	L1	1810	G
33	L1	1811	U
33	L1	1812	A
33	L1	1813	C
33	L1	1815	G
33	L1	1825	G
33	L1	1826	G
33	L1	1827	U
33	L1	1835	A
33	L1	1836	U
33	L1	1837	A
33	L1	1843	A
33	L1	1844	U
33	L1	1845	C

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Mol	Chain	Res	Type
33	L1	1846	A
33	L1	1852	C
33	L1	1853	C
33	L1	1854	A
33	L1	1855	A
33	L1	1856	G
33	L1	1859	G
33	L1	1860	A
33	L1	1861	A
33	L1	1867	U
33	L1	1868	C
33	L1	1869	U
33	L1	1874	A
33	L1	1875	A
33	L1	1876	U
33	L1	1880	A
33	L1	1881	C
33	L1	1882	A
33	L1	1900	C
33	L1	1902	G
33	L1	1903	C
33	L1	1904	A
33	L1	1924	G
33	L1	1928	A
33	L1	1938	U
33	L1	1945	A
33	L1	1949	G
33	L1	1950	G
33	L1	1958	G
33	L1	1959	U
33	L1	1970	A
33	L1	1990	A
33	L1	1991	U
33	L1	1996	C
33	L1	1997	G
33	L1	1999	G
33	L1	2003	C
33	L1	2004	U
33	L1	2005	C
33	L1	2006	A
33	L1	2007	C
33	L1	2008	G

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Mol	Chain	Res	Type
33	L1	2012	C
33	L1	2013	G
33	L1	2015	G
33	L1	2021	G
33	L1	2042	G
33	L1	2060	C
33	L1	2095	C
33	L1	2097	C
33	L1	2101	A
33	L1	2109	G
33	L1	2110	G
33	L1	2112	C
33	L1	2113	A
33	L1	2114	A
33	L1	2115	G
33	L1	2116	G
33	L1	2125	A
33	L1	2131	U
33	L1	2132	A
33	L1	2133	A
33	L1	2151	G
33	L1	2152	A
33	L1	2167	G
33	L1	2168	C
33	L1	2170	G
33	L1	2172	C
33	L1	2173	G
33	L1	2174	C
33	L1	2202	A
33	L1	2203	A
33	L1	2204	U
33	L1	2205	G
33	L1	2206	U
33	L1	2207	C
33	L1	2220	U
33	L1	2226	C
33	L1	2231	G
33	L1	2232	C
33	L1	2239	A
33	L1	2253	U
33	L1	2261	U
33	L1	2268	G

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Mol	Chain	Res	Type
33	L1	2270	A
33	L1	2274	A
33	L1	2276	A
33	L1	2277	U
33	L1	2278	G
33	L1	2279	C
33	L1	2281	U
33	L1	2282	C
33	L1	2290	A
33	L1	2293	U
33	L1	2300	G
33	L1	2301	C
33	L1	2302	G
33	L1	2305	U
33	L1	2308	A
33	L1	2309	U
33	L1	2310	G
33	L1	2334	G
33	L1	2335	U
33	L1	2361	C
33	L1	2362	A
33	L1	2363	G
33	L1	2364	C
33	L1	2372	A
33	L1	2373	C
33	L1	2374	G
33	L1	2375	G
33	L1	2376	G
33	L1	2377	C
33	L1	2383	G
33	L1	2384	G
33	L1	2386	A
33	L1	2391	C
33	L1	2396	A
33	L1	2400	A
33	L1	2401	A
33	L1	2402	G
33	L1	2408	G
33	L1	2410	U
33	L1	2434	G
33	L1	2437	A
33	L1	2438	A

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Mol	Chain	Res	Type
33	L1	2439	A
33	L1	2443	C
33	L1	2444	U
33	L1	2445	U
33	L1	2450	G
33	L1	2451	G
33	L1	2452	U
33	L1	2453	G
33	L1	2454	U
33	L1	2457	G
33	L1	2458	A
33	L1	2460	A
33	L1	2462	G
33	L1	2465	G
33	L1	2467	A
33	L1	2468	G
33	L1	2469	C
33	L1	2472	U
33	L1	2473	C
33	L1	2475	C
33	L1	2478	G
33	L1	2480	G
33	L1	2481	C
33	L1	2482	A
33	L1	2483	A
33	L1	2484	G
33	L1	2485	U
33	L1	2490	U
33	L1	2491	A
33	L1	2492	C
33	L1	2493	C
33	L1	2494	A
33	L1	2495	C
33	L1	2496	U
33	L1	2497	A
33	L1	2498	C
33	L1	2499	U
33	L1	2501	U
33	L1	2502	U
33	L1	2503	A
33	L1	2504	A
33	L1	2505	C

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Mol	Chain	Res	Type
33	L1	2511	U
33	L1	2512	U
33	L1	2513	U
33	L1	2517	U
33	L1	2518	A
33	L1	2519	U
33	L1	2541	A
33	L1	2542	U
33	L1	2543	G
33	L1	2544	C
33	L1	2562	A
33	L1	2563	G
33	L1	2570	U
33	L1	2571	C
33	L1	2572	U
33	L1	2573	U
33	L1	2574	A
33	L1	2582	G
33	L1	2595	G
33	L1	2596	A
33	L1	2597	C
33	L1	2599	U
33	L1	2609	G
33	L1	2610	G
33	L1	2617	G
33	L1	2620	U
33	L1	2621	G
33	L1	2622	G
33	L1	2623	G
33	L1	2624	G
33	L1	2625	C
33	L1	2629	C
33	L1	2630	A
33	L1	2631	A
33	L1	2635	G
33	L1	2638	A
33	L1	2639	A
33	L1	2640	A
33	L1	2643	A
33	L1	2644	U
33	L1	2654	G
33	L1	2655	U

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Mol	Chain	Res	Type
33	L1	2658	U
33	L1	2659	A
33	L1	2660	A
33	L1	2670	A
33	L1	2677	A
33	L1	2678	C
33	L1	2679	A
33	L1	2680	G
33	L1	2681	A
33	L1	2683	A
33	L1	2684	U
33	L1	2691	U
33	L1	2692	G
33	L1	2699	A
33	L1	2706	A
33	L1	2707	A
33	L1	2708	A
33	L1	2709	G
33	L1	2717	G
33	L1	2718	A
33	L1	2723	G
33	L1	2730	A
33	L1	2731	G
33	L1	2732	U
33	L1	2739	A
33	L1	2740	C
33	L1	2750	A
33	L1	2755	U
33	L1	2758	C
33	L1	2761	A
33	L1	2762	U
33	L1	2763	C
33	L1	2764	G
33	L1	2766	U
33	L1	2767	C
33	L1	2779	G
33	L1	2782	G
33	L1	2797	U
33	L1	2798	G
33	L1	2799	U
33	L1	2800	C
33	L1	2801	A

