



Full wwPDB EM Validation Report ⓘ

Mar 6, 2026 – 01:15 AM UTC

PDB ID : 4V7E / pdb_00004v7e
EMDB ID : EMD-1780
Title : Model of the small subunit RNA based on a 5.5 Å cryo-EM map of *Triticum aestivum* translating 80S ribosome
Authors : Barrio-Garcia, C.; Armache, J.-P.; Jarasch, A.; Anger, A.M.; Villa, E.; Becker, T.; Bhushan, S.; Jossinet, F.; Habeck, M.; Dindar, G.; Franckenberg, S.; Marquez, V.; Mielke, T.; Thomm, M.; Berninghausen, O.; Beatrix, B.; Soeding, J.; Westhof, E.; Wilson, D.N.; Beckmann, R.
Deposited on : 2013-11-22
Resolution : 5.50 Å(reported)

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:

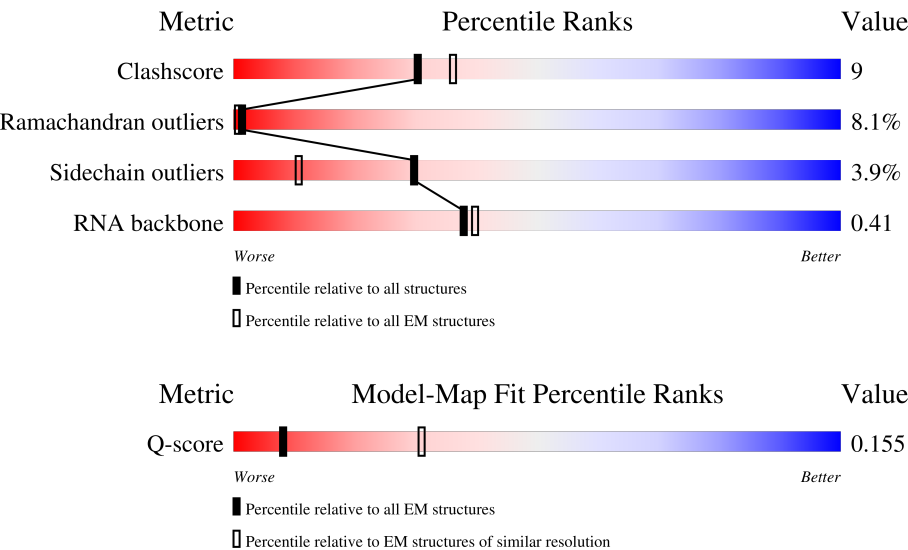
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh &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

1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 5.50 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	520 (5.00 - 6.00)

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 <=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	Ad	1810	
2	Ae	75	
3	Af	11	

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Mol	Chain	Length	Quality of chain
4	BY	138	
5	BI	220	
6	BK	183	
7	BM	171	
8	Bf	155	
9	BX	142	
10	Bg	380	
11	BD	208	
12	BE	265	
13	BF	191	
14	BQ	149	
15	BU	128	
16	BO	151	
17	BS	152	
18	BN	151	
19	BL	160	
20	BT	146	
21	BP	154	
22	BZ	108	
23	Bc	65	
24	BW	130	
25	Bd	56	
26	Bb	86	
27	Be	62	
28	BA	260	

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Mol	Chain	Length	Quality of chain
29	BR	141	
30	BB	262	
31	BV	82	
32	Ba	133	
33	BJ	195	
34	BC	263	
35	BG	245	
36	BH	189	
37	CG	257	
38	CT	164	
39	CZ	136	
40	Cz	216	
41	CA	261	
42	CJ	180	
43	CH	190	
44	CV	140	
45	CN	200	
46	Ca	144	
47	CQ	188	
48	CD	304	
49	CR	209	
50	CP	171	
51	CX	152	
52	CW	162	
53	CY	150	

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Mol	Chain	Length	Quality of chain
54	Cr	147	
55	Cc	112	
56	Cd	123	
57	Ce	133	
58	Cj	94	
59	Cl	51	
60	Co	105	
61	CM	134	
62	CS	178	
63	CU	130	
64	Ci	112	
65	CK	166	
66	Cu	110	
66	Cv	110	
67	Cs	113	
67	Ct	113	
68	Ch	124	
69	CF	244	
70	Cq	319	
71	CB	389	
72	CC	405	
73	CO	206	
74	Cp	92	
75	CI	224	
76	Cn	25	

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Mol	Chain	Length	Quality of chain
77	Cm	53	
78	CL	208	
79	CE	219	
80	Cf	111	
81	Ck	69	
82	Cb	60	
83	Cg	119	
84	Aa	3391	
85	Ac	160	
86	Ab	120	

2 Entry composition

There are 86 unique types of molecules in this entry. The entry contains 212263 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 RNA chain called 18S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	Ad	1762	Total	C	N	O	P	0	0
			37584	16788	6708	12327	1761		

- Molecule 2 is a RNA chain called P-site tRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	Ae	75	Total	C	N	O	P	0	0
			1595	712	280	529	74		

- Molecule 3 is a RNA chain called 5'-R(*AP*AP*AP*AP*GP*AP*CP*UP*UP*CP*A)-3'.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	Af	11	Total	C	N	O	P	0	0
			232	106	45	71	10		

- Molecule 4 is a protein called 40S ribosomal protein S24E.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	BY	138	Total	C	N	O	S	0	0
			1108	703	212	189	4		

- Molecule 5 is a protein called 40S ribosomal protein S8E.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	BI	66	Total	C	N	O	S	0	0
			533	330	105	95	3		

- Molecule 6 is a protein called 40S ribosomal protein S10E.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	BK	96	Total	C	N	O	S	0	0
			818	535	137	143	3		

- Molecule 7 is a protein called 40S ribosomal protein S12E.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	BM	123	Total	C	N	O	S	0	0
			924	577	159	179	9		

- Molecule 8 is a protein called 40S ribosomal protein S31e.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	Bf	71	Total	C	N	O	S	0	0
			577	367	107	98	5		

- Molecule 9 is a protein called 40S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	BX	142	Total	C	N	O	S	0	0
			1103	698	214	187	4		

- Molecule 10 is a protein called RACK1.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	Bg	380	Total	C	N	O	S	0	0
			2929	1813	530	567	19		

- Molecule 11 is a protein called 40S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	BD	208	Total	C	N	O	S	0	0
			1629	1029	294	297	9		

- Molecule 12 is a protein called 40S ribosomal protein S4E.

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

- Molecule 13 is a protein called 40S ribosomal protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	BF	191	Total	C	N	O	S	0	0
			1489	928	281	273	7		

- Molecule 14 is a protein called 40S ribosomal protein S9.

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

- Molecule 15 is a protein called 40S ribosomal protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	BU	128	Total	C	N	O	S	0	0
			982	613	176	187	6		

- Molecule 16 is a protein called 40S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	BO	119	Total	C	N	O	S	0	0
			899	550	178	167	4		

- Molecule 17 is a protein called 40S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	BS	152	Total	C	N	O	S	0	0
			1240	772	248	213	7		

- Molecule 18 is a protein called 40S ribosomal protein S15.

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

- Molecule 19 is a protein called 40S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	BL	85	Total	C	N	O	S	0	0
			688	435	134	115	4		

- Molecule 20 is a protein called 40S ribosomal protein S19E.

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

- Molecule 21 is a protein called 40S ribosomal protein S19.

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

- Molecule 22 is a protein called 40S ribosomal protein S25E.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	BZ	100	Total	C	N	O	S	0	0
			779	489	146	144			

- Molecule 23 is a protein called 40S ribosomal protein S28E.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	Bc	58	Total	C	N	O	S	0	0
			454	281	86	84	3		

- Molecule 24 is a protein called 40S ribosomal protein S8.

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

- Molecule 25 is a protein called 40S ribosomal protein S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	Bd	48	Total	C	N	O	S	0	0
			379	233	77	63	6		

- Molecule 26 is a protein called 40S ribosomal protein S27E.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	Bb	86	Total	C	N	O	S	0	0
			663	414	119	122	8		

- Molecule 27 is a protein called 40S ribosomal protein S30E.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	Be	60	Total	C	N	O	S	0	0
			469	289	104	75	1		

- Molecule 28 is a protein called 40S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	BA	197	Total	C	N	O	S	0	0
			1537	969	280	278	10		

- Molecule 29 is a protein called 40S ribosomal protein S17E.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	BR	116	Total	C	N	O	S	0	0
			945	589	178	171	7		

- Molecule 30 is a protein called 40S ribosomal protein S1E.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	BB	211	Total	C	N	O	S	0	0
			1707	1089	308	302	8		

- Molecule 31 is a protein called 40S ribosomal protein S21E.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	BV	76	Total	C	N	O	S	0	0
			601	371	112	115	3		

- Molecule 32 is a protein called 40S ribosomal protein S26E.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	Ba	93	Total	C	N	O	S	0	0
			753	461	163	122	7		

- Molecule 33 is a protein called 40S ribosomal protein S4.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	BJ	187	Total	C	N	O	S	0	0
			1525	959	305	256	5		

- Molecule 34 is a protein called 40S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	BC	214	Total	C	N	O	S	0	0
			1665	1074	297	287	7		

- Molecule 35 is a protein called 40S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	BG	231	Total	C	N	O	S	0	0
			1867	1164	367	328	8		

- Molecule 36 is a protein called 40S ribosomal protein S7E.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	BH	184	Total	C	N	O	S	0	0
			1508	962	278	266	2		

- Molecule 37 is a protein called 60S ribosomal protein L8E.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	CG	237	Total	C	N	O	S	0	0
			1906	1226	351	322	7		

- Molecule 38 is a protein called 60S ribosomal protein L21E.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	CT	160	Total	C	N	O	S	0	0
			1288	814	251	219	4		

- Molecule 39 is a protein called 60S ribosomal protein L27E.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	CZ	136	Total	C	N	O	S	0	0
			1090	704	205	176	5		

- Molecule 40 is a protein called 60S ribosomal protein L1.

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

- Molecule 41 is a protein called 60S ribosomal protein L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	CA	255	Total	C	N	O	S	0	0
			1946	1210	399	328	9		

- Molecule 42 is a protein called 60S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	CJ	170	Total	C	N	O	S	0	0
			1380	869	256	246	9		

- Molecule 43 is a protein called 60S ribosomal protein L6.

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

- Molecule 44 is a protein called 60S ribosomal protein L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	CV	140	Total	C	N	O	S	0	0
			1048	658	199	181	10		

- Molecule 45 is a protein called 60S ribosomal protein L15E.

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

- Molecule 46 is a protein called 60S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	Ca	144	Total	C	N	O	S	0	0
			1114	710	223	175	6		

- Molecule 47 is a protein called 60S ribosomal protein L18E.

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

- Molecule 48 is a protein called 60S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	CD	304	Total	C	N	O	S	0	0
			2444	1531	440	466	7		

- Molecule 49 is a protein called 60S ribosomal protein L19E.

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

- Molecule 50 is a protein called 60S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	CP	171	Total	C	N	O	S	0	0
			1372	852	271	244	5		

- Molecule 51 is a protein called 60S ribosomal protein L23.

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

- Molecule 52 is a protein called 60S ribosomal protein L24E.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	CW	75	Total	C	N	O	S	0	0
			635	408	126	97	4		

- Molecule 53 is a protein called 60S ribosomal protein L24.

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

- Molecule 54 is a protein called 60S ribosomal protein L28E.

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

- Molecule 55 is a protein called 60S ribosomal protein L30E.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	Cc	112	Total	C	N	O	S	0	0
			857	540	149	161	7		

- Molecule 56 is a protein called 60S ribosomal protein L31E.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	Cd	120	Total	C	N	O	S	0	0
			960	598	186	173	3		

- Molecule 57 is a protein called 60S ribosomal protein L32E.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	Ce	133	Total	C	N	O	S	0	0
			1103	696	216	185	6		

- Molecule 58 is a protein called 60S ribosomal protein L37E.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	Cj	94	Total	C	N	O	S	0	0
			755	459	166	123	7		

- Molecule 59 is a protein called 60S ribosomal protein L39E.

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

- Molecule 60 is a protein called 60S ribosomal protein L44E.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	Co	105	Total	C	N	O	S	0	0
			851	535	166	144	6		

- Molecule 61 is a protein called 60S ribosomal protein L14E.

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

- Molecule 62 is a protein called 60S ribosomal protein L20.

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

- Molecule 63 is a protein called 60S ribosomal protein L22E.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	CU	108	Total	C	N	O	S	0	0
			864	551	155	156	2		

- Molecule 64 is a protein called 60S ribosomal protein L36E.

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

- Molecule 65 is a protein called 60S ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	CK	128	Total	C	N	O	S	0	0
			960	602	177	177	4		

- Molecule 66 is a protein called 60S ribosomal protein P1.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	Cu	58	Total	C	N	O	S	0	0
			432	283	69	79	1		
66	Cv	58	Total	C	N	O	S	0	0
			432	283	69	79	1		

- Molecule 67 is a protein called Acidic ribosomal protein P2.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	Cs	59	Total	C	N	O	S	0	0
			441	278	69	90	4		
67	Ct	59	Total	C	N	O	S	0	0
			441	278	69	90	4		

- Molecule 68 is a protein called 60S ribosomal protein L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	Ch	124	Total	C	N	O	S	0	0
			1012	636	202	173	1		

- Molecule 69 is a protein called 60S ribosomal protein L30.

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

- Molecule 70 is a protein called 60S acidic ribosomal protein P0.

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

- Molecule 71 is a protein called 60S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
71	CB	389	Total	C	N	O	S	0	0
			3139	1997	584	540	18		

- Molecule 72 is a protein called 60S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
72	CC	372	Total	C	N	O	S	0	0
			2898	1823	556	510	9		

- Molecule 73 is a protein called 60S ribosomal protein L13.

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

- Molecule 74 is a protein called 60S ribosomal protein L43E.

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

- Molecule 75 is a protein called 60S ribosomal protein L16.

Mol	Chain	Residues	Atoms					AltConf	Trace
75	CI	184	Total	C	N	O	S	0	0
			1490	941	290	247	12		

- Molecule 76 is a protein called 60S ribosomal protein L41E.

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

- Molecule 77 is a protein called 60S ribosomal protein L40E.

Mol	Chain	Residues	Atoms					AltConf	Trace
77	Cm	52	Total	C	N	O	S	0	0
			428	267	90	66	5		

- Molecule 78 is a protein called 60S ribosomal protein L13E.

Mol	Chain	Residues	Atoms					AltConf	Trace
78	CL	208	Total	C	N	O	S	0	0
			1691	1061	338	286	6		

- Molecule 79 is a protein called 60S ribosomal protein L6E.

Mol	Chain	Residues	Atoms					AltConf	Trace
79	CE	219	Total	C	N	O	S	0	0
			1731	1106	314	307	4		

- Molecule 80 is a protein called 60S ribosomal protein L33E.

Mol	Chain	Residues	Atoms					AltConf	Trace
80	Cf	111	Total	C	N	O	S	0	0
			891	561	170	156	4		

- Molecule 81 is a protein called 60S ribosomal protein L38E.

Mol	Chain	Residues	Atoms					AltConf	Trace
81	Ck	69	Total	C	N	O	S	0	0
			564	360	104	97	3		

- Molecule 82 is a protein called 60S ribosomal protein L29E.

Mol	Chain	Residues	Atoms					AltConf	Trace
82	Cb	58	Total	C	N	O	S	0	0
			477	288	103	85	1		

- Molecule 83 is a protein called 60S ribosomal protein L34E.

Mol	Chain	Residues	Atoms					AltConf	Trace
83	Cg	110	Total	C	N	O	S	0	0
			897	567	182	146	2		

- Molecule 84 is a RNA chain called 60S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
84	Aa	3391	Total	C	N	O	P	0	0
			72601	32373	13241	23598	3389		

- Molecule 85 is a RNA chain called 5.8S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
85	Ac	160	Total	C	N	O	P	0	0
			3408	1522	614	1113	159		

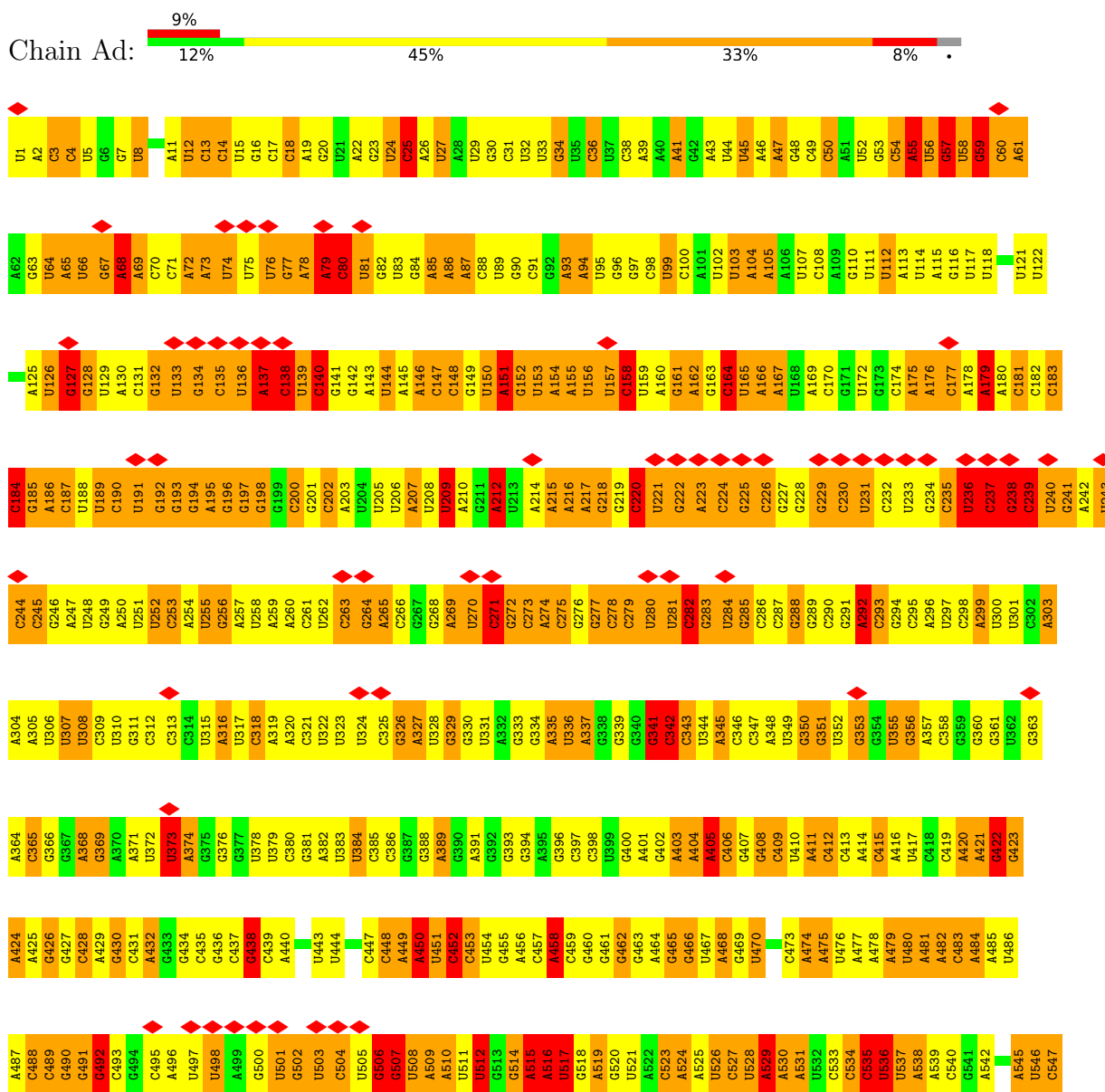
- Molecule 86 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
86	Ab	120	Total	C	N	O	P	0	0
			2561	1144	461	837	119		

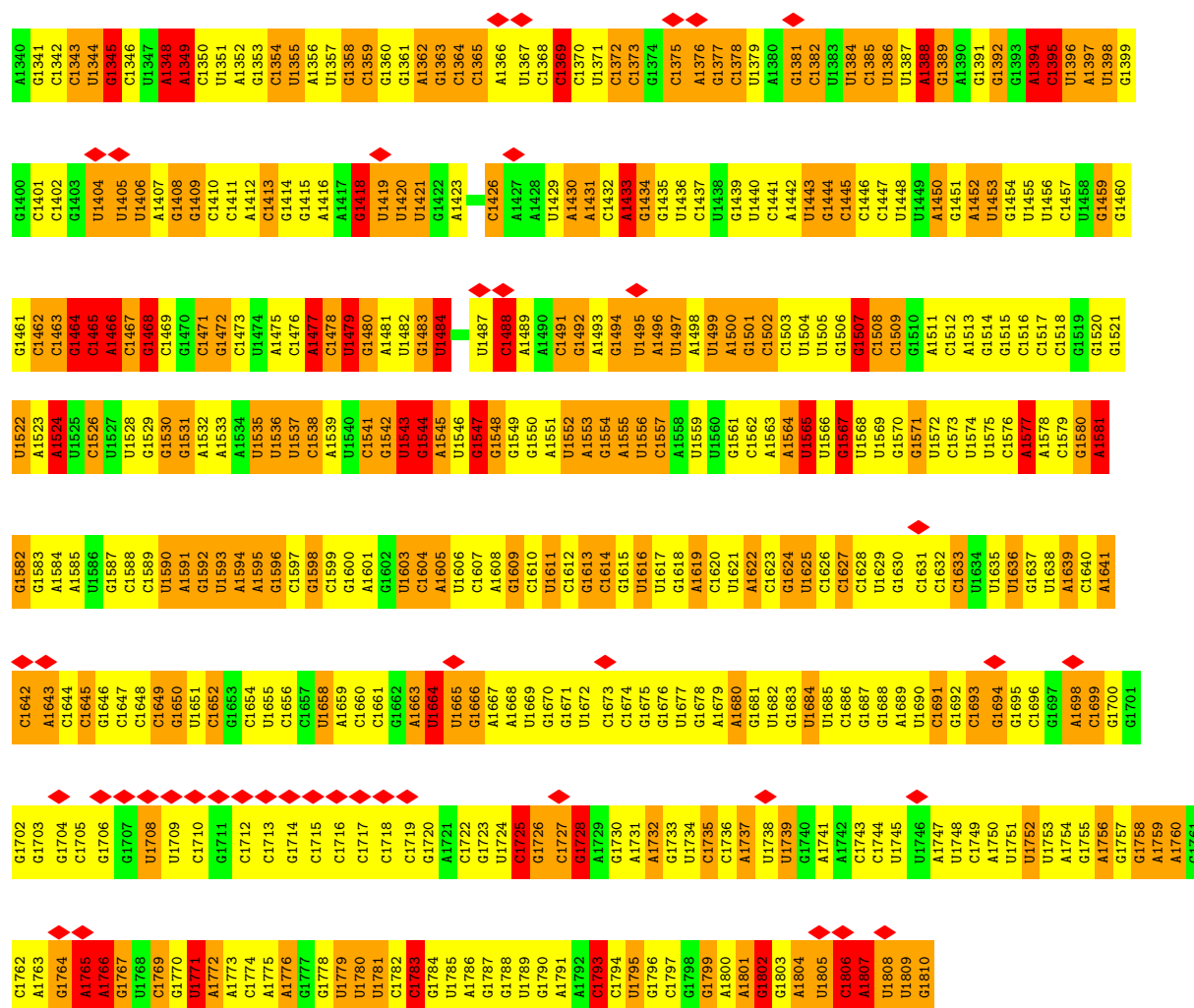
3 Residue-property plots

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.

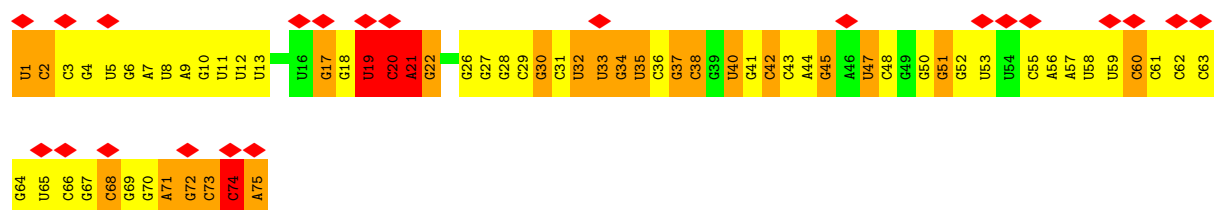
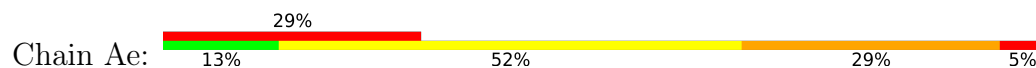
• Molecule 1: 18S ribosomal RNA



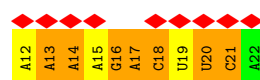
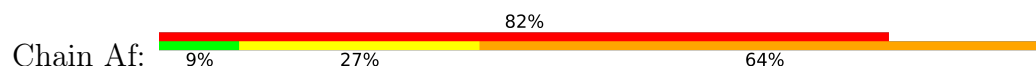




• Molecule 2: P-site tRNA



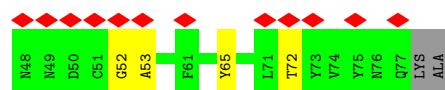
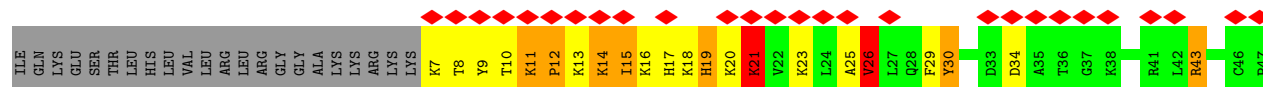
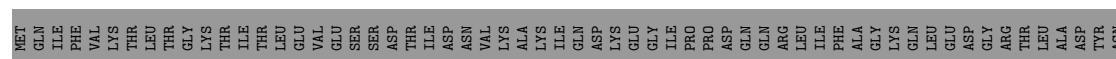
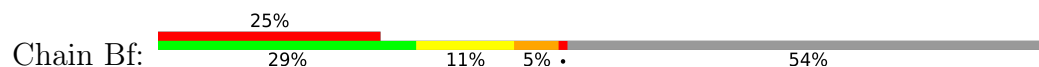
• Molecule 3: 5'-R(*AP*AP*AP*AP*GP*AP*CP*UP*UP*CP*A)-3'



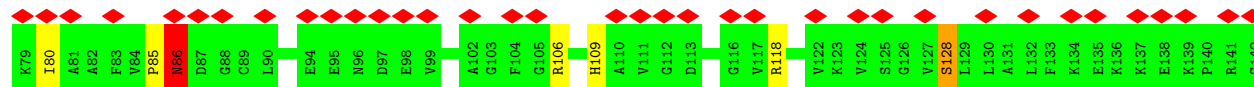
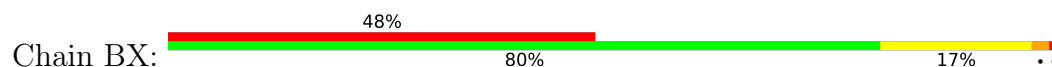
• Molecule 4: 40S ribosomal protein S24E



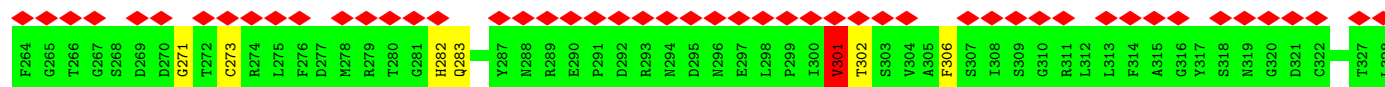
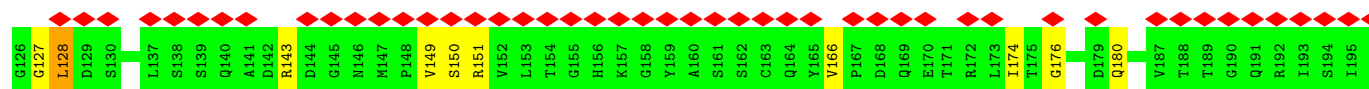
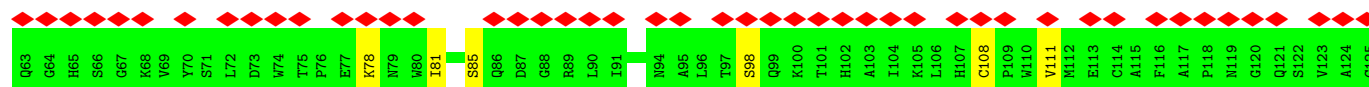
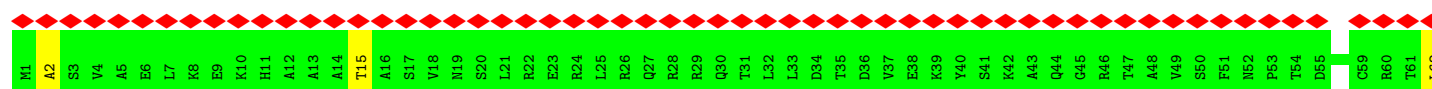
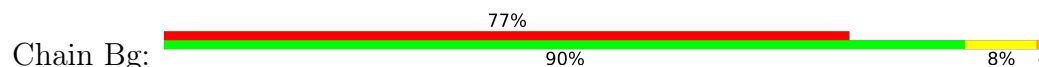
• Molecule 8: 40S ribosomal protein S31e



• Molecule 9: 40S ribosomal protein S12



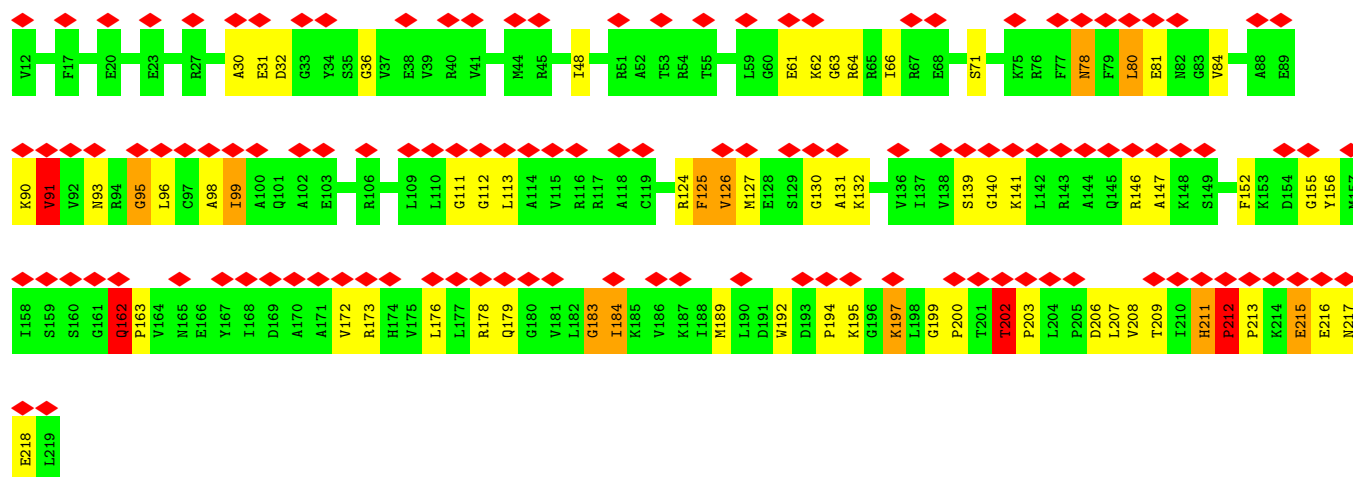
• Molecule 10: RACK1





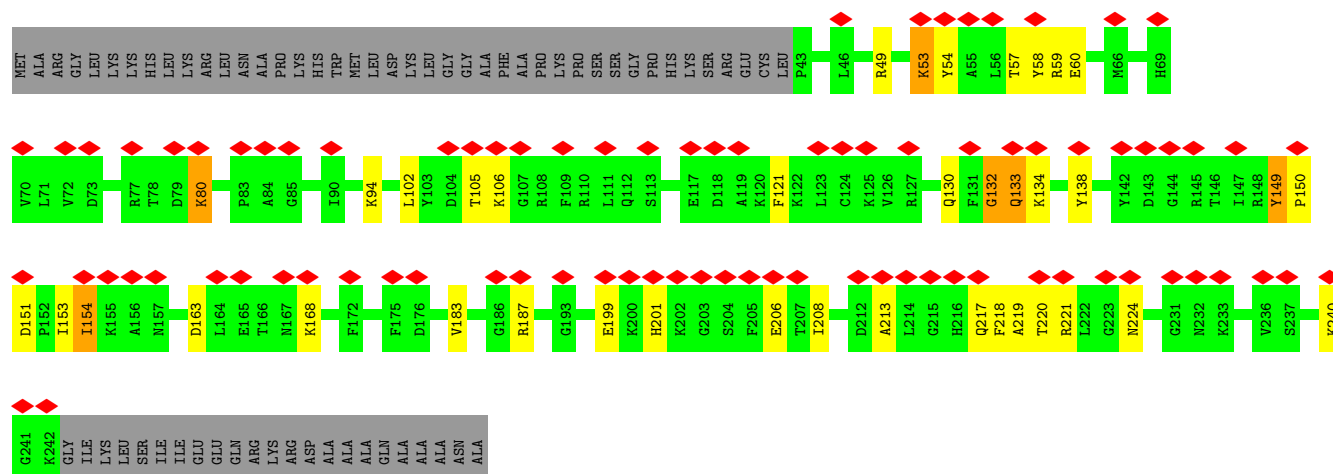
• Molecule 11: 40S ribosomal protein S3

Chain BD: 58% 67% 26% 5% .



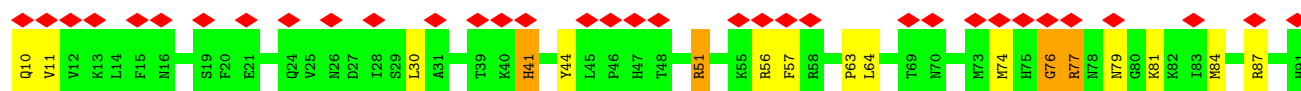
• Molecule 12: 40S ribosomal protein S4E

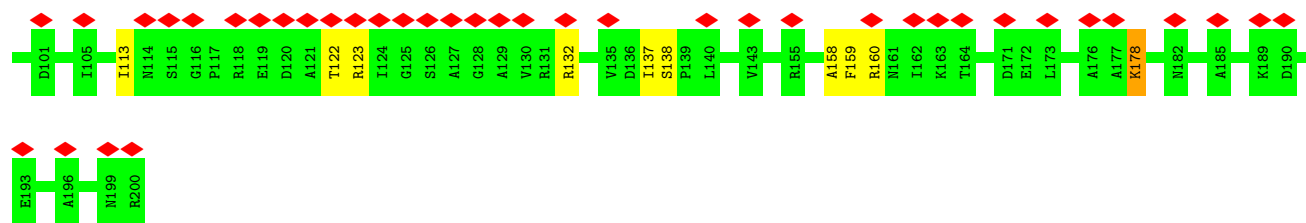
Chain BE: 32% 61% 12% 25% .



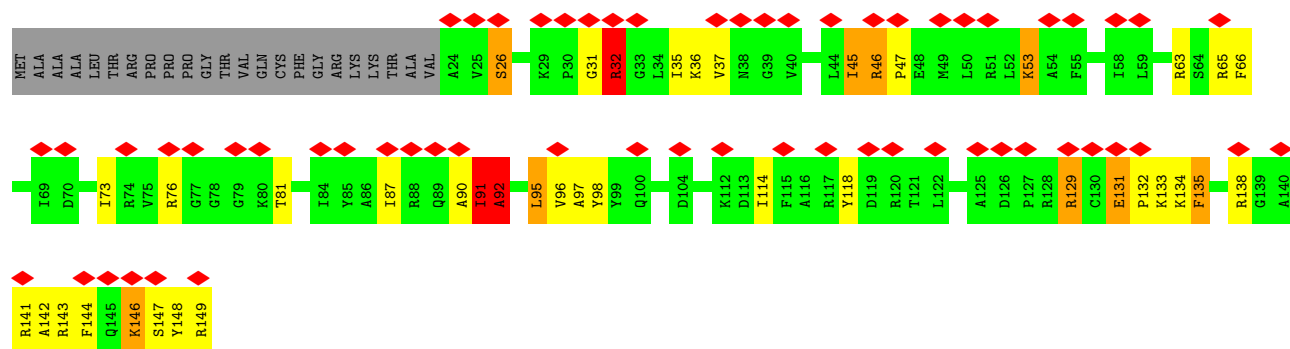
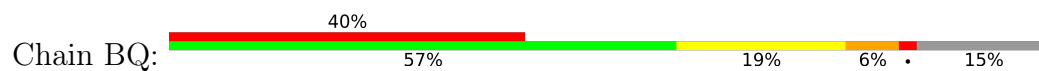
• Molecule 13: 40S ribosomal protein S7

Chain BF: 38% 86% 12% .

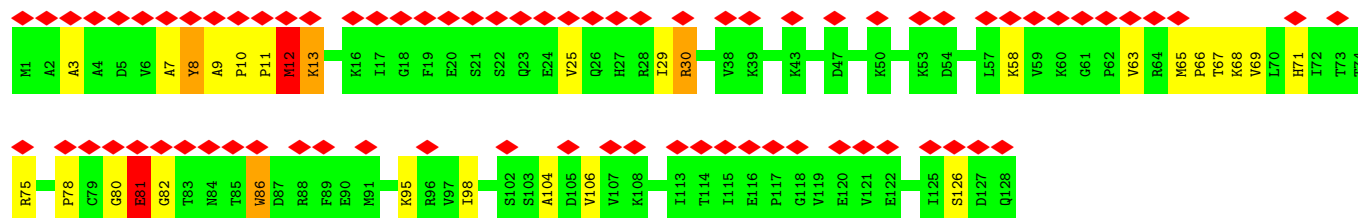
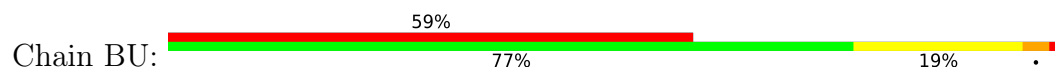




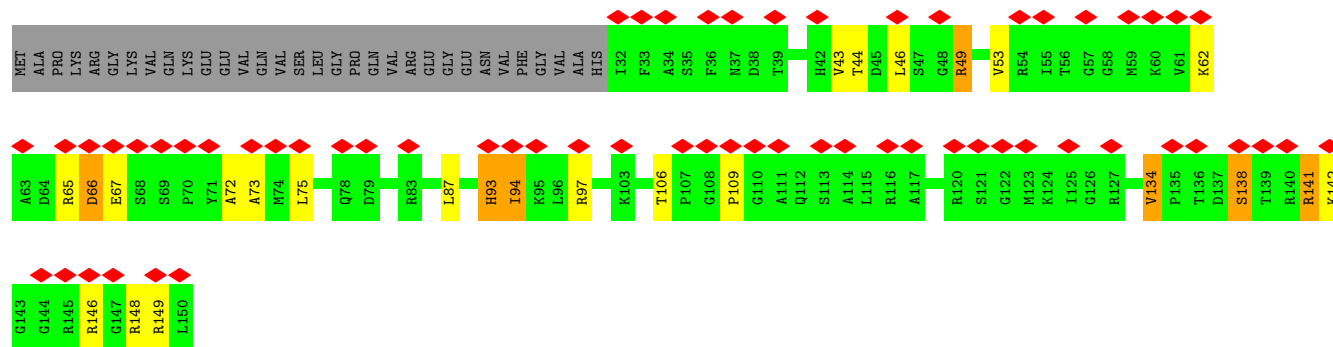
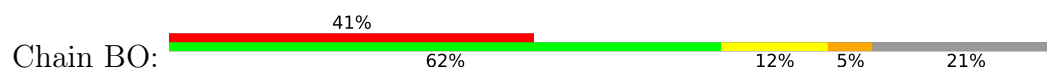
• Molecule 14: 40S ribosomal protein S9



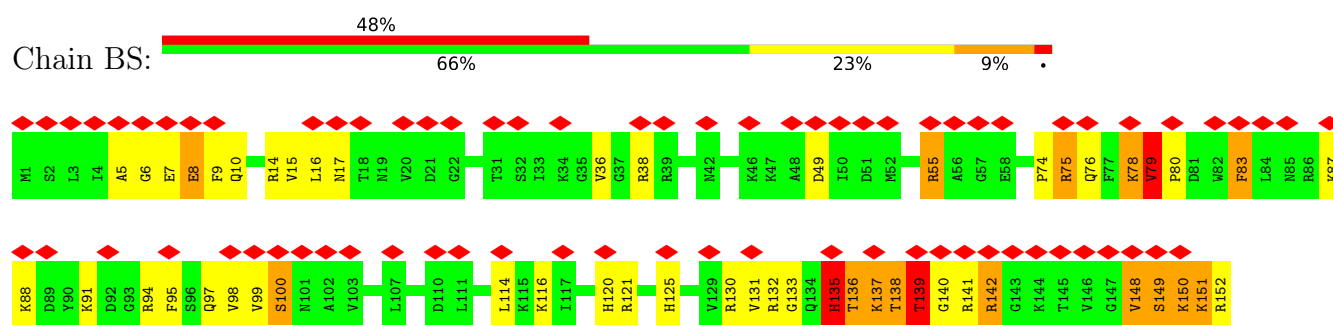
• Molecule 15: 40S ribosomal protein S10



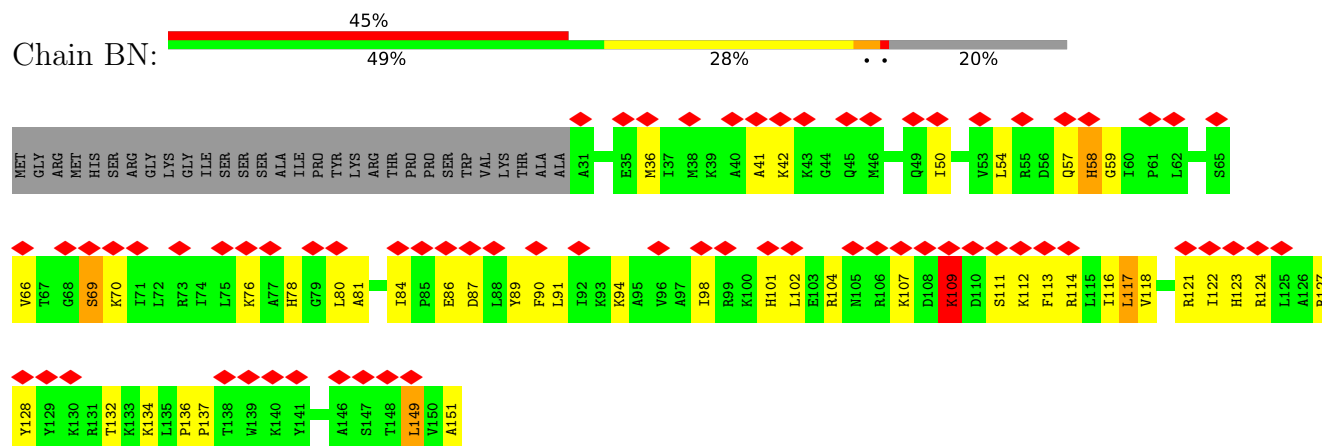
• Molecule 16: 40S ribosomal protein S11



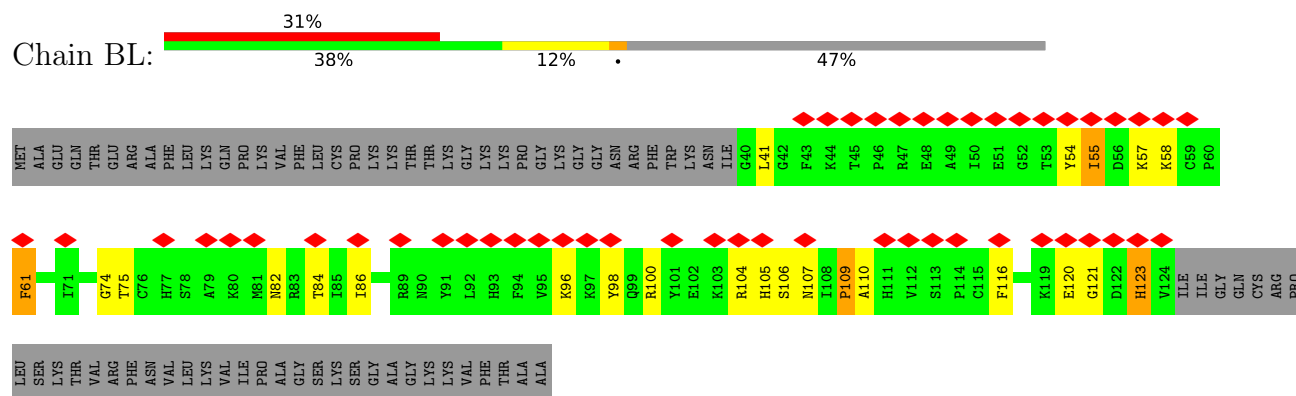
• Molecule 17: 40S ribosomal protein S13



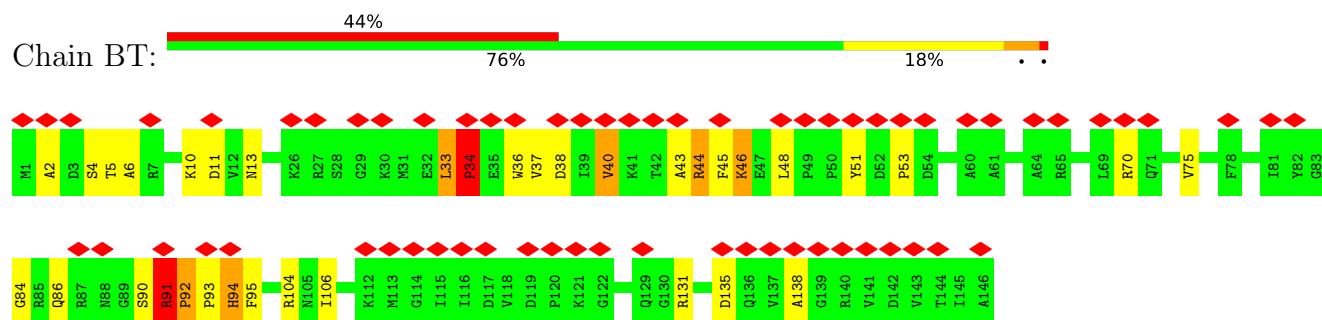
• Molecule 18: 40S ribosomal protein S15



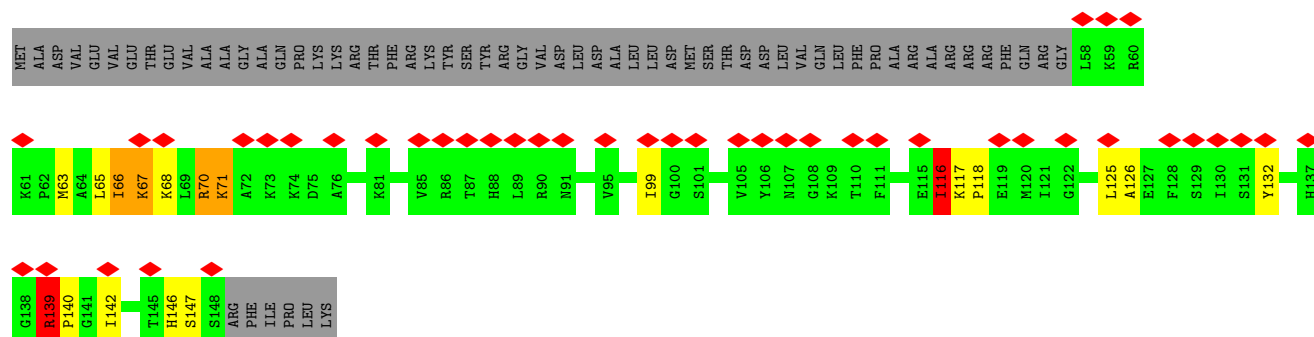
• Molecule 19: 40S ribosomal protein S17



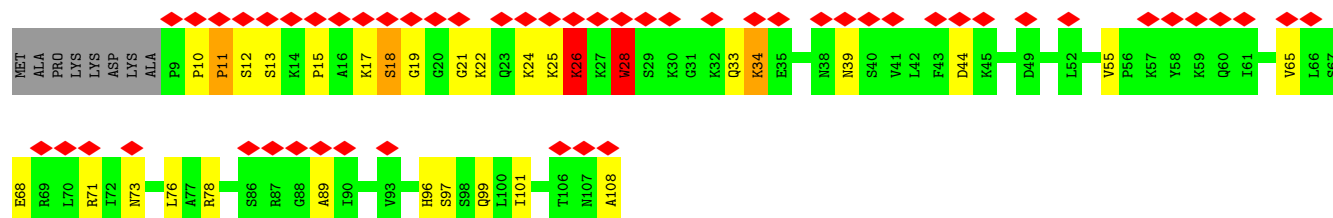
• Molecule 20: 40S ribosomal protein S19E



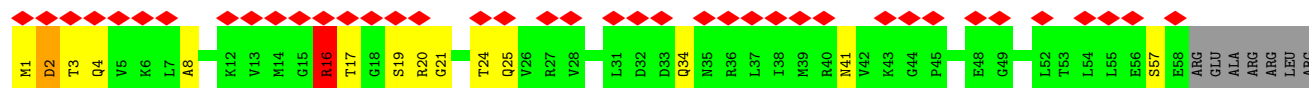
• Molecule 21: 40S ribosomal protein S19



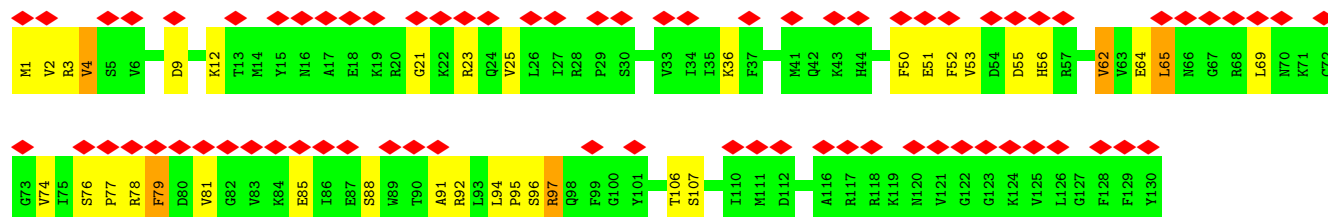
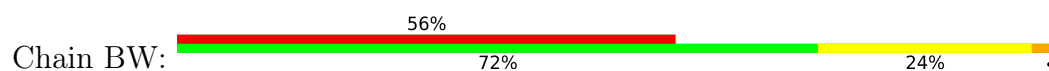
- Molecule 22: 40S ribosomal protein S25E



- Molecule 23: 40S ribosomal protein S28E



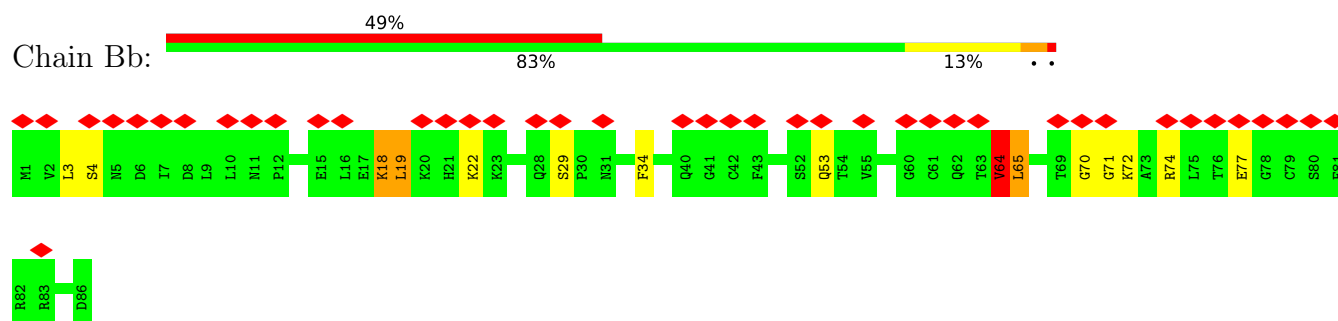
- Molecule 24: 40S ribosomal protein S8



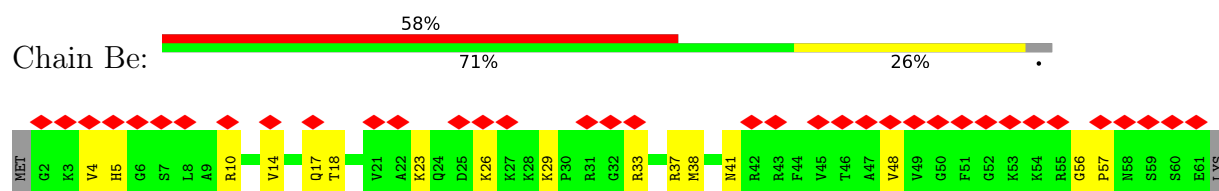
- Molecule 25: 40S ribosomal protein S14



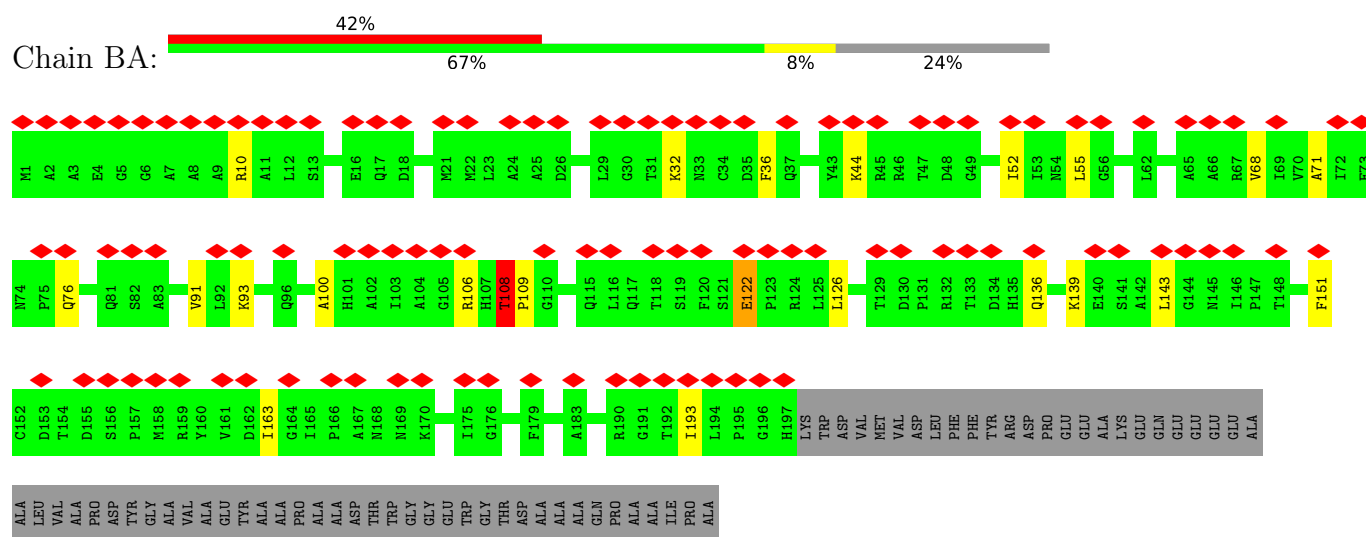
- Molecule 26: 40S ribosomal protein S27E



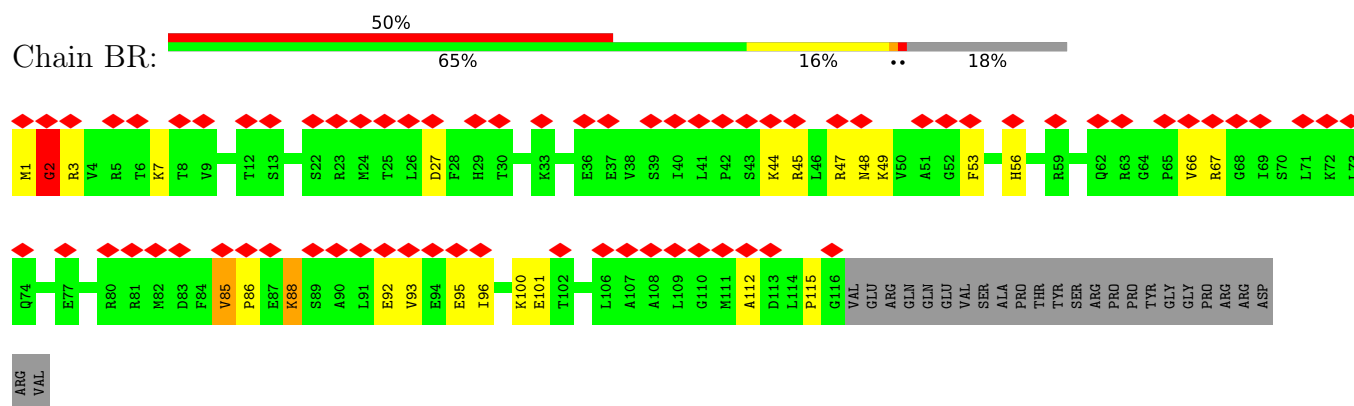
- Molecule 27: 40S ribosomal protein S30E



- Molecule 28: 40S ribosomal protein S2

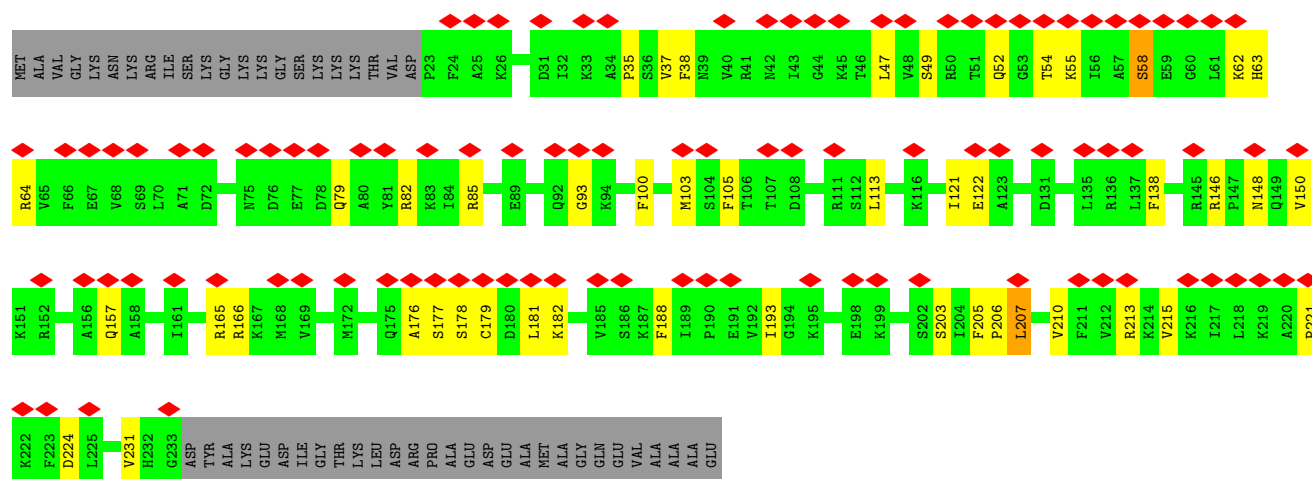


- Molecule 29: 40S ribosomal protein S17E



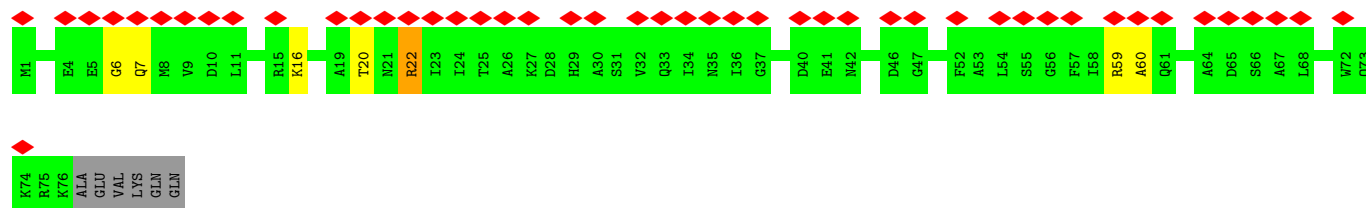
- Molecule 30: 40S ribosomal protein S1E

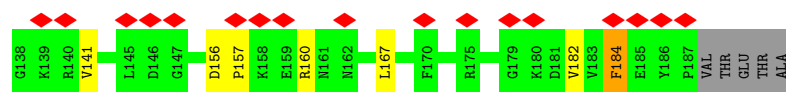
Chain BB: 38% 63% 17% 19%



• Molecule 31: 40S ribosomal protein S21E

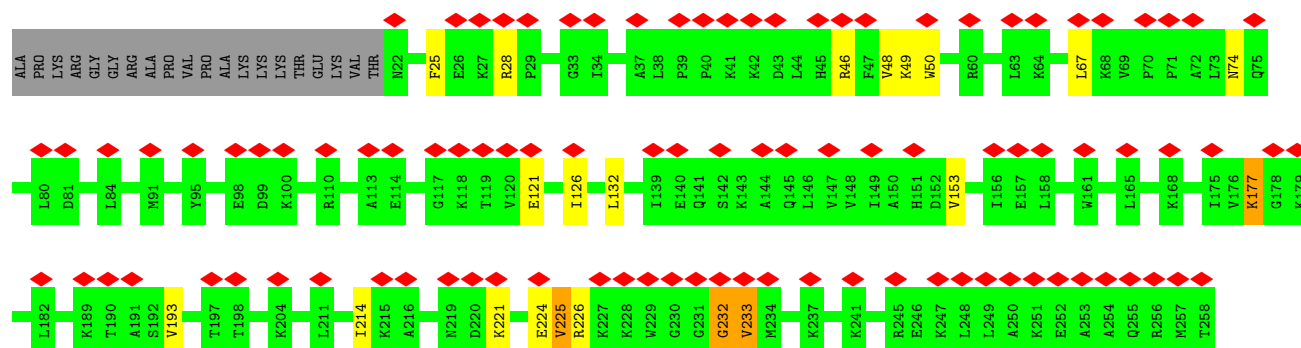
Chain BV: 57% 84% 7% 7%





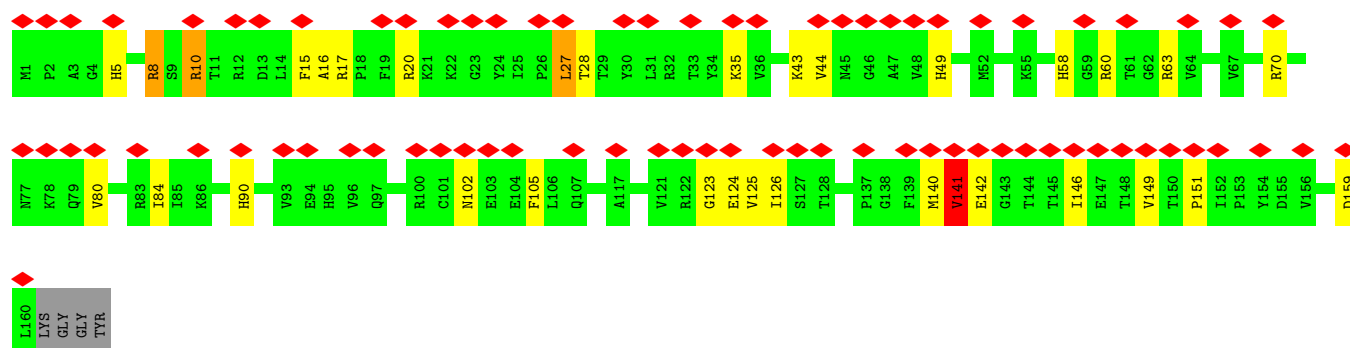
• Molecule 37: 60S ribosomal protein L8E

Chain CG: 38% 84% 7% 8%



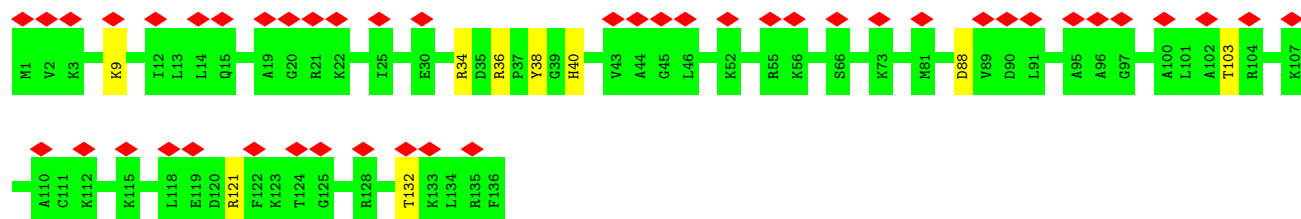
• Molecule 38: 60S ribosomal protein L21E

Chain CT: 47% 77% 18% ...



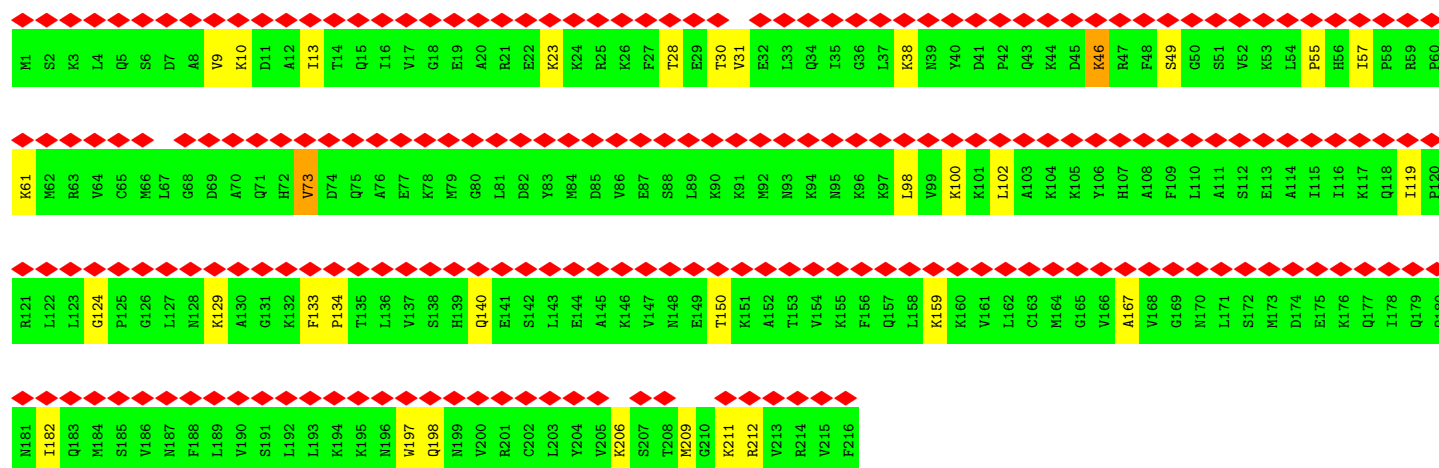
• Molecule 39: 60S ribosomal protein L27E

Chain CZ: 33% 93% 7%

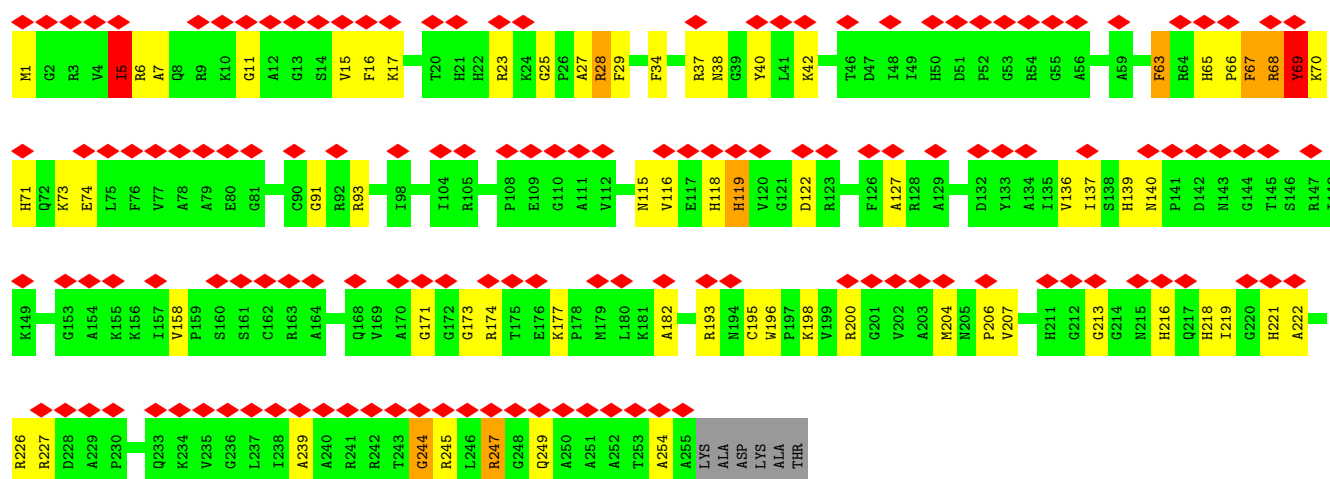
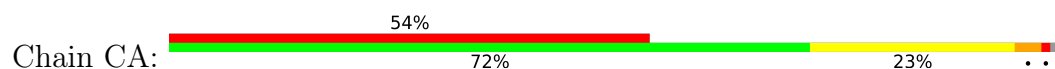


• Molecule 40: 60S ribosomal protein L1

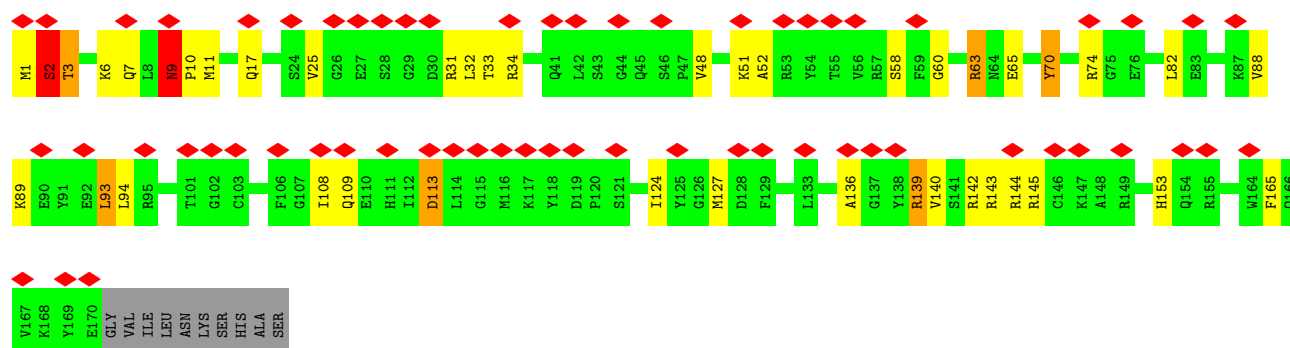
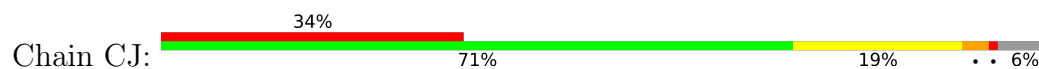
Chain Cz: 98% 85% 14%



• Molecule 41: 60S ribosomal protein L2

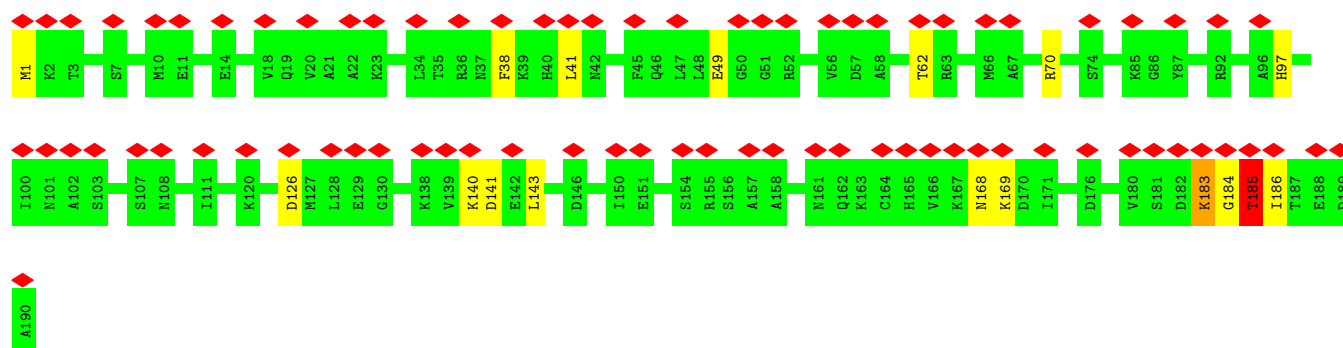


• Molecule 42: 60S ribosomal protein L5



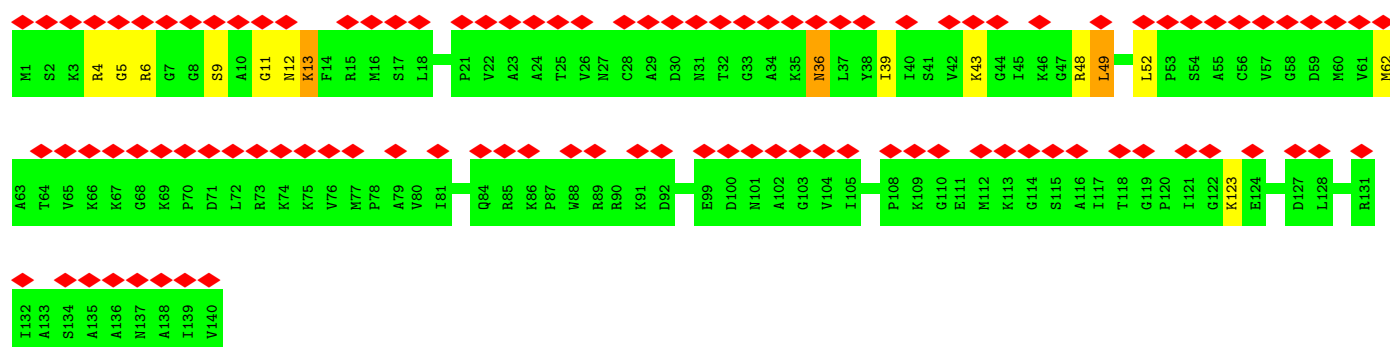
• Molecule 43: 60S ribosomal protein L6

Chain CH: 



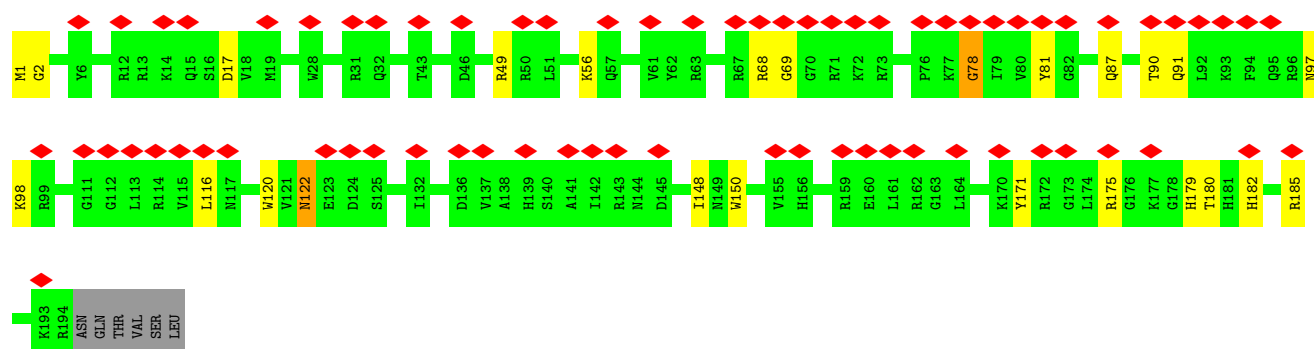
• Molecule 44: 60S ribosomal protein L14

Chain CV: 



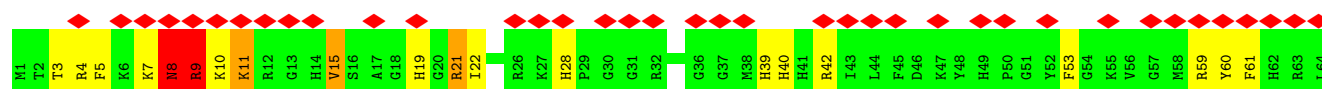
• Molecule 45: 60S ribosomal protein L15E

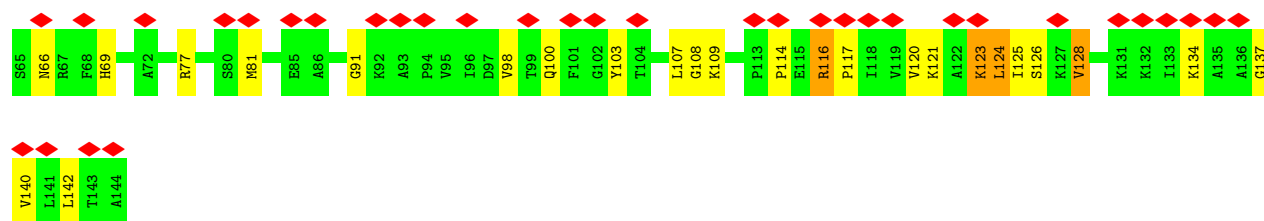
Chain CN: 



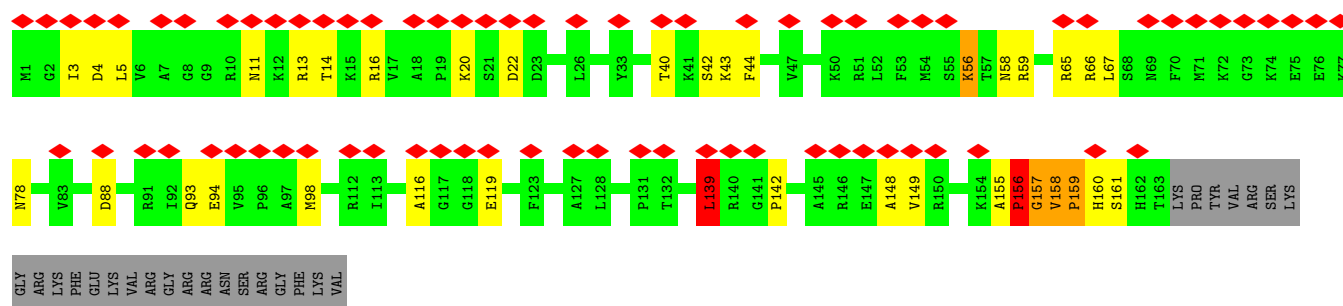
• Molecule 46: 60S ribosomal protein L15

Chain Ca: 

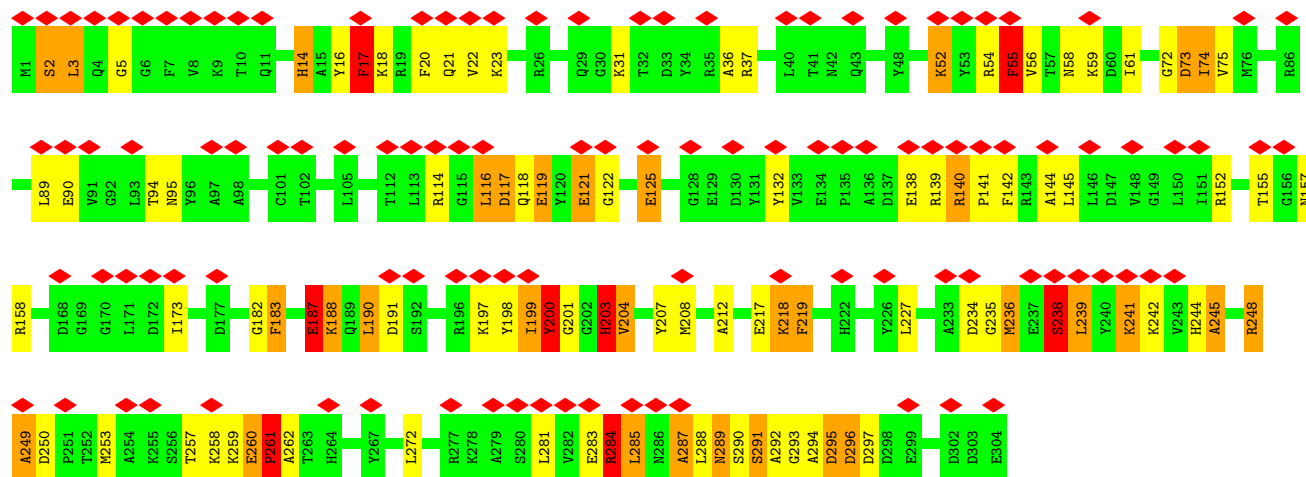
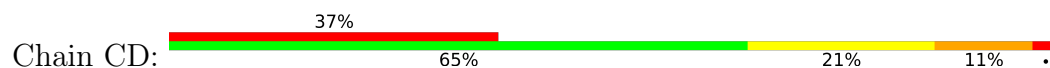




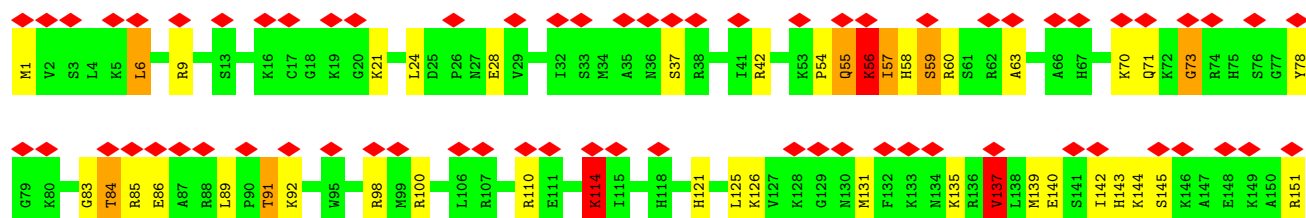
• Molecule 47: 60S ribosomal protein L18E



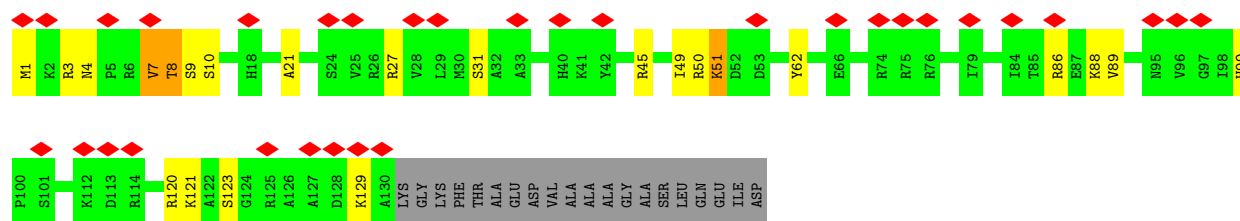
• Molecule 48: 60S ribosomal protein L18



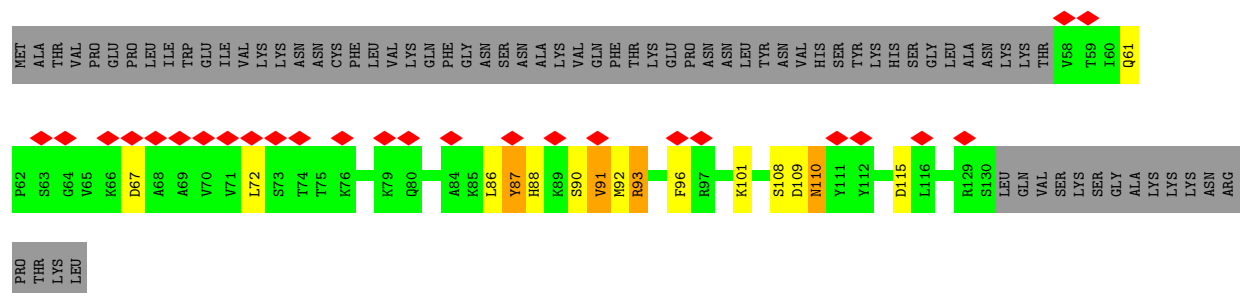
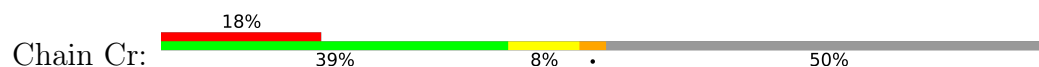
• Molecule 49: 60S ribosomal protein L19E



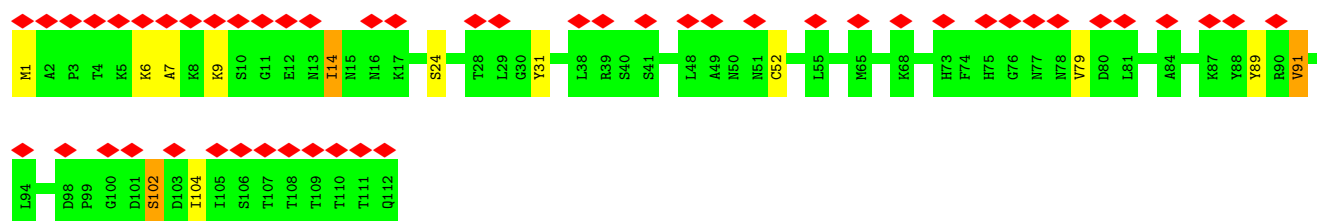




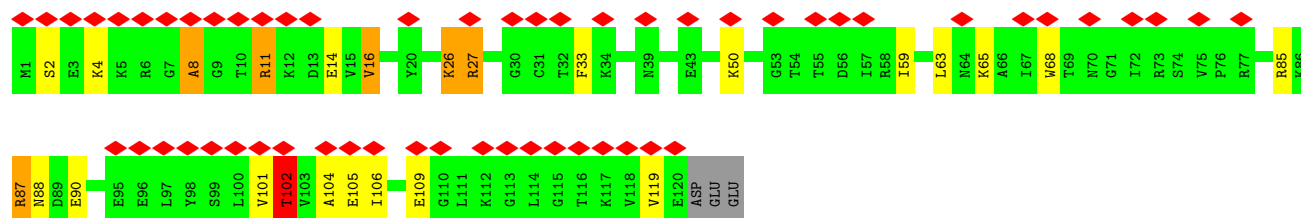
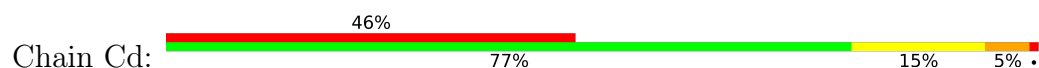
• Molecule 54: 60S ribosomal protein L28E



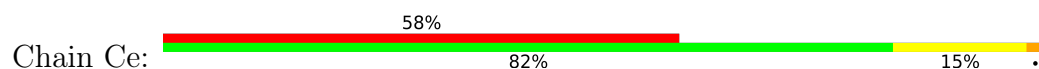
• Molecule 55: 60S ribosomal protein L30E

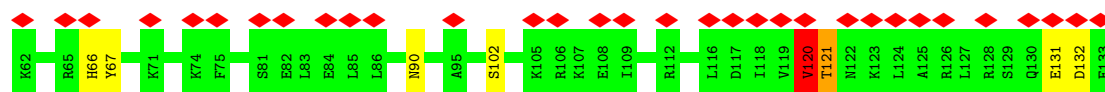


• Molecule 56: 60S ribosomal protein L31E

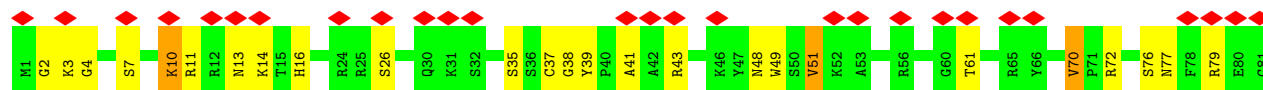
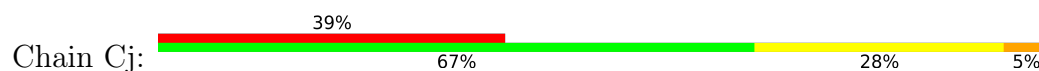


• Molecule 57: 60S ribosomal protein L32E

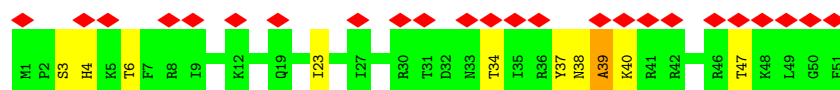




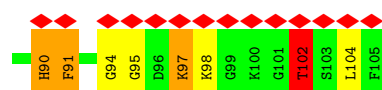
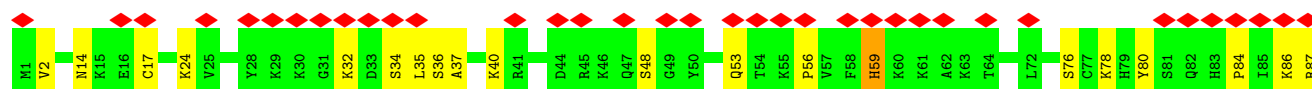
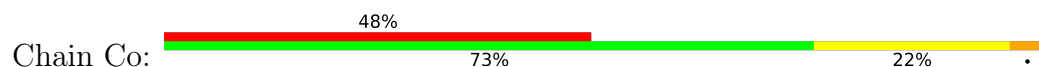
• Molecule 58: 60S ribosomal protein L37E



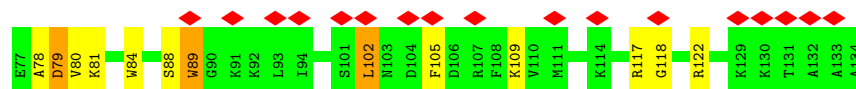
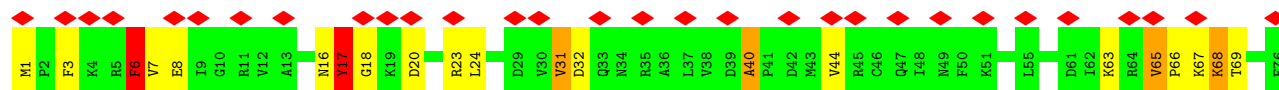
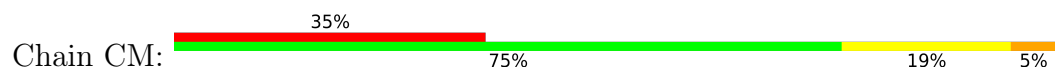
• Molecule 59: 60S ribosomal protein L39E



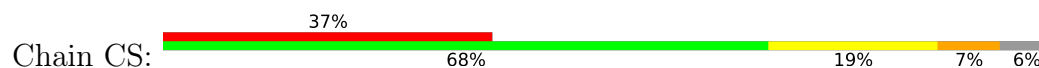
• Molecule 60: 60S ribosomal protein L44E

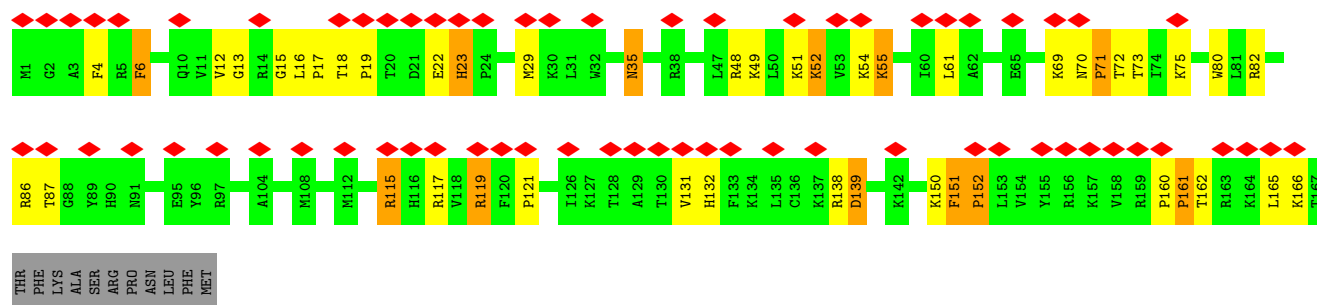


• Molecule 61: 60S ribosomal protein L14E

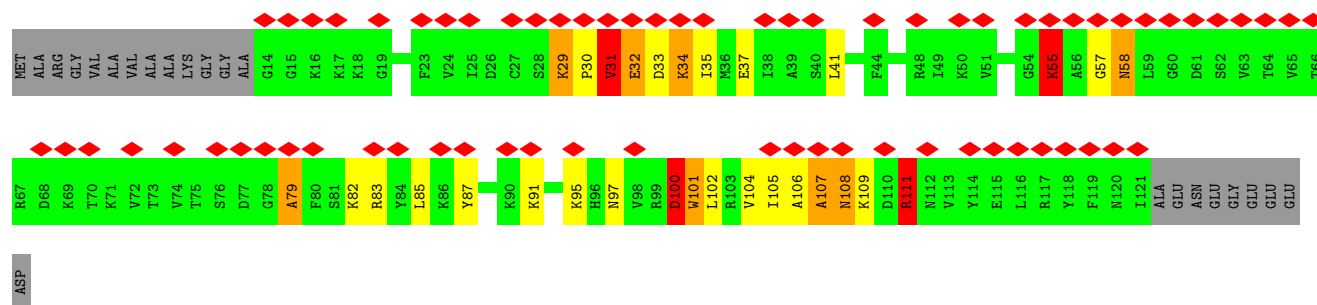


• Molecule 62: 60S ribosomal protein L20

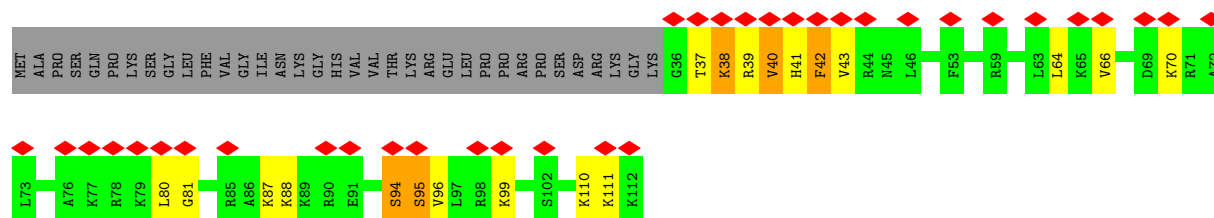




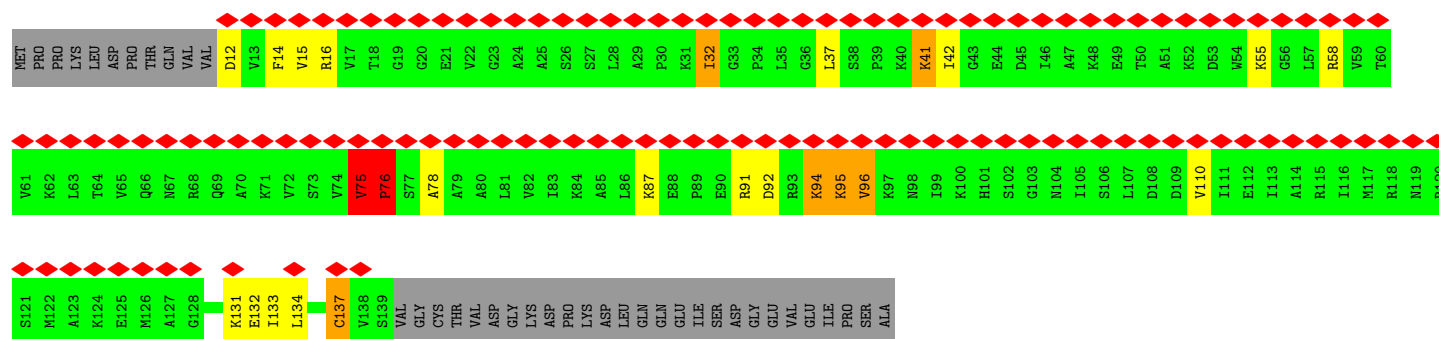
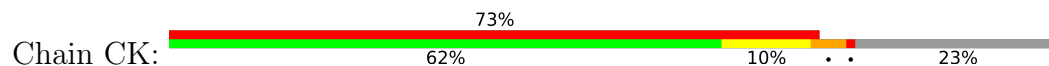
- Molecule 63: 60S ribosomal protein L22E



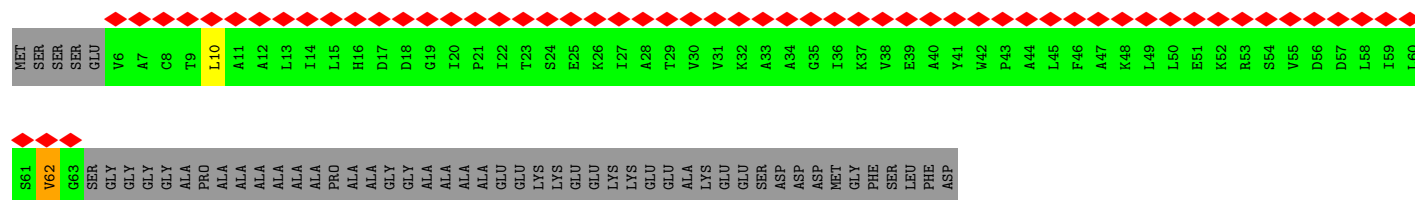
- Molecule 64: 60S ribosomal protein L36E



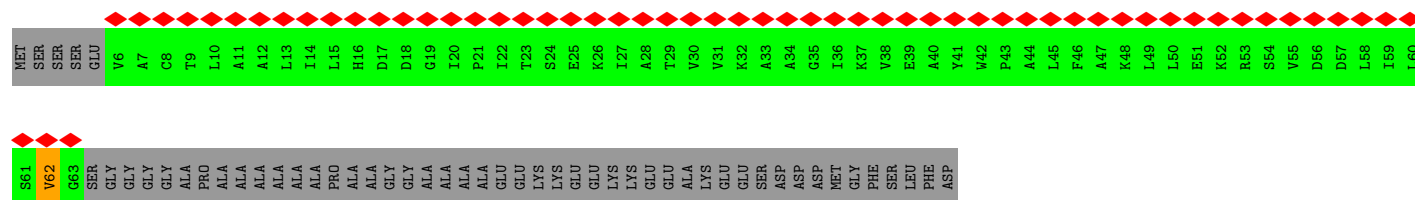
- Molecule 65: 60S ribosomal protein L11



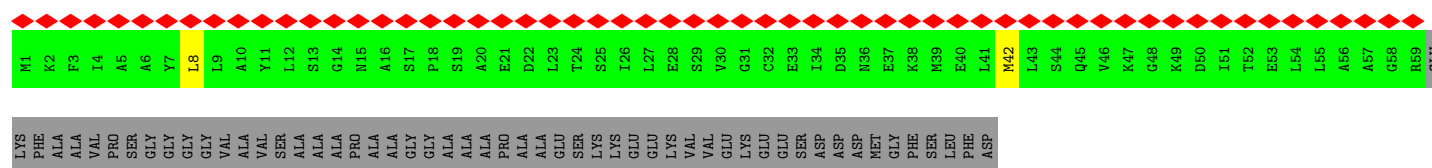
- Molecule 66: 60S ribosomal protein P1



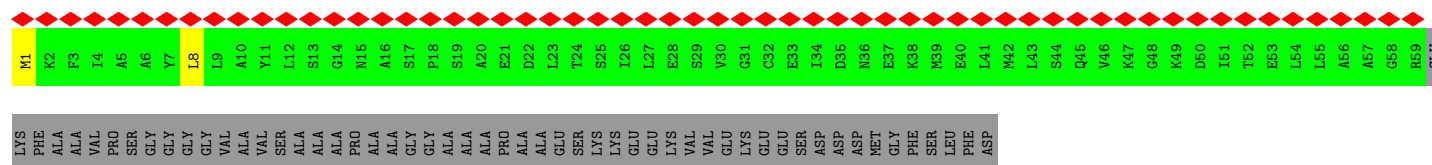
- Molecule 66: 60S ribosomal protein P1



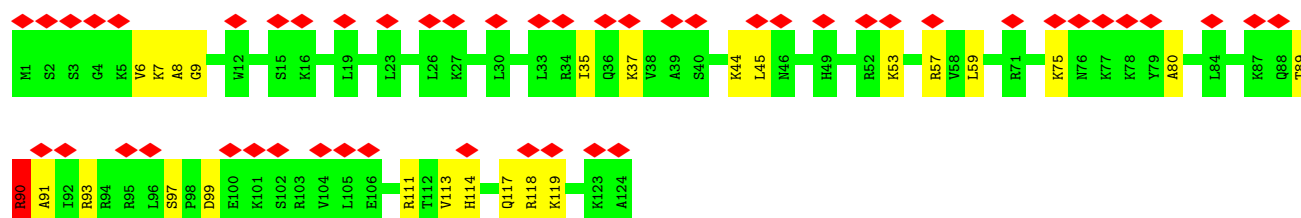
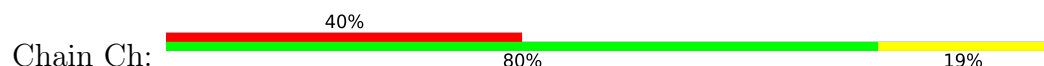
- Molecule 67: Acidic ribosomal protein P2

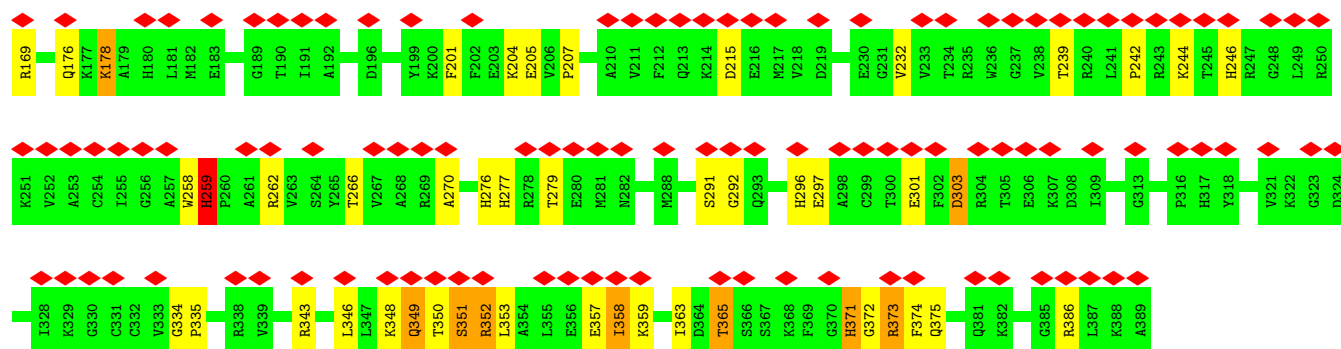


- Molecule 67: Acidic ribosomal protein P2

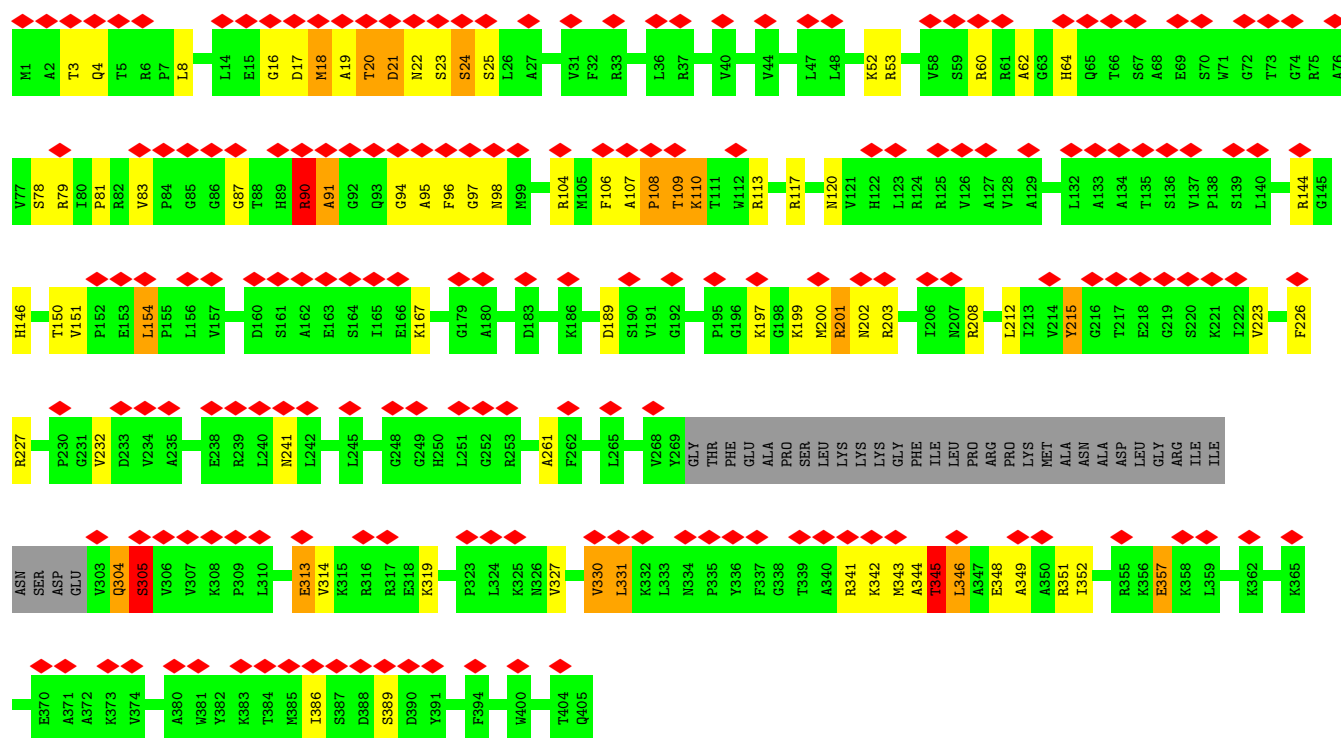
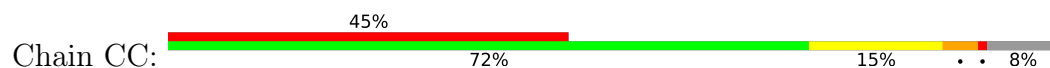


- Molecule 68: 60S ribosomal protein L29

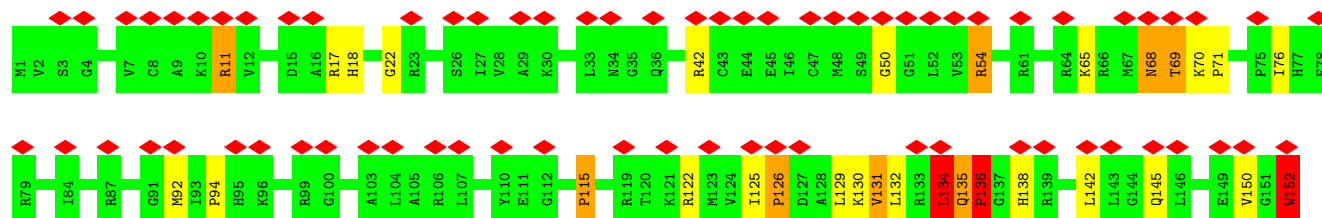
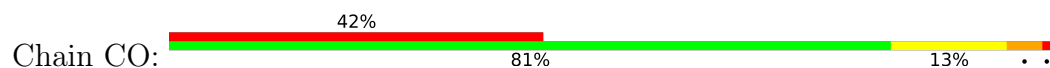


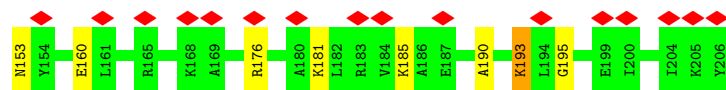


• Molecule 72: 60S ribosomal protein L4

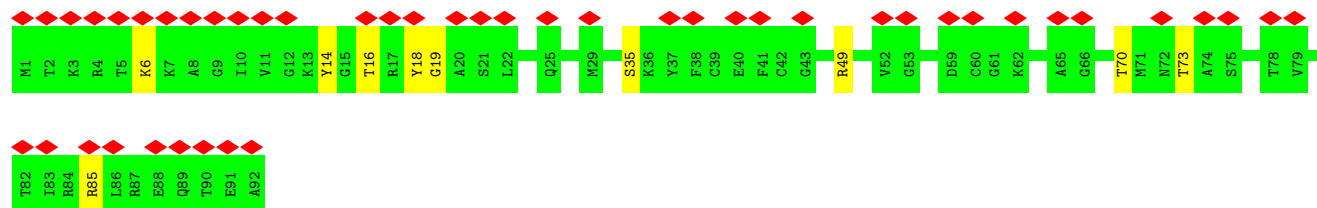
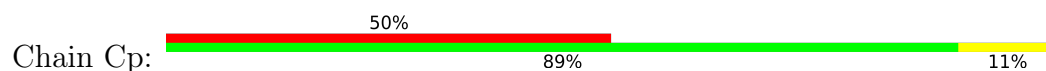


• Molecule 73: 60S ribosomal protein L13

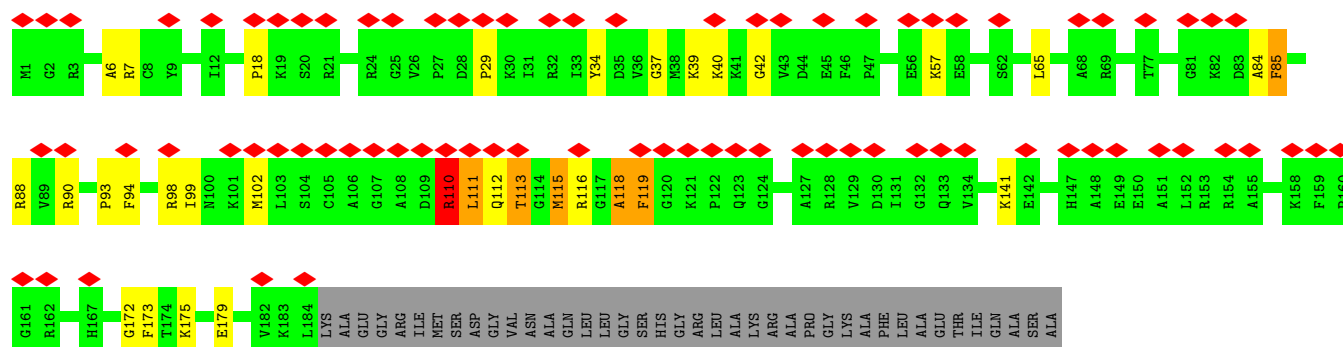




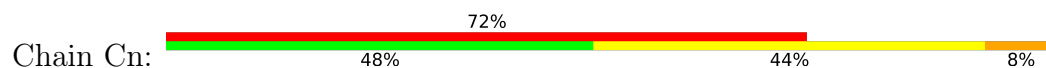
- Molecule 74: 60S ribosomal protein L43E



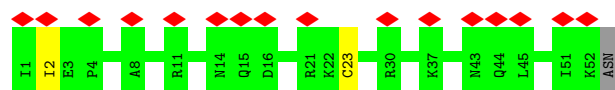
- Molecule 75: 60S ribosomal protein L16



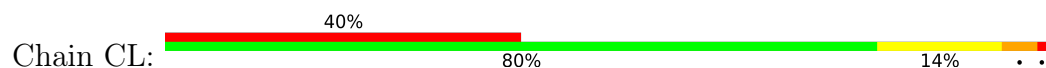
- Molecule 76: 60S ribosomal protein L41E

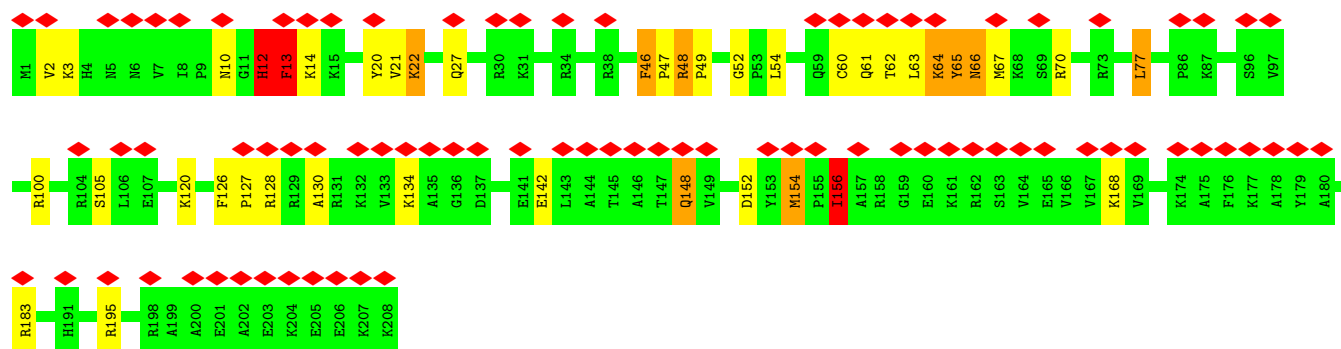


- Molecule 77: 60S ribosomal protein L40E

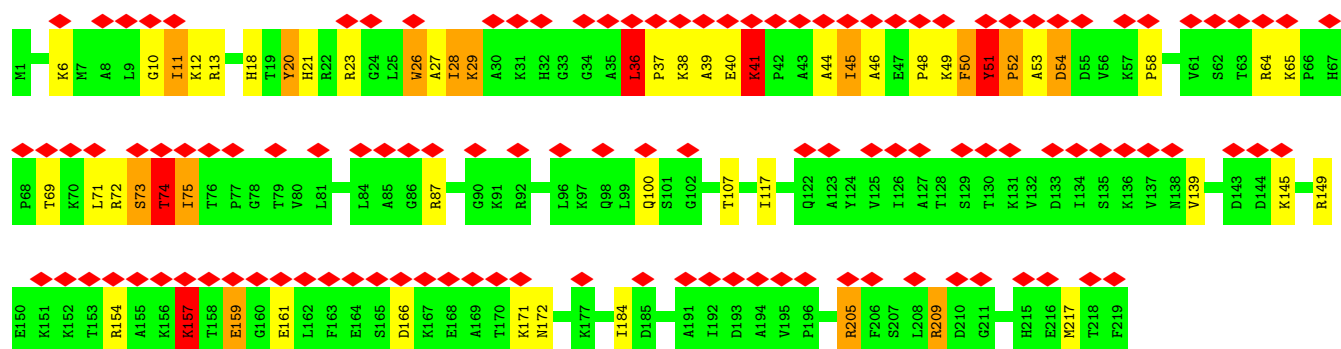
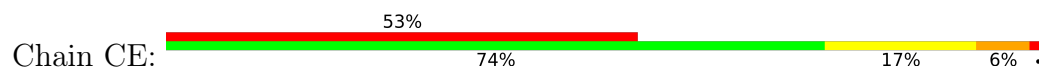


- Molecule 78: 60S ribosomal protein L13E

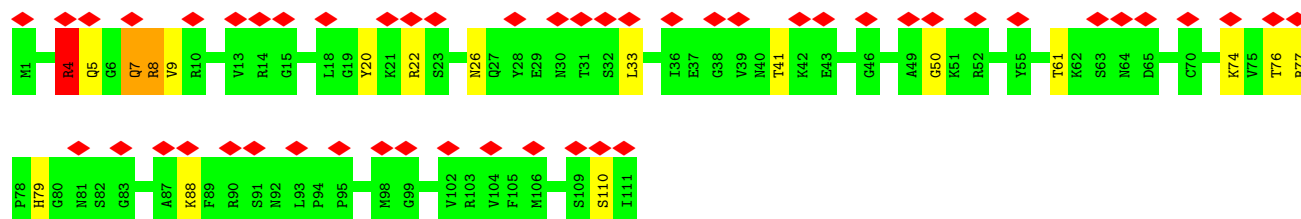
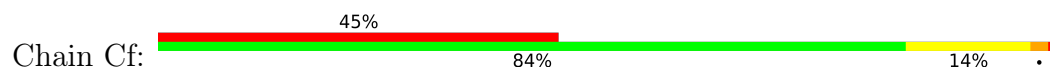




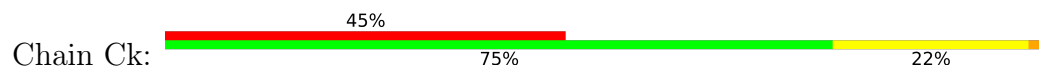
- Molecule 79: 60S ribosomal protein L6E



- Molecule 80: 60S ribosomal protein L33E

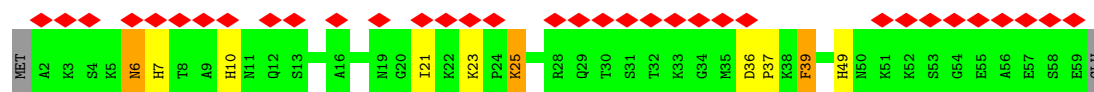


- Molecule 81: 60S ribosomal protein L38E

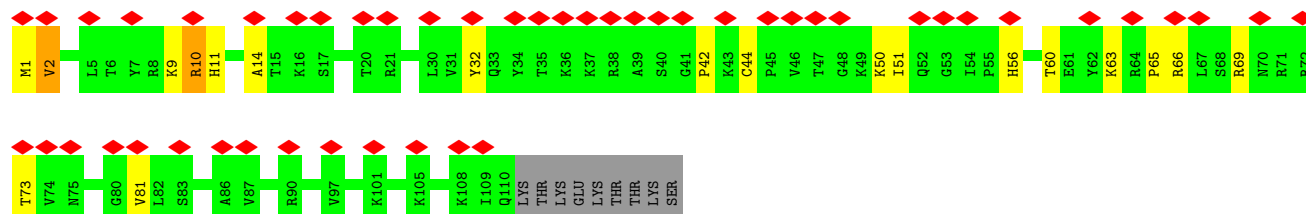
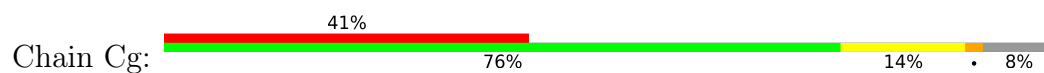


