



Full wwPDB EM Validation Report ⓘ

Mar 29, 2026 – 09:59 AM UTC

PDB ID : 4V6U / pdb_00004v6u
EMDB ID : EMD-2009
Title : Promiscuous behavior of proteins in archaeal ribosomes revealed by cryo-EM: implications for evolution of eukaryotic ribosomes
Authors : Armache, J.-P.; Anger, A.M.; Marquez, V.; Frankenberg, S.; Froehlich, T.; Villa, E.; Berninghausen, O.; Thomm, M.; Arnold, G.J.; Beckmann, R.; Wilson, D.N.
Deposited on : 2012-08-09
Resolution : 6.60 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

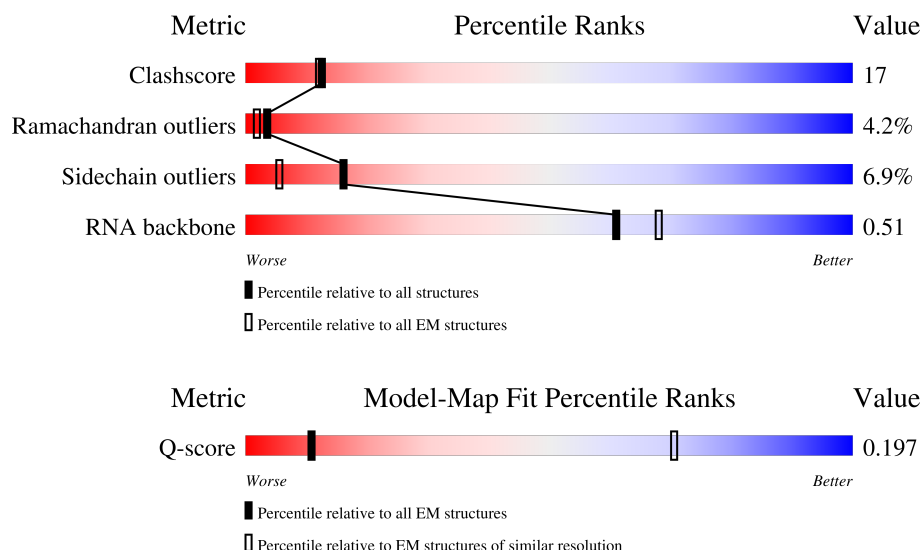
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 6.60 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	531 (6.10 - 7.10)

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

Mol	Chain	Length	Quality of chain
1	AQ	158	32% 39% 49% 11% .
2	AK	135	79% 43% 46% 11%
3	AI	130	42% 42% 45% 12% ..

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Mol	Chain	Length	Quality of chain
4	AG	125	
5	AW	63	
6	AC	210	
7	AB	202	
8	AR	113	
9	A9	57	
10	AD	180	
11	A1	77	
12	AN	147	
13	AX	71	
14	AM	137	
15	AE	243	
16	AJ	127	
17	AO	148	
18	AF	236	
19	AS	67	
20	A3	123	
20	B4	123	
20	BG	123	
21	A2	1495	
22	AY	50	
23	AT	132	
24	AA	198	
25	AH	215	
26	AP	56	

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Mol	Chain	Length	Quality of chain
27	A0	76	
28	AV	99	
28	B6	99	
29	AL	102	
30	AU	150	
31	BY	155	
32	BO	203	
33	BC	365	
34	B5	83	
34	BK	83	
35	BL	147	
36	Bf	51	
37	BU	121	
38	Bb	130	
39	Be	62	
40	BE	186	
41	Ba	95	
42	BT	86	
43	Bk	339	
44	BW	72	
45	Bi	83	
46	BA	216	
47	BI	142	
48	BR	97	
49	BQ	150	

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Mol	Chain	Length	Quality of chain
50	BV	66	
51	Bj	94	
52	BB	239	
53	BD	255	
54	BF	184	
55	Bh	24	
56	BH	164	
57	BZ	99	
58	BP	120	
59	BM	194	
60	BS	155	
61	Bd	89	
62	BN	181	
63	Bg	51	
64	Bc	87	
65	BJ	141	
66	Bl	77	
67	B1	3049	
68	B3	126	

2 Entry composition

There are 68 unique types of molecules in this entry. The entry contains 173979 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called 30S ribosomal protein S15P/S13e.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	AQ	158	Total	C	N	O	S	0	0
			1310	834	250	221	5		

- Molecule 2 is a protein called 30S ribosomal protein S9P.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	AK	135	Total	C	N	O	S	0	0
			1072	671	205	190	6		

- Molecule 3 is a protein called 30S ribosomal protein S8P.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	AI	129	Total	C	N	O	S	0	0
			1028	668	178	180	2		

- Molecule 4 is a protein called 30S ribosomal protein S6e.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	AG	125	Total	C	N	O	S	0	0
			984	623	180	179	2		

- Molecule 5 is a protein called 30S ribosomal protein S27e.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	AW	63	Total	C	N	O	S	0	0
			478	306	85	81	6		

- Molecule 6 is a protein called 30S ribosomal protein S3P.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	AC	186	Total	C	N	O	S	0	0
			1459	933	271	251	4		

- Molecule 7 is a protein called 30S ribosomal protein S2P.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	AB	202	Total	C	N	O	S	0	0
			1623	1046	282	290	5		

- Molecule 8 is a protein called 30S ribosomal protein S17P.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	AR	113	Total	C	N	O	S	0	0
			934	592	177	160	5		

- Molecule 9 is a protein called unknown 30S ribosomal protein SX.

Mol	Chain	Residues	Atoms				AltConf	Trace
9	A9	57	Total	C	N	O	0	0
			286	171	57	58		

- Molecule 10 is a protein called 30S ribosomal protein S4P.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	AD	172	Total	C	N	O	S	0	0
			1434	902	273	255	4		

- Molecule 11 is a RNA chain called E-tRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	A1	77	Total	C	N	O	P	0	0
			1649	734	303	535	77		

- Molecule 12 is a protein called 30S ribosomal protein S12P.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	AN	145	Total	C	N	O	S	0	0
			1140	722	222	193	3		

- Molecule 13 is a protein called 30S ribosomal protein S28e.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AX	71	Total	C	N	O	S	0	0
			568	345	115	107	1		

- Molecule 14 is a protein called 30S ribosomal protein S11P.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	AM	133	Total	C	N	O	S	0	0
			1004	623	200	179	2		

- Molecule 15 is a protein called 30S ribosomal protein S4e.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AE	241	Total	C	N	O	S	0	0
			1976	1277	355	339	5		

- Molecule 16 is a protein called 30S ribosomal protein S8e.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	AJ	127	Total	C	N	O	S	0	0
			1004	622	207	174	1		

- Molecule 17 is a protein called 30S ribosomal protein S13P.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	AO	148	Total	C	N	O	S	0	0
			1189	746	237	200	6		

- Molecule 18 is a protein called 30S ribosomal protein S5P.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	AF	217	Total	C	N	O	S	0	0
			1716	1084	319	305	8		

- Molecule 19 is a protein called 30S ribosomal protein S17e.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	AS	67	Total	C	N	O	S	0	0
			556	353	105	95	3		

- Molecule 20 is a protein called 50S ribosomal protein L7Ae.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	A3	123	Total	C	N	O	S	0	0
			939	599	155	181	4		
20	BG	123	Total	C	N	O	S	0	0
			939	599	155	181	4		
20	B4	123	Total	C	N	O	S	0	0
			939	599	155	181	4		

- Molecule 21 is a RNA chain called 16S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	A2	1495	Total	C	N	O	P	0	0
			32135	14297	5954	10389	1495		

- Molecule 22 is a protein called 30S ribosomal protein S27ae.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	AY	50	Total	C	N	O	S	0	0
			409	262	75	66	6		

- Molecule 23 is a protein called 30S ribosomal protein S19P.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	AT	111	Total	C	N	O	S	0	0
			923	594	173	150	6		

- Molecule 24 is a protein called 30S ribosomal protein S3Ae.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	AA	190	Total	C	N	O	S	0	0
			1559	1007	273	274	5		

- Molecule 25 is a protein called 30S ribosomal protein S7P.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	AH	215	Total	C	N	O	S	0	0
			1736	1100	326	302	8		

- Molecule 26 is a protein called 30S ribosomal protein S14P type Z.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	AP	56	Total	C	N	O	S	0	0
			462	292	95	69	6		

- Molecule 27 is a RNA chain called P-tRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	A0	76	Total	C	N	O	P	0	0
			1625	722	291	536	76		

- Molecule 28 is a protein called 30S ribosomal protein S24e.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	AV	99	Total	C	N	O	S	0	0
			823	532	134	154	3		
28	B6	94	Total	C	N	O	S	0	0
			782	508	127	144	3		

- Molecule 29 is a protein called 30S ribosomal protein S10P.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	AL	102	Total	C	N	O	S	0	0
			822	507	159	152	4		

- Molecule 30 is a protein called SSU ribosomal protein S19E.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	AU	144	Total	C	N	O	S	0	0
			1175	758	212	204	1		

- Molecule 31 is a protein called 50S ribosomal protein L30P.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	BY	155	Total	C	N	O	S	0	0
			1243	788	235	213	7		

- Molecule 32 is a protein called 50S ribosomal protein L18P.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	BO	197	Total	C	N	O	S	0	0
			1597	1021	299	274	3		

- Molecule 33 is a protein called 50S ribosomal protein L3P.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	BC	365	Total	C	N	O	S	0	0
			2912	1870	527	500	15		

- Molecule 34 is a protein called 50S ribosomal protein L14e.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	B5	81	Total	C	N	O	S	0	0
			614	386	119	108	1		
34	BK	81	Total	C	N	O	S	0	0
			614	386	119	108	1		

- Molecule 35 is a protein called 50S ribosomal protein L15P.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	BL	147	Total	C	N	O	S	0	0
			1154	727	227	195	5		

- Molecule 36 is a protein called 50S ribosomal protein L39e.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	Bf	51	Total	C	N	O	S	0	0
			445	284	98	62	1		

- Molecule 37 is a protein called 50S ribosomal protein L24P.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	BU	121	Total	C	N	O	S	0	0
			1008	637	195	172	4		

- Molecule 38 is a protein called 50S ribosomal protein L32e.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	Bb	127	Total	C	N	O	S	0	0
			1074	689	217	167	1		

- Molecule 39 is a protein called 50S ribosomal protein L37e.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	Be	62	Total	C	N	O	S	0	0
			506	312	111	78	5		

- Molecule 40 is a protein called 50S ribosomal protein L5P.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	BE	186	Total	C	N	O	S	0	0
			1489	937	278	265	9		

- Molecule 41 is a protein called 50S ribosomal protein L31e.

Mol	Chain	Residues	Atoms				AltConf	Trace
41	Ba	90	Total	C	N	O	0	0
			746	483	138	125		

- Molecule 42 is a protein called 50S ribosomal protein L23P.

Mol	Chain	Residues	Atoms				AltConf	Trace
42	BT	84	Total	C	N	O		
			680	440	118	122	0	0

- Molecule 43 is a protein called Acidic ribosomal protein P0 homolog.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	Bk	212	Total	C	N	O	S		
			1632	1051	272	303	6	0	0

- Molecule 44 is a protein called 50S ribosomal protein L29P.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	BW	72	Total	C	N	O	S		
			594	369	115	106	4	0	0

- Molecule 45 is a protein called 50S ribosomal protein L37Ae.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	Bi	78	Total	C	N	O	S		
			590	368	122	95	5	0	0

- Molecule 46 is a protein called 50S ribosomal protein L1P.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	BA	216	Total	C	N	O	S		
			1677	1068	300	304	5	0	0

- Molecule 47 is a protein called 50S ribosomal protein L13P.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	BI	142	Total	C	N	O	S		
			1150	737	215	195	3	0	0

- Molecule 48 is a protein called 50S ribosomal protein L21e.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	BR	95	Total	C	N	O	S		
			787	501	160	125	1	0	0

- Molecule 49 is a protein called 50S ribosomal protein L19e.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	BQ	150	Total	C	N	O	S	0	0
			1256	794	255	202	5		

- Molecule 50 is a protein called 50S ribosomal protein L24e.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	BV	66	Total	C	N	O	S	0	0
			555	351	106	91	7		

- Molecule 51 is a protein called 50S ribosomal protein L44E.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	Bj	94	Total	C	N	O	S	0	0
			787	499	161	122	5		

- Molecule 52 is a protein called 50S ribosomal protein L2P.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	BB	239	Total	C	N	O	S	0	0
			1838	1169	347	317	5		

- Molecule 53 is a protein called 50S ribosomal protein L4P.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	BD	255	Total	C	N	O	S	0	0
			2026	1288	391	342	5		

- Molecule 54 is a protein called 50S ribosomal protein L6P.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	BF	184	Total	C	N	O	S	0	0
			1476	956	252	266	2		

- Molecule 55 is a protein called 50S ribosomal protein L41e.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	Bh	24	Total	C	N	O	S	0	0
			230	147	54	28	1		

- Molecule 56 is a protein called 50S ribosomal protein L11P.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	BH	134	Total	C	N	O	S	0	0
			988	635	164	183	6		

- Molecule 57 is a protein called 50S ribosomal protein L30e.

Mol	Chain	Residues	Atoms					AltConf	Trace
57	BZ	99	Total	C	N	O	S	0	0
			754	489	121	142	2		

- Molecule 58 is a protein called 50S ribosomal protein L18e.

Mol	Chain	Residues	Atoms					AltConf	Trace
58	BP	120	Total	C	N	O	S	0	0
			966	606	186	171	3		

- Molecule 59 is a protein called 50S ribosomal protein L15e.

Mol	Chain	Residues	Atoms					AltConf	Trace
59	BM	194	Total	C	N	O	S	0	0
			1595	1020	316	253	6		

- Molecule 60 is a protein called 50S ribosomal protein L22P.

Mol	Chain	Residues	Atoms					AltConf	Trace
60	BS	150	Total	C	N	O	S	0	0
			1200	764	230	202	4		

- Molecule 61 is a protein called 50S ribosomal protein L34e.

Mol	Chain	Residues	Atoms					AltConf	Trace
61	Bd	89	Total	C	N	O	S	0	0
			740	463	158	108	11		

- Molecule 62 is a protein called 50S ribosomal protein L10e.

Mol	Chain	Residues	Atoms					AltConf	Trace
62	BN	168	Total	C	N	O	S	0	0
			1378	872	268	232	6		

- Molecule 63 is a protein called 50S ribosomal protein L40e.

Mol	Chain	Residues	Atoms					AltConf	Trace
63	Bg	45	Total	C	N	O	S	0	0
			371	236	76	55	4		

- Molecule 64 is a protein called 50S ribosomal protein L35Ae.

Mol	Chain	Residues	Atoms					AltConf	Trace
64	Bc	87	Total	C	N	O	S	0	0
			685	434	132	117	2		

- Molecule 65 is a protein called 50S ribosomal protein L14P.

Mol	Chain	Residues	Atoms					AltConf	Trace
65	BJ	132	Total	C	N	O	S	0	0
			1014	631	204	176	3		

- Molecule 66 is a protein called 50S ribosomal protein LX.

Mol	Chain	Residues	Atoms					AltConf	Trace
66	Bl	77	Total	C	N	O	S	0	0
			659	425	118	115	1		

- Molecule 67 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
67	B1	3049	Total	C	N	O	P	0	0
			65577	29172	12191	21165	3049		

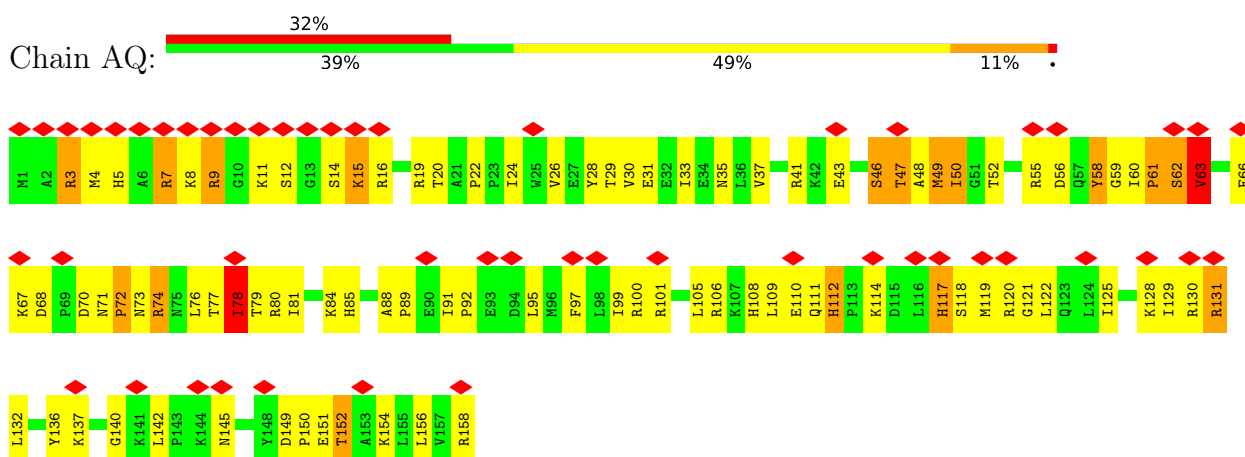
- Molecule 68 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
68	B3	126	Total	C	N	O	P	0	0
			2694	1199	492	877	126		

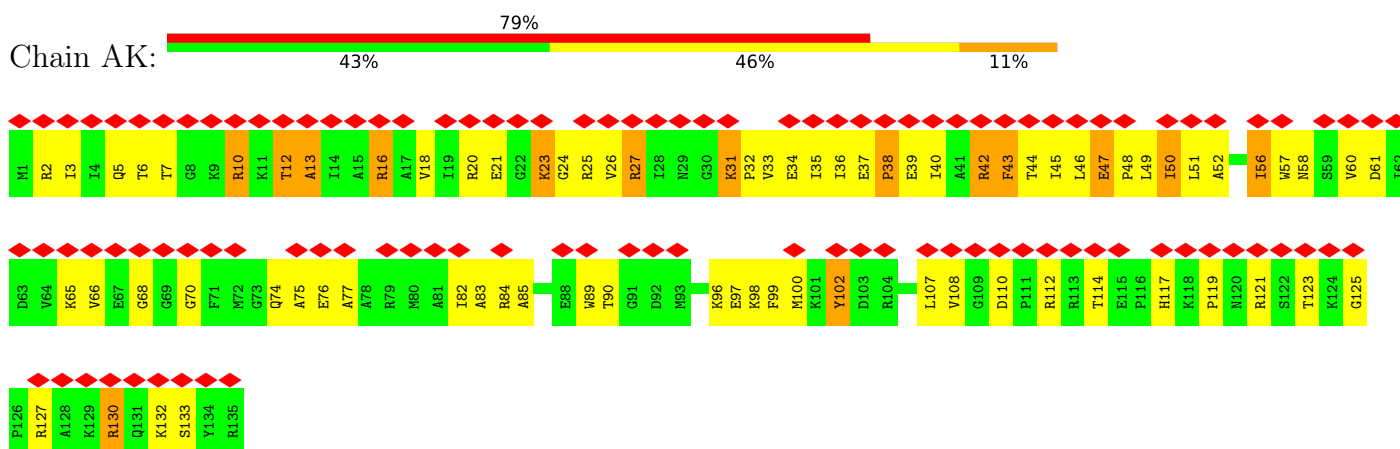
3 Residue-property plots

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.

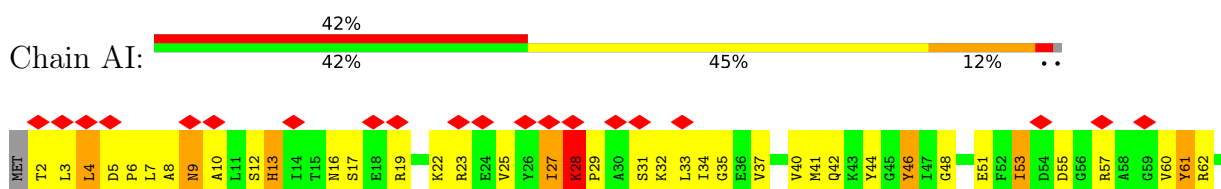
• Molecule 1: 30S ribosomal protein S15P/S13e

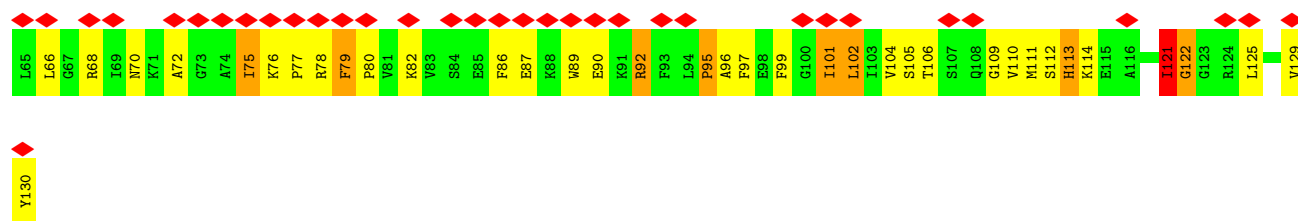


• Molecule 2: 30S ribosomal protein S9P

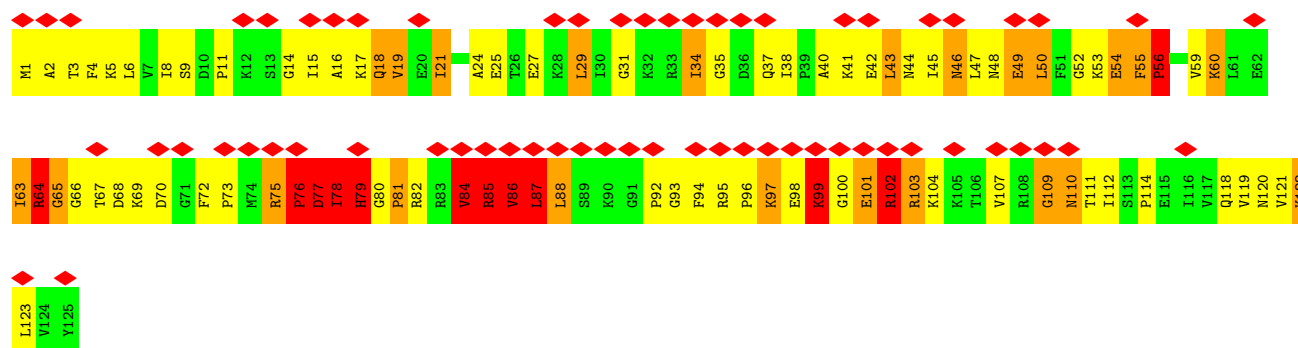


• Molecule 3: 30S ribosomal protein S8P





• Molecule 4: 30S ribosomal protein S6e



• Molecule 5: 30S ribosomal protein S27e

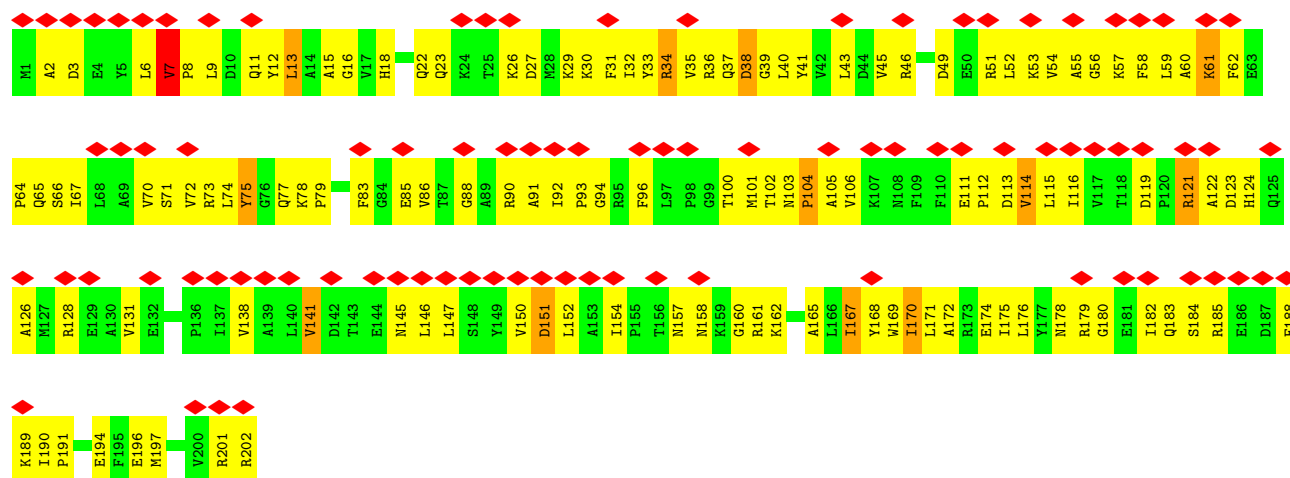


• Molecule 6: 30S ribosomal protein S3P

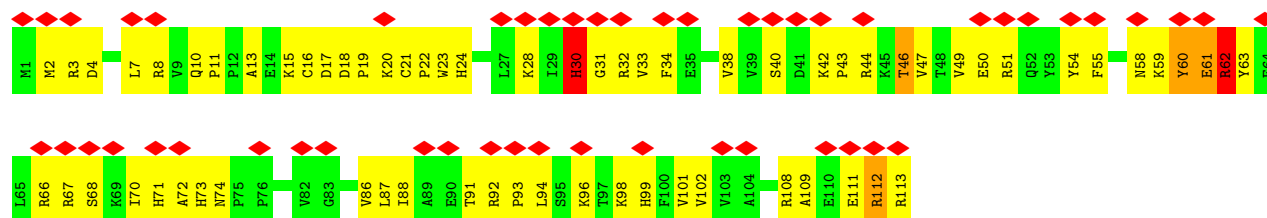


• Molecule 7: 30S ribosomal protein S2P





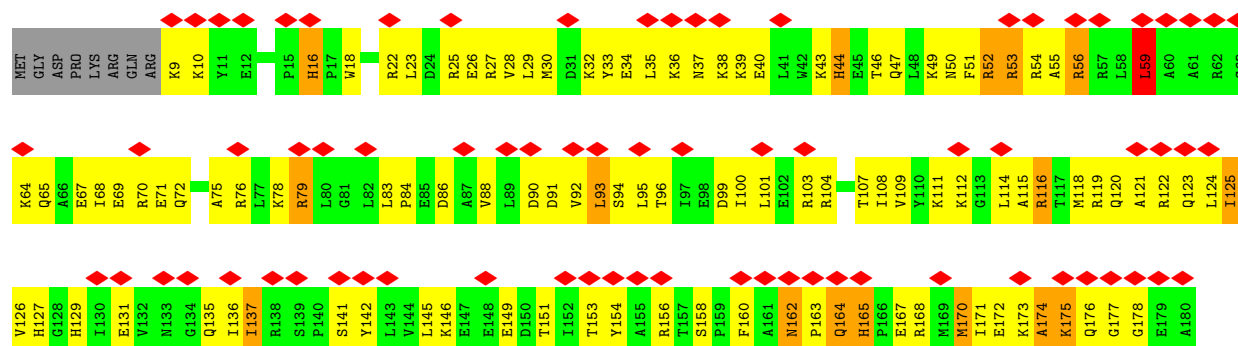
- Molecule 8: 30S ribosomal protein S17P



- Molecule 9: unknown 30S ribosomal protein SX

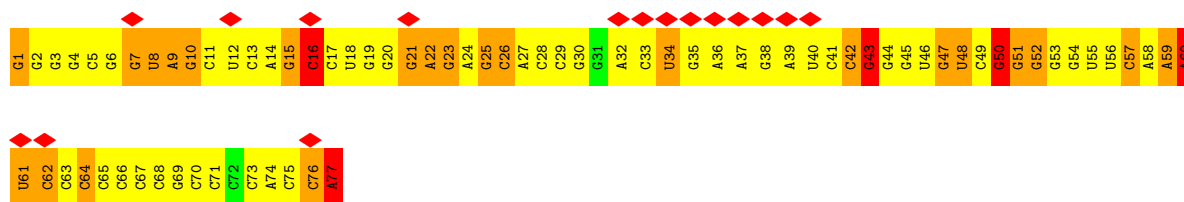


- Molecule 10: 30S ribosomal protein S4P



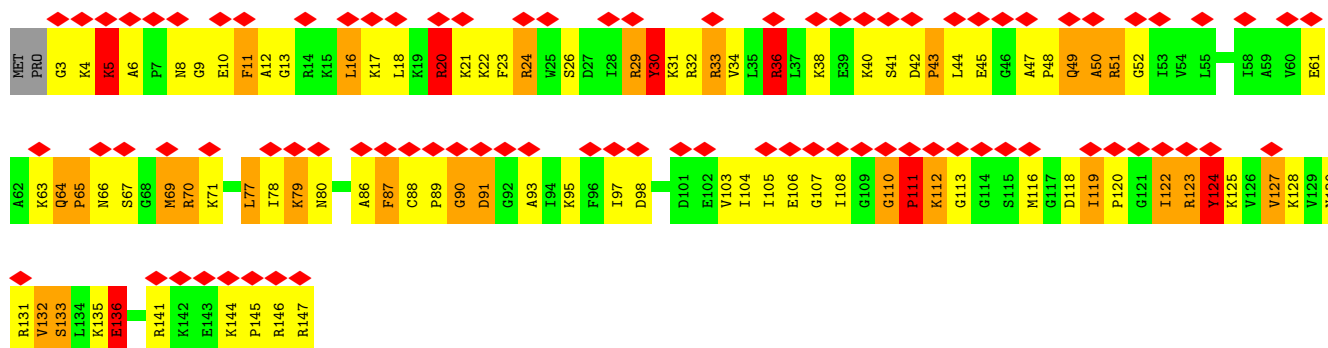
- Molecule 11: E-tRNA

Chain A1: 

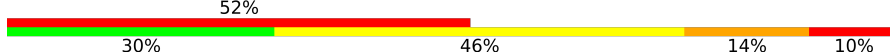


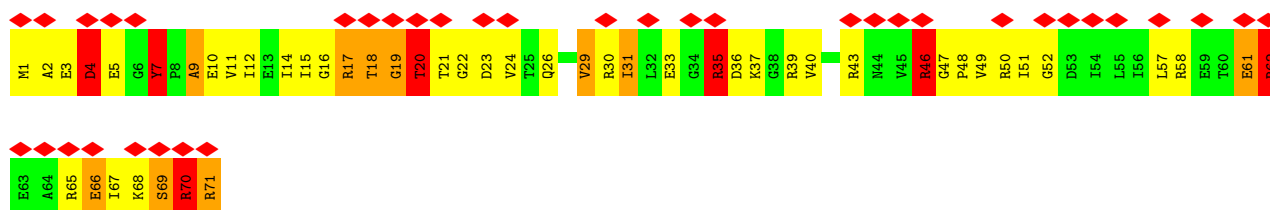
- Molecule 12: 30S ribosomal protein S12P

Chain AN: 



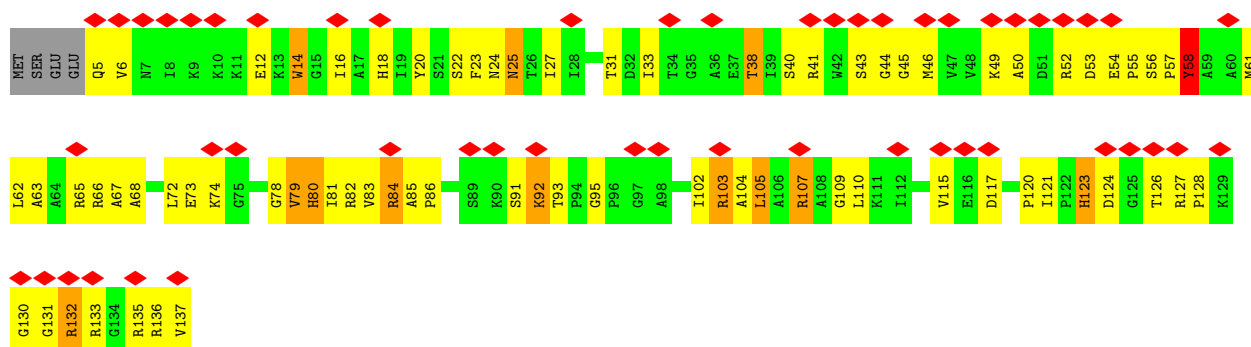
- Molecule 13: 30S ribosomal protein S28e

Chain AX: 

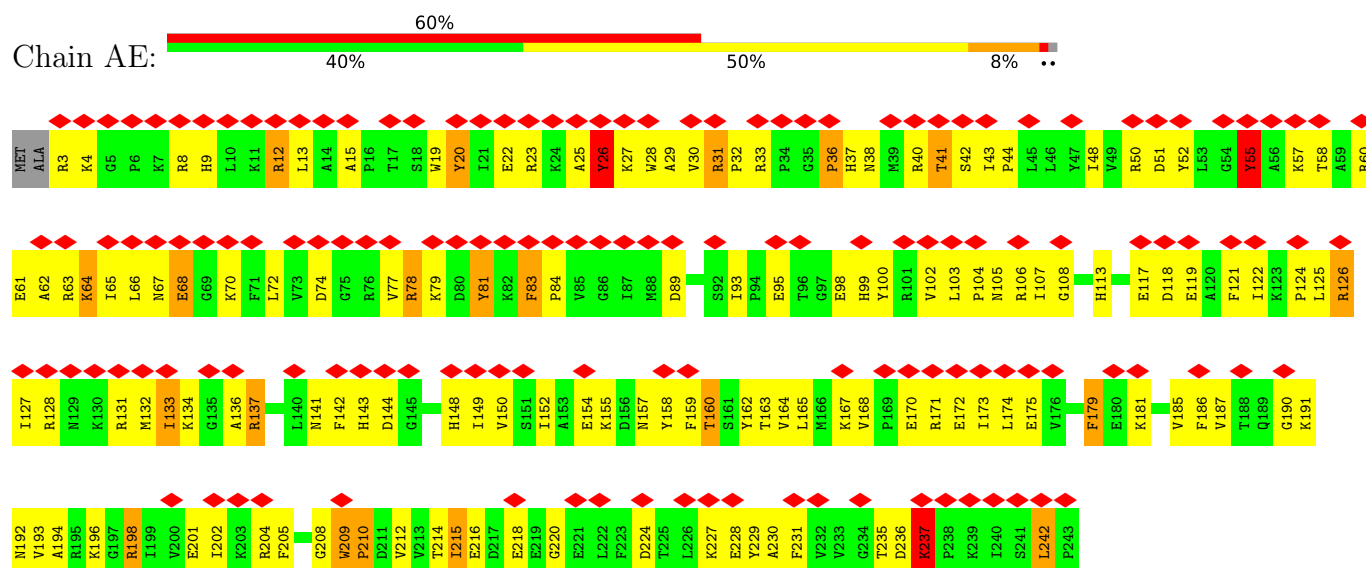


- Molecule 14: 30S ribosomal protein S11P

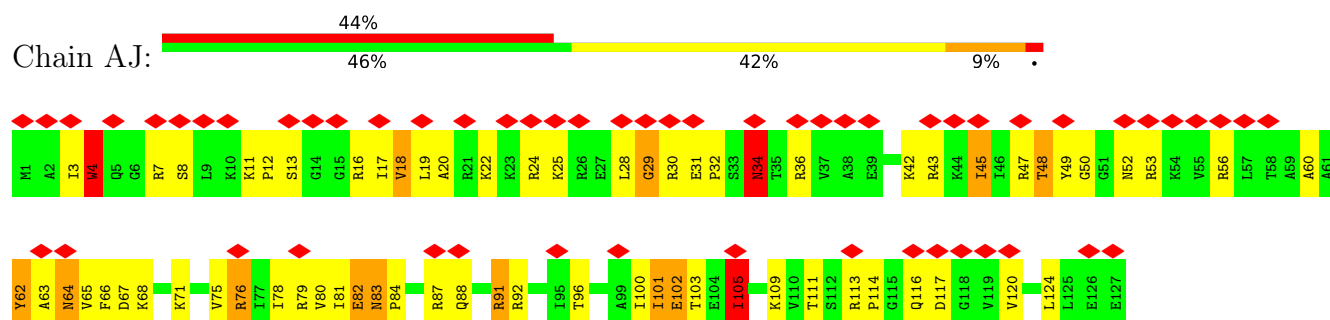
Chain AM: 



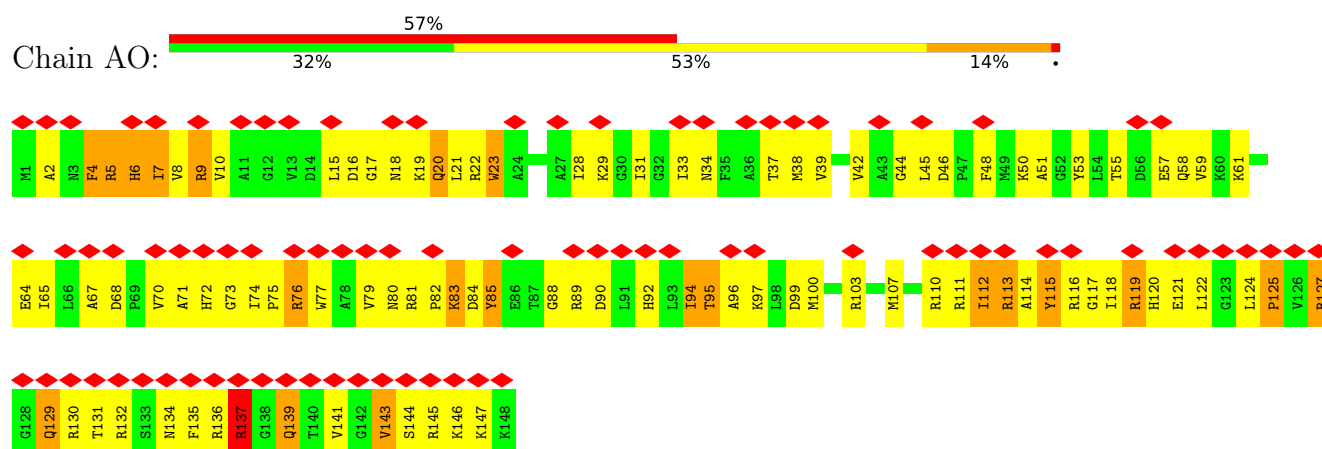
- Molecule 15: 30S ribosomal protein S4e



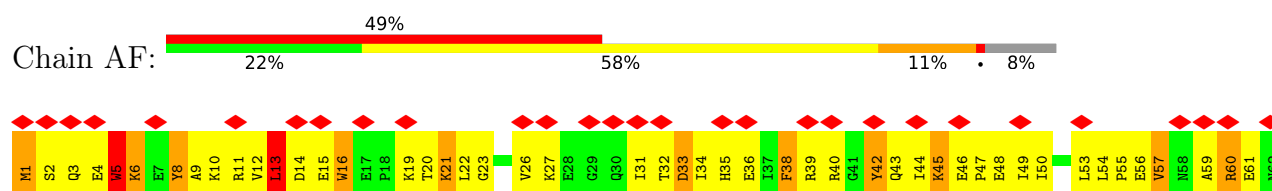
- Molecule 16: 30S ribosomal protein S8e

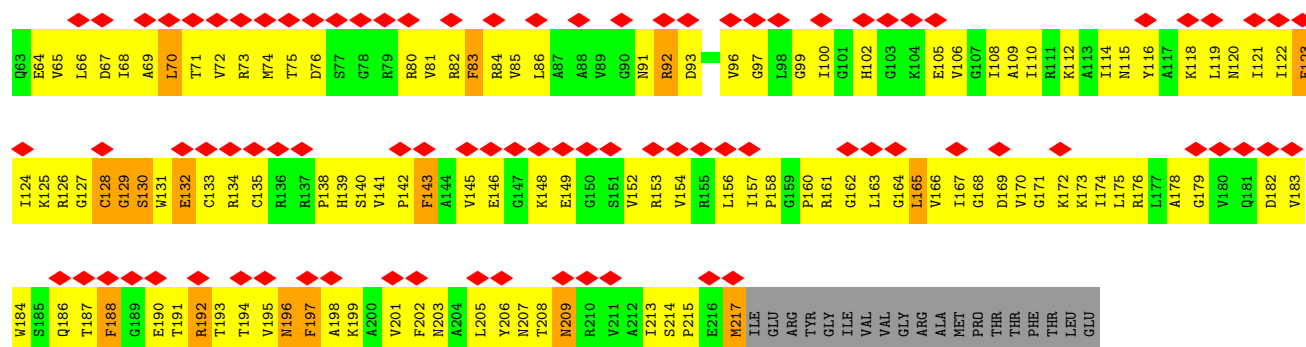


- Molecule 17: 30S ribosomal protein S13P

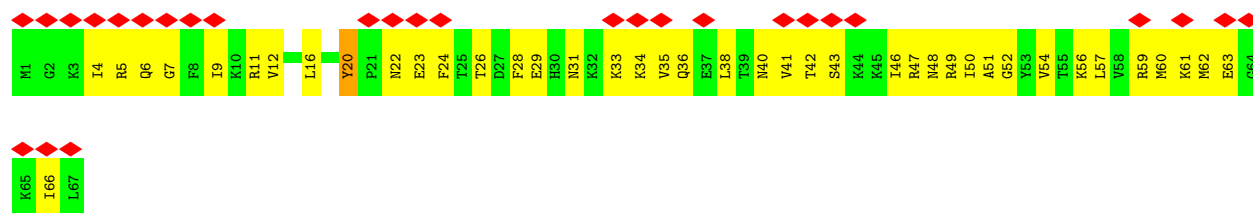
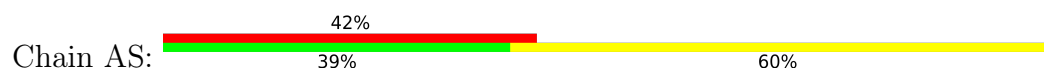


- Molecule 18: 30S ribosomal protein S5P

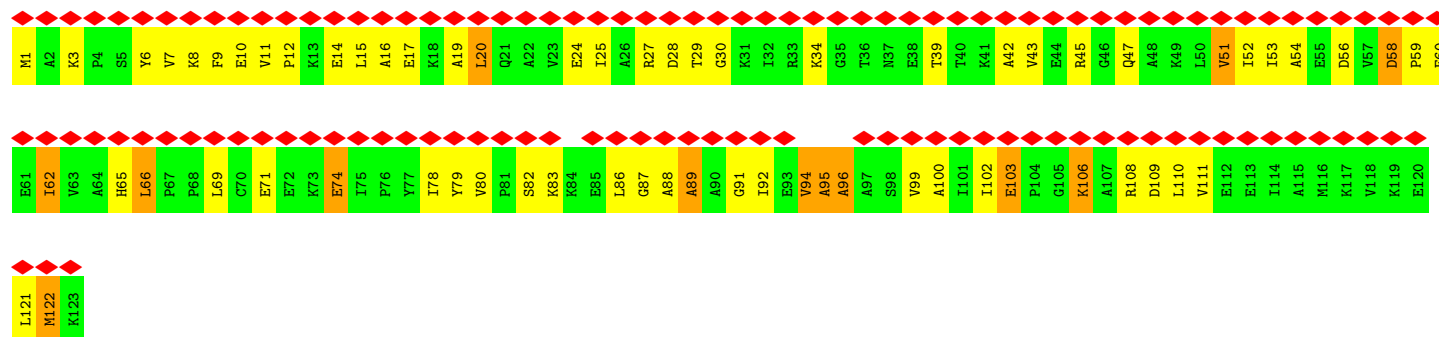




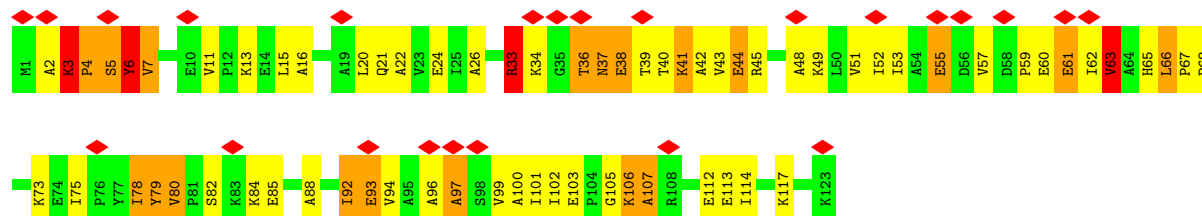
• Molecule 19: 30S ribosomal protein S17e



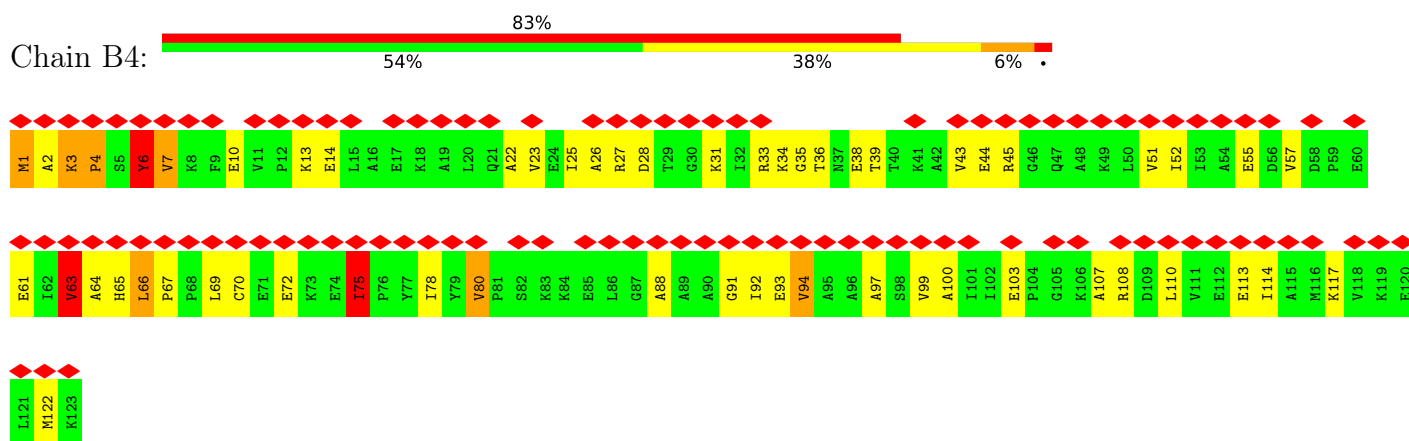
• Molecule 20: 50S ribosomal protein L7Ae



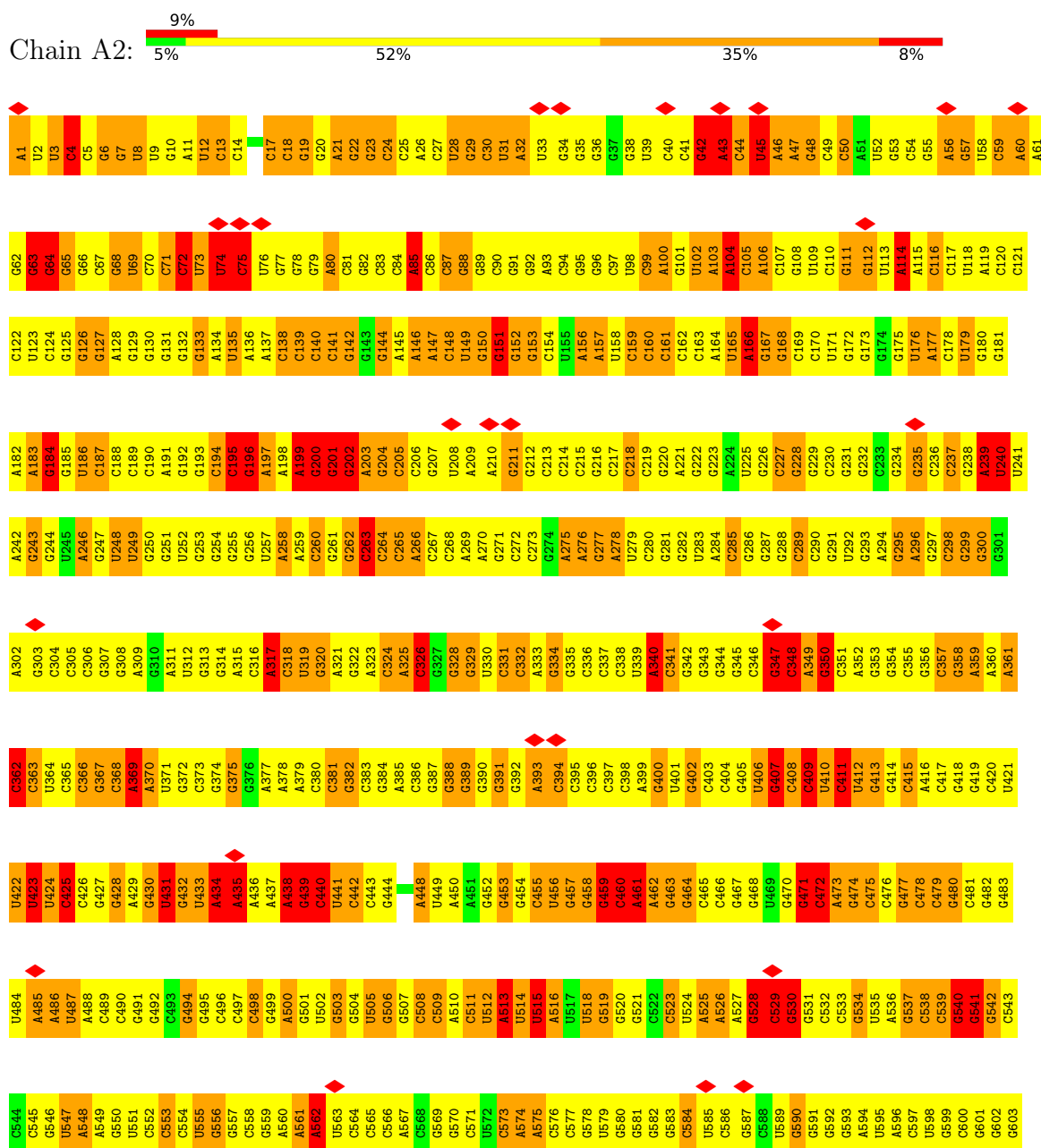
• Molecule 20: 50S ribosomal protein L7Ae



• Molecule 20: 50S ribosomal protein L7Ae



• Molecule 21: 16S rRNA



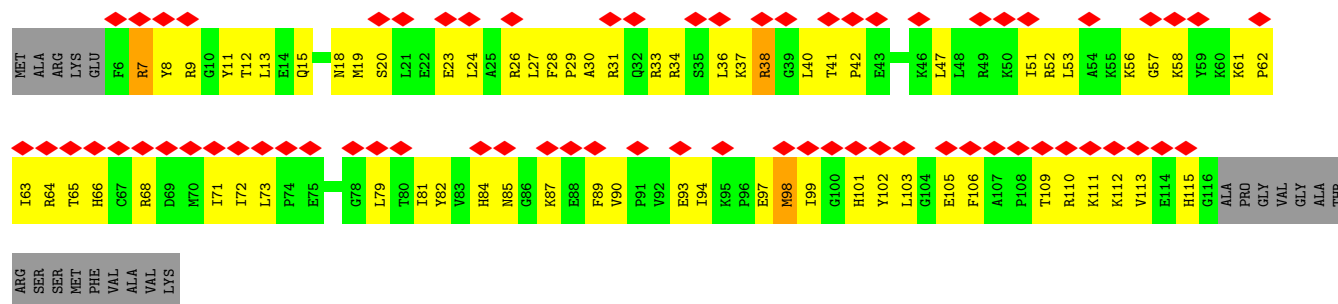
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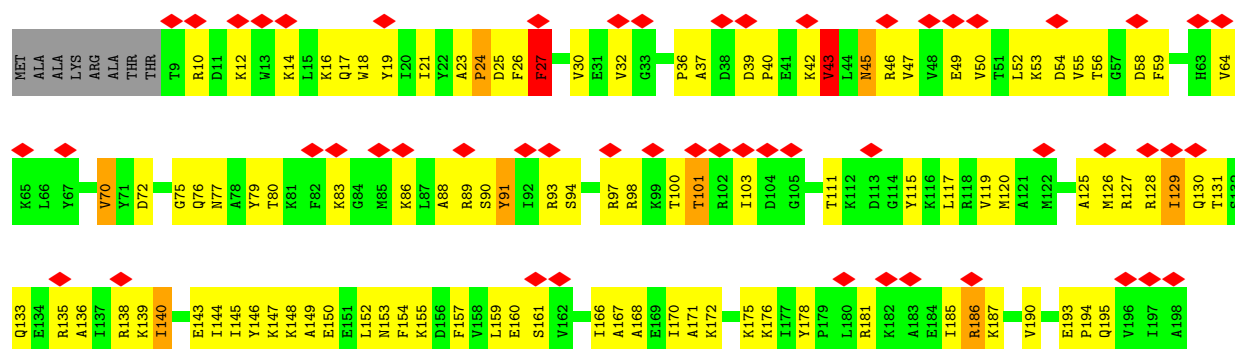
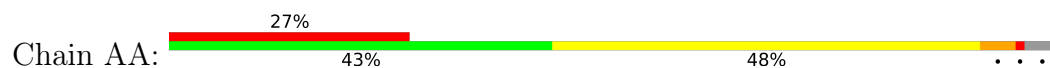
• Molecule 22: 30S ribosomal protein S27ae



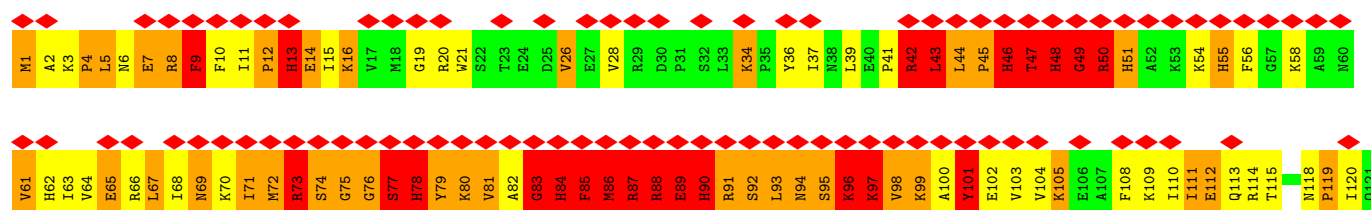
• Molecule 23: 30S ribosomal protein S19P

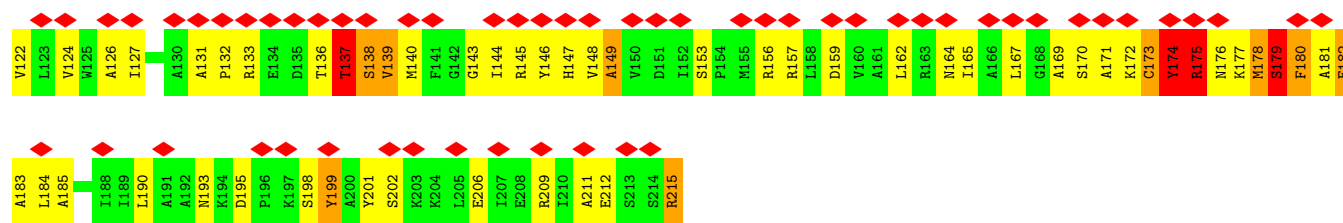


• Molecule 24: 30S ribosomal protein S3Ae

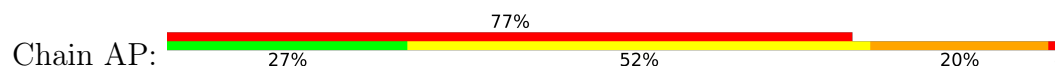


• Molecule 25: 30S ribosomal protein S7P

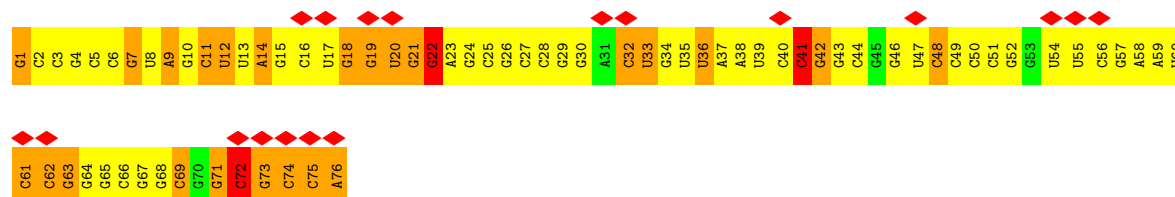




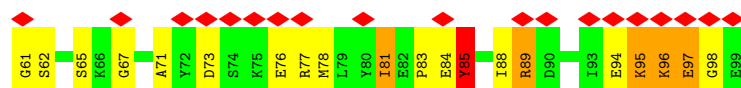
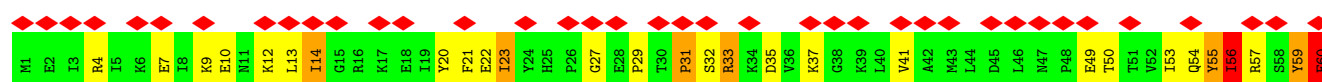
- Molecule 26: 30S ribosomal protein S14P type Z



- Molecule 27: P-tRNA



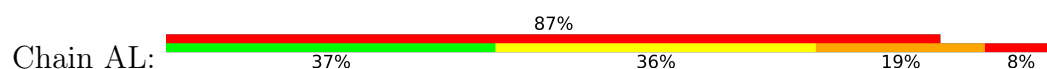
- Molecule 28: 30S ribosomal protein S24e

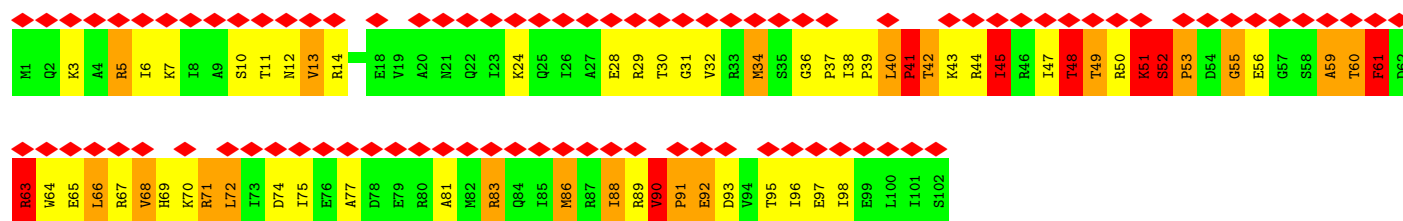


- Molecule 28: 30S ribosomal protein S24e

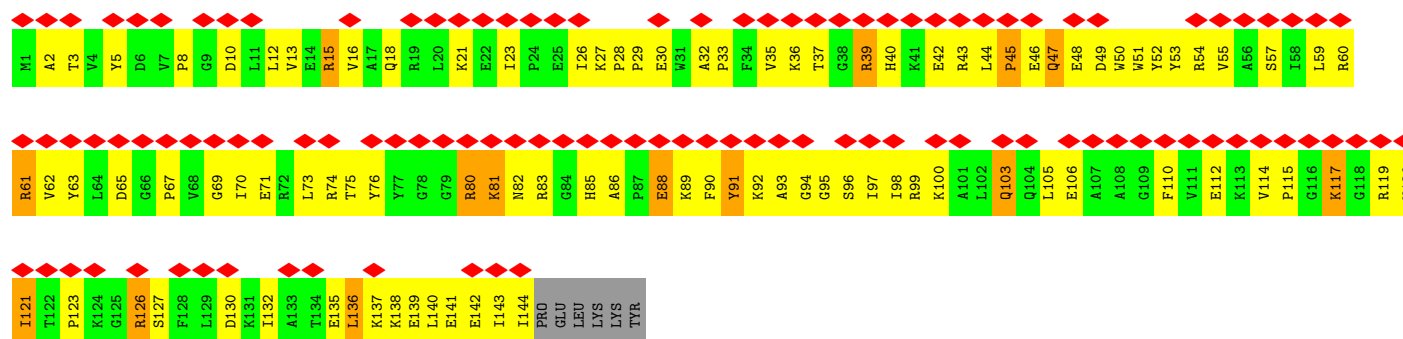
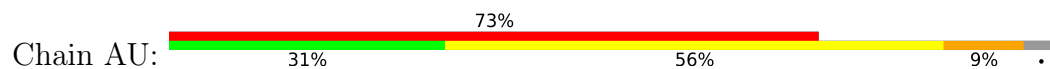


- Molecule 29: 30S ribosomal protein S10P

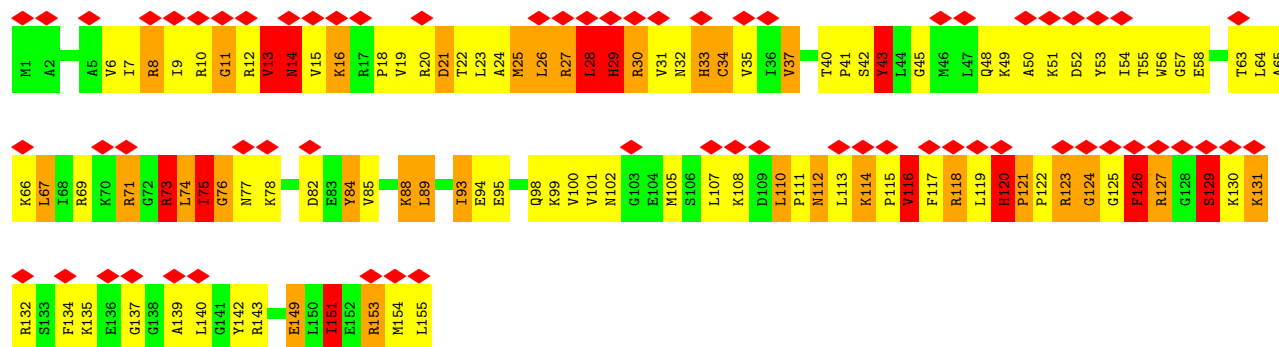




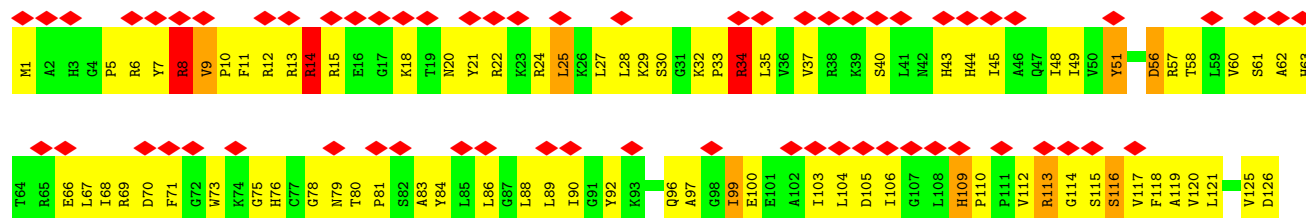
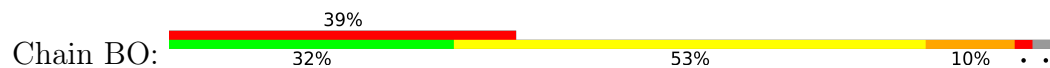
• Molecule 30: SSU ribosomal protein S19E

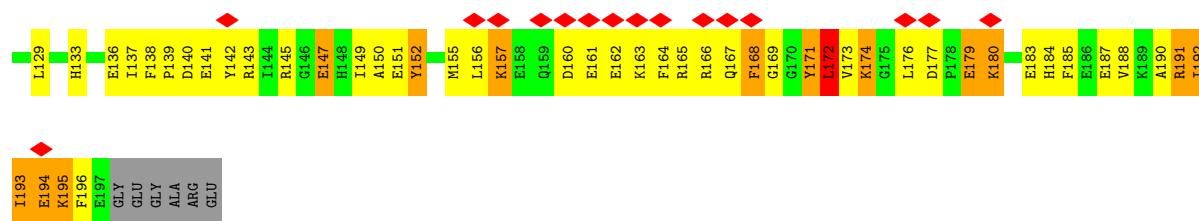


• Molecule 31: 50S ribosomal protein L30P

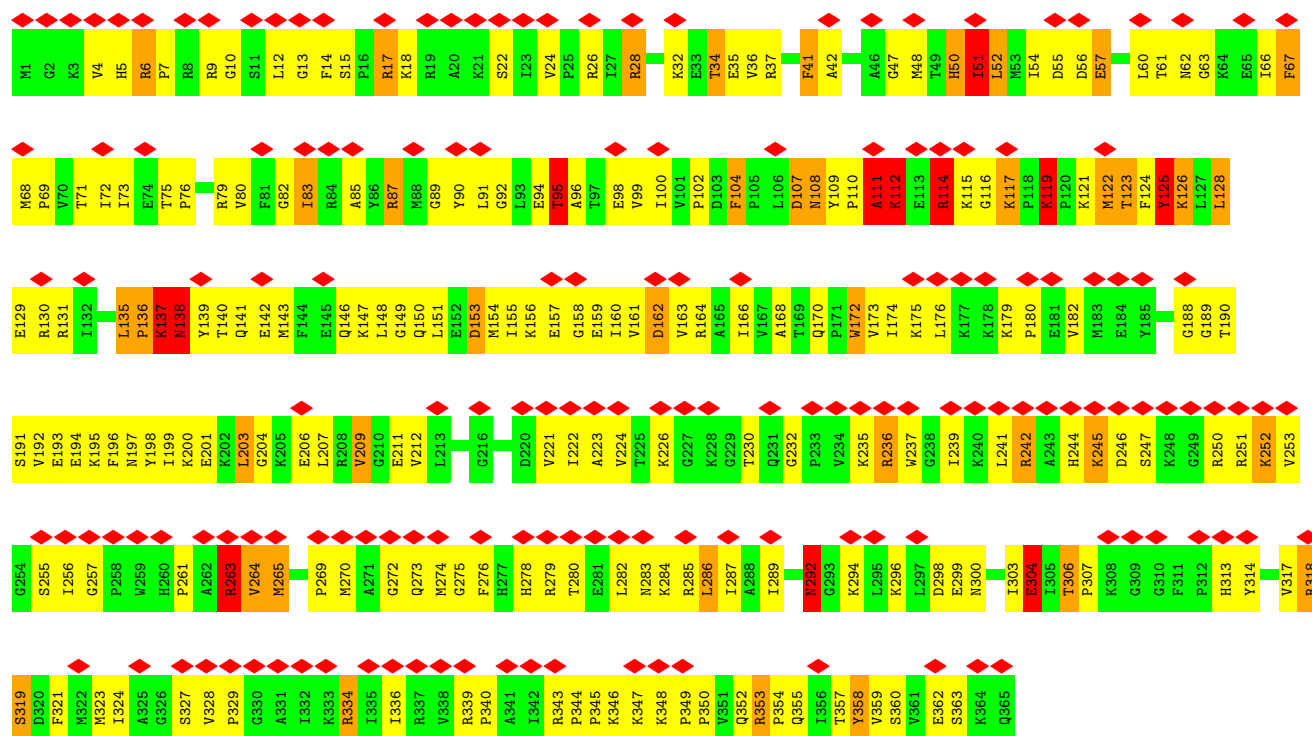
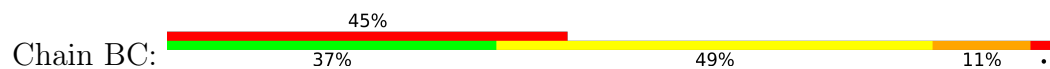


• Molecule 32: 50S ribosomal protein L18P

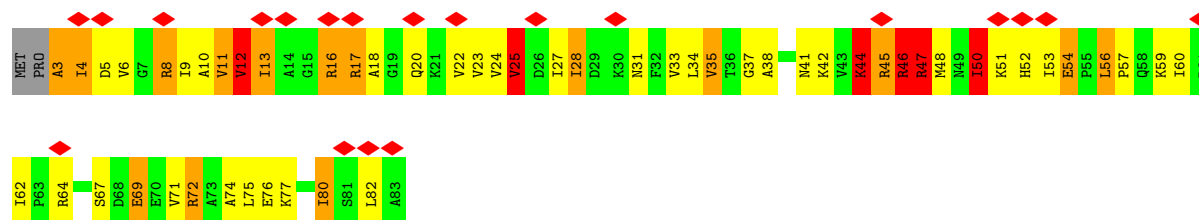




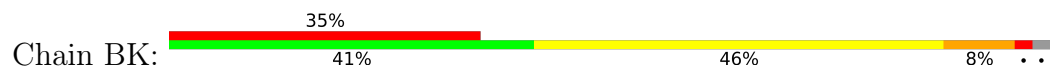
• Molecule 33: 50S ribosomal protein L3P



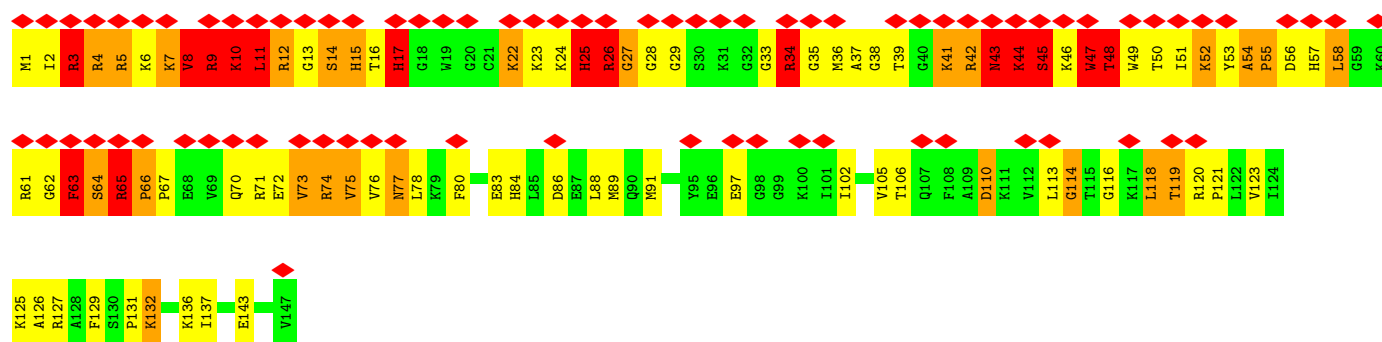
• Molecule 34: 50S ribosomal protein L14e



• Molecule 34: 50S ribosomal protein L14e



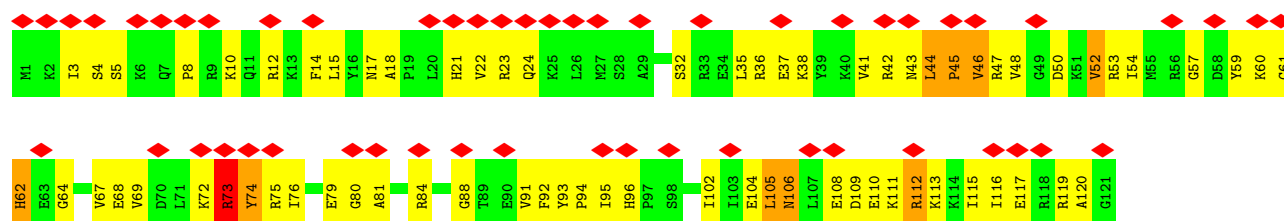
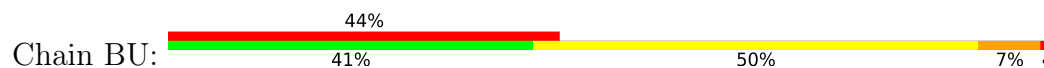
- Molecule 35: 50S ribosomal protein L15P



- Molecule 36: 50S ribosomal protein L39e

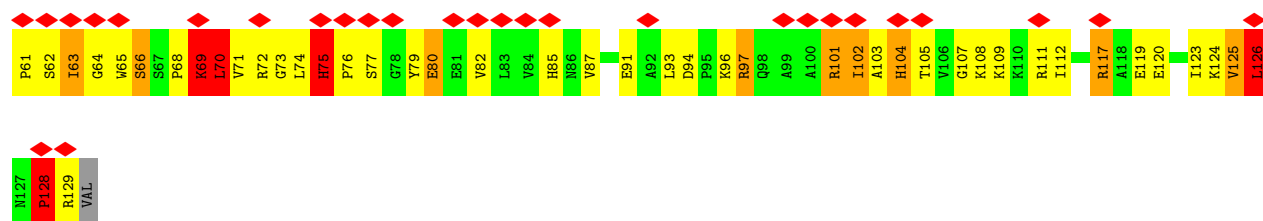


- Molecule 37: 50S ribosomal protein L24P

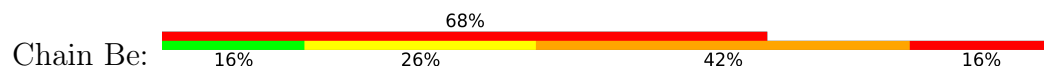


- Molecule 38: 50S ribosomal protein L32e

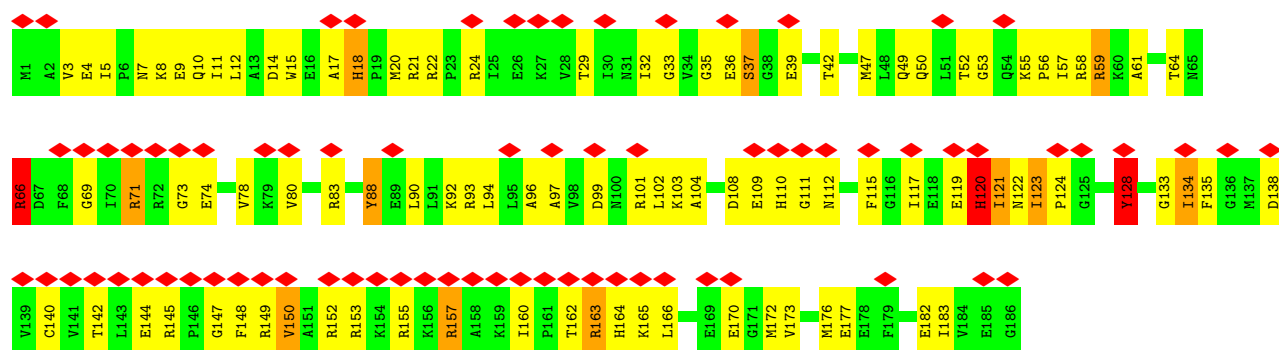
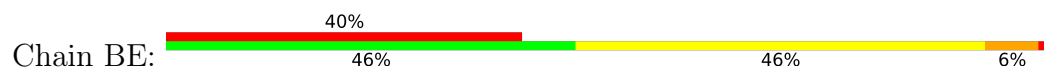




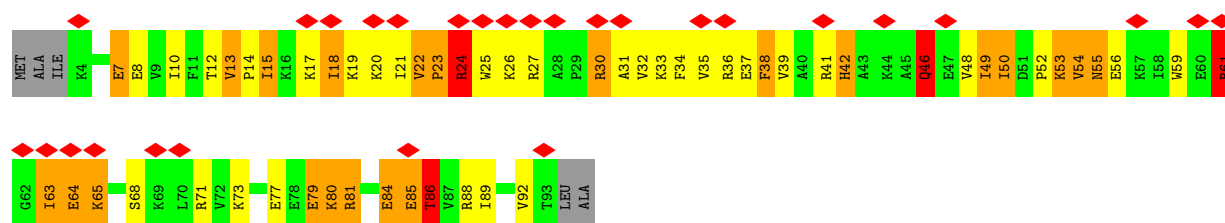
• Molecule 39: 50S ribosomal protein L37e



• Molecule 40: 50S ribosomal protein L5P



• Molecule 41: 50S ribosomal protein L31e

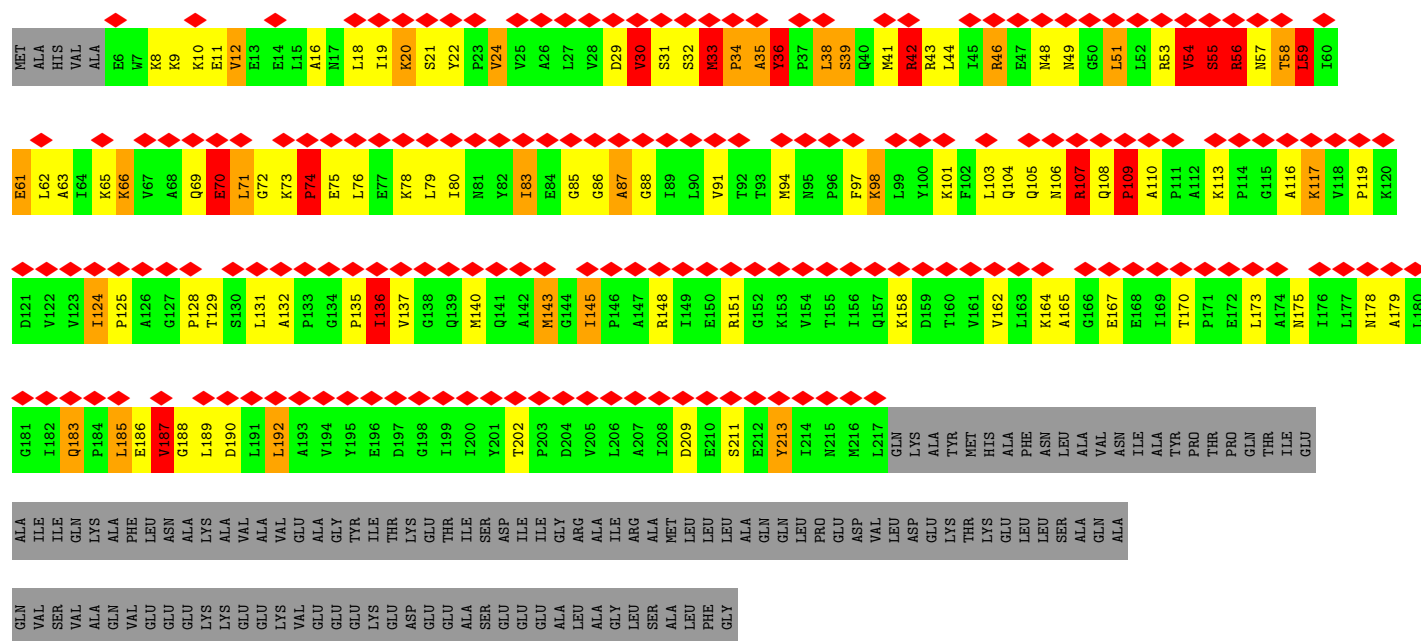
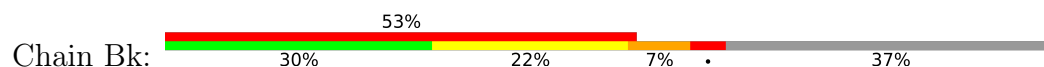


• Molecule 42: 50S ribosomal protein L23P

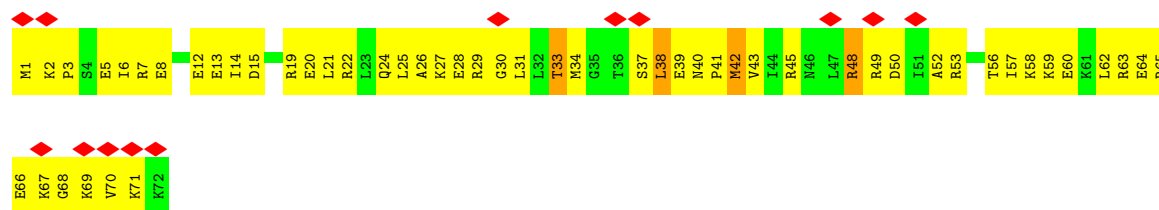




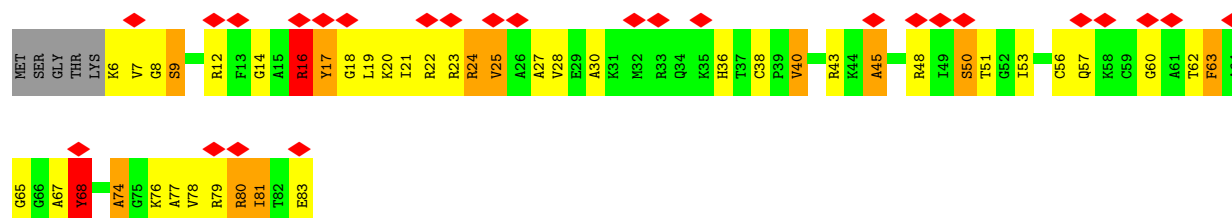
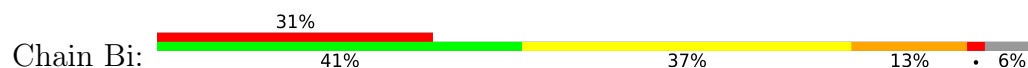
• Molecule 43: Acidic ribosomal protein P0 homolog



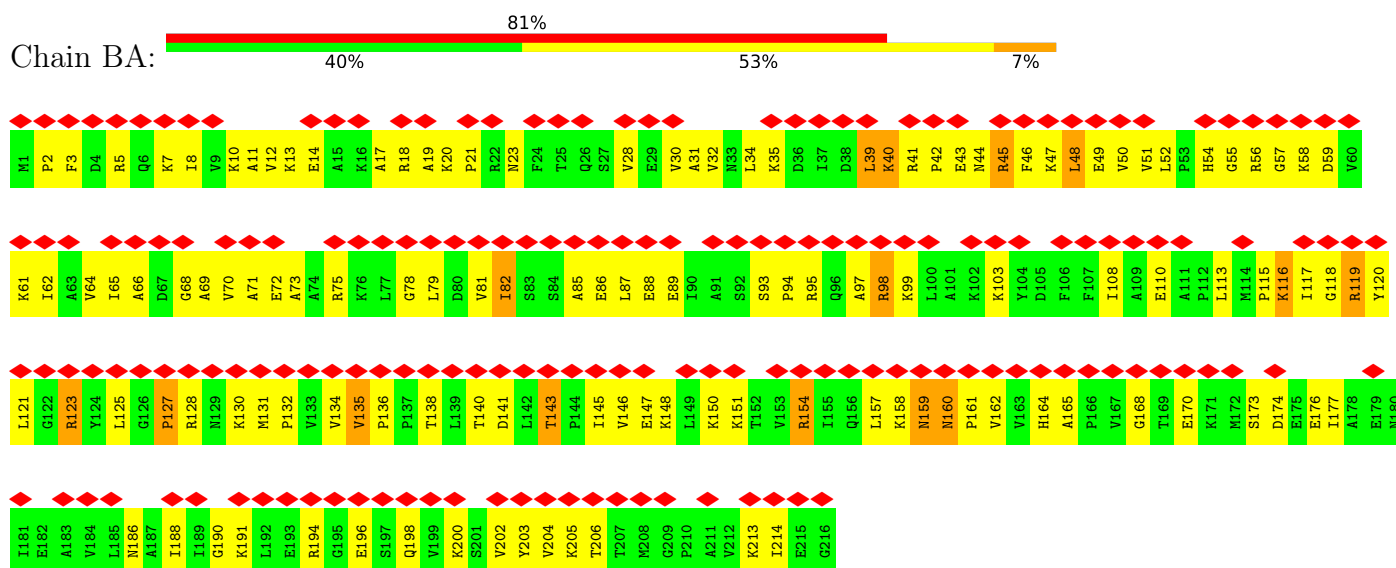
• Molecule 44: 50S ribosomal protein L29P