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Mol	Chain	Res	Type
33	L1	2802	G
33	L1	2803	A
33	L1	2804	A
33	L1	2805	A
33	L1	2810	A
33	L1	2811	C
33	L1	2812	C
33	L1	2818	G
33	L1	2819	A
33	L1	2843	G
33	L1	2845	U
33	L1	2847	A
33	L1	2863	U
33	L1	2869	C
33	L1	2870	U
33	L1	2873	G
33	L1	2874	A
33	L1	2875	U
33	L1	2877	U
33	L1	2889	A
33	L1	2900	G
33	L1	2915	U
33	L1	2918	U
33	L1	2925	U
33	L1	2937	U
33	L1	2938	A
33	L1	2943	A
33	L1	2944	C
33	L1	2945	G
33	L1	2949	G
33	L1	2953	G
33	L1	2956	U
33	L1	2970	G
33	L1	2972	C
33	L1	2973	A
33	L1	2974	G
33	L1	2985	C
33	L1	2995	G
33	L1	2996	A
33	L1	2998	A
33	L1	2999	G
33	L1	3000	U

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Mol	Chain	Res	Type
33	L1	3012	A
33	L1	3013	A
33	L1	3036	C
33	L1	3045	A
33	L1	3046	C
33	L1	3057	A
33	L1	3058	U
33	L1	3072	A
33	L1	3073	A
33	L1	3080	U
33	L1	3082	G
33	L1	3088	A
33	L1	3093	C
33	L1	3094	C
33	L1	3095	G
33	L1	3100	C
33	L1	3101	C
33	L1	3114	A
33	L1	3117	G
33	L1	3123	A
33	L1	3131	A
33	L1	3137	G
33	L1	3138	C
33	L1	3142	C
33	L1	3145	G
33	L1	3151	C
33	L1	3152	C
33	L1	3157	C
33	L1	3158	C
33	L1	3161	C
33	L1	3162	C
33	L1	3164	C
33	L1	3165	C
33	L1	3166	C
33	L1	3168	C
33	L1	3169	C
33	L1	3170	C
33	L1	3176	C
33	L1	3177	A
33	L1	3202	G
33	L1	3206	C
33	L1	3207	C

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Mol	Chain	Res	Type
33	L1	3208	G
33	L1	3211	C
33	L1	3214	U
33	L1	3215	U
33	L1	3217	G
33	L1	3218	C
33	L1	3223	C
33	L1	3224	C
33	L1	3225	G
33	L1	3226	G
33	L1	3229	C
33	L1	3230	G
33	L1	3231	G
33	L1	3232	C
33	L1	3234	G
33	L1	3235	A
33	L1	3236	A
33	L1	3238	U
33	L1	3240	C
33	L1	3241	C
33	L1	3242	G
33	L1	3244	G
33	L1	3245	G
33	L1	3246	U
33	L1	3247	C
33	L1	3248	G
33	L1	3249	G
33	L1	3250	C
33	L1	3273	C
33	L1	3274	G
33	L1	3275	G
33	L1	3277	C
33	L1	3278	G
33	L1	3280	U
33	L1	3281	G
33	L1	3296	C
33	L1	3305	U
33	L1	3308	A
33	L1	3309	U
33	L1	3310	A
33	L1	3311	C
33	L1	3317	G

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Mol	Chain	Res	Type
33	L1	3318	G
33	L1	3326	U
33	L1	3328	A
33	L1	3329	G
33	L1	3334	A
33	L1	3335	G
33	L1	3336	A
33	L1	3337	G
33	L1	3338	U
33	L1	3342	C
33	L1	3353	G
33	L1	3354	A
33	L1	3355	U
33	L1	3356	C
33	L1	3360	U
33	L1	3361	G
33	L1	3362	A
33	L1	3365	U
33	L1	3376	C
33	L1	3377	G
33	L1	3378	U
33	L1	3379	C
33	L1	3382	A
33	L1	3383	C
33	L1	3389	C
33	L1	3390	G
33	L1	3391	U
34	L3	3	A
34	L3	4	U
34	L3	10	C
34	L3	11	A
34	L3	12	U
34	L3	13	A
34	L3	18	C
34	L3	19	A
34	L3	20	C
34	L3	21	U
34	L3	22	A
34	L3	23	A
34	L3	24	G
34	L3	25	G
34	L3	26	C

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Mol	Chain	Res	Type
34	L3	27	A
34	L3	28	U
34	L3	33	U
34	L3	34	C
34	L3	36	C
34	L3	40	A
34	L3	42	A
34	L3	46	C
34	L3	49	A
34	L3	50	A
34	L3	52	U
34	L3	54	A
34	L3	55	A
34	L3	56	G
34	L3	57	C
34	L3	58	G
34	L3	62	U
34	L3	64	G
34	L3	69	A
34	L3	74	A
34	L3	75	G
34	L3	76	U
34	L3	85	G
34	L3	91	C
34	L3	100	A
34	L3	102	G
34	L3	103	U
34	L3	108	G
34	L3	109	U
34	L3	110	G
34	L3	114	C
34	L3	116	U
34	L3	118	C
34	L3	120	C
35	L2	7	A
35	L2	8	C
35	L2	27	C
35	L2	28	G
35	L2	40	G
35	L2	41	A
35	L2	42	U
35	L2	43	G

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Mol	Chain	Res	Type
35	L2	53	G
35	L2	56	A
35	L2	63	A
35	L2	64	U
35	L2	65	A
35	L2	66	C
35	L2	67	C
35	L2	68	U
35	L2	70	G
35	L2	87	C
35	L2	88	C
35	L2	89	G
35	L2	90	U
35	L2	92	A
35	L2	93	A
35	L2	94	C
35	L2	95	C
35	L2	96	A
35	L2	98	C
35	L2	99	G
35	L2	100	A
35	L2	101	G
35	L2	102	U
35	L2	104	U
35	L2	109	A
35	L2	110	C
35	L2	111	G
35	L2	115	G
35	L2	116	U
35	L2	117	U
35	L2	124	G
35	L2	125	A
35	L2	126	G
35	L2	131	C
35	L2	132	U
35	L2	134	G
35	L2	136	G
35	L2	138	G
35	L2	139	A
35	L2	140	G
35	L2	144	A
35	L2	145	C

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Mol	Chain	Res	Type
35	L2	151	C
35	L2	156	G
35	L2	157	C
35	L2	158	G
35	L2	163	G
35	L2	164	C

All (621) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
30	S3	16	G
31	S2	32	U
31	S2	37	G
31	S2	58	U
31	S2	72	G
31	S2	73	C
32	S1	2	A
32	S1	3	C
32	S1	4	C
32	S1	25	C
32	S1	32	U
32	S1	36	C
32	S1	44	U
32	S1	61	A
32	S1	98	C
32	S1	104	A
32	S1	119	U
32	S1	123	U
32	S1	137	A
32	S1	139	U
32	S1	140	C
32	S1	146	A
32	S1	148	C
32	S1	151	A
32	S1	159	U
32	S1	167	A
32	S1	169	A
32	S1	174	C
32	S1	180	A
32	S1	184	C
32	S1	192	G
32	S1	193	G

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Mol	Chain	Res	Type
32	S1	195	A
32	S1	278	C
32	S1	293	C
32	S1	297	U
32	S1	299	A
32	S1	316	A
32	S1	341	G
32	S1	372	U
32	S1	373	U
32	S1	381	G
32	S1	389	A
32	S1	404	A
32	S1	442	A
32	S1	452	C
32	S1	476	U
32	S1	477	A
32	S1	489	C
32	S1	492	G
32	S1	505	U
32	S1	508	U
32	S1	512	U
32	S1	559	A
32	S1	562	U
32	S1	574	A
32	S1	581	G
32	S1	584	A
32	S1	592	U
32	S1	594	C
32	S1	610	A
32	S1	611	G
32	S1	617	G
32	S1	624	A
32	S1	626	A
32	S1	630	U
32	S1	632	G
32	S1	633	U
32	S1	635	G
32	S1	636	U
32	S1	648	C
32	S1	652	G
32	S1	663	C
32	S1	683	C