- Molecule 82: 60S ribosomal protein L29E

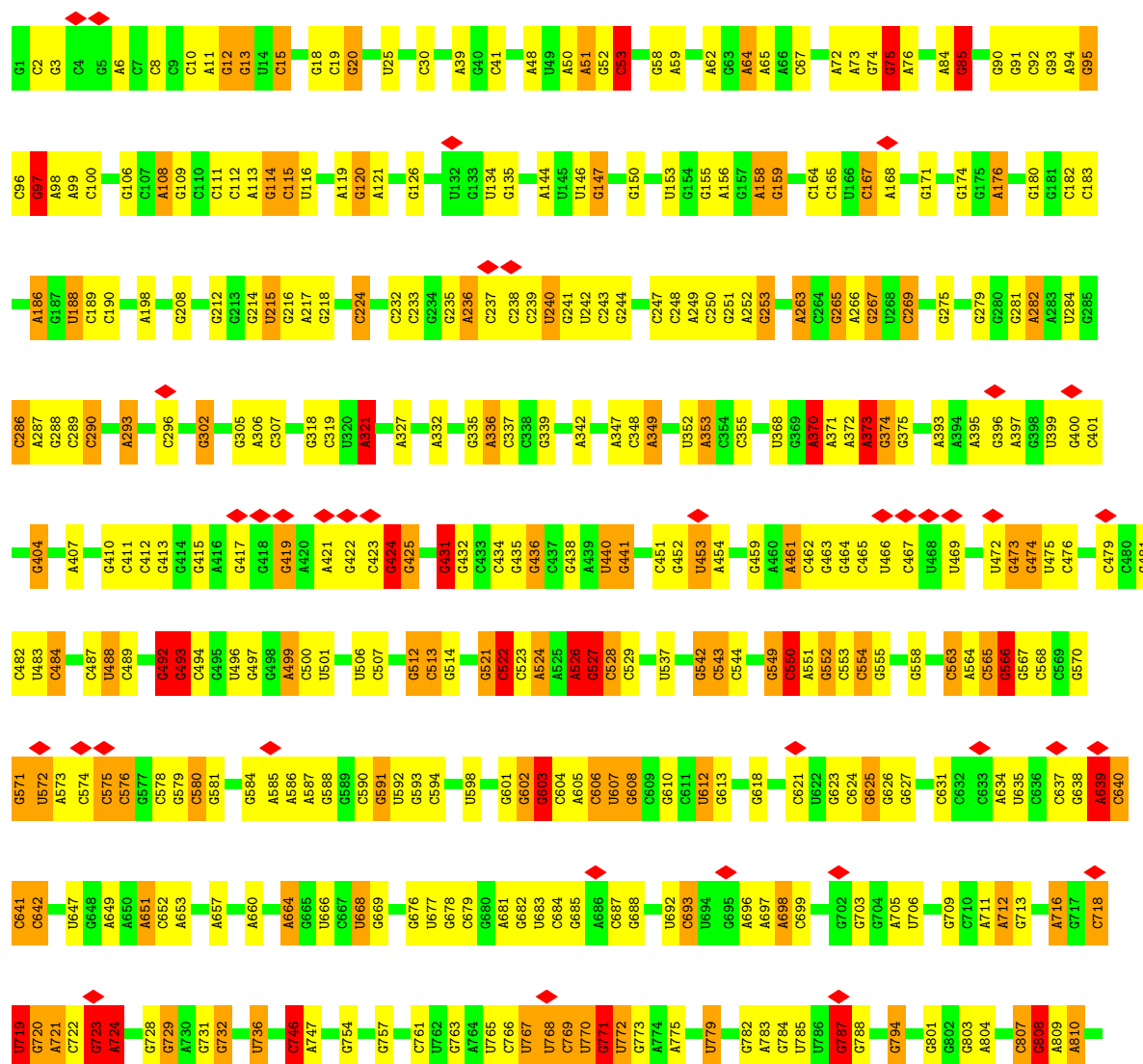


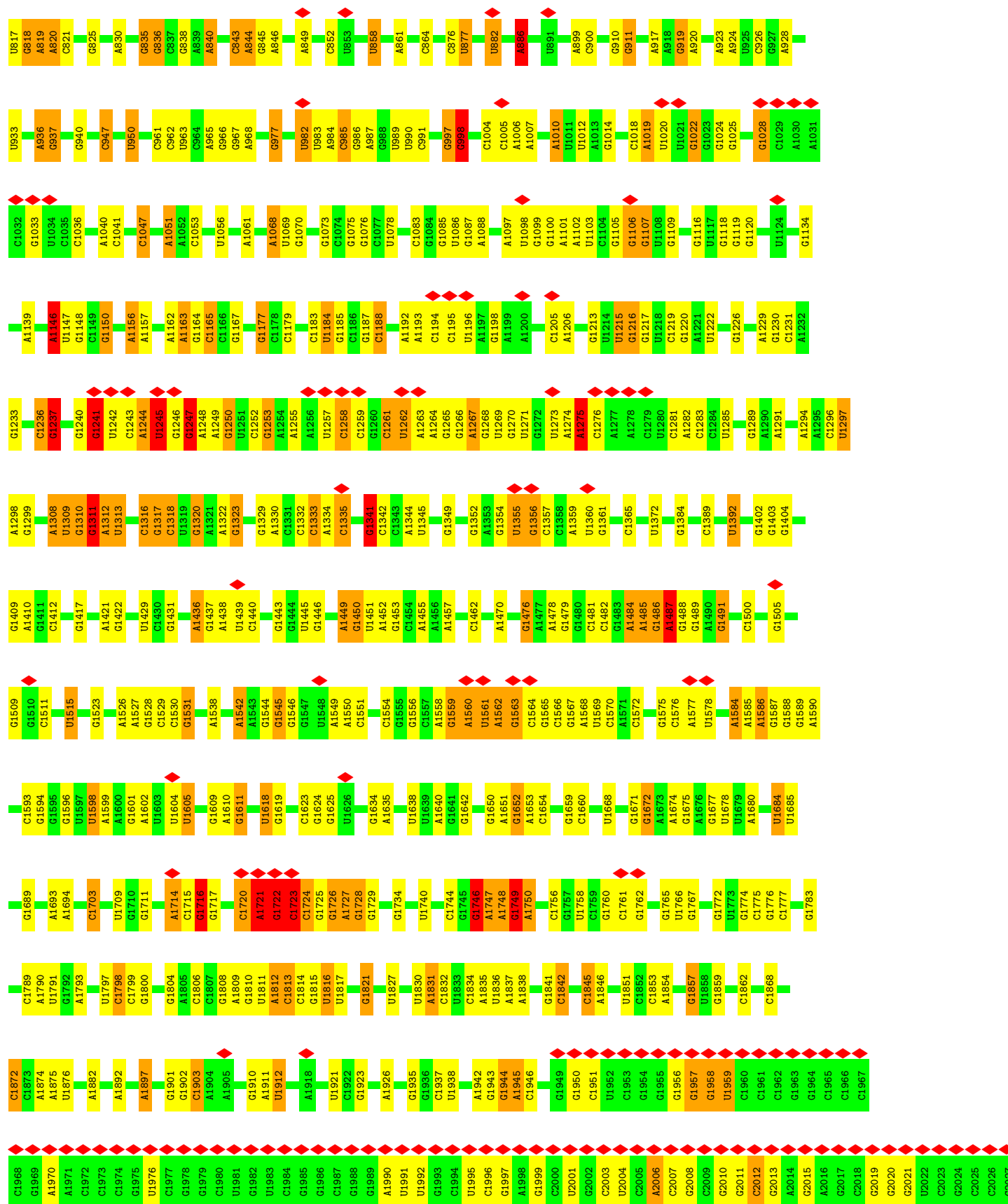


- Molecule 83: 60S ribosomal protein L34E

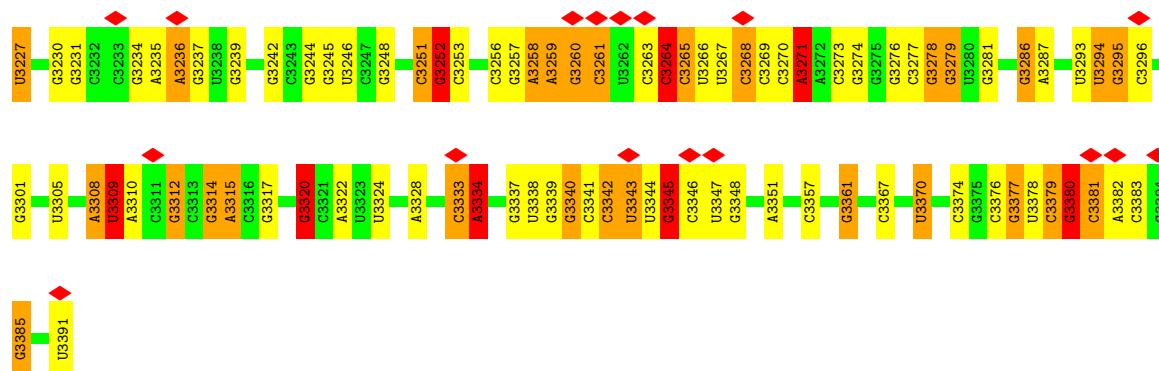


- Molecule 84: 60S ribosomal RNA

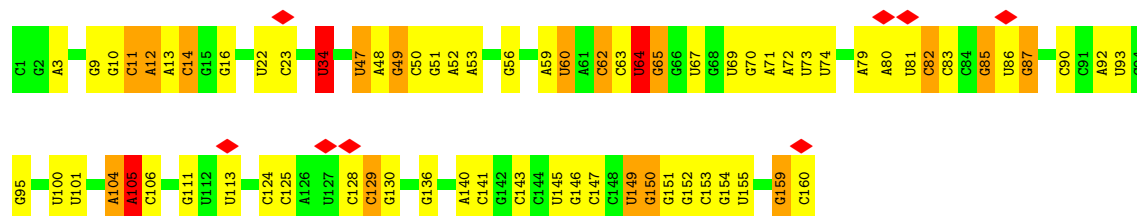




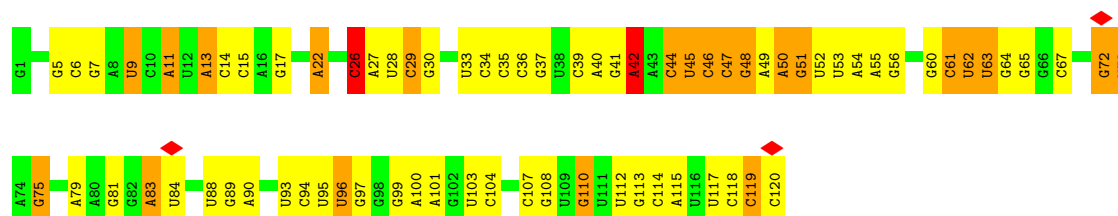
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C3151	C2934	G2839	U2716	G2624	G2538	C2475	U2387	C2285	A2182	C2090	U2030
C3152	A2935	G2843	G2717	G2625	G2539	C2476	C2388	A2286	A2183	C2091	G2031
U3153	A2936	U2844	U2718	G2626	C2540	G2477	G2392	U2287	U2184	C2092	U2032
G3154	U2937	U2845	U2719	G2627	C2541	G2478	G2396	U2288	U2185	C2093	C2033
A3049	A2938	A2846	A2720	G2628	U2542	C2479	A2396	U2289	U2186	C2094	C2032
A3050	A2939	A2847	G2731	G2629	G2543	C2480	A2401	C2187	C2188	U2096	G2033
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G3163	A2942	C2854	U2733	U2632	C2545	C2482	A2403	C2192	G2104	G2105	G2035
C3166	C2944	U2857	G2740	A2639	C2546	A2483	C2404	G2196	U2106	C2036	C2037
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G3267	U2857	G2741	G2741	U2735	U2638	C2575	U2517	A2135	A2135	A2135	A2135
G3268	U2857	G2741	G2741	U2736	U2639	C2576	U2518	A2136	A2136	A2136	A2136
G3269	U2857	G2741	G2741	U2737	U2640	C2577	U2519	A2137	A2137	A2137	A2137
G3270	U2857	G2741	G2741	U27							



• Molecule 85: 5.8S ribosomal RNA



• Molecule 86: 5S ribosomal RNA



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	2108230	Depositor
Resolution determination method	FSC 0.5 CUT-OFF	Depositor
CTF correction method	Wiener Filter on 3D volumes (SPIDER)	Depositor
Microscope	FEI TECNAI F30	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	25	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	4500	Depositor
Magnification	38900	Depositor
Image detector	KODAK SO-163 FILM	Depositor
Maximum map value	0.454	Depositor
Minimum map value	-0.200	Depositor
Average map value	0.003	Depositor
Map value standard deviation	0.027	Depositor
Recommended contour level	0.11	Depositor
Map size ($\text{\AA}$)	455.4, 455.4, 455.4	wwPDB
Map dimensions	368, 368, 368	wwPDB
Map angles ($^\circ$)	90, 90, 90	wwPDB
Pixel spacing ($\text{\AA}$)	1.2375, 1.2375, 1.2375	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	Ad	1.98	1479/42036 (3.5%)	1.78	1718/65520 (2.6%)
2	Ae	2.08	74/1781 (4.2%)	1.86	83/2775 (3.0%)
3	Af	1.99	10/260 (3.8%)	1.78	11/403 (2.7%)
4	BY	1.24	0/1123	1.64	18/1487 (1.2%)
5	BI	1.30	0/539	1.52	2/712 (0.3%)
6	BK	1.16	0/840	1.63	14/1135 (1.2%)
7	BM	1.14	0/936	1.68	9/1260 (0.7%)
8	Bf	1.23	0/590	1.63	6/788 (0.8%)
9	BX	1.25	0/1122	1.54	5/1492 (0.3%)
10	Bg	1.26	0/2988	1.50	14/4049 (0.3%)
11	BD	1.26	0/1652	1.69	29/2222 (1.3%)
12	BE	1.25	0/1637	1.46	12/2202 (0.5%)
13	BF	1.27	0/1509	1.60	6/2034 (0.3%)
14	BQ	1.35	0/1034	1.61	16/1379 (1.2%)
15	BU	1.26	0/995	1.63	12/1338 (0.9%)
16	BO	1.32	0/909	1.67	7/1217 (0.6%)
17	BS	1.31	0/1258	1.73	23/1674 (1.4%)
18	BN	1.22	0/994	1.73	15/1332 (1.1%)
19	BL	1.34	0/704	1.52	6/944 (0.6%)
20	BT	1.25	0/1179	1.71	21/1586 (1.3%)
21	BP	1.22	0/727	1.63	5/975 (0.5%)
22	BZ	1.20	0/791	1.72	11/1057 (1.0%)
23	Bc	1.34	0/455	1.58	2/609 (0.3%)
24	BW	1.28	0/1060	1.60	13/1419 (0.9%)
25	Bd	1.34	0/386	1.81	11/510 (2.2%)
26	Bb	1.22	0/674	1.54	4/905 (0.4%)
27	Be	1.31	0/476	1.53	2/627 (0.3%)
28	BA	1.24	0/1567	1.59	7/2121 (0.3%)
29	BR	1.30	0/955	1.64	8/1273 (0.6%)
30	BB	1.24	0/1736	1.65	23/2329 (1.0%)
31	BV	1.29	0/610	1.54	6/820 (0.7%)
32	Ba	1.38	0/766	1.69	8/1023 (0.8%)
33	BJ	1.33	0/1553	1.61	11/2079 (0.5%)
34	BC	1.20	0/1701	1.51	5/2298 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
35	BG	1.31	0/1888	1.48	10/2507 (0.4%)
36	BH	3.48	2/1535 (0.1%)	1.56	20/2065 (1.0%)
37	CG	1.22	0/1939	1.61	5/2598 (0.2%)
38	CT	1.25	0/1316	1.59	9/1772 (0.5%)
39	CZ	1.26	0/1110	1.50	2/1480 (0.1%)
40	Cz	1.18	0/1741	1.57	12/2323 (0.5%)
41	CA	1.34	0/1992	1.64	24/2681 (0.9%)
42	CJ	1.30	0/1401	1.65	14/1869 (0.7%)
43	CH	1.27	0/1519	1.43	8/2042 (0.4%)
44	CV	1.27	0/1064	1.50	8/1425 (0.6%)
45	CN	1.36	0/1669	1.49	5/2235 (0.2%)
46	Ca	1.27	0/1143	1.72	17/1527 (1.1%)
47	CQ	1.32	0/1303	1.59	16/1748 (0.9%)
48	CD	1.26	0/2489	1.74	61/3342 (1.8%)
49	CR	1.35	0/1590	1.67	15/2100 (0.7%)
50	CP	1.32	0/1397	1.58	12/1871 (0.6%)
51	CX	1.16	0/1002	1.48	4/1340 (0.3%)
52	CW	1.31	0/649	1.51	7/861 (0.8%)
53	CY	1.38	0/1061	1.54	6/1418 (0.4%)
54	Cr	1.21	0/585	1.56	6/786 (0.8%)
55	Cc	1.13	0/869	1.59	6/1169 (0.5%)
56	Cd	1.28	0/970	1.60	9/1295 (0.7%)
57	Ce	1.28	0/1122	1.67	8/1497 (0.5%)
58	Cj	1.41	0/769	1.64	8/1019 (0.8%)
59	Cl	1.38	0/472	1.63	3/627 (0.5%)
60	Co	1.25	0/867	1.63	7/1144 (0.6%)
61	CM	1.26	0/1094	1.65	20/1461 (1.4%)
62	CS	1.27	0/1457	1.63	17/1957 (0.9%)
63	CU	1.25	0/876	1.61	10/1170 (0.9%)
64	Ci	1.33	0/618	1.79	11/809 (1.4%)
65	CK	1.20	0/968	1.71	13/1299 (1.0%)
66	Cu	1.07	0/438	1.62	1/596 (0.2%)
66	Cv	1.10	0/438	1.64	1/596 (0.2%)
67	Cs	1.08	0/444	1.50	2/596 (0.3%)
67	Ct	1.08	0/444	1.55	0/596
68	Ch	1.27	0/1023	1.62	9/1359 (0.7%)
69	CF	1.24	1/2020 (0.0%)	1.58	18/2708 (0.7%)
70	Cq	1.14	0/2023	1.54	10/2739 (0.4%)
71	CB	1.27	1/3207 (0.0%)	1.62	39/4289 (0.9%)
72	CC	1.27	0/2951	1.64	34/3972 (0.9%)
73	CO	1.30	0/1678	1.66	22/2246 (1.0%)
74	Cp	1.25	0/724	1.48	3/958 (0.3%)
75	CI	1.27	0/1523	1.50	12/2036 (0.6%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
76	Cn	1.57	0/239	1.34	1/302 (0.3%)
77	Cm	1.30	0/434	1.45	0/574
78	CL	1.30	0/1721	1.68	16/2299 (0.7%)
79	CE	1.21	0/1766	1.69	27/2374 (1.1%)
80	Cf	1.28	0/908	1.36	4/1215 (0.3%)
81	Ck	1.26	0/572	1.63	8/763 (1.0%)
82	Cb	1.27	0/486	1.73	5/641 (0.8%)
83	Cg	1.30	0/913	1.45	2/1223 (0.2%)
84	Aa	0.93	7/81235 (0.0%)	1.30	599/126706 (0.5%)
85	Ac	0.93	0/3809	1.21	14/5936 (0.2%)
86	Ab	1.37	1/2864 (0.0%)	1.38	16/4464 (0.4%)
All	All	1.36	1575/227878 (0.7%)	1.53	3359/334219 (1.0%)

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
4	BY	0	1
6	BK	0	4
7	BM	0	1
8	Bf	0	1
10	Bg	0	1
11	BD	0	3
12	BE	0	2
13	BF	0	2
14	BQ	0	1
15	BU	0	2
17	BS	0	1
19	BL	0	1
20	BT	0	4
23	Bc	0	1
24	BW	0	1
25	Bd	0	1
26	Bb	0	2
29	BR	0	1
30	BB	0	1
32	Ba	0	1
35	BG	0	1
36	BH	0	4
37	CG	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
41	CA	0	4
42	CJ	0	2
43	CH	0	3
45	CN	0	1
46	Ca	0	7
47	CQ	0	6
48	CD	0	13
49	CR	0	3
50	CP	0	1
51	CX	0	1
55	Cc	0	1
57	Ce	0	1
58	Cj	0	1
59	Cl	0	1
60	Co	0	2
61	CM	0	4
62	CS	0	3
63	CU	0	2
65	CK	0	2
68	Ch	0	1
69	CF	0	3
70	Cq	0	2
71	CB	0	9
72	CC	0	4
73	CO	0	4
74	Cp	0	1
75	CI	0	4
78	CL	0	5
79	CE	0	7
80	Cf	0	2
83	Cg	0	1
84	Aa	0	309
85	Ac	0	18
86	Ab	0	19
All	All	0	486

All (1575) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BH	117	ARG	CZ-NH2	126.76	2.98	1.33
1	Ad	843	G	O4'-C1'	18.72	1.69	1.41
1	Ad	1810	G	O4'-C1'	18.20	1.69	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1080	C	O4'-C1'	17.82	1.68	1.41
1	Ad	1203	G	C2'-C1'	17.27	1.79	1.53
2	Ae	28	G	C2'-C1'	-17.09	1.27	1.53
1	Ad	1259	G	O4'-C1'	-17.01	1.16	1.42
1	Ad	218	G	C2'-C1'	-16.88	1.28	1.53
1	Ad	999	G	C2'-C1'	-16.78	1.28	1.53
1	Ad	707	C	C2'-C1'	16.77	1.78	1.53
1	Ad	179	A	O4'-C1'	16.44	1.66	1.41
1	Ad	836	U	O4'-C1'	16.40	1.66	1.41
2	Ae	19	U	O4'-C1'	16.38	1.66	1.42
1	Ad	67	G	C2'-C1'	-16.28	1.28	1.53
1	Ad	220	C	O4'-C1'	16.26	1.66	1.41
1	Ad	1206	A	O4'-C1'	16.21	1.66	1.41
1	Ad	1580	G	C2'-C1'	16.18	1.77	1.53
1	Ad	67	G	O4'-C1'	16.14	1.66	1.42
1	Ad	648	C	O4'-C1'	15.64	1.65	1.41
1	Ad	821	G	C2'-C1'	-15.53	1.29	1.53
1	Ad	212	A	O4'-C1'	15.29	1.64	1.41
1	Ad	1796	G	C2'-C1'	-15.19	1.30	1.53
1	Ad	238	G	O4'-C1'	15.18	1.64	1.41
1	Ad	1580	G	O4'-C1'	-15.02	1.19	1.42
1	Ad	846	U	O4'-C1'	14.94	1.64	1.41
1	Ad	1434	G	C2'-C1'	-14.91	1.30	1.53
1	Ad	617	G	O4'-C1'	14.88	1.64	1.42
1	Ad	728	C	O4'-C1'	14.83	1.63	1.41
1	Ad	1445	C	O4'-C1'	14.82	1.63	1.41
1	Ad	260	A	C2'-C1'	-14.79	1.31	1.53
1	Ad	140	C	O4'-C1'	14.75	1.63	1.41
1	Ad	141	G	C2'-C1'	-14.73	1.31	1.53
1	Ad	457	C	C2'-C1'	-14.72	1.31	1.53
1	Ad	339	G	C2'-C1'	-14.61	1.31	1.53
1	Ad	1161	C	O4'-C1'	14.48	1.63	1.41
1	Ad	1375	C	O4'-C1'	14.45	1.63	1.42
1	Ad	1006	A	O4'-C1'	14.42	1.63	1.41
1	Ad	613	U	O4'-C1'	14.38	1.63	1.42
1	Ad	1206	A	C2'-C1'	-14.32	1.31	1.53
1	Ad	936	C	O4'-C1'	14.21	1.62	1.41
1	Ad	385	C	O4'-C1'	14.13	1.62	1.41
1	Ad	114	U	O4'-C1'	13.83	1.62	1.41
1	Ad	617	G	C2'-C1'	-13.61	1.32	1.53
1	Ad	504	C	O4'-C1'	13.60	1.62	1.41
1	Ad	1700	G	C2'-C1'	-13.60	1.32	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1327	C	O4'-C1'	13.54	1.61	1.41
1	Ad	135	C	O4'-C1'	13.48	1.61	1.41
1	Ad	1263	C	O4'-C1'	13.47	1.61	1.41
1	Ad	782	G	C2'-C1'	-13.47	1.33	1.53
1	Ad	80	C	O4'-C1'	13.44	1.62	1.42
1	Ad	96	G	C2'-C1'	-13.38	1.33	1.53
1	Ad	1589	C	O4'-C1'	13.36	1.61	1.41
1	Ad	321	C	O4'-C1'	13.35	1.61	1.41
1	Ad	713	C	O4'-C1'	13.35	1.61	1.41
1	Ad	1027	C	O4'-C1'	13.27	1.61	1.41
1	Ad	1184	C	O4'-C1'	13.26	1.61	1.41
1	Ad	1155	G	C2'-C1'	-13.17	1.33	1.53
1	Ad	176	A	C2'-C1'	13.15	1.73	1.53
1	Ad	287	C	O4'-C1'	13.13	1.61	1.41
1	Ad	87	A	C2'-C1'	13.10	1.73	1.53
2	Ae	69	G	C2'-C1'	-13.08	1.33	1.53
1	Ad	861	A	O4'-C1'	13.04	1.61	1.42
1	Ad	1730	G	O4'-C1'	13.04	1.61	1.41
1	Ad	457	C	O4'-C1'	13.03	1.61	1.41
1	Ad	1023	C	O4'-C1'	12.98	1.61	1.41
1	Ad	1466	A	C2'-C1'	-12.94	1.33	1.53
1	Ad	181	C	O4'-C1'	12.92	1.61	1.41
1	Ad	257	A	C2'-C1'	-12.91	1.33	1.53
1	Ad	1303	G	C2'-C1'	-12.89	1.34	1.53
1	Ad	1260	A	C2'-C1'	-12.87	1.33	1.53
1	Ad	238	G	C2'-C1'	-12.84	1.34	1.53
1	Ad	1002	G	C2'-C1'	-12.84	1.34	1.53
1	Ad	25	C	O4'-C1'	12.83	1.61	1.42
1	Ad	1464	G	C2'-C1'	-12.81	1.34	1.53
1	Ad	34	G	C2'-C1'	-12.79	1.34	1.53
1	Ad	280	U	O3'-P	-12.78	1.42	1.61
2	Ae	30	G	C2'-C1'	-12.74	1.34	1.53
1	Ad	1735	C	O4'-C1'	12.72	1.60	1.41
3	Af	17	A	O4'-C1'	12.68	1.60	1.41
1	Ad	1358	G	O4'-C1'	12.68	1.60	1.41
1	Ad	1444	G	C2'-C1'	-12.68	1.34	1.53
1	Ad	1626	C	O4'-C1'	12.68	1.60	1.42
1	Ad	290	C	O4'-C1'	12.67	1.60	1.41
1	Ad	281	U	O3'-P	-12.63	1.42	1.61
1	Ad	509	A	O4'-C1'	12.61	1.60	1.41
1	Ad	1016	C	O4'-C1'	12.62	1.60	1.41
1	Ad	183	C	O4'-C1'	12.56	1.60	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1614	C	O4'-C1'	12.54	1.60	1.41
1	Ad	1346	C	O4'-C1'	12.51	1.60	1.41
1	Ad	524	A	C2'-C1'	-12.45	1.34	1.53
1	Ad	774	C	O4'-C1'	12.45	1.60	1.41
1	Ad	1311	U	C2'-C1'	12.43	1.72	1.53
1	Ad	1162	A	C2'-C1'	12.42	1.72	1.53
1	Ad	413	C	O4'-C1'	12.40	1.60	1.41
1	Ad	174	C	C2'-C1'	12.36	1.71	1.53
1	Ad	524	A	O4'-C1'	12.35	1.60	1.41
1	Ad	257	A	O4'-C1'	12.31	1.60	1.41
1	Ad	254	A	C2'-C1'	-12.31	1.34	1.53
1	Ad	1806	C	O4'-C1'	12.30	1.60	1.42
1	Ad	1110	C	O4'-C1'	12.30	1.60	1.41
1	Ad	1444	G	O4'-C1'	12.25	1.60	1.41
1	Ad	1310	C	O4'-C1'	12.23	1.60	1.42
1	Ad	1358	G	C2'-C1'	-12.23	1.35	1.53
1	Ad	1065	A	C2'-C1'	-12.22	1.35	1.53
1	Ad	1637	G	C2'-C1'	-12.21	1.35	1.53
1	Ad	1372	C	O4'-C1'	12.20	1.59	1.41
1	Ad	187	C	O4'-C1'	12.17	1.59	1.41
1	Ad	1336	C	O4'-C1'	12.15	1.59	1.41
1	Ad	1397	A	O4'-C1'	12.10	1.59	1.41
1	Ad	570	C	C2'-C1'	-12.06	1.35	1.53
1	Ad	1447	C	C2'-C1'	-12.01	1.35	1.53
1	Ad	861	A	C2'-C1'	11.95	1.71	1.53
1	Ad	719	C	O4'-C1'	11.94	1.59	1.41
1	Ad	341	G	C2'-C1'	-11.93	1.35	1.53
2	Ae	73	C	O4'-C1'	11.92	1.59	1.41
1	Ad	36	C	O4'-C1'	11.90	1.59	1.41
1	Ad	998	A	C2'-C1'	-11.90	1.35	1.53
1	Ad	245	C	O4'-C1'	11.90	1.59	1.41
1	Ad	164	C	O4'-C1'	11.88	1.59	1.41
1	Ad	848	C	O4'-C1'	11.87	1.59	1.41
1	Ad	507	G	C2'-C1'	-11.86	1.35	1.53
1	Ad	14	C	C2'-C1'	-11.86	1.35	1.53
1	Ad	612	U	C2'-C1'	-11.83	1.35	1.53
1	Ad	839	G	O4'-C1'	11.81	1.59	1.41
1	Ad	1042	C	O4'-C1'	11.80	1.59	1.41
1	Ad	1705	C	O4'-C1'	11.78	1.59	1.41
2	Ae	45	G	C2'-C1'	-11.76	1.35	1.53
1	Ad	1329	A	O4'-C1'	11.74	1.59	1.41
1	Ad	1080	C	C2'-C1'	-11.72	1.35	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1654	C	O4'-C1'	11.71	1.59	1.41
1	Ad	437	C	C2'-C1'	-11.68	1.35	1.53
1	Ad	734	C	O4'-C1'	11.65	1.59	1.41
1	Ad	1321	C	C2'-C1'	-11.65	1.35	1.53
1	Ad	1462	C	O4'-C1'	-11.63	1.24	1.41
1	Ad	954	C	O4'-C1'	11.59	1.59	1.41
1	Ad	1650	G	C2'-C1'	-11.59	1.35	1.53
1	Ad	1038	C	O4'-C1'	11.56	1.58	1.41
1	Ad	1687	G	C2'-C1'	-11.55	1.36	1.53
1	Ad	286	C	O4'-C1'	11.53	1.58	1.41
1	Ad	944	A	O4'-C1'	11.53	1.58	1.41
1	Ad	535	C	C2'-C1'	-11.52	1.36	1.53
1	Ad	282	C	C2'-C1'	11.51	1.70	1.53
2	Ae	55	C	O4'-C1'	11.49	1.58	1.41
1	Ad	256	G	O4'-C1'	11.49	1.58	1.41
1	Ad	1511	A	O4'-C1'	-11.48	1.24	1.41
1	Ad	704	C	O4'-C1'	11.46	1.58	1.41
1	Ad	839	G	C2'-C1'	-11.46	1.36	1.53
1	Ad	225	G	C2'-C1'	-11.46	1.36	1.53
1	Ad	632	G	C2'-C1'	-11.45	1.36	1.53
1	Ad	1397	A	C2'-C1'	-11.42	1.36	1.53
1	Ad	1302	C	O4'-C1'	11.41	1.58	1.41
1	Ad	358	C	O4'-C1'	11.37	1.58	1.41
1	Ad	202	C	O4'-C1'	11.36	1.58	1.41
1	Ad	1033	C	O4'-C1'	11.36	1.58	1.42
1	Ad	1391	G	C2'-C1'	-11.33	1.36	1.53
1	Ad	631	C	C2'-C1'	-11.32	1.36	1.53
1	Ad	177	C	O4'-C1'	11.30	1.58	1.41
1	Ad	1354	C	C2'-C1'	-11.29	1.36	1.53
1	Ad	1727	C	O4'-C1'	11.29	1.58	1.41
1	Ad	193	G	C2'-C1'	-11.26	1.36	1.53
1	Ad	147	C	O4'-C1'	11.22	1.58	1.41
1	Ad	1599	C	O4'-C1'	11.21	1.58	1.41
1	Ad	31	C	O4'-C1'	11.19	1.58	1.41
1	Ad	1463	C	O4'-C1'	11.18	1.58	1.42
1	Ad	902	C	O4'-C1'	11.14	1.58	1.42
1	Ad	1372	C	C2'-C1'	-11.11	1.36	1.53
1	Ad	1395	C	C2'-C1'	-11.10	1.36	1.53
1	Ad	1350	C	O4'-C1'	-11.10	1.25	1.42
1	Ad	158	C	C2'-C1'	-11.09	1.36	1.53
1	Ad	558	C	O4'-C1'	11.09	1.58	1.42
1	Ad	971	A	O4'-C1'	11.07	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	849	G	O4'-C1'	11.06	1.58	1.41
1	Ad	1572	U	O4'-C1'	11.06	1.58	1.41
1	Ad	1705	C	C2'-C1'	-11.03	1.36	1.53
1	Ad	1794	C	O4'-C1'	11.03	1.58	1.41
1	Ad	498	U	C2'-C1'	11.01	1.69	1.53
1	Ad	1172	G	C2'-C1'	-11.01	1.36	1.53
1	Ad	260	A	O4'-C1'	11.01	1.58	1.41
1	Ad	223	A	C2'-C1'	-11.00	1.36	1.53
1	Ad	1154	G	C2'-C1'	-11.00	1.36	1.53
1	Ad	753	C	C2'-C1'	-10.98	1.36	1.53
1	Ad	547	C	O4'-C1'	-10.94	1.25	1.42
2	Ae	45	G	O4'-C1'	10.93	1.58	1.42
1	Ad	1715	C	O4'-C1'	10.92	1.58	1.41
1	Ad	212	A	C2'-C1'	-10.90	1.37	1.53
1	Ad	1082	C	O4'-C1'	10.90	1.57	1.41
1	Ad	253	C	O4'-C1'	10.89	1.57	1.41
1	Ad	1778	G	C2'-C1'	-10.89	1.37	1.53
1	Ad	431	C	O4'-C1'	10.88	1.57	1.41
1	Ad	1631	C	O4'-C1'	10.86	1.57	1.41
1	Ad	1656	C	O4'-C1'	10.85	1.57	1.41
1	Ad	570	C	O4'-C1'	10.85	1.57	1.41
1	Ad	1722	C	O4'-C1'	10.85	1.57	1.41
1	Ad	1773	A	O4'-C1'	10.85	1.57	1.41
1	Ad	4	C	C2'-C1'	-10.83	1.37	1.53
1	Ad	342	C	O4'-C1'	10.82	1.57	1.41
1	Ad	1471	C	O4'-C1'	10.81	1.57	1.41
1	Ad	381	G	C2'-C1'	-10.81	1.37	1.53
1	Ad	259	A	O4'-C1'	10.80	1.57	1.41
1	Ad	762	A	O4'-C1'	10.80	1.57	1.41
1	Ad	1171	C	O4'-C1'	10.80	1.57	1.41
1	Ad	170	C	O4'-C1'	10.78	1.57	1.41
3	Af	17	A	C2'-C1'	-10.78	1.37	1.53
1	Ad	298	C	O4'-C1'	10.77	1.57	1.41
1	Ad	1074	C	O4'-C1'	10.77	1.57	1.41
2	Ae	36	C	C2'-C1'	-10.77	1.37	1.53
1	Ad	297	U	O4'-C1'	10.75	1.57	1.41
1	Ad	1582	G	O4'-C1'	10.72	1.57	1.41
1	Ad	1220	C	O4'-C1'	10.71	1.58	1.42
1	Ad	1196	C	O4'-C1'	10.70	1.57	1.41
1	Ad	12	U	O4'-C1'	10.70	1.57	1.41
1	Ad	753	C	O4'-C1'	10.70	1.57	1.41
1	Ad	480	U	C2'-C1'	-10.69	1.37	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1783	C	C2'-C1'	-10.70	1.37	1.53
1	Ad	1803	G	O4'-C1'	10.69	1.57	1.42
1	Ad	945	A	C2'-C1'	10.68	1.69	1.53
1	Ad	506	G	C2'-C1'	-10.68	1.37	1.53
1	Ad	791	C	O4'-C1'	10.67	1.57	1.41
1	Ad	346	C	C2'-C1'	-10.65	1.37	1.53
1	Ad	1213	C	O4'-C1'	10.60	1.57	1.41
1	Ad	1229	C	O4'-C1'	10.59	1.57	1.41
1	Ad	523	C	O4'-C1'	10.59	1.57	1.41
1	Ad	1240	A	O4'-C1'	10.56	1.57	1.41
1	Ad	1588	C	O4'-C1'	10.56	1.57	1.41
1	Ad	245	C	C2'-C1'	-10.55	1.37	1.53
1	Ad	363	G	O4'-C1'	-10.54	1.25	1.41
1	Ad	439	C	O4'-C1'	10.53	1.57	1.41
1	Ad	1392	G	C2'-C1'	-10.53	1.37	1.53
1	Ad	237	C	O4'-C1'	10.51	1.57	1.41
1	Ad	1373	C	O4'-C1'	10.51	1.57	1.41
1	Ad	784	C	O4'-C1'	-10.49	1.25	1.41
1	Ad	1263	C	C2'-C1'	-10.47	1.37	1.53
1	Ad	1461	G	C2'-C1'	-10.45	1.37	1.53
3	Af	18	C	O4'-C1'	10.43	1.57	1.41
1	Ad	758	A	C2'-C1'	-10.43	1.37	1.53
1	Ad	1021	C	O4'-C1'	10.41	1.57	1.41
1	Ad	1518	C	O4'-C1'	10.40	1.57	1.41
1	Ad	397	C	O4'-C1'	10.38	1.57	1.41
1	Ad	415	C	O4'-C1'	10.38	1.57	1.41
1	Ad	967	C	O4'-C1'	10.37	1.57	1.41
1	Ad	1652	C	O4'-C1'	10.37	1.57	1.41
1	Ad	356	G	O4'-C1'	10.36	1.57	1.42
1	Ad	966	U	C2'-C1'	-10.35	1.37	1.53
1	Ad	1611	U	C2'-C1'	-10.34	1.37	1.53
1	Ad	201	G	C2'-C1'	-10.34	1.37	1.53
1	Ad	1488	C	O4'-C1'	10.33	1.57	1.41
1	Ad	1620	C	C2'-C1'	-10.33	1.37	1.53
1	Ad	791	C	C2'-C1'	-10.32	1.37	1.53
1	Ad	439	C	C2'-C1'	-10.31	1.37	1.53
1	Ad	1238	A	O4'-C1'	10.30	1.57	1.41
1	Ad	45	U	O4'-C1'	10.30	1.57	1.42
1	Ad	745	C	C2'-C1'	10.29	1.68	1.53
1	Ad	1471	C	C2'-C1'	-10.28	1.38	1.53
1	Ad	588	C	O4'-C1'	10.27	1.57	1.41
1	Ad	1332	G	O4'-C1'	10.26	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1610	C	O4'-C1'	10.26	1.57	1.41
1	Ad	535	C	O4'-C1'	10.25	1.57	1.41
1	Ad	644	U	O4'-C1'	10.24	1.57	1.41
1	Ad	1416	A	C2'-C1'	-10.19	1.38	1.53
1	Ad	409	C	C2'-C1'	-10.19	1.38	1.53
1	Ad	700	C	O4'-C1'	10.18	1.56	1.41
1	Ad	1345	G	C2'-C1'	-10.18	1.38	1.53
1	Ad	948	C	O4'-C1'	10.17	1.56	1.41
1	Ad	938	A	C2'-C1'	-10.17	1.37	1.53
1	Ad	1640	C	C2'-C1'	-10.16	1.38	1.53
1	Ad	205	U	C2'-C1'	10.15	1.68	1.53
1	Ad	914	U	C2'-C1'	-10.15	1.38	1.53
2	Ae	29	C	O4'-C1'	10.15	1.56	1.41
1	Ad	915	C	O4'-C1'	10.14	1.56	1.41
1	Ad	20	G	C2'-C1'	-10.14	1.38	1.53
1	Ad	955	C	O4'-C1'	10.14	1.56	1.41
1	Ad	1472	G	C2'-C1'	-10.10	1.38	1.53
1	Ad	1557	C	O4'-C1'	10.10	1.56	1.41
1	Ad	849	G	C2'-C1'	-10.10	1.38	1.53
1	Ad	1710	C	O4'-C1'	10.07	1.56	1.41
1	Ad	1648	C	O4'-C1'	10.06	1.56	1.41
1	Ad	1162	A	O4'-C1'	-10.06	1.26	1.41
1	Ad	25	C	C2'-C1'	-10.06	1.38	1.53
1	Ad	346	C	O4'-C1'	10.04	1.56	1.41
1	Ad	1069	G	C2'-C1'	-10.03	1.38	1.53
1	Ad	1627	C	O4'-C1'	10.03	1.56	1.41
1	Ad	488	C	O4'-C1'	10.01	1.56	1.41
1	Ad	650	G	C2'-C1'	-10.01	1.38	1.53
1	Ad	1457	C	O4'-C1'	10.01	1.56	1.41
1	Ad	1281	G	C2'-C1'	-9.99	1.38	1.53
1	Ad	1281	G	O4'-C1'	9.99	1.56	1.41
1	Ad	832	C	O4'-C1'	9.99	1.56	1.41
1	Ad	1731	A	O4'-C1'	9.99	1.56	1.41
1	Ad	1073	C	O4'-C1'	9.96	1.56	1.41
1	Ad	533	C	C2'-C1'	-9.96	1.38	1.53
1	Ad	1296	G	C2'-C1'	-9.95	1.38	1.53
1	Ad	644	U	C2'-C1'	-9.94	1.38	1.53
1	Ad	1736	C	O4'-C1'	9.92	1.56	1.41
1	Ad	237	C	C2'-C1'	-9.91	1.38	1.53
1	Ad	220	C	C2'-C1'	-9.90	1.38	1.53
1	Ad	73	A	C2'-C1'	9.88	1.68	1.53
1	Ad	483	C	O4'-C1'	9.88	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	858	G	O4'-C1'	9.87	1.56	1.41
1	Ad	846	U	C2'-C1'	-9.85	1.38	1.53
1	Ad	1447	C	O4'-C1'	9.83	1.56	1.41
1	Ad	262	U	C2'-C1'	9.83	1.67	1.53
1	Ad	1801	A	C2'-C1'	9.82	1.67	1.53
1	Ad	1762	C	O4'-C1'	9.82	1.56	1.41
1	Ad	793	G	C2'-C1'	-9.81	1.38	1.53
1	Ad	1426	C	O4'-C1'	9.80	1.56	1.41
1	Ad	877	G	C2'-C1'	-9.78	1.38	1.53
1	Ad	437	C	O4'-C1'	9.77	1.56	1.41
1	Ad	235	C	C2'-C1'	9.76	1.67	1.53
1	Ad	1091	A	C2'-C1'	-9.76	1.38	1.53
2	Ae	60	C	O4'-C1'	9.75	1.56	1.41
2	Ae	19	U	C2'-C1'	-9.75	1.38	1.53
1	Ad	1231	A	C2'-C1'	-9.74	1.38	1.53
1	Ad	301	U	C2'-C1'	-9.73	1.38	1.53
1	Ad	885	C	O4'-C1'	9.71	1.56	1.41
1	Ad	1548	G	C2'-C1'	-9.72	1.38	1.53
1	Ad	1451	G	O4'-C1'	9.70	1.56	1.42
1	Ad	81	U	O4'-C1'	9.69	1.56	1.41
1	Ad	1105	G	C2'-C1'	-9.68	1.38	1.53
1	Ad	384	U	O4'-C1'	-9.68	1.27	1.42
1	Ad	1128	C	O4'-C1'	9.68	1.56	1.41
1	Ad	1239	C	O4'-C1'	9.68	1.56	1.41
1	Ad	804	C	O4'-C1'	9.67	1.56	1.41
1	Ad	182	C	O4'-C1'	9.66	1.56	1.41
1	Ad	954	C	C2'-C1'	-9.66	1.38	1.53
1	Ad	1596	G	O4'-C1'	9.64	1.56	1.41
1	Ad	1045	G	C2'-C1'	-9.64	1.38	1.53
1	Ad	1310	C	C2'-C1'	-9.64	1.38	1.53
2	Ae	60	C	C2'-C1'	-9.64	1.38	1.53
1	Ad	249	G	C2'-C1'	-9.63	1.38	1.53
1	Ad	169	A	O4'-C1'	9.63	1.56	1.41
1	Ad	1082	C	C2'-C1'	-9.62	1.39	1.53
1	Ad	1301	G	C2'-C1'	9.60	1.67	1.53
1	Ad	239	C	O4'-C1'	9.59	1.56	1.42
1	Ad	133	U	O4'-C1'	9.58	1.56	1.42
1	Ad	180	A	C2'-C1'	9.57	1.67	1.53
1	Ad	1704	G	C2'-C1'	-9.57	1.39	1.53
1	Ad	49	C	O4'-C1'	9.56	1.55	1.41
1	Ad	1775	A	O4'-C1'	-9.56	1.27	1.42
1	Ad	94	A	C2'-C1'	-9.55	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	814	C	O4'-C1'	9.54	1.55	1.41
1	Ad	412	C	O4'-C1'	9.53	1.55	1.41
1	Ad	949	A	O4'-C1'	9.53	1.56	1.42
1	Ad	121	U	O4'-C1'	9.51	1.55	1.41
1	Ad	1673	C	O4'-C1'	9.51	1.55	1.41
1	Ad	591	C	O4'-C1'	9.50	1.55	1.41
1	Ad	309	C	O4'-C1'	9.49	1.55	1.41
1	Ad	1502	C	O4'-C1'	9.48	1.55	1.41
1	Ad	1409	G	C2'-C1'	-9.47	1.39	1.53
1	Ad	1029	U	C2'-C1'	9.47	1.67	1.53
1	Ad	1184	C	C2'-C1'	-9.47	1.39	1.53
1	Ad	175	A	O4'-C1'	9.46	1.56	1.42
2	Ae	6	G	C2'-C1'	-9.46	1.39	1.53
1	Ad	757	G	C2'-C1'	-9.45	1.39	1.53
2	Ae	56	A	O4'-C1'	9.46	1.55	1.41
1	Ad	1208	A	O4'-C1'	9.45	1.55	1.41
1	Ad	1716	C	O4'-C1'	9.45	1.55	1.41
1	Ad	108	C	C2'-C1'	-9.44	1.39	1.53
1	Ad	950	U	O4'-C1'	9.43	1.55	1.41
1	Ad	1699	C	O4'-C1'	9.42	1.55	1.41
1	Ad	1161	C	C2'-C1'	-9.42	1.39	1.53
1	Ad	1442	A	C2'-C1'	-9.42	1.39	1.53
1	Ad	1007	G	C2'-C1'	-9.41	1.39	1.53
1	Ad	158	C	O4'-C1'	9.38	1.55	1.41
1	Ad	845	C	C2'-C1'	9.38	1.67	1.53
1	Ad	834	A	C2'-C1'	9.38	1.67	1.53
1	Ad	1071	C	C2'-C1'	-9.38	1.39	1.53
1	Ad	1517	C	O4'-C1'	9.37	1.55	1.41
1	Ad	1615	G	C2'-C1'	-9.37	1.39	1.53
1	Ad	198	G	O4'-C1'	9.35	1.55	1.41
1	Ad	536	U	C2'-C1'	-9.34	1.39	1.53
1	Ad	249	G	O4'-C1'	9.34	1.55	1.41
1	Ad	1378	C	O4'-C1'	9.33	1.55	1.41
1	Ad	1174	G	O4'-C1'	9.32	1.55	1.41
1	Ad	1758	G	C2'-C1'	-9.31	1.39	1.53
1	Ad	484	A	O4'-C1'	9.31	1.55	1.41
1	Ad	593	C	O4'-C1'	9.31	1.55	1.41
1	Ad	814	C	C2'-C1'	-9.31	1.39	1.53
1	Ad	1500	A	C2'-C1'	9.31	1.67	1.53
1	Ad	1346	C	C2'-C1'	-9.30	1.39	1.53
1	Ad	296	A	C2'-C1'	-9.30	1.39	1.53
1	Ad	261	C	C2'-C1'	-9.29	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	Ae	43	C	O4'-C1'	9.28	1.55	1.41
1	Ad	1567	G	O4'-C1'	-9.28	1.27	1.41
1	Ad	71	C	O4'-C1'	9.27	1.55	1.41
1	Ad	122	U	O4'-C1'	9.26	1.55	1.41
1	Ad	1603	U	O4'-C1'	-9.26	1.27	1.41
1	Ad	1618	G	C2'-C1'	-9.26	1.39	1.53
1	Ad	1432	C	C2'-C1'	9.25	1.67	1.53
1	Ad	1585	A	O4'-C1'	9.25	1.55	1.41
1	Ad	881	G	C2'-C1'	-9.24	1.39	1.53
1	Ad	1219	C	O4'-C1'	9.24	1.55	1.41
1	Ad	380	C	O4'-C1'	9.22	1.55	1.41
1	Ad	1386	U	C2'-C1'	-9.22	1.39	1.53
1	Ad	1077	C	O4'-C1'	9.21	1.55	1.41
1	Ad	1020	U	C2'-C1'	-9.21	1.39	1.53
1	Ad	1609	G	C2'-C1'	-9.21	1.39	1.53
1	Ad	1593	U	C2'-C1'	-9.20	1.39	1.53
1	Ad	18	C	O4'-C1'	9.20	1.55	1.41
1	Ad	388	G	C2'-C1'	-9.19	1.39	1.53
1	Ad	17	C	O4'-C1'	9.19	1.55	1.41
1	Ad	1047	G	C2'-C1'	-9.19	1.39	1.53
1	Ad	1718	C	O4'-C1'	9.19	1.55	1.41
1	Ad	465	G	O4'-C1'	9.18	1.55	1.41
1	Ad	1410	C	O4'-C1'	9.18	1.55	1.41
1	Ad	1743	C	O4'-C1'	9.18	1.55	1.41
1	Ad	1644	C	O4'-C1'	9.18	1.55	1.42
1	Ad	1643	A	C2'-C1'	9.18	1.67	1.53
1	Ad	741	C	O4'-C1'	9.18	1.55	1.41
1	Ad	1163	C	O4'-C1'	9.16	1.55	1.42
1	Ad	296	A	O4'-C1'	9.16	1.55	1.41
1	Ad	41	A	C2'-C1'	9.16	1.67	1.53
1	Ad	1549	G	O4'-C1'	9.16	1.55	1.41
1	Ad	592	U	C2'-C1'	-9.15	1.39	1.53
1	Ad	448	C	O4'-C1'	9.15	1.55	1.42
1	Ad	746	A	C2'-C1'	9.15	1.67	1.53
1	Ad	856	G	C2'-C1'	-9.14	1.39	1.53
2	Ae	38	C	O4'-C1'	9.14	1.55	1.41
1	Ad	12	U	C2'-C1'	-9.14	1.39	1.53
1	Ad	750	U	C2'-C1'	-9.14	1.39	1.53
1	Ad	1336	C	C2'-C1'	-9.13	1.39	1.53
1	Ad	826	C	C2'-C1'	9.13	1.67	1.53
1	Ad	879	C	O4'-C1'	9.13	1.55	1.41
1	Ad	999	G	O4'-C1'	9.13	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	58	U	C2'-C1'	-9.11	1.39	1.53
1	Ad	1012	C	O4'-C1'	9.11	1.55	1.41
1	Ad	369	G	C2'-C1'	9.11	1.67	1.53
1	Ad	600	C	O4'-C1'	9.10	1.55	1.41
1	Ad	1001	C	O4'-C1'	9.09	1.55	1.41
1	Ad	1549	G	C2'-C1'	-9.09	1.39	1.53
1	Ad	473	C	O4'-C1'	9.08	1.55	1.41
1	Ad	1122	U	O4'-C1'	9.08	1.55	1.41
1	Ad	141	G	O4'-C1'	9.08	1.55	1.41
1	Ad	993	C	O4'-C1'	9.07	1.55	1.41
1	Ad	1733	G	C2'-C1'	-9.06	1.39	1.53
1	Ad	30	G	C2'-C1'	-9.06	1.39	1.53
1	Ad	899	A	C2'-C1'	-9.01	1.39	1.53
2	Ae	31	C	O4'-C1'	9.01	1.55	1.41
1	Ad	1232	G	C2'-C1'	-8.99	1.39	1.53
1	Ad	1517	C	C2'-C1'	-8.99	1.39	1.53
1	Ad	1754	A	O4'-C1'	8.99	1.55	1.41
1	Ad	351	G	C2'-C1'	-8.98	1.39	1.53
1	Ad	533	C	O4'-C1'	8.98	1.55	1.41
2	Ae	36	C	O4'-C1'	8.97	1.55	1.41
1	Ad	453	C	O4'-C1'	8.95	1.55	1.41
1	Ad	301	U	O4'-C1'	8.94	1.55	1.41
1	Ad	1382	C	O4'-C1'	8.94	1.55	1.41
1	Ad	889	C	O4'-C1'	8.93	1.55	1.41
1	Ad	1355	U	O4'-C1'	8.93	1.55	1.41
1	Ad	438	G	C2'-C1'	8.93	1.66	1.53
1	Ad	1503	C	O4'-C1'	8.93	1.55	1.41
1	Ad	1156	A	C2'-C1'	-8.92	1.40	1.53
1	Ad	1194	C	O4'-C1'	8.92	1.55	1.42
1	Ad	1778	G	O4'-C1'	8.91	1.55	1.41
1	Ad	1007	G	O4'-C1'	8.90	1.55	1.41
1	Ad	1232	G	O4'-C1'	8.90	1.55	1.42
1	Ad	1563	A	C2'-C1'	-8.89	1.40	1.53
1	Ad	336	U	C2'-C1'	8.89	1.66	1.53
1	Ad	391	A	O4'-C1'	-8.89	1.28	1.42
1	Ad	404	A	O4'-C1'	-8.89	1.28	1.42
1	Ad	1562	C	O4'-C1'	8.89	1.54	1.41
1	Ad	1253	U	C2'-C1'	-8.89	1.40	1.53
1	Ad	1494	G	C2'-C1'	-8.87	1.40	1.53
1	Ad	4	C	O4'-C1'	8.86	1.54	1.41
1	Ad	361	G	C2'-C1'	-8.86	1.40	1.53
1	Ad	1612	C	O4'-C1'	8.86	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	343	C	C2'-C1'	-8.86	1.40	1.53
1	Ad	798	C	O4'-C1'	8.85	1.54	1.41
1	Ad	394	G	C2'-C1'	8.84	1.66	1.53
1	Ad	196	G	C2'-C1'	-8.83	1.40	1.53
1	Ad	922	U	C2'-C1'	-8.83	1.40	1.53
2	Ae	74	C	C2'-C1'	8.81	1.66	1.53
1	Ad	649	C	O4'-C1'	8.81	1.54	1.41
1	Ad	596	A	O4'-C1'	8.81	1.54	1.41
1	Ad	1252	C	C2'-C1'	-8.80	1.40	1.53
1	Ad	1708	U	O4'-C1'	8.78	1.55	1.42
1	Ad	1615	G	O4'-C1'	8.78	1.54	1.41
1	Ad	1046	G	C2'-C1'	-8.77	1.40	1.53
1	Ad	1766	A	O4'-C1'	-8.77	1.28	1.42
1	Ad	714	C	O4'-C1'	8.76	1.54	1.41
1	Ad	1644	C	C2'-C1'	-8.76	1.40	1.53
1	Ad	810	A	O4'-C1'	8.76	1.54	1.41
1	Ad	334	G	C2'-C1'	-8.75	1.40	1.53
1	Ad	1342	C	C2'-C1'	-8.72	1.40	1.53
1	Ad	1385	C	O4'-C1'	8.71	1.54	1.41
1	Ad	900	G	C2'-C1'	-8.70	1.40	1.53
1	Ad	1273	U	C2'-C1'	-8.70	1.40	1.53
1	Ad	1695	G	O4'-C1'	8.69	1.54	1.41
1	Ad	1083	C	O4'-C1'	8.68	1.54	1.41
1	Ad	1674	C	O4'-C1'	8.68	1.54	1.41
1	Ad	1802	G	O4'-C1'	-8.67	1.28	1.42
1	Ad	259	A	C2'-C1'	-8.66	1.40	1.53
1	Ad	850	G	C2'-C1'	-8.64	1.40	1.53
1	Ad	870	A	C2'-C1'	8.64	1.66	1.53
1	Ad	968	A	C2'-C1'	8.62	1.66	1.53
1	Ad	538	A	O4'-C1'	8.62	1.54	1.41
1	Ad	1168	A	O4'-C1'	8.62	1.54	1.41
1	Ad	394	G	O4'-C1'	-8.61	1.28	1.41
1	Ad	1327	C	C2'-C1'	-8.61	1.40	1.53
1	Ad	117	U	C2'-C1'	-8.61	1.40	1.53
1	Ad	435	C	O4'-C1'	8.61	1.54	1.41
1	Ad	869	U	C2'-C1'	8.60	1.66	1.53
1	Ad	964	U	C2'-C1'	-8.60	1.40	1.53
1	Ad	1139	C	O4'-C1'	8.60	1.54	1.41
1	Ad	527	C	O4'-C1'	8.59	1.54	1.41
2	Ae	21	A	O4'-C1'	8.59	1.54	1.41
1	Ad	576	C	O4'-C1'	8.58	1.54	1.41
1	Ad	1316	A	C2'-C1'	-8.58	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1258	U	C2'-C1'	-8.57	1.40	1.53
1	Ad	202	C	C2'-C1'	-8.57	1.40	1.53
3	Af	20	U	C2'-C1'	-8.57	1.40	1.53
1	Ad	219	G	C2'-C1'	8.56	1.66	1.53
1	Ad	914	U	O4'-C1'	8.56	1.54	1.41
1	Ad	1608	A	C2'-C1'	-8.56	1.40	1.53
1	Ad	318	C	O4'-C1'	8.54	1.54	1.41
1	Ad	832	C	C2'-C1'	-8.54	1.40	1.53
1	Ad	1686	C	C2'-C1'	-8.53	1.40	1.53
1	Ad	1589	C	C2'-C1'	-8.52	1.40	1.53
2	Ae	43	C	C2'-C1'	-8.52	1.40	1.53
1	Ad	1687	G	O4'-C1'	8.51	1.54	1.41
1	Ad	980	C	O4'-C1'	8.50	1.54	1.41
1	Ad	1122	U	C2'-C1'	-8.50	1.40	1.53
1	Ad	1765	A	O4'-C1'	-8.49	1.28	1.41
2	Ae	50	G	O4'-C1'	-8.49	1.28	1.41
1	Ad	99	U	C2'-C1'	-8.48	1.40	1.53
1	Ad	1568	U	C2'-C1'	8.48	1.66	1.53
1	Ad	973	U	C2'-C1'	-8.47	1.40	1.53
1	Ad	1187	A	O4'-C1'	8.47	1.54	1.41
1	Ad	1199	C	O4'-C1'	8.47	1.54	1.41
1	Ad	1110	C	C2'-C1'	-8.46	1.40	1.53
1	Ad	1407	A	C2'-C1'	8.46	1.66	1.53
1	Ad	550	U	O4'-C1'	8.46	1.54	1.41
1	Ad	966	U	O4'-C1'	8.45	1.54	1.41
1	Ad	165	U	O4'-C1'	8.44	1.54	1.41
1	Ad	146	A	C2'-C1'	8.43	1.66	1.53
2	Ae	61	C	O4'-C1'	8.43	1.54	1.41
1	Ad	801	U	C2'-C1'	8.43	1.66	1.53
1	Ad	881	G	O4'-C1'	8.43	1.54	1.41
1	Ad	1032	A	C2'-C1'	8.42	1.66	1.53
1	Ad	641	C	O4'-C1'	8.42	1.54	1.41
1	Ad	1794	C	C2'-C1'	-8.41	1.40	1.53
1	Ad	1079	G	C2'-C1'	-8.41	1.40	1.53
1	Ad	1607	C	O4'-C1'	8.41	1.54	1.41
1	Ad	1716	C	C2'-C1'	-8.41	1.40	1.53
1	Ad	1117	G	C2'-C1'	-8.40	1.40	1.53
1	Ad	34	G	O4'-C1'	8.39	1.54	1.41
1	Ad	1538	C	O4'-C1'	8.39	1.54	1.41
1	Ad	1597	C	O4'-C1'	8.38	1.54	1.41
2	Ae	17	G	O4'-C1'	8.38	1.54	1.42
1	Ad	485	A	O4'-C1'	8.37	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1043	C	O4'-C1'	8.37	1.54	1.41
2	Ae	4	G	C2'-C1'	-8.37	1.40	1.53
1	Ad	632	G	O4'-C1'	8.37	1.54	1.41
1	Ad	1005	C	O4'-C1'	-8.36	1.29	1.41
1	Ad	1027	C	C2'-C1'	-8.33	1.40	1.53
1	Ad	288	G	C2'-C1'	-8.32	1.40	1.53
1	Ad	537	U	O4'-C1'	8.32	1.54	1.41
1	Ad	385	C	C2'-C1'	-8.32	1.40	1.53
1	Ad	1058	G	C2'-C1'	-8.32	1.40	1.53
1	Ad	1531	G	O4'-C1'	-8.31	1.29	1.42
1	Ad	1613	G	C2'-C1'	-8.31	1.40	1.53
2	Ae	50	G	C2'-C1'	8.30	1.65	1.53
1	Ad	1779	U	O4'-C1'	8.30	1.54	1.42
1	Ad	190	C	O4'-C1'	8.29	1.54	1.41
1	Ad	1715	C	C2'-C1'	-8.28	1.41	1.53
2	Ae	22	G	C2'-C1'	-8.28	1.41	1.53
1	Ad	792	U	C2'-C1'	8.28	1.65	1.53
1	Ad	1064	U	C2'-C1'	8.28	1.65	1.53
1	Ad	747	U	O4'-C1'	8.27	1.54	1.41
1	Ad	780	A	O4'-C1'	-8.27	1.29	1.41
1	Ad	711	C	C2'-C1'	-8.27	1.41	1.53
1	Ad	297	U	C2'-C1'	-8.26	1.41	1.53
1	Ad	1401	C	O4'-C1'	8.26	1.54	1.41
1	Ad	1685	U	C2'-C1'	-8.26	1.41	1.53
1	Ad	1749	C	C2'-C1'	-8.26	1.41	1.53
1	Ad	1095	C	O4'-C1'	8.26	1.54	1.41
1	Ad	1579	C	O4'-C1'	8.25	1.54	1.41
2	Ae	9	A	O4'-C1'	8.25	1.54	1.42
1	Ad	1354	C	O4'-C1'	8.24	1.54	1.41
1	Ad	391	A	C2'-C1'	8.23	1.65	1.53
1	Ad	97	G	O4'-C1'	8.23	1.53	1.41
1	Ad	569	C	O4'-C1'	8.23	1.54	1.42
1	Ad	1492	G	C2'-C1'	8.22	1.65	1.53
1	Ad	591	C	C2'-C1'	-8.22	1.41	1.53
1	Ad	1321	C	O4'-C1'	8.22	1.53	1.41
1	Ad	1686	C	O4'-C1'	8.22	1.53	1.41
1	Ad	651	G	C2'-C1'	-8.22	1.41	1.53
1	Ad	556	G	C2'-C1'	-8.21	1.41	1.53
1	Ad	969	U	O4'-C1'	8.21	1.54	1.42
1	Ad	1224	C	C2'-C1'	-8.20	1.41	1.53
1	Ad	995	C	C2'-C1'	-8.19	1.41	1.53
1	Ad	1545	A	C2'-C1'	8.20	1.65	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1013	G	C2'-C1'	-8.19	1.41	1.53
1	Ad	1305	U	O4'-C1'	8.19	1.53	1.41
2	Ae	3	C	O4'-C1'	8.18	1.53	1.41
1	Ad	1572	U	C2'-C1'	-8.18	1.41	1.53
1	Ad	1468	G	O4'-C1'	8.17	1.53	1.41
1	Ad	896	C	O4'-C1'	8.16	1.53	1.41
1	Ad	1414	G	C2'-C1'	-8.16	1.41	1.53
1	Ad	79	A	C2'-C1'	8.16	1.65	1.53
1	Ad	68	A	C2'-C1'	-8.16	1.41	1.53
1	Ad	1476	C	C2'-C1'	-8.15	1.41	1.53
1	Ad	17	C	C2'-C1'	-8.15	1.41	1.53
1	Ad	713	C	C2'-C1'	-8.15	1.41	1.53
1	Ad	879	C	C2'-C1'	-8.15	1.41	1.53
1	Ad	1649	C	O4'-C1'	8.15	1.53	1.41
1	Ad	98	C	O4'-C1'	8.14	1.53	1.41
1	Ad	969	U	C2'-C1'	-8.14	1.40	1.53
1	Ad	587	C	C2'-C1'	-8.14	1.41	1.53
1	Ad	1531	G	C2'-C1'	8.14	1.65	1.53
1	Ad	345	A	C2'-C1'	-8.14	1.41	1.53
1	Ad	1174	G	C2'-C1'	-8.14	1.41	1.53
1	Ad	1590	U	O4'-C1'	-8.12	1.29	1.42
1	Ad	1735	C	C2'-C1'	-8.12	1.41	1.53
1	Ad	1379	U	O4'-C1'	8.12	1.53	1.41
1	Ad	1670	G	C2'-C1'	-8.12	1.41	1.53
1	Ad	1119	G	C2'-C1'	8.12	1.65	1.53
1	Ad	428	C	C2'-C1'	-8.11	1.41	1.53
1	Ad	1037	G	C2'-C1'	-8.10	1.41	1.53
1	Ad	327	A	O4'-C1'	8.10	1.53	1.41
1	Ad	1015	C	O4'-C1'	8.10	1.53	1.41
1	Ad	1469	C	O4'-C1'	8.09	1.53	1.41
1	Ad	419	C	O4'-C1'	8.09	1.53	1.41
1	Ad	998	A	O4'-C1'	8.09	1.53	1.41
1	Ad	1252	C	O4'-C1'	8.08	1.53	1.41
1	Ad	1645	C	O4'-C1'	8.08	1.54	1.42
1	Ad	711	C	O4'-C1'	8.08	1.53	1.41
1	Ad	1142	A	O4'-C1'	8.07	1.54	1.42
1	Ad	1337	C	O4'-C1'	8.07	1.53	1.41
1	Ad	1491	C	O4'-C1'	8.07	1.53	1.41
1	Ad	235	C	O4'-C1'	8.06	1.54	1.42
1	Ad	573	C	O4'-C1'	8.05	1.53	1.41
1	Ad	53	G	C2'-C1'	-8.05	1.41	1.53
1	Ad	1516	C	C2'-C1'	-8.04	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	228	G	O4'-C1'	8.04	1.53	1.41
1	Ad	1507	G	C2'-C1'	-8.04	1.41	1.53
1	Ad	1783	C	O4'-C1'	8.04	1.53	1.41
2	Ae	72	G	O4'-C1'	-8.04	1.29	1.41
1	Ad	1319	U	C2'-C1'	-8.04	1.41	1.53
1	Ad	1443	U	C2'-C1'	-8.03	1.41	1.53
1	Ad	795	A	O4'-C1'	8.02	1.53	1.41
84	Aa	1747	A	O3'-P	-8.02	1.49	1.61
2	Ae	26	G	C2'-C1'	-8.01	1.41	1.53
1	Ad	188	U	O4'-C1'	8.00	1.53	1.42
1	Ad	1765	A	C2'-C1'	8.00	1.65	1.53
2	Ae	58	U	C2'-C1'	8.00	1.65	1.53
2	Ae	10	G	O4'-C1'	7.99	1.53	1.41
1	Ad	1515	G	C2'-C1'	-7.98	1.41	1.53
2	Ae	48	C	O4'-C1'	7.98	1.53	1.41
1	Ad	317	U	O4'-C1'	7.97	1.53	1.42
1	Ad	45	U	C2'-C1'	-7.97	1.41	1.53
1	Ad	649	C	C2'-C1'	-7.96	1.41	1.53
1	Ad	216	A	C2'-C1'	-7.96	1.41	1.53
1	Ad	1210	U	C2'-C1'	7.96	1.65	1.53
1	Ad	1375	C	C2'-C1'	-7.96	1.41	1.53
1	Ad	1680	A	O4'-C1'	7.95	1.53	1.41
1	Ad	748	C	O4'-C1'	7.95	1.53	1.41
1	Ad	1056	A	C2'-C1'	7.94	1.65	1.53
1	Ad	198	G	C2'-C1'	-7.94	1.41	1.53
1	Ad	254	A	O4'-C1'	7.94	1.53	1.41
1	Ad	135	C	C2'-C1'	-7.93	1.41	1.53
1	Ad	278	C	O4'-C1'	7.93	1.53	1.41
1	Ad	903	A	O4'-C1'	-7.92	1.30	1.42
1	Ad	1808	U	O4'-C1'	7.92	1.53	1.42
1	Ad	1673	C	C2'-C1'	-7.92	1.41	1.53
1	Ad	1067	A	O4'-C1'	-7.91	1.29	1.41
1	Ad	1467	C	O4'-C1'	7.91	1.53	1.41
1	Ad	178	A	O4'-C1'	7.91	1.53	1.41
1	Ad	709	C	O4'-C1'	7.91	1.53	1.41
1	Ad	1151	G	C2'-C1'	-7.91	1.41	1.53
1	Ad	1179	C	O4'-C1'	7.90	1.53	1.41
1	Ad	821	G	O4'-C1'	7.90	1.53	1.42
1	Ad	225	G	O4'-C1'	7.88	1.53	1.41
1	Ad	179	A	C2'-C1'	-7.88	1.41	1.53
1	Ad	72	A	O4'-C1'	7.87	1.53	1.41
1	Ad	398	C	O4'-C1'	7.87	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1418	G	O4'-C1'	7.87	1.53	1.42
1	Ad	295	C	O4'-C1'	7.86	1.53	1.41
1	Ad	903	A	C2'-C1'	7.86	1.64	1.53
1	Ad	993	C	C2'-C1'	-7.86	1.41	1.53
1	Ad	121	U	C2'-C1'	-7.86	1.41	1.53
1	Ad	860	A	O4'-C1'	-7.86	1.30	1.42
1	Ad	116	G	O4'-C1'	7.85	1.53	1.42
1	Ad	1104	U	C2'-C1'	7.85	1.64	1.53
1	Ad	261	C	O4'-C1'	7.84	1.53	1.41
1	Ad	631	C	O4'-C1'	7.83	1.53	1.41
1	Ad	421	A	O4'-C1'	7.82	1.53	1.42
1	Ad	796	U	C2'-C1'	-7.82	1.41	1.53
1	Ad	406	C	O4'-C1'	7.82	1.53	1.41
1	Ad	316	A	C2'-C1'	7.81	1.64	1.53
1	Ad	539	A	C2'-C1'	-7.80	1.41	1.53
1	Ad	1760	A	C2'-C1'	-7.80	1.41	1.53
1	Ad	85	A	O4'-C1'	7.79	1.53	1.41
2	Ae	35	U	O4'-C1'	7.79	1.53	1.41
1	Ad	1712	C	O4'-C1'	7.79	1.53	1.41
1	Ad	1020	U	O4'-C1'	7.79	1.53	1.41
1	Ad	36	C	C2'-C1'	-7.78	1.41	1.53
1	Ad	1193	A	C2'-C1'	7.78	1.65	1.53
1	Ad	965	U	O4'-C1'	7.78	1.53	1.41
1	Ad	1398	U	O4'-C1'	7.78	1.53	1.41
1	Ad	1225	A	C2'-C1'	-7.77	1.41	1.53
1	Ad	474	A	O4'-C1'	7.77	1.53	1.41
1	Ad	1388	A	C2'-C1'	7.77	1.64	1.53
1	Ad	727	G	O4'-C1'	7.77	1.53	1.41
2	Ae	73	C	C2'-C1'	-7.76	1.41	1.53
1	Ad	506	G	O4'-C1'	7.75	1.53	1.41
1	Ad	1702	G	C2'-C1'	-7.74	1.41	1.53
1	Ad	126	U	O4'-C1'	7.73	1.53	1.41
1	Ad	86	A	C2'-C1'	-7.72	1.41	1.53
1	Ad	342	C	C2'-C1'	-7.72	1.41	1.53
1	Ad	483	C	C2'-C1'	-7.72	1.41	1.53
1	Ad	1646	G	O4'-C1'	7.70	1.53	1.41
1	Ad	321	C	C2'-C1'	-7.70	1.41	1.53
1	Ad	183	C	C2'-C1'	-7.69	1.41	1.53
1	Ad	889	C	C2'-C1'	-7.69	1.41	1.53
1	Ad	504	C	C2'-C1'	-7.68	1.41	1.53
1	Ad	788	G	O4'-C1'	7.68	1.53	1.42
1	Ad	1751	U	C2'-C1'	-7.68	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	854	C	O4'-C1'	7.67	1.53	1.41
1	Ad	1255	U	C2'-C1'	7.67	1.64	1.53
1	Ad	1552	U	O4'-C1'	7.67	1.53	1.41
1	Ad	932	C	O4'-C1'	7.67	1.53	1.41
1	Ad	376	G	O4'-C1'	7.66	1.53	1.41
1	Ad	979	A	O4'-C1'	7.66	1.53	1.41
1	Ad	24	U	O4'-C1'	7.66	1.53	1.41
1	Ad	1442	A	O4'-C1'	7.65	1.53	1.41
1	Ad	1620	C	O4'-C1'	7.65	1.53	1.41
1	Ad	1574	U	C2'-C1'	7.65	1.64	1.53
1	Ad	822	G	O4'-C1'	7.64	1.53	1.41
1	Ad	1475	A	O4'-C1'	7.64	1.53	1.41
1	Ad	1610	C	C2'-C1'	-7.64	1.41	1.53
1	Ad	1304	A	C2'-C1'	7.64	1.64	1.53
1	Ad	148	C	C2'-C1'	-7.64	1.41	1.53
1	Ad	345	A	O4'-C1'	7.64	1.53	1.41
1	Ad	1331	C	O4'-C1'	7.64	1.53	1.41
1	Ad	1523	A	O4'-C1'	7.64	1.53	1.41
1	Ad	1725	C	C2'-C1'	7.63	1.64	1.53
2	Ae	62	C	O4'-C1'	7.63	1.53	1.41
1	Ad	155	A	C2'-C1'	7.63	1.64	1.53
1	Ad	1051	G	C2'-C1'	-7.62	1.42	1.53
1	Ad	1137	A	O4'-C1'	7.61	1.53	1.41
1	Ad	964	U	O4'-C1'	7.61	1.53	1.41
1	Ad	759	A	O4'-C1'	7.60	1.53	1.41
1	Ad	540	C	O4'-C1'	7.60	1.53	1.41
1	Ad	992	G	O4'-C1'	7.60	1.53	1.41
1	Ad	1680	A	C2'-C1'	-7.59	1.42	1.53
1	Ad	1755	G	C2'-C1'	-7.59	1.42	1.53
1	Ad	919	G	C2'-C1'	7.58	1.64	1.53
1	Ad	1630	G	O4'-C1'	7.57	1.53	1.41
1	Ad	1028	A	O4'-C1'	-7.57	1.30	1.42
1	Ad	1467	C	C2'-C1'	-7.57	1.42	1.53
1	Ad	415	C	C2'-C1'	-7.56	1.42	1.53
1	Ad	1685	U	O4'-C1'	7.55	1.52	1.41
1	Ad	1096	A	C2'-C1'	-7.54	1.41	1.53
1	Ad	1737	A	O4'-C1'	7.54	1.52	1.41
1	Ad	1038	C	C2'-C1'	-7.53	1.42	1.53
1	Ad	1124	G	C2'-C1'	-7.52	1.42	1.53
1	Ad	1598	G	O4'-C1'	7.51	1.52	1.41
3	Af	16	G	O4'-C1'	7.51	1.52	1.41
1	Ad	1571	G	C2'-C1'	-7.50	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1678	G	C2'-C1'	-7.50	1.42	1.53
1	Ad	136	U	C2'-C1'	-7.50	1.41	1.53
1	Ad	188	U	C2'-C1'	-7.50	1.41	1.53
1	Ad	1213	C	C2'-C1'	-7.49	1.42	1.53
1	Ad	936	C	C2'-C1'	-7.48	1.42	1.53
1	Ad	1187	A	C2'-C1'	-7.47	1.42	1.53
1	Ad	1676	G	C2'-C1'	-7.47	1.42	1.53
1	Ad	1395	C	O4'-C1'	7.47	1.52	1.41
1	Ad	376	G	C2'-C1'	-7.46	1.42	1.53
1	Ad	1026	C	O4'-C1'	7.46	1.52	1.41
1	Ad	1076	C	O4'-C1'	7.45	1.52	1.41
1	Ad	1749	C	O4'-C1'	7.45	1.52	1.41
1	Ad	182	C	C2'-C1'	-7.45	1.42	1.53
1	Ad	1369	C	C2'-C1'	-7.45	1.42	1.53
71	CB	127	LYS	CA-C	-7.44	1.49	1.53
1	Ad	1578	A	O4'-C1'	7.44	1.52	1.41
1	Ad	1700	G	O4'-C1'	7.44	1.52	1.41
1	Ad	1274	G	C2'-C1'	-7.43	1.42	1.53
1	Ad	735	G	C2'-C1'	-7.43	1.42	1.53
1	Ad	430	G	C2'-C1'	-7.42	1.42	1.53
1	Ad	1766	A	C2'-C1'	7.42	1.64	1.53
1	Ad	232	C	O4'-C1'	7.42	1.52	1.41
1	Ad	326	G	C2'-C1'	-7.42	1.42	1.53
1	Ad	1322	G	C2'-C1'	-7.42	1.42	1.53
1	Ad	783	C	O4'-C1'	7.41	1.52	1.41
1	Ad	1744	C	O4'-C1'	7.40	1.52	1.41
1	Ad	195	A	O4'-C1'	7.39	1.52	1.41
1	Ad	1298	G	C2'-C1'	-7.39	1.42	1.53
1	Ad	1633	C	O4'-C1'	7.39	1.52	1.41
1	Ad	642	C	C2'-C1'	-7.39	1.42	1.53
1	Ad	604	U	C2'-C1'	-7.39	1.42	1.53
1	Ad	1111	C	O4'-C1'	7.39	1.52	1.41
1	Ad	469	G	C2'-C1'	-7.39	1.42	1.53
1	Ad	218	G	O4'-C1'	7.38	1.52	1.41
1	Ad	393	G	C2'-C1'	-7.38	1.42	1.53
1	Ad	1696	C	O4'-C1'	7.38	1.52	1.41
1	Ad	322	U	O4'-C1'	7.37	1.52	1.41
1	Ad	733	U	O4'-C1'	7.37	1.52	1.41
1	Ad	1797	C	O4'-C1'	7.37	1.52	1.41
1	Ad	534	C	O4'-C1'	7.36	1.52	1.41
1	Ad	108	C	O4'-C1'	7.36	1.52	1.41
1	Ad	54	C	O4'-C1'	7.36	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	787	C	O4'-C1'	-7.35	1.30	1.41
1	Ad	299	A	C2'-C1'	-7.35	1.42	1.53
1	Ad	973	U	O4'-C1'	7.35	1.52	1.41
1	Ad	408	G	C2'-C1'	-7.35	1.42	1.53
1	Ad	1282	G	C2'-C1'	-7.34	1.42	1.53
1	Ad	1584	A	O4'-C1'	7.34	1.52	1.41
1	Ad	1625	U	C2'-C1'	-7.34	1.42	1.53
1	Ad	1570	G	C2'-C1'	-7.33	1.42	1.53
1	Ad	186	A	O4'-C1'	7.33	1.52	1.41
1	Ad	760	G	C2'-C1'	-7.33	1.42	1.53
1	Ad	519	A	O4'-C1'	7.33	1.52	1.41
1	Ad	548	C	O4'-C1'	7.32	1.52	1.41
1	Ad	1524	A	O4'-C1'	-7.31	1.30	1.42
1	Ad	313	C	C2'-C1'	-7.31	1.42	1.53
1	Ad	350	G	O4'-C1'	7.30	1.52	1.41
1	Ad	114	U	C2'-C1'	-7.30	1.42	1.53
1	Ad	1751	U	O4'-C1'	7.29	1.52	1.41
1	Ad	68	A	O4'-C1'	7.29	1.52	1.41
1	Ad	1237	G	C2'-C1'	-7.29	1.42	1.53
1	Ad	526	U	C2'-C1'	-7.28	1.42	1.53
1	Ad	93	A	C2'-C1'	7.27	1.64	1.53
1	Ad	1059	U	O4'-C1'	7.26	1.52	1.41
1	Ad	462	G	C2'-C1'	-7.26	1.42	1.53
1	Ad	453	C	C2'-C1'	-7.26	1.42	1.53
1	Ad	1370	C	O4'-C1'	7.25	1.52	1.41
1	Ad	630	U	C2'-C1'	-7.24	1.42	1.53
1	Ad	1199	C	C2'-C1'	-7.24	1.42	1.53
1	Ad	1599	C	C2'-C1'	-7.24	1.42	1.53
1	Ad	371	A	C2'-C1'	-7.24	1.42	1.53
1	Ad	1238	A	C2'-C1'	-7.23	1.42	1.53
1	Ad	588	C	C2'-C1'	-7.23	1.42	1.53
1	Ad	835	U	O4'-C1'	-7.21	1.30	1.41
1	Ad	1579	C	C2'-C1'	-7.21	1.42	1.53
1	Ad	1349	A	C2'-C1'	-7.21	1.42	1.53
1	Ad	1543	U	O4'-C1'	7.20	1.52	1.41
1	Ad	838	U	O4'-C1'	7.20	1.52	1.41
1	Ad	1338	U	O4'-C1'	7.20	1.52	1.41
1	Ad	91	C	O4'-C1'	7.19	1.52	1.41
1	Ad	1312	G	C2'-C1'	-7.19	1.42	1.53
1	Ad	289	G	C2'-C1'	-7.18	1.42	1.53
2	Ae	75	A	C2'-C1'	7.17	1.64	1.53
1	Ad	229	G	C2'-C1'	-7.17	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1223	A	O4'-C1'	7.17	1.52	1.41
1	Ad	1288	C	O4'-C1'	7.17	1.52	1.42
1	Ad	1462	C	C2'-C1'	7.17	1.64	1.53
1	Ad	1628	C	O4'-C1'	7.16	1.52	1.41
1	Ad	66	U	O4'-C1'	-7.16	1.30	1.41
1	Ad	459	C	O4'-C1'	7.16	1.52	1.42
1	Ad	1717	C	C2'-C1'	-7.16	1.42	1.53
1	Ad	1094	U	O4'-C1'	7.15	1.52	1.41
1	Ad	1410	C	C2'-C1'	-7.15	1.42	1.53
1	Ad	561	G	O4'-C1'	7.15	1.52	1.42
1	Ad	1421	U	C2'-C1'	-7.15	1.42	1.53
1	Ad	1717	C	O4'-C1'	7.15	1.52	1.41
1	Ad	187	C	C2'-C1'	-7.14	1.42	1.53
1	Ad	48	G	C2'-C1'	-7.14	1.42	1.53
1	Ad	548	C	C2'-C1'	-7.14	1.42	1.53
1	Ad	1164	C	O4'-C1'	7.14	1.52	1.41
1	Ad	152	G	C2'-C1'	-7.13	1.42	1.53
1	Ad	1805	U	O4'-C1'	7.13	1.52	1.41
2	Ae	1	U	O4'-C1'	7.13	1.52	1.41
1	Ad	88	C	O4'-C1'	7.13	1.52	1.41
1	Ad	1696	C	C2'-C1'	-7.12	1.42	1.53
1	Ad	785	A	O4'-C1'	7.11	1.52	1.41
1	Ad	1123	G	C2'-C1'	-7.11	1.42	1.53
1	Ad	1557	C	C2'-C1'	-7.09	1.42	1.53
1	Ad	161	G	O4'-C1'	-7.09	1.31	1.41
1	Ad	343	C	O4'-C1'	7.08	1.52	1.41
2	Ae	63	C	O4'-C1'	7.08	1.52	1.41
1	Ad	530	A	O4'-C1'	7.08	1.52	1.41
1	Ad	1624	G	C2'-C1'	-7.07	1.42	1.53
1	Ad	347	C	O4'-C1'	7.07	1.52	1.41
1	Ad	458	A	C2'-C1'	7.06	1.64	1.53
1	Ad	942	C	C2'-C1'	-7.06	1.42	1.53
1	Ad	1368	C	O4'-C1'	-7.06	1.31	1.41
1	Ad	1774	C	O4'-C1'	7.05	1.52	1.41
1	Ad	248	U	O4'-C1'	7.05	1.52	1.41
1	Ad	96	G	O4'-C1'	7.05	1.52	1.41
1	Ad	934	A	C2'-C1'	-7.04	1.42	1.53
1	Ad	1646	G	C2'-C1'	-7.04	1.42	1.53
1	Ad	406	C	C2'-C1'	-7.04	1.42	1.53
1	Ad	339	G	O4'-C1'	7.03	1.52	1.41
1	Ad	1203	G	O4'-C1'	-7.03	1.31	1.41
1	Ad	1	U	O4'-C1'	7.03	1.52	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	312	C	O4'-C1'	7.03	1.52	1.41
1	Ad	1512	C	O4'-C1'	7.02	1.52	1.41
1	Ad	577	C	O4'-C1'	7.01	1.52	1.41
1	Ad	860	A	C2'-C1'	7.01	1.63	1.53
1	Ad	515	A	O4'-C1'	7.01	1.52	1.41
2	Ae	66	C	O4'-C1'	7.00	1.52	1.41
1	Ad	382	A	O4'-C1'	7.00	1.52	1.41
1	Ad	1402	C	O4'-C1'	7.00	1.52	1.41
1	Ad	417	U	O4'-C1'	7.00	1.52	1.41
1	Ad	1071	C	O4'-C1'	6.99	1.52	1.41
1	Ad	1201	C	O4'-C1'	6.98	1.52	1.41
1	Ad	1369	C	O4'-C1'	6.98	1.52	1.41
1	Ad	561	G	C2'-C1'	-6.98	1.42	1.53
1	Ad	1109	U	C2'-C1'	-6.98	1.42	1.53
1	Ad	920	A	O4'-C1'	6.97	1.52	1.41
1	Ad	1769	C	O4'-C1'	6.97	1.52	1.41
1	Ad	1578	A	C2'-C1'	-6.95	1.43	1.53
1	Ad	540	C	C2'-C1'	-6.95	1.43	1.53
1	Ad	606	U	O4'-C1'	6.95	1.52	1.41
1	Ad	389	A	O4'-C1'	6.94	1.52	1.41
1	Ad	1595	A	O4'-C1'	6.94	1.52	1.41
1	Ad	54	C	C2'-C1'	6.93	1.63	1.53
1	Ad	162	A	C2'-C1'	-6.92	1.43	1.53
1	Ad	990	G	O4'-C1'	6.92	1.52	1.41
1	Ad	759	A	C2'-C1'	-6.91	1.43	1.53
1	Ad	1070	A	O4'-C1'	6.91	1.52	1.41
1	Ad	277	G	O4'-C1'	6.90	1.52	1.41
1	Ad	1542	G	O4'-C1'	-6.90	1.31	1.42
1	Ad	285	G	O4'-C1'	6.90	1.51	1.41
1	Ad	447	C	O4'-C1'	6.90	1.51	1.41
1	Ad	772	C	C2'-C1'	-6.90	1.43	1.53
3	Af	21	C	O4'-C1'	6.89	1.51	1.41
1	Ad	286	C	C2'-C1'	-6.88	1.43	1.53
1	Ad	1126	C	O4'-C1'	6.88	1.51	1.41
1	Ad	820	A	C2'-C1'	-6.87	1.42	1.53
1	Ad	38	C	O4'-C1'	6.86	1.51	1.41
1	Ad	767	G	O4'-C1'	6.86	1.51	1.41
1	Ad	804	C	C2'-C1'	-6.86	1.43	1.53
1	Ad	480	U	O4'-C1'	6.85	1.51	1.41
1	Ad	497	U	O4'-C1'	6.85	1.51	1.41
1	Ad	562	U	C2'-C1'	-6.85	1.43	1.53
1	Ad	277	G	C2'-C1'	-6.85	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	309	C	C2'-C1'	-6.84	1.43	1.53
1	Ad	953	G	C2'-C1'	-6.84	1.43	1.53
1	Ad	1269	G	O4'-C1'	6.84	1.51	1.41
1	Ad	1520	G	C2'-C1'	-6.84	1.43	1.53
1	Ad	31	C	C2'-C1'	-6.83	1.43	1.53
1	Ad	1191	U	O4'-C1'	6.83	1.51	1.41
1	Ad	1225	A	O4'-C1'	6.83	1.51	1.41
1	Ad	1008	A	O4'-C1'	-6.83	1.31	1.42
1	Ad	1754	A	C2'-C1'	-6.82	1.43	1.53
1	Ad	779	C	O4'-C1'	6.82	1.52	1.42
1	Ad	1294	U	O4'-C1'	6.82	1.51	1.41
1	Ad	1303	G	O4'-C1'	6.81	1.51	1.41
1	Ad	278	C	C2'-C1'	-6.81	1.43	1.53
1	Ad	1285	G	C2'-C1'	-6.81	1.43	1.53
1	Ad	1419	U	O4'-C1'	6.80	1.52	1.42
1	Ad	69	A	C2'-C1'	-6.80	1.43	1.53
1	Ad	137	A	O4'-C1'	-6.79	1.31	1.42
1	Ad	612	U	O4'-C1'	6.79	1.51	1.41
1	Ad	1207	A	O4'-C1'	6.79	1.51	1.41
1	Ad	460	G	C2'-C1'	-6.79	1.43	1.53
1	Ad	456	A	O4'-C1'	-6.78	1.31	1.42
1	Ad	868	A	O4'-C1'	6.78	1.52	1.42
1	Ad	1236	U	O4'-C1'	6.77	1.51	1.41
1	Ad	82	G	C2'-C1'	-6.77	1.43	1.53
1	Ad	1059	U	C2'-C1'	-6.76	1.43	1.53
1	Ad	14	C	O4'-C1'	6.75	1.51	1.41
1	Ad	1278	C	O4'-C1'	-6.75	1.31	1.42
1	Ad	823	A	C2'-C1'	-6.75	1.43	1.53
1	Ad	1075	G	C2'-C1'	-6.75	1.43	1.53
1	Ad	629	C	O4'-C1'	6.73	1.51	1.41
1	Ad	416	A	C2'-C1'	6.73	1.63	1.53
1	Ad	450	A	O4'-C1'	6.73	1.51	1.41
1	Ad	1269	G	C2'-C1'	-6.73	1.43	1.53
1	Ad	918	G	C2'-C1'	-6.72	1.43	1.53
1	Ad	341	G	O4'-C1'	6.72	1.52	1.42
1	Ad	1359	C	O4'-C1'	6.72	1.51	1.41
1	Ad	434	G	C2'-C1'	-6.72	1.43	1.53
1	Ad	942	C	O4'-C1'	6.72	1.51	1.41
1	Ad	1492	G	O4'-C1'	-6.72	1.31	1.41
1	Ad	1456	U	O4'-C1'	6.71	1.51	1.41
1	Ad	592	U	O4'-C1'	6.71	1.51	1.41
1	Ad	918	G	O4'-C1'	6.70	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	Ae	71	A	C2'-C1'	-6.70	1.43	1.53
1	Ad	134	G	O4'-C1'	6.70	1.52	1.42
1	Ad	626	A	O4'-C1'	6.70	1.52	1.42
1	Ad	1125	U	C2'-C1'	6.70	1.63	1.53
1	Ad	1789	U	O4'-C1'	6.70	1.51	1.41
1	Ad	1592	G	O4'-C1'	-6.69	1.31	1.42
1	Ad	426	G	C2'-C1'	-6.68	1.43	1.53
1	Ad	317	U	C2'-C1'	-6.67	1.43	1.53
1	Ad	1421	U	O4'-C1'	6.67	1.51	1.41
1	Ad	1491	C	C2'-C1'	-6.67	1.43	1.53
1	Ad	1640	C	O4'-C1'	6.67	1.51	1.41
1	Ad	1086	A	O4'-C1'	6.67	1.51	1.41
1	Ad	875	C	O4'-C1'	6.66	1.51	1.41
1	Ad	975	A	C2'-C1'	6.66	1.63	1.53
1	Ad	1451	G	C2'-C1'	-6.66	1.43	1.53
1	Ad	1562	C	C2'-C1'	-6.65	1.43	1.53
1	Ad	292	A	O4'-C1'	6.65	1.51	1.41
1	Ad	923	U	O4'-C1'	6.65	1.51	1.41
1	Ad	148	C	O4'-C1'	6.65	1.51	1.41
1	Ad	1688	G	O4'-C1'	-6.64	1.31	1.42
1	Ad	490	G	C2'-C1'	-6.64	1.43	1.53
1	Ad	702	G	C2'-C1'	-6.63	1.43	1.53
1	Ad	116	G	C2'-C1'	-6.63	1.43	1.53
1	Ad	1530	G	O4'-C1'	6.62	1.51	1.42
1	Ad	1693	C	O4'-C1'	6.62	1.51	1.41
1	Ad	427	G	C2'-C1'	-6.62	1.43	1.53
1	Ad	728	C	C2'-C1'	-6.62	1.43	1.53
1	Ad	1339	C	O4'-C1'	6.62	1.51	1.41
1	Ad	150	U	C2'-C1'	6.62	1.63	1.53
1	Ad	1240	A	C2'-C1'	-6.62	1.43	1.53
1	Ad	1703	G	C2'-C1'	-6.61	1.43	1.53
1	Ad	149	G	C2'-C1'	-6.60	1.43	1.53
1	Ad	1202	G	C2'-C1'	-6.60	1.43	1.53
1	Ad	1260	A	O4'-C1'	6.59	1.51	1.42
1	Ad	1614	C	C2'-C1'	-6.58	1.43	1.53
1	Ad	1141	U	O4'-C1'	6.58	1.51	1.41
2	Ae	72	G	C2'-C1'	6.58	1.63	1.53
1	Ad	311	G	C2'-C1'	-6.56	1.43	1.53
1	Ad	1311	U	O4'-C1'	-6.56	1.31	1.41
1	Ad	1255	U	O4'-C1'	-6.55	1.32	1.42
1	Ad	1083	C	C2'-C1'	-6.55	1.43	1.53
1	Ad	452	C	O4'-C1'	6.54	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1682	U	O4'-C1'	6.54	1.51	1.41
1	Ad	43	A	C2'-C1'	6.54	1.63	1.53
1	Ad	495	C	O4'-C1'	6.54	1.51	1.41
2	Ae	62	C	C2'-C1'	-6.53	1.43	1.53
1	Ad	1364	C	O4'-C1'	6.52	1.51	1.41
1	Ad	273	C	O4'-C1'	6.52	1.51	1.41
1	Ad	1647	C	O4'-C1'	6.52	1.51	1.41
1	Ad	797	A	O4'-C1'	6.52	1.51	1.41
1	Ad	1207	A	C2'-C1'	-6.52	1.43	1.53
1	Ad	1355	U	C2'-C1'	-6.50	1.43	1.53
1	Ad	1166	C	C2'-C1'	-6.50	1.43	1.53
1	Ad	269	A	O4'-C1'	-6.49	1.32	1.42
1	Ad	1060	U	C2'-C1'	-6.49	1.43	1.53
1	Ad	1231	A	O4'-C1'	6.49	1.51	1.41
1	Ad	1594	A	O4'-C1'	6.49	1.51	1.41
1	Ad	933	G	O3'-P	-6.49	1.51	1.61
1	Ad	1446	C	O4'-C1'	6.48	1.51	1.41
1	Ad	458	A	O4'-C1'	-6.48	1.31	1.41
1	Ad	1230	A	O4'-C1'	6.47	1.51	1.41
1	Ad	1726	G	C5'-C4'	6.47	1.60	1.51
1	Ad	1155	G	O4'-C1'	6.46	1.51	1.41
1	Ad	1521	G	O4'-C1'	-6.46	1.31	1.41
1	Ad	386	C	O4'-C1'	6.46	1.51	1.41
1	Ad	1136	A	O4'-C1'	6.45	1.51	1.41
1	Ad	1113	G	C2'-C1'	-6.45	1.43	1.53
1	Ad	1365	C	O4'-C1'	6.45	1.51	1.41
1	Ad	378	U	O4'-C1'	6.44	1.51	1.41
1	Ad	1555	A	O4'-C1'	6.44	1.51	1.41
1	Ad	1109	U	O4'-C1'	6.44	1.51	1.41
1	Ad	224	C	C2'-C1'	6.44	1.62	1.53
1	Ad	623	A	C2'-C1'	-6.44	1.43	1.53
1	Ad	1623	C	O4'-C1'	6.43	1.51	1.41
2	Ae	68	C	O4'-C1'	6.43	1.51	1.41
1	Ad	1642	C	O4'-C1'	6.42	1.51	1.42
1	Ad	1399	G	C2'-C1'	-6.41	1.43	1.53
1	Ad	1117	G	O4'-C1'	6.41	1.51	1.41
1	Ad	407	G	O4'-C1'	-6.40	1.32	1.41
1	Ad	1166	C	O4'-C1'	6.40	1.51	1.41
3	Af	20	U	O4'-C1'	6.40	1.51	1.41
1	Ad	960	A	O4'-C1'	6.39	1.51	1.41
1	Ad	117	U	O4'-C1'	6.39	1.51	1.41
1	Ad	1661	C	O4'-C1'	6.38	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	447	C	C2'-C1'	-6.38	1.43	1.53
1	Ad	1362	A	O4'-C1'	6.38	1.51	1.41
1	Ad	558	C	C2'-C1'	-6.37	1.43	1.53
1	Ad	308	U	O4'-C1'	6.36	1.51	1.41
1	Ad	651	G	O4'-C1'	6.35	1.51	1.41
1	Ad	1244	U	O4'-C1'	6.35	1.51	1.41
1	Ad	735	G	O4'-C1'	6.35	1.51	1.41
1	Ad	1790	G	C2'-C1'	-6.35	1.43	1.53
1	Ad	1747	A	C5'-C4'	6.34	1.60	1.51
1	Ad	344	U	C2'-C1'	6.34	1.62	1.53
1	Ad	913	U	O4'-C1'	6.34	1.51	1.41
1	Ad	1710	C	C2'-C1'	-6.34	1.43	1.53
1	Ad	55	A	O4'-C1'	6.33	1.51	1.41
1	Ad	947	G	C5'-C4'	6.33	1.60	1.51
1	Ad	193	G	O4'-C1'	6.33	1.51	1.41
1	Ad	1316	A	O4'-C1'	6.33	1.51	1.41
1	Ad	388	G	O4'-C1'	6.32	1.51	1.41
1	Ad	847	U	C2'-C1'	-6.32	1.43	1.53
1	Ad	1115	G	C2'-C1'	-6.31	1.43	1.53
1	Ad	23	G	C2'-C1'	-6.31	1.43	1.53
1	Ad	336	U	O4'-C1'	-6.30	1.32	1.41
1	Ad	932	C	C2'-C1'	-6.30	1.43	1.53
1	Ad	755	U	O4'-C1'	6.30	1.51	1.41
1	Ad	772	C	O4'-C1'	6.30	1.51	1.41
84	Aa	2084	G	O3'-P	-6.30	1.51	1.61
1	Ad	1028	A	C2'-C1'	6.29	1.62	1.53
1	Ad	1600	G	C2'-C1'	-6.29	1.44	1.53
2	Ae	47	U	C2'-C1'	6.29	1.62	1.53
1	Ad	1133	C	O4'-C1'	6.28	1.51	1.41
1	Ad	1146	G	C2'-C1'	-6.28	1.44	1.53
1	Ad	587	C	O4'-C1'	6.28	1.51	1.41
1	Ad	1280	U	C2'-C1'	6.28	1.62	1.53
1	Ad	590	G	O4'-C1'	6.28	1.51	1.41
1	Ad	1760	A	O4'-C1'	6.28	1.51	1.41
1	Ad	409	C	O4'-C1'	6.28	1.51	1.41
1	Ad	708	G	O4'-C1'	6.27	1.51	1.41
1	Ad	1526	C	O4'-C1'	6.27	1.51	1.41
2	Ae	7	A	C2'-C1'	-6.26	1.43	1.53
1	Ad	706	U	O4'-C1'	6.26	1.51	1.41
1	Ad	1660	C	O4'-C1'	6.26	1.51	1.41
1	Ad	517	U	O4'-C1'	6.26	1.51	1.41
3	Af	12	A	O4'-C1'	-6.26	1.32	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	20	G	O4'-C1'	6.25	1.51	1.41
1	Ad	589	A	C2'-C1'	-6.25	1.44	1.53
1	Ad	1809	U	C2'-C1'	6.25	1.62	1.53
2	Ae	27	G	C2'-C1'	-6.25	1.44	1.53
1	Ad	1268	G	O4'-C1'	6.25	1.51	1.41
1	Ad	215	A	C2'-C1'	6.24	1.62	1.53
1	Ad	1772	A	C2'-C1'	6.24	1.62	1.53
1	Ad	1152	A	O4'-C1'	6.24	1.51	1.41
1	Ad	1054	G	O4'-C1'	6.23	1.51	1.41
2	Ae	35	U	C2'-C1'	-6.23	1.44	1.53
1	Ad	1044	A	C2'-C1'	6.22	1.62	1.53
1	Ad	1457	C	C2'-C1'	-6.21	1.44	1.53
1	Ad	840	U	O4'-C1'	6.21	1.50	1.41
1	Ad	990	G	C2'-C1'	-6.21	1.44	1.53
1	Ad	110	G	C2'-C1'	-6.21	1.44	1.53
1	Ad	1587	G	C2'-C1'	-6.20	1.44	1.53
1	Ad	1672	U	C2'-C1'	-6.20	1.44	1.53
1	Ad	776	A	C2'-C1'	6.19	1.62	1.53
1	Ad	1665	U	C2'-C1'	6.19	1.62	1.53
1	Ad	313	C	O4'-C1'	6.19	1.50	1.41
1	Ad	1205	G	C2'-C1'	6.18	1.62	1.53
1	Ad	1035	A	O3'-P	-6.18	1.51	1.61
1	Ad	959	G	O4'-C1'	6.17	1.50	1.41
1	Ad	1026	C	C2'-C1'	-6.17	1.44	1.53
1	Ad	555	G	C2'-C1'	-6.17	1.44	1.53
1	Ad	1062	C	C2'-C1'	6.16	1.62	1.53
1	Ad	1804	A	C2'-C1'	6.16	1.62	1.53
1	Ad	57	G	C2'-C1'	-6.15	1.44	1.53
1	Ad	223	A	O4'-C1'	6.14	1.50	1.41
1	Ad	1439	G	O4'-C1'	6.14	1.50	1.41
1	Ad	1296	G	O4'-C1'	6.14	1.50	1.41
1	Ad	1678	G	O4'-C1'	6.13	1.50	1.41
1	Ad	66	U	C2'-C1'	6.13	1.62	1.53
1	Ad	911	A	C2'-C1'	-6.13	1.44	1.53
1	Ad	1506	G	C2'-C1'	-6.13	1.44	1.53
1	Ad	1004	U	O4'-C1'	6.13	1.50	1.41
1	Ad	646	G	C2'-C1'	-6.12	1.44	1.53
1	Ad	1793	C	O4'-C1'	6.12	1.50	1.41
1	Ad	1476	C	O4'-C1'	6.12	1.50	1.41
1	Ad	234	G	C2'-C1'	-6.12	1.44	1.53
1	Ad	1308	G	C2'-C1'	-6.12	1.44	1.53
1	Ad	285	G	C2'-C1'	-6.12	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1413	C	O4'-C1'	6.12	1.50	1.41
1	Ad	1035	A	O4'-C1'	6.11	1.51	1.42
1	Ad	1436	U	O4'-C1'	6.11	1.50	1.41
1	Ad	1224	C	O4'-C1'	6.10	1.50	1.41
1	Ad	1433	A	C2'-C1'	6.10	1.62	1.53
1	Ad	1033	C	C2'-C1'	-6.10	1.44	1.53
1	Ad	55	A	C2'-C1'	-6.09	1.44	1.53
1	Ad	933	G	C2'-C1'	-6.09	1.44	1.53
1	Ad	1498	A	O4'-C1'	-6.08	1.32	1.42
1	Ad	298	C	C2'-C1'	-6.07	1.44	1.53
1	Ad	978	A	O4'-C1'	6.07	1.50	1.41
1	Ad	1453	U	O4'-C1'	6.07	1.51	1.42
2	Ae	59	U	O4'-C1'	6.07	1.51	1.42
1	Ad	727	G	C2'-C1'	-6.06	1.44	1.53
1	Ad	1720	G	O4'-C1'	6.06	1.50	1.41
1	Ad	230	C	O4'-C1'	6.06	1.50	1.41
1	Ad	1378	C	C2'-C1'	-6.05	1.44	1.53
1	Ad	1159	G	C2'-C1'	-6.05	1.44	1.53
1	Ad	1601	A	C2'-C1'	-6.05	1.44	1.53
1	Ad	305	A	O4'-C1'	6.05	1.50	1.41
1	Ad	1727	C	C2'-C1'	-6.04	1.44	1.53
84	Aa	723	G	C2'-C1'	-6.04	1.44	1.53
1	Ad	628	G	C2'-C1'	-6.04	1.44	1.53
1	Ad	850	G	O4'-C1'	6.04	1.50	1.41
1	Ad	528	U	O4'-C1'	6.03	1.50	1.41
1	Ad	975	A	O4'-C1'	6.03	1.50	1.41
1	Ad	140	C	C2'-C1'	-6.03	1.44	1.53
1	Ad	1734	U	C2'-C1'	-6.03	1.44	1.53
1	Ad	1262	U	C2'-C1'	6.02	1.62	1.53
1	Ad	810	A	C2'-C1'	-6.01	1.44	1.53
1	Ad	1630	G	C2'-C1'	-6.01	1.44	1.53
1	Ad	1097	A	C2'-C1'	-6.01	1.44	1.53
1	Ad	1401	C	C2'-C1'	-6.00	1.44	1.53
1	Ad	867	A	C2'-C1'	6.00	1.62	1.53
1	Ad	838	U	C2'-C1'	-6.00	1.44	1.53
1	Ad	1677	U	O4'-C1'	6.00	1.50	1.41
1	Ad	1439	G	C2'-C1'	-6.00	1.44	1.53
1	Ad	1594	A	C2'-C1'	5.99	1.62	1.53
2	Ae	51	G	C2'-C1'	-5.98	1.44	1.53
1	Ad	979	A	C2'-C1'	-5.98	1.44	1.53
1	Ad	1606	U	C2'-C1'	-5.98	1.44	1.53
1	Ad	572	G	C2'-C1'	-5.98	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	790	U	C2'-C1'	-5.98	1.44	1.53
1	Ad	1289	U	O4'-C1'	5.98	1.50	1.42
1	Ad	1146	G	O4'-C1'	5.97	1.50	1.41
1	Ad	466	G	C2'-C1'	-5.97	1.44	1.53
1	Ad	1178	C	O4'-C1'	5.97	1.50	1.41
2	Ae	37	G	C2'-C1'	-5.97	1.44	1.53
1	Ad	105	A	O4'-C1'	5.96	1.50	1.42
1	Ad	537	U	C2'-C1'	-5.96	1.44	1.53
1	Ad	1661	C	C2'-C1'	-5.96	1.44	1.53
2	Ae	53	U	O4'-C1'	5.96	1.50	1.41
1	Ad	1473	C	O4'-C1'	5.96	1.50	1.41
1	Ad	56	U	C4'-C3'	5.95	1.62	1.53
1	Ad	424	A	O4'-C1'	5.95	1.50	1.41
1	Ad	511	U	C2'-C1'	5.94	1.62	1.53
1	Ad	937	A	C2'-C1'	5.94	1.61	1.53
84	Aa	2512	U	O3'-P	-5.94	1.52	1.61
1	Ad	619	A	C2'-C1'	5.94	1.62	1.53
1	Ad	1720	G	C2'-C1'	-5.94	1.44	1.53
1	Ad	841	U	C2'-C1'	5.94	1.62	1.53
1	Ad	1089	A	O4'-C1'	5.93	1.50	1.41
1	Ad	1430	A	C2'-C1'	-5.93	1.44	1.53
1	Ad	1684	U	O4'-C1'	5.93	1.50	1.41
1	Ad	363	G	C2'-C1'	5.93	1.62	1.53
1	Ad	931	A	O4'-C1'	5.92	1.50	1.41
1	Ad	629	C	C2'-C1'	-5.91	1.44	1.53
1	Ad	24	U	C2'-C1'	-5.91	1.44	1.53
1	Ad	477	A	O4'-C1'	5.91	1.50	1.41
1	Ad	1343	C	O4'-C1'	5.91	1.50	1.42
1	Ad	1750	A	C2'-C1'	-5.91	1.44	1.53
1	Ad	863	G	C2'-C1'	-5.91	1.44	1.53
1	Ad	1112	G	C2'-C1'	-5.91	1.44	1.53
1	Ad	421	A	C2'-C1'	5.91	1.61	1.53
1	Ad	1563	A	O4'-C1'	5.91	1.50	1.41
1	Ad	293	C	O4'-C1'	5.90	1.50	1.41
1	Ad	1669	U	C2'-C1'	-5.90	1.44	1.53
1	Ad	200	C	O4'-C1'	5.90	1.50	1.41
1	Ad	282	C	O5'-C5'	-5.90	1.33	1.42
1	Ad	1443	U	O4'-C1'	5.90	1.50	1.41
1	Ad	823	A	O3'-P	-5.89	1.52	1.61
2	Ae	7	A	O4'-C1'	5.89	1.50	1.42
1	Ad	1092	A	C2'-C1'	-5.89	1.44	1.53
1	Ad	1002	G	O4'-C1'	5.89	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1170	G	C2'-C1'	-5.89	1.44	1.53
1	Ad	189	U	C2'-C1'	5.88	1.61	1.53
2	Ae	22	G	O4'-C1'	5.88	1.50	1.41
1	Ad	1050	C	C2'-C1'	-5.88	1.44	1.53
2	Ae	20	C	C5'-C4'	5.88	1.60	1.51
1	Ad	147	C	C2'-C1'	-5.87	1.44	1.53
1	Ad	1649	C	C2'-C1'	-5.87	1.44	1.53
1	Ad	554	A	C2'-C1'	-5.87	1.44	1.53
1	Ad	885	C	C2'-C1'	-5.87	1.44	1.53
1	Ad	479	A	O4'-C1'	5.86	1.50	1.41
1	Ad	1552	U	C2'-C1'	-5.86	1.44	1.53
1	Ad	1652	C	C2'-C1'	-5.86	1.44	1.53
1	Ad	304	A	C2'-C1'	-5.86	1.44	1.53
1	Ad	5	U	C2'-C1'	-5.85	1.44	1.53
1	Ad	650	G	O4'-C1'	5.85	1.50	1.41
1	Ad	266	C	O4'-C1'	5.85	1.50	1.41
1	Ad	1405	U	C2'-C1'	-5.84	1.44	1.53
1	Ad	1512	C	C2'-C1'	-5.84	1.44	1.53
1	Ad	1165	A	C2'-C1'	-5.84	1.44	1.53
1	Ad	1413	C	C2'-C1'	-5.84	1.44	1.53
1	Ad	98	C	C2'-C1'	-5.84	1.44	1.53
1	Ad	1111	C	C2'-C1'	-5.84	1.44	1.53
1	Ad	807	G	C2'-C1'	-5.83	1.44	1.53
1	Ad	566	G	C2'-C1'	-5.83	1.44	1.53
1	Ad	464	A	C2'-C1'	-5.82	1.44	1.53
1	Ad	967	C	C2'-C1'	-5.82	1.44	1.53
1	Ad	714	C	C2'-C1'	-5.82	1.44	1.53
1	Ad	1171	C	C2'-C1'	-5.82	1.44	1.53
1	Ad	747	U	C2'-C1'	-5.81	1.44	1.53
1	Ad	717	G	C2'-C1'	-5.81	1.44	1.53
1	Ad	771	G	C2'-C1'	5.81	1.61	1.53
1	Ad	166	A	O4'-C1'	5.81	1.50	1.41
1	Ad	1214	C	C2'-C1'	-5.81	1.44	1.53
1	Ad	1664	U	C2'-C1'	5.81	1.62	1.53
1	Ad	1226	U	C2'-C1'	5.81	1.62	1.53
1	Ad	531	A	O4'-C1'	5.81	1.50	1.41
1	Ad	847	U	O4'-C1'	5.81	1.50	1.41
1	Ad	226	C	O4'-C1'	5.80	1.50	1.41
1	Ad	401	A	C2'-C1'	-5.80	1.44	1.53
1	Ad	1636	U	C2'-C1'	-5.80	1.44	1.53
1	Ad	102	U	O4'-C1'	5.79	1.50	1.41
1	Ad	448	C	C5'-C4'	5.79	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1441	C	O4'-C1'	5.79	1.50	1.41
1	Ad	963	U	O4'-C1'	5.78	1.50	1.41
1	Ad	81	U	C2'-C1'	-5.78	1.44	1.53
1	Ad	1386	U	O4'-C1'	5.78	1.50	1.41
1	Ad	1496	A	C2'-C1'	5.78	1.61	1.53
1	Ad	583	A	C2'-C1'	-5.77	1.44	1.53
1	Ad	139	U	C2'-C1'	-5.77	1.44	1.53
1	Ad	404	A	C2'-C1'	5.77	1.61	1.53
1	Ad	365	C	O4'-C1'	5.76	1.50	1.41
1	Ad	1045	G	C5'-C4'	5.75	1.59	1.51
1	Ad	167	A	C2'-C1'	5.75	1.61	1.53
1	Ad	13	C	O4'-C1'	5.75	1.50	1.41
2	Ae	20	C	O4'-C1'	5.75	1.50	1.41
1	Ad	1741	A	O4'-C1'	5.74	1.50	1.41
2	Ae	71	A	O4'-C1'	5.74	1.50	1.41
1	Ad	127	G	O4'-C1'	5.74	1.50	1.42
1	Ad	1472	G	O4'-C1'	5.74	1.50	1.41
1	Ad	1049	U	O4'-C1'	5.73	1.50	1.41
1	Ad	1102	U	C2'-C1'	-5.73	1.44	1.53
1	Ad	1550	G	O4'-C1'	-5.73	1.33	1.42
1	Ad	307	U	O4'-C1'	5.72	1.50	1.41
1	Ad	423	G	C2'-C1'	-5.72	1.44	1.53
1	Ad	423	G	O4'-C1'	5.72	1.50	1.41
1	Ad	454	U	O4'-C1'	5.72	1.50	1.41
1	Ad	915	C	C2'-C1'	-5.72	1.44	1.53
1	Ad	1465	C	O4'-C1'	5.72	1.50	1.42
1	Ad	396	G	O4'-C1'	-5.72	1.33	1.41
1	Ad	3	C	C2'-C1'	5.71	1.61	1.53
1	Ad	732	G	O4'-C1'	-5.71	1.33	1.41
1	Ad	1535	U	O4'-C1'	5.71	1.50	1.41
1	Ad	1508	C	O4'-C1'	5.70	1.50	1.41
1	Ad	122	U	C2'-C1'	-5.70	1.44	1.53
1	Ad	1185	U	O4'-C1'	5.69	1.50	1.41
1	Ad	1736	C	C2'-C1'	-5.69	1.44	1.53
1	Ad	1554	G	C2'-C1'	-5.69	1.44	1.53
1	Ad	1672	U	O4'-C1'	5.68	1.50	1.41
1	Ad	436	G	C2'-C1'	-5.68	1.44	1.53
1	Ad	1728	G	C2'-C1'	-5.68	1.44	1.53
1	Ad	817	C	C2'-C1'	5.68	1.61	1.53
1	Ad	1068	G	C2'-C1'	-5.68	1.44	1.53
1	Ad	337	A	O4'-C1'	5.68	1.50	1.41
1	Ad	927	A	O4'-C1'	5.68	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	768	A	O4'-C1'	5.68	1.50	1.41
1	Ad	899	A	O4'-C1'	5.68	1.50	1.41
1	Ad	468	A	O4'-C1'	-5.67	1.33	1.41
1	Ad	1000	A	C2'-C1'	-5.67	1.44	1.53
1	Ad	1435	G	C2'-C1'	-5.66	1.44	1.53
1	Ad	374	A	C2'-C1'	-5.66	1.44	1.53
1	Ad	1509	C	O4'-C1'	5.66	1.50	1.41
1	Ad	1271	G	O4'-C1'	-5.66	1.33	1.41
1	Ad	1639	A	O4'-C1'	5.65	1.50	1.42
2	Ae	11	U	O4'-C1'	5.65	1.50	1.41
1	Ad	323	U	C2'-C1'	-5.65	1.44	1.53
1	Ad	1655	U	C2'-C1'	5.64	1.61	1.53
1	Ad	801	U	O4'-C1'	-5.63	1.33	1.41
1	Ad	1553	A	C2'-C1'	-5.63	1.44	1.53
2	Ae	29	C	C2'-C1'	-5.63	1.44	1.53
1	Ad	151	A	C2'-C1'	5.63	1.61	1.53
1	Ad	1167	C	O4'-C1'	5.63	1.50	1.41
1	Ad	1553	A	O4'-C1'	5.63	1.50	1.41
1	Ad	227	G	C2'-C1'	-5.63	1.45	1.53
1	Ad	1666	G	C2'-C1'	-5.63	1.45	1.53
1	Ad	1450	A	O4'-C1'	5.62	1.50	1.42
1	Ad	1338	U	C2'-C1'	-5.61	1.45	1.53
1	Ad	974	C	O4'-C1'	5.61	1.50	1.41
1	Ad	1019	G	O4'-C1'	-5.61	1.33	1.41
1	Ad	1258	U	O4'-C1'	5.60	1.50	1.41
84	Aa	2513	U	O5'-C5'	-5.60	1.34	1.42
1	Ad	210	A	C2'-C1'	-5.60	1.45	1.53
1	Ad	1769	C	C5'-C4'	5.60	1.59	1.51
1	Ad	1253	U	O4'-C1'	5.60	1.50	1.41
1	Ad	1415	G	O4'-C1'	5.60	1.50	1.41
1	Ad	514	G	C2'-C1'	-5.59	1.45	1.53
1	Ad	11	A	O4'-C1'	5.59	1.50	1.41
1	Ad	164	C	C2'-C1'	-5.59	1.45	1.53
1	Ad	1362	A	C2'-C1'	-5.59	1.45	1.53
1	Ad	27	U	O4'-C1'	5.59	1.50	1.41
1	Ad	274	A	O4'-C1'	5.58	1.50	1.41
1	Ad	529	A	O4'-C1'	5.58	1.50	1.41
1	Ad	1703	G	O4'-C1'	5.58	1.50	1.41
1	Ad	411	A	O4'-C1'	5.58	1.50	1.41
1	Ad	15	U	O4'-C1'	5.57	1.50	1.41
1	Ad	357	A	O4'-C1'	5.57	1.50	1.41
1	Ad	402	G	O4'-C1'	5.57	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	538	A	C2'-C1'	-5.57	1.45	1.53
1	Ad	1734	U	O4'-C1'	5.57	1.50	1.41
1	Ad	329	G	C2'-C1'	-5.55	1.45	1.53
1	Ad	412	C	C2'-C1'	-5.54	1.45	1.53
1	Ad	490	G	O4'-C1'	5.54	1.50	1.41
1	Ad	1398	U	C2'-C1'	-5.54	1.45	1.53
1	Ad	1658	U	O4'-C1'	5.54	1.50	1.41
1	Ad	1431	A	C5'-C4'	5.54	1.59	1.51
1	Ad	1738	U	C2'-C1'	-5.54	1.45	1.53
1	Ad	546	U	O3'-P	-5.54	1.52	1.61
1	Ad	852	A	O4'-C1'	5.53	1.50	1.41
1	Ad	1651	U	O4'-C1'	5.53	1.50	1.41
1	Ad	306	U	O4'-C1'	5.53	1.50	1.41
1	Ad	982	A	O4'-C1'	5.52	1.50	1.41
1	Ad	1613	G	O4'-C1'	5.52	1.50	1.41
1	Ad	1329	A	C2'-C1'	-5.51	1.45	1.53
2	Ae	52	G	C2'-C1'	-5.51	1.45	1.53
1	Ad	1246	A	O4'-C1'	5.51	1.50	1.41
1	Ad	1573	C	O4'-C1'	5.51	1.50	1.41
1	Ad	482	A	O4'-C1'	5.50	1.50	1.41
1	Ad	516	A	C2'-C1'	5.50	1.61	1.53
1	Ad	1738	U	O4'-C1'	5.50	1.49	1.41
1	Ad	253	C	C2'-C1'	-5.50	1.45	1.53
1	Ad	1713	C	O4'-C1'	5.50	1.49	1.41
1	Ad	1286	U	C2'-C1'	-5.49	1.45	1.53
2	Ae	57	A	C2'-C1'	5.49	1.61	1.53
1	Ad	844	C	O4'-C1'	5.48	1.49	1.41
1	Ad	1044	A	O4'-C1'	-5.48	1.33	1.42
1	Ad	1194	C	C2'-C1'	5.48	1.61	1.53
1	Ad	1363	G	C2'-C1'	-5.48	1.45	1.53
1	Ad	1367	U	C2'-C1'	5.48	1.61	1.53
3	Af	21	C	C2'-C1'	5.48	1.61	1.53
1	Ad	730	G	O4'-C1'	-5.48	1.33	1.42
1	Ad	802	A	O4'-C1'	5.48	1.49	1.41
1	Ad	1037	G	O4'-C1'	5.47	1.49	1.41
1	Ad	712	U	C2'-C1'	5.47	1.61	1.53
1	Ad	599	G	C2'-C1'	-5.47	1.45	1.53
1	Ad	414	A	C2'-C1'	-5.46	1.45	1.53
1	Ad	1091	A	O4'-C1'	5.46	1.49	1.41
1	Ad	33	U	C2'-C1'	5.46	1.61	1.53
1	Ad	1452	A	C5'-C4'	5.46	1.59	1.51
1	Ad	704	C	C2'-C1'	-5.45	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1469	C	C2'-C1'	-5.45	1.45	1.53
1	Ad	428	C	O4'-C1'	5.45	1.49	1.41
2	Ae	55	C	C2'-C1'	-5.45	1.45	1.53
1	Ad	1099	G	C2'-C1'	-5.45	1.45	1.53
1	Ad	858	G	C2'-C1'	-5.44	1.45	1.53
1	Ad	1524	A	C2'-C1'	5.44	1.61	1.53
1	Ad	435	C	C2'-C1'	-5.44	1.45	1.53
1	Ad	380	C	C2'-C1'	-5.43	1.45	1.53
1	Ad	984	A	C5'-C4'	5.43	1.59	1.51
1	Ad	1062	C	O4'-C1'	5.43	1.50	1.42
1	Ad	1135	G	O4'-C1'	5.42	1.49	1.41
1	Ad	244	C	C2'-C1'	5.42	1.61	1.53
1	Ad	1041	A	C2'-C1'	5.42	1.61	1.53
1	Ad	1233	G	O4'-C1'	5.42	1.50	1.42
3	Af	13	A	C2'-C1'	5.42	1.61	1.53
1	Ad	1719	C	O4'-C1'	5.41	1.49	1.41
84	Aa	1827	U	P-O5'	-5.41	1.51	1.59
1	Ad	596	A	C2'-C1'	-5.40	1.45	1.53
1	Ad	1018	A	C5'-C4'	5.39	1.59	1.51
1	Ad	1338	U	C5'-C4'	5.39	1.59	1.51
1	Ad	1342	C	O4'-C1'	5.39	1.49	1.41
1	Ad	189	U	O4'-C1'	-5.38	1.33	1.42
1	Ad	1070	A	C2'-C1'	-5.37	1.45	1.53
1	Ad	217	A	C2'-C1'	-5.37	1.45	1.53
1	Ad	836	U	C5'-C4'	5.37	1.59	1.51
1	Ad	243	U	O4'-C1'	-5.36	1.33	1.42
1	Ad	372	U	C2'-C1'	5.36	1.61	1.53
1	Ad	598	A	O4'-C1'	5.36	1.50	1.42
1	Ad	1364	C	C2'-C1'	-5.36	1.45	1.53
1	Ad	233	U	O4'-C1'	5.35	1.49	1.41
1	Ad	1477	A	C2'-C1'	5.35	1.61	1.53
1	Ad	828	G	C2'-C1'	-5.35	1.45	1.53
1	Ad	876	A	O4'-C1'	5.35	1.49	1.41
1	Ad	1192	G	C2'-C1'	-5.35	1.45	1.53
1	Ad	368	A	C2'-C1'	5.34	1.61	1.53
1	Ad	144	U	O4'-C1'	5.34	1.49	1.41
1	Ad	1229	C	C2'-C1'	-5.34	1.45	1.53
1	Ad	1796	G	O4'-C1'	5.34	1.49	1.41
1	Ad	531	A	C5'-C4'	5.33	1.59	1.51
1	Ad	1094	U	C2'-C1'	-5.33	1.45	1.53
1	Ad	1381	G	C2'-C1'	-5.33	1.45	1.53
1	Ad	49	C	C2'-C1'	-5.33	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	Ae	64	G	C2'-C1'	-5.32	1.45	1.53
1	Ad	985	G	C2'-C1'	-5.32	1.45	1.53
2	Ae	19	U	C5'-C4'	5.31	1.59	1.51
1	Ad	1571	G	O4'-C1'	5.31	1.49	1.41
1	Ad	325	C	O4'-C1'	-5.31	1.33	1.42
1	Ad	853	U	O4'-C1'	5.31	1.49	1.41
1	Ad	221	U	O4'-C1'	5.31	1.49	1.41
1	Ad	793	G	C5'-C4'	5.31	1.59	1.51
1	Ad	851	G	O4'-C1'	-5.30	1.33	1.41
1	Ad	1414	G	O4'-C1'	5.30	1.49	1.41
69	CF	161	GLN	CA-C	-5.30	1.50	1.53
1	Ad	1152	A	C2'-C1'	-5.30	1.45	1.53
1	Ad	1250	C	O4'-C1'	-5.29	1.33	1.41
1	Ad	1536	U	O4'-C1'	5.29	1.49	1.41
1	Ad	1040	G	C2'-C1'	-5.29	1.45	1.53
1	Ad	927	A	C2'-C1'	-5.28	1.45	1.53
1	Ad	1576	C	C3'-C2'	5.28	1.60	1.52
1	Ad	761	A	C2'-C1'	-5.28	1.45	1.53
1	Ad	1605	A	C2'-C1'	-5.28	1.45	1.53
1	Ad	741	C	C5'-C4'	5.28	1.59	1.51
1	Ad	1671	G	O3'-P	-5.28	1.53	1.61
1	Ad	637	U	O4'-C1'	5.28	1.49	1.41
1	Ad	702	G	O4'-C1'	5.28	1.49	1.41
1	Ad	113	A	C5'-C4'	5.27	1.59	1.51
1	Ad	1785	U	O4'-C1'	5.27	1.49	1.41
1	Ad	1015	C	C2'-C1'	-5.27	1.45	1.53
2	Ae	66	C	C2'-C1'	-5.27	1.45	1.53
1	Ad	762	A	C2'-C1'	-5.27	1.45	1.53
1	Ad	1157	A	C2'-C1'	-5.26	1.45	1.53
1	Ad	555	G	O4'-C1'	5.26	1.49	1.41
1	Ad	1115	G	O4'-C1'	5.26	1.49	1.41
1	Ad	1319	U	O4'-C1'	5.25	1.49	1.41
1	Ad	835	U	C2'-C1'	5.25	1.61	1.53
1	Ad	1043	C	C2'-C1'	-5.25	1.45	1.53
2	Ae	21	A	C2'-C1'	-5.25	1.45	1.53
1	Ad	333	G	C2'-C1'	-5.25	1.45	1.53
1	Ad	1245	G	O4'-C1'	-5.25	1.33	1.41
1	Ad	607	U	C2'-C1'	-5.24	1.45	1.53
1	Ad	1307	U	C2'-C1'	-5.24	1.45	1.53
1	Ad	426	G	C5'-C4'	5.24	1.59	1.51
1	Ad	970	U	C2'-C1'	-5.24	1.45	1.53
1	Ad	1177	G	C2'-C1'	-5.24	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	957	A	O4'-C1'	5.23	1.49	1.41
1	Ad	487	A	C2'-C1'	-5.22	1.45	1.53
1	Ad	1656	C	C2'-C1'	-5.22	1.45	1.53
1	Ad	989	G	C2'-C1'	-5.22	1.45	1.53
1	Ad	455	G	C2'-C1'	-5.21	1.45	1.53
1	Ad	113	A	O4'-C1'	5.21	1.49	1.41
1	Ad	1411	C	C2'-C1'	-5.21	1.45	1.53
1	Ad	581	G	O3'-P	-5.21	1.53	1.61
1	Ad	997	A	C2'-C1'	-5.21	1.45	1.53
1	Ad	491	G	C2'-C1'	5.21	1.61	1.53
2	Ae	68	C	C2'-C1'	-5.21	1.45	1.53
1	Ad	1222	G	O4'-C1'	5.21	1.49	1.41
1	Ad	366	G	O3'-P	-5.20	1.53	1.61
1	Ad	621	U	O4'-C1'	5.20	1.49	1.41
1	Ad	167	A	O4'-C1'	-5.19	1.34	1.42
1	Ad	1679	A	O4'-C1'	5.19	1.49	1.41
1	Ad	1567	G	C2'-C1'	5.19	1.61	1.53
1	Ad	347	C	C2'-C1'	-5.18	1.45	1.53
1	Ad	578	G	O4'-C1'	-5.18	1.33	1.41
1	Ad	1004	U	C2'-C1'	-5.18	1.45	1.53
1	Ad	465	G	C2'-C1'	-5.17	1.45	1.53
1	Ad	1139	C	C2'-C1'	-5.17	1.45	1.53
1	Ad	1483	G	C2'-C1'	-5.17	1.45	1.53
1	Ad	501	U	C5'-C4'	5.17	1.59	1.51
1	Ad	1358	G	O3'-P	-5.17	1.53	1.61
1	Ad	1158	G	O4'-C1'	5.17	1.49	1.41
1	Ad	1779	U	C2'-C1'	-5.17	1.45	1.53
1	Ad	104	A	O4'-C1'	-5.17	1.34	1.42
2	Ae	3	C	C2'-C1'	-5.17	1.45	1.53
1	Ad	743	G	O4'-C1'	5.16	1.49	1.41
1	Ad	224	C	O4'-C1'	5.15	1.49	1.42
1	Ad	378	U	C5'-C4'	5.15	1.58	1.51
1	Ad	636	U	O4'-C1'	5.15	1.49	1.41
1	Ad	58	U	O4'-C1'	5.15	1.49	1.41
1	Ad	1167	C	C2'-C1'	-5.14	1.45	1.53
1	Ad	207	A	C2'-C1'	-5.14	1.45	1.53
1	Ad	304	A	O4'-C1'	5.14	1.49	1.41
36	BH	117	ARG	CD-NE	5.14	1.53	1.46
1	Ad	1791	A	O4'-C1'	5.13	1.49	1.41
1	Ad	584	A	C5'-C4'	5.13	1.59	1.51
1	Ad	948	C	C2'-C1'	-5.13	1.45	1.53
1	Ad	1158	G	C2'-C1'	-5.13	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	335	A	C5'-C4'	5.12	1.58	1.51
1	Ad	958	G	C2'-C1'	-5.12	1.45	1.53
1	Ad	1412	A	C2'-C1'	-5.12	1.45	1.53
1	Ad	1499	U	C2'-C1'	-5.11	1.45	1.53
1	Ad	1654	C	C2'-C1'	-5.11	1.45	1.53
1	Ad	1641	A	O3'-P	-5.11	1.53	1.61
1	Ad	112	U	O4'-C1'	5.11	1.49	1.41
1	Ad	374	A	O4'-C1'	5.11	1.49	1.41
1	Ad	563	C	O4'-C1'	5.11	1.49	1.41
2	Ae	17	G	C2'-C1'	-5.11	1.45	1.53
1	Ad	327	A	C2'-C1'	-5.11	1.45	1.53
1	Ad	1505	U	O4'-C1'	5.11	1.49	1.41
1	Ad	169	A	C2'-C1'	-5.10	1.45	1.53
1	Ad	1578	A	C5'-C4'	5.10	1.58	1.51
1	Ad	18	C	C2'-C1'	-5.10	1.45	1.53
1	Ad	459	C	C2'-C1'	5.10	1.60	1.53
1	Ad	90	G	O4'-C1'	5.10	1.49	1.41
1	Ad	525	A	C2'-C1'	-5.09	1.45	1.53
1	Ad	1236	U	C2'-C1'	-5.09	1.45	1.53
1	Ad	1308	G	O4'-C1'	5.09	1.49	1.41
1	Ad	488	C	C2'-C1'	-5.09	1.45	1.53
1	Ad	1156	A	O4'-C1'	5.09	1.49	1.41
1	Ad	800	U	O4'-C1'	-5.08	1.34	1.42
2	Ae	69	G	O4'-C1'	5.08	1.49	1.41
1	Ad	902	C	C2'-C1'	5.08	1.60	1.53
1	Ad	604	U	O4'-C1'	5.08	1.49	1.41
1	Ad	103	U	O4'-C1'	5.08	1.49	1.41
1	Ad	1205	G	O4'-C1'	-5.08	1.34	1.41
2	Ae	2	C	O4'-C1'	5.07	1.49	1.41
1	Ad	574	A	O4'-C1'	5.07	1.49	1.41
1	Ad	328	U	C2'-C1'	5.06	1.60	1.53
1	Ad	125	A	C2'-C1'	-5.06	1.45	1.53
1	Ad	1767	G	C2'-C1'	-5.06	1.45	1.53
1	Ad	1430	A	C5'-C4'	5.06	1.58	1.51
2	Ae	33	U	O4'-C1'	5.06	1.49	1.41
1	Ad	326	G	O4'-C1'	5.06	1.49	1.42
1	Ad	888	U	C2'-C1'	-5.06	1.45	1.53
1	Ad	1276	U	O4'-C1'	5.06	1.49	1.41
1	Ad	1709	U	O4'-C1'	5.06	1.49	1.41
1	Ad	618	C	O4'-C1'	5.05	1.49	1.41
1	Ad	1741	A	C2'-C1'	-5.05	1.45	1.53
1	Ad	154	A	C2'-C1'	-5.04	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	Ad	1436	U	C2'-C1'	-5.04	1.45	1.53
1	Ad	1384	U	C2'-C1'	5.04	1.60	1.53
1	Ad	239	C	C2'-C1'	-5.04	1.45	1.53
1	Ad	1668	A	O4'-C1'	5.04	1.49	1.41
1	Ad	1737	A	C5'-C4'	5.03	1.58	1.51
1	Ad	1781	U	O4'-C1'	5.03	1.49	1.41
1	Ad	1556	U	C2'-C1'	5.03	1.60	1.53
1	Ad	227	G	O4'-C1'	5.02	1.49	1.41
1	Ad	422	G	C5'-C4'	5.02	1.58	1.51
1	Ad	1111	C	P-O5'	-5.02	1.52	1.59
1	Ad	890	G	O4'-C1'	5.02	1.49	1.41
1	Ad	1133	C	C2'-C1'	-5.02	1.45	1.53
84	Aa	2162	C	O3'-P	-5.01	1.53	1.61
1	Ad	1498	A	C4'-O4'	-5.01	1.38	1.45
1	Ad	291	G	O4'-C1'	-5.00	1.34	1.42
1	Ad	1056	A	O4'-C1'	-5.00	1.34	1.42
1	Ad	1079	G	O4'-C1'	5.00	1.49	1.41
86	Ab	5	G	C2'-C1'	-5.00	1.45	1.53