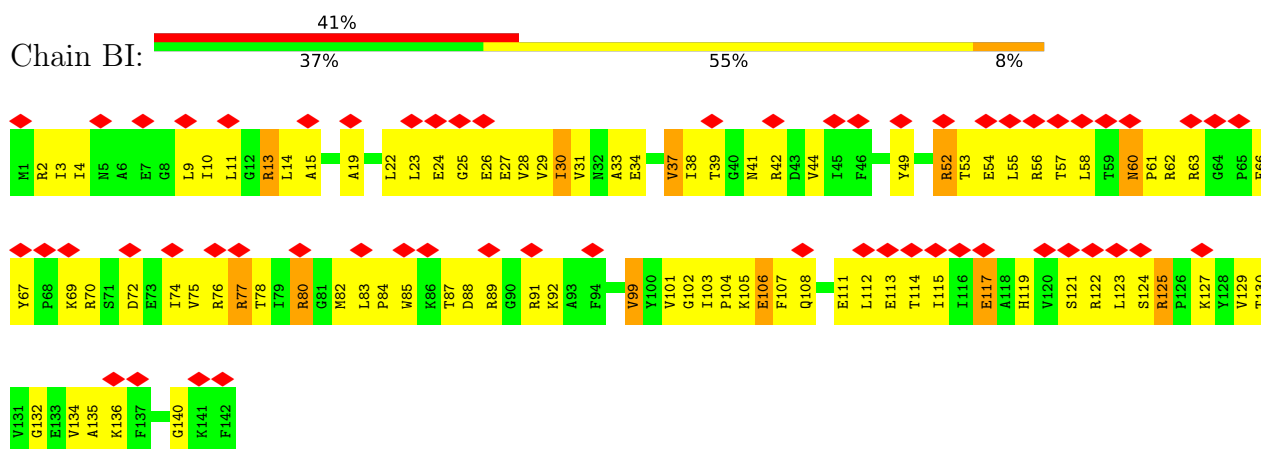
• Molecule 45: 50S ribosomal protein L37Ae



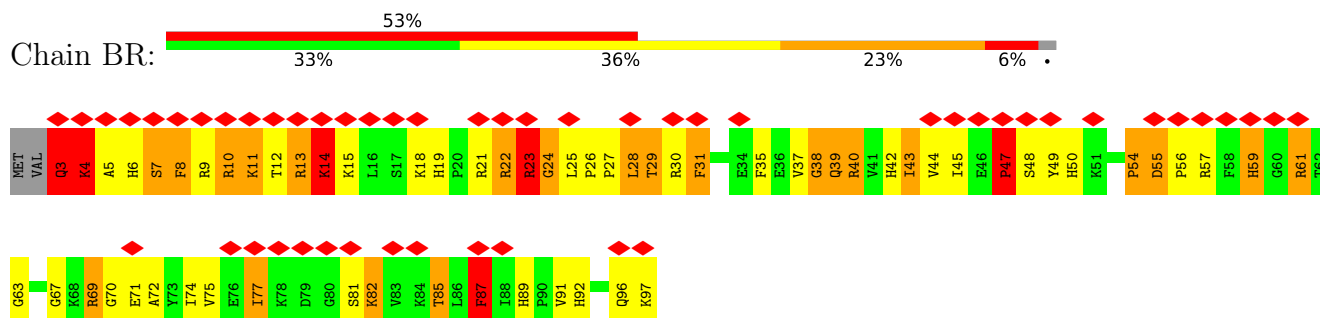
• Molecule 46: 50S ribosomal protein L1P



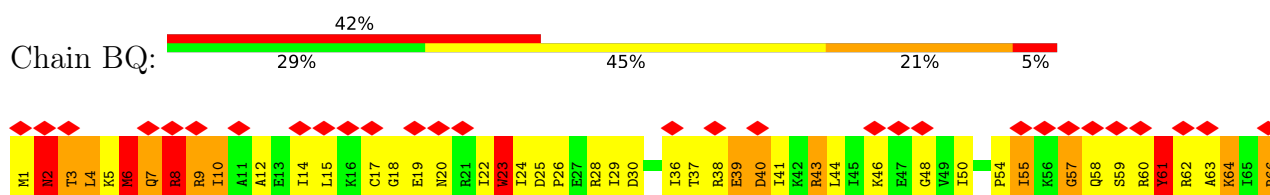
• Molecule 47: 50S ribosomal protein L13P

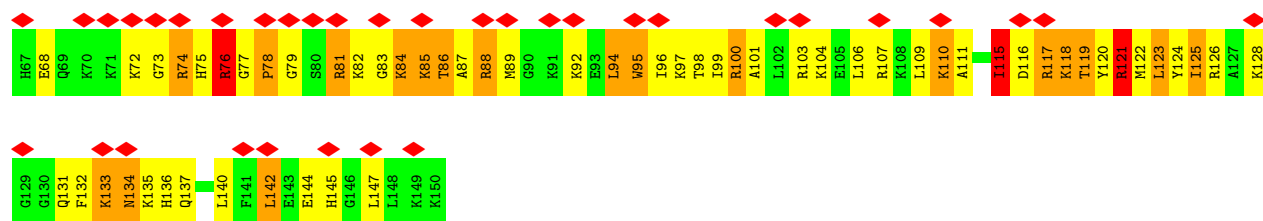


• Molecule 48: 50S ribosomal protein L21e

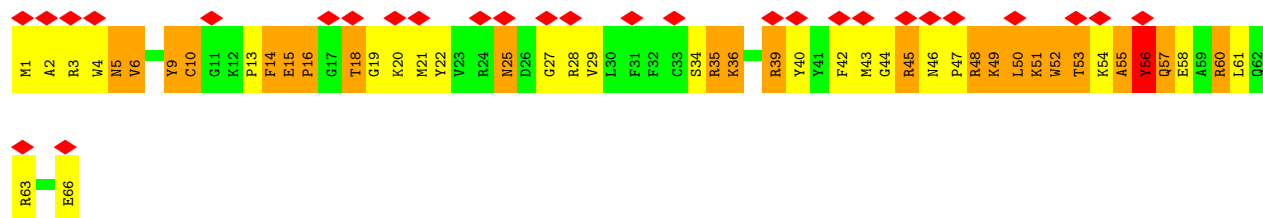


• Molecule 49: 50S ribosomal protein L19e

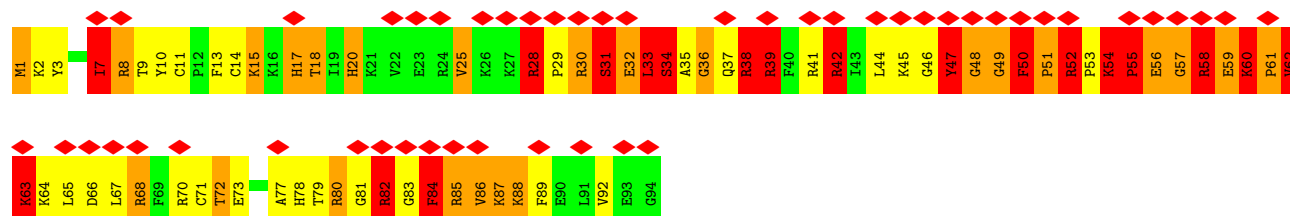
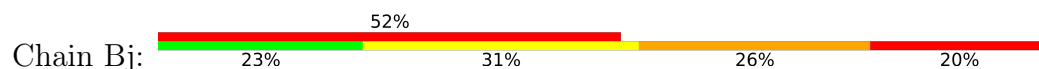




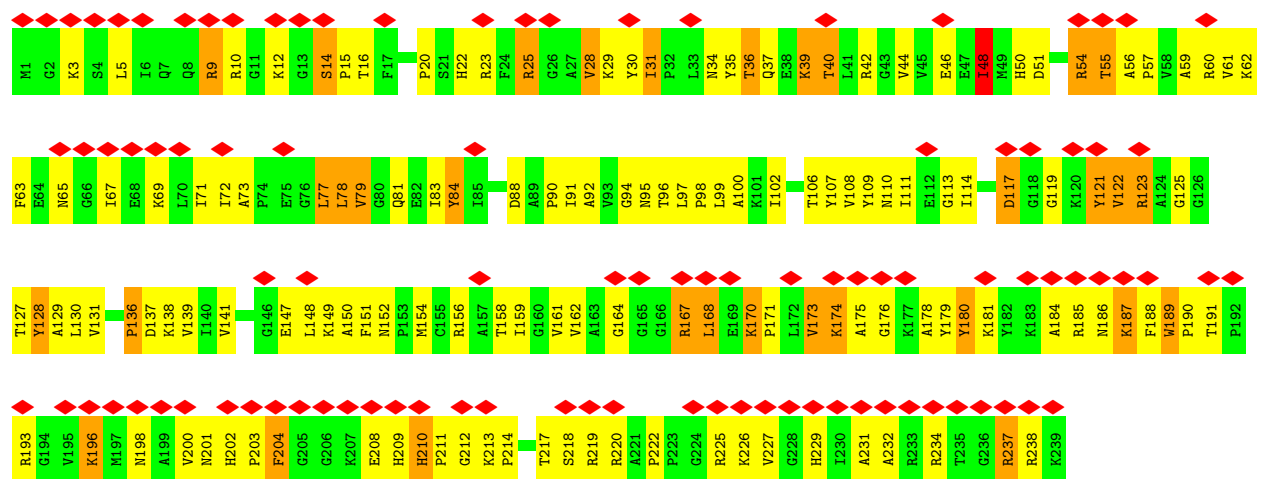
• Molecule 50: 50S ribosomal protein L24e



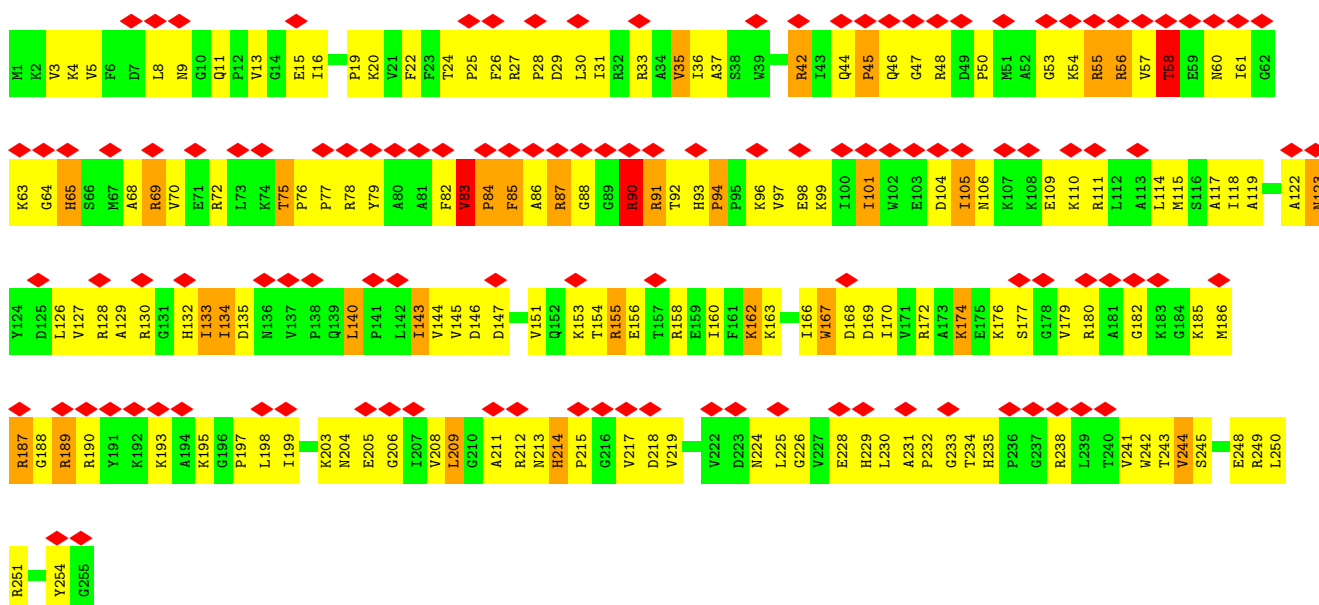
• Molecule 51: 50S ribosomal protein L44E



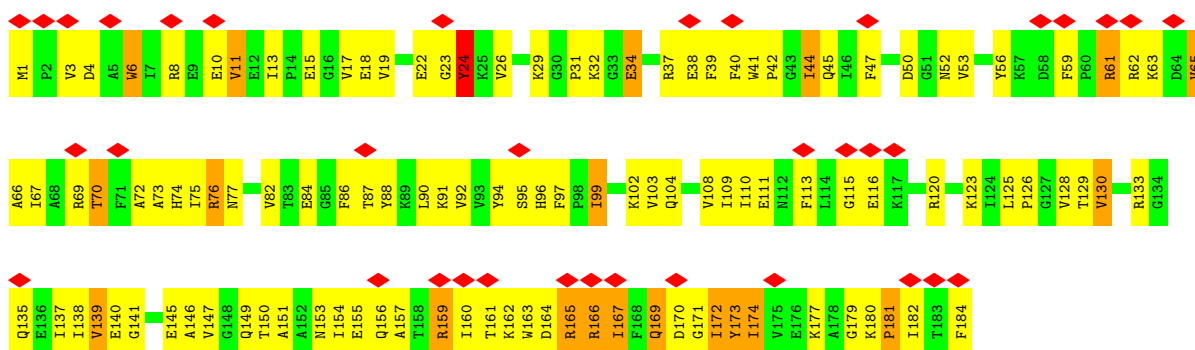
• Molecule 52: 50S ribosomal protein L2P



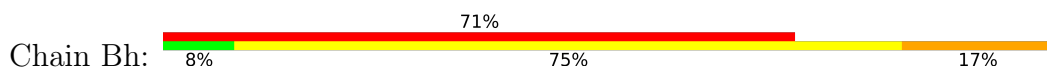
• Molecule 53: 50S ribosomal protein L4P



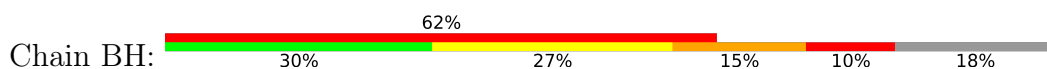
• Molecule 54: 50S ribosomal protein L6P

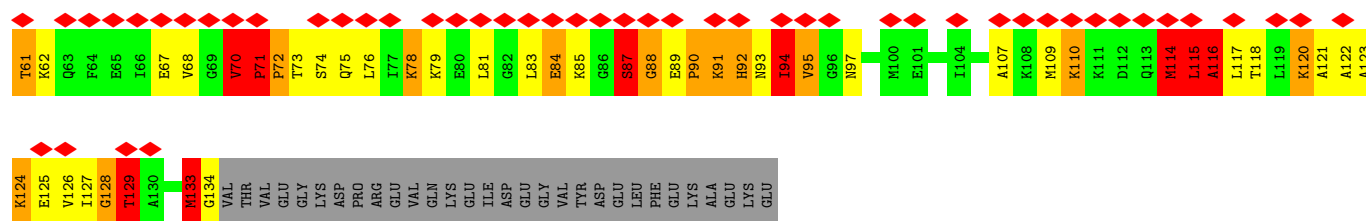


• Molecule 55: 50S ribosomal protein L41e

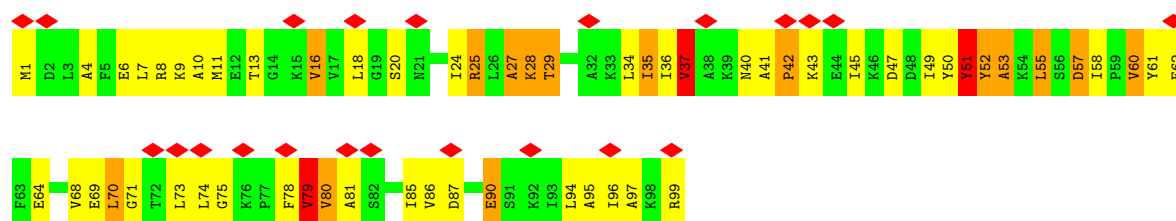


• Molecule 56: 50S ribosomal protein L11P

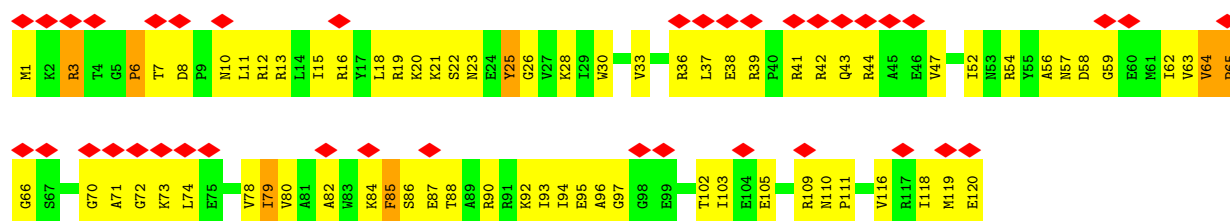




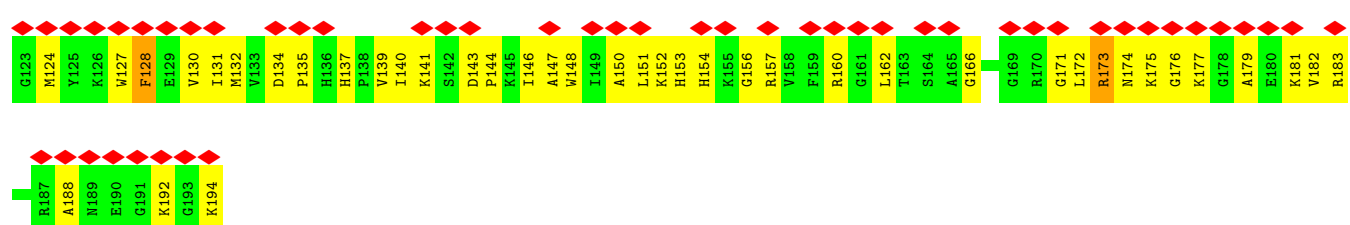
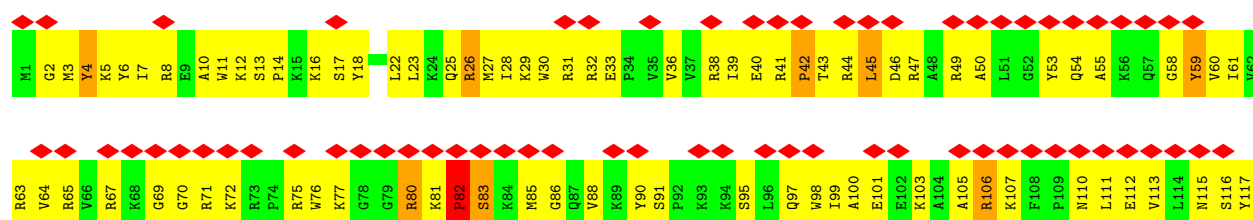
- Molecule 57: 50S ribosomal protein L30e



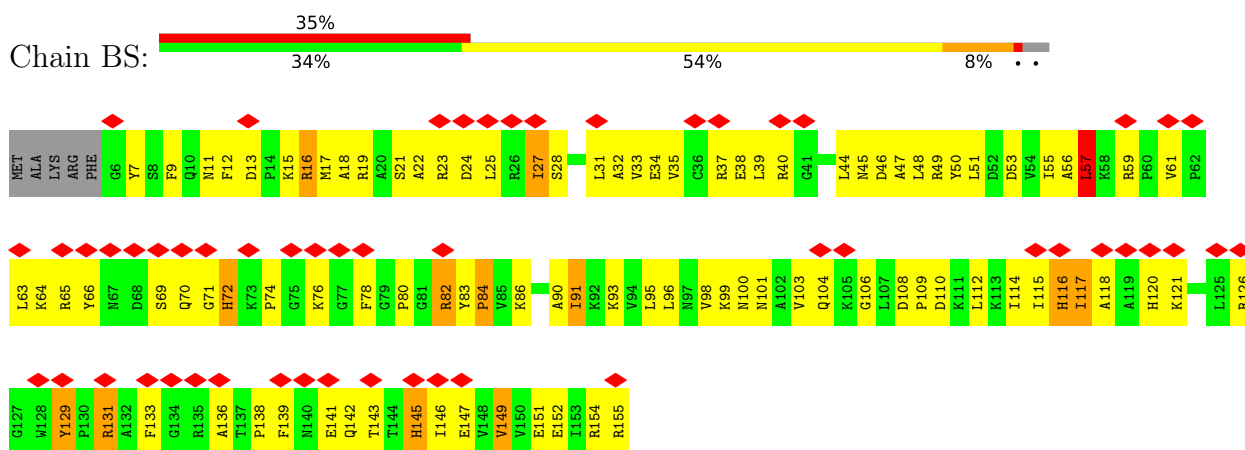
- Molecule 58: 50S ribosomal protein L18e



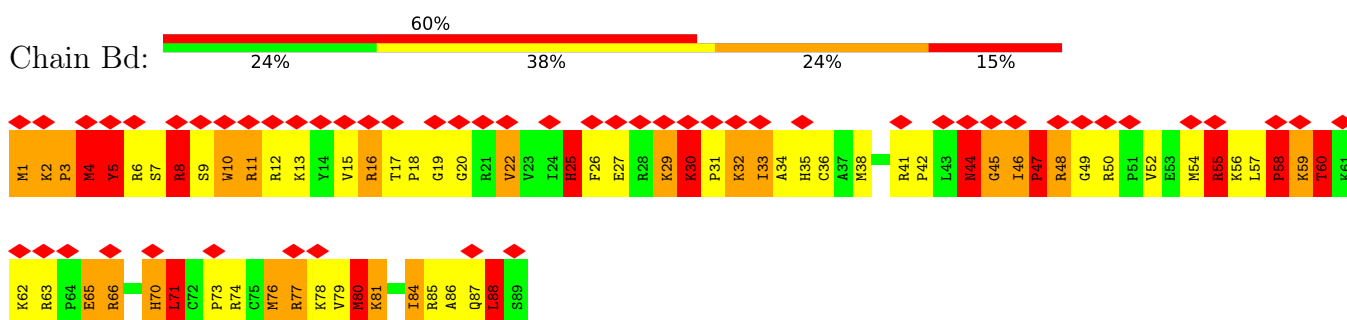
- Molecule 59: 50S ribosomal protein L15e



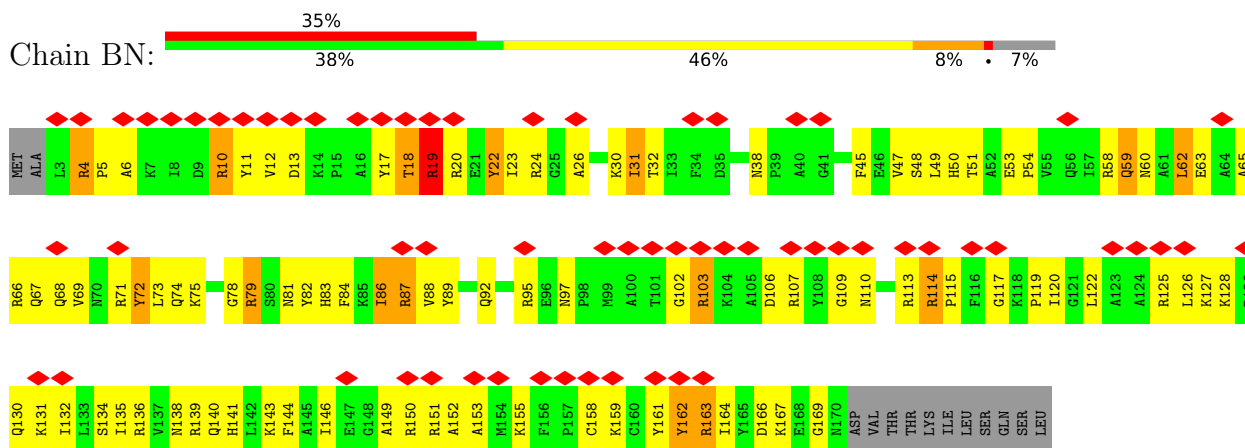
- Molecule 60: 50S ribosomal protein L22P



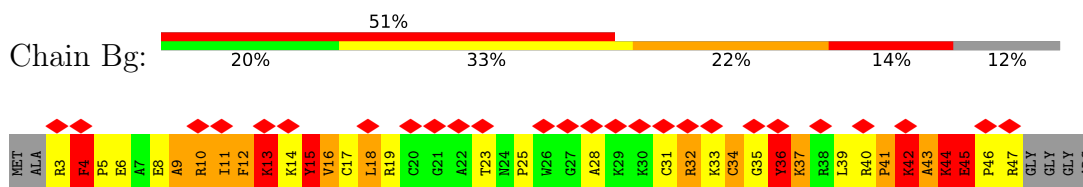
- Molecule 61: 50S ribosomal protein L34e



- Molecule 62: 50S ribosomal protein L10e

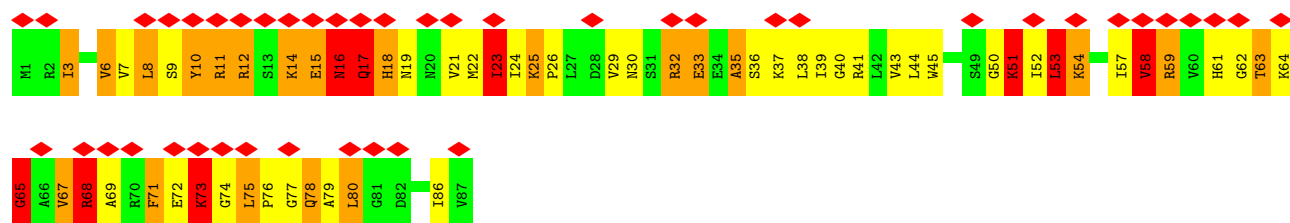


- Molecule 63: 50S ribosomal protein L40e

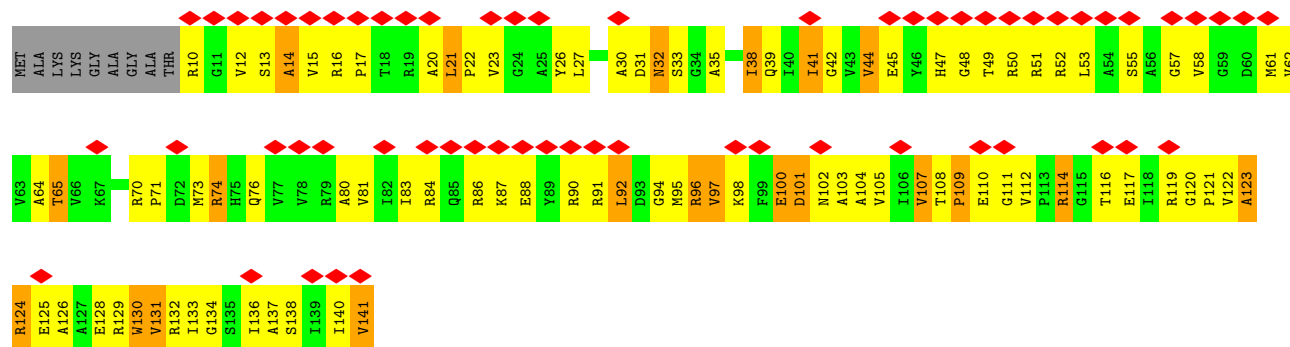
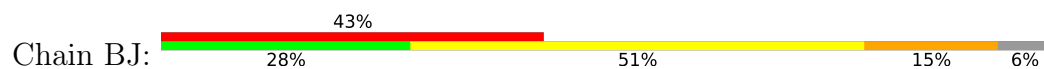


- Molecule 64: 50S ribosomal protein L35Ae

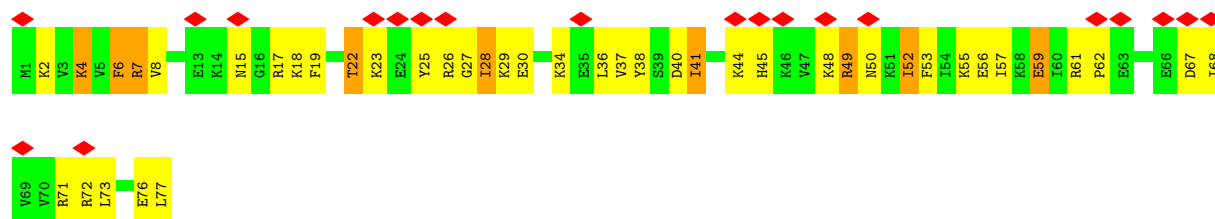
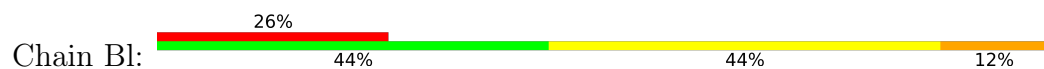




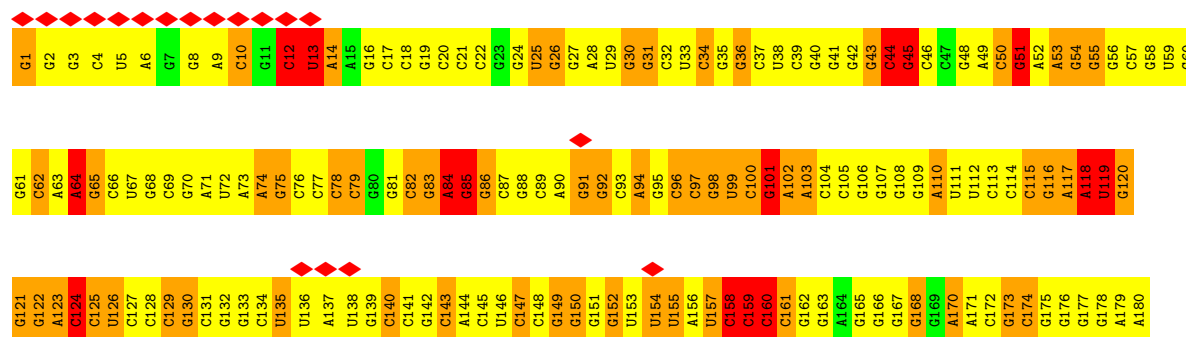
• Molecule 65: 50S ribosomal protein L14P



• Molecule 66: 50S ribosomal protein LX



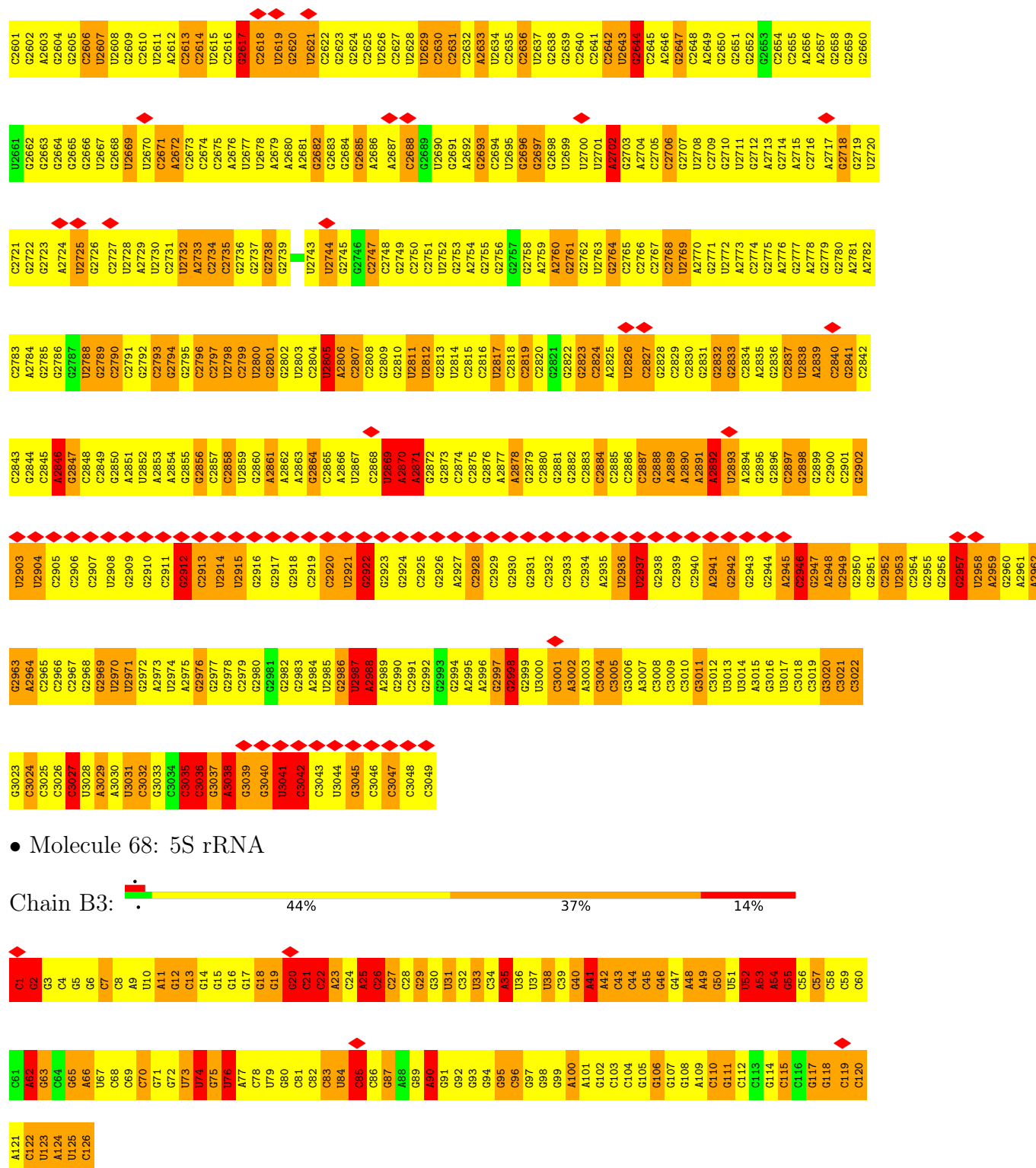
• Molecule 67: 23S rRNA



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G971	G971	G910	C850	C730	6670	6609	U549	A889	U429	A365	A303	G243	G183
C972	A852	G912	C851	C731	6671	6610	A550	C490	A430	G366	G304	A244	A184
C973	A853	G913	C852	G732	6672	6611	A551	A491	U431	G367	G305	A245	A185
U914	C854	G914	C853	A733	A673	6612	A552	A492	C432	U368	G306	A246	A186
C975	G854	U914	C854	C734	6674	6613	C553	A493	C433	G369	C307	A247	C187
C976	G855	G915	C855	A735	6675	6614	C554	A494	G434	G370	C308	C248	C188
C977	A856	A916	A856	U736	6676	A615	G555	U495	G435	A371	C309	G249	U189
C978	U857	A917	U857	G737	6677	6616	G556	A496	C436	A372	C310	G250	C190
G979	C858	A918	C858	C738	6678	6617	G557	G497	G437	G373	C311	G251	U191
G980	A859	G919	A859	C739	U679	6618	C558	U498	G438	G374	G312	A252	U192
G981	A860	G920	A860	C740	U680	6619	C559	A499	G439	C374	U313	G253	A193
A881	G881	C921	G881	G741	C681	G620	G560	C500	A440	G378	A314	A254	G194
G982	G882	C922	G882	C742	6682	G621	C561	C501	A441	U379	U315	G255	U195
G983	C883	A923	C883	A743	6683	A622	G562	G502	G442	U380	A196	G256	A196
A924	C884	A924	C884	G744	6684	G623	A563	U503	C443	G381	G318	G257	C197
U925	C885	U925	C885	C745	6685	U624	U564	G504	U444	U385	A319	C258	C198
C926	G886	C926	G886	C746	A625	A625	A565	G505	G445	A386	C320	A259	C199
A927	C867	A927	C867	G747	C626	C626	G566	A506	G446	A387	C321	A260	G200
A928	U868	A928	U868	G748	6627	G627	G567	G507	G447	G388	C322	A261	C201
G929	A869	G929	A869	C749	U628	A628	A568	G508	A448	G389	U323	G262	A202
G930	C870	G930	C870	C750	6629	6629	G569	A509	G449	C390	C324	U263	G203
G931	C871	C931	C871	U751	6630	6630	G570	A510	G450	C391	G325	G264	G204
C932	C872	C932	C872	U752	6631	6631	G571	A511	C451	G392	C326	A265	A205
C933	G873	C933	G873	A753	6632	G632	U572	G512	A452	G393	G327	A266	A206
A934	C874	A934	C874	U754	A633	A633	G573	C513	U453	C394	G328	C267	A207
A935	U875	A935	U875	G755	6634	6634	C574	U514	C454	C395	G329	C268	A208
A936	C876	A936	C876	C756	6635	6635	G575	G515	G455	C396	G269	G270	G209
G937	U877	U937	U877	C757	6636	6636	G576	A516	G456	G397	C270	A210	A210
C938	C878	C938	C878	C758	6639	6639	G577	A517	C457	G398	A331	G271	A211
A1002	U879	A1002	U879	G759	C640	C640	C578	A518	U458	C399	A333	G272	A212
C1003	U880	C1003	U880	C760	U641	U641	C579	A519	C459	G400	A339	G273	G213
U1004	C881	C941	C881	U761	6642	6642	A581	G520	C460	C401	G336	C274	C214
U942	C882	U942	C882	G762	6643	6643	A582	C521	C461	G402	A338	G275	A215
G943	C883	G943	C883	A763	6644	6644	G583	C522	A462	G403	A339	G276	A216
G944	C884	G944	C884	G764	U645	U645	G584	C523	C463	G404	G340	C277	A217
U945	A885	U945	A885	G765	U646	U646	G585	C524	C464	G405	U341	A218	A218
U946	C886	U946	C886	C766	U647	U647	A586	C525	C465	G406	C342	A280	G219
C947	U887	C947	U887	G767	U648	U648	A587	C526	U466	A407	G343	G281	G221
C948	U888	C948	U888	C768	A649	A649	U588	G527	A467	C408	G344	G282	A222
C949	C889	C949	C889	G769	C650	C650	G589	G528	A468	C409	G345	U283	U223
G950	C890	G950	C890	C770	C651	C651	C590	G529	A469	U470	U346	U284	G224
C951	C891	C951	C891	U771	U652	U652	G591	A530	U471	U411	G347	C285	G225
C952	U892	C952	U892	G772	6653	6653	C592	G531	A472	G412	G348	G286	C226
G953	C893	G953	C893	C773	C655	C655	C593	G532	C473	G413	A349	G287	G227
A954	C894	A954	C894	G774	C656	C656	U594	G533	G474	A413	A350	G288	U228
A955	U895	A955	U895	C775	U656	U656	C595	G534	U475	G414	C351	G289	G229
U956	C896	U956	C896	G776	U657	U657	C596	G535	C476	A415	G352	G290	A230
G957	U897	C957	U897	A777	C658	C658	C597	U537	C477	A416	C353	A291	G231
A958	A898	A958	A898	A778	C659	C659	C598	G538	G478	G417	G354	U292	U232
U959	C899	U959	C899	C779	U660	U660	G599	G539	U479	C418	G355	G293	A233
C960	C900	C960	C900	G780	6661	6661	G600	A539	A480	G419	G356	U294	G234
C961	C901	C961	C901	C781	A662	A662	A601	A540	G481	U420	G357	G295	G235
C962	U902	C962	U902	G782	A663	A663	G602	A541	A482	C421	C358	G297	G236
A1026	C963	A1026	C963	C783	G724	A664	G603	A542	C483	G422	C359	G298	G237
A1027	G904	A1027	G904	C784	6665	A665	A604	G543	C484	U423	G360	U299	G238
G905	G905	G905	G905	C785	6666	A666	A605	A544	G485	U424	G361	G299	G239
A965	G906	A965	G906	G786	6667	C667	A606	G545	A486	U425	A362	U300	A240
C1029	C907	C1029	C907	G787	A727	C667	A606	G546	A486	G426	A362	U300	A240

G1757	G1697	G1635	G1575	G1513	G1453	G1393	G1333	G1273	G1213	U1153	G1091	G1031
U1758	G1698	C1636	C1576	C1514	G1454	G1394	G1334	G1274	C1214	A1154	U1092	C1032
A1759	G1699	C1637	C1577	U1455	G1455	G1395	C1335	G1275	C1215	A1155	G1093	C1033
C1760	U1700	C1638	C1578	U1456	U1456	A1396	G1336	G1276	A1216	G1156	U1094	G1034
C1761	G1701	G1639	G1579	G1517	C1457	U1397	G1337	G1277	G1217	U1157	A1095	G1035
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A1763	G1703	G1641	A1581	G1519	A1459	C1399	C1339	U1279	C1219	U1159	G1097	C1037
G1764	C1704	G1642	A1582	G1520	G1460	U1400	G1340	C1280	U1220	U1160	C1098	U1038
A1765	G1705	A1643	G1583	G1521	G1461	G1401	U1341	A1281	U1221	A1161	C1099	C1039
A1766	G1706	G1644	U1584	C1462	G1462	C1402	C1343	A1282	U1222	C1162	G1100	C1040
C1767	A1707	U1645	U1585	A1522	C1463	C1403	C1344	G1283	A1223	U1163	U1101	U1041
G1768	U1708	G1646	G1586	A1524	A1464	G1404	G1345	C1284	A1224	U1164	C1103	G1042
G1769	G1709	C1647	A1587	U1525	A1465	G1405	G1346	G1285	A1225	C1165	U1043	U1043
A1770	C1710	G1648	C1588	G1526	U1466	G1406	G1347	G1286	G1226	C1166	C1044	C1044
C1771	G1711	G1649	G1589	G1527	G1467	A1407	U1347	G1287	A1227	A1166	A1045	A1045
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C1773	G1713	A1651	C1591	U1469	U1469	U1409	G1349	C1289	U1229	C1106	A1047	A1047
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G1775	G1715	U1653	G1593	G1471	U1411	G1411	G1351	C1291	C1231	G1108	U1049	U1049
G1776	G1716	G1654	G1594	U1472	C1412	C1412	U1352	G1292	G1232	A1109	G1050	C1050
U1777	C1717	G1655	G1595	U1473	A1413	A1413	G1353	C1293	U1233	G1170	A1110	C1051
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C1779	G1719	G1657	U1597	A1475	C1415	C1415	A1355	G1295	A1235	G1173	A1053	A1053
C1780	G1720	A1658	U1598	C1476	G1416	G1416	A1356	A1296	A1236	U1174	A1054	A1054
C1781	U1721	G1659	A1599	C1477	U1417	U1417	G1357	C1297	C1237	C1175	C1055	C1055
C1782	G1722	G1660	G1600	G1478	A1418	A1418	C1358	C1298	G1238	C1177	C1056	C1056
U1783	A1723	G1661	G1601	U1479	G1419	G1419	C1359	C1299	C1239	G1178	A1057	A1057
G1784	A1724	G1662	U1602	G1480	U1420	U1420	G1360	C1300	U1240	G1179	A1058	A1058
G1785	A1725	G1663	G1603	G1481	C1421	C1421	G1361	G1301	G1241	G1180	C1120	C1059
A1786	G1726	G1664	G1604	U1482	G1422	G1422	G1362	G1302	C1242	C1181	C1121	C1060
G1787	G1727	A1665	C1605	U1483	G1423	C1423	C1363	C1303	A1243	C1182	A1123	C1061
G1788	C1728	G1666	C1606	U1484	G1424	G1424	C1364	C1304	C1244	U1183	G1124	C1062
A1789	G1729	G1667	C1607	U1485	U1425	U1425	G1365	C1305	C1245	U1184	A1125	C1063
G1790	C1730	A1668	G1608	A1486	G1426	G1426	A1367	C1307	G1246	A1185	C1126	C1064
A1791	U1731	A1671	G1609	G1487	A1427	A1427	A1368	C1308	U1247	G1186	C1127	C1065
A1792	C1732	C1672	C1610	U1488	G1428	G1428	G1369	G1309	G1248	A1187	G1128	C1066
G1793	G1733	C1673	G1611	G1489	A1429	A1429	G1370	C1309	G1249	G1188	G1129	G1067
C1794	G1734	G1674	G1612	U1490	A1430	A1430	U1371	A1310	A1250	A1189	G1130	U1068
C1795	G1735	C1675	A1613	U1491	U1431	U1431	C1372	C1312	G1251	G1190	G1131	A1069
U1796	G1736	G1676	U1614	G1492	C1432	C1432	C1373	G1313	G1252	C1191	U1132	G1070
A1797	A1737	A1677	G1615	C1493	C1433	C1433	G1374	A1314	U1253	G1192	U1133	A1071
G1798	A1738	A1678	A1616	U1494	G1434	G1434	G1375	U1315	C1254	G1193	A1134	G1073
G1799	U1739	U1679	G1617	A1495	G1435	G1435	U1376	U1316	G1255	G1194	A1135	G1074
G1800	U1740	G1680	U1558	A1496	A1436	A1436	G1377	U1317	C1256	G1195	G1136	G1075
C1801	C1741	G1681	C1619	C1497	C1437	C1437	G1378	G1318	G1257	A1196	G1137	G1076
G1802	G1742	C1682	G1620	U1498	G1438	G1438	A1379	G1319	G1258	G1197	C1138	G1077
U1803	G1743	C1683	G1621	C1499	G1439	G1439	G1380	U1319	C1259	G1198	C1139	G1078
G1804	A1744	U1684	G1622	U1500	C1440	C1440	C1381	C1320	G1260	U1199	G1140	A1079
U1805	C1745	C1685	C1623	G1501	C1441	C1441	C1382	G1321	C1261	A1200	A1141	G1080
C1806	G1746	A1625	A1626	C1502	G1442	G1442	G1383	U1322	C1262	G1201	A1142	U1081
G1807	C1747	G1687	G1627	G1503	G1443	G1443	C1384	U1323	C1263	A1143	A1143	A1082
G1808	C1748	C1688	G1628	G1504	A1444	A1444	G1385	G1324	G1264	C1202	A1144	G1083
G1809	C1749	U1689	C1629	G1505	G1445	G1445	G1386	A1325	U1204	C1203	G1145	G1084
G1810	U1750	A1690	A1568	U1506	G1446	G1446	G1387	U1326	A1265	U1205	U1146	G1085
G1811	G1751	U1691	A1569	A1507	G1447	G1447	G1388	G1327	A1266	G1206	G1147	U1086
C1762	C1752	U1692	U1630	A1508	G1448	G1448	A1389	G1328	A1267	A1207	C1148	U1087
A1812	G1753	A1693	C1631	C1509	G1449	G1449	U1390	G1329	U1269	A1208	C1149	G1088
A1813	A1754	G1694	U1632	U1510	C1450	C1450	U1391	G1330	G1270	A1209	G1150	G1089
C1814	C1755	G1695	A1633	G1511	A1451	A1451	G1392	U1331	G1271	G1210	G1151	C1089
G1815	G1756	A1634	A1574	G1512	G1452	G1452	G1392	A1332	A1272	C1212	C1152	G1090

A2540	A2541	A2542	A2543	A2544	A2545	A2546	A2547	A2548	A2549	C2552	C2553	A2554	C2555	C2556	C2557	C2558	C2559	C2560	C2561	C2562	C2563	C2564	A2565	A2566	A2567	C2568	C2569	A2570	C2571	C2572	C2573	C2574	C2575	C2576	C2577	C2578	C2579	C2580	C2581	C2582	C2583	A2584	C2585	A2586	C2587	C2588	C2589	C2590	A2591	C2592	A2593	C2594	C2595	C2596	A2597	C2598	C2599	C2600					
G2480	G2481	G2482	G2483	G2484	G2485	G2486	G2487	C2488	C2489	C2490	C2491	G2492	A2493	A2494	A2495	G2496	G2497	G2498	G2499	G2500	G2501	C2502	C2503	G2504	A2505	G2506	C2507	C2508	A2509	A2510	C2511	C2512	C2513	C2514	C2515	C2516	C2517	C2518	C2519	C2520	C2521	C2522	C2523	C2524	C2525	C2526	C2527	C2528	C2529	C2530	C2531	C2532	C2533	C2534	C2535	C2536	C2537	C2538	C2539	G2539			
C2420	A2421	A2422	G2423	G2424	A2425	G2426	G2427	C2428	G2429	C2430	A2431	G2432	A2433	A2434	G2435	A2436	G2437	A2438	G2439	A2440	A2441	C2442	G2443	A2444	G2445	G2446	A2447	A2448	A2449	A2450	G2451	C2452	C2453	G2454	G2455	C2456	G2457	C2458	C2459	C2460	A2461	A2462	G2463	G2464	A2465	C2466	C2467	C2468	G2469	U2470	A2471	C2472	A2473	A2474	G2475	A2476	G2477	G2478	C2479				
G2360	C2361	G2362	G2363	G2364	G2365	G2366	G2367	G2368	C2369	C2370	A2371	C2372	G2373	C2374	C2375	G2376	C2377	C2378	G2379	A2380	A2381	G2382	A2383	G2384	G2385	G2386	G2387	G2388	C2389	G2390	C2391	A2392	C2393	C2394	G2395	C2396	C2397	C2398	C2399	U2400	A2401	A2402	G2403	G2404	U2405	G2406	G2407	G2408	G2409	U2410	C2411	A2412	G2413	G2414	C2415	G2416	G2417	G2418	U2419				
C2300	C2301	C2302	A2303	C2304	U2305	C2306	C2307	C2308	C2309	C2310	C2311	U2312	C2313	U2314	C2315	U2316	C2317	G2318	C2319	U2320	A2321	C2322	C2323	C2324	C2325	C2326	C2327	G2328	A2329	A2330	C2331	C2332	C2333	G2334	C2335	C2336	C2337	A2338	C2339	C2340	C2341	C2342	G2343	C2344	U2345	C2346	C2347	G2348	U2349	C2350	C2351	G2352	C2353	A2354	C2355	C2356	U2357	C2358	G2359				
G2240	U2241	G2242	G2243	G2244	C2245	G2246	G2247	C2248	C2249	C2250	C2251	C2252	G2253	U2254	C2255	C2256	C2257	A2258	C2259	C2260	C2261	C2262	C2263	G2264	C2265	C2266	U2267	C2268	A2269	C2270	C2271	G2272	U2273	U2274	C2275	G2276	G2277	U2278	G2279	G2280	C2281	G2282	C2283	C2284	C2285	U2286	C2287	C2288	A2289	C2290	U2291	C2292	A2293	C2294	G2295	C2296	C2297	C2298	C2299				
C2180	G2181	C2182	A2183	C2184	G2185	C2186	C2187	C2188	C2189	A2190	U2191	C2192	G2193	C2194	C2195	U2196	C2197	U2198	U2199	A2200	C2201	U2142	C2143	U2144	G2145	C2146	C2147	U2148	G2149	C2150	C2151	G2152	C2153	G2154	C2155	A2156	C2157	C2158	C2159	C2160	A2161	G2162	G2163	G2164	A2165	C2166	C2167	C2168	C2169	C2170	G2171	C2172	U2173	C2174	G2175	C2176	A2177	G2178					
G2057	C2058	G2059	C2060	A2061	A2062	U2063	U2064	C2065	C2066	C2067	U2068	G2069	U2070	C2071	G2072	G2073	U2074	U2075	A2076	A2077	C2078	U2079	G2080	C2081	C2082	C2083	C2084	C2085	C2086	U2087	G2088	C2089	C2090	U2091	G2092	A2093	A2094	U2095	G2096	C2097	C2098	C2099	U2100	A2101	A2102	C2103	C2104	A2105	G2106	U1986	G2107	C2048	C2049	U1990	C2110	C2111	A2112	G2113	C2114	U2115	G2116	U2117	
C1997	G1998	G1999	C2000	U2001	A2002	C2003	A2004	A2005	C2006	C2007	G2008	C2009	U1950	G1951	G1952	G2073	A2014	G2015	C2016	A2017	C2018	C2019	G2020	C2021	U2022	A2023	G1963	G1964	A2025	C2026	G2027	C2028	C2029	G2030	G2031	C2032	G2033	G2034	U1974	G1975	C1976	C1977	C2038	U2039	A2040	U1980	U2041	A2042	A2043	C2044	C2045	U1986	U2047	C2048	C2049	U1989	C2050	A2051	A2052	G2053	G2054	U2055	A2056
A1937	G1938	A1939	U1940	A1941	G1942	C1943	C1944	A2005	G1945	C1946	A1947	A1948	A1949	G1950	G1951	G1952	U1953	U1954	U1955	U1956	U1957	A1958	A1959	U1960	C1961	G1962	G1963	G1964	A2025	C1965	G1966	G1967	A1968	C1969	G1970	C1971	C1972	U1973	G1974	C1975	C1976	C1977	A1978	G1979	U1980	G1981	C1982	C1983	U1984	G1985	U1986	U1987	U1988	U1989	C1990	A1991	A1992	A1993	G1994	C1995	C1996		
G1877	G1878	U1879	A1880	A1881	C1882	C1883	C1884	G1885	C1886	A1887	G1888	G1889	U1890	C1891	G1892	G1893	C1894	A1894	G1895	U1896	G1897	A1898	C1899	U1900	C1901	G1902	G1903	G1904	G1905	G1906	C1907	C1908	A1909	C1910	C1911	A1912	C1913	U1914	G1915	U1916	C1917	U1918	A1919	A1920	U1921	A1922	G1923	A1924	G1925	A1926	C1927	U1928	C1929	A1930	G1931	G1932	U1933	G1934	C1935	C1936			
C1817	G1818	G1819	C1820	C1821	G1822	A1823	G1824	G1825	G1826	A1827	A1828	C1829	U1830	C1831	G1832	G1833	C1834	A1835	A1836	U1837	C1838	U1839	G1840	G1841	C1842	C1843	C1844	C1845	G1846	U1847	A1848	A1849	C1850	U1851	U1852	C1853	G1854	G1855	G1856	A1857	C1858	A1859	A1860	G1861	G1862	G1863	G1864	U1865	G1866	C1867	C1868	U1869	U1870	C1871	G1872	G1873	G1874	U1875	G1876				



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	10000	Depositor
Resolution determination method	FSC 0.5 CUT-OFF	Depositor
CTF correction method	Wiener Filter	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/\text{\AA}^2$)	25	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	3600	Depositor
Magnification	75000	Depositor
Image detector	TVIPS TEMCAM-F416 (4k x 4k)	Depositor
Maximum map value	0.745	Depositor
Minimum map value	-0.497	Depositor
Average map value	0.004	Depositor
Map value standard deviation	0.040	Depositor
Recommended contour level	0.13	Depositor
Map size ($\text{\AA}$)	455.4, 455.4, 455.4	wwPDB
Map dimensions	368, 368, 368	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	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	AQ	2.28	52/1338 (3.9%)	2.57	113/1797 (6.3%)
2	AK	2.30	39/1088 (3.6%)	2.48	74/1455 (5.1%)
3	AI	2.04	28/1049 (2.7%)	2.29	58/1408 (4.1%)
4	AG	2.03	25/999 (2.5%)	2.58	90/1337 (6.7%)
5	AW	2.37	20/485 (4.1%)	2.31	22/651 (3.4%)
6	AC	2.37	68/1480 (4.6%)	2.51	107/1985 (5.4%)
7	AB	2.31	65/1654 (3.9%)	2.52	135/2233 (6.0%)
8	AR	2.40	44/956 (4.6%)	2.40	64/1287 (5.0%)
10	AD	2.29	62/1457 (4.3%)	2.50	106/1953 (5.4%)
11	A1	2.75	106/1843 (5.8%)	2.24	152/2873 (5.3%)
12	AN	2.08	31/1156 (2.7%)	2.50	78/1535 (5.1%)
13	AX	2.47	28/570 (4.9%)	2.58	37/760 (4.9%)
14	AM	2.35	40/1022 (3.9%)	2.52	57/1375 (4.1%)
15	AE	2.30	75/2025 (3.7%)	2.47	144/2732 (5.3%)
16	AJ	2.40	42/1013 (4.1%)	2.41	57/1349 (4.2%)
17	AO	2.50	64/1208 (5.3%)	2.64	105/1619 (6.5%)
18	AF	1.63	10/1745 (0.6%)	1.91	45/2350 (1.9%)
19	AS	2.21	22/562 (3.9%)	2.48	37/744 (5.0%)
20	A3	2.25	34/951 (3.6%)	2.58	86/1281 (6.7%)
20	B4	1.91	14/951 (1.5%)	2.41	64/1281 (5.0%)
20	BG	1.77	6/951 (0.6%)	2.34	58/1281 (4.5%)
21	A2	2.61	1909/35966 (5.3%)	2.27	2956/56138 (5.3%)
22	AY	2.19	16/421 (3.8%)	2.28	21/558 (3.8%)
23	AT	2.40	48/942 (5.1%)	2.46	66/1257 (5.3%)
24	AA	2.28	58/1585 (3.7%)	2.49	117/2124 (5.5%)
25	AH	2.24	60/1773 (3.4%)	2.93	216/2381 (9.1%)
26	AP	2.38	27/471 (5.7%)	2.51	29/620 (4.7%)
27	A0	2.68	105/1814 (5.8%)	2.28	148/2828 (5.2%)
28	AV	1.98	15/839 (1.8%)	2.18	32/1122 (2.9%)
28	B6	2.20	23/798 (2.9%)	2.28	45/1071 (4.2%)
29	AL	2.10	17/830 (2.0%)	2.73	76/1113 (6.8%)
30	AU	2.28	44/1203 (3.7%)	2.63	109/1621 (6.7%)
31	BY	2.31	53/1262 (4.2%)	2.66	119/1687 (7.1%)
32	BO	2.36	70/1635 (4.3%)	2.50	136/2196 (6.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
33	BC	2.28	120/2978 (4.0%)	2.51	227/4003 (5.7%)
34	B5	2.35	24/618 (3.9%)	2.66	49/829 (5.9%)
34	BK	2.40	27/618 (4.4%)	2.50	44/829 (5.3%)
35	BL	2.35	47/1175 (4.0%)	2.76	117/1563 (7.5%)
36	Bf	2.62	33/453 (7.3%)	3.24	59/603 (9.8%)
37	BU	2.31	41/1024 (4.0%)	2.39	70/1365 (5.1%)
38	Bb	2.26	43/1099 (3.9%)	2.55	89/1466 (6.1%)
39	Be	2.36	22/517 (4.3%)	2.55	40/681 (5.9%)
40	BE	2.31	61/1513 (4.0%)	2.49	114/2026 (5.6%)
41	Ba	2.18	25/760 (3.3%)	2.66	68/1019 (6.7%)
42	BT	2.22	29/689 (4.2%)	2.38	41/924 (4.4%)
43	Bk	2.00	35/1659 (2.1%)	2.37	105/2253 (4.7%)
44	BW	2.43	31/595 (5.2%)	2.71	60/784 (7.7%)
45	Bi	2.03	10/599 (1.7%)	2.41	40/798 (5.0%)
46	BA	2.26	66/1702 (3.9%)	2.58	129/2293 (5.6%)
47	BI	2.39	53/1168 (4.5%)	2.44	77/1561 (4.9%)
48	BR	2.14	23/808 (2.8%)	2.46	58/1080 (5.4%)
49	BQ	2.25	50/1272 (3.9%)	2.81	141/1676 (8.4%)
50	BV	2.04	11/570 (1.9%)	2.55	44/758 (5.8%)
51	Bj	2.19	24/805 (3.0%)	2.75	74/1064 (7.0%)
52	BB	2.29	74/1883 (3.9%)	2.50	133/2540 (5.2%)
53	BD	2.44	82/2068 (4.0%)	2.53	158/2787 (5.7%)
54	BF	2.25	60/1507 (4.0%)	2.43	112/2033 (5.5%)
55	Bh	1.65	3/233 (1.3%)	1.84	7/301 (2.3%)
56	BH	2.09	28/1001 (2.8%)	2.63	80/1351 (5.9%)
57	BZ	2.20	22/764 (2.9%)	2.62	60/1028 (5.8%)
58	BP	2.33	43/980 (4.4%)	2.42	62/1313 (4.7%)
59	BM	2.34	68/1634 (4.2%)	2.48	122/2179 (5.6%)
60	BS	2.38	51/1226 (4.2%)	2.56	110/1649 (6.7%)
61	Bd	2.18	29/758 (3.8%)	2.88	84/1007 (8.3%)
62	BN	2.49	72/1409 (5.1%)	2.36	81/1890 (4.3%)
63	Bg	2.06	10/380 (2.6%)	2.45	34/504 (6.7%)
64	Bc	2.24	23/694 (3.3%)	2.71	62/926 (6.7%)
65	BJ	2.50	53/1027 (5.2%)	2.39	66/1385 (4.8%)
66	Bl	2.37	23/669 (3.4%)	2.43	34/884 (3.8%)
67	B1	2.63	4063/73410 (5.5%)	2.27	5986/114595 (5.2%)
68	B3	2.76	168/3010 (5.6%)	2.41	287/4693 (6.1%)
All	All	2.50	8967/187317 (4.8%)	2.36	14883/276642 (5.4%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	AQ	0	7
2	AK	0	4
3	AI	0	5
4	AG	1	9
5	AW	0	2
6	AC	0	11
7	AB	0	6
8	AR	0	3
9	A9	0	1
10	AD	0	6
12	AN	0	10
13	AX	0	7
14	AM	0	2
15	AE	0	11
16	AJ	0	4
17	AO	0	11
18	AF	0	1
19	AS	0	1
20	B4	0	1
20	BG	0	3
21	A2	1	7
22	AY	0	4
23	AT	0	5
24	AA	0	2
25	AH	4	21
26	AP	0	6
28	AV	0	10
28	B6	0	2
29	AL	1	5
30	AU	0	6
31	BY	0	7
32	BO	0	11
33	BC	0	18
34	B5	1	3
34	BK	1	1
35	BL	3	12
36	Bf	0	13
37	BU	0	3
38	Bb	0	10
39	Be	1	12
40	BE	0	6
41	Ba	0	7
42	BT	0	3

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Mol	Chain	#Chirality outliers	#Planarity outliers
43	Bk	0	10
44	BW	0	2
45	Bi	0	4
46	BA	0	4
47	BI	0	3
48	BR	0	6
49	BQ	3	10
50	BV	1	4
51	Bj	1	18
52	BB	0	16
53	BD	0	8
54	BF	0	8
56	BH	1	9
57	BZ	0	1
58	BP	0	2
59	BM	0	7
60	BS	0	7
61	Bd	1	7
62	BN	0	8
63	Bg	1	4
64	Bc	1	7
65	BJ	0	3
66	Bl	0	3
67	B1	0	12
All	All	22	442