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Mol	Chain	Res	Type
32	S1	689	C
32	S1	860	A
32	S1	877	G
32	S1	880	G
32	S1	903	A
32	S1	964	U
32	S1	968	A
32	S1	1011	C
32	S1	1030	A
32	S1	1068	G
32	S1	1070	A
32	S1	1071	C
32	S1	1072	U
32	S1	1083	C
32	S1	1099	G
32	S1	1142	A
32	S1	1200	A
32	S1	1201	C
32	S1	1205	G
32	S1	1224	C
32	S1	1225	A
32	S1	1226	U
32	S1	1237	G
32	S1	1289	U
32	S1	1316	A
32	S1	1328	G
32	S1	1332	G
32	S1	1341	G
32	S1	1364	C
32	S1	1369	C
32	S1	1378	C
32	S1	1394	A
32	S1	1395	C
32	S1	1396	U
32	S1	1402	C
32	S1	1407	A
32	S1	1410	C
32	S1	1414	G
32	S1	1421	U
32	S1	1422	G
32	S1	1438	U
32	S1	1440	U

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Mol	Chain	Res	Type
32	S1	1443	U
32	S1	1445	C
32	S1	1446	C
32	S1	1456	U
32	S1	1460	G
32	S1	1473	C
32	S1	1474	U
32	S1	1479	U
32	S1	1482	U
32	S1	1506	G
32	S1	1507	G
32	S1	1508	C
32	S1	1509	C
32	S1	1513	A
32	S1	1516	C
32	S1	1536	U
32	S1	1538	C
32	S1	1545	A
32	S1	1547	G
32	S1	1556	U
32	S1	1566	U
32	S1	1571	G
32	S1	1586	U
32	S1	1588	C
32	S1	1589	C
32	S1	1614	C
32	S1	1615	G
32	S1	1625	U
32	S1	1639	A
32	S1	1640	C
32	S1	1658	U
32	S1	1673	C
32	S1	1685	U
32	S1	1730	G
32	S1	1741	A
32	S1	1744	C
32	S1	1745	U
32	S1	1754	A
32	S1	1759	A
32	S1	1760	A
32	S1	1763	A
32	S1	1765	A

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Mol	Chain	Res	Type
32	S1	1771	U
32	S1	1775	A
32	S1	1777	G
32	S1	1795	U
33	L1	2	C
33	L1	20	G
33	L1	25	U
33	L1	28	C
33	L1	42	A
33	L1	61	A
33	L1	62	A
33	L1	64	A
33	L1	70	A
33	L1	71	C
33	L1	72	A
33	L1	102	G
33	L1	105	A
33	L1	112	C
33	L1	123	U
33	L1	131	C
33	L1	135	G
33	L1	138	G
33	L1	167	C
33	L1	176	A
33	L1	183	C
33	L1	208	G
33	L1	209	G
33	L1	228	C
33	L1	246	C
33	L1	261	C
33	L1	262	A
33	L1	264	C
33	L1	280	G
33	L1	283	A
33	L1	294	A
33	L1	296	C
33	L1	324	U
33	L1	327	A
33	L1	339	G
33	L1	367	A
33	L1	372	A
33	L1	400	G

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Mol	Chain	Res	Type
33	L1	406	A
33	L1	423	C
33	L1	431	G
33	L1	434	C
33	L1	444	C
33	L1	481	G
33	L1	483	U
33	L1	484	C
33	L1	492	G
33	L1	506	U
33	L1	513	C
33	L1	522	C
33	L1	534	G
33	L1	543	C
33	L1	553	C
33	L1	554	C
33	L1	563	C
33	L1	570	G
33	L1	571	G
33	L1	580	C
33	L1	590	C
33	L1	606	C
33	L1	638	G
33	L1	641	C
33	L1	642	C
33	L1	651	A
33	L1	667	C
33	L1	676	G
33	L1	680	G
33	L1	682	G
33	L1	683	U
33	L1	684	C
33	L1	686	A
33	L1	704	G
33	L1	705	A
33	L1	708	C
33	L1	711	A
33	L1	714	G
33	L1	715	A
33	L1	716	A
33	L1	730	A
33	L1	744	C

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Mol	Chain	Res	Type
33	L1	745	G
33	L1	747	A
33	L1	755	C
33	L1	771	G
33	L1	772	U
33	L1	785	U
33	L1	786	U
33	L1	788	G
33	L1	803	G
33	L1	810	A
33	L1	841	G
33	L1	846	A
33	L1	860	G
33	L1	883	G
33	L1	897	U
33	L1	899	A
33	L1	911	G
33	L1	919	G
33	L1	936	A
33	L1	946	U
33	L1	962	C
33	L1	971	G
33	L1	978	C
33	L1	979	C
33	L1	987	A
33	L1	989	U
33	L1	995	C
33	L1	997	G
33	L1	998	G
33	L1	999	U
33	L1	1004	C
33	L1	1010	A
33	L1	1013	A
33	L1	1024	G
33	L1	1025	G
33	L1	1027	C
33	L1	1050	A
33	L1	1052	A
33	L1	1057	A
33	L1	1058	A
33	L1	1060	U
33	L1	1067	G

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Mol	Chain	Res	Type
33	L1	1082	U
33	L1	1083	C
33	L1	1086	U
33	L1	1119	G
33	L1	1126	U
33	L1	1134	G
33	L1	1147	U
33	L1	1155	G
33	L1	1163	A
33	L1	1181	A
33	L1	1183	C
33	L1	1196	U
33	L1	1197	A
33	L1	1201	C
33	L1	1211	G
33	L1	1212	U
33	L1	1222	U
33	L1	1224	A
33	L1	1225	A
33	L1	1240	G
33	L1	1245	U
33	L1	1247	G
33	L1	1248	A
33	L1	1249	A
33	L1	1258	C
33	L1	1265	G
33	L1	1272	G
33	L1	1281	C
33	L1	1289	G
33	L1	1307	A
33	L1	1312	A
33	L1	1317	G
33	L1	1321	A
33	L1	1348	G
33	L1	1361	G
33	L1	1370	A
33	L1	1388	C
33	L1	1394	C
33	L1	1395	A
33	L1	1409	G
33	L1	1432	G
33	L1	1458	U

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Mol	Chain	Res	Type
33	L1	1484	A
33	L1	1485	A
33	L1	1486	G
33	L1	1487	A
33	L1	1496	G
33	L1	1516	G
33	L1	1527	A
33	L1	1529	C
33	L1	1532	A
33	L1	1533	U
33	L1	1540	G
33	L1	1543	A
33	L1	1545	G
33	L1	1546	G
33	L1	1563	G
33	L1	1568	A
33	L1	1569	U
33	L1	1576	C
33	L1	1577	A
33	L1	1583	G
33	L1	1585	A
33	L1	1598	U
33	L1	1602	A
33	L1	1619	G
33	L1	1620	U
33	L1	1621	G
33	L1	1623	C
33	L1	1630	C
33	L1	1631	G
33	L1	1632	G
33	L1	1634	G
33	L1	1646	U
33	L1	1654	C
33	L1	1658	G
33	L1	1663	G
33	L1	1665	G
33	L1	1675	G
33	L1	1679	U
33	L1	1682	C
33	L1	1683	U
33	L1	1688	U
33	L1	1694	A