All (3359) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1957	G	C4'-C3'-O3'	27.86	154.79	113.00
84	Aa	2084	G	C4'-C3'-O3'	27.56	154.34	113.00
84	Aa	2178	G	C4'-C3'-O3'	-23.61	77.58	113.00
1	Ad	67	G	N9-C1'-C2'	21.91	146.87	114.00
84	Aa	2162	C	P-O3'-C3'	21.77	152.86	120.20
84	Aa	641	C	P-O5'-C5'	21.66	153.39	120.90
84	Aa	2177	U	C4'-C3'-O3'	-18.92	81.01	109.40
1	Ad	861	A	O4'-C1'-C2'	-18.79	87.01	105.80
1	Ad	1408	G	P-O3'-C3'	18.79	148.38	120.20
84	Aa	2086	A	C2'-C3'-O3'	18.76	141.84	113.70
84	Aa	452	G	C4'-C3'-O3'	-18.54	85.20	113.00
2	Ae	73	C	P-O3'-C3'	18.03	147.25	120.20
1	Ad	457	C	N1-C1'-C2'	17.80	138.69	112.00
84	Aa	2094	A	C4'-C3'-O3'	-17.76	86.36	113.00
84	Aa	2084	G	C2'-C3'-O3'	-17.37	87.65	113.70
84	Aa	1559	G	P-O3'-C3'	-16.96	94.76	120.20
1	Ad	823	A	P-O3'-C3'	16.94	145.61	120.20
84	Aa	2502	U	P-O3'-C3'	16.58	145.07	120.20
1	Ad	1005	C	O4'-C1'-N1	16.58	133.37	108.50
84	Aa	3261	C	C4'-C3'-O3'	16.49	134.13	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	553	C	C4'-C3'-O3'	16.27	133.81	109.40
84	Aa	2085	A	P-O5'-C5'	16.02	144.94	120.90
84	Aa	2512	U	C2'-C3'-O3'	15.77	137.35	113.70
1	Ad	547	C	O4'-C1'-N1	15.45	131.37	108.20
1	Ad	1462	C	O4'-C1'-N1	15.39	131.58	108.50
84	Aa	1958	G	C4'-C3'-O3'	-15.26	90.11	113.00
1	Ad	1765	A	O4'-C1'-N9	15.14	131.22	108.50
84	Aa	570	G	P-O3'-C3'	14.94	142.61	120.20
84	Aa	3182	A	P-O3'-C3'	14.80	142.41	120.20
1	Ad	821	G	N9-C1'-C2'	14.68	136.03	114.00
1	Ad	202	C	P-O3'-C3'	14.67	142.20	120.20
1	Ad	76	U	P-O3'-C3'	14.51	141.96	120.20
1	Ad	1580	G	O4'-C1'-N9	14.49	129.94	108.20
1	Ad	784	C	O4'-C1'-N1	14.45	130.17	108.50
1	Ad	511	U	O4'-C1'-N1	14.37	130.05	108.50
84	Aa	2086	A	C4'-C3'-O3'	-14.21	91.68	113.00
1	Ad	1604	C	O4'-C1'-N1	14.17	129.75	108.50
84	Aa	1943	G	C4'-C3'-O3'	14.12	134.18	113.00
84	Aa	575	C	C4'-C3'-O3'	-14.10	91.85	113.00
1	Ad	1064	U	O4'-C1'-N1	14.09	129.64	108.50
84	Aa	2511	U	C4'-C3'-O3'	-14.07	91.90	113.00
84	Aa	2513	U	C5'-C4'-C3'	-14.05	94.92	116.00
1	Ad	261	C	N1-C1'-C2'	14.02	133.03	112.00
84	Aa	1576	C	P-O3'-C3'	13.89	141.03	120.20
84	Aa	2384	G	P-O3'-C3'	13.80	140.90	120.20
1	Ad	1206	A	N9-C1'-C2'	13.76	132.64	112.00
84	Aa	1957	G	C2'-C3'-O3'	-13.70	93.15	113.70
84	Aa	473	G	C4'-C3'-O3'	13.66	133.49	113.00
84	Aa	434	C	P-O3'-C3'	13.63	140.65	120.20
1	Ad	1368	C	O4'-C1'-N1	13.59	128.88	108.50
1	Ad	280	U	P-O3'-C3'	-13.52	99.92	120.20
1	Ad	54	C	O4'-C1'-C2'	-13.39	94.21	107.60
1	Ad	133	U	P-O3'-C3'	13.38	140.27	120.20
1	Ad	1464	G	N9-C1'-C2'	13.37	132.06	112.00
1	Ad	384	U	O4'-C1'-N1	13.30	128.15	108.20
1	Ad	787	C	O4'-C1'-N1	13.29	128.44	108.50
84	Aa	526	A	P-O5'-C5'	13.28	140.82	120.90
84	Aa	1950	G	P-O3'-C3'	13.25	140.07	120.20
1	Ad	1404	U	O4'-C1'-N1	13.13	127.90	108.20
1	Ad	1810	G	O4'-C1'-C2'	-13.10	94.50	107.60
1	Ad	235	C	O4'-C1'-C2'	-13.09	92.72	105.80
1	Ad	1203	G	C1'-O4'-C4'	13.08	122.98	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	506	U	P-O3'-C3'	13.08	139.82	120.20
1	Ad	1086	A	P-O3'-C3'	13.05	139.77	120.20
84	Aa	423	C	P-O3'-C3'	12.99	139.69	120.20
1	Ad	1262	U	O4'-C1'-N1	12.98	127.97	108.50
84	Aa	554	C	C2'-C3'-O3'	-12.94	94.29	113.70
1	Ad	835	U	O4'-C1'-N1	12.89	127.84	108.50
2	Ae	73	C	N1-C1'-C2'	12.85	131.27	112.00
84	Aa	2476	G	C4'-C3'-O3'	-12.81	93.78	113.00
1	Ad	546	U	O4'-C1'-N1	12.80	127.69	108.50
84	Aa	158	A	P-O3'-C3'	12.79	139.39	120.20
84	Aa	1559	G	O3'-P-O5'	12.76	123.13	104.00
1	Ad	1353	G	P-O3'-C3'	12.73	139.30	120.20
1	Ad	282	C	O4'-C1'-N1	12.67	127.20	108.20
84	Aa	2086	A	P-O5'-C5'	12.67	139.90	120.90
84	Aa	590	C	C4'-C3'-O3'	12.64	131.96	113.00
1	Ad	1623	C	P-O3'-C3'	12.59	139.09	120.20
1	Ad	1479	U	O4'-C1'-N1	12.56	127.04	108.20
84	Aa	1560	A	P-O5'-C5'	12.56	139.75	120.90
1	Ad	1622	A	O4'-C1'-N9	12.54	127.30	108.50
2	Ae	55	C	N1-C1'-C2'	12.49	130.74	112.00
84	Aa	2513	U	C2'-C3'-O3'	12.49	132.44	113.70
1	Ad	1311	U	O4'-C1'-N1	12.39	127.09	108.50
1	Ad	716	A	C4'-C3'-O3'	-12.35	94.47	113.00
84	Aa	1726	G	P-O3'-C3'	12.25	138.58	120.20
1	Ad	1066	U	O4'-C1'-N1	12.14	126.71	108.50
1	Ad	737	G	C4'-C3'-O3'	12.05	131.07	113.00
84	Aa	552	G	C4'-C3'-O3'	-12.05	94.93	113.00
1	Ad	800	U	P-O3'-C3'	12.05	138.27	120.20
1	Ad	1259	G	O4'-C1'-C2'	12.04	117.84	105.80
84	Aa	1487	A	P-O3'-C3'	12.03	138.25	120.20
47	CQ	3	ILE	N-CA-C	-12.03	102.16	111.90
2	Ae	36	C	N1-C1'-C2'	12.00	130.00	112.00
84	Aa	3153	U	P-O3'-C3'	12.00	138.19	120.20
1	Ad	1511	A	O4'-C1'-N9	11.97	126.45	108.50
84	Aa	527	G	P-O5'-C5'	11.95	138.83	120.90
1	Ad	1220	C	P-O3'-C3'	11.95	138.12	120.20
1	Ad	707	C	O4'-C1'-C2'	-11.95	95.66	107.60
84	Aa	2152	A	P-O3'-C3'	11.94	138.11	120.20
1	Ad	1409	G	P-O5'-C5'	11.93	138.79	120.90
1	Ad	869	U	O4'-C1'-N1	11.89	126.34	108.50
1	Ad	801	U	O4'-C1'-N1	11.87	126.31	108.50
1	Ad	1203	G	O4'-C1'-C2'	-11.87	95.73	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2475	C	C4'-C3'-O3'	11.82	130.74	113.00
84	Aa	571	G	P-O3'-C3'	11.81	137.91	120.20
1	Ad	843	G	O4'-C1'-C2'	-11.81	95.79	107.60
1	Ad	1250	C	O4'-C1'-N1	11.81	126.21	108.50
1	Ad	843	G	C3'-C2'-C1'	11.66	112.96	101.30
1	Ad	1067	A	O4'-C1'-N9	11.63	125.94	108.50
1	Ad	845	C	P-O3'-C3'	11.60	137.61	120.20
84	Aa	2092	C	O3'-P-O5'	-11.59	86.61	104.00
84	Aa	1811	U	P-O3'-C3'	11.59	137.58	120.20
1	Ad	208	U	P-O3'-C3'	11.58	137.56	120.20
1	Ad	559	A	P-O3'-C3'	11.57	137.56	120.20
1	Ad	824	U	P-O5'-C5'	11.52	138.18	120.90
84	Aa	1561	U	O3'-P-O5'	11.49	121.23	104.00
84	Aa	2100	A	P-O3'-C3'	11.49	137.43	120.20
1	Ad	80	C	P-O3'-C3'	11.48	137.42	120.20
84	Aa	625	G	C4'-C3'-O3'	11.48	130.22	113.00
1	Ad	612	U	N1-C1'-C2'	11.46	129.18	112.00
1	Ad	1691	C	O4'-C1'-C2'	-11.45	94.35	105.80
1	Ad	854	C	O4'-C1'-C2'	-11.44	96.16	107.60
1	Ad	845	C	O4'-C1'-C2'	-11.42	94.38	105.80
1	Ad	707	C	C1'-O4'-C4'	11.41	121.31	109.90
84	Aa	2477	G	C4'-C3'-O3'	11.41	130.12	113.00
84	Aa	2496	U	C4'-C3'-O3'	-11.41	95.89	113.00
1	Ad	1522	U	O4'-C1'-N1	11.36	125.24	108.20
1	Ad	325	C	O4'-C1'-N1	11.34	125.20	108.20
1	Ad	1259	G	O4'-C1'-N9	11.33	125.19	108.20
1	Ad	1590	U	O4'-C1'-N1	11.32	125.19	108.20
1	Ad	87	A	O4'-C1'-C2'	-11.32	96.28	107.60
1	Ad	516	A	P-O3'-C3'	11.30	137.16	120.20
1	Ad	1568	U	O4'-C1'-N1	11.30	125.46	108.50
1	Ad	1395	C	N1-C1'-C2'	11.30	128.95	112.00
84	Aa	563	C	P-O3'-C3'	11.30	137.14	120.20
1	Ad	1730	G	O4'-C1'-C2'	-11.29	96.31	107.60
84	Aa	1562	A	C2'-C3'-O3'	-11.28	92.59	109.50
84	Aa	3221	A	P-O3'-C3'	11.27	137.11	120.20
1	Ad	215	A	P-O3'-C3'	11.26	137.09	120.20
1	Ad	87	A	C1'-O4'-C4'	11.22	121.12	109.90
1	Ad	828	G	P-O3'-C3'	11.21	137.02	120.20
1	Ad	613	U	O4'-C1'-C2'	-11.20	94.60	105.80
1	Ad	846	U	N1-C1'-C2'	11.20	128.80	112.00
84	Aa	2072	U	P-O3'-C3'	11.15	136.93	120.20
1	Ad	189	U	O4'-C1'-N1	11.15	124.92	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	Af	16	G	O4'-C1'-C2'	-11.15	96.45	107.60
1	Ad	1334	G	O4'-C1'-C2'	-11.14	96.46	107.60
2	Ae	72	G	O4'-C1'-N9	11.14	125.20	108.50
1	Ad	1810	G	C3'-C2'-C1'	11.13	112.43	101.30
1	Ad	964	U	N1-C1'-C2'	11.12	128.68	112.00
1	Ad	131	C	P-O3'-C3'	11.11	136.86	120.20
1	Ad	1766	A	O4'-C1'-N9	11.09	124.84	108.20
84	Aa	3308	A	P-O3'-C3'	11.09	136.84	120.20
1	Ad	281	U	O3'-P-O5'	-11.08	87.38	104.00
84	Aa	2461	A	P-O3'-C3'	11.03	136.74	120.20
1	Ad	1350	C	O4'-C1'-N1	10.95	124.63	108.20
84	Aa	2053	A	P-O3'-C3'	10.91	136.57	120.20
86	Ab	47	C	P-O3'-C3'	10.90	136.54	120.20
84	Aa	3175	C	P-O3'-C3'	10.89	136.54	120.20
1	Ad	41	A	O4'-C1'-C2'	-10.89	96.71	107.60
1	Ad	501	U	P-O3'-C3'	10.88	136.53	120.20
2	Ae	74	C	O4'-C1'-C2'	-10.88	96.72	107.60
1	Ad	502	G	P-O3'-C3'	10.85	136.47	120.20
1	Ad	161	G	O4'-C1'-N9	10.81	124.71	108.50
84	Aa	488	U	P-O3'-C3'	10.80	136.40	120.20
84	Aa	2528	U	P-O3'-C3'	10.79	136.38	120.20
1	Ad	834	A	C2'-C3'-O3'	10.78	125.67	109.50
1	Ad	1006	A	O4'-C1'-C2'	-10.78	96.82	107.60
84	Aa	1812	A	P-O3'-C3'	10.77	136.36	120.20
84	Aa	461	A	C4'-C3'-O3'	10.75	129.13	113.00
84	Aa	494	C	C5'-C4'-C3'	10.75	132.13	116.00
1	Ad	999	G	C1'-O4'-C4'	-10.75	99.15	109.90
1	Ad	1542	G	O4'-C1'-N9	10.75	124.32	108.20
1	Ad	421	A	O4'-C1'-C2'	-10.72	95.08	105.80
1	Ad	1775	A	O4'-C1'-N9	10.72	124.28	108.20
1	Ad	944	A	O4'-C1'-C2'	-10.71	96.89	107.60
1	Ad	1386	U	N1-C1'-C2'	10.70	128.06	112.00
84	Aa	474	G	C2'-C3'-O3'	-10.69	97.67	113.70
1	Ad	281	U	O4'-C1'-C2'	-10.66	96.94	107.60
1	Ad	836	U	O4'-C1'-C2'	-10.64	96.96	107.60
84	Aa	2178	G	C2'-C3'-O3'	-10.64	97.74	113.70
71	CB	55	HIS	CA-CB-CG	10.62	124.42	113.80
1	Ad	772	C	N1-C1'-C2'	10.59	127.89	112.00
1	Ad	722	A	P-O3'-C3'	10.58	136.07	120.20
1	Ad	1162	A	O4'-C1'-N9	10.56	124.34	108.50
1	Ad	643	U	O4'-C1'-N1	10.55	124.03	108.20
1	Ad	139	U	P-O3'-C3'	10.50	135.96	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
73	CO	153	ASN	N-CA-C	-10.50	102.65	114.62
85	Ac	85	G	P-O3'-C3'	10.48	135.92	120.20
1	Ad	1231	A	N9-C1'-C2'	10.47	127.70	112.00
1	Ad	1336	C	N1-C1'-C2'	10.46	127.70	112.00
1	Ad	815	A	P-O3'-C3'	10.46	135.88	120.20
84	Aa	2081	C	C2'-C3'-O3'	10.46	125.18	109.50
1	Ad	1343	C	P-O3'-C3'	10.45	135.88	120.20
1	Ad	918	G	P-O3'-C3'	10.45	135.88	120.20
1	Ad	1029	U	O4'-C1'-C2'	-10.45	97.15	107.60
1	Ad	1105	G	N9-C1'-C2'	10.45	127.68	112.00
1	Ad	1096	A	O4'-C1'-C2'	10.44	116.24	105.80
84	Aa	3211	C	P-O3'-C3'	10.44	135.86	120.20
1	Ad	363	G	O4'-C1'-N9	10.44	124.15	108.50
1	Ad	185	G	P-O3'-C3'	10.43	135.85	120.20
1	Ad	1220	C	O4'-C1'-C2'	-10.43	95.37	105.80
1	Ad	970	U	N1-C1'-C2'	10.37	127.56	112.00
48	CD	122	GLY	N-CA-C	-10.37	98.70	111.45
1	Ad	1161	C	N1-C1'-C2'	10.36	127.54	112.00
1	Ad	1162	A	P-O3'-C3'	10.35	135.72	120.20
84	Aa	2313	U	P-O3'-C3'	10.34	135.71	120.20
1	Ad	773	U	O4'-C1'-N1	10.31	123.97	108.50
84	Aa	550	C	C2'-C3'-O3'	-10.30	98.25	113.70
1	Ad	1358	G	N9-C1'-C2'	10.29	127.44	112.00
1	Ad	1640	C	N1-C1'-C2'	10.29	127.43	112.00
84	Aa	2174	C	P-O5'-C5'	10.28	136.32	120.90
1	Ad	1531	G	O4'-C1'-N9	10.28	123.61	108.20
84	Aa	2503	A	P-O3'-C3'	10.24	135.55	120.20
84	Aa	2504	A	P-O3'-C3'	10.23	135.55	120.20
84	Aa	1563	G	C2'-C3'-O3'	10.23	124.85	109.50
1	Ad	1581	A	P-O3'-C3'	10.22	135.52	120.20
1	Ad	456	A	O4'-C1'-N9	10.21	123.52	108.20
1	Ad	845	C	C5'-C4'-C3'	10.18	130.47	115.20
1	Ad	800	U	O4'-C1'-N1	10.17	123.46	108.20
1	Ad	845	C	C1'-O4'-C4'	10.15	119.85	109.70
1	Ad	1466	A	O4'-C1'-C2'	10.14	117.74	107.60
2	Ae	28	G	C1'-O4'-C4'	-10.12	99.78	109.90
84	Aa	3263	C	C4'-C3'-O3'	10.08	128.12	113.00
1	Ad	450	A	O4'-C1'-C2'	-10.06	97.54	107.60
1	Ad	509	A	O4'-C1'-C2'	-10.05	97.55	107.60
73	CO	136	PRO	CB-CA-C	10.04	128.13	111.56
1	Ad	1254	U	P-O3'-C3'	10.04	135.25	120.20
1	Ad	780	A	O4'-C1'-N9	10.03	123.55	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1195	C	P-O3'-C3'	10.03	135.25	120.20
84	Aa	2538	G	P-O3'-C3'	10.02	135.23	120.20
20	BT	92	PRO	N-CA-C	9.99	122.89	110.70
1	Ad	61	A	C4'-C3'-O3'	-9.99	98.02	113.00
1	Ad	224	C	O4'-C1'-C2'	-9.99	95.81	105.80
1	Ad	137	A	O4'-C1'-N9	9.98	123.17	108.20
2	Ae	74	C	C1'-O4'-C4'	9.98	119.88	109.90
1	Ad	788	G	P-O3'-C3'	9.96	135.15	120.20
1	Ad	45	U	C3'-C2'-C1'	9.95	111.45	101.50
1	Ad	80	C	N1-C1'-C2'	9.93	128.89	114.00
84	Aa	499	A	P-O3'-C3'	9.90	135.06	120.20
84	Aa	1727	A	P-O3'-C3'	9.90	135.05	120.20
1	Ad	587	C	N1-C1'-C2'	9.90	126.85	112.00
1	Ad	1580	G	N9-C1'-C2'	-9.89	99.16	114.00
1	Ad	1248	A	P-O3'-C3'	9.89	135.03	120.20
1	Ad	860	A	N9-C1'-C2'	-9.87	99.20	114.00
1	Ad	1580	G	C1'-O4'-C4'	9.86	119.56	109.70
84	Aa	982	U	P-O3'-C3'	9.86	134.98	120.20
84	Aa	1958	G	O4'-C4'-C3'	-9.85	94.15	104.00
1	Ad	761	A	P-O3'-C3'	9.83	134.95	120.20
1	Ad	179	A	O4'-C1'-N9	-9.82	93.77	108.50
84	Aa	2074	C	P-O3'-C3'	9.80	134.90	120.20
1	Ad	158	C	N1-C1'-C2'	9.77	126.66	112.00
71	CB	120	LYS	N-CA-C	-9.77	95.09	108.86
1	Ad	1731	A	O4'-C1'-C2'	-9.76	97.84	107.60
1	Ad	437	C	N1-C1'-C2'	9.76	126.64	112.00
84	Aa	590	C	C2'-C3'-O3'	-9.75	99.08	113.70
84	Aa	473	G	C2'-C3'-O3'	-9.72	99.11	113.70
1	Ad	1501	G	O4'-C1'-N9	9.72	122.78	108.20
84	Aa	481	G	P-O3'-C3'	9.72	134.78	120.20
1	Ad	342	C	N1-C1'-C2'	9.72	126.58	112.00
1	Ad	737	G	C2'-C3'-O3'	-9.71	99.14	113.70
1	Ad	1203	G	N9-C1'-C2'	-9.70	97.44	112.00
1	Ad	369	G	O4'-C1'-C2'	-9.70	97.90	107.60
1	Ad	1594	A	O4'-C1'-C2'	-9.69	97.91	107.60
1	Ad	743	G	O4'-C1'-C2'	-9.68	97.92	107.60
1	Ad	1637	G	O4'-C1'-C2'	9.68	117.28	107.60
1	Ad	1806	C	O4'-C1'-C2'	-9.67	96.13	105.80
1	Ad	1420	U	O4'-C1'-N1	9.66	122.69	108.20
1	Ad	1771	U	O4'-C1'-N1	9.64	122.67	108.20
84	Aa	2179	U	C4'-C3'-O3'	-9.64	98.53	113.00
1	Ad	1248	A	O4'-C1'-N9	9.63	122.94	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	190	C	P-O3'-C3'	9.59	134.59	120.20
1	Ad	238	G	N9-C1'-C2'	9.59	126.39	112.00
84	Aa	985	C	P-O3'-C3'	9.59	134.58	120.20
84	Aa	2436	G	C4'-C3'-O3'	9.56	123.74	109.40
1	Ad	282	C	C1'-O4'-C4'	9.55	119.25	109.70
84	Aa	487	C	P-O3'-C3'	9.55	134.53	120.20
84	Aa	554	C	C4'-C3'-O3'	9.52	127.28	113.00
2	Ae	37	G	P-O3'-C3'	9.52	134.48	120.20
1	Ad	1202	G	O4'-C1'-C2'	9.52	117.12	107.60
1	Ad	457	C	C1'-C2'-O2'	9.49	122.64	108.40
1	Ad	588	C	N1-C1'-C2'	9.49	126.23	112.00
1	Ad	785	A	O4'-C1'-C2'	-9.49	98.11	107.60
1	Ad	1397	A	N9-C1'-C2'	9.49	126.24	112.00
1	Ad	548	C	N1-C1'-C2'	9.49	126.23	112.00
1	Ad	1582	G	C3'-C2'-C1'	9.48	110.78	101.30
84	Aa	1106	G	P-O3'-C3'	9.48	134.42	120.20
84	Aa	1562	A	C5'-C4'-C3'	9.48	129.42	115.20
84	Aa	64	A	P-O3'-C3'	9.45	134.38	120.20
1	Ad	585	U	O4'-C1'-N1	9.43	122.64	108.50
1	Ad	1162	A	C1'-O4'-C4'	9.43	119.33	109.90
1	Ad	507	G	P-O3'-C3'	9.43	134.34	120.20
1	Ad	509	A	C3'-C2'-C1'	9.40	110.70	101.30
84	Aa	2511	U	C2'-C3'-O3'	9.38	127.78	113.70
1	Ad	1803	G	O4'-C1'-C2'	-9.38	96.42	105.80
1	Ad	290	C	O4'-C1'-C2'	-9.36	98.24	107.60
1	Ad	121	U	N1-C1'-C2'	9.35	126.03	112.00
84	Aa	440	U	P-O3'-C3'	9.34	134.22	120.20
1	Ad	459	C	O4'-C1'-C2'	-9.34	96.46	105.80
84	Aa	2545	C	P-O3'-C3'	9.34	134.21	120.20
84	Aa	1798	C	O3'-P-O5'	-9.32	90.02	104.00
1	Ad	1802	G	O4'-C1'-N9	9.29	122.14	108.20
1	Ad	1172	G	N9-C1'-C2'	9.29	125.93	112.00
1	Ad	648	C	O4'-C1'-C2'	-9.28	98.32	107.60
1	Ad	745	C	O4'-C1'-C2'	-9.26	96.54	105.80
1	Ad	391	A	O4'-C1'-N9	9.25	122.08	108.20
1	Ad	535	C	N1-C1'-C2'	9.25	125.88	112.00
1	Ad	1057	U	O4'-C1'-N1	9.23	122.34	108.50
84	Aa	1311	G	P-O3'-C3'	9.23	134.04	120.20
84	Aa	1245	U	P-O5'-C5'	9.22	134.74	120.90
84	Aa	766	C	P-O3'-C3'	9.22	134.03	120.20
84	Aa	2244	G	P-O3'-C3'	9.20	134.01	120.20
1	Ad	1589	C	C3'-C2'-C1'	9.20	110.50	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	176	A	C1'-O4'-C4'	9.19	119.09	109.90
1	Ad	138	C	O4'-C1'-C2'	-9.18	96.62	105.80
1	Ad	1447	C	N1-C1'-C2'	9.17	125.76	112.00
1	Ad	271	C	P-O3'-C3'	9.16	133.94	120.20
1	Ad	1496	A	O4'-C1'-N9	9.15	121.93	108.20
1	Ad	1574	U	O4'-C1'-C2'	-9.14	98.46	107.60
84	Aa	2436	G	C2'-C3'-O3'	-9.10	95.84	109.50
84	Aa	3342	C	P-O3'-C3'	9.10	133.85	120.20
1	Ad	1623	C	O4'-C1'-C2'	-9.09	98.51	107.60
1	Ad	1309	U	O4'-C1'-N1	9.09	121.83	108.20
84	Aa	2596	A	P-O3'-C3'	9.07	133.81	120.20
1	Ad	826	C	O4'-C1'-C2'	-9.06	98.54	107.60
1	Ad	1782	C	P-O3'-C3'	9.05	133.78	120.20
1	Ad	284	U	P-O3'-C3'	9.04	133.77	120.20
1	Ad	939	C	O4'-C1'-N1	9.05	122.07	108.50
1	Ad	1523	A	O4'-C1'-C2'	-9.04	98.56	107.60
84	Aa	2086	A	N9-C1'-C2'	9.04	125.56	112.00
1	Ad	488	C	N1-C1'-C2'	9.02	125.53	112.00
1	Ad	839	G	P-O5'-C5'	9.01	134.42	120.90
1	Ad	1094	U	N1-C1'-C2'	8.99	125.49	112.00
1	Ad	262	U	C1'-O4'-C4'	8.99	118.69	109.70
84	Aa	572	U	P-O3'-C3'	8.99	133.69	120.20
1	Ad	196	G	N9-C1'-C2'	8.98	125.47	112.00
1	Ad	1056	A	P-O3'-C3'	8.97	133.66	120.20
1	Ad	828	G	O4'-C1'-N9	8.97	121.95	108.50
1	Ad	1567	G	O4'-C1'-N9	8.97	121.95	108.50
1	Ad	282	C	P-O3'-C3'	8.96	133.65	120.20
84	Aa	2177	U	C2'-C3'-O3'	8.97	122.95	109.50
84	Aa	2167	G	C5'-C4'-C3'	8.96	128.65	115.20
1	Ad	1663	A	O4'-C1'-C2'	-8.96	98.64	107.60
1	Ad	1016	C	N1-C1'-C2'	8.95	125.42	112.00
1	Ad	201	G	N9-C1'-C2'	8.93	125.40	112.00
1	Ad	1778	G	N9-C1'-C2'	8.93	125.40	112.00
1	Ad	817	C	P-O3'-C3'	8.92	133.59	120.20
1	Ad	1647	C	O4'-C1'-C2'	-8.92	98.68	107.60
1	Ad	212	A	C3'-C2'-C1'	8.91	110.21	101.30
3	Af	21	C	O4'-C1'-C2'	-8.90	98.69	107.60
1	Ad	721	U	C4'-C3'-O3'	8.90	126.35	113.00
1	Ad	1576	C	P-O3'-C3'	8.90	133.54	120.20
84	Aa	2514	A	P-O3'-C3'	8.90	133.54	120.20
1	Ad	1593	U	N1-C1'-C2'	8.88	125.32	112.00
1	Ad	156	U	P-O3'-C3'	8.87	133.50	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1375	C	O4'-C1'-C2'	-8.86	96.94	105.80
1	Ad	753	C	N1-C1'-C2'	8.86	125.29	112.00
84	Aa	550	C	P-O3'-C3'	8.86	133.49	120.20
1	Ad	1235	U	O4'-C1'-C2'	-8.86	98.74	107.60
1	Ad	176	A	O4'-C1'-C2'	-8.84	98.76	107.60
84	Aa	723	G	C5'-C4'-O4'	-8.84	96.54	109.80
1	Ad	165	U	N1-C1'-C2'	8.84	125.26	112.00
1	Ad	1	U	O4'-C1'-C2'	-8.82	96.98	105.80
84	Aa	2081	C	P-O3'-C3'	8.81	133.42	120.20
84	Aa	3309	U	P-O3'-C3'	8.81	133.41	120.20
1	Ad	64	U	O4'-C1'-C2'	-8.78	98.82	107.60
84	Aa	551	A	C2'-C3'-O3'	-8.77	100.54	113.70
84	Aa	543	C	C2'-C3'-O3'	8.76	126.85	113.70
86	Ab	72	G	P-O3'-C3'	8.76	133.34	120.20
1	Ad	966	U	N1-C1'-C2'	8.76	125.13	112.00
1	Ad	1466	A	N9-C1'-C2'	8.75	125.13	112.00
1	Ad	1801	A	N9-C1'-C2'	-8.75	100.88	114.00
71	CB	365	THR	N-CA-C	-8.74	99.95	110.44
1	Ad	492	G	P-O5'-C5'	8.74	134.01	120.90
84	Aa	640	C	O3'-P-O5'	8.74	117.11	104.00
1	Ad	220	C	N1-C1'-C2'	8.73	125.10	112.00
84	Aa	641	C	C5'-C4'-C3'	8.72	129.09	116.00
1	Ad	1350	C	O4'-C1'-C2'	8.72	114.52	105.80
1	Ad	1592	G	O4'-C1'-N9	8.72	121.28	108.20
84	Aa	2475	C	C2'-C3'-O3'	-8.72	100.62	113.70
84	Aa	3345	G	P-O3'-C3'	8.72	133.28	120.20
1	Ad	1238	A	P-O3'-C3'	8.72	133.27	120.20
86	Ab	51	G	P-O3'-C3'	8.71	133.27	120.20
84	Aa	2542	U	P-O3'-C3'	8.71	133.26	120.20
1	Ad	1497	U	O4'-C1'-N1	8.70	121.56	108.50
84	Aa	642	C	C5'-C4'-C3'	8.70	129.05	116.00
84	Aa	3263	C	P-O5'-C5'	8.70	133.95	120.90
84	Aa	1959	U	P-O5'-C5'	-8.69	107.86	120.90
1	Ad	1445	C	O4'-C1'-C2'	-8.69	98.91	107.60
84	Aa	3182	A	O5'-C5'-C4'	8.68	124.52	111.50
84	Aa	1937	C	P-O3'-C3'	8.66	133.19	120.20
1	Ad	848	C	O4'-C1'-C2'	-8.65	98.94	107.60
84	Aa	626	G	C4'-C3'-O3'	-8.65	100.02	113.00
1	Ad	71	C	P-O3'-C3'	8.65	133.18	120.20
1	Ad	394	G	O4'-C1'-N9	8.65	121.47	108.50
1	Ad	1582	G	O4'-C1'-C2'	-8.64	98.95	107.60
1	Ad	1498	A	O4'-C1'-N9	8.64	121.16	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	971	A	O4'-C1'-C2'	-8.62	98.97	107.60
1	Ad	296	A	N9-C1'-C2'	8.62	124.93	112.00
1	Ad	419	C	O4'-C1'-C2'	-8.62	98.98	107.60
1	Ad	762	A	O4'-C1'-C2'	-8.61	98.99	107.60
1	Ad	1193	A	O4'-C1'-C2'	-8.61	98.99	107.60
1	Ad	744	G	N9-C1'-C2'	-8.60	99.10	112.00
1	Ad	164	C	N1-C1'-C2'	8.60	124.90	112.00
1	Ad	1203	G	O4'-C1'-N9	8.60	121.39	108.50
84	Aa	167	C	P-O3'-C3'	8.60	133.10	120.20
84	Aa	2149	G	P-O3'-C3'	8.60	133.09	120.20
1	Ad	409	C	N1-C1'-C2'	8.59	124.88	112.00
1	Ad	1163	C	O4'-C1'-C2'	-8.59	97.21	105.80
84	Aa	767	U	P-O3'-C3'	8.59	133.08	120.20
1	Ad	212	A	N9-C1'-C2'	8.58	124.87	112.00
84	Aa	3183	G	P-O5'-C5'	8.58	133.77	120.90
1	Ad	249	G	N9-C1'-C2'	8.58	124.87	112.00
1	Ad	1405	U	O4'-C1'-N1	8.58	121.06	108.20
1	Ad	570	C	N1-C1'-C2'	8.57	124.86	112.00
1	Ad	1321	C	N1-C1'-C2'	8.55	124.83	112.00
1	Ad	1596	G	O4'-C1'-C2'	-8.55	99.05	107.60
84	Aa	3167	G	P-O3'-C3'	8.55	133.02	120.20
1	Ad	536	U	N1-C1'-C2'	8.54	126.81	114.00
1	Ad	79	A	O4'-C1'-C2'	-8.54	99.06	107.60
1	Ad	396	G	O4'-C1'-N9	8.54	121.31	108.50
1	Ad	67	G	P-O3'-C3'	8.54	133.00	120.20
1	Ad	241	G	P-O3'-C3'	8.54	133.00	120.20
1	Ad	730	G	O4'-C1'-N9	8.54	121.00	108.20
4	BY	6	THR	N-CA-C	-8.53	101.59	112.93
1	Ad	956	A	O4'-C1'-C2'	-8.52	99.08	107.60
41	CA	69	TYR	N-CA-CB	8.52	124.89	110.49
85	Ac	82	C	P-O3'-C3'	8.52	132.97	120.20
1	Ad	906	G	O4'-C1'-N9	8.51	121.26	108.50
1	Ad	1619	A	O4'-C1'-N9	8.51	121.26	108.50
1	Ad	1665	U	O4'-C1'-C2'	-8.50	97.30	105.80
1	Ad	732	G	O4'-C1'-N9	8.47	121.21	108.50
1	Ad	902	C	O4'-C1'-C2'	-8.47	97.33	105.80
2	Ae	10	G	O4'-C1'-C2'	-8.45	99.15	107.60
1	Ad	205	U	O4'-C1'-C2'	-8.43	99.17	107.60
1	Ad	1128	C	P-O5'-C5'	8.43	133.54	120.90
1	Ad	474	A	O4'-C1'-C2'	-8.42	99.18	107.60
84	Aa	550	C	C4'-C3'-O3'	8.41	125.62	113.00
1	Ad	1321	C	C1'-O4'-C4'	-8.40	101.50	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	Ac	129	C	P-O3'-C3'	8.39	132.78	120.20
1	Ad	836	U	N1-C1'-C2'	8.38	124.58	112.00
1	Ad	1725	C	O4'-C1'-C2'	-8.38	97.42	105.80
84	Aa	1798	C	P-O3'-C3'	8.38	132.77	120.20
1	Ad	256	G	O4'-C1'-C2'	-8.37	99.23	107.60
46	Ca	81	MET	CA-C-N	8.37	125.51	120.24
46	Ca	81	MET	C-N-CA	8.37	125.51	120.24
84	Aa	72	A	P-O3'-C3'	8.36	132.73	120.20
1	Ad	254	A	N9-C1'-C2'	8.35	124.53	112.00
1	Ad	1758	G	O4'-C1'-C2'	8.35	115.95	107.60
1	Ad	1080	C	N1-C1'-C2'	8.34	124.50	112.00
1	Ad	1808	U	P-O3'-C3'	8.33	132.70	120.20
1	Ad	139	U	O4'-C1'-N1	8.33	120.69	108.20
1	Ad	846	U	C1'-O4'-C4'	-8.33	101.57	109.90
1	Ad	1588	C	N1-C1'-C2'	8.33	124.49	112.00
84	Aa	492	G	C2'-C3'-O3'	8.31	126.17	113.70
1	Ad	1806	C	C3'-C2'-C1'	8.31	109.81	101.50
84	Aa	2087	A	N9-C1'-C2'	8.30	126.46	114.00
1	Ad	1303	G	C1'-O4'-C4'	-8.29	101.61	109.90
1	Ad	401	A	P-O5'-C5'	-8.29	108.47	120.90
84	Aa	1569	U	P-O3'-C3'	8.29	132.63	120.20
1	Ad	11	A	O4'-C1'-C2'	-8.28	99.32	107.60
1	Ad	817	C	O4'-C1'-C2'	-8.28	97.52	105.80
1	Ad	1679	A	O4'-C1'-C2'	-8.28	99.32	107.60
1	Ad	98	C	N1-C1'-C2'	8.28	124.42	112.00
48	CD	17	PHE	CA-C-N	8.26	133.81	120.60
48	CD	17	PHE	C-N-CA	8.26	133.81	120.60
3	Af	16	G	C3'-C2'-C1'	8.26	109.56	101.30
1	Ad	1263	C	N1-C1'-C2'	8.25	124.38	112.00
1	Ad	421	A	P-O3'-C3'	8.25	132.57	120.20
1	Ad	1589	C	O4'-C1'-C2'	-8.24	99.36	107.60
1	Ad	1648	C	O4'-C1'-C2'	-8.24	99.36	107.60
84	Aa	1561	U	C2'-C3'-O3'	-8.24	101.34	113.70
1	Ad	14	C	N1-C1'-C2'	8.24	124.36	112.00
1	Ad	504	C	C3'-C2'-C1'	8.23	109.53	101.30
84	Aa	606	C	C4'-C3'-O3'	-8.23	100.66	113.00
1	Ad	235	C	C1'-O4'-C4'	8.22	117.92	109.70
84	Aa	2020	G	P-O3'-C3'	8.22	132.53	120.20
1	Ad	944	A	C3'-C2'-C1'	8.20	109.50	101.30
1	Ad	220	C	C3'-C2'-C1'	8.20	109.50	101.30
1	Ad	593	C	O4'-C1'-C2'	-8.20	99.40	107.60
1	Ad	633	U	P-O3'-C3'	8.20	132.50	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	183	C	N1-C1'-C2'	8.18	124.27	112.00
1	Ad	96	G	N9-C1'-C2'	8.18	124.27	112.00
1	Ad	1538	C	O4'-C1'-C2'	-8.18	99.42	107.60
84	Aa	1544	G	P-O3'-C3'	8.18	132.47	120.20
84	Aa	2152	A	C2'-C3'-O3'	8.18	121.76	109.50
2	Ae	69	G	C1'-O4'-C4'	-8.17	101.73	109.90
1	Ad	457	C	C1'-O4'-C4'	-8.15	101.75	109.90
1	Ad	1477	A	O4'-C1'-C2'	-8.15	99.45	107.60
1	Ad	1210	U	O4'-C1'-C2'	-8.15	99.45	107.60
84	Aa	1311	G	C2'-C3'-O3'	8.14	121.72	109.50
49	CR	114	LYS	N-CA-C	-8.14	104.49	114.75
1	Ad	83	U	O4'-C1'-N1	8.13	120.70	108.50
2	Ae	6	G	N9-C1'-C2'	8.12	124.19	112.00
1	Ad	1027	C	N1-C1'-C2'	8.12	124.18	112.00
84	Aa	2074	C	C5'-C4'-C3'	8.12	128.18	116.00
63	CU	57	GLY	CA-C-N	8.12	137.04	121.54
63	CU	57	GLY	C-N-CA	8.12	137.04	121.54
84	Aa	2092	C	C5'-C4'-C3'	8.12	128.18	116.00
1	Ad	1149	U	O4'-C1'-N1	8.12	120.67	108.50
84	Aa	237	C	P-O3'-C3'	8.11	132.37	120.20
1	Ad	344	U	O4'-C1'-C2'	-8.11	99.49	107.60
1	Ad	563	C	N1-C1'-C2'	8.11	124.16	112.00
1	Ad	1414	G	C1'-O4'-C4'	-8.10	101.80	109.90
84	Aa	876	C	P-O3'-C3'	8.10	132.35	120.20
1	Ad	814	C	N1-C1'-C2'	8.09	124.13	112.00
1	Ad	1056	A	N9-C1'-C2'	-8.09	101.87	114.00
1	Ad	1245	G	O4'-C1'-N9	8.08	120.62	108.50
84	Aa	528	C	C4'-C3'-O3'	8.07	125.11	113.00
1	Ad	227	G	O3'-P-O5'	8.07	116.11	104.00
1	Ad	719	C	O4'-C1'-C2'	-8.07	99.53	107.60
1	Ad	860	A	O4'-C1'-N9	8.07	120.30	108.20
84	Aa	2042	G	C4'-C3'-O3'	-8.06	100.91	113.00
84	Aa	2222	C	P-O3'-C3'	8.06	132.29	120.20
1	Ad	1732	A	O4'-C1'-C2'	-8.06	99.54	107.60
1	Ad	174	C	O4'-C1'-C2'	-8.06	99.54	107.60
1	Ad	975	A	O4'-C1'-C2'	-8.06	99.54	107.60
1	Ad	900	G	N9-C1'-C2'	8.05	124.08	112.00
1	Ad	458	A	O4'-C1'-N9	8.04	120.57	108.50
1	Ad	397	C	O4'-C1'-C2'	-8.04	99.56	107.60
1	Ad	1500	A	N9-C1'-C2'	-8.03	101.95	114.00
84	Aa	625	G	C2'-C3'-O3'	-8.01	101.68	113.70
1	Ad	444	U	O4'-C1'-N1	8.01	120.52	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	832	C	N1-C1'-C2'	8.01	124.01	112.00
1	Ad	303	A	O4'-C1'-C2'	-8.01	99.59	107.60
1	Ad	1205	G	O4'-C1'-N9	8.01	120.51	108.50
1	Ad	1487	U	P-O3'-C3'	8.01	132.21	120.20
1	Ad	1102	U	O4'-C1'-N1	8.00	120.20	108.20
1	Ad	428	C	N1-C1'-C2'	8.00	124.00	112.00
1	Ad	792	U	O4'-C1'-N1	7.99	120.48	108.50
36	BH	117	ARG	NE-CZ-NH1	-7.97	113.53	121.50
84	Aa	2006	A	P-O3'-C3'	7.97	132.16	120.20
1	Ad	999	G	N9-C1'-C2'	7.97	123.95	112.00
84	Aa	2166	U	P-O3'-C3'	7.96	132.14	120.20
1	Ad	1682	U	O4'-C1'-C2'	-7.96	99.64	107.60
2	Ae	30	G	N9-C1'-C2'	7.96	123.94	112.00
1	Ad	1580	G	C1'-C2'-O2'	7.96	123.73	111.80
1	Ad	228	G	O4'-C1'-C2'	-7.95	99.65	107.60
1	Ad	1745	U	O4'-C1'-C2'	-7.95	99.65	107.60
1	Ad	700	C	O4'-C1'-C2'	-7.94	99.66	107.60
84	Aa	723	G	O3'-P-O5'	7.94	115.92	104.00
1	Ad	1194	C	O4'-C1'-C2'	-7.94	97.86	105.80
1	Ad	1162	A	O4'-C1'-C2'	-7.94	99.66	107.60
1	Ad	146	A	O4'-C1'-C2'	-7.93	99.67	107.60
84	Aa	2092	C	O4'-C4'-C3'	-7.93	96.07	104.00
1	Ad	1344	U	O4'-C1'-N1	7.92	120.07	108.20
3	Af	12	A	O4'-C1'-N9	7.91	120.36	108.50
1	Ad	1445	C	N1-C1'-C2'	7.90	123.85	112.00
1	Ad	834	A	O4'-C1'-C2'	-7.89	97.91	105.80
1	Ad	999	G	O4'-C1'-C2'	7.88	115.48	107.60
1	Ad	1699	C	O4'-C1'-C2'	-7.88	99.72	107.60
84	Aa	3182	A	O4'-C1'-N9	7.87	120.31	108.50
1	Ad	1471	C	N1-C1'-C2'	7.87	123.80	112.00
1	Ad	707	C	O4'-C1'-N1	7.87	120.30	108.50
1	Ad	637	U	O4'-C1'-C2'	-7.86	99.74	107.60
1	Ad	1645	C	O4'-C1'-C2'	-7.86	97.94	105.80
1	Ad	745	C	C1'-O4'-C4'	7.85	117.55	109.70
1	Ad	281	U	P-O3'-C3'	7.85	131.98	120.20
1	Ad	344	U	O4'-C1'-N1	7.85	120.27	108.50
1	Ad	357	A	O4'-C1'-C2'	-7.84	99.76	107.60
34	BC	202	GLY	N-CA-C	-7.84	104.04	112.04
1	Ad	1512	C	N1-C1'-C2'	7.84	123.76	112.00
1	Ad	755	U	N1-C1'-C2'	7.83	123.75	112.00
1	Ad	1375	C	C3'-C2'-C1'	7.83	109.33	101.50
58	Cj	70	VAL	N-CA-CB	7.83	115.43	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1044	A	O4'-C1'-N9	7.82	119.93	108.20
84	Aa	474	G	C4'-C3'-O3'	-7.82	101.27	113.00
2	Ae	73	C	C1'-O4'-C4'	-7.82	102.08	109.90
84	Aa	2515	C	P-O3'-C3'	7.81	131.92	120.20
2	Ae	58	U	O4'-C1'-N1	7.81	120.21	108.50
84	Aa	2437	A	C2'-C3'-O3'	-7.80	101.99	113.70
1	Ad	1475	A	O4'-C1'-C2'	-7.80	99.80	107.60
1	Ad	1082	C	N1-C1'-C2'	7.79	123.69	112.00
1	Ad	1475	A	C3'-C2'-C1'	7.79	109.09	101.30
1	Ad	1005	C	C3'-C2'-C1'	-7.79	93.51	101.30
1	Ad	804	C	N1-C1'-C2'	7.79	123.68	112.00
1	Ad	1305	U	O4'-C1'-C2'	-7.78	99.82	107.60
1	Ad	1656	C	C3'-C2'-C1'	7.78	109.08	101.30
1	Ad	235	C	P-O3'-C3'	7.78	131.87	120.20
25	Bd	53	ILE	CA-C-N	7.78	136.39	121.54
25	Bd	53	ILE	C-N-CA	7.78	136.39	121.54
84	Aa	2501	U	P-O3'-C3'	7.78	131.86	120.20
1	Ad	351	G	C1'-O4'-C4'	-7.77	102.13	109.90
84	Aa	640	C	C4'-C3'-O3'	7.77	121.06	109.40
1	Ad	244	C	O4'-C1'-C2'	-7.77	99.83	107.60
1	Ad	238	G	O4'-C1'-C2'	-7.77	99.83	107.60
84	Aa	1565	G	P-O5'-C5'	7.76	132.54	120.90
11	BD	184	ILE	N-CA-CB	7.75	124.02	111.23
1	Ad	1162	A	N9-C1'-C2'	-7.75	100.38	112.00
84	Aa	1827	U	C5'-C4'-C3'	-7.75	104.38	116.00
84	Aa	2084	G	O3'-P-O5'	-7.75	92.38	104.00
84	Aa	2516	U	P-O3'-C3'	7.75	131.82	120.20
1	Ad	94	A	O4'-C1'-C2'	7.75	113.55	105.80
84	Aa	919	G	P-O3'-C3'	7.75	131.82	120.20
1	Ad	1734	U	N1-C1'-C2'	7.73	123.60	112.00
84	Aa	474	G	O5'-C5'-C4'	7.73	123.10	111.50
1	Ad	156	U	O4'-C1'-N1	7.73	120.10	108.50
1	Ad	93	A	O4'-C1'-C2'	-7.71	99.89	107.60
1	Ad	785	A	C3'-C2'-C1'	7.71	109.01	101.30
2	Ae	61	C	N1-C1'-C2'	7.70	123.55	112.00
84	Aa	526	A	C5'-C4'-C3'	-7.70	104.45	116.00
1	Ad	85	A	O4'-C1'-C2'	-7.70	99.90	107.60
84	Aa	2177	U	P-O3'-C3'	7.70	131.75	120.20
1	Ad	1409	G	N9-C1'-C2'	7.70	123.54	112.00
1	Ad	1311	U	C1'-O4'-C4'	7.69	117.59	109.90
84	Aa	836	G	C5'-C4'-C3'	-7.69	104.46	116.00
84	Aa	1333	C	P-O3'-C3'	7.69	131.74	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1685	U	N1-C1'-C2'	7.69	123.53	112.00
52	CW	54	THR	N-CA-CB	7.69	123.48	110.49
1	Ad	1042	C	O4'-C1'-C2'	-7.68	99.92	107.60
84	Aa	3380	G	P-O3'-C3'	7.68	131.73	120.20
1	Ad	1019	G	O4'-C1'-N9	7.68	120.02	108.50
1	Ad	1065	A	O4'-C1'-C2'	7.68	115.28	107.60
2	Ae	12	U	O4'-C1'-N1	7.68	120.01	108.50
1	Ad	413	C	O4'-C1'-C2'	-7.67	99.92	107.60
1	Ad	1226	U	O4'-C1'-N1	7.67	120.01	108.50
71	CB	259	HIS	CA-CB-CG	-7.67	106.12	113.80
21	BP	126	ALA	N-CA-C	-7.67	103.77	113.43
1	Ad	1101	C	N1-C1'-C2'	7.67	125.50	114.00
1	Ad	398	C	N1-C1'-C2'	7.66	123.49	112.00
1	Ad	707	C	N1-C1'-C2'	-7.66	100.51	112.00
1	Ad	851	G	C3'-C2'-C1'	-7.64	93.66	101.30
72	CC	314	VAL	N-CA-C	-7.64	105.26	112.83
1	Ad	1377	G	O4'-C1'-N9	7.63	119.95	108.50
37	CG	233	VAL	N-CA-CB	7.63	123.83	111.23
84	Aa	543	C	O5'-C5'-C4'	-7.63	100.05	111.50
1	Ad	1462	C	C3'-C2'-C1'	-7.63	93.67	101.30
84	Aa	2043	A	C4'-C3'-O3'	7.63	124.44	113.00
1	Ad	1472	G	N9-C1'-C2'	7.62	123.44	112.00
1	Ad	536	U	O4'-C1'-C2'	7.62	113.42	105.80
84	Aa	1565	G	C2'-C3'-O3'	-7.62	102.27	113.70
72	CC	330	VAL	N-CA-C	-7.62	93.50	109.34
84	Aa	2086	A	O5'-P-OP1	7.62	130.85	108.00
84	Aa	2073	U	P-O3'-C3'	-7.61	108.78	120.20
84	Aa	2479	C	O5'-C5'-C4'	-7.61	100.08	111.50
84	Aa	1749	G	O3'-P-O5'	-7.61	92.59	104.00
48	CD	199	ILE	N-CA-CB	7.60	123.78	111.23
1	Ad	780	A	C3'-C2'-C1'	-7.60	93.70	101.30
1	Ad	1612	C	C3'-C2'-C1'	7.60	108.90	101.30
6	BK	87	VAL	CA-C-O	-7.60	109.77	119.95
52	CW	53	TRP	N-CA-C	-7.60	104.51	114.31
1	Ad	1637	G	C1'-O4'-C4'	-7.60	102.30	109.90
48	CD	183	PHE	CA-CB-CG	7.59	121.39	113.80
47	CQ	155	ALA	CA-C-N	7.59	129.33	119.84
47	CQ	155	ALA	C-N-CA	7.59	129.33	119.84
53	CY	51	LYS	N-CA-C	-7.59	105.19	114.75
1	Ad	205	U	C1'-O4'-C4'	7.58	117.48	109.90
84	Aa	2502	U	O3'-P-O5'	-7.58	92.63	104.00
1	Ad	1310	C	C3'-C2'-C1'	7.58	109.08	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
60	Co	90	HIS	N-CA-C	-7.57	101.49	108.75
84	Aa	1723	C	P-O3'-C3'	7.57	131.55	120.20
1	Ad	1502	C	O4'-C1'-C2'	-7.57	100.03	107.60
1	Ad	870	A	N9-C1'-C2'	-7.56	100.66	112.00
1	Ad	965	U	O4'-C1'-C2'	-7.56	100.04	107.60
1	Ad	1498	A	P-O3'-C3'	7.56	131.54	120.20
1	Ad	448	C	O4'-C1'-C2'	-7.56	98.24	105.80
15	BU	126	SER	CA-C-N	7.56	131.93	120.82
15	BU	126	SER	C-N-CA	7.56	131.93	120.82
1	Ad	1316	A	N9-C1'-C2'	7.55	123.33	112.00
1	Ad	372	U	O4'-C1'-N1	7.55	119.83	108.50
1	Ad	559	A	O4'-C1'-C2'	-7.55	100.05	107.60
1	Ad	936	C	O4'-C1'-C2'	-7.54	100.06	107.60
1	Ad	1074	C	O4'-C1'-C2'	-7.54	100.06	107.60
1	Ad	1796	G	N9-C1'-C2'	7.54	123.31	112.00
42	CJ	1	MET	CA-C-N	7.54	135.94	121.54
42	CJ	1	MET	C-N-CA	7.54	135.94	121.54
1	Ad	73	A	N9-C1'-C2'	-7.54	100.70	112.00
84	Aa	1944	G	O3'-P-O5'	-7.53	92.70	104.00
84	Aa	2085	A	P-O3'-C3'	-7.53	108.90	120.20
1	Ad	827	C	O4'-C1'-C2'	-7.53	100.07	107.60
1	Ad	1125	U	O4'-C1'-C2'	-7.53	100.08	107.60
1	Ad	130	A	O4'-C1'-C2'	-7.52	98.28	105.80
84	Aa	2086	A	O5'-C5'-C4'	-7.52	100.21	111.50
1	Ad	339	G	N9-C1'-C2'	7.52	123.28	112.00
1	Ad	1042	C	N1-C1'-C2'	7.52	123.28	112.00
1	Ad	488	C	O4'-C1'-C2'	-7.52	100.08	107.60
73	CO	150	VAL	N-CA-C	-7.51	106.57	113.71
1	Ad	250	A	O4'-C1'-C2'	-7.51	100.09	107.60
1	Ad	919	G	N9-C1'-C2'	-7.50	102.76	114.00
1	Ad	1426	C	O4'-C1'-C2'	-7.50	100.10	107.60
84	Aa	1359	A	P-O3'-C3'	7.50	131.44	120.20
1	Ad	99	U	N1-C1'-C2'	7.49	123.24	112.00
1	Ad	71	C	O4'-C1'-C2'	-7.49	100.11	107.60
1	Ad	339	G	C1'-C2'-O2'	7.49	119.63	108.40
1	Ad	480	U	N1-C1'-C2'	7.49	123.23	112.00
1	Ad	1675	G	O4'-C1'-N9	7.49	119.73	108.50
1	Ad	1771	U	P-O3'-C3'	7.49	131.43	120.20
1	Ad	786	U	O4'-C1'-N1	7.48	119.42	108.20
1	Ad	969	U	N1-C1'-C2'	7.48	125.22	114.00
84	Aa	3181	U	P-O3'-C3'	7.48	131.42	120.20
1	Ad	1492	G	O4'-C1'-N9	7.48	119.72	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	CJ	9	ASN	CA-C-N	-7.48	110.50	119.84
42	CJ	9	ASN	C-N-CA	-7.48	110.50	119.84
1	Ad	349	U	O4'-C1'-N1	7.47	119.41	108.20
1	Ad	1169	G	O4'-C1'-N9	7.46	119.70	108.50
1	Ad	1232	G	N9-C1'-C2'	7.46	125.19	114.00
1	Ad	758	A	N9-C1'-C2'	7.45	123.18	112.00
1	Ad	1294	U	O4'-C1'-C2'	-7.45	100.15	107.60
84	Aa	590	C	P-O3'-C3'	-7.44	109.04	120.20
1	Ad	567	U	N1-C1'-C2'	7.43	123.15	112.00
84	Aa	474	G	O3'-P-O5'	-7.43	92.85	104.00
1	Ad	1067	A	C3'-C2'-C1'	-7.43	93.87	101.30
1	Ad	60	C	C4'-C3'-O3'	-7.42	101.86	113.00
1	Ad	239	C	C3'-C2'-C1'	7.42	108.92	101.50
1	Ad	187	C	O4'-C1'-C2'	-7.42	100.18	107.60
1	Ad	1504	U	O4'-C1'-N1	7.41	119.61	108.50
56	Cd	27	ARG	CA-C-N	7.41	130.20	120.28
56	Cd	27	ARG	C-N-CA	7.41	130.20	120.28
84	Aa	1563	G	C1'-C2'-O2'	7.40	122.91	111.80
1	Ad	505	U	P-O3'-C3'	7.40	131.30	120.20
1	Ad	1694	G	O4'-C1'-N9	7.40	119.60	108.50
81	Ck	34	PHE	CA-CB-CG	-7.40	106.40	113.80
1	Ad	1765	A	C3'-C2'-C1'	-7.39	93.91	101.30
84	Aa	3001	G	O4'-C1'-N9	7.39	119.59	108.50
1	Ad	1772	A	O4'-C1'-C2'	-7.39	100.21	107.60
1	Ad	105	A	O4'-C1'-C2'	-7.39	98.41	105.80
1	Ad	287	C	O4'-C1'-C2'	-7.38	100.22	107.60
1	Ad	1029	U	C1'-O4'-C4'	7.38	117.28	109.90
79	CE	74	THR	N-CA-CB	7.38	122.96	110.49
10	Bg	306	PHE	CA-CB-CG	-7.37	106.43	113.80
1	Ad	1735	C	N1-C1'-C2'	7.37	123.05	112.00
1	Ad	271	C	O4'-C1'-C2'	-7.37	98.43	105.80
1	Ad	851	G	O4'-C1'-N9	7.37	119.55	108.50
84	Aa	550	C	O3'-P-O5'	-7.37	92.95	104.00
1	Ad	358	C	O4'-C1'-C2'	-7.36	100.24	107.60
84	Aa	2083	U	C4'-C3'-O3'	7.36	120.44	109.40
84	Aa	640	C	P-O3'-C3'	-7.36	109.16	120.20
84	Aa	2204	U	C2'-C3'-O3'	7.35	120.53	109.50
84	Aa	1309	U	P-O3'-C3'	7.35	131.23	120.20
1	Ad	1550	G	O4'-C1'-N9	7.35	119.22	108.20
1	Ad	1793	C	O4'-C1'-C2'	-7.35	100.25	107.60
1	Ad	914	U	N1-C1'-C2'	7.34	123.02	112.00
1	Ad	836	U	C3'-C2'-C1'	7.34	108.64	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	356	G	O4'-C1'-C2'	-7.34	98.46	105.80
84	Aa	2525	G	P-O3'-C3'	7.33	131.20	120.20
1	Ad	1045	G	C1'-O4'-C4'	-7.33	102.57	109.90
84	Aa	3260	G	C2'-C3'-O3'	-7.33	102.71	113.70
2	Ae	74	C	C3'-C2'-C1'	7.33	108.62	101.30
84	Aa	3042	U	P-O5'-C5'	7.33	131.89	120.90
1	Ad	238	G	P-O3'-C3'	7.32	131.18	120.20
1	Ad	1255	U	O4'-C1'-C2'	-7.32	98.48	105.80
1	Ad	273	C	N1-C1'-C2'	7.32	122.98	112.00
1	Ad	1092	A	N9-C1'-C2'	7.32	122.97	112.00
1	Ad	1371	U	O4'-C1'-N1	7.32	119.47	108.50
1	Ad	1434	G	N9-C1'-C2'	7.31	122.97	112.00
1	Ad	473	C	N1-C1'-C2'	7.31	122.97	112.00
84	Aa	2011	G	P-O3'-C3'	7.31	131.16	120.20
1	Ad	1101	C	O4'-C1'-N1	7.31	119.16	108.20
1	Ad	315	U	O4'-C1'-C2'	-7.30	100.30	107.60
84	Aa	1562	A	P-O3'-C3'	7.30	131.16	120.20
1	Ad	706	U	C5'-C4'-C3'	-7.29	105.06	116.00
1	Ad	215	A	O4'-C1'-N9	7.29	119.44	108.50
1	Ad	903	A	N9-C1'-C2'	-7.29	103.06	114.00
1	Ad	914	U	C1'-O4'-C4'	-7.29	102.61	109.90
1	Ad	150	U	O4'-C1'-N1	7.29	119.43	108.50
1	Ad	1421	U	O4'-C1'-N1	7.29	119.43	108.50
84	Aa	1244	A	P-O3'-C3'	7.29	131.13	120.20
1	Ad	178	A	O4'-C1'-C2'	-7.28	100.32	107.60
1	Ad	869	U	O4'-C1'-C2'	-7.28	100.32	107.60
1	Ad	1056	A	C2'-C3'-O3'	7.28	120.42	109.50
84	Aa	1958	G	C5'-C4'-C3'	-7.28	105.08	116.00
1	Ad	868	A	P-O3'-C3'	7.28	131.12	120.20
17	BS	14	ARG	N-CA-C	-7.28	105.02	114.04
1	Ad	1213	C	N1-C1'-C2'	7.27	122.91	112.00
1	Ad	96	G	C1'-O4'-C4'	-7.27	102.63	109.90
1	Ad	60	C	N1-C1'-C2'	7.27	122.90	112.00
1	Ad	63	G	O4'-C1'-N9	7.27	119.40	108.50
1	Ad	1440	U	O4'-C1'-N1	7.27	119.40	108.50
1	Ad	1621	U	O4'-C1'-N1	7.27	119.40	108.50
1	Ad	1062	C	O4'-C1'-C2'	-7.26	98.53	105.80
1	Ad	728	C	N1-C1'-C2'	7.25	122.88	112.00
1	Ad	1226	U	O4'-C1'-C2'	-7.25	100.35	107.60
1	Ad	140	C	O4'-C1'-C2'	-7.25	100.35	107.60
1	Ad	29	U	O4'-C1'-C2'	-7.24	100.36	107.60
1	Ad	744	G	O4'-C4'-C3'	-7.24	96.76	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1200	A	P-O3'-C3'	7.23	131.04	120.20
41	CA	63	PHE	N-CA-C	-7.23	97.61	109.40
1	Ad	192	G	C1'-O4'-C4'	-7.23	102.47	109.70
1	Ad	351	G	N9-C1'-C2'	7.22	122.83	112.00
1	Ad	1047	G	C1'-O4'-C4'	-7.22	102.68	109.90
36	BH	117	ARG	N-CA-CB	7.22	121.38	110.19
78	CL	156	ILE	N-CA-CB	7.22	123.14	111.23
1	Ad	1184	C	N1-C1'-C2'	7.22	122.83	112.00
1	Ad	1643	A	O4'-C1'-N9	7.22	119.33	108.50
1	Ad	1234	A	O4'-C1'-C2'	-7.21	100.39	107.60
1	Ad	573	C	O4'-C1'-C2'	-7.21	100.39	107.60
1	Ad	1728	G	P-O5'-C5'	7.21	131.71	120.90
1	Ad	219	G	N9-C1'-C2'	-7.20	101.19	112.00
1	Ad	792	U	O4'-C1'-C2'	-7.20	100.40	107.60
1	Ad	884	G	O4'-C1'-N9	7.20	119.30	108.50
1	Ad	1608	A	N9-C1'-C2'	7.20	124.80	114.00
62	CS	160	PRO	CA-C-O	-7.19	110.13	120.56
1	Ad	922	U	N1-C1'-C2'	7.19	122.79	112.00
18	BN	134	LYS	N-CA-C	-7.18	106.43	114.62
84	Aa	3259	A	C4'-C3'-O3'	-7.18	98.63	109.40
1	Ad	1065	A	C1'-O4'-C4'	-7.18	102.72	109.90
1	Ad	844	C	O4'-C1'-C2'	-7.18	100.42	107.60
1	Ad	1687	G	N9-C1'-C2'	7.18	122.77	112.00
1	Ad	1137	A	O4'-C1'-C2'	-7.18	100.42	107.60
33	BJ	8	TYR	N-CA-CB	7.17	122.61	110.49
84	Aa	3190	U	P-O3'-C3'	7.17	130.96	120.20
84	Aa	2345	C	P-O5'-C5'	7.17	131.66	120.90
1	Ad	153	U	O4'-C1'-C2'	-7.17	100.43	107.60
1	Ad	1589	C	N1-C1'-C2'	7.16	122.74	112.00
1	Ad	1769	C	O4'-C1'-C2'	-7.16	100.44	107.60
1	Ad	1807	A	O4'-C1'-N9	7.16	119.24	108.50
65	CK	95	LYS	CA-C-N	7.16	134.85	121.97
65	CK	95	LYS	C-N-CA	7.16	134.85	121.97
84	Aa	1562	A	O5'-C5'-C4'	-7.16	100.97	111.70
1	Ad	717	G	N9-C1'-C2'	7.15	122.73	112.00
30	BB	100	PHE	CA-CB-CG	-7.15	106.65	113.80
84	Aa	1958	G	C2'-C3'-O3'	-7.15	102.97	113.70
1	Ad	1796	G	C1'-O4'-C4'	-7.15	102.75	109.90
12	BE	54	TYR	N-CA-C	-7.15	100.69	111.34
1	Ad	87	A	N9-C1'-C2'	-7.14	101.28	112.00
1	Ad	225	G	N9-C1'-C2'	7.14	122.72	112.00
4	BY	22	LEU	N-CA-C	-7.14	102.55	112.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	562	U	O4'-C1'-N1	7.14	119.21	108.50
84	Aa	2087	A	O4'-C1'-C2'	7.14	112.94	105.80
2	Ae	35	U	N1-C1'-C2'	7.14	122.71	112.00
1	Ad	255	U	O4'-C1'-C2'	-7.14	100.46	107.60
1	Ad	1113	G	O4'-C1'-C2'	7.13	114.73	107.60
1	Ad	1513	A	C1'-O4'-C4'	7.13	117.03	109.90
84	Aa	1356	G	P-O3'-C3'	7.13	130.90	120.20
1	Ad	180	A	O4'-C1'-C2'	-7.13	100.47	107.60
1	Ad	1186	U	O4'-C1'-C2'	-7.13	100.47	107.60
1	Ad	287	C	N1-C1'-C2'	7.12	122.68	112.00
1	Ad	744	G	O4'-C1'-N9	7.12	119.18	108.50
1	Ad	1199	C	N1-C1'-C2'	7.12	122.67	112.00
1	Ad	1385	C	O3'-P-O5'	-7.11	93.34	104.00
1	Ad	1406	U	N1-C1'-C2'	7.10	122.65	112.00
84	Aa	3264	C	C2'-C3'-O3'	7.10	120.15	109.50
1	Ad	1411	C	N1-C1'-C2'	7.09	122.64	112.00
2	Ae	5	U	O4'-C1'-C2'	-7.09	100.51	107.60
1	Ad	1387	U	O4'-C1'-N1	7.09	119.13	108.50
1	Ad	79	A	O4'-C1'-N9	7.09	119.13	108.50
1	Ad	125	A	N9-C1'-C2'	7.09	122.63	112.00
1	Ad	1179	C	N1-C1'-C2'	7.08	122.62	112.00
1	Ad	1432	C	N1-C1'-C2'	-7.08	103.38	114.00
1	Ad	1311	U	O4'-C1'-C2'	-7.08	100.52	107.60
1	Ad	73	A	O4'-C1'-C2'	-7.07	100.53	107.60
1	Ad	1583	G	O4'-C1'-N9	7.07	119.11	108.50
1	Ad	187	C	N1-C1'-C2'	7.07	122.60	112.00
1	Ad	1110	C	N1-C1'-C2'	7.07	122.60	112.00
1	Ad	903	A	C3'-C2'-C1'	-7.06	94.44	101.50
35	BG	160	ASN	N-CA-CB	7.06	122.42	110.49
84	Aa	1545	G	P-O3'-C3'	7.06	130.79	120.20
1	Ad	617	G	N9-C1'-C2'	7.06	124.59	114.00
1	Ad	1367	U	O4'-C1'-N1	7.06	118.79	108.20
1	Ad	1375	C	P-O3'-C3'	7.06	130.79	120.20
2	Ae	34	G	N9-C1'-C2'	7.06	122.59	112.00
84	Aa	2384	G	C2'-C3'-O3'	7.06	120.09	109.50
1	Ad	230	C	O4'-C1'-C2'	-7.06	100.54	107.60
1	Ad	1763	A	O4'-C1'-N9	7.06	119.09	108.50
1	Ad	831	C	O4'-C1'-C2'	-7.05	100.55	107.60
1	Ad	1117	G	N9-C1'-C2'	7.05	122.58	112.00
84	Aa	2095	C	C2'-C3'-O3'	7.05	124.28	113.70
1	Ad	1626	C	C3'-C2'-C1'	7.05	108.55	101.50
1	Ad	167	A	O4'-C1'-N9	7.04	118.75	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	290	C	C3'-C2'-C1'	7.04	108.34	101.30
1	Ad	632	G	N9-C1'-C2'	7.03	122.55	112.00
1	Ad	1128	C	C3'-C2'-C1'	7.03	108.33	101.30
71	CB	353	LEU	N-CA-C	-7.02	95.84	110.80
71	CB	123	CYS	N-CA-CB	7.02	122.35	110.49
17	BS	98	VAL	N-CA-C	-7.01	94.75	109.34
1	Ad	1655	U	O4'-C1'-N1	7.00	119.00	108.50
84	Aa	1774	G	P-O3'-C3'	7.00	130.71	120.20
1	Ad	913	U	N1-C1'-C2'	7.00	122.50	112.00
1	Ad	489	C	O4'-C1'-C2'	-7.00	100.60	107.60
31	BV	60	ALA	N-CA-C	-7.00	106.64	114.62
1	Ad	1564	A	O3'-P-O5'	-7.00	93.50	104.00
1	Ad	1765	A	N9-C1'-C2'	-7.00	101.51	112.00
1	Ad	2	A	O4'-C1'-N9	6.99	118.69	108.20
10	Bg	302	THR	N-CA-C	6.99	118.90	111.28
1	Ad	1001	C	O4'-C1'-C2'	-6.99	100.61	107.60
1	Ad	29	U	O4'-C1'-N1	6.99	118.98	108.50
1	Ad	874	A	O4'-C1'-C2'	-6.98	100.62	107.60
1	Ad	968	A	C1'-O4'-C4'	6.98	116.68	109.70
16	BO	146	ARG	CA-C-N	6.98	127.85	120.03
16	BO	146	ARG	C-N-CA	6.98	127.85	120.03
1	Ad	1584	A	O4'-C1'-C2'	-6.98	100.62	107.60
1	Ad	240	U	N1-C1'-C2'	6.98	122.47	112.00
1	Ad	177	C	O4'-C1'-C2'	-6.98	100.62	107.60
1	Ad	55	A	N9-C1'-C2'	6.97	122.46	112.00
84	Aa	1798	C	C5'-C4'-C3'	6.97	126.46	116.00
1	Ad	1802	G	O4'-C1'-C2'	6.97	112.77	105.80
46	Ca	3	THR	N-CA-C	-6.97	103.45	113.21
1	Ad	870	A	C1'-O4'-C4'	6.97	116.87	109.90
1	Ad	336	U	O4'-C1'-N1	6.97	118.95	108.50
1	Ad	1280	U	O4'-C1'-C2'	-6.96	100.64	107.60
84	Aa	3182	A	P-O5'-C5'	-6.96	110.45	120.90
1	Ad	4	C	C1'-O4'-C4'	-6.96	102.94	109.90
1	Ad	1260	A	N9-C1'-C2'	6.96	124.44	114.00
1	Ad	1787	G	C4'-C3'-C2'	-6.96	95.64	102.60
84	Aa	2165	A	C5'-C4'-C3'	-6.96	105.56	116.00
1	Ad	461	G	O4'-C1'-N9	6.96	118.93	108.50
4	BY	47	GLU	N-CA-C	-6.94	105.43	114.04
84	Aa	782	G	O3'-P-O5'	-6.94	93.58	104.00
1	Ad	1448	U	C4'-C3'-C2'	-6.94	95.66	102.60
15	BU	11	PRO	CA-C-N	6.94	134.80	121.54
15	BU	11	PRO	C-N-CA	6.94	134.80	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	108	C	N1-C1'-C2'	6.94	122.41	112.00
60	Co	104	LEU	N-CA-C	-6.94	104.81	113.55
1	Ad	1372	C	P-O3'-C3'	6.94	130.61	120.20
64	Ci	111	LYS	N-CA-C	-6.94	106.01	114.75
1	Ad	1502	C	N1-C1'-C2'	6.93	122.40	112.00
2	Ae	53	U	O4'-C1'-C2'	-6.93	100.67	107.60
1	Ad	276	G	O4'-C1'-N9	6.93	118.89	108.50
1	Ad	1097	A	O4'-C1'-C2'	6.93	112.73	105.80
1	Ad	1727	C	N1-C1'-C2'	6.93	122.39	112.00
20	BT	33	LEU	CA-C-N	6.92	128.50	119.84
20	BT	33	LEU	C-N-CA	6.92	128.50	119.84
1	Ad	1405	U	C5'-C4'-C3'	-6.92	104.82	115.20
1	Ad	1530	G	P-O3'-C3'	6.92	130.58	120.20
72	CC	331	LEU	CA-C-N	6.92	129.55	120.28
72	CC	331	LEU	C-N-CA	6.92	129.55	120.28
1	Ad	1665	U	C1'-O4'-C4'	6.91	116.61	109.70
1	Ad	1143	A	O4'-C1'-C2'	-6.91	100.69	107.60
1	Ad	1508	C	N1-C1'-C2'	6.91	122.36	112.00
1	Ad	1735	C	O4'-C1'-C2'	-6.91	100.69	107.60
18	BN	107	LYS	N-CA-C	-6.91	104.85	113.55
1	Ad	1376	A	O4'-C1'-N9	6.90	118.56	108.20
2	Ae	47	U	O4'-C1'-N1	6.90	118.55	108.20
84	Aa	642	C	O5'-C5'-C4'	6.89	121.84	111.50
84	Aa	1188	C	P-O5'-C5'	6.88	131.22	120.90
1	Ad	145	A	O4'-C1'-N9	6.88	118.82	108.50
84	Aa	2093	G	C4'-C3'-O3'	-6.88	102.68	113.00
1	Ad	1183	G	O4'-C1'-N9	6.88	118.82	108.50
35	BG	159	VAL	CA-C-N	6.88	134.68	121.54
35	BG	159	VAL	C-N-CA	6.88	134.68	121.54
1	Ad	1080	C	C1'-O4'-C4'	-6.88	103.02	109.90
84	Aa	2513	U	C5'-C4'-O4'	-6.88	99.49	109.80
1	Ad	1545	A	C1'-O4'-C4'	6.88	116.78	109.90
1	Ad	820	A	O4'-C1'-C2'	6.87	112.67	105.80
1	Ad	960	A	O4'-C1'-C2'	-6.87	100.73	107.60
84	Aa	12	G	P-O3'-C3'	6.87	130.50	120.20
2	Ae	31	C	C3'-C2'-C1'	6.87	108.17	101.30
1	Ad	651	G	N9-C1'-C2'	6.87	122.30	112.00
1	Ad	483	C	N1-C1'-C2'	6.87	122.30	112.00
84	Aa	2177	U	N1-C1'-C2'	6.87	124.30	114.00
84	Aa	407	A	C4'-C3'-O3'	-6.86	102.70	113.00
3	Af	17	A	N9-C1'-C2'	6.86	122.29	112.00
1	Ad	358	C	C3'-C2'-C1'	6.86	108.16	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	834	A	C1'-O4'-C4'	6.86	116.56	109.70
1	Ad	824	U	P-O3'-C3'	6.85	130.48	120.20
1	Ad	930	G	O4'-C1'-N9	6.85	118.78	108.50
2	Ae	9	A	O4'-C1'-C2'	-6.85	98.95	105.80
1	Ad	1599	C	C3'-C2'-C1'	6.85	108.15	101.30
1	Ad	162	A	C1'-O4'-C4'	-6.85	103.05	109.90
1	Ad	404	A	O4'-C1'-N9	6.84	118.46	108.20
46	Ca	8	ASN	N-CA-C	-6.84	96.23	110.80
1	Ad	961	U	O4'-C1'-C2'	-6.84	100.76	107.60
1	Ad	1395	C	C1'-O4'-C4'	-6.84	103.06	109.90
1	Ad	1771	U	C2'-C3'-O3'	6.84	119.76	109.50
84	Aa	237	C	C2'-C3'-O3'	6.84	119.75	109.50
84	Aa	2204	U	P-O3'-C3'	6.84	130.46	120.20
1	Ad	219	G	O4'-C1'-C2'	-6.83	100.77	107.60
1	Ad	218	G	C1'-O4'-C4'	-6.83	103.07	109.90
1	Ad	32	U	O4'-C1'-N1	6.83	118.75	108.50
75	CI	175	LYS	N-CA-C	-6.83	105.57	114.04
1	Ad	1187	A	N9-C1'-C2'	6.83	122.24	112.00
1	Ad	749	G	C1'-C2'-O2'	6.83	118.64	108.40
1	Ad	1348	A	P-O3'-C3'	6.83	130.44	120.20
2	Ae	47	U	N1-C1'-C2'	-6.83	103.76	114.00
1	Ad	1445	C	C3'-C2'-C1'	6.82	108.12	101.30
1	Ad	723	A	O4'-C1'-N9	6.82	118.73	108.50
1	Ad	1488	C	O4'-C1'-C2'	-6.82	100.78	107.60
71	CB	259	HIS	N-CA-CB	6.81	118.46	110.42
1	Ad	498	U	O4'-C1'-C2'	-6.81	98.99	105.80
6	BK	87	VAL	N-CA-CB	6.81	120.75	111.21
1	Ad	79	A	O4'-C4'-C3'	-6.81	97.19	104.00
1	Ad	1734	U	C1'-C2'-O2'	6.81	118.62	108.40
38	CT	141	VAL	N-CA-CB	6.81	122.47	111.23
84	Aa	1565	G	O5'-C5'-C4'	-6.81	101.28	111.50
84	Aa	2450	G	P-O5'-C5'	6.81	131.11	120.90
22	BZ	55	VAL	N-CA-CB	6.81	114.79	110.50
1	Ad	19	A	O4'-C1'-C2'	-6.80	100.80	107.60
1	Ad	518	G	P-O3'-C3'	6.80	130.40	120.20
1	Ad	634	A	O4'-C1'-N9	6.80	118.70	108.50
57	Ce	18	PHE	CA-CB-CG	-6.80	107.00	113.80
84	Aa	542	G	P-O3'-C3'	6.80	130.40	120.20
1	Ad	1783	C	N1-C1'-C2'	6.80	122.20	112.00
84	Aa	1589	G	P-O3'-C3'	6.79	130.39	120.20
1	Ad	41	A	C1'-O4'-C4'	6.79	116.69	109.90
1	Ad	1766	A	P-O3'-C3'	6.79	130.38	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1325	A	C1'-O4'-C4'	-6.79	102.91	109.70
84	Aa	3264	C	P-O3'-C3'	6.79	130.38	120.20
84	Aa	1990	A	P-O3'-C3'	6.79	130.38	120.20
1	Ad	1134	U	O4'-C1'-N1	6.78	118.67	108.50
1	Ad	748	C	C3'-C2'-C1'	6.78	108.08	101.30
1	Ad	1112	G	N9-C1'-C2'	6.78	122.17	112.00
1	Ad	1688	G	O4'-C1'-N9	6.78	118.37	108.20
84	Aa	493	G	O3'-P-O5'	6.78	114.17	104.00
1	Ad	782	G	C1'-O4'-C4'	-6.78	103.12	109.90
1	Ad	1254	U	O4'-C1'-C2'	-6.78	100.82	107.60
41	CA	67	PHE	N-CA-CB	6.78	121.94	110.49
1	Ad	61	A	P-O5'-C5'	-6.77	110.74	120.90
1	Ad	718	C	C4'-C3'-O3'	6.77	123.16	113.00
1	Ad	1670	G	O4'-C1'-C2'	6.77	114.37	107.60
1	Ad	277	G	C3'-C2'-C1'	6.77	108.07	101.30
1	Ad	1646	G	C1'-O4'-C4'	-6.76	103.14	109.90
1	Ad	151	A	O4'-C1'-C2'	-6.76	100.84	107.60
1	Ad	372	U	O4'-C1'-C2'	-6.76	100.84	107.60
1	Ad	1155	G	C1'-O4'-C4'	-6.75	103.14	109.90
1	Ad	391	A	N9-C1'-C2'	-6.75	103.87	114.00
1	Ad	574	A	O4'-C1'-C2'	-6.75	100.85	107.60
1	Ad	1731	A	C3'-C2'-C1'	6.75	108.05	101.30
1	Ad	1802	G	C1'-C2'-O2'	6.75	121.92	111.80
84	Aa	2096	U	P-O5'-C5'	-6.75	110.78	120.90
1	Ad	787	C	C3'-C2'-C1'	-6.75	94.55	101.30
1	Ad	1651	U	P-O3'-C3'	6.75	130.32	120.20
1	Ad	1363	G	C3'-C2'-C1'	-6.74	94.56	101.30
1	Ad	155	A	O4'-C1'-C2'	-6.74	100.86	107.60
84	Aa	1487	A	C2'-C3'-O3'	6.74	119.61	109.50
1	Ad	789	C	O4'-C1'-C2'	-6.74	99.06	105.80
1	Ad	1352	A	O4'-C1'-C2'	-6.74	100.86	107.60
1	Ad	179	A	O4'-C1'-C2'	-6.73	100.87	107.60
1	Ad	277	G	N9-C1'-C2'	6.73	122.09	112.00
1	Ad	1409	G	O4'-C1'-C2'	6.73	114.33	107.60
1	Ad	223	A	N9-C1'-C2'	6.73	122.09	112.00
1	Ad	1503	C	N1-C1'-C2'	6.73	122.09	112.00
1	Ad	750	U	N1-C1'-C2'	6.72	122.08	112.00
6	BK	87	VAL	N-CA-C	6.72	123.39	108.88
1	Ad	493	C	O4'-C1'-C2'	-6.72	100.88	107.60
1	Ad	1593	U	C1'-O4'-C4'	-6.72	103.18	109.90
1	Ad	868	A	O4'-C1'-C2'	-6.71	99.09	105.80
84	Aa	3263	C	C5'-C4'-C3'	6.71	126.06	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	719	U	P-O5'-C5'	6.71	130.96	120.90
1	Ad	27	U	O4'-C1'-C2'	-6.71	100.89	107.60
1	Ad	728	C	O4'-C1'-C2'	-6.71	100.89	107.60
1	Ad	744	G	P-O5'-C5'	6.71	130.96	120.90
1	Ad	530	A	O4'-C1'-C2'	-6.70	100.90	107.60
1	Ad	954	C	N1-C1'-C2'	6.70	122.06	112.00
1	Ad	186	A	O4'-C1'-C2'	-6.70	100.90	107.60
1	Ad	1466	A	C1'-O4'-C4'	-6.70	103.20	109.90
2	Ae	56	A	O4'-C1'-C2'	-6.70	100.90	107.60
84	Aa	723	G	O4'-C1'-N9	6.70	118.55	108.50
1	Ad	104	A	C2'-C3'-O3'	6.70	119.54	109.50
1	Ad	349	U	N1-C1'-C2'	-6.70	103.96	114.00
1	Ad	920	A	O4'-C1'-C2'	-6.70	100.91	107.60
2	Ae	50	G	N9-C1'-C2'	-6.70	101.96	112.00
1	Ad	1139	C	C3'-C2'-C1'	6.69	107.99	101.30
62	CS	160	PRO	N-CA-C	6.69	118.86	110.70
84	Aa	835	G	C5'-C4'-C3'	6.69	126.03	116.00
1	Ad	486	U	O4'-C1'-N1	6.69	118.53	108.50
1	Ad	201	G	C1'-C2'-O2'	6.68	118.43	108.40
84	Aa	3002	U	C4'-C3'-O3'	-6.68	102.97	113.00
1	Ad	1346	C	N1-C1'-C2'	6.68	122.02	112.00
85	Ac	159	G	P-O3'-C3'	6.68	130.22	120.20
1	Ad	212	A	O4'-C1'-C2'	-6.68	100.92	107.60
1	Ad	1810	G	O4'-C1'-N9	-6.68	98.49	108.50
84	Aa	282	A	O5'-C5'-C4'	6.67	121.51	111.50
84	Aa	2012	C	P-O3'-C3'	6.67	130.21	120.20
17	BS	78	LYS	N-CA-C	-6.67	100.82	108.49
1	Ad	379	U	O4'-C1'-N1	6.66	118.49	108.50
1	Ad	1450	A	O4'-C1'-C2'	-6.66	99.14	105.80
1	Ad	421	A	C1'-C2'-O2'	-6.66	101.81	111.80
2	Ae	40	U	O4'-C1'-C2'	-6.66	100.94	107.60
1	Ad	1664	U	O4'-C1'-C2'	-6.66	100.94	107.60
49	CR	83	GLY	N-CA-C	-6.66	103.08	112.60
1	Ad	932	C	N1-C1'-C2'	6.65	121.98	112.00
1	Ad	1342	C	N1-C1'-C2'	6.65	121.98	112.00
2	Ae	58	U	O4'-C1'-C2'	-6.65	100.95	107.60
47	CQ	161	SER	N-CA-C	-6.64	96.65	110.80
1	Ad	1310	C	N1-C1'-C2'	6.64	123.96	114.00
84	Aa	431	G	P-O3'-C3'	6.64	130.16	120.20
1	Ad	238	G	C3'-C2'-C1'	6.64	107.94	101.30
1	Ad	791	C	N1-C1'-C2'	6.64	121.95	112.00
1	Ad	798	C	O4'-C1'-C2'	-6.63	100.97	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	127	G	O4'-C1'-C2'	-6.63	99.17	105.80
1	Ad	619	A	O4'-C1'-C2'	-6.63	100.97	107.60
1	Ad	1120	U	N1-C1'-C2'	6.63	121.94	112.00
1	Ad	1241	G	O4'-C1'-N9	6.63	118.44	108.50
84	Aa	3309	U	C2'-C3'-O3'	6.63	119.44	109.50
1	Ad	557	G	O4'-C1'-N9	6.63	118.44	108.50
1	Ad	1406	U	O4'-C1'-N1	6.63	118.44	108.50
73	CO	50	GLY	CA-C-N	6.63	126.28	119.92
73	CO	50	GLY	C-N-CA	6.63	126.28	119.92
84	Aa	2450	G	P-O3'-C3'	6.63	130.14	120.20
1	Ad	1709	U	O4'-C1'-C2'	-6.62	100.97	107.60
1	Ad	774	C	O4'-C1'-C2'	-6.62	100.98	107.60
1	Ad	1230	A	O4'-C1'-C2'	-6.62	100.98	107.60
84	Aa	483	U	C4'-C3'-O3'	-6.62	103.06	113.00
84	Aa	3343	U	P-O3'-C3'	6.62	130.13	120.20
1	Ad	621	U	N1-C1'-C2'	6.62	121.92	112.00
84	Aa	2589	G	P-O3'-C3'	6.62	130.12	120.20
1	Ad	1460	G	O4'-C1'-N9	6.62	118.42	108.50
1	Ad	197	G	O4'-C1'-N9	6.61	118.12	108.20
1	Ad	1758	G	C1'-O4'-C4'	-6.61	103.29	109.90
84	Aa	1100	G	P-O3'-C3'	6.61	130.12	120.20
84	Aa	1950	G	O3'-P-O5'	6.61	113.92	104.00
1	Ad	1654	C	O4'-C1'-C2'	-6.61	100.99	107.60
4	BY	41	SER	N-CA-CB	6.61	121.66	110.49
1	Ad	537	U	N1-C1'-C2'	6.61	121.91	112.00
1	Ad	1012	C	O4'-C1'-C2'	-6.61	100.99	107.60
1	Ad	716	A	O3'-P-O5'	6.60	113.90	104.00
46	Ca	77	ARG	N-CA-C	-6.60	105.79	114.31
84	Aa	2086	A	O3'-P-O5'	6.60	113.90	104.00
1	Ad	25	C	C3'-C2'-C1'	6.60	108.10	101.50
1	Ad	208	U	C4'-C3'-C2'	-6.60	96.00	102.60
1	Ad	219	G	O4'-C1'-N9	6.60	118.40	108.50
1	Ad	243	U	O4'-C4'-C3'	-6.60	99.50	106.10
1	Ad	1522	U	O4'-C1'-C2'	6.60	112.40	105.80
1	Ad	1733	G	N9-C1'-C2'	6.60	121.89	112.00
84	Aa	2480	G	P-O5'-C5'	6.60	130.79	120.90
1	Ad	1588	C	O4'-C1'-C2'	-6.59	101.00	107.60
36	BH	118	THR	CA-C-N	6.59	129.12	120.28
36	BH	118	THR	C-N-CA	6.59	129.12	120.28
1	Ad	1690	U	O4'-C1'-N1	6.59	118.09	108.20
1	Ad	715	U	P-O5'-C5'	6.59	130.79	120.90
1	Ad	1345	G	C1'-O4'-C4'	-6.59	103.31	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1576	C	C1'-O4'-C4'	6.59	116.29	109.70
1	Ad	1689	A	O4'-C1'-N9	6.59	118.38	108.50
1	Ad	1659	A	O4'-C1'-N9	6.59	118.38	108.50
1	Ad	470	U	N1-C1'-C2'	6.58	121.88	112.00
1	Ad	1200	A	C2'-C3'-O3'	6.58	119.38	109.50
2	Ae	60	C	N1-C1'-C2'	6.58	121.88	112.00
70	Cq	259	GLU	N-CA-C	-6.58	102.64	110.41
84	Aa	2479	C	C4'-C3'-O3'	6.58	122.88	113.00
1	Ad	1059	U	N1-C1'-C2'	6.58	121.87	112.00
1	Ad	1700	G	N9-C1'-C2'	6.58	121.87	112.00
84	Aa	521	G	P-O3'-C3'	6.58	130.07	120.20
1	Ad	594	C	N1-C1'-C2'	6.57	121.86	112.00
1	Ad	1766	A	C1'-O4'-C4'	6.57	116.27	109.70
24	BW	65	LEU	N-CA-CB	6.57	121.59	110.49
1	Ad	176	A	O4'-C1'-N9	6.56	118.34	108.50
1	Ad	748	C	P-O3'-C3'	6.56	130.04	120.20
48	CD	173	ILE	CA-C-N	6.56	126.58	119.89
48	CD	173	ILE	C-N-CA	6.56	126.58	119.89
70	Cq	95	LYS	CA-C-N	6.56	126.22	119.92
70	Cq	95	LYS	C-N-CA	6.56	126.22	119.92
1	Ad	305	A	O4'-C1'-C2'	-6.55	101.05	107.60
47	CQ	116	ALA	N-CA-C	-6.55	105.30	113.55
54	Cr	101	LYS	N-CA-C	-6.55	106.24	114.56
62	CS	160	PRO	CA-C-N	6.55	128.03	119.84
62	CS	160	PRO	C-N-CA	6.55	128.03	119.84
2	Ae	69	G	N9-C1'-C2'	6.55	121.82	112.00
84	Aa	3005	C	C5'-C4'-C3'	-6.55	106.18	116.00
84	Aa	3183	G	O4'-C4'-C3'	-6.55	97.45	104.00
84	Aa	2459	U	P-O3'-C3'	6.55	130.02	120.20
1	Ad	393	G	N9-C1'-C2'	6.54	121.82	112.00
1	Ad	937	A	C1'-O4'-C4'	6.54	116.24	109.70
49	CR	55	GLN	N-CA-CB	6.54	121.55	110.49
48	CD	234	ASP	CA-C-N	6.54	127.92	120.53
48	CD	234	ASP	C-N-CA	6.54	127.92	120.53
48	CD	260	GLU	N-CA-CB	6.54	122.01	110.37
78	CL	13	PHE	CA-CB-CG	-6.54	107.26	113.80
1	Ad	193	G	N9-C1'-C2'	6.54	121.80	112.00
64	Ci	95	SER	N-CA-C	-6.54	96.88	110.80
65	CK	41	LYS	N-CA-C	-6.54	103.99	112.68
1	Ad	878	U	O4'-C1'-N1	6.53	118.30	108.50
1	Ad	86	A	N9-C1'-C2'	6.53	121.80	112.00
1	Ad	782	G	N9-C1'-C2'	6.53	121.80	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	BT	92	PRO	CA-C-O	-6.53	111.09	120.56
42	CJ	2	SER	N-CA-C	6.53	124.70	110.80
1	Ad	1753	U	O4'-C1'-N1	6.52	118.29	108.50
71	CB	3	HIS	CA-CB-CG	-6.52	107.28	113.80
50	CP	37	ARG	N-CA-C	-6.52	98.72	109.80
1	Ad	1278	C	O4'-C1'-N1	6.52	117.98	108.20
1	Ad	1604	C	C3'-C2'-C1'	-6.52	94.78	101.30
1	Ad	321	C	C3'-C2'-C1'	6.52	107.82	101.30
84	Aa	2512	U	P-O5'-C5'	-6.52	111.12	120.90
1	Ad	635	G	O4'-C1'-N9	6.52	118.27	108.50
1	Ad	1077	C	O4'-C1'-C2'	-6.52	101.08	107.60
84	Aa	1746	G	P-O5'-C5'	-6.52	111.13	120.90
1	Ad	1105	G	O4'-C1'-C2'	6.51	114.11	107.60
65	CK	75	VAL	CA-C-N	6.51	127.98	119.84
65	CK	75	VAL	C-N-CA	6.51	127.98	119.84
1	Ad	1384	U	O4'-C1'-C2'	-6.51	101.09	107.60
84	Aa	2041	G	C4'-C3'-O3'	-6.51	103.23	113.00
1	Ad	300	U	O4'-C1'-N1	6.51	118.26	108.50
1	Ad	1255	U	N1-C1'-C2'	-6.51	104.24	114.00
20	BT	38	ASP	N-CA-C	6.51	118.38	111.28
1	Ad	535	C	C3'-C2'-C1'	6.51	107.81	101.30
6	BK	87	VAL	O-C-N	-6.51	113.68	121.10
52	CW	53	TRP	CA-C-N	6.51	133.97	121.54
52	CW	53	TRP	C-N-CA	6.51	133.97	121.54
1	Ad	1722	C	O4'-C1'-C2'	-6.50	101.09	107.60
47	CQ	58	ASN	N-CA-C	-6.50	106.30	114.56
72	CC	150	THR	CA-C-N	6.50	134.15	122.13
72	CC	150	THR	C-N-CA	6.50	134.15	122.13
1	Ad	237	C	N1-C1'-C2'	6.50	121.74	112.00
1	Ad	67	G	C1'-O4'-C4'	-6.49	103.21	109.70
1	Ad	1041	A	O4'-C1'-N9	6.49	118.24	108.50
1	Ad	1036	U	O4'-C1'-C2'	-6.49	99.31	105.80
1	Ad	214	A	C1'-O4'-C4'	6.49	116.19	109.70
1	Ad	334	G	O4'-C1'-C2'	6.49	114.09	107.60
1	Ad	1622	A	C3'-C2'-C1'	-6.49	94.81	101.30
1	Ad	193	G	C1'-O4'-C4'	-6.49	103.41	109.90
1	Ad	1303	G	O4'-C1'-C2'	6.49	114.09	107.60
1	Ad	179	A	C1'-C2'-O2'	-6.48	98.67	108.40
1	Ad	1196	C	O4'-C1'-C2'	-6.48	101.12	107.60
1	Ad	1609	G	O4'-C1'-C2'	6.48	112.28	105.80
1	Ad	825	U	P-O5'-C5'	6.48	130.62	120.90
1	Ad	1556	U	O4'-C1'-C2'	-6.48	101.12	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	Ae	2	C	N1-C1'-C2'	6.48	121.72	112.00
37	CG	224	GLU	CA-C-N	6.48	133.64	121.97
37	CG	224	GLU	C-N-CA	6.48	133.64	121.97
84	Aa	1560	A	N9-C1'-C2'	6.48	123.72	114.00
1	Ad	158	C	C1'-O4'-C4'	-6.48	103.42	109.90
1	Ad	978	A	O4'-C1'-C2'	-6.48	101.12	107.60
30	BB	121	ILE	N-CA-C	-6.48	98.13	107.78
84	Aa	1944	G	O4'-C4'-C3'	6.48	110.48	104.00
84	Aa	2920	G	C5'-C4'-C3'	-6.48	106.28	116.00
1	Ad	184	C	N1-C1'-C2'	6.47	121.71	112.00
1	Ad	1730	G	C3'-C2'-C1'	6.47	107.77	101.30
1	Ad	393	G	C1'-O4'-C4'	-6.47	103.43	109.90
1	Ad	194	G	O4'-C1'-C2'	-6.47	99.33	105.80
1	Ad	263	C	O4'-C1'-N1	6.46	117.90	108.20
1	Ad	914	U	P-O5'-C5'	6.46	130.59	120.90
1	Ad	1629	U	N1-C1'-C2'	6.46	121.69	112.00
1	Ad	1014	U	O4'-C1'-N1	6.46	118.19	108.50
84	Aa	1355	U	N1-C1'-C2'	6.46	121.69	112.00
22	BZ	18	SER	CA-C-N	6.46	134.07	121.41
22	BZ	18	SER	C-N-CA	6.46	134.07	121.41
1	Ad	773	U	C1'-C2'-O2'	6.46	118.09	108.40
1	Ad	1408	G	O3'-P-O5'	6.46	113.68	104.00
1	Ad	1685	U	C1'-O4'-C4'	-6.46	103.44	109.90
84	Aa	563	C	C2'-C3'-O3'	6.46	123.38	113.70
14	BQ	149	ARG	N-CA-CB	6.45	121.47	110.50
1	Ad	32	U	N1-C1'-C2'	-6.45	102.32	112.00
1	Ad	1530	G	O4'-C1'-C2'	-6.45	99.35	105.80
1	Ad	1554	G	O4'-C1'-C2'	6.45	114.05	107.60
1	Ad	1484	U	O4'-C1'-C2'	-6.45	101.15	107.60
14	BQ	135	PHE	CA-CB-CG	6.45	120.25	113.80
17	BS	78	LYS	N-CA-CB	6.45	116.09	109.51
63	CU	100	ASP	N-CA-CB	6.44	121.38	110.49
1	Ad	1408	G	O4'-C1'-C2'	-6.44	101.16	107.60
84	Aa	3263	C	O4'-C4'-C3'	6.44	110.44	104.00
1	Ad	1108	U	O4'-C1'-C2'	-6.44	101.16	107.60
1	Ad	1407	A	O4'-C1'-C2'	-6.44	101.16	107.60
1	Ad	79	A	N9-C1'-C2'	-6.44	102.34	112.00
1	Ad	938	A	O4'-C1'-C2'	6.44	112.24	105.80
1	Ad	891	U	O4'-C1'-N1	6.43	118.15	108.50
38	CT	140	MET	CA-C-N	6.43	133.55	121.97
38	CT	140	MET	C-N-CA	6.43	133.55	121.97
1	Ad	288	G	C1'-O4'-C4'	-6.43	103.47	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	746	C	O4'-C1'-N1	6.43	118.14	108.50
1	Ad	835	U	C1'-C2'-O2'	6.43	118.04	108.40
2	Ae	42	C	O4'-C1'-C2'	-6.43	101.17	107.60
84	Aa	3100	C	P-O3'-C3'	6.43	129.84	120.20
1	Ad	583	A	O4'-C1'-N9	6.42	118.14	108.50
1	Ad	1599	C	O4'-C1'-C2'	-6.42	101.17	107.60
71	CB	2	SER	N-CA-C	-6.42	97.11	110.80
1	Ad	533	C	P-O5'-C5'	-6.42	111.28	120.90
1	Ad	1434	G	C1'-O4'-C4'	-6.42	103.48	109.90
1	Ad	1804	A	O4'-C1'-N9	6.42	117.82	108.20
84	Aa	612	U	P-O3'-C3'	6.42	129.82	120.20
86	Ab	112	U	O4'-C1'-N1	6.41	118.12	108.50
1	Ad	887	U	O4'-C1'-C2'	-6.41	101.19	107.60
1	Ad	986	U	O4'-C1'-N1	6.41	118.11	108.50
84	Aa	1944	G	C5'-C4'-C3'	6.41	125.61	116.00
84	Aa	639	A	P-O3'-C3'	6.41	129.81	120.20
1	Ad	1794	C	N1-C1'-C2'	6.41	121.61	112.00
1	Ad	279	C	O4'-C1'-N1	6.41	117.81	108.20
1	Ad	1189	U	N1-C1'-C2'	6.41	123.61	114.00
1	Ad	1472	G	C1'-O4'-C4'	-6.41	103.50	109.90
84	Aa	543	C	C5'-C4'-O4'	6.41	119.41	109.80
84	Aa	452	G	O5'-C5'-C4'	6.40	121.10	111.50
1	Ad	954	C	C1'-O4'-C4'	-6.40	103.50	109.90
1	Ad	1100	U	O4'-C1'-N1	6.40	118.10	108.50
57	Ce	37	LYS	CA-C-N	6.40	126.18	120.10
57	Ce	37	LYS	C-N-CA	6.40	126.18	120.10
1	Ad	526	U	N1-C1'-C2'	6.39	121.59	112.00
1	Ad	135	C	N1-C1'-C2'	6.39	121.58	112.00
1	Ad	81	U	O4'-C1'-C2'	-6.38	101.22	107.60
1	Ad	614	G	P-O5'-C5'	-6.38	111.33	120.90
41	CA	5	ILE	CA-C-N	6.38	129.47	120.28
41	CA	5	ILE	C-N-CA	6.38	129.47	120.28
1	Ad	515	A	O4'-C1'-C2'	-6.38	101.22	107.60
1	Ad	1154	G	O4'-C1'-C2'	6.38	113.98	107.60
79	CE	205	ARG	N-CA-CB	6.38	121.27	110.49
1	Ad	1648	C	C3'-C2'-C1'	6.38	107.68	101.30
1	Ad	1028	A	O4'-C1'-N9	6.37	117.76	108.20
1	Ad	1615	G	N9-C1'-C2'	6.37	121.56	112.00
69	CF	161	GLN	N-CA-C	-6.37	102.63	108.75
1	Ad	956	A	N9-C1'-C2'	-6.37	102.45	112.00
1	Ad	1202	G	C1'-O4'-C4'	-6.37	103.53	109.90
84	Aa	607	U	N1-C1'-C2'	6.37	121.55	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	315	U	O4'-C1'-N1	6.37	118.05	108.50
1	Ad	383	U	O4'-C1'-N1	6.36	118.04	108.50
1	Ad	1392	G	O4'-C1'-C2'	6.36	113.96	107.60
1	Ad	957	A	O4'-C1'-C2'	-6.36	101.24	107.60
48	CD	125	GLU	N-CA-CB	6.36	121.23	110.49
1	Ad	788	G	P-O5'-C5'	-6.36	111.37	120.90
1	Ad	860	A	P-O3'-C3'	-6.36	110.67	120.20
2	Ae	50	G	O4'-C1'-N9	6.36	118.03	108.50
1	Ad	430	G	O4'-C1'-C2'	6.35	113.95	107.60
1	Ad	1019	G	O4'-C1'-C2'	6.35	113.95	107.60
1	Ad	1575	U	O4'-C1'-C2'	-6.35	101.25	107.60
9	BX	60	GLN	CB-CA-C	6.35	122.67	110.17
84	Aa	771	G	C4'-C3'-C2'	6.35	108.95	102.60
1	Ad	331	U	O4'-C1'-N1	6.34	118.02	108.50
1	Ad	1394	A	P-O3'-C3'	6.34	129.72	120.20
1	Ad	1537	U	O4'-C1'-N1	6.34	118.02	108.50
1	Ad	285	G	N9-C1'-C2'	6.34	121.51	112.00
72	CC	167	LYS	CA-C-N	6.34	129.95	120.31
72	CC	167	LYS	C-N-CA	6.34	129.95	120.31
1	Ad	262	U	N1-C1'-C2'	-6.34	104.49	114.00
84	Aa	651	A	C2'-C3'-O3'	6.34	119.01	109.50
1	Ad	842	G	O4'-C1'-N9	6.34	118.00	108.50
1	Ad	1178	C	O4'-C1'-C2'	-6.34	101.26	107.60
1	Ad	1360	G	O4'-C1'-C2'	-6.33	101.27	107.60
2	Ae	68	C	N1-C1'-C2'	6.33	121.50	112.00
1	Ad	633	U	P-O5'-C5'	-6.33	111.40	120.90
1	Ad	778	G	O4'-C1'-N9	6.33	118.00	108.50
1	Ad	821	G	C3'-C2'-C1'	6.33	107.83	101.50
1	Ad	139	U	P-O5'-C5'	6.33	130.39	120.90
1	Ad	1369	C	N1-C1'-C2'	6.33	121.49	112.00
41	CA	68	ARG	N-CA-CB	6.33	121.19	110.49
1	Ad	1568	U	C1'-O4'-C4'	6.33	116.23	109.90
84	Aa	3226	G	P-O3'-C3'	6.32	129.69	120.20
1	Ad	339	G	C1'-O4'-C4'	-6.32	103.58	109.90
1	Ad	1091	A	N9-C1'-C2'	6.32	121.48	112.00
84	Aa	2385	A	P-O5'-C5'	6.32	130.38	120.90
85	Ac	124	C	P-O3'-C3'	6.32	129.68	120.20
1	Ad	1218	U	C1'-O4'-C4'	6.32	116.22	109.90
37	CG	232	GLY	CA-C-N	6.32	133.34	121.97
37	CG	232	GLY	C-N-CA	6.32	133.34	121.97
1	Ad	1155	G	N9-C1'-C2'	6.32	121.47	112.00
29	BR	1	MET	CA-C-N	6.32	133.79	121.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	BR	1	MET	C-N-CA	6.32	133.79	121.41
84	Aa	407	A	P-O5'-C5'	6.32	130.38	120.90
1	Ad	232	C	O4'-C1'-C2'	-6.32	101.28	107.60
1	Ad	606	U	O4'-C1'-N1	6.32	117.97	108.50
84	Aa	2246	G	O3'-P-O5'	-6.31	94.53	104.00
1	Ad	371	A	P-O5'-C5'	-6.31	111.43	120.90
1	Ad	89	U	O4'-C1'-C2'	-6.31	101.29	107.60
1	Ad	527	C	O4'-C1'-C2'	-6.31	101.29	107.60
1	Ad	1124	G	O4'-C1'-C2'	6.31	113.91	107.60
1	Ad	1654	C	C3'-C2'-C1'	6.31	107.61	101.30
17	BS	135	HIS	CA-CB-CG	6.31	120.11	113.80
62	CS	6	PHE	N-CA-CB	6.31	121.15	110.49
79	CE	73	SER	CA-C-N	6.31	133.59	121.54
79	CE	73	SER	C-N-CA	6.31	133.59	121.54
1	Ad	1191	U	O4'-C1'-C2'	-6.30	101.30	107.60
18	BN	123	HIS	CA-CB-CG	6.30	120.10	113.80
1	Ad	1397	A	C1'-O4'-C4'	-6.30	103.60	109.90
1	Ad	1027	C	C3'-C2'-C1'	6.30	107.60	101.30
84	Aa	2162	C	O4'-C4'-C3'	-6.30	97.70	104.00
1	Ad	14	C	C1'-O4'-C4'	-6.30	103.60	109.90
48	CD	219	PHE	CA-C-N	6.29	128.72	120.28
48	CD	219	PHE	C-N-CA	6.29	128.72	120.28
82	Cb	39	PHE	N-CA-CB	6.29	121.13	110.49
84	Aa	576	C	C2'-C3'-O3'	-6.29	104.26	113.70
1	Ad	716	A	C2'-C3'-O3'	6.29	123.14	113.70
1	Ad	1408	G	C2'-C3'-O3'	6.29	123.14	113.70
1	Ad	1645	C	C1'-O4'-C4'	6.29	115.99	109.70
1	Ad	490	G	N9-C1'-C2'	6.29	121.43	112.00
38	CT	105	PHE	CA-CB-CG	-6.29	107.51	113.80
84	Aa	2076	C	P-O3'-C3'	6.29	129.63	120.20
1	Ad	252	U	O4'-C1'-C2'	-6.29	99.51	105.80
1	Ad	1343	C	C2'-C3'-O3'	6.29	118.93	109.50
1	Ad	1780	U	O4'-C1'-N1	6.29	117.93	108.50
84	Aa	492	G	C4'-C3'-O3'	6.29	122.43	113.00
1	Ad	252	U	O4'-C1'-N1	6.28	117.62	108.20
63	CU	58	ASN	N-CA-C	6.28	124.18	110.80
1	Ad	294	G	O4'-C1'-N9	6.28	117.92	108.50
1	Ad	1658	U	O4'-C1'-C2'	-6.28	101.32	107.60
1	Ad	617	G	C1'-O4'-C4'	-6.28	103.42	109.70
68	Ch	89	THR	CA-C-N	6.28	133.53	121.54
68	Ch	89	THR	C-N-CA	6.28	133.53	121.54
1	Ad	1524	A	O4'-C1'-N9	6.27	117.61	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	723	G	C2'-C3'-O3'	-6.27	104.29	113.70
1	Ad	535	C	P-O5'-C5'	6.27	130.31	120.90
1	Ad	378	U	O4'-C1'-C2'	-6.27	101.33	107.60
1	Ad	430	G	C1'-O4'-C4'	-6.27	103.63	109.90
85	Ac	12	A	P-O5'-C5'	-6.27	111.50	120.90
1	Ad	951	U	O4'-C1'-C2'	-6.26	101.34	107.60
1	Ad	1109	U	P-O5'-C5'	6.26	130.29	120.90
1	Ad	1700	G	C1'-O4'-C4'	-6.26	103.64	109.90
42	CJ	165	PHE	CA-CB-CG	-6.26	107.54	113.80
84	Aa	2503	A	P-O5'-C5'	6.26	130.29	120.90
1	Ad	612	U	C1'-O4'-C4'	-6.26	103.64	109.90
1	Ad	713	C	O4'-C1'-C2'	-6.25	101.34	107.60
1	Ad	856	G	O4'-C1'-C2'	6.25	113.86	107.60
1	Ad	1178	C	C3'-C2'-C1'	6.25	107.55	101.30
1	Ad	860	A	C1'-O4'-C4'	6.25	115.95	109.70
65	CK	131	LYS	CA-C-N	6.25	133.48	121.54
65	CK	131	LYS	C-N-CA	6.25	133.48	121.54
71	CB	130	PHE	CA-C-N	6.25	133.48	121.54
71	CB	130	PHE	C-N-CA	6.25	133.48	121.54
12	BE	150	PRO	N-CA-C	6.25	121.02	111.15
84	Aa	2516	U	C2'-C3'-O3'	6.25	118.87	109.50
1	Ad	492	G	O4'-C1'-N9	6.24	117.87	108.50
1	Ad	968	A	N9-C1'-C2'	-6.24	104.64	114.00
1	Ad	331	U	O4'-C1'-C2'	-6.24	101.36	107.60
1	Ad	936	C	N1-C1'-C2'	6.24	121.36	112.00
1	Ad	1664	U	P-O3'-C3'	6.24	129.56	120.20
78	CL	64	LYS	N-CA-CB	6.24	121.04	110.49
1	Ad	1465	C	O4'-C1'-C2'	-6.24	99.56	105.80
2	Ae	13	U	O4'-C1'-N1	6.24	117.86	108.50
84	Aa	634	A	C5'-C4'-C3'	-6.24	106.64	116.00
84	Aa	355	C	C5'-C4'-C3'	-6.24	106.64	116.00
1	Ad	1574	U	O4'-C1'-N1	6.24	117.85	108.50
1	Ad	1105	G	C1'-C2'-O2'	6.23	117.75	108.40
1	Ad	1775	A	C1'-C2'-O2'	6.23	121.15	111.80
84	Aa	2083	U	C5'-C4'-C3'	6.23	124.55	115.20
1	Ad	903	A	O4'-C1'-N9	6.22	117.54	108.20
40	Cz	49	SER	CA-C-N	6.22	126.01	120.10
40	Cz	49	SER	C-N-CA	6.22	126.01	120.10
1	Ad	1631	C	O4'-C1'-C2'	-6.22	101.38	107.60
33	BJ	149	MET	CA-C-N	6.22	128.84	120.50
33	BJ	149	MET	C-N-CA	6.22	128.84	120.50
1	Ad	1086	A	O4'-C1'-C2'	-6.22	101.38	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	CM	89	TRP	N-CA-CB	6.22	121.00	110.49
1	Ad	1471	C	C1'-O4'-C4'	-6.22	103.68	109.90
1	Ad	1801	A	C1'-O4'-C4'	6.22	115.92	109.70
84	Aa	2167	G	C5'-C4'-O4'	6.22	118.43	109.10
6	BK	49	PHE	CA-C-N	6.21	128.60	120.28
6	BK	49	PHE	C-N-CA	6.21	128.60	120.28
1	Ad	141	G	N9-C1'-C2'	6.21	121.32	112.00
34	BC	146	ASN	N-CA-CB	6.21	120.98	110.49
1	Ad	1693	C	O4'-C1'-C2'	-6.21	101.39	107.60
84	Aa	642	C	P-O5'-C5'	6.21	130.21	120.90
1	Ad	785	A	C1'-O4'-C4'	6.21	116.11	109.90
1	Ad	1518	C	O4'-C1'-C2'	-6.20	101.40	107.60
1	Ad	1500	A	C1'-O4'-C4'	6.20	115.90	109.70
56	Cd	87	ARG	N-CA-CB	6.20	120.97	110.49
1	Ad	114	U	C3'-C2'-C1'	6.20	107.50	101.30
1	Ad	1450	A	C3'-C2'-C1'	6.20	107.70	101.50
1	Ad	1516	C	N1-C1'-C2'	6.20	121.29	112.00
1	Ad	1569	U	O4'-C1'-C2'	-6.20	101.41	107.60
2	Ae	63	C	O4'-C1'-C2'	-6.20	101.41	107.60
84	Aa	2088	C	O4'-C1'-N1	6.20	117.80	108.50
84	Aa	610	G	P-O5'-C5'	6.19	130.19	120.90
34	BC	235	PHE	N-CA-CB	6.19	120.95	110.49
68	Ch	114	HIS	CA-C-N	6.19	129.00	120.39
68	Ch	114	HIS	C-N-CA	6.19	129.00	120.39
1	Ad	206	U	O3'-P-O5'	6.19	113.28	104.00
30	BB	193	ILE	CA-C-N	6.19	126.96	120.03
30	BB	193	ILE	C-N-CA	6.19	126.96	120.03
1	Ad	1492	G	N9-C1'-C2'	-6.19	102.72	112.00
1	Ad	644	U	C1'-O4'-C4'	-6.18	103.72	109.90
56	Cd	102	THR	N-CA-CB	6.18	120.94	110.49
1	Ad	737	G	O3'-P-O5'	6.18	113.27	104.00
1	Ad	1503	C	O4'-C1'-C2'	-6.18	101.42	107.60
1	Ad	189	U	P-O3'-C3'	6.18	129.46	120.20
1	Ad	449	A	O4'-C1'-C2'	-6.18	101.42	107.60
1	Ad	1252	C	N1-C1'-C2'	6.18	121.27	112.00
1	Ad	1335	A	O4'-C1'-C2'	-6.18	101.42	107.60
1	Ad	1537	U	O4'-C1'-C2'	-6.18	101.42	107.60
1	Ad	835	U	C4'-C3'-C2'	-6.17	96.43	102.60
1	Ad	1172	G	O4'-C1'-C2'	6.17	113.77	107.60
84	Aa	2080	G	O3'-P-O5'	-6.17	94.74	104.00
84	Aa	2402	G	P-O3'-C3'	6.17	129.46	120.20
1	Ad	1046	G	C1'-O4'-C4'	-6.17	103.73	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	Ae	59	U	O4'-C1'-N1	6.17	117.46	108.20
72	CC	25	SER	N-CA-C	-6.17	99.85	109.72
1	Ad	1441	C	C3'-C2'-C1'	6.17	107.47	101.30
84	Aa	1942	A	O3'-P-O5'	-6.17	94.75	104.00
1	Ad	1363	G	C1'-O4'-C4'	-6.17	103.73	109.90
1	Ad	950	U	O4'-C1'-C2'	-6.17	101.44	107.60
1	Ad	1664	U	O4'-C1'-N1	6.17	117.75	108.50
84	Aa	2512	U	O4'-C4'-C3'	6.17	110.17	104.00
1	Ad	860	A	P-O5'-C5'	-6.16	111.66	120.90
48	CD	188	LYS	N-CA-C	-6.16	97.67	110.80
1	Ad	355	U	O4'-C1'-N1	6.16	117.44	108.20
1	Ad	1112	G	O4'-C1'-C2'	6.16	113.76	107.60
1	Ad	1378	C	N1-C1'-C2'	6.16	121.24	112.00
1	Ad	1766	A	C2'-C3'-O3'	6.16	118.74	109.50
24	BW	4	VAL	CA-C-N	6.16	128.53	120.28
24	BW	4	VAL	C-N-CA	6.16	128.53	120.28
84	Aa	2969	A	O5'-C5'-C4'	6.15	120.73	111.50
1	Ad	507	G	C1'-O4'-C4'	-6.15	103.75	109.90
1	Ad	888	U	C1'-O4'-C4'	-6.15	103.75	109.90
1	Ad	1066	U	C1'-C2'-O2'	6.15	117.63	108.40
12	BE	149	TYR	CA-C-N	6.15	126.18	119.90
12	BE	149	TYR	C-N-CA	6.15	126.18	119.90
22	BZ	18	SER	N-CA-C	-6.15	97.69	110.80
1	Ad	591	C	N1-C1'-C2'	6.15	121.22	112.00
1	Ad	351	G	O4'-C1'-C2'	6.15	113.75	107.60
1	Ad	416	A	O4'-C1'-C2'	-6.15	101.45	107.60
1	Ad	869	U	C1'-O4'-C4'	6.14	116.04	109.90
84	Aa	2439	A	P-O5'-C5'	-6.14	111.68	120.90
3	Af	18	C	C3'-C2'-C1'	6.14	107.44	101.30
1	Ad	298	C	N1-C1'-C2'	6.14	121.21	112.00
1	Ad	547	C	C1'-C2'-O2'	6.14	121.01	111.80
1	Ad	1212	A	O4'-C1'-C2'	6.14	113.74	107.60
50	CP	31	GLU	N-CA-CB	6.14	120.86	110.49
84	Aa	459	G	C4'-C3'-O3'	-6.14	103.80	113.00
1	Ad	1168	A	C3'-C2'-C1'	6.13	107.44	101.30
1	Ad	1543	U	O4'-C1'-C2'	-6.13	101.47	107.60
84	Aa	2167	G	C2'-C3'-O3'	6.13	118.70	109.50
1	Ad	281	U	C3'-C2'-C1'	-6.13	95.17	101.30
1	Ad	1082	C	C1'-O4'-C4'	-6.13	103.77	109.90
1	Ad	1444	G	N9-C1'-C2'	6.13	121.20	112.00
1	Ad	1593	U	O4'-C1'-C2'	6.13	113.73	107.60
84	Aa	2076	C	C2'-C3'-O3'	6.13	118.69	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1112	G	C1'-O4'-C4'	-6.13	103.77	109.90
61	CM	17	TYR	N-CA-CB	6.12	120.84	110.49
1	Ad	1434	G	O4'-C1'-C2'	6.12	113.72	107.60
1	Ad	1439	G	N9-C1'-C2'	6.12	121.19	112.00
1	Ad	217	A	P-O5'-C5'	6.12	130.08	120.90
1	Ad	413	C	C3'-C2'-C1'	6.12	107.42	101.30
84	Aa	2198	U	C4'-C3'-O3'	-6.12	103.82	113.00
1	Ad	1033	C	N1-C1'-C2'	6.12	123.18	114.00
1	Ad	1196	C	C3'-C2'-C1'	6.12	107.42	101.30
1	Ad	1320	C	O4'-C1'-C2'	-6.12	101.48	107.60
1	Ad	236	U	N1-C1'-C2'	6.12	121.18	112.00
1	Ad	1650	G	C1'-O4'-C4'	-6.12	103.78	109.90
78	CL	61	GLN	CA-C-N	6.12	133.22	121.54
78	CL	61	GLN	C-N-CA	6.12	133.22	121.54
1	Ad	1809	U	O4'-C1'-C2'	-6.12	101.48	107.60
66	Cv	62	VAL	N-CA-CB	6.11	121.32	111.23
84	Aa	2088	C	C5'-C4'-C3'	6.11	125.17	116.00
73	CO	69	THR	N-CA-CB	6.11	120.82	110.49
43	CH	184	GLY	CA-C-N	6.11	133.21	121.54
43	CH	184	GLY	C-N-CA	6.11	133.21	121.54
71	CB	373	ARG	N-CA-CB	6.11	120.82	110.49
1	Ad	262	U	O4'-C1'-N1	6.11	117.36	108.20
1	Ad	1496	A	P-O3'-C3'	6.11	129.36	120.20
2	Ae	10	G	C3'-C2'-C1'	6.11	107.41	101.30
2	Ae	44	A	O4'-C1'-C2'	-6.11	101.49	107.60
84	Aa	591	G	C4'-C3'-O3'	6.11	122.16	113.00
84	Aa	1714	A	P-O3'-C3'	6.11	129.36	120.20
84	Aa	1356	G	C2'-C3'-O3'	6.10	118.66	109.50
84	Aa	2163	G	C5'-C4'-O4'	-6.10	100.65	109.80
1	Ad	1363	G	O4'-C1'-C2'	6.10	113.70	107.60
1	Ad	575	G	O4'-C1'-C2'	-6.10	101.50	107.60
1	Ad	1788	G	O4'-C1'-N9	6.10	117.65	108.50
1	Ad	398	C	O4'-C1'-C2'	-6.10	101.50	107.60
1	Ad	749	G	O4'-C1'-N9	6.10	117.65	108.50
79	CE	11	ILE	N-CA-CB	6.10	121.29	111.23
84	Aa	2092	C	O4'-C1'-N1	6.10	117.65	108.50
1	Ad	1096	A	C1'-O4'-C4'	-6.10	103.60	109.70
85	Ac	65	G	P-O5'-C5'	-6.10	111.76	120.90
1	Ad	80	C	C3'-C2'-C1'	6.09	107.59	101.50
84	Aa	1068	A	P-O3'-C3'	6.09	129.34	120.20
1	Ad	333	G	O4'-C1'-N9	6.09	117.64	108.50
1	Ad	966	U	C1'-C2'-O2'	6.09	117.54	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	BY	123	ILE	N-CA-CB	6.09	117.36	110.72
84	Aa	1247	G	O3'-P-O5'	-6.09	94.87	104.00
84	Aa	3258	A	C4'-C3'-O3'	-6.09	103.87	113.00
1	Ad	784	C	C3'-C2'-C1'	-6.09	95.21	101.30
1	Ad	1192	G	O4'-C1'-C2'	6.09	113.69	107.60
1	Ad	155	A	C1'-O4'-C4'	6.09	115.99	109.90
1	Ad	1388	A	O4'-C1'-N9	6.09	117.33	108.20
84	Aa	2753	C	C5'-C4'-C3'	6.09	125.13	116.00
1	Ad	220	C	O4'-C1'-C2'	-6.08	101.52	107.60
36	BH	8	ILE	CA-C-N	6.08	128.43	120.28
36	BH	8	ILE	C-N-CA	6.08	128.43	120.28
1	Ad	505	U	O4'-C1'-N1	6.08	117.62	108.50
1	Ad	1124	G	C1'-O4'-C4'	-6.08	103.82	109.90
1	Ad	1640	C	C1'-C2'-O2'	6.08	117.52	108.40
1	Ad	534	C	O4'-C1'-C2'	-6.08	101.52	107.60
1	Ad	1293	U	O4'-C1'-N1	6.08	117.62	108.50
11	BD	199	GLY	CA-C-N	6.08	127.44	119.84
11	BD	199	GLY	C-N-CA	6.08	127.44	119.84
1	Ad	815	A	C4'-C3'-C2'	-6.08	96.52	102.60
1	Ad	1595	A	O4'-C1'-C2'	-6.08	101.53	107.60
84	Aa	1392	U	P-O5'-C5'	-6.08	111.79	120.90
1	Ad	1735	C	C3'-C2'-C1'	6.07	107.37	101.30
6	BK	71	ASP	CA-C-N	6.07	126.85	119.99
6	BK	71	ASP	C-N-CA	6.07	126.85	119.99
1	Ad	1190	U	O4'-C1'-N1	6.07	117.61	108.50
84	Aa	1146	A	P-O5'-C5'	-6.07	111.79	120.90
84	Aa	2178	G	O3'-P-O5'	-6.07	94.90	104.00
84	Aa	2087	A	C5'-C4'-O4'	6.07	118.20	109.10
1	Ad	859	U	O4'-C1'-C2'	-6.06	101.54	107.60
1	Ad	73	A	C1'-O4'-C4'	6.06	115.96	109.90
2	Ae	30	G	C1'-O4'-C4'	-6.06	103.84	109.90
1	Ad	834	A	N9-C1'-C2'	-6.06	104.91	114.00
1	Ad	1032	A	N9-C1'-C2'	-6.06	102.91	112.00
1	Ad	411	A	O4'-C1'-C2'	-6.06	101.54	107.60
1	Ad	1304	A	O4'-C1'-C2'	-6.06	101.54	107.60
1	Ad	1308	G	C1'-O4'-C4'	-6.06	103.84	109.90
22	BZ	34	LYS	N-CA-CB	6.06	120.73	110.49
72	CC	345	THR	N-CA-CB	6.06	120.73	110.49
43	CH	62	THR	N-CA-C	-6.06	100.20	108.38
1	Ad	724	U	O4'-C1'-C2'	-6.05	101.55	107.60
22	BZ	25	LYS	N-CA-C	-6.05	107.12	114.75
41	CA	119	HIS	N-CA-CB	6.05	120.72	110.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
69	CF	110	LEU	N-CA-C	-6.05	96.91	107.20
80	Cf	8	ARG	CA-C-N	6.05	128.75	120.46
80	Cf	8	ARG	C-N-CA	6.05	128.75	120.46
48	CD	2	SER	N-CA-CB	6.05	120.72	110.49
48	CD	18	LYS	CA-C-N	6.05	130.37	120.63
48	CD	18	LYS	C-N-CA	6.05	130.37	120.63
60	Co	59	HIS	N-CA-CB	6.05	120.72	110.49
84	Aa	2655	U	C5'-C4'-C3'	-6.05	106.92	116.00
1	Ad	1618	G	N9-C1'-C2'	6.05	121.07	112.00
1	Ad	1617	U	O4'-C1'-N1	6.05	117.57	108.50
1	Ad	879	C	N1-C1'-C2'	6.04	121.06	112.00
30	BB	188	PHE	CA-C-N	6.04	125.17	120.33
30	BB	188	PHE	C-N-CA	6.04	125.17	120.33
1	Ad	12	U	C1'-O4'-C4'	-6.04	103.86	109.90
1	Ad	608	U	O4'-C1'-N1	6.04	117.56	108.50
84	Aa	1723	C	O3'-P-O5'	6.04	113.06	104.00
1	Ad	983	A	C1'-O4'-C4'	6.04	115.94	109.90
1	Ad	95	U	O4'-C1'-N1	6.04	117.56	108.50
1	Ad	1616	U	O4'-C1'-C2'	-6.04	101.56	107.60
11	BD	127	MET	CA-C-N	6.04	128.37	120.28
11	BD	127	MET	C-N-CA	6.04	128.37	120.28
1	Ad	1709	U	C3'-C2'-C1'	6.03	107.33	101.30
1	Ad	1545	A	O4'-C1'-C2'	-6.03	101.57	107.60
23	Bc	2	ASP	N-CA-CB	6.03	120.68	110.49
84	Aa	2462	G	C5'-C4'-C3'	6.03	125.05	116.00
1	Ad	1511	A	C3'-C2'-C1'	-6.03	95.27	101.30
1	Ad	1355	U	N1-C1'-C2'	6.03	121.04	112.00
2	Ae	61	C	O4'-C1'-C2'	-6.03	101.57	107.60
19	BL	116	PHE	CA-CB-CG	6.03	119.83	113.80
25	Bd	33	LYS	N-CA-CB	6.03	120.67	110.49
1	Ad	1301	G	N9-C1'-C2'	-6.02	102.97	112.00
56	Cd	26	LYS	CA-C-N	6.02	133.04	121.54
56	Cd	26	LYS	C-N-CA	6.02	133.04	121.54
71	CB	70	LYS	N-CA-CB	6.02	120.67	110.49
1	Ad	1009	U	O4'-C1'-N1	6.02	117.23	108.20
1	Ad	1045	G	O4'-C1'-C2'	6.02	113.62	107.60
84	Aa	1146	A	O5'-C5'-C4'	6.02	120.73	111.70
1	Ad	57	G	O4'-C1'-N9	6.02	117.53	108.50
1	Ad	1327	C	N1-C1'-C2'	6.02	121.03	112.00
1	Ad	1774	C	O4'-C1'-C2'	-6.02	101.58	107.60
71	CB	61	GLU	N-CA-CB	6.02	120.66	110.49
41	CA	116	VAL	N-CA-C	-6.02	99.63	108.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	757	G	C1'-O4'-C4'	-6.01	103.89	109.90
1	Ad	1543	U	N1-C1'-C2'	6.01	121.02	112.00
1	Ad	1618	G	O4'-C1'-C2'	6.01	113.61	107.60
1	Ad	1751	U	N1-C1'-C2'	6.01	121.02	112.00
1	Ad	1553	A	N9-C1'-C2'	6.01	121.02	112.00
1	Ad	1797	C	O4'-C1'-C2'	-6.01	101.59	107.60
1	Ad	1758	G	N9-C1'-C2'	6.01	121.02	112.00
14	BQ	32	ARG	N-CA-CB	6.01	120.65	110.49
72	CC	18	MET	N-CA-C	-6.01	98.00	110.80
79	CE	18	HIS	CA-CB-CG	6.01	119.81	113.80
84	Aa	637	C	P-O3'-C3'	-6.01	111.19	120.20
1	Ad	394	G	C1'-O4'-C4'	6.01	115.91	109.90
1	Ad	1069	G	O4'-C1'-C2'	6.01	113.61	107.60
1	Ad	1301	G	O4'-C1'-C2'	-6.01	101.59	107.60
84	Aa	580	C	P-O3'-C3'	6.01	129.21	120.20
84	Aa	2491	A	P-O3'-C3'	6.01	129.21	120.20
1	Ad	365	C	N1-C1'-C2'	6.00	121.01	112.00
1	Ad	1372	C	C3'-C2'-C1'	6.00	107.30	101.30
46	Ca	98	VAL	N-CA-C	-6.00	105.52	111.88
1	Ad	576	C	O4'-C1'-C2'	-6.00	101.60	107.60
50	CP	69	ARG	CA-C-N	6.00	133.00	121.54
50	CP	69	ARG	C-N-CA	6.00	133.00	121.54
84	Aa	746	C	C5'-C4'-O4'	6.00	118.80	109.80
1	Ad	1041	A	O4'-C1'-C2'	-6.00	101.60	107.60
80	Cf	41	THR	CA-C-N	6.00	128.81	120.29
80	Cf	41	THR	C-N-CA	6.00	128.81	120.29
84	Aa	2095	C	O4'-C4'-C3'	6.00	110.00	104.00
85	Ac	154	G	P-O5'-C5'	5.99	129.89	120.90
1	Ad	1267	G	O4'-C1'-N9	5.99	117.49	108.50
1	Ad	25	C	C2'-C3'-O3'	5.99	118.49	109.50
1	Ad	253	C	N1-C1'-C2'	5.99	120.99	112.00
1	Ad	569	C	O4'-C1'-C2'	-5.99	99.81	105.80
1	Ad	1127	G	N9-C1'-C2'	-5.99	103.01	112.00
1	Ad	369	G	C1'-O4'-C4'	5.99	115.89	109.90
1	Ad	1235	U	C3'-C2'-C1'	5.99	107.29	101.30
1	Ad	1647	C	C3'-C2'-C1'	5.99	107.29	101.30
48	CD	236	MET	N-CA-CB	5.99	120.61	110.49
63	CU	111	ARG	N-CA-CB	5.99	120.61	110.49
1	Ad	1576	C	C5'-C4'-C3'	-5.98	106.22	115.20
1	Ad	1444	G	C3'-C2'-C1'	5.98	107.28	101.30
41	CA	29	PHE	CA-CB-CG	-5.98	107.82	113.80
84	Aa	3251	C	O3'-P-O5'	-5.98	95.03	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1441	C	O4'-C1'-C2'	-5.98	101.62	107.60
1	Ad	1323	U	O4'-C1'-N1	5.98	117.47	108.50
84	Aa	608	G	P-O5'-C5'	5.98	129.86	120.90
1	Ad	146	A	C1'-O4'-C4'	5.97	115.88	109.90
1	Ad	412	C	C3'-C2'-C1'	5.97	107.28	101.30
2	Ae	65	U	O4'-C1'-N1	5.97	117.46	108.50
1	Ad	353	G	O4'-C1'-C2'	-5.97	101.63	107.60
84	Aa	1722	G	P-O3'-C3'	5.97	129.16	120.20
1	Ad	67	G	C3'-C2'-C1'	5.97	107.47	101.50
25	Bd	36	LEU	N-CA-C	-5.97	100.70	109.18
1	Ad	743	G	O4'-C1'-N9	5.97	117.45	108.50
1	Ad	985	G	C3'-C2'-C1'	-5.97	95.33	101.30
1	Ad	1276	U	O4'-C1'-N1	5.97	117.45	108.50
84	Aa	808	G	O4'-C4'-C3'	5.97	109.97	104.00
84	Aa	1485	A	P-O5'-C5'	-5.97	111.95	120.90
61	CM	79	ASP	CA-C-N	5.96	132.71	121.97
61	CM	79	ASP	C-N-CA	5.96	132.71	121.97
84	Aa	53	C	O4'-C1'-N1	5.96	117.45	108.50
1	Ad	61	A	O4'-C4'-C3'	-5.96	98.04	104.00
1	Ad	112	U	O4'-C1'-N1	5.96	117.44	108.50
1	Ad	553	G	O4'-C1'-N9	5.96	117.44	108.50
18	BN	109	LYS	CA-C-N	5.96	128.87	120.28
18	BN	109	LYS	C-N-CA	5.96	128.87	120.28
84	Aa	1450	G	C4'-C3'-C2'	-5.96	96.64	102.60
1	Ad	93	A	C1'-O4'-C4'	5.96	115.86	109.90
1	Ad	973	U	N1-C1'-C2'	5.96	120.94	112.00
2	Ae	74	C	P-O3'-C3'	5.96	129.14	120.20
1	Ad	74	U	O4'-C1'-N1	5.96	117.44	108.50
53	CY	8	THR	N-CA-CB	5.96	120.56	110.49
2	Ae	42	C	O4'-C1'-N1	5.96	117.43	108.50
1	Ad	1133	C	N1-C1'-C2'	5.95	120.93	112.00
84	Aa	584	G	P-O3'-C3'	5.95	129.13	120.20
1	Ad	76	U	C2'-C3'-O3'	5.95	122.62	113.70
1	Ad	1456	U	N1-C1'-C2'	5.95	120.92	112.00
75	CI	40	LYS	N-CA-C	-5.95	105.35	114.16
1	Ad	59	G	O4'-C1'-C2'	5.95	113.55	107.60
1	Ad	517	U	O4'-C1'-C2'	-5.95	101.65	107.60
1	Ad	1132	G	P-O5'-C5'	5.95	129.82	120.90
11	BD	212	PRO	N-CA-C	-5.95	103.44	110.70
84	Aa	492	G	C5'-C4'-O4'	5.95	118.72	109.80
84	Aa	3200	A	P-O3'-C3'	5.95	129.12	120.20
1	Ad	1723	G	C1'-O4'-C4'	-5.95	103.95	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	38	C	O4'-C1'-C2'	-5.95	101.65	107.60
1	Ad	1109	U	N1-C1'-C2'	5.95	120.92	112.00
18	BN	54	LEU	N-CA-C	-5.95	106.19	113.50
42	CJ	113	ASP	N-CA-CB	5.95	120.54	110.49
47	CQ	67	LEU	CA-C-N	5.95	128.25	120.28
47	CQ	67	LEU	C-N-CA	5.95	128.25	120.28
65	CK	94	LYS	CA-C-N	5.95	132.90	121.54
65	CK	94	LYS	C-N-CA	5.95	132.90	121.54
84	Aa	1107	G	P-O5'-C5'	5.95	129.82	120.90
1	Ad	1281	G	N9-C1'-C2'	5.94	120.91	112.00
1	Ad	1334	G	C1'-O4'-C4'	5.94	115.84	109.90
70	Cq	146	ILE	N-CA-C	-5.94	101.24	107.60
84	Aa	453	U	C5'-C4'-C3'	5.94	124.92	116.00
1	Ad	63	G	C5'-C4'-C3'	5.94	124.91	116.00
1	Ad	1401	C	N1-C1'-C2'	5.94	120.91	112.00
1	Ad	1665	U	C3'-C2'-C1'	5.94	107.44	101.50
84	Aa	524	A	C4'-C3'-O3'	5.94	121.91	113.00
84	Aa	651	A	O4'-C4'-C3'	-5.94	100.16	106.10
84	Aa	1562	A	O3'-P-O5'	-5.94	95.09	104.00
1	Ad	1350	C	C1'-C2'-O2'	5.94	120.71	111.80
48	CD	187	GLU	N-CA-CB	5.94	120.53	110.49
1	Ad	406	C	C3'-C2'-C1'	5.94	107.24	101.30
84	Aa	2056	C	P-O3'-C3'	5.94	129.10	120.20
1	Ad	865	U	N1-C1'-C2'	5.93	120.90	112.00
63	CU	34	LYS	N-CA-CB	5.93	120.52	110.49
69	CF	200	ALA	N-CA-C	-5.93	105.22	112.88
1	Ad	955	C	O4'-C1'-C2'	-5.93	101.67	107.60
84	Aa	720	G	P-O3'-C3'	-5.93	111.30	120.20
1	Ad	360	G	O4'-C1'-N9	5.93	117.39	108.50
84	Aa	1958	G	O3'-P-O5'	-5.93	95.11	104.00
1	Ad	834	A	P-O3'-C3'	5.92	129.09	120.20
1	Ad	1556	U	O4'-C1'-N1	5.92	117.39	108.50
84	Aa	373	A	P-O3'-C3'	5.92	129.08	120.20
11	BD	91	VAL	N-CA-CB	5.92	121.00	111.23
1	Ad	1079	G	N9-C1'-C2'	5.92	120.88	112.00
1	Ad	1131	G	O4'-C1'-C2'	-5.92	101.68	107.60
3	Af	20	U	N1-C1'-C2'	5.92	120.88	112.00
1	Ad	243	U	P-O3'-C3'	5.92	129.08	120.20
1	Ad	1185	U	N1-C1'-C2'	5.92	120.87	112.00
21	BP	147	SER	N-CA-C	-5.92	105.25	112.88
72	CC	23	SER	CA-C-N	5.92	132.84	121.54
72	CC	23	SER	C-N-CA	5.92	132.84	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	822	G	O4'-C1'-C2'	-5.92	101.69	107.60
1	Ad	1201	C	O4'-C1'-C2'	-5.91	101.69	107.60
1	Ad	31	C	C3'-C2'-C1'	5.91	107.21	101.30
1	Ad	17	C	N1-C1'-C2'	5.91	120.87	112.00
36	BH	135	GLU	N-CA-CB	5.91	120.48	110.49
72	CC	305	SER	N-CA-CB	5.91	120.48	110.49
79	CE	10	GLY	CA-C-N	5.91	132.60	121.97
79	CE	10	GLY	C-N-CA	5.91	132.60	121.97
1	Ad	900	G	C1'-O4'-C4'	-5.91	103.99	109.90
1	Ad	1247	G	O4'-C1'-N9	5.91	117.06	108.20
1	Ad	743	G	P-O3'-C3'	5.90	129.05	120.20
1	Ad	870	A	O4'-C1'-C2'	-5.90	101.70	107.60
1	Ad	1528	U	C1'-O4'-C4'	5.90	115.60	109.70
33	BJ	103	VAL	CA-C-N	5.90	128.19	120.28
33	BJ	103	VAL	C-N-CA	5.90	128.19	120.28
84	Aa	2110	G	P-O5'-C5'	-5.90	112.05	120.90
1	Ad	1780	U	O4'-C1'-C2'	-5.90	101.70	107.60
1	Ad	983	A	O4'-C1'-C2'	-5.90	101.70	107.60
1	Ad	1193	A	C1'-O4'-C4'	5.90	115.80	109.90
14	BQ	96	VAL	N-CA-C	5.90	117.34	110.62
10	Bg	81	ILE	N-CA-C	-5.90	99.63	108.12
1	Ad	181	C	O4'-C1'-C2'	-5.89	101.70	107.60
1	Ad	780	A	C1'-C2'-O2'	5.89	117.24	108.40
48	CD	119	GLU	N-CA-CB	5.89	120.45	110.49
1	Ad	316	A	O4'-C1'-N9	5.89	117.04	108.20
1	Ad	388	G	N9-C1'-C2'	5.89	120.84	112.00
62	CS	152	PRO	CA-N-CD	-5.89	103.75	112.00
1	Ad	468	A	N9-C1'-C2'	-5.89	103.16	112.00
32	Ba	3	PHE	CA-CB-CG	-5.89	107.91	113.80
84	Aa	570	G	O3'-P-O5'	5.89	112.83	104.00
71	CB	121	ASN	N-CA-CB	5.89	120.44	110.49
78	CL	48	ARG	N-CA-CB	5.89	120.85	110.37
84	Aa	2522	C	O3'-P-O5'	5.89	112.83	104.00
86	Ab	89	G	O4'-C1'-N9	5.89	117.33	108.50
1	Ad	749	G	O4'-C1'-C2'	5.89	113.49	107.60
1	Ad	1361	G	O4'-C1'-N9	5.89	117.33	108.50
1	Ad	1184	C	C3'-C2'-C1'	5.88	107.19	101.30
1	Ad	1517	C	N1-C1'-C2'	5.88	120.83	112.00
47	CQ	56	LYS	N-CA-C	-5.88	106.44	113.97
1	Ad	391	A	C1'-O4'-C4'	5.88	115.58	109.70
71	CB	349	GLN	N-CA-C	-5.88	107.34	114.75
84	Aa	2162	C	O4'-C1'-N1	5.88	117.33	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	288	G	O4'-C1'-C2'	5.88	113.48	107.60
84	Aa	95	G	P-O5'-C5'	5.88	129.72	120.90
1	Ad	498	U	N1-C1'-C2'	-5.88	105.19	114.00
1	Ad	1250	C	C1'-C2'-O2'	5.88	117.22	108.40
1	Ad	1627	C	N1-C1'-C2'	5.88	120.81	112.00
84	Aa	2502	U	O4'-C1'-N1	5.87	117.31	108.50
22	BZ	108	ALA	N-CA-CB	5.87	119.21	110.40
84	Aa	566	G	C4'-C3'-C2'	-5.87	96.73	102.60
84	Aa	1604	U	C2'-C3'-O3'	5.87	118.31	109.50
1	Ad	438	G	O4'-C1'-C2'	-5.87	101.73	107.60
1	Ad	1376	A	C1'-O4'-C4'	5.87	115.57	109.70
12	BE	57	THR	N-CA-C	-5.87	98.30	110.80
1	Ad	36	C	O4'-C1'-C2'	-5.87	101.73	107.60
1	Ad	263	C	O4'-C1'-C2'	-5.86	99.94	105.80
1	Ad	1690	U	N1-C1'-C2'	-5.86	105.20	114.00
84	Aa	526	A	O5'-C5'-C4'	5.86	120.29	111.50
1	Ad	239	C	P-O3'-C3'	5.86	128.99	120.20
1	Ad	1672	U	N1-C1'-C2'	5.86	120.79	112.00
6	BK	87	VAL	CA-C-N	-5.86	112.51	119.84
6	BK	87	VAL	C-N-CA	-5.86	112.51	119.84
1	Ad	1713	C	O4'-C1'-C2'	-5.86	101.74	107.60
62	CS	29	MET	N-CA-C	-5.86	99.35	108.90
72	CC	16	GLY	CA-C-N	5.85	132.72	121.54
72	CC	16	GLY	C-N-CA	5.85	132.72	121.54
84	Aa	2307	A	O3'-P-O5'	-5.85	95.22	104.00
1	Ad	1409	G	C1'-C2'-O2'	5.85	117.18	108.40
50	CP	120	VAL	N-CA-C	-5.85	100.25	108.27
54	Cr	110	ASN	CA-C-N	5.85	128.93	120.38
54	Cr	110	ASN	C-N-CA	5.85	128.93	120.38
84	Aa	2085	A	C2'-C3'-O3'	-5.85	104.92	113.70
82	Cb	6	ASN	N-CA-C	-5.85	105.15	112.93
1	Ad	54	C	O4'-C1'-N1	5.85	117.27	108.50
62	CS	150	LYS	N-CA-C	-5.85	99.75	109.46
1	Ad	839	G	N9-C1'-C2'	5.85	120.77	112.00
79	CE	139	VAL	CA-C-N	5.85	128.12	120.28
79	CE	139	VAL	C-N-CA	5.85	128.12	120.28
84	Aa	640	C	P-O5'-C5'	5.85	129.67	120.90
73	CO	153	ASN	CA-C-N	5.84	128.11	120.28
73	CO	153	ASN	C-N-CA	5.84	128.11	120.28
18	BN	50	ILE	N-CA-C	-5.84	107.12	112.96
10	Bg	230	VAL	N-CA-C	-5.84	99.22	107.75
84	Aa	2074	C	O4'-C1'-N1	5.84	117.26	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	155	A	O4'-C1'-N9	5.84	117.26	108.50
1	Ad	823	A	N9-C1'-C2'	5.84	120.76	112.00
72	CC	313	GLU	N-CA-C	-5.84	105.35	112.88
1	Ad	700	C	N1-C1'-C2'	5.84	120.75	112.00
1	Ad	1619	A	C1'-C2'-O2'	5.84	117.16	108.40
1	Ad	1725	C	C1'-O4'-C4'	5.84	115.54	109.70
1	Ad	776	A	O4'-C1'-C2'	-5.83	101.77	107.60
55	Cc	24	SER	CA-C-N	5.83	126.80	120.44
55	Cc	24	SER	C-N-CA	5.83	126.80	120.44
11	BD	162	GLN	O-C-N	-5.83	114.61	121.32
21	BP	70	ARG	N-CA-CB	5.83	120.35	110.49
1	Ad	88	C	O4'-C1'-C2'	-5.83	101.77	107.60
1	Ad	132	G	O4'-C1'-N9	5.83	117.25	108.50
1	Ad	717	G	C2'-C3'-O3'	5.83	122.45	113.70
1	Ad	1612	C	O4'-C1'-C2'	-5.83	101.77	107.60
30	BB	207	LEU	N-CA-CB	5.83	120.34	110.49
61	CM	118	GLY	CA-C-N	5.83	126.58	119.99
61	CM	118	GLY	C-N-CA	5.83	126.58	119.99
1	Ad	1584	A	C3'-C2'-C1'	5.83	107.13	101.30
84	Aa	353	A	P-O5'-C5'	-5.83	112.16	120.90
1	Ad	968	A	O4'-C1'-N9	5.82	116.94	108.20
10	Bg	174	ILE	N-CA-C	-5.82	99.15	107.77
18	BN	89	TYR	N-CA-C	-5.82	106.34	113.50
1	Ad	1528	U	O4'-C1'-C2'	-5.82	99.98	105.80
41	CA	67	PHE	N-CA-C	-5.82	98.40	110.80
1	Ad	260	A	N9-C1'-C2'	5.82	120.73	112.00
2	Ae	73	C	O3'-P-O5'	5.82	112.72	104.00
84	Aa	2185	U	C5'-C4'-C3'	-5.82	107.28	116.00
84	Aa	2789	G	C2'-C3'-O3'	5.81	122.42	113.70
64	Ci	38	LYS	N-CA-CB	5.81	120.31	110.49
1	Ad	231	U	N1-C1'-C2'	5.81	120.72	112.00
1	Ad	746	A	O4'-C1'-C2'	-5.81	101.79	107.60
1	Ad	1191	U	N1-C1'-C2'	5.81	120.71	112.00
61	CM	20	ASP	CA-C-N	5.81	132.64	121.54
61	CM	20	ASP	C-N-CA	5.81	132.64	121.54
1	Ad	511	U	P-O3'-C3'	5.81	128.91	120.20
1	Ad	583	A	C1'-C2'-O2'	5.81	117.11	108.40
1	Ad	491	G	O4'-C1'-N9	5.81	117.21	108.50
1	Ad	485	A	N9-C1'-C2'	5.80	120.71	112.00
6	BK	82	LEU	CA-C-O	-5.80	112.21	120.16
15	BU	8	TYR	N-CA-C	-5.80	98.44	110.80
34	BC	39	THR	N-CA-CB	5.80	120.30	110.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	451	U	N1-C1'-C2'	5.80	120.70	112.00
1	Ad	975	A	C3'-C2'-C1'	5.80	107.10	101.30
1	Ad	1080	C	C3'-C2'-C1'	5.80	107.10	101.30
1	Ad	1464	G	C1'-O4'-C4'	-5.80	104.10	109.90
7	BM	91	LEU	N-CA-CB	5.80	120.30	110.49
48	CD	116	LEU	N-CA-CB	5.80	120.29	110.49
1	Ad	52	U	O4'-C1'-N1	5.80	117.20	108.50
11	BD	183	GLY	CA-C-N	5.80	132.41	121.97
11	BD	183	GLY	C-N-CA	5.80	132.41	121.97
73	CO	136	PRO	CA-N-CD	-5.80	103.88	112.00
85	Ac	62	C	P-O5'-C5'	-5.80	112.20	120.90
1	Ad	179	A	C3'-C2'-C1'	5.80	107.10	101.30
2	Ae	30	G	O4'-C1'-C2'	5.79	113.39	107.60
84	Aa	1703	C	O4'-C1'-N1	5.79	117.19	108.50
84	Aa	2512	U	O3'-P-O5'	-5.79	95.31	104.00
1	Ad	1029	U	O4'-C1'-N1	5.79	117.19	108.50
1	Ad	1508	C	O4'-C1'-C2'	-5.79	101.81	107.60
1	Ad	1568	U	O4'-C1'-C2'	-5.79	101.81	107.60
68	Ch	118	ARG	CA-C-N	5.79	132.61	121.54
68	Ch	118	ARG	C-N-CA	5.79	132.61	121.54
75	CI	37	GLY	N-CA-C	-5.79	105.71	111.56
1	Ad	58	U	P-O5'-C5'	5.79	129.59	120.90
1	Ad	1716	C	N1-C1'-C2'	5.79	120.69	112.00
60	Co	95	GLY	N-CA-C	-5.79	107.00	115.63
84	Aa	240	U	P-O3'-C3'	5.79	128.89	120.20
71	CB	123	CYS	CA-C-N	5.79	132.60	121.54
71	CB	123	CYS	C-N-CA	5.79	132.60	121.54
30	BB	205	PHE	CA-C-N	5.79	127.08	119.84
30	BB	205	PHE	C-N-CA	5.79	127.08	119.84
84	Aa	492	G	C4'-C3'-C2'	5.79	108.39	102.60
1	Ad	907	G	O4'-C1'-N9	5.79	117.18	108.50
1	Ad	1200	A	O4'-C4'-C3'	-5.79	100.31	106.10
71	CB	118	PHE	N-CA-C	5.79	119.11	112.57
75	CI	6	ALA	CA-C-N	5.79	128.61	120.28
75	CI	6	ALA	C-N-CA	5.79	128.61	120.28
84	Aa	603	G	P-O5'-C5'	5.79	129.58	120.90
1	Ad	64	U	O4'-C1'-N1	5.78	117.17	108.50
1	Ad	131	C	C4'-C3'-C2'	-5.78	96.82	102.60
1	Ad	1205	G	N9-C1'-C2'	-5.78	103.33	112.00
1	Ad	1391	G	C1'-O4'-C4'	-5.78	104.12	109.90
1	Ad	1432	C	C1'-O4'-C4'	5.78	115.48	109.70
1	Ad	1681	G	O4'-C1'-N9	5.78	117.17	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	Af	12	A	O4'-C1'-C2'	5.78	113.38	107.60
62	CS	18	THR	CA-C-N	5.78	127.07	119.84
62	CS	18	THR	C-N-CA	5.78	127.07	119.84
1	Ad	176	A	N9-C1'-C2'	-5.78	103.33	112.00
1	Ad	327	A	O4'-C1'-C2'	-5.78	101.82	107.60
2	Ae	29	C	C3'-C2'-C1'	5.78	107.08	101.30
48	CD	260	GLU	CA-C-N	5.78	127.07	119.84
48	CD	260	GLU	C-N-CA	5.78	127.07	119.84
1	Ad	939	C	C1'-C2'-O2'	5.78	117.07	108.40
1	Ad	1549	G	C3'-C2'-C1'	5.78	107.08	101.30
1	Ad	34	G	N9-C1'-C2'	5.78	120.67	112.00
1	Ad	949	A	O4'-C1'-C2'	-5.78	100.02	105.80
49	CR	137	VAL	N-CA-CB	5.78	120.76	111.23
13	BF	41	HIS	N-CA-CB	5.78	120.25	110.49
1	Ad	385	C	C3'-C2'-C1'	5.77	107.07	101.30
11	BD	163	PRO	CA-C-N	5.77	128.37	120.46
11	BD	163	PRO	C-N-CA	5.77	128.37	120.46
69	CF	160	LYS	N-CA-C	-5.77	98.51	110.80
75	CI	173	PHE	CA-CB-CG	-5.77	108.03	113.80
1	Ad	311	G	P-O5'-C5'	-5.77	112.25	120.90
1	Ad	631	C	N1-C1'-C2'	5.77	120.65	112.00
10	Bg	85	SER	CA-C-N	5.77	128.58	120.28
10	Bg	85	SER	C-N-CA	5.77	128.58	120.28
1	Ad	1656	C	O4'-C1'-C2'	-5.77	101.83	107.60
1	Ad	748	C	O4'-C1'-C2'	-5.76	101.84	107.60
1	Ad	858	G	N9-C1'-C2'	5.76	120.64	112.00
1	Ad	1041	A	N9-C1'-C2'	-5.76	103.35	112.00
24	BW	97	ARG	N-CA-CB	5.76	120.23	110.49
1	Ad	1389	G	O4'-C1'-N9	5.76	117.14	108.50
1	Ad	498	U	O4'-C1'-N1	5.76	116.84	108.20
1	Ad	578	G	O4'-C1'-N9	5.76	117.14	108.50
40	Cz	133	PHE	CA-C-N	5.76	127.04	119.84
40	Cz	133	PHE	C-N-CA	5.76	127.04	119.84
58	Cj	87	ARG	CA-C-N	5.76	132.54	121.54
58	Cj	87	ARG	C-N-CA	5.76	132.54	121.54
1	Ad	1538	C	C3'-C2'-C1'	5.76	107.06	101.30
48	CD	289	ASN	N-CA-CB	5.76	120.22	110.49
84	Aa	1720	C	O4'-C1'-N1	5.76	116.84	108.20
84	Aa	1831	A	P-O5'-C5'	5.76	129.54	120.90
84	Aa	2167	G	C1'-O4'-C4'	-5.76	103.94	109.70
18	BN	151	ALA	N-CA-CB	5.76	119.03	110.40
85	Ac	11	C	C4'-C3'-C2'	-5.76	96.84	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2739	A	P-O5'-C5'	-5.75	112.27	120.90
1	Ad	241	G	O4'-C1'-N9	5.75	116.83	108.20
1	Ad	747	U	N1-C1'-C2'	5.75	120.63	112.00
84	Aa	3154	G	P-O3'-C3'	5.75	128.82	120.20
1	Ad	525	A	O4'-C1'-N9	5.75	117.12	108.50
1	Ad	1062	C	C1'-O4'-C4'	5.75	115.45	109.70
84	Aa	3334	A	C5'-C4'-C3'	-5.75	107.38	116.00
84	Aa	1797	U	C5'-C4'-C3'	-5.75	107.38	116.00
1	Ad	118	U	O4'-C1'-C2'	-5.74	101.86	107.60
3	Af	19	U	O4'-C1'-N1	5.74	117.11	108.50
1	Ad	823	A	C4'-C3'-O3'	-5.74	104.39	113.00
1	Ad	1273	U	N1-C1'-C2'	5.74	122.61	114.00
84	Aa	522	C	C5'-C4'-O4'	5.74	118.40	109.80
1	Ad	39	A	O4'-C1'-N9	5.73	116.80	108.20
1	Ad	888	U	O4'-C1'-N1	5.73	117.10	108.50
1	Ad	284	U	O4'-C1'-N1	5.73	117.10	108.50
1	Ad	948	C	N1-C1'-C2'	5.73	120.60	112.00
1	Ad	1402	C	O4'-C1'-C2'	-5.73	101.87	107.60
11	BD	155	GLY	CA-C-N	5.73	132.49	121.54
11	BD	155	GLY	C-N-CA	5.73	132.49	121.54
81	Ck	59	SER	CA-C-N	5.73	128.44	120.65
81	Ck	59	SER	C-N-CA	5.73	128.44	120.65
1	Ad	281	U	C4'-C3'-C2'	-5.73	96.87	102.60
1	Ad	1090	G	O4'-C1'-C2'	-5.73	101.87	107.60
1	Ad	980	C	O4'-C1'-C2'	-5.73	101.87	107.60
1	Ad	64	U	C4'-C3'-C2'	-5.73	96.87	102.60
1	Ad	1591	A	O4'-C1'-C2'	-5.72	100.08	105.80
26	Bb	4	SER	N-CA-C	-5.72	99.08	108.41
46	Ca	9	ARG	N-CA-CB	5.72	120.16	110.49
48	CD	295	ASP	CA-C-N	5.72	129.00	120.31
48	CD	295	ASP	C-N-CA	5.72	129.00	120.31
41	CA	173	GLY	CA-C-N	5.72	129.40	120.82
41	CA	173	GLY	C-N-CA	5.72	129.40	120.82
75	CI	119	PHE	N-CA-C	-5.72	105.60	112.58
1	Ad	282	C	P-O5'-C5'	-5.72	112.32	120.90
1	Ad	295	C	C3'-C2'-C1'	5.72	107.02	101.30
1	Ad	800	U	C3'-C2'-C1'	-5.72	95.78	101.50
1	Ad	1260	A	C3'-C2'-C1'	5.72	107.22	101.50
1	Ad	1309	U	C1'-O4'-C4'	5.72	115.42	109.70
1	Ad	1327	C	C3'-C2'-C1'	5.72	107.02	101.30
10	Bg	128	LEU	N-CA-CB	5.72	119.36	110.44
71	CB	39	LYS	CA-C-N	5.72	126.99	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
71	CB	39	LYS	C-N-CA	5.72	126.99	119.84
1	Ad	868	A	N9-C1'-C2'	-5.71	105.43	114.00
1	Ad	1443	U	N1-C1'-C2'	5.71	120.57	112.00
2	Ae	55	C	C1'-C2'-O2'	5.71	116.97	108.40
19	BL	41	LEU	CA-C-N	5.71	128.96	122.67
19	BL	41	LEU	C-N-CA	5.71	128.96	122.67
46	Ca	59	ARG	N-CA-C	-5.71	106.47	113.50
70	Cq	8	ALA	N-CA-C	5.71	118.35	110.35
1	Ad	823	A	O3'-P-O5'	5.71	112.57	104.00
84	Aa	1241	G	C5'-C4'-C3'	5.71	124.56	116.00
86	Ab	45	U	O4'-C1'-N1	5.71	117.06	108.50
1	Ad	1081	A	O4'-C1'-N9	5.71	117.06	108.50
2	Ae	47	U	C1'-O4'-C4'	5.71	115.41	109.70
84	Aa	2162	C	C2'-C3'-O3'	-5.71	105.14	113.70
84	Aa	2881	C	O4'-C1'-N1	5.71	117.06	108.50
1	Ad	95	U	O4'-C1'-C2'	-5.71	101.89	107.60
1	Ad	405	A	O4'-C1'-C2'	-5.71	100.09	105.80
1	Ad	1088	G	C4'-C3'-C2'	-5.71	96.89	102.60
11	BD	78	ASN	N-CA-CB	5.71	120.13	110.49
72	CC	96	PHE	N-CA-CB	5.71	118.93	110.49
84	Aa	1945	A	P-O5'-C5'	-5.70	112.35	120.90
84	Aa	2609	G	O3'-P-O5'	-5.70	95.44	104.00
1	Ad	735	G	N9-C1'-C2'	5.70	120.55	112.00
84	Aa	1995	U	P-O3'-C3'	5.70	128.75	120.20
84	Aa	3182	A	C5'-C4'-C3'	5.70	124.55	116.00
1	Ad	934	A	N9-C1'-C2'	5.70	120.55	112.00
24	BW	85	GLU	N-CA-C	-5.70	98.22	108.48
84	Aa	1714	A	C2'-C3'-O3'	5.70	118.05	109.50
1	Ad	774	C	N1-C1'-C2'	5.70	120.55	112.00
1	Ad	1152	A	C3'-C2'-C1'	5.70	107.00	101.30
64	Ci	40	VAL	N-CA-CB	5.70	120.63	111.23
1	Ad	1023	C	O4'-C1'-C2'	-5.70	101.90	107.60
40	Cz	119	ILE	CA-C-O	-5.70	114.01	118.85
76	Cn	21	ARG	N-CA-C	-5.70	106.88	113.88
84	Aa	215	U	P-O3'-C3'	5.70	128.74	120.20
1	Ad	1459	G	O4'-C1'-C2'	-5.69	101.91	107.60
73	CO	190	ALA	N-CA-C	-5.69	106.88	113.88
1	Ad	166	A	O4'-C1'-C2'	-5.69	101.91	107.60
51	CX	33	SER	CA-C-N	5.69	132.41	121.54
51	CX	33	SER	C-N-CA	5.69	132.41	121.54
84	Aa	150	G	P-O5'-C5'	-5.69	112.36	120.90
84	Aa	3333	C	C5'-C4'-O4'	5.69	117.64	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	558	G	P-O5'-C5'	-5.69	112.37	120.90
1	Ad	129	U	O4'-C1'-N1	5.69	116.73	108.20
1	Ad	209	U	P-O3'-C3'	-5.69	111.67	120.20
1	Ad	1186	U	O4'-C1'-N1	5.69	117.03	108.50
1	Ad	1195	U	O4'-C1'-N1	5.69	117.03	108.50
54	Cr	93	ARG	N-CA-CB	5.69	120.10	110.49
1	Ad	414	A	C1'-O4'-C4'	-5.69	104.21	109.90
1	Ad	1574	U	N1-C1'-C2'	-5.69	103.47	112.00
1	Ad	985	G	O4'-C1'-N9	5.68	117.03	108.50
1	Ad	1681	G	C4'-C3'-O3'	-5.68	104.47	113.00
84	Aa	1515	U	C4'-C3'-O3'	-5.68	104.47	113.00
84	Aa	2789	G	C5'-C4'-C3'	-5.68	107.47	116.00
1	Ad	724	U	O4'-C1'-N1	5.68	117.02	108.50
16	BO	134	VAL	N-CA-CB	5.68	119.16	111.21
51	CX	50	LYS	N-CA-CB	5.68	120.09	110.49
1	Ad	1085	U	O4'-C1'-N1	5.68	117.02	108.50
1	Ad	1715	C	N1-C1'-C2'	5.68	120.52	112.00
1	Ad	600	C	O4'-C1'-C2'	-5.68	101.92	107.60
1	Ad	1221	A	C1'-O4'-C4'	5.68	115.38	109.70
1	Ad	649	C	N1-C1'-C2'	5.67	120.51	112.00
1	Ad	719	C	C3'-C2'-C1'	5.67	106.97	101.30
1	Ad	1125	U	O4'-C1'-N1	5.67	117.01	108.50
2	Ae	47	U	O4'-C1'-C2'	-5.67	100.13	105.80
20	BT	36	TRP	CA-C-N	5.67	128.23	120.46
20	BT	36	TRP	C-N-CA	5.67	128.23	120.46
43	CH	38	PHE	CA-CB-CG	-5.67	108.12	113.80
84	Aa	1565	G	C5'-C4'-C3'	5.67	124.51	116.00
84	Aa	2044	C	C5'-C4'-C3'	-5.67	107.49	116.00
1	Ad	982	A	O4'-C1'-C2'	-5.67	101.93	107.60
1	Ad	1357	U	O4'-C1'-N1	5.67	117.01	108.50
84	Aa	1359	A	C2'-C3'-O3'	5.67	118.01	109.50
1	Ad	1349	A	N9-C1'-C2'	5.67	120.51	112.00
1	Ad	1680	A	C3'-C2'-C1'	5.67	106.97	101.30
31	BV	16	LYS	N-CA-C	-5.67	98.72	110.80
1	Ad	1172	G	C1'-O4'-C4'	-5.67	104.23	109.90
1	Ad	1231	A	P-O3'-C3'	5.67	128.70	120.20
36	BH	65	VAL	CA-C-O	-5.67	116.99	119.94
1	Ad	1674	C	O4'-C1'-C2'	-5.67	101.94	107.60
1	Ad	642	C	N1-C1'-C2'	5.66	122.50	114.00
1	Ad	1237	G	O4'-C1'-C2'	5.66	113.26	107.60
1	Ad	1755	G	N9-C1'-C2'	5.66	120.50	112.00
44	CV	123	LYS	CA-C-N	5.66	128.14	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
44	CV	123	LYS	C-N-CA	5.66	128.14	120.38
64	Ci	37	THR	CA-C-N	5.66	132.36	121.54
64	Ci	37	THR	C-N-CA	5.66	132.36	121.54
84	Aa	3011	U	C5'-C4'-C3'	5.66	124.50	116.00
1	Ad	223	A	C1'-O4'-C4'	-5.66	104.24	109.90
1	Ad	1658	U	O4'-C1'-N1	5.66	116.99	108.50
48	CD	227	LEU	CA-C-N	5.66	127.86	120.28
48	CD	227	LEU	C-N-CA	5.66	127.86	120.28
1	Ad	621	U	O4'-C1'-N1	5.66	116.99	108.50
1	Ad	1174	G	N9-C1'-C2'	5.66	120.49	112.00
1	Ad	1590	U	C1'-O4'-C4'	5.66	115.36	109.70
60	Co	102	THR	N-CA-CB	5.66	120.06	110.49
4	BY	136	LYS	CA-C-N	5.66	128.32	120.29
4	BY	136	LYS	C-N-CA	5.66	128.32	120.29
1	Ad	261	C	C1'-C2'-O2'	5.66	116.88	108.40
1	Ad	535	C	C1'-O4'-C4'	-5.66	104.24	109.90
4	BY	7	ALA	CA-C-N	5.65	126.91	119.84
4	BY	7	ALA	C-N-CA	5.65	126.91	119.84
72	CC	90	ARG	N-CA-CB	5.65	120.05	110.49
1	Ad	448	C	N1-C1'-C2'	5.65	122.48	114.00
1	Ad	1737	A	O4'-C1'-C2'	-5.65	101.95	107.60
1	Ad	614	G	N9-C1'-C2'	5.65	120.48	112.00
1	Ad	721	U	P-O5'-C5'	-5.65	112.42	120.90
1	Ad	936	C	C3'-C2'-C1'	5.65	106.95	101.30
48	CD	297	ASP	CA-C-N	5.65	127.85	120.28
48	CD	297	ASP	C-N-CA	5.65	127.85	120.28
1	Ad	1219	C	C5'-C4'-O4'	5.65	118.27	109.80
1	Ad	862	U	O4'-C1'-C2'	-5.65	101.95	107.60
2	Ae	20	C	O3'-P-O5'	5.65	112.47	104.00
1	Ad	158	C	C4'-C3'-C2'	-5.65	96.95	102.60
1	Ad	1801	A	O4'-C1'-C2'	-5.65	100.15	105.80
84	Aa	1559	G	N9-C1'-C2'	5.65	120.47	112.00
1	Ad	1073	C	O4'-C1'-C2'	-5.64	101.95	107.60
2	Ae	71	A	N9-C1'-C2'	5.64	120.47	112.00
18	BN	136	PRO	CA-C-O	-5.64	112.37	120.56
24	BW	64	GLU	CA-C-N	5.64	132.32	121.54
24	BW	64	GLU	C-N-CA	5.64	132.32	121.54
1	Ad	940	U	O4'-C1'-N1	5.64	116.97	108.50
17	BS	138	THR	N-CA-C	-5.64	100.95	108.34
72	CC	110	LYS	N-CA-CB	5.64	120.03	110.49
84	Aa	2815	A	C5'-C4'-C3'	5.64	124.46	116.00
84	Aa	537	U	P-O3'-C3'	5.64	128.66	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	CS	72	THR	N-CA-CB	5.64	120.02	110.49
84	Aa	52	G	C5'-C4'-C3'	-5.64	107.54	116.00
84	Aa	407	A	C2'-C3'-O3'	5.64	122.16	113.70
1	Ad	301	U	N1-C1'-C2'	5.64	120.45	112.00
1	Ad	329	G	C4'-C3'-C2'	-5.64	96.96	102.60
32	Ba	4	LYS	N-CA-C	-5.64	104.99	113.89
84	Aa	2088	C	O4'-C4'-C3'	-5.64	98.36	104.00
1	Ad	1071	C	N1-C1'-C2'	5.63	120.45	112.00
1	Ad	1684	U	O4'-C1'-C2'	-5.63	101.97	107.60
7	BM	117	GLU	N-CA-CB	5.63	120.01	110.49
84	Aa	635	U	C4'-C3'-O3'	-5.63	104.55	113.00
84	Aa	97	G	P-O5'-C5'	-5.63	112.45	120.90
1	Ad	276	G	C4'-C3'-C2'	-5.63	96.97	102.60
1	Ad	835	U	O4'-C1'-C2'	-5.63	101.97	107.60
1	Ad	1255	U	O4'-C1'-N1	5.63	116.64	108.20
1	Ad	843	G	P-O5'-C5'	5.63	129.34	120.90
1	Ad	1415	G	O4'-C1'-C2'	-5.63	101.97	107.60
1	Ad	951	U	N1-C1'-C2'	5.62	120.43	112.00
1	Ad	1172	G	C1'-C2'-O2'	5.62	116.83	108.40
1	Ad	1290	U	O4'-C1'-C2'	-5.62	101.98	107.60
1	Ad	1582	G	O3'-P-O5'	-5.62	95.57	104.00
84	Aa	1215	U	C4'-C3'-O3'	-5.62	104.57	113.00
50	CP	73	ALA	N-CA-C	-5.62	105.46	112.93
58	Cj	11	ARG	N-CA-C	5.62	119.44	112.47
62	CS	35	ASN	CA-C-N	5.62	127.81	120.28
62	CS	35	ASN	C-N-CA	5.62	127.81	120.28
1	Ad	1269	G	N9-C1'-C2'	5.62	120.42	112.00
58	Cj	84	ALA	N-CA-CB	5.62	119.98	110.49
1	Ad	1582	G	O4'-C1'-N9	-5.62	100.08	108.50
45	CN	90	THR	N-CA-C	-5.62	106.78	113.97
1	Ad	107	U	O4'-C1'-N1	5.61	116.92	108.50
48	CD	95	ASN	CA-C-N	5.61	127.80	120.28
48	CD	95	ASN	C-N-CA	5.61	127.80	120.28
1	Ad	1731	A	C4'-C3'-O3'	-5.61	104.58	113.00
41	CA	91	GLY	CA-C-N	5.61	127.73	120.44
41	CA	91	GLY	C-N-CA	5.61	127.73	120.44
42	CJ	93	LEU	CA-C-N	5.61	132.26	121.54
42	CJ	93	LEU	C-N-CA	5.61	132.26	121.54
1	Ad	147	C	N1-C1'-C2'	5.61	120.41	112.00
1	Ad	1625	U	O4'-C1'-N1	5.61	116.91	108.50
10	Bg	301	VAL	CA-C-N	5.61	127.80	120.28
10	Bg	301	VAL	C-N-CA	5.61	127.80	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	CA	196	TRP	CA-C-O	-5.61	112.48	120.16
64	Ci	42	PHE	N-CA-CB	5.61	119.96	110.49
84	Aa	724	A	C5'-C4'-C3'	5.61	124.41	116.00
84	Aa	2236	U	P-O3'-C3'	5.61	128.61	120.20
36	BH	16	PRO	CA-C-N	5.60	132.24	121.54
36	BH	16	PRO	C-N-CA	5.60	132.24	121.54
15	BU	80	GLY	CA-C-N	5.60	132.24	121.54
15	BU	80	GLY	C-N-CA	5.60	132.24	121.54
24	BW	2	VAL	N-CA-C	-5.60	100.41	108.53
72	CC	304	GLN	CA-C-N	5.60	132.24	121.54
72	CC	304	GLN	C-N-CA	5.60	132.24	121.54
1	Ad	870	A	O4'-C1'-N9	5.60	116.90	108.50
52	CW	57	TYR	N-CA-C	-5.60	103.37	108.75
1	Ad	189	U	C1'-O4'-C4'	5.60	115.30	109.70
1	Ad	1003	A	O4'-C1'-C2'	-5.60	102.00	107.60
1	Ad	1208	A	O4'-C1'-C2'	-5.60	102.00	107.60
1	Ad	1250	C	C3'-C2'-C1'	-5.60	95.70	101.30
71	CB	363	ILE	N-CA-C	-5.60	100.29	108.97
59	Cl	6	THR	CA-C-N	5.60	127.78	120.28
59	Cl	6	THR	C-N-CA	5.60	127.78	120.28
2	Ae	58	U	P-O5'-C5'	5.59	129.29	120.90
1	Ad	139	U	N1-C1'-C2'	5.59	122.39	114.00
1	Ad	334	G	O4'-C1'-N9	5.59	116.89	108.50
2	Ae	28	G	C4'-C3'-C2'	-5.59	97.01	102.60
25	Bd	18	SER	CA-C-N	5.59	132.22	121.54
25	Bd	18	SER	C-N-CA	5.59	132.22	121.54
47	CQ	88	ASP	CA-CB-CG	-5.59	107.01	112.60
1	Ad	61	A	C2'-C3'-O3'	-5.59	105.31	113.70
1	Ad	130	A	O4'-C1'-N9	5.59	116.59	108.20
1	Ad	1224	C	N1-C1'-C2'	5.59	120.39	112.00
46	Ca	116	ARG	CA-C-N	5.59	126.83	119.84
46	Ca	116	ARG	C-N-CA	5.59	126.83	119.84
48	CD	207	TYR	CA-C-N	5.59	127.77	120.28
48	CD	207	TYR	C-N-CA	5.59	127.77	120.28
78	CL	154	MET	CA-C-N	5.59	124.78	118.97
78	CL	154	MET	C-N-CA	5.59	124.78	118.97
82	Cb	25	LYS	N-CA-CB	5.59	119.94	110.49
1	Ad	1388	A	N9-C1'-C2'	-5.59	105.62	114.00
1	Ad	1635	U	O4'-C1'-N1	5.59	116.89	108.50
84	Aa	2480	G	C2'-C3'-O3'	-5.59	105.31	113.70
84	Aa	3294	U	P-O3'-C3'	5.59	128.59	120.20
86	Ab	103	U	O4'-C1'-N1	5.59	116.88	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	476	U	O4'-C1'-N1	5.59	116.88	108.50
1	Ad	1418	G	O4'-C1'-C2'	-5.59	100.21	105.80
1	Ad	528	U	N1-C1'-C2'	5.59	120.38	112.00
71	CB	3	HIS	CA-C-N	5.58	132.21	121.54
71	CB	3	HIS	C-N-CA	5.58	132.21	121.54
72	CC	96	PHE	CA-CB-CG	5.58	119.38	113.80
84	Aa	2496	U	C2'-C3'-O3'	5.58	122.08	113.70
1	Ad	165	U	O4'-C1'-C2'	-5.58	102.02	107.60
1	Ad	720	U	P-O3'-C3'	-5.58	111.83	120.20
2	Ae	40	U	O4'-C1'-N1	5.58	116.87	108.50
28	BA	108	THR	N-CA-CB	5.58	120.30	110.37
45	CN	17	ASP	CA-C-N	5.58	128.10	120.46
45	CN	17	ASP	C-N-CA	5.58	128.10	120.46
78	CL	66	ASN	N-CA-CB	5.58	119.92	110.49
1	Ad	1727	C	O4'-C1'-C2'	-5.58	102.02	107.60
1	Ad	77	G	O4'-C1'-N9	5.58	116.86	108.50
1	Ad	607	U	C1'-C2'-O2'	5.58	116.76	108.40
1	Ad	746	A	C1'-O4'-C4'	5.58	115.47	109.90
84	Aa	967	G	C5'-C4'-C3'	-5.57	107.64	116.00
86	Ab	29	C	C2'-C3'-O3'	5.57	122.06	113.70
1	Ad	545	A	P-O5'-C5'	-5.57	112.54	120.90
1	Ad	1731	A	C4'-C3'-C2'	-5.57	97.03	102.60
84	Aa	451	C	C2'-C3'-O3'	-5.57	105.34	113.70
84	Aa	551	A	C4'-C3'-O3'	5.57	121.36	113.00
84	Aa	1258	C	P-O5'-C5'	-5.57	112.55	120.90
12	BE	121	PHE	CA-CB-CG	-5.57	108.23	113.80
17	BS	8	GLU	N-CA-C	-5.57	98.94	110.80
1	Ad	955	C	C3'-C2'-C1'	5.57	106.87	101.30
84	Aa	721	A	P-O5'-C5'	5.57	129.25	120.90
1	Ad	454	U	O4'-C1'-C2'	-5.57	102.03	107.60
22	BZ	28	TRP	CA-C-N	5.56	132.17	121.54
22	BZ	28	TRP	C-N-CA	5.56	132.17	121.54
26	Bb	64	VAL	CB-CA-C	5.56	120.42	111.29
1	Ad	169	A	O4'-C1'-C2'	-5.56	102.04	107.60
1	Ad	1710	C	O4'-C1'-C2'	-5.56	102.04	107.60
84	Aa	612	U	C4'-C3'-C2'	5.56	108.16	102.60
1	Ad	201	G	O4'-C1'-C2'	5.56	113.16	107.60
84	Aa	454	A	P-O5'-C5'	5.56	129.24	120.90
1	Ad	54	C	C1'-O4'-C4'	5.56	115.46	109.90
1	Ad	1603	U	O4'-C1'-N1	5.56	116.84	108.50
56	Cd	88	ASN	CA-C-N	5.56	127.73	120.28
56	Cd	88	ASN	C-N-CA	5.56	127.73	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	170	C	O4'-C1'-C2'	-5.56	102.04	107.60
1	Ad	327	A	C3'-C2'-C1'	5.56	106.86	101.30
1	Ad	269	A	P-O5'-C5'	5.56	129.23	120.90
79	CE	53	ALA	CA-C-N	5.56	132.15	121.54
79	CE	53	ALA	C-N-CA	5.56	132.15	121.54
84	Aa	2286	A	C5'-C4'-C3'	5.56	124.33	116.00
1	Ad	1535	U	O4'-C1'-N1	5.55	116.83	108.50
84	Aa	1599	A	P-O5'-C5'	-5.55	112.57	120.90
84	Aa	2402	G	C2'-C3'-O3'	5.55	117.83	109.50
1	Ad	1461	G	O4'-C1'-C2'	5.55	113.15	107.60
1	Ad	631	C	C1'-O4'-C4'	-5.55	104.35	109.90
1	Ad	731	G	O4'-C1'-N9	5.55	116.53	108.20
2	Ae	21	A	P-O5'-C5'	5.55	129.23	120.90
48	CD	198	TYR	CA-C-N	5.55	131.96	121.97
48	CD	198	TYR	C-N-CA	5.55	131.96	121.97
84	Aa	1604	U	P-O3'-C3'	5.55	128.52	120.20
84	Aa	1611	G	O5'-C5'-C4'	-5.55	103.18	111.50
1	Ad	1604	C	C1'-C2'-O2'	5.55	116.72	108.40
42	CJ	63	ARG	N-CA-CB	5.55	119.86	110.49
29	BR	66	VAL	CA-C-N	5.54	127.98	120.38
29	BR	66	VAL	C-N-CA	5.54	127.98	120.38
63	CU	83	ARG	CA-C-N	5.54	128.26	120.28
63	CU	83	ARG	C-N-CA	5.54	128.26	120.28
1	Ad	901	U	N1-C1'-C2'	5.54	120.31	112.00
18	BN	69	SER	CA-C-N	5.54	128.26	120.28
18	BN	69	SER	C-N-CA	5.54	128.26	120.28
53	CY	123	SER	CA-C-N	5.54	126.25	119.99
53	CY	123	SER	C-N-CA	5.54	126.25	119.99
84	Aa	2715	U	C5'-C4'-C3'	-5.54	107.69	116.00
2	Ae	18	G	C2'-C3'-O3'	5.54	117.81	109.50
63	CU	108	ASN	N-CA-CB	5.54	119.85	110.49
84	Aa	1261	C	P-O5'-C5'	5.54	129.21	120.90
1	Ad	1745	U	O4'-C1'-N1	5.54	116.81	108.50
40	Cz	28	THR	N-CA-C	-5.54	106.36	114.39
84	Aa	2132	A	O4'-C1'-N9	5.54	116.50	108.20
1	Ad	1154	G	C1'-O4'-C4'	-5.54	104.36	109.90
14	BQ	114	ILE	N-CA-C	-5.54	106.94	113.42
16	BO	66	ASP	N-CA-CB	5.54	119.84	110.49
84	Aa	2178	G	C5'-C4'-O4'	5.54	118.10	109.80
84	Aa	2919	G	O3'-P-O5'	-5.54	95.70	104.00
1	Ad	198	G	N9-C1'-C2'	5.53	120.30	112.00
1	Ad	741	C	O4'-C1'-C2'	-5.53	102.07	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	Bd	14	TYR	N-CA-CB	5.53	119.84	110.49
43	CH	183	LYS	N-CA-C	-5.53	99.01	110.80
72	CC	21	ASP	N-CA-C	-5.53	99.02	110.80
86	Ab	44	C	P-O5'-C5'	-5.53	112.60	120.90
1	Ad	965	U	P-O5'-C5'	-5.53	112.60	120.90
11	BD	125	PHE	CA-C-N	5.53	131.93	121.97
11	BD	125	PHE	C-N-CA	5.53	131.93	121.97
33	BJ	137	ARG	CA-C-N	5.53	127.47	120.72
33	BJ	137	ARG	C-N-CA	5.53	127.47	120.72
1	Ad	214	A	C4'-C3'-O3'	5.53	117.69	109.40
1	Ad	1065	A	O4'-C1'-N9	5.53	116.79	108.50
84	Aa	1563	G	C3'-C2'-O2'	-5.53	106.31	114.60
86	Ab	13	A	O4'-C1'-N9	5.53	116.49	108.20
1	Ad	987	U	O4'-C1'-N1	5.53	116.79	108.50
12	BE	151	ASP	N-CA-C	-5.53	101.96	110.58
69	CF	9	ALA	CA-C-N	5.53	124.75	120.33
69	CF	9	ALA	C-N-CA	5.53	124.75	120.33
84	Aa	649	A	O3'-P-O5'	-5.53	95.71	104.00
84	Aa	1562	A	C5'-C4'-O4'	5.53	117.39	109.10
1	Ad	179	A	C1'-O4'-C4'	-5.52	104.38	109.90
1	Ad	373	U	C5'-C4'-O4'	5.52	118.08	109.80
1	Ad	1538	C	P-O5'-C5'	5.52	129.18	120.90
84	Aa	2388	C	C5'-C4'-C3'	5.52	124.28	116.00
15	BU	81	GLU	N-CA-CB	5.52	119.82	110.49
84	Aa	1721	A	C4'-C3'-C2'	-5.52	97.08	102.60
84	Aa	1308	A	P-O3'-C3'	-5.52	111.92	120.20
1	Ad	456	A	C5'-C4'-C3'	5.51	123.47	115.20
1	Ad	1361	G	C4'-C3'-C2'	-5.51	97.08	102.60
14	BQ	97	ALA	N-CA-C	5.51	117.29	111.28
29	BR	85	VAL	N-CA-CB	5.51	118.93	111.21
84	Aa	2770	U	C5'-C4'-C3'	-5.51	107.73	116.00
1	Ad	1585	A	O4'-C1'-C2'	-5.51	102.09	107.60
79	CE	65	LYS	CA-C-N	5.51	125.18	119.56
79	CE	65	LYS	C-N-CA	5.51	125.18	119.56
84	Aa	721	A	O4'-C1'-N9	5.51	116.47	108.20
1	Ad	717	G	O4'-C1'-N9	-5.51	100.23	108.50
1	Ad	1610	C	N1-C1'-C2'	5.51	120.26	112.00
1	Ad	96	G	O4'-C1'-C2'	5.51	113.11	107.60
10	Bg	342	SER	N-CA-CB	5.51	119.80	110.49
86	Ab	73	U	C1'-O4'-C4'	-5.51	104.39	109.90
1	Ad	1388	A	O4'-C1'-C2'	-5.51	100.29	105.80
84	Aa	638	G	P-O5'-C5'	5.51	129.16	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2106	U	P-O3'-C3'	5.51	128.46	120.20
1	Ad	1020	U	N1-C1'-C2'	5.50	120.26	112.00
1	Ad	1290	U	O4'-C1'-N1	5.50	116.76	108.50
1	Ad	328	U	O4'-C1'-C2'	-5.50	102.10	107.60
2	Ae	32	U	O4'-C1'-N1	5.50	116.76	108.50
1	Ad	1248	A	C3'-C2'-C1'	-5.50	95.80	101.30
84	Aa	3333	C	O4'-C1'-N1	5.50	116.45	108.20
1	Ad	1618	G	C1'-O4'-C4'	-5.50	104.40	109.90
84	Aa	526	A	P-O3'-C3'	5.50	128.45	120.20
1	Ad	191	U	C4'-C3'-C2'	-5.50	97.10	102.60
1	Ad	815	A	O4'-C1'-C2'	-5.50	102.10	107.60
1	Ad	945	A	O4'-C1'-C2'	-5.50	102.10	107.60
1	Ad	271	C	C2'-C3'-O3'	5.50	117.74	109.50
1	Ad	739	U	O4'-C1'-N1	5.50	116.74	108.50
55	Cc	91	VAL	N-CA-C	-5.50	100.32	108.45
32	Ba	86	VAL	CB-CA-C	5.49	120.30	111.29
1	Ad	1233	G	O4'-C4'-C3'	-5.49	100.61	106.10
1	Ad	1613	G	C1'-O4'-C4'	-5.49	104.41	109.90
84	Aa	651	A	P-O3'-C3'	5.49	128.44	120.20
84	Aa	2075	C	O4'-C1'-C2'	-5.49	102.11	107.60
1	Ad	1373	C	O4'-C1'-C2'	-5.49	102.11	107.60
1	Ad	1563	A	N9-C1'-C2'	5.49	120.23	112.00
9	BX	1	MET	CA-C-N	5.49	125.31	120.10
9	BX	1	MET	C-N-CA	5.49	125.31	120.10
53	CY	7	VAL	CA-C-N	5.49	132.02	121.54
53	CY	7	VAL	C-N-CA	5.49	132.02	121.54
84	Aa	1593	C	O4'-C1'-N1	5.49	116.73	108.50
14	BQ	91	ILE	N-CA-CB	5.49	120.28	111.23
1	Ad	50	C	O4'-C1'-C2'	-5.48	102.12	107.60
1	Ad	137	A	P-O3'-C3'	5.48	128.42	120.20
1	Ad	1686	C	N1-C1'-C2'	5.48	120.22	112.00
17	BS	8	GLU	CA-C-N	5.48	132.01	121.54
17	BS	8	GLU	C-N-CA	5.48	132.01	121.54
1	Ad	66	U	C2'-C3'-O3'	5.48	121.92	113.70
1	Ad	356	G	C3'-C2'-C1'	5.48	106.98	101.50
22	BZ	26	LYS	N-CA-CB	5.48	119.75	110.49
1	Ad	233	U	O4'-C1'-C2'	-5.48	102.12	107.60
1	Ad	449	A	C3'-C2'-C1'	5.48	106.78	101.30
1	Ad	1479	U	C1'-C2'-O2'	5.48	120.02	111.80
1	Ad	1496	A	C2'-C3'-O3'	5.48	117.72	109.50
42	CJ	109	GLN	CA-C-N	5.48	127.62	120.28
42	CJ	109	GLN	C-N-CA	5.48	127.62	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	CR	28	GLU	CA-C-N	5.48	128.25	120.53
49	CR	28	GLU	C-N-CA	5.48	128.25	120.53
57	Ce	120	VAL	N-CA-CB	5.48	120.27	111.23
84	Aa	692	U	O3'-P-O5'	-5.48	95.79	104.00
71	CB	127	LYS	N-CA-C	-5.47	103.50	108.75
84	Aa	724	A	P-O5'-C5'	5.47	129.11	120.90
13	BF	76	GLY	CA-C-N	5.47	131.99	121.54
13	BF	76	GLY	C-N-CA	5.47	131.99	121.54
84	Aa	2086	A	C4-N9-C1'	5.47	142.72	126.30
1	Ad	275	C	O4'-C1'-C2'	-5.47	102.13	107.60
1	Ad	1128	C	C5'-C4'-O4'	5.47	118.01	109.80
1	Ad	1182	C	O4'-C1'-C2'	-5.47	102.13	107.60
1	Ad	1665	U	O4'-C4'-C3'	-5.47	100.63	106.10
84	Aa	723	G	C4'-C3'-C2'	-5.47	97.13	102.60
82	Cb	36	ASP	CA-C-N	5.47	124.66	118.97
82	Cb	36	ASP	C-N-CA	5.47	124.66	118.97
1	Ad	760	G	O4'-C1'-C2'	5.47	113.07	107.60
65	CK	96	VAL	N-CA-C	5.47	120.71	109.34
1	Ad	161	G	C3'-C2'-C1'	-5.46	95.84	101.30
1	Ad	350	G	O4'-C1'-C2'	-5.46	102.14	107.60
1	Ad	1599	C	N1-C1'-C2'	5.46	120.20	112.00
14	BQ	95	LEU	CA-C-N	5.46	128.24	120.53
14	BQ	95	LEU	C-N-CA	5.46	128.24	120.53
72	CC	261	ALA	CA-C-N	5.46	127.60	120.28
72	CC	261	ALA	C-N-CA	5.46	127.60	120.28
79	CE	26	TRP	N-CA-CB	5.46	119.72	110.49
84	Aa	12	G	C4'-C3'-C2'	-5.46	97.14	102.60
84	Aa	718	C	O4'-C1'-N1	5.46	116.69	108.50
1	Ad	1032	A	O4'-C1'-C2'	-5.46	102.14	107.60
69	CF	198	LYS	N-CA-C	-5.46	106.29	113.17
84	Aa	2472	U	C4'-C3'-O3'	5.46	121.19	113.00
1	Ad	416	A	C1'-O4'-C4'	5.46	115.36	109.90
1	Ad	648	C	C3'-C2'-C1'	5.46	106.76	101.30
1	Ad	1435	G	O4'-C1'-N9	5.46	116.69	108.50
16	BO	141	ARG	CA-C-N	5.46	131.97	121.54
16	BO	141	ARG	C-N-CA	5.46	131.97	121.54
22	BZ	28	TRP	N-CA-CB	5.46	119.72	110.49
84	Aa	3182	A	C4'-C3'-C2'	-5.46	97.14	102.60
1	Ad	1448	U	O4'-C1'-C2'	-5.46	102.14	107.60
19	BL	123	HIS	CA-CB-CG	-5.46	108.34	113.80
48	CD	296	ASP	CA-C-N	5.46	128.14	120.28
48	CD	296	ASP	C-N-CA	5.46	128.14	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	2070	C	P-O5'-C5'	5.46	129.09	120.90
1	Ad	60	C	P-O3'-C3'	-5.45	112.02	120.20
1	Ad	986	U	N1-C1'-C2'	5.45	120.18	112.00
30	BB	103	MET	N-CA-C	-5.45	99.54	108.76
1	Ad	295	C	O4'-C1'-C2'	-5.45	102.15	107.60
17	BS	83	PHE	N-CA-CB	5.45	119.70	110.49
15	BU	106	VAL	CA-C-N	5.45	127.43	120.56
15	BU	106	VAL	C-N-CA	5.45	127.43	120.56
64	Ci	94	SER	CA-C-N	5.45	131.95	121.54
64	Ci	94	SER	C-N-CA	5.45	131.95	121.54
75	CI	173	PHE	N-CA-C	-5.45	103.90	110.88
84	Aa	1486	G	O4'-C1'-N9	5.45	116.37	108.20
84	Aa	2885	U	C4'-C3'-C2'	-5.45	97.15	102.60
1	Ad	385	C	N1-C1'-C2'	5.45	120.17	112.00
1	Ad	179	A	C4'-C3'-C2'	5.44	108.04	102.60
49	CR	71	GLN	N-CA-C	-5.44	106.48	113.23
72	CC	98	ASN	N-CA-C	-5.44	105.86	112.88
20	BT	40	VAL	N-CA-CB	5.44	120.21	111.23
5	BI	170	ILE	CA-C-N	5.44	127.57	120.28
5	BI	170	ILE	C-N-CA	5.44	127.57	120.28
1	Ad	713	C	N1-C1'-C2'	5.44	120.16	112.00
1	Ad	33	U	O4'-C1'-N1	5.44	116.65	108.50
1	Ad	22	A	O4'-C1'-C2'	-5.43	102.17	107.60
84	Aa	2779	G	P-O3'-C3'	5.43	128.35	120.20
1	Ad	215	A	N9-C1'-C2'	-5.43	103.85	112.00
26	Bb	64	VAL	N-CA-CB	5.43	120.19	111.23
84	Aa	552	G	C2'-C3'-O3'	5.43	121.84	113.70
84	Aa	2529	C	C5'-C4'-C3'	-5.43	107.86	116.00
1	Ad	1125	U	C1'-O4'-C4'	5.43	115.33	109.90
1	Ad	795	A	O4'-C1'-C2'	-5.42	102.18	107.60
84	Aa	512	G	C5'-C4'-C3'	5.42	124.14	116.00
1	Ad	281	U	O4'-C4'-C3'	-5.42	98.58	104.00
48	CD	140	ARG	CA-C-O	-5.42	112.73	120.16
84	Aa	2241	G	C5'-C4'-C3'	-5.42	107.87	116.00
1	Ad	1003	A	C3'-C2'-C1'	5.42	106.72	101.30
1	Ad	1303	G	N9-C1'-C2'	5.42	120.13	112.00
1	Ad	1442	A	N9-C1'-C2'	5.42	120.13	112.00
61	CM	6	PHE	CA-CB-CG	5.42	119.22	113.80
1	Ad	33	U	O4'-C1'-C2'	-5.42	102.18	107.60
67	Cs	42	MET	CA-C-N	5.42	127.54	120.28
67	Cs	42	MET	C-N-CA	5.42	127.54	120.28
1	Ad	262	U	O4'-C1'-C2'	-5.42	100.38	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	351	G	C3'-C2'-C1'	-5.42	95.88	101.30
1	Ad	715	U	O4'-C1'-N1	5.42	116.63	108.50
1	Ad	866	U	O4'-C1'-N1	5.42	116.63	108.50
1	Ad	1279	A	O4'-C1'-C2'	-5.42	102.18	107.60
11	BD	80	LEU	N-CA-CB	5.42	119.65	110.49
36	BH	184	PHE	CA-CB-CG	-5.42	108.38	113.80
1	Ad	55	A	C4'-C3'-O3'	-5.42	104.88	113.00
1	Ad	465	G	O4'-C1'-C2'	-5.42	102.18	107.60
1	Ad	524	A	C1'-O4'-C4'	-5.42	104.48	109.90
1	Ad	1013	G	C1'-O4'-C4'	-5.42	104.48	109.90
49	CR	187	ARG	CA-C-N	5.42	131.88	121.54
49	CR	187	ARG	C-N-CA	5.42	131.88	121.54
83	Cg	44	CYS	N-CA-C	-5.42	103.25	110.07
38	CT	102	ASN	N-CA-C	-5.42	107.33	114.04
1	Ad	1043	C	N1-C1'-C2'	5.41	120.12	112.00
1	Ad	1774	C	N1-C1'-C2'	5.41	120.12	112.00
28	BA	122	GLU	CA-C-N	5.41	125.41	119.89
28	BA	122	GLU	C-N-CA	5.41	125.41	119.89
84	Aa	3252	G	C5'-C4'-C3'	-5.41	107.88	116.00
1	Ad	764	U	O4'-C1'-N1	5.41	116.62	108.50
1	Ad	83	U	O4'-C1'-C2'	-5.41	102.19	107.60
1	Ad	1404	U	O4'-C1'-C2'	5.41	111.21	105.80
21	BP	71	LYS	N-CA-CB	5.41	119.63	110.49
35	BG	155	VAL	N-CA-C	5.41	116.14	110.62
84	Aa	1047	C	O4'-C1'-N1	5.41	116.62	108.50
1	Ad	312	C	O4'-C1'-C2'	-5.41	102.19	107.60
1	Ad	315	U	C4'-C3'-C2'	-5.41	97.19	102.60
1	Ad	1567	G	C3'-C2'-C1'	-5.41	95.89	101.30
36	BH	77	HIS	CA-C-N	5.41	127.87	120.46
36	BH	77	HIS	C-N-CA	5.41	127.87	120.46
84	Aa	451	C	C4'-C3'-O3'	5.41	121.11	113.00
84	Aa	1558	A	C4'-C3'-O3'	-5.41	104.89	113.00
1	Ad	1307	U	N1-C1'-C2'	5.41	120.11	112.00
1	Ad	1679	A	C3'-C2'-C1'	5.41	106.70	101.30
85	Ac	14	C	C4'-C3'-O3'	-5.41	104.89	113.00
1	Ad	141	G	C3'-C2'-C1'	5.40	106.70	101.30
1	Ad	861	A	C1'-C2'-O2'	-5.40	103.70	111.80
58	Cj	3	LYS	CA-C-N	5.40	132.00	121.41
58	Cj	3	LYS	C-N-CA	5.40	132.00	121.41
84	Aa	224	C	C4'-C3'-C2'	-5.40	97.20	102.60
1	Ad	1720	G	P-O3'-C3'	5.40	128.30	120.20
2	Ae	5	U	C3'-C2'-C1'	5.40	106.70	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	Af	14	A	O4'-C1'-C2'	-5.40	102.20	107.60
14	BQ	92	ALA	CA-C-N	5.40	128.05	120.28
14	BQ	92	ALA	C-N-CA	5.40	128.05	120.28
62	CS	55	LYS	N-CA-C	-5.40	106.63	113.43
1	Ad	831	C	O4'-C1'-N1	5.39	116.59	108.50
1	Ad	919	G	C1'-O4'-C4'	5.39	115.09	109.70
84	Aa	1588	G	C5'-C4'-C3'	5.39	124.09	116.00
1	Ad	164	C	O4'-C1'-C2'	-5.39	102.21	107.60
1	Ad	1065	A	C1'-C2'-O2'	5.39	116.49	108.40
1	Ad	475	A	P-O3'-C3'	5.39	128.28	120.20
69	CF	183	ILE	N-CA-C	5.39	116.02	110.36
84	Aa	72	A	C2'-C3'-O3'	5.39	117.58	109.50
84	Aa	1318	C	P-O5'-C5'	5.39	128.98	120.90
1	Ad	1198	A	O4'-C1'-C2'	-5.39	102.21	107.60
29	BR	88	LYS	N-CA-CB	5.39	119.59	110.49
36	BH	17	SER	N-CA-CB	5.39	119.59	110.49
75	CI	119	PHE	N-CA-CB	5.39	120.66	112.47
1	Ad	361	G	C1'-C2'-O2'	5.38	116.48	108.40
1	Ad	824	U	C5'-C4'-C3'	5.38	123.28	115.20
2	Ae	70	G	N9-C1'-C2'	5.38	120.08	112.00
1	Ad	1218	U	O4'-C1'-C2'	-5.38	102.22	107.60
1	Ad	1332	G	O4'-C1'-C2'	-5.38	102.22	107.60
64	Ci	38	LYS	N-CA-C	-5.38	99.33	110.80
69	CF	170	VAL	N-CA-C	-5.38	107.12	113.42
84	Aa	2198	U	C5'-C4'-C3'	-5.38	107.92	116.00
1	Ad	1194	C	P-O3'-C3'	5.38	128.27	120.20
1	Ad	1229	C	N1-C1'-C2'	5.38	120.07	112.00
84	Aa	1798	C	C4'-C3'-O3'	5.38	121.07	113.00
1	Ad	111	U	O4'-C1'-C2'	-5.38	102.22	107.60
1	Ad	1499	U	O4'-C1'-C2'	5.38	111.18	105.80
70	Cq	9	GLU	N-CA-C	-5.38	96.32	107.67
1	Ad	872	G	O4'-C1'-N9	5.38	116.56	108.50
1	Ad	1683	G	C3'-C2'-C1'	-5.38	95.92	101.30
32	Ba	36	ILE	N-CA-CB	5.38	120.10	111.23
78	CL	12	HIS	N-CA-CB	5.38	119.58	110.49
1	Ad	107	U	O4'-C1'-C2'	-5.37	102.23	107.60
1	Ad	110	G	O4'-C1'-N9	5.37	116.56	108.50
1	Ad	1328	G	O4'-C1'-N9	5.37	116.56	108.50
2	Ae	28	G	O4'-C1'-C2'	5.37	112.97	107.60
8	Bf	29	PHE	CA-CB-CG	-5.37	108.43	113.80
20	BT	34	PRO	N-CA-C	5.37	123.54	112.47
46	Ca	53	PHE	CA-CB-CG	-5.37	108.43	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	164	C	C4'-C3'-C2'	-5.37	97.23	102.60
10	Bg	216	LEU	N-CA-C	-5.37	99.36	110.80
1	Ad	424	A	O4'-C1'-C2'	-5.37	102.23	107.60
1	Ad	562	U	C1'-O4'-C4'	-5.37	104.53	109.90
84	Aa	2077	C	P-O3'-C3'	5.37	128.25	120.20
1	Ad	357	A	C3'-C2'-C1'	5.37	106.67	101.30
1	Ad	1190	U	O4'-C1'-C2'	-5.37	102.23	107.60
1	Ad	1464	G	C1'-C2'-O2'	5.37	116.45	108.40
1	Ad	1736	C	O4'-C1'-C2'	-5.37	102.23	107.60
30	BB	150	VAL	N-CA-C	-5.37	106.57	111.67
79	CE	154	ARG	N-CA-C	-5.37	99.36	110.80
84	Aa	612	U	C4'-C3'-O3'	5.37	117.45	109.40
84	Aa	1723	C	C4'-C3'-C2'	-5.37	97.23	102.60
25	Bd	38	CYS	CA-C-N	5.37	127.47	120.28
25	Bd	38	CYS	C-N-CA	5.37	127.47	120.28
49	CR	184	GLY	CA-C-O	-5.37	113.84	121.52
84	Aa	2086	A	C8-N9-C1'	-5.37	111.60	127.70
1	Ad	1611	U	N1-C1'-C2'	5.37	120.05	112.00
41	CA	25	GLY	CA-C-N	5.37	125.27	119.85
41	CA	25	GLY	C-N-CA	5.37	125.27	119.85
47	CQ	3	ILE	CA-C-N	5.37	127.78	120.54
47	CQ	3	ILE	C-N-CA	5.37	127.78	120.54
1	Ad	530	A	P-O3'-C3'	5.36	128.25	120.20
1	Ad	613	U	C3'-C2'-C1'	5.36	106.86	101.50
2	Ae	44	A	C4'-C3'-C2'	-5.36	97.24	102.60
14	BQ	73	ILE	N-CA-C	-5.36	107.08	112.17
72	CC	20	THR	CA-C-N	5.36	131.78	121.54
72	CC	20	THR	C-N-CA	5.36	131.78	121.54
1	Ad	1565	U	O4'-C1'-N1	5.36	116.24	108.20
1	Ad	1806	C	C1'-O4'-C4'	5.36	115.06	109.70
84	Aa	2174	C	O4'-C1'-N1	5.36	116.54	108.50
1	Ad	1562	C	N1-C1'-C2'	5.36	120.04	112.00
84	Aa	2552	U	O3'-P-O5'	5.36	112.04	104.00
1	Ad	166	A	C3'-C2'-C1'	5.36	106.66	101.30
1	Ad	588	C	C4'-C3'-O3'	-5.36	104.96	113.00
1	Ad	1202	G	C3'-C2'-C1'	-5.36	95.94	101.30
1	Ad	1450	A	C1'-O4'-C4'	5.36	115.06	109.70
1	Ad	1099	G	N9-C1'-C2'	5.36	120.03	112.00
84	Aa	3190	U	O4'-C1'-N1	5.36	116.23	108.20
1	Ad	529	A	N9-C1'-C2'	5.35	120.03	112.00
1	Ad	990	G	C1'-O4'-C4'	-5.35	104.55	109.90
1	Ad	1247	G	O4'-C1'-C2'	5.35	111.15	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	167	C	C4'-C3'-C2'	5.35	107.95	102.60
84	Aa	2502	U	P-O5'-C5'	5.35	128.93	120.90
1	Ad	1006	A	C3'-C2'-C1'	5.35	106.65	101.30
1	Ad	1076	C	O4'-C1'-C2'	-5.35	102.25	107.60
1	Ad	1795	U	O4'-C1'-C2'	-5.35	102.25	107.60
20	BT	138	ALA	CA-C-N	5.35	126.04	119.99
20	BT	138	ALA	C-N-CA	5.35	126.04	119.99
1	Ad	323	U	P-O3'-C3'	5.35	128.23	120.20
1	Ad	904	G	O4'-C1'-C2'	5.35	112.95	107.60
84	Aa	2150	C	O4'-C1'-N1	5.35	116.52	108.50
49	CR	21	LYS	N-CA-C	-5.35	107.30	113.88
79	CE	157	LYS	CA-C-N	5.35	127.45	120.28
79	CE	157	LYS	C-N-CA	5.35	127.45	120.28
84	Aa	641	C	O4'-C1'-N1	5.35	116.52	108.50
1	Ad	330	G	O4'-C1'-N9	5.34	116.52	108.50
1	Ad	562	U	O4'-C1'-C2'	5.34	112.94	107.60
13	BF	77	ARG	N-CA-C	5.34	122.19	110.80
2	Ae	31	C	O4'-C1'-C2'	-5.34	102.26	107.60
1	Ad	1577	A	N9-C1'-C2'	5.34	120.01	112.00
1	Ad	1748	U	O4'-C1'-C2'	-5.34	102.26	107.60
84	Aa	641	C	C2'-C3'-O3'	-5.34	105.69	113.70
14	BQ	131	GLU	CA-C-N	5.34	126.51	119.84
14	BQ	131	GLU	C-N-CA	5.34	126.51	119.84
69	CF	222	HIS	CA-C-N	5.34	127.43	120.28
69	CF	222	HIS	C-N-CA	5.34	127.43	120.28
1	Ad	20	G	N9-C1'-C2'	5.34	120.01	112.00
1	Ad	181	C	N1-C1'-C2'	5.34	120.00	112.00
1	Ad	1526	C	O4'-C1'-C2'	-5.34	102.26	107.60
1	Ad	47	A	N9-C1'-C2'	5.33	122.00	114.00
84	Aa	114	G	C4'-C3'-C2'	-5.33	97.27	102.60
86	Ab	107	C	O4'-C1'-N1	5.33	116.50	108.50
84	Aa	641	C	C4'-C3'-O3'	5.33	121.00	113.00
1	Ad	474	A	C3'-C2'-C1'	5.33	106.63	101.30
1	Ad	1120	U	O4'-C1'-N1	5.33	116.50	108.50
84	Aa	269	C	P-O5'-C5'	-5.33	112.90	120.90
84	Aa	553	C	O5'-C5'-C4'	-5.33	103.70	111.70
84	Aa	2132	A	C4'-C3'-C2'	-5.33	97.27	102.60
17	BS	100	SER	N-CA-CB	5.33	119.50	110.49
71	CB	131	THR	N-CA-C	-5.33	99.45	110.80
1	Ad	144	U	O4'-C1'-N1	5.33	116.49	108.50
1	Ad	256	G	N9-C1'-C2'	5.33	119.99	112.00
1	Ad	366	G	C1'-C2'-O2'	5.33	116.39	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	712	U	O4'-C1'-N1	5.33	116.49	108.50
2	Ae	43	C	C5'-C4'-C3'	-5.33	108.01	116.00
32	Ba	62	TYR	N-CA-CB	5.33	119.49	110.49
84	Aa	2515	C	C4'-C3'-O3'	-5.33	105.01	113.00
49	CR	168	ALA	CA-C-N	5.33	127.42	120.28
49	CR	168	ALA	C-N-CA	5.33	127.42	120.28
19	BL	54	TYR	CA-C-N	5.33	131.56	121.97
19	BL	54	TYR	C-N-CA	5.33	131.56	121.97
84	Aa	843	C	O4'-C1'-N1	5.33	116.49	108.50
1	Ad	260	A	C1'-O4'-C4'	-5.32	104.58	109.90
1	Ad	744	G	C1'-O4'-C4'	5.32	115.22	109.90
1	Ad	1020	U	C3'-C2'-C1'	5.32	106.62	101.30
69	CF	179	ASN	CA-C-N	5.32	128.46	120.69
69	CF	179	ASN	C-N-CA	5.32	128.46	120.69
1	Ad	613	U	C1'-C2'-O2'	-5.32	103.82	111.80
73	CO	68	ASN	CA-C-N	5.32	131.71	121.54
73	CO	68	ASN	C-N-CA	5.32	131.71	121.54
84	Aa	290	C	C5'-C4'-C3'	-5.32	108.02	116.00
1	Ad	80	C	P-O5'-C5'	-5.32	112.92	120.90
1	Ad	945	A	N9-C1'-C2'	-5.32	104.02	112.00
1	Ad	400	G	O4'-C1'-C2'	-5.32	102.28	107.60
30	BB	58	SER	CA-C-N	5.32	128.15	120.38
30	BB	58	SER	C-N-CA	5.32	128.15	120.38
71	CB	112	GLU	N-CA-C	-5.32	107.44	114.04
1	Ad	1119	G	O4'-C1'-N9	5.32	116.18	108.20
1	Ad	1297	U	O4'-C1'-N1	5.32	116.48	108.50
1	Ad	1541	C	C3'-C2'-C1'	5.32	106.62	101.30
23	Bc	16	ARG	N-CA-CB	5.32	119.48	110.49
28	BA	36	PHE	CA-C-N	5.32	127.94	120.28
28	BA	36	PHE	C-N-CA	5.32	127.94	120.28
84	Aa	2468	G	C2'-C3'-O3'	-5.32	105.72	113.70
1	Ad	1705	C	N1-C1'-C2'	5.32	119.97	112.00
42	CJ	2	SER	CA-C-N	5.32	131.69	121.54
42	CJ	2	SER	C-N-CA	5.32	131.69	121.54
16	BO	44	THR	N-CA-C	-5.31	101.45	109.85
1	Ad	487	A	O4'-C1'-C2'	5.31	112.91	107.60
69	CF	163	ILE	N-CA-C	-5.31	102.10	107.89
84	Aa	840	A	P-O5'-C5'	-5.31	112.93	120.90
1	Ad	287	C	C3'-C2'-C1'	5.31	106.61	101.30
1	Ad	1073	C	C3'-C2'-C1'	5.31	106.61	101.30
34	BC	89	GLN	N-CA-C	-5.31	100.52	109.07
41	CA	171	GLY	CA-C-N	5.31	125.14	120.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	CA	171	GLY	C-N-CA	5.31	125.14	120.10
48	CD	287	ALA	CA-C-N	5.31	131.68	121.54
48	CD	287	ALA	C-N-CA	5.31	131.68	121.54
84	Aa	286	C	C4'-C3'-C2'	-5.31	97.29	102.60
1	Ad	571	A	O4'-C1'-C2'	-5.31	102.29	107.60
8	Bf	21	LYS	N-CA-CB	5.31	119.46	110.49
47	CQ	156	PRO	N-CA-C	5.31	123.40	112.47
79	CE	159	GLU	N-CA-CB	5.31	119.46	110.49
84	Aa	1389	C	C5'-C4'-C3'	5.31	123.96	116.00
84	Aa	2092	C	C4'-C3'-C2'	5.31	107.91	102.60
1	Ad	1464	G	C3'-C2'-C1'	-5.30	96.00	101.30
61	CM	68	LYS	N-CA-C	-5.30	106.49	113.12
84	Aa	1747	A	C3'-C2'-C1'	-5.30	96.19	101.50
1	Ad	1515	G	N9-C1'-C2'	5.30	119.95	112.00
84	Aa	2462	G	O4'-C4'-C3'	-5.30	98.70	104.00
1	Ad	1047	G	O4'-C1'-C2'	5.30	112.90	107.60
1	Ad	1345	G	O4'-C1'-C2'	5.30	112.90	107.60
2	Ae	55	C	O4'-C1'-C2'	-5.30	102.30	107.60
1	Ad	54	C	N1-C1'-C2'	-5.30	104.05	112.00
1	Ad	1007	G	N9-C1'-C2'	5.30	119.95	112.00
2	Ae	21	A	O4'-C1'-C2'	-5.29	102.31	107.60
69	CF	131	ARG	N-CA-C	-5.29	106.84	113.72
74	Cp	70	THR	CA-C-N	5.29	127.37	120.28
74	Cp	70	THR	C-N-CA	5.29	127.37	120.28
83	Cg	10	ARG	N-CA-C	-5.29	99.53	110.80
1	Ad	172	U	O4'-C1'-N1	5.29	116.44	108.50
1	Ad	840	U	O4'-C1'-C2'	-5.29	102.31	107.60
1	Ad	856	G	C1'-O4'-C4'	-5.29	104.61	109.90
1	Ad	1299	G	O4'-C4'-C3'	-5.29	98.71	104.00
1	Ad	1757	G	O4'-C1'-N9	5.29	116.44	108.50
10	Bg	176	GLY	N-CA-C	-5.29	101.67	111.04
79	CE	54	ASP	CA-C-N	5.29	127.37	120.28
79	CE	54	ASP	C-N-CA	5.29	127.37	120.28
84	Aa	1316	C	O4'-C1'-N1	5.29	116.44	108.50
84	Aa	1563	G	P-O3'-C3'	5.29	128.14	120.20
1	Ad	1520	G	O4'-C1'-N9	5.29	116.44	108.50
31	BV	22	ARG	CA-C-N	5.29	127.59	120.50
31	BV	22	ARG	C-N-CA	5.29	127.59	120.50
33	BJ	14	THR	N-CA-C	-5.29	106.06	112.88
2	Ae	57	A	O4'-C1'-C2'	-5.29	100.51	105.80
52	CW	33	PHE	CA-CB-CG	-5.29	108.51	113.80
81	Ck	38	CYS	N-CA-C	-5.29	102.22	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	3333	C	O4'-C4'-C3'	-5.29	100.81	106.10
1	Ad	797	A	O4'-C1'-C2'	-5.29	102.31	107.60
38	CT	8	ARG	N-CA-CB	5.29	119.42	110.49
84	Aa	1813	C	O4'-C1'-N1	5.29	116.43	108.50
1	Ad	1624	G	O4'-C1'-C2'	5.29	112.89	107.60
84	Aa	2058	C	O4'-C1'-N1	5.29	116.43	108.50
84	Aa	2558	U	O4'-C1'-N1	5.29	116.43	108.50
1	Ad	110	G	C1'-O4'-C4'	-5.28	104.62	109.90
1	Ad	1573	C	O5'-C5'-C4'	-5.28	103.58	111.50
2	Ae	66	C	N1-C1'-C2'	5.28	119.92	112.00
84	Aa	1345	U	P-O5'-C5'	5.28	128.83	120.90
1	Ad	754	U	O4'-C1'-N1	5.28	116.42	108.50
17	BS	10	GLN	N-CA-C	-5.28	100.89	108.60
1	Ad	1223	A	O4'-C1'-C2'	-5.28	102.32	107.60
1	Ad	1398	U	O5'-C5'-C4'	-5.28	103.58	111.50
48	CD	3	LEU	N-CA-CB	5.28	119.41	110.49
84	Aa	90	G	P-O5'-C5'	-5.28	112.98	120.90
84	Aa	1250	G	P-O5'-C5'	5.28	128.82	120.90
1	Ad	1455	U	O4'-C1'-C2'	-5.28	102.32	107.60
1	Ad	1478	C	O4'-C1'-C2'	-5.28	100.52	105.80
84	Aa	2497	A	O4'-C4'-C3'	5.28	109.28	104.00
1	Ad	1219	C	N1-C1'-C2'	5.28	119.92	112.00
46	Ca	11	LYS	N-CA-CB	5.28	119.41	110.49
52	CW	69	ALA	N-CA-C	5.28	116.33	108.31
62	CS	119	ARG	N-CA-C	-5.28	101.80	108.45
75	CI	85	PHE	CA-CB-CG	-5.28	108.52	113.80
1	Ad	243	U	O4'-C1'-N1	5.28	116.11	108.20
1	Ad	281	U	C5'-C4'-C3'	-5.28	108.09	116.00
1	Ad	496	A	O4'-C1'-N9	5.28	116.41	108.50
84	Aa	452	G	P-O5'-C5'	-5.28	112.99	120.90
1	Ad	1261	U	O4'-C1'-N1	5.27	116.41	108.50
1	Ad	1319	U	C4'-C3'-O3'	-5.27	105.09	113.00
28	BA	151	PHE	CA-CB-CG	-5.27	108.53	113.80
44	CV	36	ASN	N-CA-CB	5.27	119.40	110.49
84	Aa	1744	C	O4'-C1'-N1	5.27	116.41	108.50
84	Aa	3259	A	P-O5'-C5'	-5.27	112.99	120.90
1	Ad	1144	A	O4'-C1'-C2'	-5.27	102.33	107.60
1	Ad	339	G	C3'-C2'-C1'	-5.27	96.03	101.30
27	Be	5	HIS	CA-C-N	5.27	126.18	120.44
27	Be	5	HIS	C-N-CA	5.27	126.18	120.44
48	CD	190	LEU	N-CA-C	-5.27	102.43	108.49
68	Ch	89	THR	CB-CA-C	5.27	118.92	111.86