All (8967) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1565	G	O4'-C1'	33.62	2.08	1.41
67	B1	2507	C	O4'-C1'	32.89	1.91	1.41
67	B1	1570	C	O4'-C1'	32.79	1.90	1.41
53	BD	91	ARG	C-N	-29.03	0.93	1.33
67	B1	1567	C	O4'-C1'	28.85	1.84	1.41
21	A2	440	C	O4'-C1'	28.73	1.84	1.41
67	B1	1566	G	O4'-C1'	28.53	1.84	1.41
67	B1	1642	G	C2'-C1'	25.88	1.91	1.53
67	B1	2304	C	O4'-C1'	25.41	1.79	1.41
21	A2	85	A	C2'-C1'	25.25	1.91	1.53
21	A2	88	G	O4'-C1'	24.99	1.79	1.41
21	A2	434	A	C2'-C1'	24.75	1.90	1.53
67	B1	1440	C	C2'-C1'	-24.51	1.16	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2088	G	O4'-C1'	24.40	1.78	1.42
67	B1	1	G	P-OP2	-24.29	1.00	1.49
27	A0	1	G	P-OP2	-24.27	1.00	1.49
27	A0	1	G	P-OP1	-24.27	1.00	1.49
21	A2	1	A	P-OP2	-24.25	1.00	1.49
68	B3	1	C	P-OP1	-24.25	1.00	1.49
11	A1	1	G	P-OP2	-24.24	1.00	1.49
21	A2	1	A	P-OP1	-24.24	1.00	1.49
11	A1	1	G	P-OP1	-24.24	1.00	1.49
68	B3	1	C	P-OP2	-24.24	1.00	1.49
67	B1	1	G	P-OP1	-24.23	1.00	1.49
21	A2	367	G	C2'-C1'	-23.92	1.17	1.53
67	B1	715	G	O4'-C1'	23.89	1.77	1.41
67	B1	1045	A	C2'-C1'	23.81	1.89	1.53
67	B1	2926	G	C2'-C1'	-23.36	1.18	1.53
67	B1	1673	C	O4'-C1'	23.06	1.76	1.41
11	A1	51	G	C2'-C1'	-22.79	1.19	1.53
21	A2	367	G	O4'-C1'	22.72	1.75	1.41
67	B1	2587	G	C2'-C1'	-22.59	1.19	1.53
21	A2	63	G	C2'-C1'	-22.57	1.19	1.53
21	A2	1177	C	C2'-C1'	-22.25	1.20	1.53
67	B1	934	G	C2'-C1'	-22.06	1.20	1.53
21	A2	1154	G	C2'-C1'	-22.06	1.20	1.53
67	B1	2304	C	C2'-C1'	-21.99	1.20	1.53
21	A2	806	G	O4'-C1'	21.86	1.74	1.41
67	B1	2735	C	C2'-C1'	-21.79	1.20	1.53
67	B1	1158	G	C2'-C1'	-21.79	1.20	1.53
21	A2	689	C	O4'-C1'	21.77	1.74	1.41
67	B1	2897	C	O4'-C1'	21.69	1.74	1.41
67	B1	1592	U	C2'-C1'	-21.59	1.21	1.53
67	B1	412	G	O4'-C1'	21.46	1.74	1.42
67	B1	2516	G	C2'-C1'	-21.45	1.21	1.53
21	A2	553	C	O4'-C1'	21.43	1.73	1.41
21	A2	1329	C	O4'-C1'	21.38	1.73	1.41
67	B1	2920	C	O4'-C1'	21.32	1.73	1.41
21	A2	1322	C	O4'-C1'	21.31	1.73	1.41
67	B1	3027	C	C2'-C1'	-21.30	1.21	1.53
27	A0	11	C	O4'-C1'	21.11	1.73	1.41
67	B1	147	C	O4'-C1'	21.07	1.73	1.41
67	B1	325	G	O4'-C1'	21.07	1.73	1.41
67	B1	424	U	C2'-C1'	-21.04	1.21	1.53
67	B1	2587	G	O4'-C1'	20.94	1.73	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2544	C	O4'-C1'	20.90	1.73	1.41
67	B1	2636	C	O4'-C1'	20.85	1.73	1.41
67	B1	366	G	C2'-C1'	-20.74	1.22	1.53
67	B1	1473	C	O4'-C1'	20.73	1.72	1.41
67	B1	1029	C	O4'-C1'	20.68	1.72	1.41
67	B1	1411	G	C2'-C1'	-20.56	1.22	1.53
67	B1	1707	A	C2'-C1'	20.56	1.84	1.53
67	B1	537	U	C2'-C1'	-20.52	1.22	1.53
67	B1	2319	C	O4'-C1'	20.50	1.72	1.41
21	A2	255	G	C2'-C1'	-20.46	1.22	1.53
67	B1	2990	G	C2'-C1'	-20.45	1.22	1.53
21	A2	857	C	O4'-C1'	20.30	1.72	1.41
67	B1	435	G	C2'-C1'	-20.19	1.23	1.53
67	B1	719	C	O4'-C1'	20.03	1.71	1.41
67	B1	2892	A	C2'-C1'	-19.98	1.23	1.53
21	A2	541	G	C2'-C1'	-19.95	1.23	1.53
21	A2	1200	U	C2'-C1'	19.93	1.82	1.53
67	B1	366	G	O4'-C1'	19.91	1.71	1.41
21	A2	1144	G	O4'-C1'	19.87	1.71	1.41
21	A2	1490	C	C2'-C1'	-19.78	1.23	1.53
67	B1	1036	C	O4'-C1'	19.73	1.71	1.41
21	A2	965	G	O4'-C1'	19.70	1.71	1.41
21	A2	1053	A	O4'-C1'	19.66	1.71	1.42
67	B1	2671	C	O4'-C1'	19.63	1.71	1.41
67	B1	614	G	O4'-C1'	19.59	1.71	1.41
67	B1	2858	C	O4'-C1'	19.57	1.71	1.41
62	BN	158	CYS	CA-C	-19.55	1.42	1.52
67	B1	1982	C	O4'-C1'	19.52	1.71	1.41
67	B1	474	G	C2'-C1'	-19.49	1.23	1.53
67	B1	1201	G	C2'-C1'	-19.41	1.24	1.53
21	A2	455	C	C2'-C1'	-19.27	1.24	1.53
21	A2	357	C	O4'-C1'	19.26	1.70	1.41
21	A2	1282	C	O4'-C1'	19.23	1.70	1.42
21	A2	1490	C	O4'-C1'	19.22	1.70	1.41
67	B1	370	A	O4'-C1'	19.19	1.70	1.42
21	A2	1290	U	C2'-C1'	-19.18	1.24	1.53
67	B1	1570	C	P-O5'	19.18	1.88	1.59
67	B1	2507	C	C2'-C1'	19.17	1.82	1.53
21	A2	260	C	O4'-C1'	19.15	1.70	1.41
67	B1	2134	G	C2'-C1'	-19.14	1.24	1.53
67	B1	409	C	C2'-C1'	-19.13	1.24	1.53
67	B1	44	C	O4'-C1'	19.11	1.70	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
68	B3	26	C	C2'-C1'	-19.03	1.24	1.53
67	B1	297	G	O4'-C1'	19.00	1.70	1.41
67	B1	565	A	C2'-C1'	19.00	1.81	1.53
21	A2	832	G	C2'-C1'	-18.99	1.24	1.53
67	B1	2476	A	O4'-C1'	18.98	1.70	1.41
67	B1	318	G	C2'-C1'	-18.97	1.24	1.53
21	A2	581	G	C2'-C1'	-18.94	1.25	1.53
67	B1	2489	C	O4'-C1'	18.92	1.70	1.41
67	B1	2735	C	O4'-C1'	18.90	1.70	1.41
68	B3	43	C	O4'-C1'	18.90	1.70	1.41
67	B1	2884	C	O4'-C1'	18.88	1.70	1.41
21	A2	1190	C	C2'-C1'	-18.84	1.25	1.53
67	B1	775	C	O4'-C1'	18.80	1.69	1.41
21	A2	573	C	O4'-C1'	18.68	1.69	1.41
21	A2	562	A	C2'-C1'	18.67	1.81	1.53
67	B1	956	U	C2'-C1'	18.64	1.81	1.53
67	B1	409	C	O4'-C1'	18.62	1.69	1.41
21	A2	583	G	C2'-C1'	-18.60	1.25	1.53
67	B1	884	C	O4'-C1'	18.60	1.69	1.41
21	A2	439	G	C2'-C1'	-18.53	1.25	1.53
67	B1	1504	C	O4'-C1'	18.52	1.69	1.41
67	B1	1567	C	C5'-C4'	18.50	1.78	1.51
21	A2	72	C	O4'-C1'	18.44	1.69	1.41
67	B1	1037	C	C2'-C1'	18.43	1.80	1.53
21	A2	64	G	O4'-C1'	18.30	1.69	1.41
67	B1	745	C	C2'-C1'	-18.27	1.25	1.53
67	B1	1243	C	O4'-C1'	18.24	1.69	1.41
67	B1	2890	A	O4'-C1'	18.12	1.69	1.42
67	B1	2510	A	C2'-C1'	-18.12	1.26	1.53
67	B1	2169	C	O4'-C1'	18.12	1.68	1.41
67	B1	610	C	O4'-C1'	18.11	1.68	1.41
67	B1	42	G	C2'-C1'	-18.08	1.26	1.53
21	A2	807	C	O4'-C1'	18.08	1.68	1.41
67	B1	1298	C	O4'-C1'	18.08	1.68	1.41
67	B1	1394	G	O4'-C1'	18.07	1.69	1.42
21	A2	1179	C	O4'-C1'	18.04	1.68	1.41
21	A2	531	G	C2'-C1'	-18.03	1.26	1.53
67	B1	2115	U	C2'-C1'	18.00	1.80	1.53
67	B1	248	C	O4'-C1'	17.99	1.68	1.41
67	B1	1230	G	C2'-C1'	-17.93	1.26	1.53
67	B1	817	G	O4'-C1'	17.90	1.68	1.41
67	B1	1134	A	C2'-C1'	-17.88	1.26	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	795	G	C2'-C1'	-17.85	1.26	1.53
67	B1	2189	C	O4'-C1'	17.82	1.68	1.41
67	B1	2407	G	C2'-C1'	-17.82	1.26	1.53
67	B1	876	C	O4'-C1'	17.81	1.68	1.41
67	B1	1245	C	O4'-C1'	17.78	1.68	1.41
67	B1	1568	A	C2'-O2'	17.78	1.69	1.42
67	B1	158	C	O4'-C1'	17.76	1.68	1.41
67	B1	1039	C	O4'-C1'	17.76	1.68	1.41
21	A2	978	G	C2'-C1'	-17.76	1.26	1.53
67	B1	434	G	C2'-C1'	-17.76	1.26	1.53
67	B1	1152	C	O4'-C1'	17.73	1.68	1.41
67	B1	851	G	C2'-C1'	-17.71	1.26	1.53
67	B1	1348	G	O4'-C1'	-17.70	1.15	1.41
21	A2	1101	G	O4'-C1'	-17.69	1.15	1.41
21	A2	8	U	C2'-C1'	17.68	1.79	1.53
67	B1	685	G	O4'-C1'	17.64	1.68	1.41
21	A2	1157	G	C2'-C1'	-17.61	1.26	1.53
68	B3	110	C	O4'-C1'	17.59	1.68	1.41
21	A2	439	G	O4'-C1'	17.59	1.68	1.42
67	B1	2554	A	C2'-C1'	17.59	1.79	1.53
67	B1	1405	G	C2'-C1'	-17.58	1.26	1.53
67	B1	1322	G	C2'-C1'	-17.56	1.27	1.53
67	B1	2284	C	O4'-C1'	17.54	1.68	1.41
67	B1	1976	C	O4'-C1'	17.51	1.68	1.41
67	B1	2337	G	O4'-C1'	17.49	1.67	1.41
67	B1	1751	G	C2'-C1'	-17.46	1.27	1.53
21	A2	605	C	O4'-C1'	17.46	1.67	1.41
67	B1	1891	C	C2'-C1'	-17.40	1.27	1.53
67	B1	14	A	O4'-C1'	17.40	1.67	1.41
21	A2	1353	C	O4'-C1'	17.40	1.67	1.41
67	B1	1920	A	O4'-C1'	17.38	1.68	1.42
67	B1	1278	C	O4'-C1'	17.38	1.67	1.41
67	B1	1179	G	C2'-C1'	17.37	1.79	1.53
67	B1	898	G	O4'-C1'	17.36	1.67	1.41
11	A1	25	G	O4'-C1'	17.34	1.67	1.41
67	B1	186	A	O4'-C1'	17.33	1.67	1.41
67	B1	1745	U	O4'-C1'	17.33	1.67	1.41
67	B1	1610	C	O4'-C1'	17.33	1.67	1.41
67	B1	1290	G	C2'-C1'	-17.32	1.27	1.53
67	B1	1600	G	C2'-C1'	17.32	1.79	1.53
21	A2	1082	A	O4'-C1'	17.29	1.67	1.41
21	A2	1253	G	C2'-C1'	-17.29	1.27	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1106	A	O4'-C1'	17.28	1.67	1.41
67	B1	874	U	O4'-C1'	17.25	1.67	1.41
67	B1	1234	A	O4'-C1'	17.24	1.67	1.41
21	A2	88	G	C2'-C1'	-17.21	1.27	1.53
21	A2	1354	A	O4'-C1'	17.18	1.67	1.42
21	A2	326	C	O4'-C1'	17.17	1.67	1.41
67	B1	2520	C	C2'-C1'	-17.14	1.27	1.53
67	B1	937	A	C2'-C1'	-17.13	1.27	1.53
67	B1	116	G	C2'-C1'	-17.12	1.27	1.53
67	B1	1124	G	C2'-C1'	-17.11	1.27	1.53
21	A2	1155	U	O4'-C1'	17.09	1.67	1.41
21	A2	1217	C	O4'-C1'	17.09	1.67	1.41
21	A2	1259	A	O4'-C1'	17.05	1.67	1.41
67	B1	1035	G	C2'-C1'	-17.04	1.27	1.53
67	B1	337	G	C2'-C1'	-17.01	1.27	1.53
67	B1	2021	G	C2'-C1'	-16.98	1.27	1.53
67	B1	979	G	C2'-C1'	-16.95	1.27	1.53
67	B1	426	G	C2'-C1'	-16.95	1.27	1.53
67	B1	2053	G	O4'-C1'	-16.94	1.16	1.42
21	A2	1371	C	O4'-C1'	16.93	1.67	1.41
67	B1	1082	A	C2'-C1'	-16.93	1.27	1.53
67	B1	1568	A	O5'-C5'	16.93	1.67	1.42
21	A2	941	C	O4'-C1'	16.90	1.67	1.42
21	A2	1424	G	C2'-C1'	-16.90	1.28	1.53
67	B1	2833	G	C2'-C1'	-16.90	1.28	1.53
67	B1	1574	A	O4'-C1'	16.89	1.67	1.42
21	A2	205	C	C2'-C1'	-16.86	1.28	1.53
21	A2	806	G	C2'-C1'	-16.86	1.28	1.53
68	B3	120	C	C2'-C1'	-16.86	1.28	1.53
67	B1	185	A	C2'-C1'	-16.85	1.27	1.53
67	B1	2427	C	O4'-C1'	16.85	1.67	1.41
67	B1	1787	U	C2'-C1'	-16.84	1.28	1.53
21	A2	615	G	C2'-C1'	-16.84	1.28	1.53
21	A2	1072	C	C2'-C1'	-16.83	1.28	1.53
21	A2	212	G	C2'-C1'	-16.82	1.28	1.53
21	A2	798	U	C2'-C1'	16.81	1.78	1.53
68	B3	57	C	O4'-C1'	16.81	1.66	1.41
21	A2	205	C	O4'-C1'	16.81	1.66	1.41
27	A0	11	C	C2'-C1'	-16.80	1.28	1.53
21	A2	152	G	C2'-C1'	-16.80	1.28	1.53
67	B1	237	G	C2'-C1'	16.80	1.78	1.53
21	A2	17	C	O4'-C1'	16.78	1.66	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1794	C	O4'-C1'	16.76	1.66	1.41
21	A2	30	C	O4'-C1'	16.75	1.66	1.41
27	A0	41	C	O4'-C1'	16.75	1.66	1.41
67	B1	2260	C	O4'-C1'	16.74	1.66	1.41
21	A2	218	C	O4'-C1'	16.69	1.66	1.41
21	A2	633	C	O4'-C1'	16.66	1.66	1.41
21	A2	382	G	C2'-C1'	16.66	1.78	1.53
21	A2	440	C	C2'-C1'	-16.64	1.28	1.53
21	A2	803	C	O4'-C1'	16.63	1.66	1.41
67	B1	274	C	O4'-C1'	16.63	1.66	1.41
21	A2	805	C	C2'-C1'	-16.63	1.28	1.53
68	B3	35	A	C2'-C1'	16.63	1.78	1.53
21	A2	100	A	C2'-C1'	-16.61	1.28	1.53
67	B1	976	C	O4'-C1'	16.59	1.66	1.41
67	B1	135	U	O4'-C1'	16.58	1.66	1.41
21	A2	161	C	O4'-C1'	16.55	1.66	1.41
21	A2	483	G	O4'-C1'	-16.55	1.16	1.41
67	B1	1222	U	C2'-C1'	-16.55	1.28	1.53
68	B3	119	C	O4'-C1'	16.54	1.66	1.41
21	A2	992	G	C2'-C1'	-16.52	1.28	1.53
67	B1	2598	C	O4'-C1'	16.48	1.66	1.41
67	B1	2819	C	O4'-C1'	16.45	1.66	1.41
21	A2	1352	G	C2'-C1'	-16.45	1.28	1.53
68	B3	55	G	C2'-C1'	-16.43	1.28	1.53
67	B1	2511	C	O4'-C1'	16.43	1.66	1.41
67	B1	2837	C	C2'-C1'	-16.42	1.28	1.53
11	A1	54	G	C2'-C1'	-16.42	1.28	1.53
67	B1	374	C	O4'-C1'	16.42	1.66	1.41
67	B1	745	C	O4'-C1'	16.40	1.66	1.41
67	B1	2636	C	C2'-C1'	-16.38	1.28	1.53
21	A2	974	G	O4'-C1'	16.37	1.66	1.41
21	A2	146	A	O4'-C1'	16.36	1.66	1.41
21	A2	686	C	O4'-C1'	16.36	1.66	1.41
67	B1	1450	C	O4'-C1'	16.33	1.66	1.41
67	B1	1653	U	C2'-C1'	-16.32	1.28	1.53
67	B1	350	A	C2'-C1'	16.31	1.77	1.53
67	B1	2146	C	O4'-C1'	16.31	1.66	1.41
67	B1	2869	U	O4'-C1'	16.26	1.66	1.42
67	B1	2877	A	C2'-C1'	-16.25	1.28	1.53
67	B1	2047	U	O4'-C1'	16.25	1.66	1.41
67	B1	2231	G	O4'-C1'	16.23	1.66	1.41
67	B1	1395	G	O4'-C1'	16.22	1.66	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1080	C	O4'-C1'	16.20	1.66	1.41
67	B1	1619	C	O4'-C1'	16.20	1.66	1.41
67	B1	2287	C	O4'-C1'	-16.17	1.17	1.41
67	B1	738	C	C2'-C1'	-16.14	1.29	1.53
67	B1	1655	G	C2'-C1'	-16.11	1.29	1.53
21	A2	1255	C	C2'-C1'	-16.09	1.29	1.53
21	A2	1255	C	O4'-C1'	16.09	1.65	1.41
67	B1	2098	C	O4'-C1'	16.06	1.65	1.41
67	B1	2489	C	C2'-C1'	-16.05	1.29	1.53
67	B1	1569	A	C2'-O2'	16.04	1.66	1.42
67	B1	118	A	C2'-C1'	-16.03	1.29	1.53
67	B1	2382	A	C2'-C1'	16.03	1.77	1.53
68	B3	120	C	O4'-C1'	16.02	1.65	1.41
21	A2	1100	G	C2'-C1'	-16.02	1.29	1.53
67	B1	1501	G	C2'-C1'	-16.02	1.29	1.53
68	B3	115	C	O4'-C1'	16.00	1.65	1.41
67	B1	3027	C	O4'-C1'	15.99	1.65	1.41
67	B1	1787	U	O4'-C1'	15.98	1.65	1.41
67	B1	2844	G	C2'-C1'	-15.97	1.29	1.53
67	B1	1960	U	C2'-C1'	-15.96	1.29	1.53
21	A2	356	G	C2'-C1'	-15.95	1.29	1.53
21	A2	175	G	O4'-C1'	-15.95	1.17	1.41
67	B1	2218	C	C2'-C1'	-15.93	1.29	1.53
21	A2	475	C	O4'-C1'	15.92	1.65	1.41
67	B1	2807	C	O4'-C1'	15.92	1.65	1.41
21	A2	797	U	O4'-C1'	15.91	1.65	1.41
67	B1	1098	C	O4'-C1'	15.90	1.65	1.41
67	B1	241	C	C2'-C1'	-15.90	1.29	1.53
67	B1	1470	C	C2'-C1'	-15.89	1.29	1.53
67	B1	2019	C	O4'-C1'	15.88	1.65	1.41
67	B1	143	C	O4'-C1'	15.84	1.65	1.41
68	B3	57	C	C2'-C1'	-15.84	1.29	1.53
67	B1	2122	G	O4'-C1'	15.83	1.65	1.41
21	A2	1072	C	O4'-C1'	15.80	1.65	1.41
67	B1	2086	C	C2'-C1'	-15.80	1.29	1.53
67	B1	161	C	C2'-C1'	-15.76	1.29	1.53
67	B1	1569	A	O5'-C5'	15.75	1.66	1.42
21	A2	1254	C	O4'-C1'	15.74	1.65	1.41
67	B1	2702	A	C2'-C1'	15.72	1.76	1.53
67	B1	3024	C	O4'-C1'	15.72	1.65	1.41
67	B1	768	C	C2'-C1'	-15.71	1.29	1.53
21	A2	1151	A	C2'-C1'	-15.71	1.29	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2402	A	O4'-C1'	15.70	1.65	1.42
21	A2	181	G	C2'-C1'	-15.70	1.29	1.53
67	B1	1162	C	O4'-C1'	15.70	1.65	1.42
67	B1	2642	C	O4'-C1'	15.68	1.65	1.41
67	B1	1688	C	O4'-C1'	15.68	1.65	1.41
21	A2	1149	C	O4'-C1'	15.67	1.65	1.41
68	B3	41	A	O4'-C1'	15.67	1.65	1.41
67	B1	1586	G	O4'-C1'	15.66	1.65	1.41
67	B1	2545	A	O4'-C1'	15.65	1.65	1.41
67	B1	3036	C	C2'-C1'	-15.64	1.29	1.53
67	B1	1969	C	C2'-C1'	-15.63	1.29	1.53
21	A2	605	C	C2'-C1'	-15.62	1.29	1.53
11	A1	61	U	O4'-C1'	15.62	1.65	1.41
67	B1	1678	A	C2'-C1'	15.61	1.76	1.53
21	A2	751	C	O4'-C1'	15.59	1.65	1.41
67	B1	1439	G	C2'-C1'	-15.59	1.29	1.53
67	B1	486	A	O4'-C1'	-15.58	1.18	1.42
67	B1	1243	C	C2'-C1'	-15.58	1.29	1.53
68	B3	27	C	O4'-C1'	15.58	1.65	1.41
67	B1	1393	C	O4'-C1'	-15.57	1.18	1.42
67	B1	1411	G	O4'-C1'	15.57	1.65	1.41
67	B1	1440	C	O4'-C1'	15.57	1.65	1.41
67	B1	1619	C	C2'-C1'	-15.57	1.29	1.53
67	B1	915	G	C2'-C1'	-15.55	1.30	1.53
67	B1	559	G	C2'-C1'	-15.54	1.30	1.53
21	A2	199	A	O4'-C1'	15.54	1.65	1.42
68	B3	65	G	C2'-C1'	-15.52	1.30	1.53
21	A2	757	G	C2'-C1'	-15.52	1.30	1.53
67	B1	1289	C	C2'-C1'	-15.52	1.30	1.53
67	B1	744	G	C2'-C1'	-15.51	1.30	1.53
67	B1	2318	G	C2'-C1'	-15.51	1.30	1.53
67	B1	92	G	O4'-C1'	15.50	1.64	1.41
67	B1	2969	G	C2'-C1'	-15.47	1.30	1.53
67	B1	1754	A	C2'-C1'	15.47	1.76	1.53
67	B1	1566	G	C5'-C4'	15.47	1.74	1.51
21	A2	1074	C	C2'-C1'	-15.46	1.30	1.53
21	A2	1003	G	C2'-C1'	-15.46	1.30	1.53
67	B1	2201	C	O4'-C1'	15.46	1.64	1.41
21	A2	415	C	O4'-C1'	15.45	1.64	1.41
21	A2	369	A	C2'-C1'	-15.43	1.29	1.53
67	B1	404	G	C2'-C1'	15.41	1.76	1.53
21	A2	570	G	C2'-C1'	-15.41	1.30	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	165	G	C2'-C1'	-15.40	1.30	1.53
67	B1	2427	C	C2'-C1'	-15.38	1.30	1.53
67	B1	1909	C	O4'-C1'	15.37	1.64	1.41
67	B1	3042	C	O4'-C1'	15.36	1.64	1.41
11	A1	41	C	C2'-C1'	-15.36	1.30	1.53
67	B1	704	G	O4'-C1'	-15.35	1.18	1.41
21	A2	1190	C	O4'-C1'	15.34	1.64	1.41
67	B1	1180	G	C2'-C1'	-15.34	1.30	1.53
67	B1	2706	C	O4'-C1'	15.34	1.64	1.41
27	A0	62	C	O4'-C1'	15.33	1.64	1.41
21	A2	1298	G	C2'-C1'	-15.33	1.30	1.53
21	A2	1401	U	C2'-C1'	-15.33	1.30	1.53
21	A2	788	C	O4'-C1'	15.31	1.64	1.41
67	B1	2433	U	O4'-C1'	15.29	1.64	1.42
67	B1	688	G	O4'-C1'	15.29	1.64	1.41
67	B1	1152	C	C2'-C1'	-15.29	1.30	1.53
21	A2	726	A	C2'-C1'	-15.27	1.30	1.53
67	B1	665	C	O4'-C1'	15.27	1.64	1.42
67	B1	1575	G	C2'-C1'	15.24	1.76	1.53
67	B1	2493	A	C2'-C1'	-15.23	1.30	1.53
21	A2	1242	C	C2'-C1'	-15.23	1.30	1.53
67	B1	2265	C	O4'-C1'	15.18	1.64	1.41
11	A1	26	C	O4'-C1'	15.17	1.64	1.41
67	B1	2647	G	O4'-C1'	15.16	1.64	1.41
67	B1	880	U	C2'-C1'	-15.15	1.30	1.53
67	B1	2422	G	C2'-C1'	-15.14	1.30	1.53
67	B1	849	C	O4'-C1'	15.13	1.64	1.41
67	B1	2313	G	O4'-C1'	15.13	1.64	1.41
21	A2	1125	C	O4'-C1'	15.13	1.64	1.41
67	B1	1048	C	C2'-C1'	-15.12	1.30	1.53
67	B1	927	G	O4'-C1'	15.12	1.64	1.42
67	B1	883	G	O4'-C1'	15.11	1.64	1.41
21	A2	423	U	C2'-C1'	15.06	1.75	1.53
21	A2	1185	A	O4'-C1'	15.05	1.64	1.41
67	B1	2225	C	O4'-C1'	15.05	1.64	1.41
21	A2	60	A	O4'-C1'	-15.05	1.19	1.42
67	B1	1628	C	C2'-C1'	-15.05	1.30	1.53
67	B1	392	G	O4'-C1'	15.05	1.64	1.41
21	A2	455	C	O4'-C1'	15.04	1.64	1.41
21	A2	138	C	O4'-C1'	15.04	1.64	1.41
67	B1	1521	G	C2'-C1'	-15.02	1.30	1.53
67	B1	1214	C	O4'-C1'	15.02	1.64	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1122	C	O4'-C1'	15.00	1.64	1.41
67	B1	1934	C	O4'-C1'	14.98	1.64	1.41
21	A2	804	U	C2'-C1'	14.97	1.75	1.53
67	B1	2895	G	C2'-C1'	-14.96	1.30	1.53
11	A1	49	C	O4'-C1'	-14.95	1.19	1.41
21	A2	1272	G	C2'-C1'	-14.94	1.30	1.53
67	B1	1140	C	C2'-C1'	-14.94	1.30	1.53
67	B1	2850	G	C2'-C1'	-14.94	1.30	1.53
67	B1	905	G	C2'-C1'	-14.93	1.30	1.53
21	A2	424	U	C2'-C1'	-14.91	1.30	1.53
67	B1	2590	C	O4'-C1'	14.90	1.64	1.41
67	B1	2189	C	C2'-C1'	-14.90	1.30	1.53
21	A2	1167	C	O4'-C1'	14.89	1.64	1.41
67	B1	1988	U	O4'-C1'	14.88	1.64	1.41
21	A2	705	C	O4'-C1'	14.88	1.64	1.41
67	B1	2151	C	C2'-C1'	-14.87	1.31	1.53
67	B1	140	C	O4'-C1'	14.86	1.64	1.41
21	A2	374	G	C2'-C1'	-14.85	1.31	1.53
67	B1	2959	A	C2'-C1'	-14.85	1.31	1.53
67	B1	318	G	O4'-C1'	14.83	1.63	1.41
11	A1	57	C	O4'-C1'	14.83	1.63	1.41
21	A2	362	C	O4'-C1'	14.82	1.64	1.42
67	B1	2506	G	O3'-P	14.82	1.83	1.61
67	B1	785	C	O4'-C1'	14.81	1.63	1.41
21	A2	409	C	O4'-C1'	14.81	1.63	1.41
67	B1	2134	G	O4'-C1'	14.80	1.63	1.41
67	B1	1186	G	O4'-C1'	14.79	1.63	1.41
11	A1	51	G	O4'-C1'	14.77	1.63	1.41
67	B1	1229	U	O4'-C1'	14.77	1.63	1.41
67	B1	1273	C	O4'-C1'	14.76	1.63	1.41
67	B1	1592	U	O4'-C1'	14.76	1.63	1.41
21	A2	347	G	C2'-C1'	-14.75	1.30	1.53
21	A2	1038	C	O4'-C1'	14.75	1.63	1.41
21	A2	966	G	C2'-C1'	14.73	1.75	1.53
67	B1	1566	G	P-O5'	14.73	1.81	1.59
67	B1	1636	C	C2'-C1'	-14.73	1.31	1.53
67	B1	2178	A	C2'-C1'	-14.72	1.31	1.53
21	A2	1221	A	C2'-C1'	-14.71	1.31	1.53
21	A2	407	G	C2'-C1'	-14.71	1.31	1.53
67	B1	1559	A	O4'-C1'	14.71	1.63	1.41
67	B1	1406	G	O4'-C1'	14.69	1.63	1.41
21	A2	523	C	O4'-C1'	14.69	1.63	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	817	G	C2'-C1'	-14.69	1.31	1.53
67	B1	2514	C	C2'-C1'	-14.68	1.31	1.53
67	B1	2617	G	O4'-C1'	14.68	1.63	1.41
67	B1	1569	A	P-OP2	14.68	1.78	1.49
21	A2	1360	C	O4'-C1'	14.67	1.64	1.42
21	A2	295	G	O4'-C1'	14.67	1.63	1.41
67	B1	1363	C	O4'-C1'	14.67	1.63	1.41
21	A2	556	G	C2'-C1'	-14.65	1.31	1.53
21	A2	357	C	C2'-C1'	-14.65	1.31	1.53
21	A2	470	G	O4'-C1'	-14.65	1.20	1.42
21	A2	1372	C	O4'-C1'	14.65	1.63	1.41
21	A2	1018	C	O4'-C1'	14.63	1.63	1.41
67	B1	162	G	C2'-C1'	-14.62	1.31	1.53
67	B1	1161	A	O4'-C1'	14.61	1.63	1.41
67	B1	2144	U	C2'-C1'	14.60	1.75	1.53
67	B1	2426	U	C2'-C1'	-14.60	1.31	1.53
67	B1	2520	C	O4'-C1'	14.59	1.63	1.41
67	B1	837	G	C2'-C1'	-14.58	1.31	1.53
21	A2	387	G	C2'-C1'	-14.55	1.31	1.53
67	B1	957	C	O4'-C1'	14.54	1.63	1.41
21	A2	321	A	C2'-C1'	-14.53	1.31	1.53
21	A2	1458	A	C2'-C1'	14.52	1.74	1.53
21	A2	184	G	O4'-C1'	-14.51	1.19	1.41
67	B1	1402	C	C2'-C1'	-14.50	1.31	1.53
21	A2	467	G	C2'-C1'	-14.48	1.31	1.53
67	B1	2311	C	C2'-C1'	-14.48	1.31	1.53
27	A0	43	G	O4'-C1'	14.47	1.63	1.41
67	B1	1449	C	O4'-C1'	14.46	1.63	1.41
21	A2	566	C	O4'-C1'	14.46	1.63	1.41
67	B1	1117	C	C2'-C1'	-14.44	1.31	1.53
67	B1	3031	U	C2'-C1'	-14.43	1.31	1.53
67	B1	2430	C	C2'-C1'	-14.43	1.31	1.53
67	B1	1178	G	C2'-C1'	-14.43	1.31	1.53
67	B1	1085	G	C2'-C1'	-14.42	1.31	1.53
21	A2	1198	A	O4'-C1'	14.40	1.63	1.41
67	B1	2208	C	O4'-C1'	14.40	1.63	1.41
67	B1	3009	C	O4'-C1'	14.40	1.63	1.41
67	B1	898	G	C2'-C1'	-14.39	1.31	1.53
11	A1	37	A	C2'-C1'	-14.39	1.31	1.53
67	B1	1081	U	O4'-C1'	14.38	1.63	1.41
67	B1	2734	C	O4'-C1'	14.38	1.63	1.41
67	B1	2727	C	C2'-C1'	-14.38	1.31	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1767	C	C2'-C1'	-14.37	1.31	1.53
67	B1	858	G	O4'-C1'	14.37	1.63	1.41
67	B1	2326	C	O4'-C1'	14.37	1.63	1.41
67	B1	1392	G	C2'-C1'	-14.35	1.31	1.53
21	A2	620	G	O4'-C1'	14.34	1.63	1.41
67	B1	2178	A	O4'-C1'	14.33	1.63	1.41
67	B1	1767	C	O4'-C1'	14.31	1.63	1.41
67	B1	466	C	O4'-C1'	14.31	1.63	1.41
21	A2	1339	G	C2'-C1'	-14.31	1.31	1.53
21	A2	952	A	O4'-C1'	14.30	1.63	1.41
67	B1	2836	G	C2'-C1'	-14.30	1.31	1.53
68	B3	1	C	O4'-C1'	14.30	1.63	1.41
67	B1	2103	C	O4'-C1'	14.29	1.63	1.41
21	A2	172	G	C2'-C1'	-14.29	1.31	1.53
67	B1	2173	U	O4'-C1'	14.28	1.63	1.41
67	B1	1406	G	C2'-C1'	-14.27	1.31	1.53
67	B1	2028	G	C2'-C1'	-14.27	1.31	1.53
67	B1	2842	C	C2'-C1'	-14.27	1.31	1.53
21	A2	802	G	C2'-C1'	-14.24	1.31	1.53
67	B1	2815	C	O4'-C1'	14.24	1.63	1.41
21	A2	1273	G	O4'-C1'	14.24	1.63	1.41
21	A2	1335	A	O4'-C1'	14.24	1.63	1.41
67	B1	1817	C	C2'-C1'	-14.24	1.31	1.53
68	B3	73	U	C2'-C1'	-14.23	1.31	1.53
67	B1	2883	C	O4'-C1'	14.23	1.62	1.41
67	B1	355	G	C2'-C1'	-14.23	1.32	1.53
21	A2	156	A	O4'-C1'	14.22	1.62	1.41
67	B1	1943	C	O4'-C1'	14.22	1.62	1.41
21	A2	218	C	C2'-C1'	-14.22	1.32	1.53
21	A2	340	A	C2'-C1'	14.22	1.74	1.53
21	A2	1327	C	O4'-C1'	14.21	1.62	1.41
67	B1	666	A	C2'-C1'	-14.21	1.32	1.53
67	B1	2238	G	O4'-C1'	-14.20	1.20	1.41
67	B1	1717	C	O4'-C1'	14.19	1.62	1.41
67	B1	2003	C	O4'-C1'	14.18	1.62	1.41
67	B1	2157	U	O4'-C1'	14.17	1.62	1.41
67	B1	1141	C	O4'-C1'	14.16	1.62	1.41
67	B1	2227	G	C2'-C1'	-14.16	1.32	1.53
67	B1	92	G	C2'-C1'	-14.15	1.32	1.53
67	B1	614	G	C2'-C1'	-14.15	1.32	1.53
67	B1	2754	A	C2'-C1'	-14.15	1.32	1.53
67	B1	1562	U	O4'-C1'	14.15	1.62	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1037	U	O4'-C1'	14.13	1.63	1.42
67	B1	1453	G	C2'-C1'	-14.13	1.32	1.53
21	A2	117	C	O4'-C1'	14.13	1.62	1.41
67	B1	636	G	O4'-C1'	14.13	1.62	1.41
67	B1	1511	C	O4'-C1'	14.13	1.62	1.41
21	A2	217	C	O4'-C1'	14.13	1.62	1.41
67	B1	1117	C	O4'-C1'	14.13	1.63	1.42
67	B1	1624	U	O4'-C1'	-14.12	1.20	1.42
21	A2	402	G	C2'-C1'	-14.11	1.32	1.53
67	B1	2654	C	O4'-C1'	14.11	1.62	1.41
67	B1	1504	C	C2'-C1'	-14.10	1.32	1.53
67	B1	2590	C	C2'-C1'	-14.10	1.32	1.53
21	A2	64	G	C2'-C1'	-14.09	1.32	1.53
67	B1	880	U	O4'-C1'	14.09	1.62	1.41
21	A2	1240	A	C2'-C1'	-14.09	1.31	1.53
11	A1	52	G	C2'-C1'	-14.09	1.32	1.53
21	A2	1346	C	C2'-C1'	-14.08	1.32	1.53
21	A2	926	C	O4'-C1'	14.07	1.62	1.41
21	A2	978	G	O4'-C1'	14.07	1.62	1.41
21	A2	552	C	O4'-C1'	14.07	1.62	1.41
67	B1	1000	G	C2'-C1'	-14.07	1.32	1.53
67	B1	1465	A	O4'-C1'	-14.06	1.20	1.41
67	B1	1324	G	C2'-C1'	14.06	1.74	1.53
67	B1	1336	G	C2'-C1'	14.04	1.74	1.53
67	B1	1328	G	C2'-C1'	-14.04	1.31	1.53
21	A2	1298	G	O4'-C1'	14.03	1.62	1.41
21	A2	1079	G	C2'-C1'	14.02	1.74	1.53
67	B1	2283	C	O4'-C1'	14.01	1.62	1.41
67	B1	2209	U	C2'-C1'	14.01	1.74	1.53
67	B1	2969	G	O4'-C1'	14.00	1.62	1.41
21	A2	981	U	O4'-C1'	13.99	1.62	1.41
67	B1	636	G	C2'-C1'	-13.99	1.32	1.53
21	A2	575	A	C2'-C1'	13.98	1.74	1.53
21	A2	554	C	C2'-C1'	-13.98	1.32	1.53
68	B3	90	A	O4'-C1'	13.98	1.62	1.41
67	B1	249	G	C2'-C1'	-13.98	1.32	1.53
21	A2	1037	U	C2'-C1'	-13.97	1.32	1.53
21	A2	746	A	C2'-C1'	13.97	1.74	1.53
67	B1	2622	C	O4'-C1'	13.96	1.62	1.41
21	A2	304	C	C2'-C1'	-13.95	1.32	1.53
21	A2	1132	C	O4'-C1'	13.94	1.62	1.41
21	A2	1133	C	O4'-C1'	13.93	1.62	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2513	C	O4'-C1'	13.93	1.62	1.41
67	B1	1179	G	O4'-C1'	-13.92	1.20	1.41
67	B1	2335	G	C2'-C1'	-13.92	1.32	1.53
67	B1	2077	A	C2'-C1'	13.91	1.74	1.53
67	B1	1301	G	C2'-C1'	-13.90	1.32	1.53
21	A2	1469	G	C2'-C1'	-13.90	1.32	1.53
21	A2	1111	G	C2'-C1'	13.89	1.73	1.53
21	A2	1059	C	C2'-C1'	-13.88	1.32	1.53
67	B1	1165	C	O4'-C1'	13.88	1.62	1.41
27	A0	9	A	O4'-C1'	-13.87	1.21	1.42
67	B1	116	G	O4'-C1'	13.87	1.62	1.41
67	B1	685	G	C2'-C1'	-13.87	1.32	1.53
67	B1	371	U	O4'-C1'	13.87	1.62	1.42
67	B1	1340	G	C2'-C1'	-13.86	1.32	1.53
21	A2	705	C	C2'-C1'	-13.86	1.32	1.53
21	A2	263	C	O4'-C1'	13.85	1.62	1.41
67	B1	1439	G	O4'-C1'	13.85	1.62	1.41
67	B1	2859	U	C2'-C1'	-13.85	1.32	1.53
68	B3	22	C	O4'-C1'	13.84	1.62	1.41
21	A2	1120	G	C2'-C1'	-13.84	1.32	1.53
67	B1	1270	G	O4'-C1'	13.82	1.62	1.42
68	B3	56	C	C2'-C1'	-13.81	1.32	1.53
68	B3	49	A	C2'-C1'	13.80	1.74	1.53
21	A2	1437	G	O4'-C1'	13.79	1.62	1.41
67	B1	2523	C	O4'-C1'	13.79	1.62	1.42
67	B1	2630	C	C2'-C1'	-13.78	1.32	1.53
67	B1	947	C	O4'-C1'	13.78	1.62	1.41
67	B1	2600	C	C2'-C1'	-13.78	1.32	1.53
67	B1	2492	G	C2'-C1'	13.78	1.74	1.53
67	B1	473	C	O4'-C1'	13.77	1.62	1.41
67	B1	621	G	C2'-C1'	-13.76	1.32	1.53
67	B1	640	C	O4'-C1'	13.76	1.62	1.41
67	B1	147	C	C2'-C1'	-13.76	1.32	1.53
21	A2	1043	U	C2'-C1'	13.76	1.74	1.53
67	B1	306	G	O4'-C1'	13.76	1.62	1.41
67	B1	1470	C	O4'-C1'	13.75	1.62	1.41
67	B1	1139	C	O4'-C1'	13.75	1.62	1.41
67	B1	2069	G	C2'-C1'	-13.75	1.32	1.53
21	A2	497	C	O4'-C1'	13.74	1.62	1.41
21	A2	1242	C	O4'-C1'	13.74	1.62	1.41
27	A0	6	C	C2'-C1'	-13.74	1.32	1.53
67	B1	2855	G	C2'-C1'	-13.73	1.32	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	304	C	O4'-C1'	13.73	1.62	1.41
67	B1	436	C	O4'-C1'	13.73	1.62	1.41
67	B1	2308	C	O4'-C1'	13.73	1.62	1.41
67	B1	1607	C	O4'-C1'	13.72	1.62	1.41
21	A2	749	C	O4'-C1'	13.72	1.62	1.41
67	B1	921	C	C2'-C1'	-13.72	1.32	1.53
67	B1	2448	A	C2'-C1'	13.71	1.74	1.53
67	B1	2645	C	O4'-C1'	13.71	1.62	1.41
21	A2	1020	G	C2'-C1'	-13.70	1.32	1.53
21	A2	1282	C	C2'-C1'	-13.70	1.32	1.53
67	B1	558	C	O4'-C1'	13.70	1.62	1.41
21	A2	551	U	O4'-C1'	13.69	1.62	1.41
67	B1	2236	C	O4'-C1'	13.69	1.62	1.41
67	B1	2916	G	C2'-C1'	13.69	1.73	1.53
21	A2	1396	C	O4'-C1'	13.69	1.62	1.41
67	B1	1050	C	O4'-C1'	13.69	1.62	1.41
67	B1	2826	U	C2'-C1'	13.69	1.73	1.53
21	A2	1449	G	C2'-C1'	-13.68	1.32	1.53
21	A2	792	C	O4'-C1'	13.68	1.62	1.41
21	A2	1199	A	O4'-C1'	-13.68	1.21	1.42
21	A2	384	G	O4'-C1'	13.68	1.62	1.42
67	B1	889	C	O4'-C1'	13.67	1.62	1.41
67	B1	1457	C	O4'-C1'	13.67	1.62	1.41
67	B1	2620	G	C2'-C1'	-13.67	1.32	1.53
21	A2	232	G	C2'-C1'	-13.67	1.32	1.53
67	B1	1086	U	C2'-C1'	-13.67	1.32	1.53
67	B1	1758	U	O4'-C1'	13.67	1.62	1.42
67	B1	2068	U	O4'-C1'	13.66	1.62	1.42
67	B1	878	G	C2'-C1'	-13.66	1.32	1.53
67	B1	2880	C	O4'-C1'	13.65	1.62	1.41
21	A2	475	C	C2'-C1'	-13.65	1.32	1.53
67	B1	1709	C	O4'-C1'	13.65	1.62	1.41
67	B1	1294	A	O4'-C1'	13.64	1.62	1.41
67	B1	470	A	C2'-C1'	13.63	1.73	1.53
21	A2	1378	A	C2'-C1'	13.63	1.73	1.53
67	B1	1377	G	O4'-C1'	13.63	1.62	1.41
21	A2	1169	C	O4'-C1'	13.62	1.62	1.41
21	A2	1426	C	C2'-C1'	-13.62	1.32	1.53
67	B1	700	A	C2'-C1'	13.62	1.73	1.53
67	B1	1364	C	C2'-C1'	-13.62	1.32	1.53
67	B1	58	G	C2'-C1'	-13.61	1.32	1.53
67	B1	1509	C	O4'-C1'	13.61	1.62	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	421	U	C2'-C1'	-13.60	1.32	1.53
21	A2	279	U	O4'-C1'	13.60	1.62	1.41
21	A2	1121	C	O4'-C1'	13.60	1.62	1.41
67	B1	2006	C	O4'-C1'	13.59	1.62	1.41
21	A2	34	G	C2'-C1'	13.59	1.73	1.53
67	B1	2439	G	C2'-C1'	-13.59	1.32	1.53
67	B1	1530	A	O4'-C1'	-13.58	1.21	1.42
21	A2	136	A	C2'-C1'	-13.58	1.32	1.53
67	B1	2272	G	C2'-C1'	-13.58	1.32	1.53
21	A2	855	C	C2'-C1'	-13.58	1.32	1.53
67	B1	2482	G	O4'-C1'	13.57	1.62	1.41
67	B1	1867	C	O4'-C1'	13.57	1.62	1.41
67	B1	1384	C	O4'-C1'	13.55	1.61	1.41
67	B1	1568	A	P-O5'	13.54	1.80	1.59
21	A2	807	C	C2'-C1'	-13.54	1.33	1.53
67	B1	1191	C	O4'-C1'	13.54	1.61	1.41
67	B1	2586	A	C2'-C1'	13.54	1.73	1.53
67	B1	1118	A	C2'-C1'	-13.53	1.33	1.53
67	B1	1567	C	C3'-C2'	13.53	1.73	1.52
67	B1	2331	A	O4'-C1'	13.52	1.61	1.41
67	B1	1643	A	C2'-C1'	-13.52	1.32	1.53
21	A2	373	C	O4'-C1'	13.51	1.61	1.41
67	B1	66	C	O4'-C1'	13.51	1.61	1.41
67	B1	70	G	C2'-C1'	-13.51	1.32	1.53
21	A2	842	U	C2'-C1'	13.49	1.73	1.53
21	A2	11	A	O4'-C1'	13.49	1.61	1.41
67	B1	2618	C	C2'-C1'	13.49	1.73	1.53
21	A2	153	G	C2'-C1'	-13.49	1.33	1.53
21	A2	435	A	O4'-C1'	13.49	1.61	1.41
21	A2	1173	A	C2'-C1'	-13.49	1.32	1.53
64	Bc	15	GLU	CA-C	13.47	1.70	1.52
21	A2	651	U	C2'-C1'	-13.47	1.33	1.53
21	A2	1136	A	O4'-C1'	13.47	1.61	1.41
21	A2	1250	C	O4'-C1'	13.46	1.61	1.41
67	B1	2575	U	C2'-C1'	-13.45	1.33	1.53
21	A2	547	U	C2'-C1'	-13.44	1.33	1.53
11	A1	44	G	C2'-C1'	-13.43	1.33	1.53
67	B1	1814	A	C2'-C1'	-13.43	1.33	1.53
21	A2	1273	G	C2'-C1'	-13.43	1.33	1.53
21	A2	1073	C	C2'-C1'	-13.42	1.33	1.53
67	B1	1910	C	O4'-C1'	13.42	1.61	1.41
67	B1	2818	C	O4'-C1'	13.41	1.61	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	A0	25	C	O4'-C1'	13.40	1.61	1.41
67	B1	362	A	C2'-C1'	13.40	1.73	1.53
21	A2	492	G	O4'-C1'	13.40	1.61	1.41
67	B1	1989	G	C2'-C1'	-13.39	1.33	1.53
21	A2	754	G	O4'-C1'	13.38	1.61	1.41
67	B1	462	A	O4'-C1'	13.38	1.61	1.41
21	A2	1421	C	O4'-C1'	13.38	1.61	1.41
67	B1	2196	C	O4'-C1'	13.38	1.61	1.41
67	B1	131	C	O4'-C1'	13.37	1.61	1.41
21	A2	91	G	C2'-C1'	-13.37	1.33	1.53
21	A2	396	C	C2'-C1'	-13.37	1.33	1.53
21	A2	651	U	O4'-C1'	13.37	1.61	1.41
67	B1	1726	A	C2'-C1'	13.37	1.73	1.53
67	B1	568	A	O4'-C1'	13.36	1.61	1.42
21	A2	463	G	C2'-C1'	-13.36	1.33	1.53
21	A2	1372	C	C2'-C1'	-13.35	1.33	1.53
67	B1	932	C	O4'-C1'	13.35	1.61	1.41
68	B3	56	C	O4'-C1'	13.35	1.61	1.41
67	B1	1570	C	C4'-C3'	13.35	1.72	1.52
67	B1	3049	C	O4'-C1'	13.34	1.61	1.41
27	A0	6	C	O4'-C1'	13.34	1.61	1.41
68	B3	81	C	O4'-C1'	13.34	1.61	1.41
21	A2	1455	A	C2'-C1'	-13.33	1.33	1.53
21	A2	509	C	C2'-C1'	-13.32	1.33	1.53
17	AO	120	HIS	ND1-CE1	13.32	1.45	1.32
67	B1	592	C	O4'-C1'	13.32	1.61	1.41
67	B1	2840	C	O4'-C1'	13.32	1.61	1.42
67	B1	2596	G	C2'-C1'	-13.32	1.33	1.53
67	B1	2635	C	O4'-C1'	13.31	1.61	1.41
21	A2	250	G	C2'-C1'	-13.31	1.33	1.53
21	A2	1086	C	O4'-C1'	13.30	1.61	1.41
21	A2	718	G	C2'-C1'	-13.29	1.33	1.53
67	B1	2651	G	C2'-C1'	-13.29	1.33	1.53
67	B1	128	C	O4'-C1'	13.29	1.61	1.41
67	B1	220	C	O4'-C1'	13.29	1.61	1.41
21	A2	814	C	C2'-C1'	-13.26	1.33	1.53
67	B1	130	G	O4'-C1'	13.26	1.61	1.41
67	B1	1288	C	O4'-C1'	13.24	1.61	1.41
21	A2	687	G	C2'-C1'	-13.24	1.33	1.53
67	B1	1107	G	C2'-C1'	-13.23	1.33	1.53
21	A2	1363	C	O4'-C1'	13.22	1.61	1.41
67	B1	2187	C	O4'-C1'	13.22	1.61	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	670	C	C2'-C1'	-13.22	1.33	1.53
21	A2	92	G	O4'-C1'	-13.22	1.21	1.41
67	B1	2865	C	C2'-C1'	-13.22	1.33	1.53
21	A2	30	C	C2'-C1'	-13.21	1.33	1.53
67	B1	2625	C	O4'-C1'	13.21	1.61	1.41
67	B1	1056	C	O4'-C1'	13.20	1.61	1.41
67	B1	325	G	C2'-C1'	-13.19	1.33	1.53
67	B1	1514	C	O4'-C1'	13.18	1.61	1.41
21	A2	336	C	C2'-C1'	-13.17	1.33	1.53
67	B1	124	C	O4'-C1'	13.16	1.61	1.41
67	B1	1219	C	O4'-C1'	13.16	1.61	1.41
67	B1	1163	U	C2'-C1'	13.15	1.73	1.53
67	B1	1741	C	O4'-C1'	13.15	1.61	1.41
67	B1	1887	A	O4'-C1'	13.15	1.61	1.41
21	A2	419	G	C2'-C1'	-13.15	1.33	1.53
67	B1	1567	C	C2'-C1'	-13.14	1.33	1.53
21	A2	34	G	O4'-C1'	-13.14	1.22	1.41
67	B1	1497	C	O4'-C1'	13.13	1.61	1.41
67	B1	719	C	C2'-C1'	-13.13	1.33	1.53
21	A2	660	C	O4'-C1'	13.12	1.61	1.41
67	B1	622	A	C2'-C1'	-13.12	1.33	1.53
67	B1	1525	G	C2'-C1'	-13.12	1.33	1.53
67	B1	1435	G	C2'-C1'	-13.12	1.33	1.53
67	B1	835	G	C2'-C1'	-13.11	1.33	1.53
67	B1	2505	A	O4'-C1'	13.11	1.61	1.41
21	A2	691	G	C2'-C1'	-13.11	1.33	1.53
67	B1	226	C	O4'-C1'	13.11	1.61	1.41
67	B1	863	C	C2'-C1'	-13.11	1.33	1.53
36	Bf	2	ALA	N-CA	-13.10	1.29	1.46
67	B1	2020	G	C2'-C1'	-13.10	1.33	1.53
67	B1	2358	U	O4'-C1'	13.10	1.61	1.41
67	B1	1984	G	C2'-C1'	-13.09	1.33	1.53
21	A2	1342	C	C2'-C1'	-13.09	1.33	1.53
67	B1	3004	C	C2'-C1'	-13.09	1.33	1.53
67	B1	2131	C	O4'-C1'	13.07	1.61	1.41
21	A2	120	C	O4'-C1'	13.07	1.61	1.41
67	B1	934	G	O4'-C1'	13.06	1.61	1.41
67	B1	2104	G	O4'-C1'	13.06	1.61	1.42
67	B1	2468	C	O4'-C1'	13.06	1.61	1.41
67	B1	1134	A	O4'-C1'	13.06	1.61	1.41
21	A2	1101	G	C2'-C1'	13.06	1.73	1.53
67	B1	369	G	O4'-C1'	13.04	1.61	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	769	G	C2'-C1'	-13.04	1.33	1.53
67	B1	467	U	O4'-C1'	13.03	1.61	1.41
67	B1	1477	C	O4'-C1'	13.03	1.61	1.41
21	A2	400	G	C2'-C1'	13.02	1.72	1.53
67	B1	1090	G	C2'-C1'	-13.02	1.33	1.53
67	B1	2907	C	C2'-C1'	-13.01	1.33	1.53
67	B1	2990	G	O4'-C1'	13.01	1.61	1.41
67	B1	750	C	C2'-C1'	-13.01	1.33	1.53
21	A2	1457	A	C2'-C1'	-13.00	1.33	1.53
21	A2	1047	U	O4'-C1'	13.00	1.61	1.41
67	B1	2849	C	C2'-C1'	-13.00	1.33	1.53
68	B3	50	G	O4'-C1'	13.00	1.61	1.41
67	B1	716	U	O4'-C1'	12.99	1.61	1.41
67	B1	2869	U	C2'-C1'	-12.99	1.33	1.53
67	B1	1566	G	C4'-C3'	12.99	1.72	1.52
21	A2	267	C	O4'-C1'	12.99	1.61	1.41
21	A2	491	G	C2'-C1'	-12.99	1.33	1.53
67	B1	50	C	C2'-C1'	12.99	1.72	1.53
67	B1	121	G	O4'-C1'	12.99	1.61	1.41
21	A2	438	A	C2'-C1'	-12.98	1.33	1.53
67	B1	177	G	C2'-C1'	-12.98	1.33	1.53
67	B1	1852	U	O4'-C1'	12.98	1.61	1.42
67	B1	585	G	C2'-C1'	-12.97	1.33	1.53
67	B1	1840	G	O4'-C1'	12.97	1.61	1.42
21	A2	1394	G	O4'-C1'	12.97	1.61	1.41
21	A2	1252	C	O4'-C1'	12.96	1.61	1.41
21	A2	343	G	C2'-C1'	12.96	1.72	1.53
67	B1	2753	G	O4'-C1'	-12.95	1.22	1.42
67	B1	244	A	C2'-C1'	-12.95	1.33	1.53
21	A2	788	C	C2'-C1'	-12.93	1.33	1.53
67	B1	307	C	C2'-C1'	-12.93	1.33	1.53
67	B1	920	G	C2'-C1'	-12.93	1.33	1.53
21	A2	81	C	O4'-C1'	12.92	1.61	1.41
21	A2	1209	C	C2'-C1'	-12.91	1.33	1.53
67	B1	1147	G	C2'-C1'	-12.91	1.33	1.53
67	B1	2884	C	C2'-C1'	-12.91	1.33	1.53
67	B1	268	C	O4'-C1'	12.91	1.61	1.41
67	B1	2434	A	O4'-C1'	12.91	1.61	1.42
67	B1	2594	U	C2'-C1'	-12.90	1.33	1.53
67	B1	2859	U	O4'-C1'	12.90	1.60	1.41
67	B1	858	G	C2'-C1'	-12.89	1.34	1.53
67	B1	1303	C	O4'-C1'	12.89	1.60	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2926	G	O4'-C1'	12.89	1.60	1.41
21	A2	754	G	C2'-C1'	-12.89	1.34	1.53
21	A2	147	A	O4'-C1'	12.89	1.60	1.41
67	B1	2808	C	O4'-C1'	12.88	1.60	1.41
67	B1	537	U	O4'-C1'	12.87	1.60	1.41
67	B1	900	C	O4'-C1'	12.87	1.60	1.41
67	B1	160	C	O4'-C1'	12.86	1.60	1.41
67	B1	1701	C	O4'-C1'	12.86	1.60	1.41
67	B1	1577	C	O4'-C1'	12.85	1.61	1.42
21	A2	1064	C	C2'-C1'	-12.85	1.34	1.53
21	A2	1265	G	C2'-C1'	-12.85	1.34	1.53
67	B1	1752	C	O4'-C1'	12.85	1.60	1.41
67	B1	2508	G	O4'-C1'	12.84	1.61	1.42
67	B1	990	G	C2'-C1'	-12.84	1.34	1.53
67	B1	190	C	O4'-C1'	12.83	1.60	1.41
67	B1	2886	C	O4'-C1'	12.83	1.60	1.41
67	B1	1105	C	O4'-C1'	12.83	1.60	1.41
67	B1	593	C	O4'-C1'	12.82	1.60	1.41
21	A2	392	G	C2'-C1'	-12.82	1.34	1.53
21	A2	768	A	C2'-C1'	12.82	1.72	1.53
67	B1	2377	C	C2'-C1'	-12.82	1.34	1.53
67	B1	1438	C	O4'-C1'	12.81	1.60	1.41
67	B1	901	C	O4'-C1'	12.81	1.60	1.41
67	B1	1137	G	C2'-C1'	-12.81	1.34	1.53
67	B1	2238	G	C2'-C1'	12.81	1.72	1.53
67	B1	2594	U	O4'-C1'	12.80	1.60	1.41
21	A2	62	G	C2'-C1'	-12.79	1.34	1.53
67	B1	2266	C	O4'-C1'	12.79	1.60	1.41
21	A2	273	C	O4'-C1'	12.78	1.60	1.41
21	A2	94	C	C2'-C1'	-12.78	1.34	1.53
67	B1	935	A	C2'-C1'	12.77	1.72	1.53
67	B1	2086	C	O4'-C1'	12.76	1.60	1.41
21	A2	797	U	C2'-C1'	-12.76	1.34	1.53
67	B1	168	G	C2'-C1'	-12.76	1.34	1.53
68	B3	58	C	C2'-C1'	-12.76	1.34	1.53
67	B1	2836	G	O4'-C1'	12.75	1.60	1.41
67	B1	1394	G	C2'-C1'	-12.73	1.33	1.53
67	B1	2430	C	O4'-C1'	12.73	1.60	1.41
67	B1	2761	G	C2'-C1'	12.73	1.72	1.53
67	B1	258	C	O4'-C1'	12.72	1.60	1.41
27	A0	22	G	C2'-C1'	-12.72	1.34	1.53
67	B1	1143	A	O4'-C1'	12.72	1.60	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	864	C	C2'-C1'	-12.72	1.34	1.53
67	B1	712	C	O4'-C1'	12.71	1.60	1.41
67	B1	1031	C	C2'-C1'	-12.71	1.34	1.53
21	A2	724	C	O4'-C1'	12.71	1.60	1.41
67	B1	1296	A	O4'-C1'	12.70	1.60	1.41
67	B1	2195	G	C2'-C1'	-12.70	1.34	1.53
67	B1	2535	C	C2'-C1'	-12.70	1.34	1.53
67	B1	2033	G	O4'-C1'	12.70	1.60	1.41
25	AH	94	ASN	C-N	12.70	1.51	1.33
21	A2	321	A	O4'-C1'	12.69	1.60	1.41
21	A2	945	G	C2'-C1'	-12.69	1.34	1.53
21	A2	529	C	O4'-C1'	12.69	1.60	1.42
67	B1	822	A	O4'-C1'	12.69	1.60	1.41
68	B3	94	G	C2'-C1'	-12.68	1.34	1.53
21	A2	309	A	C2'-C1'	12.68	1.72	1.53
21	A2	1121	C	C2'-C1'	-12.67	1.34	1.53
67	B1	2937	U	C2'-C1'	12.66	1.72	1.53
67	B1	921	C	O4'-C1'	12.65	1.60	1.41
21	A2	1194	C	C2'-C1'	-12.64	1.34	1.53
27	A0	75	C	O4'-C1'	12.64	1.60	1.41
67	B1	1570	C	C5'-C4'	12.64	1.70	1.51
67	B1	1296	A	C2'-C1'	-12.64	1.34	1.53
67	B1	77	C	C2'-C1'	-12.63	1.34	1.53
21	A2	366	C	O4'-C1'	12.63	1.60	1.41
67	B1	857	U	C2'-C1'	-12.63	1.34	1.53
27	A0	14	A	O4'-C1'	12.62	1.60	1.41
67	B1	3048	C	O4'-C1'	12.62	1.60	1.41
21	A2	1204	C	O4'-C1'	12.62	1.60	1.41
21	A2	760	C	O4'-C1'	12.62	1.60	1.41
67	B1	1746	C	O4'-C1'	12.61	1.60	1.41
67	B1	1576	C	O4'-C1'	12.61	1.60	1.41
67	B1	441	A	C2'-C1'	-12.60	1.34	1.53
67	B1	1218	C	O4'-C1'	12.59	1.60	1.41
67	B1	1554	G	C2'-C1'	-12.58	1.34	1.53
21	A2	1004	U	O4'-C1'	12.58	1.60	1.41
68	B3	39	C	C2'-C1'	-12.58	1.34	1.53
67	B1	405	G	C2'-C1'	-12.57	1.34	1.53
21	A2	1194	C	O4'-C1'	12.57	1.60	1.41
21	A2	1494	C	O4'-C1'	12.56	1.60	1.41
67	B1	652	G	O4'-C1'	12.56	1.60	1.41
67	B1	521	C	O4'-C1'	12.55	1.60	1.41
67	B1	2424	A	O4'-C1'	12.55	1.60	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	787	G	C2'-C1'	-12.55	1.34	1.53
67	B1	1289	C	O4'-C1'	12.55	1.60	1.41
67	B1	1040	C	O4'-C1'	12.54	1.60	1.41
67	B1	78	C	C2'-C1'	-12.54	1.34	1.53
67	B1	1102	C	C2'-C1'	-12.53	1.34	1.53
67	B1	2498	G	C2'-C1'	-12.53	1.34	1.53
67	B1	2599	C	C2'-C1'	-12.53	1.34	1.53
21	A2	647	G	C2'-C1'	-12.53	1.34	1.53
67	B1	1609	G	C2'-C1'	-12.53	1.34	1.53
67	B1	266	A	C2'-C1'	-12.53	1.34	1.53
67	B1	1231	C	O4'-C1'	12.52	1.60	1.41
21	A2	626	G	C2'-C1'	12.52	1.72	1.53
67	B1	778	A	O4'-C1'	12.52	1.60	1.41
67	B1	1051	C	C2'-C1'	-12.51	1.34	1.53
67	B1	2887	C	O4'-C1'	12.51	1.60	1.41
67	B1	1614	U	C2'-C1'	-12.50	1.34	1.53
21	A2	381	C	C2'-C1'	-12.49	1.34	1.53
68	B3	19	G	C2'-C1'	-12.49	1.34	1.53
67	B1	1229	U	C2'-C1'	-12.49	1.34	1.53
67	B1	1618	G	C2'-C1'	-12.48	1.34	1.53
67	B1	2674	C	O4'-C1'	12.48	1.60	1.41
67	B1	2849	C	O4'-C1'	12.48	1.60	1.41
67	B1	2671	C	C2'-C1'	-12.48	1.34	1.53
67	B1	603	G	O4'-C1'	12.47	1.60	1.41
67	B1	1186	G	C2'-C1'	-12.47	1.34	1.53
11	A1	28	C	O4'-C1'	12.47	1.60	1.41
67	B1	1773	C	O4'-C1'	12.45	1.60	1.42
21	A2	381	C	O4'-C1'	12.45	1.60	1.41
67	B1	1960	U	O4'-C1'	12.44	1.60	1.41
67	B1	701	G	C2'-C1'	-12.44	1.34	1.53
67	B1	1441	C	O4'-C1'	12.44	1.60	1.41
68	B3	94	G	O4'-C1'	12.44	1.60	1.41
21	A2	1053	A	C2'-C1'	-12.44	1.34	1.53
11	A1	73	C	O4'-C1'	12.44	1.60	1.41
67	B1	2170	C	O4'-C1'	12.43	1.60	1.41
67	B1	2170	C	C2'-C1'	-12.42	1.34	1.53
67	B1	2905	C	O4'-C1'	12.41	1.60	1.41
67	B1	2434	A	C2'-C1'	-12.40	1.34	1.53
67	B1	2913	C	O4'-C1'	12.40	1.60	1.41
67	B1	1811	G	O4'-C1'	-12.40	1.23	1.41
67	B1	1047	A	O4'-C1'	12.39	1.60	1.41
21	A2	710	G	C2'-C1'	-12.39	1.34	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	121	G	C2'-C1'	-12.39	1.34	1.53
67	B1	644	G	O4'-C1'	12.39	1.60	1.41
67	B1	956	U	O4'-C1'	12.39	1.60	1.41
67	B1	1779	C	C2'-C1'	-12.39	1.34	1.53
67	B1	1790	G	O4'-C1'	12.38	1.60	1.41
21	A2	248	U	O4'-C1'	12.37	1.60	1.41
21	A2	457	G	O4'-C1'	12.37	1.60	1.41
67	B1	2288	C	O4'-C1'	12.37	1.60	1.41
21	A2	68	G	C2'-C1'	-12.37	1.34	1.53
67	B1	210	A	O4'-C1'	12.37	1.60	1.42
67	B1	110	A	C2'-C1'	12.36	1.71	1.53
67	B1	822	A	C2'-C1'	-12.36	1.34	1.53
21	A2	774	U	O4'-C1'	12.36	1.60	1.42
67	B1	2029	C	O4'-C1'	12.36	1.60	1.41
68	B3	26	C	O4'-C1'	12.36	1.60	1.41
21	A2	715	C	O4'-C1'	12.35	1.60	1.41
21	A2	393	A	O4'-C1'	-12.35	1.23	1.41
11	A1	54	G	O4'-C1'	12.34	1.60	1.41
67	B1	1251	G	O4'-C1'	12.34	1.60	1.42
67	B1	778	A	C2'-C1'	-12.34	1.34	1.53
67	B1	1939	C	O4'-C1'	12.34	1.60	1.42
67	B1	1651	A	O4'-C1'	12.34	1.60	1.41
21	A2	1303	C	C2'-C1'	-12.33	1.34	1.53
67	B1	751	U	C2'-C1'	12.33	1.71	1.53
67	B1	1391	C	O4'-C1'	12.33	1.60	1.41
68	B3	68	C	O4'-C1'	12.33	1.60	1.41
21	A2	724	C	C2'-C1'	-12.33	1.34	1.53
67	B1	844	C	O4'-C1'	12.32	1.60	1.41
21	A2	1336	U	C2'-C1'	12.31	1.71	1.53
67	B1	796	C	O4'-C1'	12.30	1.60	1.41
67	B1	2066	C	O4'-C1'	12.30	1.60	1.41
68	B3	92	G	C2'-C1'	-12.30	1.34	1.53
67	B1	493	A	O4'-C1'	12.30	1.60	1.42
67	B1	3036	C	O4'-C1'	12.30	1.60	1.41
67	B1	2076	A	C2'-C1'	-12.30	1.34	1.53
11	A1	62	C	O4'-C1'	12.29	1.60	1.41
21	A2	613	C	O4'-C1'	12.28	1.60	1.41
67	B1	2012	G	O4'-C1'	-12.27	1.23	1.41
67	B1	2039	U	O4'-C1'	12.27	1.60	1.41
68	B3	27	C	C2'-C1'	-12.27	1.34	1.53
67	B1	2750	C	O4'-C1'	12.27	1.60	1.41
21	A2	980	C	C2'-C1'	-12.26	1.34	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1756	C	O4'-C1'	12.26	1.60	1.41
67	B1	2498	G	O4'-C1'	12.25	1.60	1.41
67	B1	3013	U	O4'-C1'	12.25	1.60	1.42
21	A2	1040	A	C2'-C1'	-12.24	1.34	1.53
67	B1	605	A	O4'-C1'	12.24	1.60	1.41
67	B1	1628	C	O4'-C1'	12.24	1.60	1.41
67	B1	2334	G	C2'-C1'	-12.24	1.34	1.53
21	A2	217	C	C2'-C1'	-12.24	1.34	1.53
21	A2	1213	G	C2'-C1'	-12.22	1.35	1.53
67	B1	2952	C	C2'-C1'	-12.21	1.35	1.53
21	A2	44	C	O4'-C1'	12.21	1.59	1.41
67	B1	872	G	C2'-C1'	-12.21	1.35	1.53
67	B1	2877	A	O4'-C1'	12.21	1.59	1.41
67	B1	1571	G	O4'-C1'	12.21	1.59	1.41
67	B1	1048	C	O4'-C1'	12.20	1.59	1.41
67	B1	905	G	O4'-C1'	12.19	1.59	1.41
67	B1	2727	C	O4'-C1'	12.19	1.59	1.41
17	AO	145	ARG	NE-CZ	12.19	1.46	1.33
67	B1	2043	A	O4'-C1'	12.18	1.59	1.41
67	B1	1051	C	O4'-C1'	12.18	1.59	1.41
67	B1	2925	C	C2'-C1'	-12.18	1.35	1.53
21	A2	746	A	O4'-C1'	-12.18	1.23	1.42
67	B1	1086	U	O4'-C1'	12.18	1.59	1.41
21	A2	1321	U	C2'-C1'	12.17	1.71	1.53
67	B1	2648	C	O4'-C1'	12.17	1.59	1.41
67	B1	454	C	O4'-C1'	12.16	1.59	1.41
67	B1	1407	A	O4'-C1'	12.16	1.60	1.42
21	A2	268	C	O4'-C1'	12.16	1.59	1.41
21	A2	723	G	C2'-C1'	-12.16	1.35	1.53
27	A0	58	A	C2'-C1'	12.15	1.71	1.53
67	B1	1271	G	O4'-C1'	12.15	1.59	1.41
11	A1	76	C	O4'-C1'	12.15	1.59	1.41
67	B1	2151	C	O4'-C1'	12.15	1.59	1.41
21	A2	426	C	O4'-C1'	12.14	1.59	1.41
67	B1	1950	G	C2'-C1'	12.14	1.71	1.53
67	B1	380	A	C2'-C1'	-12.14	1.35	1.53
67	B1	502	G	O4'-C1'	-12.14	1.23	1.41
67	B1	2206	G	C2'-C1'	-12.13	1.35	1.53
67	B1	2503	C	O4'-C1'	12.13	1.59	1.41
67	B1	1692	A	C2'-C1'	-12.12	1.35	1.53
67	B1	1403	C	O4'-C1'	12.12	1.59	1.41
21	A2	1178	C	O4'-C1'	12.12	1.59	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1009	G	C2'-C1'	-12.11	1.35	1.53
68	B3	65	G	O4'-C1'	12.11	1.59	1.41
21	A2	1271	G	O4'-C1'	12.11	1.59	1.41
67	B1	558	C	C2'-C1'	-12.11	1.35	1.53
67	B1	821	U	C2'-C1'	12.10	1.71	1.53
21	A2	554	C	O4'-C1'	12.10	1.59	1.41
21	A2	183	A	C2'-C1'	-12.09	1.35	1.53
21	A2	344	G	O4'-C1'	12.09	1.59	1.41
67	B1	1157	U	C2'-C1'	12.09	1.71	1.53
21	A2	162	C	C2'-C1'	-12.09	1.35	1.53
21	A2	1286	C	O4'-C1'	12.08	1.59	1.41
21	A2	375	G	O4'-C1'	12.08	1.59	1.41
67	B1	136	U	O4'-C1'	12.08	1.59	1.41
67	B1	1747	C	O4'-C1'	12.08	1.59	1.41
67	B1	2234	C	O4'-C1'	12.08	1.59	1.41
67	B1	988	C	C2'-C1'	-12.07	1.35	1.53
67	B1	1071	A	O4'-C1'	12.07	1.59	1.41
21	A2	1200	U	O4'-C1'	-12.07	1.23	1.42
21	A2	1155	U	C2'-C1'	-12.06	1.35	1.53
21	A2	1411	G	O4'-C1'	12.05	1.59	1.41
67	B1	977	C	O4'-C1'	12.05	1.59	1.41
67	B1	2217	C	C2'-C1'	-12.04	1.35	1.53
35	BL	45	SER	N-CA	-12.03	1.30	1.46
67	B1	119	U	O4'-C1'	12.04	1.60	1.42
67	B1	239	G	C2'-C1'	-12.03	1.35	1.53
21	A2	936	A	C2'-C1'	-12.03	1.35	1.53
67	B1	2767	C	C2'-C1'	-12.03	1.35	1.53
67	B1	208	A	O4'-C1'	12.03	1.59	1.41
21	A2	23	G	O4'-C1'	12.03	1.59	1.41
67	B1	2829	C	O4'-C1'	12.02	1.59	1.41
67	B1	2439	G	O4'-C1'	12.01	1.59	1.41
67	B1	129	C	C2'-C1'	12.01	1.71	1.53
67	B1	476	C	C2'-C1'	-12.01	1.35	1.53
67	B1	2753	G	C2'-C1'	12.00	1.71	1.53
67	B1	1549	C	C2'-C1'	-12.00	1.35	1.53
21	A2	1444	G	C2'-C1'	-11.99	1.35	1.53
67	B1	182	U	C2'-C1'	-11.99	1.35	1.53
67	B1	1390	U	O4'-C1'	-11.98	1.23	1.41
35	BL	9	ARG	N-CA	-11.98	1.30	1.46
21	A2	162	C	O4'-C1'	11.98	1.59	1.41
21	A2	420	C	O4'-C1'	11.97	1.59	1.41
67	B1	215	A	C2'-C1'	11.97	1.71	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2254	U	O4'-C1'	11.97	1.59	1.41
67	B1	3001	C	O4'-C1'	11.97	1.59	1.41
21	A2	583	G	O4'-C1'	11.96	1.59	1.41
67	B1	447	G	C2'-C1'	-11.96	1.35	1.53
67	B1	2129	G	C2'-C1'	-11.96	1.35	1.53
67	B1	1699	U	C2'-C1'	-11.96	1.35	1.53
21	A2	117	C	C2'-C1'	-11.96	1.35	1.53
67	B1	2790	C	O4'-C1'	11.96	1.59	1.41
67	B1	1432	C	O4'-C1'	11.95	1.59	1.41
67	B1	888	U	C2'-C1'	-11.95	1.35	1.53
67	B1	1500	C	O4'-C1'	11.95	1.59	1.41
67	B1	161	C	O4'-C1'	11.94	1.59	1.41
67	B1	1552	C	O4'-C1'	11.94	1.59	1.41
67	B1	1694	G	C2'-C1'	-11.94	1.35	1.53
21	A2	593	G	C2'-C1'	-11.93	1.35	1.53
67	B1	2303	A	O4'-C1'	11.93	1.59	1.41
67	B1	2927	A	O4'-C1'	11.92	1.59	1.41
67	B1	1454	G	O4'-C1'	-11.92	1.24	1.42
67	B1	2410	U	O4'-C1'	11.91	1.59	1.42
35	BL	10	LYS	CA-C	11.91	1.68	1.52
67	B1	800	G	C2'-C1'	-11.91	1.35	1.53
67	B1	2081	C	O4'-C1'	11.91	1.59	1.41
67	B1	2881	G	C2'-C1'	-11.91	1.35	1.53
67	B1	2375	C	O4'-C1'	11.90	1.59	1.41
27	A0	61	C	O4'-C1'	11.90	1.59	1.41
67	B1	324	C	C2'-C1'	11.89	1.71	1.53
67	B1	2535	C	O4'-C1'	11.88	1.59	1.41
67	B1	1222	U	O4'-C1'	11.88	1.59	1.41
67	B1	2900	C	O4'-C1'	11.88	1.59	1.41
21	A2	1437	G	C2'-C1'	-11.88	1.35	1.53
67	B1	187	C	C2'-C1'	-11.87	1.35	1.53
21	A2	1219	C	O4'-C1'	11.87	1.59	1.41
67	B1	598	C	O4'-C1'	11.87	1.59	1.41
67	B1	2562	G	O4'-C1'	11.87	1.59	1.42
68	B3	41	A	C2'-C1'	-11.87	1.35	1.53
67	B1	2967	C	C2'-C1'	-11.86	1.35	1.53
67	B1	336	C	O4'-C1'	11.86	1.59	1.41
21	A2	265	C	C2'-C1'	-11.86	1.35	1.53
67	B1	1460	C	C2'-C1'	-11.85	1.35	1.53
67	B1	117	A	O4'-C1'	11.85	1.59	1.41
21	A2	694	U	C2'-C1'	11.84	1.71	1.53
67	B1	887	U	C2'-C1'	11.84	1.70	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	492	G	C2'-C1'	-11.83	1.35	1.53
67	B1	1364	C	O4'-C1'	11.81	1.59	1.41
67	B1	2486	A	O4'-C1'	11.81	1.59	1.41
21	A2	1164	A	C2'-C1'	-11.81	1.35	1.53
67	B1	486	A	C2'-C1'	11.80	1.70	1.53
67	B1	2482	G	C2'-C1'	-11.81	1.35	1.53
67	B1	1259	G	C2'-C1'	-11.80	1.35	1.53
21	A2	565	C	O4'-C1'	11.80	1.59	1.41
25	AH	85	PHE	CA-C	11.80	1.68	1.52
67	B1	513	C	C2'-C1'	-11.80	1.35	1.53
67	B1	1029	C	C2'-C1'	-11.79	1.35	1.53
21	A2	1021	C	O4'-C1'	11.79	1.59	1.41
67	B1	847	A	C2'-C1'	11.79	1.71	1.53
67	B1	2295	C	O4'-C1'	11.79	1.59	1.41
11	A1	2	G	C2'-C1'	-11.78	1.35	1.53
21	A2	1153	G	C2'-C1'	-11.78	1.35	1.53
11	A1	35	G	O4'-C1'	11.78	1.59	1.41
21	A2	943	C	O4'-C1'	11.78	1.59	1.41
67	B1	2721	C	O4'-C1'	11.77	1.59	1.41
67	B1	1916	U	O4'-C1'	11.77	1.59	1.41
21	A2	418	G	C2'-C1'	11.76	1.71	1.53
21	A2	1100	G	O4'-C1'	11.76	1.59	1.41
21	A2	87	C	C2'-C1'	-11.76	1.35	1.53
21	A2	693	C	C2'-C1'	-11.76	1.35	1.53
67	B1	1499	C	C2'-C1'	-11.75	1.35	1.53
67	B1	2006	C	C2'-C1'	-11.75	1.35	1.53
21	A2	314	G	C2'-C1'	-11.75	1.35	1.53
21	A2	967	C	O4'-C1'	11.74	1.59	1.41
67	B1	1404	G	C2'-C1'	-11.74	1.35	1.53
21	A2	930	G	C2'-C1'	-11.74	1.35	1.53
67	B1	1724	A	O4'-C1'	11.74	1.59	1.41
67	B1	2688	C	O4'-C1'	11.74	1.59	1.41
21	A2	941	C	C2'-C1'	-11.73	1.35	1.53
67	B1	963	G	C2'-C1'	-11.73	1.35	1.53
68	B3	13	C	O4'-C1'	11.72	1.59	1.41
21	A2	738	C	O4'-C1'	11.72	1.59	1.41
67	B1	2300	C	O4'-C1'	11.72	1.59	1.41
67	B1	1080	G	C2'-C1'	11.72	1.71	1.53
67	B1	2069	G	O4'-C1'	11.71	1.59	1.41
67	B1	2364	G	C2'-C1'	-11.71	1.35	1.53
67	B1	2555	C	O4'-C1'	11.71	1.59	1.41
67	B1	1054	A	C2'-C1'	-11.71	1.35	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2292	A	O4'-C1'	11.71	1.59	1.41
67	B1	2314	U	O4'-C1'	11.71	1.59	1.41
21	A2	485	A	C2'-C1'	11.70	1.70	1.53
67	B1	115	C	C2'-C1'	-11.70	1.35	1.53
21	A2	425	C	O4'-C1'	11.70	1.59	1.41
67	B1	1700	U	C2'-C1'	11.70	1.70	1.53
67	B1	2529	G	O4'-C1'	11.70	1.59	1.41
67	B1	1011	A	O4'-C1'	11.69	1.59	1.41
67	B1	1339	C	C2'-C1'	-11.69	1.35	1.53
21	A2	1196	A	O4'-C1'	11.69	1.59	1.41
21	A2	1424	G	O4'-C1'	11.69	1.59	1.41
67	B1	2207	C	O4'-C1'	11.69	1.59	1.41
67	B1	1164	C	O4'-C1'	11.68	1.59	1.42
21	A2	674	C	O4'-C1'	11.68	1.59	1.41
21	A2	733	C	O4'-C1'	11.68	1.59	1.41
27	A0	43	G	C2'-C1'	-11.68	1.35	1.53
67	B1	474	G	O4'-C1'	11.68	1.59	1.42
67	B1	1307	C	O4'-C1'	11.68	1.59	1.41