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Mol	Chain	Res	Type
33	L1	1696	G
33	L1	1698	C
33	L1	1699	C
33	L1	1706	C
33	L1	1707	C
33	L1	1709	U
33	L1	1714	A
33	L1	1728	G
33	L1	1735	U
33	L1	1739	G
33	L1	1742	G
33	L1	1745	G
33	L1	1748	A
33	L1	1751	G
33	L1	1752	C
33	L1	1753	A
33	L1	1754	C
33	L1	1755	A
33	L1	1765	G
33	L1	1766	U
33	L1	1767	G
33	L1	1773	U
33	L1	1774	G
33	L1	1775	C
33	L1	1777	C
33	L1	1806	C
33	L1	1810	G
33	L1	1812	A
33	L1	1826	G
33	L1	1836	U
33	L1	1843	A
33	L1	1852	C
33	L1	1854	A
33	L1	1858	U
33	L1	1860	A
33	L1	1863	A
33	L1	1866	C
33	L1	1868	C
33	L1	1873	C
33	L1	1874	A
33	L1	1880	A
33	L1	1887	A

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Mol	Chain	Res	Type
33	L1	1944	G
33	L1	1958	G
33	L1	2004	U
33	L1	2006	A
33	L1	2012	C
33	L1	2013	G
33	L1	2020	G
33	L1	2053	A
33	L1	2096	U
33	L1	2100	A
33	L1	2108	C
33	L1	2112	C
33	L1	2125	A
33	L1	2131	U
33	L1	2151	G
33	L1	2167	G
33	L1	2171	A
33	L1	2172	C
33	L1	2203	A
33	L1	2204	U
33	L1	2206	U
33	L1	2219	A
33	L1	2229	G
33	L1	2247	A
33	L1	2250	A
33	L1	2275	A
33	L1	2276	A
33	L1	2278	G
33	L1	2281	U
33	L1	2292	U
33	L1	2299	C
33	L1	2308	A
33	L1	2318	U
33	L1	2331	A
33	L1	2355	A
33	L1	2361	C
33	L1	2362	A
33	L1	2363	G
33	L1	2374	G
33	L1	2375	G
33	L1	2376	G
33	L1	2383	G

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Mol	Chain	Res	Type
33	L1	2390	G
33	L1	2398	A
33	L1	2399	G
33	L1	2407	U
33	L1	2433	U
33	L1	2436	G
33	L1	2438	A
33	L1	2450	G
33	L1	2459	U
33	L1	2461	A
33	L1	2466	G
33	L1	2467	A
33	L1	2468	G
33	L1	2473	C
33	L1	2474	A
33	L1	2477	G
33	L1	2482	A
33	L1	2485	U
33	L1	2486	G
33	L1	2490	U
33	L1	2496	U
33	L1	2497	A
33	L1	2501	U
33	L1	2502	U
33	L1	2503	A
33	L1	2504	A
33	L1	2511	U
33	L1	2512	U
33	L1	2516	U
33	L1	2518	A
33	L1	2541	A
33	L1	2561	A
33	L1	2562	A
33	L1	2574	A
33	L1	2581	C
33	L1	2594	A
33	L1	2596	A
33	L1	2614	U
33	L1	2620	U
33	L1	2621	G
33	L1	2622	G
33	L1	2623	G

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Mol	Chain	Res	Type
33	L1	2624	G
33	L1	2628	C
33	L1	2634	U
33	L1	2643	A
33	L1	2654	G
33	L1	2657	C
33	L1	2658	U
33	L1	2659	A
33	L1	2669	C
33	L1	2679	A
33	L1	2706	A
33	L1	2708	A
33	L1	2722	U
33	L1	2739	A
33	L1	2757	G
33	L1	2763	C
33	L1	2765	A
33	L1	2766	U
33	L1	2781	A
33	L1	2796	G
33	L1	2799	U
33	L1	2801	A
33	L1	2802	G
33	L1	2803	A
33	L1	2804	A
33	L1	2810	A
33	L1	2818	G
33	L1	2842	C
33	L1	2862	U
33	L1	2875	U
33	L1	2896	C
33	L1	2918	U
33	L1	2943	A
33	L1	2944	C
33	L1	2952	G
33	L1	2972	C
33	L1	2973	A
33	L1	2995	G
33	L1	3023	G
33	L1	3042	U
33	L1	3045	A
33	L1	3049	A

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Mol	Chain	Res	Type
33	L1	3079	G
33	L1	3081	G
33	L1	3087	A
33	L1	3093	C
33	L1	3094	C
33	L1	3122	U
33	L1	3124	A
33	L1	3137	G
33	L1	3152	C
33	L1	3175	C
33	L1	3177	A
33	L1	3183	G
33	L1	3205	C
33	L1	3206	C
33	L1	3211	C
33	L1	3217	G
33	L1	3227	U
33	L1	3228	C
33	L1	3234	G
33	L1	3237	G
33	L1	3240	C
33	L1	3250	C
33	L1	3277	C
33	L1	3280	U
33	L1	3295	G
33	L1	3308	A
33	L1	3317	G
33	L1	3324	U
33	L1	3333	C
33	L1	3337	G
33	L1	3352	C
33	L1	3353	G
33	L1	3354	A
33	L1	3360	U
33	L1	3375	G
33	L1	3376	C
33	L1	3377	G
33	L1	3378	U
33	L1	3389	C
33	L1	3390	G
34	L3	1	G
34	L3	3	A

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Mol	Chain	Res	Type
34	L3	10	C
34	L3	19	A
34	L3	23	A
34	L3	25	G
34	L3	26	C
34	L3	48	G
34	L3	53	U
34	L3	54	A
34	L3	55	A
34	L3	63	U
34	L3	73	U
34	L3	75	G
34	L3	101	A
34	L3	102	G
34	L3	117	U
35	L2	27	C
35	L2	42	U
35	L2	43	G
35	L2	67	C
35	L2	69	G
35	L2	89	G
35	L2	91	G
35	L2	92	A
35	L2	93	A
35	L2	94	C
35	L2	97	U
35	L2	98	C
35	L2	99	G
35	L2	100	A
35	L2	101	G
35	L2	110	C
35	L2	116	U
35	L2	123	C
35	L2	124	G
35	L2	125	A
35	L2	135	G
35	L2	137	C
35	L2	138	G
35	L2	143	C
35	L2	144	A
35	L2	155	G
35	L2	157	C

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Mol	Chain	Res	Type
35	L2	162	C

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
32	S1	23
33	L1	20
26	SG	3
78	Le	2
25	SC	2
9	SK	2
19	SY	2
2	SA	2
81	LD	1
18	SW	1
1	Sa	1
4	SD	1
16	SR	1
3	SB	1
28	SN	1