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
85	Ac	64	U	C5'-C4'-C3'	-5.27	108.10	116.00
1	Ad	542	A	N9-C1'-C2'	-5.27	106.10	114.00
1	Ad	1314	U	O4'-C1'-C2'	-5.27	102.33	107.60
46	Ca	61	PHE	CA-CB-CG	-5.27	108.53	113.80
47	CQ	67	LEU	N-CA-C	-5.27	105.45	111.14
84	Aa	1558	A	P-O5'-C5'	-5.27	113.00	120.90
84	Aa	3175	C	O4'-C1'-N1	5.27	116.40	108.50
1	Ad	1391	G	O4'-C1'-C2'	5.27	112.87	107.60
1	Ad	1597	C	O4'-C1'-C2'	-5.27	102.33	107.60
1	Ad	967	C	N1-C1'-C2'	5.26	119.90	112.00
1	Ad	1522	U	C2'-C3'-O3'	5.26	117.39	109.50
30	BB	181	LEU	CA-C-N	5.26	131.59	121.54
30	BB	181	LEU	C-N-CA	5.26	131.59	121.54
70	Cq	5	ARG	CA-C-N	5.26	127.33	120.28
70	Cq	5	ARG	C-N-CA	5.26	127.33	120.28
72	CC	327	VAL	N-CA-C	-5.26	101.11	108.80
79	CE	107	THR	N-CA-CB	5.26	119.39	110.49
1	Ad	753	C	C1'-O4'-C4'	-5.26	104.64	109.90
50	CP	155	GLU	N-CA-C	5.26	116.70	111.07
1	Ad	136	U	O4'-C1'-C2'	5.26	111.06	105.80
1	Ad	250	A	C1'-O4'-C4'	5.26	115.16	109.90
1	Ad	875	C	O4'-C1'-C2'	-5.26	102.34	107.60
1	Ad	1004	U	O4'-C1'-N1	5.26	116.39	108.50
1	Ad	1274	G	C1'-O4'-C4'	-5.26	104.64	109.90
84	Aa	2502	U	C2'-C3'-O3'	-5.26	105.81	113.70
1	Ad	931	A	O4'-C1'-C2'	-5.26	102.34	107.60
84	Aa	96	C	P-O5'-C5'	5.26	128.79	120.90
84	Aa	3253	C	O4'-C1'-N1	5.26	116.39	108.50
48	CD	55	PHE	N-CA-C	-5.26	99.60	110.80
81	Ck	30	ASP	CA-C-N	5.26	127.33	120.28
81	Ck	30	ASP	C-N-CA	5.26	127.33	120.28
1	Ad	577	C	N1-C1'-C2'	5.26	119.88	112.00
1	Ad	1314	U	O4'-C4'-C3'	-5.26	98.74	104.00
1	Ad	1423	A	O4'-C1'-C2'	-5.26	102.34	107.60
1	Ad	1702	G	C1'-O4'-C4'	-5.26	104.64	109.90
1	Ad	1756	A	O4'-C1'-C2'	-5.26	102.34	107.60
35	BG	3	PHE	CA-CB-CG	-5.26	108.54	113.80
1	Ad	244	C	C3'-C2'-C1'	5.25	106.56	101.30
1	Ad	1615	G	C1'-O4'-C4'	-5.25	104.64	109.90
1	Ad	1137	A	C3'-C2'-C1'	5.25	106.55	101.30
4	BY	8	PRO	CA-C-N	5.25	128.70	120.82
4	BY	8	PRO	C-N-CA	5.25	128.70	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	BK	82	LEU	O-C-N	-5.25	115.28	121.32
68	Ch	91	ALA	N-CA-C	5.25	117.01	111.28
1	Ad	728	C	C3'-C2'-C1'	5.25	106.55	101.30
2	Ae	63	C	N1-C1'-C2'	5.25	119.88	112.00
64	Ci	110	LYS	N-CA-C	-5.25	104.47	111.87
84	Aa	64	A	C4'-C3'-O3'	5.25	117.28	109.40
1	Ad	511	U	O4'-C1'-C2'	-5.25	102.35	107.60
1	Ad	1365	C	O4'-C1'-C2'	-5.25	102.35	107.60
74	Cp	14	TYR	CB-CA-C	-5.25	102.61	110.90
1	Ad	7	G	O4'-C1'-N9	5.25	116.37	108.50
1	Ad	346	C	N1-C1'-C2'	5.25	119.87	112.00
1	Ad	1372	C	O4'-C1'-C2'	-5.25	102.35	107.60
50	CP	39	LEU	N-CA-C	-5.25	101.34	108.11
1	Ad	104	A	O4'-C1'-C2'	-5.24	100.56	105.80
1	Ad	1720	G	C1'-O4'-C4'	-5.24	104.66	109.90
2	Ae	17	G	N9-C1'-C2'	5.24	121.87	114.00
84	Aa	625	G	P-O3'-C3'	5.24	128.07	120.20
84	Aa	3268	C	P-O5'-C5'	5.24	128.76	120.90
1	Ad	927	A	C4'-C3'-C2'	-5.24	97.36	102.60
1	Ad	1304	A	C1'-O4'-C4'	5.24	115.14	109.90
11	BD	215	GLU	N-CA-CB	5.24	119.35	110.49
48	CD	284	ARG	N-CA-CB	5.24	119.35	110.49
61	CM	16	ASN	CA-C-N	5.24	131.55	121.54
61	CM	16	ASN	C-N-CA	5.24	131.55	121.54
1	Ad	913	U	P-O5'-C5'	-5.24	113.04	120.90
1	Ad	1228	G	O4'-C1'-C2'	-5.24	102.36	107.60
1	Ad	1683	G	O4'-C1'-N9	5.24	116.36	108.50
48	CD	182	GLY	CA-C-N	5.24	131.55	121.54
48	CD	182	GLY	C-N-CA	5.24	131.55	121.54
72	CC	189	ASP	N-CA-C	-5.24	101.15	108.96
84	Aa	3139	U	C5'-C4'-C3'	5.24	123.86	116.00
84	Aa	3068	U	C5'-C4'-C3'	5.24	123.86	116.00
1	Ad	1286	U	C1'-C2'-O2'	5.24	116.25	108.40
1	Ad	1793	C	N1-C1'-C2'	5.24	119.85	112.00
4	BY	64	PHE	CA-C-N	5.24	129.57	122.19
4	BY	64	PHE	C-N-CA	5.24	129.57	122.19
9	BX	128	SER	N-CA-CB	5.24	119.34	110.49
41	CA	27	ALA	N-CA-C	-5.24	106.84	114.12
44	CV	13	LYS	N-CA-CB	5.24	119.34	110.49
71	CB	207	PRO	CA-C-N	5.24	127.63	120.46
71	CB	207	PRO	C-N-CA	5.24	127.63	120.46
1	Ad	208	U	C5'-C4'-C3'	-5.23	108.15	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	432	A	O4'-C1'-C2'	-5.23	102.37	107.60
1	Ad	991	G	C4'-C3'-C2'	-5.23	97.37	102.60
2	Ae	36	C	C1'-O4'-C4'	-5.23	104.67	109.90
84	Aa	2086	A	O5'-P-OP2	-5.23	92.30	108.00
1	Ad	820	A	O4'-C1'-N9	5.23	116.05	108.20
1	Ad	1246	A	O4'-C1'-C2'	-5.23	102.37	107.60
17	BS	88	LYS	CA-C-N	5.23	128.65	120.75
17	BS	88	LYS	C-N-CA	5.23	128.65	120.75
35	BG	181	GLN	CA-C-N	5.23	131.53	121.54
35	BG	181	GLN	C-N-CA	5.23	131.53	121.54
1	Ad	1275	G	N9-C1'-C2'	5.23	119.84	112.00
84	Aa	668	U	P-O5'-C5'	-5.23	113.06	120.90
84	Aa	698	A	O3'-P-O5'	-5.23	96.16	104.00
1	Ad	318	C	C3'-C2'-C1'	5.22	106.52	101.30
9	BX	86	ASN	N-CA-CB	5.22	119.32	110.49
1	Ad	167	A	N9-C1'-C2'	-5.22	106.17	114.00
1	Ad	979	A	O4'-C1'-C2'	-5.22	102.38	107.60
65	CK	76	PRO	N-CA-C	5.22	123.23	112.47
75	CI	111	LEU	N-CA-C	5.22	116.97	111.28
84	Aa	1832	C	O4'-C1'-N1	5.22	116.33	108.50
1	Ad	521	U	C4'-C3'-C2'	-5.22	97.38	102.60
1	Ad	1336	C	C1'-C2'-O2'	5.22	116.23	108.40
3	Af	16	G	C4'-C3'-C2'	-5.22	97.38	102.60
38	CT	17	ARG	N-CA-C	-5.22	102.44	110.32
84	Aa	1389	C	O4'-C1'-N1	5.22	116.33	108.50
84	Aa	2457	G	P-O3'-C3'	5.22	128.03	120.20
1	Ad	925	U	O4'-C1'-N1	5.22	116.33	108.50
1	Ad	1278	C	O4'-C1'-C2'	5.22	111.02	105.80
84	Aa	565	C	C4'-C3'-C2'	-5.22	97.38	102.60
84	Aa	513	C	C5'-C4'-O4'	5.21	117.62	109.80
84	Aa	2524	U	C4'-C3'-C2'	-5.21	97.39	102.60
1	Ad	201	G	C1'-O4'-C4'	-5.21	104.69	109.90
73	CO	195	GLY	N-CA-C	-5.21	103.18	110.63
78	CL	22	LYS	N-CA-C	-5.21	99.70	110.80
1	Ad	1035	A	O4'-C1'-C2'	-5.21	100.59	105.80
1	Ad	1382	C	C1'-O4'-C4'	-5.21	104.69	109.90
51	CX	120	VAL	N-CA-C	-5.21	100.74	108.45
84	Aa	1827	U	O5'-C5'-C4'	-5.21	103.68	111.50
48	CD	283	GLU	CA-C-N	5.21	131.49	121.54
48	CD	283	GLU	C-N-CA	5.21	131.49	121.54
73	CO	131	VAL	CA-C-N	5.21	131.49	121.54
73	CO	131	VAL	C-N-CA	5.21	131.49	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	1747	A	O5'-C5'-C4'	-5.21	103.89	111.70
86	Ab	73	U	C5'-C4'-O4'	5.21	117.61	109.80
1	Ad	577	C	C1'-C2'-O2'	5.21	116.21	108.40
1	Ad	855	G	O4'-C1'-C2'	-5.21	102.39	107.60
17	BS	97	GLN	N-CA-C	-5.21	97.75	108.53
20	BT	84	GLY	N-CA-C	-5.21	100.84	113.18
78	CL	105	SER	CA-C-N	5.21	127.26	120.28
78	CL	105	SER	C-N-CA	5.21	127.26	120.28
84	Aa	553	C	O3'-P-O5'	-5.21	96.19	104.00
1	Ad	179	A	N9-C1'-C2'	5.21	119.81	112.00
48	CD	140	ARG	CA-C-N	5.21	126.35	119.84
48	CD	140	ARG	C-N-CA	5.21	126.35	119.84
1	Ad	547	C	C4'-C3'-C2'	-5.20	97.40	102.60
1	Ad	1513	A	O4'-C1'-C2'	-5.20	102.40	107.60
78	CL	3	LYS	N-CA-C	-5.20	99.40	109.24
84	Aa	2172	C	O4'-C1'-N1	5.20	116.01	108.20
1	Ad	1058	G	C1'-O4'-C4'	-5.20	104.70	109.90
11	BD	130	GLY	CA-C-N	5.20	131.47	121.54
11	BD	130	GLY	C-N-CA	5.20	131.47	121.54
1	Ad	430	G	O4'-C1'-N9	5.20	116.30	108.50
1	Ad	998	A	C1'-O4'-C4'	-5.20	104.70	109.90
1	Ad	1008	A	O4'-C1'-N9	5.20	116.00	108.20
1	Ad	1803	G	C1'-C2'-O2'	-5.20	104.00	111.80
14	BQ	98	TYR	N-CA-C	5.20	116.95	111.28
62	CS	80	TRP	N-CA-C	-5.20	101.22	109.59
7	BM	23	LYS	CA-C-N	5.20	127.67	120.29
7	BM	23	LYS	C-N-CA	5.20	127.67	120.29
1	Ad	1041	A	C1'-O4'-C4'	5.20	115.10	109.90
1	Ad	1771	U	C4'-C3'-C2'	5.20	107.80	102.60
36	BH	34	ASN	N-CA-CB	5.20	119.27	110.49
61	CM	81	LYS	CA-C-N	5.20	127.24	120.28
61	CM	81	LYS	C-N-CA	5.20	127.24	120.28
84	Aa	1068	A	C2'-C3'-O3'	5.20	117.29	109.50
84	Aa	2410	U	C5'-C4'-C3'	-5.20	108.21	116.00
1	Ad	1200	A	O4'-C1'-N9	5.19	115.99	108.20
32	Ba	75	VAL	CA-C-N	5.19	127.50	120.38
32	Ba	75	VAL	C-N-CA	5.19	127.50	120.38
84	Aa	3089	G	C5'-C4'-C3'	-5.19	108.21	116.00
1	Ad	1467	C	C1'-O4'-C4'	-5.19	104.71	109.90
1	Ad	1074	C	C3'-C2'-C1'	5.19	106.49	101.30
1	Ad	1219	C	O4'-C1'-C2'	-5.19	102.41	107.60
21	BP	125	LEU	CA-C-O	5.19	120.95	117.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	794	G	P-O5'-C5'	-5.19	113.11	120.90
1	Ad	922	U	C1'-O4'-C4'	-5.19	104.71	109.90
46	Ca	128	VAL	N-CA-CB	5.19	119.79	111.23
1	Ad	646	G	O4'-C1'-C2'	5.19	112.79	107.60
1	Ad	792	U	N1-C1'-C2'	-5.19	104.22	112.00
12	BE	132	GLY	CA-C-N	5.19	129.04	121.31
12	BE	132	GLY	C-N-CA	5.19	129.04	121.31
36	BH	104	PRO	N-CA-C	-5.19	104.37	110.70
1	Ad	1210	U	O4'-C1'-N1	5.19	116.28	108.50
70	Cq	67	LYS	CA-C-N	5.19	127.56	120.46
70	Cq	67	LYS	C-N-CA	5.19	127.56	120.46
1	Ad	247	A	O4'-C1'-N9	5.18	116.28	108.50
10	Bg	273	CYS	N-CA-C	-5.18	101.42	109.72
11	BD	202	THR	CA-C-O	-5.18	113.06	120.16
46	Ca	3	THR	CA-C-N	5.18	131.44	121.54
46	Ca	3	THR	C-N-CA	5.18	131.44	121.54
61	CM	40	ALA	N-CA-C	-5.18	102.24	108.25
84	Aa	637	C	O4'-C1'-N1	5.18	116.28	108.50
84	Aa	807	C	O3'-P-O5'	-5.18	96.22	104.00
1	Ad	255	U	C1'-O4'-C4'	5.18	115.08	109.90
1	Ad	510	A	C1'-O4'-C4'	5.18	114.88	109.70
1	Ad	616	U	O4'-C1'-N1	5.18	116.27	108.50
1	Ad	1250	C	O4'-C1'-C2'	5.18	112.78	107.60
7	BM	78	THR	CA-C-N	5.18	131.72	122.13
7	BM	78	THR	C-N-CA	5.18	131.72	122.13
1	Ad	920	A	N9-C1'-C2'	5.18	119.77	112.00
7	BM	57	ASP	N-CA-C	-5.18	101.25	109.59
84	Aa	1500	C	C5'-C4'-C3'	-5.18	108.23	116.00
1	Ad	1259	G	C3'-C2'-C1'	-5.18	96.32	101.50
47	CQ	93	GLN	CA-C-N	5.18	131.43	121.54
47	CQ	93	GLN	C-N-CA	5.18	131.43	121.54
84	Aa	1165	C	C5'-C4'-C3'	-5.18	108.23	116.00
84	Aa	3137	G	P-O5'-C5'	-5.18	113.13	120.90
1	Ad	636	U	O4'-C1'-C2'	-5.18	102.42	107.60
1	Ad	1621	U	O4'-C1'-C2'	-5.18	102.42	107.60
1	Ad	245	C	C1'-O4'-C4'	-5.18	104.72	109.90
1	Ad	1543	U	C3'-C2'-C1'	5.18	106.48	101.30
1	Ad	1549	G	N9-C1'-C2'	5.18	119.76	112.00
1	Ad	1759	A	O4'-C1'-N9	5.18	116.27	108.50
7	BM	79	VAL	N-CA-CB	5.18	118.46	111.21
17	BS	139	THR	N-CA-CB	5.18	119.24	110.49
61	CM	117	ARG	CA-C-N	5.18	125.73	119.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	CM	117	ARG	C-N-CA	5.18	125.73	119.98
84	Aa	2240	C	C4'-C3'-O3'	-5.18	105.24	113.00
2	Ae	73	C	O4'-C1'-C2'	-5.17	102.43	107.60
28	BA	36	PHE	CA-CB-CG	5.17	118.97	113.80
84	Aa	2178	G	O5'-C5'-C4'	5.17	119.26	111.50
85	Ac	50	C	C5'-C4'-C3'	-5.17	108.24	116.00
1	Ad	1327	C	O4'-C1'-C2'	-5.17	102.43	107.60
1	Ad	1505	U	O4'-C1'-N1	5.17	116.26	108.50
75	CI	94	PHE	CA-CB-CG	-5.17	108.63	113.80
84	Aa	2352	G	P-O5'-C5'	-5.17	113.14	120.90
1	Ad	1808	U	O4'-C1'-C2'	-5.17	100.63	105.80
30	BB	224	ASP	CA-C-N	5.17	127.46	120.38
30	BB	224	ASP	C-N-CA	5.17	127.46	120.38
79	CE	41	LYS	N-CA-CB	5.17	119.57	110.37
1	Ad	749	G	C1'-O4'-C4'	-5.17	104.73	109.90
29	BR	27	ASP	CA-C-N	5.17	127.16	120.44
29	BR	27	ASP	C-N-CA	5.17	127.16	120.44
73	CO	122	ARG	CA-C-N	5.17	128.05	120.71
73	CO	122	ARG	C-N-CA	5.17	128.05	120.71
84	Aa	627	G	O5'-C5'-C4'	-5.17	103.75	111.50
1	Ad	79	A	C1'-O4'-C4'	5.17	115.07	109.90
1	Ad	100	C	N1-C1'-C2'	-5.17	106.25	114.00
1	Ad	706	U	N1-C1'-C2'	5.17	119.75	112.00
73	CO	160	GLU	CA-C-N	5.17	127.52	120.54
73	CO	160	GLU	C-N-CA	5.17	127.52	120.54
84	Aa	1721	A	O4'-C1'-N9	5.17	116.25	108.50
1	Ad	265	A	C4'-C3'-C2'	-5.17	97.44	102.60
2	Ae	19	U	C1'-C2'-O2'	-5.17	104.05	111.80
68	Ch	118	ARG	N-CA-C	-5.17	99.80	110.80
81	Ck	48	PHE	CA-CB-CG	-5.17	108.64	113.80
1	Ad	402	G	C3'-C2'-C1'	5.16	106.46	101.30
38	CT	15	PHE	N-CA-C	-5.16	107.36	113.97
48	CD	291	SER	N-CA-CB	5.16	119.22	110.49
1	Ad	1315	U	O4'-C1'-N1	5.16	116.24	108.50
1	Ad	329	G	C1'-O4'-C4'	-5.16	104.74	109.90
1	Ad	1472	G	C3'-C2'-C1'	-5.16	96.14	101.30
36	BH	104	PRO	CA-C-O	-5.16	113.08	120.56
71	CB	118	PHE	CA-CB-CG	5.16	118.96	113.80
4	BY	43	ALA	CA-C-N	5.15	127.70	120.28
4	BY	43	ALA	C-N-CA	5.15	127.70	120.28
1	Ad	1254	U	O4'-C1'-N1	5.15	116.23	108.50
1	Ad	1663	A	C3'-C2'-C1'	5.15	106.45	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1783	C	C1'-O4'-C4'	-5.15	104.75	109.90
1	Ad	1186	U	C1'-O4'-C4'	5.15	115.05	109.90
1	Ad	1500	A	O4'-C1'-N9	5.15	115.93	108.20
1	Ad	1626	C	O4'-C1'-C2'	-5.15	100.65	105.80
45	CN	78	GLY	N-CA-C	-5.15	100.97	113.18
4	BY	49	LEU	CA-C-N	5.15	131.37	121.54
4	BY	49	LEU	C-N-CA	5.15	131.37	121.54
71	CB	67	LEU	N-CA-CB	5.15	117.52	109.85
1	Ad	248	U	N1-C1'-C2'	5.15	119.72	112.00
1	Ad	1021	C	N1-C1'-C2'	5.15	119.72	112.00
2	Ae	62	C	N1-C1'-C2'	5.15	119.72	112.00
73	CO	135	GLN	N-CA-C	-5.15	98.43	109.81
84	Aa	30	C	O4'-C1'-N1	5.15	116.22	108.50
84	Aa	2349	C	O4'-C1'-N1	5.15	116.22	108.50
84	Aa	2996	A	P-O3'-C3'	5.15	127.92	120.20
1	Ad	122	U	N1-C1'-C2'	5.15	119.72	112.00
17	BS	79	VAL	N-CA-CB	5.15	118.42	111.21
1	Ad	8	U	O4'-C1'-C2'	-5.14	100.66	105.80
1	Ad	282	C	C2'-C3'-O3'	5.14	117.22	109.50
1	Ad	372	U	N1-C1'-C2'	-5.14	104.28	112.00
1	Ad	848	C	N1-C1'-C2'	5.14	119.72	112.00
2	Ae	22	G	N9-C1'-C2'	5.14	119.72	112.00
15	BU	13	LYS	N-CA-CB	5.14	119.18	110.49
84	Aa	3385	G	O4'-C1'-N9	5.14	116.22	108.50
1	Ad	93	A	C4'-C3'-O3'	-5.14	105.29	113.00
1	Ad	94	A	C5'-C4'-C3'	-5.14	107.49	115.20
1	Ad	1214	C	N1-C1'-C2'	5.14	119.71	112.00
1	Ad	1572	U	C1'-O4'-C4'	-5.14	104.76	109.90
69	CF	199	GLU	N-CA-C	-5.14	105.36	113.02
84	Aa	2506	G	C5'-C4'-C3'	5.14	123.71	116.00
84	Aa	1515	U	O5'-C5'-C4'	5.14	119.21	111.50
1	Ad	25	C	P-O3'-C3'	5.14	127.91	120.20
1	Ad	1206	A	C3'-C2'-C1'	5.14	106.44	101.30
1	Ad	66	U	O4'-C1'-N1	5.14	116.21	108.50
17	BS	97	GLN	CA-C-N	5.14	131.22	121.97
17	BS	97	GLN	C-N-CA	5.14	131.22	121.97
1	Ad	237	C	C1'-O4'-C4'	-5.14	104.76	109.90
6	BK	11	ILE	CA-C-N	5.14	127.47	120.54
6	BK	11	ILE	C-N-CA	5.14	127.47	120.54
12	BE	130	GLN	N-CA-C	-5.14	100.80	109.07
30	BB	138	PHE	CA-CB-CG	-5.14	108.66	113.80
84	Aa	1716	G	P-O5'-C5'	-5.14	113.20	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	Bf	26	VAL	N-CA-CB	5.13	119.70	111.23
20	BT	94	HIS	N-CA-C	-5.13	99.86	110.80
50	CP	167	ALA	N-CA-CB	5.13	119.17	110.49
81	Ck	6	HIS	N-CA-C	-5.13	106.95	114.39
84	Aa	746	C	C1'-O4'-C4'	-5.13	104.77	109.90
84	Aa	1412	C	O4'-C1'-N1	5.13	116.20	108.50
48	CD	258	LYS	CA-C-N	5.13	131.34	121.54
48	CD	258	LYS	C-N-CA	5.13	131.34	121.54
1	Ad	196	G	C1'-O4'-C4'	-5.13	104.77	109.90
1	Ad	1547	G	C3'-C2'-C1'	5.13	106.43	101.30
30	BB	47	LEU	N-CA-C	-5.13	101.39	109.50
1	Ad	292	A	C3'-C2'-C1'	5.13	106.43	101.30
1	Ad	1026	C	N1-C1'-C2'	5.13	119.69	112.00
1	Ad	1379	U	O4'-C1'-C2'	-5.13	102.47	107.60
1	Ad	838	U	O4'-C4'-C3'	-5.13	98.87	104.00
1	Ad	990	G	N9-C1'-C2'	5.13	119.69	112.00
1	Ad	1395	C	C1'-C2'-O2'	5.13	116.09	108.40
1	Ad	1752	U	C1'-C2'-O2'	5.13	116.09	108.40
60	Co	97	LYS	N-CA-CB	5.13	119.16	110.49
1	Ad	27	U	C3'-C2'-C1'	5.13	106.43	101.30
1	Ad	269	A	C4'-C3'-O3'	5.13	117.09	109.40
1	Ad	848	C	C3'-C2'-C1'	5.13	106.43	101.30
2	Ae	1	U	N1-C1'-C2'	5.13	119.69	112.00
18	BN	149	LEU	N-CA-CB	5.13	119.16	110.49
36	BH	57	ASN	N-CA-CB	5.13	119.15	110.49
84	Aa	461	A	N9-C1'-C2'	5.13	119.69	112.00
1	Ad	151	A	C1'-O4'-C4'	5.12	115.03	109.90
1	Ad	183	C	O4'-C1'-C2'	-5.12	102.48	107.60
1	Ad	873	G	N9-C1'-C2'	-5.12	104.32	112.00
1	Ad	902	C	C2'-C3'-O3'	5.12	117.19	109.50
25	Bd	43	PHE	CA-C-N	5.12	127.14	120.28
25	Bd	43	PHE	C-N-CA	5.12	127.14	120.28
30	BB	178	SER	CA-C-N	5.12	131.32	121.54
30	BB	178	SER	C-N-CA	5.12	131.32	121.54
48	CD	5	GLY	CA-C-N	5.12	125.78	119.99
48	CD	5	GLY	C-N-CA	5.12	125.78	119.99
71	CB	16	PHE	CA-CB-CG	-5.12	108.68	113.80
1	Ad	17	C	C3'-C2'-C1'	5.12	106.42	101.30
1	Ad	288	G	C4'-C3'-C2'	-5.12	97.48	102.60
1	Ad	483	C	O4'-C1'-C2'	-5.12	102.48	107.60
2	Ae	59	U	O4'-C1'-C2'	-5.12	100.68	105.80
20	BT	44	ARG	CA-C-N	5.12	131.32	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	BT	44	ARG	C-N-CA	5.12	131.32	121.54
84	Aa	215	U	C4'-C3'-O3'	-5.12	105.32	113.00
84	Aa	1106	G	C2'-C3'-O3'	5.12	117.18	109.50
84	Aa	3004	G	C5'-C4'-C3'	-5.12	108.32	116.00
1	Ad	773	U	C3'-C2'-C1'	-5.12	96.18	101.30
1	Ad	1216	G	O4'-C1'-N9	5.12	116.18	108.50
1	Ad	1031	A	O4'-C1'-N9	5.12	115.88	108.20
43	CH	183	LYS	CA-C-N	-5.12	117.97	122.73
43	CH	183	LYS	C-N-CA	-5.12	117.97	122.73
84	Aa	263	A	P-O3'-C3'	5.12	127.88	120.20
84	Aa	3263	C	O5'-C5'-C4'	-5.12	103.82	111.50
1	Ad	1409	G	C1'-O4'-C4'	-5.12	104.78	109.90
2	Ae	72	G	P-O3'-C3'	-5.12	112.53	120.20
50	CP	110	VAL	CA-C-N	5.12	128.78	120.60
50	CP	110	VAL	C-N-CA	5.12	128.78	120.60
84	Aa	2205	G	P-O5'-C5'	5.12	128.57	120.90
84	Aa	2402	G	O4'-C4'-C3'	-5.12	100.98	106.10
1	Ad	136	U	N1-C1'-C2'	5.11	121.67	114.00
1	Ad	755	U	C1'-C2'-O2'	5.11	116.07	108.40
1	Ad	1315	U	O4'-C1'-C2'	-5.11	102.49	107.60
71	CB	351	SER	N-CA-CB	5.11	119.13	110.49
7	BM	23	LYS	CB-CA-C	-5.11	102.25	110.74
1	Ad	1060	U	N1-C1'-C2'	5.11	119.67	112.00
48	CD	36	ALA	CA-C-N	5.11	127.38	120.38
48	CD	36	ALA	C-N-CA	5.11	127.38	120.38
33	BJ	9	SER	N-CA-CB	5.11	119.12	110.49
84	Aa	2434	G	C4'-C3'-C2'	-5.11	97.49	102.60
1	Ad	68	A	C1'-O4'-C4'	-5.11	104.79	109.90
2	Ae	50	G	C1'-O4'-C4'	5.11	115.01	109.90
62	CS	35	ASN	N-CA-CB	5.11	119.12	110.49
84	Aa	808	G	P-O3'-C3'	5.11	127.86	120.20
1	Ad	91	C	O4'-C1'-N1	5.11	116.16	108.50
84	Aa	1561	U	P-O3'-C3'	5.11	127.86	120.20
85	Ac	143	C	O4'-C1'-N1	5.11	116.16	108.50
2	Ae	67	G	C4'-C3'-C2'	-5.10	97.50	102.60
72	CC	91	ALA	N-CA-CB	5.10	119.12	110.49
86	Ab	50	A	O4'-C1'-C2'	-5.10	102.50	107.60
1	Ad	214	A	P-O3'-C3'	5.10	127.85	120.20
1	Ad	1495	U	O4'-C1'-N1	5.10	116.15	108.50
44	CV	48	ARG	CA-C-N	5.10	131.28	121.54
44	CV	48	ARG	C-N-CA	5.10	131.28	121.54
84	Aa	2885	U	C5'-C4'-C3'	-5.10	108.35	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
84	Aa	50	A	C5'-C4'-C3'	-5.10	108.35	116.00
1	Ad	435	C	N1-C1'-C2'	5.10	119.65	112.00
1	Ad	476	U	O4'-C1'-C2'	-5.10	102.50	107.60
73	CO	134	LEU	CA-C-N	5.10	134.24	121.80
73	CO	134	LEU	C-N-CA	5.10	134.24	121.80
1	Ad	289	G	O4'-C1'-C2'	5.10	112.70	107.60
1	Ad	1168	A	O4'-C1'-C2'	-5.10	102.50	107.60
1	Ad	1698	A	P-O3'-C3'	5.10	127.85	120.20
12	BE	133	GLN	N-CA-C	5.10	117.49	110.35
48	CD	238	SER	N-CA-CB	5.10	119.11	110.49
63	CU	29	LYS	N-CA-CB	5.10	119.44	110.37
84	Aa	484	C	O4'-C4'-C3'	5.10	109.10	104.00
66	Cu	62	VAL	N-CA-CB	5.10	119.64	111.23
35	BG	20	ASP	N-CA-CB	5.09	119.10	110.49
35	BG	86	GLY	CA-C-N	5.09	131.27	121.54
35	BG	86	GLY	C-N-CA	5.09	131.27	121.54
40	Cz	13	ILE	CA-C-N	5.09	127.11	120.28
40	Cz	13	ILE	C-N-CA	5.09	127.11	120.28
41	CA	40	TYR	N-CA-C	-5.09	107.11	113.38
71	CB	358	ILE	CA-C-N	5.09	131.27	121.54
71	CB	358	ILE	C-N-CA	5.09	131.27	121.54
84	Aa	1684	U	P-O3'-C3'	-5.09	112.56	120.20
4	BY	70	PHE	CA-CB-CG	-5.09	108.71	113.80
59	Cl	39	ALA	N-CA-CB	5.09	119.10	110.49
78	CL	12	HIS	CA-CB-CG	-5.09	108.71	113.80
1	Ad	582	U	O4'-C1'-N1	5.09	115.84	108.20
31	BV	6	GLY	CA-C-N	5.09	131.27	121.54
31	BV	6	GLY	C-N-CA	5.09	131.27	121.54
41	CA	16	PHE	CA-CB-CG	-5.09	108.71	113.80
41	CA	118	HIS	CA-C-N	5.09	131.27	121.54
41	CA	118	HIS	C-N-CA	5.09	131.27	121.54
1	Ad	100	C	O4'-C1'-C2'	-5.09	100.71	105.80
1	Ad	987	U	O4'-C1'-C2'	-5.09	102.51	107.60
1	Ad	1523	A	C4'-C3'-O3'	-5.09	105.36	113.00
18	BN	36	MET	CA-C-N	5.09	127.17	120.60
18	BN	36	MET	C-N-CA	5.09	127.17	120.60
32	Ba	89	ARG	N-CA-C	5.09	116.83	111.28
1	Ad	1544	G	N9-C1'-C2'	5.09	119.63	112.00
44	CV	11	GLY	CA-C-N	5.09	131.26	121.54
44	CV	11	GLY	C-N-CA	5.09	131.26	121.54
1	Ad	368	A	O4'-C1'-C2'	-5.09	102.51	107.60
1	Ad	1575	U	O4'-C1'-N1	5.09	116.13	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	1797	C	O4'-C1'-N1	5.09	116.13	108.50
20	BT	13	ASN	CA-C-N	5.09	125.12	119.32
20	BT	13	ASN	C-N-CA	5.09	125.12	119.32
1	Ad	1593	U	C3'-C2'-C1'	-5.08	96.22	101.30
33	BJ	141	GLN	CA-C-N	5.08	131.12	121.97
33	BJ	141	GLN	C-N-CA	5.08	131.12	121.97
1	Ad	235	C	C3'-C2'-C1'	5.08	106.58	101.50
1	Ad	381	G	C1'-O4'-C4'	-5.08	104.82	109.90
1	Ad	507	G	O3'-P-O5'	-5.08	96.37	104.00
8	Bf	30	TYR	N-CA-C	-5.08	99.97	110.80
24	BW	94	LEU	CB-CA-C	-5.08	103.41	110.37
84	Aa	1565	G	C4'-C3'-O3'	5.08	120.63	113.00
84	Aa	2552	U	C4'-C3'-O3'	-5.08	105.38	113.00
1	Ad	216	A	O4'-C1'-C2'	5.08	112.68	107.60
12	BE	154	ILE	N-CA-CB	5.08	119.61	111.23
84	Aa	998	G	P-O5'-C5'	-5.08	113.28	120.90
1	Ad	468	A	O4'-C1'-N9	5.08	116.12	108.50
84	Aa	2619	C	O4'-C1'-N1	5.08	116.12	108.50
1	Ad	209	U	O4'-C1'-N1	5.08	116.12	108.50
1	Ad	825	U	C5'-C4'-C3'	5.08	123.62	116.00
1	Ad	1775	A	O4'-C1'-C2'	5.08	110.88	105.80
36	BH	160	ARG	CA-C-N	5.08	127.09	120.28
36	BH	160	ARG	C-N-CA	5.08	127.09	120.28
54	Cr	109	ASP	CA-C-N	5.08	131.24	121.54
54	Cr	109	ASP	C-N-CA	5.08	131.24	121.54
61	CM	24	LEU	N-CA-C	-5.08	101.59	109.72
1	Ad	76	U	N1-C1'-C2'	5.08	119.61	112.00
57	Ce	67	TYR	CA-C-N	5.08	128.39	120.68
57	Ce	67	TYR	C-N-CA	5.08	128.39	120.68
84	Aa	72	A	O4'-C4'-C3'	-5.08	101.03	106.10
1	Ad	310	U	O4'-C1'-N1	5.07	116.11	108.50
2	Ae	58	U	C1'-O4'-C4'	5.07	114.97	109.90
71	CB	373	ARG	CA-C-N	5.07	131.23	121.54
71	CB	373	ARG	C-N-CA	5.07	131.23	121.54
84	Aa	2608	G	C4'-C3'-O3'	-5.07	105.39	113.00
1	Ad	1579	C	N1-C1'-C2'	5.07	119.61	112.00
69	CF	177	LYS	N-CA-C	-5.07	107.07	114.12
1	Ad	507	G	O4'-C1'-C2'	5.07	112.67	107.60
1	Ad	1277	G	O4'-C1'-C2'	5.07	110.87	105.80
65	CK	92	ASP	N-CA-C	-5.07	107.48	113.97
84	Aa	3154	G	C2'-C3'-O3'	5.07	117.11	109.50
1	Ad	789	C	P-O3'-C3'	5.07	127.80	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	BD	95	GLY	CA-C-N	5.07	131.22	121.54
11	BD	95	GLY	C-N-CA	5.07	131.22	121.54
39	CZ	132	THR	CA-C-N	5.07	127.97	120.82
39	CZ	132	THR	C-N-CA	5.07	127.97	120.82
61	CM	84	TRP	CA-C-N	5.07	127.07	120.28
61	CM	84	TRP	C-N-CA	5.07	127.07	120.28
1	Ad	1188	A	O4'-C1'-C2'	-5.07	102.53	107.60
84	Aa	2443	C	O4'-C1'-N1	5.07	116.10	108.50
8	Bf	53	ALA	N-CA-C	5.06	117.57	110.23
1	Ad	1691	C	O4'-C1'-N1	5.06	115.79	108.20
84	Aa	253	G	O4'-C1'-N9	5.06	116.09	108.50
1	Ad	110	G	C3'-C2'-C1'	-5.06	96.24	101.30
1	Ad	1060	U	O4'-C1'-N1	5.06	116.09	108.50
1	Ad	1455	U	O4'-C1'-N1	5.06	116.09	108.50
40	Cz	57	ILE	CA-C-N	5.06	124.67	119.05
40	Cz	57	ILE	C-N-CA	5.06	124.67	119.05
48	CD	121	GLU	N-CA-C	-5.06	101.39	109.23
79	CE	50	PHE	CA-C-N	5.06	134.15	121.80
79	CE	50	PHE	C-N-CA	5.06	134.15	121.80
24	BW	3	ARG	CA-C-N	5.06	131.07	121.97
24	BW	3	ARG	C-N-CA	5.06	131.07	121.97
46	Ca	40	HIS	N-CA-C	5.06	117.20	110.53
1	Ad	1194	C	C1'-O4'-C4'	5.06	114.76	109.70
15	BU	12	MET	N-CA-C	5.06	121.57	110.80
84	Aa	51	A	P-O5'-C5'	-5.06	113.32	120.90
11	BD	189	MET	N-CA-C	-5.05	100.17	108.41
20	BT	70	ARG	CA-C-N	5.05	128.84	121.31
20	BT	70	ARG	C-N-CA	5.05	128.84	121.31
55	Cc	14	ILE	CA-C-N	5.05	127.05	120.28
55	Cc	14	ILE	C-N-CA	5.05	127.05	120.28
1	Ad	558	C	C3'-C2'-C1'	5.05	106.55	101.50
56	Cd	14	GLU	N-CA-C	-5.05	100.04	110.80
1	Ad	1013	G	O4'-C1'-C2'	5.05	112.65	107.60
1	Ad	1225	A	C3'-C2'-C1'	5.05	106.35	101.30
1	Ad	1597	C	C3'-C2'-C1'	5.05	106.35	101.30
1	Ad	1712	C	P-O5'-C5'	5.05	128.48	120.90
50	CP	128	ARG	N-CA-C	-5.05	100.04	110.80
78	CL	52	GLY	N-CA-C	-5.05	102.03	112.34
1	Ad	208	U	O4'-C1'-N1	5.05	116.07	108.50
24	BW	21	GLY	N-CA-C	-5.05	104.95	110.96
1	Ad	1608	A	O4'-C1'-N9	5.05	115.77	108.20
1	Ad	11	A	C3'-C2'-C1'	5.05	106.35	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	516	A	O4'-C1'-N9	5.05	116.07	108.50
1	Ad	843	G	O4'-C1'-N9	-5.05	100.93	108.50
1	Ad	854	C	P-O5'-C5'	5.05	128.47	120.90
1	Ad	1148	A	O4'-C1'-C2'	-5.05	102.55	107.60
11	BD	132	LYS	N-CA-CB	5.05	119.02	110.49
84	Aa	265	G	P-O3'-C3'	5.04	127.77	120.20
1	Ad	734	C	N1-C1'-C2'	5.04	119.56	112.00
1	Ad	1096	A	O4'-C1'-N9	5.04	115.77	108.20
1	Ad	1472	G	C1'-C2'-O2'	5.04	115.97	108.40
84	Aa	2086	A	C4'-C3'-C2'	5.04	107.64	102.60
1	Ad	333	G	O4'-C1'-C2'	5.04	112.64	107.60
1	Ad	1214	C	C4'-C3'-O3'	-5.04	105.44	113.00
14	BQ	66	PHE	CA-CB-CG	5.04	118.84	113.80
26	Bb	18	LYS	N-CA-C	-5.04	107.13	113.28
43	CH	185	THR	N-CA-C	5.04	121.54	110.80
17	BS	148	VAL	CA-C-N	5.04	131.17	121.54
17	BS	148	VAL	C-N-CA	5.04	131.17	121.54
84	Aa	638	G	O5'-C5'-C4'	-5.04	104.14	111.70
84	Aa	1341	G	C5'-C4'-C3'	-5.04	108.44	116.00
84	Aa	2797	U	P-O5'-C5'	5.04	128.46	120.90
1	Ad	998	A	N9-C1'-C2'	5.04	119.56	112.00
1	Ad	462	G	O4'-C1'-C2'	5.04	112.64	107.60
1	Ad	1627	C	C3'-C2'-C1'	5.04	106.33	101.30
84	Aa	2942	A	C4'-C3'-O3'	-5.04	105.45	113.00
1	Ad	1502	C	C3'-C2'-C1'	5.03	106.33	101.30
57	Ce	120	VAL	CA-C-N	5.03	131.15	121.54
57	Ce	120	VAL	C-N-CA	5.03	131.15	121.54
84	Aa	2132	A	C2'-C3'-O3'	5.03	117.05	109.50
1	Ad	725	U	O4'-C1'-C2'	-5.03	102.57	107.60
1	Ad	757	G	O4'-C1'-C2'	5.03	112.63	107.60
1	Ad	1736	C	C3'-C2'-C1'	5.03	106.33	101.30
13	BF	11	VAL	CA-C-N	5.03	127.34	120.35
13	BF	11	VAL	C-N-CA	5.03	127.34	120.35
1	Ad	924	A	O4'-C1'-N9	5.03	116.04	108.50
72	CC	357	GLU	N-CA-CB	5.03	118.99	110.49
84	Aa	3182	A	O4'-C4'-C3'	-5.03	98.97	104.00
1	Ad	744	G	O4'-C1'-C2'	-5.03	102.57	107.60
1	Ad	1585	A	N9-C1'-C2'	5.03	119.54	112.00
60	Co	17	CYS	N-CA-C	-5.03	103.85	111.34
71	CB	352	ARG	CA-C-N	5.03	131.14	121.54
71	CB	352	ARG	C-N-CA	5.03	131.14	121.54
84	Aa	2073	U	O4'-C1'-N1	5.03	116.04	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	795	A	C3'-C2'-C1'	5.03	106.33	101.30
1	Ad	1190	U	N1-C1'-C2'	-5.03	104.46	112.00
48	CD	117	ASP	N-CA-CB	5.03	118.98	110.49
1	Ad	220	C	P-O5'-C5'	-5.02	113.36	120.90
65	CK	14	PHE	N-CA-CB	5.02	118.98	110.49
1	Ad	916	U	O4'-C1'-N1	5.02	116.03	108.50
1	Ad	1195	U	O4'-C1'-C2'	-5.02	102.58	107.60
8	Bf	43	ARG	N-CA-CB	5.02	118.98	110.49
49	CR	37	SER	CA-C-N	5.02	127.51	120.28
49	CR	37	SER	C-N-CA	5.02	127.51	120.28
84	Aa	1330	A	C4'-C3'-C2'	-5.02	97.58	102.60
86	Ab	26	C	O4'-C1'-N1	5.02	116.03	108.50
86	Ab	60	G	O4'-C1'-N9	5.02	116.03	108.50
1	Ad	215	A	C2'-C3'-O3'	5.02	121.23	113.70
1	Ad	280	U	O3'-P-O5'	-5.02	96.47	104.00
1	Ad	579	C	O4'-C1'-N1	5.02	116.03	108.50
45	CN	122	ASN	N-CA-CB	5.02	118.98	110.49
1	Ad	1077	C	C3'-C2'-C1'	5.02	106.32	101.30
40	Cz	46	LYS	CA-C-N	5.02	127.00	120.28
40	Cz	46	LYS	C-N-CA	5.02	127.00	120.28
55	Cc	102	SER	N-CA-CB	5.02	118.97	110.49
84	Aa	2552	U	C5'-C4'-C3'	-5.02	108.47	116.00
1	Ad	403	A	N9-C1'-C2'	-5.02	106.47	114.00
1	Ad	1723	G	C1'-C2'-O2'	5.02	115.92	108.40
24	BW	62	VAL	N-CA-C	-5.02	100.34	107.77
30	BB	52	GLN	CA-C-N	5.02	124.87	120.10
30	BB	52	GLN	C-N-CA	5.02	124.87	120.10
1	Ad	1128	C	O5'-C5'-C4'	5.02	119.03	111.50
11	BD	126	VAL	CA-C-N	5.02	127.50	120.28
11	BD	126	VAL	C-N-CA	5.02	127.50	120.28
58	Cj	82	THR	N-CA-C	-5.02	105.46	112.03
1	Ad	393	G	O4'-C1'-C2'	5.01	112.61	107.60
1	Ad	715	U	O4'-C1'-C2'	-5.01	102.58	107.60
1	Ad	1671	G	O4'-C1'-N9	5.01	116.02	108.50
11	BD	192	TRP	N-CA-C	-5.01	102.77	110.14
79	CE	145	LYS	CA-C-N	5.01	127.00	120.28
79	CE	145	LYS	C-N-CA	5.01	127.00	120.28
84	Aa	2993	A	C5'-C4'-C3'	-5.01	108.48	116.00
1	Ad	1421	U	C1'-O4'-C4'	-5.01	104.89	109.90
20	BT	4	SER	CA-C-N	5.01	127.31	120.54
20	BT	4	SER	C-N-CA	5.01	127.31	120.54
38	CT	141	VAL	N-CA-C	-5.01	98.91	109.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	Ad	84	G	P-O5'-C5'	-5.01	113.38	120.90
1	Ad	104	A	O4'-C1'-N9	5.01	115.71	108.20
1	Ad	512	U	O4'-C1'-N1	5.01	116.01	108.50
17	BS	136	THR	CA-C-N	5.01	131.11	121.54
17	BS	136	THR	C-N-CA	5.01	131.11	121.54
84	Aa	2088	C	C4'-C3'-C2'	-5.01	97.59	102.60
1	Ad	1022	U	O4'-C1'-N1	5.01	116.01	108.50
84	Aa	2181	U	O4'-C1'-N1	5.01	116.01	108.50
1	Ad	131	C	O4'-C1'-C2'	-5.01	102.59	107.60
1	Ad	145	A	O4'-C1'-C2'	-5.01	102.59	107.60
1	Ad	1206	A	O4'-C1'-N9	-5.01	100.99	108.50
1	Ad	1249	G	O3'-P-O5'	-5.01	96.49	104.00
84	Aa	1624	G	P-O3'-C3'	5.01	127.71	120.20
84	Aa	2087	A	O4'-C1'-N9	5.01	115.71	108.20
1	Ad	257	A	N9-C1'-C2'	5.00	119.51	112.00
72	CC	212	LEU	N-CA-C	-5.00	101.24	109.40
1	Ad	164	C	C3'-C2'-C1'	5.00	106.30	101.30
1	Ad	468	A	C4'-C3'-O3'	-5.00	105.50	113.00
1	Ad	1342	C	C4'-C3'-O3'	-5.00	105.50	113.00
69	CF	217	LYS	N-CA-C	-5.00	103.11	110.52
84	Aa	2904	A	P-O3'-C3'	5.00	127.70	120.20