67	B1	2774	C	O4'-C1'	11.67	1.59	1.41
21	A2	750	C	O4'-C1'	11.67	1.59	1.41
21	A2	329	G	C2'-C1'	-11.66	1.35	1.53
21	A2	1386	C	O4'-C1'	11.66	1.59	1.41
56	BH	18	GLY	C-N	-11.66	1.19	1.33
67	B1	138	U	O4'-C1'	11.66	1.59	1.41
67	B1	39	C	O4'-C1'	11.65	1.59	1.41
67	B1	1313	G	O4'-C1'	-11.65	1.24	1.41
67	B1	610	C	C2'-C1'	-11.64	1.35	1.53
67	B1	1468	G	O4'-C1'	11.64	1.59	1.42
67	B1	923	A	C2'-C1'	11.64	1.70	1.53
21	A2	366	C	C2'-C1'	-11.64	1.35	1.53
21	A2	1263	C	O4'-C1'	11.64	1.59	1.41
67	B1	973	C	C2'-C1'	-11.64	1.35	1.53
21	A2	50	C	O4'-C1'	11.64	1.59	1.41
67	B1	684	G	C2'-C1'	-11.63	1.35	1.53
67	B1	2801	G	O4'-C1'	11.63	1.59	1.41
21	A2	13	C	C2'-C1'	-11.62	1.35	1.53
67	B1	1098	C	C2'-C1'	-11.62	1.35	1.53
67	B1	2101	A	O4'-C1'	11.62	1.59	1.41
21	A2	703	U	C2'-C1'	11.62	1.70	1.53
67	B1	1835	A	O4'-C1'	11.62	1.59	1.41
67	B1	2260	C	C2'-C1'	-11.62	1.35	1.53
21	A2	666	G	C2'-C1'	-11.62	1.35	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1047	U	C2'-C1'	-11.62	1.35	1.53
67	B1	928	A	O4'-C1'	11.61	1.59	1.42
68	B3	70	C	O4'-C1'	11.61	1.59	1.41
67	B1	2215	U	O4'-C1'	11.60	1.59	1.42
67	B1	1369	G	C2'-C1'	-11.60	1.35	1.53
21	A2	165	U	O4'-C1'	11.59	1.59	1.41
67	B1	1355	A	O4'-C1'	11.58	1.59	1.41
68	B3	8	C	C2'-C1'	11.58	1.70	1.53
67	B1	2048	C	O4'-C1'	11.58	1.59	1.41
67	B1	2089	C	C2'-C1'	-11.58	1.35	1.53
67	B1	1297	C	C2'-C1'	-11.58	1.35	1.53
67	B1	2834	C	O4'-C1'	11.58	1.59	1.41
21	A2	564	C	O4'-C1'	11.57	1.59	1.41
67	B1	528	G	C2'-C1'	-11.57	1.35	1.53
67	B1	1261	C	O4'-C1'	11.57	1.59	1.41
67	B1	2009	G	C2'-C1'	-11.57	1.35	1.53
67	B1	2338	A	O4'-C1'	11.57	1.59	1.42
18	AF	217	MET	C-O	-11.57	1.00	1.23
67	B1	2176	G	C2'-C1'	-11.56	1.36	1.53
21	A2	699	C	C2'-C1'	-11.55	1.36	1.53
21	A2	1439	G	C2'-C1'	11.55	1.70	1.53
55	Bh	24	ILE	C-O	-11.55	1.00	1.23
67	B1	48	G	C2'-C1'	11.55	1.70	1.53
67	B1	216	A	C2'-C1'	11.55	1.70	1.53
67	B1	2858	C	C2'-C1'	-11.55	1.36	1.53
67	B1	3013	U	C2'-C1'	-11.55	1.35	1.53
67	B1	1586	G	C2'-C1'	-11.55	1.36	1.53
67	B1	1698	G	C2'-C1'	-11.55	1.36	1.53
67	B1	2627	C	O4'-C1'	11.55	1.58	1.41
21	A2	59	C	O4'-C1'	11.55	1.58	1.41
67	B1	2381	A	C5'-C4'	11.54	1.68	1.51
21	A2	980	C	O4'-C1'	11.54	1.58	1.41
67	B1	2353	C	O4'-C1'	11.54	1.58	1.41
67	B1	2766	C	C2'-C1'	-11.54	1.36	1.53
67	B1	937	A	O4'-C1'	11.54	1.58	1.41
67	B1	2796	C	O4'-C1'	11.53	1.58	1.41
55	Bh	24	ILE	C-OXT	-11.53	1.00	1.23
67	B1	1473	C	C2'-C1'	-11.53	1.36	1.53
21	A2	262	G	O4'-C1'	11.52	1.58	1.41
21	A2	1170	C	O4'-C1'	11.52	1.58	1.41
67	B1	924	A	C2'-C1'	11.52	1.70	1.53
67	B1	1646	G	C2'-C1'	11.52	1.70	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	926	C	C2'-C1'	-11.51	1.36	1.53
21	A2	236	C	O4'-C1'	11.50	1.58	1.41
21	A2	324	C	O4'-C1'	-11.50	1.24	1.42
21	A2	168	G	C2'-C1'	-11.50	1.36	1.53
67	B1	1200	A	C2'-C1'	11.50	1.70	1.53
21	A2	1259	A	C2'-C1'	-11.50	1.36	1.53
21	A2	1328	G	C2'-C1'	-11.50	1.36	1.53
67	B1	1424	G	C2'-C1'	-11.50	1.36	1.53
67	B1	544	A	O4'-C1'	11.50	1.59	1.42
27	A0	48	C	O4'-C1'	11.49	1.59	1.42
67	B1	2824	C	O4'-C1'	11.49	1.58	1.41
67	B1	204	G	C2'-C1'	11.49	1.70	1.53
21	A2	144	G	O4'-C1'	11.49	1.58	1.41
21	A2	354	G	C2'-C1'	-11.49	1.36	1.53
21	A2	1054	A	O4'-C1'	11.49	1.58	1.41
21	A2	1223	C	C2'-C1'	-11.48	1.36	1.53
67	B1	671	G	C2'-C1'	-11.48	1.36	1.53
67	B1	32	C	O4'-C1'	11.47	1.58	1.41
67	B1	115	C	O4'-C1'	11.47	1.58	1.41
67	B1	1783	U	C2'-C1'	-11.47	1.35	1.53
67	B1	1906	G	O4'-C1'	-11.47	1.24	1.41
67	B1	740	C	O4'-C1'	11.46	1.58	1.41
67	B1	1158	G	O4'-C1'	11.46	1.58	1.41
67	B1	2772	U	O4'-C1'	11.46	1.58	1.41
67	B1	2091	U	O4'-C1'	11.46	1.58	1.41
21	A2	473	A	C2'-C1'	-11.46	1.36	1.53
67	B1	603	G	C2'-C1'	-11.46	1.36	1.53
67	B1	1388	U	O4'-C1'	11.46	1.58	1.41
21	A2	135	U	C2'-C1'	-11.45	1.36	1.53
67	B1	1681	G	C2'-C1'	-11.45	1.36	1.53
21	A2	104	A	O4'-C1'	11.45	1.58	1.41
67	B1	1760	C	O4'-C1'	11.45	1.58	1.41
21	A2	787	U	C2'-C1'	-11.44	1.36	1.53
21	A2	189	C	O4'-C1'	11.44	1.58	1.41
67	B1	1913	C	O4'-C1'	11.44	1.58	1.41
67	B1	2791	C	O4'-C1'	11.43	1.58	1.41
67	B1	1070	G	O4'-C1'	11.43	1.59	1.42
67	B1	1115	A	O4'-C1'	11.43	1.58	1.41
67	B1	1023	C	O4'-C1'	11.43	1.58	1.41
67	B1	1673	C	C2'-C1'	-11.43	1.36	1.53
21	A2	26	A	O4'-C1'	11.43	1.58	1.41
21	A2	1400	A	O4'-C1'	11.42	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
68	B3	47	G	C2'-C1'	-11.42	1.36	1.53
67	B1	2311	C	O4'-C1'	11.42	1.58	1.41
21	A2	112	G	O4'-C1'	11.41	1.58	1.41
21	A2	1059	C	O4'-C1'	11.41	1.58	1.41
67	B1	1402	C	O4'-C1'	11.41	1.58	1.41
67	B1	2112	C	O4'-C1'	11.41	1.58	1.41
67	B1	2638	G	C2'-C1'	-11.41	1.36	1.53
21	A2	481	C	O4'-C1'	11.40	1.58	1.41
67	B1	2914	U	O4'-C1'	11.40	1.58	1.41
67	B1	1637	C	O4'-C1'	11.40	1.58	1.41
67	B1	729	A	C2'-C1'	-11.39	1.36	1.53
67	B1	731	C	O4'-C1'	11.39	1.58	1.41
67	B1	1370	G	C2'-C1'	-11.39	1.36	1.53
21	A2	1234	A	C2'-C1'	-11.38	1.36	1.53
67	B1	1287	G	O4'-C1'	11.38	1.58	1.41
21	A2	46	A	O4'-C1'	-11.38	1.24	1.42
67	B1	439	G	O4'-C1'	11.38	1.58	1.41
67	B1	727	A	C2'-C1'	-11.38	1.36	1.53
67	B1	2490	C	C2'-C1'	-11.38	1.36	1.53
21	A2	698	A	C2'-C1'	-11.38	1.36	1.53
67	B1	2833	G	O4'-C1'	11.37	1.58	1.41
67	B1	1259	G	O4'-C1'	11.37	1.58	1.41
67	B1	2214	U	O4'-C1'	11.37	1.58	1.41
21	A2	616	G	C2'-C1'	-11.36	1.36	1.53
68	B3	40	G	O4'-C1'	11.36	1.58	1.41
21	A2	1448	A	C2'-C1'	11.36	1.70	1.53
21	A2	1020	G	O4'-C1'	11.35	1.58	1.41
67	B1	2502	C	O4'-C1'	11.35	1.58	1.41
27	A0	47	U	O4'-C1'	-11.35	1.24	1.41
21	A2	862	C	O4'-C1'	11.34	1.58	1.41
67	B1	1187	A	C2'-C1'	-11.34	1.36	1.53
67	B1	1576	C	C2'-C1'	-11.34	1.36	1.53
21	A2	1115	G	C2'-C1'	-11.34	1.36	1.53
67	B1	2015	G	O4'-C1'	11.33	1.58	1.41
67	B1	2722	G	C2'-C1'	-11.33	1.36	1.53
67	B1	1495	A	C2'-C1'	-11.33	1.36	1.53
67	B1	2848	C	C2'-C1'	-11.33	1.36	1.53
67	B1	729	A	O4'-C1'	11.32	1.58	1.41
21	A2	96	G	O4'-C1'	11.32	1.58	1.41
21	A2	299	G	O4'-C1'	-11.32	1.24	1.41
67	B1	2599	C	O4'-C1'	11.32	1.58	1.41
21	A2	1308	U	O4'-C1'	11.31	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2541	U	O4'-C1'	11.31	1.58	1.41
67	B1	2296	A	C2'-C1'	-11.30	1.36	1.53
67	B1	2447	A	O4'-C1'	11.29	1.58	1.42
67	B1	449	G	O4'-C1'	11.29	1.58	1.41
21	A2	1336	U	O4'-C1'	-11.29	1.24	1.41
67	B1	2556	C	O4'-C1'	11.29	1.58	1.41
67	B1	359	C	O4'-C1'	11.28	1.58	1.41
11	A1	69	G	C2'-C1'	-11.28	1.36	1.53
21	A2	841	C	C2'-C1'	-11.28	1.36	1.53
21	A2	1406	U	C2'-C1'	11.28	1.70	1.53
67	B1	456	G	C2'-C1'	-11.28	1.36	1.53
67	B1	2211	C	O4'-C1'	11.27	1.58	1.41
11	A1	17	C	O4'-C1'	11.27	1.58	1.41
21	A2	83	C	O4'-C1'	11.27	1.58	1.41
67	B1	351	C	O4'-C1'	11.27	1.58	1.42
67	B1	1042	G	C2'-C1'	11.26	1.70	1.53
67	B1	1383	G	C2'-C1'	-11.26	1.36	1.53
67	B1	2421	A	C2'-C1'	-11.25	1.36	1.53
67	B1	1795	C	O4'-C1'	11.25	1.58	1.41
67	B1	2197	U	O4'-C1'	11.25	1.58	1.41
67	B1	2967	C	O4'-C1'	11.25	1.58	1.41
67	B1	1651	A	C2'-C1'	-11.24	1.36	1.53
67	B1	764	G	C2'-C1'	11.23	1.70	1.53
21	A2	163	C	O4'-C1'	11.23	1.58	1.41
67	B1	2327	C	O4'-C1'	11.23	1.58	1.41
67	B1	1674	G	O4'-C1'	-11.23	1.24	1.41
67	B1	1571	G	C2'-C1'	-11.23	1.36	1.53
67	B1	2167	C	O4'-C1'	11.21	1.58	1.41
67	B1	2613	C	O4'-C1'	11.21	1.58	1.41
67	B1	1072	U	C2'-C1'	11.21	1.70	1.53
67	B1	1515	G	C2'-C1'	-11.21	1.36	1.53
67	B1	1732	C	O4'-C1'	11.21	1.58	1.41
67	B1	2065	C	O4'-C1'	11.20	1.58	1.41
67	B1	2257	A	O4'-C1'	-11.20	1.24	1.41
67	B1	1328	G	O4'-C1'	11.20	1.58	1.42
67	B1	2808	C	C2'-C1'	-11.20	1.36	1.53
67	B1	1525	G	O4'-C1'	11.19	1.58	1.41
21	A2	168	G	O4'-C1'	11.19	1.58	1.41
21	A2	700	G	C2'-C1'	-11.18	1.36	1.53
33	BC	92	GLY	CA-C	-11.18	1.40	1.51
21	A2	175	G	C2'-C1'	11.18	1.70	1.53
67	B1	473	C	C2'-C1'	-11.18	1.36	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1084	G	C2'-C1'	-11.17	1.36	1.53
67	B1	2610	C	O4'-C1'	11.17	1.58	1.41
27	A0	38	A	C2'-C1'	-11.16	1.36	1.53
67	B1	431	U	O4'-C1'	11.16	1.58	1.41
67	B1	513	C	O4'-C1'	11.16	1.58	1.42
11	A1	41	C	O4'-C1'	11.16	1.58	1.41
21	A2	1117	A	C2'-C1'	-11.15	1.36	1.53
21	A2	1431	C	O4'-C1'	11.15	1.58	1.41
67	B1	2099	G	C2'-C1'	-11.15	1.36	1.53
67	B1	2940	C	O4'-C1'	11.15	1.58	1.41
67	B1	1308	G	C2'-C1'	-11.14	1.36	1.53
67	B1	2622	C	C2'-C1'	-11.14	1.36	1.53
21	A2	636	G	C2'-C1'	-11.14	1.36	1.53
67	B1	2958	U	C2'-C1'	11.14	1.69	1.53
21	A2	1365	G	C2'-C1'	-11.14	1.36	1.53
67	B1	2776	A	C2'-C1'	-11.13	1.36	1.53
21	A2	383	C	C2'-C1'	-11.13	1.36	1.53
67	B1	2537	G	C2'-C1'	-11.13	1.36	1.53
67	B1	952	C	O4'-C1'	11.12	1.58	1.41
68	B3	58	C	O4'-C1'	11.12	1.58	1.41
21	A2	1369	C	O4'-C1'	11.12	1.58	1.41
67	B1	494	C	O4'-C1'	11.12	1.58	1.42
67	B1	790	U	C2'-C1'	-11.11	1.36	1.53
67	B1	2409	C	O4'-C1'	11.11	1.58	1.41
67	B1	708	A	C2'-C1'	-11.11	1.36	1.53
67	B1	1754	A	O4'-C1'	-11.11	1.25	1.41
20	A3	122	MET	CA-C	-11.11	1.37	1.52
67	B1	1344	C	O4'-C1'	11.10	1.58	1.41
67	B1	1297	C	O4'-C1'	11.10	1.58	1.41
67	B1	78	C	O4'-C1'	11.09	1.58	1.41
21	A2	138	C	C2'-C1'	-11.09	1.36	1.53
21	A2	1465	C	O4'-C1'	11.09	1.58	1.41
67	B1	160	C	C2'-C1'	-11.09	1.36	1.53
62	BN	127	LYS	CA-C	11.09	1.59	1.53
21	A2	329	G	O4'-C1'	11.08	1.58	1.41
21	A2	473	A	O4'-C1'	11.07	1.58	1.41
67	B1	1711	C	C2'-C1'	11.07	1.69	1.53
67	B1	2651	G	O4'-C1'	11.07	1.58	1.41
23	AT	111	LYS	CA-C	-11.06	1.38	1.52
68	B3	16	G	C2'-C1'	-11.06	1.36	1.53
21	A2	1081	C	C2'-C1'	11.06	1.69	1.53
27	A0	40	C	O4'-C1'	11.05	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	89	C	O4'-C1'	11.05	1.58	1.41
67	B1	1864	G	O4'-C1'	-11.05	1.25	1.41
68	B3	69	C	O4'-C1'	11.05	1.58	1.41
21	A2	548	A	O4'-C1'	11.05	1.58	1.42
35	BL	10	LYS	N-CA	-11.04	1.32	1.46
67	B1	775	C	C2'-C1'	-11.04	1.36	1.53
67	B1	2032	G	C2'-C1'	-11.04	1.36	1.53
21	A2	363	C	C2'-C1'	11.04	1.69	1.53
67	B1	1860	A	C2'-C1'	11.03	1.69	1.53
67	B1	301	G	O4'-C1'	11.03	1.58	1.42
21	A2	1410	G	O4'-C1'	11.02	1.58	1.41
67	B1	1139	C	C2'-C1'	-11.02	1.36	1.53
67	B1	1201	G	O4'-C1'	11.02	1.58	1.41
67	B1	2159	C	O4'-C1'	11.02	1.58	1.41
67	B1	2516	G	O4'-C1'	11.02	1.58	1.41
21	A2	831	A	O4'-C1'	11.02	1.58	1.42
68	B3	38	U	C2'-C1'	-11.02	1.36	1.53
21	A2	631	C	O4'-C1'	11.02	1.58	1.41
67	B1	1492	C	O4'-C1'	11.02	1.58	1.41
27	A0	2	C	O4'-C1'	11.01	1.58	1.41
21	A2	1239	A	C2'-C1'	-11.01	1.36	1.53
67	B1	418	C	C2'-C1'	-11.01	1.36	1.53
21	A2	895	C	O4'-C1'	11.00	1.58	1.41
67	B1	1059	C	O4'-C1'	10.99	1.58	1.41
21	A2	409	C	C2'-C1'	-10.99	1.36	1.53
21	A2	1402	C	O4'-C1'	10.98	1.58	1.41
67	B1	2395	C	O4'-C1'	10.98	1.58	1.41
67	B1	750	C	O4'-C1'	10.98	1.58	1.41
67	B1	1084	G	O4'-C1'	10.98	1.58	1.41
11	A1	67	C	O4'-C1'	10.97	1.58	1.41
67	B1	903	C	O4'-C1'	10.97	1.58	1.41
67	B1	492	A	C2'-C1'	10.97	1.69	1.53
67	B1	2395	C	C2'-C1'	-10.97	1.36	1.53
21	A2	362	C	C2'-C1'	-10.96	1.36	1.53
67	B1	1172	U	O4'-C1'	10.96	1.58	1.41
68	B3	53	A	C2'-C1'	-10.96	1.36	1.53
67	B1	2632	C	C2'-C1'	10.96	1.69	1.53
21	A2	699	C	O4'-C1'	10.95	1.58	1.41
67	B1	1984	G	O4'-C1'	10.95	1.58	1.41
21	A2	801	A	O4'-C1'	-10.95	1.25	1.42
38	Bb	33	LYS	CA-C	-10.94	1.39	1.52
67	B1	824	C	O4'-C1'	10.95	1.58	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2133	G	C2'-C1'	-10.94	1.36	1.53
21	A2	456	U	C2'-C1'	-10.93	1.36	1.53
67	B1	2122	G	C2'-C1'	-10.93	1.36	1.53
67	B1	1102	C	O4'-C1'	10.93	1.58	1.41
67	B1	1928	A	C2'-C1'	-10.92	1.36	1.53
67	B1	125	C	O4'-C1'	10.92	1.58	1.41
67	B1	1188	C	C2'-C1'	-10.91	1.36	1.53
21	A2	660	C	C2'-C1'	-10.91	1.36	1.53
67	B1	2647	G	C2'-C1'	-10.90	1.36	1.53
67	B1	866	G	C2'-C1'	-10.90	1.37	1.53
67	B1	493	A	C2'-C1'	-10.90	1.36	1.53
67	B1	2136	G	C2'-C1'	-10.90	1.37	1.53
21	A2	96	G	C2'-C1'	-10.89	1.37	1.53
67	B1	1963	G	C2'-C1'	-10.89	1.37	1.53
67	B1	207	A	O4'-C1'	10.89	1.57	1.41
67	B1	826	C	O4'-C1'	10.89	1.57	1.41
67	B1	1934	C	C2'-C1'	-10.89	1.37	1.53
67	B1	2068	U	C2'-C1'	10.89	1.69	1.53
11	A1	74	A	C2'-C1'	-10.89	1.37	1.53
67	B1	1057	C	O4'-C1'	10.88	1.57	1.41
21	A2	1162	G	C2'-C1'	-10.88	1.37	1.53
67	B1	181	U	C2'-C1'	10.88	1.69	1.53
67	B1	2837	C	O4'-C1'	10.88	1.57	1.41
67	B1	1138	C	O4'-C1'	10.88	1.57	1.41
67	B1	634	G	C2'-C1'	10.88	1.69	1.53
67	B1	2288	C	C2'-C1'	-10.88	1.37	1.53
67	B1	2326	C	C2'-C1'	-10.88	1.37	1.53
67	B1	2010	G	C2'-C1'	-10.87	1.37	1.53
67	B1	51	G	O4'-C1'	10.86	1.58	1.42
27	A0	39	U	O4'-C1'	10.86	1.57	1.41
67	B1	1223	A	O4'-C1'	10.86	1.57	1.41
67	B1	2342	C	O4'-C1'	10.86	1.57	1.41
67	B1	2739	G	C2'-C1'	-10.85	1.37	1.53
67	B1	2630	C	O4'-C1'	10.85	1.57	1.41
67	B1	2684	G	C2'-C1'	-10.85	1.37	1.53
21	A2	1463	A	O4'-C1'	10.84	1.57	1.41
68	B3	13	C	C2'-C1'	-10.84	1.37	1.53
67	B1	85	G	C2'-C1'	-10.84	1.37	1.53
67	B1	367	G	O4'-C1'	-10.83	1.25	1.41
67	B1	12	C	O4'-C1'	10.83	1.57	1.41
67	B1	768	C	O4'-C1'	10.83	1.57	1.41
67	B1	2215	U	C2'-C1'	-10.83	1.36	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2871	A	C2'-C1'	10.83	1.69	1.53
67	B1	1059	C	C2'-C1'	-10.82	1.37	1.53
67	B1	1616	A	O4'-C1'	-10.82	1.25	1.41
67	B1	1820	C	O4'-C1'	10.82	1.57	1.41
67	B1	1089	C	O4'-C1'	10.81	1.57	1.41
67	B1	1747	C	C2'-C1'	-10.81	1.37	1.53
67	B1	459	C	O4'-C1'	10.81	1.57	1.41
67	B1	2907	C	O4'-C1'	10.81	1.57	1.41
67	B1	1817	C	O4'-C1'	10.80	1.57	1.41
21	A2	1340	U	O4'-C1'	10.80	1.57	1.41
67	B1	254	A	O4'-C1'	10.80	1.58	1.42
67	B1	2322	A	O4'-C1'	10.80	1.57	1.41
67	B1	90	A	O4'-C1'	10.78	1.58	1.42
21	A2	1147	G	C2'-C1'	-10.78	1.37	1.53
67	B1	2392	A	O4'-C1'	10.78	1.57	1.41
11	A1	47	G	C2'-C1'	10.78	1.69	1.53
21	A2	365	C	O4'-C1'	10.78	1.57	1.41
67	B1	274	C	C2'-C1'	-10.78	1.37	1.53
67	B1	1082	A	O4'-C1'	10.78	1.58	1.42
21	A2	60	A	C2'-C1'	10.77	1.69	1.53
21	A2	110	C	O4'-C1'	10.76	1.57	1.41
21	A2	337	C	C2'-C1'	-10.76	1.37	1.53
67	B1	2213	G	C2'-C1'	-10.76	1.37	1.53
67	B1	2088	G	C2'-C1'	-10.76	1.36	1.53
21	A2	1449	G	O4'-C1'	10.75	1.57	1.41
67	B1	661	G	C2'-C1'	-10.75	1.37	1.53
21	A2	1451	C	O4'-C1'	10.74	1.57	1.41
21	A2	563	U	O4'-C1'	10.74	1.57	1.41
21	A2	1303	C	O4'-C1'	10.74	1.57	1.41
67	B1	2052	A	O4'-C1'	-10.74	1.25	1.41
67	B1	434	G	O4'-C1'	10.74	1.57	1.41
21	A2	1066	C	C2'-C1'	-10.73	1.37	1.53
67	B1	2448	A	O4'-C1'	-10.73	1.25	1.41
67	B1	178	G	C2'-C1'	-10.73	1.37	1.53
21	A2	1017	U	O4'-C1'	10.73	1.58	1.42
21	A2	1026	A	C2'-C1'	-10.73	1.37	1.53
21	A2	1436	U	C2'-C1'	10.73	1.69	1.53
67	B1	1640	G	C2'-C1'	-10.71	1.37	1.53
67	B1	1908	C	O4'-C1'	10.71	1.57	1.41
21	A2	166	A	C2'-C1'	-10.71	1.37	1.53
35	BL	11	LEU	CA-C	-10.71	1.38	1.52
67	B1	122	G	C2'-C1'	-10.71	1.37	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	71	C	O4'-C1'	10.70	1.57	1.41
21	A2	1044	A	O4'-C1'	10.70	1.57	1.41
67	B1	2182	A	C2'-C1'	10.70	1.69	1.53
67	B1	451	C	O4'-C1'	10.70	1.57	1.41
21	A2	127	G	O4'-C1'	10.69	1.57	1.41
67	B1	1481	G	O4'-C1'	10.69	1.57	1.41
68	B3	74	U	O4'-C1'	10.69	1.57	1.42
21	A2	759	C	O4'-C1'	10.68	1.57	1.41
67	B1	154	U	C2'-C1'	10.68	1.69	1.53
67	B1	1305	C	O4'-C1'	10.67	1.57	1.41
21	A2	867	A	C2'-C1'	10.67	1.69	1.53
67	B1	1907	G	C2'-C1'	-10.67	1.37	1.53
21	A2	971	G	C2'-C1'	-10.66	1.37	1.53
21	A2	833	C	C2'-C1'	-10.66	1.37	1.53
21	A2	1152	C	O4'-C1'	10.66	1.57	1.41
68	B3	68	C	C2'-C1'	-10.66	1.37	1.53
67	B1	975	C	O4'-C1'	10.66	1.57	1.41
67	B1	1475	G	C2'-C1'	-10.66	1.37	1.53
67	B1	293	G	C2'-C1'	10.65	1.69	1.53
67	B1	2514	C	O4'-C1'	10.65	1.57	1.41
21	A2	670	C	O4'-C1'	10.65	1.57	1.41
21	A2	880	G	C2'-C1'	-10.65	1.37	1.53
67	B1	666	A	O4'-C1'	10.65	1.57	1.41
67	B1	2764	G	C2'-C1'	-10.65	1.37	1.53
67	B1	2776	A	O4'-C1'	10.65	1.57	1.41
59	BM	75	ARG	NE-CZ	10.64	1.44	1.33
67	B1	2380	A	C2'-C1'	-10.64	1.37	1.53
67	B1	1272	A	C2'-C1'	10.64	1.69	1.53
67	B1	1472	U	O4'-C1'	10.64	1.57	1.42
25	AH	86	MET	N-CA	10.63	1.59	1.46
67	B1	597	C	O4'-C1'	10.63	1.57	1.41
67	B1	1193	G	O4'-C1'	10.64	1.57	1.41
67	B1	855	G	O4'-C1'	-10.63	1.25	1.41
67	B1	1502	C	O4'-C1'	10.63	1.57	1.41
67	B1	1127	C	O4'-C1'	10.63	1.57	1.41
67	B1	32	C	C2'-C1'	-10.63	1.37	1.53
67	B1	463	A	C2'-C1'	-10.63	1.37	1.53
21	A2	472	C	C2'-C1'	-10.62	1.37	1.53
67	B1	452	A	C2'-C1'	-10.62	1.37	1.53
67	B1	936	G	O4'-C1'	10.62	1.57	1.42
21	A2	45	U	C2'-C1'	10.62	1.69	1.53
67	B1	1656	C	O4'-C1'	10.62	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1945	C	O4'-C1'	10.62	1.57	1.41
67	B1	922	C	O4'-C1'	10.61	1.57	1.41
67	B1	2085	C	O4'-C1'	10.61	1.57	1.41
67	B1	1794	C	C2'-C1'	-10.61	1.37	1.53
67	B1	392	G	C2'-C1'	-10.60	1.37	1.53
67	B1	1030	C	O4'-C1'	10.59	1.57	1.41
67	B1	2895	G	O4'-C1'	10.59	1.57	1.41
21	A2	1310	C	O4'-C1'	10.59	1.57	1.41
67	B1	571	G	C2'-C1'	-10.58	1.37	1.53
67	B1	152	G	C2'-C1'	10.58	1.69	1.53
21	A2	31	U	O4'-C1'	10.58	1.57	1.41
67	B1	44	C	C2'-C1'	-10.58	1.37	1.53
67	B1	2989	A	C2'-C1'	-10.58	1.37	1.53
21	A2	280	C	C2'-C1'	-10.57	1.37	1.53
21	A2	511	C	O4'-C1'	10.57	1.57	1.41
21	A2	1185	A	C2'-C1'	-10.57	1.37	1.53
21	A2	1295	C	O4'-C1'	10.57	1.57	1.41
67	B1	2868	C	O4'-C1'	10.57	1.57	1.41
67	B1	1763	A	C2'-C1'	-10.57	1.37	1.53
21	A2	1076	G	C2'-C1'	-10.57	1.37	1.53
67	B1	1335	C	O4'-C1'	10.57	1.57	1.41
67	B1	1511	C	C2'-C1'	-10.56	1.37	1.53
21	A2	181	G	O4'-C1'	10.55	1.57	1.41
67	B1	2677	U	O4'-C1'	10.55	1.57	1.41
21	A2	1348	C	C2'-C1'	-10.55	1.37	1.53
21	A2	1024	G	C2'-C1'	-10.54	1.37	1.53
67	B1	2842	C	O4'-C1'	10.54	1.57	1.41
67	B1	1106	C	C2'-C1'	-10.54	1.37	1.53
67	B1	1603	G	C2'-C1'	-10.54	1.37	1.53
67	B1	1838	C	C2'-C1'	-10.54	1.37	1.53
67	B1	2556	C	C2'-C1'	-10.54	1.37	1.53
21	A2	1367	C	O4'-C1'	10.54	1.57	1.41
21	A2	1035	C	C2'-C1'	-10.54	1.37	1.53
67	B1	2951	G	C2'-C1'	-10.54	1.37	1.53
21	A2	1470	G	C2'-C1'	-10.53	1.37	1.53
27	A0	50	C	C2'-C1'	-10.53	1.37	1.53
67	B1	2824	C	C2'-C1'	-10.53	1.37	1.53
21	A2	474	G	C2'-C1'	-10.53	1.37	1.53
67	B1	1484	U	C2'-C1'	-10.53	1.37	1.53
21	A2	878	U	C2'-C1'	-10.53	1.37	1.53
67	B1	2722	G	O4'-C1'	10.53	1.57	1.41
67	B1	1948	A	O4'-C1'	10.52	1.57	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	A1	71	C	C2'-C1'	-10.52	1.37	1.53
67	B1	2713	A	C2'-C1'	10.52	1.69	1.53
67	B1	1121	C	O4'-C1'	10.52	1.57	1.41
67	B1	1953	U	C2'-C1'	-10.52	1.37	1.53
21	A2	532	C	O4'-C1'	10.51	1.57	1.41
21	A2	953	C	O4'-C1'	10.51	1.57	1.41
21	A2	294	A	C2'-C1'	-10.51	1.37	1.53
21	A2	652	C	C2'-C1'	-10.51	1.37	1.53
27	A0	68	G	C2'-C1'	-10.51	1.37	1.53
67	B1	1545	C	O4'-C1'	10.51	1.57	1.41
67	B1	359	C	C2'-C1'	-10.50	1.37	1.53
44	BW	67	LYS	C-N	10.50	1.47	1.33
67	B1	2879	G	O4'-C1'	10.50	1.57	1.41
21	A2	627	G	C2'-C1'	-10.50	1.37	1.53
67	B1	2431	C	O4'-C1'	10.49	1.57	1.41
67	B1	2073	G	C2'-C1'	-10.48	1.37	1.53
21	A2	292	U	O4'-C1'	10.48	1.57	1.41
67	B1	344	G	C2'-C1'	-10.48	1.37	1.53
21	A2	1472	G	C2'-C1'	-10.48	1.37	1.53
67	B1	730	C	O4'-C1'	10.48	1.57	1.41
67	B1	797	C	O4'-C1'	10.48	1.57	1.41
67	B1	961	C	O4'-C1'	10.47	1.57	1.41
67	B1	1550	C	O4'-C1'	10.47	1.57	1.41
25	AH	103	VAL	CA-C	-10.45	1.40	1.52
67	B1	1736	G	O4'-C1'	10.45	1.57	1.41
21	A2	167	G	O4'-C1'	10.45	1.57	1.41
67	B1	1593	C	O4'-C1'	10.45	1.57	1.41
67	B1	2223	G	O4'-C1'	-10.45	1.25	1.41
67	B1	2607	U	C2'-C1'	10.45	1.69	1.53
67	B1	466	C	C2'-C1'	-10.44	1.37	1.53
68	B3	31	U	O4'-C1'	10.44	1.57	1.41
21	A2	681	G	C2'-C1'	10.44	1.69	1.53
67	B1	211	A	O4'-C1'	10.44	1.57	1.42
67	B1	737	G	C2'-C1'	-10.44	1.37	1.53
67	B1	2783	C	O4'-C1'	10.43	1.57	1.41
67	B1	2822	G	C2'-C1'	-10.43	1.37	1.53
21	A2	715	C	C2'-C1'	-10.43	1.37	1.53
67	B1	1429	A	C2'-C1'	10.42	1.68	1.53
67	B1	2816	C	O4'-C1'	10.42	1.57	1.41
67	B1	484	C	O4'-C1'	10.41	1.57	1.41
21	A2	279	U	C2'-C1'	-10.41	1.37	1.53
67	B1	300	U	O4'-C1'	10.41	1.57	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1141	C	C2'-C1'	-10.41	1.37	1.53
67	B1	2867	U	O4'-C1'	10.40	1.57	1.41
67	B1	546	C	O4'-C1'	10.39	1.57	1.41
21	A2	634	C	O4'-C1'	10.39	1.57	1.41
68	B3	5	G	C2'-C1'	-10.39	1.37	1.53
67	B1	2683	G	C2'-C1'	-10.39	1.37	1.53
67	B1	1184	U	O4'-C1'	-10.39	1.26	1.41
21	A2	387	G	O4'-C1'	10.38	1.57	1.41
67	B1	173	G	C2'-C1'	-10.38	1.37	1.53
21	A2	229	G	C2'-C1'	-10.37	1.37	1.53
67	B1	112	U	O4'-C1'	10.37	1.57	1.41
67	B1	1902	G	O4'-C1'	10.37	1.57	1.41
67	B1	2044	C	O4'-C1'	10.37	1.57	1.41
67	B1	1820	C	C2'-C1'	-10.36	1.37	1.53
21	A2	6	G	C2'-C1'	-10.36	1.37	1.53
21	A2	834	C	O4'-C1'	10.36	1.57	1.41
67	B1	408	C	C2'-C1'	-10.36	1.37	1.53
67	B1	2218	C	O4'-C1'	10.36	1.57	1.41
67	B1	2319	C	C2'-C1'	-10.36	1.37	1.53
67	B1	1567	C	P-O5'	10.36	1.75	1.59
67	B1	2529	G	C2'-C1'	-10.36	1.37	1.53
21	A2	632	C	O4'-C1'	10.36	1.57	1.41
67	B1	2475	G	C2'-C1'	-10.35	1.37	1.53
21	A2	464	G	C2'-C1'	-10.35	1.37	1.53
67	B1	2945	A	C2'-C1'	-10.35	1.37	1.53
21	A2	264	C	O4'-C1'	10.34	1.57	1.41
67	B1	1395	G	C2'-C1'	-10.34	1.37	1.53
21	A2	792	C	C2'-C1'	-10.34	1.37	1.53
67	B1	1377	G	C2'-C1'	-10.34	1.37	1.53
67	B1	1156	G	O4'-C1'	10.34	1.57	1.42
67	B1	166	G	O4'-C1'	-10.33	1.26	1.42
21	A2	830	A	O4'-C1'	10.33	1.57	1.42
67	B1	297	G	C2'-C1'	-10.33	1.37	1.53
67	B1	676	G	O4'-C1'	10.33	1.57	1.41
21	A2	373	C	C2'-C1'	-10.32	1.37	1.53
21	A2	698	A	O4'-C1'	10.32	1.57	1.41
67	B1	2696	G	O4'-C1'	-10.32	1.26	1.42
21	A2	437	A	C2'-C1'	-10.31	1.37	1.53
67	B1	1799	G	C2'-C1'	-10.31	1.37	1.53
67	B1	1955	U	C2'-C1'	10.31	1.68	1.53
21	A2	4	C	C2'-C1'	10.31	1.68	1.53
68	B3	79	U	C2'-C1'	10.31	1.68	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
68	B3	3	G	O4'-C1'	10.31	1.57	1.41
67	B1	980	G	O4'-C1'	10.30	1.57	1.41
67	B1	1428	G	O4'-C1'	10.30	1.57	1.41
67	B1	575	G	O4'-C1'	10.29	1.57	1.41
67	B1	2306	C	C2'-C1'	-10.29	1.38	1.53
11	A1	77	A	O4'-C1'	-10.29	1.26	1.42
21	A2	933	G	C2'-C1'	-10.28	1.37	1.53
21	A2	1207	G	O4'-C1'	-10.28	1.26	1.41
67	B1	362	A	O4'-C1'	-10.28	1.26	1.41
67	B1	104	C	O4'-C1'	10.27	1.57	1.41
67	B1	2906	C	O4'-C1'	10.27	1.57	1.41
67	B1	225	C	O4'-C1'	10.27	1.57	1.41
67	B1	578	C	O4'-C1'	10.27	1.57	1.41
21	A2	369	A	O4'-C1'	10.27	1.57	1.42
21	A2	1192	C	O4'-C1'	10.27	1.57	1.41
67	B1	2219	A	O4'-C1'	10.27	1.57	1.41
67	B1	2629	U	C2'-C1'	-10.27	1.38	1.53
67	B1	1547	U	C2'-C1'	10.27	1.68	1.53
67	B1	2865	C	O4'-C1'	10.27	1.57	1.41
67	B1	1327	C	O4'-C1'	10.26	1.57	1.41
67	B1	2658	G	O4'-C1'	10.26	1.57	1.41
67	B1	1228	G	C2'-C1'	10.26	1.68	1.53
21	A2	75	C	C2'-C1'	10.26	1.68	1.53
67	B1	2559	G	C2'-C1'	-10.25	1.38	1.53
67	B1	2642	C	C2'-C1'	-10.25	1.38	1.53
67	B1	2461	C	O4'-C1'	10.25	1.57	1.41
67	B1	1941	A	C2'-C1'	-10.24	1.38	1.53
21	A2	627	G	O4'-C1'	10.24	1.57	1.41
67	B1	269	C	O4'-C1'	10.24	1.57	1.41
67	B1	2094	A	C2'-C1'	-10.24	1.37	1.53
67	B1	2582	C	O4'-C1'	10.24	1.57	1.41
67	B1	2425	A	O4'-C1'	10.23	1.57	1.41
18	AF	5	TRP	CA-CB	10.23	1.69	1.53
21	A2	847	A	C2'-C1'	-10.22	1.37	1.53
68	B3	44	C	O4'-C1'	10.22	1.56	1.41
21	A2	94	C	O4'-C1'	10.22	1.56	1.41
67	B1	2843	C	O4'-C1'	10.22	1.56	1.41
67	B1	407	A	O4'-C1'	10.22	1.56	1.41
11	A1	12	U	O4'-C1'	10.22	1.56	1.41
67	B1	2490	C	O4'-C1'	10.22	1.56	1.41
67	B1	686	C	O4'-C1'	10.21	1.56	1.41
67	B1	1526	G	O4'-C1'	10.21	1.56	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	42	G	C2'-C1'	-10.21	1.37	1.53
67	B1	1675	C	C2'-C1'	-10.21	1.38	1.53
21	A2	145	A	O4'-C1'	10.20	1.56	1.41
67	B1	1979	G	C2'-C1'	-10.20	1.38	1.53
67	B1	1548	A	C2'-C1'	10.20	1.68	1.53
67	B1	1924	A	C2'-C1'	-10.20	1.38	1.53
67	B1	2273	U	C2'-C1'	-10.20	1.38	1.53
67	B1	2399	C	O4'-C1'	10.20	1.56	1.41
21	A2	1066	C	O4'-C1'	10.19	1.56	1.41
67	B1	2377	C	O4'-C1'	10.19	1.56	1.41
67	B1	936	G	C2'-C1'	-10.19	1.37	1.53
68	B3	29	G	C2'-C1'	-10.19	1.38	1.53
21	A2	116	C	O4'-C1'	10.18	1.56	1.41
67	B1	512	G	C2'-C1'	-10.18	1.38	1.53
67	B1	725	G	C2'-C1'	-10.18	1.38	1.53
33	BC	9	ARG	CD-NE	10.17	1.60	1.46
67	B1	393	C	O4'-C1'	10.17	1.56	1.41
67	B1	2145	G	C2'-C1'	10.17	1.68	1.53
67	B1	3011	G	C2'-C1'	-10.16	1.38	1.53
21	A2	841	C	O4'-C1'	10.16	1.56	1.41
21	A2	1357	C	C2'-C1'	10.16	1.68	1.53
21	A2	1177	C	O4'-C1'	10.15	1.56	1.41
67	B1	2641	C	C2'-C1'	-10.15	1.38	1.53
67	B1	1471	G	C2'-C1'	-10.15	1.38	1.53
67	B1	1204	U	O4'-C1'	10.14	1.56	1.41
21	A2	755	U	O4'-C1'	10.13	1.56	1.41
21	A2	1347	U	C2'-C1'	-10.13	1.38	1.53
67	B1	582	A	O4'-C1'	10.13	1.56	1.41
67	B1	691	G	C2'-C1'	-10.13	1.38	1.53
67	B1	2474	A	O4'-C1'	10.13	1.57	1.42
21	A2	1124	G	C2'-C1'	-10.13	1.38	1.53
67	B1	2403	G	C2'-C1'	-10.13	1.38	1.53
67	B1	307	C	O4'-C1'	10.13	1.56	1.41
21	A2	1067	G	C2'-C1'	10.12	1.68	1.53
27	A0	63	G	C2'-C1'	-10.12	1.38	1.53
67	B1	2466	C	C2'-C1'	-10.12	1.38	1.53
67	B1	2557	C	O4'-C1'	10.12	1.56	1.41
21	A2	1231	G	O4'-C1'	10.12	1.56	1.41
67	B1	1779	C	O4'-C1'	10.11	1.56	1.41
67	B1	1589	G	O4'-C1'	10.11	1.56	1.41
21	A2	20	G	C2'-C1'	-10.11	1.38	1.53
21	A2	781	U	C2'-C1'	-10.11	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	542	G	C2'-C1'	-10.11	1.38	1.53
67	B1	941	C	O4'-C1'	10.11	1.56	1.41
67	B1	624	U	O4'-C1'	10.10	1.56	1.41
67	B1	2276	G	C2'-C1'	10.10	1.68	1.53
67	B1	575	G	C2'-C1'	-10.10	1.38	1.53
67	B1	594	U	C2'-C1'	10.10	1.68	1.53
21	A2	382	G	O4'-C1'	-10.10	1.26	1.41
67	B1	1472	U	C2'-C1'	-10.10	1.38	1.53
21	A2	108	G	C2'-C1'	-10.09	1.38	1.53
21	A2	1068	C	O4'-C1'	10.09	1.56	1.41
67	B1	710	G	O4'-C1'	10.09	1.56	1.41
21	A2	116	C	C2'-C1'	-10.09	1.38	1.53
67	B1	640	C	C2'-C1'	-10.08	1.38	1.53
21	A2	548	A	C2'-C1'	-10.08	1.38	1.53
67	B1	2100	U	O4'-C1'	10.08	1.56	1.41
67	B1	1433	C	O4'-C1'	10.08	1.56	1.41
21	A2	1442	G	C2'-C1'	-10.07	1.38	1.53
21	A2	1417	A	O4'-C1'	10.07	1.56	1.41
21	A2	215	C	C2'-C1'	-10.07	1.38	1.53
67	B1	2441	A	O4'-C1'	10.07	1.56	1.41
67	B1	1834	C	C2'-C1'	-10.06	1.38	1.53
67	B1	2484	C	C2'-C1'	-10.06	1.38	1.53
21	A2	736	A	C2'-C1'	10.06	1.68	1.53
67	B1	2474	A	C2'-C1'	-10.06	1.38	1.53
67	B1	962	C	O4'-C1'	10.06	1.56	1.41
67	B1	2759	A	C2'-C1'	-10.06	1.38	1.53
27	A0	17	U	O4'-C1'	10.05	1.56	1.41
67	B1	777	A	C2'-C1'	10.05	1.68	1.53
21	A2	278	A	C2'-C1'	10.05	1.68	1.53
21	A2	1476	C	O4'-C1'	10.04	1.56	1.41
67	B1	2848	C	O4'-C1'	10.04	1.56	1.41
67	B1	472	A	C2'-C1'	-10.04	1.38	1.53
67	B1	2935	A	O4'-C1'	10.04	1.56	1.41
40	BE	138	ASP	C-N	10.04	1.45	1.33
67	B1	428	A	C2'-C1'	10.04	1.68	1.53
67	B1	2406	C	O4'-C1'	10.03	1.56	1.41
67	B1	2491	C	O4'-C1'	10.03	1.56	1.41
21	A2	1399	G	O4'-C1'	10.03	1.56	1.41
67	B1	190	C	C2'-C1'	-10.02	1.38	1.53
67	B1	1042	G	O4'-C1'	10.02	1.56	1.41
67	B1	1309	G	C2'-C1'	-10.02	1.38	1.53
21	A2	121	C	C2'-C1'	-10.02	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2239	C	O4'-C1'	10.02	1.56	1.41
21	A2	1195	U	C2'-C1'	-10.02	1.38	1.53
21	A2	263	C	C2'-C1'	-10.01	1.38	1.53
21	A2	628	G	C2'-C1'	-10.01	1.38	1.53
21	A2	633	C	C2'-C1'	-10.00	1.38	1.53
21	A2	932	C	O4'-C1'	10.00	1.56	1.41
67	B1	2467	C	O4'-C1'	10.00	1.56	1.41
67	B1	2337	G	C2'-C1'	-10.00	1.38	1.53
21	A2	552	C	C2'-C1'	-9.99	1.38	1.53
59	BM	181	LYS	C-N	9.99	1.45	1.33
67	B1	2666	G	C2'-C1'	-9.99	1.38	1.53
21	A2	1142	G	O4'-C1'	9.99	1.56	1.41
21	A2	1409	G	C2'-C1'	9.99	1.68	1.53
21	A2	613	C	C2'-C1'	-9.98	1.38	1.53
21	A2	305	C	O4'-C1'	9.98	1.56	1.41
67	B1	891	C	O4'-C1'	9.98	1.56	1.41
67	B1	2119	C	O4'-C1'	9.98	1.56	1.41
67	B1	54	G	O4'-C1'	9.98	1.56	1.41
21	A2	184	G	C2'-C1'	9.97	1.68	1.53
68	B3	6	G	C2'-C1'	-9.97	1.38	1.53
21	A2	671	C	O4'-C1'	9.96	1.56	1.42
21	A2	1256	C	O4'-C1'	9.97	1.56	1.41
67	B1	1488	C	C2'-C1'	-9.97	1.38	1.53
21	A2	1183	C	O4'-C1'	9.96	1.56	1.41
67	B1	2174	G	O4'-C1'	-9.95	1.27	1.42
21	A2	643	G	C2'-C1'	-9.95	1.38	1.53
67	B1	2715	A	C2'-C1'	-9.94	1.38	1.53
62	BN	130	GLN	CA-C	-9.94	1.39	1.52
67	B1	2774	C	C2'-C1'	-9.94	1.38	1.53
15	AE	142	PHE	CA-CB	9.94	1.69	1.53
67	B1	1544	C	C2'-C1'	-9.94	1.38	1.53
67	B1	1603	G	O4'-C1'	9.94	1.56	1.41
21	A2	1364	C	O4'-C1'	9.93	1.56	1.41
67	B1	2353	C	C2'-C1'	-9.93	1.38	1.53
67	B1	2694	C	O4'-C1'	9.93	1.56	1.41
67	B1	3048	C	C2'-C1'	-9.93	1.38	1.53
11	A1	3	G	C2'-C1'	9.93	1.68	1.53
21	A2	780	C	O4'-C1'	9.92	1.56	1.41
21	A2	838	C	O4'-C1'	9.92	1.56	1.41
67	B1	172	C	C2'-C1'	-9.92	1.38	1.53
44	BW	37	SER	N-CA	-9.92	1.35	1.46
65	BJ	16	ARG	CA-C	-9.92	1.41	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1085	G	O4'-C1'	9.91	1.56	1.41
67	B1	2251	G	C2'-C1'	-9.91	1.38	1.53
21	A2	1329	C	C2'-C1'	-9.91	1.38	1.53
21	A2	1057	A	C2'-C1'	9.91	1.68	1.53
67	B1	823	G	C2'-C1'	-9.91	1.38	1.53
67	B1	1848	A	O4'-C1'	9.91	1.56	1.41
68	B3	97	G	O4'-C1'	-9.90	1.26	1.41
21	A2	1211	A	C2'-C1'	9.90	1.68	1.53
67	B1	743	A	C2'-C1'	-9.90	1.38	1.53
67	B1	2750	C	C2'-C1'	-9.90	1.38	1.53
27	A0	12	U	O4'-C1'	9.89	1.56	1.41
54	BF	11	VAL	CA-CB	-9.89	1.42	1.54
64	Bc	8	LEU	CA-C	-9.89	1.40	1.52
67	B1	2515	U	C2'-C1'	-9.89	1.38	1.53
67	B1	2892	A	O4'-C1'	9.89	1.56	1.42
19	AS	41	VAL	CA-C	-9.89	1.41	1.52
67	B1	418	C	O4'-C1'	9.89	1.56	1.41
67	B1	1478	G	C2'-C1'	-9.89	1.38	1.53
67	B1	3004	C	O4'-C1'	9.89	1.56	1.41
21	A2	635	C	O4'-C1'	9.89	1.56	1.41
67	B1	681	C	C2'-C1'	-9.89	1.38	1.53
21	A2	815	C	O4'-C1'	9.88	1.56	1.41
67	B1	1845	C	O4'-C1'	9.88	1.56	1.41
67	B1	1905	G	C2'-C1'	9.88	1.68	1.53
21	A2	1237	G	C2'-C1'	-9.87	1.38	1.53
67	B1	214	C	O4'-C1'	9.87	1.56	1.41
67	B1	234	G	O4'-C1'	-9.87	1.26	1.41
67	B1	396	G	C2'-C1'	-9.87	1.38	1.53
67	B1	766	G	C2'-C1'	-9.87	1.38	1.53
67	B1	1124	G	O4'-C1'	9.87	1.56	1.42
21	A2	967	C	C2'-C1'	-9.87	1.38	1.53
67	B1	345	C	O4'-C1'	9.87	1.56	1.41
67	B1	1721	U	C2'-C1'	-9.87	1.38	1.53
67	B1	2283	C	C2'-C1'	-9.87	1.38	1.53
11	A1	7	G	O4'-C1'	-9.87	1.26	1.41
67	B1	1276	G	C2'-C1'	-9.87	1.38	1.53
67	B1	1801	C	O4'-C1'	9.86	1.56	1.41
21	A2	1414	G	O4'-C1'	9.86	1.56	1.41
67	B1	182	U	O4'-C1'	9.86	1.56	1.41
21	A2	102	U	O4'-C1'	9.86	1.56	1.41
67	B1	53	A	C2'-C1'	9.86	1.68	1.53
21	A2	72	C	C2'-C1'	-9.86	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	184	A	C2'-C1'	9.86	1.68	1.53
67	B1	421	C	O4'-C1'	9.86	1.56	1.41
67	B1	358	C	O4'-C1'	9.86	1.56	1.41
67	B1	2801	G	C2'-C1'	-9.85	1.38	1.53
27	A0	20	U	O4'-C1'	9.84	1.56	1.41
67	B1	3005	C	O4'-C1'	9.84	1.56	1.41
67	B1	2662	G	C2'-C1'	-9.83	1.38	1.53
21	A2	42	G	O4'-C1'	9.83	1.56	1.42
21	A2	292	U	C2'-C1'	-9.83	1.38	1.53
67	B1	1206	A	O4'-C1'	9.83	1.56	1.41
67	B1	81	G	C2'-C1'	-9.83	1.38	1.53
21	A2	355	C	C2'-C1'	-9.82	1.38	1.53
67	B1	1331	U	C2'-C1'	-9.82	1.38	1.53
21	A2	291	G	C2'-C1'	-9.81	1.38	1.53
21	A2	882	C	O4'-C1'	9.81	1.56	1.41
67	B1	694	A	C2'-C1'	9.81	1.67	1.53
21	A2	1019	A	O4'-C1'	9.81	1.56	1.42
67	B1	950	G	O4'-C1'	9.81	1.56	1.41
67	B1	606	A	O4'-C1'	9.81	1.56	1.41
67	B1	120	G	C2'-C1'	-9.80	1.38	1.53
67	B1	557	G	C2'-C1'	-9.80	1.38	1.53
67	B1	202	A	C2'-C1'	9.80	1.68	1.53
21	A2	855	C	O4'-C1'	9.80	1.56	1.41
67	B1	1225	A	C2'-C1'	-9.79	1.38	1.53
67	B1	2586	A	O4'-C1'	-9.79	1.26	1.41
21	A2	861	G	O4'-C1'	9.79	1.56	1.41
21	A2	803	C	C2'-C1'	-9.79	1.38	1.53
67	B1	784	C	O4'-C1'	9.79	1.56	1.41
67	B1	2317	G	C2'-C1'	-9.79	1.38	1.53
21	A2	163	C	C2'-C1'	-9.79	1.38	1.53
58	BP	13	ARG	CD-NE	9.79	1.59	1.46
67	B1	1537	U	O4'-C1'	9.78	1.56	1.41
67	B1	1131	G	C2'-C1'	-9.78	1.38	1.53
21	A2	157	A	O4'-C1'	9.78	1.56	1.41
21	A2	526	A	O4'-C1'	9.78	1.56	1.41
21	A2	1440	G	O4'-C1'	-9.78	1.26	1.41
67	B1	2076	A	O4'-C1'	9.78	1.56	1.41
67	B1	720	C	C2'-C1'	-9.77	1.38	1.53
21	A2	358	G	O4'-C1'	-9.77	1.26	1.41
67	B1	1095	A	C2'-C1'	-9.77	1.38	1.53
67	B1	2699	U	C2'-C1'	-9.77	1.38	1.53
21	A2	230	C	C2'-C1'	-9.77	1.38	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	697	A	O4'-C1'	-9.76	1.27	1.41
21	A2	209	A	O4'-C1'	9.76	1.56	1.41
67	B1	901	C	C2'-C1'	-9.76	1.38	1.53
21	A2	13	C	O4'-C1'	9.75	1.56	1.41
67	B1	930	G	C2'-C1'	-9.75	1.38	1.53
67	B1	1462	G	C2'-C1'	-9.75	1.38	1.53
67	B1	2354	A	O4'-C1'	9.75	1.56	1.41
67	B1	2710	G	C2'-C1'	9.75	1.68	1.53
27	A0	9	A	C2'-C1'	9.75	1.67	1.53
21	A2	139	C	O4'-C1'	9.74	1.56	1.41
21	A2	372	G	C2'-C1'	-9.74	1.38	1.53
67	B1	2488	C	O4'-C1'	9.74	1.56	1.41
67	B1	517	A	C2'-C1'	9.74	1.68	1.53
67	B1	1356	A	O4'-C1'	9.74	1.56	1.41
67	B1	1523	A	C2'-C1'	9.73	1.67	1.53
68	B3	53	A	O4'-C1'	9.73	1.56	1.41
21	A2	577	C	O4'-C1'	9.73	1.56	1.41
67	B1	2330	A	O4'-C1'	9.73	1.56	1.41
21	A2	423	U	O4'-C1'	-9.73	1.27	1.41
67	B1	2158	G	C2'-C1'	-9.73	1.38	1.53
67	B1	1321	C	C2'-C1'	-9.72	1.38	1.53
68	B3	43	C	C2'-C1'	-9.72	1.38	1.53
21	A2	1086	C	C2'-C1'	-9.72	1.38	1.53
67	B1	61	G	C2'-C1'	-9.72	1.38	1.53
28	B6	6	LYS	N-CA	-9.72	1.34	1.46
21	A2	468	G	C2'-C1'	-9.71	1.38	1.53
11	A1	66	C	O4'-C1'	9.71	1.56	1.41
67	B1	1545	C	C2'-C1'	-9.71	1.38	1.53
67	B1	2604	G	C2'-C1'	-9.71	1.38	1.53
67	B1	1565	G	C4'-C3'	9.71	1.71	1.52
67	B1	1856	G	C2'-C1'	-9.70	1.38	1.53
67	B1	2309	C	O4'-C1'	9.70	1.56	1.41
68	B3	24	C	O4'-C1'	9.70	1.56	1.41
21	A2	512	U	C2'-C1'	-9.69	1.38	1.53
21	A2	676	G	O4'-C1'	9.69	1.56	1.41
21	A2	1484	C	O4'-C1'	-9.69	1.27	1.42
67	B1	2268	C	C2'-C1'	9.69	1.67	1.53
67	B1	1682	C	O4'-C1'	9.68	1.56	1.41
67	B1	1684	C	O4'-C1'	9.68	1.56	1.41
67	B1	907	C	O4'-C1'	9.67	1.56	1.41
21	A2	1010	G	O4'-C1'	9.67	1.56	1.41
21	A2	736	A	O4'-C1'	-9.67	1.27	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2994	G	C2'-C1'	-9.66	1.38	1.53
67	B1	2984	A	O4'-C1'	9.66	1.56	1.41
67	B1	478	C	O4'-C1'	9.66	1.56	1.41
67	B1	2889	A	O4'-C1'	9.66	1.56	1.42
67	B1	2700	U	O4'-C1'	9.65	1.56	1.42
21	A2	271	G	C2'-C1'	-9.65	1.38	1.53
67	B1	2198	U	C2'-C1'	-9.65	1.38	1.53
67	B1	953	G	C2'-C1'	9.65	1.67	1.53
68	B3	25	A	O4'-C1'	9.65	1.56	1.41
61	Bd	46	ILE	CA-C	-9.64	1.45	1.52
21	A2	1039	C	C2'-C1'	-9.64	1.38	1.53
67	B1	1735	G	C2'-C1'	9.64	1.67	1.53
67	B1	277	A	O4'-C1'	9.64	1.56	1.41
67	B1	1772	A	O4'-C1'	9.64	1.56	1.42
21	A2	1388	G	C2'-C1'	-9.63	1.38	1.53
27	A0	66	C	O4'-C1'	9.63	1.56	1.41
67	B1	1414	G	O4'-C1'	9.63	1.56	1.42
67	B1	2298	C	O4'-C1'	9.63	1.56	1.41
67	B1	676	G	C2'-C1'	-9.62	1.39	1.53
67	B1	886	G	O4'-C1'	-9.62	1.27	1.41
67	B1	2172	G	O4'-C1'	-9.62	1.27	1.41
67	B1	3031	U	O4'-C1'	9.62	1.56	1.41
67	B1	2959	A	O4'-C1'	9.62	1.56	1.41
21	A2	558	C	C2'-C1'	-9.62	1.39	1.53
67	B1	884	C	C2'-C1'	-9.62	1.39	1.53
67	B1	2758	G	O4'-C1'	-9.62	1.27	1.41
21	A2	943	C	C2'-C1'	-9.62	1.39	1.53
67	B1	1100	G	C2'-C1'	-9.62	1.39	1.53
67	B1	647	G	C2'-C1'	-9.61	1.39	1.53
21	A2	919	U	C2'-C1'	-9.61	1.38	1.53
36	Bf	3	ARG	CD-NE	9.61	1.59	1.46
67	B1	1649	G	C2'-C1'	-9.61	1.39	1.53
67	B1	465	C	O4'-C1'	9.61	1.56	1.41
67	B1	924	A	O4'-C1'	-9.60	1.27	1.42
21	A2	271	G	O4'-C1'	9.60	1.56	1.41
67	B1	1559	A	C2'-C1'	-9.60	1.39	1.53
67	B1	1909	C	C2'-C1'	-9.60	1.39	1.53
21	A2	1174	A	O4'-C1'	9.60	1.56	1.42
36	Bf	27	VAL	CA-C	-9.60	1.40	1.52
67	B1	1271	G	C2'-C1'	-9.60	1.39	1.53
67	B1	2440	C	O4'-C1'	9.60	1.56	1.41
67	B1	1338	G	C2'-C1'	-9.59	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1164	C	C2'-C1'	-9.59	1.38	1.53
21	A2	204	G	C2'-C1'	-9.58	1.39	1.53
21	A2	56	A	C4'-C3'	9.58	1.67	1.53
67	B1	171	A	O4'-C1'	9.58	1.56	1.41
21	A2	1412	A	O4'-C1'	9.58	1.56	1.41
67	B1	1233	U	C2'-C1'	9.57	1.67	1.53
21	A2	516	A	C2'-C1'	-9.57	1.39	1.53
67	B1	732	G	C2'-C1'	-9.57	1.39	1.53
67	B1	1121	C	C2'-C1'	-9.57	1.39	1.53
67	B1	1736	G	C2'-C1'	-9.57	1.39	1.53
67	B1	125	C	C2'-C1'	-9.57	1.39	1.53
67	B1	3014	U	O4'-C1'	-9.57	1.27	1.41
67	B1	2574	G	O4'-C1'	9.56	1.55	1.41
67	B1	835	G	O4'-C1'	9.56	1.55	1.41
67	B1	826	C	C2'-C1'	-9.56	1.39	1.53
67	B1	2588	C	O4'-C1'	9.56	1.55	1.41
67	B1	103	A	C2'-C1'	-9.55	1.39	1.53
67	B1	1742	C	O4'-C1'	9.55	1.55	1.41
43	Bk	38	LEU	N-CA	-9.55	1.35	1.46
21	A2	1440	G	C2'-C1'	9.54	1.67	1.53
67	B1	320	C	O4'-C1'	9.55	1.55	1.41
21	A2	1029	G	C2'-C1'	9.54	1.67	1.53
21	A2	1258	C	C2'-C1'	9.54	1.67	1.53
7	AB	131	VAL	CA-CB	-9.54	1.43	1.54
67	B1	895	C	O4'-C1'	9.54	1.55	1.41
21	A2	48	G	C2'-C1'	-9.54	1.39	1.53
67	B1	2659	G	C2'-C1'	-9.54	1.39	1.53
21	A2	1488	C	O4'-C1'	9.53	1.55	1.41
67	B1	928	A	C2'-C1'	-9.53	1.38	1.53
67	B1	1270	G	C2'-C1'	-9.53	1.38	1.53
67	B1	743	A	O4'-C1'	9.53	1.55	1.41
67	B1	806	C	C2'-C1'	-9.53	1.39	1.53
67	B1	1003	C	O4'-C1'	9.53	1.55	1.41
67	B1	2081	C	C2'-C1'	-9.53	1.39	1.53
68	B3	96	C	O4'-C1'	9.53	1.55	1.41
21	A2	600	C	O4'-C1'	9.53	1.55	1.41
67	B1	957	C	C2'-C1'	-9.53	1.39	1.53
67	B1	1278	C	C2'-C1'	-9.53	1.39	1.53
27	A0	72	C	O4'-C1'	9.52	1.55	1.41
67	B1	1136	G	O4'-C1'	-9.52	1.27	1.41
67	B1	2614	C	O4'-C1'	9.52	1.55	1.41
11	A1	22	A	C2'-C1'	-9.52	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	408	C	O4'-C1'	9.52	1.55	1.41
67	B1	2371	A	C2'-C1'	-9.51	1.39	1.53
21	A2	1353	C	C2'-C1'	-9.51	1.39	1.53
21	A2	1376	C	O4'-C1'	9.51	1.55	1.41
21	A2	1345	G	O4'-C1'	-9.50	1.27	1.41
67	B1	1500	C	C2'-C1'	-9.50	1.39	1.53
67	B1	2160	C	O4'-C1'	9.50	1.55	1.41
21	A2	538	C	O4'-C1'	9.50	1.55	1.41
21	A2	796	C	O4'-C1'	9.49	1.55	1.41
21	A2	260	C	C2'-C1'	-9.49	1.39	1.53
21	A2	982	U	C2'-C1'	-9.49	1.39	1.53
21	A2	1410	G	C2'-C1'	-9.49	1.39	1.53
67	B1	2612	A	C2'-C1'	9.49	1.67	1.53
21	A2	1180	G	O4'-C1'	9.49	1.55	1.41
67	B1	1374	G	C2'-C1'	-9.49	1.39	1.53
67	B1	2920	C	C2'-C1'	-9.48	1.39	1.53
21	A2	1394	G	C2'-C1'	-9.48	1.39	1.53
21	A2	160	C	C2'-C1'	-9.48	1.39	1.53
68	B3	107	G	O4'-C1'	-9.48	1.27	1.41
67	B1	2492	G	O4'-C1'	-9.47	1.27	1.41
67	B1	2797	C	O4'-C1'	-9.47	1.27	1.42
11	A1	61	U	C2'-C1'	-9.47	1.39	1.53
67	B1	1695	G	O4'-C1'	9.47	1.55	1.41
67	B1	2591	A	O4'-C1'	9.47	1.55	1.41
67	B1	141	C	O4'-C1'	9.46	1.55	1.41
67	B1	2978	G	C2'-C1'	-9.46	1.39	1.53
67	B1	844	C	C2'-C1'	-9.46	1.39	1.53
67	B1	849	C	C2'-C1'	-9.46	1.39	1.53
21	A2	490	C	O4'-C1'	9.45	1.55	1.41
67	B1	2938	G	C2'-C1'	-9.45	1.39	1.53
67	B1	927	G	C2'-C1'	-9.45	1.38	1.53
21	A2	762	G	C2'-C1'	9.44	1.67	1.53
21	A2	302	A	C2'-C1'	9.44	1.67	1.53
21	A2	1202	G	C2'-C1'	-9.44	1.39	1.53
68	B3	111	G	C2'-C1'	-9.44	1.39	1.53
21	A2	375	G	C2'-C1'	-9.44	1.39	1.53
67	B1	2421	A	O4'-C1'	9.44	1.55	1.41
67	B1	2924	G	C2'-C1'	9.44	1.67	1.53
67	B1	955	A	O4'-C1'	-9.43	1.27	1.41
21	A2	1332	C	O4'-C1'	9.43	1.55	1.41
67	B1	1235	A	C2'-C1'	9.43	1.67	1.53
67	B1	1118	A	O4'-C1'	9.43	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1140	C	O4'-C1'	9.42	1.55	1.41
67	B1	519	A	O4'-C1'	9.42	1.55	1.41
67	B1	1111	G	O4'-C1'	9.42	1.55	1.41
67	B1	281	G	C2'-C1'	-9.41	1.39	1.53
67	B1	707	U	C2'-C1'	-9.41	1.39	1.53
67	B1	2220	C	O4'-C1'	9.41	1.55	1.41
67	B1	2765	C	O4'-C1'	9.41	1.55	1.41
21	A2	62	G	O4'-C1'	9.41	1.55	1.41
21	A2	1188	C	O4'-C1'	9.41	1.55	1.41
67	B1	2866	A	O4'-C1'	9.41	1.55	1.41
67	B1	63	A	O4'-C1'	9.41	1.56	1.42
67	B1	1568	A	P-OP2	9.41	1.67	1.49
67	B1	2293	G	C2'-C1'	9.40	1.67	1.53
21	A2	672	G	C2'-C1'	-9.40	1.39	1.53
21	A2	902	U	C2'-C1'	-9.40	1.39	1.53
67	B1	1148	C	O4'-C1'	9.39	1.55	1.41
21	A2	441	U	O4'-C1'	9.39	1.55	1.41
21	A2	200	G	C2'-C1'	9.39	1.67	1.53
67	B1	660	U	C2'-C1'	-9.39	1.39	1.53
67	B1	753	A	C2'-C1'	9.39	1.67	1.53
67	B1	1303	C	C2'-C1'	-9.39	1.39	1.53
67	B1	1713	G	O4'-C1'	9.38	1.55	1.41
21	A2	241	U	O4'-C1'	9.38	1.55	1.41
67	B1	446	G	O4'-C1'	9.38	1.55	1.41
67	B1	1192	G	C2'-C1'	-9.38	1.39	1.53
67	B1	811	C	C2'-C1'	-9.37	1.39	1.53
68	B3	22	C	C2'-C1'	9.37	1.67	1.53
21	A2	958	G	C2'-C1'	9.37	1.67	1.53
67	B1	2071	C	C2'-C1'	-9.37	1.39	1.53
67	B1	955	A	C2'-C1'	9.36	1.67	1.53
67	B1	2853	A	C2'-C1'	-9.36	1.39	1.53
21	A2	594	A	O4'-C1'	9.36	1.55	1.41
67	B1	612	G	O4'-C1'	-9.36	1.27	1.41
21	A2	509	C	O4'-C1'	9.35	1.55	1.41
67	B1	1699	U	O4'-C1'	9.35	1.55	1.41
67	B1	2875	C	C2'-C1'	-9.35	1.39	1.53
20	A3	9	PHE	CA-C	-9.35	1.41	1.52
67	B1	1760	C	C2'-C1'	-9.35	1.39	1.53
67	B1	2219	A	C2'-C1'	-9.35	1.39	1.53
30	AU	112	GLU	CA-C	-9.34	1.41	1.52
21	A2	1352	G	O4'-C1'	9.34	1.55	1.41
67	B1	1669	A	C2'-C1'	-9.34	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	821	G	C2'-C1'	9.34	1.67	1.53
67	B1	341	U	O4'-C1'	9.34	1.55	1.41
21	A2	725	C	O4'-C1'	9.33	1.55	1.41
67	B1	305	G	C5'-C4'	9.33	1.65	1.51
67	B1	1464	A	O4'-C1'	9.33	1.55	1.41
67	B1	2465	A	O4'-C1'	9.33	1.55	1.41
67	B1	1126	C	O4'-C1'	9.32	1.55	1.41
67	B1	1926	A	O4'-C1'	9.32	1.55	1.41
67	B1	2435	G	O4'-C1'	-9.32	1.27	1.41
21	A2	54	C	O4'-C1'	9.32	1.55	1.41
67	B1	568	A	C2'-C1'	-9.32	1.39	1.53
67	B1	1480	G	O4'-C1'	9.32	1.55	1.41
67	B1	1407	A	C2'-C1'	9.32	1.67	1.53
67	B1	2059	G	O4'-C1'	9.32	1.55	1.41
67	B1	2202	U	O4'-C1'	9.32	1.55	1.41
67	B1	415	U	C2'-C1'	9.31	1.67	1.53
21	A2	336	C	O4'-C1'	9.31	1.55	1.41
12	AN	52	GLY	CA-C	-9.31	1.41	1.51
67	B1	1855	G	C2'-C1'	-9.31	1.39	1.53
67	B1	498	U	C2'-C1'	-9.31	1.39	1.53
10	AD	168	ARG	CD-NE	9.30	1.59	1.46
21	A2	873	A	O4'-C1'	9.30	1.55	1.41
67	B1	2545	A	C2'-C1'	-9.30	1.39	1.53
67	B1	744	G	O4'-C1'	9.30	1.55	1.41
21	A2	1374	C	O4'-C1'	9.30	1.55	1.41
67	B1	710	G	C2'-C1'	-9.30	1.39	1.53
67	B1	2028	G	O4'-C1'	9.30	1.55	1.41
67	B1	114	C	O4'-C1'	9.30	1.55	1.41
67	B1	2952	C	O4'-C1'	9.30	1.55	1.41
67	B1	1298	C	C2'-C1'	-9.29	1.39	1.53
67	B1	273	G	C2'-C1'	-9.29	1.39	1.53
21	A2	1088	U	O4'-C1'	9.28	1.55	1.41
67	B1	714	C	O3'-P	-9.28	1.47	1.61
67	B1	2263	G	C2'-C1'	9.28	1.67	1.53
67	B1	2915	U	O4'-C1'	9.28	1.55	1.41
21	A2	1125	C	C2'-C1'	-9.28	1.39	1.53
67	B1	1181	C	O4'-C1'	9.28	1.55	1.41
67	B1	980	G	C2'-C1'	-9.28	1.39	1.53
68	B3	69	C	C2'-C1'	-9.28	1.39	1.53
67	B1	2719	G	O4'-C1'	9.27	1.55	1.41
67	B1	2216	G	C2'-C1'	9.27	1.67	1.53
67	B1	2818	C	C2'-C1'	-9.27	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	3046	C	O4'-C1'	9.27	1.55	1.41
67	B1	2870	A	O4'-C1'	9.27	1.55	1.41
21	A2	32	A	O4'-C1'	-9.26	1.27	1.41
21	A2	1426	C	O4'-C1'	9.26	1.55	1.41
21	A2	1110	U	O4'-C1'	9.26	1.55	1.41
21	A2	1491	C	C2'-C1'	-9.26	1.39	1.53
67	B1	82	C	C2'-C1'	-9.26	1.39	1.53
67	B1	128	C	C2'-C1'	-9.26	1.39	1.53
67	B1	408	C	O4'-C1'	9.26	1.55	1.41
67	B1	993	G	C2'-C1'	-9.26	1.39	1.53
21	A2	1107	C	O4'-C1'	9.25	1.55	1.41
67	B1	2297	C	O4'-C1'	9.25	1.55	1.41
25	AH	85	PHE	C-N	9.25	1.45	1.33
67	B1	391	C	O4'-C1'	9.25	1.55	1.41
67	B1	741	G	C2'-C1'	-9.25	1.39	1.53
68	B3	40	G	C2'-C1'	-9.25	1.39	1.53
21	A2	14	C	O4'-C1'	9.24	1.55	1.41
21	A2	835	C	O4'-C1'	9.24	1.55	1.41
67	B1	1638	C	O4'-C1'	9.24	1.55	1.41
67	B1	1386	G	C2'-C1'	-9.24	1.39	1.53
67	B1	2765	C	C2'-C1'	-9.24	1.39	1.53
67	B1	782	G	O4'-C1'	9.24	1.55	1.41
67	B1	203	G	O4'-C1'	9.24	1.55	1.41
67	B1	476	C	O4'-C1'	9.24	1.55	1.41
67	B1	2708	U	O4'-C1'	9.24	1.55	1.41
21	A2	326	C	C2'-C1'	-9.23	1.39	1.53
21	A2	875	G	C2'-C1'	-9.23	1.39	1.53
67	B1	112	U	C2'-C1'	-9.23	1.39	1.53
67	B1	867	C	C2'-C1'	9.23	1.67	1.53
67	B1	1871	C	O4'-C1'	9.23	1.55	1.41
47	BI	91	ARG	CD-NE	9.22	1.59	1.46
8	AR	87	LEU	CA-C	-9.22	1.41	1.52
21	A2	689	C	C2'-C1'	-9.22	1.39	1.53
67	B1	222	A	C2'-C1'	-9.22	1.39	1.53
67	B1	2866	A	C2'-C1'	-9.22	1.39	1.53
67	B1	1341	U	O4'-C1'	9.22	1.55	1.41
67	B1	2972	G	C2'-C1'	-9.22	1.39	1.53
21	A2	1314	C	C2'-C1'	-9.21	1.39	1.53
67	B1	1865	U	O4'-C1'	-9.21	1.28	1.42
67	B1	373	G	O4'-C1'	9.21	1.55	1.41
67	B1	1704	C	C2'-C1'	-9.21	1.39	1.53
21	A2	1074	C	O4'-C1'	9.21	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1359	C	C5'-C4'	9.21	1.65	1.51
67	B1	374	C	C2'-C1'	-9.20	1.39	1.53
67	B1	746	C	O4'-C1'	9.20	1.55	1.41
7	AB	116	ILE	N-CA	-9.20	1.35	1.46
67	B1	1390	U	C2'-C1'	9.20	1.67	1.53
67	B1	349	A	C2'-C1'	9.19	1.67	1.53
67	B1	523	C	C2'-C1'	-9.20	1.39	1.53
67	B1	1822	G	O4'-C1'	-9.20	1.27	1.41
67	B1	3017	U	O4'-C1'	9.20	1.55	1.41
21	A2	648	A	C2'-C1'	-9.19	1.39	1.53
67	B1	1676	G	C2'-C1'	-9.19	1.39	1.53
67	B1	2851	A	O4'-C1'	-9.19	1.27	1.41
21	A2	938	C	O4'-C1'	9.19	1.55	1.41
21	A2	976	A	C2'-C1'	9.19	1.67	1.53
21	A2	830	A	C2'-C1'	-9.18	1.39	1.53
21	A2	1480	G	O4'-C1'	-9.18	1.27	1.41
67	B1	2279	G	C2'-C1'	-9.18	1.39	1.53
21	A2	619	A	C2'-C1'	9.18	1.67	1.53
21	A2	610	G	C2'-C1'	-9.18	1.39	1.53
21	A2	1197	C	C2'-C1'	-9.18	1.39	1.53
21	A2	1435	G	O4'-C1'	9.18	1.55	1.41
21	A2	897	A	O4'-C1'	9.18	1.55	1.41
28	AV	29	PRO	CA-C	-9.17	1.41	1.52
67	B1	33	U	O4'-C1'	9.17	1.55	1.42
1	AQ	156	LEU	CA-C	-9.17	1.41	1.52
21	A2	696	G	C2'-C1'	-9.17	1.39	1.53
67	B1	495	U	O4'-C1'	9.16	1.55	1.41
67	B1	1106	C	O4'-C1'	9.16	1.55	1.41
36	Bf	3	ARG	NE-CZ	9.16	1.43	1.33
27	A0	76	A	C2'-C1'	9.16	1.67	1.53
21	A2	981	U	C2'-C1'	-9.16	1.39	1.53
21	A2	877	A	O4'-C1'	9.16	1.55	1.41
67	B1	2299	G	C2'-C1'	-9.15	1.39	1.53
21	A2	348	C	O4'-C1'	9.15	1.55	1.41
67	B1	767	G	C2'-C1'	-9.15	1.39	1.53
67	B1	1011	A	C2'-C1'	-9.15	1.39	1.53
67	B1	1522	A	C2'-C1'	9.15	1.66	1.53
32	BO	145	ARG	N-CA	-9.14	1.35	1.46
21	A2	132	G	P-O5'	-9.14	1.46	1.59
21	A2	1316	U	O4'-C1'	9.14	1.55	1.41
67	B1	1931	G	C2'-C1'	-9.14	1.39	1.53
67	B1	2694	C	C2'-C1'	-9.14	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	AT	9	ARG	CD-NE	9.14	1.59	1.46
27	A0	7	G	C2'-C1'	-9.13	1.39	1.53
67	B1	1913	C	C2'-C1'	-9.13	1.39	1.53
21	A2	424	U	C5'-C4'	9.13	1.65	1.51
21	A2	723	G	O4'-C1'	9.13	1.55	1.41
67	B1	682	G	O4'-C1'	-9.12	1.27	1.41
67	B1	906	G	C2'-C1'	-9.12	1.39	1.53
21	A2	242	A	O4'-C1'	-9.12	1.28	1.42
67	B1	2767	C	O4'-C1'	9.12	1.55	1.41
68	B3	32	C	O4'-C1'	9.12	1.55	1.41
21	A2	69	U	C2'-C1'	-9.12	1.39	1.53
21	A2	518	U	O4'-C1'	9.12	1.55	1.41
21	A2	1448	A	O4'-C1'	-9.12	1.27	1.41
66	B1	59	GLU	CA-C	-9.12	1.40	1.52
33	BC	89	GLY	CA-C	-9.11	1.41	1.51
67	B1	2246	G	C2'-C1'	-9.11	1.39	1.53
67	B1	347	G	C2'-C1'	-9.11	1.39	1.53
68	B3	6	G	O4'-C1'	9.11	1.55	1.41
21	A2	318	C	O4'-C1'	9.11	1.55	1.41
67	B1	1230	G	O4'-C1'	9.11	1.55	1.41
21	A2	1055	C	O4'-C1'	9.11	1.55	1.41
29	AL	5	ARG	NE-CZ	9.11	1.43	1.33
67	B1	2363	G	C2'-C1'	9.11	1.67	1.53
53	BD	158	ARG	CD-NE	9.11	1.58	1.46
67	B1	742	C	O4'-C1'	9.10	1.55	1.41
67	B1	672	C	O4'-C1'	9.10	1.55	1.41
11	A1	47	G	O4'-C1'	-9.10	1.28	1.41
21	A2	227	C	O4'-C1'	9.09	1.55	1.41
67	B1	1665	G	O4'-C1'	9.09	1.55	1.41
21	A2	130	G	C2'-C1'	9.09	1.67	1.53
67	B1	670	G	C2'-C1'	-9.09	1.39	1.53
67	B1	1797	A	O4'-C1'	9.09	1.55	1.41
67	B1	2042	A	O4'-C1'	-9.09	1.28	1.42
21	A2	393	A	C2'-C1'	9.09	1.67	1.53
21	A2	497	C	C2'-C1'	-9.09	1.39	1.53
67	B1	2923	G	C2'-C1'	9.08	1.67	1.53
67	B1	1520	G	C2'-C1'	-9.08	1.39	1.53
21	A2	383	C	O4'-C1'	9.08	1.55	1.41
44	BW	52	ALA	CA-C	-9.08	1.41	1.52
67	B1	1494	U	C2'-C1'	9.08	1.67	1.53
67	B1	1428	G	C2'-C1'	-9.08	1.39	1.53
67	B1	2850	G	O4'-C1'	9.08	1.55	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1202	G	O4'-C1'	9.08	1.55	1.41
7	AB	189	LYS	C-N	9.07	1.41	1.32
27	A0	50	C	O4'-C1'	9.07	1.55	1.41
67	B1	151	G	O4'-C1'	9.07	1.55	1.41
67	B1	2891	A	O4'-C1'	9.07	1.55	1.42
67	B1	766	G	O4'-C1'	9.07	1.55	1.41
67	B1	1250	A	C2'-C1'	9.06	1.67	1.53
35	BL	9	ARG	C-N	-9.06	1.22	1.33
67	B1	354	G	O4'-C1'	-9.06	1.28	1.41
67	B1	988	C	O4'-C1'	9.06	1.55	1.41
21	A2	505	U	C2'-C1'	9.06	1.67	1.53
67	B1	2579	G	C2'-C1'	9.06	1.67	1.53
67	B1	2652	G	O4'-C1'	-9.06	1.28	1.41
67	B1	2707	G	O4'-C1'	9.06	1.55	1.41
2	AK	25	ARG	CD-NE	9.05	1.58	1.46
21	A2	1432	U	O4'-C1'	9.05	1.55	1.41
21	A2	849	U	O4'-C1'	9.05	1.55	1.41
11	A1	11	C	O4'-C1'	9.05	1.55	1.41
67	B1	2800	U	C2'-C1'	9.04	1.67	1.53
33	BC	150	GLN	CA-C	-9.04	1.41	1.52
67	B1	651	C	O4'-C1'	9.04	1.55	1.41
21	A2	215	C	O4'-C1'	9.04	1.55	1.41
67	B1	21	C	O4'-C1'	9.04	1.55	1.41
21	A2	759	C	C2'-C1'	-9.03	1.39	1.53
21	A2	1089	C	O4'-C1'	9.03	1.55	1.41
67	B1	1844	C	O4'-C1'	9.03	1.55	1.41
67	B1	1295	G	O4'-C1'	9.03	1.55	1.42