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Mol	Chain	Number of breaks
5	SE	1
24	SX	1
15	SS	1
10	SL	1
14	SP	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	S1	694:C	O3'	701:C	P	33.58
1	S1	803:G	O3'	823:A	P	30.95
1	L1	2547:C	O3'	2561:A	P	30.63
1	S1	744:G	O3'	764:U	P	27.26
1	S1	862:U	O3'	871:G	P	24.78
1	LD	269:TYR	C	303:VAL	N	23.06
1	L1	3285:U	O3'	3287:A	P	10.99
1	SW	31:UNK	C	73:UNK	N	10.13
1	S1	1419:U	O3'	1421:U	P	9.36
1	S1	42:G	O3'	44:U	P	7.57
1	L1	113:A	O3'	119:A	P	7.47
1	L1	3320:G	O3'	3322:A	P	6.65
1	S1	1086:A	O3'	1088:G	P	6.14
1	S1	128:G	O3'	137:A	P	5.98
1	L1	1616:G	O3'	1618:U	P	5.77
1	S1	1450:A	O3'	1452:A	P	5.62
1	S1	324:U	O3'	327:A	P	5.53
1	L1	3063:C	O3'	3065:U	P	4.59
1	L1	3365:U	O3'	3372:C	P	4.55
1	L1	2313:U	O3'	2318:U	P	3.87
1	S1	1462:C	O3'	1464:G	P	3.67
1	L1	1401:C	O3'	1403:G	P	3.50
1	L1	1732:G	O3'	1734:G	P	3.35
1	L1	1389:C	O3'	1391:A	P	3.22
1	L1	1604:U	O3'	1606:C	P	2.91
1	Le	36:LYS	C	37:ILE	N	2.57
1	SG	127:UNK	C	128:UNK	N	2.51
1	Sa	97:THR	C	98:SER	N	2.30
1	Le	35:GLU	C	36:LYS	N	2.03
1	L1	2700:A	O3'	2701:G	P	1.98
1	S1	303:A	O3'	304:A	P	1.92
1	L1	618:G	O3'	619:C	P	1.92
1	SC	43:GLU	C	44:LEU	N	1.86
1	L1	521:G	O3'	522:C	P	1.86

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	SD	167:ASN	C	168:LYS	N	1.85
1	SK	93:HIS	C	94:ILE	N	1.85
1	SR	86:ARG	C	87:THR	N	1.80
1	SB	154:ASP	C	155:GLY	N	1.79
1	S1	1298:G	O3'	1299:G	P	1.79
1	S1	1592:G	O3'	1593:U	P	1.79
1	L1	1523:G	O3'	1524:G	P	1.78
1	SG	64:UNK	C	65:UNK	N	1.72
1	SN	51:GLY	C	52:PHE	N	1.72
1	SE	250:GLN	C	251:GLU	N	1.68
1	SY	47:ARG	C	48:GLU	N	1.67
1	SK	126:GLY	C	127:ARG	N	1.66
1	SC	143:VAL	C	144:ASN	N	1.64
1	SY	46:VAL	C	47:ARG	N	1.62
1	S1	623:A	O3'	624:A	P	1.40
1	S1	1647:C	O3'	1648:C	P	1.34
1	L1	18:G	O3'	19:C	P	1.33
1	L1	1034:U	O3'	1035:C	P	1.30
1	S1	187:C	O3'	188:U	P	1.29
1	S1	535:C	O3'	536:U	P	1.27
1	L1	522:C	O3'	523:C	P	1.23
1	S1	1004:U	O3'	1005:C	P	1.21
1	SA	108:THR	C	109:PRO	N	1.20
1	SX	71:GLY	C	72:LYS	N	1.19
1	S1	1156:A	O3'	1157:A	P	1.18
1	SS	5:THR	C	6:ALA	N	1.13
1	S1	1083:C	O3'	1084:U	P	1.10
1	SL	54:ILE	C	55:GLY	N	1.04
1	SG	126:UNK	C	127:UNK	N	1.04
1	SP	50:ILE	C	51:GLU	N	1.02
1	L1	2398:A	O3'	2399:G	P	0.92
1	S1	860:A	O3'	861:A	P	0.84
1	SA	109:PRO	C	110:GLY	N	0.75
1	S1	1315:U	O3'	1316:A	P	0.74

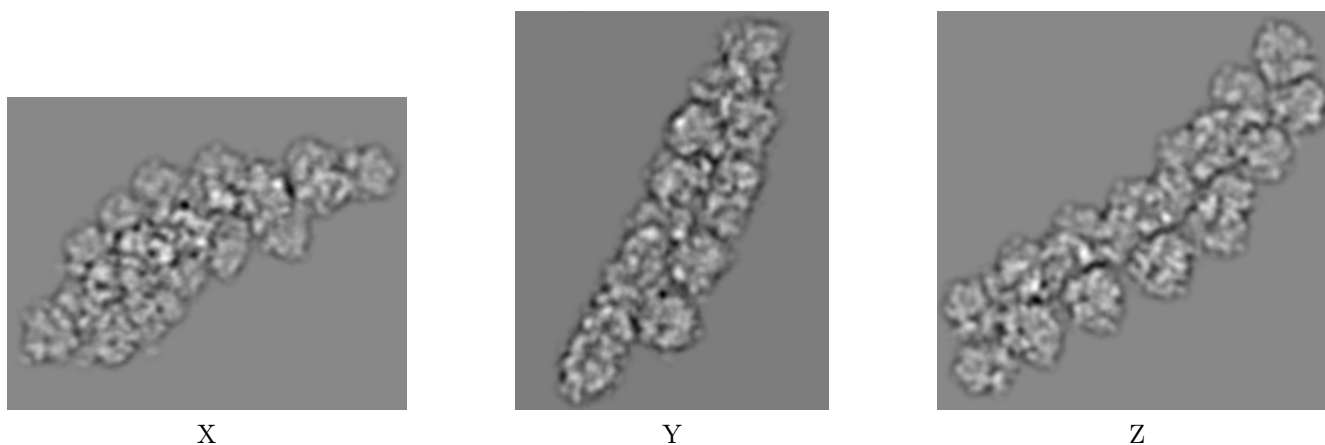
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-2790. These allow visual inspection of the internal detail of the map and identification of artifacts.