There are no chirality outliers.

All (486) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
84	Aa	1004	C	Sidechain
84	Aa	1010	A	Sidechain
84	Aa	1019	A	Sidechain
84	Aa	1022	G	Sidechain
84	Aa	1028	G	Sidechain
84	Aa	1051	A	Sidechain
84	Aa	106	G	Sidechain
84	Aa	1073	G	Sidechain
84	Aa	108	A	Sidechain
84	Aa	1083	C	Sidechain
84	Aa	11	A	Sidechain
84	Aa	1102	A	Sidechain
84	Aa	1109	G	Sidechain
84	Aa	111	C	Sidechain
84	Aa	1116	G	Sidechain
84	Aa	1118	G	Sidechain

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Mol	Chain	Res	Type	Group
84	Aa	1119	G	Sidechain
84	Aa	114	G	Sidechain
84	Aa	1150	G	Sidechain
84	Aa	1156	A	Sidechain
84	Aa	1157	A	Sidechain
84	Aa	1163	A	Sidechain
84	Aa	1164	G	Sidechain
84	Aa	1167	G	Sidechain
84	Aa	1177	G	Sidechain
84	Aa	1184	U	Sidechain
84	Aa	1187	G	Sidechain
84	Aa	120	G	Sidechain
84	Aa	1216	G	Sidechain
84	Aa	1230	G	Sidechain
84	Aa	1237	G	Sidechain
84	Aa	1241	G	Sidechain
84	Aa	1247	G	Sidechain
84	Aa	126	G	Sidechain
84	Aa	1262	U	Sidechain
84	Aa	1267	A	Sidechain
84	Aa	1275	A	Sidechain
84	Aa	1297	U	Sidechain
84	Aa	1298	A	Sidechain
84	Aa	13	G	Sidechain
84	Aa	1308	A	Sidechain
84	Aa	1312	A	Sidechain
84	Aa	1313	U	Sidechain
84	Aa	1320	G	Sidechain
84	Aa	1322	A	Sidechain
84	Aa	1323	G	Sidechain
84	Aa	1335	C	Sidechain
84	Aa	1341	G	Sidechain
84	Aa	1354	G	Sidechain
84	Aa	1409	G	Sidechain
84	Aa	144	A	Sidechain
84	Aa	1449	A	Sidechain
84	Aa	1457	A	Sidechain
84	Aa	147	G	Sidechain
84	Aa	1476	G	Sidechain
84	Aa	1482	C	Sidechain
84	Aa	1486	G	Sidechain
84	Aa	1489	G	Sidechain

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Mol	Chain	Res	Type	Group
84	Aa	1528	G	Sidechain
84	Aa	1531	G	Sidechain
84	Aa	1538	A	Sidechain
84	Aa	1542	A	Sidechain
84	Aa	158	A	Sidechain
84	Aa	1586	A	Sidechain
84	Aa	159	G	Sidechain
84	Aa	1594	G	Sidechain
84	Aa	1598	U	Sidechain
84	Aa	1601	G	Sidechain
84	Aa	1609	G	Sidechain
84	Aa	1611	G	Sidechain
84	Aa	1618	U	Sidechain
84	Aa	1619	G	Sidechain
84	Aa	1634	G	Sidechain
84	Aa	1635	A	Sidechain
84	Aa	1638	U	Sidechain
84	Aa	1653	A	Sidechain
84	Aa	1671	G	Sidechain
84	Aa	1672	G	Sidechain
84	Aa	1678	U	Sidechain
84	Aa	1689	G	Sidechain
84	Aa	1711	G	Sidechain
84	Aa	1716	G	Sidechain
84	Aa	1721	A	Sidechain
84	Aa	1723	C	Sidechain
84	Aa	1725	G	Sidechain
84	Aa	1728	G	Sidechain
84	Aa	1746	G	Sidechain
84	Aa	1747	A	Sidechain
84	Aa	1749	G	Sidechain
84	Aa	1750	A	Sidechain
84	Aa	1756	C	Sidechain
84	Aa	176	A	Sidechain
84	Aa	1767	G	Sidechain
84	Aa	18	G	Sidechain
84	Aa	1804	G	Sidechain
84	Aa	1816	U	Sidechain
84	Aa	1821	G	Sidechain
84	Aa	1842	C	Sidechain
84	Aa	1853	C	Sidechain
84	Aa	1857	G	Sidechain

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Mol	Chain	Res	Type	Group
84	Aa	1859	G	Sidechain
84	Aa	186	A	Sidechain
84	Aa	188	U	Sidechain
84	Aa	1892	A	Sidechain
84	Aa	1903	C	Sidechain
84	Aa	1910	G	Sidechain
84	Aa	1912	U	Sidechain
84	Aa	1921	U	Sidechain
84	Aa	1923	G	Sidechain
84	Aa	1935	G	Sidechain
84	Aa	20	G	Sidechain
84	Aa	2075	C	Sidechain
84	Aa	2077	C	Sidechain
84	Aa	2088	C	Sidechain
84	Aa	2092	C	Sidechain
84	Aa	2093	G	Sidechain
84	Aa	2104	G	Sidechain
84	Aa	2113	A	Sidechain
84	Aa	2132	A	Sidechain
84	Aa	214	G	Sidechain
84	Aa	2149	G	Sidechain
84	Aa	2150	C	Sidechain
84	Aa	2167	G	Sidechain
84	Aa	2171	A	Sidechain
84	Aa	218	G	Sidechain
84	Aa	2189	G	Sidechain
84	Aa	2192	C	Sidechain
84	Aa	2218	A	Sidechain
84	Aa	2242	G	Sidechain
84	Aa	2269	U	Sidechain
84	Aa	2270	A	Sidechain
84	Aa	2290	A	Sidechain
84	Aa	2303	C	Sidechain
84	Aa	2348	U	Sidechain
84	Aa	235	G	Sidechain
84	Aa	2352	G	Sidechain
84	Aa	2354	G	Sidechain
84	Aa	2375	G	Sidechain
84	Aa	2376	G	Sidechain
84	Aa	2380	G	Sidechain
84	Aa	2381	G	Sidechain
84	Aa	2416	U	Sidechain

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Mol	Chain	Res	Type	Group
84	Aa	2424	G	Sidechain
84	Aa	244	G	Sidechain
84	Aa	2444	U	Sidechain
84	Aa	2451	G	Sidechain
84	Aa	2491	A	Sidechain
84	Aa	2502	U	Sidechain
84	Aa	2506	G	Sidechain
84	Aa	2508	U	Sidechain
84	Aa	2526	G	Sidechain
84	Aa	2528	U	Sidechain
84	Aa	2529	C	Sidechain
84	Aa	2537	G	Sidechain
84	Aa	2538	G	Sidechain
84	Aa	2539	G	Sidechain
84	Aa	2542	U	Sidechain
84	Aa	2543	G	Sidechain
84	Aa	2552	U	Sidechain
84	Aa	2557	C	Sidechain
84	Aa	2558	U	Sidechain
84	Aa	2583	A	Sidechain
84	Aa	2588	G	Sidechain
84	Aa	2591	G	Sidechain
84	Aa	2610	G	Sidechain
84	Aa	2623	G	Sidechain
84	Aa	2627	G	Sidechain
84	Aa	2639	A	Sidechain
84	Aa	2648	G	Sidechain
84	Aa	265	G	Sidechain
84	Aa	2666	G	Sidechain
84	Aa	2673	G	Sidechain
84	Aa	2677	A	Sidechain
84	Aa	2697	A	Sidechain
84	Aa	2709	G	Sidechain
84	Aa	2732	U	Sidechain
84	Aa	2733	A	Sidechain
84	Aa	2751	A	Sidechain
84	Aa	2789	G	Sidechain
84	Aa	279	G	Sidechain
84	Aa	2801	A	Sidechain
84	Aa	2807	G	Sidechain
84	Aa	2815	A	Sidechain
84	Aa	2820	U	Sidechain

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Mol	Chain	Res	Type	Group
84	Aa	2843	G	Sidechain
84	Aa	2877	U	Sidechain
84	Aa	2882	U	Sidechain
84	Aa	2888	U	Sidechain
84	Aa	2918	U	Sidechain
84	Aa	2932	A	Sidechain
84	Aa	2935	A	Sidechain
84	Aa	2936	A	Sidechain
84	Aa	2966	G	Sidechain
84	Aa	2967	U	Sidechain
84	Aa	2968	G	Sidechain
84	Aa	2992	G	Sidechain
84	Aa	3002	U	Sidechain
84	Aa	3006	G	Sidechain
84	Aa	3007	A	Sidechain
84	Aa	3012	A	Sidechain
84	Aa	302	G	Sidechain
84	Aa	3035	C	Sidechain
84	Aa	3057	A	Sidechain
84	Aa	3067	G	Sidechain
84	Aa	3097	G	Sidechain
84	Aa	3123	A	Sidechain
84	Aa	3125	G	Sidechain
84	Aa	3137	G	Sidechain
84	Aa	3143	A	Sidechain
84	Aa	3171	C	Sidechain
84	Aa	3179	G	Sidechain
84	Aa	318	G	Sidechain
84	Aa	3204	G	Sidechain
84	Aa	3208	G	Sidechain
84	Aa	321	A	Sidechain
84	Aa	3219	U	Sidechain
84	Aa	3220	A	Sidechain
84	Aa	3222	G	Sidechain
84	Aa	3242	G	Sidechain
84	Aa	3248	G	Sidechain
84	Aa	3252	G	Sidechain
84	Aa	3264	C	Sidechain
84	Aa	3267	U	Sidechain
84	Aa	3269	C	Sidechain
84	Aa	3271	A	Sidechain
84	Aa	3276	G	Sidechain

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Mol	Chain	Res	Type	Group
84	Aa	3286	G	Sidechain
84	Aa	3294	U	Sidechain
84	Aa	3295	G	Sidechain
84	Aa	3309	U	Sidechain
84	Aa	3312	G	Sidechain
84	Aa	3314	G	Sidechain
84	Aa	3315	A	Sidechain
84	Aa	3320	G	Sidechain
84	Aa	3334	A	Sidechain
84	Aa	3340	G	Sidechain
84	Aa	3345	G	Sidechain
84	Aa	3361	G	Sidechain
84	Aa	3377	G	Sidechain
84	Aa	3379	C	Sidechain
84	Aa	3380	G	Sidechain
84	Aa	339	G	Sidechain
84	Aa	342	A	Sidechain
84	Aa	352	U	Sidechain
84	Aa	370	A	Sidechain
84	Aa	372	A	Sidechain
84	Aa	373	A	Sidechain
84	Aa	404	G	Sidechain
84	Aa	413	G	Sidechain
84	Aa	424	G	Sidechain
84	Aa	425	G	Sidechain
84	Aa	431	G	Sidechain
84	Aa	436	G	Sidechain
84	Aa	492	G	Sidechain
84	Aa	493	G	Sidechain
84	Aa	497	G	Sidechain
84	Aa	522	C	Sidechain
84	Aa	526	A	Sidechain
84	Aa	527	G	Sidechain
84	Aa	53	C	Sidechain
84	Aa	566	G	Sidechain
84	Aa	602	G	Sidechain
84	Aa	603	G	Sidechain
84	Aa	604	C	Sidechain
84	Aa	62	A	Sidechain
84	Aa	647	U	Sidechain
84	Aa	666	U	Sidechain
84	Aa	669	G	Sidechain

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Mol	Chain	Res	Type	Group
84	Aa	67	C	Sidechain
84	Aa	676	G	Sidechain
84	Aa	688	G	Sidechain
84	Aa	693	C	Sidechain
84	Aa	713	G	Sidechain
84	Aa	723	G	Sidechain
84	Aa	732	G	Sidechain
84	Aa	736	U	Sidechain
84	Aa	746	C	Sidechain
84	Aa	75	G	Sidechain
84	Aa	757	G	Sidechain
84	Aa	763	G	Sidechain
84	Aa	765	U	Sidechain
84	Aa	768	U	Sidechain
84	Aa	771	G	Sidechain
84	Aa	772	U	Sidechain
84	Aa	773	G	Sidechain
84	Aa	775	A	Sidechain
84	Aa	779	U	Sidechain
84	Aa	783	A	Sidechain
84	Aa	787	G	Sidechain
84	Aa	801	G	Sidechain
84	Aa	808	G	Sidechain
84	Aa	818	G	Sidechain
84	Aa	825	G	Sidechain
84	Aa	835	G	Sidechain
84	Aa	838	G	Sidechain
84	Aa	844	A	Sidechain
84	Aa	849	A	Sidechain
84	Aa	85	G	Sidechain
84	Aa	858	U	Sidechain
84	Aa	861	A	Sidechain
84	Aa	877	U	Sidechain
84	Aa	886	A	Sidechain
84	Aa	911	G	Sidechain
84	Aa	93	G	Sidechain
84	Aa	936	A	Sidechain
84	Aa	966	G	Sidechain
84	Aa	97	G	Sidechain
84	Aa	977	G	Sidechain
84	Aa	997	G	Sidechain
86	Ab	104	C	Sidechain

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Mol	Chain	Res	Type	Group
86	Ab	117	U	Sidechain
86	Ab	17	G	Sidechain
86	Ab	30	G	Sidechain
86	Ab	33	U	Sidechain
86	Ab	37	G	Sidechain
86	Ab	40	A	Sidechain
86	Ab	42	A	Sidechain
86	Ab	46	C	Sidechain
86	Ab	56	G	Sidechain
86	Ab	61	C	Sidechain
86	Ab	62	U	Sidechain
86	Ab	79	A	Sidechain
86	Ab	83	A	Sidechain
86	Ab	88	U	Sidechain
86	Ab	9	U	Sidechain
86	Ab	90	A	Sidechain
86	Ab	96	U	Sidechain
86	Ab	97	G	Sidechain
85	Ac	100	U	Sidechain
85	Ac	105	A	Sidechain
85	Ac	146	G	Sidechain
85	Ac	147	C	Sidechain
85	Ac	149	U	Sidechain
85	Ac	16	G	Sidechain
85	Ac	22	U	Sidechain
85	Ac	34	U	Sidechain
85	Ac	49	G	Sidechain
85	Ac	51	G	Sidechain
85	Ac	53	A	Sidechain
85	Ac	60	U	Sidechain
85	Ac	64	U	Sidechain
85	Ac	69	U	Sidechain
85	Ac	70	G	Sidechain
85	Ac	74	U	Sidechain
85	Ac	87	G	Sidechain
85	Ac	9	G	Sidechain
30	BB	157	GLN	Peptide
11	BD	112	GLY	Peptide
11	BD	211	HIS	Peptide
11	BD	212	PRO	Peptide
12	BE	132	GLY	Peptide
12	BE	240	LYS	Peptide

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Mol	Chain	Res	Type	Group
13	BF	138	SER	Peptide
13	BF	44	TYR	Sidechain
35	BG	182	ARG	Peptide
36	BH	105	PRO	Peptide
36	BH	114	PRO	Peptide
36	BH	117	ARG	Sidechain
36	BH	184	PHE	Peptide
6	BK	22	TYR	Sidechain
6	BK	83	PRO	Peptide
6	BK	86	ILE	Peptide
6	BK	87	VAL	Peptide
19	BL	98	TYR	Sidechain
7	BM	92	CYS	Peptide
14	BQ	131	GLU	Peptide
29	BR	2	GLY	Peptide
17	BS	142	ARG	Sidechain
20	BT	37	VAL	Peptide
20	BT	46	LYS	Peptide
20	BT	91	ARG	Sidechain
20	BT	92	PRO	Peptide
15	BU	10	PRO	Peptide
15	BU	78	PRO	Peptide
24	BW	62	VAL	Peptide
4	BY	48	LYS	Peptide
32	Ba	87	ARG	Sidechain
26	Bb	29	SER	Peptide
26	Bb	3	LEU	Peptide
23	Bc	21	GLY	Peptide
25	Bd	13	ASN	Peptide
8	Bf	52	GLY	Peptide
10	Bg	301	VAL	Peptide
41	CA	122	ASP	Peptide
41	CA	244	GLY	Peptide
41	CA	63	PHE	Peptide
41	CA	70	LYS	Peptide
71	CB	117	ARG	Peptide
71	CB	119	TYR	Sidechain
71	CB	259	HIS	Sidechain
71	CB	291	SER	Peptide
71	CB	303	ASP	Peptide
71	CB	349	GLN	Peptide
71	CB	357	GLU	Peptide

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Mol	Chain	Res	Type	Group
71	CB	365	THR	Peptide
71	CB	42	HIS	Peptide
72	CC	201	ARG	Sidechain
72	CC	215	TYR	Sidechain
72	CC	24	SER	Peptide
72	CC	95	ALA	Peptide
48	CD	114	ARG	Peptide
48	CD	121	GLU	Peptide
48	CD	139	ARG	Peptide
48	CD	187	GLU	Peptide
48	CD	201	GLY	Peptide
48	CD	21	GLN	Peptide
48	CD	217	GLU	Peptide
48	CD	218	LYS	Peptide
48	CD	235	GLY	Peptide
48	CD	238	SER	Peptide
48	CD	244	HIS	Peptide
48	CD	257	THR	Peptide
48	CD	261	PRO	Peptide
79	CE	20	TYR	Sidechain
79	CE	27	ALA	Peptide
79	CE	36	LEU	Peptide
79	CE	48	PRO	Peptide
79	CE	49	LYS	Peptide
79	CE	51	TYR	Peptide
79	CE	71	LEU	Peptide
69	CF	204	LEU	Peptide
69	CF	35	GLU	Peptide
69	CF	77	PHE	Peptide
37	CG	50	TRP	Peptide
37	CG	74	ASN	Peptide
43	CH	168	ASN	Peptide
43	CH	169	LYS	Peptide
43	CH	183	LYS	Peptide
75	CI	110	ARG	Peptide
75	CI	172	GLY	Peptide
75	CI	29	PRO	Peptide
75	CI	88	ARG	Sidechain
42	CJ	2	SER	Peptide
42	CJ	9	ASN	Peptide
65	CK	75	VAL	Peptide
65	CK	76	PRO	Peptide

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Mol	Chain	Res	Type	Group
78	CL	12	HIS	Peptide
78	CL	13	PHE	Sidechain,Peptide
78	CL	20	TYR	Sidechain
78	CL	65	TYR	Sidechain
61	CM	17	TYR	Sidechain
61	CM	18	GLY	Peptide
61	CM	40	ALA	Peptide
61	CM	6	PHE	Peptide
45	CN	81	TYR	Sidechain
73	CO	115	PRO	Peptide
73	CO	125	ILE	Peptide
73	CO	152	TRP	Peptide
73	CO	70	LYS	Peptide
50	CP	3	LYS	Peptide
47	CQ	14	THR	Peptide
47	CQ	156	PRO	Peptide
47	CQ	157	GLY	Peptide
47	CQ	158	VAL	Peptide
47	CQ	16	ARG	Peptide
47	CQ	59	ARG	Sidechain
49	CR	73	GLY	Peptide
49	CR	84	THR	Peptide
49	CR	89	LEU	Peptide
62	CS	139	ASP	Peptide
62	CS	151	PHE	Peptide
62	CS	82	ARG	Sidechain
63	CU	100	ASP	Peptide
63	CU	55	LYS	Peptide
51	CX	133	TYR	Sidechain
46	Ca	103	TYR	Sidechain
46	Ca	116	ARG	Peptide
46	Ca	137	GLY	Peptide
46	Ca	39	HIS	Peptide
46	Ca	5	PHE	Peptide
46	Ca	60	TYR	Peptide
46	Ca	8	ASN	Peptide
55	Cc	52	CYS	Peptide
57	Ce	13	LYS	Peptide
80	Cf	20	TYR	Sidechain
80	Cf	4	ARG	Sidechain
83	Cg	1	MET	Peptide
68	Ch	90	ARG	Peptide

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Mol	Chain	Res	Type	Group
58	Cj	88	LYS	Peptide
59	Cl	3	SER	Peptide
60	Co	32	LYS	Peptide
60	Co	87	ARG	Sidechain
74	Cp	35	SER	Peptide
70	Cq	7	LYS	Peptide
70	Cq	9	GLU	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	Ad	37584	0	18947	2056	0
2	Ae	1595	0	808	33	0
3	Af	232	0	121	22	0
4	BY	1108	0	1200	99	0
5	BI	533	0	551	27	0
6	BK	818	0	831	1	0
7	BM	924	0	939	15	0
8	Bf	577	0	589	84	0
9	BX	1103	0	1170	114	0
10	Bg	2929	0	2843	4	0
11	BD	1629	0	1694	41	0
12	BE	1607	0	1678	99	0
13	BF	1489	0	1537	43	0
14	BQ	1017	0	1080	65	0
15	BU	982	0	1032	38	0
16	BO	899	0	936	16	0
17	BS	1240	0	1293	108	0
18	BN	977	0	1057	113	0
19	BL	688	0	704	66	0
20	BT	1155	0	1175	33	0
21	BP	711	0	759	40	0
22	BZ	779	0	833	47	0
23	Bc	454	0	489	9	0
24	BW	1042	0	1086	43	0
25	Bd	379	0	378	24	0
26	Bb	663	0	680	61	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
27	Be	469	0	506	29	0
28	BA	1537	0	1557	15	0
29	BR	945	0	1002	38	0
30	BB	1707	0	1783	6	0
31	BV	601	0	588	0	0
32	Ba	753	0	769	105	0
33	BJ	1525	0	1600	88	0
34	BC	1665	0	1751	31	0
35	BG	1867	0	1990	252	0
36	BH	1508	0	1572	63	0
37	CG	1906	0	2064	10	0
38	CT	1288	0	1341	17	0
39	CZ	1090	0	1183	5	0
40	Cz	1718	0	1841	20	0
41	CA	1946	0	1974	86	0
42	CJ	1380	0	1422	66	0
43	CH	1500	0	1564	3	0
44	CV	1048	0	1116	4	0
45	CN	1630	0	1704	16	0
46	Ca	1114	0	1166	19	0
47	CQ	1284	0	1376	9	0
48	CD	2444	0	2418	102	0
49	CR	1569	0	1695	72	0
50	CP	1372	0	1410	23	0
51	CX	987	0	1082	57	0
52	CW	635	0	677	3	0
53	CY	1048	0	1130	13	0
54	Cr	576	0	616	6	0
55	Cc	857	0	904	11	0
56	Cd	960	0	1025	14	0
57	Ce	1103	0	1177	23	0
58	Cj	755	0	782	14	0
59	Cl	460	0	490	2	0
60	Co	851	0	909	7	0
61	CM	1081	0	1171	29	0
62	CS	1419	0	1466	34	0
63	CU	864	0	910	30	0
64	Ci	613	0	684	4	0
65	CK	960	0	1042	2	0
66	Cu	432	0	463	0	0
66	Cv	432	0	463	0	0
67	Cs	441	0	453	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
67	Ct	441	0	453	0	0
68	Ch	1012	0	1112	10	0
69	CF	1984	0	2092	26	0
70	Cq	1993	0	2086	19	0
71	CB	3139	0	3258	32	0
72	CC	2898	0	3023	32	0
73	CO	1650	0	1770	32	0
74	Cp	715	0	758	9	0
75	CI	1490	0	1539	50	0
76	Cn	238	0	289	34	0
77	Cm	428	0	470	0	0
78	CL	1691	0	1788	9	0
79	CE	1731	0	1825	39	0
80	Cf	891	0	928	18	0
81	Ck	564	0	612	7	0
82	Cb	477	0	483	6	0
83	Cg	897	0	983	11	0
84	Aa	72601	0	36663	796	0
85	Ac	3408	0	1732	35	0
86	Ab	2561	0	1295	219	0
All	All	212263	0	158405	3313	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 9.

All (3313) 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)
1:Ad:1203:G:C1'	1:Ad:1203:G:C2'	1.79	1.54
1:Ad:707:C:C1'	1:Ad:707:C:C2'	1.78	1.53
1:Ad:1580:G:C1'	1:Ad:1580:G:C2'	1.77	1.48
1:Ad:944:A:C6	18:BN:117:LEU:HG	1.48	1.47
73:CO:17:ARG:NH1	84:Aa:3181:U:C5	1.87	1.41
1:Ad:759:A:H4'	12:BE:221:ARG:CZ	1.49	1.39
41:CA:6:ARG:NH2	84:Aa:2178:G:H3'	1.34	1.37
49:CR:139:MET:CB	84:Aa:2086:A:O4'	1.70	1.38
42:CJ:143:ARG:HH12	86:Ab:28:U:C5'	1.37	1.36
1:Ad:728:C:O4'	1:Ad:728:C:C1'	1.63	1.36
1:Ad:1231:A:H62	7:BM:91:LEU:CD1	1.39	1.35
1:Ad:648:C:C1'	1:Ad:648:C:O4'	1.65	1.34
1:Ad:1445:C:C1'	1:Ad:1445:C:O4'	1.63	1.34