21	A2	826	C	O4'-C1'	9.03	1.55	1.41
47	BI	4	ILE	CA-C	-9.03	1.42	1.52
67	B1	1231	C	C2'-C1'	-9.03	1.39	1.53
67	B1	1933	U	C2'-C1'	-9.03	1.39	1.53
21	A2	1175	C	O4'-C1'	9.03	1.55	1.41
28	B6	30	THR	CA-C	-9.03	1.42	1.52
21	A2	47	A	O4'-C1'	9.02	1.55	1.42
21	A2	764	C	C2'-C1'	-9.02	1.39	1.53
67	B1	1593	C	C2'-C1'	-9.02	1.39	1.53
24	AA	138	ARG	CD-NE	9.02	1.58	1.46
67	B1	1666	G	C2'-C1'	-9.02	1.39	1.53
67	B1	1379	A	C2'-C1'	9.02	1.66	1.53
67	B1	852	A	C2'-C1'	-9.02	1.39	1.53
53	BD	249	ARG	CD-NE	9.01	1.58	1.46
67	B1	693	G	O4'-C1'	-9.01	1.28	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2991	C	O4'-C1'	9.01	1.55	1.41
21	A2	335	G	C2'-C1'	-9.01	1.39	1.53
21	A2	1359	C	O4'-C1'	9.01	1.55	1.42
67	B1	2675	C	C2'-C1'	-9.01	1.39	1.53
21	A2	188	C	O4'-C1'	9.00	1.55	1.41
67	B1	275	C	O4'-C1'	9.00	1.55	1.41
67	B1	443	C	O4'-C1'	9.00	1.55	1.42
67	B1	94	A	C2'-C1'	9.00	1.66	1.53
67	B1	1549	C	O4'-C1'	9.00	1.55	1.41
21	A2	1136	A	C2'-C1'	-9.00	1.39	1.53
49	BQ	100	ARG	NE-CZ	9.00	1.43	1.33
21	A2	489	C	O4'-C1'	8.99	1.55	1.41
21	A2	1317	G	C2'-C1'	-8.99	1.39	1.53
27	A0	27	C	O4'-C1'	8.99	1.55	1.41
67	B1	1553	G	O4'-C1'	-8.99	1.28	1.41
67	B1	2103	C	C2'-C1'	-8.99	1.39	1.53
67	B1	2598	C	C2'-C1'	-8.99	1.39	1.53
65	BJ	50	ARG	CA-C	-8.99	1.40	1.52
21	A2	526	A	C2'-C1'	-8.99	1.39	1.53
67	B1	1982	C	C2'-C1'	-8.99	1.39	1.53
67	B1	2229	G	O4'-C1'	8.98	1.55	1.41
21	A2	771	G	C2'-C1'	-8.98	1.39	1.53
67	B1	2454	G	C2'-C1'	-8.98	1.39	1.53
67	B1	2054	G	C2'-C1'	-8.98	1.39	1.53
67	B1	2565	A	O4'-C1'	8.98	1.55	1.41
67	B1	2118	C	C2'-C1'	8.98	1.66	1.53
24	AA	161	SER	CA-C	8.98	1.64	1.52
67	B1	1103	C	O4'-C1'	8.98	1.55	1.41
67	B1	2844	G	O4'-C1'	8.98	1.55	1.41
33	BC	35	GLU	C-N	8.97	1.42	1.33
67	B1	2004	A	C2'-C1'	-8.97	1.39	1.53
67	B1	2583	G	O4'-C1'	-8.97	1.28	1.42
67	B1	2792	G	O4'-C1'	8.97	1.55	1.41
67	B1	210	A	C2'-C1'	-8.97	1.39	1.53
67	B1	1566	G	C3'-C2'	8.97	1.66	1.52
67	B1	1896	U	C2'-C1'	8.97	1.66	1.53
67	B1	2838	U	C2'-C1'	-8.97	1.39	1.53
21	A2	809	C	O4'-C1'	8.96	1.55	1.41
67	B1	1348	G	C2'-C1'	8.96	1.66	1.53
67	B1	2962	A	C2'-C1'	-8.96	1.40	1.53
21	A2	1392	G	C2'-C1'	-8.96	1.40	1.53
41	Ba	14	PRO	CA-C	-8.96	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2987	U	C2'-C1'	-8.96	1.39	1.53
67	B1	74	A	C2'-C1'	-8.96	1.39	1.53
21	A2	466	C	O4'-C1'	8.96	1.55	1.41
21	A2	693	C	O4'-C1'	8.96	1.55	1.41
67	B1	2090	A	O4'-C1'	8.96	1.55	1.42
67	B1	485	G	O4'-C1'	8.95	1.55	1.41
21	A2	1227	A	C2'-C1'	-8.95	1.40	1.53
67	B1	1149	C	O4'-C1'	8.95	1.55	1.41
67	B1	991	U	O4'-C1'	8.95	1.55	1.41
67	B1	1263	C	C2'-C1'	-8.95	1.40	1.53
67	B1	2120	C	O4'-C1'	8.95	1.55	1.42
21	A2	751	C	C2'-C1'	-8.94	1.40	1.53
21	A2	1269	G	O4'-C1'	8.94	1.55	1.41
66	B1	19	PHE	CA-C	-8.94	1.42	1.52
67	B1	2249	A	C2'-C1'	8.94	1.66	1.53
67	B1	2932	C	O4'-C1'	8.94	1.55	1.41
21	A2	533	C	C2'-C1'	-8.94	1.40	1.53
67	B1	2192	G	C2'-C1'	-8.94	1.40	1.53
67	B1	1738	A	C2'-C1'	8.94	1.66	1.53
21	A2	645	G	C2'-C1'	8.93	1.66	1.53
21	A2	1418	G	O4'-C1'	8.93	1.55	1.41
21	A2	1478	A	O4'-C1'	8.93	1.55	1.41
67	B1	561	C	O4'-C1'	8.93	1.55	1.41
67	B1	2907	C	C3'-O3'	8.93	1.55	1.42
67	B1	1483	U	O4'-C1'	8.92	1.55	1.42
67	B1	1584	G	C2'-C1'	-8.92	1.40	1.53
67	B1	1758	U	C2'-C1'	-8.92	1.39	1.53
67	B1	2925	C	O4'-C1'	8.92	1.55	1.41
21	A2	350	G	C2'-C1'	-8.92	1.40	1.53
67	B1	123	A	C2'-C1'	-8.92	1.40	1.53
67	B1	2792	G	C2'-C1'	-8.92	1.40	1.53
67	B1	119	U	C2'-C1'	-8.91	1.39	1.53
67	B1	798	G	C2'-C1'	-8.91	1.40	1.53
21	A2	474	G	O4'-C1'	8.91	1.55	1.41
68	B3	99	G	C2'-C1'	-8.91	1.40	1.53
21	A2	1209	C	O4'-C1'	8.91	1.55	1.41
67	B1	2707	G	C2'-C1'	-8.91	1.40	1.53
21	A2	472	C	O4'-C1'	8.90	1.55	1.41
21	A2	582	G	O4'-C1'	8.90	1.55	1.41
21	A2	1458	A	O4'-C1'	8.90	1.55	1.42
21	A2	919	U	O4'-C1'	8.90	1.55	1.42
67	B1	1262	C	O4'-C1'	8.90	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	42	G	O4'-C1'	8.90	1.54	1.41
67	B1	2762	G	O4'-C1'	8.90	1.54	1.41
67	B1	1244	C	C2'-C1'	8.89	1.66	1.53
21	A2	342	G	C2'-C1'	-8.89	1.40	1.53
21	A2	857	C	C2'-C1'	-8.89	1.40	1.53
35	BL	49	TRP	CA-CB	8.89	1.67	1.53
67	B1	1325	A	O4'-C1'	8.89	1.54	1.41
67	B1	946	U	O4'-C1'	8.89	1.55	1.42
21	A2	477	G	O4'-C1'	8.88	1.54	1.41
53	BD	55	ARG	CD-NE	8.88	1.58	1.46
21	A2	543	C	O4'-C1'	8.88	1.54	1.41
67	B1	1180	G	O4'-C1'	8.88	1.54	1.41
68	B3	76	U	C2'-C1'	8.87	1.66	1.53
11	A1	26	C	C2'-C1'	-8.87	1.40	1.53
21	A2	808	C	O4'-C1'	8.87	1.54	1.41
32	BO	191	ARG	CD-NE	8.87	1.58	1.46
67	B1	687	C	O4'-C1'	8.87	1.54	1.41
32	BO	13	ARG	CA-C	-8.87	1.40	1.52
40	BE	133	GLY	C-N	8.87	1.44	1.33
67	B1	885	A	O4'-C1'	8.87	1.54	1.41
68	B3	28	C	C2'-C1'	-8.87	1.40	1.53
62	BN	69	VAL	CA-C	-8.86	1.42	1.52
67	B1	2781	A	O4'-C1'	8.86	1.54	1.41
67	B1	308	C	O4'-C1'	8.86	1.54	1.41
21	A2	794	A	C2'-C1'	-8.86	1.40	1.53
67	B1	806	C	O4'-C1'	8.86	1.54	1.41
67	B1	1829	C	O4'-C1'	8.86	1.54	1.41
21	A2	711	U	O4'-C1'	8.85	1.54	1.41
67	B1	809	A	O4'-C1'	-8.85	1.28	1.41
21	A2	1223	C	O4'-C1'	8.84	1.54	1.41
21	A2	1338	C	O4'-C1'	8.84	1.54	1.41
67	B1	2145	G	O4'-C1'	-8.84	1.28	1.41
67	B1	2544	C	C2'-C1'	-8.84	1.40	1.53
21	A2	794	A	O4'-C1'	8.84	1.54	1.41
21	A2	939	C	O4'-C1'	8.84	1.54	1.41
67	B1	1474	A	C2'-C1'	-8.84	1.40	1.53
67	B1	2436	A	C2'-C1'	-8.84	1.40	1.53
67	B1	2512	C	O4'-C1'	8.84	1.54	1.41
67	B1	66	C	C2'-C1'	-8.83	1.40	1.53
67	B1	2696	G	C2'-C1'	8.83	1.66	1.53
21	A2	819	G	C2'-C1'	-8.83	1.40	1.53
67	B1	500	C	C2'-C1'	-8.83	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2446	C	C2'-C1'	-8.83	1.40	1.53
67	B1	270	C	O4'-C1'	8.83	1.54	1.41
21	A2	1028	C	C2'-C1'	-8.82	1.40	1.53
67	B1	799	C	O4'-C1'	8.82	1.54	1.41
21	A2	280	C	O4'-C1'	8.82	1.54	1.41
21	A2	1188	C	C2'-C1'	-8.82	1.40	1.53
67	B1	882	U	C2'-C1'	-8.82	1.40	1.53
67	B1	1670	A	C5'-C4'	8.82	1.64	1.51
67	B1	389	C	O4'-C1'	8.81	1.54	1.41
67	B1	827	G	C2'-C1'	-8.81	1.40	1.53
21	A2	332	C	C2'-C1'	-8.81	1.40	1.53
67	B1	1241	C	O4'-C1'	8.81	1.54	1.41
68	B3	21	C	O4'-C1'	8.81	1.54	1.41
62	BN	67	GLN	CA-C	-8.80	1.41	1.52
67	B1	2191	U	C2'-C1'	-8.81	1.40	1.53
21	A2	1311	C	O4'-C1'	8.80	1.54	1.41
21	A2	709	G	C2'-C1'	8.79	1.66	1.53
21	A2	1077	U	O4'-C1'	8.79	1.54	1.41
67	B1	1329	G	O4'-C1'	8.79	1.54	1.41
21	A2	829	U	C2'-C1'	8.79	1.66	1.53
67	B1	94	A	O4'-C1'	8.79	1.54	1.41
67	B1	206	A	O4'-C1'	8.79	1.54	1.41
21	A2	903	G	O4'-C1'	8.79	1.54	1.41
67	B1	370	A	C2'-C1'	-8.78	1.39	1.53
67	B1	2569	G	O4'-C1'	8.78	1.54	1.41
21	A2	1225	C	O4'-C1'	8.78	1.54	1.41
42	BT	27	THR	CA-C	-8.78	1.42	1.52
67	B1	1488	C	O4'-C1'	8.78	1.54	1.41
67	B1	1541	U	O4'-C1'	-8.78	1.28	1.42
67	B1	2989	A	O4'-C1'	8.78	1.54	1.41
67	B1	257	G	C2'-C1'	-8.78	1.40	1.53
67	B1	278	C	O4'-C1'	-8.77	1.28	1.42
21	A2	1435	G	C2'-C1'	-8.77	1.40	1.53
67	B1	365	G	O4'-C1'	-8.77	1.28	1.41
67	B1	3006	G	O4'-C1'	8.77	1.54	1.41
32	BO	13	ARG	NE-CZ	8.77	1.42	1.33
37	BU	64	GLY	CA-C	-8.77	1.41	1.51
60	BS	147	GLU	CA-C	-8.76	1.42	1.52
67	B1	554	C	O4'-C1'	8.76	1.54	1.41
67	B1	2143	C	C2'-C1'	-8.76	1.40	1.53
67	B1	2517	U	O4'-C1'	8.76	1.54	1.41
21	A2	109	U	C2'-C1'	-8.76	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	673	C	C2'-C1'	-8.76	1.40	1.53
67	B1	460	C	C2'-C1'	-8.75	1.40	1.53
67	B1	3040	G	O4'-C1'	8.75	1.55	1.42
19	AS	7	GLY	N-CA	-8.75	1.32	1.45
21	A2	422	U	C2'-C1'	8.75	1.66	1.53
67	B1	194	G	C2'-C1'	8.75	1.66	1.53
67	B1	1441	C	C2'-C1'	-8.75	1.40	1.53
67	B1	2675	C	O4'-C1'	8.75	1.54	1.41
67	B1	2078	A	C2'-C1'	8.75	1.66	1.53
21	A2	5	C	C4'-C3'	8.74	1.65	1.52
21	A2	814	C	O4'-C1'	8.74	1.54	1.41
67	B1	1445	G	C5'-C4'	8.74	1.64	1.51
67	B1	137	A	O4'-C1'	8.74	1.54	1.41
67	B1	1829	C	C2'-C1'	-8.74	1.40	1.53
67	B1	205	A	O4'-C1'	8.74	1.54	1.41
21	A2	1069	G	C2'-C1'	-8.73	1.40	1.53
67	B1	2777	G	C2'-C1'	-8.73	1.40	1.53
67	B1	2345	U	O4'-C1'	8.73	1.54	1.41
67	B1	3012	C	O4'-C1'	8.73	1.54	1.41
21	A2	272	C	O4'-C1'	8.73	1.54	1.41
21	A2	1367	C	C2'-C1'	-8.73	1.40	1.53
67	B1	2098	C	C2'-C1'	-8.73	1.40	1.53
67	B1	1800	G	O4'-C1'	8.72	1.54	1.41
67	B1	1770	A	O4'-C1'	8.72	1.54	1.41
67	B1	1953	U	O4'-C1'	8.72	1.54	1.41
67	B1	2110	C	O4'-C1'	8.72	1.54	1.41
68	B3	67	U	C2'-C1'	8.72	1.66	1.53
67	B1	397	G	O4'-C1'	-8.72	1.28	1.41
67	B1	738	C	O4'-C1'	8.72	1.54	1.41
60	BS	114	ILE	CA-C	-8.71	1.44	1.53
21	A2	232	G	O4'-C1'	8.71	1.54	1.41
67	B1	346	U	C2'-C1'	-8.71	1.40	1.53
67	B1	2405	U	C2'-C1'	-8.71	1.40	1.53
67	B1	1967	G	C2'-C1'	-8.71	1.40	1.53
21	A2	1176	C	C2'-C1'	-8.71	1.40	1.53
58	BP	39	ARG	CZ-NH1	8.71	1.45	1.32
67	B1	2306	C	O4'-C1'	8.71	1.54	1.41
67	B1	1800	G	C2'-C1'	-8.71	1.40	1.53
21	A2	1131	G	C2'-C1'	-8.71	1.40	1.53
67	B1	1339	C	O4'-C1'	8.71	1.54	1.41
8	AR	24	HIS	CA-C	-8.70	1.41	1.52
67	B1	93	C	O4'-C1'	8.70	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1902	G	C2'-C1'	-8.71	1.40	1.53
61	Bd	15	VAL	CA-C	-8.70	1.42	1.52
21	A2	1214	G	C2'-C1'	-8.70	1.40	1.53
67	B1	30	G	C2'-C1'	-8.70	1.40	1.53
67	B1	830	G	C2'-C1'	-8.70	1.40	1.53
67	B1	2601	C	O4'-C1'	8.70	1.54	1.41
67	B1	2152	G	C2'-C1'	8.70	1.66	1.53
11	A1	56	U	C2'-C1'	-8.70	1.40	1.53
21	A2	1404	C	C2'-C1'	-8.70	1.40	1.53
67	B1	2370	C	C2'-C1'	8.70	1.66	1.53
67	B1	2391	G	C2'-C1'	-8.69	1.40	1.53
67	B1	2687	A	C2'-C1'	8.70	1.66	1.53
67	B1	1110	A	C2'-C1'	-8.69	1.40	1.53
21	A2	1039	C	O4'-C1'	8.69	1.54	1.41
21	A2	516	A	O4'-C1'	8.68	1.54	1.41
21	A2	1087	C	O4'-C1'	8.68	1.54	1.41
21	A2	1333	G	C2'-C1'	8.68	1.66	1.53
67	B1	800	G	O4'-C1'	8.68	1.54	1.41
67	B1	2222	C	O4'-C1'	8.68	1.54	1.41
67	B1	2367	C	O4'-C1'	8.68	1.54	1.41
67	B1	2262	C	O4'-C1'	8.68	1.54	1.41
67	B1	1537	U	C2'-C1'	-8.67	1.40	1.53
67	B1	2235	G	O4'-C1'	8.67	1.54	1.41
47	BI	134	VAL	N-CA	-8.67	1.35	1.46
21	A2	1035	C	O4'-C1'	8.67	1.54	1.41
67	B1	1936	C	O4'-C1'	8.67	1.54	1.41
67	B1	2549	A	O4'-C1'	8.67	1.54	1.42
67	B1	997	A	O4'-C1'	8.67	1.54	1.41
21	A2	312	U	O4'-C1'	8.66	1.54	1.41
67	B1	306	G	C2'-C1'	-8.66	1.40	1.53
67	B1	484	C	C2'-C1'	-8.66	1.40	1.53
67	B1	2629	U	O4'-C1'	8.66	1.54	1.41
67	B1	457	C	C2'-C1'	-8.66	1.40	1.53
67	B1	1544	C	O4'-C1'	8.66	1.54	1.41
67	B1	2301	C	O4'-C1'	8.66	1.54	1.41
67	B1	3022	C	O4'-C1'	8.66	1.54	1.41
21	A2	913	G	C2'-C1'	-8.66	1.40	1.53
67	B1	2463	G	O4'-C1'	8.66	1.54	1.41
67	B1	2510	A	O4'-C1'	8.66	1.54	1.41
21	A2	1221	A	O4'-C1'	8.66	1.54	1.41
67	B1	82	C	O4'-C1'	8.65	1.54	1.41
67	B1	84	A	C2'-C1'	-8.65	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1710	C	O4'-C1'	8.65	1.54	1.41
11	A1	46	U	O4'-C1'	-8.65	1.28	1.41
67	B1	1445	G	C2'-C1'	-8.65	1.40	1.53
67	B1	1653	U	O4'-C1'	8.65	1.54	1.41
68	B3	8	C	O4'-C1'	8.65	1.54	1.42
67	B1	198	C	O4'-C1'	8.64	1.54	1.41
4	AG	86	VAL	CA-C	-8.64	1.42	1.52
67	B1	2717	A	C2'-C1'	8.64	1.66	1.53
67	B1	285	C	O4'-C1'	8.64	1.54	1.41
67	B1	1554	G	O4'-C1'	8.64	1.54	1.41
47	BI	3	ILE	N-CA	-8.63	1.35	1.46
67	B1	2201	C	C2'-C1'	-8.63	1.40	1.53
67	B1	2241	U	C2'-C1'	8.63	1.66	1.53
21	A2	1280	C	O4'-C1'	8.63	1.54	1.41
67	B1	1615	G	O4'-C1'	-8.63	1.28	1.42
6	AC	131	ARG	CA-C	-8.63	1.41	1.52
38	Bb	8	ARG	NE-CZ	8.63	1.42	1.33
67	B1	2679	A	C2'-C1'	-8.63	1.40	1.53
67	B1	2433	U	C2'-C1'	-8.63	1.40	1.53
25	AH	84	HIS	C-N	8.63	1.45	1.33
67	B1	789	G	C5'-C4'	8.62	1.64	1.51
67	B1	899	A	C2'-C1'	8.62	1.66	1.53
21	A2	190	C	O4'-C1'	8.62	1.54	1.41
27	A0	28	C	O4'-C1'	8.62	1.54	1.41
67	B1	769	G	O4'-C1'	8.62	1.54	1.41
67	B1	2310	G	C2'-C1'	8.62	1.66	1.53
21	A2	82	G	C2'-C1'	-8.61	1.40	1.53
38	Bb	49	LYS	N-CA	-8.61	1.35	1.46
67	B1	2670	U	C2'-C1'	8.61	1.66	1.53
67	B1	1675	C	O4'-C1'	8.61	1.54	1.41
67	B1	2928	C	O4'-C1'	8.61	1.54	1.41
66	Bl	7	ARG	CD-NE	8.60	1.58	1.46
67	B1	2543	A	C2'-C1'	8.60	1.66	1.53
68	B3	112	C	C2'-C1'	-8.60	1.40	1.53
21	A2	66	G	C2'-C1'	-8.60	1.40	1.53
21	A2	282	G	C2'-C1'	-8.60	1.40	1.53
67	B1	37	C	O4'-C1'	8.60	1.54	1.41
67	B1	833	G	O4'-C1'	8.60	1.54	1.41
36	Bf	50	LYS	N-CA	-8.60	1.35	1.46
67	B1	2351	G	O4'-C1'	-8.59	1.29	1.42
21	A2	673	C	O4'-C1'	8.59	1.54	1.41
21	A2	638	G	C2'-C1'	-8.58	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1295	C	O3'-P	-8.58	1.48	1.61
67	B1	1654	G	O3'-P	-8.58	1.48	1.61
21	A2	420	C	C2'-C1'	-8.57	1.40	1.53
67	B1	617	G	C2'-C1'	8.57	1.66	1.53
67	B1	2116	G	O4'-C1'	8.57	1.54	1.42
56	BH	67	GLU	CA-C	-8.57	1.42	1.52
5	AW	10	ARG	CD-NE	8.57	1.58	1.46
67	B1	2521	U	C2'-C1'	-8.57	1.40	1.53
67	B1	2838	U	O4'-C1'	8.57	1.54	1.41
21	A2	70	C	O4'-C1'	8.56	1.54	1.41
21	A2	740	G	O4'-C1'	8.56	1.54	1.41
21	A2	760	C	C2'-C1'	-8.56	1.40	1.53
21	A2	360	A	O4'-C1'	8.55	1.54	1.41
67	B1	881	G	C5'-C4'	8.55	1.64	1.51
67	B1	1096	A	C2'-C1'	-8.55	1.40	1.53
67	B1	802	G	O4'-C1'	8.55	1.54	1.42
67	B1	2711	U	O4'-C1'	8.55	1.54	1.41
21	A2	702	G	O4'-C1'	8.55	1.54	1.41
21	A2	971	G	O4'-C1'	8.55	1.54	1.41
67	B1	162	G	O4'-C1'	8.55	1.54	1.41
67	B1	1405	G	O5'-C5'	8.55	1.55	1.42
67	B1	1474	A	O4'-C1'	8.55	1.54	1.41
67	B1	697	U	C2'-C1'	8.54	1.66	1.53
67	B1	1898	A	C2'-C1'	8.55	1.66	1.53
67	B1	1093	G	O4'-C1'	-8.54	1.28	1.41
67	B1	2174	G	C2'-C1'	8.54	1.65	1.53
67	B1	2673	C	O4'-C1'	8.54	1.54	1.41
21	A2	219	C	O4'-C1'	8.54	1.54	1.41
21	A2	1281	U	C2'-C1'	-8.54	1.40	1.53
67	B1	2659	G	O4'-C1'	8.54	1.54	1.41
21	A2	972	C	O4'-C1'	8.54	1.54	1.41
21	A2	679	G	O4'-C1'	8.53	1.54	1.41
8	AR	67	ARG	CD-NE	8.53	1.58	1.46
67	B1	2523	C	C2'-C1'	-8.53	1.40	1.53
67	B1	2650	G	C2'-C1'	-8.53	1.40	1.53
67	B1	1484	U	O4'-C1'	8.53	1.54	1.42
21	A2	670	C	C4'-C3'	8.52	1.65	1.52
67	B1	902	C	O4'-C1'	8.52	1.54	1.41
67	B1	2085	C	C2'-C1'	-8.52	1.40	1.53
67	B1	2889	A	C2'-C1'	-8.52	1.40	1.53
21	A2	410	U	C2'-C1'	-8.52	1.40	1.53
67	B1	102	A	C2'-C1'	-8.52	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2018	C	O4'-C1'	8.52	1.54	1.41
21	A2	733	C	C2'-C1'	-8.52	1.40	1.53
68	B3	20	G	C2'-C1'	-8.52	1.40	1.53
67	B1	87	C	O4'-C1'	8.51	1.54	1.41
67	B1	2432	G	C2'-C1'	8.51	1.66	1.53
67	B1	318	G	C4'-C3'	8.51	1.65	1.52
67	B1	2970	U	C2'-C1'	8.51	1.66	1.53
21	A2	1104	G	C2'-C1'	8.51	1.66	1.53
67	B1	1217	U	O4'-C1'	8.51	1.54	1.41
67	B1	2092	G	C2'-C1'	-8.51	1.40	1.53
67	B1	2918	G	C2'-C1'	-8.51	1.40	1.53
21	A2	394	C	P-O5'	-8.50	1.47	1.59
67	B1	1512	G	C2'-C1'	-8.50	1.40	1.53
21	A2	210	A	O4'-C1'	8.50	1.54	1.41
31	BY	16	LYS	CA-C	-8.50	1.42	1.52
67	B1	2669	U	C5'-C4'	8.50	1.64	1.51
58	BP	22	SER	CA-C	-8.49	1.41	1.52
68	B3	99	G	O4'-C1'	8.49	1.54	1.41
21	A2	1312	C	O4'-C1'	8.49	1.54	1.41
67	B1	1865	U	C2'-C1'	8.49	1.65	1.53
21	A2	255	G	O4'-C1'	8.49	1.54	1.41
21	A2	630	A	C2'-C1'	-8.48	1.40	1.53
67	B1	2733	A	O4'-C1'	8.48	1.54	1.41
21	A2	1233	G	O4'-C1'	-8.48	1.28	1.41
67	B1	1314	A	O4'-C1'	-8.48	1.28	1.41
23	AT	112	LYS	CA-CB	8.48	1.64	1.53
67	B1	816	C	C2'-C1'	-8.48	1.40	1.53
21	A2	749	C	C2'-C1'	-8.47	1.40	1.53
52	BB	147	GLU	C-N	8.47	1.45	1.33
67	B1	2649	A	C2'-C1'	-8.47	1.40	1.53
67	B1	2882	G	O4'-C1'	-8.47	1.28	1.41
21	A2	1346	C	O4'-C1'	8.47	1.54	1.41
21	A2	1308	U	C2'-C1'	-8.47	1.40	1.53
21	A2	1158	G	C2'-C1'	8.47	1.66	1.53
21	A2	1243	C	O4'-C1'	8.47	1.54	1.41
67	B1	865	C	O4'-C1'	8.47	1.54	1.41
67	B1	2470	U	O4'-C1'	8.47	1.54	1.41
46	BA	45	ARG	NE-CZ	8.46	1.42	1.33
21	A2	836	G	C2'-C1'	-8.46	1.40	1.53
46	BA	56	ARG	NE-CZ	8.46	1.42	1.33
21	A2	300	G	O4'-C1'	-8.46	1.28	1.41
21	A2	1179	C	C2'-C1'	-8.45	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	AM	25	ASN	CA-C	-8.45	1.41	1.52
11	A1	38	G	O4'-C1'	8.45	1.54	1.41
21	A2	361	A	O4'-C1'	8.45	1.54	1.41
67	B1	621	G	O4'-C1'	8.45	1.54	1.41
21	A2	1422	G	C2'-C1'	8.44	1.66	1.53
67	B1	2269	C	C2'-C1'	8.45	1.66	1.53
21	A2	487	U	C5'-C4'	8.44	1.64	1.51
67	B1	1828	A	C2'-C1'	-8.44	1.40	1.53
11	A1	27	A	O4'-C1'	8.44	1.54	1.41
67	B1	2035	U	C2'-C1'	-8.44	1.40	1.53
67	B1	2314	U	C2'-C1'	8.44	1.66	1.53
67	B1	369	G	C2'-C1'	-8.43	1.40	1.53
67	B1	2799	C	O4'-C1'	8.43	1.54	1.41
67	B1	548	U	O4'-C1'	8.43	1.54	1.41
67	B1	805	C	O4'-C1'	8.43	1.54	1.41
67	B1	1564	C	O4'-C1'	8.43	1.54	1.41
67	B1	1846	G	C2'-C1'	-8.43	1.40	1.53
67	B1	2398	C	C2'-C1'	-8.43	1.40	1.53
21	A2	1385	U	O4'-C1'	8.43	1.54	1.41
67	B1	2794	G	O4'-C1'	-8.43	1.29	1.41
21	A2	1235	A	C2'-C1'	-8.42	1.40	1.53
67	B1	673	A	C2'-C1'	-8.42	1.40	1.53
52	BB	130	LEU	C-N	8.42	1.41	1.33
67	B1	545	G	O4'-C1'	-8.42	1.29	1.42
67	B1	643	G	C2'-C1'	-8.42	1.40	1.53
67	B1	1993	A	C2'-C1'	8.42	1.66	1.53
21	A2	955	G	C2'-C1'	-8.41	1.40	1.53
67	B1	998	G	O4'-C1'	-8.41	1.29	1.41
24	AA	152	LEU	CA-C	-8.41	1.42	1.52
67	B1	358	C	C2'-C1'	-8.41	1.40	1.53
67	B1	371	U	O3'-P	-8.41	1.48	1.61
36	Bf	3	ARG	CA-CB	8.41	1.65	1.53
21	A2	1433	C	O4'-C1'	8.41	1.54	1.41
67	B1	847	A	O4'-C1'	8.41	1.54	1.41
67	B1	2928	C	C2'-C1'	8.41	1.66	1.53
67	B1	509	A	O4'-C1'	8.41	1.54	1.41
67	B1	634	G	O4'-C1'	-8.41	1.29	1.41
21	A2	1073	C	O4'-C1'	8.40	1.54	1.41
21	A2	1272	G	O4'-C1'	8.40	1.54	1.41
67	B1	1899	C	O4'-C1'	8.40	1.54	1.41
67	B1	197	C	O4'-C1'	8.40	1.54	1.41
67	B1	1405	G	O4'-C1'	8.40	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1843	C	O4'-C1'	8.40	1.54	1.41
67	B1	2121	C	O4'-C1'	8.40	1.54	1.41
67	B1	2131	C	C2'-C1'	-8.40	1.40	1.53
67	B1	2420	C	O4'-C1'	8.39	1.54	1.41
67	B1	615	A	C2'-C1'	8.39	1.66	1.53
67	B1	1415	C	O4'-C1'	8.39	1.54	1.42
67	B1	871	G	C2'-C1'	-8.39	1.40	1.53
21	A2	124	C	O4'-C1'	8.38	1.54	1.41
21	A2	1040	A	O4'-C1'	8.38	1.54	1.41
67	B1	2147	C	O4'-C1'	8.38	1.54	1.41
5	AW	51	LYS	C-N	8.38	1.42	1.33
21	A2	1162	G	O4'-C1'	8.38	1.54	1.41
67	B1	2470	U	C2'-C1'	8.38	1.66	1.53
58	BP	119	MET	CA-C	-8.38	1.42	1.52
35	BL	25	HIS	ND1-CE1	8.37	1.41	1.32
34	BK	45	ARG	NE-CZ	8.37	1.42	1.33
54	BF	75	ILE	CA-C	-8.37	1.42	1.52
67	B1	314	A	C2'-C1'	8.37	1.66	1.53
67	B1	431	U	C2'-C1'	-8.37	1.40	1.53
67	B1	2117	U	C2'-C1'	-8.37	1.40	1.53
67	B1	2684	G	O4'-C1'	8.37	1.54	1.41
67	B1	2972	G	O4'-C1'	8.37	1.54	1.41
57	BZ	7	LEU	CA-C	-8.37	1.41	1.52
7	AB	147	LEU	CA-C	-8.37	1.42	1.52
62	BN	136	ARG	NE-CZ	8.37	1.42	1.33
67	B1	1264	G	C2'-C1'	-8.37	1.40	1.53
67	B1	2198	U	O4'-C1'	8.36	1.54	1.41
67	B1	2882	G	C2'-C1'	8.36	1.65	1.53
67	B1	1573	A	O4'-C1'	-8.36	1.29	1.42
17	AO	22	ARG	CD-NE	8.36	1.57	1.46
68	B3	20	G	O4'-C1'	8.36	1.54	1.41
35	BL	9	ARG	CA-C	-8.35	1.41	1.52
35	BL	12	ARG	C-N	8.35	1.45	1.33
67	B1	207	A	C2'-C1'	-8.35	1.40	1.53
68	B3	71	G	C2'-C1'	-8.35	1.40	1.53
67	B1	2284	C	C2'-C1'	-8.35	1.40	1.53
67	B1	2697	G	O4'-C1'	8.35	1.54	1.41
30	AU	106	GLU	N-CA	-8.35	1.36	1.46
21	A2	1081	C	C3'-O3'	8.35	1.55	1.43
67	B1	1412	C	C2'-C1'	-8.35	1.40	1.53
67	B1	1573	A	C5'-C4'	8.35	1.63	1.51
35	BL	11	LEU	CA-CB	8.34	1.67	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1751	G	O4'-C1'	8.34	1.54	1.41
67	B1	1177	C	C2'-C1'	-8.34	1.40	1.53
21	A2	466	C	C2'-C1'	-8.34	1.40	1.53
21	A2	1007	A	C2'-C1'	8.34	1.65	1.53
21	A2	1297	G	O4'-C1'	8.34	1.54	1.41
67	B1	1796	U	O4'-C1'	-8.34	1.29	1.41
67	B1	2908	U	C2'-C1'	8.34	1.65	1.53
21	A2	1012	C	O4'-C1'	8.33	1.54	1.41
21	A2	1286	C	C2'-C1'	-8.33	1.40	1.53
67	B1	1567	C	P-OP2	8.33	1.65	1.49
21	A2	337	C	O4'-C1'	8.33	1.54	1.41
21	A2	1008	U	O4'-C1'	8.32	1.54	1.41
21	A2	1285	C	C2'-C1'	-8.32	1.40	1.53
33	BC	164	ARG	C-N	8.32	1.44	1.33
67	B1	2592	U	C2'-C1'	-8.32	1.40	1.53
67	B1	1378	G	C5'-C4'	8.32	1.63	1.51
10	AD	52	ARG	CA-C	-8.32	1.42	1.52
21	A2	40	C	C2'-C1'	-8.32	1.40	1.53
21	A2	1318	U	O4'-C1'	8.32	1.54	1.41
67	B1	2817	U	O4'-C1'	8.32	1.54	1.41
21	A2	264	C	C2'-C1'	-8.32	1.40	1.53
67	B1	1451	A	O4'-C1'	8.32	1.54	1.41
67	B1	1757	G	C2'-C1'	-8.32	1.40	1.53
67	B1	2857	C	O4'-C1'	8.32	1.54	1.41
21	A2	903	G	C2'-C1'	-8.31	1.40	1.53
67	B1	1676	G	O4'-C1'	8.31	1.54	1.41
67	B1	1752	C	C2'-C1'	-8.31	1.40	1.53
67	B1	2205	A	O4'-C1'	8.31	1.54	1.41
21	A2	27	C	O4'-C1'	8.31	1.54	1.41
67	B1	606	A	C2'-C1'	-8.31	1.40	1.53
21	A2	1000	G	C2'-C1'	-8.30	1.40	1.53
67	B1	450	G	C2'-C1'	-8.30	1.40	1.53
65	BJ	130	TRP	CA-C	-8.30	1.42	1.52
65	BJ	140	ILE	CA-C	-8.30	1.42	1.52
67	B1	475	U	O4'-C1'	8.30	1.54	1.41
67	B1	833	G	C2'-C1'	-8.30	1.40	1.53
67	B1	1977	C	O4'-C1'	8.31	1.54	1.42
67	B1	2998	G	O4'-C1'	-8.30	1.29	1.41
15	AE	32	PRO	N-CD	-8.30	1.36	1.47
67	B1	868	U	O4'-C1'	8.30	1.54	1.41
14	AM	78	GLY	CA-C	-8.29	1.46	1.52
21	A2	1154	G	O4'-C1'	8.29	1.54	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	402	G	C2'-C1'	-8.29	1.41	1.53
67	B1	1865	U	C5'-C4'	8.29	1.63	1.51
21	A2	491	G	O4'-C1'	8.29	1.54	1.41
21	A2	1264	G	C2'-C1'	-8.29	1.41	1.53
67	B1	2835	A	O4'-C1'	8.29	1.54	1.41
30	AU	114	VAL	CA-C	8.29	1.61	1.52
21	A2	473	A	C3'-C2'	8.28	1.65	1.52
66	B1	15	ASN	CA-CB	8.28	1.65	1.53
67	B1	906	G	O4'-C1'	-8.28	1.29	1.41
67	B1	931	C	O4'-C1'	8.28	1.54	1.41
67	B1	1513	G	O4'-C1'	-8.28	1.29	1.41
67	B1	1239	C	O4'-C1'	8.27	1.54	1.41
67	B1	1713	G	C2'-C1'	-8.27	1.41	1.53
10	AD	171	ILE	CA-C	8.27	1.63	1.52
21	A2	104	A	C2'-C1'	-8.27	1.41	1.53
62	BN	87	ARG	CA-C	-8.27	1.42	1.52
67	B1	1165	C	C2'-C1'	8.27	1.65	1.53
67	B1	1087	G	O4'-C1'	-8.27	1.29	1.41
21	A2	136	A	O4'-C1'	8.26	1.54	1.41
67	B1	963	G	O4'-C1'	8.26	1.54	1.41
67	B1	1497	C	C2'-C1'	-8.26	1.41	1.53
67	B1	1253	U	O4'-C1'	8.26	1.54	1.41
67	B1	1823	A	O4'-C1'	8.26	1.54	1.41
61	Bd	49	GLY	CA-C	-8.26	1.41	1.51
21	A2	1090	C	O4'-C1'	8.25	1.54	1.41
21	A2	1238	G	O4'-C1'	-8.25	1.29	1.42
32	BO	161	GLU	CA-C	-8.25	1.42	1.52
67	B1	2070	U	C2'-C1'	-8.25	1.41	1.53
33	BC	107	ASP	CA-C	-8.25	1.42	1.52
67	B1	1755	C	O4'-C1'	8.24	1.54	1.41
21	A2	1325	C	O4'-C1'	8.24	1.54	1.41
67	B1	2712	G	O4'-C1'	8.24	1.54	1.41
67	B1	875	G	O4'-C1'	8.24	1.54	1.41
21	A2	573	C	C2'-C1'	-8.24	1.41	1.53
67	B1	911	G	O4'-C1'	8.24	1.54	1.42
67	B1	723	A	O4'-C1'	8.23	1.54	1.42
21	A2	464	G	O4'-C1'	8.23	1.54	1.42
16	AJ	8	SER	CA-C	-8.23	1.42	1.52
67	B1	1068	U	O4'-C1'	8.22	1.54	1.42
67	B1	2393	G	O4'-C1'	-8.22	1.29	1.41
21	A2	352	A	C2'-C1'	8.22	1.65	1.53
67	B1	2096	G	C2'-C1'	-8.21	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2188	C	O4'-C1'	8.21	1.53	1.41
16	AJ	29	GLY	CA-C	-8.21	1.45	1.52
67	B1	2342	C	C2'-C1'	-8.21	1.41	1.53
67	B1	1036	C	C2'-C1'	-8.21	1.41	1.53
21	A2	766	G	C2'-C1'	-8.21	1.41	1.53
67	B1	1841	G	C5'-C4'	8.21	1.63	1.51
33	BC	141	GLN	CA-C	-8.21	1.42	1.52
67	B1	1572	C	O4'-C1'	8.21	1.54	1.42
33	BC	274	MET	N-CA	-8.20	1.35	1.46
67	B1	2407	G	O4'-C1'	8.20	1.53	1.41
67	B1	679	U	C4'-C3'	8.20	1.64	1.52
67	B1	1099	C	O4'-C1'	8.20	1.53	1.41
67	B1	1723	A	O4'-C1'	8.19	1.53	1.41
21	A2	338	C	O4'-C1'	8.19	1.53	1.41
21	A2	1021	C	C2'-C1'	-8.19	1.41	1.53
33	BC	345	PRO	CA-C	-8.19	1.42	1.52
67	B1	1168	A	O4'-C1'	8.19	1.53	1.41
14	AM	130	GLY	C-N	8.18	1.43	1.33
67	B1	740	C	C2'-C1'	-8.18	1.41	1.53
21	A2	1455	A	O4'-C1'	8.18	1.53	1.41
53	BD	128	ARG	CD-NE	8.18	1.57	1.46
67	B1	1483	U	C5'-C4'	8.18	1.63	1.51
67	B1	424	U	O4'-C1'	8.17	1.53	1.41
60	BS	63	LEU	CA-C	-8.17	1.42	1.52
21	A2	638	G	O4'-C1'	8.17	1.53	1.41
13	AX	61	GLU	CA-CB	8.17	1.63	1.52
21	A2	1050	G	O4'-C1'	-8.17	1.29	1.41
67	B1	3032	C	O4'-C1'	8.17	1.53	1.41
67	B1	1873	G	C2'-C1'	-8.17	1.41	1.53
21	A2	313	G	C2'-C1'	-8.16	1.41	1.53
57	BZ	25	ARG	CD-NE	8.16	1.57	1.46
67	B1	872	G	O4'-C1'	8.16	1.53	1.41
64	Bc	32	ARG	NE-CZ	8.16	1.42	1.33
8	AR	19	PRO	C-N	8.16	1.42	1.33
47	BI	83	LEU	CA-C	8.16	1.63	1.52
67	B1	148	C	O4'-C1'	8.16	1.53	1.41
67	B1	1689	G	O4'-C1'	8.16	1.54	1.42
67	B1	1882	C	O4'-C1'	8.16	1.53	1.41
67	B1	2246	G	O4'-C1'	8.16	1.53	1.41
21	A2	1276	G	O4'-C1'	8.16	1.53	1.41
21	A2	202	G	C2'-C1'	8.15	1.65	1.53
67	B1	1526	G	C2'-C1'	-8.15	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	584	C	O4'-C1'	8.15	1.54	1.42
67	B1	811	C	O4'-C1'	8.15	1.53	1.41
67	B1	3026	C	O4'-C1'	-8.15	1.29	1.42
21	A2	90	C	C2'-C1'	-8.15	1.41	1.53
67	B1	140	C	C2'-C1'	-8.15	1.41	1.53
21	A2	1093	C	O4'-C1'	8.15	1.54	1.42
21	A2	1494	C	C2'-C1'	-8.15	1.41	1.53
67	B1	674	G	C2'-C1'	-8.15	1.41	1.53
67	B1	855	G	C2'-C1'	8.15	1.65	1.53
17	AO	134	ASN	CA-C	-8.14	1.42	1.53
21	A2	5	C	O4'-C1'	8.14	1.53	1.41
67	B1	2243	G	O4'-C1'	-8.14	1.29	1.41
60	BS	126	ARG	CD-NE	8.14	1.57	1.46
67	B1	1510	U	C2'-C1'	8.14	1.65	1.53
68	B3	93	G	C2'-C1'	-8.13	1.41	1.53
67	B1	2378	C	C2'-C1'	-8.13	1.41	1.53
67	B1	2819	C	C2'-C1'	-8.13	1.41	1.53
21	A2	550	G	C2'-C1'	-8.13	1.41	1.53
27	A0	74	C	O4'-C1'	8.13	1.53	1.41
67	B1	2102	A	C2'-C1'	-8.13	1.41	1.53
21	A2	334	G	O4'-C1'	-8.12	1.29	1.41
67	B1	179	A	C2'-C1'	-8.13	1.41	1.53
21	A2	520	G	C2'-C1'	8.12	1.65	1.53
21	A2	438	A	O4'-C1'	8.12	1.53	1.41
21	A2	580	G	O4'-C1'	-8.12	1.29	1.41
67	B1	68	G	O4'-C1'	8.12	1.53	1.41
67	B1	644	G	C2'-C1'	-8.12	1.41	1.53
21	A2	1171	G	C2'-C1'	8.12	1.65	1.53
60	BS	155	ARG	CD-NE	8.12	1.57	1.46
67	B1	242	C	O4'-C1'	8.12	1.53	1.41
67	B1	791	C	O4'-C1'	8.11	1.53	1.41
68	B3	126	C	O4'-C1'	8.12	1.53	1.41
11	A1	11	C	C2'-C1'	-8.11	1.41	1.53
67	B1	2111	C	C2'-C1'	-8.11	1.41	1.53
67	B1	935	A	O4'-C1'	-8.11	1.29	1.42
21	A2	822	A	O4'-C1'	8.11	1.53	1.41
33	BC	245	LYS	CA-C	-8.11	1.42	1.52
14	AM	91	SER	CA-C	8.11	1.62	1.52
21	A2	49	C	C2'-C1'	-8.11	1.41	1.53
21	A2	1088	U	C2'-C1'	-8.11	1.41	1.53
21	A2	1116	G	C2'-C1'	-8.11	1.41	1.53
67	B1	661	G	O4'-C1'	8.11	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2577	U	C2'-C1'	-8.11	1.41	1.53
24	AA	135	ARG	CA-C	-8.10	1.41	1.52
67	B1	655	C	O4'-C1'	8.10	1.53	1.41
67	B1	2206	G	O4'-C1'	8.10	1.53	1.41
21	A2	930	G	O4'-C1'	8.10	1.54	1.42
21	A2	1022	U	O4'-C1'	8.10	1.53	1.41
67	B1	79	C	O4'-C1'	8.10	1.53	1.41
52	BB	130	LEU	CA-C	-8.10	1.43	1.52
67	B1	449	G	O3'-P	-8.10	1.49	1.61
33	BC	168	ALA	CA-C	-8.10	1.42	1.52
67	B1	576	G	C2'-C1'	-8.10	1.41	1.53
38	Bb	75	HIS	ND1-CE1	8.10	1.40	1.32
67	B1	631	G	C2'-C1'	-8.10	1.41	1.53
67	B1	950	G	C2'-C1'	-8.10	1.41	1.53
48	BR	9	ARG	CZ-NH2	8.10	1.44	1.33
2	AK	23	LYS	CA-C	-8.09	1.42	1.52
21	A2	944	C	O4'-C1'	8.09	1.53	1.41
21	A2	1313	G	C2'-C1'	-8.09	1.41	1.53
11	A1	60	A	O4'-C1'	8.09	1.53	1.41
25	AH	76	GLY	CA-C	-8.09	1.40	1.51
52	BB	202	HIS	N-CA	-8.09	1.37	1.46
11	A1	2	G	O4'-C1'	8.09	1.53	1.41
67	B1	175	G	O4'-C1'	-8.09	1.29	1.41
24	AA	160	GLU	CA-C	8.09	1.63	1.52
32	BO	14	ARG	CD-NE	8.09	1.57	1.46
67	B1	1069	A	O4'-C1'	-8.08	1.29	1.42
67	B1	261	A	O4'-C1'	8.08	1.53	1.41
67	B1	694	A	O4'-C1'	-8.08	1.29	1.42
67	B1	2341	G	O3'-P	-8.08	1.49	1.61
67	B1	2511	C	C2'-C1'	-8.08	1.41	1.53
67	B1	2957	G	O4'-C1'	8.08	1.53	1.41
21	A2	1434	C	O4'-C1'	8.08	1.53	1.41
41	Ba	42	HIS	ND1-CE1	8.08	1.40	1.32
67	B1	476	C	C5'-C4'	8.08	1.63	1.51
7	AB	151	ASP	N-CA	-8.07	1.35	1.46
11	A1	8	U	C4'-O4'	8.07	1.57	1.45
67	B1	438	G	C2'-C1'	-8.07	1.41	1.53
21	A2	1139	A	C2'-C1'	-8.07	1.41	1.53
62	BN	113	ARG	CD-NE	8.07	1.57	1.46
67	B1	1780	C	O4'-C1'	8.07	1.53	1.41
67	B1	2806	A	C2'-C1'	-8.07	1.41	1.53
21	A2	1129	A	O4'-C1'	8.07	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	827	G	O4'-C1'	-8.07	1.29	1.41
67	B1	1357	G	C2'-C1'	8.07	1.65	1.53
67	B1	2963	G	C2'-C1'	8.07	1.65	1.53
53	BD	42	ARG	NE-CZ	8.07	1.42	1.33
67	B1	1502	C	C2'-C1'	-8.07	1.41	1.53
43	Bk	42	ARG	CA-C	8.07	1.63	1.52
67	B1	249	G	O4'-C1'	8.07	1.53	1.41
67	B1	2494	A	O4'-C1'	8.07	1.53	1.41
21	A2	265	C	O4'-C1'	8.06	1.53	1.41
21	A2	1387	C	C2'-C1'	-8.06	1.41	1.53
67	B1	1474	A	O3'-P	-8.06	1.49	1.61
67	B1	2631	C	O4'-C1'	8.06	1.53	1.41
67	B1	1020	G	C2'-C1'	-8.06	1.41	1.53
59	BM	157	ARG	CA-C	-8.06	1.41	1.52
67	B1	1567	C	C3'-O3'	-8.06	1.30	1.42
21	A2	1197	C	O4'-C1'	8.06	1.53	1.41
56	BH	19	PRO	CA-CB	-8.06	1.43	1.54
67	B1	266	A	O4'-C1'	8.06	1.53	1.41
15	AE	84	PRO	N-CA	-8.06	1.37	1.47
21	A2	139	C	C2'-C1'	-8.06	1.41	1.53
67	B1	465	C	C2'-C1'	-8.06	1.41	1.53
21	A2	1071	C	C2'-C1'	-8.06	1.41	1.53
67	B1	1891	C	O4'-C1'	8.05	1.53	1.41
21	A2	1093	C	C2'-C1'	8.05	1.65	1.53
67	B1	1052	G	C2'-C1'	-8.05	1.41	1.53
67	B1	3035	C	O3'-P	-8.05	1.49	1.61
67	B1	84	A	O4'-C1'	8.04	1.54	1.42
67	B1	1993	A	O4'-C1'	-8.05	1.29	1.41
67	B1	1192	G	O4'-C1'	8.04	1.53	1.41
67	B1	2774	C	C5'-C4'	8.04	1.63	1.51
21	A2	908	G	C2'-C1'	-8.04	1.41	1.53
21	A2	1174	A	C2'-C1'	-8.04	1.41	1.53
67	B1	1047	A	C2'-C1'	8.04	1.65	1.53
67	B1	1422	G	C2'-C1'	-8.04	1.41	1.53
60	BS	83	TYR	CA-C	-8.03	1.46	1.52
67	B1	2181	G	C2'-C1'	-8.03	1.41	1.53
67	B1	2272	G	O4'-C1'	8.03	1.53	1.41
21	A2	103	A	C2'-C1'	8.03	1.65	1.53
67	B1	830	G	O4'-C1'	8.03	1.53	1.41
67	B1	1274	G	C2'-C1'	-8.03	1.41	1.53
68	B3	25	A	C2'-C1'	-8.03	1.41	1.53
44	BW	7	ARG	NE-CZ	8.03	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1196	A	C2'-C1'	8.03	1.65	1.53
67	B1	1729	C	O4'-C1'	8.03	1.53	1.41
27	A0	35	U	O4'-C1'	8.02	1.53	1.41
67	B1	1432	C	C2'-C1'	-8.02	1.41	1.53
21	A2	442	C	O4'-C1'	8.02	1.53	1.41
67	B1	804	C	O4'-C1'	8.02	1.53	1.41
67	B1	2655	C	O3'-P	-8.02	1.49	1.61
20	A3	27	ARG	NE-CZ	8.02	1.41	1.33
21	A2	1159	U	O4'-C1'	8.02	1.53	1.41
64	Bc	11	ARG	CD-NE	8.02	1.57	1.46
67	B1	1067	G	C2'-C1'	-8.02	1.41	1.53
67	B1	1261	C	C2'-C1'	-8.02	1.41	1.53
21	A2	1191	G	C2'-C1'	-8.02	1.41	1.53
67	B1	2029	C	C2'-C1'	-8.02	1.41	1.53
67	B1	2726	G	C2'-C1'	-8.02	1.41	1.53
68	B3	45	C	C2'-C1'	8.02	1.65	1.53
67	B1	2522	C	C2'-C1'	8.01	1.65	1.53
67	B1	923	A	O4'-C1'	-8.01	1.29	1.42
67	B1	61	G	O4'-C1'	8.01	1.53	1.41
59	BM	106	ARG	CD-NE	8.00	1.57	1.46
3	AI	68	ARG	NE-CZ	8.00	1.41	1.33
11	A1	46	U	C2'-C1'	8.00	1.65	1.53
67	B1	1031	C	O4'-C1'	8.00	1.53	1.41
67	B1	2547	A	O4'-C1'	8.00	1.53	1.41
67	B1	2875	C	O4'-C1'	8.00	1.53	1.41
67	B1	1033	C	O4'-C1'	8.00	1.53	1.41
67	B1	2874	C	O4'-C1'	8.00	1.53	1.41
21	A2	931	C	O4'-C1'	8.00	1.53	1.41
67	B1	845	U	O4'-C1'	8.00	1.53	1.41
67	B1	2517	U	C2'-C1'	-8.00	1.41	1.53
67	B1	926	C	O4'-C1'	8.00	1.53	1.42
21	A2	18	C	C2'-C1'	-7.99	1.41	1.53
67	B1	3047	C	O4'-C1'	7.99	1.53	1.41
21	A2	1126	G	C2'-C1'	-7.99	1.41	1.53
24	AA	90	SER	N-CA	-7.99	1.36	1.46
67	B1	2124	C	O4'-C1'	7.99	1.53	1.41
67	B1	2389	C	O4'-C1'	7.99	1.53	1.42
17	AO	137	ARG	NE-CZ	7.99	1.41	1.33
21	A2	1156	A	C2'-C1'	7.99	1.65	1.53
62	BN	71	ARG	CZ-NH1	7.98	1.44	1.32
67	B1	2125	C	C2'-C1'	-7.98	1.41	1.53
21	A2	868	C	O4'-C1'	7.98	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1624	U	C4'-C3'	7.98	1.65	1.53
6	AC	12	VAL	CA-CB	-7.98	1.44	1.54
67	B1	555	G	C2'-C1'	-7.98	1.41	1.53
67	B1	911	G	C2'-C1'	-7.98	1.41	1.53
67	B1	2965	C	O4'-C1'	7.98	1.53	1.41
67	B1	945	U	C2'-C1'	-7.97	1.41	1.53
67	B1	2445	G	C2'-C1'	-7.97	1.41	1.53
67	B1	1863	G	C3'-O3'	7.97	1.54	1.42
67	B1	2534	C	O4'-C1'	7.97	1.53	1.41
21	A2	1230	G	C2'-C1'	-7.97	1.41	1.53
67	B1	441	A	O4'-C1'	7.97	1.53	1.41
67	B1	1778	G	O4'-C1'	7.97	1.53	1.41
21	A2	614	G	C2'-C1'	-7.96	1.41	1.53
67	B1	1534	G	O3'-P	-7.96	1.49	1.61
67	B1	562	G	O4'-C1'	-7.96	1.29	1.41
67	B1	728	A	C2'-C1'	-7.96	1.41	1.53
21	A2	219	C	C2'-C1'	-7.95	1.41	1.53
67	B1	770	G	O4'-C1'	-7.95	1.29	1.41
21	A2	1234	A	O4'-C1'	7.95	1.53	1.41
31	BY	121	PRO	CA-C	-7.95	1.46	1.52
67	B1	2812	U	C2'-C1'	-7.95	1.41	1.53
21	A2	187	C	O4'-C1'	7.94	1.53	1.41
21	A2	324	C	C4'-O4'	-7.94	1.33	1.45
21	A2	1476	C	C2'-C1'	-7.94	1.41	1.53
67	B1	395	G	C2'-C1'	-7.94	1.41	1.53
67	B1	2146	C	C2'-C1'	-7.94	1.41	1.53
21	A2	1232	G	C2'-C1'	-7.94	1.41	1.53
21	A2	1377	G	O4'-C1'	-7.94	1.29	1.41
67	B1	174	C	O4'-C1'	7.94	1.53	1.41
25	AH	86	MET	C-N	7.94	1.45	1.33
67	B1	1810	G	O4'-C1'	7.94	1.53	1.41
67	B1	2766	C	O4'-C1'	7.94	1.53	1.41
21	A2	902	U	O4'-C1'	7.93	1.53	1.41
67	B1	836	U	C2'-C1'	-7.93	1.41	1.53
33	BC	66	ILE	C-N	7.93	1.45	1.33
67	B1	1509	C	C2'-C1'	-7.93	1.41	1.53
67	B1	2795	G	C2'-C1'	-7.93	1.41	1.53
21	A2	1061	A	O4'-C1'	7.93	1.53	1.41
67	B1	113	C	O4'-C1'	7.93	1.53	1.41
67	B1	1998	G	C4'-O4'	7.93	1.57	1.45
67	B1	2162	G	O4'-C1'	7.93	1.53	1.41
67	B1	851	G	O4'-C1'	7.93	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
17	AO	147	LYS	CA-C	-7.93	1.43	1.53
21	A2	211	G	O4'-C1'	7.92	1.53	1.41
21	A2	242	A	C2'-C1'	7.92	1.65	1.53
60	BS	59	ARG	CD-NE	7.92	1.57	1.46
67	B1	2356	U	C2'-C1'	7.92	1.65	1.53
67	B1	1312	C	O4'-C1'	7.92	1.53	1.41
67	B1	2960	G	C2'-C1'	-7.92	1.41	1.53
25	AH	174	TYR	CA-CB	7.92	1.66	1.53
67	B1	100	C	O4'-C1'	7.92	1.53	1.41
67	B1	2376	U	O4'-C1'	7.91	1.53	1.41
27	A0	69	C	O4'-C1'	7.91	1.53	1.41
67	B1	77	C	O4'-C1'	7.91	1.53	1.41
67	B1	1381	C	O4'-C1'	7.91	1.53	1.41
67	B1	2394	G	O4'-C1'	7.91	1.53	1.41
67	B1	939	A	O4'-C1'	7.91	1.53	1.41
67	B1	998	G	C2'-C1'	7.91	1.65	1.53
68	B3	66	A	C2'-C1'	-7.91	1.41	1.53
67	B1	173	G	O4'-C1'	7.91	1.53	1.41
67	B1	1215	C	O4'-C1'	7.91	1.53	1.41
67	B1	1961	G	C2'-C1'	7.91	1.65	1.53
21	A2	470	G	C2'-C1'	7.90	1.65	1.53
31	BY	134	PHE	CA-CB	7.90	1.65	1.53
67	B1	2623	G	O4'-C1'	-7.90	1.29	1.41
67	B1	1534	G	C2'-C1'	-7.90	1.41	1.53
67	B1	1975	C	C2'-C1'	7.90	1.65	1.53
67	B1	2790	C	C2'-C1'	-7.90	1.41	1.53
21	A2	325	A	C4'-C3'	7.90	1.65	1.53
21	A2	933	G	O4'-C1'	7.90	1.53	1.42
21	A2	1417	A	C2'-C1'	-7.90	1.41	1.53
67	B1	970	G	O4'-C1'	-7.90	1.29	1.41
67	B1	17	C	O4'-C1'	7.89	1.53	1.41
67	B1	761	U	O3'-P	-7.89	1.49	1.61
67	B1	1421	C	O4'-C1'	7.89	1.53	1.41
16	AJ	76	ARG	NE-CZ	7.89	1.41	1.33
21	A2	1025	U	O4'-C1'	7.89	1.53	1.41
67	B1	1728	C	O4'-C1'	7.89	1.53	1.41
67	B1	2885	C	O4'-C1'	7.89	1.53	1.41
21	A2	789	G	C2'-C1'	7.88	1.65	1.53
33	BC	109	TYR	CA-C	-7.88	1.44	1.52
67	B1	1034	G	O4'-C1'	-7.88	1.29	1.41
67	B1	2560	G	C4'-C3'	7.88	1.64	1.52
67	B1	1828	A	O4'-C1'	7.88	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1208	A	O4'-C1'	7.88	1.53	1.41
34	B5	37	GLY	CA-C	-7.88	1.43	1.51
53	BD	242	TRP	NE1-CE2	7.88	1.46	1.37
24	AA	181	ARG	NE-CZ	7.88	1.41	1.33
32	BO	15	ARG	CD-NE	7.88	1.57	1.46
67	B1	1854	G	O4'-C1'	-7.87	1.29	1.41
21	A2	820	G	C2'-C1'	-7.87	1.41	1.53
67	B1	2568	A	P-O5'	-7.87	1.48	1.59
21	A2	389	G	C2'-C1'	-7.87	1.41	1.53
21	A2	904	G	C2'-C1'	7.87	1.65	1.53
22	AY	34	HIS	ND1-CE1	7.86	1.40	1.32
67	B1	357	G	O4'-C1'	-7.86	1.29	1.41
32	BO	45	ILE	CA-C	-7.86	1.43	1.52
67	B1	1870	G	C2'-C1'	-7.86	1.41	1.53
67	B1	2937	U	O4'-C1'	7.86	1.53	1.41
67	B1	871	G	O4'-C1'	7.86	1.53	1.41
67	B1	2617	G	C2'-C1'	-7.86	1.41	1.53
34	BK	37	GLY	CA-C	-7.86	1.43	1.51
23	AT	62	PRO	C-N	7.86	1.42	1.33
67	B1	1623	C	O4'-C1'	7.86	1.53	1.41
67	B1	2007	C	C2'-C1'	-7.86	1.41	1.53
67	B1	1080	G	O4'-C1'	-7.85	1.29	1.41
21	A2	1007	A	O4'-C1'	7.85	1.53	1.41
67	B1	837	G	O4'-C1'	7.85	1.53	1.41
67	B1	1997	C	C2'-C1'	-7.85	1.41	1.53
67	B1	2500	G	O4'-C1'	-7.85	1.29	1.41
67	B1	2036	A	O4'-C1'	-7.85	1.29	1.41
21	A2	465	C	O4'-C1'	7.85	1.53	1.41
67	B1	783	C	O4'-C1'	7.85	1.53	1.41
47	BI	13	ARG	CD-NE	7.85	1.57	1.46
67	B1	789	G	C2'-C1'	-7.85	1.41	1.53
67	B1	1738	A	O3'-P	-7.85	1.49	1.61
67	B1	1842	C	O4'-C1'	7.85	1.53	1.41
67	B1	2392	A	C2'-C1'	-7.84	1.41	1.53
21	A2	38	G	C2'-C1'	-7.84	1.41	1.53
21	A2	93	A	C2'-C1'	-7.84	1.41	1.53
21	A2	283	U	C2'-C1'	-7.84	1.41	1.53
43	Bk	211	SER	N-CA	-7.84	1.36	1.46
67	B1	1671	A	C2'-C1'	7.84	1.65	1.53
21	A2	99	C	O4'-C1'	7.84	1.53	1.41
21	A2	977	G	C2'-C1'	-7.84	1.41	1.53
24	AA	131	THR	C-N	7.84	1.44	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1868	C	O4'-C1'	7.83	1.53	1.41
68	B3	36	U	C5'-C4'	7.83	1.62	1.51
21	A2	503	G	O4'-C1'	-7.83	1.29	1.41
21	A2	180	G	O4'-C1'	7.83	1.53	1.41
67	B1	2546	G	O4'-C1'	7.83	1.53	1.41
44	BW	29	ARG	CZ-NH2	7.83	1.43	1.33
46	BA	214	ILE	CA-C	-7.83	1.43	1.52
67	B1	2302	C	O4'-C1'	7.83	1.53	1.41
13	AX	43	ARG	CD-NE	7.82	1.57	1.46
67	B1	460	C	O4'-C1'	7.82	1.53	1.41
67	B1	2672	A	C4'-C3'	7.82	1.64	1.52
67	B1	1568	A	C5'-C4'	7.82	1.62	1.51
21	A2	700	G	O4'-C1'	7.82	1.53	1.41
26	AP	12	ARG	C-N	7.82	1.44	1.33
67	B1	2571	G	C2'-C1'	7.82	1.65	1.53
67	B1	583	A	C2'-C1'	7.82	1.65	1.53
67	B1	2463	G	C2'-C1'	-7.82	1.41	1.53
21	A2	828	U	C4'-C3'	7.81	1.64	1.53
21	A2	157	A	C2'-C1'	7.81	1.65	1.53
67	B1	1299	C	O4'-C1'	7.81	1.53	1.41
67	B1	1460	C	O4'-C1'	7.81	1.53	1.41
67	B1	1194	G	O4'-C1'	7.81	1.53	1.41
67	B1	1330	G	C2'-C1'	-7.81	1.41	1.53
67	B1	1647	C	C2'-C1'	-7.81	1.41	1.53
67	B1	2500	G	C2'-C1'	7.81	1.65	1.53
21	A2	653	C	O4'-C1'	7.81	1.53	1.41
67	B1	664	A	O4'-C1'	7.80	1.53	1.42
67	B1	3009	C	C2'-C1'	-7.80	1.41	1.53
67	B1	943	G	O4'-C1'	7.80	1.53	1.41
11	A1	44	G	O4'-C1'	7.80	1.53	1.41
67	B1	617	G	O4'-C1'	7.80	1.53	1.41
21	A2	584	C	C2'-C1'	-7.80	1.41	1.53
67	B1	2097	G	O4'-C1'	7.80	1.53	1.41
21	A2	969	A	O4'-C1'	7.80	1.53	1.41
21	A2	1160	C	O4'-C1'	7.80	1.53	1.41
44	BW	66	GLU	CA-CB	7.80	1.65	1.53
68	B3	122	C	O4'-C1'	-7.80	1.30	1.42
67	B1	2046	C	O4'-C1'	7.79	1.53	1.41
2	AK	34	GLU	N-CA	-7.79	1.36	1.46
67	B1	2591	A	C2'-C1'	-7.79	1.41	1.53
21	A2	880	G	O4'-C1'	7.79	1.53	1.41
67	B1	1033	C	C2'-C1'	7.79	1.65	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1478	A	C2'-C1'	-7.79	1.41	1.53
68	B3	35	A	O4'-C1'	7.78	1.53	1.41
3	AI	122	GLY	CA-C	-7.78	1.44	1.52
67	B1	2059	G	O3'-P	-7.78	1.49	1.61
67	B1	1150	G	O4'-C1'	7.78	1.53	1.41
67	B1	1684	C	C2'-C1'	-7.78	1.41	1.53
67	B1	539	A	O4'-C1'	7.78	1.53	1.41
67	B1	721	G	O4'-C1'	7.78	1.53	1.41
21	A2	355	C	O4'-C1'	7.78	1.53	1.41
21	A2	397	C	O4'-C1'	7.78	1.53	1.41
21	A2	207	G	C2'-C1'	7.78	1.65	1.53
67	B1	302	U	O4'-C1'	-7.77	1.30	1.42
21	A2	1322	C	C2'-C1'	-7.77	1.41	1.53
27	A0	4	G	O4'-C1'	7.77	1.53	1.41
39	Be	55	TRP	CA-CB	7.77	1.65	1.53
67	B1	707	U	O4'-C1'	7.77	1.53	1.41
67	B1	2245	C	C2'-C1'	-7.77	1.41	1.53
67	B1	199	C	O4'-C1'	7.76	1.53	1.41
21	A2	950	C	O4'-C1'	7.76	1.53	1.41
67	B1	2484	C	O4'-C1'	7.76	1.53	1.41
67	B1	2752	U	O4'-C1'	7.76	1.53	1.41
11	A1	29	C	O4'-C1'	7.76	1.53	1.41
45	Bi	63	PHE	CA-C	-7.76	1.43	1.52
67	B1	2615	U	C2'-C1'	-7.76	1.41	1.53
21	A2	17	C	C2'-C1'	-7.75	1.41	1.53
35	BL	71	ARG	NE-CZ	7.75	1.41	1.33
67	B1	1735	G	O4'-C1'	7.75	1.53	1.41
67	B1	1947	A	C2'-C1'	-7.75	1.41	1.53
67	B1	2037	A	C2'-C1'	7.75	1.65	1.53
67	B1	2378	C	O4'-C1'	7.75	1.53	1.41
21	A2	208	U	O4'-C1'	7.75	1.53	1.41
67	B1	334	G	C5'-C4'	7.75	1.62	1.51
21	A2	89	G	C2'-C1'	-7.75	1.41	1.53
67	B1	2231	G	P-O5'	-7.75	1.48	1.59
21	A2	237	C	O4'-C1'	7.74	1.53	1.41
21	A2	617	A	C2'-C1'	7.74	1.65	1.53
67	B1	2597	A	O4'-C1'	7.74	1.53	1.41
34	B5	59	LYS	N-CA	-7.74	1.36	1.45
67	B1	569	G	O4'-C1'	7.74	1.53	1.42
67	B1	1753	G	O4'-C1'	7.74	1.53	1.42
60	BS	117	ILE	CA-C	-7.74	1.42	1.52
67	B1	650	C	O4'-C1'	7.74	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	251	C	O4'-C1'	7.73	1.53	1.41
67	B1	2699	U	O4'-C1'	7.73	1.53	1.41
21	A2	285	C	O4'-C1'	7.73	1.53	1.41
21	A2	566	C	C2'-C1'	-7.73	1.41	1.53
67	B1	739	C	C2'-C1'	-7.73	1.41	1.53
68	B3	18	G	C2'-C1'	-7.73	1.41	1.53
21	A2	737	C	O4'-C1'	7.73	1.53	1.41
67	B1	977	C	C2'-C1'	-7.73	1.41	1.53
21	A2	278	A	O4'-C1'	7.73	1.53	1.41
67	B1	686	C	C2'-C1'	-7.73	1.41	1.53
67	B1	2514	C	C3'-O3'	7.72	1.53	1.42
27	A0	55	U	C2'-C1'	7.72	1.65	1.53
67	B1	349	A	O4'-C1'	7.72	1.53	1.41
67	B1	521	C	C2'-C1'	-7.72	1.41	1.53
21	A2	263	C	C5'-C4'	7.72	1.62	1.51
67	B1	18	C	O4'-C1'	7.72	1.53	1.41
67	B1	812	C	C2'-C1'	-7.72	1.41	1.53
67	B1	1925	A	C2'-C1'	-7.71	1.41	1.53
67	B1	2354	A	C2'-C1'	-7.71	1.41	1.53
67	B1	2059	G	C2'-C1'	-7.71	1.41	1.53
67	B1	2493	A	C3'-O3'	7.71	1.53	1.42
68	B3	108	G	O4'-C1'	-7.71	1.30	1.41
21	A2	747	U	C2'-C1'	7.71	1.64	1.53
1	AQ	99	ILE	N-CA	-7.71	1.37	1.46
21	A2	167	G	C2'-C1'	-7.71	1.41	1.53
67	B1	632	G	C2'-C1'	-7.71	1.41	1.53
67	B1	1188	C	O4'-C1'	7.71	1.53	1.41
2	AK	42	ARG	NE-CZ	7.70	1.41	1.33
67	B1	2946	C	O4'-C1'	7.70	1.53	1.41
52	BB	107	TYR	CA-C	7.70	1.62	1.52
33	BC	94	GLU	C-N	7.70	1.44	1.33
34	BK	59	LYS	N-CA	-7.70	1.36	1.45
67	B1	2698	G	O4'-C1'	-7.70	1.30	1.41
67	B1	2914	U	C2'-C1'	7.70	1.64	1.53
67	B1	1747	C	O3'-P	-7.69	1.49	1.61
67	B1	2174	G	C4'-O4'	-7.69	1.34	1.45
67	B1	748	G	O4'-C1'	-7.69	1.30	1.41
10	AD	174	ALA	CA-C	-7.69	1.42	1.52
68	B3	36	U	O4'-C1'	7.69	1.53	1.41
21	A2	1248	A	O4'-C1'	7.68	1.53	1.41
67	B1	2255	C	O4'-C1'	7.68	1.53	1.41
67	B1	2899	G	O4'-C1'	7.68	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2904	U	C2'-C1'	-7.68	1.41	1.53
67	B1	2966	C	C2'-C1'	-7.68	1.41	1.53
21	A2	81	C	C2'-C1'	-7.68	1.41	1.53
66	B1	53	PHE	CA-CB	7.68	1.65	1.53
67	B1	1965	C	C2'-C1'	-7.68	1.41	1.53
67	B1	3037	G	C2'-C1'	7.68	1.64	1.53
12	AN	77	LEU	CA-CB	-7.68	1.40	1.53
67	B1	1382	C	O4'-C1'	7.68	1.53	1.41
21	A2	272	C	C2'-C1'	-7.68	1.41	1.53
21	A2	1270	C	C2'-C1'	7.68	1.64	1.53
46	BA	162	VAL	CA-C	-7.67	1.43	1.52
67	B1	48	G	O4'-C1'	-7.67	1.30	1.41
67	B1	515	G	C2'-C1'	7.67	1.64	1.53
21	A2	1054	A	C2'-C1'	-7.67	1.41	1.53
37	BU	18	ALA	N-CA	7.67	1.56	1.46
21	A2	929	C	O4'-C1'	7.67	1.53	1.41
67	B1	2032	G	O4'-C1'	7.67	1.53	1.41
67	B1	226	C	C2'-C1'	-7.67	1.41	1.53
67	B1	313	U	O4'-C1'	7.67	1.53	1.41
67	B1	148	C	C2'-C1'	-7.67	1.41	1.53
25	AH	12	PRO	CA-C	-7.66	1.41	1.52
67	B1	2916	G	O4'-C1'	-7.66	1.30	1.41
21	A2	1143	G	C2'-C1'	7.66	1.64	1.53
67	B1	607	C	O4'-C1'	7.66	1.53	1.41
21	A2	674	C	C5'-C4'	7.66	1.62	1.51
64	Bc	53	LEU	CA-C	-7.66	1.43	1.52
67	B1	1938	G	C4'-C3'	7.66	1.64	1.53
15	AE	106	ARG	CA-CB	7.66	1.66	1.53
21	A2	409	C	C5'-C4'	7.66	1.62	1.51
21	A2	1205	G	O4'-C1'	-7.66	1.30	1.41
27	A0	44	C	O4'-C1'	7.66	1.53	1.41
21	A2	1198	A	C5'-C4'	7.66	1.62	1.51
50	BV	56	TYR	N-CA	-7.66	1.37	1.46
67	B1	2714	G	O4'-C1'	7.65	1.53	1.41
67	B1	186	A	O3'-P	-7.65	1.49	1.61
67	B1	427	G	O4'-C1'	7.65	1.53	1.41
67	B1	1320	C	O4'-C1'	7.65	1.53	1.41
67	B1	1613	A	O4'-C1'	-7.65	1.30	1.41
67	B1	2153	C	O4'-C1'	7.65	1.53	1.41
21	A2	1142	G	C2'-C1'	-7.65	1.41	1.53
67	B1	1470	C	C5'-C4'	7.65	1.62	1.51
67	B1	235	G	C2'-C1'	-7.65	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2135	C	C2'-C1'	-7.65	1.41	1.53
27	A0	68	G	C5'-C4'	7.64	1.62	1.51
67	B1	351	C	C2'-C1'	7.64	1.64	1.53
17	AO	80	ASN	C-N	7.64	1.41	1.33
40	BE	58	ARG	CA-C	-7.64	1.42	1.53
67	B1	1568	A	C4'-O4'	-7.64	1.34	1.45
67	B1	1668	G	C2'-C1'	-7.64	1.41	1.53
67	B1	1648	C	O4'-C1'	7.63	1.53	1.41
21	A2	1222	C	O4'-C1'	7.63	1.53	1.41
67	B1	1587	A	C2'-C1'	-7.63	1.41	1.53
67	B1	2109	C	O4'-C1'	7.63	1.53	1.41
33	BC	147	LYS	C-N	7.62	1.44	1.33
62	BN	128	LYS	N-CA	-7.62	1.36	1.46
67	B1	922	C	C2'-C1'	-7.62	1.42	1.53
67	B1	2219	A	C4'-O4'	-7.62	1.34	1.45
67	B1	2259	G	O4'-C1'	7.62	1.53	1.41
11	A1	42	C	O4'-C1'	7.62	1.53	1.41
10	AD	52	ARG	CD-NE	7.62	1.56	1.46
32	BO	112	VAL	N-CA	-7.62	1.37	1.46
67	B1	2635	C	P-O5'	-7.62	1.48	1.59
35	BL	42	ARG	N-CA	-7.62	1.37	1.46
67	B1	1519	G	C2'-C1'	7.62	1.64	1.53
67	B1	1852	U	C2'-C1'	-7.62	1.41	1.53
2	AK	2	ARG	NE-CZ	7.61	1.41	1.33
21	A2	1208	A	C4'-O4'	-7.61	1.34	1.45
67	B1	1477	C	C2'-C1'	-7.61	1.42	1.53
67	B1	2464	G	C2'-C1'	7.61	1.64	1.53
67	B1	669	G	C2'-C1'	-7.61	1.42	1.53
67	B1	2080	G	C2'-C1'	-7.61	1.42	1.53
21	A2	592	G	C2'-C1'	7.61	1.64	1.53
21	A2	1475	C	O4'-C1'	7.61	1.53	1.41
11	A1	49	C	C2'-C1'	7.60	1.64	1.53
67	B1	1294	A	C5'-C4'	7.60	1.62	1.51
6	AC	57	ARG	NE-CZ	7.60	1.41	1.33
65	BJ	96	ARG	NE-CZ	7.60	1.41	1.33
67	B1	1311	C	C2'-C1'	-7.60	1.42	1.53
67	B1	1743	G	O4'-C1'	-7.60	1.30	1.41
67	B1	2548	A	C2'-C1'	7.60	1.64	1.53
67	B1	1539	U	C2'-C1'	7.60	1.64	1.53
67	B1	1969	C	O4'-C1'	7.60	1.53	1.41
67	B1	2585	G	O4'-C1'	-7.60	1.30	1.41
1	AQ	128	LYS	C-N	7.60	1.43	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	33	U	C2'-C1'	-7.60	1.41	1.53
67	B1	1380	G	O4'-C1'	7.60	1.53	1.41
21	A2	239	A	O4'-C1'	7.59	1.53	1.42
30	AU	13	VAL	CA-CB	-7.59	1.44	1.54
35	BL	84	HIS	ND1-CE1	7.59	1.40	1.32
67	B1	2213	G	O4'-C1'	7.59	1.53	1.41
33	BC	51	ILE	CA-C	-7.59	1.43	1.52
21	A2	313	G	O4'-C1'	7.59	1.53	1.41
21	A2	1253	G	O4'-C1'	7.59	1.53	1.41
21	A2	1376	C	C2'-C1'	-7.59	1.42	1.53
21	A2	1358	A	C2'-C1'	7.59	1.64	1.53
48	BR	63	GLY	CA-C	-7.59	1.44	1.52
59	BM	63	ARG	NE-CZ	7.59	1.41	1.33
5	AW	48	THR	N-CA	-7.58	1.37	1.46
21	A2	1408	C	O4'-C1'	7.58	1.53	1.42
21	A2	229	G	O4'-C1'	7.58	1.53	1.41
33	BC	37	ARG	CD-NE	7.58	1.56	1.46
67	B1	742	C	C2'-C1'	-7.58	1.42	1.53
21	A2	623	C	C2'-C1'	-7.58	1.42	1.53
15	AE	103	LEU	CA-C	7.58	1.59	1.52
17	AO	2	ALA	CA-C	-7.58	1.42	1.52
53	BD	231	ALA	CA-CB	7.58	1.65	1.53
67	B1	1120	C	O4'-C1'	7.58	1.53	1.41
67	B1	1600	G	O4'-C1'	7.58	1.53	1.41
37	BU	38	LYS	CA-CB	7.58	1.65	1.53
67	B1	183	G	C2'-C1'	-7.58	1.42	1.53
67	B1	1743	G	C2'-C1'	7.58	1.64	1.53
32	BO	6	ARG	CD-NE	7.57	1.56	1.46
21	A2	824	G	O4'-C1'	7.57	1.53	1.41
21	A2	775	G	O4'-C1'	7.57	1.52	1.41
67	B1	1737	A	O4'-C1'	7.57	1.52	1.41
21	A2	702	G	C2'-C1'	-7.56	1.42	1.53
21	A2	1022	U	C2'-C1'	7.56	1.64	1.53
27	A0	27	C	C2'-C1'	-7.56	1.42	1.53
21	A2	1342	C	O4'-C1'	7.56	1.52	1.41
41	Ba	92	VAL	CA-C	-7.56	1.44	1.53
67	B1	1485	A	O4'-C1'	7.56	1.53	1.42
67	B1	2655	C	C2'-C1'	-7.56	1.42	1.53
67	B1	2898	G	C2'-C1'	-7.56	1.42	1.53
67	B1	268	C	C2'-C1'	-7.56	1.42	1.53
67	B1	2664	G	O4'-C1'	7.56	1.52	1.41
21	A2	1416	C	C2'-C1'	7.56	1.64	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	637	G	C2'-C1'	-7.55	1.42	1.53
67	B1	762	G	C5'-C4'	7.55	1.62	1.51
67	B1	2292	A	C2'-C1'	-7.55	1.42	1.53
67	B1	241	C	O4'-C1'	7.55	1.52	1.41
21	A2	100	A	O4'-C1'	7.55	1.52	1.41
27	A0	69	C	C2'-C1'	-7.55	1.42	1.53
67	B1	1679	U	O4'-C1'	7.55	1.52	1.41
21	A2	1161	A	C2'-C1'	-7.55	1.41	1.53
32	BO	76	HIS	ND1-CE1	7.55	1.40	1.32
33	BC	94	GLU	CA-C	-7.55	1.43	1.52
36	Bf	49	LEU	CA-C	-7.55	1.42	1.52
67	B1	572	U	O4'-C1'	7.55	1.52	1.41
67	B1	1498	C	O4'-C1'	7.54	1.52	1.41
67	B1	3007	A	C2'-C1'	7.54	1.64	1.53
21	A2	1102	A	C2'-C1'	-7.54	1.42	1.53
21	A2	1240	A	O4'-C1'	7.54	1.53	1.42
67	B1	580	G	O4'-C1'	7.54	1.52	1.41
67	B1	2383	A	O4'-C1'	7.54	1.52	1.41
67	B1	2475	G	O4'-C1'	7.54	1.52	1.41
20	B4	10	GLU	C-N	7.54	1.40	1.32
67	B1	1028	G	O4'-C1'	7.54	1.52	1.41
67	B1	2026	C	O4'-C1'	7.54	1.52	1.41
62	BN	78	GLY	CA-C	-7.54	1.44	1.52
67	B1	1971	C	O4'-C1'	7.54	1.52	1.41
67	B1	2635	C	C2'-C1'	-7.54	1.42	1.53
21	A2	1323	A	C2'-C1'	-7.53	1.41	1.53
65	BJ	129	ARG	CD-NE	7.53	1.56	1.46
67	B1	1218	C	C2'-C1'	-7.53	1.42	1.53
67	B1	1476	C	O4'-C1'	7.53	1.52	1.41
67	B1	2390	G	C2'-C1'	7.53	1.64	1.53
27	A0	29	G	C2'-C1'	-7.53	1.42	1.53
30	AU	45	PRO	CA-C	-7.53	1.44	1.52
36	Bf	30	LYS	C-O	-7.53	1.15	1.24
67	B1	1646	G	C3'-O3'	7.53	1.53	1.42
67	B1	2155	C	C5'-C4'	7.53	1.62	1.51
21	A2	90	C	O4'-C1'	7.52	1.52	1.41
68	B3	102	G	C5'-C4'	7.52	1.62	1.51
11	A1	35	G	C2'-C1'	-7.52	1.42	1.53
67	B1	2074	U	O4'-C1'	7.52	1.52	1.41
67	B1	1182	C	O4'-C1'	7.52	1.52	1.41
21	A2	148	C	O4'-C1'	7.51	1.52	1.41
67	B1	86	G	C2'-C1'	-7.51	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	386	C	O4'-C1'	7.51	1.52	1.41
53	BD	215	PRO	CA-C	-7.51	1.44	1.52
61	Bd	87	GLN	C-N	7.51	1.43	1.33
67	B1	2770	A	C2'-C1'	-7.51	1.41	1.53
21	A2	645	G	O4'-C1'	-7.51	1.30	1.41
67	B1	1991	G	O4'-C1'	-7.51	1.30	1.41
43	Bk	42	ARG	C-N	7.51	1.43	1.33
67	B1	946	U	C2'-C1'	-7.51	1.41	1.53
67	B1	1300	C	O4'-C1'	7.50	1.52	1.41
23	AT	23	GLU	CA-C	-7.50	1.43	1.52
32	BO	184	HIS	ND1-CE1	7.50	1.40	1.32
67	B1	537	U	P-O5'	7.50	1.71	1.59
67	B1	983	G	O4'-C1'	7.50	1.52	1.41
67	B1	1358	C	O4'-C1'	7.50	1.52	1.41
67	B1	1632	U	C2'-C1'	7.50	1.64	1.53
67	B1	2431	C	C2'-C1'	-7.50	1.42	1.53
67	B1	1133	U	C5'-C4'	7.50	1.62	1.51
21	A2	68	G	O4'-C1'	7.50	1.52	1.41
67	B1	1705	C	O4'-C1'	7.50	1.52	1.41