No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

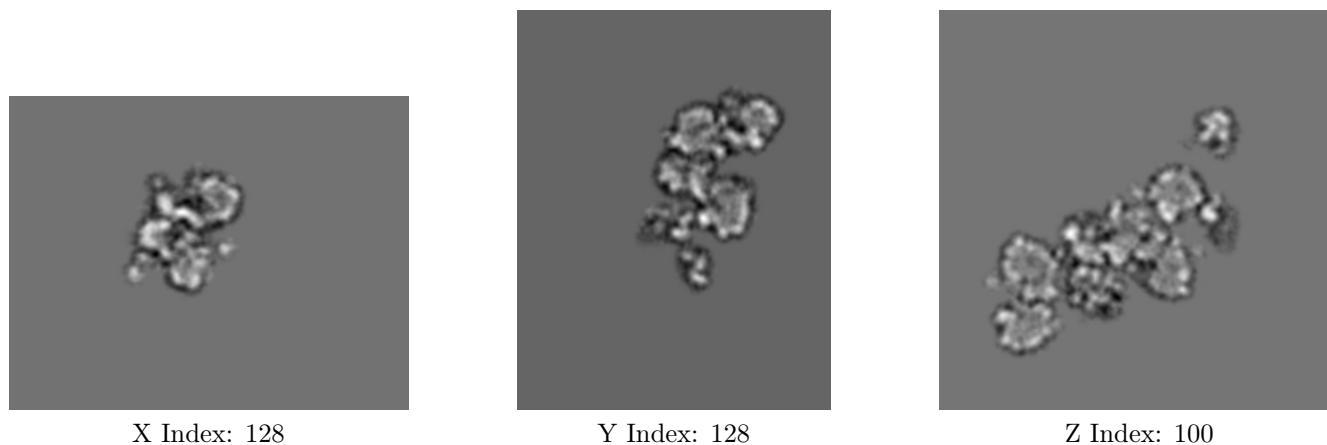
6.1.1 Primary map



The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

6.2.1 Primary map



The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

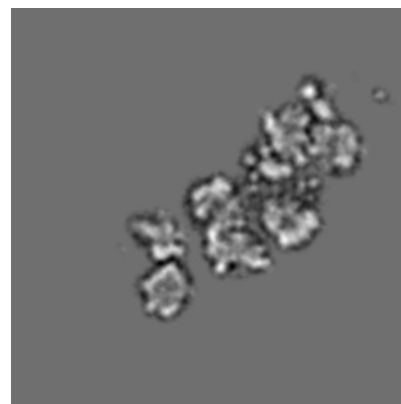
6.3.1 Primary map



X Index: 44



Y Index: 93

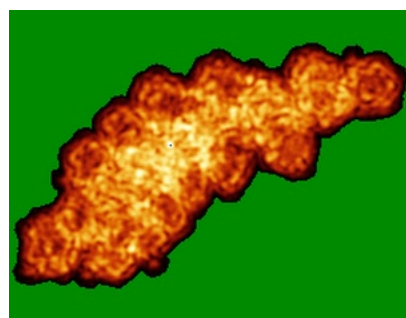


Z Index: 126

The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

6.4.1 Primary map



X



Y

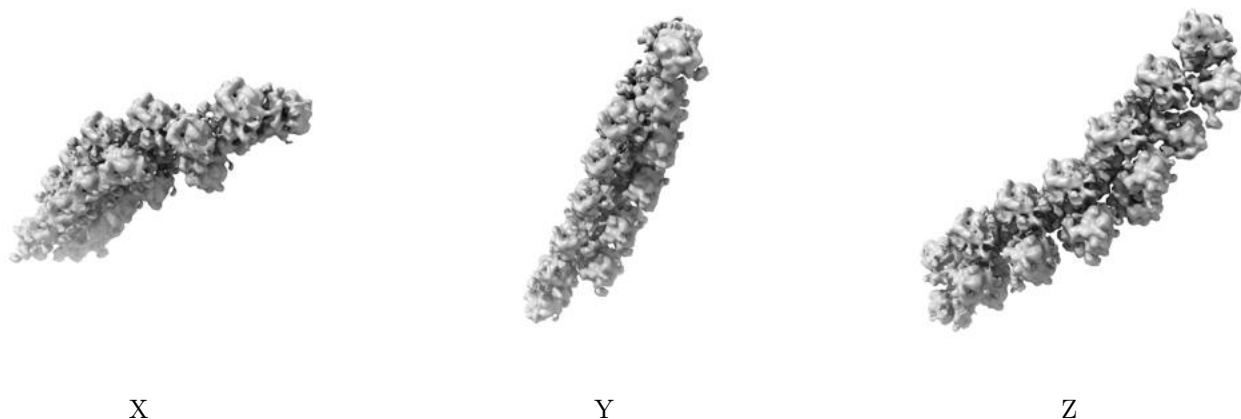


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 1.0. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

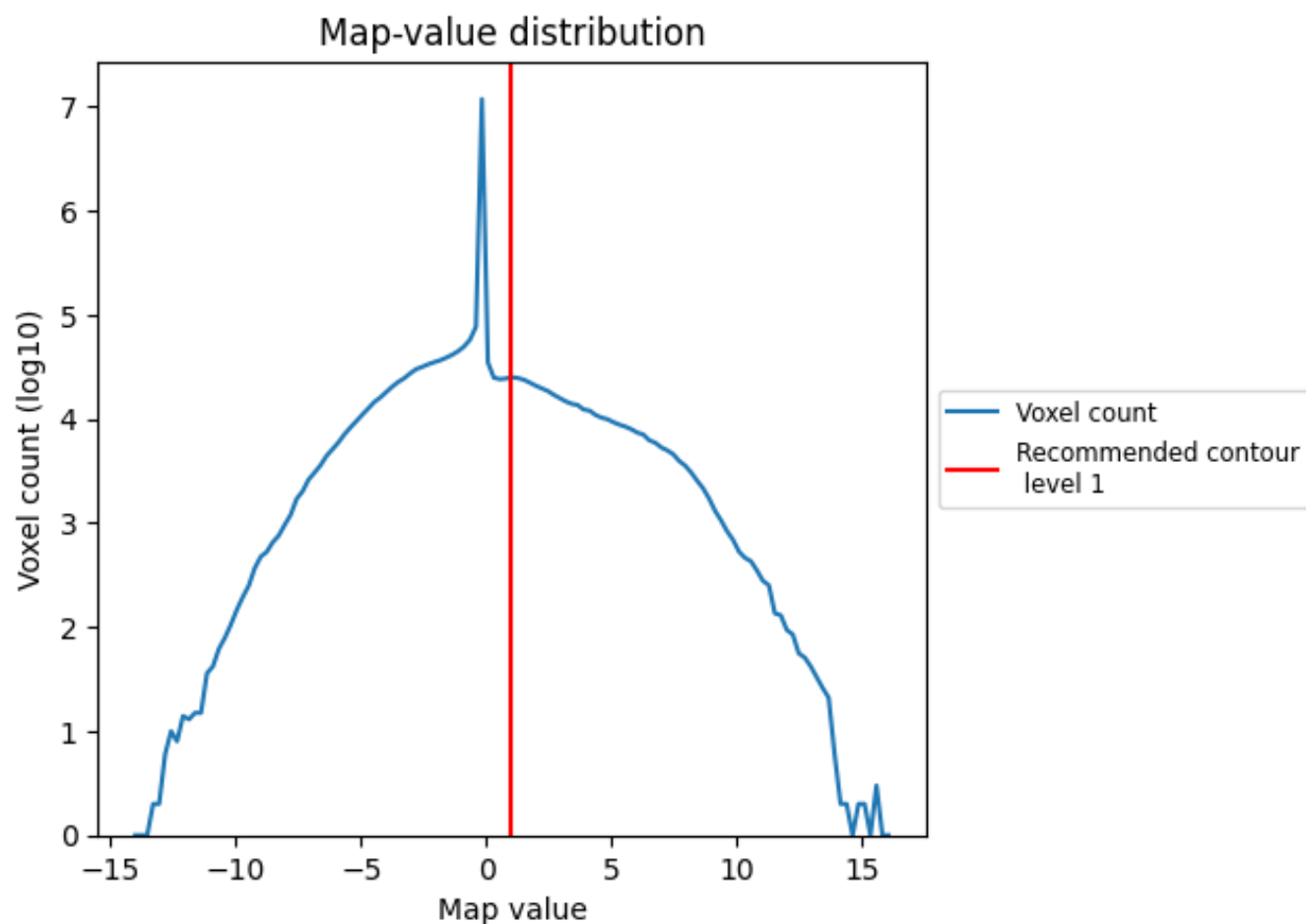
6.6 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