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:CD:54:ARG:NE	86:Ab:27:A:H5''	1.40	1.33
1:Ad:846:U:C1'	1:Ad:846:U:O4'	1.64	1.31
49:CR:139:MET:HB3	84:Aa:2086:A:O4'	1.19	1.31
1:Ad:179:A:C1'	1:Ad:179:A:O4'	1.66	1.30
1:Ad:836:U:O4'	1:Ad:836:U:C1'	1.66	1.29
1:Ad:1080:C:C1'	1:Ad:1080:C:O4'	1.68	1.29
1:Ad:613:U:C1'	1:Ad:613:U:O4'	1.63	1.29
75:CI:115:MET:HB2	75:CI:116:ARG:CA	1.60	1.29
1:Ad:140:C:C1'	1:Ad:140:C:O4'	1.63	1.27
1:Ad:530:A:H5'	4:BY:98:ILE:CD1	1.65	1.26
1:Ad:843:G:C1'	1:Ad:843:G:O4'	1.69	1.25
1:Ad:1202:G:H1'	15:BU:81:GLU:OE1	1.36	1.25
2:Ae:19:U:C1'	2:Ae:19:U:O4'	1.66	1.25
70:Cq:211:GLU:O	70:Cq:213:ASP:N	1.70	1.25
1:Ad:80:C:C6	35:BG:177:ALA:C	2.15	1.24
73:CO:17:ARG:NH1	84:Aa:3181:U:H5	1.24	1.24
1:Ad:1375:C:C1'	1:Ad:1375:C:O4'	1.63	1.24
1:Ad:1466:A:N7	17:BS:152:ARG:HB2	1.52	1.23
41:CA:5:ILE:CG2	84:Aa:2177:U:O2'	1.84	1.23
61:CM:44:VAL:HG21	84:Aa:554:C:OP1	1.34	1.23
1:Ad:1429:U:H3	34:BC:95:ARG:NH2	1.35	1.23
1:Ad:1810:G:C1'	1:Ad:1810:G:O4'	1.68	1.23
1:Ad:238:G:C1'	1:Ad:238:G:O4'	1.64	1.23
48:CD:14:HIS:CE1	86:Ab:11:A:H61	1.57	1.23
63:CU:31:VAL:CG2	63:CU:101:TRP:CD1	2.22	1.22
3:Af:21:C:C5'	9:BX:61:PRO:HB3	1.67	1.21
54:Cr:88:HIS:CD2	84:Aa:461:A:O2'	1.93	1.21
1:Ad:940:U:C5	32:Ba:15:ARG:NH2	2.07	1.21
1:Ad:212:A:C1'	1:Ad:212:A:O4'	1.64	1.21
63:CU:31:VAL:HG21	63:CU:101:TRP:CG	1.74	1.21
1:Ad:1580:G:C5	22:BZ:22:LYS:CE	2.25	1.20
1:Ad:220:C:C1'	1:Ad:220:C:O4'	1.66	1.20
1:Ad:1565:U:C2	21:BP:139:ARG:NH1	2.10	1.20
48:CD:249:ALA:CB	86:Ab:119:C:O2	1.87	1.20
1:Ad:1215:A:OP2	8:Bf:9:TYR:HA	1.37	1.20
79:CE:23:ARG:NH2	84:Aa:607:U:H5'	1.56	1.20
1:Ad:559:A:C5	33:BJ:21:TYR:CE2	2.30	1.19
1:Ad:1551:A:C2	17:BS:142:ARG:NH1	2.10	1.19
41:CA:5:ILE:HG22	84:Aa:2177:U:O2'	1.41	1.19
1:Ad:147:C:O2'	35:BG:134:MET:HE2	1.42	1.19
1:Ad:617:G:C1'	1:Ad:617:G:O4'	1.64	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CU:31:VAL:HG21	63:CU:101:TRP:CD1	1.76	1.19
1:Ad:1231:A:H62	7:BM:91:LEU:HD11	1.04	1.18
1:Ad:1257:U:OP2	8:Bf:25:ALA:HB1	1.40	1.18
51:CX:48:LEU:HA	84:Aa:1560:A:H4'	1.19	1.18
1:Ad:805:A:C5'	12:BE:206:GLU:HG3	1.73	1.18
41:CA:5:ILE:CB	84:Aa:2177:U:O2'	1.92	1.18
75:CI:112:GLN:O	75:CI:113:THR:HG23	1.43	1.18
1:Ad:615:U:C2	19:BL:74:GLY:O	1.94	1.18
1:Ad:1053:C:O3'	26:Bb:71:GLY:HA3	1.41	1.18
84:Aa:2177:U:H5''	84:Aa:2178:G:H5'	1.26	1.17
1:Ad:1076:C:H4'	26:Bb:18:LYS:O	1.40	1.17
1:Ad:1595:A:OP1	14:BQ:144:PHE:CD2	1.98	1.17
1:Ad:410:U:H4'	35:BG:76:LEU:HD21	1.27	1.17
1:Ad:1231:A:N6	7:BM:91:LEU:HD11	1.59	1.17
48:CD:54:ARG:NE	86:Ab:27:A:C5'	2.08	1.17
1:Ad:1280:U:H4'	11:BD:141:LYS:HD3	1.24	1.16
84:Aa:2513:U:H6	84:Aa:2513:U:H5''	1.10	1.16
1:Ad:450:A:OP2	12:BE:59:ARG:CZ	1.94	1.16
49:CR:139:MET:HB3	84:Aa:2086:A:C4'	1.73	1.16
48:CD:295:ASP:HA	86:Ab:63:U:H1'	1.25	1.15
1:Ad:281:U:OP2	1:Ad:282:C:N3	1.79	1.15
1:Ad:1466:A:C8	17:BS:151:LYS:O	1.98	1.15
1:Ad:1807:A:H5''	32:Ba:7:ASN:CB	1.75	1.15
1:Ad:1552:U:C5'	17:BS:130:ARG:HH21	1.60	1.15
1:Ad:64:U:C5'	35:BG:181:GLN:OE1	1.95	1.14
1:Ad:908:U:C5	16:BO:46:LEU:HD22	1.81	1.14
1:Ad:1645:C:N4	2:Ae:34:G:H1'	1.59	1.14
49:CR:139:MET:HE3	84:Aa:2086:A:H5'	1.15	1.14
1:Ad:67:G:O4'	1:Ad:67:G:C1'	1.66	1.14
73:CO:17:ARG:CZ	84:Aa:3181:U:H5	1.48	1.13
79:CE:21:HIS:CE1	84:Aa:591:G:H5'	1.81	1.13
79:CE:23:ARG:CZ	84:Aa:607:U:H5'	1.78	1.13
1:Ad:150:U:H4'	35:BG:13:GLN:O	1.45	1.13
1:Ad:1017:U:OP1	41:CA:247:ARG:HG3	1.48	1.13
1:Ad:335:A:H62	5:BI:186:ARG:NH1	1.46	1.13
1:Ad:1179:C:O5'	17:BS:135:HIS:CD2	2.01	1.13
1:Ad:643:U:H5''	36:BH:104:PRO:HG3	1.28	1.13
1:Ad:821:G:C4	49:CR:162:LYS:NZ	2.17	1.13
1:Ad:1216:G:H5'	8:Bf:12:PRO:HD3	1.27	1.12
1:Ad:1384:U:H4'	14:BQ:32:ARG:HH11	1.03	1.12
3:Af:21:C:H5''	9:BX:61:PRO:CB	1.78	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:CX:45:PRO:O	51:CX:46:LYS:HB2	1.47	1.12
51:CX:48:LEU:HD12	84:Aa:1563:G:N1	1.64	1.12
61:CM:68:LYS:NZ	84:Aa:527:G:H4'	1.63	1.12
1:Ad:869:U:H3	24:BW:25:VAL:CG2	1.61	1.12
1:Ad:270:U:C2	35:BG:182:ARG:HB3	1.83	1.12
1:Ad:1068:G:H4'	26:Bb:74:ARG:CZ	1.79	1.12
1:Ad:420:A:C2	4:BY:138:LYS:OXT	2.03	1.12
1:Ad:944:A:C6	18:BN:117:LEU:CG	2.33	1.12
1:Ad:1807:A:C5'	32:Ba:7:ASN:HB2	1.80	1.12
84:Aa:473:G:H2'	84:Aa:474:G:H5'	1.22	1.12
1:Ad:1420:U:H5'	29:BR:2:GLY:HA3	1.13	1.11
1:Ad:816:U:H5''	19:BL:123:HIS:NE2	1.66	1.11
1:Ad:1784:G:H5''	76:Cn:2:ARG:HD3	1.25	1.11
51:CX:46:LYS:C	51:CX:46:LYS:HE3	1.75	1.11
1:Ad:597:U:OP1	33:BJ:42:ARG:HB2	1.50	1.11
1:Ad:1033:C:H41	76:Cn:1:MET:HE1	1.04	1.11
73:CO:130:LYS:HB3	84:Aa:3181:U:O2'	1.50	1.11
1:Ad:821:G:O4'	49:CR:162:LYS:HD3	1.50	1.10
1:Ad:874:A:H4'	18:BN:90:PHE:CE2	1.86	1.10
42:CJ:143:ARG:NH1	86:Ab:28:U:H5''	1.64	1.10
1:Ad:54:C:OP1	4:BY:115:GLU:HG3	1.50	1.10
1:Ad:559:A:C8	33:BJ:21:TYR:CD2	2.39	1.10
42:CJ:143:ARG:NH1	86:Ab:28:U:C5'	2.13	1.10
1:Ad:409:C:O2'	35:BG:94:ARG:HB2	1.52	1.10
1:Ad:1206:A:C1'	1:Ad:1206:A:O4'	1.66	1.10
1:Ad:1806:C:C4'	32:Ba:5:ARG:HG2	1.82	1.10
1:Ad:530:A:H5'	4:BY:98:ILE:HD11	1.33	1.10
1:Ad:944:A:C5	18:BN:117:LEU:HG	1.87	1.10
79:CE:21:HIS:HE1	84:Aa:591:G:H5'	1.04	1.09
1:Ad:884:G:H1'	18:BN:112:LYS:HE3	1.21	1.09
1:Ad:1255:U:C5	8:Bf:23:LYS:HE2	1.86	1.09
1:Ad:1076:C:H5''	26:Bb:19:LEU:HA	1.11	1.09
1:Ad:65:A:H5''	35:BG:138:LYS:HE2	1.17	1.08
1:Ad:281:U:H5''	1:Ad:283:G:N2	1.65	1.08
1:Ad:642:C:H6	36:BH:115:ARG:NH2	1.49	1.08
1:Ad:1114:G:P	9:BX:23:ALA:HB1	1.92	1.08
1:Ad:1420:U:C5'	29:BR:2:GLY:HA3	1.83	1.08
41:CA:6:ARG:NH2	84:Aa:2178:G:C3'	2.15	1.08
1:Ad:64:U:H5''	35:BG:181:GLN:OE1	1.51	1.08
1:Ad:566:G:H1'	27:Be:18:THR:HG22	1.13	1.08
1:Ad:641:C:H42	36:BH:115:ARG:HD3	1.18	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:CI:110:ARG:CG	75:CI:116:ARG:HD2	1.83	1.08
1:Ad:1596:G:N7	14:BQ:141:ARG:NH2	2.01	1.08
49:CR:143:HIS:HB3	84:Aa:2085:A:H5''	1.25	1.08
75:CI:115:MET:CB	75:CI:116:ARG:CA	2.30	1.08
1:Ad:1580:G:C6	22:BZ:22:LYS:NZ	2.21	1.08
1:Ad:411:A:H5'	35:BG:96:ARG:HH21	1.11	1.07
1:Ad:1808:U:C5	32:Ba:11:ASN:OD1	2.08	1.07
1:Ad:1551:A:H2	17:BS:142:ARG:NH1	1.47	1.07
1:Ad:159:U:C4	35:BG:85:ARG:NH2	2.22	1.07
1:Ad:643:U:C2'	36:BH:103:ARG:HH12	1.67	1.07
1:Ad:816:U:OP1	19:BL:123:HIS:HE1	1.38	1.07
1:Ad:411:A:H5'	35:BG:96:ARG:NH2	1.67	1.06
1:Ad:1807:A:C5'	32:Ba:7:ASN:CB	2.32	1.06
1:Ad:873:G:H1'	18:BN:91:LEU:HD21	1.37	1.06
38:CT:20:ARG:HH22	86:Ab:67:C:H5''	1.17	1.06
75:CI:115:MET:CB	75:CI:116:ARG:HA	1.81	1.06
1:Ad:1420:U:H5'	29:BR:2:GLY:CA	1.85	1.06
51:CX:48:LEU:HD12	84:Aa:1563:G:H1	0.93	1.06
61:CM:68:LYS:CD	84:Aa:527:G:O3'	1.98	1.06
1:Ad:516:A:P	33:BJ:171:PRO:O	2.14	1.06
42:CJ:143:ARG:HH12	86:Ab:28:U:H5''	0.90	1.06
42:CJ:143:ARG:CZ	86:Ab:28:U:OP1	2.03	1.06
1:Ad:1580:G:C4	22:BZ:22:LYS:HE3	1.90	1.05
2:Ae:2:C:O5'	75:CI:111:LEU:CD1	2.03	1.05
1:Ad:409:C:H4'	35:BG:94:ARG:O	1.54	1.05
1:Ad:862:U:C4	49:CR:173:LYS:NZ	2.25	1.05
1:Ad:1397:A:H5''	29:BR:56:HIS:NE2	1.71	1.05
1:Ad:1544:G:H21	22:BZ:26:LYS:NZ	1.55	1.05
79:CE:23:ARG:NH2	84:Aa:607:U:C5'	2.19	1.05
1:Ad:355:U:N1	19:BL:82:ASN:HB2	1.71	1.05
1:Ad:816:U:P	19:BL:123:HIS:CE1	2.50	1.05
1:Ad:559:A:C8	33:BJ:21:TYR:CG	2.44	1.05
61:CM:68:LYS:HD2	84:Aa:527:G:O3'	1.55	1.05
62:CS:121:PRO:HB3	86:Ab:94:C:O4'	1.56	1.05
75:CI:112:GLN:O	75:CI:113:THR:CG2	2.05	1.05
1:Ad:1053:C:H5''	26:Bb:71:GLY:N	1.72	1.04
1:Ad:1138:A:H5'	9:BX:37:LYS:CD	1.86	1.04
51:CX:44:ARG:HD3	51:CX:47:THR:OG1	1.55	1.04
57:Ce:22:HIS:CG	84:Aa:641:C:O2'	2.10	1.04
1:Ad:642:C:H1'	36:BH:115:ARG:HH21	1.21	1.04
1:Ad:873:G:H1'	18:BN:91:LEU:CD2	1.88	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:1539:A:H5''	22:BZ:99:GLN:NE2	1.71	1.04
1:Ad:1806:C:O4'	32:Ba:5:ARG:HG2	1.57	1.04
1:Ad:1372:C:H5''	14:BQ:53:LYS:HB3	1.36	1.04
1:Ad:537:U:O4'	4:BY:38:ALA:HB2	1.57	1.03
1:Ad:1524:A:C8	15:BU:67:THR:OG1	2.10	1.03
1:Ad:1553:A:OP1	17:BS:130:ARG:HB2	1.55	1.03
1:Ad:1351:U:C4	15:BU:98:ILE:HD13	1.93	1.03
48:CD:14:HIS:CE1	86:Ab:11:A:N6	2.24	1.03
62:CS:121:PRO:HA	86:Ab:94:C:H4'	1.40	1.03
1:Ad:167:A:OP1	35:BG:139:ARG:HD3	1.57	1.02
1:Ad:643:U:H5''	36:BH:104:PRO:CG	1.89	1.02
1:Ad:1552:U:H5''	17:BS:130:ARG:HH21	1.19	1.02
1:Ad:861:A:N1	36:BH:117:ARG:NH2	2.07	1.02
1:Ad:1536:U:OP2	13:BF:84:MET:HE1	1.56	1.02
1:Ad:335:A:OP1	5:BI:188:GLY:HA3	1.60	1.02
1:Ad:410:U:H4'	35:BG:76:LEU:CD2	1.88	1.02
61:CM:68:LYS:HZ1	84:Aa:527:G:H4'	1.14	1.02
1:Ad:559:A:N7	33:BJ:21:TYR:CD2	2.28	1.02
1:Ad:1471:C:H5''	14:BQ:148:TYR:HB3	1.39	1.02
1:Ad:1605:A:OP1	25:Bd:18:SER:HA	1.58	1.02
1:Ad:159:U:C5	35:BG:85:ARG:NE	2.26	1.02
1:Ad:1793:C:H41	76:Cn:12:ARG:CZ	1.71	1.02
3:Af:21:C:C5'	9:BX:61:PRO:CB	2.37	1.02
48:CD:253:MET:HE3	86:Ab:22:A:N7	1.74	1.02
84:Aa:1944:G:H2'	84:Aa:1945:A:C8	1.93	1.02
1:Ad:758:A:H4'	12:BE:220:THR:HA	1.42	1.01
1:Ad:795:A:H4'	12:BE:105:THR:OG1	1.61	1.01
1:Ad:795:A:H4'	12:BE:105:THR:CB	1.91	1.01
1:Ad:1645:C:C2	2:Ae:34:G:N2	2.28	1.01
63:CU:30:PRO:O	63:CU:31:VAL:HG22	1.60	1.01
1:Ad:1083:C:OP2	32:Ba:6:ARG:HD2	1.60	1.01
3:Af:21:C:H4'	9:BX:61:PRO:HB2	1.41	1.01
63:CU:30:PRO:O	63:CU:31:VAL:HG13	1.60	1.01
1:Ad:1218:U:H5'	8:Bf:17:HIS:CE1	1.96	1.01
1:Ad:1251:U:O3'	8:Bf:18:LYS:HG3	1.58	1.01
1:Ad:1807:A:H5'	32:Ba:7:ASN:HB2	1.39	1.01
73:CO:17:ARG:CZ	84:Aa:3181:U:C5	2.20	1.01
1:Ad:1302:C:H1'	34:BC:163:GLY:H	1.26	1.01
1:Ad:1302:C:O2	34:BC:163:GLY:CA	2.08	1.01
48:CD:200:TYR:OH	86:Ab:34:C:O2	1.78	1.01
49:CR:139:MET:CE	84:Aa:2086:A:H5'	1.90	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:271:C:H41	35:BG:195:ARG:HB2	1.24	1.00
48:CD:14:HIS:HE1	86:Ab:11:A:N6	1.58	1.00
1:Ad:940:U:C6	32:Ba:15:ARG:NH2	2.28	1.00
1:Ad:717:G:H5'	1:Ad:743:G:C6	1.94	1.00
1:Ad:1076:C:C5'	26:Bb:19:LEU:HA	1.91	1.00
48:CD:249:ALA:CA	86:Ab:119:C:O2	2.09	1.00
1:Ad:420:A:N1	4:BY:138:LYS:C	2.19	1.00
1:Ad:816:U:C5'	19:BL:123:HIS:CE1	2.44	1.00
1:Ad:964:U:O4	26:Bb:34:PHE:CE2	2.15	1.00
1:Ad:1076:C:H5''	26:Bb:19:LEU:CA	1.89	1.00
1:Ad:1068:G:H4'	26:Bb:74:ARG:NE	1.74	1.00
1:Ad:618:C:H5	9:BX:3:LYS:HD3	1.25	1.00
1:Ad:1335:A:C2	11:BD:162:GLN:OE1	2.14	1.00
84:Aa:2513:U:H5''	84:Aa:2513:U:C6	1.97	0.99
48:CD:249:ALA:HA	86:Ab:119:C:O2	1.61	0.99
1:Ad:1784:G:H5''	76:Cn:2:ARG:CD	1.90	0.99
1:Ad:64:U:H5''	35:BG:181:GLN:CD	1.87	0.99
41:CA:5:ILE:HG22	84:Aa:2177:U:HO2'	1.23	0.99
1:Ad:515:A:C8	33:BJ:174:VAL:HG11	1.97	0.99
1:Ad:1471:C:C5'	14:BQ:148:TYR:HB3	1.93	0.99
1:Ad:1535:U:H5'	13:BF:81:LYS:NZ	1.76	0.99
1:Ad:65:A:C5'	35:BG:138:LYS:HE2	1.93	0.99
1:Ad:80:C:H3'	35:BG:179:LYS:N	1.78	0.99
1:Ad:150:U:O2'	35:BG:13:GLN:HB3	1.63	0.99
1:Ad:308:U:H1'	19:BL:104:ARG:NH1	1.78	0.98
1:Ad:641:C:N4	36:BH:115:ARG:HD3	1.78	0.98
1:Ad:1808:U:C4	32:Ba:34:LYS:HA	1.99	0.98
1:Ad:355:U:H1'	19:BL:82:ASN:H	1.28	0.98
1:Ad:1580:G:N7	22:BZ:22:LYS:HE2	1.77	0.98
41:CA:5:ILE:HB	84:Aa:2177:U:O2'	1.60	0.98
54:Cr:88:HIS:NE2	84:Aa:461:A:O2'	1.95	0.98
1:Ad:483:C:O4'	33:BJ:126:HIS:ND1	1.97	0.97
1:Ad:884:G:C1'	18:BN:112:LYS:HE3	1.94	0.97
42:CJ:139:ARG:NH2	86:Ab:29:C:H5	1.61	0.97
3:Af:21:C:P	9:BX:60:GLN:HE22	1.81	0.97
1:Ad:517:U:OP2	33:BJ:134:ARG:NH2	1.97	0.97
1:Ad:1138:A:H5'	9:BX:37:LYS:HD3	1.43	0.97
1:Ad:759:A:C4'	12:BE:221:ARG:CZ	2.41	0.97
1:Ad:1604:C:OP1	25:Bd:28:HIS:HA	1.63	0.97
61:CM:68:LYS:CE	84:Aa:527:G:O3'	2.12	0.97
1:Ad:1325:A:OP1	28:BA:136:GLN:HG3	1.64	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:1543:U:O4	13:BF:158:ALA:O	1.82	0.97
1:Ad:1577:A:H1'	17:BS:142:ARG:HH22	1.29	0.97
1:Ad:1645:C:C2	2:Ae:34:G:C2	2.53	0.97
1:Ad:1544:G:OP2	22:BZ:26:LYS:HD3	1.64	0.97
48:CD:54:ARG:CZ	86:Ab:27:A:H5'	1.93	0.97
75:CI:115:MET:CB	75:CI:116:ARG:C	2.37	0.97
1:Ad:1524:A:O4'	15:BU:68:LYS:HD3	1.65	0.97
1:Ad:1565:U:H1'	21:BP:139:ARG:HH11	1.26	0.97
48:CD:284:ARG:CZ	86:Ab:62:U:O2'	2.13	0.97
75:CI:115:MET:HB2	75:CI:116:ARG:HA	0.97	0.97
1:Ad:335:A:H62	5:BI:186:ARG:HH12	1.01	0.96
1:Ad:1567:G:H5''	17:BS:133:GLY:HA3	1.44	0.96
1:Ad:805:A:H5'	12:BE:206:GLU:HG3	1.46	0.96
3:Af:21:C:H4'	9:BX:61:PRO:CB	1.95	0.96
1:Ad:66:U:OP2	35:BG:138:LYS:NZ	1.99	0.96
1:Ad:530:A:H5'	4:BY:98:ILE:HD12	1.45	0.96
1:Ad:944:A:C8	18:BN:121:ARG:NH1	2.32	0.96
1:Ad:1397:A:H5''	29:BR:56:HIS:CE1	2.01	0.96
1:Ad:69:A:C8	35:BG:169:LYS:NZ	2.34	0.96
1:Ad:126:U:C4	35:BG:202:ARG:NH2	2.33	0.95
1:Ad:1478:C:OP2	13:BF:159:PHE:HA	1.66	0.95
1:Ad:1594:A:H5''	14:BQ:144:PHE:HD1	1.29	0.95
48:CD:249:ALA:HB2	86:Ab:119:C:O2	1.66	0.95
1:Ad:272:G:OP1	35:BG:188:THR:CA	2.15	0.95
1:Ad:643:U:C2'	36:BH:103:ARG:NH1	2.28	0.95
1:Ad:884:G:O4'	18:BN:112:LYS:HG2	1.67	0.95
1:Ad:1806:C:H1'	32:Ba:4:LYS:HB2	1.48	0.95
57:Ce:22:HIS:CD2	84:Aa:641:C:O2'	2.19	0.95
1:Ad:615:U:O4'	19:BL:75:THR:HA	1.66	0.95
1:Ad:1105:G:C5	24:BW:78:ARG:CD	2.49	0.95
51:CX:46:LYS:HA	51:CX:46:LYS:CE	1.93	0.95
1:Ad:1565:U:O2	21:BP:139:ARG:CZ	2.15	0.95
1:Ad:410:U:OP1	35:BG:96:ARG:N	1.98	0.94
1:Ad:1231:A:N6	7:BM:91:LEU:CD1	2.21	0.94
1:Ad:1406:U:H1'	29:BR:67:ARG:HH22	1.32	0.94
48:CD:31:LYS:HG3	86:Ab:6:C:OP2	1.66	0.94
1:Ad:1179:C:O5'	17:BS:135:HIS:HD2	1.43	0.94
1:Ad:1251:U:H5''	8:Bf:18:LYS:H	1.32	0.94
1:Ad:1384:U:H4'	14:BQ:32:ARG:NH1	1.80	0.94
49:CR:143:HIS:CB	84:Aa:2085:A:H5''	1.95	0.94
1:Ad:576:C:OP1	9:BX:106:ARG:HD2	1.67	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:CA:195:CYS:HB3	84:Aa:2178:G:O6	1.68	0.94
1:Ad:329:G:OP1	19:BL:109:PRO:HG2	1.68	0.94
1:Ad:161:G:H5''	35:BG:53:MET:HG3	1.49	0.94
1:Ad:272:G:P	35:BG:188:THR:HA	2.08	0.94
1:Ad:643:U:H2'	36:BH:103:ARG:NH1	1.81	0.94
1:Ad:869:U:H3	24:BW:25:VAL:HG23	1.31	0.94
1:Ad:947:G:H21	18:BN:114:ARG:NH2	1.65	0.94
1:Ad:1594:A:O3'	14:BQ:144:PHE:CE1	2.20	0.94
1:Ad:79:A:C8	35:BG:176:LYS:HB2	2.02	0.93
1:Ad:759:A:OP1	12:BE:224:ASN:CG	2.11	0.93
1:Ad:887:U:H4'	74:Cp:85:ARG:HE	1.29	0.93
1:Ad:80:C:C6	35:BG:178:PRO:N	2.36	0.93
1:Ad:947:G:N2	18:BN:114:ARG:NH2	2.16	0.93
1:Ad:1492:G:O3'	15:BU:71:HIS:O	1.87	0.93
1:Ad:411:A:P	35:BG:96:ARG:HE	1.91	0.93
1:Ad:757:G:O2'	12:BE:219:ALA:O	1.85	0.93
1:Ad:1138:A:C5'	9:BX:37:LYS:HD3	1.99	0.93
1:Ad:1396:U:OP1	29:BR:3:ARG:O	1.86	0.93
41:CA:195:CYS:O	84:Aa:2178:G:O6	1.87	0.93
1:Ad:1113:G:C6	9:BX:20:GLN:HG2	2.04	0.93
1:Ad:1426:C:OP2	15:BU:86:TRP:CH2	2.21	0.93
48:CD:248:ARG:O	86:Ab:119:C:N3	2.01	0.93
1:Ad:126:U:H5''	35:BG:206:LYS:HD2	1.49	0.93
84:Aa:1944:G:O2'	84:Aa:1945:A:O4'	1.85	0.93
1:Ad:420:A:N1	4:BY:138:LYS:OXT	2.01	0.93
1:Ad:1372:C:C5'	14:BQ:53:LYS:HB3	1.99	0.93
1:Ad:567:U:H1'	27:Be:14:VAL:HG23	1.50	0.92
1:Ad:797:A:OP1	12:BE:187:ARG:HD2	1.66	0.92
1:Ad:869:U:H3	24:BW:25:VAL:HG21	1.33	0.92
1:Ad:1100:U:O2'	24:BW:9:ASP:OD2	1.86	0.92
51:CX:46:LYS:CE	51:CX:46:LYS:CA	2.45	0.92
41:CA:198:LYS:HG3	84:Aa:2178:G:C2'	1.99	0.92
51:CX:48:LEU:O	84:Aa:1561:U:H5''	1.68	0.92
1:Ad:126:U:C5	35:BG:202:ARG:NH2	2.37	0.92
1:Ad:1280:U:OP1	11:BD:146:ARG:HA	1.69	0.92
1:Ad:956:A:O4'	18:BN:101:HIS:CE1	2.22	0.92
1:Ad:1138:A:C5'	9:BX:37:LYS:CD	2.47	0.92
62:CS:52:LYS:HD3	86:Ab:75:G:C6	2.05	0.92
1:Ad:1249:G:N2	8:Bf:21:LYS:HB2	1.85	0.92
41:CA:6:ARG:HH21	84:Aa:2178:G:C3'	1.82	0.92
1:Ad:335:A:N6	5:BI:186:ARG:HH12	1.68	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:642:C:C6	36:BH:115:ARG:NH2	2.35	0.92
75:CI:110:ARG:HG2	75:CI:116:ARG:HD2	1.49	0.92
84:Aa:473:G:H2'	84:Aa:474:G:C5'	1.99	0.92
1:Ad:873:G:C1'	18:BN:91:LEU:CD2	2.48	0.92
48:CD:155:THR:HG23	86:Ab:35:C:O2'	1.69	0.92
51:CX:48:LEU:O	84:Aa:1561:U:C5'	2.18	0.92
1:Ad:80:C:C5	35:BG:177:ALA:C	2.47	0.92
1:Ad:159:U:N3	35:BG:85:ARG:NH2	2.17	0.92
1:Ad:1218:U:P	8:Bf:15:ILE:HG13	2.09	0.92
1:Ad:1351:U:O4	15:BU:98:ILE:HD13	1.70	0.92
1:Ad:1580:G:C5	22:BZ:22:LYS:HE3	2.04	0.92
48:CD:54:ARG:HE	86:Ab:27:A:H5''	1.30	0.92
75:CI:115:MET:HB2	75:CI:116:ARG:C	1.95	0.91
1:Ad:1524:A:H1'	15:BU:68:LYS:HD2	1.52	0.91
61:CM:68:LYS:CE	84:Aa:527:G:H4'	2.01	0.91
1:Ad:355:U:C4	19:BL:82:ASN:OD1	2.23	0.91
1:Ad:1580:G:H2'	22:BZ:22:LYS:HG3	1.52	0.91
1:Ad:246:G:N3	12:BE:133:GLN:HB2	1.86	0.91
1:Ad:631:C:O2'	18:BN:124:ARG:HG2	1.71	0.91
1:Ad:1645:C:O2	2:Ae:34:G:N2	2.02	0.91
1:Ad:54:C:OP1	4:BY:115:GLU:CG	2.19	0.91
48:CD:54:ARG:NH2	86:Ab:27:A:H5'	1.86	0.91
1:Ad:643:U:O2'	36:BH:103:ARG:NH1	2.04	0.91
1:Ad:721:U:OP2	1:Ad:722:A:C6	2.22	0.91
1:Ad:816:U:OP1	19:BL:123:HIS:CE1	2.24	0.91
1:Ad:1594:A:H5''	14:BQ:144:PHE:CD1	2.06	0.91
1:Ad:271:C:H41	35:BG:195:ARG:CB	1.84	0.90
1:Ad:566:G:H1'	27:Be:18:THR:CG2	2.01	0.90
1:Ad:573:C:OP1	9:BX:85:PRO:HB2	1.69	0.90
1:Ad:759:A:OP1	12:BE:224:ASN:ND2	2.04	0.90
1:Ad:873:G:C1'	18:BN:91:LEU:HD22	2.01	0.90
3:Af:21:C:H5''	9:BX:61:PRO:HB3	0.92	0.90
1:Ad:272:G:OP1	35:BG:188:THR:HA	1.70	0.90
1:Ad:559:A:C4	33:BJ:21:TYR:CE1	2.59	0.90
1:Ad:940:U:C5	32:Ba:15:ARG:CZ	2.53	0.90
1:Ad:1180:U:OP2	17:BS:137:LYS:NZ	2.04	0.90
1:Ad:270:U:N3	35:BG:182:ARG:HB3	1.85	0.90
1:Ad:614:G:N2	9:BX:20:GLN:HE22	1.68	0.90
1:Ad:821:G:O4'	49:CR:162:LYS:CD	2.19	0.90
1:Ad:1429:U:H3	34:BC:95:ARG:HH21	0.92	0.90
1:Ad:1105:G:C6	24:BW:78:ARG:HD3	2.07	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:1493:A:O3'	25:Bd:32:ARG:NH1	2.05	0.90
1:Ad:1543:U:H5	13:BF:159:PHE:C	1.79	0.90
1:Ad:1604:C:P	25:Bd:28:HIS:HA	2.12	0.90
51:CX:46:LYS:HE3	51:CX:46:LYS:CA	2.00	0.90
69:CF:133:GLU:OE2	86:Ab:96:U:H4'	1.72	0.90
1:Ad:1543:U:H5	13:BF:159:PHE:O	1.54	0.89
1:Ad:1805:U:O2'	32:Ba:5:ARG:NH1	2.05	0.89
1:Ad:566:G:C1'	27:Be:18:THR:HG22	2.00	0.89
1:Ad:1580:G:C5	22:BZ:22:LYS:HE2	2.03	0.89
1:Ad:1807:A:N6	32:Ba:10:ARG:CZ	2.36	0.89
41:CA:5:ILE:CG2	84:Aa:2177:U:C2'	2.50	0.89
1:Ad:874:A:H4'	18:BN:90:PHE:CZ	2.06	0.89
1:Ad:483:C:C4'	33:BJ:126:HIS:ND1	2.35	0.89
1:Ad:967:C:OP1	18:BN:80:LEU:O	1.91	0.89
1:Ad:1100:U:C2'	24:BW:9:ASP:OD2	2.21	0.89
48:CD:56:VAL:HG23	86:Ab:26:C:OP1	1.72	0.89
1:Ad:308:U:O2'	19:BL:104:ARG:HD3	1.73	0.89
1:Ad:1179:C:OP2	17:BS:135:HIS:CG	2.26	0.89
1:Ad:559:A:C5	33:BJ:21:TYR:CZ	2.61	0.89
1:Ad:1121:A:OP2	76:Cn:18:ARG:NH2	2.05	0.89
1:Ad:1595:A:OP1	14:BQ:144:PHE:CE2	2.24	0.89
1:Ad:1250:C:OP2	8:Bf:20:LYS:HE3	1.73	0.89
1:Ad:1467:C:H4'	17:BS:149:SER:O	1.73	0.89
1:Ad:896:C:H1'	41:CA:254:ALA:HB1	1.54	0.88
1:Ad:1033:C:N4	76:Cn:1:MET:HE1	1.88	0.88
1:Ad:1645:C:H41	2:Ae:34:G:H1'	1.33	0.88
84:Aa:1944:G:H2'	84:Aa:1945:A:H8	1.32	0.88
1:Ad:1554:G:N7	17:BS:132:ARG:NH2	2.19	0.88
1:Ad:336:U:H5	5:BI:189:GLN:CD	1.80	0.88
1:Ad:819:U:C2	49:CR:163:ARG:NE	2.42	0.88
1:Ad:1218:U:H5'	8:Bf:17:HIS:HE1	1.36	0.88
75:CI:115:MET:HB3	75:CI:116:ARG:C	1.98	0.88
1:Ad:559:A:N9	33:BJ:21:TYR:CG	2.41	0.88
84:Aa:2177:U:H5''	84:Aa:2178:G:C5'	2.04	0.88
1:Ad:1613:G:H5'	14:BQ:135:PHE:O	1.74	0.88
1:Ad:270:U:O4	35:BG:182:ARG:NH1	2.06	0.88
1:Ad:1544:G:H21	22:BZ:26:LYS:HZ3	1.17	0.88
1:Ad:940:U:C4	32:Ba:15:ARG:NH1	2.42	0.88
1:Ad:153:U:H1'	35:BG:60:GLY:HA3	1.53	0.88
1:Ad:618:C:C5	9:BX:3:LYS:HD3	2.07	0.87
45:CN:175:ARG:HH21	84:Aa:269:C:H5'	1.37	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:CO:130:LYS:CB	84:Aa:3181:U:O2'	2.22	0.87
1:Ad:69:A:C8	35:BG:169:LYS:CE	2.57	0.87
1:Ad:161:G:H5''	35:BG:53:MET:CG	2.04	0.87
1:Ad:516:A:OP1	33:BJ:171:PRO:O	1.93	0.87
1:Ad:537:U:H4'	4:BY:38:ALA:N	1.88	0.87
1:Ad:559:A:C6	33:BJ:21:TYR:CE2	2.62	0.87
70:Cq:207:LEU:O	70:Cq:208:ASP:O	1.92	0.87
1:Ad:805:A:C4'	12:BE:206:GLU:HG3	2.05	0.87
1:Ad:1105:G:C5	24:BW:78:ARG:HD2	2.09	0.87
79:CE:21:HIS:HE1	84:Aa:591:G:C5'	1.85	0.87
1:Ad:351:G:OP1	19:BL:58:LYS:HE3	1.74	0.87
1:Ad:1364:C:O4'	20:BT:6:ALA:HB2	1.75	0.87
63:CU:30:PRO:C	63:CU:31:VAL:HG22	1.95	0.87
1:Ad:526:U:H5''	4:BY:42:LYS:HB2	1.56	0.87
1:Ad:758:A:H4'	12:BE:220:THR:HG22	1.56	0.87
48:CD:200:TYR:CZ	86:Ab:34:C:O2	2.28	0.87
51:CX:48:LEU:HA	84:Aa:1560:A:C4'	2.05	0.87
84:Aa:2497:A:O2'	84:Aa:2498:C:OP1	1.93	0.87
1:Ad:1800:A:O3'	32:Ba:12:LYS:NZ	2.07	0.87
1:Ad:1302:C:O2	34:BC:163:GLY:HA2	1.71	0.87
1:Ad:1566:U:H3	21:BP:142:ILE:HB	1.38	0.87
1:Ad:1806:C:H1'	32:Ba:4:LYS:CB	2.04	0.87
1:Ad:80:C:H6	35:BG:177:ALA:O	1.56	0.86
1:Ad:1536:U:OP2	13:BF:84:MET:CE	2.23	0.86
1:Ad:411:A:OP1	35:BG:96:ARG:NE	2.09	0.86
1:Ad:1121:A:P	76:Cn:18:ARG:HH21	1.99	0.86
1:Ad:1467:C:O4'	17:BS:150:LYS:O	1.92	0.86
1:Ad:1565:U:H1'	21:BP:139:ARG:HD3	1.55	0.86
63:CU:31:VAL:HG23	63:CU:101:TRP:CD1	2.10	0.86
1:Ad:335:A:H62	5:BI:186:ARG:CZ	1.88	0.86
1:Ad:1594:A:O3'	14:BQ:144:PHE:CD1	2.29	0.86
84:Aa:2085:A:O2'	84:Aa:2087:A:C5'	2.24	0.86
1:Ad:65:A:H5''	35:BG:138:LYS:CE	2.04	0.86
1:Ad:559:A:O4'	33:BJ:21:TYR:HB3	1.74	0.86
1:Ad:1256:C:C5	8:Bf:23:LYS:HB2	2.09	0.86
1:Ad:1807:A:H5''	32:Ba:7:ASN:CG	2.01	0.86
1:Ad:1231:A:OP2	7:BM:83:LYS:CE	2.24	0.86
1:Ad:1363:G:O2'	20:BT:6:ALA:HA	1.74	0.86
61:CM:68:LYS:HB2	84:Aa:528:C:H5''	1.57	0.86
1:Ad:1017:U:OP1	41:CA:247:ARG:CG	2.24	0.86
1:Ad:759:A:C5'	12:BE:221:ARG:NE	2.39	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:869:U:N3	24:BW:25:VAL:CG2	2.39	0.85
1:Ad:527:C:O5'	4:BY:99:ARG:NH2	2.09	0.85
1:Ad:862:U:O4	49:CR:173:LYS:NZ	2.08	0.85
1:Ad:67:G:O6	1:Ad:85:A:N6	2.09	0.85
1:Ad:569:C:O2'	9:BX:63:SER:HB3	1.76	0.85
1:Ad:928:A:H5''	41:CA:137:ILE:HD11	1.57	0.85
1:Ad:1392:G:OP2	29:BR:44:LYS:HG2	1.74	0.85
1:Ad:1784:G:OP1	76:Cn:2:ARG:HG2	1.75	0.85
1:Ad:483:C:C4'	33:BJ:126:HIS:HD1	1.88	0.85
48:CD:253:MET:SD	86:Ab:22:A:N6	2.50	0.85
62:CS:51:LYS:O	86:Ab:72:G:N2	2.09	0.85
1:Ad:155:A:OP2	4:BY:137:LYS:HD3	1.77	0.85
1:Ad:1429:U:N3	34:BC:95:ARG:NH2	2.11	0.85
1:Ad:1488:C:H1'	14:BQ:92:ALA:HA	1.57	0.85
51:CX:46:LYS:HA	51:CX:46:LYS:NZ	1.90	0.85
1:Ad:355:U:C1'	19:BL:82:ASN:HB2	2.05	0.85
1:Ad:1216:G:C5'	8:Bf:12:PRO:HD3	2.06	0.85
1:Ad:559:A:C5	33:BJ:21:TYR:CD2	2.64	0.85
1:Ad:759:A:H4'	12:BE:221:ARG:NE	1.92	0.85
48:CD:54:ARG:CD	86:Ab:27:A:H5''	2.07	0.85
1:Ad:1551:A:N3	17:BS:142:ARG:NH1	2.25	0.85
1:Ad:1105:G:N2	24:BW:77:PRO:O	2.10	0.85
42:CJ:139:ARG:HH21	86:Ab:29:C:H5	1.20	0.85
1:Ad:1297:U:OP2	34:BC:116:LYS:NZ	2.08	0.85
1:Ad:1392:G:OP1	29:BR:47:ARG:NH1	2.10	0.84
1:Ad:1397:A:H61	1:Ad:1413:C:H42	1.24	0.84
1:Ad:613:U:C6	9:BX:21:ARG:HD2	2.12	0.84
49:CR:135:LYS:CB	84:Aa:1944:G:OP1	2.25	0.84
1:Ad:1783:C:OP2	76:Cn:5:TRP:N	2.09	0.84
48:CD:295:ASP:HA	86:Ab:63:U:O2	1.78	0.84
49:CR:135:LYS:HB3	84:Aa:1944:G:OP1	1.76	0.84
1:Ad:526:U:C5'	4:BY:42:LYS:HB2	2.06	0.84
1:Ad:1388:A:OP1	15:BU:69:VAL:HG13	1.77	0.84
1:Ad:1479:U:C4	13:BF:76:GLY:O	2.30	0.84
1:Ad:1552:U:H5'	17:BS:130:ARG:HH21	1.39	0.84
41:CA:7:ALA:HB3	84:Aa:2177:U:C6	2.12	0.84
75:CI:110:ARG:HB3	75:CI:116:ARG:CG	2.07	0.84
1:Ad:80:C:H6	35:BG:177:ALA:C	1.84	0.84
1:Ad:80:C:C3'	35:BG:178:PRO:HA	2.08	0.84
1:Ad:1251:U:O3'	8:Bf:18:LYS:CG	2.25	0.84
41:CA:6:ARG:HH22	84:Aa:2178:G:H3'	0.98	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
84:Aa:2085:A:O2'	84:Aa:2087:A:H5'	1.76	0.84
1:Ad:93:A:H2'	35:BG:90:ARG:HH21	1.41	0.84
1:Ad:613:U:H6	9:BX:21:ARG:HD2	1.42	0.84
1:Ad:874:A:C4'	18:BN:90:PHE:CE2	2.59	0.84
1:Ad:947:G:H21	18:BN:114:ARG:HH21	1.21	0.84
1:Ad:1201:C:O2'	15:BU:82:GLY:HA2	1.76	0.84
1:Ad:1251:U:H5''	8:Bf:18:LYS:N	1.92	0.84
1:Ad:1645:C:C4	2:Ae:34:G:N3	2.45	0.84
1:Ad:1335:A:N1	11:BD:162:GLN:CD	2.36	0.84
1:Ad:1808:U:H5	32:Ba:11:ASN:OD1	1.60	0.84
49:CR:142:ILE:N	84:Aa:2086:A:C5	2.23	0.84
1:Ad:80:C:H3'	35:BG:179:LYS:H	1.37	0.84
1:Ad:483:C:OP1	33:BJ:125:HIS:HB2	1.78	0.84
61:CM:69:THR:HG21	84:Aa:528:C:O3'	1.76	0.84
63:CU:31:VAL:CG2	63:CU:101:TRP:CG	2.54	0.84
1:Ad:515:A:H5''	33:BJ:174:VAL:HG13	1.60	0.84
1:Ad:1466:A:H62	17:BS:152:ARG:CD	1.91	0.84
1:Ad:1552:U:C5'	17:BS:130:ARG:NH2	2.40	0.83
1:Ad:1581:A:OP1	22:BZ:11:PRO:O	1.96	0.83
40:Cz:209:MET:HE3	84:Aa:2470:C:OP1	1.78	0.83
61:CM:68:LYS:NZ	84:Aa:527:G:C4'	2.41	0.83
1:Ad:1345:G:HO2'	10:Bg:108:CYS:HG	0.93	0.83
1:Ad:1616:U:OP2	14:BQ:132:PRO:HG2	1.78	0.83
1:Ad:642:C:H1'	36:BH:115:ARG:NH2	1.93	0.83
1:Ad:1625:U:H5''	23:Bc:20:ARG:O	1.78	0.83
1:Ad:146:A:N6	35:BG:135:ARG:NE	2.27	0.83
1:Ad:1103:U:O2'	24:BW:76:SER:OG	1.97	0.83
1:Ad:1187:A:O2'	8:Bf:7:LYS:HG2	1.78	0.83
1:Ad:1443:U:H4'	11:BD:176:LEU:HD22	1.58	0.83
75:CI:110:ARG:HB3	75:CI:116:ARG:HG3	1.58	0.83
1:Ad:281:U:H5''	1:Ad:283:G:H21	1.43	0.83
1:Ad:816:U:H5''	19:BL:123:HIS:CE1	2.09	0.83
1:Ad:1180:U:P	17:BS:137:LYS:HZ2	2.01	0.83
1:Ad:1280:U:C4'	11:BD:141:LYS:HD3	2.07	0.83
1:Ad:483:C:C5'	33:BJ:126:HIS:HB2	2.08	0.83
1:Ad:874:A:C4'	18:BN:90:PHE:HE2	1.92	0.83
61:CM:68:LYS:HE3	84:Aa:527:G:O3'	1.77	0.83
1:Ad:80:C:C4	35:BG:178:PRO:HD3	2.14	0.83
1:Ad:161:G:OP1	35:BG:53:MET:HE3	1.77	0.83
1:Ad:449:A:H5''	4:BY:94:LYS:HG2	1.60	0.83
1:Ad:957:A:H4'	18:BN:102:LEU:HD11	1.61	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:1372:C:OP1	14:BQ:53:LYS:HG3	1.77	0.83
1:Ad:569:C:O3'	9:BX:63:SER:O	1.97	0.83
1:Ad:1535:U:H4'	13:BF:81:LYS:HG3	1.58	0.82
1:Ad:1533:A:H5'	20:BT:86:GLN:HG3	1.59	0.82
1:Ad:126:U:P	35:BG:205:LYS:HZ1	2.01	0.82
1:Ad:613:U:H5	9:BX:21:ARG:HA	1.44	0.82
1:Ad:940:U:O4	32:Ba:15:ARG:NH1	2.12	0.82
41:CA:198:LYS:HG3	84:Aa:2178:G:H2'	1.59	0.82
48:CD:52:LYS:NZ	86:Ab:46:C:P	2.51	0.82
48:CD:284:ARG:NH2	86:Ab:62:U:O2'	2.12	0.82
1:Ad:80:C:C6	35:BG:177:ALA:O	2.29	0.82
1:Ad:1580:G:OP2	22:BZ:21:GLY:O	1.97	0.82
75:CI:110:ARG:CD	75:CI:116:ARG:HD2	2.09	0.82
1:Ad:1179:C:P	17:BS:135:HIS:CD2	2.71	0.82
1:Ad:1257:U:OP2	8:Bf:25:ALA:CB	2.26	0.82
1:Ad:1806:C:N3	32:Ba:4:LYS:HD3	1.94	0.82
79:CE:23:ARG:NH2	84:Aa:607:U:C4'	2.42	0.82
1:Ad:271:C:N4	35:BG:195:ARG:HB2	1.94	0.82
1:Ad:538:A:O5'	4:BY:37:ARG:NH2	2.13	0.82
1:Ad:559:A:C6	33:BJ:21:TYR:CZ	2.67	0.82
1:Ad:643:U:C5'	36:BH:104:PRO:HG3	2.08	0.82
1:Ad:1633:C:OP1	34:BC:91:ARG:NH1	2.12	0.82
42:CJ:139:ARG:NE	86:Ab:29:C:OP2	2.13	0.82
84:Aa:473:G:C2'	84:Aa:474:G:H5'	2.08	0.82
1:Ad:534:C:O2	4:BY:67:ARG:HD3	1.80	0.82
1:Ad:537:U:C4'	4:BY:38:ALA:HB2	2.08	0.82
37:CG:49:LYS:HB2	51:CX:46:LYS:HD3	1.62	0.82
1:Ad:163:G:O2'	35:BG:133:ARG:NH2	2.12	0.82
1:Ad:1356:A:H61	1:Ad:1378:C:H42	1.24	0.82
1:Ad:1807:A:H62	32:Ba:10:ARG:NH1	1.78	0.82
49:CR:139:MET:HB2	84:Aa:2086:A:O4'	1.78	0.82
1:Ad:1524:A:C4'	15:BU:68:LYS:HD3	2.09	0.82
1:Ad:1806:C:H4'	32:Ba:5:ARG:NE	1.93	0.82
1:Ad:1105:G:C4	24:BW:78:ARG:HD2	2.15	0.82
1:Ad:1465:C:O2	17:BS:151:LYS:CE	2.28	0.82
1:Ad:246:G:C2	12:BE:133:GLN:HB2	2.15	0.81
1:Ad:559:A:C4	33:BJ:21:TYR:CZ	2.68	0.81
1:Ad:1800:A:H5'	32:Ba:17:HIS:HE1	1.44	0.81
41:CA:5:ILE:HB	84:Aa:2177:U:C2'	2.11	0.81
1:Ad:80:C:C1'	35:BG:178:PRO:HA	2.10	0.81
1:Ad:329:G:OP1	19:BL:109:PRO:CG	2.28	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:613:U:OP2	9:BX:21:ARG:NH1	2.14	0.81
1:Ad:1280:U:O2'	11:BD:141:LYS:HE2	1.80	0.81
1:Ad:1349:A:OP1	15:BU:63:VAL:HG22	1.79	0.81
1:Ad:1493:A:P	15:BU:71:HIS:O	2.39	0.81
1:Ad:1807:A:H5''	32:Ba:7:ASN:HB3	1.60	0.81
42:CJ:143:ARG:HH12	86:Ab:28:U:H5'	1.45	0.81
62:CS:165:LEU:HD22	84:Aa:3182:A:H62	1.43	0.81
1:Ad:1218:U:OP1	8:Bf:15:ILE:HG13	1.79	0.81
1:Ad:14:C:OP2	34:BC:203:SER:OG	1.97	0.81
1:Ad:615:U:N1	19:BL:74:GLY:O	2.13	0.81
1:Ad:1215:A:P	8:Bf:8:THR:O	2.39	0.81
1:Ad:161:G:C5'	35:BG:53:MET:HG3	2.10	0.81
1:Ad:955:C:O2'	18:BN:101:HIS:HE1	1.64	0.81
1:Ad:1538:C:OP1	22:BZ:97:SER:HA	1.81	0.81
1:Ad:1100:U:H2'	24:BW:9:ASP:OD2	1.81	0.81
48:CD:54:ARG:CZ	86:Ab:27:A:C5'	2.54	0.81
73:CO:130:LYS:HD3	84:Aa:3181:U:H3'	1.60	0.81
1:Ad:159:U:OP1	35:BG:84:PHE:HA	1.80	0.81
1:Ad:957:A:H62	55:Cc:6:LYS:HE3	1.46	0.81
1:Ad:1175:G:H4'	22:BZ:15:PRO:HG3	1.62	0.81
1:Ad:1335:A:N1	11:BD:162:GLN:OE1	2.13	0.81
1:Ad:1465:C:O2	17:BS:151:LYS:NZ	2.13	0.81
1:Ad:1614:C:OP1	14:BQ:134:LYS:HD2	1.81	0.81
1:Ad:805:A:H4'	12:BE:206:GLU:HG3	1.61	0.81
1:Ad:1138:A:C5'	9:BX:37:LYS:HD2	2.11	0.81
1:Ad:1280:U:H4'	11:BD:141:LYS:CD	2.09	0.81
1:Ad:964:U:C4	26:Bb:34:PHE:CE2	2.70	0.80
1:Ad:1420:U:C5'	29:BR:2:GLY:CA	2.54	0.80
3:Af:21:C:C4'	9:BX:61:PRO:CB	2.59	0.80
51:CX:48:LEU:CA	84:Aa:1560:A:H4'	2.06	0.80
1:Ad:475:A:H4'	33:BJ:8:TYR:CE1	2.16	0.80
1:Ad:423:G:H1'	35:BG:59:GLN:HE22	1.46	0.80
41:CA:7:ALA:CB	84:Aa:2177:U:C6	2.64	0.80
1:Ad:80:C:H3'	35:BG:178:PRO:HA	1.63	0.80
84:Aa:1564:C:N4	84:Aa:1575:G:O6	2.14	0.80
1:Ad:614:G:N3	9:BX:17:ARG:NH1	2.26	0.80
1:Ad:1137:A:H5''	9:BX:32:LEU:CD1	2.12	0.80
1:Ad:1175:G:O2'	22:BZ:15:PRO:HB3	1.81	0.80
1:Ad:1203:G:C2'	1:Ad:1203:G:N9	2.45	0.80
1:Ad:1251:U:C5'	8:Bf:18:LYS:H	1.93	0.80
48:CD:241:LYS:NZ	86:Ab:118:C:OP2	2.12	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
79:CE:23:ARG:HH22	84:Aa:607:U:C5'	1.95	0.80
1:Ad:596:A:OP1	33:BJ:41:LYS:HE2	1.81	0.80
1:Ad:795:A:H4'	12:BE:105:THR:HB	1.64	0.80
1:Ad:1464:G:H2'	21:BP:146:HIS:CD2	2.16	0.80
1:Ad:1552:U:H5'	17:BS:130:ARG:NH2	1.96	0.80
1:Ad:1580:G:C8	22:BZ:22:LYS:HE2	2.16	0.80
48:CD:295:ASP:HA	86:Ab:63:U:C1'	2.10	0.80
63:CU:30:PRO:O	63:CU:31:VAL:CG1	2.30	0.80
1:Ad:537:U:H5'	4:BY:37:ARG:O	1.81	0.80
1:Ad:861:A:C2	36:BH:117:ARG:NH2	2.50	0.80
1:Ad:887:U:H5'	74:Cp:85:ARG:HG3	1.63	0.80
48:CD:54:ARG:HE	86:Ab:27:A:C5'	1.86	0.80
62:CS:121:PRO:O	86:Ab:94:C:H5'	1.82	0.80
1:Ad:515:A:H5'	33:BJ:175:LYS:HB2	1.63	0.80
1:Ad:1800:A:OP1	32:Ba:17:HIS:ND1	2.15	0.80
1:Ad:569:C:H1'	9:BX:63:SER:O	1.81	0.80
1:Ad:1214:C:H5''	8:Bf:7:LYS:O	1.82	0.80
1:Ad:643:U:H2'	36:BH:103:ARG:HH12	1.40	0.80
1:Ad:1217:G:OP1	8:Bf:14:LYS:O	1.99	0.80
1:Ad:1484:U:OP1	20:BT:43:ALA:CB	2.30	0.80
1:Ad:1524:A:O4'	15:BU:68:LYS:CD	2.29	0.80
1:Ad:1783:C:H5''	76:Cn:3:ALA:O	1.81	0.80
1:Ad:1054:G:OP1	26:Bb:72:LYS:N	2.14	0.79
1:Ad:1364:C:H4'	20:BT:5:THR:HB	1.64	0.79
1:Ad:1551:A:OP1	20:BT:91:ARG:NH2	2.15	0.79
15:BU:29:ILE:HD12	15:BU:104:ALA:H	1.47	0.79
1:Ad:147:C:O2'	35:BG:134:MET:CE	2.29	0.79
1:Ad:1477:A:H5'	13:BF:159:PHE:CD1	2.16	0.79
1:Ad:1806:C:C1'	32:Ba:4:LYS:HB2	2.11	0.79
51:CX:44:ARG:CD	51:CX:47:THR:OG1	2.30	0.79
1:Ad:861:A:C6	36:BH:117:ARG:NH2	2.49	0.79
41:CA:195:CYS:O	84:Aa:2178:G:C6	2.36	0.79
1:Ad:1180:U:P	17:BS:137:LYS:NZ	2.55	0.79
1:Ad:1214:C:O3'	8:Bf:8:THR:O	1.99	0.79
1:Ad:1467:C:C2	17:BS:151:LYS:HD2	2.17	0.79
1:Ad:1565:U:O2	21:BP:139:ARG:NH1	2.16	0.79
41:CA:198:LYS:HG3	84:Aa:2178:G:O2'	1.82	0.79
48:CD:58:ASN:CG	86:Ab:48:G:C6	2.61	0.79
84:Aa:474:G:H2'	84:Aa:475:U:C6	2.18	0.79
1:Ad:1553:A:P	17:BS:130:ARG:HB2	2.22	0.79
1:Ad:1645:C:N3	2:Ae:34:G:N3	2.31	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Af:21:C:H5'	9:BX:61:PRO:HA	1.65	0.79
51:CX:46:LYS:C	51:CX:46:LYS:CE	2.55	0.79
51:CX:49:LYS:HG3	84:Aa:1560:A:C5'	2.12	0.79
63:CU:30:PRO:O	63:CU:31:VAL:CG2	2.30	0.79
1:Ad:355:U:H1'	19:BL:82:ASN:N	1.96	0.79
49:CR:144:LYS:N	84:Aa:2086:A:C6	2.45	0.79
75:CI:112:GLN:C	75:CI:113:THR:HG23	2.05	0.79
79:CE:21:HIS:CE1	84:Aa:591:G:OP2	2.36	0.79
1:Ad:1543:U:C5	13:BF:159:PHE:O	2.35	0.79
1:Ad:126:U:C6	35:BG:202:ARG:NH2	2.51	0.79
1:Ad:537:U:C1'	4:BY:38:ALA:HB2	2.12	0.79
1:Ad:928:A:C5'	41:CA:137:ILE:HD11	2.13	0.79
1:Ad:1325:A:OP1	28:BA:136:GLN:CG	2.31	0.79
1:Ad:1580:G:C2'	1:Ad:1580:G:N9	2.46	0.79
1:Ad:1580:G:C5	22:BZ:22:LYS:NZ	2.47	0.79
1:Ad:1793:C:N4	76:Cn:12:ARG:CZ	2.46	0.79
61:CM:69:THR:OG1	84:Aa:529:C:OP1	2.00	0.79
1:Ad:632:G:H4'	18:BN:127:ARG:NH1	1.98	0.78
1:Ad:641:C:H42	36:BH:115:ARG:CD	1.95	0.78
1:Ad:643:U:N3	36:BH:103:ARG:HD2	1.99	0.78
1:Ad:1509:C:OP2	20:BT:104:ARG:NH1	2.16	0.78
1:Ad:1807:A:N6	32:Ba:10:ARG:NH1	2.30	0.78
2:Ae:2:C:O5'	75:CI:111:LEU:HD13	1.81	0.78
57:Ce:22:HIS:CE1	84:Aa:641:C:H1'	2.17	0.78
1:Ad:409:C:C4'	35:BG:94:ARG:O	2.30	0.78
75:CI:115:MET:CB	75:CI:116:ARG:O	2.30	0.78
1:Ad:1293:U:OP1	34:BC:91:ARG:HD2	1.83	0.78
1:Ad:1299:G:H5''	28:BA:143:LEU:CD2	2.13	0.78
1:Ad:1466:A:H2'	17:BS:151:LYS:HA	1.64	0.78
48:CD:253:MET:HE3	86:Ab:22:A:C5	2.18	0.78
48:CD:295:ASP:C	86:Ab:63:U:C2	2.61	0.78
61:CM:44:VAL:CG2	84:Aa:554:C:OP1	2.25	0.78
1:Ad:804:C:O2'	12:BE:206:GLU:OE1	2.00	0.78
1:Ad:1566:U:O4	21:BP:142:ILE:HD13	1.83	0.78
79:CE:23:ARG:HH22	84:Aa:607:U:H5'	1.45	0.78
1:Ad:1384:U:C4'	14:BQ:32:ARG:HH11	1.91	0.78
1:Ad:335:A:N6	5:BI:186:ARG:NH1	2.25	0.78
1:Ad:641:C:C4	36:BH:115:ARG:HD3	2.18	0.78
1:Ad:1256:C:H5	8:Bf:23:LYS:HB2	1.47	0.78
40:Cz:31:VAL:CG1	84:Aa:2468:G:O5'	2.31	0.78
1:Ad:944:A:N6	18:BN:117:LEU:HD23	1.98	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CJ:139:ARG:NH2	86:Ab:29:C:C5	2.51	0.78
48:CD:295:ASP:CA	86:Ab:63:U:O2	2.32	0.78
1:Ad:299:A:H1'	12:BE:138:TYR:CD2	2.19	0.78
1:Ad:873:G:O2'	18:BN:91:LEU:HD23	1.82	0.78
1:Ad:1231:A:H62	7:BM:91:LEU:HD12	1.48	0.78
1:Ad:1604:C:OP1	25:Bd:27:SER:O	2.02	0.78
1:Ad:884:G:O2'	18:BN:112:LYS:NZ	2.17	0.78
1:Ad:947:G:C2	18:BN:114:ARG:NH2	2.50	0.77
1:Ad:970:U:O2'	18:BN:132:THR:HB	1.82	0.77
1:Ad:1581:A:H3'	22:BZ:11:PRO:HA	1.65	0.77
1:Ad:1214:C:H5''	8:Bf:8:THR:HA	1.64	0.77
1:Ad:57:G:H3'	4:BY:117:LYS:NZ	2.00	0.77
1:Ad:644:U:C2	36:BH:119:LEU:HG	2.19	0.77
1:Ad:869:U:N3	24:BW:25:VAL:HG21	1.97	0.77
1:Ad:1535:U:H5'	13:BF:81:LYS:HZ3	1.47	0.77
1:Ad:1466:A:H62	17:BS:152:ARG:HD3	1.50	0.77
42:CJ:48:VAL:HG22	86:Ab:39:C:C1'	2.14	0.77
48:CD:296:ASP:OD2	86:Ab:63:U:C6	2.37	0.77
49:CR:143:HIS:HB3	84:Aa:2085:A:C5'	2.12	0.77
63:CU:31:VAL:HG21	63:CU:101:TRP:CB	2.15	0.77
1:Ad:14:C:H5'	34:BC:164:SER:OG	1.85	0.77
61:CM:68:LYS:HE3	84:Aa:527:G:C4'	2.14	0.77
72:CC:342:LYS:HE2	84:Aa:576:C:H5'	1.67	0.77
1:Ad:154:A:H62	35:BG:59:GLN:NE2	1.83	0.77
1:Ad:559:A:C4	33:BJ:21:TYR:CD1	2.73	0.77
1:Ad:615:U:H1'	19:BL:74:GLY:O	1.85	0.77
1:Ad:1614:C:OP2	14:BQ:135:PHE:N	2.18	0.77
1:Ad:161:G:OP1	35:BG:53:MET:CE	2.31	0.77
1:Ad:944:A:N1	18:BN:117:LEU:HG	2.00	0.77
62:CS:48:ARG:NH1	86:Ab:99:G:O6	2.15	0.77
84:Aa:2463:U:H3	84:Aa:2494:A:H61	1.32	0.77
1:Ad:956:A:H4'	18:BN:101:HIS:CG	2.20	0.77
1:Ad:1593:U:OP1	14:BQ:133:LYS:HD2	1.84	0.77
49:CR:142:ILE:N	84:Aa:2086:A:N7	2.31	0.77
1:Ad:167:A:OP2	35:BG:139:ARG:CZ	2.33	0.77
1:Ad:184:C:P	5:BI:152:HIS:HE1	2.08	0.77
1:Ad:422:G:H2'	35:BG:59:GLN:OE1	1.83	0.77
1:Ad:641:C:N3	36:BH:115:ARG:HD3	2.00	0.77
1:Ad:955:C:C5	55:Cc:7:ALA:HB2	2.20	0.77
62:CS:52:LYS:CD	86:Ab:75:G:C6	2.68	0.77
69:CF:220:ARG:HB3	86:Ab:83:A:H4'	1.66	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:1559:U:OP2	21:BP:68:LYS:HD3	1.85	0.76
1:Ad:450:A:OP1	12:BE:60:GLU:OE1	2.02	0.76
1:Ad:643:U:O2	36:BH:104:PRO:HD3	1.86	0.76
1:Ad:1260:A:C2	7:BM:104:VAL:HG11	2.20	0.76
1:Ad:1551:A:OP1	20:BT:91:ARG:NE	2.17	0.76
1:Ad:1594:A:C5'	14:BQ:144:PHE:HD1	1.98	0.76
1:Ad:1595:A:OP1	14:BQ:144:PHE:CG	2.37	0.76
48:CD:295:ASP:CA	86:Ab:63:U:H1'	2.13	0.76
1:Ad:425:A:OP1	35:BG:97:LYS:HG2	1.84	0.76
1:Ad:1551:A:OP1	20:BT:91:ARG:CZ	2.34	0.76
1:Ad:1605:A:C8	25:Bd:17:GLY:HA2	2.21	0.76
1:Ad:80:C:H3'	35:BG:178:PRO:CA	2.14	0.76
1:Ad:152:G:H4'	35:BG:110:VAL:CG1	2.16	0.76
1:Ad:335:A:OP2	5:BI:187:PRO:O	2.02	0.76
1:Ad:516:A:O5'	33:BJ:171:PRO:O	2.04	0.76
1:Ad:537:U:H5'	4:BY:37:ARG:C	2.10	0.76
1:Ad:1137:A:C5'	9:BX:32:LEU:HD12	2.16	0.76
1:Ad:1806:C:C6	32:Ba:4:LYS:HD2	2.20	0.76
1:Ad:126:U:OP2	35:BG:205:LYS:NZ	2.19	0.76
61:CM:69:THR:CG2	84:Aa:528:C:O3'	2.33	0.76
1:Ad:530:A:C5'	4:BY:98:ILE:CD1	2.56	0.76
48:CD:296:ASP:OD1	86:Ab:63:U:H2'	1.86	0.76
1:Ad:591:C:OP2	27:Be:23:LYS:HD3	1.85	0.76
69:CF:220:ARG:NH2	86:Ab:84:U:OP1	2.18	0.76
72:CC:201:ARG:HH22	84:Aa:335:G:H2'	1.51	0.76
80:Cf:74:LYS:HD3	84:Aa:567:G:H5''	1.68	0.76
1:Ad:154:A:H62	35:BG:59:GLN:HE21	1.34	0.76
1:Ad:1100:U:O2'	24:BW:9:ASP:CG	2.29	0.76
1:Ad:1810:G:O6	32:Ba:87:ARG:NH1	2.19	0.76
84:Aa:2178:G:H2'	84:Aa:2178:G:N3	2.00	0.76
1:Ad:65:A:H5'	35:BG:138:LYS:HG2	1.68	0.76
1:Ad:80:C:C5	35:BG:177:ALA:CA	2.68	0.76
1:Ad:821:G:C1'	49:CR:162:LYS:HD3	2.15	0.76
1:Ad:1625:U:C5'	23:Bc:20:ARG:O	2.33	0.76
1:Ad:80:C:C5	35:BG:178:PRO:HD3	2.21	0.76
1:Ad:567:U:C1'	27:Be:14:VAL:HG23	2.16	0.76
1:Ad:1544:G:H5'	22:BZ:26:LYS:HD2	1.67	0.76
1:Ad:1801:A:OP1	32:Ba:12:LYS:CE	2.34	0.76
48:CD:52:LYS:HZ3	86:Ab:46:C:P	2.08	0.76
79:CE:23:ARG:NH2	84:Aa:607:U:H4'	2.01	0.76
1:Ad:1105:G:O2'	24:BW:79:PHE:HB3	1.86	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:1231:A:OP2	7:BM:83:LYS:HE2	1.86	0.75
48:CD:52:LYS:NZ	86:Ab:46:C:OP1	2.19	0.75
1:Ad:64:U:H5'	35:BG:181:GLN:OE1	1.84	0.75
1:Ad:1551:A:N3	17:BS:142:ARG:CZ	2.49	0.75
84:Aa:2513:U:H6	84:Aa:2513:U:C5'	1.96	0.75
1:Ad:516:A:OP1	33:BJ:171:PRO:CA	2.35	0.75
1:Ad:1539:A:H5''	22:BZ:99:GLN:HE22	1.49	0.75
49:CR:139:MET:CB	84:Aa:2086:A:C4'	2.52	0.75
62:CS:121:PRO:CA	86:Ab:94:C:H4'	2.17	0.75
1:Ad:1484:U:OP1	20:BT:43:ALA:HB2	1.86	0.75
1:Ad:335:A:H3'	5:BI:189:GLN:HE22	1.52	0.75
1:Ad:537:U:O4'	4:BY:38:ALA:CB	2.35	0.75
1:Ad:615:U:C1'	19:BL:75:THR:HA	2.17	0.75
1:Ad:758:A:O2'	12:BE:221:ARG:HG3	1.86	0.75
1:Ad:805:A:H5'	12:BE:206:GLU:CG	2.17	0.75
1:Ad:1180:U:O5'	17:BS:137:LYS:NZ	2.20	0.75
1:Ad:1807:A:H5''	32:Ba:7:ASN:ND2	2.01	0.75
38:CT:20:ARG:HH12	86:Ab:67:C:H4'	1.50	0.75
1:Ad:949:A:C8	32:Ba:19:LYS:NZ	2.51	0.75
1:Ad:1538:C:P	22:BZ:97:SER:HA	2.26	0.75
42:CJ:3:THR:HG21	86:Ab:54:A:H4'	1.68	0.75
48:CD:152:ARG:HD3	86:Ab:44:C:O2'	1.85	0.75
70:Cq:210:THR:HG23	70:Cq:211:GLU:H	1.52	0.75
79:CE:21:HIS:NE2	84:Aa:591:G:OP2	2.20	0.75
1:Ad:128:G:OP2	35:BG:203:ILE:HD12	1.87	0.75
1:Ad:869:U:OP2	24:BW:55:ASP:HB3	1.87	0.75
1:Ad:1325:A:N7	28:BA:139:LYS:NZ	2.35	0.75
41:CA:213:GLY:HA3	84:Aa:2969:A:H5''	1.68	0.75
51:CX:45:PRO:O	51:CX:46:LYS:CB	2.32	0.75
1:Ad:148:C:O2	35:BG:131:LYS:NZ	2.20	0.75
1:Ad:483:C:H4'	33:BJ:126:HIS:CG	2.22	0.75
1:Ad:1351:U:N3	15:BU:98:ILE:HD13	2.01	0.75
1:Ad:1467:C:H5'	17:BS:148:VAL:O	1.85	0.75
1:Ad:1249:G:N2	8:Bf:20:LYS:O	2.19	0.75
1:Ad:80:C:H3'	35:BG:178:PRO:C	2.12	0.74
1:Ad:805:A:O3'	12:BE:201:HIS:NE2	2.20	0.74
1:Ad:1392:G:P	29:BR:47:ARG:NH1	2.60	0.74
1:Ad:559:A:N3	33:BJ:21:TYR:CE1	2.55	0.74
1:Ad:947:G:N3	18:BN:114:ARG:NH2	2.34	0.74
1:Ad:1567:G:C6	17:BS:132:ARG:HD3	2.22	0.74
62:CS:52:LYS:HD2	86:Ab:75:G:C5	2.21	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
84:Aa:2177:U:C5'	84:Aa:2178:G:H5'	2.11	0.74
1:Ad:1614:C:P	14:BQ:134:LYS:HD2	2.27	0.74
1:Ad:1800:A:H5'	32:Ba:17:HIS:CE1	2.22	0.74
2:Ae:2:C:O5'	75:CI:111:LEU:HD12	1.85	0.74
42:CJ:48:VAL:CG1	86:Ab:39:C:H5'	2.15	0.74
42:CJ:70:TYR:CZ	86:Ab:39:C:N3	2.56	0.74
1:Ad:524:A:C2	4:BY:39:ASN:OD1	2.40	0.74
1:Ad:527:C:C5'	4:BY:99:ARG:HH22	1.99	0.74
1:Ad:759:A:H4'	12:BE:221:ARG:NH2	2.02	0.74
1:Ad:1214:C:H5''	8:Bf:8:THR:CA	2.17	0.74
1:Ad:55:A:H5''	4:BY:114:LYS:HZ3	1.52	0.74
1:Ad:126:U:P	35:BG:205:LYS:NZ	2.60	0.74
1:Ad:1302:C:C2	34:BC:163:GLY:HA2	2.22	0.74
61:CM:68:LYS:HE3	84:Aa:527:G:H4'	1.69	0.74
1:Ad:758:A:H4'	12:BE:220:THR:CG2	2.17	0.74
1:Ad:1137:A:H5''	9:BX:32:LEU:HD12	1.69	0.74
1:Ad:1544:G:N2	22:BZ:26:LYS:HZ3	1.85	0.74
1:Ad:1806:C:O4'	32:Ba:5:ARG:CG	2.34	0.74
79:CE:21:HIS:CE1	84:Aa:591:G:C5'	2.66	0.74
79:CE:23:ARG:NH1	84:Aa:607:U:H5'	2.02	0.74
1:Ad:483:C:H5'	33:BJ:126:HIS:HB2	1.68	0.74
1:Ad:537:U:C5'	4:BY:37:ARG:C	2.60	0.74
1:Ad:1053:C:C5'	26:Bb:71:GLY:N	2.51	0.74
1:Ad:1068:G:C4'	26:Bb:74:ARG:CZ	2.64	0.74
1:Ad:1524:A:C1'	15:BU:68:LYS:HD2	2.17	0.74
1:Ad:559:A:N9	33:BJ:21:TYR:CD1	2.55	0.74
1:Ad:955:C:O2'	18:BN:104:ARG:NH2	2.21	0.74
1:Ad:1056:A:H61	1:Ad:1072:U:H3	1.35	0.74
61:CM:68:LYS:N	84:Aa:528:C:OP1	2.17	0.74
1:Ad:908:U:C6	16:BO:46:LEU:HD22	2.22	0.73
1:Ad:426:G:OP2	35:BG:95:ARG:CZ	2.36	0.73
1:Ad:631:C:O2'	18:BN:124:ARG:CG	2.36	0.73
1:Ad:873:G:O2'	18:BN:91:LEU:CD2	2.36	0.73
49:CR:139:MET:HB3	84:Aa:2086:A:C5'	2.17	0.73
1:Ad:1580:G:H2'	22:BZ:22:LYS:CG	2.18	0.73
1:Ad:150:U:O2'	35:BG:13:GLN:CB	2.35	0.73
1:Ad:221:U:H3	1:Ad:842:G:H1	1.36	0.73
1:Ad:275:C:N4	35:BG:190:GLN:OE1	2.21	0.73
1:Ad:816:U:O5'	19:BL:123:HIS:CE1	2.40	0.73
1:Ad:1479:U:O4	13:BF:76:GLY:O	2.05	0.73
1:Ad:1535:U:H5'	13:BF:81:LYS:HZ1	1.54	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:CD:73:ASP:CG	86:Ab:6:C:O2'	2.31	0.73
1:Ad:1793:C:H41	76:Cn:12:ARG:NH2	1.86	0.73
41:CA:23:ARG:HH12	84:Aa:2167:G:C5'	2.01	0.73
49:CR:139:MET:HE3	84:Aa:2086:A:C5'	2.08	0.73
1:Ad:707:C:C2'	1:Ad:707:C:N1	2.50	0.73
1:Ad:1565:U:H1'	21:BP:139:ARG:NH1	2.03	0.73
1:Ad:281:U:C5'	1:Ad:283:G:N2	2.49	0.73
1:Ad:1256:C:H41	8:Bf:23:LYS:HB2	1.54	0.73
1:Ad:453:C:OP1	12:BE:80:LYS:NZ	2.17	0.73
1:Ad:1179:C:OP2	17:BS:135:HIS:CD2	2.42	0.73
1:Ad:1238:A:N6	8:Bf:21:LYS:O	2.21	0.73
1:Ad:1580:G:C4	22:BZ:22:LYS:CE	2.60	0.73
48:CD:31:LYS:CG	86:Ab:6:C:OP2	2.37	0.73
1:Ad:1033:C:H41	76:Cn:1:MET:CE	1.95	0.73
1:Ad:1363:G:C4'	20:BT:135:ASP:OD2	2.36	0.73
1:Ad:567:U:H1'	27:Be:14:VAL:CG2	2.18	0.72
1:Ad:1336:C:O2'	11:BD:202:THR:HG21	1.89	0.72
1:Ad:336:U:C5	5:BI:189:GLN:CD	2.67	0.72
1:Ad:1808:U:C2	32:Ba:33:ASP:O	2.42	0.72
48:CD:249:ALA:HB1	86:Ab:119:C:O2	1.88	0.72
1:Ad:167:A:P	35:BG:139:ARG:CZ	2.77	0.72
1:Ad:1808:U:O4	32:Ba:34:LYS:HA	1.89	0.72
1:Ad:153:U:H1'	35:BG:60:GLY:CA	2.19	0.72
1:Ad:308:U:H1'	19:BL:104:ARG:CZ	2.19	0.72
1:Ad:335:A:P	5:BI:188:GLY:HA3	2.30	0.72
1:Ad:580:G:H1	9:BX:64:ALA:HB2	1.53	0.72
1:Ad:957:A:O2'	18:BN:118:VAL:HG11	1.89	0.72
1:Ad:957:A:H5''	18:BN:98:ILE:HD11	1.70	0.72
1:Ad:1215:A:H5'	8:Bf:7:LYS:HE3	1.70	0.72
1:Ad:1459:G:H21	21:BP:116:ILE:HD11	1.53	0.72
1:Ad:1801:A:OP1	32:Ba:12:LYS:HE3	1.89	0.72
1:Ad:1040:G:N3	24:BW:1:MET:HE1	2.05	0.72
1:Ad:150:U:C1'	35:BG:13:GLN:HB2	2.20	0.72
1:Ad:409:C:O3'	35:BG:94:ARG:O	2.07	0.72
1:Ad:1466:A:C8	17:BS:151:LYS:C	2.66	0.72
1:Ad:1808:U:C6	32:Ba:11:ASN:OD1	2.43	0.72
48:CD:58:ASN:OD1	86:Ab:48:G:C5	2.42	0.72
1:Ad:450:A:H5''	12:BE:59:ARG:CB	2.18	0.72
1:Ad:1805:U:H4'	32:Ba:10:ARG:NH2	2.05	0.72
84:Aa:2512:U:H6	84:Aa:2512:U:H5''	1.54	0.72
1:Ad:1251:U:H4'	8:Bf:18:LYS:HG2	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:1356:A:H5'	14:BQ:26:SER:OG	1.89	0.72
1:Ad:1565:U:N1	21:BP:139:ARG:NH1	2.38	0.72
3:Af:21:C:C4'	9:BX:61:PRO:HB3	2.18	0.72
61:CM:68:LYS:CE	84:Aa:527:G:C4'	2.68	0.72
69:CF:224:VAL:HB	86:Ab:95:U:H4'	1.71	0.72
84:Aa:2186:U:H3	84:Aa:2311:A:H61	1.38	0.72
71:CB:132:LYS:HD2	84:Aa:3151:C:H4'	1.72	0.72
1:Ad:410:U:C4'	35:BG:76:LEU:HD21	2.15	0.71
1:Ad:1468:G:OP1	22:BZ:17:LYS:HE3	1.89	0.71
41:CA:7:ALA:CB	84:Aa:2177:U:H6	2.01	0.71
1:Ad:355:U:C6	19:BL:82:ASN:HB2	2.24	0.71
1:Ad:613:U:C5	9:BX:21:ARG:HA	2.25	0.71
1:Ad:1256:C:C5'	8:Bf:25:ALA:O	2.38	0.71
1:Ad:1299:G:H5''	28:BA:143:LEU:HD23	1.72	0.71
1:Ad:1543:U:H3'	13:BF:160:ARG:O	1.89	0.71
1:Ad:1806:C:O2	32:Ba:4:LYS:HB3	1.89	0.71
49:CR:121:HIS:CE1	84:Aa:1716:G:H4'	2.25	0.71
80:Cf:50:GLY:HA3	84:Aa:566:G:H4'	1.71	0.71
1:Ad:873:G:O4'	18:BN:91:LEU:HD22	1.90	0.71
48:CD:200:TYR:OH	86:Ab:34:C:C2	2.36	0.71
1:Ad:3:C:O2	34:BC:179:VAL:HG13	1.90	0.71
1:Ad:613:U:O4	9:BX:20:GLN:O	2.07	0.71
1:Ad:759:A:C4'	12:BE:221:ARG:NE	2.53	0.71
80:Cf:50:GLY:CA	84:Aa:566:G:H4'	2.19	0.71
1:Ad:1806:C:H4'	32:Ba:5:ARG:HG2	1.69	0.71
84:Aa:1623:C:H42	84:Aa:1814:C:H42	1.38	0.71
1:Ad:1256:C:H41	8:Bf:23:LYS:CB	2.04	0.71
1:Ad:1536:U:P	13:BF:84:MET:HE2	2.30	0.71
51:CX:49:LYS:HG3	84:Aa:1560:A:O5'	1.91	0.71
72:CC:113:ARG:HA	84:Aa:668:U:H5'	1.72	0.71
1:Ad:1178:C:OP2	17:BS:139:THR:HB	1.91	0.71
1:Ad:1195:U:C2	2:Ae:34:G:H4'	2.26	0.71
1:Ad:1430:A:O2'	34:BC:94:GLN:O	2.08	0.71
1:Ad:1613:G:N7	14:BQ:135:PHE:CE1	2.58	0.71
1:Ad:614:G:C2	9:BX:17:ARG:NH1	2.58	0.71
1:Ad:1100:U:H2'	24:BW:9:ASP:CG	2.16	0.71
1:Ad:1231:A:OP2	7:BM:83:LYS:HE3	1.90	0.71
1:Ad:1256:C:H5''	8:Bf:25:ALA:O	1.90	0.71
1:Ad:1433:A:C5	11:BD:146:ARG:NH2	2.59	0.71
1:Ad:1537:U:OP1	13:BF:87:ARG:HD3	1.90	0.71
1:Ad:1581:A:H5''	22:BZ:12:SER:HB2	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:CD:249:ALA:HA	86:Ab:119:C:C2	2.25	0.71
48:CD:296:ASP:OD2	86:Ab:63:U:C5	2.43	0.71
1:Ad:821:G:OP2	49:CR:163:ARG:HD3	1.91	0.71
1:Ad:1137:A:C5'	9:BX:32:LEU:CD1	2.69	0.71
62:CS:48:ARG:NH1	86:Ab:75:G:O2'	2.24	0.71
1:Ad:424:A:OP1	35:BG:98:SER:CB	2.39	0.71
1:Ad:57:G:H3'	4:BY:117:LYS:HZ2	1.54	0.70
1:Ad:758:A:C4'	12:BE:220:THR:HG22	2.19	0.70
1:Ad:980:C:H5'	18:BN:116:ILE:HD13	1.72	0.70
1:Ad:1443:U:H4'	11:BD:176:LEU:CD2	2.20	0.70
1:Ad:1544:G:OP2	22:BZ:26:LYS:CD	2.37	0.70
1:Ad:1566:U:O4	21:BP:142:ILE:CD1	2.39	0.70
42:CJ:142:ARG:CG	86:Ab:42:A:O2'	2.38	0.70
51:CX:48:LEU:O	84:Aa:1561:U:H5'	1.91	0.70
51:CX:49:LYS:HG3	84:Aa:1560:A:H5''	1.71	0.70
1:Ad:1552:U:H5''	17:BS:130:ARG:NH2	1.99	0.70
1:Ad:280:U:C2'	1:Ad:281:U:O5'	2.36	0.70
1:Ad:816:U:P	19:BL:123:HIS:HE1	2.03	0.70
1:Ad:1281:G:OP1	11:BD:147:ALA:HB1	1.91	0.70
1:Ad:1580:G:P	22:BZ:21:GLY:O	2.49	0.70
1:Ad:1625:U:H4'	23:Bc:20:ARG:O	1.91	0.70
57:Ce:42:ARG:NH2	84:Aa:639:A:C8	2.59	0.70
1:Ad:1106:G:N2	24:BW:1:MET:SD	2.64	0.70
1:Ad:1138:A:OP1	9:BX:34:ASN:OD1	2.10	0.70
1:Ad:615:U:O2	19:BL:74:GLY:O	2.08	0.70
1:Ad:1392:G:N7	29:BR:44:LYS:HD3	2.07	0.70
1:Ad:1536:U:P	13:BF:84:MET:CE	2.80	0.70
62:CS:121:PRO:HG3	86:Ab:94:C:H1'	1.72	0.70
1:Ad:308:U:C1'	19:BL:104:ARG:NH1	2.54	0.70
1:Ad:450:A:OP2	12:BE:59:ARG:NE	2.24	0.70
1:Ad:795:A:O3'	12:BE:105:THR:HB	1.92	0.70
1:Ad:1076:C:H4'	26:Bb:18:LYS:C	2.17	0.70
1:Ad:1336:C:H4'	11:BD:202:THR:CG2	2.22	0.70
56:Cd:65:LYS:HD3	84:Aa:1478:A:H4'	1.73	0.70
1:Ad:150:U:H1'	35:BG:13:GLN:HB2	1.74	0.70
1:Ad:1466:A:C5	17:BS:152:ARG:HB2	2.27	0.70
1:Ad:1566:U:H3	21:BP:142:ILE:CB	2.04	0.70
1:Ad:80:C:C5	35:BG:178:PRO:N	2.60	0.70
1:Ad:453:C:P	12:BE:80:LYS:HZ3	2.15	0.70
1:Ad:1217:G:OP2	8:Bf:11:LYS:HD2	1.92	0.70
48:CD:20:PHE:CZ	86:Ab:15:C:OP1	2.45	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
84:Aa:2085:A:C2'	84:Aa:2087:A:H5'	2.21	0.70
1:Ad:280:U:H2'	1:Ad:281:U:O5'	1.92	0.69
1:Ad:1565:U:C1'	21:BP:139:ARG:HH11	2.03	0.69
62:CS:52:LYS:CD	86:Ab:75:G:C5	2.75	0.69
1:Ad:453:C:OP2	12:BE:80:LYS:HE2	1.93	0.69
1:Ad:1201:C:O2'	15:BU:82:GLY:CA	2.39	0.69
38:CT:20:ARG:NH2	86:Ab:67:C:H5''	2.00	0.69
46:Ca:123:LYS:O	46:Ca:126:SER:N	2.18	0.69
1:Ad:222:G:H1	1:Ad:841:U:H3	1.40	0.69
1:Ad:816:U:C5'	19:BL:123:HIS:NE2	2.43	0.69
51:CX:48:LEU:CD1	84:Aa:1563:G:N1	2.49	0.69
63:CU:111:ARG:HH21	84:Aa:1674:A:H5'	1.57	0.69
1:Ad:411:A:OP1	35:BG:96:ARG:HG2	1.91	0.69
1:Ad:559:A:H1'	33:BJ:21:TYR:CD1	2.27	0.69
1:Ad:795:A:C4'	12:BE:105:THR:OG1	2.40	0.69
1:Ad:1140:U:OP2	9:BX:118:ARG:NH2	2.26	0.69
84:Aa:3261:C:H5'	84:Aa:3261:C:O2	1.91	0.69
1:Ad:69:A:H8	35:BG:169:LYS:NZ	1.90	0.69
1:Ad:410:U:C4'	35:BG:76:LEU:CD2	2.69	0.69
1:Ad:483:C:H4'	33:BJ:126:HIS:ND1	2.05	0.69
50:CP:37:ARG:HH22	84:Aa:411:C:H5''	1.57	0.69
54:Cr:86:LEU:HD22	84:Aa:462:C:H5''	1.75	0.69
1:Ad:450:A:H5''	12:BE:59:ARG:HB2	1.72	0.69
1:Ad:1138:A:H5''	9:BX:37:LYS:HD2	1.74	0.69
1:Ad:1215:A:C5'	8:Bf:7:LYS:HE3	2.23	0.69
1:Ad:1533:A:H5'	20:BT:86:GLN:CG	2.22	0.69
1:Ad:1595:A:P	14:BQ:144:PHE:CG	2.86	0.69
42:CJ:143:ARG:NE	86:Ab:28:U:OP1	2.26	0.69
48:CD:52:LYS:CE	86:Ab:46:C:OP1	2.41	0.69
1:Ad:150:U:H4'	35:BG:13:GLN:C	2.17	0.69
1:Ad:281:U:C6	1:Ad:281:U:H3'	2.27	0.69
1:Ad:759:A:C5'	12:BE:221:ARG:HE	2.05	0.69
1:Ad:908:U:C5	16:BO:46:LEU:CD2	2.68	0.69
1:Ad:928:A:C4'	41:CA:137:ILE:HD11	2.23	0.69
1:Ad:964:U:O4	26:Bb:34:PHE:CD2	2.45	0.69
53:CY:89:VAL:HG11	84:Aa:375:G:H4'	1.74	0.69
1:Ad:80:C:C2	35:BG:178:PRO:HB3	2.28	0.69
1:Ad:632:G:OP1	18:BN:128:TYR:CZ	2.46	0.69
1:Ad:1544:G:C5'	22:BZ:26:LYS:HD2	2.22	0.69
1:Ad:1552:U:H5''	17:BS:130:ARG:HD2	1.75	0.69
1:Ad:1799:G:O3'	32:Ba:17:HIS:CE1	2.46	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
75:CI:110:ARG:HD3	75:CI:116:ARG:HD2	1.74	0.69
1:Ad:1603:U:O3'	25:Bd:28:HIS:HA	1.92	0.69
69:CF:133:GLU:OE2	86:Ab:96:U:C4'	2.41	0.69
1:Ad:161:G:H5''	35:BG:53:MET:CE	2.23	0.69
1:Ad:1418:G:H21	29:BR:3:ARG:NH1	1.90	0.69
1:Ad:1551:A:H2	17:BS:142:ARG:HH11	1.38	0.69
3:Af:21:C:P	9:BX:60:GLN:NE2	2.59	0.69
50:CP:25:HIS:CE1	84:Aa:2354:G:N7	2.60	0.69
1:Ad:146:A:C6	35:BG:135:ARG:CZ	2.76	0.68
1:Ad:152:G:H4'	35:BG:110:VAL:HB	1.74	0.68
1:Ad:272:G:OP1	35:BG:188:THR:HB	1.92	0.68
1:Ad:482:A:O2'	33:BJ:129:VAL:HG21	1.93	0.68
1:Ad:1807:A:H62	32:Ba:10:ARG:CZ	2.04	0.68
62:CS:165:LEU:HD22	84:Aa:3182:A:N6	2.07	0.68
1:Ad:159:U:C4	35:BG:85:ARG:CZ	2.77	0.68
1:Ad:161:G:H5''	35:BG:53:MET:HE2	1.76	0.68
48:CD:295:ASP:HA	86:Ab:63:U:C2	2.27	0.68
84:Aa:1945:A:O2'	84:Aa:1946:C:H5'	1.93	0.68
1:Ad:335:A:H3'	5:BI:189:GLN:NE2	2.08	0.68
1:Ad:484:A:OP1	33:BJ:122:LYS:O	2.11	0.68
70:Cq:211:GLU:O	70:Cq:212:ASP:C	2.36	0.68
1:Ad:336:U:C5	5:BI:189:GLN:NE2	2.60	0.68
1:Ad:526:U:H5''	4:BY:42:LYS:HE3	1.74	0.68
1:Ad:940:U:C4	32:Ba:15:ARG:CZ	2.77	0.68
1:Ad:14:C:C5'	34:BC:164:SER:OG	2.42	0.68
1:Ad:641:C:N3	36:BH:115:ARG:CB	2.57	0.68
42:CJ:153:HIS:HD2	86:Ab:55:A:H5'	1.59	0.68
1:Ad:878:U:H5''	55:Cc:1:MET:SD	2.33	0.68
1:Ad:1420:U:OP2	29:BR:2:GLY:HA3	1.93	0.68
51:CX:46:LYS:HE3	51:CX:46:LYS:O	1.94	0.68
1:Ad:146:A:H61	35:BG:135:ARG:NE	1.89	0.68
40:Cz:31:VAL:HB	84:Aa:2468:G:P	2.33	0.68
1:Ad:1806:C:C2	32:Ba:4:LYS:HB3	2.29	0.68
2:Ae:1:U:O3'	75:CI:111:LEU:HD11	1.93	0.68
48:CD:73:ASP:CG	86:Ab:6:C:HO2'	2.01	0.68
84:Aa:1596:G:H1	84:Aa:1605:U:H3	1.42	0.68
1:Ad:642:C:C1'	36:BH:115:ARG:HH21	2.04	0.68
1:Ad:1614:C:OP2	14:BQ:135:PHE:HB3	1.93	0.68
1:Ad:1806:C:C5	32:Ba:4:LYS:HD2	2.29	0.68
48:CD:74:ILE:HA	86:Ab:114:C:O2'	1.93	0.68
48:CD:250:ASP:OD1	86:Ab:120:C:C5'	2.41	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:409:C:O2	35:BG:94:ARG:NH2	2.27	0.68
1:Ad:482:A:O2'	33:BJ:129:VAL:CG2	2.42	0.68
1:Ad:570:C:OP2	9:BX:64:ALA:HA	1.93	0.68
1:Ad:603:A:H2	9:BX:44:SER:HG	1.42	0.68
1:Ad:642:C:H6	36:BH:115:ARG:CZ	2.07	0.68
1:Ad:806:U:H5'	12:BE:199:GLU:OE2	1.94	0.68
1:Ad:862:U:N3	49:CR:173:LYS:NZ	2.38	0.68
1:Ad:1138:A:H5'	9:BX:37:LYS:HD2	1.70	0.68
3:Af:21:C:C5'	9:BX:61:PRO:CA	2.72	0.68
85:Ac:47:U:H3	85:Ac:56:G:H1	1.40	0.68
1:Ad:272:G:OP1	35:BG:188:THR:CB	2.42	0.67
1:Ad:308:U:O2'	19:BL:104:ARG:CD	2.41	0.67
1:Ad:1539:A:OP2	22:BZ:99:GLN:HG2	1.94	0.67
1:Ad:1577:A:H1'	17:BS:142:ARG:NH2	2.05	0.67
71:CB:259:HIS:CE1	84:Aa:2373:C:C2	2.83	0.67
84:Aa:2085:A:O2'	84:Aa:2087:A:H5''	1.92	0.67
1:Ad:126:U:N3	35:BG:202:ARG:NH2	2.42	0.67
1:Ad:1204:G:OP1	25:Bd:28:HIS:CD2	2.47	0.67
1:Ad:1471:C:H5'	14:BQ:148:TYR:HB3	1.75	0.67
73:CO:130:LYS:HD3	84:Aa:3181:U:C3'	2.24	0.67
1:Ad:1645:C:N4	2:Ae:34:G:C1'	2.48	0.67
84:Aa:2472:U:H2'	84:Aa:2473:C:C4'	2.24	0.67
1:Ad:1062:C:OP1	30:BB:203:SER:HB3	1.95	0.67
1:Ad:1280:U:OP1	11:BD:146:ARG:CA	2.40	0.67
21:BP:139:ARG:H	21:BP:140:PRO:HD2	1.58	0.67
1:Ad:271:C:H1'	35:BG:191:ARG:HB3	1.76	0.67
1:Ad:426:G:OP2	35:BG:95:ARG:NH2	2.28	0.67
1:Ad:1559:U:OP2	21:BP:68:LYS:CD	2.43	0.67
42:CJ:11:MET:HE1	86:Ab:51:G:N2	2.09	0.67
1:Ad:793:G:O6	12:BE:53:LYS:NZ	2.24	0.67
1:Ad:928:A:H4'	41:CA:137:ILE:HD11	1.77	0.67
1:Ad:1061:G:O3'	30:BB:203:SER:HA	1.95	0.67
1:Ad:1338:U:O4'	25:Bd:56:ARG:OXT	2.13	0.67
1:Ad:1351:U:N3	15:BU:98:ILE:CD1	2.58	0.67
48:CD:250:ASP:OD1	86:Ab:120:C:H5''	1.94	0.67
1:Ad:127:G:OP2	35:BG:202:ARG:HG2	1.94	0.67
1:Ad:1567:G:H8	17:BS:121:ARG:CZ	2.08	0.67
42:CJ:144:ARG:O	86:Ab:44:C:OP1	2.13	0.67
1:Ad:559:A:C1'	33:BJ:21:TYR:CD1	2.78	0.67
1:Ad:1076:C:OP1	26:Bb:19:LEU:HD13	1.95	0.67
41:CA:195:CYS:C	84:Aa:2178:G:O6	2.37	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:CX:49:LYS:HB3	84:Aa:1562:A:P	2.35	0.67
1:Ad:179:A:O4'	1:Ad:179:A:N9	2.28	0.66
1:Ad:355:U:O2'	19:BL:82:ASN:HB3	1.96	0.66
1:Ad:1363:G:O4'	20:BT:135:ASP:OD2	2.12	0.66
1:Ad:1472:G:OP2	14:BQ:147:SER:HB3	1.95	0.66
51:CX:48:LEU:HA	84:Aa:1560:A:C5'	2.25	0.66
1:Ad:422:G:C8	35:BG:59:GLN:NE2	2.63	0.66
1:Ad:641:C:C2	36:BH:115:ARG:HB3	2.30	0.66
1:Ad:1017:U:P	41:CA:247:ARG:HG3	2.35	0.66
1:Ad:1543:U:C4	13:BF:158:ALA:O	2.48	0.66
1:Ad:1556:U:H3	1:Ad:1571:G:H1	1.44	0.66
1:Ad:163:G:O2'	35:BG:133:ARG:NE	2.28	0.66
1:Ad:527:C:OP2	4:BY:42:LYS:CE	2.43	0.66
1:Ad:1806:C:C2	32:Ba:4:LYS:HD3	2.31	0.66
37:CG:46:ARG:HE	84:Aa:2587:G:H2'	1.61	0.66
62:CS:51:LYS:HG3	86:Ab:72:G:C6	2.31	0.66
84:Aa:605:A:H2'	84:Aa:606:C:C6	2.30	0.66
1:Ad:1603:U:OP1	25:Bd:30:LEU:HD23	1.96	0.66
1:Ad:590:G:H5''	27:Be:23:LYS:HG2	1.75	0.66
1:Ad:1105:G:C6	24:BW:78:ARG:CD	2.78	0.66
1:Ad:1114:G:OP1	9:BX:23:ALA:HB1	1.95	0.66
1:Ad:1464:G:H2'	21:BP:146:HIS:CG	2.30	0.66
42:CJ:143:ARG:CZ	86:Ab:28:U:P	2.84	0.66
1:Ad:597:U:H5''	33:BJ:42:ARG:HH11	1.60	0.66
73:CO:152:TRP:HE1	84:Aa:3135:A:H5'	1.60	0.66
1:Ad:157:U:O4	35:BG:95:ARG:HD3	1.96	0.66
1:Ad:641:C:N4	36:BH:115:ARG:CD	2.57	0.66
1:Ad:723:A:C5	1:Ad:737:G:O6	2.48	0.66
1:Ad:1464:G:O2'	21:BP:146:HIS:CG	2.49	0.66
48:CD:152:ARG:HD2	86:Ab:44:C:H4'	1.77	0.66
72:CC:341:ARG:HH21	84:Aa:1341:G:H5''	1.60	0.66
84:Aa:754:G:H1	84:Aa:785:U:H3	1.44	0.66
1:Ad:1806:C:C4	32:Ba:4:LYS:CD	2.78	0.66
84:Aa:2472:U:H2'	84:Aa:2473:C:H4'	1.77	0.66
84:Aa:3227:U:H3	84:Aa:3244:G:H1	1.43	0.66
1:Ad:126:U:C2	35:BG:202:ARG:NH2	2.63	0.66
1:Ad:1068:G:H4'	26:Bb:74:ARG:CD	2.26	0.66
1:Ad:1100:U:C2'	24:BW:9:ASP:CG	2.69	0.66
1:Ad:1341:G:O6	29:BR:45:ARG:NH2	2.29	0.66
1:Ad:878:U:H6	55:Cc:1:MET:SD	2.19	0.66
1:Ad:896:C:C1'	41:CA:254:ALA:HB1	2.26	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:1363:G:H4'	20:BT:135:ASP:OD2	1.96	0.66
51:CX:49:LYS:N	84:Aa:1560:A:H5''	2.11	0.66
1:Ad:64:U:H5''	35:BG:181:GLN:NE2	2.09	0.65
1:Ad:255:U:O2'	12:BE:134:LYS:HG2	1.96	0.65
1:Ad:821:G:N3	49:CR:162:LYS:NZ	2.44	0.65
1:Ad:1364:C:C5'	20:BT:5:THR:HB	2.26	0.65
41:CA:23:ARG:HH12	84:Aa:2167:G:H5''	1.60	0.65
53:CY:7:VAL:HG13	84:Aa:332:A:H4'	1.79	0.65
1:Ad:152:G:H4'	35:BG:110:VAL:HG11	1.77	0.65
1:Ad:590:G:H5''	27:Be:23:LYS:CG	2.26	0.65
1:Ad:1765:A:H3'	1:Ad:1766:A:C5'	2.27	0.65
61:CM:1:MET:H2	84:Aa:1320:G:H1	1.44	0.65
62:CS:121:PRO:CB	86:Ab:94:C:O4'	2.40	0.65
1:Ad:152:G:C4'	35:BG:110:VAL:HG11	2.26	0.65
1:Ad:1113:G:C5	9:BX:20:GLN:HG2	2.31	0.65
1:Ad:1406:U:O2'	29:BR:67:ARG:NH1	2.29	0.65
48:CD:158:ARG:CZ	86:Ab:47:C:OP2	2.45	0.65
1:Ad:614:G:N2	9:BX:20:GLN:NE2	2.43	0.65
1:Ad:641:C:O2	36:BH:115:ARG:O	2.15	0.65
1:Ad:1420:U:P	29:BR:2:GLY:HA3	2.37	0.65
1:Ad:1613:G:N7	14:BQ:135:PHE:HE1	1.92	0.65
1:Ad:1806:C:C4	32:Ba:4:LYS:HD3	2.32	0.65
38:CT:20:ARG:NH1	86:Ab:11:A:H62	1.95	0.65
1:Ad:355:U:C2	19:BL:82:ASN:HB2	2.32	0.65
1:Ad:516:A:OP1	33:BJ:171:PRO:C	2.39	0.65
1:Ad:1053:C:H5''	26:Bb:70:GLY:C	2.21	0.65
1:Ad:1355:U:OP1	14:BQ:87:ILE:HD13	1.95	0.65
1:Ad:1384:U:C4'	14:BQ:32:ARG:NH1	2.55	0.65
48:CD:58:ASN:ND2	86:Ab:48:G:C6	2.64	0.65
71:CB:60:VAL:HG12	71:CB:61:GLU:H	1.62	0.65
75:CI:115:MET:HB3	75:CI:116:ARG:O	1.95	0.65
1:Ad:161:G:H4'	35:BG:53:MET:HG2	1.79	0.65
1:Ad:940:U:C4	32:Ba:15:ARG:NH2	2.64	0.65
1:Ad:985:G:H22	1:Ad:1128:C:H42	1.44	0.65
1:Ad:1466:A:H8	17:BS:151:LYS:O	1.71	0.65
48:CD:58:ASN:CG	86:Ab:48:G:C5	2.74	0.65
62:CS:121:PRO:O	86:Ab:94:C:C5'	2.45	0.65
68:Ch:111:ARG:HE	84:Aa:253:G:H1'	1.61	0.65
70:Cq:211:GLU:C	70:Cq:213:ASP:N	2.53	0.65
1:Ad:530:A:C5'	4:BY:98:ILE:HD12	2.25	0.65
1:Ad:944:A:N6	18:BN:117:LEU:CG	2.58	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:1325:A:N7	28:BA:139:LYS:HD3	2.12	0.65
1:Ad:1524:A:C1'	15:BU:68:LYS:CD	2.75	0.65
69:CF:224:VAL:HG21	86:Ab:95:U:O3'	1.97	0.65
85:Ac:72:A:H61	85:Ac:79:A:H61	1.44	0.65
86:Ab:81:G:H1	86:Ab:95:U:H3	1.45	0.65
1:Ad:1345:G:H1'	10:Bg:108:CYS:SG	2.37	0.65
1:Ad:1565:U:H1'	21:BP:139:ARG:CD	2.24	0.65
42:CJ:143:ARG:NH1	86:Ab:28:U:OP1	2.29	0.65
1:Ad:1567:G:C8	17:BS:132:ARG:HG3	2.31	0.65
41:CA:6:ARG:N	84:Aa:2177:U:O2'	2.30	0.65
71:CB:239:THR:HG21	84:Aa:2882:U:H5''	1.78	0.65
41:CA:195:CYS:CB	84:Aa:2178:G:O6	2.44	0.65
48:CD:152:ARG:NH1	86:Ab:44:C:O2'	2.30	0.65
1:Ad:272:G:OP1	35:BG:188:THR:N	2.29	0.64
1:Ad:592:U:OP2	27:Be:26:LYS:HE3	1.97	0.64
1:Ad:1231:A:H62	7:BM:91:LEU:CG	2.10	0.64
1:Ad:1507:G:OP2	20:BT:75:VAL:HG22	1.97	0.64
1:Ad:336:U:H5	5:BI:189:GLN:NE2	1.95	0.64
1:Ad:529:A:O3'	4:BY:95:TYR:HB2	1.97	0.64
1:Ad:614:G:H22	9:BX:20:GLN:HE22	1.45	0.64
1:Ad:707:C:C2'	1:Ad:707:C:C6	2.80	0.64
1:Ad:1065:A:N7	26:Bb:77:GLU:HG3	2.12	0.64
1:Ad:1103:U:H4'	24:BW:74:VAL:HG11	1.78	0.64
1:Ad:1324:U:C5	28:BA:106:ARG:CZ	2.81	0.64
84:Aa:528:C:O2'	84:Aa:529:C:O4'	2.12	0.64
1:Ad:80:C:C5	35:BG:178:PRO:CD	2.80	0.64
1:Ad:80:C:C2'	35:BG:178:PRO:HA	2.26	0.64
1:Ad:1595:A:P	14:BQ:144:PHE:CD1	2.90	0.64
1:Ad:1806:C:C2	32:Ba:4:LYS:CD	2.80	0.64
62:CS:52:LYS:HB2	86:Ab:75:G:C8	2.32	0.64
1:Ad:1103:U:O2'	24:BW:76:SER:CB	2.44	0.64
1:Ad:1214:C:C5'	8:Bf:7:LYS:O	2.45	0.64
71:CB:121:ASN:HA	84:Aa:3002:U:H4'	1.80	0.64
84:Aa:3320:G:H1	84:Aa:3370:U:H3	1.45	0.64
1:Ad:1065:A:H62	26:Bb:77:GLU:HG3	1.62	0.64
1:Ad:1255:U:C5	8:Bf:23:LYS:CE	2.76	0.64
1:Ad:1565:U:C2	21:BP:139:ARG:CZ	2.76	0.64
1:Ad:1581:A:C5'	22:BZ:12:SER:HB2	2.28	0.64
1:Ad:591:C:OP2	27:Be:23:LYS:CD	2.45	0.64
79:CE:58:PRO:HB3	84:Aa:578:C:H4'	1.79	0.64
1:Ad:336:U:O4	5:BI:186:ARG:NH2	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:944:A:H61	18:BN:117:LEU:HD23	1.63	0.64
1:Ad:1783:C:OP2	76:Cn:4:LYS:CA	2.45	0.64
73:CO:134:LEU:HD23	73:CO:134:LEU:H	1.63	0.64
1:Ad:614:G:H21	9:BX:17:ARG:NH2	1.95	0.64
1:Ad:1249:G:N2	8:Bf:21:LYS:HE2	2.13	0.64
1:Ad:1362:A:O2'	20:BT:131:ARG:HB3	1.97	0.64
1:Ad:1537:U:OP1	13:BF:87:ARG:CD	2.46	0.64
3:Af:20:U:O3'	9:BX:60:GLN:NE2	2.29	0.64
71:CB:246:HIS:CE1	84:Aa:2950:C:H1'	2.32	0.64
1:Ad:288:G:N7	35:BG:193:ARG:HD2	2.13	0.64
1:Ad:805:A:H4'	12:BE:206:GLU:CG	2.26	0.64
1:Ad:1732:A:O2'	35:BG:67:VAL:HA	1.96	0.64
42:CJ:48:VAL:HG22	86:Ab:39:C:H1'	1.79	0.64
1:Ad:153:U:OP1	35:BG:109:SER:OG	2.16	0.64
1:Ad:218:G:C8	1:Ad:837:G:N2	2.67	0.64
1:Ad:270:U:O4	35:BG:182:ARG:CZ	2.45	0.64
1:Ad:534:C:O2	4:BY:67:ARG:NH1	2.25	0.64
1:Ad:865:U:OP2	36:BH:114:PRO:HB3	1.97	0.64
1:Ad:70:C:OP1	35:BG:170:ASN:HB2	1.98	0.63
1:Ad:163:G:O2'	35:BG:133:ARG:CZ	2.46	0.63
1:Ad:757:G:H4'	12:BE:218:PHE:HA	1.80	0.63
1:Ad:758:A:C4'	12:BE:220:THR:HA	2.25	0.63
1:Ad:957:A:C5'	18:BN:102:LEU:HD11	2.27	0.63
1:Ad:1249:G:H22	8:Bf:21:LYS:HB2	1.59	0.63
1:Ad:1567:G:C8	17:BS:121:ARG:NH2	2.65	0.63
1:Ad:1581:A:P	22:BZ:11:PRO:O	2.57	0.63
1:Ad:1801:A:P	32:Ba:12:LYS:HE3	2.38	0.63
1:Ad:1783:C:OP2	76:Cn:4:LYS:HA	1.97	0.63
57:Ce:34:ARG:HE	84:Aa:947:C:H4'	1.63	0.63
84:Aa:453:U:O5'	84:Aa:453:U:H6	1.81	0.63
1:Ad:80:C:C5	35:BG:177:ALA:HA	2.33	0.63
1:Ad:789:C:H5	4:BY:17:PHE:HB3	1.62	0.63
1:Ad:166:A:H5'	35:BG:139:ARG:HH21	1.63	0.63
1:Ad:166:A:OP1	35:BG:142:LYS:HD2	1.97	0.63
1:Ad:184:C:OP1	5:BI:156:LYS:HE3	1.99	0.63
1:Ad:530:A:C5'	4:BY:98:ILE:HD11	2.21	0.63
1:Ad:559:A:C2	33:BJ:21:TYR:CZ	2.86	0.63
1:Ad:1250:C:OP2	8:Bf:20:LYS:CE	2.46	0.63
69:CF:225:GLU:OE2	86:Ab:95:U:C1'	2.46	0.63
1:Ad:821:G:C4'	49:CR:162:LYS:HB3	2.27	0.63
1:Ad:1103:U:C6	24:BW:12:LYS:HE3	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:80:C:H5	35:BG:177:ALA:CA	2.10	0.63
1:Ad:154:A:H5''	4:BY:137:LYS:HG2	1.79	0.63
1:Ad:944:A:N6	18:BN:117:LEU:CD2	2.61	0.63
1:Ad:1363:G:H4'	20:BT:135:ASP:CB	2.28	0.63
1:Ad:1805:U:H4'	32:Ba:10:ARG:HH21	1.63	0.63
1:Ad:166:A:H5'	35:BG:139:ARG:HE	1.64	0.63
1:Ad:335:A:H62	5:BI:186:ARG:NH2	1.96	0.63
1:Ad:1105:G:N7	24:BW:78:ARG:CZ	2.62	0.63
1:Ad:1351:U:H3	15:BU:98:ILE:CD1	2.11	0.63
1:Ad:1420:U:H5'	29:BR:2:GLY:C	2.23	0.63
1:Ad:1484:U:OP1	20:BT:43:ALA:HB3	1.98	0.63
75:CI:110:ARG:CB	75:CI:116:ARG:HD2	2.29	0.63
1:Ad:789:C:C5	4:BY:17:PHE:HB3	2.34	0.63
1:Ad:1625:U:OP1	23:Bc:20:ARG:NE	2.32	0.63
83:Cg:69:ARG:HH12	84:Aa:1800:G:H5''	1.64	0.63
1:Ad:55:A:H5''	4:BY:114:LYS:NZ	2.14	0.63
1:Ad:482:A:O4'	33:BJ:129:VAL:HG11	1.99	0.63
1:Ad:530:A:OP1	4:BY:95:TYR:O	2.17	0.63
1:Ad:643:U:H5''	36:BH:104:PRO:CB	2.29	0.63
1:Ad:1256:C:N4	8:Bf:23:LYS:HB2	2.14	0.63
1:Ad:1806:C:O3'	32:Ba:5:ARG:HA	1.99	0.63
39:CZ:38:TYR:CE1	84:Aa:1709:U:H5'	2.34	0.63
1:Ad:93:A:H2'	35:BG:90:ARG:NH2	2.13	0.62
1:Ad:1179:C:C6	17:BS:135:HIS:NE2	2.67	0.62
1:Ad:1466:A:N1	17:BS:151:LYS:HE2	2.13	0.62
1:Ad:1551:A:H2	17:BS:142:ARG:HH12	1.39	0.62
38:CT:10:ARG:HH22	84:Aa:998:G:H4'	1.64	0.62
42:CJ:139:ARG:CB	86:Ab:29:C:P	2.87	0.62
58:Cj:2:GLY:HA2	84:Aa:2132:A:H1'	1.79	0.62
64:Ci:70:LYS:HE3	84:Aa:2218:A:H4'	1.79	0.62
71:CB:346:LEU:HG	84:Aa:3137:G:H5'	1.81	0.62
79:CE:100:GLN:HE22	84:Aa:586:A:C5'	2.12	0.62
1:Ad:57:G:H5''	4:BY:117:LYS:HZ2	1.63	0.62
1:Ad:159:U:P	35:BG:84:PHE:HA	2.40	0.62
1:Ad:723:A:N7	1:Ad:737:G:O6	2.32	0.62
50:CP:165:GLN:HG2	84:Aa:3278:G:H4'	1.81	0.62
63:CU:30:PRO:O	63:CU:31:VAL:CB	2.46	0.62
84:Aa:475:U:O2'	84:Aa:476:C:H5'	1.99	0.62
1:Ad:1251:U:H5''	8:Bf:18:LYS:CB	2.28	0.62
1:Ad:1806:C:C4'	32:Ba:5:ARG:CG	2.69	0.62
51:CX:46:LYS:CE	51:CX:46:LYS:O	2.47	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:146:A:C6	35:BG:135:ARG:NH2	2.68	0.62
1:Ad:424:A:OP1	35:BG:98:SER:OG	2.17	0.62
57:Ce:56:ILE:HG23	84:Aa:950:U:H5'	1.81	0.62
69:CF:98:HIS:CE1	86:Ab:81:G:H4'	2.34	0.62
1:Ad:126:U:OP1	35:BG:205:LYS:NZ	2.32	0.62
1:Ad:1201:C:O2'	15:BU:82:GLY:N	2.33	0.62
42:CJ:3:THR:CG2	86:Ab:54:A:H4'	2.29	0.62
1:Ad:80:C:H5	35:BG:177:ALA:HA	1.65	0.62
1:Ad:152:G:H4'	35:BG:110:VAL:CB	2.28	0.62
1:Ad:165:U:H5''	35:BG:137:PRO:N	2.14	0.62
1:Ad:1537:U:OP1	13:BF:87:ARG:CZ	2.48	0.62
40:Cz:209:MET:SD	84:Aa:2469:C:H5''	2.39	0.62
51:CX:46:LYS:NZ	51:CX:46:LYS:O	2.30	0.62
84:Aa:1958:G:O2'	84:Aa:1959:U:H5'	2.00	0.62
84:Aa:3338:U:H3	84:Aa:3351:A:H61	1.45	0.62
1:Ad:1553:A:OP1	17:BS:130:ARG:CB	2.42	0.62
1:Ad:1680:A:H61	1:Ad:1739:U:H3	1.46	0.62
26:Bb:64:VAL:HG12	26:Bb:65:LEU:H	1.65	0.62
1:Ad:463:G:N7	4:BY:110:ARG:NH1	2.47	0.62
1:Ad:559:A:N7	33:BJ:21:TYR:CE2	2.57	0.62
1:Ad:721:U:OP2	1:Ad:722:A:N6	2.31	0.62
1:Ad:1076:C:C4'	26:Bb:18:LYS:O	2.32	0.62
1:Ad:1430:A:N3	34:BC:92:ALA:O	2.32	0.62
1:Ad:1603:U:H4'	25:Bd:28:HIS:HB2	1.81	0.62
61:CM:68:LYS:HB2	84:Aa:528:C:C5'	2.27	0.62
75:CI:118:ALA:CB	84:Aa:2649:C:H5'	2.30	0.62
1:Ad:615:U:C1'	19:BL:74:GLY:O	2.48	0.62
1:Ad:1543:U:C5	13:BF:159:PHE:C	2.70	0.62
38:CT:90:HIS:CD2	84:Aa:2739:A:H1'	2.35	0.62
41:CA:195:CYS:O	84:Aa:2178:G:N1	2.32	0.62
70:Cq:118:LEU:HD21	84:Aa:1233:G:H5''	1.82	0.62
1:Ad:597:U:H5''	33:BJ:42:ARG:NH1	2.15	0.62
1:Ad:944:A:C6	18:BN:117:LEU:CD2	2.82	0.62
1:Ad:1614:C:OP2	14:BQ:135:PHE:CB	2.48	0.62
2:Ae:2:C:P	75:CI:111:LEU:CD1	2.88	0.62
48:CD:52:LYS:HZ2	86:Ab:46:C:P	2.21	0.62
48:CD:295:ASP:CA	86:Ab:63:U:C2	2.83	0.62
51:CX:46:LYS:HA	51:CX:46:LYS:HZ2	1.65	0.62
54:Cr:91:VAL:HG22	84:Aa:476:C:H4'	1.82	0.62
1:Ad:25:C:N4	33:BJ:6:ARG:O	2.30	0.61
1:Ad:1280:U:C1'	11:BD:141:LYS:HZ3	2.12	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Ae:2:C:P	75:CI:111:LEU:HD11	2.40	0.61
60:Co:40:LYS:HE2	84:Aa:282:A:H5''	1.81	0.61
1:Ad:184:C:O5'	5:BI:152:HIS:CE1	2.53	0.61
1:Ad:597:U:OP1	33:BJ:42:ARG:CB	2.40	0.61
1:Ad:1053:C:C5'	26:Bb:70:GLY:C	2.73	0.61
1:Ad:1230:A:H61	7:BM:102:LYS:HD3	1.65	0.61
1:Ad:1372:C:P	14:BQ:53:LYS:HG3	2.39	0.61
41:CA:6:ARG:H	84:Aa:2177:U:HO2'	1.47	0.61
42:CJ:48:VAL:HG11	86:Ab:39:C:H5'	1.80	0.61
75:CI:115:MET:HB2	75:CI:116:ARG:O	1.98	0.61
84:Aa:1219:C:H42	84:Aa:1294:A:H61	1.46	0.61
1:Ad:863:G:H1	49:CR:170:ARG:HE	1.48	0.61
1:Ad:944:A:N9	18:BN:121:ARG:NH1	2.45	0.61
1:Ad:1067:A:O2'	26:Bb:74:ARG:HG2	2.01	0.61
1:Ad:1206:A:H61	1:Ad:1462:C:H2'	1.65	0.61
1:Ad:1566:U:OP1	17:BS:120:HIS:CD2	2.52	0.61
63:CU:31:VAL:HB	63:CU:101:TRP:CE2	2.35	0.61
1:Ad:70:C:OP2	35:BG:169:LYS:HG3	2.00	0.61
1:Ad:409:C:HO2'	35:BG:94:ARG:HB2	1.64	0.61
38:CT:10:ARG:NH2	84:Aa:998:G:H4'	2.14	0.61
1:Ad:758:A:H4'	12:BE:220:THR:CA	2.26	0.61
1:Ad:795:A:C4'	12:BE:105:THR:HB	2.31	0.61
1:Ad:872:G:H21	18:BN:91:LEU:HD11	1.66	0.61
1:Ad:1783:C:OP1	76:Cn:4:LYS:CD	2.49	0.61
42:CJ:48:VAL:CG2	86:Ab:39:C:O4'	2.48	0.61
1:Ad:65:A:OP2	35:BG:179:LYS:O	2.19	0.61
1:Ad:939:C:H6	32:Ba:13:HIS:NE2	1.99	0.61
1:Ad:1053:C:H4'	26:Bb:71:GLY:CA	2.30	0.61
1:Ad:1537:U:OP1	13:BF:87:ARG:NE	2.34	0.61
41:CA:5:ILE:HG21	84:Aa:2177:U:C2'	2.29	0.61
41:CA:6:ARG:N	84:Aa:2177:U:HO2'	1.98	0.61
1:Ad:423:G:O5'	35:BG:72:ARG:NH2	2.33	0.61
1:Ad:1251:U:H5''	8:Bf:18:LYS:HB2	1.83	0.61
1:Ad:1477:A:H5'	13:BF:159:PHE:CE1	2.36	0.61
42:CJ:142:ARG:HG2	86:Ab:42:A:O2'	2.00	0.61
79:CE:20:TYR:CE2	84:Aa:606:C:C4	2.88	0.61
84:Aa:552:G:H8	84:Aa:552:G:O5'	1.84	0.61
1:Ad:181:C:H42	1:Ad:200:C:H42	1.49	0.61
1:Ad:450:A:P	12:BE:59:ARG:CZ	2.88	0.61
1:Ad:643:U:C4	36:BH:103:ARG:HD2	2.36	0.61
1:Ad:1302:C:O2	34:BC:163:GLY:N	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:1554:G:C8	17:BS:132:ARG:NH2	2.68	0.61
1:Ad:1806:C:H4'	32:Ba:5:ARG:CG	2.31	0.61
62:CS:51:LYS:O	86:Ab:72:G:C2	2.54	0.61
1:Ad:1187:A:HO2'	8:Bf:7:LYS:N	1.98	0.61
1:Ad:1466:A:C2	17:BS:151:LYS:HE3	2.35	0.61
45:CN:182:HIS:CD2	84:Aa:99:A:H4'	2.35	0.61
48:CD:58:ASN:OD1	86:Ab:48:G:N7	2.34	0.61
62:CS:121:PRO:HA	86:Ab:94:C:C4'	2.25	0.61
84:Aa:2178:G:H5''	84:Aa:2179:U:H5'	1.81	0.61
1:Ad:795:A:OP2	12:BE:106:LYS:HE3	2.01	0.61
48:CD:295:ASP:HB3	86:Ab:63:U:O2'	2.01	0.61
73:CO:65:LYS:HD3	84:Aa:1311:G:H5''	1.83	0.61
48:CD:261:PRO:HG2	86:Ab:61:C:H5''	1.82	0.60
63:CU:31:VAL:CB	63:CU:101:TRP:CD1	2.83	0.60
84:Aa:2663:U:H3	84:Aa:2713:G:H1	1.49	0.60
1:Ad:874:A:OP1	18:BN:94:LYS:HE2	2.00	0.60
1:Ad:1068:G:O2'	26:Bb:74:ARG:NH1	2.34	0.60
1:Ad:1075:G:O2'	26:Bb:18:LYS:HD2	2.01	0.60
1:Ad:1280:U:OP1	11:BD:146:ARG:CB	2.49	0.60
1:Ad:1555:A:OP1	17:BS:114:LEU:HD21	2.01	0.60
1:Ad:1566:U:OP1	17:BS:120:HIS:HD2	1.82	0.60
40:Cz:209:MET:CG	84:Aa:2469:C:H5''	2.31	0.60
41:CA:5:ILE:HB	84:Aa:2177:U:H2'	1.82	0.60
52:CW:61:HIS:CG	52:CW:62:LYS:H	2.19	0.60
1:Ad:484:A:H61	1:Ad:512:U:H3	1.49	0.60
1:Ad:559:A:C4	33:BJ:21:TYR:CE2	2.89	0.60
1:Ad:1150:U:H3	1:Ad:1641:A:H61	1.47	0.60
84:Aa:1944:G:O6	84:Aa:2093:G:N2	2.34	0.60
1:Ad:410:U:OP1	35:BG:95:ARG:HA	2.01	0.60
82:Cb:7:HIS:CE1	84:Aa:2644:U:H5'	2.36	0.60
83:Cg:63:LYS:HD3	84:Aa:1798:C:H5''	1.82	0.60
1:Ad:80:C:OP2	35:BG:156:ARG:NH1	2.34	0.60
1:Ad:614:G:H22	9:BX:20:GLN:NE2	2.00	0.60
43:CH:97:HIS:CD2	84:Aa:3025:A:H4'	2.37	0.60
45:CN:175:ARG:NH2	84:Aa:269:C:H5'	2.12	0.60
1:Ad:411:A:OP1	35:BG:96:ARG:CG	2.49	0.60
1:Ad:970:U:O2'	18:BN:132:THR:CB	2.50	0.60
1:Ad:995:C:O2'	16:BO:141:ARG:NH1	2.33	0.60
1:Ad:1249:G:H21	8:Bf:21:LYS:HB2	1.64	0.60
1:Ad:1482:U:OP1	20:BT:94:HIS:ND1	2.34	0.60
1:Ad:1495:U:H1'	25:Bd:31:ILE:CD1	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
86:Ab:9:U:H3	86:Ab:110:G:H1	1.49	0.60
1:Ad:571:A:H61	1:Ad:584:A:H61	1.49	0.60
1:Ad:1031:A:OP1	76:Cn:1:MET:HB2	2.02	0.60
1:Ad:1593:U:H5''	14:BQ:143:ARG:HG2	1.83	0.60
1:Ad:335:A:C8	5:BI:189:GLN:NE2	2.69	0.60
1:Ad:795:A:OP1	12:BE:106:LYS:HB2	2.01	0.60
10:Bg:282:HIS:CD2	10:Bg:283:GLN:H	2.19	0.60
1:Ad:163:G:C5'	35:BG:8:PRO:O	2.50	0.60
1:Ad:805:A:H4'	12:BE:206:GLU:CB	2.32	0.60
41:CA:5:ILE:CB	84:Aa:2177:U:C2'	2.70	0.60
48:CD:284:ARG:NE	86:Ab:62:U:O2'	2.35	0.60
56:Cd:106:ILE:HD12	84:Aa:3376:C:H4'	1.81	0.60
1:Ad:148:C:H42	1:Ad:162:A:H61	1.50	0.60
1:Ad:806:U:OP1	12:BE:201:HIS:CD2	2.54	0.60
1:Ad:1103:U:HO2'	24:BW:76:SER:CB	2.15	0.60
1:Ad:1793:C:N4	76:Cn:12:ARG:NH1	2.50	0.60
41:CA:5:ILE:HG22	84:Aa:2177:U:C2'	2.27	0.60
1:Ad:161:G:C5'	35:BG:53:MET:CG	2.74	0.59
1:Ad:530:A:P	4:BY:95:TYR:HB2	2.41	0.59
1:Ad:613:U:O2	9:BX:20:GLN:OE1	2.20	0.59
1:Ad:869:U:N3	24:BW:25:VAL:HG23	2.08	0.59
1:Ad:1388:A:OP1	15:BU:69:VAL:CG1	2.47	0.59
1:Ad:1477:A:H5'	13:BF:159:PHE:CG	2.37	0.59
78:CL:183:ARG:HB3	84:Aa:772:U:H5''	1.83	0.59
80:Cf:61:THR:HG21	84:Aa:431:G:H5''	1.84	0.59
84:Aa:461:A:H2'	84:Aa:462:C:H5'	1.84	0.59
1:Ad:1466:A:N6	17:BS:152:ARG:HD3	2.17	0.59
42:CJ:136:ALA:O	86:Ab:29:C:OP1	2.21	0.59
1:Ad:355:U:O2'	19:BL:82:ASN:CB	2.49	0.59
1:Ad:641:C:O2	36:BH:115:ARG:CB	2.50	0.59
42:CJ:153:HIS:CD2	86:Ab:55:A:H5'	2.37	0.59
80:Cf:77:ARG:NH1	84:Aa:512:G:H1'	2.17	0.59
1:Ad:355:U:N3	19:BL:82:ASN:OD1	2.36	0.59
1:Ad:572:G:H4'	9:BX:86:ASN:C	2.27	0.59
1:Ad:1141:U:O4	9:BX:109:HIS:CD2	2.56	0.59
1:Ad:1378:C:H5'	15:BU:8:TYR:CZ	2.37	0.59
1:Ad:1398:U:P	29:BR:56:HIS:HE1	2.25	0.59
1:Ad:1783:C:OP1	76:Cn:4:LYS:HD2	2.02	0.59
1:Ad:1801:A:OP1	32:Ba:12:LYS:HD2	2.01	0.59
57:Ce:47:PHE:CE2	84:Aa:1148:G:H4'	2.37	0.59
72:CC:90:ARG:HH21	84:Aa:1443:G:H5''	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:167:A:OP1	35:BG:139:ARG:CD	2.43	0.59
1:Ad:410:U:C5'	35:BG:76:LEU:CD2	2.81	0.59
1:Ad:571:A:OP2	9:BX:65:ILE:O	2.20	0.59
1:Ad:1325:A:C8	28:BA:139:LYS:HD3	2.38	0.59
16:BO:93:HIS:CG	16:BO:94:ILE:H	2.19	0.59
41:CA:219:ILE:HG23	84:Aa:2240:C:H4'	1.84	0.59
75:CI:34:TYR:CD2	84:Aa:1012:U:H4'	2.37	0.59
84:Aa:528:C:H2'	84:Aa:529:C:C6	2.36	0.59
1:Ad:335:A:N7	5:BI:186:ARG:CZ	2.66	0.59
1:Ad:453:C:P	12:BE:80:LYS:NZ	2.76	0.59
1:Ad:873:G:H1	1:Ad:965:U:H3	1.50	0.59
1:Ad:887:U:C4'	74:Cp:85:ARG:HE	2.08	0.59
1:Ad:1100:U:O2	24:BW:9:ASP:OD1	2.19	0.59
1:Ad:1392:G:C8	29:BR:44:LYS:HD3	2.38	0.59
1:Ad:1464:G:C2'	21:BP:146:HIS:CG	2.85	0.59
1:Ad:1567:G:H5''	17:BS:133:GLY:CA	2.28	0.59
1:Ad:1567:G:H1'	17:BS:121:ARG:HH12	1.67	0.59
51:CX:48:LEU:HD22	84:Aa:1560:A:H5'	1.84	0.59
70:Cq:211:GLU:O	70:Cq:214:LEU:N	2.36	0.59
79:CE:20:TYR:CZ	84:Aa:606:C:C2	2.90	0.59
84:Aa:2085:A:H2'	84:Aa:2087:A:C4'	2.33	0.59
1:Ad:516:A:OP1	33:BJ:171:PRO:HA	2.02	0.59
1:Ad:516:A:C5'	33:BJ:171:PRO:O	2.51	0.59
1:Ad:806:U:P	12:BE:201:HIS:HE2	2.26	0.59
1:Ad:864:A:OP1	36:BH:114:PRO:HG3	2.03	0.59
1:Ad:1256:C:H5'	8:Bf:25:ALA:O	2.02	0.59
41:CA:5:ILE:C	84:Aa:2177:U:O2'	2.46	0.59
41:CA:200:ARG:HB3	84:Aa:2180:G:OP2	2.03	0.59
71:CB:134:ALA:HB2	84:Aa:3150:G:H5''	1.83	0.59
80:Cf:79:HIS:CE1	84:Aa:1332:C:H5''	2.38	0.59
1:Ad:450:A:P	12:BE:59:ARG:NH1	2.76	0.59
84:Aa:2497:A:HO2'	84:Aa:2498:C:P	2.22	0.59
1:Ad:475:A:H4'	33:BJ:8:TYR:CZ	2.38	0.59
1:Ad:483:C:H5'	33:BJ:126:HIS:CB	2.32	0.59
1:Ad:780:A:H61	1:Ad:792:U:H3	1.51	0.59
1:Ad:1218:U:C5'	8:Bf:17:HIS:CE1	2.81	0.59
45:CN:49:ARG:HG2	84:Aa:113:A:H4'	1.85	0.59
84:Aa:2472:U:C2'	84:Aa:2473:C:H4'	2.33	0.59
1:Ad:161:G:H8	35:BG:13:GLN:OE1	1.86	0.59
38:CT:49:HIS:CE1	84:Aa:2708:A:N1	2.71	0.59
68:Ch:57:ARG:HG2	85:Ac:65:G:H5'	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:450:A:H5''	12:BE:59:ARG:HB3	1.85	0.58
1:Ad:641:C:N3	36:BH:115:ARG:CD	2.65	0.58
1:Ad:641:C:C2	36:BH:115:ARG:CB	2.86	0.58
1:Ad:1336:C:H4'	11:BD:202:THR:HG21	1.85	0.58
48:CD:261:PRO:CG	86:Ab:61:C:H5''	2.33	0.58
84:Aa:810:A:H61	84:Aa:937:G:H22	1.48	0.58
84:Aa:1677:G:H1	84:Aa:1685:U:H3	1.51	0.58
1:Ad:526:U:OP1	4:BY:42:LYS:HD2	2.02	0.58
1:Ad:1806:C:C2	32:Ba:4:LYS:CB	2.86	0.58
84:Aa:2177:U:H2'	84:Aa:2177:U:O2	2.02	0.58
1:Ad:335:A:N6	5:BI:186:ARG:NH2	2.51	0.58
1:Ad:517:U:C5'	33:BJ:134:ARG:NE	2.66	0.58
1:Ad:517:U:H5''	33:BJ:134:ARG:NE	2.18	0.58
1:Ad:633:U:OP1	18:BN:127:ARG:NH2	2.36	0.58
1:Ad:786:U:C6	4:BY:14:THR:O	2.56	0.58
1:Ad:970:U:O2'	18:BN:132:THR:CG2	2.51	0.58
57:Ce:42:ARG:HH21	84:Aa:639:A:H8	1.49	0.58
62:CS:52:LYS:HD2	86:Ab:75:G:C4	2.38	0.58
81:Ck:1:MET:HG3	84:Aa:1746:G:H4'	1.85	0.58
1:Ad:957:A:H5'	18:BN:102:LEU:HD11	1.85	0.58
1:Ad:1493:A:OP1	15:BU:71:HIS:O	2.20	0.58
41:CA:200:ARG:CA	84:Aa:2179:U:OP1	2.49	0.58
50:CP:140:TYR:CE1	84:Aa:2355:A:H1'	2.39	0.58
51:CX:48:LEU:C	84:Aa:1560:A:H5''	2.28	0.58
1:Ad:67:G:O6	1:Ad:85:A:N1	2.35	0.58
42:CJ:48:VAL:HG22	86:Ab:39:C:O4'	2.02	0.58
42:CJ:48:VAL:CG2	86:Ab:39:C:C1'	2.82	0.58
79:CE:64:ARG:HG2	84:Aa:587:A:H5'	1.86	0.58
84:Aa:3182:A:N6	84:Aa:3200:A:N1	2.51	0.58
1:Ad:270:U:H3	35:BG:182:ARG:HE	1.52	0.58
1:Ad:335:A:N6	5:BI:186:ARG:HH22	2.02	0.58
1:Ad:758:A:C5'	12:BE:220:THR:HG22	2.33	0.58
1:Ad:1017:U:H5''	41:CA:247:ARG:HB2	1.85	0.58
1:Ad:1406:U:H1'	29:BR:67:ARG:NH2	2.13	0.58
45:CN:171:TYR:O	84:Aa:286:C:H4'	2.03	0.58
61:CM:68:LYS:HZ1	84:Aa:527:G:C4'	2.01	0.58
70:Cq:208:ASP:O	70:Cq:209:LEU:HD22	2.04	0.58
1:Ad:517:U:P	33:BJ:134:ARG:NH2	2.76	0.58
1:Ad:537:U:C4'	4:BY:38:ALA:CB	2.81	0.58
1:Ad:964:U:O3'	18:BN:76:LYS:HD2	2.04	0.58
1:Ad:1524:A:N9	15:BU:67:THR:OG1	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:1808:U:H2'	32:Ba:11:ASN:HD21	1.68	0.58
1:Ad:535:C:H4'	4:BY:68:THR:HB	1.86	0.58
1:Ad:958:G:OP1	18:BN:122:ILE:HD12	2.03	0.58
1:Ad:1302:C:H1'	34:BC:163:GLY:N	2.09	0.58
1:Ad:1489:A:O2'	14:BQ:91:ILE:HD13	2.03	0.58
84:Aa:2085:A:H2'	84:Aa:2087:A:H5'	1.84	0.58
1:Ad:537:U:C4'	4:BY:38:ALA:N	2.66	0.58
1:Ad:615:U:C2	19:BL:74:GLY:C	2.79	0.58
1:Ad:1392:G:OP2	29:BR:47:ARG:NH1	2.36	0.58
1:Ad:1559:U:OP2	21:BP:68:LYS:CE	2.52	0.58
41:CA:200:ARG:HA	84:Aa:2179:U:OP1	2.03	0.58
60:Co:90:HIS:CG	60:Co:91:PHE:H	2.21	0.58
1:Ad:795:A:P	12:BE:106:LYS:HB2	2.44	0.58
1:Ad:1114:G:OP2	9:BX:23:ALA:HB1	2.04	0.58
1:Ad:1553:A:OP1	17:BS:131:VAL:N	2.36	0.58
1:Ad:1613:G:C8	14:BQ:135:PHE:CE1	2.92	0.58
40:Cz:31:VAL:HG11	84:Aa:2468:G:O5'	2.02	0.58
1:Ad:534:C:C2	4:BY:67:ARG:NH1	2.72	0.57
1:Ad:618:C:H5	9:BX:3:LYS:CD	2.10	0.57
1:Ad:1076:C:C4'	26:Bb:19:LEU:HA	2.34	0.57
2:Ae:1:U:H3	2:Ae:71:A:H61	1.51	0.57
38:CT:20:ARG:NH1	86:Ab:11:A:N7	2.51	0.57
40:Cz:31:VAL:HB	84:Aa:2468:G:O5'	2.04	0.57
69:CF:225:GLU:OE2	86:Ab:95:U:H1'	2.04	0.57
84:Aa:2085:A:C2'	84:Aa:2087:A:C5'	2.81	0.57
1:Ad:1076:C:O3'	26:Bb:19:LEU:O	2.22	0.57
1:Ad:1801:A:OP1	32:Ba:12:LYS:CD	2.52	0.57
50:CP:76:ARG:NH2	85:Ac:3:A:H1'	2.20	0.57
1:Ad:559:A:C8	33:BJ:21:TYR:CB	2.87	0.57
1:Ad:743:G:H3'	1:Ad:744:G:C8	2.40	0.57
1:Ad:1543:U:C6	13:BF:160:ARG:C	2.82	0.57
46:Ca:123:LYS:O	46:Ca:124:LEU:C	2.47	0.57
56:Cd:8:ALA:HB3	84:Aa:3381:C:H4'	1.86	0.57
57:Ce:56:ILE:HD12	84:Aa:1344:A:H1'	1.85	0.57
70:Cq:58:LYS:HB3	84:Aa:1263:A:H1'	1.85	0.57
84:Aa:1992:U:H3	84:Aa:2019:G:H1	1.51	0.57
1:Ad:162:A:O3'	35:BG:8:PRO:HB3	2.04	0.57
1:Ad:1397:A:N6	1:Ad:1413:C:H42	1.98	0.57
1:Ad:1567:G:H8	17:BS:121:ARG:NH1	2.02	0.57
40:Cz:212:ARG:NH1	84:Aa:2495:C:H5'	2.20	0.57
1:Ad:1806:C:H4'	32:Ba:5:ARG:CD	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CJ:139:ARG:HB3	86:Ab:29:C:P	2.45	0.57
79:CE:100:GLN:HE22	84:Aa:586:A:H4'	1.69	0.57
84:Aa:1509:G:H1	84:Aa:1515:U:H3	1.52	0.57
1:Ad:537:U:C4'	4:BY:38:ALA:CA	2.83	0.57
1:Ad:1645:C:N3	2:Ae:34:G:C2	2.73	0.57
1:Ad:1807:A:OP2	32:Ba:6:ARG:N	2.35	0.57
1:Ad:944:A:C5	18:BN:117:LEU:CG	2.74	0.57
1:Ad:1255:U:C4	8:Bf:23:LYS:HG3	2.40	0.57
1:Ad:1325:A:OP1	28:BA:136:GLN:CB	2.52	0.57
1:Ad:1465:C:O5'	21:BP:146:HIS:CE1	2.58	0.57
49:CR:143:HIS:CG	84:Aa:2085:A:H5''	2.39	0.57
50:CP:71:ALA:O	84:Aa:3301:G:H4'	2.04	0.57
51:CX:37:ARG:HD2	85:Ac:151:G:C5'	2.34	0.57
51:CX:69:GLN:HE22	85:Ac:136:G:H5'	1.69	0.57
73:CO:94:PRO:HD3	84:Aa:1179:C:H4'	1.85	0.57
84:Aa:1216:G:H1	84:Aa:1297:U:H3	1.51	0.57
1:Ad:14:C:OP1	34:BC:165:VAL:HG23	2.04	0.57
1:Ad:526:U:H5'	4:BY:42:LYS:HB2	1.85	0.57
1:Ad:1040:G:N3	24:BW:1:MET:CE	2.68	0.57
1:Ad:1280:U:C1'	11:BD:141:LYS:NZ	2.68	0.57
51:CX:69:GLN:NE2	85:Ac:136:G:H5'	2.19	0.57
84:Aa:605:A:C6	84:Aa:606:C:N4	2.72	0.57
84:Aa:2085:A:H2'	84:Aa:2087:A:C5'	2.35	0.57
84:Aa:2896:C:H42	84:Aa:2909:A:H61	1.53	0.57
1:Ad:166:A:P	35:BG:142:LYS:HD2	2.44	0.57
1:Ad:409:C:C3'	35:BG:94:ARG:O	2.53	0.57
1:Ad:874:A:C5'	18:BN:90:PHE:HE2	2.18	0.57
1:Ad:949:A:H8	32:Ba:19:LYS:HZ2	1.42	0.57
1:Ad:1392:G:P	29:BR:47:ARG:HH12	2.27	0.57
75:CI:98:ARG:HH12	84:Aa:2649:C:H4'	1.70	0.57
80:Cf:110:SER:HB3	84:Aa:565:C:H4'	1.86	0.57
1:Ad:643:U:C2	36:BH:103:ARG:HA	2.40	0.57
1:Ad:957:A:C4'	18:BN:102:LEU:HD11	2.33	0.57
41:CA:23:ARG:NH1	84:Aa:2167:G:H5''	2.20	0.57
42:CJ:11:MET:CE	86:Ab:51:G:N2	2.67	0.57
50:CP:3:LYS:O	85:Ac:12:A:H4'	2.05	0.57
51:CX:37:ARG:HD2	85:Ac:151:G:H5'	1.87	0.57
84:Aa:2497:A:H2'	84:Aa:2498:C:O4'	2.05	0.57
1:Ad:79:A:C6	35:BG:176:LYS:HD2	2.39	0.56
1:Ad:327:A:N6	1:Ad:348:A:H61	2.03	0.56
1:Ad:405:A:N1	35:BG:90:ARG:NH1	2.52	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:480:U:H5	27:Be:33:ARG:HD3	1.70	0.56
1:Ad:641:C:N3	36:BH:115:ARG:HB3	2.18	0.56
1:Ad:1053:C:C3'	26:Bb:71:GLY:HA3	2.33	0.56
1:Ad:1336:C:H4'	11:BD:202:THR:HG23	1.86	0.56
1:Ad:1467:C:H1'	17:BS:151:LYS:HB2	1.86	0.56
84:Aa:1384:G:H1	84:Aa:1429:U:H3	1.53	0.56
1:Ad:593:C:P	27:Be:29:LYS:HZ1	2.27	0.56
1:Ad:613:U:C2	9:BX:20:GLN:OE1	2.58	0.56
1:Ad:805:A:H5''	12:BE:206:GLU:HG3	1.78	0.56
42:CJ:143:ARG:NH2	86:Ab:27:A:O3'	2.38	0.56
60:Co:36:SER:HB2	84:Aa:2787:A:H4'	1.85	0.56
72:CC:241:ASN:HB3	84:Aa:698:A:H5'	1.88	0.56
84:Aa:2001:U:H3	84:Aa:2010:G:H1	1.54	0.56
1:Ad:816:U:P	19:BL:123:HIS:ND1	2.78	0.56
1:Ad:985:G:N2	1:Ad:1128:C:H42	2.03	0.56
1:Ad:993:C:OP1	41:CA:249:GLN:OE1	2.22	0.56
1:Ad:1429:U:C2	34:BC:95:ARG:NH2	2.66	0.56
1:Ad:1466:A:C2	17:BS:151:LYS:CE	2.88	0.56
1:Ad:1483:G:OP1	20:BT:95:PHE:HB3	2.05	0.56
1:Ad:1800:A:C5'	32:Ba:17:HIS:CE1	2.88	0.56
48:CD:245:ALA:HB2	86:Ab:120:C:O2	2.05	0.56
84:Aa:474:G:H2'	84:Aa:475:U:O4'	2.04	0.56
1:Ad:165:U:O3'	35:BG:137:PRO:HA	2.05	0.56
1:Ad:743:G:H3'	1:Ad:744:G:H8	1.70	0.56
1:Ad:759:A:H5'	12:BE:221:ARG:NE	2.18	0.56
1:Ad:908:U:O4	16:BO:46:LEU:HB3	2.06	0.56
84:Aa:2085:A:HO2'	84:Aa:2087:A:H5'	1.70	0.56
1:Ad:516:A:P	33:BJ:171:PRO:C	2.87	0.56
1:Ad:759:A:H4'	12:BE:221:ARG:NH1	2.11	0.56
1:Ad:1075:G:N3	26:Bb:18:LYS:HD3	2.21	0.56
1:Ad:1178:C:P	17:BS:139:THR:HB	2.46	0.56
1:Ad:1467:C:C4'	17:BS:150:LYS:O	2.54	0.56
46:Ca:123:LYS:O	46:Ca:125:ILE:N	2.39	0.56
51:CX:119:LYS:HZ1	84:Aa:1527:A:H4'	1.70	0.56
1:Ad:410:U:H4'	35:BG:76:LEU:HD22	1.83	0.56
1:Ad:642:C:H4'	36:BH:113:ARG:NH2	2.21	0.56
1:Ad:1068:G:O3'	26:Bb:74:ARG:NH2	2.39	0.56
1:Ad:1131:G:H3'	76:Cn:15:ARG:HE	1.71	0.56
1:Ad:1544:G:OP1	22:BZ:28:TRP:N	2.39	0.56
46:Ca:120:VAL:O	46:Ca:120:VAL:HG13	2.05	0.56
1:Ad:162:A:O2'	35:BG:8:PRO:HA	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:351:G:H5'	19:BL:61:PHE:CE1	2.41	0.56
1:Ad:569:C:HO2'	9:BX:63:SER:HB3	1.70	0.56
1:Ad:1471:C:H5''	14:BQ:148:TYR:CB	2.26	0.56
1:Ad:1495:U:C2	25:Bd:31:ILE:HD13	2.41	0.56
57:Ce:42:ARG:NH2	84:Aa:639:A:H8	2.01	0.56
75:CI:7:ARG:HH21	84:Aa:2857:U:H3'	1.71	0.56
1:Ad:593:C:P	27:Be:29:LYS:NZ	2.79	0.56
1:Ad:1069:G:P	26:Bb:74:ARG:NH2	2.79	0.56
1:Ad:1178:C:H5''	17:BS:130:ARG:HH22	1.70	0.56
1:Ad:1567:G:C4	17:BS:132:ARG:CG	2.89	0.56
42:CJ:142:ARG:HG3	86:Ab:42:A:O2'	2.05	0.56
48:CD:284:ARG:CZ	86:Ab:62:U:C2'	2.84	0.56
49:CR:140:GLU:CD	84:Aa:2086:A:H1'	2.30	0.56
70:Cq:208:ASP:O	70:Cq:209:LEU:CD2	2.53	0.56
84:Aa:526:A:H5''	84:Aa:527:G:C8	2.40	0.56
1:Ad:964:U:O2'	18:BN:76:LYS:HB3	2.06	0.56
48:CD:261:PRO:CD	86:Ab:61:C:H5''	2.36	0.56
84:Aa:19:C:H42	85:Ac:141:C:H42	1.53	0.56