67	B1	2158	G	O4'-C1'	7.50	1.53	1.42
21	A2	1090	C	C2'-C1'	-7.50	1.42	1.53
27	A0	16	C	O4'-C1'	7.50	1.52	1.41
66	Bl	22	THR	CA-C	-7.49	1.43	1.52
67	B1	2954	C	O4'-C1'	7.49	1.52	1.41
21	A2	949	G	O4'-C1'	-7.49	1.30	1.41
67	B1	1211	C	C2'-C1'	7.49	1.64	1.53
67	B1	306	G	P-O5'	-7.49	1.48	1.59
38	Bb	11	ARG	CD-NE	7.48	1.56	1.46
21	A2	1360	C	C5'-C4'	7.48	1.62	1.51
67	B1	127	C	O4'-C1'	7.48	1.52	1.41
67	B1	234	G	C5'-C4'	7.48	1.62	1.51
67	B1	311	C	O4'-C1'	7.48	1.52	1.41
67	B1	2777	G	C5'-C4'	7.48	1.62	1.51
21	A2	210	A	C2'-C1'	-7.48	1.42	1.53
67	B1	933	G	C2'-C1'	-7.48	1.42	1.53
67	B1	2449	A	O4'-C1'	7.48	1.53	1.42
21	A2	150	G	O4'-C1'	-7.48	1.30	1.41
21	A2	852	G	C2'-C1'	-7.48	1.42	1.53
15	AE	8	ARG	CZ-NH2	7.47	1.43	1.33
64	Bc	78	GLN	N-CA	7.47	1.55	1.46
67	B1	913	G	C2'-C1'	-7.47	1.42	1.53
67	B1	3014	U	C2'-C1'	7.47	1.64	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	403	C	C2'-C1'	-7.47	1.42	1.53
33	BC	98	GLU	CA-C	-7.47	1.43	1.52
60	BS	49	ARG	NE-CZ	7.47	1.41	1.33
67	B1	2919	C	O4'-C1'	7.47	1.52	1.41
67	B1	437	G	C2'-C1'	7.47	1.64	1.53
21	A2	284	A	O4'-C1'	7.47	1.52	1.41
21	A2	505	U	O4'-C1'	-7.47	1.30	1.41
67	B1	1937	A	C2'-O2'	-7.47	1.31	1.42
17	AO	114	ALA	N-CA	-7.46	1.36	1.46
54	BF	120	ARG	N-CA	-7.46	1.36	1.46
67	B1	1691	U	C2'-C1'	-7.46	1.42	1.53
67	B1	1580	G	C2'-C1'	-7.46	1.42	1.53
21	A2	965	G	C2'-C1'	-7.46	1.42	1.53
38	Bb	104	HIS	CA-C	-7.46	1.42	1.52
53	BD	45	PRO	CA-C	-7.46	1.41	1.52
67	B1	1343	C	C2'-C1'	-7.46	1.42	1.53
67	B1	1920	A	O5'-C5'	7.46	1.54	1.42
67	B1	2464	G	O4'-C1'	-7.46	1.30	1.41
67	B1	907	C	C2'-C1'	-7.46	1.42	1.53
21	A2	144	G	P-O5'	-7.46	1.48	1.59
21	A2	765	U	C2'-C1'	7.46	1.64	1.53
21	A2	1445	A	C2'-C1'	-7.45	1.42	1.53
21	A2	258	A	C2'-C1'	-7.45	1.42	1.53
21	A2	1137	G	O4'-C1'	7.45	1.52	1.41
53	BD	105	ILE	N-CA	-7.45	1.37	1.46
21	A2	1375	C	O4'-C1'	7.45	1.52	1.41
21	A2	779	G	C2'-C1'	-7.45	1.42	1.53
51	Bj	50	PHE	CA-CB	7.45	1.64	1.53
67	B1	428	A	O4'-C1'	7.44	1.52	1.41
37	BU	62	HIS	ND1-CE1	7.44	1.40	1.32
67	B1	497	G	C2'-C1'	-7.44	1.41	1.53
67	B1	960	C	O4'-C1'	7.44	1.52	1.41
33	BC	252	LYS	C-N	7.44	1.43	1.34
67	B1	1499	C	O4'-C1'	7.44	1.52	1.41
67	B1	1436	A	O4'-C1'	7.44	1.52	1.41
67	B1	2005	A	C2'-C1'	-7.43	1.42	1.53
67	B1	1220	U	O4'-C1'	7.43	1.52	1.41
67	B1	3012	C	C2'-C1'	-7.43	1.42	1.53
11	A1	1	G	C2'-C1'	-7.43	1.42	1.53
67	B1	1900	U	O4'-C1'	7.43	1.52	1.41
10	AD	167	GLU	C-N	7.43	1.43	1.33
21	A2	36	G	O4'-C1'	-7.43	1.30	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1448	G	C2'-C1'	-7.43	1.42	1.53
21	A2	1266	A	C2'-C1'	-7.43	1.42	1.53
60	BS	116	HIS	ND1-CE1	7.43	1.40	1.32
67	B1	363	G	C2'-C1'	7.43	1.64	1.53
67	B1	2999	G	O4'-C1'	7.43	1.52	1.41
46	BA	188	ILE	N-CA	-7.42	1.37	1.46
65	BJ	35	ALA	CA-C	-7.42	1.43	1.52
67	B1	472	A	O4'-C1'	7.42	1.52	1.41
21	A2	1046	G	O4'-C1'	-7.42	1.30	1.42
21	A2	668	G	C2'-C1'	-7.42	1.42	1.53
23	AT	90	VAL	N-CA	-7.42	1.39	1.46
67	B1	553	C	O4'-C1'	7.42	1.52	1.41
21	A2	165	U	C2'-C1'	-7.42	1.42	1.53
54	BF	171	GLY	C-N	7.42	1.42	1.33
67	B1	233	A	O4'-C1'	7.42	1.52	1.41
21	A2	123	U	O4'-C1'	7.42	1.52	1.41
8	AR	3	ARG	CA-C	-7.41	1.43	1.52
67	B1	43	G	C2'-C1'	7.41	1.64	1.53
67	B1	2595	C	O4'-C1'	7.41	1.52	1.41
67	B1	1839	U	C2'-C1'	7.41	1.64	1.53
67	B1	2321	A	O4'-C1'	-7.41	1.30	1.42
47	BI	14	LEU	C-N	7.41	1.43	1.33
67	B1	407	A	C2'-C1'	-7.41	1.42	1.53
67	B1	2210	G	O4'-C1'	-7.41	1.30	1.41
68	B3	125	U	O4'-C1'	7.41	1.52	1.41
17	AO	92	HIS	CA-C	-7.41	1.44	1.52
67	B1	861	G	O4'-C1'	-7.41	1.30	1.42
67	B1	1206	A	C2'-C1'	-7.41	1.42	1.53
21	A2	11	A	C2'-C1'	-7.41	1.42	1.53
49	BQ	74	ARG	CA-C	-7.41	1.43	1.53
67	B1	1052	G	C5'-C4'	7.41	1.62	1.51
35	BL	83	GLU	CA-C	-7.40	1.43	1.52
67	B1	2446	C	O4'-C1'	7.40	1.52	1.41
2	AK	16	ARG	NE-CZ	7.40	1.41	1.33
66	Bl	17	ARG	CA-C	-7.40	1.43	1.52
67	B1	2020	G	O4'-C1'	7.40	1.52	1.41
67	B1	1396	A	C2'-C1'	7.40	1.64	1.53
21	A2	17	C	O3'-P	-7.40	1.50	1.61
21	A2	1481	G	O4'-C1'	7.40	1.52	1.41
67	B1	780	G	P-O5'	-7.40	1.48	1.59
11	A1	8	U	O4'-C1'	7.40	1.52	1.41
21	A2	1492	U	C2'-C1'	-7.39	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	967	G	C2'-C1'	-7.39	1.42	1.53
67	B1	2245	C	O4'-C1'	7.39	1.52	1.41
21	A2	1218	C	C2'-C1'	-7.39	1.42	1.53
67	B1	29	U	O4'-C1'	7.39	1.52	1.41
67	B1	681	C	O4'-C1'	7.39	1.52	1.41
67	B1	2846	A	C2'-C1'	-7.39	1.42	1.53
21	A2	723	G	O5'-C5'	7.39	1.53	1.42
21	A2	1460	G	O4'-C1'	7.39	1.52	1.41
67	B1	1602	C	O3'-P	-7.39	1.50	1.61
67	B1	1622	G	C2'-C1'	7.39	1.64	1.53
49	BQ	5	LYS	CA-C	-7.39	1.43	1.52
67	B1	758	C	C3'-C2'	7.39	1.63	1.52
67	B1	2540	A	O4'-C1'	7.39	1.52	1.41
21	A2	146	A	C4'-C3'	7.38	1.63	1.52
21	A2	341	C	O4'-C1'	7.38	1.53	1.42
28	AV	4	ARG	NE-CZ	7.38	1.41	1.33
67	B1	2531	G	O4'-C1'	7.38	1.52	1.41
20	A3	24	GLU	C-N	7.38	1.43	1.33
51	Bj	48	GLY	N-CA	-7.38	1.36	1.45
67	B1	192	U	C2'-C1'	-7.38	1.42	1.53
25	AH	70	LYS	CA-C	-7.38	1.43	1.52
1	AQ	97	PHE	CA-CB	7.38	1.64	1.53
67	B1	1637	C	C5'-C4'	7.38	1.62	1.51
67	B1	2771	G	O4'-C1'	-7.38	1.30	1.42
53	BD	78	ARG	NE-CZ	7.38	1.41	1.33
67	B1	2361	C	C2'-C1'	-7.38	1.42	1.53
67	B1	2540	A	C2'-C1'	-7.38	1.42	1.53
50	BV	36	LYS	CA-CB	7.37	1.64	1.53
21	A2	872	A	C2'-C1'	-7.37	1.42	1.53
52	BB	237	ARG	NE-CZ	7.37	1.41	1.33
59	BM	132	MET	CA-C	-7.37	1.43	1.52
67	B1	796	C	C2'-C1'	-7.37	1.42	1.53
40	BE	155	ARG	NE-CZ	7.37	1.41	1.33
21	A2	197	A	C5'-C4'	7.37	1.62	1.51
67	B1	882	U	O4'-C1'	7.37	1.52	1.41
67	B1	2566	A	C2'-C1'	7.37	1.64	1.53
54	BF	171	GLY	N-CA	-7.36	1.38	1.45
67	B1	1242	A	O4'-C1'	7.36	1.52	1.41
68	B3	11	A	C2'-C1'	-7.36	1.42	1.53
67	B1	2730	U	O4'-C1'	7.36	1.52	1.41
21	A2	748	A	C2'-C1'	-7.36	1.42	1.53
21	A2	764	C	O4'-C1'	7.36	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	BC	265	MET	CA-C	-7.36	1.43	1.53
67	B1	2804	C	O4'-C1'	7.35	1.52	1.41
6	AC	87	ASN	CA-CB	7.35	1.60	1.53
19	AS	5	ARG	CD-NE	7.35	1.56	1.46
37	BU	12	ARG	NE-CZ	7.35	1.41	1.33
67	B1	2258	A	O4'-C1'	7.35	1.52	1.41
21	A2	1310	C	C2'-C1'	-7.35	1.42	1.53
67	B1	926	C	C5'-C4'	7.35	1.62	1.51
21	A2	302	A	O4'-C1'	7.35	1.52	1.41
67	B1	1983	C	O4'-C1'	7.35	1.52	1.41
67	B1	709	A	C2'-C1'	-7.35	1.42	1.53
21	A2	1023	C	O4'-C1'	7.34	1.52	1.41
67	B1	873	G	O4'-C1'	7.34	1.52	1.42
67	B1	1067	G	O3'-P	-7.34	1.50	1.61
21	A2	1030	U	C2'-C1'	-7.34	1.42	1.53
21	A2	1097	G	C2'-C1'	-7.34	1.42	1.53
67	B1	863	C	O4'-C1'	7.34	1.52	1.41
21	A2	516	A	O3'-P	-7.34	1.50	1.61
67	B1	1263	C	O4'-C1'	7.34	1.52	1.41
21	A2	391	G	O4'-C1'	-7.34	1.30	1.41
26	AP	10	LYS	CA-C	-7.34	1.42	1.52
33	BC	17	ARG	CA-CB	7.34	1.62	1.52
46	BA	68	GLY	CA-C	7.34	1.60	1.52
67	B1	2919	C	C2'-C1'	-7.34	1.42	1.53
25	AH	156	ARG	NE-CZ	7.33	1.41	1.33
40	BE	157	ARG	CD-NE	7.33	1.56	1.46
67	B1	848	A	O3'-P	-7.33	1.50	1.61
3	AI	111	MET	CA-C	-7.33	1.43	1.52
67	B1	839	A	O4'-C1'	7.33	1.52	1.41
46	BA	164	HIS	CA-C	-7.33	1.43	1.52
67	B1	2237	A	C2'-C1'	-7.33	1.42	1.53
67	B1	573	G	C2'-C1'	-7.33	1.42	1.53
21	A2	1454	A	O4'-C1'	7.32	1.52	1.41
28	AV	67	GLY	CA-C	-7.32	1.43	1.51
24	AA	127	ARG	NE-CZ	7.32	1.41	1.33
67	B1	1937	A	C2'-C1'	7.32	1.64	1.53
56	BH	30	LEU	N-CA	-7.32	1.36	1.45
67	B1	1938	G	O4'-C1'	-7.32	1.30	1.42
67	B1	2390	G	O4'-C1'	-7.32	1.30	1.41
67	B1	2977	G	C2'-C1'	-7.32	1.42	1.53
43	Bk	43	ARG	CD-NE	7.31	1.56	1.46
21	A2	481	C	C5'-C4'	7.31	1.62	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
28	B6	19	ILE	C-N	7.31	1.43	1.33
19	AS	11	ARG	NE-CZ	7.31	1.41	1.33
67	B1	258	C	C2'-C1'	-7.31	1.42	1.53
67	B1	1055	C	O4'-C1'	7.31	1.52	1.41
67	B1	1569	A	O4'-C1'	7.31	1.52	1.41
67	B1	1194	G	C2'-C1'	-7.31	1.42	1.53
32	BO	194	GLU	N-CA	-7.30	1.36	1.46
7	AB	161	ARG	NE-CZ	7.30	1.41	1.33
10	AD	129	HIS	ND1-CE1	7.30	1.39	1.32
67	B1	1280	C	O4'-C1'	7.30	1.52	1.41
67	B1	2230	G	C2'-C1'	7.30	1.64	1.53
67	B1	629	G	C2'-C1'	7.30	1.64	1.53
67	B1	1397	U	O3'-P	-7.30	1.50	1.61
67	B1	2385	G	O4'-C1'	7.30	1.52	1.41
65	BJ	65	THR	C-N	7.30	1.40	1.33
67	B1	281	G	O4'-C1'	7.30	1.52	1.41
67	B1	601	A	C2'-C1'	7.30	1.64	1.53
68	B3	107	G	C5'-C4'	7.30	1.62	1.51
13	AX	62	ARG	CD-NE	7.29	1.56	1.46
21	A2	1387	C	O4'-C1'	7.29	1.52	1.41
21	A2	8	U	O4'-C1'	-7.29	1.31	1.42
67	B1	1396	A	O4'-C1'	7.29	1.52	1.41
67	B1	2104	G	C2'-C1'	-7.29	1.42	1.53
67	B1	2991	C	C2'-C1'	-7.29	1.42	1.53
1	AQ	22	PRO	CA-C	7.29	1.58	1.52
67	B1	1597	G	O4'-C1'	7.29	1.52	1.41
21	A2	275	A	O4'-C1'	-7.29	1.31	1.42
67	B1	801	A	C2'-C1'	7.29	1.64	1.53
67	B1	1491	U	O4'-C1'	-7.29	1.30	1.41
67	B1	1833	G	O4'-C1'	7.29	1.52	1.42
67	B1	1846	G	O4'-C1'	7.29	1.52	1.41
67	B1	2111	C	O4'-C1'	7.29	1.52	1.41
21	A2	680	C	O4'-C1'	7.28	1.52	1.41
21	A2	1362	C	O4'-C1'	7.28	1.52	1.41
49	BQ	43	ARG	CD-NE	7.28	1.56	1.46
67	B1	326	C	O4'-C1'	7.28	1.52	1.41
25	AH	85	PHE	CA-CB	7.28	1.65	1.53
67	B1	356	C	C2'-C1'	-7.28	1.42	1.53
67	B1	1788	G	O4'-C1'	-7.28	1.30	1.41
28	B6	82	GLU	CA-C	7.28	1.62	1.52
59	BM	14	PRO	N-CD	-7.28	1.37	1.47
67	B1	65	G	C2'-C1'	-7.28	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	AM	24	ASN	CA-CB	7.27	1.64	1.54
21	A2	1151	A	O4'-C1'	7.27	1.52	1.41
31	BY	99	LYS	N-CA	-7.27	1.37	1.46
37	BU	47	ARG	CD-NE	7.27	1.56	1.46
53	BD	5	VAL	N-CA	-7.27	1.37	1.46
54	BF	167	ILE	CA-CB	-7.27	1.44	1.54
67	B1	1447	G	O4'-C1'	7.27	1.52	1.41
21	A2	332	C	O4'-C1'	7.27	1.52	1.41
56	BH	23	PRO	N-CA	-7.27	1.38	1.47
67	B1	2828	G	C2'-C1'	-7.27	1.42	1.53
67	B1	1182	C	C2'-C1'	-7.27	1.42	1.53
67	B1	1185	A	O3'-P	-7.27	1.50	1.61
67	B1	1889	G	O4'-C1'	-7.27	1.30	1.41
21	A2	290	C	O4'-C1'	7.27	1.52	1.41
21	A2	885	G	O4'-C1'	-7.27	1.30	1.41
67	B1	1691	U	O4'-C1'	7.27	1.52	1.41
64	Bc	12	ARG	CZ-NH2	7.27	1.42	1.33
67	B1	688	G	C2'-C1'	-7.27	1.42	1.53
67	B1	824	C	C3'-C2'	7.27	1.63	1.52
67	B1	988	C	C5'-C4'	7.26	1.62	1.51
21	A2	1225	C	C2'-C1'	-7.26	1.42	1.53
31	BY	76	GLY	CA-C	-7.26	1.43	1.52
67	B1	1614	U	O4'-C1'	7.26	1.52	1.41
67	B1	2385	G	C2'-C1'	-7.26	1.42	1.53
67	B1	2239	C	O5'-C5'	7.26	1.53	1.42
67	B1	1143	A	C2'-C1'	-7.26	1.42	1.53
67	B1	1341	U	C2'-C1'	-7.26	1.42	1.53
11	A1	23	G	C2'-C1'	7.25	1.64	1.53
21	A2	191	A	C2'-C1'	-7.25	1.42	1.53
21	A2	1354	A	C2'-C1'	-7.25	1.42	1.53
67	B1	2071	C	O4'-C1'	7.25	1.52	1.41
67	B1	22	C	O4'-C1'	7.25	1.52	1.41
33	BC	95	THR	N-CA	-7.25	1.37	1.46
67	B1	2339	C	O4'-C1'	7.25	1.52	1.41
67	B1	2545	A	C5'-C4'	7.25	1.62	1.51
47	BI	91	ARG	CA-C	-7.25	1.43	1.52
67	B1	1217	U	C2'-C1'	-7.25	1.42	1.53
67	B1	2074	U	C2'-C1'	-7.25	1.42	1.53
21	A2	239	A	C2'-C1'	-7.25	1.42	1.53
21	A2	1080	C	C4'-O4'	7.25	1.56	1.45
67	B1	983	G	C2'-C1'	-7.25	1.42	1.53
67	B1	187	C	O4'-C1'	7.25	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	43	A	C2'-C1'	-7.24	1.42	1.53
67	B1	2269	C	O4'-C1'	7.24	1.52	1.41
67	B1	2931	G	O4'-C1'	7.24	1.52	1.41
67	B1	2483	U	O4'-C1'	7.24	1.52	1.41
30	AU	15	ARG	CD-NE	7.24	1.56	1.46
67	B1	2663	G	O4'-C1'	7.24	1.52	1.41
6	AC	57	ARG	CZ-NH2	7.24	1.42	1.33
21	A2	536	A	C2'-C1'	-7.24	1.42	1.53
52	BB	69	LYS	CA-C	-7.24	1.43	1.52
57	BZ	8	ARG	NE-CZ	7.24	1.41	1.33
65	BJ	65	THR	N-CA	-7.24	1.36	1.45
67	B1	3019	C	O4'-C1'	7.24	1.52	1.41
67	B1	3040	G	C2'-C1'	-7.24	1.42	1.53
67	B1	1107	G	O4'-C1'	7.23	1.52	1.41
67	B1	1717	C	C2'-C1'	-7.23	1.42	1.53
1	AQ	92	PRO	CA-CB	7.23	1.62	1.53
65	BJ	44	VAL	N-CA	-7.23	1.37	1.46
67	B1	458	U	O4'-C1'	7.23	1.52	1.41
67	B1	1570	C	C2'-C1'	-7.23	1.42	1.53
37	BU	111	LYS	C-N	7.23	1.43	1.33
67	B1	2162	G	C2'-C1'	-7.23	1.42	1.53
67	B1	940	G	C4'-C3'	7.22	1.64	1.53
67	B1	2369	G	C2'-C1'	-7.22	1.42	1.53
67	B1	2532	G	O5'-C5'	7.22	1.53	1.42
67	B1	118	A	O4'-C1'	7.22	1.52	1.42
67	B1	485	G	C4'-C3'	-7.22	1.41	1.52
62	BN	122	LEU	C-N	7.22	1.42	1.33
67	B1	428	A	C3'-O3'	7.22	1.52	1.42
67	B1	1195	G	C2'-C1'	7.22	1.64	1.53
21	A2	1334	A	O4'-C1'	7.22	1.52	1.41
65	BJ	53	LEU	CA-C	-7.22	1.43	1.52
27	A0	14	A	C2'-C1'	7.22	1.64	1.53
42	BT	31	ASP	C-N	7.22	1.43	1.33
57	BZ	40	ASN	CA-CB	7.21	1.63	1.53
11	A1	28	C	C2'-C1'	-7.21	1.42	1.53
21	A2	338	C	C2'-C1'	7.21	1.64	1.53
21	A2	85	A	O4'-C1'	7.21	1.52	1.41
47	BI	63	ARG	CD-NE	7.21	1.56	1.46
51	Bj	8	ARG	CZ-NH2	7.21	1.42	1.33
67	B1	2749	G	C3'-C2'	7.21	1.63	1.52
67	B1	2562	G	C4'-O4'	-7.21	1.35	1.45
68	B3	30	G	C2'-C1'	7.21	1.64	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	AC	133	SER	N-CA	-7.21	1.36	1.45
40	BE	153	ARG	NE-CZ	7.21	1.41	1.33
7	AB	56	GLY	CA-C	-7.21	1.44	1.52
16	AJ	53	ARG	CD-NE	7.20	1.56	1.46
52	BB	9	ARG	NE-CZ	7.20	1.41	1.33
67	B1	2813	G	C5'-C4'	7.20	1.62	1.51
21	A2	692	G	C2'-C1'	-7.20	1.42	1.53
62	BN	10	ARG	N-CA	-7.20	1.36	1.46
67	B1	1346	G	C2'-C1'	-7.20	1.42	1.53
53	BD	117	ALA	CA-C	7.20	1.62	1.52
67	B1	2235	G	C2'-C1'	-7.20	1.42	1.53
21	A2	1144	G	C2'-C1'	-7.19	1.42	1.53
7	AB	161	ARG	N-CA	-7.19	1.37	1.46
67	B1	1686	C	C2'-C1'	-7.19	1.42	1.53
21	A2	1105	C	C2'-C1'	7.19	1.64	1.53
67	B1	395	G	O4'-C1'	7.19	1.52	1.41
24	AA	138	ARG	CZ-NH1	7.19	1.42	1.32
34	B5	45	ARG	CZ-NH2	7.19	1.42	1.33
68	B3	14	G	O4'-C1'	-7.19	1.30	1.41
67	B1	501	C	O4'-C1'	7.19	1.52	1.41
67	B1	2349	U	C2'-C1'	-7.18	1.42	1.53
21	A2	1443	G	O4'-C1'	-7.18	1.30	1.41
67	B1	2807	C	C2'-C1'	-7.18	1.42	1.53
67	B1	269	C	C2'-C1'	-7.18	1.42	1.53
67	B1	1921	U	C3'-O3'	7.18	1.52	1.42
67	B1	2655	C	O4'-C1'	7.18	1.52	1.41
67	B1	2899	G	C2'-C1'	-7.18	1.42	1.53
67	B1	2691	G	C2'-C1'	-7.18	1.42	1.53
27	A0	26	G	O4'-C1'	7.18	1.52	1.41
17	AO	135	PHE	CA-CB	7.18	1.64	1.53
21	A2	786	G	C2'-C1'	-7.18	1.42	1.53
62	BN	134	SER	CA-C	-7.18	1.44	1.52
67	B1	609	G	C2'-C1'	-7.18	1.42	1.53
35	BL	15	HIS	CA-C	-7.17	1.43	1.52
21	A2	578	G	C2'-C1'	-7.17	1.42	1.53
67	B1	2227	G	P-O5'	-7.17	1.49	1.59
21	A2	101	G	O4'-C1'	-7.17	1.30	1.41
67	B1	402	G	C5'-C4'	7.17	1.62	1.51
4	AG	99	LYS	N-CA	-7.17	1.37	1.46
67	B1	130	G	C2'-C1'	-7.17	1.42	1.53
67	B1	505	A	C2'-C1'	7.17	1.64	1.53
67	B1	1851	U	O5'-C5'	7.17	1.53	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2563	A	C2'-C1'	7.17	1.63	1.53
27	A0	26	G	C2'-C1'	7.16	1.64	1.53
67	B1	1307	C	C5'-C4'	7.16	1.61	1.51
67	B1	2460	A	O4'-C1'	7.16	1.52	1.42
67	B1	18	C	C2'-C1'	7.16	1.64	1.53
67	B1	559	G	O4'-C1'	7.16	1.52	1.41
67	B1	628	A	O4'-C1'	7.16	1.52	1.41
67	B1	2891	A	C2'-C1'	-7.16	1.42	1.53
67	B1	663	A	P-O5'	-7.16	1.49	1.59
54	BF	169	GLN	CA-C	-7.16	1.43	1.53
67	B1	1543	C	C2'-C1'	-7.16	1.42	1.53
67	B1	2788	U	C2'-C1'	-7.16	1.42	1.53
21	A2	5	C	C2'-C1'	-7.16	1.42	1.53
64	Bc	59	ARG	CD-NE	7.16	1.56	1.46
67	B1	390	C	O4'-C1'	7.16	1.52	1.41
67	B1	2830	C	O4'-C1'	7.16	1.52	1.41
53	BD	56	ARG	CZ-NH1	7.15	1.42	1.32
67	B1	273	G	O4'-C1'	7.15	1.52	1.41
21	A2	121	C	O4'-C1'	7.15	1.52	1.41
67	B1	980	G	C3'-C2'	7.15	1.63	1.52
67	B1	2246	G	P-O5'	-7.15	1.49	1.59
67	B1	3005	C	C2'-C1'	-7.15	1.42	1.53
21	A2	494	G	O4'-C1'	-7.15	1.30	1.41
65	BJ	129	ARG	NE-CZ	7.15	1.41	1.33
26	AP	41	HIS	CG-ND1	7.15	1.46	1.38
21	A2	861	G	C2'-C1'	-7.14	1.42	1.53
53	BD	231	ALA	CA-C	7.14	1.61	1.52
59	BM	98	TRP	CA-CB	7.14	1.64	1.53
67	B1	2569	G	C2'-C1'	-7.14	1.42	1.53
63	Bg	9	ALA	C-N	7.14	1.43	1.33
67	B1	190	C	C4'-C3'	7.14	1.63	1.52
67	B1	2840	C	C2'-C1'	-7.14	1.42	1.53
21	A2	1470	G	O4'-C1'	7.14	1.52	1.41
67	B1	2915	U	C2'-C1'	-7.14	1.42	1.53
37	BU	53	ARG	CD-NE	7.14	1.56	1.46
62	BN	87	ARG	N-CA	-7.14	1.37	1.46
67	B1	2456	C	O4'-C1'	7.14	1.52	1.41
67	B1	170	A	C2'-C1'	7.13	1.64	1.53
67	B1	943	G	C4'-C3'	7.13	1.63	1.52
68	B3	2	G	C2'-C1'	7.13	1.64	1.53
67	B1	2834	C	C2'-C1'	-7.13	1.42	1.53
21	A2	126	G	O4'-C1'	-7.13	1.30	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1516	C	O4'-C1'	7.13	1.52	1.41
67	B1	2934	C	C2'-C1'	-7.13	1.42	1.53
67	B1	2866	A	C4'-O4'	7.12	1.56	1.45
15	AE	137	ARG	CD-NE	7.12	1.56	1.46
21	A2	1241	U	C2'-C1'	7.12	1.64	1.53
67	B1	2827	C	C4'-O4'	-7.12	1.34	1.45
67	B1	1892	G	O5'-C5'	7.12	1.53	1.42
67	B1	342	C	C3'-O3'	7.12	1.52	1.42
67	B1	2333	G	O4'-C1'	7.12	1.52	1.41
67	B1	2414	G	O4'-C1'	-7.12	1.30	1.41
67	B1	267	C	O4'-C1'	7.12	1.52	1.41
67	B1	2148	U	C5'-C4'	7.12	1.61	1.51
67	B1	2386	U	O4'-C1'	7.11	1.52	1.41
21	A2	18	C	O4'-C1'	7.11	1.52	1.41
67	B1	700	A	P-O5'	-7.11	1.49	1.59
67	B1	1621	G	C2'-C1'	-7.11	1.42	1.53
67	B1	483	C	C2'-C1'	-7.11	1.42	1.53
7	AB	145	ASN	CA-C	-7.11	1.44	1.52
25	AH	36	TYR	CA-C	-7.11	1.42	1.52
32	BO	25	LEU	CA-CB	7.11	1.64	1.53
67	B1	1170	G	C2'-C1'	7.11	1.64	1.53
67	B1	1947	A	O4'-C1'	7.11	1.52	1.41
21	A2	719	G	O4'-C1'	7.10	1.52	1.41
21	A2	298	C	P-O5'	-7.10	1.49	1.59
21	A2	622	C	O4'-C1'	7.10	1.52	1.41
67	B1	2843	C	C2'-C1'	-7.10	1.42	1.53
67	B1	1023	C	C2'-C1'	-7.10	1.42	1.53
46	BA	58	LYS	CA-C	-7.10	1.43	1.52
50	BV	36	LYS	CA-C	-7.10	1.43	1.52
67	B1	1838	C	O4'-C1'	7.10	1.52	1.41
21	A2	149	U	O4'-C1'	-7.10	1.31	1.41
67	B1	124	C	C2'-C1'	-7.10	1.42	1.53
3	AI	70	ASN	N-CA	-7.09	1.37	1.46
21	A2	54	C	C5'-C4'	7.09	1.61	1.51
43	Bk	148	ARG	CD-NE	7.09	1.56	1.46
67	B1	231	G	O4'-C1'	-7.09	1.31	1.42
67	B1	2135	C	O4'-C1'	7.09	1.52	1.41
67	B1	1300	C	C2'-C1'	-7.09	1.42	1.53
5	AW	15	ARG	CD-NE	7.09	1.56	1.46
17	AO	111	ARG	CA-C	-7.09	1.43	1.52
57	BZ	27	ALA	CA-C	-7.09	1.43	1.52
67	B1	1093	G	C2'-C1'	7.09	1.64	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1425	C	O4'-C1'	7.09	1.52	1.41
21	A2	1465	C	C2'-C1'	-7.09	1.42	1.53
21	A2	1193	G	C2'-C1'	-7.08	1.42	1.53
25	AH	50	ARG	NE-CZ	7.08	1.40	1.33
67	B1	2695	U	C2'-C1'	-7.08	1.42	1.53
67	B1	1408	G	C2'-C1'	-7.08	1.42	1.53
67	B1	1644	G	C2'-C1'	7.08	1.64	1.53
21	A2	1432	U	C2'-C1'	-7.08	1.42	1.53
67	B1	2380	A	O4'-C1'	7.08	1.52	1.42
31	BY	30	ARG	CA-C	-7.08	1.43	1.52
21	A2	1048	G	C2'-C1'	-7.08	1.42	1.53
67	B1	820	C	O4'-C1'	7.08	1.52	1.41
7	AB	197	MET	C-N	7.07	1.42	1.33
1	AQ	101	ARG	CA-C	-7.07	1.43	1.52
67	B1	882	U	O5'-C5'	7.07	1.53	1.42
23	AT	38	ARG	NE-CZ	7.07	1.40	1.33
67	B1	864	C	O4'-C1'	7.07	1.52	1.41
33	BC	360	SER	C-N	7.07	1.43	1.33
34	B5	72	ARG	CD-NE	7.07	1.56	1.46
67	B1	2065	C	C2'-C1'	-7.07	1.42	1.53
67	B1	1097	G	C2'-C1'	-7.07	1.42	1.53
67	B1	2532	G	O4'-C1'	7.07	1.52	1.41
1	AQ	56	ASP	CA-C	-7.07	1.44	1.52
67	B1	2129	G	O4'-C1'	7.07	1.52	1.41
68	B3	91	G	C2'-C1'	-7.07	1.42	1.53
62	BN	126	LEU	C-N	7.06	1.39	1.32
20	A3	102	ILE	CA-C	-7.06	1.44	1.52
21	A2	811	G	C2'-C1'	7.06	1.64	1.53
59	BM	17	SER	CA-CB	7.06	1.64	1.53
67	B1	97	C	O4'-C1'	7.06	1.52	1.41
67	B1	1154	A	O4'-C1'	-7.06	1.31	1.42
21	A2	553	C	C2'-C1'	-7.06	1.42	1.53
67	B1	1637	C	C2'-C1'	-7.06	1.42	1.53
67	B1	1063	C	O4'-C1'	7.06	1.52	1.41
17	AO	64	GLU	CA-CB	7.05	1.65	1.53
67	B1	1615	G	C2'-C1'	7.05	1.63	1.53
67	B1	2968	G	C2'-C1'	-7.05	1.42	1.53
43	Bk	128	PRO	CA-C	-7.05	1.43	1.52
67	B1	1252	G	O4'-C1'	7.05	1.52	1.41
10	AD	103	ARG	CD-NE	7.05	1.56	1.46
21	A2	496	C	C2'-C1'	-7.05	1.42	1.53
26	AP	20	ARG	CZ-NH2	7.05	1.42	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	3015	A	O4'-C1'	7.05	1.52	1.41
21	A2	429	A	O4'-C1'	7.05	1.52	1.41
21	A2	850	A	O4'-C1'	7.05	1.52	1.41
62	BN	88	VAL	CA-CB	-7.05	1.47	1.54
67	B1	678	G	O4'-C1'	7.05	1.52	1.42
67	B1	2721	C	C2'-C1'	-7.05	1.42	1.53
67	B1	2871	A	O4'-C1'	-7.05	1.31	1.41
25	AH	139	VAL	CA-C	-7.05	1.43	1.52
67	B1	2118	C	O4'-C1'	7.05	1.52	1.41
67	B1	1542	U	C2'-C1'	7.04	1.63	1.53
2	AK	96	LYS	CA-C	-7.04	1.43	1.52
34	BK	72	ARG	CD-NE	7.04	1.56	1.46
67	B1	1166	A	O4'-C1'	7.04	1.52	1.41
67	B1	1481	G	C2'-C1'	-7.04	1.42	1.53
11	A1	30	G	C2'-C1'	-7.04	1.42	1.53
21	A2	755	U	C2'-C1'	-7.04	1.42	1.53
21	A2	672	G	O4'-C1'	7.04	1.52	1.41
67	B1	1302	G	C2'-C1'	-7.04	1.42	1.53
35	BL	8	VAL	C-N	-7.04	1.23	1.33
52	BB	186	ASN	CA-C	7.04	1.60	1.52
67	B1	142	G	C2'-C1'	7.04	1.64	1.53
67	B1	618	C	C2'-C1'	-7.04	1.42	1.53
67	B1	815	U	C2'-C1'	7.04	1.64	1.53
67	B1	1514	C	O5'-C5'	7.04	1.53	1.42
67	B1	1614	U	C4'-C3'	7.03	1.63	1.52
23	AT	81	ILE	CA-C	-7.03	1.44	1.52
12	AN	110	GLY	C-N	-7.03	1.27	1.34
20	A3	69	LEU	CA-C	-7.03	1.43	1.52
31	BY	66	LYS	N-CA	-7.03	1.37	1.46
67	B1	733	A	O3'-P	-7.03	1.50	1.61
67	B1	2547	A	C4'-C3'	-7.03	1.42	1.52
67	B1	2640	C	C2'-C1'	-7.03	1.42	1.53
8	AR	73	HIS	CA-C	-7.03	1.44	1.52
21	A2	1482	C	O4'-C1'	7.03	1.52	1.41
40	BE	71	ARG	CD-NE	7.03	1.56	1.46
67	B1	485	G	C2'-C1'	-7.03	1.42	1.53
67	B1	577	C	O4'-C1'	7.03	1.52	1.41
67	B1	2294	A	O4'-C1'	7.03	1.52	1.42
24	AA	145	ILE	C-N	7.02	1.42	1.33
21	A2	815	C	C2'-C1'	-7.02	1.42	1.53
21	A2	1103	G	C2'-C1'	-7.02	1.42	1.53
27	A0	15	G	C3'-C2'	-7.02	1.42	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2436	A	O4'-C1'	7.02	1.52	1.41
67	B1	34	C	C2'-C1'	7.02	1.63	1.53
21	A2	374	G	O4'-C1'	7.02	1.52	1.41
21	A2	1431	C	C2'-C1'	-7.02	1.42	1.53
14	AM	103	ARG	CD-NE	7.02	1.56	1.46
47	BI	105	LYS	CA-C	-7.02	1.43	1.52
67	B1	2182	A	O4'-C1'	-7.02	1.31	1.41
25	AH	78	HIS	C-N	7.02	1.43	1.33
21	A2	825	C	O4'-C1'	7.01	1.52	1.41
24	AA	150	GLU	N-CA	-7.01	1.37	1.46
67	B1	730	C	C2'-C1'	-7.01	1.42	1.53
67	B1	2309	C	C2'-C1'	-7.01	1.42	1.53
67	B1	2394	G	C2'-C1'	-7.01	1.42	1.53
67	B1	1956	G	O3'-P	-7.01	1.50	1.61
13	AX	39	ARG	CZ-NH1	7.01	1.42	1.32
21	A2	1380	C	C2'-C1'	-7.01	1.42	1.53
2	AK	27	ARG	C-N	7.01	1.42	1.33
21	A2	518	U	C2'-C1'	-7.01	1.42	1.53
21	A2	597	C	O4'-C1'	7.01	1.52	1.41
26	AP	53	ARG	CA-C	-7.01	1.44	1.52
28	B6	23	ILE	CA-C	-7.01	1.44	1.52
28	B6	54	GLN	CA-CB	7.01	1.64	1.53
67	B1	232	U	C5'-C4'	7.01	1.61	1.51
67	B1	2841	G	O4'-C1'	7.01	1.52	1.41
12	AN	49	GLN	N-CA	-7.01	1.36	1.45
15	AE	8	ARG	CD-NE	7.01	1.56	1.46
36	Bf	12	ARG	CD-NE	-7.01	1.36	1.46
13	AX	5	GLU	C-N	7.00	1.39	1.33
21	A2	368	C	C2'-C1'	-7.00	1.42	1.53
44	BW	45	ARG	NE-CZ	7.00	1.40	1.33
67	B1	2313	G	C2'-C1'	-7.00	1.42	1.53
14	AM	68	ALA	CA-C	-7.00	1.43	1.52
21	A2	576	C	O4'-C1'	7.00	1.52	1.41
21	A2	798	U	C5'-C4'	7.00	1.61	1.51
67	B1	1771	C	O4'-C1'	7.00	1.52	1.42
67	B1	1921	U	C2'-C1'	-7.00	1.42	1.53
21	A2	1058	G	O4'-C1'	7.00	1.52	1.41
47	BI	25	GLY	C-N	7.00	1.42	1.33
21	A2	1112	G	C2'-C1'	-7.00	1.42	1.53
21	A2	1378	A	C4'-C3'	7.00	1.63	1.52
67	B1	1663	C	O4'-C1'	7.00	1.52	1.41
54	BF	84	GLU	N-CA	-7.00	1.37	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	AA	18	TRP	CA-C	-6.99	1.44	1.52
67	B1	1148	C	C2'-C1'	-6.99	1.42	1.53
67	B1	2893	U	C2'-C1'	-6.99	1.42	1.53
67	B1	2716	C	O4'-C1'	6.99	1.52	1.42
38	Bb	117	ARG	NE-CZ	6.99	1.40	1.33
67	B1	1095	A	O4'-C1'	6.99	1.52	1.41
67	B1	1682	C	C2'-C1'	-6.99	1.42	1.53
68	B3	42	A	C2'-C1'	-6.99	1.42	1.53
43	Bk	39	SER	CA-C	-6.99	1.43	1.52
67	B1	2030	G	O4'-C1'	6.99	1.52	1.41
3	AI	101	ILE	CA-C	-6.99	1.44	1.52
21	A2	589	U	C2'-C1'	6.99	1.63	1.53
67	B1	252	A	O4'-C1'	6.99	1.52	1.41
67	B1	380	A	O4'-C1'	6.99	1.52	1.41
67	B1	215	A	O4'-C1'	-6.98	1.31	1.42
67	B1	2322	A	C2'-C1'	-6.98	1.42	1.53
67	B1	2437	G	C2'-C1'	-6.98	1.42	1.53
67	B1	457	C	O4'-C1'	6.98	1.52	1.41
67	B1	1471	G	O4'-C1'	6.98	1.52	1.41
24	AA	46	ARG	C-N	6.98	1.42	1.33
67	B1	188	A	C2'-C1'	6.98	1.63	1.53
67	B1	1388	U	C2'-C1'	-6.98	1.42	1.53
56	BH	123	ALA	CA-C	-6.98	1.43	1.52
67	B1	2030	G	C5'-C4'	6.98	1.61	1.51
67	B1	807	G	O4'-C1'	-6.97	1.31	1.41
67	B1	2555	C	C2'-C1'	-6.97	1.42	1.53
67	B1	2602	G	C2'-O2'	-6.97	1.31	1.42
21	A2	154	C	C2'-C1'	6.97	1.63	1.53
67	B1	825	C	O4'-C1'	6.97	1.52	1.41
5	AW	33	THR	C-N	6.97	1.42	1.33
6	AC	105	ARG	NE-CZ	6.97	1.40	1.33
67	B1	574	C	O4'-C1'	6.97	1.52	1.41
35	BL	50	THR	N-CA	-6.97	1.37	1.46
62	BN	127	LYS	N-CA	-6.97	1.40	1.46
67	B1	461	C	O4'-C1'	6.97	1.52	1.42
67	B1	2231	G	C2'-C1'	-6.97	1.42	1.53
67	B1	2966	C	O4'-C1'	6.97	1.52	1.41
21	A2	129	G	O4'-C1'	6.96	1.52	1.41
21	A2	658	A	O4'-C1'	6.96	1.52	1.41
21	A2	830	A	C4'-C3'	6.96	1.63	1.53
13	AX	2	ALA	CA-C	-6.96	1.43	1.52
67	B1	1569	A	C4'-O4'	-6.96	1.35	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	999	G	O4'-C1'	6.96	1.52	1.41
67	B1	2217	C	O4'-C1'	6.96	1.52	1.41
60	BS	115	ILE	CA-CB	-6.96	1.46	1.54
67	B1	2782	A	O4'-C1'	6.96	1.52	1.41
67	B1	892	U	C2'-C1'	-6.96	1.43	1.53
15	AE	28	TRP	C-N	6.95	1.43	1.33
21	A2	957	A	C2'-C1'	6.95	1.63	1.53
67	B1	1430	A	C2'-C1'	6.95	1.63	1.53
67	B1	920	G	O4'-C1'	6.95	1.52	1.41
68	B3	107	G	O3'-P	-6.95	1.50	1.61
21	A2	1109	C	C2'-C1'	-6.95	1.43	1.53
67	B1	2559	G	O4'-C1'	6.95	1.52	1.41
1	AQ	132	LEU	N-CA	-6.95	1.38	1.46
21	A2	738	C	C2'-C1'	-6.95	1.43	1.53
68	B3	8	C	C4'-O4'	-6.95	1.35	1.45
21	A2	498	C	C5'-C4'	6.94	1.61	1.51
11	A1	37	A	O4'-C1'	6.94	1.52	1.41
15	AE	208	GLY	CA-C	-6.94	1.45	1.52
21	A2	350	G	O4'-C1'	6.94	1.52	1.41
33	BC	130	ARG	NE-CZ	6.94	1.40	1.33
36	Bf	34	ARG	CA-C	-6.94	1.43	1.52
67	B1	1566	G	C2'-C1'	-6.94	1.43	1.53
67	B1	1576	C	O3'-P	-6.94	1.50	1.61
67	B1	2241	U	O4'-C1'	-6.94	1.31	1.42
52	BB	72	ILE	N-CA	6.94	1.54	1.46
67	B1	1604	G	C2'-C1'	-6.94	1.43	1.53
20	BG	38	GLU	CA-C	-6.93	1.43	1.52
67	B1	2873	G	O4'-C1'	-6.93	1.31	1.41
21	A2	994	C	O4'-C1'	6.93	1.52	1.41
7	AB	66	SER	CA-CB	6.93	1.58	1.53
25	AH	81	VAL	CA-CB	-6.93	1.45	1.54
27	A0	47	U	O3'-P	-6.92	1.50	1.61
58	BP	54	ARG	CA-C	-6.92	1.43	1.52
62	BN	81	ASN	N-CA	-6.92	1.37	1.45
67	B1	335	C	C2'-C1'	-6.92	1.43	1.53
67	B1	2061	A	O4'-C1'	6.92	1.52	1.42
67	B1	3041	U	O4'-C1'	6.92	1.52	1.42
67	B1	776	G	O4'-C1'	6.92	1.52	1.41
68	B3	89	G	C2'-C1'	-6.92	1.43	1.53
15	AE	157	ASN	CA-C	-6.92	1.43	1.52
27	A0	60	U	C2'-C1'	-6.92	1.42	1.53
40	BE	24	ARG	CD-NE	6.92	1.55	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	AG	85	ARG	CD-NE	6.92	1.55	1.46
21	A2	401	U	C2'-C1'	6.92	1.63	1.53
67	B1	2656	A	C5'-C4'	6.92	1.61	1.51
10	AD	43	LYS	CA-CB	6.92	1.64	1.53
16	AJ	84	PRO	C-N	6.92	1.43	1.33
67	B1	1329	G	C5'-C4'	6.92	1.61	1.51
15	AE	171	ARG	CD-NE	6.92	1.55	1.46
17	AO	100	MET	CA-C	-6.92	1.43	1.52
67	B1	653	U	O4'-C1'	6.92	1.52	1.41
21	A2	622	C	C5'-C4'	6.91	1.61	1.51
10	AD	10	LYS	CA-C	-6.91	1.46	1.52
32	BO	62	ALA	C-N	6.91	1.42	1.33
21	A2	71	C	C2'-C1'	-6.91	1.43	1.53
67	B1	714	C	O4'-C1'	6.91	1.52	1.41
67	B1	1480	G	C2'-C1'	6.91	1.63	1.53
67	B1	2452	C	O4'-C1'	6.91	1.52	1.41
59	BM	38	ARG	NE-CZ	6.91	1.40	1.33
67	B1	1333	G	C2'-C1'	-6.90	1.43	1.53
67	B1	1412	C	O4'-C1'	6.90	1.52	1.41
49	BQ	89	MET	C-N	6.90	1.39	1.33
33	BC	41	PHE	CA-C	-6.90	1.44	1.52
47	BI	3	ILE	CA-C	-6.90	1.43	1.52
53	BD	153	LYS	N-CA	-6.90	1.37	1.46
67	B1	1948	A	C2'-C1'	-6.90	1.43	1.53
67	B1	2277	G	P-O5'	-6.90	1.49	1.59
44	BW	27	LYS	CA-CB	6.90	1.64	1.53
59	BM	152	LYS	CA-CB	6.90	1.64	1.53
67	B1	2381	A	C2'-C1'	-6.90	1.43	1.53
18	AF	5	TRP	N-CA	-6.89	1.38	1.46
54	BF	166	ARG	CD-NE	6.89	1.55	1.46
67	B1	1368	A	C2'-C1'	6.89	1.63	1.53
67	B1	1848	A	C3'-C2'	-6.89	1.42	1.52
48	BR	35	PHE	CA-C	-6.89	1.44	1.52
60	BS	142	GLN	CA-C	-6.89	1.44	1.52
21	A2	1077	U	C3'-O3'	6.89	1.52	1.42
30	AU	33	PRO	C-N	6.89	1.42	1.33
63	Bg	40	ARG	CD-NE	6.89	1.55	1.46
8	AR	21	CYS	N-CA	-6.89	1.36	1.46
67	B1	1208	A	O4'-C1'	-6.89	1.31	1.42
67	B1	2286	U	C4'-C3'	6.89	1.62	1.52
29	AL	61	PHE	CA-C	-6.88	1.44	1.52
67	B1	345	C	C5'-C4'	6.88	1.61	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	893	C	O4'-C1'	6.88	1.51	1.41
67	B1	2578	C	O4'-C1'	6.88	1.51	1.41
67	B1	323	U	O4'-C1'	6.88	1.51	1.41
52	BB	204	PHE	CA-C	-6.88	1.44	1.52
67	B1	596	C	C2'-C1'	-6.88	1.43	1.53
67	B1	233	A	C2'-C1'	-6.88	1.43	1.53
1	AQ	80	ARG	CZ-NH2	6.88	1.42	1.33
20	A3	108	ARG	NE-CZ	6.88	1.40	1.33
21	A2	1173	A	O4'-C1'	6.88	1.52	1.42
67	B1	2155	C	C2'-C1'	6.88	1.63	1.53
67	B1	141	C	C2'-C1'	-6.87	1.43	1.53
67	B1	2237	A	O4'-C1'	6.87	1.51	1.41
21	A2	395	C	O4'-C1'	6.87	1.51	1.41
43	Bk	148	ARG	CZ-NH2	6.87	1.42	1.33
46	BA	95	ARG	CZ-NH1	6.87	1.42	1.32
67	B1	660	U	O4'-C1'	6.87	1.51	1.41
24	AA	49	GLU	N-CA	-6.87	1.37	1.46
65	BJ	122	VAL	C-N	6.87	1.42	1.33
31	BY	45	GLY	N-CA	-6.87	1.36	1.45
37	BU	10	LYS	CA-C	-6.87	1.43	1.52
67	B1	37	C	C2'-C1'	-6.87	1.43	1.53
67	B1	2996	A	O4'-C1'	6.87	1.51	1.41
21	A2	284	A	C2'-C1'	6.87	1.63	1.53
54	BF	139	VAL	CA-CB	-6.87	1.46	1.54
14	AM	27	ILE	CA-C	-6.87	1.44	1.52
40	BE	66	ARG	NE-CZ	6.87	1.40	1.33
67	B1	697	U	O4'-C1'	6.87	1.51	1.41
67	B1	917	A	C2'-C1'	6.87	1.63	1.53
21	A2	758	U	O4'-C1'	6.86	1.51	1.41
67	B1	445	G	C5'-C4'	6.86	1.61	1.51
67	B1	1899	C	O3'-P	-6.86	1.50	1.61
26	AP	47	ALA	C-O	-6.86	1.18	1.24
68	B3	87	G	O4'-C1'	6.86	1.51	1.41
21	A2	495	G	C2'-C1'	-6.86	1.43	1.53
25	AH	177	LYS	CA-C	-6.86	1.43	1.52
32	BO	143	ARG	N-CA	-6.86	1.37	1.46
67	B1	31	G	O4'-C1'	-6.86	1.31	1.41
21	A2	917	A	O4'-C1'	6.86	1.51	1.41
31	BY	118	ARG	CD-NE	6.86	1.55	1.46
67	B1	2214	U	C2'-C1'	-6.86	1.43	1.53
11	A1	56	U	O4'-C1'	6.85	1.51	1.41
67	B1	551	A	C2'-C1'	-6.85	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	262	C	O4'-C1'	6.85	1.51	1.41
8	AR	42	LYS	C-N	-6.85	1.24	1.33
7	AB	194	GLU	C-N	6.85	1.43	1.34
30	AU	43	ARG	CD-NE	6.85	1.55	1.46
67	B1	843	C	C2'-C1'	-6.85	1.43	1.53
67	B1	2639	G	C2'-C1'	-6.84	1.43	1.53
5	AW	51	LYS	CA-C	-6.84	1.43	1.52
21	A2	1405	C	O4'-C1'	6.84	1.51	1.41
11	A1	19	G	O4'-C1'	-6.84	1.31	1.41
21	A2	188	C	C2'-C1'	-6.84	1.43	1.53
42	BT	35	THR	N-CA	-6.84	1.37	1.45
67	B1	1908	C	C2'-C1'	-6.84	1.43	1.53
67	B1	2473	C	O4'-C1'	6.84	1.51	1.41
67	B1	352	G	C2'-C1'	-6.84	1.43	1.53
21	A2	1380	C	O4'-C1'	6.84	1.51	1.41
67	B1	303	A	O4'-C1'	6.84	1.51	1.41
67	B1	789	G	O4'-C1'	6.84	1.51	1.41
67	B1	2856	G	C2'-C1'	-6.84	1.43	1.53
17	AO	75	PRO	N-CA	-6.83	1.38	1.47
60	BS	16	ARG	CA-C	-6.83	1.44	1.52
67	B1	2110	C	C2'-C1'	-6.83	1.43	1.53
67	B1	1596	G	C2'-C1'	6.83	1.63	1.53
6	AC	81	GLU	C-N	6.83	1.41	1.33
21	A2	1387	C	C5'-C4'	6.83	1.61	1.51
67	B1	1824	G	O4'-C1'	6.83	1.51	1.41
67	B1	1987	A	O4'-C1'	6.83	1.51	1.41
21	A2	1389	G	O4'-C1'	-6.83	1.31	1.41
65	BJ	92	LEU	N-CA	-6.83	1.37	1.46
67	B1	779	A	C5'-C4'	6.83	1.61	1.51
67	B1	801	A	O4'-C1'	-6.83	1.31	1.41
67	B1	2130	C	C2'-C1'	-6.83	1.43	1.53
20	A3	66	LEU	CA-CB	6.82	1.63	1.53
21	A2	444	G	C2'-C1'	-6.82	1.43	1.53
67	B1	739	C	O4'-C1'	6.82	1.51	1.41
67	B1	448	A	C2'-C1'	6.82	1.63	1.53
67	B1	496	A	C2'-C1'	6.82	1.63	1.53
67	B1	1702	C	O4'-C1'	6.82	1.51	1.41
67	B1	1991	G	O3'-P	-6.82	1.50	1.61
21	A2	12	U	C2'-C1'	-6.82	1.43	1.53
53	BD	83	VAL	CA-C	-6.82	1.45	1.52
61	Bd	65	GLU	N-CA	-6.82	1.38	1.46
67	B1	1317	G	C2'-C1'	-6.82	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	560	G	O4'-C1'	-6.82	1.31	1.41
67	B1	1282	A	O4'-C1'	6.82	1.52	1.42
21	A2	1315	G	C2'-C1'	-6.82	1.43	1.53
31	BY	13	VAL	N-CA	-6.82	1.38	1.46
58	BP	95	GLU	CA-C	-6.82	1.43	1.52
67	B1	1250	A	O4'-C1'	-6.82	1.31	1.41
68	B3	112	C	C4'-C3'	6.81	1.62	1.52
39	Be	8	PHE	N-CA	6.81	1.54	1.46
67	B1	345	C	C2'-C1'	-6.81	1.43	1.53
67	B1	788	A	O3'-P	-6.81	1.50	1.61
67	B1	2003	C	C3'-O3'	6.81	1.52	1.42
21	A2	214	C	O4'-C1'	6.81	1.51	1.41
67	B1	3001	C	C2'-C1'	-6.81	1.43	1.53
68	B3	80	G	O4'-C1'	6.81	1.51	1.41
68	B3	97	G	C2'-C1'	6.81	1.63	1.53
7	AB	55	ALA	C-N	6.81	1.42	1.33
21	A2	907	C	O4'-C1'	6.81	1.51	1.41
50	BV	50	LEU	N-CA	-6.81	1.37	1.46
67	B1	699	A	C2'-C1'	-6.81	1.43	1.53
67	B1	1698	G	C4'-O4'	-6.81	1.35	1.45
33	BC	289	ILE	CA-C	-6.81	1.44	1.52
67	B1	363	G	O4'-C1'	-6.81	1.31	1.42
67	B1	1180	G	O3'-P	-6.81	1.50	1.61
67	B1	2312	U	C2'-C1'	6.81	1.63	1.53
67	B1	630	G	C2'-C1'	6.81	1.63	1.53
68	B3	73	U	O4'-C1'	6.80	1.51	1.41
13	AX	58	ARG	NE-CZ	6.80	1.40	1.33
21	A2	968	C	O4'-C1'	6.80	1.51	1.41
67	B1	1083	G	C3'-O3'	6.80	1.52	1.42
21	A2	992	G	O4'-C1'	6.80	1.51	1.41
65	BJ	94	GLY	CA-C	6.80	1.60	1.51
10	AD	86	ASP	CA-C	-6.80	1.44	1.52
21	A2	1263	C	C2'-C1'	-6.79	1.43	1.53
67	B1	1044	C	O4'-C1'	6.79	1.51	1.41
21	A2	1191	G	O4'-C1'	6.79	1.51	1.41
49	BQ	109	LEU	C-N	6.79	1.43	1.33
21	A2	632	C	C2'-C1'	-6.79	1.43	1.53
67	B1	1841	G	O4'-C1'	6.79	1.51	1.41
67	B1	180	A	O4'-C1'	6.79	1.51	1.41
67	B1	670	G	O4'-C1'	6.79	1.51	1.41
21	A2	499	G	C2'-C1'	-6.79	1.43	1.53
15	AE	107	ILE	C-N	6.79	1.42	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
16	AJ	56	ARG	CA-C	-6.79	1.44	1.52
33	BC	26	ARG	NE-CZ	6.79	1.40	1.33
37	BU	17	ASN	CA-C	-6.79	1.43	1.52
67	B1	1949	A	O4'-C1'	6.79	1.51	1.41
20	A3	103	GLU	C-N	6.78	1.42	1.33
46	BA	118	GLY	N-CA	-6.78	1.37	1.45
67	B1	389	C	O3'-P	-6.78	1.50	1.61
67	B1	1173	G	C2'-C1'	-6.78	1.43	1.53
15	AE	157	ASN	N-CA	-6.78	1.37	1.46
8	AR	8	ARG	CD-NE	6.78	1.55	1.46
37	BU	112	ARG	NE-CZ	6.78	1.40	1.33
53	BD	27	ARG	NE-CZ	6.78	1.40	1.33
60	BS	53	ASP	C-N	6.78	1.42	1.33
67	B1	2466	C	O4'-C1'	6.78	1.51	1.41
6	AC	36	LYS	N-CA	-6.78	1.37	1.46
40	BE	61	ALA	C-N	6.78	1.42	1.33
20	A3	3	LYS	C-N	6.78	1.41	1.34
36	Bf	22	ARG	CD-NE	6.78	1.55	1.46
11	A1	5	C	P-O5'	-6.77	1.49	1.59
46	BA	13	LYS	CA-C	-6.77	1.44	1.52
25	AH	46	HIS	ND1-CE1	6.77	1.39	1.32
67	B1	2157	U	C2'-C1'	-6.77	1.43	1.53
67	B1	2955	G	O4'-C1'	6.77	1.51	1.41
21	A2	1302	C	O4'-C1'	6.77	1.51	1.41
39	Be	50	ARG	C-N	6.77	1.43	1.33
21	A2	654	U	C2'-C1'	6.77	1.63	1.53
43	Bk	30	VAL	N-CA	-6.77	1.37	1.46
54	BF	149	GLN	C-N	6.77	1.42	1.33
67	B1	1351	G	O4'-C1'	6.77	1.51	1.41
67	B1	2080	G	O4'-C1'	6.77	1.51	1.41
54	BF	19	VAL	CA-C	-6.76	1.44	1.52
27	A0	23	A	O4'-C1'	6.76	1.51	1.41
67	B1	865	C	C2'-C1'	-6.76	1.43	1.53
67	B1	1133	U	O4'-C1'	6.76	1.51	1.41
67	B1	2355	G	O4'-C1'	6.76	1.51	1.41
17	AO	68	ASP	C-O	6.76	1.31	1.24
24	AA	100	THR	C-N	6.76	1.41	1.33
67	B1	951	C	O4'-C1'	6.76	1.51	1.41
8	AR	62	ARG	CZ-NH2	6.75	1.42	1.33
21	A2	965	G	C5'-C4'	6.75	1.61	1.51
21	A2	704	C	C2'-C1'	6.75	1.63	1.53
67	B1	423	G	C2'-C1'	-6.75	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1675	C	C5'-C4'	6.75	1.61	1.51
68	B3	36	U	C2'-C1'	-6.75	1.43	1.53
21	A2	262	G	C2'-C1'	-6.75	1.43	1.53
67	B1	291	A	C2'-C1'	-6.75	1.43	1.53
21	A2	231	G	O4'-C1'	-6.75	1.31	1.41
21	A2	504	G	O4'-C1'	6.75	1.51	1.41
67	B1	1087	G	C2'-C1'	6.75	1.63	1.53
21	A2	927	A	C2'-C1'	-6.75	1.43	1.53
43	Bk	145	ILE	CA-C	-6.75	1.47	1.53
44	BW	13	GLU	CA-CB	6.75	1.64	1.53
33	BC	203	LEU	CA-CB	6.75	1.64	1.53
67	B1	996	U	C2'-C1'	6.75	1.63	1.53
14	AM	66	ARG	NE-CZ	6.75	1.40	1.33
53	BD	111	ARG	CA-C	-6.75	1.44	1.52
21	A2	643	G	O4'-C1'	6.74	1.51	1.41
21	A2	1486	A	C2'-C1'	6.74	1.63	1.53
60	BS	118	ALA	CA-C	-6.74	1.44	1.52
67	B1	850	C	C2'-C1'	-6.74	1.43	1.53
67	B1	3029	A	C2'-C1'	6.74	1.63	1.53
67	B1	762	G	O4'-C1'	6.74	1.51	1.41
67	B1	1035	G	P-O5'	-6.74	1.49	1.59
21	A2	523	C	P-O5'	-6.74	1.49	1.59
21	A2	1250	C	C2'-C1'	-6.74	1.43	1.53
8	AR	46	THR	C-N	6.74	1.42	1.33
21	A2	1203	G	C2'-C1'	-6.74	1.43	1.53
61	Bd	66	ARG	NE-CZ	6.74	1.40	1.33
67	B1	1216	A	C2'-C1'	-6.74	1.43	1.53
67	B1	2159	C	C2'-C1'	-6.74	1.43	1.53
67	B1	760	G	O4'-C1'	6.73	1.51	1.41
21	A2	243	G	O4'-C1'	-6.73	1.31	1.41
46	BA	164	HIS	ND1-CE1	6.73	1.39	1.32
67	B1	1926	A	C2'-C1'	-6.73	1.43	1.53
15	AE	132	MET	N-CA	-6.73	1.37	1.45
21	A2	185	G	O4'-C1'	6.73	1.51	1.41
67	B1	2212	C	O4'-C1'	6.73	1.51	1.41
29	AL	44	ARG	CA-C	-6.73	1.44	1.52
67	B1	154	U	C3'-O3'	-6.73	1.32	1.42
67	B1	2830	C	C2'-C1'	6.73	1.63	1.53
21	A2	488	A	C2'-C1'	-6.72	1.43	1.53
21	A2	501	G	C2'-C1'	-6.72	1.43	1.53
47	BI	111	GLU	CA-CB	6.72	1.65	1.53
53	BD	134	ILE	C-N	6.72	1.43	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	899	A	O4'-C1'	-6.72	1.31	1.42
67	B1	2524	C	O4'-C1'	6.72	1.51	1.41
67	B1	2686	A	C2'-C1'	-6.72	1.43	1.53
24	AA	64	VAL	C-N	6.72	1.43	1.33
53	BD	90	ARG	NE-CZ	6.72	1.40	1.33
67	B1	715	G	C5'-C4'	6.72	1.61	1.51
67	B1	972	C	O4'-C1'	6.72	1.51	1.41
67	B1	1265	A	O4'-C1'	6.72	1.52	1.42
67	B1	2856	G	C5'-C4'	6.72	1.61	1.51
31	BY	99	LYS	C-O	-6.72	1.16	1.24
67	B1	1381	C	C2'-C1'	-6.72	1.43	1.53
67	B1	2384	G	O4'-C1'	6.72	1.51	1.41
21	A2	742	U	O4'-C1'	6.72	1.51	1.41
67	B1	218	A	C4'-C3'	6.72	1.62	1.52
67	B1	1791	A	C2'-C1'	6.72	1.63	1.53
16	AJ	60	ALA	N-CA	-6.72	1.37	1.46
21	A2	1159	U	C2'-C1'	6.71	1.63	1.53
67	B1	626	C	C5'-C4'	6.71	1.61	1.51
67	B1	1624	U	C2'-C1'	6.71	1.63	1.53
21	A2	131	G	C2'-C1'	-6.71	1.43	1.53
67	B1	547	C	O4'-C1'	6.71	1.51	1.41
67	B1	2971	U	C3'-O3'	6.71	1.53	1.43
67	B1	654	C	C2'-C1'	-6.71	1.43	1.53
36	Bf	40	LYS	CA-C	-6.71	1.43	1.52
40	BE	15	TRP	CA-CB	6.71	1.64	1.53
67	B1	602	G	C2'-C1'	-6.71	1.43	1.53
67	B1	1568	A	O4'-C1'	-6.71	1.31	1.41
67	B1	1703	G	O5'-C5'	6.71	1.52	1.42
68	B3	72	G	C2'-C1'	-6.71	1.43	1.53
16	AJ	43	ARG	CD-NE	6.71	1.55	1.46
11	A1	1	G	O4'-C1'	6.71	1.51	1.41
54	BF	139	VAL	N-CA	-6.71	1.38	1.46
67	B1	2223	G	C2'-C1'	-6.71	1.43	1.53
67	B1	2927	A	C4'-C3'	6.70	1.62	1.52
67	B1	1515	G	O4'-C1'	6.70	1.51	1.41
67	B1	1890	U	C2'-C1'	-6.70	1.43	1.53
67	B1	1643	A	C5'-C4'	6.70	1.61	1.51
32	BO	113	ARG	NE-CZ	6.70	1.40	1.33
67	B1	1162	C	C2'-C1'	-6.70	1.43	1.53
27	A0	33	U	O4'-C1'	6.69	1.51	1.41
29	AL	38	ILE	N-CA	-6.69	1.40	1.46
56	BH	90	PRO	N-CA	-6.69	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
38	Bb	10	LEU	CA-CB	6.69	1.63	1.53
67	B1	733	A	O4'-C1'	-6.69	1.31	1.41
67	B1	973	C	C5'-C4'	6.69	1.61	1.51
67	B1	2845	C	C3'-O3'	6.69	1.52	1.42
21	A2	763	G	O3'-P	-6.69	1.51	1.61
21	A2	765	U	O4'-C1'	6.69	1.51	1.41
60	BS	131	ARG	CA-C	-6.69	1.44	1.52
67	B1	2131	C	C4'-C3'	6.69	1.62	1.52
67	B1	2445	G	O4'-C1'	6.69	1.51	1.41
67	B1	2652	G	C2'-C1'	6.69	1.63	1.53
21	A2	1292	A	O4'-C1'	6.69	1.51	1.41
37	BU	81	ALA	C-N	6.69	1.42	1.33
46	BA	141	ASP	C-N	6.69	1.43	1.33
67	B1	2579	G	O4'-C1'	-6.69	1.31	1.41
3	AI	105	SER	CA-C	-6.68	1.44	1.52
14	AM	65	ARG	NE-CZ	6.68	1.40	1.33
21	A2	73	U	C2'-C1'	-6.68	1.43	1.53
21	A2	386	C	C3'-C2'	6.68	1.62	1.52
21	A2	1351	U	C2'-C1'	-6.68	1.43	1.53
32	BO	43	HIS	C-N	6.68	1.43	1.33
28	B6	4	ARG	CA-C	-6.68	1.44	1.52
67	B1	1935	C	O4'-C1'	6.68	1.51	1.41
67	B1	2951	G	C3'-C2'	-6.68	1.42	1.52
13	AX	11	VAL	CA-C	-6.68	1.44	1.52
21	A2	710	G	C4'-C3'	6.68	1.62	1.52
66	B1	18	LYS	N-CA	-6.68	1.38	1.46
67	B1	695	G	O4'-C1'	6.68	1.51	1.41
67	B1	1841	G	C2'-C1'	-6.68	1.43	1.53
67	B1	2003	C	C2'-C1'	-6.68	1.43	1.53
16	AJ	116	GLN	CA-C	-6.68	1.43	1.52
29	AL	89	ARG	NE-CZ	6.68	1.40	1.33
53	BD	197	PRO	CA-CB	6.68	1.62	1.53
26	AP	2	ALA	N-CA	-6.68	1.37	1.46
67	B1	462	A	C2'-C1'	-6.68	1.43	1.53
67	B1	2179	G	C2'-C1'	6.68	1.63	1.53
67	B1	2931	G	C2'-C1'	-6.68	1.43	1.53
67	B1	953	G	O3'-P	-6.67	1.51	1.61
21	A2	911	C	O4'-C1'	6.67	1.51	1.41
21	A2	948	G	O4'-C1'	-6.67	1.31	1.41
67	B1	1449	C	C2'-C1'	-6.67	1.43	1.53
8	AR	111	GLU	C-N	6.67	1.43	1.33
13	AX	33	GLU	CA-C	-6.67	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
17	AO	96	ALA	N-CA	6.67	1.54	1.46
65	BJ	51	ARG	NE-CZ	6.67	1.40	1.33
67	B1	1105	C	C2'-C1'	-6.67	1.43	1.53
67	B1	857	U	O4'-C1'	6.67	1.51	1.41
40	BE	177	GLU	N-CA	-6.67	1.38	1.46
67	B1	2716	C	C2'-C1'	6.67	1.63	1.53
6	AC	118	ARG	NE-CZ	6.67	1.40	1.33
21	A2	1474	A	C2'-C1'	6.67	1.63	1.53
32	BO	172	LEU	C-N	6.67	1.42	1.33
68	B3	118	G	C5'-C4'	6.67	1.61	1.51
27	A0	34	G	C3'-O3'	6.67	1.52	1.42
6	AC	68	ILE	CA-CB	-6.66	1.46	1.54
21	A2	1030	U	O4'-C1'	6.66	1.51	1.41
67	B1	1333	G	O4'-C1'	6.66	1.51	1.41
67	B1	1597	G	C2'-C1'	6.66	1.63	1.53
4	AG	65	GLY	CA-C	-6.66	1.44	1.51
25	AH	19	GLY	CA-C	-6.66	1.43	1.51
25	AH	92	SER	C-N	6.66	1.43	1.33
27	A0	47	U	C2'-C1'	6.66	1.63	1.53
44	BW	28	GLU	CA-C	-6.66	1.44	1.52
54	BF	44	ILE	CA-CB	-6.66	1.45	1.54
67	B1	626	C	O3'-P	-6.66	1.51	1.61
67	B1	2190	A	O5'-C5'	6.66	1.52	1.42
11	A1	65	C	O4'-C1'	6.66	1.51	1.41
67	B1	91	G	O4'-C1'	6.66	1.51	1.42
67	B1	2372	C	C2'-C1'	6.66	1.63	1.53
21	A2	192	G	O4'-C1'	-6.66	1.31	1.41
53	BD	126	LEU	CA-C	-6.66	1.44	1.52
27	A0	32	C	O4'-C1'	6.65	1.51	1.41
59	BM	151	LEU	N-CA	-6.65	1.37	1.46
67	B1	1312	C	C2'-C1'	-6.65	1.43	1.53
33	BC	360	SER	CA-C	-6.65	1.44	1.52
52	BB	229	HIS	CA-CB	6.65	1.61	1.53
59	BM	75	ARG	CD-NE	6.65	1.55	1.46
61	Bd	10	TRP	N-CA	-6.65	1.38	1.45
67	B1	165	G	O4'-C1'	6.65	1.51	1.41
67	B1	848	A	O4'-C1'	6.65	1.51	1.41
67	B1	1048	C	O3'-P	-6.65	1.51	1.61
67	B1	1805	U	O4'-C1'	6.65	1.51	1.41
67	B1	2731	C	C2'-C1'	6.65	1.63	1.53
27	A0	5	C	O4'-C1'	6.65	1.51	1.41
33	BC	139	TYR	CA-CB	6.65	1.63	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1856	G	O4'-C1'	6.65	1.51	1.41
20	A3	10	GLU	CA-C	-6.65	1.44	1.52
21	A2	625	G	C2'-C1'	-6.65	1.43	1.53
21	A2	1118	C	C5'-C4'	6.64	1.61	1.51
67	B1	2618	C	O4'-C1'	6.64	1.51	1.41
67	B1	2641	C	O4'-C1'	6.64	1.51	1.41
67	B1	1241	C	C5'-C4'	6.64	1.61	1.51
67	B1	1307	C	C2'-C1'	-6.64	1.43	1.53
21	A2	142	G	O4'-C1'	-6.64	1.31	1.41
23	AT	84	HIS	N-CA	-6.64	1.38	1.46
40	BE	74	GLU	CA-CB	6.64	1.63	1.53
21	A2	287	G	C2'-C1'	-6.64	1.43	1.53
24	AA	115	TYR	CA-C	-6.64	1.44	1.52
54	BF	147	VAL	CA-C	-6.64	1.44	1.52
67	B1	673	A	O4'-C1'	6.64	1.51	1.41
67	B1	1424	G	C4'-O4'	-6.64	1.35	1.45
67	B1	2894	A	C2'-C1'	-6.64	1.43	1.53
64	Bc	58	VAL	N-CA	6.64	1.54	1.46
21	A2	40	C	O4'-C1'	6.64	1.51	1.41
21	A2	836	G	O4'-C1'	6.64	1.51	1.41
67	B1	79	C	C2'-C1'	-6.63	1.43	1.53
67	B1	731	C	C2'-C1'	-6.63	1.43	1.53
27	A0	2	C	C2'-C1'	-6.63	1.43	1.53
27	A0	8	U	C5'-C4'	6.63	1.61	1.51
67	B1	2791	C	C4'-C3'	6.63	1.62	1.52
17	AO	20	GLN	CA-C	-6.63	1.43	1.52
21	A2	837	C	O4'-C1'	6.63	1.51	1.41
52	BB	96	THR	CA-C	-6.63	1.44	1.52
67	B1	2592	U	O5'-C5'	6.63	1.52	1.42
14	AM	18	HIS	ND1-CE1	6.63	1.39	1.32
21	A2	562	A	O3'-P	-6.63	1.51	1.61
20	B4	67	PRO	CA-C	6.63	1.58	1.52
67	B1	487	U	C2'-C1'	6.63	1.62	1.53
67	B1	2049	U	O4'-C1'	6.63	1.51	1.41
10	AD	46	THR	C-N	6.63	1.42	1.33
34	BK	34	LEU	N-CA	-6.63	1.38	1.46
67	B1	1138	C	C2'-C1'	-6.63	1.43	1.53
10	AD	36	LYS	CA-CB	6.62	1.63	1.53
67	B1	1177	C	O4'-C1'	6.62	1.51	1.41
67	B1	2609	G	C2'-C1'	-6.62	1.43	1.53
27	A0	49	C	O4'-C1'	6.62	1.51	1.41
67	B1	229	G	C2'-C1'	-6.62	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1244	C	O4'-C1'	6.62	1.51	1.41
11	A1	34	U	O4'-C1'	6.62	1.51	1.41
21	A2	506	G	C2'-C1'	-6.62	1.43	1.53
21	A2	521	G	O4'-C1'	6.62	1.51	1.41
24	AA	89	ARG	N-CA	-6.62	1.38	1.46
38	Bb	40	TRP	NE1-CE2	6.62	1.44	1.37
41	Ba	73	LYS	N-CA	-6.62	1.38	1.46
67	B1	464	C	C2'-C1'	6.62	1.63	1.53
67	B1	1030	C	C2'-C1'	-6.62	1.43	1.53
67	B1	2800	U	C5'-C4'	6.62	1.61	1.51
15	AE	192	ASN	N-CA	-6.62	1.37	1.46
67	B1	1436	A	C4'-C3'	6.62	1.62	1.52
67	B1	659	U	O4'-C1'	6.62	1.51	1.41
67	B1	2979	C	O4'-C1'	6.62	1.51	1.41
11	A1	36	A	C2'-C1'	6.61	1.63	1.53
21	A2	315	A	C5'-C4'	6.61	1.61	1.51
21	A2	457	G	C2'-C1'	-6.61	1.43	1.53
53	BD	188	GLY	N-CA	-6.61	1.38	1.45
67	B1	741	G	O4'-C1'	6.61	1.51	1.41
21	A2	1243	C	C4'-C3'	6.61	1.62	1.52
21	A2	569	G	C2'-C1'	-6.61	1.43	1.53
25	AH	144	ILE	CA-C	-6.61	1.45	1.52
42	BT	29	ILE	CA-CB	-6.61	1.46	1.54
67	B1	759	G	C2'-C1'	-6.61	1.43	1.53
67	B1	321	C	O4'-C1'	6.61	1.51	1.41
67	B1	1555	G	O5'-C5'	6.61	1.52	1.42
67	B1	1981	G	O4'-C1'	-6.61	1.31	1.41
60	BS	25	LEU	CA-C	-6.61	1.44	1.52
21	A2	240	U	C2'-C1'	6.61	1.62	1.53
61	Bd	88	LEU	CA-C	-6.61	1.44	1.52
67	B1	658	C	C2'-C1'	6.61	1.63	1.53
67	B1	1032	C	O4'-C1'	6.61	1.51	1.41
67	B1	1342	G	O4'-C1'	6.61	1.51	1.41
10	AD	119	ARG	C-N	6.60	1.42	1.33
21	A2	165	U	C3'-O3'	6.60	1.52	1.42
21	A2	833	C	O4'-C1'	6.60	1.51	1.41
67	B1	285	C	C2'-C1'	-6.60	1.43	1.53
21	A2	1401	U	O4'-C1'	6.60	1.51	1.41
28	AV	31	PRO	CA-C	-6.60	1.43	1.52
34	B5	27	ILE	C-O	-6.60	1.17	1.24
52	BB	65	ASN	C-N	6.60	1.41	1.33
67	B1	491	G	C4'-C3'	6.60	1.62	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	798	G	C4'-O4'	6.60	1.55	1.45
1	AQ	5	HIS	ND1-CE1	6.60	1.39	1.32
1	AQ	19	ARG	CZ-NH1	6.60	1.42	1.32
13	AX	10	GLU	C-N	6.60	1.42	1.33
21	A2	1391	U	C2'-C1'	6.60	1.63	1.53
67	B1	1511	C	P-O5'	6.60	1.69	1.59
21	A2	1453	U	O3'-P	-6.60	1.51	1.61
31	BY	48	GLN	CA-C	-6.60	1.44	1.52
67	B1	1131	G	O4'-C1'	6.60	1.51	1.41
67	B1	1436	A	C2'-C1'	-6.60	1.43	1.53
67	B1	1787	U	O5'-C5'	6.60	1.52	1.42
7	AB	112	PRO	N-CA	6.60	1.52	1.46
17	AO	83	LYS	CA-CB	6.59	1.64	1.53
53	BD	187	ARG	N-CA	-6.59	1.37	1.46
23	AT	34	ARG	CD-NE	6.59	1.55	1.46
67	B1	599	G	O4'-C1'	6.59	1.51	1.41
68	B3	54	A	C2'-C1'	6.59	1.63	1.53
61	Bd	81	LYS	CA-C	-6.59	1.44	1.52
67	B1	535	G	C2'-C1'	6.59	1.63	1.53
67	B1	2021	G	O4'-C1'	6.59	1.51	1.41
67	B1	1321	C	O4'-C1'	6.59	1.51	1.41
67	B1	2934	C	C3'-O3'	6.59	1.52	1.42
67	B1	2188	C	C5'-C4'	6.59	1.61	1.51
67	B1	418	C	P-O5'	-6.59	1.49	1.59
67	B1	646	U	C2'-C1'	6.58	1.63	1.53
67	B1	1313	G	C5'-C4'	6.58	1.61	1.51
21	A2	1040	A	C3'-O3'	6.58	1.52	1.42
29	AL	34	MET	CA-C	-6.58	1.44	1.52
30	AU	60	ARG	CZ-NH2	6.58	1.42	1.33
36	Bf	44	TRP	CA-C	-6.58	1.44	1.52
67	B1	2113	G	C2'-C1'	-6.58	1.43	1.53
67	B1	2674	C	C2'-C1'	-6.58	1.43	1.53
67	B1	1905	G	P-O5'	-6.58	1.49	1.59
17	AO	111	ARG	CZ-NH1	6.58	1.42	1.32
40	BE	183	ILE	C-O	-6.58	1.17	1.24
67	B1	2091	U	C2'-C1'	-6.58	1.43	1.53
67	B1	1199	U	O4'-C1'	6.58	1.51	1.42
67	B1	2604	G	O4'-C1'	6.58	1.51	1.41
21	A2	185	G	C2'-C1'	-6.58	1.43	1.53
67	B1	2095	U	O4'-C1'	-6.58	1.31	1.41
8	AR	24	HIS	CA-CB	6.57	1.64	1.53
21	A2	351	C	O4'-C1'	6.57	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	359	A	C2'-C1'	-6.57	1.43	1.53
52	BB	156	ARG	NE-CZ	6.57	1.40	1.33
60	BS	56	ALA	CA-C	-6.57	1.43	1.52
67	B1	88	G	C2'-C1'	-6.57	1.43	1.53
67	B1	1606	C	O4'-C1'	6.57	1.51	1.41
67	B1	2534	C	C2'-O2'	-6.57	1.32	1.42
6	AC	112	ALA	C-N	6.57	1.42	1.33
21	A2	610	G	O4'-C1'	6.57	1.51	1.41
21	A2	1126	G	O4'-C1'	6.57	1.51	1.41
47	BI	42	ARG	CD-NE	6.57	1.55	1.46
67	B1	1766	A	O4'-C1'	6.57	1.51	1.42
67	B1	1473	C	P-O5'	-6.57	1.49	1.59
67	B1	2272	G	C4'-C3'	6.57	1.62	1.52
7	AB	70	VAL	C-N	6.57	1.41	1.33
44	BW	22	ARG	CD-NE	6.57	1.55	1.46
67	B1	1503	C	O4'-C1'	6.57	1.51	1.41
67	B1	2310	G	O4'-C1'	-6.57	1.31	1.41
28	AV	33	ARG	CD-NE	6.57	1.55	1.46
67	B1	1061	G	C2'-C1'	-6.57	1.43	1.53
67	B1	1710	C	C2'-C1'	-6.57	1.43	1.53
16	AJ	42	LYS	CA-C	-6.56	1.45	1.52
60	BS	121	LYS	CA-C	-6.56	1.44	1.52
21	A2	461	A	O4'-C1'	6.56	1.51	1.41
35	BL	121	PRO	C-N	6.56	1.43	1.33
56	BH	48	GLY	N-CA	-6.56	1.38	1.45
62	BN	155	LYS	C-N	6.56	1.43	1.33
67	B1	635	G	C2'-C1'	-6.56	1.43	1.53
67	B1	917	A	O4'-C1'	-6.56	1.32	1.42
67	B1	1641	G	C2'-C1'	-6.56	1.43	1.53
25	AH	12	PRO	N-CD	-6.56	1.38	1.47
51	Bj	39	ARG	NE-CZ	6.56	1.40	1.33
67	B1	2307	C	O4'-C1'	6.56	1.51	1.41
51	Bj	60	LYS	N-CA	6.56	1.55	1.46
53	BD	135	ASP	CA-C	-6.56	1.44	1.52
67	B1	1670	A	O4'-C1'	-6.56	1.31	1.41
27	A0	65	G	O4'-C1'	6.56	1.51	1.41
34	BK	27	ILE	C-O	-6.56	1.17	1.24
67	B1	961	C	C2'-C1'	-6.56	1.43	1.53
67	B1	1242	A	O3'-P	-6.56	1.51	1.61
67	B1	2114	C	O4'-C1'	6.56	1.51	1.41
67	B1	1062	C	C2'-C1'	-6.56	1.43	1.53
6	AC	43	LYS	CA-CB	6.55	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2982	G	O4'-C1'	6.55	1.51	1.41
14	AM	104	ALA	C-N	6.55	1.42	1.33
21	A2	1337	A	C2'-C1'	6.55	1.63	1.53
23	AT	66	HIS	ND1-CE1	6.55	1.39	1.32
53	BD	70	VAL	N-CA	-6.55	1.38	1.46
62	BN	73	LEU	CA-C	-6.55	1.44	1.52
29	AL	37	PRO	C-N	6.55	1.40	1.33
62	BN	48	SER	N-CA	6.55	1.54	1.45
67	B1	509	A	O3'-P	-6.55	1.51	1.61
21	A2	467	G	C5'-C4'	6.55	1.61	1.51
67	B1	2874	C	C2'-C1'	-6.55	1.43	1.53
17	AO	122	LEU	CA-CB	6.55	1.63	1.53
67	B1	954	A	O4'-C1'	6.55	1.51	1.41
8	AR	108	ARG	NE-CZ	6.54	1.40	1.33
67	B1	1618	G	O4'-C1'	6.54	1.51	1.41
21	A2	339	U	O4'-C1'	6.54	1.51	1.41
21	A2	478	C	O4'-C1'	6.54	1.51	1.41
50	BV	9	TYR	N-CA	-6.54	1.39	1.46
67	B1	787	G	O4'-C1'	6.54	1.51	1.41
67	B1	2293	G	C5'-C4'	6.54	1.61	1.51
67	B1	2867	U	P-O5'	-6.54	1.50	1.59
23	AT	112	LYS	CA-C	-6.54	1.44	1.52
67	B1	1784	G	O4'-C1'	6.54	1.51	1.41