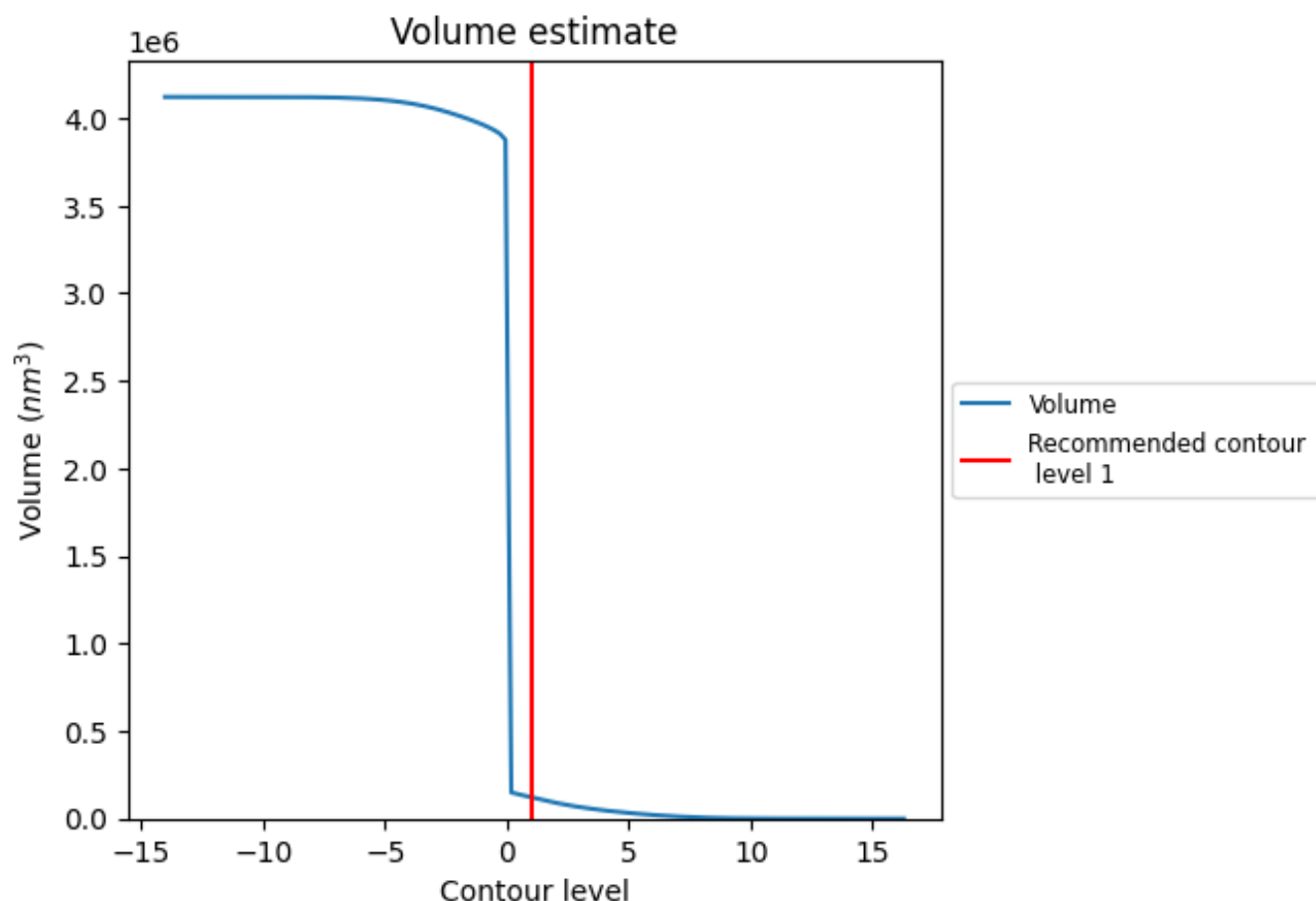
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

7.2 Volume estimate [i](#)



The volume at the recommended contour level is 122092 nm³; this corresponds to an approximate mass of 110289 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum [i](#)

This section was not generated. The rotationally averaged power spectrum is only generated for cubic maps.

8 Fourier-Shell correlation ⓘ

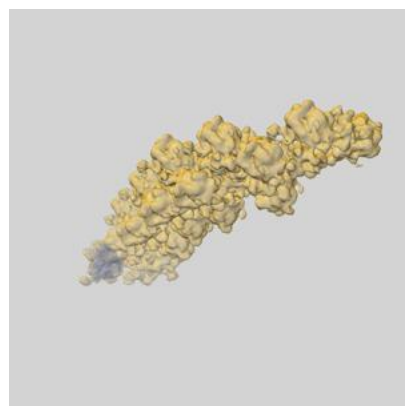
This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-2790 and PDB model 4V3P. Per-residue inclusion information can be found in section [3](#) on page [20](#).

9.1 Map-model overlays

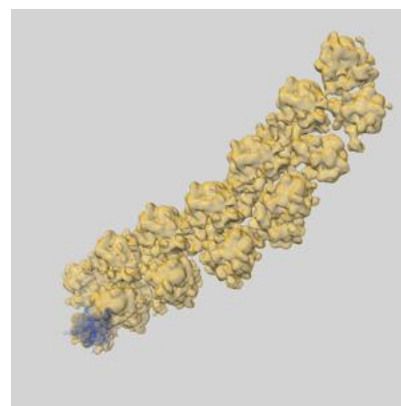
9.1.1 Map-model overlay [i](#)



X



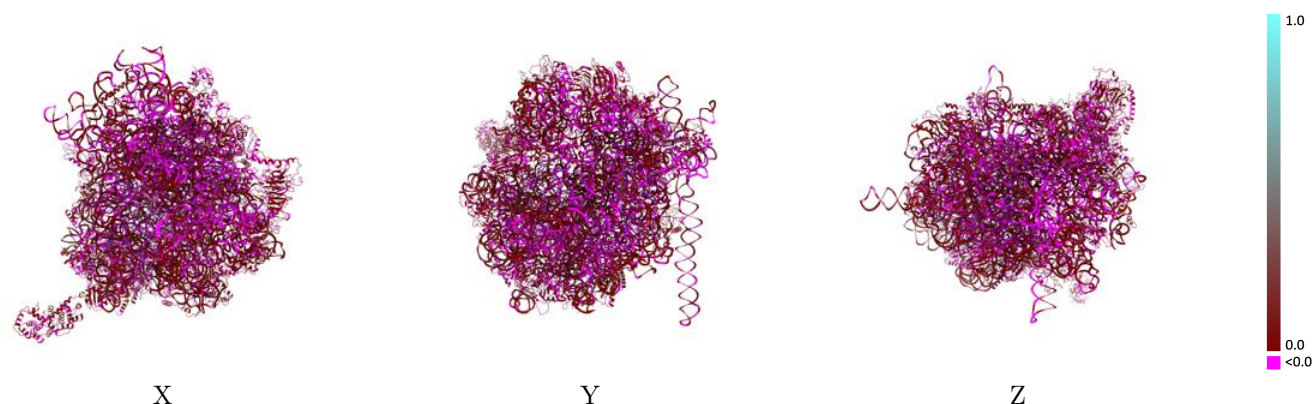
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 1.0 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)