1:Ad:12:U:H3	1:Ad:1147:A:H61	1.52	0.56
1:Ad:150:U:O3'	35:BG:14:LYS:HA	2.06	0.56
1:Ad:450:A:OP2	12:BE:59:ARG:NH1	2.36	0.56
1:Ad:631:C:O2'	18:BN:124:ARG:CB	2.54	0.56
1:Ad:641:C:O2	36:BH:115:ARG:HB3	2.06	0.56
1:Ad:1444:G:O3'	11:BD:178:ARG:O	2.24	0.56
42:CJ:17:GLN:HE22	86:Ab:42:A:H1'	1.71	0.56
1:Ad:67:G:O6	1:Ad:85:A:C6	2.58	0.55
1:Ad:155:A:N6	35:BG:59:GLN:O	2.38	0.55
1:Ad:643:U:O2	36:BH:103:ARG:HA	2.05	0.55
1:Ad:759:A:C5'	12:BE:221:ARG:CZ	2.79	0.55
1:Ad:884:G:H5''	18:BN:111:SER:HB2	1.89	0.55
2:Ae:1:U:O2'	75:CI:111:LEU:CD2	2.54	0.55
51:CX:58:ARG:HA	84:Aa:15:C:H5''	1.89	0.55
61:CM:65:VAL:HG23	84:Aa:542:G:H5''	1.88	0.55
74:Cp:49:ARG:HH22	84:Aa:1789:C:H5'	1.71	0.55
1:Ad:970:U:C1'	18:BN:132:THR:OG1	2.54	0.55
61:CM:122:ARG:HE	84:Aa:3204:G:H4'	1.71	0.55
1:Ad:722:A:OP1	1:Ad:732:G:C4	2.59	0.55
1:Ad:1100:U:H2'	24:BW:9:ASP:OD1	2.07	0.55
1:Ad:1466:A:C5	17:BS:151:LYS:HG2	2.41	0.55
32:Ba:86:VAL:HG12	32:Ba:87:ARG:H	1.70	0.55
43:CH:1:MET:HE1	84:Aa:1215:U:H4'	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CR:125:LEU:HB3	84:Aa:844:A:H5'	1.88	0.55
1:Ad:155:A:OP2	4:BY:137:LYS:CD	2.50	0.55
1:Ad:159:U:C4	35:BG:85:ARG:NE	2.74	0.55
1:Ad:633:U:H5'	18:BN:127:ARG:HH22	1.71	0.55
1:Ad:795:A:C5'	12:BE:105:THR:OG1	2.54	0.55
1:Ad:956:A:O4'	18:BN:101:HIS:ND1	2.39	0.55
1:Ad:1054:G:OP1	26:Bb:72:LYS:O	2.24	0.55
1:Ad:1103:U:C2	24:BW:12:LYS:HD2	2.42	0.55
1:Ad:1281:G:OP1	11:BD:147:ALA:CB	2.54	0.55
48:CD:17:PHE:CD1	86:Ab:65:G:N2	2.75	0.55
72:CC:64:HIS:CE1	84:Aa:936:A:H62	2.24	0.55
75:CI:112:GLN:O	75:CI:113:THR:HG22	2.02	0.55
84:Aa:2151:G:H22	84:Aa:2170:G:H2'	1.72	0.55
1:Ad:559:A:C4	33:BJ:21:TYR:CG	2.94	0.55
1:Ad:896:C:O2'	41:CA:254:ALA:HB3	2.07	0.55
1:Ad:1395:C:H4'	29:BR:49:LYS:HG2	1.87	0.55
1:Ad:1614:C:OP1	14:BQ:134:LYS:CD	2.54	0.55
36:BH:102:VAL:HG22	36:BH:103:ARG:H	1.72	0.55
53:CY:3:ARG:HH21	84:Aa:693:C:H5'	1.71	0.55
58:Cj:43:ARG:HE	84:Aa:1551:C:H4'	1.71	0.55
75:CI:118:ALA:CB	84:Aa:2649:C:C5'	2.85	0.55
80:Cf:77:ARG:HH12	84:Aa:512:G:H1'	1.72	0.55
84:Aa:2178:G:H4'	84:Aa:2179:U:H5'	1.89	0.55
1:Ad:1214:C:OP1	8:Bf:8:THR:HA	2.07	0.55
1:Ad:1256:C:C4	8:Bf:23:LYS:HB2	2.41	0.55
1:Ad:1257:U:O4	8:Bf:23:LYS:O	2.24	0.55
1:Ad:1493:A:H4'	25:Bd:32:ARG:HH12	1.71	0.55
2:Ae:30:G:H1	2:Ae:40:U:H3	1.55	0.55
1:Ad:61:A:OP2	1:Ad:458:A:OP1	2.25	0.55
1:Ad:80:C:C3'	35:BG:179:LYS:H	2.16	0.55
1:Ad:451:U:OP2	12:BE:59:ARG:CG	2.55	0.55
1:Ad:1065:A:N7	26:Bb:77:GLU:CG	2.70	0.55
1:Ad:1068:G:C4'	26:Bb:74:ARG:NE	2.62	0.55
1:Ad:1218:U:C5'	8:Bf:17:HIS:HE1	2.16	0.55
1:Ad:1429:U:H3	34:BC:95:ARG:HH22	1.44	0.55
48:CD:253:MET:CG	86:Ab:22:A:C6	2.89	0.55
49:CR:1:MET:CB	84:Aa:1515:U:H5'	2.37	0.55
72:CC:52:LYS:HZ3	84:Aa:696:A:H1'	1.72	0.55
1:Ad:1249:G:H22	8:Bf:21:LYS:HE2	1.70	0.55
1:Ad:1252:C:P	8:Bf:18:LYS:HG3	2.47	0.55
1:Ad:1581:A:H5''	22:BZ:11:PRO:O	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Af:21:C:C5'	9:BX:61:PRO:HA	2.33	0.55
84:Aa:165:C:H42	84:Aa:252:A:H61	1.56	0.55
1:Ad:805:A:C5'	12:BE:206:GLU:CG	2.65	0.54
1:Ad:1611:U:H5''	14:BQ:146:LYS:NZ	2.22	0.54
56:Cd:33:PHE:CE1	84:Aa:3057:A:C4	2.95	0.54
61:CM:68:LYS:CE	84:Aa:527:G:C3'	2.84	0.54
75:CI:110:ARG:HB3	75:CI:116:ARG:CD	2.37	0.54
1:Ad:642:C:H5'	36:BH:118:THR:OG1	2.07	0.54
1:Ad:1215:A:OP1	8:Bf:10:THR:OG1	2.15	0.54
1:Ad:1645:C:C4	2:Ae:34:G:C4	2.95	0.54
3:Af:21:C:H5'	9:BX:61:PRO:CA	2.33	0.54
19:BL:55:ILE:HA	84:Aa:846:A:H4'	1.88	0.54
40:Cz:31:VAL:CG2	84:Aa:2468:G:OP1	2.55	0.54
48:CD:152:ARG:CD	86:Ab:44:C:O2'	2.55	0.54
72:CC:52:LYS:NZ	84:Aa:696:A:H1'	2.23	0.54
1:Ad:1056:A:N6	1:Ad:1072:U:H3	2.02	0.54
1:Ad:1633:C:OP1	34:BC:91:ARG:HD3	2.07	0.54
1:Ad:1645:C:H4'	3:Af:18:C:N3	2.23	0.54
1:Ad:1758:G:O2'	76:Cn:21:ARG:HA	2.07	0.54
1:Ad:1793:C:OP2	76:Cn:9:ARG:NE	2.39	0.54
49:CR:126:LYS:NZ	84:Aa:845:G:H5'	2.22	0.54
1:Ad:151:A:O2'	35:BG:4:ASN:CG	2.51	0.54
1:Ad:273:C:OP1	35:BG:179:LYS:NZ	2.34	0.54
1:Ad:759:A:H5''	12:BE:221:ARG:NH2	2.22	0.54
1:Ad:1053:C:C4'	26:Bb:71:GLY:HA3	2.37	0.54
1:Ad:1543:U:H6	13:BF:160:ARG:HA	1.73	0.54
1:Ad:1552:U:O3'	17:BS:130:ARG:HB2	2.07	0.54
69:CF:224:VAL:CB	86:Ab:95:U:H4'	2.38	0.54
71:CB:10:ARG:NH1	84:Aa:2884:U:H5''	2.23	0.54
72:CC:113:ARG:HA	84:Aa:668:U:C5'	2.37	0.54
1:Ad:166:A:H5'	35:BG:139:ARG:NE	2.23	0.54
1:Ad:970:U:H1'	18:BN:132:THR:HG21	1.90	0.54
1:Ad:1567:G:C4	17:BS:132:ARG:HG3	2.43	0.54
42:CJ:139:ARG:HB2	86:Ab:29:C:OP1	2.06	0.54
45:CN:150:TRP:CE3	84:Aa:319:C:H5'	2.43	0.54
50:CP:135:GLY:HA3	84:Aa:886:A:C8	2.43	0.54
73:CO:152:TRP:NE1	84:Aa:3135:A:H5'	2.23	0.54
80:Cf:110:SER:CB	84:Aa:565:C:H4'	2.37	0.54
1:Ad:69:A:C8	35:BG:169:LYS:HE2	2.42	0.54
1:Ad:613:U:H1'	9:BX:17:ARG:CD	2.38	0.54
1:Ad:970:U:H1'	18:BN:132:THR:OG1	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:1363:G:H4'	20:BT:135:ASP:HB2	1.89	0.54
47:CQ:22:ASP:HB2	84:Aa:677:U:H5'	1.90	0.54
49:CR:145:SER:H	84:Aa:2086:A:H61	1.55	0.54
69:CF:225:GLU:OE2	86:Ab:95:U:O2'	2.23	0.54
1:Ad:997:A:C2	1:Ad:998:A:C4	2.95	0.54
1:Ad:1138:A:C4'	9:BX:37:LYS:HD3	2.38	0.54
1:Ad:1524:A:H4'	15:BU:68:LYS:HD3	1.89	0.54
53:CY:121:LYS:CD	84:Aa:183:C:H5''	2.38	0.54
78:CL:195:ARG:HH12	84:Aa:769:C:H3'	1.72	0.54
84:Aa:2632:U:H3	84:Aa:2652:G:H1	1.56	0.54
1:Ad:759:A:H5''	12:BE:221:ARG:NE	2.22	0.54
1:Ad:865:U:H5'	36:BH:115:ARG:H	1.72	0.54
2:Ae:1:U:H5'	75:CI:102:MET:HE2	1.88	0.54
42:CJ:143:ARG:NH1	86:Ab:28:U:P	2.81	0.54
48:CD:157:ASN:ND2	86:Ab:45:U:O3'	2.40	0.54
61:CM:68:LYS:HE3	84:Aa:527:G:C3'	2.37	0.54
62:CS:121:PRO:CA	86:Ab:94:C:C4'	2.85	0.54
82:Cb:10:HIS:CE1	84:Aa:1139:A:H3'	2.42	0.54
1:Ad:571:A:P	9:BX:65:ILE:O	2.66	0.54
1:Ad:1053:C:H5''	26:Bb:71:GLY:H	1.65	0.54
1:Ad:1114:G:OP1	9:BX:23:ALA:CB	2.56	0.54
1:Ad:1218:U:OP1	8:Bf:17:HIS:CE1	2.60	0.54
1:Ad:1800:A:P	32:Ba:17:HIS:CE1	3.01	0.54
38:CT:16:ALA:HA	84:Aa:2703:G:H5'	1.90	0.54
1:Ad:956:A:C4'	18:BN:101:HIS:CE1	2.91	0.54
1:Ad:956:A:OP1	55:Cc:9:LYS:HE3	2.08	0.54
1:Ad:1138:A:OP1	9:BX:34:ASN:CG	2.51	0.54
1:Ad:1280:U:O2'	11:BD:141:LYS:CE	2.55	0.54
1:Ad:1543:U:C6	13:BF:160:ARG:HA	2.43	0.54
42:CJ:142:ARG:NH1	86:Ab:42:A:N3	2.55	0.54
1:Ad:759:A:H5''	12:BE:221:ARG:HE	1.73	0.53
1:Ad:1179:C:P	17:BS:135:HIS:CG	3.01	0.53
1:Ad:1215:A:H5''	8:Bf:7:LYS:NZ	2.23	0.53
1:Ad:1280:U:H1'	11:BD:141:LYS:NZ	2.23	0.53
1:Ad:1808:U:N3	32:Ba:34:LYS:HA	2.23	0.53
45:CN:120:TRP:CZ3	84:Aa:267:G:H5'	2.43	0.53
49:CR:1:MET:HG2	84:Aa:1515:U:H5'	1.91	0.53
84:Aa:819:A:H4'	84:Aa:820:A:H5'	1.90	0.53
1:Ad:154:A:N6	35:BG:59:GLN:NE2	2.54	0.53
1:Ad:1363:G:N3	20:BT:6:ALA:HB1	2.23	0.53
1:Ad:1625:U:OP1	23:Bc:20:ARG:HG2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:CJ:48:VAL:CG1	86:Ab:39:C:O4'	2.57	0.53
51:CX:58:ARG:CA	84:Aa:15:C:H5''	2.38	0.53
84:Aa:53:C:H1'	84:Aa:1549:A:N6	2.24	0.53
1:Ad:55:A:C5'	4:BY:114:LYS:NZ	2.71	0.53
1:Ad:236:U:H3'	1:Ad:237:C:H5''	1.91	0.53
1:Ad:449:A:C5'	4:BY:94:LYS:HG2	2.35	0.53
1:Ad:570:C:OP2	9:BX:64:ALA:CA	2.56	0.53
1:Ad:887:U:C5'	74:Cp:85:ARG:HG3	2.36	0.53
1:Ad:1100:U:C2'	24:BW:9:ASP:OD1	2.56	0.53
37:CG:28:ARG:HE	84:Aa:2568:G:H4'	1.74	0.53
41:CA:5:ILE:CA	84:Aa:2177:U:O2'	2.56	0.53
84:Aa:417:G:H21	85:Ac:3:A:H62	1.55	0.53
1:Ad:79:A:C5	35:BG:176:LYS:HD2	2.43	0.53
1:Ad:146:A:N6	35:BG:135:ARG:CZ	2.71	0.53
1:Ad:335:A:N6	5:BI:186:ARG:CZ	2.67	0.53
1:Ad:350:G:O5'	19:BL:57:LYS:O	2.25	0.53
1:Ad:506:G:O2'	27:Be:41:ASN:HB3	2.08	0.53
38:CT:28:THR:HG21	86:Ab:9:U:OP1	2.09	0.53
73:CO:18:HIS:CE1	84:Aa:3181:U:OP2	2.61	0.53
1:Ad:355:U:C2'	19:BL:82:ASN:HB2	2.38	0.53
1:Ad:615:U:H1'	19:BL:75:THR:C	2.34	0.53
1:Ad:821:G:C8	49:CR:162:LYS:HD2	2.44	0.53
1:Ad:1215:A:H5''	8:Bf:7:LYS:CE	2.39	0.53
42:CJ:139:ARG:HB2	86:Ab:29:C:P	2.48	0.53
69:CF:225:GLU:CD	86:Ab:95:U:H1'	2.34	0.53
83:Cg:2:VAL:HG21	84:Aa:1854:A:H4'	1.90	0.53
1:Ad:353:G:OP1	19:BL:84:THR:HB	2.08	0.53
1:Ad:478:A:OP1	33:BJ:145:ILE:HG23	2.08	0.53
1:Ad:593:C:OP1	27:Be:29:LYS:NZ	2.36	0.53
1:Ad:772:C:C2	1:Ad:777:A:C2	2.96	0.53
61:CM:68:LYS:HZ2	84:Aa:527:G:C2'	2.21	0.53
1:Ad:78:A:H62	35:BG:174:VAL:HG21	1.73	0.53
1:Ad:1240:A:H61	1:Ad:1253:U:H3	1.57	0.53
1:Ad:1559:U:OP2	21:BP:68:LYS:HE3	2.09	0.53
1:Ad:1580:G:C8	22:BZ:22:LYS:CE	2.91	0.53
39:CZ:88:ASP:H	39:CZ:121:ARG:HH22	1.57	0.53
63:CU:31:VAL:CB	63:CU:101:TRP:CG	2.92	0.53
84:Aa:1976:U:H3	84:Aa:2035:G:H1	1.57	0.53
84:Aa:3338:U:H3	84:Aa:3351:A:N6	2.06	0.53
1:Ad:80:C:C6	35:BG:178:PRO:CA	2.91	0.53
1:Ad:529:A:N3	4:BY:105:LYS:HE2	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:537:U:H4'	4:BY:38:ALA:CA	2.38	0.53
1:Ad:537:U:H5'	4:BY:38:ALA:HA	1.91	0.53
1:Ad:569:C:O2	9:BX:63:SER:N	2.35	0.53
1:Ad:884:G:O4'	18:BN:112:LYS:CG	2.47	0.53
1:Ad:1069:G:OP1	26:Bb:74:ARG:NH2	2.41	0.53
46:Ca:123:LYS:HA	46:Ca:123:LYS:HE3	1.90	0.53
84:Aa:2179:U:H2'	84:Aa:2179:U:O2	2.08	0.53
1:Ad:270:U:O4	35:BG:182:ARG:NE	2.42	0.53
1:Ad:598:A:OP1	33:BJ:42:ARG:NH2	2.42	0.53
1:Ad:1214:C:C5'	8:Bf:8:THR:HA	2.37	0.53
1:Ad:1565:U:C1'	21:BP:139:ARG:HD3	2.33	0.53
1:Ad:1807:A:C5'	32:Ba:7:ASN:HB3	2.24	0.53
2:Ae:20:C:H3'	2:Ae:21:A:H5'	1.90	0.53
4:BY:68:THR:HG22	4:BY:69:HIS:H	1.73	0.53
48:CD:73:ASP:OD1	86:Ab:6:C:O2'	2.26	0.53
49:CR:1:MET:CG	84:Aa:1515:U:H5'	2.39	0.53
57:Ce:39:ILE:HD13	84:Aa:1146:A:H5'	1.90	0.53
73:CO:130:LYS:HD2	84:Aa:3181:U:H2'	1.91	0.53
84:Aa:683:U:H3	84:Aa:705:A:H61	1.57	0.53
1:Ad:70:C:H5	35:BG:169:LYS:HE2	1.74	0.53
1:Ad:944:A:N6	18:BN:117:LEU:HB2	2.23	0.53
1:Ad:958:G:H5'	18:BN:118:VAL:HG11	1.91	0.53
1:Ad:1053:C:H4'	26:Bb:71:GLY:HA3	1.91	0.53
1:Ad:1075:G:C2'	26:Bb:18:LYS:HD2	2.38	0.53
1:Ad:1138:A:H4'	9:BX:37:LYS:HD3	1.90	0.53
1:Ad:1553:A:O3'	17:BS:125:HIS:HE1	1.91	0.53
42:CJ:70:TYR:CD2	86:Ab:39:C:O2	2.61	0.53
84:Aa:1584:A:H3'	84:Aa:1585:A:C5'	2.39	0.53
84:Aa:1748:A:H1'	84:Aa:1750:A:C8	2.44	0.53
84:Aa:3068:U:H3	84:Aa:3075:G:H1	1.56	0.53
1:Ad:751:U:H3	1:Ad:812:A:H61	1.57	0.52
1:Ad:759:A:H5''	12:BE:221:ARG:HH21	1.74	0.52
1:Ad:970:U:H1'	18:BN:132:THR:CB	2.39	0.52
1:Ad:1364:C:C4'	20:BT:5:THR:HB	2.38	0.52
40:Cz:30:THR:HG22	84:Aa:2468:G:H5'	1.89	0.52
48:CD:155:THR:CG2	86:Ab:36:C:H5'	2.40	0.52
70:Cq:2:ALA:CB	84:Aa:1258:C:H5''	2.39	0.52
78:CL:12:HIS:CD2	84:Aa:85:G:H1'	2.44	0.52
1:Ad:146:A:N6	35:BG:135:ARG:HE	2.03	0.52
1:Ad:355:U:C2	19:BL:82:ASN:CB	2.93	0.52
1:Ad:527:C:OP2	4:BY:42:LYS:HE3	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:835:U:C6	1:Ad:836:U:C6	2.98	0.52
1:Ad:1479:U:O4	13:BF:76:GLY:C	2.52	0.52
48:CD:52:LYS:HE2	86:Ab:46:C:OP1	2.07	0.52
62:CS:48:ARG:NH1	86:Ab:99:G:C6	2.78	0.52
82:Cb:7:HIS:CE1	84:Aa:2644:U:C5'	2.91	0.52
1:Ad:1594:A:C4'	14:BQ:144:PHE:CD1	2.93	0.52
2:Ae:73:C:H2'	2:Ae:74:C:H5'	1.90	0.52
79:CE:100:GLN:HE22	84:Aa:586:A:H5'	1.73	0.52
84:Aa:2085:A:H2'	84:Aa:2087:A:H4'	1.92	0.52
84:Aa:2512:U:H6	84:Aa:2512:U:C5'	2.21	0.52
84:Aa:2846:C:H42	84:Aa:2900:G:H22	1.56	0.52
1:Ad:805:A:H5'	12:BE:206:GLU:CD	2.34	0.52
1:Ad:1345:G:O2'	10:Bg:108:CYS:SG	2.30	0.52
1:Ad:1594:A:OP1	14:BQ:144:PHE:HB2	2.10	0.52
1:Ad:1810:G:O4'	1:Ad:1810:G:N9	2.39	0.52
40:Cz:31:VAL:HG21	84:Aa:2468:G:OP1	2.10	0.52
49:CR:135:LYS:HB2	84:Aa:1944:G:OP1	2.09	0.52
51:CX:49:LYS:NZ	84:Aa:1562:A:O5'	2.42	0.52
62:CS:51:LYS:HG3	86:Ab:72:G:O6	2.09	0.52
1:Ad:409:C:H5'	35:BG:93:GLU:OE2	2.09	0.52
1:Ad:1625:U:C4'	23:Bc:20:ARG:O	2.58	0.52
1:Ad:1786:A:H61	1:Ad:1795:U:H3	1.56	0.52
41:CA:206:PRO:HB2	84:Aa:2415:U:H5'	1.92	0.52
51:CX:49:LYS:HA	84:Aa:1561:U:H4'	1.90	0.52
84:Aa:266:A:H61	84:Aa:293:A:H3'	1.75	0.52
1:Ad:422:G:C5	35:BG:59:GLN:NE2	2.77	0.52
1:Ad:451:U:OP2	12:BE:59:ARG:HB2	2.09	0.52
1:Ad:572:G:H4'	9:BX:86:ASN:CA	2.40	0.52
1:Ad:869:U:OP1	24:BW:56:HIS:HB3	2.09	0.52
1:Ad:885:C:H5'	18:BN:109:LYS:CG	2.39	0.52
1:Ad:1420:U:O4'	29:BR:2:GLY:HA2	2.10	0.52
1:Ad:1565:U:O4'	21:BP:139:ARG:HD2	2.08	0.52
51:CX:44:ARG:CZ	51:CX:47:THR:HG21	2.40	0.52
65:CK:137:CYS:SG	84:Aa:1241:G:C4	3.03	0.52
1:Ad:184:C:P	5:BI:152:HIS:CE1	2.97	0.52
59:Cl:37:TYR:H	84:Aa:349:A:H61	1.58	0.52
1:Ad:163:G:H5''	35:BG:8:PRO:O	2.10	0.52
1:Ad:167:A:OP2	35:BG:139:ARG:NH2	2.42	0.52
1:Ad:528:U:OP1	4:BY:95:TYR:HE2	1.92	0.52
1:Ad:613:U:H1'	9:BX:17:ARG:HD3	1.90	0.52
1:Ad:795:A:C4'	12:BE:105:THR:CB	2.78	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:1067:A:O2'	26:Bb:74:ARG:CG	2.57	0.52
48:CD:37:ARG:NE	86:Ab:7:G:OP1	2.43	0.52
70:Cq:207:LEU:C	70:Cq:208:ASP:O	2.53	0.52
75:CI:90:ARG:HH21	84:Aa:1047:C:H5''	1.75	0.52
75:CI:110:ARG:HG2	75:CI:116:ARG:CD	2.32	0.52
1:Ad:281:U:H5''	1:Ad:283:G:H22	1.66	0.52
1:Ad:288:G:N7	35:BG:193:ARG:CD	2.72	0.52
1:Ad:787:C:C6	4:BY:52:LEU:O	2.62	0.52
1:Ad:884:G:C4'	18:BN:112:LYS:HG2	2.39	0.52
1:Ad:1130:A:C5	1:Ad:1131:G:H1'	2.45	0.52
1:Ad:1395:C:O3'	29:BR:53:PHE:CZ	2.62	0.52
1:Ad:1613:G:C5'	14:BQ:135:PHE:O	2.52	0.52
1:Ad:1806:C:N1	32:Ba:4:LYS:HB2	2.25	0.52
36:BH:38:LYS:HG2	36:BH:39:SER:H	1.74	0.52
70:Cq:211:GLU:O	70:Cq:213:ASP:CA	2.55	0.52
1:Ad:79:A:N7	35:BG:176:LYS:HB2	2.24	0.52
1:Ad:1535:U:C5'	13:BF:81:LYS:HZ3	2.21	0.52
1:Ad:1603:U:O3'	25:Bd:28:HIS:CB	2.59	0.52
70:Cq:211:GLU:C	70:Cq:213:ASP:H	2.14	0.52
84:Aa:1944:G:O6	84:Aa:2093:G:C2	2.62	0.52
84:Aa:2479:C:O5'	84:Aa:2479:C:H6	1.92	0.52
1:Ad:64:U:C4'	35:BG:181:GLN:OE1	2.56	0.51
1:Ad:580:G:N1	9:BX:64:ALA:HB2	2.23	0.51
1:Ad:806:U:C5'	12:BE:199:GLU:OE2	2.58	0.51
1:Ad:995:C:O2'	16:BO:141:ARG:CZ	2.58	0.51
1:Ad:1138:A:H5''	9:BX:37:LYS:CD	2.34	0.51
1:Ad:99:U:H3	1:Ad:389:A:H61	1.57	0.51
1:Ad:642:C:C6	36:BH:115:ARG:CZ	2.89	0.51
1:Ad:881:G:H21	32:Ba:19:LYS:HZ1	1.58	0.51
1:Ad:1281:G:H4'	11:BD:139:SER:OG	2.11	0.51
1:Ad:1611:U:H5''	14:BQ:146:LYS:HZ1	1.75	0.51
41:CA:239:ALA:HA	84:Aa:2198:U:H5'	1.91	0.51
48:CD:200:TYR:CE2	86:Ab:34:C:O2'	2.59	0.51
1:Ad:1335:A:C6	11:BD:162:GLN:NE2	2.78	0.51
1:Ad:1395:C:H5'	29:BR:49:LYS:HG2	1.92	0.51
63:CU:31:VAL:HB	63:CU:101:TRP:CD1	2.46	0.51
1:Ad:166:A:H5'	35:BG:139:ARG:NH2	2.26	0.51
1:Ad:517:U:H5''	33:BJ:134:ARG:CD	2.40	0.51
1:Ad:536:U:OP1	4:BY:69:HIS:O	2.28	0.51
1:Ad:573:C:OP1	9:BX:85:PRO:CB	2.51	0.51
1:Ad:835:U:HO2'	1:Ad:836:U:H6	1.56	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:878:U:C6	55:Cc:1:MET:SD	3.03	0.51
1:Ad:1152:A:H61	1:Ad:1638:U:H3	1.56	0.51
42:CJ:48:VAL:HG13	86:Ab:39:C:C4'	2.41	0.51
58:Cj:35:SER:HB2	84:Aa:817:U:H5''	1.92	0.51
79:CE:13:ARG:NH2	84:Aa:603:G:H3'	2.26	0.51
84:Aa:94:A:C5	84:Aa:95:G:H1'	2.45	0.51
1:Ad:956:A:H4'	18:BN:101:HIS:CD2	2.46	0.51
1:Ad:1378:C:H5'	15:BU:8:TYR:CE1	2.46	0.51
1:Ad:1495:U:H1'	25:Bd:31:ILE:HD13	1.92	0.51
1:Ad:1633:C:OP1	34:BC:91:ARG:CZ	2.58	0.51
48:CD:94:THR:HG21	86:Ab:48:G:H2'	1.93	0.51
57:Ce:61:ASP:OD2	84:Aa:1342:C:H4'	2.10	0.51
84:Aa:1559:G:H5''	84:Aa:1560:A:OP1	2.10	0.51
1:Ad:351:G:H5'	19:BL:61:PHE:CZ	2.46	0.51
1:Ad:410:U:O3'	35:BG:96:ARG:NE	2.43	0.51
1:Ad:422:G:C4	35:BG:59:GLN:NE2	2.79	0.51
1:Ad:1567:G:C5	17:BS:132:ARG:HG3	2.45	0.51
1:Ad:1764:G:O5'	9:BX:59:LYS:HE3	2.10	0.51
1:Ad:1807:A:H3'	32:Ba:7:ASN:ND2	2.25	0.51
48:CD:22:VAL:HG11	84:Aa:2691:U:H3	1.76	0.51
50:CP:132:ARG:NH2	84:Aa:882:U:H2'	2.25	0.51
56:Cd:104:ALA:H	84:Aa:3317:G:H4'	1.76	0.51
81:Ck:31:ALA:HB2	84:Aa:1748:A:P	2.51	0.51
1:Ad:517:U:P	33:BJ:134:ARG:HH21	2.33	0.51
1:Ad:786:U:H6	4:BY:14:THR:O	1.92	0.51
1:Ad:1179:C:C5'	17:BS:135:HIS:HD2	2.24	0.51
1:Ad:1420:U:O5'	29:BR:2:GLY:HA3	2.08	0.51
1:Ad:1426:C:OP2	15:BU:86:TRP:HH2	1.88	0.51
1:Ad:1613:G:C8	14:BQ:135:PHE:CD1	2.98	0.51
42:CJ:48:VAL:HG11	86:Ab:39:C:C5'	2.41	0.51
63:CU:31:VAL:HG21	63:CU:101:TRP:HB2	1.92	0.51
84:Aa:2513:U:C6	84:Aa:2513:U:C5'	2.82	0.51
1:Ad:126:U:H5''	35:BG:206:LYS:CD	2.33	0.51
1:Ad:167:A:OP2	35:BG:139:ARG:NH1	2.44	0.51
1:Ad:181:C:H42	1:Ad:200:C:N4	2.09	0.51
1:Ad:281:U:C6	1:Ad:281:U:C3'	2.89	0.51
1:Ad:613:U:H6	9:BX:21:ARG:CD	2.19	0.51
1:Ad:1216:G:H5''	8:Bf:11:LYS:HA	1.93	0.51
1:Ad:1807:A:N7	32:Ba:10:ARG:CD	2.74	0.51
2:Ae:1:U:H5'	75:CI:102:MET:CE	2.40	0.51
42:CJ:70:TYR:CE2	86:Ab:39:C:O2	2.63	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:CR:58:HIS:CG	49:CR:59:SER:N	2.78	0.51
68:Ch:59:LEU:HD13	85:Ac:60:U:C6	2.45	0.51
73:CO:18:HIS:HE1	84:Aa:3181:U:OP2	1.94	0.51
1:Ad:270:U:C2	35:BG:182:ARG:CB	2.76	0.51
1:Ad:528:U:P	4:BY:95:TYR:HE2	2.33	0.51
1:Ad:1384:U:O3'	14:BQ:32:ARG:NH1	2.44	0.51
51:CX:48:LEU:CA	84:Aa:1560:A:H5''	2.41	0.51
56:Cd:8:ALA:CB	84:Aa:3381:C:H4'	2.40	0.51
57:Ce:22:HIS:CE1	84:Aa:641:C:C1'	2.93	0.51
71:CB:244:LYS:HG3	84:Aa:1903:C:C2	2.45	0.51
73:CO:130:LYS:CD	84:Aa:3181:U:H2'	2.40	0.51
79:CE:23:ARG:HH21	84:Aa:607:U:H4'	1.74	0.51
84:Aa:15:C:H42	85:Ac:145:U:H3	1.59	0.51
84:Aa:2469:C:O2'	84:Aa:2492:C:H4'	2.10	0.51
1:Ad:570:C:H4'	27:Be:10:ARG:HH11	1.76	0.51
1:Ad:1168:A:H5''	13:BF:122:THR:OG1	2.11	0.51
1:Ad:1507:G:P	20:BT:75:VAL:HG22	2.50	0.51
37:CG:177:LYS:H	37:CG:177:LYS:HD3	1.75	0.51
84:Aa:1562:A:O2'	84:Aa:1563:G:H5'	2.10	0.51
1:Ad:507:G:H5'	27:Be:38:MET:HE1	1.92	0.50
1:Ad:572:G:H5'	9:BX:86:ASN:H	1.76	0.50
1:Ad:819:U:O2	49:CR:163:ARG:NE	2.41	0.50
1:Ad:821:G:P	49:CR:163:ARG:NH1	2.84	0.50
1:Ad:1567:G:H8	17:BS:121:ARG:NH2	2.08	0.50
1:Ad:1800:A:P	32:Ba:17:HIS:ND1	2.84	0.50
84:Aa:3002:U:H2'	84:Aa:3003:C:C6	2.46	0.50
1:Ad:271:C:N4	35:BG:195:ARG:HD2	2.26	0.50
1:Ad:410:U:C5'	35:BG:76:LEU:HD22	2.41	0.50
1:Ad:527:C:OP2	4:BY:42:LYS:NZ	2.45	0.50
1:Ad:617:G:O4'	1:Ad:617:G:N9	2.40	0.50
1:Ad:827:C:H2'	1:Ad:828:G:H5''	1.93	0.50
1:Ad:878:U:H5''	55:Cc:1:MET:CE	2.40	0.50
22:BZ:71:ARG:HB2	22:BZ:78:ARG:HH22	1.76	0.50
48:CD:56:VAL:CG2	86:Ab:26:C:OP1	2.53	0.50
75:CI:113:THR:CG2	84:Aa:2625:C:H42	2.24	0.50
84:Aa:1563:G:H1'	84:Aa:1564:C:C6	2.46	0.50
1:Ad:220:C:N3	1:Ad:843:G:O6	2.44	0.50
1:Ad:643:U:C2	36:BH:103:ARG:HD2	2.46	0.50
1:Ad:963:U:OP2	26:Bb:22:LYS:NZ	2.43	0.50
11:BD:208:VAL:HG12	11:BD:209:THR:H	1.75	0.50
46:Ca:69:HIS:CD2	46:Ca:100:GLN:HE21	2.29	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:Cd:59:ILE:HG23	84:Aa:1462:C:H4'	1.94	0.50
1:Ad:409:C:C5'	35:BG:93:GLU:OE2	2.59	0.50
1:Ad:805:A:C4'	12:BE:206:GLU:CG	2.83	0.50
1:Ad:1105:G:N7	24:BW:78:ARG:NE	2.59	0.50
1:Ad:1251:U:C4'	8:Bf:18:LYS:HG2	2.41	0.50
1:Ad:1555:A:P	17:BS:114:LEU:HD11	2.51	0.50
58:Cj:13:ASN:HB2	84:Aa:820:A:H4'	1.92	0.50
71:CB:1:MET:O	84:Aa:2940:G:H3'	2.11	0.50
80:Cf:22:ARG:O	84:Aa:1333:C:H5'	2.12	0.50
1:Ad:167:A:P	35:BG:139:ARG:NH1	2.85	0.50
1:Ad:271:C:H1'	35:BG:191:ARG:CB	2.42	0.50
1:Ad:569:C:C1'	9:BX:63:SER:O	2.57	0.50
1:Ad:821:G:H4'	49:CR:162:LYS:HB3	1.93	0.50
1:Ad:1472:G:OP2	14:BQ:147:SER:CB	2.59	0.50
1:Ad:1594:A:C5'	14:BQ:144:PHE:CD1	2.81	0.50
49:CR:100:ARG:HH22	84:Aa:1660:C:H4'	1.75	0.50
73:CO:176:ARG:NH1	84:Aa:3185:G:H4'	2.27	0.50
1:Ad:55:A:C5'	4:BY:114:LYS:HZ3	2.22	0.50
1:Ad:559:A:C2	33:BJ:21:TYR:CE1	3.00	0.50
1:Ad:738:U:O2	1:Ad:738:U:H2'	2.11	0.50
1:Ad:755:U:H3	1:Ad:806:U:H3	1.60	0.50
1:Ad:928:A:H4'	41:CA:137:ILE:CD1	2.41	0.50
1:Ad:1103:U:O2'	24:BW:76:SER:HB2	2.12	0.50
1:Ad:1251:U:H5''	8:Bf:18:LYS:CA	2.41	0.50
42:CJ:48:VAL:CG1	86:Ab:39:C:C5'	2.87	0.50
47:CQ:43:LYS:HB3	84:Aa:731:G:H5''	1.92	0.50
51:CX:48:LEU:CA	84:Aa:1560:A:C5'	2.89	0.50
78:CL:100:ARG:HB3	84:Aa:75:G:C2	2.46	0.50
1:Ad:410:U:H5''	35:BG:76:LEU:CD2	2.42	0.50
1:Ad:483:C:H4'	33:BJ:126:HIS:HB2	1.92	0.50
1:Ad:559:A:C1'	33:BJ:21:TYR:CG	2.95	0.50
1:Ad:1580:G:P	22:BZ:22:LYS:HA	2.52	0.50
1:Ad:1806:C:N4	32:Ba:4:LYS:HZ2	2.08	0.50
41:CA:7:ALA:HB2	84:Aa:2177:U:O4'	2.11	0.50
51:CX:48:LEU:HB3	84:Aa:1563:G:O6	2.11	0.50
84:Aa:1958:G:H2'	84:Aa:1959:U:C6	2.46	0.50
1:Ad:271:C:C5	35:BG:192:LYS:HA	2.47	0.50
1:Ad:308:U:H5''	19:BL:107:ASN:HD21	1.77	0.50
1:Ad:707:C:C6	1:Ad:707:C:H2'	2.47	0.50
1:Ad:805:A:H4'	12:BE:206:GLU:HB2	1.93	0.50
1:Ad:1488:C:O2'	14:BQ:91:ILE:C	2.54	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:1800:A:P	32:Ba:17:HIS:HD1	2.33	0.50
58:Cj:10:LYS:HB3	84:Aa:821:C:H5''	1.94	0.50
71:CB:246:HIS:CE1	84:Aa:2950:C:C1'	2.95	0.50
75:CI:112:GLN:C	75:CI:113:THR:CG2	2.72	0.50
84:Aa:1237:G:H1	84:Aa:1259:C:H42	1.59	0.50
84:Aa:2501:U:H2'	84:Aa:2502:U:C6	2.47	0.50
1:Ad:165:U:H5''	35:BG:136:GLY:C	2.37	0.50
1:Ad:1565:U:C1'	21:BP:139:ARG:CD	2.90	0.50
1:Ad:1604:C:OP1	25:Bd:28:HIS:CA	2.49	0.50
1:Ad:1783:C:OP1	76:Cn:4:LYS:HD3	2.11	0.50
1:Ad:1805:U:O2'	32:Ba:5:ARG:CZ	2.59	0.50
41:CA:5:ILE:CG2	84:Aa:2177:U:H2'	2.38	0.50
45:CN:87:GLN:HE22	84:Aa:2611:G:H21	1.59	0.50
50:CP:27:LYS:HB2	84:Aa:1450:G:C8	2.47	0.50
71:CB:176:GLN:HG2	71:CB:178:LYS:H	1.76	0.50
79:CE:6:LYS:HZ1	84:Aa:602:G:H5'	1.77	0.50
81:Ck:1:MET:SD	84:Aa:1746:G:H5''	2.52	0.50
84:Aa:1668:U:H3	84:Aa:1772:G:H1	1.60	0.50
84:Aa:1911:A:H2'	84:Aa:1912:U:C6	2.47	0.50
1:Ad:67:G:H2'	1:Ad:68:A:C8	2.47	0.49
1:Ad:934:A:O4'	16:BO:138:SER:HB2	2.12	0.49
1:Ad:986:U:H3	1:Ad:1025:A:H61	1.60	0.49
1:Ad:1603:U:O2'	25:Bd:28:HIS:HB3	2.12	0.49
1:Ad:1784:G:H5''	76:Cn:2:ARG:NE	2.26	0.49
41:CA:1:MET:HE2	84:Aa:2609:G:C8	2.47	0.49
79:CE:171:LYS:NZ	84:Aa:3264:C:H3'	2.27	0.49
84:Aa:1584:A:H3'	84:Aa:1585:A:H5'	1.94	0.49
1:Ad:424:A:OP1	35:BG:98:SER:HB3	2.10	0.49
1:Ad:759:A:C5'	12:BE:224:ASN:OD1	2.59	0.49
1:Ad:1372:C:H4'	20:BT:10:LYS:HG2	1.94	0.49
1:Ad:1480:G:OP1	13:BF:79:ASN:OD1	2.30	0.49
1:Ad:1801:A:P	32:Ba:12:LYS:HZ1	2.32	0.49
1:Ad:1806:C:C3'	32:Ba:5:ARG:HG2	2.40	0.49
57:Ce:29:LEU:HD13	84:Aa:1436:A:C5	2.47	0.49
62:CS:121:PRO:HB3	86:Ab:94:C:C4'	2.39	0.49
84:Aa:1722:G:H1'	84:Aa:1723:C:C6	2.46	0.49
1:Ad:527:C:C5'	4:BY:65:LYS:H	2.25	0.49
1:Ad:838:U:H3'	1:Ad:839:G:C5'	2.42	0.49
1:Ad:935:A:C8	1:Ad:936:C:C6	3.00	0.49
1:Ad:1251:U:OP1	8:Bf:19:HIS:N	2.45	0.49
1:Ad:1625:U:P	23:Bc:20:ARG:NE	2.86	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:CA:5:ILE:CB	84:Aa:2177:U:H2'	2.40	0.49
72:CC:344:ALA:H	72:CC:351:ARG:HH11	1.60	0.49
84:Aa:8:C:H6	85:Ac:152:G:H1	1.60	0.49
1:Ad:159:U:C6	35:BG:85:ARG:NE	2.64	0.49
1:Ad:355:U:C5	19:BL:82:ASN:OD1	2.63	0.49
1:Ad:957:A:N6	55:Cc:6:LYS:HE3	2.21	0.49
1:Ad:1167:C:C5	1:Ad:1168:A:C5	3.00	0.49
1:Ad:1372:C:O5'	14:BQ:53:LYS:HB3	2.11	0.49
40:Cz:31:VAL:CB	84:Aa:2468:G:O5'	2.60	0.49
48:CD:203:HIS:CG	48:CD:204:VAL:H	2.30	0.49
84:Aa:579:G:H2'	84:Aa:580:C:C6	2.47	0.49
1:Ad:161:G:C4'	35:BG:53:MET:HG2	2.41	0.49
1:Ad:591:C:OP1	27:Be:26:LYS:NZ	2.45	0.49
1:Ad:1231:A:N7	7:BM:91:LEU:HD12	2.27	0.49
11:BD:66:ILE:H	11:BD:66:ILE:HD12	1.76	0.49
63:CU:30:PRO:C	63:CU:31:VAL:CG2	2.68	0.49
69:CF:155:TYR:H	69:CF:204:LEU:HD13	1.77	0.49
71:CB:352:ARG:HD3	84:Aa:3038:U:H5''	1.94	0.49
1:Ad:336:U:C5	5:BI:189:GLN:OE1	2.65	0.49
1:Ad:516:A:H5''	33:BJ:171:PRO:O	2.13	0.49
1:Ad:907:G:C8	16:BO:46:LEU:HD13	2.47	0.49
1:Ad:1364:C:C1'	20:BT:6:ALA:HB2	2.42	0.49
1:Ad:1645:C:H5'	3:Af:18:C:N4	2.27	0.49
1:Ad:1776:A:N1	32:Ba:80:HIS:HE1	2.10	0.49
19:BL:105:HIS:CD2	19:BL:106:SER:H	2.30	0.49
1:Ad:280:U:H2'	1:Ad:281:U:C5'	2.42	0.49
1:Ad:793:G:O6	12:BE:53:LYS:HE2	2.12	0.49
1:Ad:874:A:H5'	18:BN:90:PHE:HE2	1.76	0.49
1:Ad:1054:G:H5''	26:Bb:72:LYS:HB2	1.94	0.49
1:Ad:1105:G:O6	24:BW:78:ARG:NH1	2.42	0.49
1:Ad:1113:G:N7	9:BX:20:GLN:CD	2.71	0.49
1:Ad:1466:A:C4	17:BS:151:LYS:HG3	2.47	0.49
45:CN:179:HIS:CE1	84:Aa:302:G:C6	3.01	0.49
47:CQ:139:LEU:O	84:Aa:746:C:H4'	2.13	0.49
60:Co:40:LYS:HE2	84:Aa:282:A:C5'	2.42	0.49
84:Aa:2437:A:C2	84:Aa:2513:U:O2	2.66	0.49
1:Ad:534:C:O2	4:BY:67:ARG:CD	2.55	0.49
1:Ad:806:U:P	12:BE:201:HIS:NE2	2.86	0.49
1:Ad:885:C:C5'	18:BN:109:LYS:HG3	2.42	0.49
1:Ad:1017:U:OP1	41:CA:247:ARG:CD	2.60	0.49
1:Ad:1206:A:O4'	1:Ad:1206:A:N9	2.40	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:1807:A:C6	32:Ba:10:ARG:CZ	2.95	0.49
39:CZ:36:ARG:HE	39:CZ:40:HIS:CG	2.30	0.49
42:CJ:11:MET:HE1	86:Ab:51:G:H21	1.74	0.49
48:CD:250:ASP:CG	86:Ab:120:C:OP1	2.55	0.49
48:CD:284:ARG:NH2	86:Ab:62:U:C2'	2.76	0.49
50:CP:81:GLN:OE1	84:Aa:2387:U:H4'	2.12	0.49
69:CF:222:HIS:HB2	86:Ab:95:U:O2'	2.13	0.49
71:CB:334:GLY:O	84:Aa:3048:C:H5''	2.13	0.49
84:Aa:3379:C:C5	84:Aa:3380:G:C4	3.00	0.49
85:Ac:72:A:N6	85:Ac:79:A:H61	2.10	0.49
1:Ad:1137:A:H5'	9:BX:32:LEU:CD1	2.41	0.49
1:Ad:1594:A:C2	13:BF:74:MET:HE3	2.48	0.49
11:BD:202:THR:HG23	11:BD:203:PRO:HD3	1.95	0.49
48:CD:250:ASP:OD1	86:Ab:120:C:OP1	2.29	0.49
83:Cg:42:PRO:HB3	84:Aa:1650:G:O2'	2.13	0.49
84:Aa:3137:G:C5	84:Aa:3138:C:C5	3.01	0.49
1:Ad:271:C:C6	35:BG:192:LYS:HA	2.47	0.49
1:Ad:887:U:H4'	74:Cp:85:ARG:NE	2.12	0.49
1:Ad:1426:C:P	15:BU:86:TRP:CH2	3.06	0.49
1:Ad:1807:A:C8	32:Ba:5:ARG:NH2	2.81	0.49
69:CF:109:ARG:NH2	84:Aa:1105:G:H5''	2.26	0.49
1:Ad:793:G:O6	12:BE:53:LYS:CE	2.60	0.48
1:Ad:1068:G:C5'	26:Bb:74:ARG:NE	2.76	0.48
1:Ad:1155:G:H22	3:Af:15:A:H3'	1.78	0.48
65:CK:12:ASP:HB3	84:Aa:1275:A:C5	2.48	0.48
73:CO:17:ARG:NH1	84:Aa:3181:U:OP2	2.46	0.48
1:Ad:423:G:H1'	35:BG:59:GLN:NE2	2.22	0.48
1:Ad:1756:A:H1'	84:Aa:2286:A:H1'	1.95	0.48
42:CJ:52:ALA:HA	84:Aa:2684:U:H5''	1.95	0.48
84:Aa:288:G:H2'	84:Aa:289:C:C6	2.48	0.48
1:Ad:18:C:OP1	9:BX:25:LYS:HB2	2.13	0.48
1:Ad:184:C:OP1	5:BI:152:HIS:HE1	1.96	0.48
1:Ad:308:U:C4'	19:BL:104:ARG:HD2	2.43	0.48
1:Ad:613:U:N3	9:BX:20:GLN:HB3	2.29	0.48
1:Ad:995:C:H1'	16:BO:141:ARG:HE	1.77	0.48
1:Ad:1068:G:H4'	26:Bb:74:ARG:NH1	2.26	0.48
1:Ad:1395:C:OP1	29:BR:49:LYS:HG3	2.12	0.48
16:BO:43:VAL:H	16:BO:106:THR:CG2	2.26	0.48
70:Cq:2:ALA:HB2	84:Aa:1258:C:H5''	1.94	0.48
75:CI:34:TYR:CE2	84:Aa:1012:U:H5''	2.48	0.48
84:Aa:1485:A:H5''	84:Aa:1854:A:C2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:615:U:N1	19:BL:74:GLY:C	2.70	0.48
1:Ad:1203:G:H1	25:Bd:36:LEU:HG	1.78	0.48
1:Ad:1231:A:P	7:BM:83:LYS:HE3	2.53	0.48
1:Ad:1343:C:H2'	1:Ad:1345:G:C8	2.48	0.48
2:Ae:1:U:O2'	75:CI:111:LEU:HD21	2.13	0.48
40:Cz:31:VAL:HB	84:Aa:2468:G:OP1	2.14	0.48
46:Ca:15:VAL:HG13	46:Ca:19:HIS:CE1	2.47	0.48
71:CB:371:HIS:CG	71:CB:372:GLY:N	2.80	0.48
1:Ad:554:A:H61	1:Ad:592:U:H3	1.61	0.48
1:Ad:613:U:C5	9:BX:21:ARG:HD2	2.47	0.48
61:CM:122:ARG:NE	84:Aa:3204:G:H4'	2.28	0.48
71:CB:9:PRO:HB3	84:Aa:2916:G:H5'	1.94	0.48
83:Cg:73:THR:HG22	84:Aa:1800:G:H4'	1.96	0.48
84:Aa:1560:A:O2'	84:Aa:1561:U:OP1	2.27	0.48
1:Ad:275:C:H41	35:BG:190:GLN:CD	2.22	0.48
1:Ad:958:G:H5'	18:BN:118:VAL:CG1	2.44	0.48
1:Ad:1110:C:H5	9:BX:12:LYS:NZ	2.11	0.48
1:Ad:1453:U:H5'	8:Bf:9:TYR:CE1	2.48	0.48
1:Ad:1807:A:H5''	32:Ba:7:ASN:HD22	1.75	0.48
21:BP:66:ILE:HG13	21:BP:67:LYS:H	1.77	0.48
41:CA:204:MET:SD	84:Aa:2178:G:OP2	2.71	0.48
49:CR:63:ALA:CB	84:Aa:1857:G:H4'	2.43	0.48
50:CP:123:ALA:O	85:Ac:14:C:H5''	2.14	0.48
63:CU:107:ALA:HB1	84:Aa:1765:G:H21	1.78	0.48
1:Ad:54:C:OP1	4:BY:115:GLU:CD	2.55	0.48
1:Ad:281:U:H5'	1:Ad:282:C:O2	2.14	0.48
1:Ad:639:G:H1	1:Ad:866:U:H3	1.60	0.48
1:Ad:865:U:H5'	36:BH:115:ARG:N	2.29	0.48
1:Ad:1065:A:H62	26:Bb:77:GLU:CG	2.25	0.48
14:BQ:35:ILE:H	14:BQ:35:ILE:HD12	1.78	0.48
41:CA:207:VAL:HG23	84:Aa:2414:C:H5''	1.96	0.48
58:Cj:16:HIS:NE2	84:Aa:818:G:H4'	2.28	0.48
75:CI:110:ARG:HD3	75:CI:116:ARG:CD	2.41	0.48
1:Ad:74:U:H3	35:BG:174:VAL:HG23	1.78	0.48
1:Ad:94:A:OP1	35:BG:90:ARG:NH2	2.47	0.48
1:Ad:559:A:C4	33:BJ:21:TYR:CD2	3.01	0.48
1:Ad:1394:A:C5'	29:BR:48:ASN:HB3	2.42	0.48
1:Ad:1554:G:OP1	17:BS:131:VAL:HG21	2.13	0.48
1:Ad:1567:G:C5	17:BS:132:ARG:HD3	2.48	0.48
1:Ad:1684:U:H3	1:Ad:1735:C:H42	1.62	0.48
72:CC:81:PRO:HD3	84:Aa:808:G:C5'	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:CC:203:ARG:HH12	84:Aa:336:A:H4'	1.78	0.48
75:CI:118:ALA:HB3	84:Aa:2649:C:C5'	2.43	0.48
1:Ad:163:G:N2	35:BG:134:MET:HB2	2.28	0.48
1:Ad:420:A:C6	4:BY:138:LYS:O	2.67	0.48
1:Ad:480:U:C5	27:Be:33:ARG:HD3	2.48	0.48
1:Ad:591:C:OP1	27:Be:23:LYS:HB3	2.14	0.48
1:Ad:816:U:OP2	19:BL:123:HIS:ND1	2.47	0.48
1:Ad:1398:U:P	29:BR:56:HIS:CE1	3.07	0.48
35:BG:196:ILE:H	35:BG:196:ILE:HD12	1.79	0.48
41:CA:200:ARG:HA	84:Aa:2179:U:P	2.53	0.48
73:CO:130:LYS:HD3	84:Aa:3181:U:C2'	2.44	0.48
75:CI:110:ARG:CB	75:CI:116:ARG:CD	2.91	0.48
84:Aa:1236:C:C5	84:Aa:1265:G:H2'	2.48	0.48
1:Ad:615:U:C1'	19:BL:75:THR:CA	2.90	0.48
1:Ad:641:C:N3	36:BH:115:ARG:HB2	2.28	0.48
1:Ad:1392:G:P	29:BR:47:ARG:HH11	2.36	0.48
1:Ad:1581:A:OP2	22:BZ:10:PRO:O	2.31	0.48
1:Ad:1625:U:H5''	23:Bc:20:ARG:HG2	1.95	0.48
1:Ad:1802:G:OP1	32:Ba:9:GLY:HA2	2.13	0.48
1:Ad:1806:C:H1'	32:Ba:4:LYS:HB3	1.94	0.48
48:CD:20:PHE:CE1	86:Ab:15:C:OP1	2.67	0.48
48:CD:253:MET:HG2	86:Ab:22:A:C6	2.49	0.48
57:Ce:48:LYS:HE2	84:Aa:1335:C:C4	2.48	0.48
63:CU:31:VAL:HB	63:CU:101:TRP:NE1	2.29	0.48
75:CI:113:THR:CG2	84:Aa:2625:C:N4	2.77	0.48
84:Aa:3270:C:H3'	84:Aa:3271:A:H5''	1.96	0.48
1:Ad:516:A:OP1	33:BJ:171:PRO:CB	2.61	0.47
1:Ad:868:A:H2'	1:Ad:870:A:C8	2.48	0.47
53:CY:31:SER:HB3	84:Aa:224:C:H5'	1.96	0.47
53:CY:99:HIS:CG	84:Aa:215:U:H4'	2.50	0.47
1:Ad:420:A:N1	4:BY:138:LYS:O	2.45	0.47
1:Ad:482:A:O2'	33:BJ:129:VAL:HG22	2.13	0.47
1:Ad:1215:A:C5'	8:Bf:7:LYS:CE	2.92	0.47
1:Ad:1364:C:H42	1:Ad:1369:C:H42	1.62	0.47
1:Ad:1552:U:C1'	17:BS:142:ARG:HE	2.27	0.47
1:Ad:1593:U:OP1	14:BQ:133:LYS:CD	2.57	0.47
1:Ad:1625:U:H5''	23:Bc:20:ARG:C	2.39	0.47
1:Ad:1693:C:H42	1:Ad:1725:C:H42	1.59	0.47
1:Ad:1724:U:H2'	1:Ad:1725:C:H5'	1.96	0.47
71:CB:266:THR:OG1	84:Aa:2885:U:H5'	2.14	0.47
76:Cn:25:LYS:HD2	84:Aa:2300:G:H22	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
82:Cb:49:HIS:CD2	84:Aa:1078:U:H5'	2.49	0.47
1:Ad:196:G:C6	1:Ad:197:G:C6	3.02	0.47
1:Ad:422:G:C8	35:BG:59:GLN:CD	2.92	0.47
1:Ad:884:G:H5''	18:BN:111:SER:CB	2.44	0.47
1:Ad:1566:U:N3	21:BP:142:ILE:HB	2.17	0.47
41:CA:23:ARG:HH12	84:Aa:2167:G:H5'	1.77	0.47
42:CJ:48:VAL:HG13	86:Ab:39:C:H5'	1.95	0.47
49:CR:63:ALA:HB2	84:Aa:1857:G:H4'	1.95	0.47
80:Cf:4:ARG:NH2	84:Aa:3270:C:H41	2.12	0.47
84:Aa:119:A:H4'	84:Aa:120:G:C8	2.49	0.47
84:Aa:176:A:N1	84:Aa:236:A:C2	2.82	0.47
1:Ad:281:U:P	1:Ad:282:C:N3	2.85	0.47
1:Ad:570:C:H5'	9:BX:64:ALA:HA	1.94	0.47
1:Ad:759:A:H5'	12:BE:221:ARG:HE	1.77	0.47
1:Ad:819:U:O2	49:CR:163:ARG:CD	2.62	0.47
1:Ad:1645:C:H5'	3:Af:18:C:H42	1.80	0.47
50:CP:2:VAL:HG22	50:CP:3:LYS:H	1.79	0.47
63:CU:32:GLU:HG3	63:CU:33:ASP:H	1.80	0.47
71:CB:259:HIS:CE1	84:Aa:2373:C:O2	2.68	0.47
1:Ad:423:G:O2'	35:BG:61:PHE:CE2	2.65	0.47
1:Ad:451:U:OP2	12:BE:59:ARG:CB	2.62	0.47
1:Ad:1566:U:N3	21:BP:142:ILE:CB	2.77	0.47
1:Ad:1781:U:H3	1:Ad:1800:A:H61	1.62	0.47
37:CG:67:LEU:HG	84:Aa:2434:G:H4'	1.96	0.47
48:CD:72:GLY:HA2	86:Ab:7:G:O2'	2.14	0.47
53:CY:45:ARG:NH1	84:Aa:186:A:C8	2.83	0.47
79:CE:6:LYS:NZ	84:Aa:602:G:C5'	2.78	0.47
82:Cb:6:ASN:ND2	84:Aa:2646:A:H5'	2.30	0.47
1:Ad:3:C:O2	34:BC:179:VAL:CG1	2.61	0.47
1:Ad:1544:G:OP2	22:BZ:26:LYS:HB3	2.14	0.47
1:Ad:1554:G:H5''	17:BS:125:HIS:NE2	2.29	0.47
1:Ad:1732:A:HO2'	35:BG:67:VAL:HA	1.77	0.47
46:Ca:9:ARG:HH21	84:Aa:968:A:H5''	1.79	0.47
48:CD:54:ARG:HH21	86:Ab:27:A:H5'	1.76	0.47
48:CD:261:PRO:HD2	86:Ab:61:C:H5''	1.96	0.47
49:CR:70:LYS:O	84:Aa:2096:U:H5	1.97	0.47
58:Cj:83:GLU:O	85:Ac:67:U:H5''	2.14	0.47
1:Ad:368:A:C5	1:Ad:369:G:H1'	2.50	0.47
1:Ad:590:G:H5''	27:Be:23:LYS:HG3	1.96	0.47
1:Ad:642:C:C6	36:BH:115:ARG:NE	2.83	0.47
1:Ad:869:U:OP2	24:BW:55:ASP:CB	2.61	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:885:C:C5'	18:BN:109:LYS:CG	2.93	0.47
1:Ad:925:U:OP1	30:BB:85:ARG:NH1	2.48	0.47
1:Ad:970:U:C1'	18:BN:132:THR:CB	2.92	0.47
1:Ad:1137:A:C5'	9:BX:32:LEU:HD11	2.43	0.47
1:Ad:1336:C:C4'	11:BD:202:THR:HG21	2.44	0.47
1:Ad:1385:C:C5	1:Ad:1386:U:C5	3.03	0.47
1:Ad:1389:G:OP1	15:BU:95:LYS:HE3	2.15	0.47
1:Ad:1466:A:H62	17:BS:152:ARG:CB	2.28	0.47
1:Ad:1543:U:C6	13:BF:160:ARG:CA	2.98	0.47
1:Ad:1594:A:H4'	14:BQ:144:PHE:CD1	2.50	0.47
1:Ad:1783:C:OP2	76:Cn:4:LYS:C	2.57	0.47
1:Ad:1801:A:P	32:Ba:12:LYS:CE	3.01	0.47
41:CA:174:ARG:HH22	84:Aa:2173:G:H5'	1.80	0.47
45:CN:1:MET:HE2	84:Aa:115:C:H5'	1.95	0.47
49:CR:1:MET:N	84:Aa:1470:A:H61	2.13	0.47
62:CS:52:LYS:HD3	86:Ab:75:G:C5	2.43	0.47
68:Ch:53:LYS:HE3	85:Ac:64:U:C5'	2.45	0.47
69:CF:98:HIS:HE1	86:Ab:81:G:H4'	1.79	0.47
70:Cq:1:MET:HE2	84:Aa:1261:C:H42	1.80	0.47
78:CL:14:LYS:HE2	84:Aa:97:G:C8	2.49	0.47
84:Aa:657:A:H61	84:Aa:1445:U:H3	1.63	0.47
84:Aa:1651:A:H2'	84:Aa:1652:G:H5''	1.97	0.47
84:Aa:2423:A:H2'	84:Aa:2424:G:O4'	2.14	0.47
84:Aa:3226:G:H1	84:Aa:3246:U:H3	1.62	0.47
1:Ad:517:U:H5'	33:BJ:134:ARG:HG3	1.97	0.47
1:Ad:1120:U:H5''	76:Cn:14:LYS:HG3	1.96	0.47
1:Ad:1547:G:H5'	17:BS:38:ARG:NH2	2.30	0.47
1:Ad:1566:U:C4	21:BP:142:ILE:HD13	2.48	0.47
40:Cz:209:MET:CE	84:Aa:2470:C:OP1	2.57	0.47
49:CR:110:ARG:HH12	84:Aa:1717:G:H5'	1.79	0.47
49:CR:139:MET:HB3	84:Aa:2086:A:H5'	1.97	0.47
79:CE:100:GLN:HE22	84:Aa:586:A:C4'	2.27	0.47
84:Aa:664:A:C2	84:Aa:1438:A:C2	3.03	0.47
84:Aa:3258:A:H4'	84:Aa:3260:G:O6	2.14	0.47
1:Ad:307:U:O3'	19:BL:107:ASN:OD1	2.33	0.47
1:Ad:409:C:H5'	35:BG:93:GLU:HG2	1.97	0.47
1:Ad:580:G:H1	9:BX:64:ALA:CB	2.22	0.47
1:Ad:1806:C:H4'	32:Ba:5:ARG:HE	1.75	0.47
51:CX:80:GLU:OE2	84:Aa:1523:G:H4'	2.15	0.47
63:CU:41:LEU:HD23	63:CU:41:LEU:H	1.80	0.47
79:CE:20:TYR:CZ	84:Aa:606:C:N3	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:41:A:H61	1:Ad:470:U:H3	1.61	0.47
1:Ad:220:C:O4'	1:Ad:220:C:C6	2.68	0.47
1:Ad:503:U:H2'	1:Ad:504:C:C6	2.50	0.47
1:Ad:618:C:C5	9:BX:3:LYS:CD	2.92	0.47
1:Ad:943:G:N3	18:BN:114:ARG:NH1	2.63	0.47
1:Ad:981:G:OP1	18:BN:113:PHE:CD1	2.68	0.47
1:Ad:1392:G:N7	29:BR:44:LYS:CD	2.78	0.47
1:Ad:1603:U:O3'	25:Bd:28:HIS:CA	2.62	0.47
41:CA:244:GLY:HA3	84:Aa:2237:A:H5''	1.97	0.47
53:CY:62:TYR:HH	84:Aa:370:A:H2	1.62	0.47
58:Cj:48:ASN:O	84:Aa:51:A:H5''	2.15	0.47
63:CU:79:ALA:CB	84:Aa:1684:U:H3	2.27	0.47
72:CC:79:ARG:HH12	84:Aa:2816:G:P	2.38	0.47
79:CE:29:LYS:HZ2	84:Aa:608:G:H22	1.63	0.47
1:Ad:450:A:P	12:BE:59:ARG:NE	2.87	0.46
1:Ad:483:C:OP1	33:BJ:125:HIS:CB	2.57	0.46
1:Ad:957:A:H5''	18:BN:98:ILE:CD1	2.43	0.46
1:Ad:957:A:H5'	18:BN:102:LEU:CD1	2.45	0.46
1:Ad:1121:A:OP1	76:Cn:18:ARG:NE	2.36	0.46
1:Ad:1758:G:O2'	76:Cn:21:ARG:HG2	2.15	0.46
42:CJ:48:VAL:HG13	86:Ab:39:C:O4'	2.14	0.46
1:Ad:154:A:N6	35:BG:59:GLN:HE21	2.07	0.46
1:Ad:156:U:O2	35:BG:97:LYS:NZ	2.47	0.46
1:Ad:316:A:C2	1:Ad:319:A:C8	3.02	0.46
1:Ad:450:A:N6	1:Ad:465:G:H21	2.12	0.46
1:Ad:537:U:C5'	4:BY:37:ARG:O	2.55	0.46
1:Ad:614:G:H21	9:BX:17:ARG:HH22	1.61	0.46
1:Ad:707:C:O2	36:BH:100:ARG:O	2.33	0.46
1:Ad:821:G:N7	49:CR:159:PHE:CE1	2.84	0.46
1:Ad:1495:U:H1'	25:Bd:31:ILE:HD11	1.95	0.46
46:Ca:123:LYS:HD3	46:Ca:140:VAL:HG13	1.97	0.46
48:CD:295:ASP:N	86:Ab:63:U:O2	2.48	0.46
49:CR:110:ARG:HH22	84:Aa:1717:G:H4'	1.79	0.46
72:CC:201:ARG:NH2	84:Aa:335:G:C8	2.84	0.46
73:CO:54:ARG:NH2	84:Aa:1193:A:H5''	2.30	0.46
84:Aa:3278:G:H3'	84:Aa:3279:G:H5''	1.97	0.46
1:Ad:559:A:N1	33:BJ:21:TYR:CZ	2.80	0.46
1:Ad:571:A:H5''	9:BX:67:LYS:HD2	1.97	0.46
1:Ad:759:A:C4'	12:BE:221:ARG:NH2	2.70	0.46
1:Ad:806:U:OP1	12:BE:201:HIS:NE2	2.48	0.46
1:Ad:848:C:H2'	1:Ad:849:G:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:865:U:OP1	36:BH:114:PRO:HA	2.14	0.46
1:Ad:1335:A:N1	11:BD:162:GLN:NE2	2.63	0.46
1:Ad:1433:A:C4	11:BD:146:ARG:NH2	2.83	0.46
13:BF:51:ARG:HA	13:BF:51:ARG:HE	1.80	0.46
20:BT:44:ARG:HE	20:BT:95:PHE:HA	1.79	0.46
30:BB:122:GLU:H	30:BB:165:ARG:HE	1.63	0.46
57:Ce:46:LYS:HB3	84:Aa:1163:A:C2	2.51	0.46
69:CF:224:VAL:HG11	86:Ab:95:U:H5'	1.97	0.46
84:Aa:728:G:H3'	84:Aa:729:G:H5''	1.96	0.46
84:Aa:2092:C:C4	84:Aa:2093:G:C5	3.02	0.46
84:Aa:2198:U:H2'	84:Aa:2199:C:C6	2.50	0.46
84:Aa:3187:C:H2'	84:Aa:3188:G:C8	2.50	0.46
1:Ad:527:C:OP1	4:BY:42:LYS:HE2	2.15	0.46
1:Ad:632:G:O3'	18:BN:127:ARG:NH1	2.48	0.46
1:Ad:821:G:OP1	49:CR:163:ARG:CZ	2.63	0.46
16:BO:93:HIS:CD2	16:BO:94:ILE:H	2.33	0.46
42:CJ:140:VAL:HG22	86:Ab:28:U:H5'	1.98	0.46
45:CN:179:HIS:CE1	84:Aa:302:G:C5	3.04	0.46
84:Aa:1198:G:H21	84:Aa:1323:G:H4'	1.80	0.46
1:Ad:13:C:H5''	34:BC:209:ASN:HB2	1.96	0.46
1:Ad:167:A:OP1	35:BG:139:ARG:NH1	2.49	0.46
1:Ad:879:C:N4	55:Cc:6:LYS:NZ	2.63	0.46
1:Ad:903:A:C2	1:Ad:916:U:O2	2.68	0.46
1:Ad:1478:C:P	13:BF:159:PHE:CD2	3.08	0.46
1:Ad:1524:A:C4'	15:BU:68:LYS:CD	2.88	0.46
33:BJ:4:ALA:HB1	33:BJ:5:PRO:HD2	1.98	0.46
40:Cz:124:GLY:HA3	84:Aa:2488:A:H5'	1.97	0.46
49:CR:85:ARG:HB3	84:Aa:836:G:H5'	1.98	0.46
50:CP:4:TYR:O	85:Ac:12:A:H5'	2.16	0.46
53:CY:88:LYS:HA	84:Aa:373:A:H4'	1.97	0.46
69:CF:107:LEU:HD21	84:Aa:987:A:H2	1.80	0.46
72:CC:342:LYS:CE	84:Aa:576:C:H5'	2.41	0.46
84:Aa:76:A:H61	84:Aa:321:A:H61	1.64	0.46
84:Aa:1956:G:C2	84:Aa:1957:G:H1'	2.50	0.46
1:Ad:65:A:C5'	35:BG:138:LYS:HG2	2.43	0.46
1:Ad:409:C:H5'	35:BG:93:GLU:CG	2.45	0.46
1:Ad:758:A:C5'	12:BE:220:THR:CG2	2.93	0.46
1:Ad:1075:G:N3	26:Bb:18:LYS:CD	2.78	0.46
1:Ad:1557:C:OP1	21:BP:65:LEU:HB2	2.15	0.46
41:CA:136:VAL:HG11	41:CA:139:HIS:CE1	2.50	0.46
42:CJ:143:ARG:NH1	86:Ab:28:U:O5'	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:CU:107:ALA:CB	84:Aa:1765:G:H21	2.29	0.46
69:CF:107:LEU:HD21	84:Aa:987:A:C2	2.51	0.46
71:CB:346:LEU:HG	84:Aa:3137:G:C5'	2.46	0.46
81:Ck:21:ARG:HB2	81:Ck:66:VAL:HG22	1.98	0.46
83:Cg:14:ALA:O	84:Aa:830:A:H5'	2.14	0.46
84:Aa:2750:A:H2'	84:Aa:2751:A:C8	2.50	0.46
84:Aa:2778:C:H5'	84:Aa:2779:G:C5	2.51	0.46
84:Aa:3178:C:H2'	84:Aa:3179:G:C8	2.50	0.46
1:Ad:93:A:H61	35:BG:91:ASP:HB2	1.80	0.46
1:Ad:137:A:C8	1:Ad:138:C:C5	3.03	0.46
1:Ad:453:C:P	12:BE:80:LYS:HE2	2.56	0.46
1:Ad:892:A:H61	1:Ad:930:G:H1	1.64	0.46
1:Ad:903:A:H2	1:Ad:916:U:O2	1.99	0.46
1:Ad:957:A:OP1	18:BN:98:ILE:HG13	2.16	0.46
1:Ad:1060:U:O2'	30:BB:146:ARG:NH1	2.49	0.46
1:Ad:1302:C:O2	34:BC:163:GLY:HA3	2.05	0.46
1:Ad:1348:A:H4'	15:BU:63:VAL:CG2	2.46	0.46
42:CJ:139:ARG:CG	86:Ab:29:C:OP2	2.64	0.46
84:Aa:2884:U:H2'	84:Aa:2885:U:C6	2.50	0.46
1:Ad:613:U:H2'	9:BX:21:ARG:HH11	1.81	0.46
1:Ad:1076:C:C5'	26:Bb:19:LEU:CA	2.71	0.46
1:Ad:1120:U:OP2	76:Cn:14:LYS:NZ	2.48	0.46
1:Ad:1324:U:C4	28:BA:106:ARG:CZ	2.99	0.46
1:Ad:1325:A:N7	28:BA:139:LYS:CE	2.79	0.46
1:Ad:1663:A:C2	84:Aa:2286:A:C2	3.03	0.46
1:Ad:1667:A:H61	1:Ad:1752:U:H3	1.64	0.46
1:Ad:1759:A:OP1	76:Cn:24:SER:O	2.33	0.46
1:Ad:1806:C:C4	32:Ba:4:LYS:HD2	2.48	0.46
2:Ae:1:U:O2'	75:CI:111:LEU:HD22	2.16	0.46
42:CJ:70:TYR:CE2	86:Ab:39:C:C2	3.03	0.46
50:CP:37:ARG:HG3	50:CP:38:LYS:H	1.81	0.46
84:Aa:1244:A:H3'	84:Aa:1245:U:H5'	1.97	0.46
1:Ad:274:A:OP2	35:BG:187:LEU:HD21	2.16	0.46
1:Ad:570:C:C5'	9:BX:64:ALA:HA	2.46	0.46
1:Ad:759:A:OP1	12:BE:224:ASN:OD1	2.34	0.46
1:Ad:887:U:C5'	74:Cp:85:ARG:HE	2.29	0.46
1:Ad:956:A:C4'	18:BN:101:HIS:CG	2.95	0.46
1:Ad:1068:G:H4'	26:Bb:74:ARG:HD3	1.97	0.46
1:Ad:1216:G:H5'	8:Bf:12:PRO:CD	2.20	0.46
1:Ad:1633:C:OP1	34:BC:91:ARG:CD	2.64	0.46
14:BQ:63:ARG:HG3	14:BQ:65:ARG:H	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:Ca:123:LYS:HE3	46:Ca:123:LYS:CA	2.46	0.46
49:CR:57:ILE:HG12	49:CR:58:HIS:H	1.79	0.46
84:Aa:2375:G:C6	84:Aa:2376:G:C6	3.03	0.46
1:Ad:209:U:H3	1:Ad:256:G:H21	1.63	0.46
1:Ad:483:C:C4'	33:BJ:126:HIS:HB2	2.46	0.46
1:Ad:483:C:H4'	33:BJ:126:HIS:CB	2.45	0.46
1:Ad:527:C:H5''	4:BY:65:LYS:H	1.80	0.46
1:Ad:1207:A:C4	1:Ad:1564:A:C2	3.04	0.46
1:Ad:1280:U:OP1	11:BD:146:ARG:HB2	2.14	0.46
1:Ad:1394:A:H5''	29:BR:48:ASN:HB3	1.98	0.46
1:Ad:1590:U:C2	1:Ad:1622:A:C8	3.04	0.46
39:CZ:38:TYR:CE1	84:Aa:1709:U:C5'	2.99	0.46
58:Cj:49:TRP:HB3	84:Aa:51:A:H4'	1.97	0.46
80:Cf:76:THR:HG22	84:Aa:567:G:H4'	1.97	0.46
83:Cg:81:VAL:CG2	84:Aa:1800:G:H21	2.29	0.46
84:Aa:2588:G:H1	85:Ac:153:C:H3'	1.80	0.46
1:Ad:150:U:H3	1:Ad:160:A:H61	1.62	0.45
1:Ad:271:C:C5	35:BG:195:ARG:HB2	2.50	0.45
1:Ad:1068:G:O3'	26:Bb:74:ARG:CZ	2.64	0.45
1:Ad:1192:G:H21	15:BU:81:GLU:HG3	1.81	0.45
1:Ad:1551:A:O2'	17:BS:142:ARG:HD2	2.17	0.45
73:CO:176:ARG:NH2	84:Aa:3185:G:H5''	2.31	0.45
81:Ck:8:ILE:HD12	81:Ck:8:ILE:H	1.81	0.45
84:Aa:10:C:H1'	85:Ac:150:G:H22	1.81	0.45
1:Ad:80:C:N1	35:BG:178:PRO:CA	2.79	0.45
1:Ad:350:G:OP1	19:BL:57:LYS:O	2.34	0.45
1:Ad:424:A:OP1	35:BG:98:SER:N	2.46	0.45
1:Ad:451:U:OP2	12:BE:59:ARG:HG2	2.17	0.45
1:Ad:632:G:P	18:BN:128:TYR:OH	2.75	0.45
1:Ad:1341:G:O2'	14:BQ:129:ARG:HB2	2.16	0.45
1:Ad:1565:U:C1'	21:BP:139:ARG:NH1	2.70	0.45
1:Ad:1799:G:O3'	32:Ba:17:HIS:ND1	2.49	0.45
48:CD:245:ALA:HB2	86:Ab:120:C:H1'	1.99	0.45
56:Cd:8:ALA:HB1	84:Aa:3381:C:C5'	2.45	0.45
79:CE:87:ARG:HB2	84:Aa:3265:C:H4'	1.97	0.45
84:Aa:682:G:H1	84:Aa:706:U:H3	1.64	0.45
84:Aa:803:G:C4	84:Aa:936:A:C2	3.04	0.45
1:Ad:271:C:C4	35:BG:195:ARG:HB2	2.52	0.45
1:Ad:308:U:H4'	19:BL:104:ARG:CD	2.46	0.45
1:Ad:567:U:H4'	27:Be:17:GLN:NE2	2.31	0.45
1:Ad:1054:G:OP1	26:Bb:72:LYS:CA	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:1348:A:H4'	15:BU:63:VAL:HG22	1.98	0.45
1:Ad:1392:G:N7	29:BR:44:LYS:NZ	2.62	0.45
1:Ad:1808:U:H2'	32:Ba:11:ASN:ND2	2.30	0.45
33:BJ:18:ARG:HE	33:BJ:18:ARG:H	1.64	0.45
38:CT:27:LEU:H	38:CT:27:LEU:HD13	1.81	0.45
42:CJ:139:ARG:CB	86:Ab:29:C:OP2	2.65	0.45
50:CP:84:TRP:CZ2	84:Aa:2350:C:C5'	3.00	0.45
51:CX:46:LYS:CA	51:CX:46:LYS:NZ	2.68	0.45
57:Ce:29:LEU:HD13	84:Aa:1436:A:C4	2.50	0.45
61:CM:69:THR:OG1	84:Aa:529:C:P	2.73	0.45
63:CU:87:TYR:HB3	84:Aa:1685:U:H5	1.81	0.45
84:Aa:417:G:N2	85:Ac:3:A:H62	2.14	0.45
84:Aa:2175:A:C2	84:Aa:2176:A:C5	3.05	0.45
1:Ad:65:A:H5'	35:BG:138:LYS:CG	2.40	0.45
1:Ad:1325:A:N7	28:BA:139:LYS:CD	2.79	0.45
42:CJ:11:MET:CE	86:Ab:51:G:H21	2.29	0.45
68:Ch:111:ARG:NE	84:Aa:253:G:H1'	2.28	0.45
72:CC:197:LYS:HD2	84:Aa:1384:G:H5'	1.98	0.45
1:Ad:271:C:H41	35:BG:195:ARG:HD2	1.82	0.45
1:Ad:786:U:H1'	4:BY:14:THR:O	2.16	0.45
1:Ad:884:G:O2'	18:BN:112:LYS:CE	2.64	0.45
1:Ad:905:A:H5''	16:BO:49:ARG:NH2	2.31	0.45
46:Ca:107:LEU:HD22	84:Aa:719:U:C6	2.51	0.45
46:Ca:123:LYS:HA	46:Ca:123:LYS:CE	2.47	0.45
49:CR:56:LYS:HD2	84:Aa:1868:C:C5'	2.47	0.45
56:Cd:68:TRP:O	84:Aa:1479:G:H4'	2.17	0.45
63:CU:31:VAL:C	63:CU:32:GLU:HG2	2.42	0.45
80:Cf:88:LYS:NZ	84:Aa:568:C:H5''	2.30	0.45
1:Ad:44:U:C4	1:Ad:440:A:C2	3.05	0.45
1:Ad:153:U:H6	4:BY:137:LYS:NZ	2.15	0.45
1:Ad:351:G:C5'	19:BL:61:PHE:CE1	3.00	0.45
1:Ad:1188:A:H5'	8:Bf:7:LYS:N	2.32	0.45
1:Ad:1356:A:H61	1:Ad:1378:C:N4	2.03	0.45
1:Ad:1551:A:O2'	17:BS:142:ARG:CD	2.65	0.45
1:Ad:1580:G:C2'	1:Ad:1580:G:C8	2.99	0.45
14:BQ:45:ILE:HG12	14:BQ:46:ARG:H	1.81	0.45
42:CJ:17:GLN:NE2	86:Ab:42:A:H1'	2.31	0.45
44:CV:52:LEU:HD21	84:Aa:1897:A:H2'	1.98	0.45
68:Ch:6:VAL:HG22	68:Ch:7:LYS:H	1.81	0.45
84:Aa:473:G:C2'	84:Aa:474:G:C5'	2.82	0.45
1:Ad:167:A:P	35:BG:139:ARG:HD3	2.55	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:217:A:OP1	35:BG:232:LEU:HD22	2.16	0.45
1:Ad:838:U:H3'	1:Ad:839:G:H5''	1.99	0.45
1:Ad:1203:G:C2'	1:Ad:1203:G:C8	3.00	0.45
1:Ad:1251:U:C5'	8:Bf:18:LYS:N	2.65	0.45
1:Ad:1793:C:OP2	76:Cn:9:ARG:NH2	2.49	0.45
1:Ad:1807:A:N7	32:Ba:10:ARG:HD3	2.31	0.45
41:CA:200:ARG:CB	84:Aa:2180:G:OP2	2.64	0.45
45:CN:182:HIS:CE1	84:Aa:100:C:OP1	2.70	0.45
48:CD:248:ARG:O	86:Ab:119:C:C2	2.69	0.45
71:CB:62:LYS:HD3	84:Aa:3039:U:H5''	1.98	0.45
73:CO:65:LYS:HD3	84:Aa:1311:G:C5'	2.47	0.45
84:Aa:174:G:H1	84:Aa:240:U:H3	1.63	0.45
84:Aa:424:G:H5''	84:Aa:425:G:C8	2.52	0.45
84:Aa:462:C:H2'	84:Aa:463:G:H8	1.82	0.45
84:Aa:3004:G:H2'	84:Aa:3005:C:C6	2.51	0.45
1:Ad:467:U:H2'	1:Ad:468:A:C8	2.51	0.45
1:Ad:1053:C:C4'	26:Bb:71:GLY:CA	2.94	0.45
1:Ad:1429:U:O4	34:BC:92:ALA:HB3	2.16	0.45
58:Cj:43:ARG:HH21	84:Aa:1551:C:H5'	1.81	0.45
64:Ci:70:LYS:CE	84:Aa:2218:A:H4'	2.46	0.45
78:CL:77:LEU:H	78:CL:77:LEU:HD22	1.82	0.45
79:CE:45:ILE:HG13	79:CE:46:ALA:H	1.82	0.45
83:Cg:56:HIS:NE2	84:Aa:1651:A:H4'	2.31	0.45
84:Aa:2085:A:H5''	84:Aa:2086:A:H2	1.77	0.45
84:Aa:2178:G:C2'	84:Aa:2178:G:N3	2.75	0.45
84:Aa:2472:U:C2	84:Aa:2473:C:H1'	2.52	0.45
1:Ad:70:C:C5	35:BG:169:LYS:HE2	2.52	0.45
1:Ad:751:U:H3	1:Ad:812:A:N6	2.14	0.45
1:Ad:860:A:OP2	49:CR:180:ARG:NH1	2.50	0.45
1:Ad:1466:A:H62	17:BS:152:ARG:HD2	1.79	0.45
1:Ad:1533:A:C5'	20:BT:86:GLN:HG3	2.39	0.45
1:Ad:1636:U:OP1	32:Ba:89:ARG:NE	2.49	0.45
1:Ad:1645:C:C2	2:Ae:34:G:N3	2.76	0.45
1:Ad:1765:A:H3'	1:Ad:1766:A:H5''	1.99	0.45
38:CT:20:ARG:NH1	86:Ab:11:A:N6	2.63	0.45
49:CR:6:LEU:HD23	49:CR:6:LEU:H	1.81	0.45
49:CR:121:HIS:CG	84:Aa:1716:G:H5''	2.52	0.45
51:CX:48:LEU:C	84:Aa:1561:U:H5''	2.39	0.45
1:Ad:308:U:H4'	19:BL:104:ARG:HD2	1.98	0.45
1:Ad:1076:C:OP1	26:Bb:19:LEU:CD1	2.65	0.45
1:Ad:1433:A:C4	11:BD:146:ARG:CZ	3.00	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:1433:A:C6	11:BD:146:ARG:NH2	2.84	0.45
1:Ad:1645:C:N4	2:Ae:34:G:C2'	2.80	0.45
1:Ad:1764:G:H4'	9:BX:59:LYS:HD2	1.98	0.45
2:Ae:73:C:C2'	2:Ae:74:C:H5'	2.47	0.45
49:CR:98:ARG:NH2	84:Aa:858:U:H5'	2.32	0.45
56:Cd:8:ALA:CB	84:Aa:3381:C:C5'	2.95	0.45
68:Ch:53:LYS:HE3	85:Ac:64:U:H5'	1.99	0.45
82:Cb:37:PRO:HG2	84:Aa:2741:G:H4'	1.98	0.45
83:Cg:60:THR:HG21	84:Aa:1590:A:H4'	1.99	0.45
84:Aa:2095:C:H2'	84:Aa:2096:U:O4'	2.16	0.45
1:Ad:452:C:OP2	12:BE:49:ARG:NH1	2.36	0.44
1:Ad:603:A:O2'	9:BX:44:SER:O	2.28	0.44
1:Ad:721:U:O5'	1:Ad:721:U:H6	2.00	0.44
1:Ad:1214:C:OP1	8:Bf:8:THR:CA	2.65	0.44
1:Ad:1324:U:C4	28:BA:106:ARG:NH2	2.85	0.44
1:Ad:1348:A:H2'	1:Ad:1349:A:C8	2.52	0.44
42:CJ:142:ARG:HG2	86:Ab:42:A:HO2'	1.79	0.44
46:Ca:21:ARG:NH1	84:Aa:2801:A:C2	2.85	0.44
46:Ca:107:LEU:HD22	84:Aa:719:U:H2'	1.98	0.44
72:CC:117:ARG:NH2	84:Aa:794:G:H4'	2.32	0.44
72:CC:227:ARG:HH22	84:Aa:693:C:H4'	1.82	0.44
84:Aa:410:G:H1	85:Ac:11:C:H42	1.65	0.44
1:Ad:36:C:O2'	4:BY:70:PHE:CZ	2.69	0.44
1:Ad:823:A:H2'	1:Ad:824:U:H5'	1.99	0.44
1:Ad:885:C:H5'	18:BN:109:LYS:HG2	1.99	0.44
1:Ad:1214:C:OP1	8:Bf:8:THR:HB	2.17	0.44
1:Ad:1217:G:OP2	8:Bf:14:LYS:HA	2.16	0.44
1:Ad:1453:U:H5'	8:Bf:9:TYR:CZ	2.52	0.44
7:BM:77:VAL:HG12	7:BM:78:THR:H	1.82	0.44
40:Cz:31:VAL:HG12	84:Aa:2468:G:C5'	2.48	0.44
46:Ca:19:HIS:CE1	84:Aa:961:C:H1'	2.51	0.44
46:Ca:21:ARG:HH11	84:Aa:2730:A:H61	1.64	0.44
50:CP:78:SER:OG	84:Aa:2995:G:H4'	2.18	0.44
51:CX:49:LYS:HB3	84:Aa:1561:U:O3'	2.17	0.44
84:Aa:176:A:C6	84:Aa:236:A:N1	2.85	0.44
84:Aa:461:A:H2'	84:Aa:462:C:C5'	2.46	0.44
84:Aa:723:G:O2'	84:Aa:724:A:H5'	2.17	0.44
84:Aa:731:G:H2'	84:Aa:732:G:C8	2.51	0.44
84:Aa:2951:U:C5	84:Aa:2952:G:C6	3.06	0.44
84:Aa:3256:C:H2'	84:Aa:3257:G:C8	2.51	0.44
1:Ad:24:U:OP1	33:BJ:10:LYS:HE2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:80:C:N1	35:BG:178:PRO:HA	2.31	0.44
1:Ad:282:C:H4'	1:Ad:282:C:OP1	2.17	0.44
1:Ad:411:A:H2'	1:Ad:412:C:C6	2.52	0.44
1:Ad:944:A:C8	18:BN:121:ARG:NH2	2.85	0.44
1:Ad:1249:G:C2	8:Bf:20:LYS:O	2.69	0.44
1:Ad:1567:G:N9	17:BS:132:ARG:HG3	2.31	0.44
1:Ad:1793:C:OP2	76:Cn:9:ARG:CZ	2.65	0.44
1:Ad:1807:A:N7	32:Ba:10:ARG:NE	2.65	0.44
37:CG:25:PHE:CZ	84:Aa:2568:G:OP1	2.70	0.44
41:CA:17:LYS:NZ	84:Aa:2165:A:H5''	2.31	0.44
79:CE:100:GLN:NE2	84:Aa:586:A:H4'	2.32	0.44
81:Ck:1:MET:CG	84:Aa:1610:A:H4'	2.47	0.44
84:Aa:678:G:H2'	84:Aa:679:C:C6	2.52	0.44
84:Aa:843:C:H2'	84:Aa:844:A:C8	2.52	0.44
85:Ac:149:U:C4	85:Ac:150:G:C4	3.05	0.44
1:Ad:483:C:O4'	33:BJ:126:HIS:CE1	2.69	0.44
1:Ad:527:C:OP1	4:BY:63:VAL:O	2.35	0.44
1:Ad:576:C:P	9:BX:106:ARG:HD2	2.57	0.44
1:Ad:1167:C:H5''	13:BF:123:ARG:NH2	2.32	0.44
1:Ad:1477:A:C5'	13:BF:159:PHE:CD1	2.96	0.44
1:Ad:1489:A:H1'	14:BQ:91:ILE:HD13	1.99	0.44
1:Ad:1808:U:C6	32:Ba:11:ASN:CG	2.96	0.44
41:CA:17:LYS:HZ2	84:Aa:2165:A:H5''	1.82	0.44
48:CD:272:LEU:HD22	86:Ab:63:U:OP1	2.17	0.44
49:CR:24:LEU:O	84:Aa:1476:G:H5'	2.17	0.44
50:CP:6:ARG:HD2	85:Ac:10:G:N2	2.32	0.44
52:CW:61:HIS:CG	52:CW:62:LYS:N	2.86	0.44
56:Cd:109:GLU:OE2	84:Aa:3377:G:H5''	2.18	0.44
70:Cq:210:THR:O	70:Cq:211:GLU:CB	2.64	0.44
72:CC:90:ARG:HE	84:Aa:1443:G:H5'	1.82	0.44
78:CL:14:LYS:CE	84:Aa:97:G:C8	3.01	0.44
79:CE:20:TYR:CD2	84:Aa:591:G:C6	3.06	0.44
1:Ad:70:C:P	35:BG:170:ASN:HB2	2.58	0.44
1:Ad:126:U:OP2	35:BG:205:LYS:CE	2.65	0.44
1:Ad:157:U:O2'	35:BG:87:TYR:O	2.29	0.44
1:Ad:329:G:P	19:BL:109:PRO:CG	3.06	0.44
1:Ad:537:U:C5'	4:BY:38:ALA:N	2.80	0.44
1:Ad:1152:A:N6	1:Ad:1638:U:H3	2.15	0.44
1:Ad:1180:U:OP2	17:BS:135:HIS:HB3	2.17	0.44
1:Ad:1256:C:OP2	8:Bf:26:VAL:HB	2.17	0.44
1:Ad:1349:A:O2'	15:BU:65:MET:SD	2.76	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:1465:C:O2	17:BS:151:LYS:HE2	2.15	0.44
1:Ad:1580:G:OP2	22:BZ:22:LYS:HA	2.17	0.44
1:Ad:1645:C:H5'	3:Af:18:C:N3	2.32	0.44
1:Ad:1810:G:H1	32:Ba:87:ARG:HD3	1.83	0.44
24:BW:106:THR:HG22	24:BW:107:SER:H	1.83	0.44
41:CA:42:LYS:H	41:CA:65:HIS:HE1	1.64	0.44
45:CN:69:GLY:H	45:CN:98:LYS:HZ1	1.64	0.44
69:CF:222:HIS:CE1	86:Ab:95:U:O2	2.70	0.44
84:Aa:2396:A:H1'	84:Aa:2943:A:H61	1.83	0.44
1:Ad:155:A:P	4:BY:137:LYS:CD	3.06	0.44
1:Ad:482:A:OP1	27:Be:37:ARG:NH1	2.46	0.44
1:Ad:1053:C:H5'	26:Bb:70:GLY:C	2.42	0.44
1:Ad:1110:C:H5	9:BX:12:LYS:HZ2	1.66	0.44
1:Ad:1280:U:H1'	11:BD:141:LYS:HZ1	1.82	0.44
1:Ad:1466:A:N3	17:BS:151:LYS:HG3	2.33	0.44
37:CG:46:ARG:HA	84:Aa:2588:G:H1'	1.99	0.44
40:Cz:31:VAL:HG12	84:Aa:2468:G:O5'	2.17	0.44
73:CO:22:GLY:HA3	84:Aa:1318:C:H5'	2.00	0.44
79:CE:20:TYR:CE2	84:Aa:606:C:N3	2.86	0.44
84:Aa:1674:A:C2	84:Aa:1675:G:C4	3.05	0.44
84:Aa:2472:U:H2'	84:Aa:2473:C:C1'	2.47	0.44
84:Aa:2472:U:H2'	84:Aa:2473:C:O4'	2.17	0.44
1:Ad:151:A:O2'	35:BG:4:ASN:HB3	2.18	0.44
1:Ad:157:U:H3'	1:Ad:158:C:C5'	2.47	0.44
1:Ad:165:U:H5''	35:BG:137:PRO:CA	2.47	0.44
1:Ad:1054:G:H5''	26:Bb:72:LYS:CG	2.48	0.44
1:Ad:1178:C:OP2	17:BS:139:THR:CB	2.62	0.44
1:Ad:1326:A:O2'	28:BA:109:PRO:HG2	2.17	0.44
1:Ad:1532:A:H2'	1:Ad:1533:A:C8	2.53	0.44
42:CJ:143:ARG:HH22	86:Ab:28:U:H5'	1.82	0.44
48:CD:73:ASP:O	86:Ab:114:C:H1'	2.18	0.44
69:CF:107:LEU:HD21	84:Aa:1103:U:O2	2.18	0.44
69:CF:128:MET:HE2	84:Aa:990:U:H1'	2.00	0.44
71:CB:1:MET:HA	84:Aa:2940:G:C8	2.53	0.44
72:CC:106:PHE:CE2	84:Aa:803:G:H1'	2.52	0.44
80:Cf:74:LYS:CD	84:Aa:567:G:H5''	2.44	0.44
84:Aa:282:A:N6	84:Aa:2786:G:H21	2.14	0.44
84:Aa:2703:G:H21	84:Aa:2708:A:H2	1.64	0.44
1:Ad:308:U:C1'	19:BL:104:ARG:HH11	2.29	0.44
1:Ad:559:A:C1'	33:BJ:21:TYR:HB3	2.48	0.44
1:Ad:571:A:N6	1:Ad:584:A:H61	2.15	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:944:A:C8	18:BN:121:ARG:CZ	2.99	0.44
1:Ad:952:U:H5''	30:BB:166:ARG:HE	1.83	0.44
1:Ad:964:U:C4	26:Bb:34:PHE:CZ	3.05	0.44
1:Ad:997:A:C2	1:Ad:1017:U:N3	2.85	0.44
1:Ad:1444:G:O2'	11:BD:178:ARG:O	2.30	0.44
1:Ad:1783:C:P	76:Cn:4:LYS:HA	2.58	0.44
2:Ae:73:C:H5''	84:Aa:2973:A:C4	2.53	0.44
6:BK:82:LEU:HB3	6:BK:83:PRO:CD	2.47	0.44
50:CP:78:SER:CB	84:Aa:2995:G:H4'	2.48	0.44
63:CU:91:LYS:HE3	84:Aa:1685:U:C5	2.52	0.44
84:Aa:436:G:O6	84:Aa:624:C:N4	2.50	0.44
84:Aa:463:G:H1	84:Aa:472:U:H3	1.65	0.44
84:Aa:3259:A:OP1	84:Aa:3260:G:C4	2.70	0.44
1:Ad:524:A:H2	4:BY:39:ASN:OD1	1.98	0.44
1:Ad:902:C:O3'	16:BO:62:LYS:NZ	2.39	0.44
1:Ad:1214:C:H5''	8:Bf:8:THR:C	2.43	0.44
1:Ad:1249:G:N2	8:Bf:21:LYS:CE	2.78	0.44
1:Ad:1649:C:H2'	1:Ad:1650:G:C8	2.52	0.44
1:Ad:1810:G:N1	32:Ba:87:ARG:HD3	2.33	0.44
22:BZ:73:ASN:HB2	22:BZ:78:ARG:HH21	1.81	0.44
62:CS:115:ARG:HH21	84:Aa:1299:G:H1'	1.83	0.44
68:Ch:8:ALA:HB2	85:Ac:65:G:H5''	1.99	0.44
84:Aa:2084:G:H8	84:Aa:2085:A:OP2	2.00	0.44
1:Ad:613:U:C4	9:BX:20:GLN:C	2.96	0.43
1:Ad:885:C:OP1	18:BN:109:LYS:HG3	2.18	0.43
38:CT:44:VAL:HG13	38:CT:58:HIS:CE1	2.53	0.43
38:CT:49:HIS:CE1	84:Aa:2708:A:C6	3.05	0.43
41:CA:174:ARG:HH22	84:Aa:2173:G:C5'	2.31	0.43
57:Ce:32:SER:OG	84:Aa:1410:A:H5''	2.17	0.43
74:Cp:16:THR:HG21	84:Aa:2320:A:N3	2.33	0.43
84:Aa:287:A:H2'	84:Aa:288:G:C8	2.53	0.43
84:Aa:441:G:H1	84:Aa:496:U:H3	1.65	0.43
84:Aa:2057:G:H2'	84:Aa:2058:C:C6	2.53	0.43
1:Ad:65:A:H2	1:Ad:86:A:H61	1.65	0.43
1:Ad:350:G:C8	1:Ad:350:G:H5''	2.53	0.43
1:Ad:350:G:P	19:BL:57:LYS:O	2.77	0.43
1:Ad:537:U:H4'	4:BY:38:ALA:HB2	1.95	0.43
1:Ad:1065:A:N6	26:Bb:77:GLU:OE1	2.51	0.43
50:CP:117:HIS:CE1	50:CP:119:GLN:HG3	2.53	0.43
62:CS:13:GLY:HA2	62:CS:61:LEU:H	1.83	0.43
72:CC:83:VAL:HG13	72:CC:94:GLY:H	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:CC:304:GLN:HG2	72:CC:305:SER:H	1.84	0.43
78:CL:46:PHE:HB3	78:CL:47:PRO:CD	2.48	0.43
84:Aa:2497:A:H3'	84:Aa:2498:C:C6	2.53	0.43
1:Ad:238:G:O4'	1:Ad:238:G:C8	2.71	0.43
1:Ad:410:U:P	35:BG:95:ARG:HA	2.59	0.43
1:Ad:576:C:H5'	9:BX:106:ARG:HE	1.83	0.43
1:Ad:603:A:H2	9:BX:44:SER:OG	1.99	0.43
1:Ad:632:G:H4'	18:BN:127:ARG:HH11	1.79	0.43
1:Ad:956:A:C4'	18:BN:101:HIS:ND1	2.81	0.43
1:Ad:1177:G:OP1	17:BS:141:ARG:HD2	2.19	0.43
1:Ad:1216:G:H5''	8:Bf:11:LYS:HD3	2.00	0.43
1:Ad:1466:A:C6	17:BS:151:LYS:HG2	2.54	0.43
1:Ad:1541:C:OP2	22:BZ:76:LEU:HD13	2.17	0.43
1:Ad:1604:C:OP2	25:Bd:29:GLY:O	2.37	0.43
39:CZ:38:TYR:CD1	84:Aa:1709:U:H5''	2.53	0.43
44:CV:4:ARG:HE	84:Aa:2905:A:H5'	1.83	0.43
49:CR:78:TYR:CE2	84:Aa:1912:U:H1'	2.54	0.43
50:CP:87:LYS:HB2	84:Aa:2352:G:C5'	2.49	0.43
72:CC:78:SER:HA	84:Aa:1439:U:C5	2.52	0.43
80:Cf:50:GLY:HA2	84:Aa:566:G:H4'	1.99	0.43
84:Aa:1487:A:C2	84:Aa:1872:C:H1'	2.53	0.43
84:Aa:2730:A:C2	84:Aa:2732:U:H1'	2.54	0.43
1:Ad:526:U:C5'	4:BY:42:LYS:HE3	2.46	0.43
1:Ad:560:A:OP1	33:BJ:23:LYS:HD2	2.19	0.43
1:Ad:1581:A:H3'	22:BZ:11:PRO:CA	2.44	0.43
48:CD:75:VAL:HG21	86:Ab:115:A:O2'	2.19	0.43
73:CO:152:TRP:CD1	84:Aa:3135:A:H4'	2.54	0.43
84:Aa:1693:A:H2'	84:Aa:1694:A:C8	2.54	0.43
84:Aa:2572:U:H3	84:Aa:2577:G:H22	1.66	0.43
1:Ad:67:G:O4'	1:Ad:67:G:C8	2.72	0.43
1:Ad:69:A:N7	35:BG:169:LYS:HE2	2.34	0.43
1:Ad:153:U:C1'	35:BG:60:GLY:HA3	2.37	0.43
1:Ad:517:U:H5'	33:BJ:134:ARG:NE	2.34	0.43
1:Ad:613:U:C4	9:BX:20:GLN:O	2.71	0.43
1:Ad:759:A:H5''	12:BE:224:ASN:OD1	2.18	0.43
1:Ad:896:C:H2'	1:Ad:897:A:C8	2.53	0.43
1:Ad:955:C:H5''	55:Cc:9:LYS:HD3	2.01	0.43
1:Ad:1364:C:H5'	20:BT:5:THR:CG2	2.48	0.43
1:Ad:1396:U:O5'	29:BR:3:ARG:HB3	2.18	0.43
1:Ad:1466:A:N6	17:BS:152:ARG:CD	2.71	0.43
37:CG:49:LYS:HD2	84:Aa:2526:G:C4	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:Cz:30:THR:HG22	84:Aa:2468:G:C5'	2.48	0.43
47:CQ:40:THR:HG23	47:CQ:42:SER:H	1.84	0.43
48:CD:250:ASP:OD1	86:Ab:120:C:H5'	2.17	0.43
49:CR:110:ARG:HH12	84:Aa:1717:G:C5'	2.32	0.43
75:CI:118:ALA:HB3	84:Aa:2649:C:H5'	2.01	0.43
84:Aa:484:C:H6	84:Aa:484:C:H5''	1.82	0.43
84:Aa:1484:A:H8	84:Aa:1868:C:H42	1.63	0.43
1:Ad:212:A:O4'	1:Ad:212:A:N9	2.42	0.43
1:Ad:271:C:N4	35:BG:195:ARG:CB	2.63	0.43
1:Ad:944:A:C6	18:BN:117:LEU:CB	3.00	0.43
1:Ad:944:A:N6	18:BN:117:LEU:CB	2.81	0.43
1:Ad:1388:A:C2	1:Ad:1389:G:C5	3.06	0.43
1:Ad:1492:G:OP1	15:BU:71:HIS:CG	2.72	0.43
1:Ad:1645:C:C4	2:Ae:34:G:H1'	2.42	0.43
41:CA:6:ARG:HH21	84:Aa:2178:G:C4'	2.29	0.43
41:CA:93:ARG:CZ	84:Aa:2552:U:H5'	2.48	0.43
44:CV:52:LEU:HD21	84:Aa:1897:A:C2'	2.48	0.43
51:CX:48:LEU:HD12	84:Aa:1563:G:C2	2.47	0.43
53:CY:50:ARG:NH1	85:Ac:71:A:H2'	2.33	0.43
62:CS:51:LYS:HE2	86:Ab:72:G:O6	2.18	0.43
62:CS:131:VAL:HG22	62:CS:132:HIS:H	1.83	0.43
73:CO:138:HIS:HB2	84:Aa:1192:A:C2	2.54	0.43
84:Aa:593:G:C6	84:Aa:605:A:C6	3.07	0.43
84:Aa:2173:G:C6	84:Aa:2174:C:C2	3.07	0.43
84:Aa:3314:G:N2	84:Aa:3315:A:C4	2.86	0.43
1:Ad:613:U:H1'	9:BX:17:ARG:HH11	1.83	0.43
1:Ad:615:U:H1'	19:BL:75:THR:CA	2.49	0.43
1:Ad:1567:G:C5	17:BS:132:ARG:CD	3.02	0.43
17:BS:16:LEU:HD23	17:BS:16:LEU:H	1.83	0.43
51:CX:48:LEU:HD22	84:Aa:1560:A:C5'	2.49	0.43
57:Ce:22:HIS:ND1	84:Aa:641:C:H4'	2.33	0.43
71:CB:21:ARG:HD2	84:Aa:2993:A:H5''	2.01	0.43
72:CC:120:ASN:HD21	84:Aa:678:G:H21	1.67	0.43
84:Aa:1563:G:C8	84:Aa:1563:G:OP2	2.71	0.43
1:Ad:64:U:H4'	35:BG:181:GLN:OE1	2.19	0.43
1:Ad:153:U:P	35:BG:2:LYS:HZ1	2.42	0.43
1:Ad:449:A:H61	1:Ad:466:G:H1'	1.83	0.43
1:Ad:492:G:OP1	1:Ad:492:G:H4'	2.19	0.43
1:Ad:529:A:H4'	4:BY:95:TYR:HB3	2.01	0.43
1:Ad:580:G:H22	9:BX:64:ALA:CB	2.31	0.43
1:Ad:944:A:H62	18:BN:117:LEU:HB2	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:1258:U:C4	1:Ad:1259:G:C6	3.07	0.43
1:Ad:1397:A:H61	1:Ad:1413:C:N4	2.04	0.43
85:Ac:104:A:C8	85:Ac:105:A:C8	3.06	0.43
1:Ad:164:C:H4'	35:BG:133:ARG:HD3	1.99	0.43
1:Ad:329:G:H5''	19:BL:109:PRO:HG3	2.01	0.43
1:Ad:373:U:H3'	1:Ad:374:A:C5'	2.48	0.43
1:Ad:537:U:H4'	4:BY:38:ALA:CB	2.48	0.43
1:Ad:566:G:O2'	27:Be:18:THR:HG22	2.18	0.43
1:Ad:569:C:O2	9:BX:62:ASN:HA	2.19	0.43
1:Ad:759:A:H5''	12:BE:221:ARG:CZ	2.48	0.43
13:BF:64:LEU:HD22	13:BF:64:LEU:H	1.84	0.43
53:CY:120:ARG:NH1	84:Aa:182:C:H4'	2.34	0.43
62:CS:22:GLU:O	62:CS:23:HIS:CG	2.71	0.43
70:Cq:88:ASN:CG	84:Aa:1263:A:H61	2.27	0.43
84:Aa:591:G:O6	84:Aa:606:C:N4	2.29	0.43
1:Ad:517:U:H5''	33:BJ:134:ARG:HD3	2.01	0.43
1:Ad:632:G:C4'	18:BN:127:ARG:NH1	2.75	0.43
1:Ad:633:U:P	18:BN:127:ARG:HH22	2.42	0.43
41:CA:7:ALA:H	84:Aa:2177:U:H1'	1.83	0.43
41:CA:204:MET:HE1	84:Aa:2178:G:OP2	2.19	0.43
84:Aa:1659:G:H1	84:Aa:1783:G:H22	1.67	0.43
84:Aa:2437:A:H61	84:Aa:2512:U:H3	1.67	0.43
1:Ad:157:U:H5'	4:BY:122:LYS:HD3	2.01	0.42
1:Ad:299:A:O2'	12:BE:138:TYR:HB3	2.19	0.42
1:Ad:329:G:OP2	19:BL:109:PRO:HB2	2.19	0.42
1:Ad:355:U:H1'	19:BL:82:ASN:HB2	1.97	0.42
1:Ad:873:G:C2'	18:BN:91:LEU:CD2	2.97	0.42
1:Ad:1203:G:H1	25:Bd:36:LEU:CD1	2.32	0.42
1:Ad:1466:A:C4	17:BS:151:LYS:CG	3.02	0.42
41:CA:28:ARG:HH12	84:Aa:2524:U:H5'	1.84	0.42
72:CC:203:ARG:NH2	84:Aa:336:A:H5'	2.34	0.42
73:CO:130:LYS:CD	84:Aa:3181:U:C2'	2.97	0.42
80:Cf:7:GLN:HG3	80:Cf:8:ARG:H	1.83	0.42
84:Aa:419:G:H5'	84:Aa:3144:U:H3	1.84	0.42
84:Aa:1505:G:N2	84:Aa:1509:G:C6	2.87	0.42
84:Aa:1563:G:HO2'	84:Aa:1564:C:H5	1.52	0.42
84:Aa:2093:G:H21	84:Aa:2094:A:H61	1.67	0.42
84:Aa:2509:A:H2'	84:Aa:2510:U:C6	2.54	0.42
84:Aa:2838:C:H5	84:Aa:2854:C:H42	1.66	0.42
1:Ad:451:U:P	12:BE:59:ARG:HB2	2.59	0.42
1:Ad:884:G:C4'	18:BN:112:LYS:CG	2.96	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Ad:1187:A:HO2'	8:Bf:7:LYS:HG2	1.78	0.42
1:Ad:1214:C:OP1	8:Bf:8:THR:CB	2.67	0.42
1:Ad:1464:G:O2'	21:BP:146:HIS:CB	2.67	0.42
1:Ad:1567:G:C5	17:BS:132:ARG:CG	3.02	0.42
21:BP:142:ILE:H	21:BP:142:ILE:HD12	1.84	0.42
40:Cz:159:LYS:HD2	84:Aa:2462:G:H1'	2.01	0.42
41:CA:7:ALA:HB2	84:Aa:2177:U:H6	1.79	0.42
48:CD:296:ASP:CG	86:Ab:63:U:H2'	2.43	0.42
61:CM:68:LYS:HD2	84:Aa:528:C:H5'	2.01	0.42
71:CB:55:HIS:CD2	84:Aa:3050:A:N3	2.87	0.42
72:CC:226:PHE:O	72:CC:232:VAL:HG11	2.20	0.42
73:CO:115:PRO:HD3	84:Aa:3236:A:C2	2.54	0.42
84:Aa:176:A:N1	84:Aa:236:A:N1	2.66	0.42
84:Aa:593:G:C6	84:Aa:594:C:C4	3.07	0.42
1:Ad:54:C:H5'	4:BY:111:LYS:HA	2.00	0.42
1:Ad:238:G:N7	1:Ad:239:C:C4	2.87	0.42
1:Ad:1443:U:H5''	11:BD:176:LEU:CD1	2.49	0.42
49:CR:60:ARG:HD2	84:Aa:1668:U:OP1	2.19	0.42
71:CB:100:ARG:HH12	84:Aa:3145:G:N2	2.16	0.42
84:Aa:501:U:H3	84:Aa:618:G:H1	1.66	0.42
1:Ad:342:C:H2'	1:Ad:343:C:C6	2.53	0.42
1:Ad:935:A:C8	1:Ad:936:C:C5	3.07	0.42
1:Ad:1385:C:H4'	14:BQ:37:VAL:HG21	2.02	0.42
17:BS:55:ARG:H	17:BS:55:ARG:HD2	1.85	0.42
51:CX:99:LYS:HE3	85:Ac:101:U:H5'	2.01	0.42
57:Ce:102:SER:OG	84:Aa:1392:U:H5'	2.20	0.42
58:Cj:51:VAL:HG22	84:Aa:933:U:H5'	2.01	0.42
75:Cl:34:TYR:CE2	84:Aa:1012:U:C5'	3.02	0.42
81:Ck:38:CYS:SG	84:Aa:1821:G:C5'	3.07	0.42
1:Ad:896:C:C1'	41:CA:254:ALA:CB	2.96	0.42
1:Ad:1372:C:OP1	14:BQ:53:LYS:CG	2.60	0.42
1:Ad:1431:A:H4'	34:BC:94:GLN:H	1.85	0.42
1:Ad:1488:C:O2	14:BQ:92:ALA:HB2	2.19	0.42
1:Ad:1564:A:H5'	21:BP:132:TYR:OH	2.20	0.42
37:CG:49:LYS:HD2	84:Aa:2526:G:C5	2.53	0.42
48:CD:55:PHE:O	86:Ab:26:C:O3'	2.38	0.42
49:CR:42:ARG:HH22	84:Aa:1598:U:P	2.42	0.42
49:CR:114:LYS:HD3	84:Aa:2084:G:N7	2.35	0.42
54:Cr:96:PHE:HB3	84:Aa:476:C:OP1	2.19	0.42
64:Cl:64:LEU:HD22	84:Aa:306:A:H5''	2.02	0.42
84:Aa:474:G:C2'	84:Aa:475:U:O4'	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
84:Aa:591:G:O2'	84:Aa:592:U:H5'	2.19	0.42
84:Aa:1723:C:H2'	84:Aa:1724:C:C6	2.54	0.42
1:Ad:411:A:C5'	35:BG:96:ARG:HH21	2.03	0.42
1:Ad:449:A:H5'	4:BY:94:LYS:HB2	2.01	0.42
1:Ad:997:A:H2	1:Ad:998:A:C5	2.38	0.42
1:Ad:1113:G:O6	9:BX:20:GLN:HG2	2.18	0.42
1:Ad:1167:C:C5'	13:BF:123:ARG:NH2	2.83	0.42
1:Ad:1231:A:N7	7:BM:105:GLY:O	2.52	0.42
1:Ad:1507:G:OP2	20:BT:75:VAL:CG2	2.68	0.42
1:Ad:1808:U:N3	32:Ba:33:ASP:O	2.52	0.42
47:CQ:66:ARG:HD3	84:Aa:787:G:C8	2.55	0.42
72:CC:197:LYS:CD	84:Aa:1384:G:H5'	2.49	0.42
1:Ad:202:C:H42	1:Ad:264:G:H1	1.66	0.42
1:Ad:883:G:O2'	18:BN:112:LYS:HA	2.19	0.42
1:Ad:1593:U:O2	1:Ad:1619:A:C6	2.73	0.42
38:CT:141:VAL:HG12	38:CT:142:GLU:H	1.84	0.42
41:CA:216:HIS:CE1	84:Aa:2965:C:H41	2.37	0.42
84:Aa:2286:A:H61	84:Aa:2296:U:H3	1.67	0.42
85:Ac:12:A:H2'	85:Ac:13:A:C8	2.55	0.42
1:Ad:1466:A:N7	17:BS:152:ARG:CB	2.48	0.42
1:Ad:1468:G:OP1	22:BZ:17:LYS:CE	2.64	0.42
1:Ad:1544:G:N2	22:BZ:26:LYS:NZ	2.39	0.42
1:Ad:1706:G:C6	1:Ad:1714:G:C6	3.08	0.42
1:Ad:1806:C:N4	32:Ba:4:LYS:NZ	2.66	0.42
24:BW:88:SER:H	24:BW:91:ALA:HB3	1.84	0.42
48:CD:37:ARG:HD3	86:Ab:7:G:OP1	2.20	0.42
58:Cj:72:ARG:HG2	85:Ac:34:U:H1'	2.02	0.42
62:CS:52:LYS:CB	86:Ab:75:G:N7	2.83	0.42
69:CF:109:ARG:NH2	84:Aa:1105:G:C5'	2.83	0.42
71:CB:11:HIS:CE1	84:Aa:2883:C:OP1	2.72	0.42
71:CB:279:THR:HB	84:Aa:3138:C:H4'	2.02	0.42
1:Ad:452:C:H41	12:BE:59:ARG:HD3	1.84	0.42
1:Ad:527:C:C6	4:BY:99:ARG:NH1	2.88	0.42
1:Ad:566:G:O2'	27:Be:18:THR:CG2	2.68	0.42
1:Ad:834:A:H1'	1:Ad:835:U:O2	2.19	0.42
1:Ad:944:A:C1'	18:BN:121:ARG:NH1	2.83	0.42
1:Ad:970:U:H1'	18:BN:132:THR:CG2	2.50	0.42
1:Ad:1255:U:O4	8:Bf:23:LYS:HD3	2.20	0.42
45:CN:68:ARG:HH22	84:Aa:290:C:P	2.42	0.42
72:CC:97:GLY:HA2	84:Aa:807:C:H5''	2.02	0.42
73:CO:68:ASN:OD1	84:Aa:1310:G:H5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
73:CO:138:HIS:CD2	84:Aa:1192:A:C5	3.08	0.42
79:CE:6:LYS:NZ	84:Aa:602:G:H5''	2.35	0.42
84:Aa:2148:U:C2	84:Aa:2175:A:C2	3.08	0.42
84:Aa:2197:C:H2'	84:Aa:2198:U:C6	2.54	0.42
84:Aa:3139:U:H2'	84:Aa:3140:A:H5''	2.02	0.42
1:Ad:67:G:O4'	1:Ad:67:G:N9	2.41	0.42
1:Ad:80:C:O4'	35:BG:178:PRO:HA	2.20	0.42
1:Ad:271:C:H41	35:BG:195:ARG:CD	2.33	0.42
1:Ad:508:U:OP2	27:Be:38:MET:HE2	2.20	0.42
1:Ad:821:G:C5	49:CR:162:LYS:NZ	2.70	0.42
1:Ad:908:U:C4	16:BO:46:LEU:HB3	2.54	0.42
1:Ad:1218:U:P	8:Bf:15:ILE:CG1	2.96	0.42
1:Ad:1348:A:O2'	15:BU:63:VAL:HG23	2.19	0.42
41:CA:5:ILE:HG21	84:Aa:2177:U:H2'	1.97	0.42
42:CJ:70:TYR:OH	86:Ab:39:C:N3	2.50	0.42
60:Co:90:HIS:CG	60:Co:91:PHE:N	2.88	0.42
83:Cg:14:ALA:O	84:Aa:830:A:C5'	2.68	0.42
1:Ad:409:C:O3'	35:BG:95:ARG:HA	2.19	0.41
1:Ad:1561:G:C2	1:Ad:1564:A:C8	3.08	0.41
1:Ad:1693:C:N4	1:Ad:1725:C:H42	2.17	0.41
1:Ad:1801:A:P	32:Ba:12:LYS:NZ	2.92	0.41
14:BQ:95:LEU:HD12	14:BQ:95:LEU:H	1.84	0.41
33:BJ:165:PRO:C	33:BJ:167:GLY:H	2.27	0.41
42:CJ:17:GLN:HE22	86:Ab:42:A:C1'	2.33	0.41
45:CN:1:MET:CE	84:Aa:115:C:H5'	2.50	0.41
69:CF:127:ASN:HB2	84:Aa:991:C:H5'	2.02	0.41
71:CB:19:ARG:HB3	71:CB:276:HIS:CE1	2.55	0.41
84:Aa:2166:U:C5	84:Aa:2167:G:H2'	2.55	0.41
1:Ad:152:G:O2'	35:BG:56:CYS:HB2	2.20	0.41
1:Ad:643:U:N3	36:BH:103:ARG:HA	2.35	0.41
1:Ad:644:U:O2	36:BH:119:LEU:CB	2.68	0.41
1:Ad:955:C:HO2'	18:BN:101:HIS:HE1	1.61	0.41
1:Ad:964:U:O3'	18:BN:76:LYS:CD	2.67	0.41
1:Ad:1179:C:OP1	17:BS:135:HIS:N	2.46	0.41
9:BX:60:GLN:HB3	9:BX:61:PRO:HD3	2.01	0.41
18:BN:101:HIS:CE1	18:BN:104:ARG:HH21	2.38	0.41
37:CG:225:VAL:HG23	37:CG:226:ARG:H	1.86	0.41
41:CA:221:HIS:CG	41:CA:222:ALA:H	2.37	0.41
57:Ce:35:ARG:HH12	84:Aa:1372:U:H5''	1.84	0.41
69:CF:183:ILE:HD12	69:CF:184:GLU:H	1.86	0.41
71:CB:62:LYS:CE	84:Aa:3039:U:H5''	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
71:CB:258:TRP:CZ2	84:Aa:2943:A:C2	3.08	0.41
80:Cf:26:ASN:ND2	84:Aa:1150:G:H5''	2.35	0.41
84:Aa:1584:A:C2	84:Aa:1587:G:H1'	2.55	0.41
84:Aa:3067:G:C5	84:Aa:3068:U:C5	3.08	0.41
1:Ad:153:U:P	35:BG:2:LYS:NZ	2.93	0.41
1:Ad:717:G:H5'	1:Ad:743:G:N1	2.32	0.41
1:Ad:879:C:H41	55:Cc:6:LYS:HZ3	1.67	0.41
1:Ad:1054:G:H21	26:Bb:18:LYS:NZ	2.19	0.41
1:Ad:1429:U:O2	34:BC:95:ARG:NH2	2.53	0.41
1:Ad:1459:G:N2	21:BP:116:ILE:HD11	2.28	0.41
1:Ad:1658:U:H3	1:Ad:1760:A:H61	1.68	0.41
42:CJ:143:ARG:NH1	86:Ab:28:U:H5'	2.15	0.41
46:Ca:42:ARG:NH1	84:Aa:716:A:C8	2.88	0.41
47:CQ:44:PHE:HD1	84:Aa:731:G:HO2'	1.63	0.41
56:Cd:33:PHE:CZ	84:Aa:3057:A:C8	3.08	0.41
59:Cl:40:LYS:HG2	84:Aa:353:A:H5'	2.01	0.41
1:Ad:482:A:C1'	33:BJ:129:VAL:HG11	2.51	0.41
1:Ad:637:U:OP1	9:BX:7:MET:HB3	2.20	0.41
1:Ad:643:U:OP1	36:BH:113:ARG:CZ	2.68	0.41
1:Ad:643:U:C4'	36:BH:104:PRO:HG3	2.50	0.41
1:Ad:944:A:O4'	18:BN:121:ARG:NH1	2.53	0.41
1:Ad:1249:G:O2'	8:Bf:20:LYS:HG3	2.21	0.41
1:Ad:1394:A:H5''	29:BR:48:ASN:CB	2.49	0.41
1:Ad:1535:U:H5'	13:BF:81:LYS:CE	2.49	0.41
1:Ad:1593:U:O3'	14:BQ:143:ARG:HB2	2.20	0.41
1:Ad:1727:C:H3'	1:Ad:1728:G:H5'	2.02	0.41
41:CA:218:HIS:HB2	84:Aa:2241:G:OP1	2.19	0.41
45:CN:91:GLN:HB3	84:Aa:275:G:H4'	2.03	0.41
49:CR:56:LYS:HD2	84:Aa:1868:C:H5'	2.02	0.41
49:CR:145:SER:H	84:Aa:2086:A:N6	2.17	0.41
79:CE:72:ARG:C	79:CE:74:THR:H	2.28	0.41
1:Ad:54:C:O3'	4:BY:114:LYS:HD2	2.20	0.41
1:Ad:353:G:OP1	19:BL:84:THR:CB	2.69	0.41
1:Ad:758:A:H5''	12:BE:220:THR:HG22	2.03	0.41
1:Ad:805:A:C4'	12:BE:206:GLU:CB	2.98	0.41
1:Ad:869:U:C2	24:BW:25:VAL:HG21	2.55	0.41
1:Ad:1214:C:H5''	8:Bf:7:LYS:C	2.43	0.41
1:Ad:1222:G:C4	1:Ad:1450:A:C2	3.09	0.41
1:Ad:1464:G:H2'	21:BP:146:HIS:CE1	2.54	0.41
46:Ca:123:LYS:C	46:Ca:125:ILE:N	2.77	0.41
50:CP:25:HIS:HB3	84:Aa:1450:G:N7	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CY:50:ARG:HG3	53:CY:51:LYS:H	1.86	0.41
72:CC:120:ASN:CG	84:Aa:684:C:H5''	2.45	0.41
73:CO:142:LEU:H	73:CO:145:GLN:HE21	1.67	0.41
79:CE:6:LYS:HZ1	84:Aa:602:G:C5'	2.33	0.41
80:Cf:26:ASN:HD22	84:Aa:1150:G:H5''	1.85	0.41
84:Aa:549:G:C2'	84:Aa:550:C:OP1	2.69	0.41
84:Aa:819:A:H4'	84:Aa:820:A:C5'	2.51	0.41
84:Aa:989:U:H2'	84:Aa:990:U:C6	2.55	0.41
84:Aa:1491:G:H5''	84:Aa:1834:C:H42	1.84	0.41
84:Aa:3111:C:H2'	84:Aa:3112:U:C6	2.56	0.41
1:Ad:36:C:O2'	4:BY:70:PHE:HZ	2.04	0.41
1:Ad:641:C:C2	36:BH:115:ARG:HB2	2.55	0.41
1:Ad:757:G:O2'	12:BE:219:ALA:N	2.46	0.41
1:Ad:902:C:H4'	16:BO:62:LYS:HG2	2.02	0.41
1:Ad:981:G:OP1	18:BN:113:PHE:CE1	2.74	0.41
1:Ad:1076:C:H2'	1:Ad:1077:C:C6	2.56	0.41
1:Ad:1363:G:H4'	20:BT:135:ASP:CG	2.44	0.41
1:Ad:1553:A:OP1	17:BS:130:ARG:C	2.63	0.41
79:CE:171:LYS:HZ2	84:Aa:3264:C:H3'	1.85	0.41
84:Aa:411:C:H2'	84:Aa:412:C:C6	2.55	0.41
84:Aa:711:A:C2	84:Aa:716:A:N1	2.88	0.41
84:Aa:2436:G:C6	84:Aa:2514:A:C6	3.08	0.41
1:Ad:632:G:H5'	18:BN:124:ARG:CG	2.51	0.41
1:Ad:843:G:O4'	1:Ad:843:G:C8	2.74	0.41
1:Ad:876:A:H4'	26:Bb:53:GLN:O	2.20	0.41
1:Ad:896:C:O2'	41:CA:254:ALA:CB	2.69	0.41
1:Ad:939:C:H6	32:Ba:13:HIS:CE1	2.38	0.41
1:Ad:1320:C:P	29:BR:7:LYS:HE3	2.61	0.41
1:Ad:1365:C:OP1	20:BT:2:ALA:HB1	2.20	0.41
1:Ad:1444:G:O2'	11:BD:179:GLN:HA	2.21	0.41
1:Ad:1466:A:C2'	17:BS:151:LYS:HA	2.43	0.41
1:Ad:1663:A:C5	1:Ad:1664:U:H1'	2.56	0.41
44:CV:43:LYS:HA	84:Aa:2933:C:H4'	2.02	0.41
47:CQ:65:ARG:HG2	84:Aa:787:G:C8	2.55	0.41
57:Ce:58:TYR:CE2	84:Aa:1165:C:C5'	3.03	0.41
60:Co:84:PRO:HG2	84:Aa:2719:U:OP1	2.21	0.41
68:Ch:93:ARG:HH21	85:Ac:34:U:H5'	1.84	0.41
74:Cp:19:GLY:HA3	84:Aa:2184:U:H1'	2.03	0.41
84:Aa:770:U:H1'	84:Aa:771:G:C8	2.56	0.41
1:Ad:45:U:O2	1:Ad:438:G:H1'	2.21	0.41
1:Ad:462:G:H5''	4:BY:114:LYS:NZ	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Ae:35:U:H3	3:Af:17:A:H61	1.69	0.41
17:BS:75:ARG:HG3	17:BS:76:GLN:H	1.85	0.41
42:CJ:48:VAL:CG2	86:Ab:39:C:C2	3.04	0.41
43:CH:1:MET:HE1	84:Aa:1215:U:C4'	2.49	0.41
51:CX:37:ARG:HD2	85:Ac:151:G:H5''	2.03	0.41
53:C'Y:89:VAL:HB	84:Aa:374:G:OP2	2.21	0.41
69:CF:222:HIS:ND1	86:Ab:95:U:O2	2.54	0.41
71:CB:55:HIS:CD2	84:Aa:3050:A:C2	3.08	0.41
84:Aa:2087:A:O2'	84:Aa:2088:C:P	2.79	0.41
1:Ad:59:G:C6	1:Ad:87:A:N6	2.89	0.41
1:Ad:65:A:P	35:BG:181:GLN:HG3	2.61	0.41
1:Ad:155:A:P	4:BY:137:LYS:HD2	2.60	0.41
1:Ad:270:U:O2	35:BG:182:ARG:N	2.54	0.41
1:Ad:527:C:P	4:BY:99:ARG:NH2	2.94	0.41
1:Ad:559:A:N1	33:BJ:21:TYR:OH	2.39	0.41
1:Ad:569:C:O3'	9:BX:63:SER:C	2.63	0.41
1:Ad:570:C:OP2	9:BX:64:ALA:N	2.54	0.41
1:Ad:571:A:OP1	9:BX:65:ILE:O	2.37	0.41
1:Ad:590:G:C5'	27:Be:23:LYS:HG2	2.49	0.41
1:Ad:632:G:H4'	18:BN:127:ARG:HH12	1.82	0.41
1:Ad:643:U:N1	36:BH:103:ARG:NH1	2.68	0.41
1:Ad:720:U:H3	1:Ad:740:U:H3	1.69	0.41
1:Ad:721:U:H2'	1:Ad:722:A:O5'	2.20	0.41
1:Ad:816:U:H5'	19:BL:123:HIS:CE1	2.49	0.41
1:Ad:1295:G:H1	1:Ad:1328:G:H22	1.69	0.41
1:Ad:1467:C:C5'	17:BS:148:VAL:O	2.62	0.41
1:Ad:1478:C:OP2	13:BF:159:PHE:CD2	2.74	0.41
1:Ad:1495:U:O2	25:Bd:31:ILE:HD13	2.19	0.41
1:Ad:1536:U:OP1	13:BF:84:MET:SD	2.79	0.41
1:Ad:1538:C:OP2	22:BZ:97:SER:HA	2.21	0.41
1:Ad:1800:A:OP1	32:Ba:17:HIS:CE1	2.73	0.41
1:Ad:1806:C:C2	32:Ba:4:LYS:HD2	2.56	0.41
18:BN:58:HIS:CD2	18:BN:59:GLY:H	2.38	0.41
38:CT:35:LYS:HD2	84:Aa:1088:A:H5''	2.03	0.41
40:Cz:38:LYS:HE3	84:Aa:2494:A:H2	1.86	0.41
42:CJ:139:ARG:HB3	86:Ab:28:U:O3'	2.21	0.41
42:CJ:142:ARG:NH1	86:Ab:42:A:H2'	2.35	0.41
46:Ca:91:GLY:O	84:Aa:721:A:C8	2.73	0.41
48:CD:37:ARG:CD	86:Ab:7:G:OP1	2.68	0.41
49:CR:98:ARG:NH2	84:Aa:858:U:C5'	2.84	0.41
51:CX:47:THR:C	51:CX:48:LEU:HD23	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:Cd:11:ARG:CZ	84:Aa:3378:U:H5'	2.51	0.41
63:CU:31:VAL:HB	63:CU:101:TRP:CD2	2.56	0.41
72:CC:144:ARG:HH11	72:CC:146:HIS:CE1	2.38	0.41
75:CI:119:PHE:CE1	84:Aa:2650:A:OP2	2.74	0.41
84:Aa:20:G:N2	85:Ac:141:C:O2	2.54	0.41
84:Aa:436:G:C2	84:Aa:625:G:O6	2.74	0.41
84:Aa:711:A:C2	84:Aa:712:A:C5	3.09	0.41
84:Aa:1244:A:C2	84:Aa:1253:G:C5	3.09	0.41
84:Aa:1748:A:C2	84:Aa:1750:A:H1'	2.55	0.41
84:Aa:2285:C:H2'	84:Aa:2286:A:C8	2.56	0.41
84:Aa:2512:U:H5''	84:Aa:2512:U:C6	2.43	0.41
84:Aa:3312:G:O6	84:Aa:3380:G:N2	2.54	0.41
1:Ad:152:G:O2'	35:BG:110:VAL:HG12	2.21	0.41
1:Ad:207:A:C2	1:Ad:258:U:O2	2.74	0.41
1:Ad:292:A:H2'	1:Ad:293:C:C6	2.56	0.41
1:Ad:558:C:OP2	33:BJ:19:ARG:HG3	2.20	0.41
1:Ad:643:U:OP1	36:BH:113:ARG:NE	2.54	0.41
1:Ad:836:U:O4'	1:Ad:836:U:C6	2.73	0.41
1:Ad:1113:G:C5	9:BX:20:GLN:CG	3.02	0.41
1:Ad:1137:A:H5'	9:BX:32:LEU:HD11	2.03	0.41
1:Ad:1547:G:C5'	17:BS:38:ARG:NH2	2.83	0.41
1:Ad:1800:A:C5'	32:Ba:17:HIS:HE1	2.21	0.41
54:Cr:88:HIS:CG	84:Aa:461:A:H1'	2.56	0.41
84:Aa:53:C:C2	84:Aa:1549:A:N6	2.89	0.41
84:Aa:1841:G:H3'	84:Aa:1845:C:H42	1.86	0.41
84:Aa:1944:G:O2'	84:Aa:1945:A:C5'	2.68	0.41
1:Ad:151:A:O2'	35:BG:4:ASN:CB	2.70	0.40
1:Ad:326:G:C6	1:Ad:341:G:C6	3.09	0.40
1:Ad:355:U:O2'	19:BL:82:ASN:HB2	2.21	0.40
1:Ad:537:U:H5'	4:BY:38:ALA:CA	2.51	0.40
1:Ad:647:G:C6	1:Ad:705:A:N6	2.89	0.40
1:Ad:797:A:OP1	12:BE:187:ARG:CD	2.54	0.40
1:Ad:868:A:H4'	24:BW:55:ASP:O	2.21	0.40
1:Ad:955:C:O2'	18:BN:101:HIS:CE1	2.56	0.40
1:Ad:1031:A:C2	1:Ad:1802:G:C4	3.09	0.40
1:Ad:1280:U:O3'	11:BD:147:ALA:HB2	2.21	0.40
1:Ad:1771:U:H3'	3:Af:16:G:H4'	2.02	0.40
47:CQ:5:LEU:HA	84:Aa:1106:G:H22	1.85	0.40
51:CX:44:ARG:HA	51:CX:45:PRO:HD3	1.76	0.40
51:CX:58:ARG:HB3	84:Aa:15:C:H5''	2.03	0.40
62:CS:49:LYS:O	86:Ab:75:G:H5''	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
72:CC:64:HIS:HA	72:CC:104:ARG:HH11	1.86	0.40
1:Ad:271:C:O2'	35:BG:188:THR:O	2.40	0.40
1:Ad:526:U:O2'	4:BY:66:PHE:HB2	2.22	0.40
1:Ad:537:U:H5'	4:BY:38:ALA:N	2.36	0.40
1:Ad:641:C:O2	36:BH:115:ARG:HB2	2.20	0.40
1:Ad:642:C:C4'	36:BH:113:ARG:NH2	2.83	0.40
1:Ad:1106:G:N3	24:BW:1:MET:HG2	2.36	0.40
1:Ad:1324:U:C5	28:BA:106:ARG:NE	2.88	0.40
21:BP:139:ARG:H	21:BP:140:PRO:CD	2.27	0.40
33:BJ:4:ALA:HB1	33:BJ:5:PRO:CD	2.50	0.40
41:CA:182:ALA:HB1	84:Aa:2142:A:H4'	2.03	0.40
58:Cj:13:ASN:HB2	84:Aa:820:A:C4'	2.51	0.40
84:Aa:165:C:N4	84:Aa:252:A:H61	2.17	0.40
84:Aa:176:A:H61	84:Aa:236:A:H61	1.69	0.40
84:Aa:415:G:H21	84:Aa:631:C:H4'	1.86	0.40
84:Aa:1316:C:H2'	84:Aa:1317:G:O4'	2.21	0.40
1:Ad:281:U:H3'	1:Ad:283:G:H21	1.86	0.40
1:Ad:481:A:O3'	27:Be:37:ARG:NH1	2.53	0.40
1:Ad:641:C:O2	36:BH:115:ARG:C	2.64	0.40
1:Ad:1076:C:H5''	26:Bb:19:LEU:CB	2.50	0.40
1:Ad:1281:G:C5'	11:BD:139:SER:OG	2.69	0.40
1:Ad:1429:U:O4	34:BC:92:ALA:CB	2.69	0.40
1:Ad:1489:A:H1'	14:BQ:91:ILE:CD1	2.51	0.40
70:Cq:210:THR:HG23	70:Cq:211:GLU:N	2.30	0.40
71:CB:277:HIS:HB3	84:Aa:3139:U:H5''	2.02	0.40
78:CL:27:GLN:OE1	84:Aa:687:C:H5''	2.21	0.40
84:Aa:2343:U:H4'	84:Aa:3057:A:C5	2.56	0.40
84:Aa:2438:A:O2'	84:Aa:2439:A:C5'	2.70	0.40
1:Ad:559:A:C2	33:BJ:21:TYR:OH	2.73	0.40
1:Ad:572:G:O5'	9:BX:86:ASN:O	2.40	0.40
1:Ad:738:U:O2	1:Ad:738:U:C2'	2.70	0.40
1:Ad:865:U:H4'	36:BH:116:THR:HG23	2.02	0.40
1:Ad:1364:C:H42	1:Ad:1369:C:N4	2.19	0.40
1:Ad:1491:C:C5	1:Ad:1492:G:C2	3.10	0.40
1:Ad:1577:A:C1'	17:BS:142:ARG:HH22	2.16	0.40
41:CA:226:ARG:N	84:Aa:2197:C:H5''	2.36	0.40
51:CX:49:LYS:CG	84:Aa:1560:A:O5'	2.65	0.40
52:CW:61:HIS:CE1	84:Aa:3357:C:O2'	2.74	0.40
57:Ce:39:ILE:HD13	84:Aa:1146:A:C5'	2.51	0.40
58:Cj:7:SER:HA	84:Aa:821:C:O2'	2.21	0.40
60:Co:86:LYS:HE2	84:Aa:2756:G:C6	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
62:CS:52:LYS:HD2	86:Ab:75:G:C6	2.48	0.40
63:CU:82:LYS:HG3	84:Aa:1672:G:H5''	2.03	0.40
68:Ch:7:LYS:HD2	68:Ch:9:GLY:H	1.86	0.40
73:CO:92:MET:SD	84:Aa:1177:G:N2	2.95	0.40
79:CE:20:TYR:CE1	84:Aa:606:C:C2	3.09	0.40
84:Aa:698:A:H2'	84:Aa:699:C:C6	2.57	0.40
84:Aa:1317:G:H2'	84:Aa:1318:C:H6	1.87	0.40
84:Aa:1723:C:H2'	84:Aa:1724:C:H6	1.86	0.40
1:Ad:537:U:H5''	4:BY:37:ARG:C	2.44	0.40
1:Ad:538:A:P	4:BY:37:ARG:NH2	2.95	0.40
1:Ad:1467:C:C4	17:BS:151:LYS:NZ	2.89	0.40
1:Ad:1567:G:C5'	17:BS:133:GLY:HA3	2.31	0.40
42:CJ:142:ARG:NH1	86:Ab:42:A:C2'	2.85	0.40
47:CQ:5:LEU:CD2	84:Aa:1106:G:H1	2.34	0.40
48:CD:58:ASN:ND2	86:Ab:48:G:O6	2.54	0.40
50:CP:67:VAL:HA	84:Aa:1451:U:H5''	2.02	0.40
56:Cd:50:LYS:HZ1	84:Aa:3293:U:P	2.44	0.40
64:Ci:64:LEU:HD21	84:Aa:307:C:P	2.61	0.40
83:Cg:63:LYS:HA	84:Aa:1799:C:H5'	2.04	0.40
84:Aa:719:U:C6	84:Aa:719:U:O5'	2.75	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	
4	BY	136/138 (99%)	118 (87%)	8 (6%)	10 (7%)	1	10
5	BI	64/220 (29%)	61 (95%)	2 (3%)	1 (2%)	7	37
6	BK	94/183 (51%)	66 (70%)	17 (18%)	11 (12%)	0	4
7	BM	121/171 (71%)	84 (69%)	20 (16%)	17 (14%)	0	3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
8	Bf	69/155 (44%)	46 (67%)	10 (14%)	13 (19%)	0	2
9	BX	140/142 (99%)	124 (89%)	11 (8%)	5 (4%)	2	20
10	Bg	378/380 (100%)	334 (88%)	26 (7%)	18 (5%)	2	16
11	BD	206/208 (99%)	125 (61%)	34 (16%)	47 (23%)	0	1
12	BE	198/265 (75%)	173 (87%)	16 (8%)	9 (4%)	2	16
13	BF	189/191 (99%)	162 (86%)	20 (11%)	7 (4%)	2	19
14	BQ	124/149 (83%)	93 (75%)	15 (12%)	16 (13%)	0	4
15	BU	126/128 (98%)	102 (81%)	14 (11%)	10 (8%)	1	9
16	BO	117/151 (78%)	91 (78%)	12 (10%)	14 (12%)	0	4
17	BS	150/152 (99%)	109 (73%)	16 (11%)	25 (17%)	0	2
18	BN	119/151 (79%)	92 (77%)	14 (12%)	13 (11%)	0	6
19	BL	83/160 (52%)	61 (74%)	16 (19%)	6 (7%)	1	10
20	BT	144/146 (99%)	123 (85%)	13 (9%)	8 (6%)	1	14
21	BP	89/154 (58%)	69 (78%)	12 (14%)	8 (9%)	0	8
22	BZ	98/108 (91%)	75 (76%)	10 (10%)	13 (13%)	0	3
23	Bc	56/65 (86%)	40 (71%)	5 (9%)	11 (20%)	0	2
24	BW	128/130 (98%)	101 (79%)	16 (12%)	11 (9%)	0	8
25	Bd	46/56 (82%)	29 (63%)	6 (13%)	11 (24%)	0	1
26	Bb	84/86 (98%)	75 (89%)	6 (7%)	3 (4%)	2	20
27	Be	58/62 (94%)	49 (84%)	5 (9%)	4 (7%)	1	11
28	BA	195/260 (75%)	176 (90%)	10 (5%)	9 (5%)	2	16
29	BR	114/141 (81%)	89 (78%)	15 (13%)	10 (9%)	0	8
30	BB	209/262 (80%)	153 (73%)	31 (15%)	25 (12%)	0	4
31	BV	74/82 (90%)	62 (84%)	9 (12%)	3 (4%)	2	17
32	Ba	91/133 (68%)	65 (71%)	13 (14%)	13 (14%)	0	3
33	BJ	185/195 (95%)	162 (88%)	16 (9%)	7 (4%)	2	19
34	BC	212/263 (81%)	189 (89%)	16 (8%)	7 (3%)	3	20
35	BG	227/245 (93%)	211 (93%)	10 (4%)	6 (3%)	4	25
36	BH	182/189 (96%)	154 (85%)	10 (6%)	18 (10%)	0	7
37	CG	235/257 (91%)	205 (87%)	24 (10%)	6 (3%)	4	25
38	CT	158/164 (96%)	137 (87%)	6 (4%)	15 (10%)	0	8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
39	CZ	134/136 (98%)	123 (92%)	10 (8%)	1 (1%)	18	56
40	Cz	214/216 (99%)	197 (92%)	9 (4%)	8 (4%)	2	19
41	CA	253/261 (97%)	219 (87%)	19 (8%)	15 (6%)	1	12
42	CJ	168/180 (93%)	132 (79%)	14 (8%)	22 (13%)	0	3
43	CH	188/190 (99%)	167 (89%)	16 (8%)	5 (3%)	4	25
44	CV	138/140 (99%)	124 (90%)	7 (5%)	7 (5%)	1	14
45	CN	192/200 (96%)	168 (88%)	18 (9%)	6 (3%)	3	21
46	Ca	142/144 (99%)	101 (71%)	24 (17%)	17 (12%)	0	4
47	CQ	161/188 (86%)	127 (79%)	18 (11%)	16 (10%)	0	7
48	CD	302/304 (99%)	213 (70%)	35 (12%)	54 (18%)	0	2
49	CR	187/209 (90%)	163 (87%)	14 (8%)	10 (5%)	1	14
50	CP	169/171 (99%)	140 (83%)	12 (7%)	17 (10%)	0	7
51	CX	120/152 (79%)	100 (83%)	17 (14%)	3 (2%)	4	25
52	CW	73/162 (45%)	55 (75%)	12 (16%)	6 (8%)	0	9
53	CY	128/150 (85%)	114 (89%)	8 (6%)	6 (5%)	2	16
54	Cr	71/147 (48%)	49 (69%)	13 (18%)	9 (13%)	0	4
55	Cc	110/112 (98%)	96 (87%)	10 (9%)	4 (4%)	2	20
56	Cd	118/123 (96%)	98 (83%)	8 (7%)	12 (10%)	0	6
57	Ce	131/133 (98%)	113 (86%)	10 (8%)	8 (6%)	1	12
58	Cj	92/94 (98%)	58 (63%)	19 (21%)	15 (16%)	0	2
59	Cl	49/51 (96%)	36 (74%)	8 (16%)	5 (10%)	0	6
60	Co	103/105 (98%)	76 (74%)	13 (13%)	14 (14%)	0	3
61	CM	132/134 (98%)	101 (76%)	14 (11%)	17 (13%)	0	4
62	CS	165/178 (93%)	122 (74%)	20 (12%)	23 (14%)	0	3
63	CU	106/130 (82%)	76 (72%)	13 (12%)	17 (16%)	0	2
64	Ci	75/112 (67%)	59 (79%)	5 (7%)	11 (15%)	0	3
65	CK	126/166 (76%)	94 (75%)	17 (14%)	15 (12%)	0	4
66	Cu	56/110 (51%)	54 (96%)	1 (2%)	1 (2%)	6	33
66	Cv	56/110 (51%)	53 (95%)	2 (4%)	1 (2%)	6	33
67	Cs	57/113 (50%)	54 (95%)	3 (5%)	0	100	100
67	Ct	57/113 (50%)	54 (95%)	3 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
68	Ch	122/124 (98%)	103 (84%)	11 (9%)	8 (7%)	1	11
69	CF	242/244 (99%)	217 (90%)	16 (7%)	9 (4%)	2	19
70	Cq	260/319 (82%)	233 (90%)	15 (6%)	12 (5%)	2	16
71	CB	387/389 (100%)	307 (79%)	43 (11%)	37 (10%)	0	7
72	CC	368/405 (91%)	311 (84%)	27 (7%)	30 (8%)	0	9
73	CO	204/206 (99%)	179 (88%)	14 (7%)	11 (5%)	1	14
74	Cp	90/92 (98%)	81 (90%)	7 (8%)	2 (2%)	5	28
75	CI	182/224 (81%)	147 (81%)	24 (13%)	11 (6%)	1	12
76	Cn	23/25 (92%)	21 (91%)	1 (4%)	1 (4%)	2	17
77	Cm	50/53 (94%)	46 (92%)	3 (6%)	1 (2%)	6	30
78	CL	206/208 (99%)	168 (82%)	13 (6%)	25 (12%)	0	4
79	CE	217/219 (99%)	177 (82%)	14 (6%)	26 (12%)	0	4
80	Cf	109/111 (98%)	103 (94%)	5 (5%)	1 (1%)	14	50
81	Ck	67/69 (97%)	63 (94%)	2 (3%)	2 (3%)	3	22
82	Cb	56/60 (93%)	48 (86%)	4 (7%)	4 (7%)	1	10
83	Cg	108/119 (91%)	96 (89%)	8 (7%)	4 (4%)	2	19
All	All	11663/13543 (86%)	9641 (83%)	1083 (9%)	939 (8%)	1	9