23	AT	73	LEU	C-N	6.54	1.43	1.33
67	B1	2055	U	O4'-C1'	6.54	1.51	1.41
21	A2	732	G	O4'-C1'	6.54	1.51	1.41
21	A2	1028	C	O4'-C1'	6.54	1.51	1.41
33	BC	26	ARG	CD-NE	6.54	1.55	1.46
53	BD	72	ARG	NE-CZ	6.54	1.40	1.33
21	A2	1146	G	C4'-C3'	6.54	1.62	1.52
11	A1	69	G	O4'-C1'	6.54	1.51	1.41
21	A2	1033	G	C2'-C1'	6.54	1.63	1.53
33	BC	235	LYS	CA-C	-6.54	1.44	1.52
67	B1	1372	C	O4'-C1'	6.54	1.51	1.41
68	B3	34	C	C2'-C1'	-6.54	1.43	1.53
4	AG	27	GLU	C-N	6.53	1.42	1.33
53	BD	249	ARG	CZ-NH1	6.53	1.41	1.32
67	B1	1083	G	C2'-C1'	-6.53	1.43	1.53
2	AK	18	VAL	CA-C	-6.53	1.45	1.52
17	AO	9	ARG	NE-CZ	6.53	1.40	1.33
23	AT	9	ARG	NE-CZ	6.53	1.40	1.33
67	B1	2744	U	C2'-C1'	-6.53	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1058	G	C2'-C1'	-6.53	1.43	1.53
46	BA	18	ARG	NE-CZ	6.53	1.40	1.33
15	AE	204	ARG	CD-NE	6.53	1.55	1.46
52	BB	152	ASN	C-N	-6.53	1.26	1.34
8	AR	59	LYS	CA-CB	6.52	1.63	1.53
37	BU	81	ALA	CA-C	-6.52	1.44	1.52
67	B1	57	C	C2'-C1'	-6.52	1.43	1.53
58	BP	86	SER	CA-CB	6.52	1.63	1.53
67	B1	500	C	O4'-C1'	6.52	1.51	1.41
65	BJ	55	SER	CA-C	-6.52	1.44	1.52
67	B1	2679	A	O4'-C1'	6.52	1.51	1.41
20	A3	74	GLU	CA-CB	6.52	1.64	1.53
21	A2	970	G	C2'-C1'	-6.52	1.43	1.53
51	Bj	88	LYS	N-CA	-6.52	1.37	1.45
62	BN	130	GLN	N-CA	-6.52	1.38	1.45
67	B1	1254	C	O4'-C1'	6.52	1.51	1.41
68	B3	104	C	O4'-C1'	6.52	1.51	1.41
19	AS	11	ARG	CD-NE	6.51	1.55	1.46
67	B1	2287	C	C2'-C1'	6.51	1.63	1.53
41	Ba	54	VAL	CA-C	-6.51	1.44	1.52
67	B1	703	G	C3'-O3'	6.51	1.51	1.42
67	B1	1949	A	C3'-O3'	6.51	1.51	1.42
21	A2	549	A	C4'-C3'	6.51	1.62	1.52
67	B1	2903	U	C2'-C1'	-6.51	1.43	1.53
7	AB	160	GLY	CA-C	-6.51	1.42	1.51
15	AE	40	ARG	NE-CZ	6.51	1.40	1.33
21	A2	80	A	P-O5'	-6.51	1.50	1.59
33	BC	5	HIS	CD2-NE2	6.51	1.45	1.37
67	B1	765	G	O4'-C1'	6.51	1.51	1.41
67	B1	1038	U	O4'-C1'	6.51	1.51	1.41
21	A2	210	A	C4'-O4'	6.50	1.55	1.45
21	A2	657	A	C2'-C1'	6.50	1.62	1.53
21	A2	816	G	C2'-C1'	-6.50	1.43	1.53
67	B1	1665	G	C5'-C4'	6.50	1.61	1.51
6	AC	46	ILE	CA-C	-6.50	1.44	1.52
21	A2	1088	U	C4'-C3'	6.50	1.62	1.52
21	A2	1290	U	O4'-C1'	6.50	1.51	1.41
67	B1	1623	C	C2'-C1'	-6.50	1.43	1.53
21	A2	825	C	C2'-C1'	-6.50	1.43	1.53
21	A2	1063	A	O4'-C1'	6.50	1.51	1.41
67	B1	179	A	O4'-C1'	6.50	1.51	1.41
68	B3	19	G	O3'-P	-6.50	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
65	BJ	62	VAL	CA-C	-6.50	1.45	1.52
67	B1	832	A	C2'-C1'	-6.50	1.43	1.53
11	A1	45	G	C3'-O3'	6.50	1.51	1.42
21	A2	545	C	O4'-C1'	6.50	1.51	1.41
35	BL	72	GLU	N-CA	-6.50	1.38	1.45
62	BN	4	ARG	CA-C	-6.50	1.45	1.53
16	AJ	47	ARG	N-CA	-6.50	1.38	1.46
43	Bk	164	LYS	CA-CB	6.50	1.63	1.53
46	BA	154	ARG	CD-NE	6.50	1.55	1.46
6	AC	132	LEU	CA-C	-6.50	1.46	1.53
13	AX	14	ILE	N-CA	-6.50	1.38	1.46
67	B1	499	A	C2'-C1'	-6.49	1.43	1.53
5	AW	35	VAL	CA-C	-6.49	1.45	1.52
67	B1	2275	G	C4'-C3'	6.49	1.62	1.52
67	B1	2906	C	C3'-C2'	-6.49	1.43	1.52
67	B1	3025	C	C2'-C1'	-6.49	1.43	1.53
21	A2	328	G	C2'-C1'	-6.49	1.43	1.53
21	A2	1018	C	C5'-C4'	6.49	1.60	1.51
67	B1	1032	C	O3'-P	6.49	1.70	1.61
67	B1	1557	G	C2'-C1'	6.49	1.63	1.53
67	B1	1295	G	C2'-C1'	-6.49	1.43	1.53
67	B1	2867	U	C2'-C1'	-6.49	1.43	1.53
67	B1	294	U	C2'-C1'	-6.49	1.43	1.53
67	B1	1072	U	O4'-C1'	6.49	1.51	1.41
67	B1	1193	G	C2'-C1'	-6.49	1.43	1.53
21	A2	551	U	C2'-C1'	-6.48	1.43	1.53
46	BA	173	SER	CA-CB	6.48	1.63	1.53
67	B1	449	G	C2'-C1'	-6.48	1.43	1.53
21	A2	73	U	O4'-C1'	6.48	1.51	1.41
21	A2	542	G	O4'-C1'	6.48	1.51	1.41
67	B1	171	A	C2'-C1'	-6.48	1.43	1.53
67	B1	1707	A	C3'-O3'	6.48	1.51	1.42
2	AK	44	THR	N-CA	6.48	1.54	1.46
19	AS	50	ILE	CA-C	-6.48	1.44	1.52
21	A2	1118	C	O4'-C1'	-6.48	1.31	1.41
32	BO	63	HIS	CB-CG	-6.48	1.41	1.50
40	BE	90	LEU	CA-CB	6.48	1.63	1.53
47	BI	2	ARG	CD-NE	6.48	1.55	1.46
67	B1	224	G	C2'-C1'	-6.48	1.43	1.53
67	B1	2412	A	C2'-C1'	-6.48	1.43	1.53
21	A2	691	G	O4'-C1'	6.48	1.51	1.41
21	A2	230	C	O4'-C1'	6.48	1.51	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	BO	44	HIS	CA-C	-6.48	1.44	1.52
36	Bf	40	LYS	N-CA	-6.48	1.38	1.46
53	BD	242	TRP	CA-C	-6.48	1.44	1.52
67	B1	626	C	O4'-C1'	6.48	1.51	1.41
67	B1	1991	G	C2'-C1'	6.48	1.63	1.53
67	B1	2662	G	C3'-C2'	6.48	1.62	1.52
11	A1	14	A	O4'-C1'	6.47	1.51	1.41
39	Be	30	VAL	N-CA	-6.47	1.38	1.46
67	B1	2163	G	C4'-C3'	6.47	1.62	1.52
67	B1	3023	G	O4'-C1'	6.47	1.51	1.41
21	A2	885	G	C4'-C3'	6.47	1.62	1.52
31	BY	77	ASN	N-CA	-6.47	1.38	1.46
47	BI	74	ILE	CA-C	-6.47	1.45	1.52
62	BN	141	HIS	ND1-CE1	6.47	1.39	1.32
67	B1	2704	A	O5'-C5'	6.47	1.52	1.42
67	B1	2784	A	C2'-C1'	-6.47	1.43	1.53
21	A2	311	A	C2'-C1'	6.47	1.62	1.53
21	A2	1088	U	C3'-O3'	6.47	1.51	1.42
33	BC	354	PRO	C-O	6.47	1.31	1.23
15	AE	12	ARG	CZ-NH2	6.47	1.41	1.33
21	A2	422	U	O4'-C1'	-6.47	1.32	1.42
67	B1	680	U	O4'-C1'	6.47	1.51	1.41
67	B1	2949	G	C2'-C1'	6.46	1.63	1.53
67	B1	1332	A	C2'-C1'	-6.46	1.43	1.53
67	B1	2345	U	C2'-C1'	-6.46	1.43	1.53
67	B1	2487	G	C2'-C1'	-6.46	1.43	1.53
14	AM	22	SER	CA-C	-6.46	1.44	1.53
39	Be	27	SER	CA-C	-6.46	1.45	1.52
67	B1	1489	G	C5'-C4'	6.46	1.60	1.51
16	AJ	56	ARG	CD-NE	6.46	1.55	1.46
7	AB	167	ILE	CA-CB	-6.46	1.46	1.54
21	A2	261	G	C4'-C3'	-6.46	1.42	1.52
67	B1	1610	C	C3'-O3'	6.46	1.51	1.42
16	AJ	92	ARG	CD-NE	6.46	1.55	1.46
24	AA	148	LYS	N-CA	-6.46	1.38	1.46
16	AJ	18	VAL	CA-C	-6.45	1.45	1.52
21	A2	1279	A	O4'-C1'	6.45	1.51	1.41
67	B1	1216	A	O4'-C1'	6.45	1.51	1.41
67	B1	1942	G	C2'-C1'	-6.45	1.43	1.53
21	A2	1062	G	C2'-C1'	-6.45	1.43	1.53
67	B1	1176	C	O4'-C1'	6.45	1.51	1.41
16	AJ	24	ARG	NE-CZ	6.45	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
49	BQ	121	ARG	NE-CZ	6.45	1.40	1.33
67	B1	2297	C	C2'-C1'	-6.45	1.43	1.53
68	B3	123	U	C2'-C1'	6.45	1.62	1.53
21	A2	1232	G	P-O5'	6.45	1.69	1.59
32	BO	180	LYS	N-CA	-6.45	1.37	1.46
67	B1	2344	G	C3'-C2'	-6.45	1.43	1.52
21	A2	194	C	O4'-C1'	6.45	1.51	1.41
21	A2	414	G	O4'-C1'	6.45	1.51	1.41
67	B1	104	C	C2'-C1'	-6.45	1.43	1.53
67	B1	1789	A	O4'-C1'	6.45	1.51	1.41
67	B1	2672	A	O4'-C1'	6.45	1.51	1.41
21	A2	533	C	O4'-C1'	6.44	1.51	1.41
33	BC	269	PRO	CA-CB	6.44	1.62	1.53
68	B3	121	A	C2'-C1'	-6.44	1.43	1.53
17	AO	112	ILE	CA-C	6.44	1.60	1.52
67	B1	230	A	C4'-C3'	6.44	1.62	1.53
67	B1	1962	G	C2'-C1'	-6.44	1.43	1.53
15	AE	31	ARG	NE-CZ	6.44	1.40	1.33
21	A2	519	G	C3'-C2'	-6.44	1.43	1.52
21	A2	768	A	O4'-C1'	-6.44	1.31	1.41
33	BC	79	ARG	CD-NE	6.44	1.55	1.46
67	B1	564	U	O3'-P	-6.44	1.51	1.61
67	B1	1796	U	C2'-C1'	6.44	1.63	1.53
67	B1	2660	G	C2'-C1'	-6.44	1.43	1.53
67	B1	2897	C	C2'-C1'	-6.43	1.43	1.53
67	B1	1911	G	C2'-C1'	6.43	1.62	1.53
68	B3	59	C	C2'-C1'	-6.43	1.43	1.53
67	B1	713	C	O4'-C1'	6.43	1.51	1.41
67	B1	1566	G	C3'-O3'	-6.43	1.32	1.42
21	A2	196	G	O4'-C1'	6.43	1.51	1.41
67	B1	470	A	O4'-C1'	-6.43	1.32	1.41
67	B1	411	U	C2'-C1'	6.43	1.62	1.53
68	B3	95	G	C4'-C3'	6.43	1.62	1.52
49	BQ	76	ARG	NE-CZ	6.43	1.40	1.33
67	B1	2081	C	O3'-P	-6.43	1.51	1.61
67	B1	2103	C	C3'-O3'	6.43	1.51	1.42
21	A2	763	G	O4'-C1'	-6.42	1.32	1.41
26	AP	42	CYS	CA-C	-6.42	1.44	1.52
67	B1	1769	G	C2'-C1'	-6.42	1.43	1.53
67	B1	2552	C	O4'-C1'	6.42	1.51	1.41
36	Bf	42	ARG	NE-CZ	6.42	1.40	1.33
59	BM	77	LYS	CA-C	-6.42	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	AB	90	ARG	NE-CZ	6.42	1.40	1.33
21	A2	320	G	C5'-C4'	6.42	1.60	1.51
67	B1	1130	G	O4'-C1'	6.42	1.51	1.41
21	A2	362	C	C4'-C3'	6.42	1.62	1.53
21	A2	1392	G	O4'-C1'	6.42	1.51	1.41
53	BD	167	TRP	CA-C	-6.42	1.44	1.52
20	B4	61	GLU	CA-C	-6.42	1.44	1.52
26	AP	49	LYS	C-N	6.42	1.42	1.34
67	B1	620	G	C2'-C1'	-6.42	1.43	1.53
67	B1	3006	G	C5'-C4'	6.42	1.60	1.51
5	AW	30	HIS	ND1-CE1	6.41	1.39	1.32
33	BC	255	SER	C-N	6.41	1.41	1.33
42	BT	74	TYR	CA-CB	6.41	1.61	1.53
67	B1	1923	A	C2'-C1'	6.41	1.62	1.53
21	A2	1098	G	C4'-C3'	6.41	1.62	1.52
32	BO	143	ARG	C-N	6.41	1.42	1.33
67	B1	1309	G	O4'-C1'	6.41	1.51	1.41
67	B1	1226	G	C2'-C1'	6.41	1.62	1.53
67	B1	2368	G	O5'-C5'	-6.41	1.32	1.42
21	A2	1302	C	C5'-C4'	6.41	1.60	1.51
59	BM	65	ARG	N-CA	-6.41	1.38	1.46
67	B1	73	A	C3'-O3'	6.41	1.51	1.42
27	A0	59	A	C2'-C1'	6.40	1.62	1.53
31	BY	31	VAL	N-CA	-6.40	1.38	1.46
67	B1	479	G	C2'-C1'	-6.40	1.43	1.53
14	AM	102	ILE	CA-CB	-6.40	1.46	1.54
39	Be	52	SER	CA-C	-6.40	1.44	1.52
21	A2	443	C	O4'-C1'	6.40	1.51	1.41
21	A2	646	U	C3'-O3'	6.40	1.51	1.42
21	A2	1316	U	C5'-C4'	6.40	1.60	1.51
67	B1	2419	U	C5'-C4'	6.40	1.60	1.51
54	BF	123	LYS	C-N	6.40	1.41	1.33
67	B1	1132	U	C2'-C1'	-6.40	1.43	1.53
68	B3	9	A	C2'-C1'	6.40	1.62	1.53
21	A2	463	G	O4'-C1'	6.40	1.51	1.41
38	Bb	18	ARG	CZ-NH1	6.40	1.41	1.32
42	BT	13	THR	C-N	6.40	1.42	1.33
67	B1	1569	A	C3'-C2'	-6.40	1.43	1.52
67	B1	2416	G	C2'-C1'	6.40	1.62	1.53
67	B1	3035	C	O4'-C1'	6.40	1.51	1.41
67	B1	1323	U	C3'-O3'	6.40	1.51	1.42
67	B1	2452	C	P-O5'	-6.40	1.50	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
68	B3	119	C	C2'-C1'	-6.39	1.43	1.53
67	B1	884	C	P-O5'	-6.39	1.50	1.59
67	B1	2919	C	C4'-C3'	6.39	1.62	1.52
54	BF	104	GLN	CA-C	-6.39	1.45	1.52
61	Bd	2	LYS	C-N	6.39	1.40	1.33
7	AB	138	VAL	C-N	6.39	1.41	1.33
27	A0	33	U	P-O5'	-6.39	1.50	1.59
30	AU	99	ARG	NE-CZ	6.39	1.40	1.33
67	B1	2809	G	C2'-C1'	-6.39	1.43	1.53
6	AC	57	ARG	N-CA	-6.39	1.38	1.46
21	A2	1184	U	C5'-C4'	6.39	1.60	1.51
21	A2	1457	A	O4'-C1'	6.39	1.51	1.42
67	B1	720	C	O4'-C1'	6.39	1.51	1.41
21	A2	144	G	C2'-C1'	-6.38	1.43	1.53
32	BO	145	ARG	CZ-NH2	6.38	1.41	1.33
49	BQ	75	HIS	ND1-CE1	6.38	1.39	1.32
61	Bd	33	ILE	N-CA	-6.38	1.39	1.46
21	A2	1127	A	C2'-C1'	-6.38	1.43	1.53
46	BA	2	PRO	C-N	6.38	1.42	1.33
53	BD	97	VAL	CA-C	-6.38	1.45	1.52
54	BF	50	ASP	CA-C	-6.38	1.46	1.52
67	B1	2310	G	O5'-C5'	6.38	1.52	1.42
21	A2	1023	C	C2'-C1'	-6.38	1.43	1.53
67	B1	1345	G	C2'-C1'	-6.38	1.43	1.53
6	AC	101	GLN	N-CA	-6.38	1.38	1.46
48	BR	77	ILE	N-CA	-6.38	1.39	1.46
67	B1	926	C	C2'-C1'	6.38	1.62	1.53
67	B1	2903	U	C4'-C3'	6.38	1.62	1.52
23	AT	103	LEU	CA-CB	6.38	1.63	1.53
67	B1	866	G	O3'-P	-6.38	1.51	1.61
21	A2	214	C	C2'-C1'	-6.37	1.43	1.53
21	A2	547	U	O4'-C1'	6.37	1.51	1.41
21	A2	1278	A	O4'-C1'	6.37	1.51	1.41
52	BB	209	HIS	CA-CB	6.37	1.60	1.52
67	B1	2066	C	C2'-C1'	-6.37	1.43	1.53
67	B1	2334	G	O4'-C1'	6.37	1.51	1.41
68	B3	2	G	C5'-C4'	6.37	1.60	1.51
4	AG	112	ILE	CA-CB	-6.37	1.46	1.54
21	A2	1176	C	O4'-C1'	6.37	1.51	1.41
67	B1	2485	C	C2'-C1'	6.37	1.62	1.53
21	A2	47	A	C2'-C1'	-6.37	1.43	1.53
62	BN	4	ARG	CD-NE	6.37	1.55	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	BN	12	VAL	CA-C	-6.37	1.46	1.52
67	B1	4	C	C2'-C1'	-6.37	1.43	1.53
21	A2	1307	G	O5'-C5'	6.37	1.52	1.42
26	AP	25	GLY	N-CA	-6.37	1.36	1.45
67	B1	372	A	C2'-C1'	6.37	1.62	1.53
2	AK	23	LYS	CA-CB	6.36	1.64	1.53
11	A1	10	G	O4'-C1'	6.36	1.51	1.41
27	A0	57	G	C2'-C1'	-6.36	1.43	1.53
49	BQ	63	ALA	CA-C	-6.36	1.44	1.52
53	BD	225	LEU	CA-CB	6.36	1.63	1.53
65	BJ	32	ASN	N-CA	-6.36	1.38	1.46
67	B1	2320	U	C2'-C1'	6.36	1.62	1.53
67	B1	2389	C	O3'-P	-6.36	1.51	1.61
68	B3	26	C	C5'-C4'	6.36	1.60	1.51
21	A2	137	A	O4'-C1'	6.36	1.51	1.41
67	B1	715	G	C2'-C1'	6.36	1.62	1.53
21	A2	177	A	C2'-C1'	6.36	1.62	1.53
15	AE	72	LEU	CA-C	-6.35	1.44	1.52
67	B1	737	G	O4'-C1'	6.35	1.51	1.41
49	BQ	111	ALA	C-N	6.35	1.43	1.33
67	B1	1305	C	C2'-C1'	-6.35	1.43	1.53
17	AO	94	ILE	C-N	6.35	1.42	1.33
67	B1	2934	C	O4'-C1'	6.35	1.51	1.41
21	A2	269	A	C2'-C1'	-6.35	1.43	1.53
67	B1	804	C	C2'-C1'	-6.35	1.43	1.53
67	B1	1744	A	O4'-C1'	-6.35	1.32	1.42
10	AD	156	ARG	CD-NE	6.35	1.55	1.46
62	BN	75	LYS	N-CA	-6.35	1.38	1.46
15	AE	172	GLU	CA-C	-6.35	1.45	1.52
54	BF	61	ARG	CZ-NH2	6.35	1.41	1.33
11	A1	62	C	C2'-C1'	-6.34	1.43	1.53
21	A2	209	A	C2'-C1'	-6.34	1.43	1.53
54	BF	151	ALA	CA-C	-6.34	1.44	1.52
68	B3	52	U	C2'-C1'	-6.34	1.43	1.53
21	A2	1117	A	O4'-C1'	6.34	1.51	1.42
11	A1	26	C	O3'-P	-6.34	1.51	1.61
20	B4	45	ARG	CD-NE	6.34	1.55	1.46
67	B1	2868	C	C2'-C1'	-6.34	1.43	1.53
21	A2	114	A	C2'-C1'	-6.34	1.43	1.53
62	BN	72	TYR	CA-C	-6.34	1.44	1.52
67	B1	2903	U	O4'-C1'	6.34	1.51	1.41
21	A2	1424	G	O3'-P	-6.34	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1002	A	O4'-C1'	6.34	1.51	1.41
21	A2	1199	A	C2'-C1'	6.34	1.62	1.53
30	AU	83	ARG	CZ-NH2	6.34	1.41	1.33
38	Bb	25	ARG	CA-C	-6.34	1.45	1.52
67	B1	760	G	C2'-C1'	-6.34	1.43	1.53
67	B1	1920	A	C2'-C1'	-6.34	1.43	1.53
67	B1	2978	G	O4'-C1'	6.33	1.51	1.41
59	BM	147	ALA	CA-C	-6.33	1.43	1.52
67	B1	2112	C	O3'-P	-6.33	1.51	1.61
31	BY	142	TYR	CA-C	-6.33	1.44	1.52
67	B1	1115	A	C2'-C1'	-6.33	1.43	1.53
21	A2	948	G	C2'-C1'	6.33	1.62	1.53
33	BC	142	GLU	N-CA	6.33	1.54	1.46
48	BR	63	GLY	C-N	6.33	1.42	1.33
67	B1	2045	C	O4'-C1'	6.33	1.51	1.41
17	AO	97	LYS	CA-C	-6.33	1.44	1.52
3	AI	60	VAL	N-CA	-6.33	1.38	1.46
27	A0	38	A	O4'-C1'	6.33	1.51	1.41
67	B1	809	A	C2'-C1'	6.33	1.62	1.53
67	B1	2870	A	P-O5'	-6.33	1.50	1.59
21	A2	196	G	C5'-C4'	6.32	1.60	1.51
21	A2	1441	G	O4'-C1'	6.32	1.51	1.41
67	B1	1162	C	C3'-C2'	6.32	1.62	1.52
67	B1	1568	A	O3'-P	-6.32	1.51	1.61
67	B1	2607	U	O4'-C1'	-6.32	1.32	1.41
21	A2	1436	U	O4'-C1'	-6.32	1.32	1.41
67	B1	1734	G	C2'-C1'	6.32	1.62	1.53
67	B1	2034	G	C2'-C1'	-6.32	1.43	1.53
14	AM	117	ASP	C-O	6.32	1.31	1.24
56	BH	121	ALA	N-CA	-6.32	1.38	1.46
67	B1	2558	U	O4'-C1'	6.32	1.51	1.41
21	A2	1491	C	C3'-C2'	6.32	1.62	1.52
47	BI	63	ARG	CZ-NH1	6.32	1.41	1.32
59	BM	91	SER	CA-C	-6.32	1.45	1.52
7	AB	30	LYS	N-CA	-6.31	1.38	1.46
67	B1	2712	G	C2'-C1'	-6.31	1.43	1.53
11	A1	53	G	C2'-C1'	-6.31	1.43	1.53
19	AS	48	ASN	C-N	6.31	1.42	1.33
21	A2	186	U	O4'-C1'	6.31	1.51	1.41
21	A2	225	U	O4'-C1'	6.31	1.51	1.41
67	B1	348	G	C2'-C1'	-6.31	1.43	1.53
67	B1	2048	C	C2'-C1'	-6.31	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2567	C	O4'-C1'	6.31	1.51	1.41
67	B1	2644	G	O4'-C1'	6.31	1.51	1.41
68	B3	44	C	C2'-C1'	6.31	1.62	1.53
17	AO	9	ARG	CZ-NH1	6.31	1.41	1.32
42	BT	4	TYR	CA-C	-6.31	1.44	1.52
42	BT	69	LYS	CA-CB	6.31	1.62	1.53
67	B1	1933	U	O4'-C1'	6.31	1.51	1.41
67	B1	1989	G	O4'-C1'	6.31	1.51	1.41
38	Bb	80	GLU	C-N	6.31	1.42	1.33
10	AD	116	ARG	CA-C	-6.30	1.44	1.52
21	A2	38	G	C5'-C4'	6.30	1.60	1.51
21	A2	1489	A	C2'-C1'	-6.30	1.43	1.53
35	BL	22	LYS	C-N	6.30	1.42	1.34
67	B1	849	C	C5'-C4'	6.30	1.60	1.51
67	B1	1682	C	C4'-C3'	-6.30	1.43	1.52
21	A2	69	U	O4'-C1'	6.30	1.51	1.41
53	BD	61	ILE	CA-CB	6.30	1.61	1.54
15	AE	214	THR	CA-C	6.30	1.60	1.52
21	A2	982	U	O4'-C1'	6.30	1.51	1.41
60	BS	66	TYR	CA-C	-6.30	1.45	1.52
67	B1	1173	G	O4'-C1'	6.30	1.51	1.41
68	B3	18	G	O4'-C1'	-6.30	1.32	1.41
67	B1	488	A	O4'-C1'	6.30	1.51	1.41
67	B1	3010	C	C2'-C1'	-6.30	1.44	1.53
21	A2	377	A	O4'-C1'	6.30	1.51	1.41
50	BV	52	TRP	CA-C	-6.30	1.44	1.52
67	B1	2105	A	O4'-C1'	6.30	1.51	1.41
5	AW	38	LEU	C-N	6.30	1.42	1.33
24	AA	172	LYS	CA-C	-6.30	1.44	1.52
25	AH	96	LYS	CA-C	-6.30	1.43	1.52
27	A0	27	C	C5'-C4'	6.30	1.60	1.51
36	Bf	33	ARG	NE-CZ	6.30	1.40	1.33
42	BT	38	ASP	N-CA	-6.30	1.38	1.46
64	Bc	44	LEU	N-CA	-6.30	1.38	1.46
67	B1	385	U	O4'-C1'	-6.29	1.32	1.41
67	B1	730	C	P-O5'	-6.29	1.50	1.59
21	A2	86	C	C2'-C1'	6.29	1.62	1.53
26	AP	47	ALA	C-N	6.29	1.42	1.34
30	AU	83	ARG	CD-NE	6.29	1.55	1.46
34	B5	8	ARG	CZ-NH2	6.29	1.41	1.33
67	B1	105	C	O4'-C1'	6.29	1.51	1.41
67	B1	877	U	C4'-O4'	6.29	1.54	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2500	G	C5'-C4'	6.29	1.60	1.51
21	A2	993	C	O4'-C1'	6.29	1.51	1.41
67	B1	1075	G	O4'-C1'	-6.29	1.32	1.41
67	B1	2186	C	C4'-C3'	6.29	1.61	1.52
21	A2	82	G	C4'-O4'	6.29	1.54	1.45
37	BU	84	ARG	NE-CZ	6.29	1.40	1.33
40	BE	71	ARG	NE-CZ	6.29	1.40	1.33
67	B1	1308	G	O4'-C1'	6.29	1.51	1.41
21	A2	1219	C	C2'-C1'	-6.29	1.44	1.53
52	BB	191	THR	CA-C	-6.29	1.45	1.52
67	B1	2423	G	C2'-C1'	-6.29	1.44	1.53
34	BK	8	ARG	CZ-NH2	6.29	1.41	1.33
67	B1	2986	G	C3'-O3'	6.29	1.52	1.43
11	A1	22	A	P-O5'	-6.28	1.50	1.59
21	A2	823	A	O4'-C1'	6.28	1.51	1.41
30	AU	121	ILE	CA-CB	-6.28	1.47	1.54
67	B1	1389	A	C2'-C1'	6.28	1.62	1.53
67	B1	1843	C	C2'-C1'	-6.28	1.44	1.53
21	A2	1000	G	C3'-C2'	-6.28	1.43	1.52
37	BU	72	LYS	N-CA	6.28	1.54	1.46
67	B1	2072	G	C2'-C1'	-6.28	1.44	1.53
10	AD	96	THR	C-N	6.28	1.41	1.33
25	AH	209	ARG	CZ-NH2	6.28	1.41	1.33
47	BI	15	ALA	C-N	6.28	1.41	1.33
67	B1	139	G	O4'-C1'	-6.28	1.32	1.41
67	B1	184	A	C4'-C3'	6.28	1.61	1.52
67	B1	758	C	C2'-C1'	6.28	1.62	1.53
1	AQ	16	ARG	CA-C	-6.28	1.44	1.53
67	B1	1255	C	O4'-C1'	6.28	1.51	1.41
1	AQ	55	ARG	NE-CZ	6.28	1.40	1.33
25	AH	79	TYR	N-CA	6.28	1.53	1.45
31	BY	8	ARG	CA-C	-6.27	1.45	1.52
21	A2	107	C	C2'-C1'	-6.27	1.44	1.53
67	B1	405	G	O4'-C1'	6.27	1.51	1.41
67	B1	578	C	C2'-C1'	-6.27	1.44	1.53
67	B1	622	A	O4'-C1'	6.27	1.51	1.42
67	B1	2457	C	O4'-C1'	6.27	1.51	1.41
21	A2	39	U	O4'-C1'	6.27	1.51	1.41
21	A2	426	C	C2'-C1'	-6.27	1.44	1.53
21	A2	521	G	C2'-C1'	-6.27	1.44	1.53
47	BI	76	ARG	CZ-NH2	6.27	1.41	1.33
67	B1	2514	C	P-O5'	-6.27	1.50	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1311	C	C3'-O3'	6.27	1.51	1.42
36	Bf	38	HIS	C-N	6.27	1.40	1.34
47	BI	77	ARG	NE-CZ	6.27	1.40	1.33
67	B1	2239	C	C2'-C1'	-6.27	1.44	1.53
13	AX	47	GLY	C-N	-6.26	1.26	1.33
39	Be	42	ARG	NE-CZ	6.26	1.40	1.33
39	Be	48	LYS	CA-CB	6.26	1.64	1.53
67	B1	436	C	C2'-C1'	-6.26	1.44	1.53
25	AH	13	HIS	ND1-CE1	6.26	1.38	1.32
67	B1	353	C	O4'-C1'	6.26	1.51	1.41
67	B1	819	U	O4'-C1'	6.26	1.51	1.42
67	B1	1100	G	O3'-P	-6.26	1.51	1.61
21	A2	36	G	C5'-C4'	6.26	1.60	1.51
21	A2	1036	G	O4'-C1'	-6.26	1.32	1.41
21	A2	1146	G	O4'-C1'	6.26	1.51	1.41
33	BC	334	ARG	CZ-NH1	6.26	1.41	1.32
66	B1	76	GLU	C-N	6.26	1.42	1.33
67	B1	96	C	O4'-C1'	6.26	1.51	1.41
21	A2	784	G	O3'-P	-6.26	1.51	1.61
67	B1	226	C	P-O5'	-6.26	1.50	1.59
67	B1	2600	C	O4'-C1'	6.26	1.51	1.41
3	AI	23	ARG	NE-CZ	6.26	1.40	1.33
15	AE	93	ILE	C-N	6.26	1.41	1.34
21	A2	305	C	C2'-C1'	-6.26	1.44	1.53
21	A2	776	C	C3'-O3'	6.26	1.51	1.42
67	B1	356	C	P-O5'	6.26	1.69	1.59
21	A2	1464	C	O4'-C1'	6.26	1.51	1.41
67	B1	2718	G	C3'-O3'	6.26	1.51	1.42
8	AR	42	LYS	N-CA	-6.25	1.40	1.46
67	B1	629	G	C4'-C3'	6.25	1.61	1.52
67	B1	2670	U	C5'-C4'	6.25	1.60	1.51
6	AC	145	ARG	NE-CZ	6.25	1.40	1.33
67	B1	246	A	C2'-C1'	6.25	1.62	1.53
21	A2	634	C	C2'-C1'	-6.25	1.44	1.53
31	BY	108	LYS	CA-C	-6.25	1.44	1.52
53	BD	24	THR	CA-C	-6.25	1.47	1.53
60	BS	25	LEU	CA-CB	6.25	1.63	1.53
64	Bc	73	LYS	N-CA	-6.25	1.38	1.46
67	B1	1802	G	O4'-C1'	6.25	1.51	1.41
67	B1	1884	C	O4'-C1'	6.25	1.51	1.41
67	B1	1939	C	C2'-C1'	-6.25	1.43	1.53
67	B1	1552	C	O3'-P	-6.25	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1583	G	C3'-C2'	-6.25	1.43	1.52
21	A2	510	A	C2'-C1'	6.25	1.62	1.53
25	AH	11	ILE	CA-C	6.25	1.58	1.52
67	B1	2175	G	C5'-C4'	6.25	1.60	1.51
7	AB	13	LEU	C-N	6.24	1.41	1.33
67	B1	1397	U	C4'-C3'	6.24	1.61	1.52
21	A2	89	G	O4'-C1'	6.24	1.51	1.41
21	A2	347	G	O4'-C1'	6.24	1.51	1.42
41	Ba	65	LYS	CA-C	-6.24	1.46	1.52
46	BA	34	LEU	CA-CB	6.24	1.63	1.53
67	B1	1785	G	C2'-C1'	-6.24	1.44	1.53
67	B1	2231	G	C4'-O4'	-6.24	1.36	1.45
19	AS	12	VAL	CA-C	-6.24	1.45	1.52
21	A2	877	A	C2'-C1'	-6.24	1.44	1.53
21	A2	1401	U	C4'-O4'	6.24	1.54	1.45
67	B1	634	G	O3'-P	-6.24	1.51	1.61
17	AO	57	GLU	CA-C	-6.24	1.44	1.52
21	A2	700	G	C3'-O3'	6.24	1.51	1.42
39	Be	25	ARG	CZ-NH1	6.24	1.41	1.32
49	BQ	147	LEU	N-CA	6.24	1.53	1.46
62	BN	153	ALA	CA-C	-6.24	1.44	1.52
67	B1	890	G	C2'-C1'	-6.24	1.44	1.53
21	A2	373	C	C5'-C4'	6.24	1.60	1.51
22	AY	34	HIS	CG-CD2	6.24	1.42	1.35
23	AT	115	HIS	ND1-CE1	6.24	1.38	1.32
67	B1	794	G	C2'-C1'	-6.24	1.44	1.53
67	B1	1567	C	C4'-C3'	6.24	1.61	1.52
67	B1	1834	C	O4'-C1'	6.24	1.51	1.41
67	B1	2869	U	C5'-C4'	6.24	1.60	1.51
67	B1	1351	G	C2'-C1'	-6.23	1.44	1.53
10	AD	168	ARG	C-N	6.23	1.42	1.33
14	AM	133	ARG	CZ-NH2	6.23	1.41	1.33
21	A2	1111	G	P-O5'	-6.23	1.50	1.59
33	BC	121	LYS	CA-C	-6.23	1.44	1.52
43	Bk	59	LEU	C-N	6.23	1.42	1.33
53	BD	16	ILE	CA-C	-6.23	1.45	1.52
61	Bd	16	ARG	CA-C	-6.23	1.45	1.52
65	BJ	104	ALA	CA-C	-6.23	1.45	1.52
67	B1	2172	G	O3'-P	-6.23	1.51	1.61
6	AC	70	GLU	N-CA	6.23	1.54	1.46
21	A2	77	G	C4'-O4'	6.23	1.54	1.45
52	BB	138	LYS	N-CA	-6.23	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1492	C	C5'-C4'	6.23	1.60	1.51
67	B1	1567	C	C4'-O4'	-6.23	1.36	1.45
20	A3	121	LEU	C-O	-6.23	1.16	1.24
21	A2	213	C	C2'-C1'	-6.23	1.44	1.53
21	A2	647	G	O4'-C1'	6.23	1.50	1.41
21	A2	1114	G	O4'-C1'	-6.23	1.32	1.41
21	A2	1418	G	C2'-C1'	-6.23	1.44	1.53
67	B1	763	A	C3'-O3'	6.23	1.51	1.42
67	B1	2914	U	C5'-C4'	6.23	1.60	1.51
21	A2	581	G	C5'-C4'	6.22	1.60	1.51
23	AT	110	ARG	CZ-NH2	6.22	1.41	1.33
41	Ba	15	ILE	N-CA	-6.22	1.38	1.46
46	BA	150	LYS	N-CA	-6.22	1.38	1.46
49	BQ	72	LYS	C-N	6.22	1.43	1.33
67	B1	2169	C	C2'-C1'	-6.22	1.44	1.53
67	B1	2480	G	O4'-C1'	6.22	1.50	1.41
21	A2	649	A	C2'-C1'	-6.22	1.44	1.53
25	AH	90	HIS	CB-CG	6.22	1.58	1.50
47	BI	80	ARG	CD-NE	6.22	1.54	1.46
67	B1	176	G	O3'-P	-6.22	1.51	1.61
68	B3	105	G	C5'-C4'	6.22	1.60	1.51
67	B1	477	C	O4'-C1'	6.22	1.50	1.41
67	B1	2245	C	C4'-O4'	-6.22	1.36	1.45
67	B1	2693	G	P-O5'	-6.22	1.50	1.59
12	AN	18	LEU	CA-C	-6.22	1.44	1.52
24	AA	75	GLY	CA-C	6.22	1.59	1.51
67	B1	2109	C	C5'-C4'	6.22	1.60	1.51
6	AC	166	TYR	C-N	6.22	1.41	1.33
46	BA	65	ILE	CA-C	-6.22	1.45	1.52
67	B1	964	C	O4'-C1'	6.22	1.50	1.41
67	B1	2469	G	C5'-C4'	6.22	1.60	1.51
6	AC	9	ARG	CZ-NH1	6.21	1.41	1.32
7	AB	115	LEU	N-CA	-6.21	1.38	1.46
21	A2	623	C	O4'-C1'	6.21	1.50	1.41
31	BY	67	LEU	CA-CB	6.21	1.63	1.53
32	BO	43	HIS	ND1-CE1	6.21	1.38	1.32
67	B1	770	G	C2'-C1'	6.21	1.62	1.53
6	AC	27	ARG	CZ-NH2	6.21	1.41	1.33
44	BW	63	ARG	CA-C	6.21	1.61	1.52
20	A3	89	ALA	CA-C	-6.21	1.44	1.52
21	A2	790	G	C4'-O4'	6.21	1.54	1.45
23	AT	27	LEU	CA-CB	6.21	1.63	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1711	C	P-O5'	-6.21	1.50	1.59
68	B3	115	C	C2'-C1'	-6.21	1.44	1.53
67	B1	1854	G	C4'-C3'	6.21	1.61	1.52
21	A2	1348	C	O4'-C1'	6.21	1.50	1.41
57	BZ	73	LEU	CB-CG	6.21	1.65	1.53
43	Bk	128	PRO	CA-CB	6.21	1.62	1.53
49	BQ	78	PRO	N-CA	-6.21	1.39	1.47
67	B1	10	C	C2'-C1'	6.21	1.62	1.53
67	B1	34	C	O3'-P	-6.21	1.51	1.61
67	B1	840	G	C4'-C3'	6.20	1.61	1.52
7	AB	79	PRO	C-N	6.20	1.41	1.33
10	AD	108	ILE	N-CA	-6.20	1.39	1.46
21	A2	832	G	O4'-C1'	6.20	1.50	1.41
21	A2	938	C	C2'-C1'	-6.20	1.44	1.53
62	BN	163	ARG	CD-NE	6.20	1.54	1.46
67	B1	696	G	O4'-C1'	-6.20	1.32	1.41
67	B1	1268	A	C2'-C1'	6.20	1.62	1.53
27	A0	21	G	O4'-C1'	6.20	1.50	1.41
37	BU	95	ILE	C-N	6.20	1.42	1.33
52	BB	151	PHE	CA-C	-6.20	1.45	1.52
67	B1	2755	G	C5'-C4'	6.20	1.60	1.51
49	BQ	74	ARG	NE-CZ	6.20	1.39	1.33
67	B1	1888	G	C4'-C3'	6.20	1.61	1.52
14	AM	135	ARG	CD-NE	6.20	1.54	1.46
60	BS	18	ALA	CA-C	6.20	1.60	1.52
67	B1	546	C	C4'-O4'	6.19	1.54	1.45
67	B1	1398	C	C2'-C1'	-6.19	1.44	1.53
67	B1	2155	C	C3'-O3'	6.19	1.52	1.43
67	B1	2495	A	O3'-P	-6.19	1.51	1.61
39	Be	31	LYS	CA-CB	6.19	1.63	1.53
41	Ba	24	ARG	CD-NE	6.19	1.54	1.46
49	BQ	38	ARG	CA-C	-6.19	1.44	1.52
51	Bj	33	LEU	CA-CB	6.19	1.65	1.53
52	BB	119	GLY	CA-C	-6.19	1.43	1.51
62	BN	114	ARG	NE-CZ	6.19	1.39	1.33
6	AC	86	LYS	C-N	6.19	1.38	1.33
27	A0	52	G	O4'-C1'	6.19	1.50	1.41
7	AB	36	ARG	C-N	6.19	1.40	1.33
32	BO	151	GLU	CA-CB	6.19	1.63	1.53
67	B1	1407	A	O5'-C5'	-6.19	1.33	1.42
67	B1	2135	C	P-O5'	-6.19	1.50	1.59
31	BY	143	ARG	CZ-NH2	6.19	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	B5	48	MET	C-N	6.19	1.44	1.34
53	BD	160	ILE	N-CA	-6.19	1.39	1.46
67	B1	2106	G	C2'-C1'	-6.19	1.44	1.53
67	B1	3038	A	P-O5'	-6.19	1.50	1.59
13	AX	9	ALA	C-N	6.18	1.41	1.33
21	A2	97	C	C3'-O3'	6.18	1.51	1.42
44	BW	31	LEU	CA-C	6.18	1.60	1.52
67	B1	1833	G	C2'-C1'	-6.18	1.43	1.53
18	AF	11	ARG	C-O	-6.18	1.16	1.24
23	AT	79	LEU	CA-C	-6.18	1.44	1.53
57	BZ	25	ARG	N-CA	-6.18	1.39	1.46
67	B1	2042	A	C3'-C2'	6.18	1.62	1.52
47	BI	49	TYR	CZ-OH	6.18	1.51	1.38
59	BM	156	GLY	C-N	6.18	1.42	1.34
67	B1	429	U	C2'-O2'	-6.18	1.32	1.41
67	B1	1901	A	C2'-C1'	6.18	1.62	1.53
21	A2	454	G	C2'-C1'	-6.18	1.44	1.53
67	B1	1450	C	C2'-C1'	-6.18	1.44	1.53
67	B1	1471	G	O3'-P	-6.18	1.51	1.61
1	AQ	140	GLY	C-N	6.18	1.41	1.33
21	A2	722	G	C2'-C1'	-6.18	1.44	1.53
65	BJ	114	ARG	CZ-NH1	6.18	1.41	1.32
67	B1	843	C	C5'-C4'	6.18	1.60	1.51
67	B1	2711	U	C2'-C1'	-6.18	1.44	1.53
21	A2	1349	C	C2'-C1'	-6.17	1.44	1.53
33	BC	236	ARG	NE-CZ	6.17	1.39	1.33
28	B6	16	ARG	N-CA	-6.17	1.38	1.45
66	Bl	34	LYS	N-CA	6.17	1.53	1.46
35	BL	44	LYS	CA-C	-6.17	1.44	1.52
24	AA	149	ALA	C-N	6.17	1.42	1.33
46	BA	95	ARG	CA-CB	6.17	1.62	1.53
48	BR	9	ARG	NE-CZ	6.17	1.39	1.33
67	B1	536	G	C4'-C3'	6.17	1.61	1.52
67	B1	1175	C	O4'-C1'	6.17	1.50	1.41
68	B3	98	G	C2'-C1'	6.17	1.62	1.53
21	A2	567	A	O4'-C1'	6.17	1.50	1.41
2	AK	49	LEU	C-N	6.17	1.41	1.33
25	AH	182	GLU	C-N	6.17	1.41	1.33
67	B1	856	A	O4'-C1'	6.17	1.50	1.41
67	B1	2241	U	C5'-C4'	6.17	1.60	1.51
67	B1	199	C	C5'-C4'	6.17	1.60	1.51
67	B1	892	U	O4'-C1'	6.17	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	951	C	C2'-C1'	-6.17	1.44	1.53
36	Bf	46	ARG	NE-CZ	6.17	1.39	1.33
67	B1	538	G	C2'-C1'	-6.17	1.44	1.53
67	B1	1227	A	O4'-C1'	-6.16	1.32	1.42
67	B1	1285	C	C2'-C1'	-6.16	1.44	1.53
67	B1	2803	U	C3'-O3'	6.16	1.51	1.42
67	B1	2994	G	O4'-C1'	6.16	1.50	1.41
67	B1	2348	G	C2'-C1'	6.16	1.62	1.53
17	AO	7	ILE	C-N	6.16	1.41	1.33
21	A2	1219	C	C4'-C3'	6.16	1.61	1.52
21	A2	854	C	O4'-C1'	6.16	1.50	1.41
21	A2	954	G	C5'-C4'	6.16	1.60	1.51
21	A2	972	C	C2'-C1'	-6.16	1.44	1.53
35	BL	49	TRP	CA-C	-6.16	1.45	1.52
44	BW	64	GLU	CA-C	-6.16	1.44	1.52
67	B1	417	C	O4'-C1'	6.16	1.50	1.41
67	B1	1076	G	O4'-C1'	-6.16	1.32	1.41
6	AC	108	HIS	ND1-CE1	6.16	1.38	1.32
21	A2	1350	U	C2'-C1'	-6.16	1.44	1.53
38	Bb	101	ARG	C-O	-6.16	1.17	1.24
58	BP	26	GLY	C-N	6.16	1.43	1.33
67	B1	613	C	O4'-C1'	-6.16	1.32	1.41
67	B1	941	C	O3'-P	-6.16	1.51	1.61
15	AE	209	TRP	NE1-CE2	-6.15	1.30	1.37
21	A2	760	C	C4'-O4'	6.15	1.54	1.45
53	BD	214	HIS	CD2-NE2	6.15	1.44	1.37
67	B1	2022	U	C5'-C4'	6.15	1.60	1.51
21	A2	700	G	C5'-C4'	6.15	1.60	1.51
21	A2	668	G	C5'-C4'	6.15	1.60	1.51
21	A2	1070	C	C2'-C1'	-6.15	1.44	1.53
21	A2	1249	A	C4'-O4'	6.15	1.54	1.45
21	A2	1277	C	O4'-C1'	6.15	1.50	1.41
27	A0	64	G	C5'-C4'	6.15	1.60	1.51
65	BJ	30	ALA	CA-CB	6.15	1.63	1.53
67	B1	20	C	C4'-C3'	6.15	1.61	1.52
68	B3	17	G	C4'-O4'	-6.15	1.36	1.45
21	A2	196	G	C4'-C3'	6.15	1.61	1.52
52	BB	48	ILE	N-CA	-6.15	1.39	1.46
67	B1	1570	C	C2'-O2'	-6.15	1.33	1.42
6	AC	135	LYS	CA-C	-6.15	1.44	1.52
21	A2	648	A	O4'-C1'	6.15	1.50	1.41
59	BM	117	TYR	N-CA	6.15	1.53	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	BN	106	ASP	CA-CB	6.15	1.63	1.53
67	B1	631	G	O4'-C1'	6.15	1.50	1.41
67	B1	2183	A	C4'-O4'	6.15	1.55	1.45
21	A2	53	G	O4'-C1'	6.15	1.50	1.41
8	AR	2	MET	CA-C	-6.14	1.45	1.52
12	AN	33	ARG	CZ-NH2	6.14	1.41	1.33
14	AM	123	HIS	CB-CG	6.14	1.58	1.50
21	A2	1041	C	C4'-C3'	6.14	1.61	1.52
38	Bb	125	VAL	C-N	6.14	1.42	1.33
54	BF	39	PHE	CA-CB	6.14	1.60	1.53
67	B1	2450	A	O5'-C5'	6.14	1.52	1.42
3	AI	92	ARG	CD-NE	6.14	1.54	1.46
21	A2	348	C	C2'-C1'	-6.14	1.44	1.53
21	A2	852	G	C3'-O3'	6.14	1.51	1.42
21	A2	1320	A	C2'-O2'	-6.14	1.33	1.42
21	A2	1393	A	O4'-C1'	6.14	1.50	1.41
30	AU	96	SER	CA-C	-6.14	1.45	1.52
31	BY	10	ARG	NE-CZ	6.14	1.39	1.33
60	BS	59	ARG	C-N	6.14	1.40	1.33
67	B1	403	G	C5'-C4'	6.14	1.60	1.51
67	B1	2362	U	C2'-C1'	6.14	1.62	1.53
16	AJ	79	ARG	N-CA	6.14	1.53	1.46
67	B1	2075	U	C3'-C2'	-6.14	1.43	1.52
3	AI	114	LYS	C-N	6.14	1.42	1.33
14	AM	83	VAL	CA-C	-6.14	1.45	1.52
67	B1	724	G	O5'-C5'	6.14	1.51	1.42
21	A2	1327	C	C2'-C1'	-6.14	1.44	1.53
30	AU	37	THR	CA-CB	-6.14	1.43	1.53
45	Bi	51	THR	N-CA	-6.14	1.38	1.46
48	BR	72	ALA	CA-C	-6.14	1.44	1.53
67	B1	1685	C	O4'-C1'	6.14	1.50	1.41
67	B1	1986	U	C2'-C1'	-6.14	1.44	1.53
2	AK	84	ARG	NE-CZ	6.13	1.39	1.33
10	AD	53	ARG	CZ-NH2	6.13	1.41	1.33
21	A2	38	G	O4'-C1'	6.13	1.50	1.41
32	BO	69	ARG	CZ-NH1	6.13	1.41	1.32
32	BO	79	ASN	CA-C	-6.13	1.44	1.53
43	Bk	88	GLY	CA-C	-6.13	1.46	1.52
67	B1	194	G	C5'-C4'	6.13	1.60	1.51
67	B1	2000	G	O4'-C1'	6.13	1.50	1.41
21	A2	755	U	O3'-P	-6.13	1.51	1.61
67	B1	2793	C	O4'-C1'	6.13	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	AC	53	TYR	C-O	-6.13	1.17	1.24
21	A2	351	C	C2'-C1'	-6.13	1.44	1.53
49	BQ	43	ARG	NE-CZ	6.13	1.39	1.33
67	B1	1930	A	O3'-P	-6.13	1.51	1.61
67	B1	1966	C	C3'-O3'	6.13	1.51	1.42
3	AI	62	ARG	NE-CZ	6.13	1.39	1.33
21	A2	1393	A	C2'-C1'	6.13	1.62	1.53
52	BB	234	ARG	CA-C	-6.13	1.45	1.52
7	AB	116	ILE	C-O	-6.13	1.17	1.24
21	A2	734	G	C5'-C4'	6.13	1.60	1.51
31	BY	28	LEU	CA-C	6.13	1.60	1.53
33	BC	66	ILE	CA-C	-6.13	1.45	1.52
67	B1	2202	U	O3'-P	6.13	1.70	1.61
21	A2	1138	G	O4'-C1'	6.13	1.50	1.41
24	AA	46	ARG	CD-NE	6.13	1.54	1.46
26	AP	54	LYS	C-N	6.13	1.41	1.33
33	BC	283	ASN	CA-C	-6.13	1.47	1.53
67	B1	949	C	O4'-C1'	6.13	1.50	1.41
67	B1	1147	G	O4'-C1'	6.13	1.50	1.41
21	A2	497	C	O3'-P	-6.12	1.51	1.61
67	B1	189	U	C2'-C1'	-6.12	1.44	1.53
11	A1	5	C	C2'-C1'	6.12	1.62	1.53
13	AX	11	VAL	CA-CB	-6.12	1.47	1.54
15	AE	78	ARG	CZ-NH1	6.12	1.41	1.32
23	AT	15	GLN	CA-CB	6.12	1.63	1.53
67	B1	667	C	O4'-C1'	6.12	1.50	1.41
68	B3	7	C	O4'-C1'	6.12	1.50	1.41
35	BL	8	VAL	CA-C	-6.12	1.43	1.52
67	B1	814	G	C5'-C4'	6.12	1.60	1.51
67	B1	1432	C	C5'-C4'	-6.12	1.42	1.51
67	B1	2469	G	C3'-O3'	6.12	1.51	1.42
67	B1	2628	U	C4'-O4'	6.12	1.54	1.45
51	Bj	54	LYS	CA-C	-6.12	1.45	1.52
21	A2	281	G	C2'-C1'	-6.12	1.44	1.53
53	BD	217	VAL	N-CA	-6.12	1.39	1.46
67	B1	909	A	O4'-C1'	-6.12	1.32	1.42
67	B1	2102	A	C5'-C4'	6.12	1.60	1.51
67	B1	2573	C	O4'-C1'	6.12	1.51	1.42
27	A0	51	C	O4'-C1'	6.12	1.50	1.41
21	A2	1094	U	O4'-C1'	6.12	1.51	1.42
67	B1	1414	G	C2'-C1'	-6.12	1.43	1.53
21	A2	479	C	C4'-C3'	6.11	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1167	C	C2'-C1'	-6.11	1.44	1.53
38	Bb	65	TRP	NE1-CE2	6.11	1.44	1.37
67	B1	712	C	C2'-C1'	-6.11	1.44	1.53
17	AO	116	ARG	CD-NE	6.11	1.54	1.46
21	A2	589	U	C5'-C4'	6.11	1.60	1.51
27	A0	41	C	C4'-O4'	-6.11	1.36	1.45
67	B1	1835	A	C2'-O2'	-6.11	1.33	1.42
67	B1	2450	A	C3'-C2'	-6.11	1.43	1.52
11	A1	32	A	O4'-C1'	6.11	1.50	1.41
15	AE	127	ILE	N-CA	-6.11	1.38	1.46
67	B1	1746	C	O3'-P	-6.11	1.51	1.61
1	AQ	7	ARG	NE-CZ	6.11	1.39	1.33
28	B6	33	ARG	NE-CZ	6.11	1.39	1.33
26	AP	41	HIS	ND1-CE1	6.11	1.38	1.32
41	Ba	10	ILE	CA-C	-6.11	1.45	1.52
42	BT	32	ARG	NE-CZ	6.11	1.39	1.33
67	B1	200	G	O4'-C1'	6.11	1.50	1.41
67	B1	1205	U	C2'-C1'	6.11	1.62	1.53
67	B1	2932	C	C5'-C4'	6.11	1.60	1.51
2	AK	31	LYS	CA-CB	6.11	1.62	1.53
21	A2	1077	U	C5'-C4'	6.11	1.60	1.51
21	A2	1108	U	P-O5'	-6.11	1.50	1.59
32	BO	13	ARG	CZ-NH2	6.11	1.41	1.33
67	B1	2878	A	C2'-C1'	-6.11	1.44	1.53
21	A2	200	G	C5'-C4'	6.10	1.60	1.51
25	AH	46	HIS	CD2-NE2	6.10	1.44	1.37
67	B1	1081	U	C2'-C1'	-6.10	1.44	1.53
17	AO	116	ARG	N-CA	-6.10	1.39	1.46
67	B1	1286	G	O4'-C1'	6.10	1.50	1.41
68	B3	71	G	O4'-C1'	-6.10	1.32	1.41
15	AE	23	ARG	CA-C	-6.10	1.44	1.52
21	A2	264	C	P-O5'	-6.10	1.50	1.59
43	Bk	38	LEU	C-O	-6.10	1.17	1.24
52	BB	203	PRO	CA-CB	-6.10	1.45	1.53
67	B1	1602	C	O4'-C1'	6.10	1.50	1.41
67	B1	1821	C	C2'-C1'	-6.10	1.44	1.53
21	A2	741	A	O5'-C5'	6.10	1.51	1.42
67	B1	1596	G	O4'-C1'	6.10	1.50	1.41
67	B1	2317	G	O4'-C1'	-6.10	1.32	1.41
17	AO	119	ARG	NE-CZ	6.10	1.39	1.33
21	A2	576	C	C2'-C1'	-6.10	1.44	1.53
59	BM	174	ASN	C-O	-6.10	1.15	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	253	G	C2'-C1'	-6.10	1.44	1.53
37	BU	73	ARG	CA-C	-6.09	1.44	1.52
39	Be	50	ARG	NE-CZ	6.09	1.39	1.33
61	Bd	35	HIS	CA-C	-6.09	1.45	1.52
67	B1	1566	G	C4'-O4'	-6.09	1.36	1.45
1	AQ	158	ARG	CZ-NH1	6.09	1.41	1.32
15	AE	175	GLU	N-CA	-6.09	1.38	1.46
60	BS	7	TYR	CA-C	-6.09	1.45	1.52
36	Bf	9	LYS	N-CA	-6.09	1.39	1.46
38	Bb	101	ARG	CA-C	-6.09	1.45	1.52
40	BE	96	ALA	N-CA	-6.09	1.39	1.46
52	BB	109	TYR	N-CA	-6.09	1.38	1.45
67	B1	2957	G	C2'-C1'	-6.09	1.44	1.53
12	AN	29	ARG	CZ-NH2	6.09	1.41	1.33
51	Bj	47	TYR	CA-C	-6.09	1.44	1.52
67	B1	442	G	C2'-C1'	6.09	1.62	1.53
68	B3	117	G	O4'-C1'	6.09	1.50	1.41
21	A2	1220	G	C3'-C2'	-6.09	1.43	1.52
44	BW	39	GLU	CA-C	-6.09	1.45	1.53
30	AU	28	PRO	CA-C	-6.09	1.46	1.52
47	BI	115	ILE	CA-CB	-6.09	1.48	1.54
67	B1	2415	C	O4'-C1'	6.09	1.50	1.41
67	B1	2577	U	O4'-C1'	6.09	1.50	1.41
21	A2	838	C	C2'-C1'	-6.08	1.44	1.53
33	BC	125	TYR	CA-C	-6.08	1.44	1.52
40	BE	36	GLU	N-CA	-6.08	1.41	1.47
67	B1	2449	A	C2'-C1'	-6.08	1.44	1.53
16	AJ	120	VAL	CA-C	6.08	1.60	1.52
22	AY	6	LYS	N-CA	-6.08	1.38	1.46
29	AL	5	ARG	CA-C	-6.08	1.45	1.52
59	BM	36	VAL	C-N	6.08	1.41	1.33
67	B1	92	G	O3'-P	-6.08	1.52	1.61
67	B1	529	G	O4'-C1'	-6.08	1.32	1.42
21	A2	270	A	C2'-C1'	6.08	1.62	1.53
21	A2	401	U	O4'-C1'	6.08	1.50	1.41
21	A2	849	U	C2'-C1'	-6.08	1.44	1.53
35	BL	76	VAL	N-CA	-6.08	1.38	1.46
67	B1	2252	C	O4'-C1'	6.08	1.50	1.41
32	BO	105	ASP	N-CA	-6.08	1.38	1.46
49	BQ	117	ARG	CD-NE	6.08	1.54	1.46
53	BD	212	ARG	CZ-NH2	6.08	1.41	1.33
59	BM	106	ARG	NE-CZ	6.08	1.39	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
59	BM	113	VAL	CA-CB	-6.08	1.46	1.54
67	B1	111	U	C2'-C1'	6.08	1.62	1.53
10	AD	72	GLN	CA-C	6.08	1.60	1.52
53	BD	5	VAL	CA-C	-6.08	1.45	1.52
58	BP	57	ASN	N-CA	6.08	1.54	1.45
7	AB	179	ARG	CD-NE	6.07	1.54	1.46
39	Be	53	LYS	C-N	6.07	1.41	1.33
62	BN	53	GLU	CA-C	-6.07	1.46	1.52
67	B1	1001	C	C2'-C1'	6.07	1.62	1.53
67	B1	172	C	O4'-C1'	6.07	1.50	1.41
67	B1	1489	G	C3'-O3'	6.07	1.51	1.42
67	B1	2361	C	O4'-C1'	6.07	1.50	1.41
21	A2	1326	G	O4'-C1'	-6.07	1.32	1.41
31	BY	27	ARG	NE-CZ	6.07	1.39	1.33
33	BC	170	GLN	C-O	-6.07	1.20	1.25
40	BE	94	LEU	CA-C	-6.07	1.44	1.52
67	B1	2708	U	C2'-C1'	-6.07	1.44	1.53
67	B1	2754	A	O4'-C1'	6.07	1.50	1.41
68	B3	49	A	O4'-C1'	6.07	1.50	1.41
18	AF	10	LYS	CA-CB	6.07	1.62	1.53
35	BL	14	SER	N-CA	-6.07	1.39	1.46
67	B1	40	G	C2'-C1'	-6.07	1.44	1.53
6	AC	125	ALA	CA-C	-6.07	1.45	1.52
21	A2	1062	G	O4'-C1'	6.07	1.50	1.41
47	BI	60	ASN	CA-CB	6.07	1.63	1.53
67	B1	292	U	C2'-C1'	6.07	1.62	1.53
67	B1	3022	C	O3'-P	-6.07	1.52	1.61
2	AK	127	ARG	NE-CZ	6.07	1.39	1.33
12	AN	132	VAL	C-N	6.07	1.41	1.33
49	BQ	140	LEU	N-CA	-6.07	1.39	1.46
67	B1	788	A	C2'-O2'	6.07	1.50	1.41
67	B1	1644	G	O4'-C1'	6.07	1.50	1.41
67	B1	1587	A	O4'-C1'	6.06	1.51	1.42
21	A2	565	C	C2'-C1'	-6.06	1.44	1.53
21	A2	810	G	O3'-P	-6.06	1.52	1.61
37	BU	23	ARG	N-CA	-6.06	1.38	1.46
67	B1	1735	G	O3'-P	-6.06	1.52	1.61
67	B1	1866	G	C2'-C1'	-6.06	1.44	1.53
67	B1	1265	A	C4'-O4'	-6.06	1.36	1.45
17	AO	6	HIS	CB-CG	-6.06	1.41	1.50
21	A2	1001	A	O4'-C1'	6.06	1.51	1.42
42	BT	79	VAL	CA-C	-6.06	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2282	G	O4'-C1'	-6.06	1.32	1.41
68	B3	55	G	O4'-C1'	6.06	1.50	1.41
7	AB	64	PRO	N-CD	-6.06	1.39	1.47
32	BO	179	GLU	CA-C	-6.06	1.44	1.52
60	BS	19	ARG	C-N	6.06	1.41	1.33
66	Bl	26	ARG	N-CA	-6.06	1.38	1.46
67	B1	356	C	O4'-C1'	6.06	1.50	1.41
67	B1	2092	G	O4'-C1'	6.06	1.50	1.41
67	B1	2347	G	C2'-C1'	-6.06	1.44	1.53
12	AN	123	ARG	CZ-NH1	6.06	1.41	1.32
21	A2	1235	A	O4'-C1'	6.06	1.50	1.41
67	B1	3025	C	O4'-C1'	6.06	1.50	1.41
24	AA	128	ARG	CZ-NH2	6.05	1.41	1.33
67	B1	2872	G	C2'-O2'	-6.05	1.33	1.42
43	Bk	98	LYS	CA-C	-6.05	1.45	1.52
67	B1	2743	U	O4'-C1'	6.05	1.50	1.41
54	BF	96	HIS	CA-CB	6.05	1.63	1.53
67	B1	360	G	O3'-P	-6.05	1.52	1.61
10	AD	126	VAL	CA-CB	-6.05	1.47	1.54
21	A2	631	C	O5'-C5'	6.05	1.51	1.42
21	A2	1138	G	C2'-C1'	6.05	1.62	1.53
52	BB	209	HIS	ND1-CE1	6.05	1.38	1.32
68	B3	13	C	C5'-C4'	6.05	1.60	1.51
21	A2	670	C	C5'-C4'	6.05	1.60	1.51
67	B1	453	U	O3'-P	-6.05	1.52	1.61
21	A2	2	U	C2'-C1'	-6.05	1.44	1.53
21	A2	924	U	O4'-C1'	6.05	1.51	1.42
38	Bb	41	ARG	CD-NE	6.05	1.54	1.46
47	BI	102	GLY	C-N	6.05	1.39	1.33
67	B1	1041	U	C3'-O3'	6.05	1.51	1.42
67	B1	1367	A	C2'-C1'	-6.05	1.44	1.53
67	B1	1774	A	C2'-C1'	6.04	1.62	1.53
54	BF	160	ILE	CA-CB	6.04	1.62	1.54
47	BI	31	VAL	C-N	6.04	1.42	1.33
67	B1	944	G	C2'-C1'	-6.04	1.44	1.53
23	AT	89	PHE	C-N	6.04	1.39	1.33
27	A0	73	G	O4'-C1'	-6.04	1.32	1.41
62	BN	79	ARG	CZ-NH2	6.04	1.41	1.33
33	BC	166	ILE	CA-C	-6.04	1.45	1.52
66	Bl	37	VAL	CA-C	6.04	1.60	1.52
67	B1	1949	A	C3'-C2'	-6.04	1.43	1.52
57	BZ	8	ARG	CA-CB	6.04	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	AY	28	GLY	C-N	6.04	1.40	1.33
67	B1	669	G	C5'-C4'	6.03	1.60	1.51
67	B1	1761	C	O4'-C1'	6.03	1.50	1.41
21	A2	925	U	C2'-C1'	-6.03	1.44	1.53
29	AL	98	ILE	C-O	-6.03	1.18	1.24
20	B4	34	LYS	N-CA	-6.03	1.38	1.46
67	B1	222	A	O4'-C1'	6.03	1.50	1.41
21	A2	1391	U	O4'-C1'	6.03	1.50	1.41
39	Be	44	ARG	NE-CZ	6.03	1.39	1.33
67	B1	941	C	C2'-C1'	-6.03	1.44	1.53
67	B1	2548	A	O4'-C1'	-6.03	1.32	1.42
21	A2	237	C	O3'-P	-6.03	1.52	1.61
32	BO	113	ARG	CD-NE	6.03	1.54	1.46
10	AD	25	ARG	CZ-NH2	6.03	1.41	1.33
21	A2	278	A	C5'-C4'	6.03	1.60	1.51
67	B1	705	G	O4'-C1'	6.03	1.50	1.41
1	AQ	9	ARG	CA-C	6.03	1.60	1.52
21	A2	956	C	O3'-P	-6.03	1.52	1.61
59	BM	106	ARG	C-O	6.03	1.31	1.24
2	AK	36	ILE	C-O	-6.02	1.18	1.24
67	B1	475	U	C4'-O4'	-6.02	1.36	1.45
67	B1	783	C	C2'-C1'	-6.02	1.44	1.53
7	AB	51	ARG	CD-NE	6.02	1.54	1.46
59	BM	49	ARG	NE-CZ	6.02	1.39	1.33
6	AC	165	GLY	N-CA	-6.02	1.39	1.45
26	AP	12	ARG	NE-CZ	6.02	1.39	1.33
67	B1	743	A	C3'-O3'	6.02	1.51	1.42
67	B1	2235	G	C3'-O3'	-6.02	1.33	1.42
24	AA	16	LYS	N-CA	-6.02	1.38	1.46
34	B5	6	VAL	CA-C	-6.02	1.44	1.53
7	AB	194	GLU	CA-C	-6.02	1.45	1.52
11	A1	41	C	C4'-C3'	-6.02	1.43	1.52
21	A2	621	G	O4'-C1'	6.02	1.50	1.41
21	A2	1303	C	P-O5'	-6.02	1.50	1.59
34	BK	6	VAL	CA-C	-6.02	1.44	1.53
67	B1	1169	G	C2'-C1'	-6.02	1.44	1.53
67	B1	1340	G	C5'-C4'	6.02	1.60	1.51
21	A2	380	C	C2'-C1'	-6.02	1.44	1.53
67	B1	1058	A	C3'-O3'	6.02	1.51	1.42
67	B1	1286	G	C2'-C1'	-6.02	1.44	1.53
67	B1	1900	U	C4'-C3'	6.02	1.61	1.52
67	B1	2697	G	C5'-C4'	6.02	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	176	U	C3'-O3'	6.01	1.51	1.42
54	BF	113	PHE	CA-C	-6.01	1.45	1.52
20	A3	6	TYR	N-CA	-6.01	1.38	1.46
21	A2	12	U	O4'-C1'	6.01	1.50	1.41
21	A2	1078	U	C2'-C1'	-6.01	1.44	1.53
33	BC	153	ASP	C-N	6.01	1.41	1.33
43	Bk	42	ARG	CD-NE	6.01	1.54	1.46
53	BD	244	VAL	N-CA	-6.01	1.39	1.46
21	A2	377	A	C4'-C3'	6.01	1.61	1.52
33	BC	253	VAL	CA-CB	-6.01	1.47	1.54
34	BK	32	PHE	CA-C	-6.01	1.45	1.52
67	B1	490	C	C2'-C1'	-6.01	1.44	1.53
67	B1	2410	U	C2'-C1'	-6.01	1.44	1.53
33	BC	284	LYS	CA-C	-6.01	1.45	1.52
6	AC	26	ARG	NE-CZ	6.01	1.39	1.33
67	B1	561	C	C5'-C4'	6.01	1.60	1.51
67	B1	768	C	C4'-O4'	-6.01	1.36	1.45
67	B1	2465	A	C2'-C1'	-6.01	1.44	1.53
67	B1	1469	U	C2'-C1'	-6.00	1.44	1.53
67	B1	1574	A	C2'-C1'	6.00	1.62	1.53
23	AT	58	LYS	C-N	6.00	1.42	1.33
27	A0	75	C	C2'-C1'	-6.00	1.44	1.53
37	BU	4	SER	C-N	6.00	1.41	1.33
67	B1	1323	U	O4'-C1'	6.00	1.50	1.41
21	A2	1275	U	C2'-C1'	-6.00	1.44	1.53
21	A2	1398	U	C2'-C1'	6.00	1.62	1.53
31	BY	132	ARG	NE-CZ	6.00	1.39	1.33
40	BE	101	ARG	NE-CZ	6.00	1.39	1.33
62	BN	163	ARG	CZ-NH2	6.00	1.41	1.33
67	B1	2728	U	O5'-C5'	6.00	1.51	1.42
67	B1	2497	G	C2'-C1'	-6.00	1.44	1.53
34	B5	23	VAL	N-CA	6.00	1.53	1.46
67	B1	1962	G	C4'-C3'	6.00	1.61	1.52
21	A2	394	C	C3'-O3'	6.00	1.51	1.42
67	B1	393	C	C3'-O3'	6.00	1.51	1.42
67	B1	1190	G	C2'-C1'	-6.00	1.44	1.53
67	B1	2525	C	C5'-C4'	6.00	1.60	1.51
21	A2	1239	A	C5'-C4'	5.99	1.60	1.51
21	A2	1274	C	O4'-C1'	5.99	1.50	1.41
32	BO	110	PRO	N-CD	-5.99	1.39	1.47
40	BE	78	VAL	N-CA	-5.99	1.39	1.46
59	BM	26	ARG	CD-NE	5.99	1.54	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	511	A	C2'-C1'	5.99	1.62	1.53
67	B1	2106	G	C4'-C3'	-5.99	1.43	1.52
67	B1	2702	A	O3'-P	-5.99	1.52	1.61
68	B3	103	C	C4'-C3'	5.99	1.61	1.52
10	AD	69	GLU	CA-C	5.99	1.60	1.52
67	B1	420	U	C5'-C4'	5.99	1.60	1.51
46	BA	5	ARG	NE-CZ	5.99	1.39	1.33
56	BH	124	LYS	CA-CB	-5.99	1.44	1.53
67	B1	1596	G	C5'-C4'	5.99	1.60	1.51
32	BO	34	ARG	NE-CZ	5.99	1.39	1.33
44	BW	7	ARG	CZ-NH1	5.99	1.41	1.32
54	BF	167	ILE	C-N	5.99	1.41	1.33
59	BM	171	GLY	CA-C	5.99	1.59	1.51
23	AT	37	LYS	CA-C	-5.99	1.45	1.52
21	A2	307	G	C2'-C1'	-5.99	1.44	1.53
39	Be	21	ARG	NE-CZ	5.99	1.39	1.33
40	BE	134	ILE	CA-C	5.99	1.59	1.52
67	B1	668	G	C2'-C1'	-5.99	1.44	1.53
67	B1	1533	G	O4'-C1'	-5.99	1.32	1.41
26	AP	4	ALA	C-N	5.98	1.41	1.33
37	BU	42	ARG	N-CA	-5.98	1.39	1.46
6	AC	79	GLN	N-CA	5.98	1.52	1.45
16	AJ	101	ILE	CA-C	5.98	1.60	1.52
21	A2	1166	G	C2'-C1'	-5.98	1.44	1.53
27	A0	61	C	C2'-C1'	-5.98	1.44	1.53
46	BA	194	ARG	CZ-NH2	5.98	1.41	1.33
59	BM	173	ARG	CD-NE	5.98	1.54	1.46
67	B1	1783	U	O4'-C1'	5.98	1.50	1.42
21	A2	399	A	C5'-C4'	5.98	1.60	1.51
57	BZ	99	ARG	CA-CB	5.98	1.65	1.53
67	B1	1224	A	C2'-C1'	5.98	1.62	1.53
21	A2	1168	C	O4'-C1'	5.98	1.50	1.41
54	BF	159	ARG	CZ-NH1	5.98	1.41	1.32
21	A2	979	U	O4'-C1'	5.98	1.50	1.41
63	Bg	16	VAL	CA-C	-5.98	1.45	1.52
67	B1	1746	C	C2'-C1'	-5.98	1.44	1.53
67	B1	3023	G	C2'-C1'	-5.98	1.44	1.53
2	AK	108	VAL	CA-C	-5.97	1.45	1.52
21	A2	1371	C	C2'-C1'	-5.97	1.44	1.53
35	BL	125	LYS	CA-C	-5.97	1.45	1.52
40	BE	152	ARG	NE-CZ	5.97	1.39	1.33
41	Ba	55	ASN	N-CA	-5.97	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
60	BS	37	ARG	CZ-NH1	5.97	1.41	1.32
23	AT	26	ARG	C-N	5.97	1.42	1.33
24	AA	23	ALA	C-O	-5.97	1.17	1.24
67	B1	2089	C	C5'-C4'	5.97	1.60	1.51
21	A2	839	G	C2'-C1'	-5.97	1.44	1.53
25	AH	114	ARG	CD-NE	5.97	1.54	1.46
33	BC	174	ILE	CA-C	-5.97	1.45	1.52
67	B1	1458	C	C5'-C4'	5.97	1.60	1.51
10	AD	171	ILE	CA-CB	5.97	1.61	1.54
21	A2	529	C	C3'-O3'	-5.97	1.34	1.43
21	A2	728	G	O4'-C1'	-5.97	1.32	1.41
22	AY	43	CYS	CA-C	-5.97	1.44	1.52
32	BO	14	ARG	CZ-NH2	5.97	1.41	1.33
34	BK	23	VAL	N-CA	5.97	1.52	1.46
67	B1	1536	U	O3'-P	-5.97	1.52	1.61
52	BB	90	PRO	CA-C	5.97	1.59	1.52
54	BF	67	ILE	CA-C	-5.97	1.45	1.52
67	B1	386	A	O4'-C1'	5.97	1.50	1.41
67	B1	2036	A	C2'-C1'	5.97	1.62	1.53
2	AK	117	HIS	N-CA	-5.97	1.39	1.46
21	A2	436	A	C2'-C1'	-5.97	1.44	1.53
67	B1	620	G	C3'-O3'	5.97	1.51	1.42
67	B1	2142	U	O3'-P	-5.97	1.52	1.61
67	B1	2825	A	O4'-C1'	5.97	1.50	1.41
4	AG	101	GLU	C-N	5.96	1.42	1.33
14	AM	107	ARG	NE-CZ	5.96	1.39	1.33
19	AS	49	ARG	NE-CZ	5.96	1.39	1.33
21	A2	50	C	C5'-C4'	5.96	1.60	1.51
21	A2	723	G	C4'-O4'	-5.96	1.36	1.45
31	BY	129	SER	CA-CB	5.96	1.63	1.53
40	BE	32	ILE	CA-C	-5.96	1.45	1.52
67	B1	1020	G	C5'-C4'	5.96	1.60	1.51
17	AO	21	LEU	N-CA	-5.96	1.39	1.46
21	A2	956	C	C2'-C1'	-5.96	1.44	1.53
51	Bj	73	GLU	N-CA	-5.96	1.39	1.46
58	BP	44	ARG	CZ-NH2	5.96	1.41	1.33
66	Bl	30	GLU	CA-C	-5.96	1.44	1.52
11	A1	12	U	C2'-C1'	-5.96	1.44	1.53
21	A2	640	U	C5'-C4'	5.96	1.60	1.51
21	A2	922	G	C2'-C1'	-5.96	1.44	1.53
21	A2	1309	A	C2'-O2'	-5.96	1.33	1.42
56	BH	60	VAL	CA-CB	5.96	1.62	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2384	G	C2'-C1'	-5.96	1.44	1.53
21	A2	377	A	C3'-O3'	5.96	1.51	1.42
21	A2	1089	C	C2'-C1'	-5.96	1.44	1.53
54	BF	133	ARG	CD-NE	5.96	1.54	1.46
67	B1	514	U	O3'-P	-5.96	1.52	1.61
7	AB	33	TYR	CA-C	-5.96	1.45	1.52
67	B1	1702	C	C5'-C4'	5.96	1.60	1.51
67	B1	2644	G	C2'-C1'	-5.96	1.44	1.53
1	AQ	3	ARG	CA-C	-5.96	1.45	1.52
15	AE	235	THR	C-N	5.96	1.42	1.33
21	A2	816	G	C5'-C4'	5.96	1.60	1.51
21	A2	1078	U	O4'-C1'	5.96	1.50	1.41
33	BC	292	ASN	C-O	-5.96	1.16	1.24
67	B1	1570	C	C3'-C2'	5.96	1.61	1.52
15	AE	186	PHE	CA-C	-5.96	1.45	1.52
67	B1	1041	U	O3'-P	-5.96	1.52	1.61
2	AK	24	GLY	CA-C	-5.95	1.43	1.51
21	A2	79	G	C2'-C1'	5.95	1.62	1.53
21	A2	441	U	C2'-C1'	-5.95	1.44	1.53
38	Bb	51	ARG	NE-CZ	5.95	1.39	1.33
67	B1	412	G	C2'-C1'	-5.95	1.44	1.53
67	B1	2207	C	C2'-C1'	-5.95	1.44	1.53
52	BB	196	LYS	C-N	5.95	1.41	1.33
67	B1	454	C	C5'-C4'	5.95	1.60	1.51
67	B1	2471	A	C5'-C4'	5.95	1.60	1.51
67	B1	2951	G	C3'-O3'	-5.95	1.33	1.42
1	AQ	97	PHE	C-N	5.95	1.41	1.33
15	AE	102	VAL	CA-C	-5.95	1.45	1.52
21	A2	105	C	O4'-C1'	5.95	1.50	1.42
21	A2	322	G	C3'-O3'	5.95	1.51	1.42
46	BA	113	LEU	C-N	5.95	1.41	1.33
67	B1	3017	U	C2'-C1'	-5.95	1.44	1.53
8	AR	61	GLU	N-CA	-5.95	1.38	1.46
67	B1	2336	G	C2'-C1'	-5.95	1.44	1.53
34	B5	20	GLN	C-N	5.95	1.41	1.33
40	BE	110	HIS	CE1-NE2	-5.95	1.26	1.32
21	A2	412	U	C4'-C3'	5.95	1.61	1.52
54	BF	50	ASP	C-O	-5.95	1.19	1.24
67	B1	1465	A	C2'-C1'	5.95	1.62	1.53
67	B1	2655	C	C5'-C4'	5.95	1.60	1.51
67	B1	2958	U	O4'-C1'	-5.95	1.33	1.42
21	A2	727	G	C2'-C1'	5.94	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	BC	82	GLY	CA-C	-5.94	1.45	1.51
38	Bb	42	ARG	CD-NE	5.94	1.54	1.46
49	BQ	88	ARG	NE-CZ	5.94	1.39	1.33
59	BM	150	ALA	N-CA	-5.94	1.39	1.46
67	B1	3008	C	O4'-C1'	5.94	1.50	1.41
17	AO	130	ARG	N-CA	-5.94	1.38	1.45
20	A3	7	VAL	N-CA	-5.94	1.39	1.46
64	Bc	64	LYS	CA-CB	5.94	1.60	1.52
65	BJ	134	GLY	CA-C	-5.94	1.45	1.52
16	AJ	53	ARG	CZ-NH1	5.94	1.41	1.32
21	A2	1275	U	O4'-C1'	5.94	1.50	1.41
67	B1	403	G	C3'-C2'	5.94	1.61	1.52
67	B1	611	G	C2'-C1'	-5.94	1.44	1.53
67	B1	1502	C	P-O5'	-5.94	1.50	1.59
67	B1	2625	C	C2'-C1'	-5.94	1.44	1.53
50	BV	34	SER	CA-C	-5.94	1.45	1.52
67	B1	1446	G	C2'-C1'	5.94	1.62	1.53
21	A2	159	C	O4'-C1'	5.94	1.50	1.41
54	BF	111	GLU	CA-C	-5.94	1.45	1.52
58	BP	13	ARG	CA-C	5.94	1.60	1.52
67	B1	90	A	C2'-C1'	-5.94	1.44	1.53
67	B1	1904	G	O4'-C1'	-5.94	1.32	1.41
21	A2	68	G	C4'-O4'	5.94	1.54	1.45
32	BO	48	ILE	C-N	5.94	1.41	1.33
67	B1	1763	A	O4'-C1'	5.94	1.50	1.41
21	A2	1047	U	C3'-O3'	5.93	1.51	1.42
21	A2	1441	G	O3'-P	-5.93	1.52	1.61
30	AU	61	ARG	NE-CZ	5.93	1.39	1.33
67	B1	1038	U	C2'-C1'	5.93	1.62	1.53
17	AO	103	ARG	N-CA	5.93	1.53	1.46
21	A2	1285	C	C5'-C4'	5.93	1.60	1.51
23	AT	64	ARG	C-N	5.93	1.41	1.33
67	B1	1858	G	C2'-C1'	-5.93	1.44	1.53
21	A2	784	G	C2'-C1'	5.93	1.62	1.53
33	BC	10	GLY	CA-C	-5.93	1.44	1.52
67	B1	1242	A	C2'-C1'	-5.93	1.44	1.53
14	AM	50	ALA	CA-C	-5.93	1.45	1.52
19	AS	66	ILE	C-N	5.93	1.41	1.33
21	A2	197	A	O4'-C1'	5.93	1.50	1.41
24	AA	159	LEU	C-O	-5.93	1.17	1.24
27	A0	55	U	C3'-C2'	-5.93	1.43	1.52
7	AB	180	GLY	CA-C	-5.93	1.43	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	AT	109	THR	CA-C	-5.93	1.44	1.52
49	BQ	38	ARG	CA-CB	5.93	1.63	1.53
67	B1	439	G	C2'-C1'	-5.93	1.44	1.53
6	AC	131	ARG	NE-CZ	5.93	1.39	1.33
12	AN	127	VAL	N-CA	-5.93	1.38	1.46
14	AM	102	ILE	C-N	5.93	1.41	1.33
45	Bi	48	ARG	CD-NE	5.93	1.54	1.46
53	BD	48	ARG	N-CA	-5.93	1.38	1.46
67	B1	545	G	C2'-C1'	5.93	1.61	1.53
67	B1	572	U	C2'-C1'	-5.93	1.44	1.53
15	AE	179	PHE	CA-CB	5.92	1.62	1.53
21	A2	620	G	C2'-C1'	-5.92	1.44	1.53
21	A2	1427	C	O3'-P	-5.92	1.52	1.61
44	BW	59	LYS	N-CA	5.92	1.53	1.46
67	B1	2860	G	O4'-C1'	-5.92	1.32	1.41
67	B1	288	G	C2'-C1'	-5.92	1.44	1.53
3	AI	53	ILE	C-N	5.92	1.42	1.33
32	BO	174	LYS	C-N	5.92	1.42	1.33
33	BC	257	GLY	CA-C	-5.92	1.43	1.51
38	Bb	40	TRP	N-CA	-5.92	1.38	1.46
62	BN	161	TYR	CA-CB	5.92	1.63	1.53
67	B1	1283	G	C2'-C1'	5.92	1.62	1.53
67	B1	2711	U	C3'-C2'	5.92	1.61	1.52
22	AY	17	ARG	CD-NE	5.92	1.54	1.46
40	BE	102	LEU	CA-C	-5.92	1.44	1.52
67	B1	759	G	C4'-O4'	5.92	1.54	1.45
2	AK	45	ILE	C-O	-5.92	1.17	1.24
3	AI	95	PRO	C-N	5.92	1.41	1.33
8	AR	60	TYR	CA-C	-5.92	1.44	1.52
17	AO	42	VAL	N-CA	-5.92	1.39	1.46
23	AT	87	LYS	CA-C	-5.92	1.45	1.52
37	BU	53	ARG	CA-C	-5.92	1.45	1.52
40	BE	157	ARG	CA-CB	5.92	1.60	1.53
59	BM	144	PRO	CA-C	-5.92	1.46	1.52