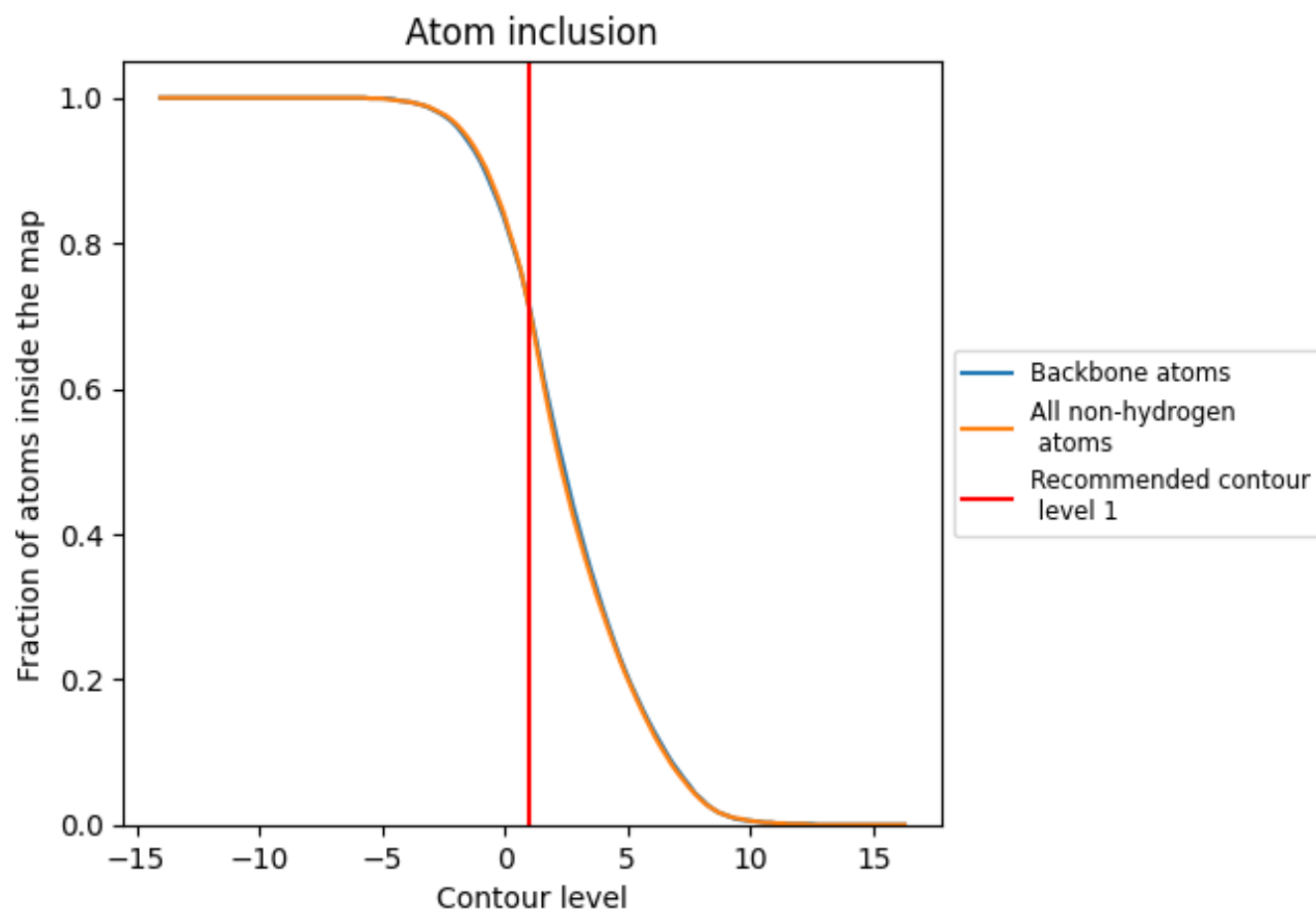


The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)

This section was not generated.

9.4 Atom inclusion [i](#)



At the recommended contour level, 71% of all backbone atoms, 71% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (1) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.7100	 0.0160
L1	 0.7200	 0.0180
L2	 0.8090	 0.0040
L3	 0.9400	 0.0370
LA	 0.0140	 -0.0110
LB	 0.2940	 -0.0160
LC	 0.9570	 0.0250
LD	 0.7450	 0.0060
LE	 0.8460	 0.0270
LF	 0.8750	 0.0510
LG	 0.9890	 0.0500
LH	 0.8810	 0.0350
LI	 0.5720	 0.0040
LJ	 0.9850	 0.0470
LK	 0.5420	 -0.0260
LL	 0.6670	 0.0050
LM	 0.3940	 -0.0240
LN	 0.9660	 0.0150
LO	 0.8240	 0.0400
LP	 0.7390	 -0.0220
LQ	 0.9860	 0.0420
LR	 0.8750	 0.0340
LS	 0.9620	 0.0030
LT	 0.6820	 0.0060
LU	 0.5640	 -0.0170
LV	 0.6150	 0.0030
LW	 0.9610	 0.0590
LX	 0.8670	 0.0280
LY	 1.0000	 0.0440
LZ	 0.7770	 -0.0020
La	 0.9400	 0.0030
Lb	 1.0000	 0.0500
Lc	 0.9810	 0.0470
Ld	 1.0000	 -0.0110
Le	 0.8050	 -0.0040



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Chain	Atom inclusion	Q-score
Lf	 0.7330	 0.0220
Lg	 0.6920	 0.0010
Lh	 0.6700	 -0.0050
Li	 1.0000	 0.0700
Lj	 0.7760	 -0.0140
Lk	 0.9050	 0.0460
Ll	 0.3230	 -0.0400
Lm	 0.1080	 -0.0130
Ln	 0.5370	 0.0300
Lo	 0.4590	 -0.0550
Lp	 0.9850	 -0.0140
Lq	 0.7030	 0.0370
Lr	 0.6040	 0.0130
Ls	 0.8260	 0.0350
Lt	 1.0000	 0.0840
Lu	 0.9440	 0.0330
Lv	 0.9980	 0.0540
Lw	 0.9930	 0.0220
Lx	 0.9210	 0.0120
Ly	 1.0000	 0.0200
Lz	 1.0000	 -0.0620
S1	 0.6480	 0.0130
S2	 0.1920	 -0.0060
S3	 1.0000	 0.0580
SA	 0.7040	 0.0150
SB	 0.6260	 0.0000
SC	 0.8900	 0.0220
SD	 0.9500	 0.0040
SE	 0.9360	 0.0110
SF	 0.3650	 0.0150
SG	 0.6270	 0.0250
SH	 0.9650	 0.0030
SI	 0.8920	 0.0190
SJ	 0.6790	 -0.0170
SK	 0.8190	 0.0470
SL	 0.0780	 -0.0180
SM	 0.6310	 0.0160
SN	 1.0000	 0.0080
SO	 0.2030	 -0.0070
SP	 0.0080	 -0.0010
SQ	 0.6640	 0.0240
SR	 0.6480	 0.0330

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Chain	Atom inclusion	Q-score
SS	 1.0000	 0.0720
ST	 0.5200	 0.0230
SU	 0.3720	 -0.0060
SV	 0.4420	 0.0210
SW	 0.9540	 0.0840
SX	 0.1540	 -0.0240
SY	 0.6200	 0.0330
SZ	 0.6280	 0.0340
Sa	 0.6630	 0.0350
Sb	 1.0000	 0.1390
Sc	 0.7620	 0.0180