All (939) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	BY	2	ALA
4	BY	39	ASN
4	BY	41	SER
4	BY	46	LYS
4	BY	49	LEU
4	BY	68	THR
6	BK	82	LEU
6	BK	87	VAL
6	BK	88	PRO
6	BK	89	ALA
7	BM	79	VAL
7	BM	81	SER
7	BM	96	SER
8	Bf	26	VAL
9	BX	60	GLN

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Mol	Chain	Res	Type
9	BX	128	SER
10	Bg	2	ALA
10	Bg	149	VAL
10	Bg	216	LEU
10	Bg	342	SER
10	Bg	343	HIS
11	BD	32	ASP
11	BD	48	ILE
11	BD	90	LYS
11	BD	96	LEU
11	BD	99	ILE
11	BD	111	GLY
11	BD	125	PHE
11	BD	126	VAL
11	BD	131	ALA
11	BD	156	TYR
11	BD	162	GLN
11	BD	183	GLY
11	BD	184	ILE
11	BD	197	LYS
11	BD	200	PRO
11	BD	213	PRO
11	BD	215	GLU
11	BD	216	GLU
11	BD	217	ASN
11	BD	218	GLU
12	BE	58	TYR
12	BE	153	ILE
12	BE	154	ILE
13	BF	41	HIS
13	BF	57	PHE
13	BF	63	PRO
13	BF	77	ARG
14	BQ	45	ILE
14	BQ	76	ARG
14	BQ	90	ALA
14	BQ	91	ILE
14	BQ	142	ALA
15	BU	3	ALA
15	BU	7	ALA
15	BU	9	ALA
15	BU	12	MET

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Mol	Chain	Res	Type
15	BU	81	GLU
16	BO	66	ASP
16	BO	72	ALA
16	BO	97	ARG
16	BO	134	VAL
16	BO	148	ARG
17	BS	5	ALA
17	BS	8	GLU
17	BS	9	PHE
17	BS	17	ASN
17	BS	74	PRO
17	BS	80	PRO
17	BS	87	LYS
17	BS	99	VAL
17	BS	100	SER
17	BS	149	SER
18	BN	42	LYS
18	BN	57	GLN
18	BN	69	SER
18	BN	81	ALA
18	BN	86	GLU
18	BN	109	LYS
18	BN	137	PRO
19	BL	55	ILE
19	BL	109	PRO
19	BL	110	ALA
19	BL	120	GLU
20	BT	34	PRO
20	BT	40	VAL
21	BP	66	ILE
21	BP	70	ARG
21	BP	71	LYS
21	BP	139	ARG
22	BZ	18	SER
22	BZ	19	GLY
22	BZ	24	LYS
22	BZ	26	LYS
22	BZ	28	TRP
22	BZ	33	GLN
23	Bc	2	ASP
23	Bc	16	ARG
23	Bc	17	THR

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Mol	Chain	Res	Type
23	Bc	24	THR
24	BW	4	VAL
24	BW	52	PHE
24	BW	53	VAL
24	BW	65	LEU
24	BW	97	ARG
25	Bd	11	PRO
25	Bd	14	TYR
25	Bd	54	LYS
26	Bb	64	VAL
27	Be	57	PRO
28	BA	10	ARG
28	BA	100	ALA
29	BR	2	GLY
29	BR	88	LYS
29	BR	93	VAL
29	BR	101	GLU
29	BR	115	PRO
30	BB	49	SER
30	BB	113	LEU
30	BB	148	ASN
30	BB	179	CYS
30	BB	182	LYS
30	BB	206	PRO
31	BV	22	ARG
32	Ba	45	VAL
32	Ba	63	VAL
32	Ba	86	VAL
33	BJ	5	PRO
33	BJ	8	TYR
34	BC	146	ASN
35	BG	20	ASP
35	BG	87	TYR
35	BG	160	ASN
36	BH	17	SER
36	BH	34	ASN
36	BH	104	PRO
36	BH	105	PRO
36	BH	106	LYS
36	BH	118	THR
37	CG	48	VAL
37	CG	225	VAL

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Mol	Chain	Res	Type
37	CG	233	VAL
38	CT	8	ARG
38	CT	70	ARG
38	CT	141	VAL
38	CT	151	PRO
40	Cz	150	THR
40	Cz	167	ALA
40	Cz	197	TRP
40	Cz	198	GLN
41	CA	28	ARG
41	CA	67	PHE
41	CA	68	ARG
41	CA	119	HIS
42	CJ	2	SER
42	CJ	3	THR
42	CJ	7	GLN
42	CJ	58	SER
42	CJ	94	LEU
42	CJ	113	ASP
43	CH	140	LYS
43	CH	185	THR
43	CH	186	ILE
44	CV	13	LYS
44	CV	36	ASN
45	CN	122	ASN
45	CN	185	ARG
46	Ca	9	ARG
46	Ca	10	LYS
46	Ca	15	VAL
46	Ca	22	ILE
46	Ca	28	HIS
46	Ca	109	LYS
46	Ca	128	VAL
47	CQ	13	ARG
47	CQ	20	LYS
47	CQ	156	PRO
47	CQ	159	PRO
48	CD	2	SER
48	CD	16	TYR
48	CD	74	ILE
48	CD	116	LEU
48	CD	138	GLU

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Mol	Chain	Res	Type
48	CD	188	LYS
48	CD	191	ASP
48	CD	199	ILE
48	CD	204	VAL
48	CD	218	LYS
48	CD	236	MET
48	CD	239	LEU
48	CD	260	GLU
48	CD	262	ALA
48	CD	284	ARG
48	CD	285	LEU
48	CD	289	ASN
48	CD	290	SER
48	CD	291	SER
49	CR	55	GLN
49	CR	56	LYS
49	CR	59	SER
49	CR	188	SER
50	CP	112	THR
50	CP	167	ALA
51	CX	34	LYS
51	CX	46	LYS
51	CX	50	LYS
52	CW	54	THR
52	CW	72	LYS
53	CY	8	THR
53	CY	9	SER
53	CY	10	SER
54	Cr	110	ASN
55	Cc	102	SER
56	Cd	8	ALA
56	Cd	27	ARG
56	Cd	87	ARG
56	Cd	101	VAL
56	Cd	102	THR
56	Cd	119	VAL
57	Ce	13	LYS
57	Ce	131	GLU
58	Cj	4	GLY
58	Cj	41	ALA
58	Cj	51	VAL
58	Cj	84	ALA

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Mol	Chain	Res	Type
58	Cj	90	ALA
59	Cl	4	HIS
59	Cl	34	THR
59	Cl	38	ASN
60	Co	48	SER
60	Co	97	LYS
61	CM	6	PHE
61	CM	7	VAL
61	CM	17	TYR
61	CM	23	ARG
61	CM	66	PRO
61	CM	80	VAL
61	CM	89	TRP
61	CM	102	LEU
62	CS	4	PHE
62	CS	6	PHE
62	CS	17	PRO
62	CS	23	HIS
62	CS	35	ASN
62	CS	54	LYS
62	CS	70	ASN
62	CS	71	PRO
62	CS	73	THR
62	CS	87	THR
62	CS	117	ARG
62	CS	138	ARG
62	CS	151	PHE
62	CS	152	PRO
62	CS	161	PRO
63	CU	31	VAL
63	CU	32	GLU
63	CU	34	LYS
63	CU	58	ASN
63	CU	79	ALA
63	CU	100	ASP
63	CU	101	TRP
63	CU	104	VAL
63	CU	105	ILE
63	CU	106	ALA
63	CU	111	ARG
64	Ci	38	LYS
64	Ci	40	VAL

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Mol	Chain	Res	Type
64	Ci	95	SER
65	CK	15	VAL
65	CK	32	ILE
65	CK	37	LEU
65	CK	76	PRO
65	CK	95	LYS
65	CK	96	VAL
65	CK	132	GLU
65	CK	133	ILE
66	Cu	62	VAL
66	Cv	62	VAL
68	Ch	117	GLN
68	Ch	119	LYS
69	CF	109	ARG
69	CF	159	ASN
69	CF	205	TRP
70	Cq	63	ARG
70	Cq	208	ASP
70	Cq	212	ASP
71	CB	4	ARG
71	CB	60	VAL
71	CB	61	GLU
71	CB	63	PRO
71	CB	123	CYS
71	CB	129	ALA
71	CB	292	GLY
71	CB	296	HIS
71	CB	335	PRO
71	CB	350	THR
71	CB	351	SER
71	CB	358	ILE
72	CC	3	THR
72	CC	17	ASP
72	CC	21	ASP
72	CC	24	SER
72	CC	62	ALA
72	CC	90	ARG
72	CC	107	ALA
72	CC	108	PRO
72	CC	110	LYS
72	CC	202	ASN
72	CC	305	SER

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Mol	Chain	Res	Type
72	CC	348	GLU
72	CC	349	ALA
73	CO	11	ARG
73	CO	71	PRO
73	CO	126	PRO
73	CO	132	LEU
73	CO	135	GLN
73	CO	136	PRO
75	CI	18	PRO
75	CI	39	LYS
75	CI	113	THR
75	CI	115	MET
78	CL	13	PHE
78	CL	21	VAL
78	CL	46	PHE
78	CL	48	ARG
78	CL	62	THR
78	CL	64	LYS
78	CL	66	ASN
78	CL	127	PRO
78	CL	154	MET
78	CL	156	ILE
79	CE	26	TRP
79	CE	28	ILE
79	CE	37	PRO
79	CE	39	ALA
79	CE	40	GLU
79	CE	41	LYS
79	CE	44	ALA
79	CE	51	TYR
79	CE	52	PRO
79	CE	73	SER
79	CE	74	THR
79	CE	159	GLU
79	CE	166	ASP
80	Cf	7	GLN
82	Cb	21	ILE
82	Cb	39	PHE
83	Cg	11	HIS
83	Cg	65	PRO
6	BK	53	GLU
6	BK	61	TRP

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Mol	Chain	Res	Type
7	BM	115	GLY
7	BM	117	GLU
8	Bf	13	LYS
8	Bf	16	LYS
8	Bf	19	HIS
9	BX	86	ASN
10	Bg	202	SER
10	Bg	203	GLY
10	Bg	271	GLY
11	BD	36	GLY
11	BD	63	GLY
11	BD	80	LEU
11	BD	81	GLU
11	BD	91	VAL
11	BD	98	ALA
11	BD	113	LEU
11	BD	140	GLY
11	BD	152	PHE
11	BD	195	LYS
12	BE	53	LYS
12	BE	163	ASP
12	BE	217	GLN
13	BF	178	LYS
14	BQ	26	SER
14	BQ	36	LYS
14	BQ	138	ARG
15	BU	13	LYS
15	BU	30	ARG
15	BU	58	LYS
16	BO	75	LEU
16	BO	94	ILE
16	BO	138	SER
17	BS	15	VAL
17	BS	75	ARG
17	BS	91	LYS
17	BS	95	PHE
17	BS	151	LYS
18	BN	149	LEU
19	BL	121	GLY
20	BT	45	PHE
21	BP	116	ILE
22	BZ	11	PRO

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Mol	Chain	Res	Type
22	BZ	34	LYS
22	BZ	89	ALA
23	Bc	19	SER
23	Bc	25	GLN
24	BW	23	ARG
24	BW	50	PHE
24	BW	92	ARG
24	BW	96	SER
25	Bd	19	ARG
25	Bd	20	VAL
25	Bd	33	LYS
25	Bd	53	ILE
28	BA	32	LYS
28	BA	71	ALA
29	BR	86	PRO
29	BR	95	GLU
29	BR	112	ALA
30	BB	93	GLY
30	BB	177	SER
30	BB	221	PRO
31	BV	7	GLN
32	Ba	10	ARG
32	Ba	19	LYS
32	Ba	62	TYR
33	BJ	123	SER
33	BJ	136	ILE
33	BJ	152	VAL
34	BC	148	ILE
36	BH	67	TYR
36	BH	77	HIS
36	BH	111	VAL
36	BH	135	GLU
37	CG	121	GLU
38	CT	5	HIS
38	CT	10	ARG
38	CT	159	ASP
40	Cz	73	VAL
40	Cz	98	LEU
40	Cz	134	PRO
41	CA	34	PHE
42	CJ	33	THR
42	CJ	63	ARG

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Mol	Chain	Res	Type
42	CJ	88	VAL
42	CJ	108	ILE
42	CJ	124	ILE
42	CJ	127	MET
44	CV	5	GLY
44	CV	9	SER
44	CV	12	ASN
45	CN	2	GLY
45	CN	56	LYS
46	Ca	7	LYS
46	Ca	8	ASN
46	Ca	11	LYS
46	Ca	124	LEU
47	CQ	94	GLU
47	CQ	98	MET
47	CQ	160	HIS
48	CD	3	LEU
48	CD	14	HIS
48	CD	59	LYS
48	CD	73	ASP
48	CD	89	LEU
48	CD	117	ASP
48	CD	119	GLU
48	CD	125	GLU
48	CD	144	ALA
48	CD	183	PHE
48	CD	187	GLU
48	CD	200	TYR
48	CD	203	HIS
48	CD	238	SER
48	CD	248	ARG
48	CD	249	ALA
49	CR	54	PRO
50	CP	2	VAL
50	CP	9	ASN
50	CP	31	GLU
50	CP	38	LYS
50	CP	68	GLY
50	CP	70	THR
50	CP	74	LYS
50	CP	128	ARG
50	CP	166	ILE

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Mol	Chain	Res	Type
50	CP	169	ARG
52	CW	63	LYS
54	Cr	90	SER
54	Cr	91	VAL
56	Cd	2	SER
57	Ce	120	VAL
58	Cj	76	SER
58	Cj	79	ARG
58	Cj	87	ARG
59	Cl	39	ALA
60	Co	34	SER
60	Co	37	ALA
61	CM	3	PHE
61	CM	32	ASP
62	CS	52	LYS
63	CU	37	GLU
64	Ci	42	PHE
64	Ci	66	VAL
64	Ci	94	SER
65	CK	94	LYS
65	CK	137	CYS
69	CF	36	LYS
70	Cq	52	SER
71	CB	2	SER
71	CB	124	LYS
71	CB	126	LYS
71	CB	131	THR
71	CB	215	ASP
71	CB	301	GLU
71	CB	303	ASP
71	CB	359	LYS
71	CB	373	ARG
71	CB	374	PHE
72	CC	19	ALA
72	CC	91	ALA
72	CC	151	VAL
72	CC	208	ARG
72	CC	345	THR
74	Cp	6	LYS
74	Cp	18	TYR
75	CI	99	ILE
75	CI	110	ARG

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Mol	Chain	Res	Type
75	CI	118	ALA
78	CL	12	HIS
78	CL	49	PRO
78	CL	67	MET
78	CL	70	ARG
78	CL	130	ALA
79	CE	12	LYS
79	CE	54	ASP
79	CE	75	ILE
79	CE	172	ASN
79	CE	205	ARG
79	CE	209	ARG
81	Ck	20	ALA
82	Cb	25	LYS
83	Cg	10	ARG
4	BY	16	LYS
5	BI	161	GLN
6	BK	34	GLN
7	BM	10	GLU
7	BM	44	LYS
7	BM	72	HIS
7	BM	89	ALA
8	Bf	12	PRO
8	Bf	30	TYR
10	Bg	98	SER
10	Bg	150	SER
10	Bg	151	ARG
10	Bg	180	GLN
10	Bg	301	VAL
10	Bg	366	LYS
11	BD	62	LYS
11	BD	78	ASN
11	BD	93	ASN
11	BD	173	ARG
11	BD	211	HIS
12	BE	94	LYS
12	BE	213	ALA
14	BQ	32	ARG
14	BQ	81	THR
14	BQ	92	ALA
14	BQ	118	TYR
14	BQ	146	LYS

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Mol	Chain	Res	Type
16	BO	93	HIS
16	BO	109	PRO
16	BO	149	ARG
17	BS	49	ASP
17	BS	140	GLY
18	BN	78	HIS
18	BN	87	ASP
20	BT	11	ASP
22	BZ	101	ILE
23	Bc	8	ALA
24	BW	95	PRO
25	Bd	15	GLY
25	Bd	47	ALA
26	Bb	19	LEU
26	Bb	65	LEU
28	BA	44	LYS
30	BB	55	LYS
32	Ba	46	GLU
32	Ba	82	HIS
36	BH	57	ASN
36	BH	89	SER
36	BH	132	TYR
37	CG	153	VAL
37	CG	232	GLY
38	CT	80	VAL
39	CZ	103	THR
41	CA	11	GLY
41	CA	71	HIS
41	CA	245	ARG
42	CJ	65	GLU
42	CJ	89	LYS
42	CJ	145	ARG
46	Ca	66	ASN
46	Ca	114	PRO
47	CQ	11	ASN
47	CQ	119	GLU
47	CQ	142	PRO
48	CD	23	LYS
48	CD	52	LYS
48	CD	55	PHE
48	CD	132	TYR
48	CD	141	PRO

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Mol	Chain	Res	Type
48	CD	197	LYS
48	CD	212	ALA
48	CD	261	PRO
48	CD	287	ALA
48	CD	288	LEU
48	CD	292	ALA
48	CD	293	GLY
50	CP	8	ALA
50	CP	63	TYR
50	CP	79	ASN
50	CP	168	ALA
54	Cr	87	TYR
54	Cr	93	ARG
56	Cd	4	LYS
56	Cd	11	ARG
56	Cd	26	LYS
58	Cj	26	SER
58	Cj	77	ASN
59	Cl	47	THR
60	Co	14	ASN
60	Co	56	PRO
60	Co	76	SER
60	Co	91	PHE
60	Co	94	GLY
60	Co	98	LYS
60	Co	102	THR
61	CM	31	VAL
61	CM	88	SER
61	CM	105	PHE
62	CS	139	ASP
62	CS	162	THR
63	CU	29	LYS
63	CU	97	ASN
63	CU	107	ALA
63	CU	108	ASN
64	Ci	39	ARG
64	Ci	80	LEU
65	CK	134	LEU
68	Ch	99	ASP
68	Ch	113	VAL
69	CF	35	GLU
69	CF	62	LYS

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Mol	Chain	Res	Type
69	CF	167	ASN
70	Cq	73	THR
70	Cq	209	LEU
70	Cq	210	THR
70	Cq	211	GLU
71	CB	40	PRO
71	CB	103	ASN
71	CB	137	TYR
71	CB	158	THR
71	CB	262	ARG
71	CB	375	GLN
71	CB	386	ARG
72	CC	4	GLN
72	CC	330	VAL
73	CO	42	ARG
73	CO	69	THR
76	Cn	24	SER
78	CL	22	LYS
78	CL	128	ARG
78	CL	134	LYS
78	CL	142	GLU
78	CL	148	GLN
78	CL	152	ASP
79	CE	157	LYS
4	BY	11	THR
4	BY	48	LYS
6	BK	30	ALA
6	BK	60	SER
6	BK	64	TYR
7	BM	30	GLY
7	BM	94	ILE
7	BM	106	CYS
7	BM	107	SER
8	Bf	14	LYS
8	Bf	21	LYS
8	Bf	34	ASP
8	Bf	72	THR
9	BX	64	ALA
11	BD	30	ALA
11	BD	61	GLU
11	BD	64	ARG
11	BD	71	SER

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Mol	Chain	Res	Type
11	BD	172	VAL
12	BE	149	TYR
13	BF	56	ARG
15	BU	25	VAL
16	BO	53	VAL
16	BO	73	ALA
16	BO	142	LYS
17	BS	6	GLY
17	BS	7	GLU
17	BS	79	VAL
17	BS	83	PHE
17	BS	94	ARG
17	BS	139	THR
18	BN	41	ALA
18	BN	58	HIS
19	BL	61	PHE
20	BT	48	LEU
22	BZ	13	SER
22	BZ	96	HIS
23	Bc	3	THR
23	Bc	4	GLN
25	Bd	16	ALA
28	BA	108	THR
29	BR	100	LYS
30	BB	35	PRO
30	BB	79	GLN
30	BB	82	ARG
30	BB	176	ALA
31	BV	59	ARG
32	Ba	36	ILE
32	Ba	64	LEU
32	Ba	65	PRO
34	BC	35	TRP
34	BC	36	VAL
34	BC	106	ASP
34	BC	150	GLN
34	BC	235	PHE
35	BG	69	THR
36	BH	102	VAL
36	BH	141	VAL
36	BH	157	PRO
38	CT	124	GLU

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Mol	Chain	Res	Type
38	CT	125	VAL
41	CA	38	ASN
41	CA	115	ASN
41	CA	127	ALA
42	CJ	6	LYS
42	CJ	10	PRO
42	CJ	32	LEU
42	CJ	74	ARG
43	CH	49	GLU
43	CH	126	ASP
44	CV	6	ARG
45	CN	78	GLY
45	CN	148	ILE
46	Ca	4	ARG
46	Ca	108	GLY
46	Ca	117	PRO
46	Ca	134	LYS
47	CQ	78	ASN
47	CQ	139	LEU
47	CQ	148	ALA
47	CQ	157	GLY
47	CQ	158	VAL
48	CD	17	PHE
48	CD	90	GLU
48	CD	118	GLN
48	CD	245	ALA
48	CD	259	LYS
52	CW	66	HIS
53	CY	4	ASN
53	CY	21	ALA
55	Cc	31	TYR
55	Cc	89	TYR
57	Ce	46	LYS
57	Ce	90	ASN
57	Ce	132	ASP
58	Cj	10	LYS
58	Cj	37	CYS
58	Cj	39	TYR
58	Cj	61	THR
60	Co	35	LEU
61	CM	65	VAL
61	CM	67	LYS

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Mol	Chain	Res	Type
62	CS	15	GLY
62	CS	16	LEU
62	CS	19	PRO
62	CS	86	ARG
64	Ci	41	HIS
68	Ch	80	ALA
69	CF	206	PRO
70	Cq	12	VAL
70	Cq	74	GLY
71	CB	204	LYS
71	CB	205	GLU
71	CB	270	ALA
72	CC	22	ASN
72	CC	87	GLY
72	CC	154	LEU
72	CC	331	LEU
72	CC	346	LEU
72	CC	389	SER
75	CI	84	ALA
75	CI	85	PHE
75	CI	93	PRO
78	CL	65	TYR
81	Ck	26	LYS
82	Cb	23	LYS
4	BY	45	LEU
7	BM	91	LEU
7	BM	113	ASP
8	Bf	43	ARG
9	BX	9	ALA
10	Bg	111	VAL
17	BS	137	LYS
17	BS	150	LYS
20	BT	53	PRO
21	BP	117	LYS
21	BP	118	PRO
23	Bc	57	SER
24	BW	79	PHE
27	Be	4	VAL
27	Be	48	VAL
28	BA	163	ILE
29	BR	92	GLU
30	BB	38	PHE

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Mol	Chain	Res	Type
30	BB	54	THR
30	BB	58	SER
30	BB	62	LYS
30	BB	63	HIS
30	BB	64	ARG
30	BB	210	VAL
30	BB	213	ARG
33	BJ	142	ILE
35	BG	154	ASP
36	BH	113	ARG
41	CA	66	PRO
41	CA	69	TYR
41	CA	140	ASN
42	CJ	9	ASN
47	CQ	149	VAL
48	CD	140	ARG
48	CD	294	ALA
49	CR	185	PRO
50	CP	162	PRO
52	CW	45	ARG
53	CY	49	ILE
54	Cr	72	LEU
54	Cr	108	SER
56	Cd	90	GLU
57	Ce	66	HIS
60	Co	59	HIS
60	Co	80	TYR
61	CM	78	ALA
61	CM	79	ASP
63	CU	55	LYS
65	CK	75	VAL
65	CK	78	ALA
65	CK	91	ARG
68	Ch	45	LEU
68	Ch	90	ARG
69	CF	160	LYS
70	Cq	145	ASN
71	CB	70	LYS
71	CB	111	SER
72	CC	18	MET
72	CC	109	THR
72	CC	343	MET

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Mol	Chain	Res	Type
73	CO	131	VAL
73	CO	152	TRP
73	CO	193	LYS
77	Cm	2	ILE
78	CL	60	CYS
79	CE	29	LYS
79	CE	69	THR
7	BM	95	ASP
8	Bf	11	LYS
10	Bg	237	ILE
10	Bg	340	GLN
11	BD	31	GLU
11	BD	84	VAL
11	BD	194	PRO
11	BD	206	ASP
11	BD	212	PRO
14	BQ	47	PRO
20	BT	90	SER
21	BP	63	MET
22	BZ	44	ASP
23	Bc	34	GLN
25	Bd	38	CYS
28	BA	193	ILE
30	BB	37	VAL
30	BB	207	LEU
33	BJ	4	ALA
35	BG	159	VAL
38	CT	43	LYS
41	CA	73	LYS
42	CJ	25	VAL
44	CV	49	LEU
49	CR	91	THR
49	CR	137	VAL
52	CW	71	LYS
54	Cr	67	ASP
57	Ce	121	THR
62	CS	166	LYS
64	Ci	81	GLY
65	CK	87	LYS
70	Cq	136	SER
71	CB	69	LYS
71	CB	242	PRO

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Mol	Chain	Res	Type
71	CB	297	GLU
78	CL	126	PHE
79	CE	11	ILE
14	BQ	31	GLY
27	Be	56	GLY
32	Ba	84	VAL
38	CT	123	GLY
49	CR	57	ILE
79	CE	45	ILE
79	CE	117	ILE
83	Cg	2	VAL
13	BF	137	ILE
14	BQ	46	ARG
18	BN	66	VAL
38	CT	84	ILE
38	CT	146	ILE
49	CR	73	GLY
54	Cr	61	GLN
7	BM	103	VAL
10	Bg	127	GLY
11	BD	95	GLY
20	BT	33	LEU
28	BA	122	GLU
32	Ba	75	VAL
40	Cz	55	PRO
42	CJ	60	GLY
64	Ci	43	VAL
68	Ch	97	SER
78	CL	2	VAL
6	BK	83	PRO
15	BU	66	PRO
30	BB	215	VAL
36	BH	156	ASP
38	CT	126	ILE
56	Cd	16	VAL
75	CI	42	GLY
8	Bf	15	ILE
11	BD	202	THR
55	Cc	79	VAL
58	Cj	38	GLY
72	CC	386	ILE
79	CE	36	LEU

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	
4	BY	116/116 (100%)	110 (95%)	6 (5%)	21	42
5	BI	56/179 (31%)	53 (95%)	3 (5%)	20	41
6	BK	90/146 (62%)	89 (99%)	1 (1%)	65	75
7	BM	101/142 (71%)	101 (100%)	0	100	100
8	Bf	62/135 (46%)	61 (98%)	1 (2%)	55	69
9	BX	113/113 (100%)	110 (97%)	3 (3%)	39	60
10	Bg	323/323 (100%)	313 (97%)	10 (3%)	35	56
11	BD	175/175 (100%)	170 (97%)	5 (3%)	37	57
12	BE	176/225 (78%)	171 (97%)	5 (3%)	38	59
13	BF	159/159 (100%)	153 (96%)	6 (4%)	29	50
14	BQ	103/120 (86%)	101 (98%)	2 (2%)	50	66
15	BU	113/113 (100%)	109 (96%)	4 (4%)	32	53
16	BO	94/120 (78%)	90 (96%)	4 (4%)	26	47
17	BS	133/133 (100%)	125 (94%)	8 (6%)	17	39
18	BN	106/130 (82%)	103 (97%)	3 (3%)	38	59
19	BL	74/135 (55%)	71 (96%)	3 (4%)	27	48
20	BT	121/121 (100%)	115 (95%)	6 (5%)	22	43
21	BP	77/130 (59%)	73 (95%)	4 (5%)	21	42
22	BZ	87/93 (94%)	84 (97%)	3 (3%)	32	54
23	Bc	52/58 (90%)	49 (94%)	3 (6%)	18	39
24	BW	113/113 (100%)	109 (96%)	4 (4%)	32	53
25	Bd	40/47 (85%)	39 (98%)	1 (2%)	42	62
26	Bb	78/78 (100%)	78 (100%)	0	100	100
27	Be	47/49 (96%)	47 (100%)	0	100	100
28	BA	161/204 (79%)	153 (95%)	8 (5%)	22	43
29	BR	105/127 (83%)	103 (98%)	2 (2%)	50	66

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
30	BB	188/226 (83%)	186 (99%)	2 (1%)	65	75
31	BV	63/68 (93%)	62 (98%)	1 (2%)	55	69
32	Ba	80/107 (75%)	78 (98%)	2 (2%)	42	62
33	BJ	160/167 (96%)	155 (97%)	5 (3%)	35	56
34	BC	182/211 (86%)	178 (98%)	4 (2%)	45	64
35	BG	201/210 (96%)	194 (96%)	7 (4%)	32	53
36	BH	164/168 (98%)	160 (98%)	4 (2%)	43	63
37	CG	205/220 (93%)	199 (97%)	6 (3%)	37	57
38	CT	139/141 (99%)	134 (96%)	5 (4%)	31	52
39	CZ	113/113 (100%)	111 (98%)	2 (2%)	51	67
40	Cz	192/192 (100%)	179 (93%)	13 (7%)	14	36
41	CA	195/199 (98%)	185 (95%)	10 (5%)	21	42
42	CJ	149/157 (95%)	141 (95%)	8 (5%)	20	41
43	CH	164/164 (100%)	159 (97%)	5 (3%)	36	57
44	CV	109/109 (100%)	106 (97%)	3 (3%)	38	59
45	CN	167/173 (96%)	164 (98%)	3 (2%)	51	67
46	Ca	110/110 (100%)	106 (96%)	4 (4%)	31	52
47	CQ	138/160 (86%)	133 (96%)	5 (4%)	31	52
48	CD	251/251 (100%)	237 (94%)	14 (6%)	19	40
49	CR	166/183 (91%)	155 (93%)	11 (7%)	15	37
50	CP	144/144 (100%)	140 (97%)	4 (3%)	38	59
51	CX	109/130 (84%)	102 (94%)	7 (6%)	16	37
52	CW	66/133 (50%)	66 (100%)	0	100	100
53	CY	115/128 (90%)	111 (96%)	4 (4%)	32	53
54	Cr	64/131 (49%)	61 (95%)	3 (5%)	23	45
55	Cc	98/98 (100%)	95 (97%)	3 (3%)	35	56
56	Cd	103/106 (97%)	98 (95%)	5 (5%)	22	43
57	Ce	122/122 (100%)	120 (98%)	2 (2%)	55	69
58	Cj	77/77 (100%)	75 (97%)	2 (3%)	40	61
59	Cl	48/48 (100%)	47 (98%)	1 (2%)	47	65
60	Co	94/94 (100%)	89 (95%)	5 (5%)	20	41

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
61	CM	116/116 (100%)	110 (95%)	6 (5%)	21	42
62	CS	153/163 (94%)	145 (95%)	8 (5%)	21	42
63	CU	94/106 (89%)	87 (93%)	7 (7%)	13	33
64	Ci	62/92 (67%)	58 (94%)	4 (6%)	15	37
65	CK	105/139 (76%)	97 (92%)	8 (8%)	12	33
66	Cu	46/77 (60%)	45 (98%)	1 (2%)	45	64
66	Cv	46/77 (60%)	46 (100%)	0	100	100
67	Cs	48/82 (58%)	47 (98%)	1 (2%)	47	65
67	Ct	48/82 (58%)	46 (96%)	2 (4%)	26	48
68	Ch	109/109 (100%)	104 (95%)	5 (5%)	24	45
69	CF	206/206 (100%)	198 (96%)	8 (4%)	28	49
70	Cq	222/265 (84%)	213 (96%)	9 (4%)	27	48
71	CB	335/335 (100%)	315 (94%)	20 (6%)	17	39
72	CC	302/329 (92%)	285 (94%)	17 (6%)	19	40
73	CO	173/173 (100%)	163 (94%)	10 (6%)	18	39
74	Cp	73/73 (100%)	72 (99%)	1 (1%)	59	72
75	CI	156/183 (85%)	152 (97%)	4 (3%)	40	61
76	Cn	24/24 (100%)	24 (100%)	0	100	100
77	Cm	47/48 (98%)	46 (98%)	1 (2%)	47	65
78	CL	175/175 (100%)	166 (95%)	9 (5%)	21	42
79	CE	185/185 (100%)	171 (92%)	14 (8%)	12	33
80	Cf	96/96 (100%)	92 (96%)	4 (4%)	26	48
81	Ck	63/63 (100%)	58 (92%)	5 (8%)	11	32
82	Cb	51/53 (96%)	51 (100%)	0	100	100
83	Cg	98/107 (92%)	93 (95%)	5 (5%)	21	42
All	All	10084/11382 (89%)	9690 (96%)	394 (4%)	30	49

All (394) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	BY	37	ARG
4	BY	47	GLU
4	BY	74	LYS

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Mol	Chain	Res	Type
4	BY	95	TYR
4	BY	123	ILE
4	BY	127	LYS
5	BI	151	ASN
5	BI	201	LYS
5	BI	209	LYS
6	BK	54	TYR
8	Bf	65	TYR
9	BX	3	LYS
9	BX	60	GLN
9	BX	80	ILE
10	Bg	15	THR
10	Bg	62	LEU
10	Bg	78	LYS
10	Bg	128	LEU
10	Bg	143	ARG
10	Bg	166	VAL
10	Bg	220	MET
10	Bg	230	VAL
10	Bg	255	VAL
10	Bg	301	VAL
11	BD	91	VAL
11	BD	99	ILE
11	BD	124	ARG
11	BD	197	LYS
11	BD	207	LEU
12	BE	80	LYS
12	BE	102	LEU
12	BE	168	LYS
12	BE	183	VAL
12	BE	208	ILE
13	BF	10	GLN
13	BF	30	LEU
13	BF	51	ARG
13	BF	113	ILE
13	BF	132	ARG
13	BF	178	LYS
14	BQ	53	LYS
14	BQ	129	ARG
15	BU	12	MET
15	BU	30	ARG
15	BU	75	ARG

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Mol	Chain	Res	Type
15	BU	86	TRP
16	BO	49	ARG
16	BO	65	ARG
16	BO	67	GLU
16	BO	87	LEU
17	BS	36	VAL
17	BS	55	ARG
17	BS	78	LYS
17	BS	79	VAL
17	BS	116	LYS
17	BS	135	HIS
17	BS	136	THR
17	BS	138	THR
18	BN	70	LYS
18	BN	84	ILE
18	BN	117	LEU
19	BL	86	ILE
19	BL	96	LYS
19	BL	100	ARG
20	BT	34	PRO
20	BT	46	LYS
20	BT	51	TYR
20	BT	91	ARG
20	BT	93	PRO
20	BT	106	ILE
21	BP	67	LYS
21	BP	99	ILE
21	BP	116	ILE
21	BP	139	ARG
22	BZ	39	ASN
22	BZ	65	VAL
22	BZ	68	GLU
23	Bc	1	MET
23	Bc	16	ARG
23	Bc	41	ASN
24	BW	36	LYS
24	BW	51	GLU
24	BW	69	LEU
24	BW	81	VAL
25	Bd	12	LYS
28	BA	52	ILE
28	BA	55	LEU

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Mol	Chain	Res	Type
28	BA	68	VAL
28	BA	76	GLN
28	BA	91	VAL
28	BA	93	LYS
28	BA	108	THR
28	BA	126	LEU
29	BR	85	VAL
29	BR	96	ILE
30	BB	105	PHE
30	BB	231	VAL
31	BV	20	THR
32	Ba	45	VAL
32	Ba	70	LYS
33	BJ	18	ARG
33	BJ	23	LYS
33	BJ	70	ARG
33	BJ	101	LEU
33	BJ	136	ILE
34	BC	90	THR
34	BC	113	LEU
34	BC	148	ILE
34	BC	196	VAL
35	BG	4	ASN
35	BG	7	ASN
35	BG	32	ILE
35	BG	51	LYS
35	BG	87	TYR
35	BG	183	LEU
35	BG	201	LYS
36	BH	117	ARG
36	BH	130	VAL
36	BH	167	LEU
36	BH	182	VAL
37	CG	126	ILE
37	CG	132	LEU
37	CG	177	LYS
37	CG	193	VAL
37	CG	214	ILE
37	CG	221	LYS
38	CT	27	LEU
38	CT	60	ARG
38	CT	63	ARG

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Mol	Chain	Res	Type
38	CT	141	VAL
38	CT	149	VAL
39	CZ	9	LYS
39	CZ	34	ARG
40	Cz	9	VAL
40	Cz	10	LYS
40	Cz	23	LYS
40	Cz	46	LYS
40	Cz	61	LYS
40	Cz	73	VAL
40	Cz	100	LYS
40	Cz	102	LEU
40	Cz	129	LYS
40	Cz	140	GLN
40	Cz	182	ILE
40	Cz	206	LYS
40	Cz	211	LYS
41	CA	5	ILE
41	CA	15	VAL
41	CA	37	ARG
41	CA	69	TYR
41	CA	74	GLU
41	CA	158	VAL
41	CA	177	LYS
41	CA	193	ARG
41	CA	227	ARG
41	CA	247	ARG
42	CJ	2	SER
42	CJ	31	ARG
42	CJ	34	ARG
42	CJ	51	LYS
42	CJ	70	TYR
42	CJ	82	LEU
42	CJ	93	LEU
42	CJ	139	ARG
43	CH	41	LEU
43	CH	70	ARG
43	CH	141	ASP
43	CH	143	LEU
43	CH	185	THR
44	CV	39	ILE
44	CV	49	LEU

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Mol	Chain	Res	Type
44	CV	62	MET
45	CN	97	ASN
45	CN	116	LEU
45	CN	180	THR
46	Ca	21	ARG
46	Ca	121	LYS
46	Ca	123	LYS
46	Ca	142	LEU
47	CQ	4	ASP
47	CQ	56	LYS
47	CQ	139	LEU
47	CQ	156	PRO
47	CQ	159	PRO
48	CD	61	ILE
48	CD	142	PHE
48	CD	145	LEU
48	CD	190	LEU
48	CD	200	TYR
48	CD	203	HIS
48	CD	208	MET
48	CD	219	PHE
48	CD	239	LEU
48	CD	241	LYS
48	CD	242	LYS
48	CD	261	PRO
48	CD	281	LEU
48	CD	285	LEU
49	CR	6	LEU
49	CR	9	ARG
49	CR	56	LYS
49	CR	84	THR
49	CR	86	GLU
49	CR	91	THR
49	CR	92	LYS
49	CR	114	LYS
49	CR	131	MET
49	CR	137	VAL
49	CR	151	ARG
50	CP	16	LYS
50	CP	22	LEU
50	CP	55	LYS
50	CP	160	LYS

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Mol	Chain	Res	Type
51	CX	46	LYS
51	CX	47	THR
51	CX	48	LEU
51	CX	66	LYS
51	CX	98	LEU
51	CX	115	ILE
51	CX	149	ILE
53	CY	1	MET
53	CY	27	ARG
53	CY	86	ARG
53	CY	129	LYS
54	Cr	87	TYR
54	Cr	92	MET
54	Cr	115	ASP
55	Cc	14	ILE
55	Cc	91	VAL
55	Cc	104	ILE
56	Cd	16	VAL
56	Cd	63	LEU
56	Cd	85	ARG
56	Cd	102	THR
56	Cd	105	GLU
57	Ce	120	VAL
57	Ce	121	THR
58	Cj	14	LYS
58	Cj	70	VAL
59	Cl	23	ILE
60	Co	2	VAL
60	Co	24	LYS
60	Co	53	GLN
60	Co	78	LYS
60	Co	102	THR
61	CM	6	PHE
61	CM	8	GLU
61	CM	31	VAL
61	CM	63	LYS
61	CM	102	LEU
61	CM	109	LYS
62	CS	12	VAL
62	CS	55	LYS
62	CS	69	LYS
62	CS	71	PRO

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Mol	Chain	Res	Type
62	CS	75	LYS
62	CS	115	ARG
62	CS	119	ARG
62	CS	161	PRO
63	CU	31	VAL
63	CU	35	ILE
63	CU	55	LYS
63	CU	85	LEU
63	CU	95	LYS
63	CU	102	LEU
63	CU	109	LYS
64	Ci	87	LYS
64	Ci	88	LYS
64	Ci	96	VAL
64	Ci	99	LYS
65	CK	16	ARG
65	CK	32	ILE
65	CK	41	LYS
65	CK	42	ILE
65	CK	55	LYS
65	CK	58	ARG
65	CK	76	PRO
65	CK	110	VAL
66	Cu	10	LEU
67	Cs	8	LEU
67	Ct	1	MET
67	Ct	8	LEU
68	Ch	35	ILE
68	Ch	37	LYS
68	Ch	44	LYS
68	Ch	75	LYS
68	Ch	90	ARG
69	CF	68	LYS
69	CF	72	ARG
69	CF	115	ASN
69	CF	143	LEU
69	CF	144	LYS
69	CF	152	LYS
69	CF	183	ILE
69	CF	190	ILE
70	Cq	27	LYS
70	Cq	36	VAL

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Mol	Chain	Res	Type
70	Cq	86	VAL
70	Cq	92	ILE
70	Cq	98	LEU
70	Cq	124	VAL
70	Cq	155	VAL
70	Cq	209	LEU
70	Cq	210	THR
71	CB	3	HIS
71	CB	4	ARG
71	CB	20	LYS
71	CB	39	LYS
71	CB	55	HIS
71	CB	60	VAL
71	CB	94	LYS
71	CB	101	THR
71	CB	118	PHE
71	CB	123	CYS
71	CB	158	THR
71	CB	162	VAL
71	CB	169	ARG
71	CB	178	LYS
71	CB	201	PHE
71	CB	232	VAL
71	CB	259	HIS
71	CB	343	ARG
71	CB	348	LYS
71	CB	371	HIS
72	CC	8	LEU
72	CC	20	THR
72	CC	53	ARG
72	CC	60	ARG
72	CC	108	PRO
72	CC	109	THR
72	CC	154	LEU
72	CC	199	LYS
72	CC	200	MET
72	CC	215	TYR
72	CC	223	VAL
72	CC	313	GLU
72	CC	319	LYS
72	CC	345	THR
72	CC	346	LEU

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Mol	Chain	Res	Type
72	CC	352	ILE
72	CC	357	GLU
73	CO	11	ARG
73	CO	54	ARG
73	CO	76	ILE
73	CO	126	PRO
73	CO	129	LEU
73	CO	134	LEU
73	CO	136	PRO
73	CO	181	LYS
73	CO	185	LYS
73	CO	193	LYS
74	Cp	73	THR
75	CI	57	LYS
75	CI	65	LEU
75	CI	141	LYS
75	CI	179	GLU
77	Cm	23	CYS
78	CL	10	ASN
78	CL	12	HIS
78	CL	54	LEU
78	CL	63	LEU
78	CL	77	LEU
78	CL	120	LYS
78	CL	148	GLN
78	CL	156	ILE
78	CL	168	LYS
79	CE	28	ILE
79	CE	36	LEU
79	CE	38	LYS
79	CE	41	LYS
79	CE	50	PHE
79	CE	51	TYR
79	CE	52	PRO
79	CE	75	ILE
79	CE	149	ARG
79	CE	157	LYS
79	CE	161	GLU
79	CE	184	ILE
79	CE	209	ARG
79	CE	217	MET
80	Cf	4	ARG

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Mol	Chain	Res	Type
80	Cf	5	GLN
80	Cf	9	VAL
80	Cf	33	LEU
81	Ck	1	MET
81	Ck	12	LEU
81	Ck	19	ASP
81	Ck	37	ARG
81	Ck	56	LEU
83	Cg	9	LYS
83	Cg	32	TYR
83	Cg	50	LYS
83	Cg	51	ILE
83	Cg	66	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (293) such sidechains are listed below:

Mol	Chain	Res	Type
4	BY	27	GLN
4	BY	69	HIS
5	BI	151	ASN
5	BI	152	HIS
5	BI	161	GLN
5	BI	189	GLN
6	BK	32	HIS
6	BK	34	GLN
6	BK	41	GLN
6	BK	62	GLN
7	BM	48	GLN
7	BM	131	HIS
8	Bf	60	HIS
9	BX	20	GLN
9	BX	60	GLN
9	BX	86	ASN
9	BX	96	ASN
9	BX	109	HIS
10	Bg	94	ASN
10	Bg	146	ASN
10	Bg	164	GLN
10	Bg	204	HIS
10	Bg	282	HIS
10	Bg	294	ASN
10	Bg	340	GLN

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Mol	Chain	Res	Type
10	Bg	343	HIS
10	Bg	367	ASN
10	Bg	376	HIS
11	BD	22	ASN
11	BD	162	GLN
11	BD	174	HIS
12	BE	98	ASN
12	BE	188	ASN
12	BE	216	HIS
13	BF	16	ASN
13	BF	41	HIS
13	BF	91	HIS
13	BF	161	ASN
14	BQ	100	GLN
15	BU	23	GLN
15	BU	109	GLN
16	BO	42	HIS
16	BO	112	GLN
17	BS	72	HIS
17	BS	76	GLN
17	BS	120	HIS
17	BS	125	HIS
18	BN	49	GLN
18	BN	101	HIS
19	BL	90	ASN
19	BL	99	GLN
19	BL	105	HIS
19	BL	111	HIS
19	BL	123	HIS
20	BT	15	HIS
20	BT	71	GLN
20	BT	88	ASN
20	BT	109	GLN
21	BP	112	ASN
21	BP	137	HIS
22	BZ	73	ASN
22	BZ	79	GLN
22	BZ	99	GLN
24	BW	16	ASN
24	BW	42	GLN
24	BW	44	HIS
24	BW	113	HIS

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Mol	Chain	Res	Type
24	BW	120	ASN
25	Bd	10	HIS
25	Bd	28	HIS
25	Bd	41	GLN
26	Bb	21	HIS
26	Bb	51	HIS
26	Bb	53	GLN
28	BA	28	HIS
28	BA	81	GLN
28	BA	101	HIS
28	BA	107	HIS
28	BA	115	GLN
28	BA	117	GLN
28	BA	197	HIS
29	BR	56	HIS
30	BB	124	HIS
30	BB	175	GLN
31	BV	21	ASN
31	BV	38	HIS
31	BV	42	ASN
31	BV	61	GLN
32	Ba	7	ASN
32	Ba	11	ASN
32	Ba	43	ASN
32	Ba	72	HIS
32	Ba	73	HIS
32	Ba	80	HIS
32	Ba	82	HIS
33	BJ	48	GLN
33	BJ	92	GLN
33	BJ	93	ASN
33	BJ	125	HIS
33	BJ	141	GLN
33	BJ	178	ASN
34	BC	94	GLN
34	BC	107	ASN
35	BG	59	GLN
35	BG	78	HIS
35	BG	160	ASN
36	BH	25	GLN
36	BH	47	ASN
36	BH	77	HIS

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Mol	Chain	Res	Type
36	BH	123	HIS
37	CG	57	GLN
37	CG	59	GLN
37	CG	75	GLN
37	CG	187	HIS
37	CG	217	ASN
37	CG	255	GLN
38	CT	39	HIS
38	CT	54	HIS
38	CT	58	HIS
38	CT	66	ASN
38	CT	90	HIS
38	CT	97	GLN
39	CZ	15	GLN
39	CZ	79	HIS
40	Cz	39	ASN
40	Cz	72	HIS
40	Cz	75	GLN
40	Cz	93	ASN
40	Cz	107	HIS
40	Cz	148	ASN
41	CA	19	HIS
41	CA	38	ASN
41	CA	50	HIS
41	CA	65	HIS
41	CA	139	HIS
41	CA	168	GLN
41	CA	187	HIS
41	CA	194	ASN
41	CA	209	HIS
41	CA	211	HIS
41	CA	216	HIS
41	CA	218	HIS
41	CA	221	HIS
42	CJ	17	GLN
42	CJ	64	ASN
42	CJ	109	GLN
42	CJ	153	HIS
43	CH	37	ASN
43	CH	40	HIS
43	CH	42	ASN
43	CH	97	HIS

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Mol	Chain	Res	Type
43	CH	161	ASN
44	CV	50	ASN
45	CN	32	GLN
45	CN	33	GLN
45	CN	87	GLN
45	CN	95	GLN
45	CN	149	ASN
45	CN	182	HIS
46	Ca	19	HIS
46	Ca	25	HIS
46	Ca	39	HIS
46	Ca	41	HIS
46	Ca	74	ASN
46	Ca	100	GLN
47	CQ	162	HIS
48	CD	11	GLN
48	CD	14	HIS
48	CD	82	HIS
48	CD	123	ASN
48	CD	157	ASN
48	CD	222	HIS
49	CR	39	GLN
49	CR	58	HIS
49	CR	121	HIS
49	CR	130	ASN
49	CR	143	HIS
50	CP	9	ASN
50	CP	25	HIS
50	CP	54	HIS
50	CP	56	GLN
50	CP	79	ASN
50	CP	117	HIS
50	CP	121	ASN
50	CP	146	HIS
51	CX	43	HIS
51	CX	69	GLN
51	CX	89	ASN
51	CX	90	ASN
52	CW	13	GLN
52	CW	44	ASN
52	CW	61	HIS
53	CY	18	HIS

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Mol	Chain	Res	Type
53	CY	40	HIS
53	CY	99	HIS
54	Cr	80	GLN
55	Cc	15	ASN
55	Cc	19	GLN
55	Cc	73	HIS
56	Cd	23	ASN
56	Cd	39	ASN
56	Cd	88	ASN
57	Ce	22	HIS
57	Ce	90	ASN
58	Cj	28	HIS
58	Cj	94	ASN
59	Cl	11	GLN
59	Cl	17	GLN
59	Cl	19	GLN
60	Co	20	HIS
60	Co	79	HIS
60	Co	90	HIS
62	CS	57	ASN
62	CS	107	GLN
62	CS	124	GLN
62	CS	132	HIS
63	CU	96	HIS
64	Ci	83	HIS
65	CK	66	GLN
66	Cu	16	HIS
68	Ch	36	GLN
68	Ch	49	HIS
68	Ch	66	GLN
68	Ch	69	GLN
69	CF	52	GLN
69	CF	95	ASN
69	CF	142	ASN
69	CF	178	HIS
69	CF	196	HIS
69	CF	201	ASN
69	CF	222	HIS
69	CF	231	ASN
70	Cq	40	GLN
71	CB	11	HIS
71	CB	25	HIS

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Mol	Chain	Res	Type
71	CB	55	HIS
71	CB	103	ASN
71	CB	109	HIS
71	CB	121	ASN
71	CB	147	GLN
71	CB	165	HIS
71	CB	176	GLN
71	CB	180	HIS
71	CB	185	GLN
71	CB	259	HIS
71	CB	276	HIS
71	CB	282	ASN
71	CB	293	GLN
72	CC	45	HIS
72	CC	51	ASN
72	CC	64	HIS
72	CC	98	ASN
72	CC	120	ASN
72	CC	146	HIS
72	CC	177	GLN
72	CC	202	ASN
72	CC	228	ASN
72	CC	241	ASN
72	CC	250	HIS
72	CC	311	ASN
72	CC	334	ASN
73	CO	18	HIS
73	CO	36	GLN
73	CO	138	HIS
73	CO	145	GLN
74	Cp	33	GLN
74	Cp	34	HIS
75	CI	14	ASN
75	CI	123	GLN
75	CI	133	GLN
77	Cm	14	ASN
77	Cm	41	HIS
78	CL	99	HIS
78	CL	148	GLN
79	CE	18	HIS
79	CE	21	HIS
79	CE	67	HIS

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Mol	Chain	Res	Type
79	CE	100	GLN
79	CE	172	ASN
79	CE	215	HIS
80	Cf	26	ASN
81	Ck	58	GLN
82	Cb	6	ASN
82	Cb	7	HIS
82	Cb	10	HIS
82	Cb	11	ASN
82	Cb	17	HIS
82	Cb	19	ASN
82	Cb	42	ASN
82	Cb	49	HIS
83	Cg	3	GLN
83	Cg	11	HIS
83	Cg	100	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	Ad	1760/1810 (97%)	463 (26%)	0
2	Ae	74/75 (98%)	20 (27%)	0
3	Af	10/11 (90%)	2 (20%)	0
84	Aa	3389/3391 (99%)	762 (22%)	0
85	Ac	159/160 (99%)	35 (22%)	0
86	Ab	119/120 (99%)	23 (19%)	0
All	All	5511/5567 (98%)	1305 (23%)	0

All (1305) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	Ad	4	C
1	Ad	8	U
1	Ad	16	G
1	Ad	25	C
1	Ad	26	A
1	Ad	27	U
1	Ad	34	G
1	Ad	46	A
1	Ad	47	A
1	Ad	50	C

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Mol	Chain	Res	Type
1	Ad	55	A
1	Ad	56	U
1	Ad	57	G
1	Ad	58	U
1	Ad	59	G
1	Ad	60	C
1	Ad	65	A
1	Ad	68	A
1	Ad	72	A
1	Ad	73	A
1	Ad	75	U
1	Ad	76	U
1	Ad	77	G
1	Ad	78	A
1	Ad	79	A
1	Ad	80	C
1	Ad	81	U
1	Ad	103	U
1	Ad	104	A
1	Ad	105	A
1	Ad	112	U
1	Ad	115	A
1	Ad	127	G
1	Ad	128	G
1	Ad	132	G
1	Ad	133	U
1	Ad	134	G
1	Ad	135	C
1	Ad	136	U
1	Ad	137	A
1	Ad	138	C
1	Ad	139	U
1	Ad	140	C
1	Ad	142	G
1	Ad	143	A
1	Ad	144	U
1	Ad	151	A
1	Ad	157	U
1	Ad	158	C
1	Ad	164	C
1	Ad	175	A
1	Ad	176	A

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Mol	Chain	Res	Type
1	Ad	177	C
1	Ad	179	A
1	Ad	183	C
1	Ad	184	C
1	Ad	185	G
1	Ad	186	A
1	Ad	187	C
1	Ad	189	U
1	Ad	190	C
1	Ad	191	U
1	Ad	192	G
1	Ad	193	G
1	Ad	194	G
1	Ad	195	A
1	Ad	198	G
1	Ad	203	A
1	Ad	209	U
1	Ad	212	A
1	Ad	215	A
1	Ad	216	A
1	Ad	220	C
1	Ad	222	G
1	Ad	223	A
1	Ad	224	C
1	Ad	225	G
1	Ad	226	C
1	Ad	229	G
1	Ad	230	C
1	Ad	231	U
1	Ad	235	C
1	Ad	236	U
1	Ad	237	C
1	Ad	238	G
1	Ad	239	C
1	Ad	240	U
1	Ad	241	G
1	Ad	242	A
1	Ad	243	U
1	Ad	244	C
1	Ad	245	C
1	Ad	251	U
1	Ad	252	U

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Mol	Chain	Res	Type
1	Ad	253	C
1	Ad	263	C
1	Ad	264	G
1	Ad	265	A
1	Ad	268	G
1	Ad	269	A
1	Ad	270	U
1	Ad	271	C
1	Ad	272	G
1	Ad	277	G
1	Ad	278	C
1	Ad	279	C
1	Ad	282	C
1	Ad	283	G
1	Ad	284	U
1	Ad	285	G
1	Ad	292	A
1	Ad	303	A
1	Ad	318	C
1	Ad	320	A
1	Ad	324	U
1	Ad	337	A
1	Ad	341	G
1	Ad	342	C
1	Ad	345	A
1	Ad	352	U
1	Ad	356	G
1	Ad	364	A
1	Ad	365	C
1	Ad	373	U
1	Ad	384	U
1	Ad	403	A
1	Ad	404	A
1	Ad	405	A
1	Ad	406	C
1	Ad	408	G
1	Ad	415	C
1	Ad	420	A
1	Ad	421	A
1	Ad	422	G
1	Ad	428	C
1	Ad	429	A

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Mol	Chain	Res	Type
1	Ad	430	G
1	Ad	432	A
1	Ad	438	G
1	Ad	443	U
1	Ad	448	C
1	Ad	450	A
1	Ad	452	C
1	Ad	458	A
1	Ad	474	A
1	Ad	479	A
1	Ad	481	A
1	Ad	488	C
1	Ad	489	C
1	Ad	490	G
1	Ad	491	G
1	Ad	492	G
1	Ad	498	U
1	Ad	500	G
1	Ad	501	U
1	Ad	502	G
1	Ad	503	U
1	Ad	506	G
1	Ad	507	G
1	Ad	508	U
1	Ad	509	A
1	Ad	510	A
1	Ad	512	U
1	Ad	514	G
1	Ad	515	A
1	Ad	516	A
1	Ad	517	U
1	Ad	519	A
1	Ad	520	G
1	Ad	523	C
1	Ad	529	A
1	Ad	531	A
1	Ad	535	C
1	Ad	536	U
1	Ad	545	A
1	Ad	546	U
1	Ad	547	C
1	Ad	548	C

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Mol	Chain	Res	Type
1	Ad	549	A
1	Ad	552	G
1	Ad	560	A
1	Ad	561	G
1	Ad	562	U
1	Ad	569	C
1	Ad	572	G
1	Ad	574	A
1	Ad	579	C
1	Ad	584	A
1	Ad	589	A
1	Ad	598	A
1	Ad	599	G
1	Ad	601	G
1	Ad	610	A
1	Ad	611	G
1	Ad	613	U
1	Ad	615	U
1	Ad	623	A
1	Ad	626	A
1	Ad	628	G
1	Ad	634	A
1	Ad	642	C
1	Ad	643	U
1	Ad	644	U
1	Ad	705	A
1	Ad	708	G
1	Ad	722	A
1	Ad	723	A
1	Ad	732	G
1	Ad	733	U
1	Ad	744	G
1	Ad	745	C
1	Ad	749	G
1	Ad	760	G
1	Ad	761	A
1	Ad	762	A
1	Ad	771	G
1	Ad	772	C
1	Ad	780	A
1	Ad	781	A
1	Ad	784	C

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Mol	Chain	Res	Type
1	Ad	789	C
1	Ad	790	U
1	Ad	791	C
1	Ad	793	G
1	Ad	795	A
1	Ad	800	U
1	Ad	801	U
1	Ad	812	A
1	Ad	816	U
1	Ad	817	C
1	Ad	818	A
1	Ad	821	G
1	Ad	822	G
1	Ad	824	U
1	Ad	825	U
1	Ad	826	C
1	Ad	828	G
1	Ad	829	G
1	Ad	834	A
1	Ad	835	U
1	Ad	836	U
1	Ad	838	U
1	Ad	839	G
1	Ad	842	G
1	Ad	843	G
1	Ad	845	C
1	Ad	851	G
1	Ad	854	C
1	Ad	857	A
1	Ad	859	U
1	Ad	867	A
1	Ad	868	A
1	Ad	878	U
1	Ad	881	G
1	Ad	903	A
1	Ad	917	U
1	Ad	918	G
1	Ad	919	G
1	Ad	926	G
1	Ad	933	G
1	Ad	934	A
1	Ad	935	A

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Mol	Chain	Res	Type
1	Ad	937	A
1	Ad	938	A
1	Ad	940	U
1	Ad	947	G
1	Ad	949	A
1	Ad	956	A
1	Ad	964	U
1	Ad	965	U
1	Ad	966	U
1	Ad	971	A
1	Ad	973	U
1	Ad	987	U
1	Ad	997	A
1	Ad	998	A
1	Ad	1000	A
1	Ad	1002	G
1	Ad	1009	U
1	Ad	1010	A
1	Ad	1025	A
1	Ad	1026	C
1	Ad	1031	A
1	Ad	1033	C
1	Ad	1044	A
1	Ad	1045	G
1	Ad	1057	U
1	Ad	1058	G
1	Ad	1064	U
1	Ad	1077	C
1	Ad	1079	G
1	Ad	1084	U
1	Ad	1087	U
1	Ad	1089	A
1	Ad	1091	A
1	Ad	1096	A
1	Ad	1097	A
1	Ad	1101	C
1	Ad	1103	U
1	Ad	1105	G
1	Ad	1109	U
1	Ad	1114	G
1	Ad	1116	G
1	Ad	1128	C

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Mol	Chain	Res	Type
1	Ad	1143	A
1	Ad	1144	A
1	Ad	1151	G
1	Ad	1154	G
1	Ad	1156	A
1	Ad	1157	A
1	Ad	1160	G
1	Ad	1162	A
1	Ad	1163	C
1	Ad	1165	A
1	Ad	1169	G
1	Ad	1172	G
1	Ad	1184	C
1	Ad	1189	U
1	Ad	1192	G
1	Ad	1195	U
1	Ad	1197	A
1	Ad	1198	A
1	Ad	1200	A
1	Ad	1201	C
1	Ad	1203	G
1	Ad	1204	G
1	Ad	1205	G
1	Ad	1206	A
1	Ad	1211	U
1	Ad	1221	A
1	Ad	1222	G
1	Ad	1232	G
1	Ad	1233	G
1	Ad	1247	G
1	Ad	1248	A
1	Ad	1249	G
1	Ad	1254	U
1	Ad	1255	U
1	Ad	1258	U
1	Ad	1260	A
1	Ad	1261	U
1	Ad	1262	U
1	Ad	1264	U
1	Ad	1273	U
1	Ad	1292	G
1	Ad	1305	U

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Mol	Chain	Res	Type
1	Ad	1318	U
1	Ad	1319	U
1	Ad	1325	A
1	Ad	1326	A
1	Ad	1344	U
1	Ad	1345	G
1	Ad	1348	A
1	Ad	1349	A
1	Ad	1354	C
1	Ad	1358	G
1	Ad	1359	C
1	Ad	1366	A
1	Ad	1369	C
1	Ad	1373	C
1	Ad	1376	A
1	Ad	1377	G
1	Ad	1381	G
1	Ad	1382	C
1	Ad	1388	A
1	Ad	1394	A
1	Ad	1395	C
1	Ad	1396	U
1	Ad	1404	U
1	Ad	1405	U
1	Ad	1408	G
1	Ad	1409	G
1	Ad	1418	G
1	Ad	1419	U
1	Ad	1421	U
1	Ad	1433	A
1	Ad	1434	G
1	Ad	1437	C
1	Ad	1452	A
1	Ad	1454	G
1	Ad	1463	C
1	Ad	1464	G
1	Ad	1465	C
1	Ad	1466	A
1	Ad	1468	G
1	Ad	1477	A
1	Ad	1479	U
1	Ad	1480	G

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Mol	Chain	Res	Type
1	Ad	1481	A
1	Ad	1484	U
1	Ad	1488	C
1	Ad	1494	G
1	Ad	1496	A
1	Ad	1497	U
1	Ad	1499	U
1	Ad	1500	A
1	Ad	1501	G
1	Ad	1502	C
1	Ad	1507	G
1	Ad	1508	C
1	Ad	1514	G
1	Ad	1522	U
1	Ad	1524	A
1	Ad	1526	C
1	Ad	1529	G
1	Ad	1530	G
1	Ad	1531	G
1	Ad	1542	G
1	Ad	1543	U
1	Ad	1544	G
1	Ad	1545	A
1	Ad	1546	U
1	Ad	1547	G
1	Ad	1548	G
1	Ad	1565	U
1	Ad	1567	G
1	Ad	1577	A
1	Ad	1581	A
1	Ad	1582	G
1	Ad	1591	A
1	Ad	1592	G
1	Ad	1598	G
1	Ad	1609	G
1	Ad	1624	G
1	Ad	1627	C
1	Ad	1632	C
1	Ad	1639	A
1	Ad	1642	C
1	Ad	1643	A
1	Ad	1652	C

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Mol	Chain	Res	Type
1	Ad	1664	U
1	Ad	1665	U
1	Ad	1666	G
1	Ad	1691	C
1	Ad	1692	G
1	Ad	1694	G
1	Ad	1698	A
1	Ad	1699	C
1	Ad	1708	U
1	Ad	1725	C
1	Ad	1726	G
1	Ad	1728	G
1	Ad	1737	A
1	Ad	1739	U
1	Ad	1764	G
1	Ad	1765	A
1	Ad	1766	A
1	Ad	1767	G
1	Ad	1769	C
1	Ad	1770	G
1	Ad	1771	U
1	Ad	1772	A
1	Ad	1776	A
1	Ad	1779	U
1	Ad	1780	U
1	Ad	1783	C
1	Ad	1793	C
1	Ad	1799	G
1	Ad	1802	G
1	Ad	1804	A
1	Ad	1806	C
1	Ad	1807	A
1	Ad	1809	U
2	Ae	8	U
2	Ae	17	G
2	Ae	19	U
2	Ae	20	C
2	Ae	21	A
2	Ae	22	G
2	Ae	32	U
2	Ae	33	U
2	Ae	37	G

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Mol	Chain	Res	Type
2	Ae	38	C
2	Ae	41	G
2	Ae	42	C
2	Ae	45	G
2	Ae	47	U
2	Ae	51	G
2	Ae	60	C
2	Ae	68	C
2	Ae	72	G
2	Ae	74	C
2	Ae	75	A
3	Af	13	A
3	Af	14	A
84	Aa	2	C
84	Aa	3	G
84	Aa	6	A
84	Aa	12	G
84	Aa	13	G
84	Aa	15	C
84	Aa	25	U
84	Aa	39	A
84	Aa	41	C
84	Aa	48	A
84	Aa	58	G
84	Aa	59	A
84	Aa	64	A
84	Aa	65	A
84	Aa	73	A
84	Aa	74	G
84	Aa	75	G
84	Aa	84	A
84	Aa	85	G
84	Aa	91	G
84	Aa	92	C
84	Aa	98	A
84	Aa	108	A
84	Aa	109	G
84	Aa	112	C
84	Aa	115	C
84	Aa	116	U
84	Aa	121	A
84	Aa	134	U

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Mol	Chain	Res	Type
84	Aa	135	G
84	Aa	146	U
84	Aa	147	G
84	Aa	153	U
84	Aa	155	G
84	Aa	156	A
84	Aa	159	G
84	Aa	164	C
84	Aa	167	C
84	Aa	168	A
84	Aa	171	G
84	Aa	180	G
84	Aa	188	U
84	Aa	189	C
84	Aa	190	C
84	Aa	198	A
84	Aa	208	G
84	Aa	212	G
84	Aa	216	G
84	Aa	217	A
84	Aa	232	C
84	Aa	233	C
84	Aa	236	A
84	Aa	238	C
84	Aa	239	C
84	Aa	241	G
84	Aa	242	U
84	Aa	243	C
84	Aa	247	C
84	Aa	248	C
84	Aa	249	A
84	Aa	250	C
84	Aa	251	G
84	Aa	263	A
84	Aa	267	G
84	Aa	281	G
84	Aa	284	U
84	Aa	293	A
84	Aa	296	C
84	Aa	305	G
84	Aa	321	A
84	Aa	327	A

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Mol	Chain	Res	Type
84	Aa	336	A
84	Aa	337	C
84	Aa	347	A
84	Aa	348	C
84	Aa	349	A
84	Aa	368	U
84	Aa	370	A
84	Aa	371	A
84	Aa	374	G
84	Aa	393	A
84	Aa	395	A
84	Aa	396	G
84	Aa	397	A
84	Aa	399	U
84	Aa	400	G
84	Aa	401	C
84	Aa	404	G
84	Aa	419	G
84	Aa	421	A
84	Aa	422	G
84	Aa	424	G
84	Aa	432	G
84	Aa	435	G
84	Aa	438	G
84	Aa	440	U
84	Aa	441	G
84	Aa	464	G
84	Aa	465	C
84	Aa	466	U
84	Aa	467	C
84	Aa	469	U
84	Aa	479	C
84	Aa	482	C
84	Aa	488	U
84	Aa	489	C
84	Aa	492	G
84	Aa	493	G
84	Aa	499	A
84	Aa	500	C
84	Aa	507	C
84	Aa	513	C
84	Aa	514	G

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Mol	Chain	Res	Type
84	Aa	521	G
84	Aa	522	C
84	Aa	523	C
84	Aa	524	A
84	Aa	543	C
84	Aa	544	C
84	Aa	549	G
84	Aa	550	C
84	Aa	555	G
84	Aa	563	C
84	Aa	564	A
84	Aa	571	G
84	Aa	572	U
84	Aa	573	A
84	Aa	574	C
84	Aa	575	C
84	Aa	581	G
84	Aa	585	A
84	Aa	588	G
84	Aa	598	U
84	Aa	601	G
84	Aa	612	U
84	Aa	613	G
84	Aa	621	C
84	Aa	623	G
84	Aa	639	A
84	Aa	640	C
84	Aa	642	C
84	Aa	651	A
84	Aa	652	C
84	Aa	653	A
84	Aa	660	A
84	Aa	664	A
84	Aa	681	A
84	Aa	685	G
84	Aa	697	A
84	Aa	703	G
84	Aa	709	G
84	Aa	712	A
84	Aa	716	A
84	Aa	718	C
84	Aa	719	U

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Mol	Chain	Res	Type
84	Aa	720	G
84	Aa	722	C
84	Aa	723	G
84	Aa	724	A
84	Aa	729	G
84	Aa	736	U
84	Aa	746	C
84	Aa	747	A
84	Aa	761	C
84	Aa	767	U
84	Aa	768	U
84	Aa	769	C
84	Aa	770	U
84	Aa	779	U
84	Aa	784	G
84	Aa	787	G
84	Aa	788	G
84	Aa	804	A
84	Aa	809	A
84	Aa	810	A
84	Aa	819	A
84	Aa	820	A
84	Aa	840	A
84	Aa	852	C
84	Aa	864	C
84	Aa	877	U
84	Aa	882	U
84	Aa	886	A
84	Aa	899	A
84	Aa	900	C
84	Aa	910	G
84	Aa	911	G
84	Aa	917	A
84	Aa	919	G
84	Aa	920	A
84	Aa	923	A
84	Aa	924	A
84	Aa	926	C
84	Aa	928	A
84	Aa	937	G
84	Aa	940	G
84	Aa	947	C

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Mol	Chain	Res	Type
84	Aa	950	U
84	Aa	962	C
84	Aa	963	U
84	Aa	965	A
84	Aa	977	G
84	Aa	982	U
84	Aa	983	U
84	Aa	984	A
84	Aa	985	C
84	Aa	986	G
84	Aa	997	G
84	Aa	998	G
84	Aa	1005	C
84	Aa	1006	A
84	Aa	1007	A
84	Aa	1010	A
84	Aa	1014	G
84	Aa	1018	C
84	Aa	1019	A
84	Aa	1020	U
84	Aa	1022	G
84	Aa	1024	G
84	Aa	1025	G
84	Aa	1028	G
84	Aa	1033	G
84	Aa	1036	C
84	Aa	1040	A
84	Aa	1041	C
84	Aa	1051	A
84	Aa	1053	C
84	Aa	1056	U
84	Aa	1061	A
84	Aa	1068	A
84	Aa	1069	U
84	Aa	1070	G
84	Aa	1075	G
84	Aa	1076	G
84	Aa	1085	G
84	Aa	1086	U
84	Aa	1087	G
84	Aa	1097	A
84	Aa	1098	U

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Mol	Chain	Res	Type
84	Aa	1099	G
84	Aa	1101	A
84	Aa	1107	G
84	Aa	1120	G
84	Aa	1134	G
84	Aa	1146	A
84	Aa	1147	U
84	Aa	1156	A
84	Aa	1162	A
84	Aa	1183	C
84	Aa	1184	U
84	Aa	1185	G
84	Aa	1188	C
84	Aa	1194	C
84	Aa	1196	U
84	Aa	1205	C
84	Aa	1206	A
84	Aa	1213	G
84	Aa	1217	G
84	Aa	1220	G
84	Aa	1222	U
84	Aa	1226	G
84	Aa	1229	A
84	Aa	1231	C
84	Aa	1236	C
84	Aa	1237	G
84	Aa	1240	G
84	Aa	1241	G
84	Aa	1242	U
84	Aa	1243	C
84	Aa	1245	U
84	Aa	1246	G
84	Aa	1247	G
84	Aa	1248	A
84	Aa	1249	A
84	Aa	1250	G
84	Aa	1252	C
84	Aa	1253	G
84	Aa	1255	A
84	Aa	1257	U
84	Aa	1262	U
84	Aa	1264	A

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Mol	Chain	Res	Type
84	Aa	1266	G
84	Aa	1267	A
84	Aa	1268	G
84	Aa	1269	U
84	Aa	1270	G
84	Aa	1271	U
84	Aa	1273	U
84	Aa	1274	A
84	Aa	1275	A
84	Aa	1276	C
84	Aa	1281	C
84	Aa	1282	A
84	Aa	1283	C
84	Aa	1285	U
84	Aa	1289	G
84	Aa	1291	A
84	Aa	1296	C
84	Aa	1309	U
84	Aa	1310	G
84	Aa	1311	G
84	Aa	1312	A
84	Aa	1313	U
84	Aa	1317	G
84	Aa	1329	G
84	Aa	1334	A
84	Aa	1349	G
84	Aa	1352	G
84	Aa	1355	U
84	Aa	1356	G
84	Aa	1357	C
84	Aa	1360	U
84	Aa	1361	G
84	Aa	1365	C
84	Aa	1402	G
84	Aa	1403	G
84	Aa	1404	G
84	Aa	1417	G
84	Aa	1421	A
84	Aa	1422	G
84	Aa	1431	G
84	Aa	1436	A
84	Aa	1437	G

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Mol	Chain	Res	Type
84	Aa	1440	C
84	Aa	1446	G
84	Aa	1449	A
84	Aa	1452	A
84	Aa	1453	G
84	Aa	1455	A
84	Aa	1481	C
84	Aa	1484	A
84	Aa	1487	A
84	Aa	1488	G
84	Aa	1491	G
84	Aa	1511	C
84	Aa	1526	A
84	Aa	1529	C
84	Aa	1530	C
84	Aa	1531	G
84	Aa	1542	A
84	Aa	1545	G
84	Aa	1546	G
84	Aa	1550	A
84	Aa	1554	C
84	Aa	1556	G
84	Aa	1566	C
84	Aa	1567	G
84	Aa	1568	A
84	Aa	1570	C
84	Aa	1572	C
84	Aa	1577	A
84	Aa	1578	U
84	Aa	1584	A
84	Aa	1586	A
84	Aa	1602	A
84	Aa	1605	U
84	Aa	1618	U
84	Aa	1625	G
84	Aa	1640	A
84	Aa	1642	G
84	Aa	1652	G
84	Aa	1654	C
84	Aa	1680	A
84	Aa	1703	C
84	Aa	1714	A

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Mol	Chain	Res	Type
84	Aa	1715	C
84	Aa	1720	C
84	Aa	1721	A
84	Aa	1722	G
84	Aa	1723	C
84	Aa	1724	C
84	Aa	1726	G
84	Aa	1727	A
84	Aa	1728	G
84	Aa	1729	G
84	Aa	1734	G
84	Aa	1740	U
84	Aa	1748	A
84	Aa	1749	G
84	Aa	1758	U
84	Aa	1760	G
84	Aa	1761	C
84	Aa	1762	G
84	Aa	1766	U
84	Aa	1775	C
84	Aa	1776	G
84	Aa	1777	C
84	Aa	1790	A
84	Aa	1791	U
84	Aa	1793	A
84	Aa	1806	C
84	Aa	1808	G
84	Aa	1809	A
84	Aa	1810	G
84	Aa	1812	A
84	Aa	1813	C
84	Aa	1815	G
84	Aa	1816	U
84	Aa	1817	U
84	Aa	1830	U
84	Aa	1831	A
84	Aa	1835	A
84	Aa	1836	U
84	Aa	1837	A
84	Aa	1838	A
84	Aa	1842	C
84	Aa	1845	C

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Mol	Chain	Res	Type
84	Aa	1846	A
84	Aa	1851	U
84	Aa	1862	C
84	Aa	1872	C
84	Aa	1874	A
84	Aa	1875	A
84	Aa	1876	U
84	Aa	1882	A
84	Aa	1897	A
84	Aa	1901	G
84	Aa	1902	G
84	Aa	1926	A
84	Aa	1938	U
84	Aa	1951	C
84	Aa	1970	A
84	Aa	1991	U
84	Aa	1996	C
84	Aa	1997	G
84	Aa	1999	G
84	Aa	2003	C
84	Aa	2004	U
84	Aa	2006	A
84	Aa	2007	C
84	Aa	2008	G
84	Aa	2012	C
84	Aa	2013	G
84	Aa	2015	G
84	Aa	2021	G
84	Aa	2042	G
84	Aa	2054	A
84	Aa	2056	C
84	Aa	2057	G
84	Aa	2058	C
84	Aa	2071	U
84	Aa	2073	U
84	Aa	2075	C
84	Aa	2077	C
84	Aa	2081	C
84	Aa	2082	A
84	Aa	2084	G
84	Aa	2088	C
84	Aa	2101	A

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Mol	Chain	Res	Type
84	Aa	2107	A
84	Aa	2108	C
84	Aa	2115	G
84	Aa	2116	G
84	Aa	2125	A
84	Aa	2134	U
84	Aa	2150	C
84	Aa	2151	G
84	Aa	2152	A
84	Aa	2153	U
84	Aa	2154	G
84	Aa	2160	C
84	Aa	2161	G
84	Aa	2162	C
84	Aa	2163	G
84	Aa	2167	G
84	Aa	2168	C
84	Aa	2170	G
84	Aa	2183	A
84	Aa	2188	U
84	Aa	2196	G
84	Aa	2200	U
84	Aa	2203	A
84	Aa	2205	G
84	Aa	2223	A
84	Aa	2239	A
84	Aa	2244	G
84	Aa	2245	G
84	Aa	2247	A
84	Aa	2248	G
84	Aa	2250	A
84	Aa	2251	A
84	Aa	2267	G
84	Aa	2268	G
84	Aa	2276	A
84	Aa	2277	U
84	Aa	2278	G
84	Aa	2279	C
84	Aa	2283	G
84	Aa	2286	A
84	Aa	2287	U
84	Aa	2302	G

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Mol	Chain	Res	Type
84	Aa	2303	C
84	Aa	2304	A
84	Aa	2305	U
84	Aa	2308	A
84	Aa	2309	U
84	Aa	2310	G
84	Aa	2314	G
84	Aa	2315	G
84	Aa	2317	U
84	Aa	2319	A
84	Aa	2335	U
84	Aa	2372	A
84	Aa	2373	C
84	Aa	2374	G
84	Aa	2384	G
84	Aa	2385	A
84	Aa	2387	U
84	Aa	2392	G
84	Aa	2396	A
84	Aa	2401	A
84	Aa	2402	G
84	Aa	2403	A
84	Aa	2405	C
84	Aa	2410	U
84	Aa	2443	C
84	Aa	2445	U
84	Aa	2450	G
84	Aa	2451	G
84	Aa	2452	U
84	Aa	2453	G
84	Aa	2454	U
84	Aa	2458	A
84	Aa	2460	A
84	Aa	2461	A
84	Aa	2462	G
84	Aa	2465	G
84	Aa	2467	A
84	Aa	2473	C
84	Aa	2474	A
84	Aa	2481	C
84	Aa	2483	A
84	Aa	2485	U

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Mol	Chain	Res	Type
84	Aa	2490	U
84	Aa	2491	A
84	Aa	2492	C
84	Aa	2493	C
84	Aa	2494	A
84	Aa	2498	C
84	Aa	2499	U
84	Aa	2501	U
84	Aa	2502	U
84	Aa	2503	A
84	Aa	2504	A
84	Aa	2505	C
84	Aa	2506	G
84	Aa	2510	U
84	Aa	2511	U
84	Aa	2515	C
84	Aa	2516	U
84	Aa	2517	U
84	Aa	2518	A
84	Aa	2524	U
84	Aa	2526	G
84	Aa	2528	U
84	Aa	2529	C
84	Aa	2532	A
84	Aa	2534	G
84	Aa	2535	C
84	Aa	2536	G
84	Aa	2537	G
84	Aa	2539	G
84	Aa	2542	U
84	Aa	2543	G
84	Aa	2546	C
84	Aa	2547	C
84	Aa	2548	U
84	Aa	2549	C
84	Aa	2550	C
84	Aa	2552	U
84	Aa	2553	U
84	Aa	2559	C
84	Aa	2565	C
84	Aa	2566	C
84	Aa	2573	U

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Mol	Chain	Res	Type
84	Aa	2574	A
84	Aa	2579	G
84	Aa	2584	U
84	Aa	2585	C
84	Aa	2588	G
84	Aa	2590	C
84	Aa	2596	A
84	Aa	2597	C
84	Aa	2609	G
84	Aa	2610	G
84	Aa	2617	G
84	Aa	2629	C
84	Aa	2655	U
84	Aa	2659	A
84	Aa	2675	G
84	Aa	2677	A
84	Aa	2680	G
84	Aa	2681	A
84	Aa	2684	U
84	Aa	2692	G
84	Aa	2693	G
84	Aa	2694	A
84	Aa	2696	C
84	Aa	2697	A
84	Aa	2699	A
84	Aa	2702	G
84	Aa	2708	A
84	Aa	2717	G
84	Aa	2731	G
84	Aa	2732	U
84	Aa	2755	U
84	Aa	2756	G
84	Aa	2765	A
84	Aa	2774	A
84	Aa	2779	G
84	Aa	2780	G
84	Aa	2781	A
84	Aa	2798	G
84	Aa	2801	A
84	Aa	2802	G
84	Aa	2803	A
84	Aa	2804	A

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Mol	Chain	Res	Type
84	Aa	2812	C
84	Aa	2818	G
84	Aa	2819	A
84	Aa	2820	U
84	Aa	2821	U
84	Aa	2831	U
84	Aa	2844	U
84	Aa	2847	A
84	Aa	2851	C
84	Aa	2869	C
84	Aa	2873	G
84	Aa	2874	A
84	Aa	2875	U
84	Aa	2877	U
84	Aa	2880	G
84	Aa	2881	C
84	Aa	2889	A
84	Aa	2891	C
84	Aa	2898	A
84	Aa	2899	A
84	Aa	2900	G
84	Aa	2901	C
84	Aa	2916	G
84	Aa	2925	U
84	Aa	2929	C
84	Aa	2937	U
84	Aa	2938	A
84	Aa	2939	G
84	Aa	2944	C
84	Aa	2949	G
84	Aa	2953	G
84	Aa	2957	U
84	Aa	2959	G
84	Aa	2973	A
84	Aa	2985	C
84	Aa	2992	G
84	Aa	2994	U
84	Aa	2997	C
84	Aa	2998	A
84	Aa	3013	A
84	Aa	3050	A
84	Aa	3058	U

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Mol	Chain	Res	Type
84	Aa	3059	C
84	Aa	3060	G
84	Aa	3079	G
84	Aa	3080	U
84	Aa	3081	G
84	Aa	3087	A
84	Aa	3093	C
84	Aa	3114	A
84	Aa	3120	U
84	Aa	3123	A
84	Aa	3129	G
84	Aa	3131	A
84	Aa	3132	U
84	Aa	3140	A
84	Aa	3143	A
84	Aa	3144	U
84	Aa	3152	C
84	Aa	3153	U
84	Aa	3154	G
84	Aa	3155	C
84	Aa	3162	C
84	Aa	3163	G
84	Aa	3166	C
84	Aa	3167	G
84	Aa	3168	C
84	Aa	3169	C
84	Aa	3170	C
84	Aa	3171	C
84	Aa	3172	G
84	Aa	3174	C
84	Aa	3176	C
84	Aa	3177	A
84	Aa	3178	C
84	Aa	3182	A
84	Aa	3190	U
84	Aa	3191	U
84	Aa	3192	G
84	Aa	3193	C
84	Aa	3201	A
84	Aa	3202	G
84	Aa	3208	G
84	Aa	3209	U

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Mol	Chain	Res	Type
84	Aa	3210	G
84	Aa	3211	C
84	Aa	3212	C
84	Aa	3213	A
84	Aa	3222	G
84	Aa	3227	U
84	Aa	3230	G
84	Aa	3231	G
84	Aa	3234	G
84	Aa	3235	A
84	Aa	3236	A
84	Aa	3237	G
84	Aa	3239	G
84	Aa	3245	G
84	Aa	3251	C
84	Aa	3252	G
84	Aa	3264	C
84	Aa	3265	C
84	Aa	3266	U
84	Aa	3268	C
84	Aa	3271	A
84	Aa	3273	C
84	Aa	3274	G
84	Aa	3277	C
84	Aa	3278	G
84	Aa	3279	G
84	Aa	3281	G
84	Aa	3286	G
84	Aa	3287	A
84	Aa	3295	G
84	Aa	3296	C
84	Aa	3305	U
84	Aa	3308	A
84	Aa	3309	U
84	Aa	3310	A
84	Aa	3320	G
84	Aa	3322	A
84	Aa	3324	U
84	Aa	3328	A
84	Aa	3333	C
84	Aa	3334	A
84	Aa	3337	G

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Mol	Chain	Res	Type
84	Aa	3339	G
84	Aa	3340	G
84	Aa	3341	C
84	Aa	3342	C
84	Aa	3343	U
84	Aa	3344	U
84	Aa	3345	G
84	Aa	3346	C
84	Aa	3347	U
84	Aa	3348	G
84	Aa	3361	G
84	Aa	3367	C
84	Aa	3370	U
84	Aa	3374	C
84	Aa	3381	C
84	Aa	3382	A
84	Aa	3383	C
84	Aa	3385	G
84	Aa	3391	U
85	Ac	23	C
85	Ac	34	U
85	Ac	47	U
85	Ac	48	A
85	Ac	49	G
85	Ac	52	A
85	Ac	59	A
85	Ac	62	C
85	Ac	63	C
85	Ac	73	U
85	Ac	80	A
85	Ac	81	U
85	Ac	82	C
85	Ac	83	C
85	Ac	85	G
85	Ac	86	U
85	Ac	87	G
85	Ac	90	C
85	Ac	92	A
85	Ac	93	U
85	Ac	95	G
85	Ac	104	A
85	Ac	105	A

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Mol	Chain	Res	Type
85	Ac	106	C
85	Ac	111	G
85	Ac	113	U
85	Ac	125	C
85	Ac	128	C
85	Ac	129	C
85	Ac	130	G
85	Ac	140	A
85	Ac	150	G
85	Ac	155	U
85	Ac	159	G
85	Ac	160	C
86	Ab	11	A
86	Ab	13	A
86	Ab	14	C
86	Ab	22	A
86	Ab	26	C
86	Ab	41	G
86	Ab	42	A
86	Ab	48	G
86	Ab	49	A
86	Ab	50	A
86	Ab	52	U
86	Ab	53	U
86	Ab	63	U
86	Ab	64	G
86	Ab	73	U
86	Ab	75	G
86	Ab	93	U
86	Ab	100	A
86	Ab	101	A
86	Ab	108	G
86	Ab	110	G
86	Ab	113	G
86	Ab	119	C

There are no RNA pucker outliers to report.

5.4 Non-standard residues in protein, DNA, RNA chains ⓘ

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](#)

There are no chain breaks in this entry.

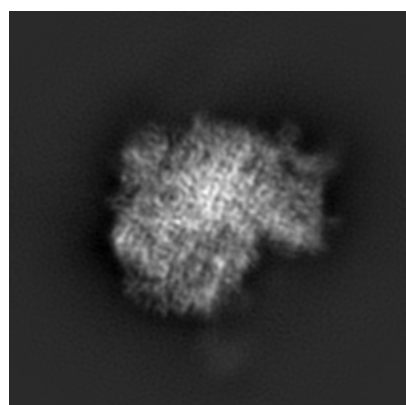
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-1780. These allow visual inspection of the internal detail of the map and identification of artifacts.

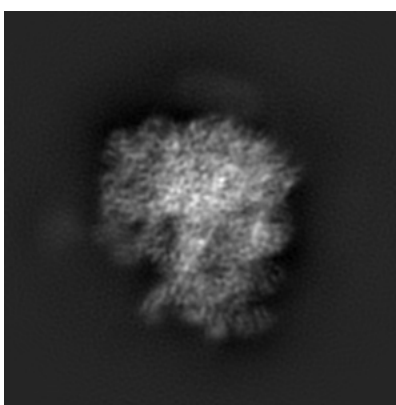
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

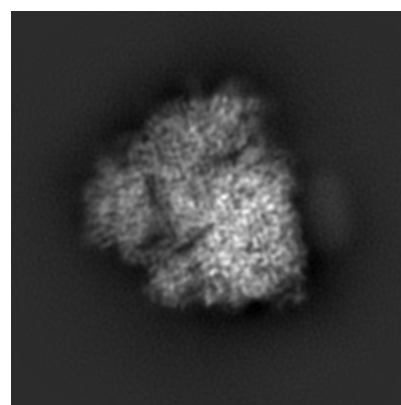
6.1.1 Primary map



X



Y

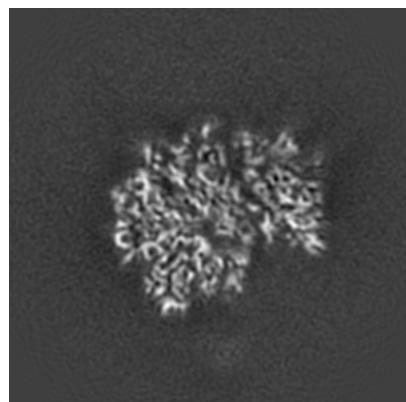


Z

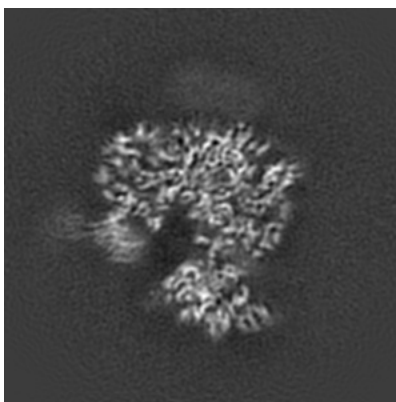
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

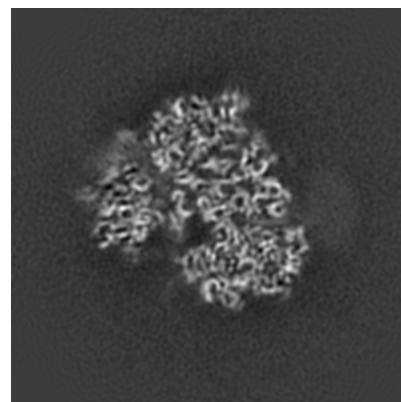
6.2.1 Primary map



X Index: 184



Y Index: 184

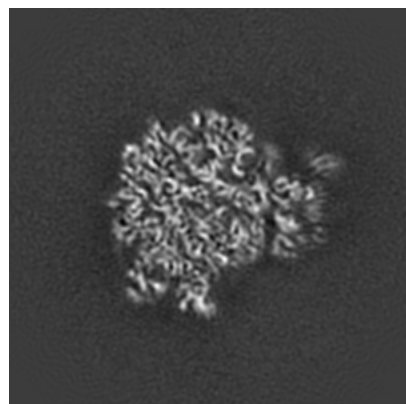


Z Index: 184

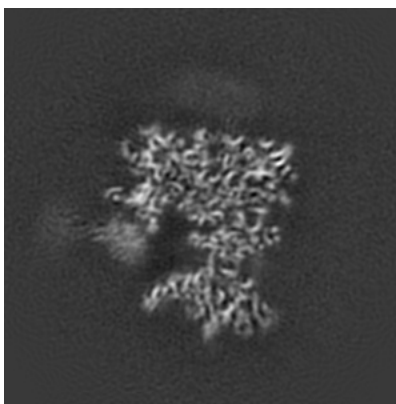
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

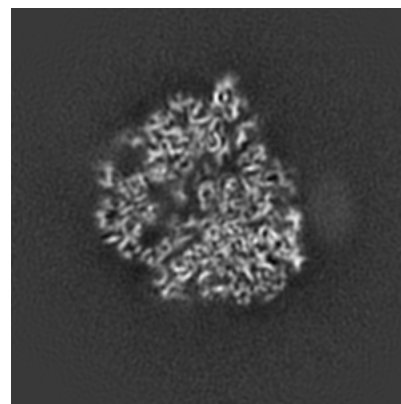
6.3.1 Primary map



X Index: 213



Y Index: 193

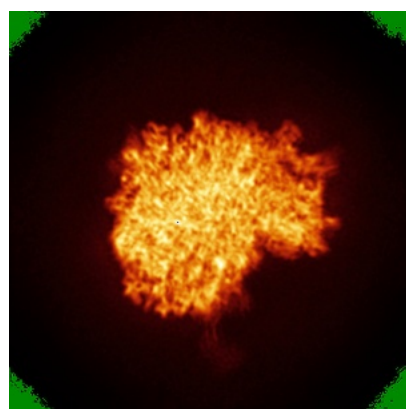


Z Index: 173

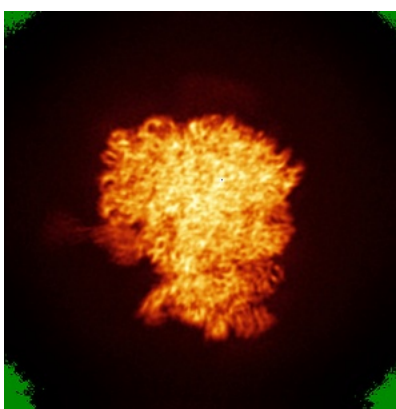
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

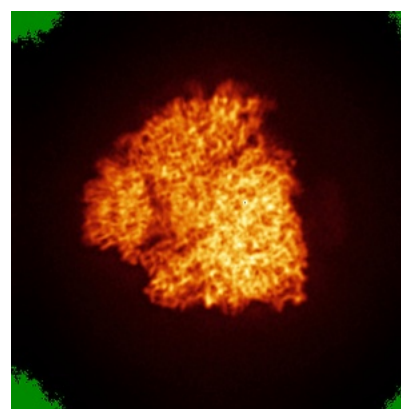
6.4.1 Primary map



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 0.11. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

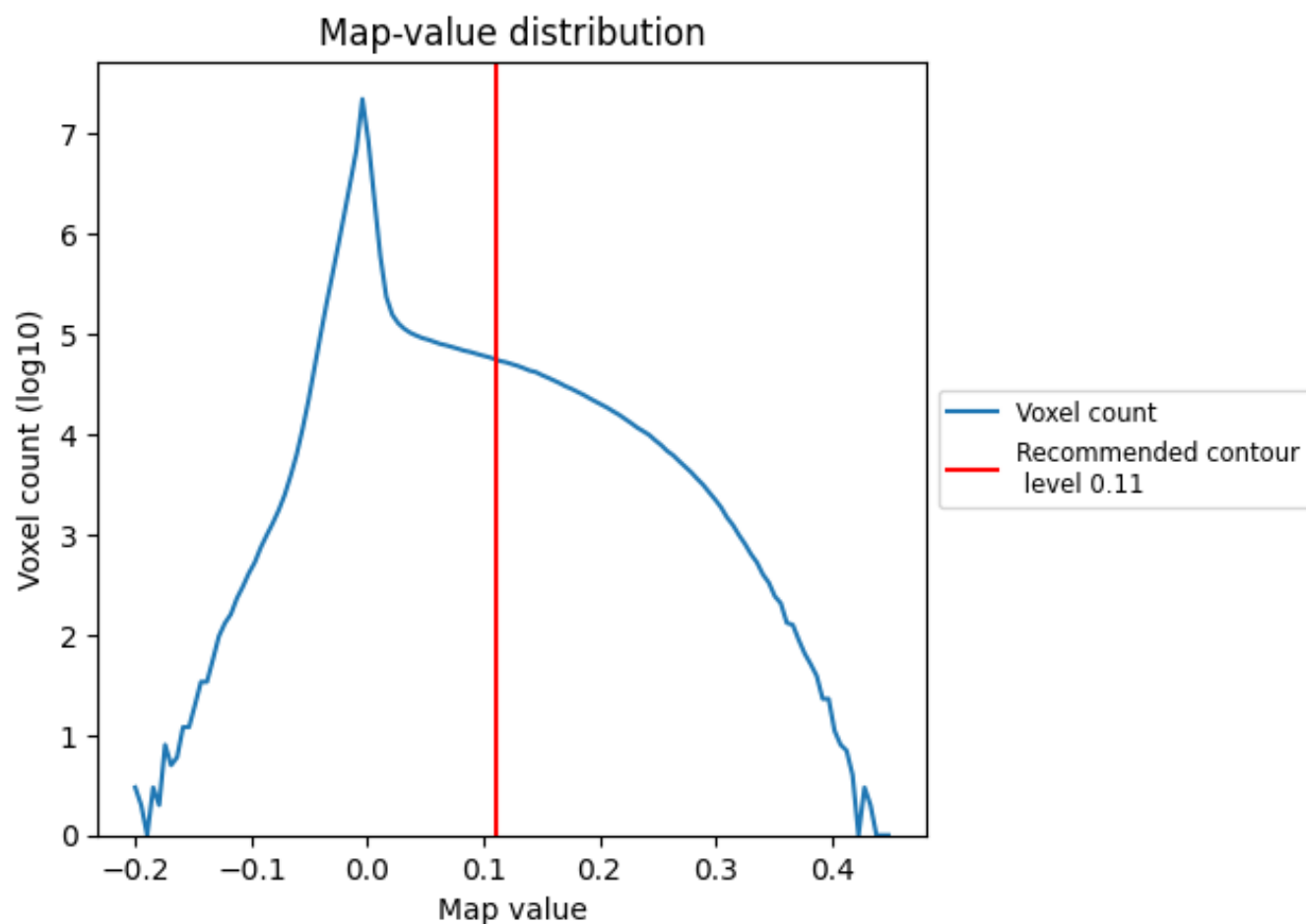
6.6 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

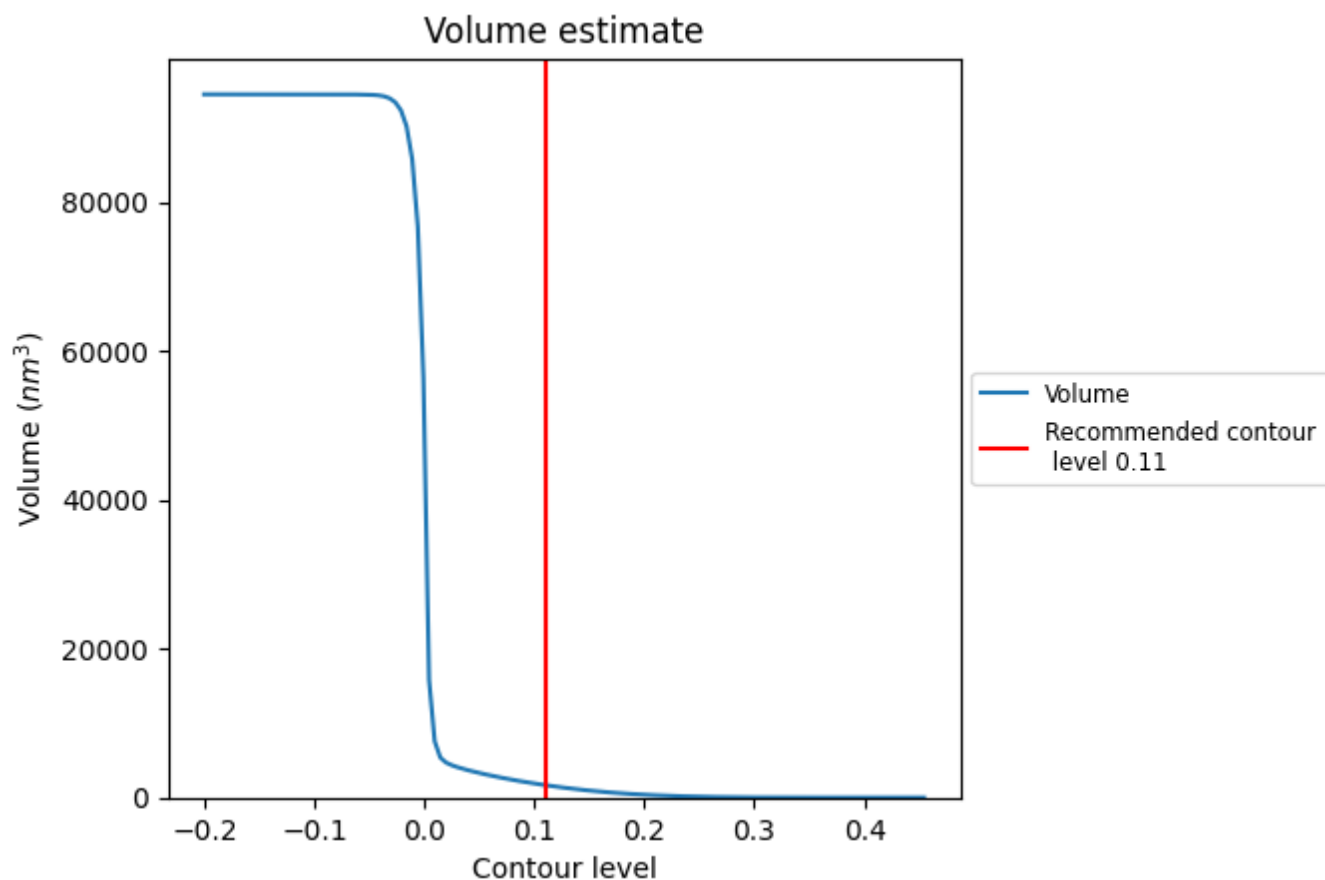
This section contains the results of statistical analysis of the map.

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.

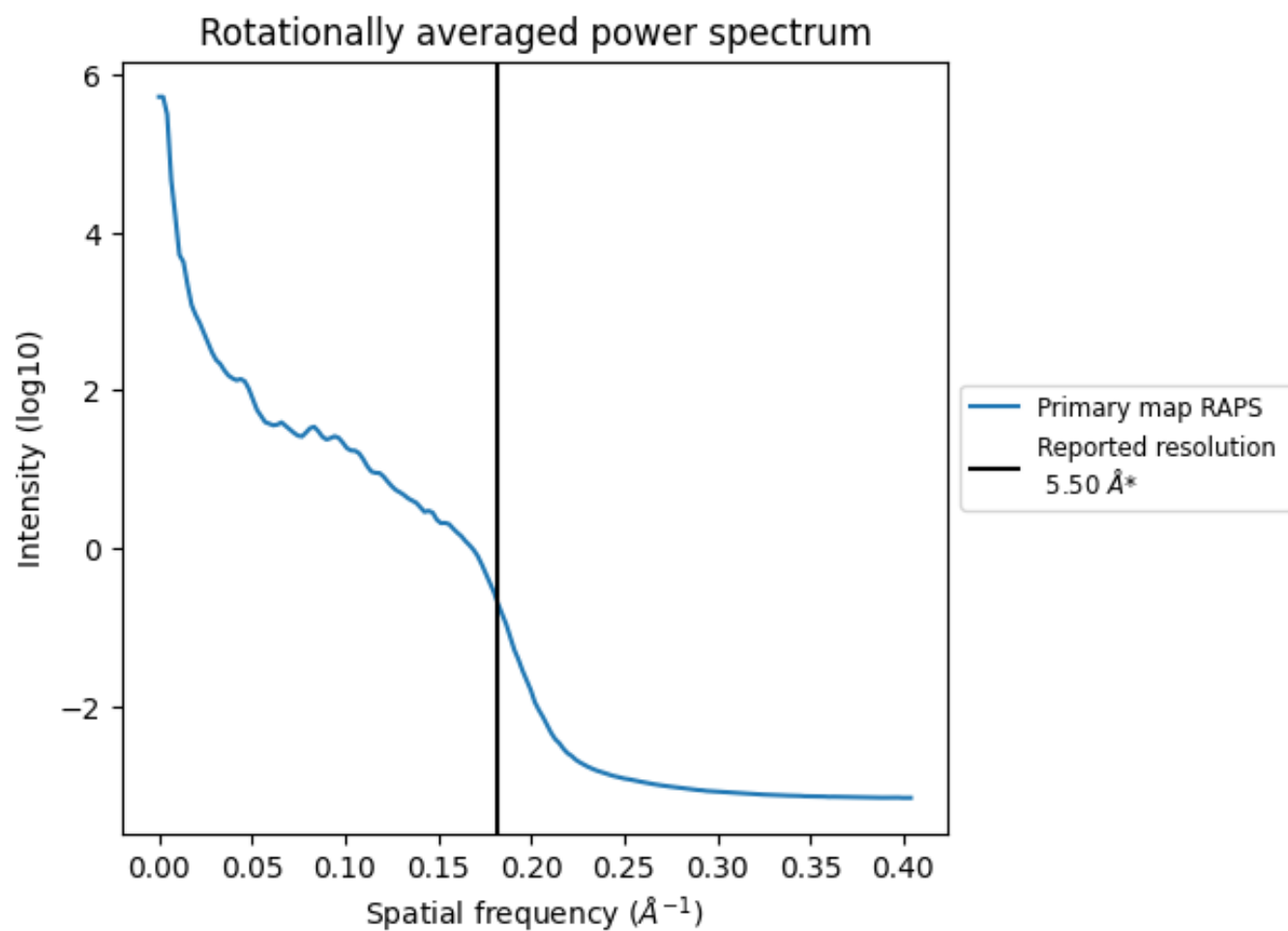
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1668 nm³; this corresponds to an approximate mass of 1506 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 ⓘ



*Reported resolution corresponds to spatial frequency of 0.182 Å⁻¹

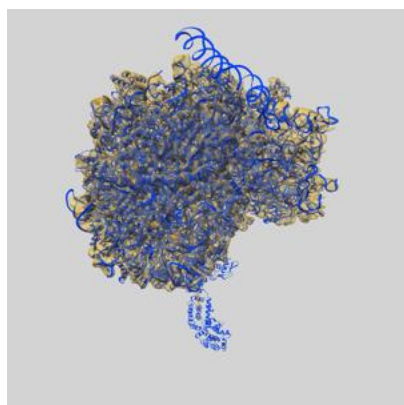
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

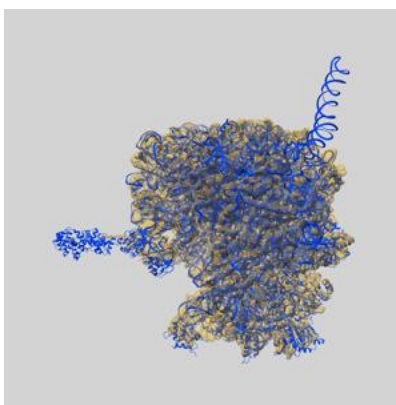
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-1780 and PDB model 4V7E. Per-residue inclusion information can be found in section [3](#) on page [20](#).

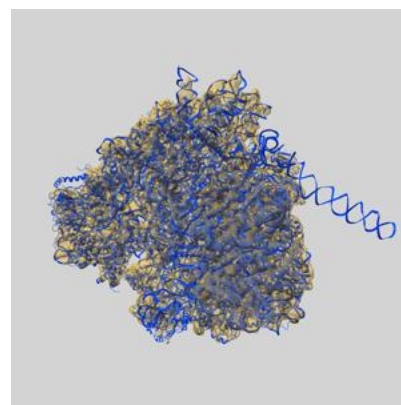
9.1 Map-model overlay [i](#)



X



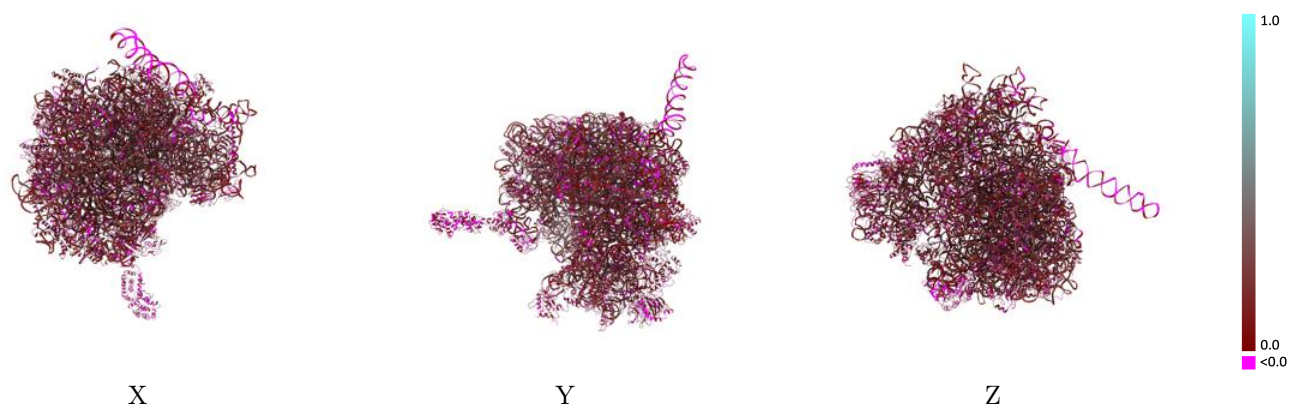
Y



Z

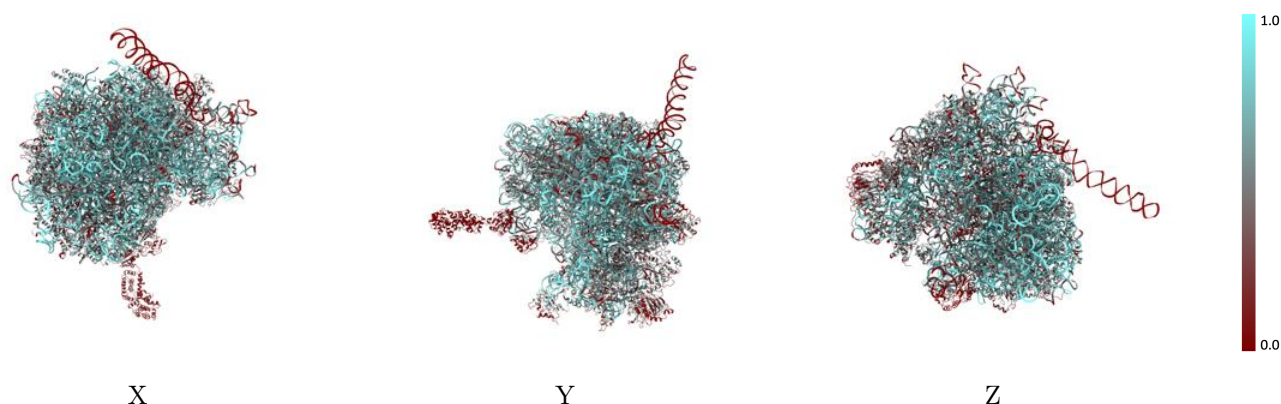
The images above show the 3D surface view of the map at the recommended contour level 0.11 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



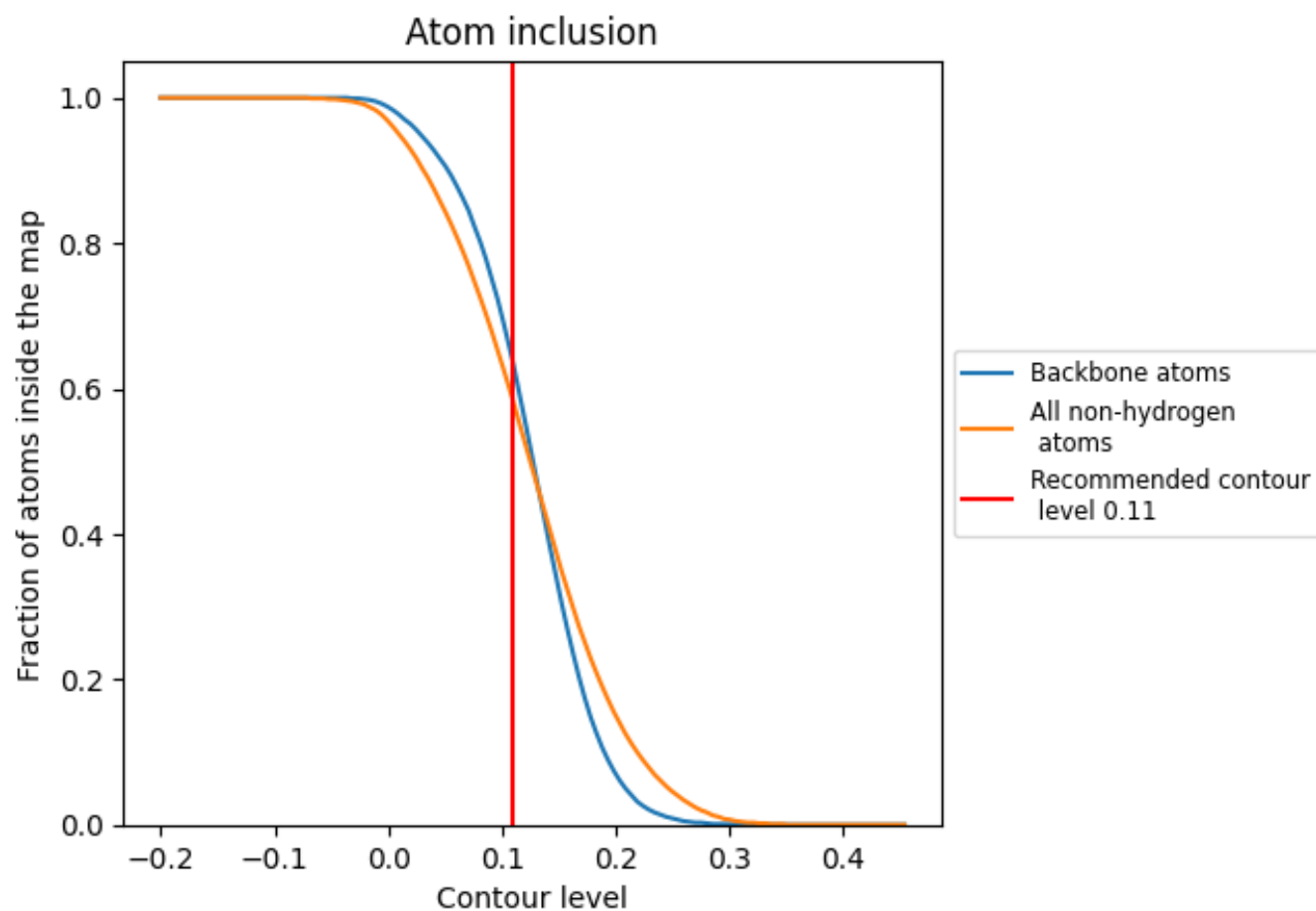
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.11).

9.4 Atom inclusion [i](#)



At the recommended contour level, 64% of all backbone atoms, 58% 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 (0.11) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.5830	 0.1550
Aa	 0.7380	 0.1940
Ab	 0.8530	 0.2080
Ac	 0.7930	 0.2070
Ad	 0.7400	 0.1960
Ae	 0.4910	 0.1860
Af	 0.1290	 0.0800
BA	 0.3800	 0.1240
BB	 0.4210	 0.1260
BC	 0.3650	 0.1210
BD	 0.3290	 0.1190
BE	 0.4310	 0.1040
BF	 0.4540	 0.1280
BG	 0.4300	 0.1120
BH	 0.3670	 0.1230
BI	 0.4140	 0.1110
BJ	 0.4890	 0.1170
BK	 0.4180	 0.0950
BL	 0.3150	 0.1070
BM	 0.2870	 0.0870
BN	 0.3870	 0.0980
BO	 0.3840	 0.1130
BP	 0.4370	 0.1110
BQ	 0.3980	 0.0950
BR	 0.3450	 0.1130
BS	 0.4000	 0.1130
BT	 0.4460	 0.1070
BU	 0.3070	 0.0920
BV	 0.3600	 0.1050
BW	 0.3450	 0.0840
BX	 0.4160	 0.1190
BY	 0.4150	 0.0740
BZ	 0.3450	 0.0990
Ba	 0.4600	 0.1350
Bb	 0.4000	 0.1200



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Chain	Atom inclusion	Q-score
Bc	 0.3080	 0.0630
Bd	 0.3740	 0.0680
Be	 0.3030	 0.0730
Bf	 0.3570	 0.0730
Bg	 0.2150	 0.0850
CA	 0.3970	 0.1150
CB	 0.4290	 0.1080
CC	 0.4030	 0.1160
CD	 0.4760	 0.1050
CE	 0.3680	 0.0960
CF	 0.4640	 0.1200
CG	 0.4750	 0.1180
CH	 0.4760	 0.1140
CI	 0.4450	 0.1210
CJ	 0.4660	 0.1300
CK	 0.0580	 0.0530
CL	 0.4420	 0.1020
CM	 0.4740	 0.1230
CN	 0.4820	 0.1090
CO	 0.4500	 0.1070
CP	 0.4270	 0.1150
CQ	 0.4250	 0.1150
CR	 0.4300	 0.1140
CS	 0.4640	 0.1040
CT	 0.3950	 0.1130
CU	 0.3180	 0.0650
CV	 0.2650	 0.1300
CW	 0.2760	 0.1230
CX	 0.3930	 0.1120
CY	 0.5450	 0.1270
CZ	 0.5070	 0.1270
Ca	 0.4070	 0.0920
Cb	 0.3610	 0.0940
Cc	 0.4300	 0.1090
Cd	 0.4080	 0.0930
Ce	 0.3660	 0.1060
Cf	 0.4200	 0.0960
Cg	 0.4450	 0.1210
Ch	 0.4540	 0.0910
Ci	 0.4100	 0.0870
Cj	 0.4670	 0.1040
Ck	 0.4710	 0.1140

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Chain	Atom inclusion	Q-score
Cl	 0.4310	 0.1180
Cm	 0.5290	 0.1580
Cn	 0.2830	 -0.0170
Co	 0.3910	 0.0940
Cp	 0.3990	 0.1240
Cq	 0.0740	 0.0580
Cr	 0.4890	 0.1140
Cs	 0.0140	 0.0590
Ct	 0.0000	 0.0300
Cu	 0.0000	 0.0430
Cv	 0.0000	 0.0280
Cz	 0.0260	 0.0410