67	B1	1684	C	C5'-C4'	5.92	1.60	1.51
67	B1	2117	U	C4'-C3'	5.92	1.61	1.52
67	B1	2264	G	O4'-C1'	-5.92	1.32	1.41
35	BL	34	ARG	CD-NE	5.92	1.54	1.46
53	BD	99	LYS	CA-C	-5.92	1.45	1.52
62	BN	54	PRO	C-N	5.92	1.41	1.33
65	BJ	16	ARG	NE-CZ	5.92	1.39	1.33
67	B1	1095	A	C2'-O2'	-5.92	1.33	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	407	G	O4'-C1'	5.92	1.50	1.41
67	B1	2209	U	O4'-C1'	-5.92	1.32	1.41
67	B1	2332	G	C2'-C1'	-5.92	1.44	1.53
21	A2	571	C	O4'-C1'	5.91	1.50	1.41
46	BA	205	LYS	C-N	5.91	1.40	1.33
51	Bj	20	HIS	ND1-CE1	5.91	1.38	1.32
52	BB	77	LEU	C-N	5.91	1.41	1.33
28	B6	89	ARG	CA-CB	5.91	1.62	1.53
24	AA	72	ASP	N-CA	-5.91	1.38	1.45
52	BB	231	ALA	C-N	5.91	1.42	1.33
67	B1	1080	G	C4'-C3'	5.91	1.61	1.52
67	B1	2275	G	C5'-C4'	5.91	1.60	1.51
67	B1	2820	C	C2'-C1'	-5.91	1.44	1.53
67	B1	3041	U	C5'-C4'	5.91	1.60	1.51
15	AE	106	ARG	NE-CZ	5.91	1.39	1.33
21	A2	1137	G	C4'-C3'	5.91	1.61	1.52
58	BP	90	ARG	NE-CZ	5.91	1.39	1.33
67	B1	502	G	C2'-C1'	5.91	1.62	1.53
67	B1	937	A	O3'-P	-5.91	1.52	1.61
67	B1	1540	A	C4'-C3'	-5.91	1.43	1.52
67	B1	2151	C	C4'-O4'	5.91	1.54	1.45
67	B1	2698	G	C3'-O3'	5.91	1.51	1.42
21	A2	813	G	C2'-C1'	-5.91	1.44	1.53
24	AA	77	ASN	CA-C	-5.91	1.45	1.52
67	B1	592	C	C2'-C1'	-5.91	1.44	1.53
67	B1	696	G	C4'-C3'	-5.91	1.43	1.52
67	B1	1656	C	C5'-C4'	5.91	1.60	1.51
17	AO	75	PRO	C-N	5.91	1.41	1.33
59	BM	148	TRP	CA-CB	5.91	1.62	1.53
67	B1	1831	C	C5'-C4'	5.91	1.60	1.51
67	B1	1882	C	C2'-C1'	-5.91	1.44	1.53
67	B1	2637	U	C2'-C1'	-5.91	1.44	1.53
68	B3	84	U	C2'-C1'	5.91	1.62	1.53
30	AU	50	TRP	N-CA	5.90	1.53	1.46
21	A2	990	G	C2'-C1'	5.90	1.62	1.53
23	AT	64	ARG	N-CA	-5.90	1.38	1.46
34	BK	20	GLN	C-N	5.90	1.41	1.33
67	B1	431	U	O3'-P	-5.90	1.52	1.61
67	B1	2781	A	C2'-C1'	-5.90	1.44	1.53
37	BU	42	ARG	C-N	5.90	1.41	1.33
67	B1	1045	A	O4'-C1'	5.90	1.50	1.41
67	B1	1733	C	O4'-C1'	5.90	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
53	BD	172	ARG	CA-C	-5.90	1.45	1.52
67	B1	563	A	O4'-C1'	5.90	1.50	1.41
67	B1	633	A	C2'-C1'	5.90	1.62	1.53
29	AL	41	PRO	CA-C	-5.90	1.45	1.52
31	BY	126	PHE	CA-CB	5.90	1.63	1.53
54	BF	165	ARG	NE-CZ	5.90	1.39	1.33
56	BH	16	THR	N-CA	5.90	1.50	1.46
67	B1	490	C	O4'-C1'	5.90	1.50	1.41
67	B1	1313	G	C2'-C1'	5.90	1.62	1.53
67	B1	2041	U	O4'-C1'	5.90	1.50	1.41
68	B3	111	G	C4'-C3'	5.90	1.61	1.52
17	AO	103	ARG	C-N	5.89	1.41	1.33
21	A2	1097	G	O4'-C1'	5.89	1.50	1.41
67	B1	526	C	C4'-C3'	5.89	1.61	1.52
67	B1	1174	U	C2'-C1'	-5.89	1.44	1.53
67	B1	1764	G	C2'-C1'	-5.89	1.44	1.53
20	A3	12	PRO	CA-CB	5.89	1.61	1.53
21	A2	817	U	C5'-C4'	5.89	1.60	1.51
21	A2	1361	G	O4'-C1'	5.89	1.50	1.41
53	BD	3	VAL	CA-C	-5.89	1.45	1.52
68	B3	95	G	C2'-C1'	-5.89	1.44	1.53
23	AT	31	ARG	NE-CZ	5.89	1.39	1.33
67	B1	720	C	C4'-C3'	5.89	1.61	1.52
67	B1	2441	A	C5'-C4'	5.89	1.60	1.51
11	A1	61	U	C3'-O3'	5.89	1.50	1.42
21	A2	640	U	O3'-P	-5.89	1.52	1.61
21	A2	644	G	C2'-C1'	-5.89	1.44	1.53
21	A2	1032	A	C3'-O3'	5.89	1.50	1.42
67	B1	640	C	C5'-C4'	5.89	1.60	1.51
67	B1	1851	U	O3'-P	-5.89	1.52	1.61
67	B1	2363	G	O3'-P	-5.89	1.52	1.61
67	B1	2425	A	C2'-C1'	-5.89	1.44	1.53
33	BC	318	ARG	CA-CB	5.89	1.60	1.52
52	BB	178	ALA	N-CA	-5.89	1.39	1.46
67	B1	110	A	C4'-C3'	5.89	1.61	1.52
52	BB	149	LYS	CA-C	-5.89	1.45	1.52
28	B6	42	ALA	C-N	5.89	1.41	1.33
67	B1	2296	A	C4'-C3'	5.89	1.61	1.52
67	B1	2786	G	C5'-C4'	5.89	1.60	1.51
53	BD	47	GLY	C-N	5.88	1.40	1.33
67	B1	463	A	O4'-C1'	5.88	1.50	1.41
21	A2	1092	G	O4'-C1'	5.88	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1973	U	C3'-O3'	-5.88	1.33	1.42
7	AB	183	GLN	CA-C	-5.88	1.45	1.53
21	A2	79	G	C5'-C4'	5.88	1.60	1.51
23	AT	68	ARG	NE-CZ	5.88	1.39	1.33
46	BA	82	ILE	C-O	-5.88	1.18	1.24
67	B1	2558	U	C2'-O2'	-5.88	1.33	1.42
17	AO	65	ILE	N-CA	-5.88	1.39	1.46
21	A2	787	U	O4'-C1'	5.88	1.50	1.41
21	A2	1128	U	O4'-C1'	-5.88	1.33	1.42
37	BU	117	GLU	CA-CB	5.88	1.62	1.53
59	BM	5	LYS	C-N	5.88	1.41	1.33
67	B1	541	A	C5'-C4'	5.88	1.60	1.51
67	B1	2019	C	C2'-C1'	-5.88	1.44	1.53
33	BC	193	GLU	C-O	5.88	1.31	1.24
43	Bk	167	GLU	C-N	5.88	1.41	1.33
52	BB	220	ARG	C-N	5.88	1.42	1.33
67	B1	258	C	C5'-C4'	5.88	1.60	1.51
67	B1	2062	A	C3'-C2'	5.88	1.61	1.52
67	B1	2145	G	C4'-O4'	5.88	1.54	1.45
67	B1	2285	G	O4'-C1'	-5.88	1.33	1.42
68	B3	38	U	O4'-C1'	5.88	1.50	1.41
33	BC	317	VAL	CA-C	-5.88	1.45	1.52
46	BA	128	ARG	CD-NE	5.88	1.54	1.46
51	Bj	86	VAL	CA-C	-5.88	1.45	1.52
67	B1	174	C	P-O5'	-5.88	1.50	1.59
67	B1	2452	C	C3'-O3'	5.88	1.50	1.42
67	B1	2645	C	C2'-C1'	-5.88	1.44	1.53
68	B3	79	U	C5'-C4'	5.87	1.60	1.51
49	BQ	104	LYS	CA-C	-5.87	1.45	1.52
20	B4	108	ARG	NE-CZ	5.87	1.39	1.33
66	Bl	68	ILE	N-CA	-5.87	1.39	1.46
10	AD	122	ARG	C-N	5.87	1.41	1.33
21	A2	1118	C	O3'-P	-5.87	1.52	1.61
57	BZ	20	SER	C-N	5.87	1.42	1.33
67	B1	942	U	C4'-C3'	5.87	1.61	1.52
67	B1	1371	U	O4'-C1'	5.87	1.50	1.41
67	B1	2018	C	C3'-O3'	5.87	1.50	1.42
67	B1	716	U	C4'-C3'	5.87	1.61	1.52
67	B1	1337	G	O4'-C1'	5.87	1.50	1.41
67	B1	1988	U	P-O5'	-5.87	1.50	1.59
21	A2	1345	G	C3'-C2'	5.87	1.61	1.52
67	B1	2527	G	C5'-C4'	5.87	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	AB	73	ARG	NE-CZ	5.86	1.39	1.33
52	BB	42	ARG	C-N	5.86	1.40	1.33
65	BJ	20	ALA	CA-C	-5.86	1.45	1.52
53	BD	251	ARG	CZ-NH1	5.86	1.41	1.32
60	BS	64	LYS	C-N	5.86	1.41	1.33
67	B1	1690	U	C3'-C2'	-5.86	1.44	1.52
67	B1	1705	C	O5'-C5'	5.86	1.51	1.42
21	A2	478	C	C2'-C1'	-5.86	1.44	1.53
21	A2	713	A	C4'-O4'	5.86	1.54	1.45
21	A2	970	G	O4'-C1'	5.86	1.50	1.41
42	BT	51	VAL	N-CA	-5.86	1.39	1.46
58	BP	90	ARG	CD-NE	5.86	1.54	1.46
67	B1	948	C	O4'-C1'	5.86	1.50	1.41
67	B1	1989	G	C5'-C4'	5.86	1.60	1.51
67	B1	2650	G	O4'-C1'	-5.86	1.32	1.41
1	AQ	77	THR	N-CA	-5.86	1.39	1.46
21	A2	742	U	C2'-C1'	-5.86	1.44	1.53
21	A2	1051	G	O4'-C1'	-5.86	1.32	1.41
67	B1	1258	G	C5'-C4'	5.86	1.60	1.51
10	AD	107	THR	C-N	5.86	1.41	1.33
20	A3	111	VAL	CA-C	-5.86	1.45	1.52
21	A2	710	G	O4'-C1'	5.86	1.50	1.41
67	B1	52	A	O4'-C1'	5.86	1.50	1.41
67	B1	1511	C	C5'-C4'	5.86	1.60	1.51
67	B1	2214	U	O3'-P	-5.86	1.52	1.61
67	B1	2346	A	O4'-C1'	5.86	1.50	1.41
20	A3	34	LYS	C-N	5.85	1.42	1.33
62	BN	153	ALA	C-N	5.85	1.41	1.33
67	B1	1201	G	C4'-O4'	-5.85	1.36	1.45
1	AQ	14	SER	CA-C	5.85	1.59	1.52
38	Bb	97	ARG	NE-CZ	5.85	1.39	1.33
61	Bd	11	ARG	N-CA	-5.85	1.38	1.46
67	B1	296	G	C2'-C1'	-5.85	1.44	1.53
67	B1	544	A	C2'-C1'	-5.85	1.44	1.53
67	B1	1399	C	O3'-P	-5.85	1.52	1.61
67	B1	2116	G	C2'-C1'	-5.85	1.44	1.53
3	AI	75	ILE	CA-C	-5.85	1.45	1.52
21	A2	50	C	C2'-C1'	-5.85	1.44	1.53
67	B1	810	A	C2'-C1'	-5.85	1.44	1.53
67	B1	1999	G	C2'-C1'	5.85	1.62	1.53
5	AW	3	LYS	C-N	5.85	1.38	1.33
12	AN	113	GLY	C-N	5.85	1.39	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	105	C	C2'-C1'	-5.85	1.44	1.53
62	BN	62	LEU	C-N	5.85	1.41	1.33
67	B1	1273	C	C2'-C1'	-5.85	1.44	1.53
67	B1	1888	G	P-O5'	5.85	1.68	1.59
21	A2	277	G	C2'-C1'	-5.85	1.44	1.53
21	A2	409	C	C3'-O3'	5.85	1.50	1.42
21	A2	661	C	O4'-C1'	5.85	1.50	1.41
21	A2	1460	G	C2'-C1'	5.85	1.62	1.53
33	BC	22	SER	CA-C	-5.85	1.45	1.52
56	BH	87	SER	CA-C	-5.85	1.45	1.52
67	B1	2515	U	O4'-C1'	5.85	1.50	1.41
21	A2	1465	C	O3'-P	-5.85	1.52	1.61
59	BM	85	MET	C-N	5.85	1.39	1.33
67	B1	2901	C	C4'-C3'	-5.85	1.43	1.52
33	BC	158	GLY	CA-C	-5.84	1.44	1.51
36	Bf	29	VAL	CA-CB	-5.84	1.47	1.54
37	BU	73	ARG	CZ-NH2	5.84	1.41	1.33
65	BJ	84	ARG	N-CA	-5.84	1.38	1.45
67	B1	193	A	C2'-C1'	-5.84	1.44	1.53
67	B1	69	C	O4'-C1'	5.84	1.50	1.41
67	B1	1077	G	O4'-C1'	-5.84	1.32	1.41
67	B1	2779	G	C3'-C2'	5.84	1.61	1.52
11	A1	43	G	O4'-C1'	-5.84	1.32	1.41
21	A2	738	C	O3'-P	-5.84	1.52	1.61
25	AH	198	SER	CA-C	-5.84	1.45	1.52
36	Bf	3	ARG	CB-CG	5.84	1.70	1.52
39	Be	23	CYS	CA-C	-5.84	1.45	1.52
67	B1	97	C	C2'-C1'	-5.84	1.44	1.53
67	B1	1750	C	C4'-O4'	5.84	1.54	1.45
67	B1	1946	G	O4'-C1'	-5.84	1.32	1.41
21	A2	500	A	C4'-O4'	-5.84	1.37	1.45
21	A2	630	A	C4'-C3'	5.84	1.61	1.52
29	AL	32	VAL	N-CA	-5.84	1.39	1.46
32	BO	10	PRO	C-N	5.84	1.41	1.33
48	BR	40	ARG	NE-CZ	5.84	1.39	1.33
67	B1	933	G	O4'-C1'	5.84	1.50	1.41
67	B1	1817	C	C4'-O4'	5.84	1.54	1.45
67	B1	2905	C	C2'-C1'	-5.84	1.44	1.53
21	A2	1299	A	C4'-C3'	5.84	1.61	1.52
67	B1	174	C	O3'-P	-5.84	1.52	1.61
67	B1	2745	G	O4'-C1'	-5.84	1.32	1.41
67	B1	2995	A	C5'-C4'	5.83	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AQ	73	ASN	C-N	5.83	1.40	1.33
21	A2	146	A	C2'-C1'	-5.83	1.44	1.53
21	A2	308	G	O4'-C1'	5.83	1.50	1.41
24	AA	10	ARG	CA-CB	5.83	1.61	1.53
67	B1	1509	C	O3'-P	-5.83	1.52	1.61
67	B1	1619	C	C4'-O4'	5.83	1.54	1.45
6	AC	132	LEU	N-CA	-5.83	1.39	1.46
13	AX	35	ARG	C-N	5.83	1.41	1.33
15	AE	143	HIS	CA-C	-5.83	1.44	1.52
21	A2	512	U	C5'-C4'	5.83	1.60	1.51
33	BC	339	ARG	CA-C	-5.83	1.46	1.53
65	BJ	87	LYS	CA-CB	5.83	1.63	1.53
67	B1	1827	A	C2'-C1'	5.83	1.61	1.53
21	A2	419	G	O4'-C1'	5.83	1.50	1.41
67	B1	718	G	C5'-C4'	5.83	1.59	1.51
67	B1	776	G	C5'-C4'	5.83	1.59	1.51
67	B1	800	G	C5'-C4'	5.83	1.59	1.51
67	B1	2451	G	C2'-C1'	-5.83	1.44	1.53
67	B1	2927	A	C2'-C1'	-5.83	1.44	1.53
27	A0	24	G	C4'-C3'	5.83	1.61	1.52
29	AL	14	ARG	NE-CZ	5.83	1.39	1.33
67	B1	973	C	O4'-C1'	5.83	1.50	1.41
67	B1	2016	C	P-O5'	5.83	1.68	1.59
1	AQ	77	THR	CA-C	5.83	1.59	1.52
5	AW	42	ALA	CA-C	-5.83	1.45	1.53
14	AM	107	ARG	CA-C	-5.83	1.45	1.52
46	BA	191	LYS	CA-C	5.83	1.61	1.52
67	B1	231	G	C2'-C1'	5.83	1.61	1.53
67	B1	607	C	C2'-C1'	-5.83	1.44	1.53
67	B1	1360	G	C4'-C3'	5.83	1.61	1.52
21	A2	540	G	C2'-C1'	5.82	1.62	1.53
48	BR	61	ARG	NE-CZ	5.82	1.39	1.33
62	BN	97	ASN	CA-CB	5.82	1.61	1.53
67	B1	2413	G	C4'-C3'	5.82	1.61	1.52
4	AG	46	ASN	CA-C	-5.82	1.45	1.52
6	AC	22	GLU	N-CA	-5.82	1.39	1.46
10	AD	10	LYS	N-CA	-5.82	1.42	1.47
24	AA	186	ARG	CD-NE	5.82	1.54	1.46
25	AH	162	LEU	CA-C	-5.82	1.45	1.52
30	AU	51	TRP	CD2-CE3	-5.82	1.30	1.40
32	BO	8	ARG	CD-NE	5.82	1.54	1.46
37	BU	43	ASN	CA-C	-5.82	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
63	Bg	19	ARG	NE-CZ	5.82	1.39	1.33
67	B1	516	A	C2'-C1'	-5.82	1.44	1.53
67	B1	2997	G	O4'-C1'	5.82	1.50	1.41
15	AE	136	ALA	C-N	5.82	1.42	1.33
16	AJ	71	LYS	CA-CB	5.82	1.60	1.52
52	BB	42	ARG	CA-CB	5.82	1.65	1.54
67	B1	497	G	O4'-C1'	5.82	1.50	1.42
67	B1	1341	U	O3'-P	-5.82	1.52	1.61
67	B1	2095	U	O3'-P	-5.82	1.52	1.61
67	B1	2453	C	O4'-C1'	5.82	1.50	1.41
67	B1	2634	U	C2'-C1'	-5.82	1.44	1.53
67	B1	733	A	C2'-C1'	5.82	1.62	1.53
67	B1	1955	U	O4'-C1'	-5.82	1.33	1.42
67	B1	2018	C	C4'-C3'	5.82	1.61	1.52
8	AR	62	ARG	C-N	5.81	1.41	1.33
67	B1	2656	A	C4'-O4'	-5.81	1.36	1.45
6	AC	60	ARG	N-CA	5.81	1.53	1.46
21	A2	185	G	C5'-C4'	5.81	1.59	1.51
21	A2	1383	A	O4'-C1'	5.81	1.50	1.41
21	A2	1478	A	P-O5'	-5.81	1.51	1.59
21	A2	403	C	O4'-C1'	5.81	1.50	1.41
21	A2	952	A	C2'-C1'	-5.81	1.44	1.53
41	Ba	88	ARG	NE-CZ	5.81	1.39	1.33
42	BT	63	GLU	N-CA	-5.81	1.38	1.45
52	BB	73	ALA	N-CA	-5.81	1.36	1.46
67	B1	495	U	O3'-P	-5.81	1.52	1.61
21	A2	1481	G	C2'-C1'	-5.81	1.44	1.53
67	B1	557	G	O4'-C1'	5.81	1.50	1.41
67	B1	2762	G	C4'-O4'	5.81	1.54	1.45
17	AO	118	ILE	N-CA	-5.81	1.39	1.46
23	AT	72	ILE	CA-CB	-5.81	1.47	1.54
33	BC	26	ARG	CA-C	-5.81	1.45	1.52
67	B1	1941	A	O3'-P	-5.81	1.52	1.61
21	A2	315	A	C2'-O2'	-5.80	1.33	1.42
67	B1	112	U	C5'-C4'	5.80	1.59	1.51
67	B1	2259	G	C5'-C4'	5.80	1.59	1.51
21	A2	468	G	O4'-C1'	5.80	1.50	1.41
21	A2	480	G	O4'-C1'	5.80	1.50	1.41
21	A2	1006	C	O4'-C1'	5.80	1.50	1.41
32	BO	45	ILE	CA-CB	-5.80	1.46	1.54
59	BM	160	ARG	CA-C	-5.80	1.45	1.52
61	Bd	20	GLY	CA-C	-5.80	1.43	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1096	A	C4'-C3'	5.80	1.61	1.52
10	AD	93	LEU	CA-C	-5.80	1.45	1.52
14	AM	54	GLU	C-O	-5.80	1.19	1.24
18	AF	6	LYS	N-CA	-5.80	1.39	1.46
21	A2	647	G	C3'-C2'	-5.80	1.44	1.52
21	A2	704	C	C5'-C4'	5.80	1.59	1.51
21	A2	864	G	C2'-O2'	-5.80	1.33	1.42
28	AV	22	GLU	CA-C	-5.80	1.45	1.52
45	Bi	36	HIS	CA-C	-5.80	1.45	1.52
57	BZ	28	LYS	C-N	5.80	1.42	1.34
67	B1	1999	G	O4'-C1'	-5.80	1.32	1.41
67	B1	2963	G	O4'-C1'	-5.80	1.32	1.41
21	A2	1288	C	O4'-C1'	5.80	1.50	1.41
21	A2	1466	G	O4'-C1'	5.80	1.50	1.41
26	AP	37	MET	C-N	5.80	1.40	1.33
60	BS	57	LEU	C-N	5.80	1.41	1.33
44	BW	2	LYS	CA-CB	5.80	1.63	1.53
47	BI	103	ILE	CA-CB	-5.80	1.49	1.54
53	BD	24	THR	N-CA	5.80	1.52	1.45
67	B1	1783	U	O3'-P	-5.80	1.52	1.61
67	B1	2793	C	O3'-P	-5.79	1.52	1.61
16	AJ	80	VAL	CA-C	-5.79	1.46	1.52
67	B1	469	A	P-O5'	-5.79	1.51	1.59
15	AE	4	LYS	CA-CB	5.79	1.62	1.53
21	A2	129	G	C3'-O3'	5.79	1.50	1.42
21	A2	530	G	C2'-C1'	-5.79	1.44	1.53
28	B6	54	GLN	CA-C	-5.79	1.45	1.52
67	B1	662	A	O4'-C1'	5.79	1.50	1.42
67	B1	1452	G	O4'-C1'	-5.79	1.32	1.41
21	A2	63	G	O3'-P	-5.79	1.52	1.61
31	BY	6	VAL	CA-C	-5.79	1.45	1.52
56	BH	76	LEU	C-N	5.79	1.40	1.33
67	B1	1590	C	O4'-C1'	5.79	1.50	1.41
1	AQ	122	LEU	C-N	5.79	1.41	1.33
11	A1	21	G	O4'-C1'	5.79	1.50	1.41
21	A2	118	U	C2'-C1'	-5.79	1.44	1.53
21	A2	343	G	O4'-C1'	5.79	1.50	1.41
21	A2	785	U	O4'-C1'	5.79	1.50	1.41
24	AA	128	ARG	CZ-NH1	5.79	1.40	1.32
27	A0	3	C	O4'-C1'	5.79	1.50	1.41
67	B1	1565	G	C3'-O3'	-5.79	1.30	1.42
67	B1	2956	G	O4'-C1'	5.79	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	AM	5	GLN	C-N	5.78	1.40	1.33
21	A2	254	G	C2'-C1'	5.78	1.62	1.53
21	A2	496	C	O4'-C1'	5.78	1.50	1.41
67	B1	193	A	C4'-C3'	5.78	1.61	1.53
67	B1	653	U	C2'-C1'	-5.78	1.44	1.53
67	B1	1894	A	C3'-O3'	5.78	1.50	1.42
67	B1	2998	G	O3'-P	-5.78	1.52	1.61
12	AN	71	LYS	CA-C	-5.78	1.45	1.52
4	AG	29	LEU	C-N	5.78	1.40	1.33
21	A2	107	C	O3'-P	-5.78	1.52	1.61
21	A2	1296	U	C5'-C4'	5.78	1.60	1.51
30	AU	89	LYS	CA-C	-5.78	1.45	1.52
44	BW	68	GLY	CA-C	-5.78	1.45	1.51
59	BM	80	ARG	CA-C	-5.78	1.45	1.52
61	Bd	8	ARG	CD-NE	5.78	1.54	1.46
67	B1	1210	G	C2'-C1'	-5.78	1.44	1.53
67	B1	1837	A	O4'-C1'	5.78	1.50	1.41
67	B1	2606	C	C3'-C2'	-5.78	1.44	1.52
59	BM	50	ALA	N-CA	-5.78	1.39	1.46
3	AI	121	ILE	C-N	5.78	1.38	1.33
24	AA	172	LYS	CA-CB	5.78	1.62	1.53
33	BC	276	PHE	CA-CB	5.78	1.62	1.53
42	BT	32	ARG	N-CA	-5.78	1.38	1.46
53	BD	31	ILE	CA-C	-5.78	1.45	1.52
65	BJ	61	MET	CA-CB	5.78	1.61	1.53
67	B1	1327	C	C4'-O4'	5.78	1.54	1.45
2	AK	10	ARG	CZ-NH2	5.78	1.41	1.33
12	AN	147	ARG	CZ-NH2	5.78	1.41	1.33
67	B1	1409	U	C2'-C1'	-5.78	1.44	1.53
67	B1	2633	A	C2'-C1'	-5.78	1.44	1.53
67	B1	2983	G	C2'-C1'	-5.78	1.44	1.53
68	B3	23	A	C2'-C1'	-5.78	1.44	1.53
23	AT	53	LEU	CA-C	-5.77	1.45	1.52
42	BT	14	GLU	CA-CB	5.77	1.62	1.53
67	B1	2479	C	O4'-C1'	5.77	1.50	1.41
8	AR	20	LYS	CA-C	-5.77	1.44	1.52
10	AD	95	LEU	C-N	5.77	1.41	1.33
33	BC	204	GLY	CA-C	-5.77	1.43	1.51
51	Bj	17	HIS	N-CA	-5.77	1.39	1.46
52	BB	174	LYS	CA-C	-5.77	1.45	1.52
60	BS	80	PRO	N-CA	-5.77	1.40	1.46
67	B1	362	A	C3'-O3'	5.77	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	192	G	C2'-C1'	-5.77	1.44	1.53
21	A2	1097	G	C3'-O3'	5.77	1.50	1.42
67	B1	360	G	O4'-C1'	5.77	1.50	1.41
67	B1	1174	U	O4'-C1'	5.77	1.50	1.41
67	B1	2547	A	C2'-C1'	-5.77	1.44	1.53
21	A2	227	C	P-O5'	-5.77	1.51	1.59
21	A2	172	G	O4'-C1'	5.77	1.50	1.41
67	B1	1498	C	C3'-O3'	5.77	1.50	1.42
67	B1	1626	A	C4'-C3'	5.77	1.61	1.52
67	B1	1843	C	C5'-C4'	5.77	1.59	1.51
67	B1	1966	C	O4'-C1'	5.77	1.50	1.41
14	AM	62	LEU	CA-C	-5.76	1.45	1.52
21	A2	211	G	O5'-C5'	5.76	1.51	1.42
21	A2	409	C	O3'-P	-5.76	1.52	1.61
32	BO	14	ARG	NE-CZ	5.76	1.39	1.33
47	BI	70	ARG	CZ-NH2	5.76	1.41	1.33
59	BM	153	HIS	CE1-NE2	-5.76	1.26	1.32
67	B1	404	G	C5'-C4'	5.76	1.59	1.51
67	B1	1249	G	C2'-C1'	-5.76	1.44	1.53
67	B1	1925	A	C4'-C3'	5.76	1.61	1.53
23	AT	94	ILE	N-CA	-5.76	1.39	1.46
33	BC	157	GLU	C-N	5.76	1.40	1.33
52	BB	208	GLU	CA-C	5.76	1.59	1.52
67	B1	1147	G	P-O5'	-5.76	1.51	1.59
21	A2	653	C	C2'-C1'	-5.76	1.44	1.53
23	AT	68	ARG	CD-NE	5.76	1.54	1.46
67	B1	973	C	C4'-O4'	5.76	1.54	1.45
6	AC	147	TYR	C-N	5.76	1.41	1.33
16	AJ	92	ARG	CZ-NH1	5.76	1.40	1.32
46	BA	57	GLY	C-N	5.76	1.42	1.33
54	BF	111	GLU	N-CA	-5.76	1.38	1.45
56	BH	94	ILE	C-N	5.76	1.41	1.33
65	BJ	133	ILE	CA-C	-5.76	1.45	1.52
21	A2	26	A	O5'-C5'	-5.76	1.33	1.42
21	A2	676	G	O3'-P	-5.76	1.52	1.61
31	BY	143	ARG	CD-NE	5.76	1.54	1.46
32	BO	78	GLY	N-CA	-5.76	1.37	1.45
38	Bb	41	ARG	NE-CZ	5.76	1.39	1.33
67	B1	2749	G	C4'-O4'	5.76	1.54	1.45
67	B1	215	A	O3'-P	-5.75	1.52	1.61
67	B1	777	A	C2'-O2'	-5.75	1.33	1.42
67	B1	902	C	C5'-C4'	5.75	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	7	G	O4'-C1'	5.75	1.50	1.41
39	Be	6	ALA	CA-C	-5.75	1.45	1.52
49	BQ	9	ARG	CD-NE	5.75	1.54	1.46
6	AC	179	LYS	CA-C	-5.75	1.45	1.52
15	AE	33	ARG	N-CA	-5.75	1.36	1.45
19	AS	47	ARG	CD-NE	5.75	1.54	1.46
33	BC	5	HIS	N-CA	-5.75	1.39	1.45
54	BF	126	PRO	C-O	-5.75	1.16	1.24
67	B1	64	A	C2'-C1'	5.75	1.61	1.53
67	B1	1299	C	C3'-C2'	-5.75	1.44	1.52
67	B1	1994	G	O4'-C1'	5.75	1.50	1.41
67	B1	2977	G	O4'-C1'	5.75	1.50	1.41
15	AE	108	GLY	C-N	5.75	1.41	1.33
52	BB	219	ARG	C-N	5.75	1.42	1.33
60	BS	76	LYS	N-CA	-5.75	1.39	1.46
67	B1	1423	G	C5'-C4'	5.75	1.59	1.51
67	B1	2992	G	P-O5'	-5.75	1.51	1.59
20	B4	31	LYS	CA-C	-5.75	1.45	1.52
67	B1	2950	G	O4'-C1'	-5.75	1.33	1.41
67	B1	137	A	C4'-O4'	5.75	1.54	1.45
5	AW	4	PRO	CA-C	-5.74	1.47	1.52
11	A1	38	G	C5'-C4'	5.74	1.59	1.51
40	BE	157	ARG	CA-C	-5.74	1.45	1.52
52	BB	102	ILE	CA-C	-5.74	1.48	1.53
59	BM	31	ARG	CD-NE	5.74	1.54	1.46
67	B1	2481	G	O3'-P	-5.74	1.52	1.61
67	B1	2511	C	O3'-P	-5.74	1.52	1.61
6	AC	60	ARG	CD-NE	5.74	1.54	1.46
64	Bc	41	ARG	CZ-NH1	5.74	1.40	1.32
21	A2	367	G	C5'-C4'	5.74	1.59	1.51
21	A2	1170	C	C2'-C1'	-5.74	1.44	1.53
25	AH	92	SER	CA-CB	5.74	1.63	1.53
21	A2	379	A	C2'-C1'	5.74	1.61	1.53
37	BU	109	ASP	N-CA	-5.74	1.39	1.46
52	BB	237	ARG	CD-NE	5.74	1.54	1.46
67	B1	1555	G	P-O5'	-5.74	1.51	1.59
21	A2	615	G	P-O5'	-5.74	1.51	1.59
67	B1	1938	G	C2'-C1'	5.74	1.61	1.53
46	BA	132	PRO	CA-C	-5.74	1.44	1.52
59	BM	173	ARG	NE-CZ	5.74	1.39	1.33
62	BN	49	LEU	CA-C	-5.74	1.45	1.52
14	AM	132	ARG	CA-C	-5.73	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	896	A	O3'-P	-5.73	1.52	1.61
67	B1	1248	C	O4'-C1'	-5.73	1.33	1.41
21	A2	503	G	O3'-P	-5.73	1.52	1.61
42	BT	30	VAL	C-N	5.73	1.41	1.33
67	B1	702	G	O4'-C1'	-5.73	1.33	1.41
17	AO	110	ARG	C-O	5.73	1.30	1.24
21	A2	1237	G	C5'-C4'	5.73	1.59	1.51
21	A2	1381	G	O5'-C5'	5.73	1.51	1.42
35	BL	26	ARG	CA-C	-5.73	1.45	1.52
45	Bi	16	ARG	CD-NE	5.73	1.54	1.46
52	BB	40	THR	CA-C	-5.73	1.46	1.52
56	BH	31	ASN	N-CA	-5.73	1.38	1.45
60	BS	103	VAL	CA-CB	-5.73	1.47	1.54
65	BJ	111	GLY	C-N	5.73	1.38	1.32
67	B1	2897	C	C3'-O3'	5.73	1.50	1.42
21	A2	805	C	O4'-C1'	5.73	1.50	1.41
67	B1	1287	G	C2'-O2'	-5.73	1.33	1.42
67	B1	2785	G	C2'-C1'	-5.73	1.44	1.53
7	AB	85	GLU	C-N	5.73	1.41	1.33
15	AE	8	ARG	CZ-NH1	5.73	1.40	1.32
21	A2	368	C	P-O5'	-5.73	1.51	1.59
46	BA	3	PHE	CA-C	-5.73	1.45	1.52
52	BB	84	TYR	CA-C	-5.73	1.45	1.52
63	Bg	33	LYS	CA-C	-5.73	1.46	1.52
67	B1	1050	C	C2'-C1'	-5.73	1.44	1.53
21	A2	293	G	C2'-C1'	-5.72	1.44	1.53
67	B1	2883	C	O3'-P	-5.72	1.52	1.61
2	AK	49	LEU	CA-C	-5.72	1.45	1.52
21	A2	1016	G	C2'-C1'	-5.72	1.44	1.53
31	BY	23	LEU	N-CA	-5.72	1.39	1.46
51	Bj	84	PHE	CA-CB	5.72	1.60	1.52
67	B1	752	U	C4'-O4'	5.72	1.54	1.45
67	B1	2114	C	C2'-C1'	-5.72	1.44	1.53
67	B1	2868	C	O5'-C5'	5.72	1.51	1.42
21	A2	1172	A	C2'-C1'	5.72	1.61	1.53
31	BY	65	ALA	C-N	5.72	1.41	1.33
67	B1	216	A	O4'-C1'	-5.72	1.33	1.41
67	B1	919	G	O4'-C1'	5.72	1.50	1.41
1	AQ	49	MET	CA-C	-5.72	1.45	1.52
23	AT	102	TYR	CA-CB	5.72	1.62	1.53
31	BY	94	GLU	CA-C	-5.72	1.45	1.52
40	BE	144	GLU	CA-CB	5.72	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
58	BP	41	ARG	CZ-NH1	5.72	1.40	1.32
66	Bl	27	GLY	CA-C	-5.72	1.43	1.51
67	B1	645	U	O4'-C1'	-5.72	1.33	1.41
67	B1	1225	A	O4'-C1'	5.72	1.50	1.41
21	A2	1248	A	C2'-C1'	5.72	1.61	1.53
35	BL	119	THR	N-CA	-5.72	1.38	1.46
34	BK	27	ILE	C-N	5.72	1.40	1.33
54	BF	87	THR	CA-C	-5.72	1.45	1.52
21	A2	1078	U	O5'-C5'	5.72	1.51	1.42
52	BB	37	GLN	N-CA	-5.72	1.39	1.46
57	BZ	18	LEU	N-CA	-5.72	1.38	1.46
67	B1	124	C	C3'-O3'	5.72	1.50	1.42
67	B1	2922	G	C5'-C4'	5.72	1.59	1.51
35	BL	75	VAL	N-CA	-5.71	1.39	1.46
67	B1	1157	U	C4'-O4'	5.71	1.54	1.45
21	A2	1408	C	C2'-C1'	-5.71	1.44	1.53
54	BF	104	GLN	C-N	5.71	1.41	1.33
67	B1	539	A	O3'-P	-5.71	1.52	1.61
43	Bk	178	ASN	CA-CB	5.71	1.62	1.53
67	B1	1421	C	C2'-C1'	-5.71	1.44	1.53
27	A0	72	C	C2'-C1'	-5.71	1.44	1.53
21	A2	140	C	C2'-C1'	-5.71	1.44	1.53
31	BY	32	ASN	CA-C	-5.71	1.44	1.52
40	BE	56	PRO	N-CA	-5.71	1.41	1.46
59	BM	160	ARG	CD-NE	5.71	1.54	1.46
67	B1	1840	G	O3'-P	-5.71	1.52	1.61
67	B1	106	G	C2'-C1'	-5.71	1.44	1.53
67	B1	2855	G	C4'-C3'	5.71	1.61	1.52
15	AE	126	ARG	N-CA	-5.71	1.39	1.46
67	B1	1931	G	O4'-C1'	5.70	1.50	1.41
21	A2	664	G	C2'-C1'	-5.70	1.44	1.53
21	A2	1033	G	O3'-P	-5.70	1.52	1.61
27	A0	18	G	C3'-O3'	5.70	1.51	1.43
67	B1	114	C	C2'-C1'	-5.70	1.44	1.53
67	B1	2401	A	C5'-C4'	5.70	1.59	1.51
21	A2	396	C	O4'-C1'	5.70	1.50	1.41
21	A2	664	G	O4'-C1'	-5.70	1.33	1.41
50	BV	35	ARG	NE-CZ	5.70	1.39	1.33
28	B6	42	ALA	CA-CB	5.70	1.62	1.53
67	B1	1484	U	P-O5'	-5.70	1.51	1.59
67	B1	1732	C	O3'-P	-5.70	1.52	1.61
54	BF	34	GLU	CA-C	-5.70	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AQ	142	LEU	C-N	-5.70	1.26	1.33
38	Bb	85	HIS	ND1-CE1	5.70	1.38	1.32
20	BG	33	ARG	CA-C	-5.70	1.46	1.52
67	B1	793	C	O4'-C1'	5.70	1.50	1.41
21	A2	276	A	C2'-C1'	-5.70	1.44	1.53
21	A2	1377	G	C2'-C1'	-5.70	1.44	1.53
21	A2	1413	G	O4'-C1'	-5.70	1.33	1.41
40	BE	36	GLU	CA-C	5.70	1.57	1.52
59	BM	72	LYS	CA-C	-5.70	1.45	1.52
67	B1	477	C	C2'-C1'	-5.70	1.44	1.53
14	AM	18	HIS	CD2-NE2	5.69	1.44	1.37
67	B1	2178	A	C5'-C4'	5.69	1.59	1.51
6	AC	49	ALA	CA-CB	5.69	1.62	1.53
24	AA	56	THR	CA-CB	5.69	1.62	1.53
36	Bf	17	LEU	CA-C	-5.69	1.45	1.52
42	BT	26	LEU	CA-C	-5.69	1.45	1.52
28	B6	24	TYR	CA-C	-5.69	1.45	1.52
67	B1	2180	C	C2'-C1'	-5.69	1.44	1.53
67	B1	2705	C	O3'-P	-5.69	1.52	1.61
68	B3	46	G	O3'-P	-5.69	1.52	1.61
21	A2	201	G	C2'-C1'	5.69	1.61	1.53
21	A2	330	U	O4'-C1'	5.69	1.50	1.41
21	A2	482	G	O4'-C1'	5.69	1.50	1.41
25	AH	190	LEU	CA-C	-5.69	1.45	1.52
48	BR	23	ARG	CZ-NH2	5.69	1.40	1.33
62	BN	158	CYS	N-CA	-5.69	1.38	1.45
13	AX	70	ARG	CD-NE	5.69	1.54	1.46
18	AF	60	ARG	CA-C	-5.69	1.48	1.53
36	Bf	22	ARG	N-CA	-5.69	1.39	1.46
37	BU	112	ARG	N-CA	-5.69	1.39	1.46
41	Ba	61	ARG	CZ-NH2	5.69	1.40	1.33
67	B1	467	U	C2'-O2'	5.69	1.50	1.42
8	AR	70	ILE	CB-CG1	5.69	1.64	1.53
21	A2	1104	G	O4'-C1'	-5.69	1.33	1.41
44	BW	8	GLU	N-CA	5.69	1.53	1.46
67	B1	784	C	C5'-C4'	5.69	1.59	1.51
67	B1	854	G	C3'-C2'	5.69	1.61	1.52
59	BM	117	TYR	C-N	5.68	1.41	1.33
67	B1	343	C	C2'-C1'	-5.68	1.44	1.53
67	B1	543	G	C2'-C1'	5.68	1.61	1.53
67	B1	2836	G	O3'-P	-5.68	1.52	1.61
21	A2	142	G	C2'-C1'	-5.68	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1319	C	O4'-C1'	5.68	1.50	1.41
33	BC	111	ALA	CA-CB	5.68	1.63	1.53
52	BB	107	TYR	N-CA	-5.68	1.39	1.46
67	B1	1980	U	C2'-C1'	-5.68	1.44	1.53
67	B1	1987	A	C2'-C1'	-5.68	1.44	1.53
21	A2	612	C	O3'-P	-5.68	1.52	1.61
67	B1	2043	A	C2'-C1'	5.68	1.61	1.53
1	AQ	156	LEU	C-O	5.68	1.30	1.24
7	AB	174	GLU	C-N	5.68	1.41	1.33
8	AR	70	ILE	CA-C	-5.68	1.45	1.52
17	AO	73	GLY	C-N	5.68	1.39	1.33
21	A2	289	C	O4'-C1'	5.68	1.50	1.41
47	BI	9	LEU	CA-C	-5.68	1.45	1.52
67	B1	896	G	C4'-C3'	-5.68	1.44	1.52
67	B1	2390	G	C3'-C2'	-5.68	1.44	1.52
11	A1	70	C	O4'-C1'	5.68	1.50	1.41
15	AE	141	ASN	C-N	5.68	1.40	1.33
21	A2	1265	G	C3'-C2'	5.68	1.61	1.52
24	AA	91	TYR	CA-C	-5.68	1.45	1.52
67	B1	1814	A	O4'-C1'	5.68	1.50	1.41
21	A2	741	A	C5'-C4'	5.67	1.59	1.51
21	A2	802	G	P-O5'	-5.67	1.51	1.59
40	BE	36	GLU	C-N	5.67	1.40	1.33
67	B1	94	A	C4'-O4'	-5.67	1.37	1.45
67	B1	1728	C	C2'-C1'	-5.67	1.44	1.53
67	B1	2335	G	O4'-C1'	5.67	1.50	1.41
46	BA	78	GLY	C-N	5.67	1.41	1.33
57	BZ	8	ARG	CZ-NH1	5.67	1.40	1.32
11	A1	2	G	C3'-O3'	5.67	1.50	1.42
11	A1	13	C	C2'-C1'	-5.67	1.44	1.53
21	A2	190	C	C4'-O4'	-5.67	1.37	1.45
21	A2	1428	G	O3'-P	-5.67	1.52	1.61
5	AW	36	ARG	N-CA	-5.67	1.39	1.45
67	B1	2005	A	P-O5'	-5.67	1.51	1.59
1	AQ	67	LYS	N-CA	-5.67	1.38	1.46
16	AJ	100	ILE	N-CA	-5.67	1.39	1.46
53	BD	228	GLU	N-CA	-5.67	1.39	1.46
53	BD	238	ARG	C-N	5.67	1.41	1.33
58	BP	3	ARG	N-CA	-5.67	1.38	1.46
67	B1	824	C	C2'-C1'	-5.67	1.44	1.53
67	B1	929	G	O4'-C1'	5.67	1.50	1.41
67	B1	2549	A	C5'-C4'	5.67	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2685	G	O4'-C1'	5.67	1.50	1.41
21	A2	141	C	C5'-C4'	5.67	1.59	1.51
67	B1	722	C	C5'-C4'	5.67	1.59	1.51
67	B1	1664	G	O4'-C1'	5.67	1.50	1.41
67	B1	1786	G	C4'-O4'	5.67	1.54	1.45
7	AB	22	GLN	CA-C	-5.66	1.46	1.52
15	AE	32	PRO	N-CA	5.66	1.54	1.47
21	A2	254	G	O4'-C1'	-5.66	1.33	1.41
27	A0	5	C	C2'-C1'	-5.66	1.44	1.53
33	BC	306	THR	N-CA	-5.66	1.38	1.46
36	Bf	34	ARG	C-N	5.66	1.41	1.33
40	BE	21	ARG	N-CA	5.66	1.53	1.46
67	B1	1655	G	O3'-P	-5.66	1.52	1.61
21	A2	1076	G	O5'-C5'	5.66	1.50	1.42
67	B1	177	G	P-O5'	-5.66	1.51	1.59
67	B1	3019	C	O3'-P	-5.66	1.52	1.61
21	A2	428	G	C2'-C1'	-5.66	1.44	1.53
21	A2	701	G	C2'-C1'	5.66	1.61	1.53
29	AL	63	ARG	CA-CB	5.66	1.60	1.53
48	BR	13	ARG	C-N	-5.66	1.26	1.33
61	Bd	58	PRO	N-CD	5.66	1.55	1.47
67	B1	426	G	P-O5'	-5.66	1.51	1.59
67	B1	891	C	C2'-C1'	-5.66	1.44	1.53
67	B1	2617	G	O3'-P	-5.66	1.52	1.61
20	A3	121	LEU	C-N	5.66	1.41	1.33
21	A2	45	U	C5'-C4'	5.66	1.59	1.51
21	A2	57	G	O4'-C1'	-5.66	1.33	1.41
21	A2	1320	A	O4'-C1'	-5.66	1.33	1.41
21	A2	1341	C	C2'-C1'	-5.66	1.44	1.53
22	AY	32	ALA	C-N	5.66	1.43	1.33
24	AA	80	THR	CA-C	-5.66	1.45	1.52
67	B1	1580	G	O4'-C1'	-5.66	1.33	1.41
67	B1	2569	G	C2'-O2'	-5.66	1.33	1.42
1	AQ	26	VAL	CA-C	-5.66	1.45	1.52
67	B1	1524	A	C2'-C1'	5.66	1.61	1.53
67	B1	1942	G	O4'-C1'	-5.66	1.33	1.41
21	A2	956	C	O4'-C1'	5.66	1.50	1.41
29	AL	47	ILE	CA-C	-5.66	1.45	1.52
51	Bj	36	GLY	CA-C	-5.66	1.45	1.52
67	B1	1909	C	C5'-C4'	5.66	1.59	1.51
21	A2	876	A	O4'-C1'	5.65	1.50	1.41
21	A2	1206	G	C2'-C1'	-5.65	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1471	G	C3'-C2'	5.65	1.61	1.52
28	AV	71	ALA	CA-C	-5.65	1.46	1.52
21	A2	238	G	O3'-P	-5.65	1.52	1.61
27	A0	10	G	C4'-C3'	5.65	1.61	1.52
40	BE	37	SER	CA-CB	-5.65	1.45	1.53
49	BQ	126	ARG	NE-CZ	5.65	1.39	1.33
52	BB	100	ALA	N-CA	-5.65	1.39	1.46
54	BF	135	GLN	N-CA	-5.65	1.38	1.46
58	BP	21	LYS	CA-CB	5.65	1.62	1.53
67	B1	1795	C	C2'-C1'	-5.65	1.44	1.53
6	AC	26	ARG	CZ-NH1	5.65	1.40	1.32
21	A2	884	G	C2'-C1'	-5.65	1.44	1.53
67	B1	1481	G	O3'-P	-5.65	1.52	1.61
27	A0	49	C	C4'-C3'	5.65	1.61	1.52
64	Bc	3	ILE	N-CA	-5.65	1.39	1.46
67	B1	1343	C	C5'-C4'	5.65	1.59	1.51
21	A2	306	C	P-O5'	-5.65	1.51	1.59
21	A2	1046	G	C2'-C1'	5.65	1.61	1.53
30	AU	60	ARG	NE-CZ	5.65	1.39	1.33
62	BN	138	ASN	CA-C	-5.65	1.45	1.53
67	B1	139	G	C4'-C3'	5.65	1.61	1.52
67	B1	1003	C	C2'-C1'	-5.65	1.44	1.53
20	A3	53	ILE	N-CA	-5.65	1.39	1.46
58	BP	85	PHE	N-CA	-5.65	1.38	1.45
6	AC	15	MET	CA-C	-5.64	1.45	1.52
15	AE	167	LYS	C-N	5.64	1.39	1.33
16	AJ	76	ARG	CD-NE	5.64	1.54	1.46
21	A2	25	C	O4'-C1'	5.64	1.50	1.41
21	A2	1222	C	C5'-C4'	5.64	1.59	1.51
67	B1	2796	C	C2'-C1'	-5.64	1.44	1.53
5	AW	12	ARG	CA-CB	5.64	1.62	1.53
21	A2	229	G	C4'-O4'	-5.64	1.37	1.45
21	A2	1150	G	O3'-P	-5.64	1.52	1.61
67	B1	1272	A	O3'-P	-5.64	1.52	1.61
67	B1	1628	C	C5'-C4'	5.64	1.59	1.51
21	A2	815	C	O3'-P	-5.64	1.52	1.61
26	AP	16	LYS	CA-CB	-5.64	1.44	1.53
67	B1	309	C	O4'-C1'	5.64	1.50	1.41
67	B1	840	G	O3'-P	-5.64	1.52	1.61
67	B1	1683	C	O4'-C1'	5.64	1.50	1.41
67	B1	1766	A	C2'-C1'	-5.64	1.44	1.53
67	B1	1886	C	C2'-C1'	-5.64	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	AB	37	GLN	CA-C	-5.64	1.45	1.53
21	A2	152	G	O3'-P	-5.64	1.52	1.61
21	A2	706	G	O4'-C1'	5.64	1.50	1.42
21	A2	983	G	C2'-C1'	-5.64	1.44	1.53
41	Ba	39	VAL	CA-C	-5.64	1.45	1.52
59	BM	177	LYS	CA-CB	5.64	1.62	1.53
65	BJ	10	ARG	CZ-NH1	5.64	1.40	1.32
67	B1	1146	U	C2'-C1'	5.64	1.61	1.53
67	B1	1595	G	C2'-C1'	5.64	1.61	1.53
21	A2	225	U	C2'-C1'	5.64	1.61	1.53
60	BS	48	LEU	CA-C	-5.64	1.45	1.52
60	BS	95	LEU	CA-C	-5.64	1.45	1.52
67	B1	530	A	P-O5'	-5.64	1.51	1.59
67	B1	918	A	P-O5'	-5.64	1.51	1.59
21	A2	72	C	C3'-C2'	5.64	1.61	1.52
21	A2	582	G	C2'-C1'	-5.64	1.44	1.53
62	BN	74	GLN	N-CA	-5.64	1.39	1.46
67	B1	1813	A	C2'-C1'	5.64	1.61	1.53
67	B1	2986	G	O3'-P	-5.64	1.52	1.61
4	AG	98	GLU	CA-C	-5.63	1.45	1.52
21	A2	334	G	C2'-C1'	5.63	1.61	1.53
58	BP	19	ARG	CA-C	-5.63	1.45	1.52
67	B1	108	G	C4'-O4'	5.63	1.54	1.45
67	B1	1981	G	O5'-C5'	5.63	1.50	1.42
23	AT	115	HIS	CA-C	5.63	1.59	1.52
67	B1	1249	G	O4'-C1'	5.63	1.50	1.42
8	AR	93	PRO	CA-C	-5.63	1.45	1.52
42	BT	76	ALA	C-O	-5.63	1.17	1.24
49	BQ	84	LYS	N-CA	5.63	1.53	1.45
57	BZ	40	ASN	CA-C	-5.63	1.45	1.52
67	B1	1583	G	O3'-P	-5.63	1.52	1.61
67	B1	1836	A	C5'-C4'	5.63	1.59	1.51
67	B1	1877	C	O4'-C1'	5.63	1.50	1.41
33	BC	270	MET	CA-C	-5.63	1.45	1.52
12	AN	104	ILE	CA-C	-5.63	1.45	1.52
21	A2	1319	C	C2'-C1'	-5.63	1.45	1.53
32	BO	57	ARG	NE-CZ	5.63	1.39	1.33
50	BV	25	ASN	CA-CB	5.63	1.62	1.53
56	BH	85	LYS	N-CA	-5.63	1.38	1.45
67	B1	1118	A	C4'-C3'	5.63	1.60	1.52
7	AB	185	ARG	NE-CZ	5.63	1.39	1.33
21	A2	384	G	C5'-C4'	5.63	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	425	C	C2'-C1'	-5.63	1.45	1.53
67	B1	766	G	C4'-C3'	5.63	1.60	1.52
68	B3	90	A	C2'-C1'	-5.63	1.45	1.53
21	A2	390	G	O4'-C1'	-5.62	1.33	1.41
16	AJ	7	ARG	CZ-NH2	5.62	1.40	1.33
21	A2	1146	G	C2'-C1'	5.62	1.61	1.53
67	B1	1073	G	C2'-C1'	-5.62	1.45	1.53
67	B1	2062	A	O5'-C5'	5.62	1.51	1.42
67	B1	2171	G	C2'-C1'	-5.62	1.45	1.53
67	B1	2281	A	O4'-C1'	5.62	1.50	1.42
67	B1	2538	G	O4'-C1'	5.62	1.50	1.41
67	B1	3032	C	O5'-C5'	5.62	1.50	1.42
21	A2	268	C	C5'-C4'	5.62	1.59	1.51
30	AU	12	LEU	C-N	5.62	1.41	1.33
53	BD	214	HIS	ND1-CE1	5.62	1.38	1.32
67	B1	716	U	C3'-C2'	5.62	1.61	1.52
67	B1	2773	A	C5'-C4'	5.62	1.59	1.51
68	B3	83	C	C2'-C1'	5.62	1.61	1.53
7	AB	29	LYS	N-CA	-5.62	1.39	1.46
15	AE	62	ALA	N-CA	-5.62	1.39	1.46
21	A2	750	C	C4'-O4'	5.62	1.53	1.45
58	BP	3	ARG	CZ-NH2	5.62	1.40	1.33
62	BN	24	ARG	C-N	5.62	1.41	1.33
65	BJ	110	GLU	CA-C	-5.62	1.45	1.52
67	B1	1462	G	O3'-P	-5.62	1.52	1.61
67	B1	2854	A	O4'-C1'	-5.62	1.33	1.41
21	A2	1489	A	O4'-C1'	5.62	1.50	1.41
52	BB	234	ARG	NE-CZ	5.62	1.39	1.33
67	B1	1369	G	O4'-C1'	5.62	1.50	1.41
10	AD	76	ARG	NE-CZ	5.62	1.39	1.33
11	A1	33	C	O4'-C1'	5.62	1.50	1.41
33	BC	294	LYS	CA-CB	5.62	1.62	1.53
42	BT	48	ASN	CA-CB	5.62	1.62	1.53
53	BD	251	ARG	CA-CB	5.62	1.62	1.53
67	B1	419	G	C4'-C3'	5.62	1.60	1.52
4	AG	21	ILE	C-N	5.61	1.41	1.33
10	AD	125	ILE	CA-CB	-5.61	1.46	1.54
14	AM	73	GLU	N-CA	-5.61	1.39	1.46
21	A2	1427	C	O4'-C1'	5.61	1.50	1.41
23	AT	68	ARG	CA-C	5.61	1.59	1.52
32	BO	165	ARG	NE-CZ	5.61	1.39	1.33
2	AK	83	ALA	CA-CB	5.61	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	970	G	C5'-C4'	5.61	1.59	1.51
17	AO	97	LYS	N-CA	5.61	1.53	1.46
27	A0	3	C	C2'-C1'	-5.61	1.45	1.53
67	B1	1159	U	O4'-C1'	5.61	1.50	1.41
67	B1	1781	C	O4'-C1'	5.61	1.50	1.41
1	AQ	31	GLU	C-N	5.61	1.41	1.33
10	AD	65	GLN	CA-C	-5.61	1.45	1.52
40	BE	33	GLY	C-N	5.61	1.40	1.33
67	B1	41	G	C5'-C4'	5.61	1.59	1.51
67	B1	1634	A	C5'-C4'	5.61	1.59	1.51
67	B1	3026	C	C2'-C1'	5.61	1.61	1.53
5	AW	41	GLY	CA-C	5.61	1.59	1.51
61	Bd	3	PRO	N-CA	-5.61	1.40	1.47
67	B1	2276	G	O4'-C1'	-5.61	1.33	1.41
68	B3	16	G	O4'-C1'	5.61	1.50	1.41
4	AG	75	ARG	CA-C	-5.61	1.45	1.52
12	AN	141	ARG	NE-CZ	5.61	1.39	1.33
32	BO	185	PHE	N-CA	-5.61	1.39	1.46
36	Bf	28	ILE	N-CA	-5.61	1.39	1.46
67	B1	515	G	O4'-C1'	-5.61	1.33	1.41
67	B1	2174	G	O3'-P	-5.61	1.52	1.61
4	AG	47	LEU	N-CA	-5.60	1.40	1.46
32	BO	195	LYS	CA-C	-5.60	1.44	1.52
47	BI	19	ALA	C-N	5.60	1.41	1.33
67	B1	1277	G	O4'-C1'	-5.60	1.33	1.41
67	B1	2250	G	C2'-C1'	-5.60	1.45	1.53
57	BZ	29	THR	CA-C	5.60	1.60	1.52
67	B1	2294	A	C2'-C1'	5.60	1.61	1.53
14	AM	84	ARG	CZ-NH2	5.60	1.40	1.33
10	AD	23	LEU	N-CA	-5.60	1.39	1.46
25	AH	215	ARG	NE-CZ	5.60	1.39	1.33
56	BH	116	ALA	CA-C	-5.60	1.45	1.52
59	BM	32	ARG	CZ-NH2	5.60	1.40	1.33
62	BN	20	ARG	CZ-NH2	5.60	1.40	1.33
67	B1	547	C	C3'-C2'	-5.60	1.44	1.52
67	B1	898	G	O3'-P	-5.60	1.52	1.61
67	B1	2583	G	C5'-C4'	5.60	1.59	1.51
39	Be	47	ARG	C-N	5.60	1.40	1.33
59	BM	58	GLY	C-N	5.60	1.41	1.33
67	B1	1619	C	C3'-C2'	5.60	1.61	1.52
1	AQ	74	ARG	NE-CZ	5.59	1.39	1.33
7	AB	40	LEU	CA-CB	5.59	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1233	G	C5'-C4'	5.59	1.59	1.51
40	BE	145	ARG	CD-NE	5.59	1.54	1.46
49	BQ	19	GLU	CA-C	-5.59	1.45	1.52
67	B1	850	C	O4'-C1'	5.59	1.50	1.41
21	A2	41	C	C3'-C2'	-5.59	1.44	1.52
21	A2	501	G	C4'-C3'	5.59	1.60	1.52
67	B1	131	C	O3'-P	-5.59	1.52	1.61
67	B1	3003	A	O4'-C1'	5.59	1.50	1.41
19	AS	54	VAL	CA-CB	5.59	1.61	1.54
21	A2	24	C	C2'-C1'	-5.59	1.45	1.53
21	A2	473	A	C5'-C4'	5.59	1.59	1.51
37	BU	94	PRO	CA-C	-5.59	1.46	1.52
40	BE	164	HIS	ND1-CE1	5.59	1.38	1.32
67	B1	1513	G	C2'-C1'	-5.59	1.45	1.53
25	AH	20	ARG	NE-CZ	5.59	1.39	1.33
67	B1	585	G	O5'-C5'	5.59	1.50	1.42
67	B1	2198	U	C5'-C4'	5.59	1.59	1.51
2	AK	132	LYS	CA-C	-5.59	1.45	1.52
46	BA	174	ASP	CA-CB	5.59	1.62	1.53
51	Bj	61	PRO	C-N	5.59	1.41	1.33
60	BS	93	LYS	CA-C	-5.59	1.45	1.52
67	B1	1049	U	O4'-C1'	-5.59	1.33	1.42
67	B1	1672	G	C3'-O3'	5.59	1.50	1.42
67	B1	2844	G	C5'-C4'	5.59	1.59	1.51
16	AJ	16	ARG	CZ-NH2	5.59	1.40	1.33
23	AT	13	LEU	CA-CB	5.59	1.62	1.53
24	AA	54	ASP	CA-C	-5.59	1.45	1.52
25	AH	109	LYS	C-N	5.59	1.41	1.33
52	BB	29	LYS	CA-C	-5.59	1.45	1.52
59	BM	10	ALA	N-CA	5.59	1.53	1.46
67	B1	2543	A	O4'-C1'	-5.59	1.33	1.42
67	B1	2863	A	C2'-C1'	-5.59	1.44	1.53
1	AQ	112	HIS	ND1-CE1	5.58	1.38	1.32
21	A2	322	G	C2'-C1'	-5.58	1.45	1.53
31	BY	63	THR	N-CA	-5.58	1.39	1.46
40	BE	69	GLY	C-N	5.58	1.40	1.33
42	BT	42	ALA	C-N	5.58	1.41	1.33
49	BQ	119	THR	C-N	5.58	1.40	1.33
54	BF	135	GLN	CA-CB	5.58	1.62	1.53
67	B1	1823	A	C5'-C4'	5.58	1.59	1.51
67	B1	1173	G	C5'-C4'	5.58	1.59	1.51
21	A2	508	C	C2'-C1'	-5.58	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
41	Ba	22	VAL	CA-C	-5.58	1.48	1.52
28	B6	87	LEU	N-CA	-5.58	1.39	1.46
67	B1	398	U	C4'-O4'	5.58	1.53	1.45
67	B1	1827	A	O4'-C1'	5.58	1.50	1.42
7	AB	188	PHE	C-N	5.58	1.42	1.33
21	A2	221	A	C3'-C2'	5.58	1.61	1.52
21	A2	692	G	O3'-P	-5.58	1.52	1.61
21	A2	1199	A	C4'-O4'	-5.58	1.37	1.45
22	AY	7	LEU	CA-CB	5.58	1.62	1.54
27	A0	1	G	O3'-P	-5.58	1.52	1.61
33	BC	237	TRP	C-N	5.58	1.41	1.33
67	B1	303	A	C2'-C1'	5.58	1.61	1.53
67	B1	1344	C	C2'-C1'	-5.58	1.45	1.53
67	B1	1816	C	C2'-C1'	-5.58	1.45	1.53
67	B1	2687	A	C4'-O4'	-5.58	1.37	1.45
21	A2	1161	A	O4'-C1'	5.58	1.50	1.42
46	BA	52	LEU	CA-C	-5.58	1.46	1.53
67	B1	927	G	O3'-P	-5.58	1.52	1.61
67	B1	1809	G	C2'-C1'	5.58	1.61	1.53
67	B1	2337	G	C3'-C2'	-5.58	1.44	1.52
7	AB	154	ILE	N-CA	-5.58	1.39	1.46
21	A2	838	C	O3'-P	-5.58	1.52	1.61
21	A2	854	C	C2'-C1'	-5.58	1.45	1.53
21	A2	1122	C	C2'-C1'	-5.58	1.45	1.53
44	BW	22	ARG	CZ-NH2	5.58	1.40	1.33
67	B1	1149	C	C2'-C1'	-5.58	1.45	1.53
21	A2	230	C	C5'-C4'	5.57	1.59	1.51
49	BQ	23	TRP	NE1-CE2	5.57	1.43	1.37
62	BN	49	LEU	C-N	5.57	1.40	1.33
67	B1	312	G	C2'-C1'	-5.57	1.45	1.53
21	A2	335	G	O3'-P	-5.57	1.52	1.61
21	A2	1019	A	C2'-C1'	-5.57	1.44	1.53
1	AQ	109	LEU	C-O	-5.57	1.17	1.24
21	A2	160	C	O4'-C1'	5.57	1.50	1.41
32	BO	115	SER	CA-C	-5.57	1.45	1.53
62	BN	67	GLN	N-CA	-5.57	1.39	1.46
65	BJ	112	VAL	C-O	-5.57	1.17	1.24
67	B1	91	G	C3'-O3'	5.57	1.51	1.43
67	B1	959	U	C2'-C1'	-5.57	1.45	1.53
67	B1	1163	U	C2'-O2'	-5.57	1.34	1.42
67	B1	2514	C	O5'-C5'	5.57	1.50	1.42
67	B1	2761	G	C5'-C4'	5.57	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	AI	70	ASN	C-N	5.57	1.40	1.33
21	A2	195	C	C4'-C3'	5.57	1.60	1.52
59	BM	8	ARG	NE-CZ	5.57	1.39	1.33
67	B1	2073	G	O4'-C1'	5.57	1.50	1.41
68	B3	37	U	C2'-C1'	5.57	1.61	1.53
10	AD	112	LYS	C-N	5.56	1.41	1.33
33	BC	79	ARG	NE-CZ	5.56	1.39	1.33
67	B1	75	G	C2'-C1'	-5.56	1.45	1.53
6	AC	63	ARG	CD-NE	5.56	1.54	1.46
27	A0	41	C	C2'-C1'	-5.56	1.45	1.53
32	BO	190	ALA	N-CA	5.56	1.53	1.46
51	Bj	35	ALA	N-CA	-5.56	1.39	1.46
60	BS	126	ARG	CZ-NH2	5.56	1.40	1.33
21	A2	1411	G	C2'-C1'	-5.56	1.45	1.53
67	B1	1201	G	P-O5'	-5.56	1.51	1.59
6	AC	50	ASN	CA-CB	5.56	1.58	1.53
21	A2	312	U	O5'-C5'	5.56	1.50	1.42
21	A2	865	A	C2'-C1'	5.56	1.61	1.53
46	BA	205	LYS	CA-C	-5.56	1.46	1.52
51	Bj	82	ARG	CD-NE	5.56	1.54	1.46
62	BN	10	ARG	C-O	-5.56	1.17	1.24
67	B1	811	C	C5'-C4'	5.56	1.59	1.51
67	B1	1932	G	O4'-C1'	5.56	1.50	1.41
67	B1	1990	U	O3'-P	-5.56	1.52	1.61
67	B1	2337	G	C5'-C4'	5.56	1.59	1.51
14	AM	120	PRO	C-N	5.56	1.39	1.33
25	AH	81	VAL	CA-C	-5.56	1.45	1.52
26	AP	20	ARG	NE-CZ	5.56	1.39	1.33
58	BP	62	ILE	CA-CB	-5.56	1.47	1.54
60	BS	152	GLU	CA-C	-5.56	1.45	1.52
67	B1	2255	C	O5'-C5'	5.56	1.50	1.42
7	AB	126	ALA	CA-C	-5.55	1.45	1.52
19	AS	52	GLY	CA-C	-5.55	1.46	1.52
56	BH	16	THR	C-O	5.55	1.26	1.23
58	BP	92	LYS	CA-CB	5.55	1.62	1.53
67	B1	940	G	O4'-C1'	5.55	1.50	1.42
16	AJ	111	THR	C-N	5.55	1.42	1.33
68	B3	91	G	O5'-C5'	5.55	1.50	1.42
15	AE	29	ALA	CA-C	-5.55	1.46	1.52
22	AY	35	GLY	C-N	5.55	1.41	1.33
25	AH	185	ALA	N-CA	-5.55	1.39	1.46
26	AP	49	LYS	CA-C	-5.55	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	BF	165	ARG	N-CA	-5.55	1.39	1.46
67	B1	24	G	O4'-C1'	5.55	1.50	1.41
67	B1	177	G	O4'-C1'	5.55	1.50	1.41
67	B1	555	G	O4'-C1'	-5.55	1.33	1.41
2	AK	60	VAL	N-CA	5.55	1.52	1.46
27	A0	30	G	O4'-C1'	5.55	1.50	1.41
47	BI	33	ALA	CA-CB	5.55	1.61	1.53
65	BJ	70	ARG	CA-C	-5.55	1.45	1.52
67	B1	1641	G	O4'-C1'	5.55	1.50	1.41
67	B1	1975	C	P-O5'	-5.55	1.51	1.59
34	B5	80	ILE	C-N	5.55	1.41	1.33
36	Bf	50	LYS	CA-C	-5.55	1.45	1.52
67	B1	779	A	C2'-C1'	5.55	1.61	1.53
67	B1	1611	C	P-O5'	-5.55	1.51	1.59
67	B1	1898	A	O4'-C1'	5.55	1.50	1.41
21	A2	103	A	C3'-C2'	5.55	1.61	1.52
39	Be	61	ALA	C-N	5.55	1.41	1.33
67	B1	830	G	C5'-C4'	5.55	1.59	1.51
67	B1	3012	C	O3'-P	-5.55	1.52	1.61
6	AC	111	ARG	CA-CB	5.54	1.62	1.53
11	A1	46	U	O5'-C5'	5.54	1.50	1.42
15	AE	162	TYR	CA-C	-5.54	1.46	1.52
21	A2	1153	G	O4'-C1'	5.54	1.50	1.41
58	BP	116	VAL	C-N	5.54	1.41	1.33
60	BS	146	ILE	CA-C	-5.54	1.45	1.52
15	AE	143	HIS	ND1-CE1	5.54	1.38	1.32
21	A2	1052	U	C5'-C4'	5.54	1.59	1.51
25	AH	84	HIS	CA-C	5.54	1.59	1.52
31	BY	69	ARG	CD-NE	5.54	1.54	1.46
33	BC	314	TYR	N-CA	-5.54	1.39	1.46
47	BI	11	LEU	CA-C	-5.54	1.45	1.52
59	BM	65	ARG	NE-CZ	5.54	1.39	1.33
67	B1	248	C	O3'-P	-5.54	1.52	1.61
67	B1	1860	A	C2'-O2'	-5.54	1.34	1.42
67	B1	2887	C	C2'-C1'	-5.54	1.45	1.53
33	BC	239	ILE	N-CA	5.54	1.52	1.46
49	BQ	125	ILE	N-CA	-5.54	1.39	1.46
53	BD	195	LYS	N-CA	-5.54	1.39	1.45
67	B1	28	A	C3'-C2'	5.54	1.61	1.52
21	A2	398	C	C2'-C1'	-5.54	1.45	1.53
5	AW	48	THR	CA-CB	5.54	1.62	1.53
24	AA	97	ARG	C-N	5.54	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	BC	191	SER	C-N	5.54	1.40	1.33
42	BT	17	ILE	C-N	5.54	1.41	1.33
67	B1	773	U	C3'-O3'	5.54	1.50	1.42
67	B1	1304	G	C2'-C1'	-5.54	1.45	1.53
5	AW	27	VAL	C-N	5.54	1.41	1.33
30	AU	62	VAL	C-O	-5.54	1.17	1.24
43	Bk	24	VAL	CA-C	-5.54	1.45	1.52
44	BW	30	GLY	N-CA	5.54	1.52	1.45
67	B1	2230	G	O4'-C1'	-5.54	1.33	1.41
15	AE	63	ARG	CD-NE	5.53	1.53	1.46
21	A2	613	C	C5'-C4'	5.53	1.59	1.51
31	BY	8	ARG	CA-CB	-5.53	1.46	1.53
43	Bk	42	ARG	CA-CB	5.53	1.61	1.53
20	BG	96	ALA	CA-C	-5.53	1.45	1.52
56	BH	70	VAL	CA-C	5.53	1.58	1.52
62	BN	136	ARG	CA-C	-5.53	1.45	1.52
66	Bl	49	ARG	CZ-NH1	5.53	1.40	1.32
67	B1	962	C	C2'-C1'	-5.53	1.45	1.53
67	B1	1892	G	C2'-C1'	5.53	1.61	1.53
11	A1	73	C	C2'-C1'	-5.53	1.45	1.53
67	B1	868	U	C3'-C2'	-5.53	1.44	1.52
10	AD	28	VAL	CA-C	-5.53	1.45	1.52
21	A2	796	C	C4'-C3'	5.53	1.60	1.52
21	A2	1029	G	C4'-C3'	5.53	1.60	1.52
38	Bb	70	LEU	CA-CB	5.53	1.61	1.53
42	BT	83	LEU	N-CA	-5.53	1.39	1.46
67	B1	110	A	O4'-C1'	5.53	1.50	1.41
67	B1	2573	C	C2'-C1'	5.53	1.61	1.53
59	BM	160	ARG	NE-CZ	5.53	1.39	1.33
67	B1	1857	A	O4'-C1'	-5.53	1.33	1.42
7	AB	83	PHE	C-O	-5.53	1.17	1.24
10	AD	26	GLU	N-CA	-5.53	1.39	1.46
21	A2	862	C	O5'-C5'	5.53	1.50	1.42
40	BE	150	VAL	CA-CB	-5.53	1.47	1.54
53	BD	238	ARG	CA-CB	5.53	1.60	1.53
56	BH	47	ALA	C-N	5.53	1.39	1.33
67	B1	36	G	C5'-C4'	5.53	1.59	1.51
67	B1	803	A	C2'-C1'	-5.53	1.44	1.53
67	B1	932	C	C2'-C1'	-5.53	1.45	1.53
67	B1	1174	U	P-O5'	-5.53	1.51	1.59
67	B1	1465	A	P-O5'	-5.53	1.51	1.59
67	B1	1471	G	O5'-C5'	5.53	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2973	A	O4'-C1'	-5.53	1.33	1.42
26	AP	32	ARG	CD-NE	5.53	1.53	1.46
40	BE	115	PHE	N-CA	-5.53	1.38	1.45
47	BI	136	LYS	CA-CB	5.53	1.61	1.53
67	B1	290	G	O4'-C1'	5.52	1.50	1.41
67	B1	2668	G	O4'-C1'	5.52	1.50	1.41
21	A2	795	G	O4'-C1'	5.52	1.50	1.41
27	A0	15	G	C2'-C1'	-5.52	1.45	1.53
53	BD	214	HIS	C-N	-5.52	1.27	1.33
54	BF	159	ARG	CD-NE	5.52	1.53	1.46
67	B1	1397	U	C2'-C1'	-5.52	1.45	1.53
67	B1	1685	C	C4'-O4'	5.52	1.53	1.45
32	BO	68	ILE	CA-CB	-5.52	1.48	1.54
21	A2	837	C	C2'-C1'	5.52	1.61	1.53
21	A2	1029	G	C3'-O3'	5.52	1.50	1.42
21	A2	1485	G	C2'-C1'	-5.52	1.45	1.53
38	Bb	8	ARG	C-N	5.52	1.41	1.33
47	BI	122	ARG	N-CA	-5.52	1.39	1.46
67	B1	788	A	O5'-C5'	5.52	1.51	1.42
67	B1	2168	C	O4'-C1'	5.52	1.50	1.41
67	B1	2944	G	C3'-O3'	5.52	1.50	1.42
8	AR	50	GLU	C-N	5.52	1.40	1.33
21	A2	622	C	C2'-C1'	5.52	1.61	1.53
53	BD	189	ARG	CA-CB	5.52	1.62	1.53
67	B1	111	U	C5'-C4'	5.52	1.59	1.51
67	B1	1292	C	O4'-C1'	5.52	1.50	1.41
8	AR	93	PRO	N-CA	5.52	1.53	1.47
21	A2	498	C	C2'-C1'	-5.52	1.45	1.53
21	A2	1459	G	C2'-C1'	-5.51	1.44	1.53
34	BK	80	ILE	C-N	5.51	1.41	1.33
67	B1	875	G	C2'-C1'	-5.51	1.45	1.53
67	B1	2513	C	C2'-C1'	-5.51	1.45	1.53
67	B1	2355	G	C2'-C1'	-5.51	1.45	1.53
8	AR	4	ASP	C-N	5.51	1.40	1.33
57	BZ	61	TYR	CA-C	-5.51	1.46	1.52
66	Bl	55	LYS	CA-C	-5.51	1.45	1.52
67	B1	468	A	O4'-C1'	5.51	1.50	1.41
67	B1	1561	G	P-O5'	5.51	1.68	1.59
67	B1	1672	G	C2'-C1'	-5.51	1.45	1.53
67	B1	2469	G	O4'-C1'	-5.51	1.33	1.41
11	A1	62	C	O5'-C5'	5.51	1.50	1.42
17	AO	33	ILE	CA-CB	5.51	1.60	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
17	AO	113	ARG	CD-NE	5.51	1.53	1.46
35	BL	12	ARG	N-CA	-5.51	1.39	1.46
47	BI	76	ARG	CA-C	5.51	1.59	1.52
65	BJ	137	ALA	C-O	-5.51	1.17	1.23
67	B1	522	A	O4'-C1'	5.51	1.50	1.41
67	B1	788	A	C4'-O4'	-5.51	1.37	1.45
67	B1	808	A	C2'-C1'	5.51	1.61	1.53
67	B1	819	U	C2'-C1'	5.51	1.61	1.53
67	B1	1048	C	C3'-O3'	5.51	1.50	1.42
67	B1	2369	G	O4'-C1'	5.51	1.50	1.41
67	B1	3006	G	C4'-C3'	5.51	1.60	1.52
21	A2	13	C	C3'-O3'	5.51	1.50	1.42
34	BK	45	ARG	CZ-NH1	5.51	1.40	1.32
67	B1	648	C	O4'-C1'	5.51	1.50	1.41
67	B1	2863	A	O4'-C1'	5.51	1.50	1.42
34	B5	37	GLY	C-N	5.51	1.40	1.33
48	BR	30	ARG	NE-CZ	5.51	1.39	1.33
54	BF	17	VAL	CA-CB	-5.51	1.47	1.54
67	B1	361	G	C4'-C3'	5.51	1.61	1.53
67	B1	1862	G	C2'-C1'	-5.51	1.45	1.53
67	B1	2634	U	O4'-C1'	5.51	1.50	1.42
21	A2	1409	G	O4'-C1'	-5.50	1.33	1.41
53	BD	145	VAL	CA-CB	-5.50	1.48	1.54
54	BF	128	VAL	C-O	-5.50	1.18	1.24
59	BM	100	ALA	C-N	5.50	1.41	1.33
24	AA	153	ASN	CA-C	-5.50	1.45	1.52
33	BC	41	PHE	C-O	-5.50	1.17	1.23
34	B5	62	ILE	N-CA	-5.50	1.41	1.46
67	B1	261	A	C2'-C1'	-5.50	1.45	1.53
67	B1	324	C	P-O5'	-5.50	1.51	1.59
67	B1	736	U	O4'-C1'	5.50	1.50	1.42
67	B1	1236	C	O4'-C1'	5.50	1.50	1.41
67	B1	1292	C	C2'-C1'	-5.50	1.45	1.53
67	B1	1925	A	O4'-C1'	5.50	1.50	1.42
67	B1	2950	G	C5'-C4'	-5.50	1.43	1.51
67	B1	3016	G	C2'-C1'	-5.50	1.45	1.53
21	A2	779	G	P-O5'	-5.50	1.51	1.59
25	AH	143	GLY	CA-C	5.50	1.59	1.51
49	BQ	9	ARG	C-O	-5.50	1.17	1.24
67	B1	1489	G	O5'-C5'	5.50	1.50	1.42
38	Bb	94	ASP	CA-C	-5.50	1.45	1.52
52	BB	156	ARG	CD-NE	5.50	1.53	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1102	C	C4'-O4'	-5.50	1.37	1.45
67	B1	1769	G	O4'-C1'	5.50	1.49	1.41
67	B1	2909	G	O5'-C5'	5.50	1.50	1.42
46	BA	95	ARG	NE-CZ	5.50	1.39	1.33
34	BK	37	GLY	C-N	5.50	1.40	1.33
53	BD	15	GLU	CA-C	-5.50	1.45	1.52
67	B1	1150	G	C2'-C1'	-5.50	1.45	1.53
14	AM	82	ARG	N-CA	-5.50	1.39	1.46
16	AJ	4	TRP	C-N	5.50	1.41	1.33
21	A2	84	C	O4'-C1'	5.50	1.49	1.41
21	A2	173	G	C3'-C2'	-5.50	1.44	1.52
21	A2	771	G	O4'-C1'	5.50	1.50	1.42
44	BW	19	ARG	NE-CZ	5.50	1.39	1.33
67	B1	1044	C	C2'-C1'	-5.50	1.45	1.53
67	B1	2173	U	C3'-C2'	-5.50	1.44	1.52
67	B1	2718	G	C2'-C1'	-5.50	1.45	1.53
67	B1	2988	A	O4'-C1'	-5.50	1.33	1.41
25	AH	88	ARG	CD-NE	5.50	1.53	1.46
7	AB	188	PHE	N-CA	-5.49	1.38	1.45
21	A2	94	C	O3'-P	5.49	1.69	1.61
21	A2	452	G	O4'-C1'	5.49	1.49	1.41
21	A2	1328	G	O4'-C1'	-5.49	1.33	1.41
21	A2	1395	G	C2'-C1'	-5.49	1.45	1.53
33	BC	192	VAL	CA-C	-5.49	1.45	1.52
37	BU	120	ALA	CA-C	5.49	1.59	1.52
60	BS	45	ASN	C-N	5.49	1.41	1.33
67	B1	623	G	C2'-C1'	-5.49	1.44	1.53
67	B1	1921	U	O3'-P	-5.49	1.52	1.61
67	B1	2665	G	C2'-C1'	5.49	1.61	1.53
21	A2	1251	C	O3'-P	-5.49	1.52	1.61
67	B1	1831	C	C3'-O3'	5.49	1.50	1.42
67	B1	1968	A	C2'-C1'	5.49	1.61	1.53
17	AO	58	GLN	C-N	5.49	1.40	1.33
52	BB	226	LYS	N-CA	-5.49	1.39	1.46
67	B1	1109	G	C4'-O4'	-5.49	1.37	1.45
67	B1	2769	U	C2'-C1'	-5.49	1.45	1.53
67	B1	2789	G	C2'-C1'	-5.49	1.45	1.53
5	AW	30	HIS	CA-CB	5.49	1.60	1.52
24	AA	159	LEU	CA-CB	5.49	1.61	1.53
30	AU	39	ARG	NE-CZ	5.49	1.39	1.33
38	Bb	15	ARG	CA-CB	5.49	1.61	1.53
40	BE	150	VAL	C-N	5.49	1.41	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	294	U	O4'-C1'	5.49	1.49	1.41
67	B1	678	G	C2'-C1'	-5.49	1.44	1.53
67	B1	3003	A	C2'-C1'	5.49	1.61	1.53
15	AE	66	LEU	C-N	5.49	1.41	1.33
21	A2	206	C	O4'-C1'	5.49	1.49	1.41
1	AQ	31	GLU	N-CA	5.49	1.52	1.46
12	AN	34	VAL	N-CA	-5.49	1.40	1.46
21	A2	1477	U	O3'-P	5.49	1.69	1.61
43	Bk	131	LEU	CA-C	-5.49	1.46	1.52
59	BM	47	ARG	NE-CZ	5.49	1.39	1.33
21	A2	1148	G	P-O5'	-5.48	1.51	1.59
25	AH	145	ARG	NE-CZ	5.48	1.39	1.33
67	B1	800	G	C3'-C2'	-5.48	1.44	1.52
67	B1	1962	G	O3'-P	-5.48	1.52	1.61
67	B1	2779	G	O4'-C1'	-5.48	1.33	1.41
11	A1	59	A	O4'-C1'	-5.48	1.33	1.41
21	A2	710	G	C3'-O3'	5.48	1.50	1.42
21	A2	739	G	C4'-O4'	-5.48	1.37	1.45
25	AH	193	ASN	CA-C	5.48	1.60	1.52
34	BK	11	VAL	CA-C	-5.48	1.47	1.52
59	BM	141	LYS	CA-C	-5.48	1.45	1.52
21	A2	388	G	C2'-C1'	-5.48	1.45	1.53
21	A2	864	G	C4'-O4'	-5.48	1.37	1.45
27	A0	18	G	C2'-C1'	5.48	1.61	1.53
32	BO	71	PHE	CG-CD1	5.48	1.50	1.38
32	BO	104	LEU	CA-C	-5.48	1.45	1.52
33	BC	37	ARG	NE-CZ	5.48	1.39	1.33
58	BP	3	ARG	CA-C	-5.48	1.45	1.52
67	B1	501	C	C4'-C3'	5.48	1.60	1.52
67	B1	1478	G	C3'-O3'	5.48	1.50	1.42
67	B1	2739	G	C4'-O4'	5.48	1.53	1.45
20	A3	30	GLY	C-N	5.48	1.41	1.33
67	B1	289	G	C2'-C1'	-5.48	1.45	1.53
67	B1	2221	A	O4'-C1'	5.48	1.49	1.41
10	AD	35	LEU	CA-C	-5.48	1.45	1.52
21	A2	59	C	C5'-C4'	5.48	1.59	1.51
33	BC	9	ARG	CA-C	-5.48	1.46	1.52
67	B1	111	U	O4'-C1'	-5.48	1.33	1.41
67	B1	214	C	C2'-C1'	5.48	1.61	1.53
67	B1	1379	A	O5'-C5'	5.48	1.51	1.42
67	B1	1510	U	O3'-P	-5.48	1.52	1.61
68	B3	32	C	C4'-O4'	-5.48	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	AG	70	ASP	N-CA	-5.48	1.38	1.46
6	AC	83	GLU	CA-CB	5.48	1.62	1.53
28	AV	89	ARG	CD-NE	5.48	1.53	1.46
46	BA	158	LYS	CA-C	-5.48	1.45	1.52
52	BB	234	ARG	CZ-NH2	5.48	1.40	1.33
67	B1	1944	C	C2'-C1'	5.48	1.61	1.53
67	B1	766	G	C4'-O4'	5.47	1.53	1.45
67	B1	1774	A	O4'-C1'	-5.47	1.33	1.42
3	AI	72	ALA	CA-C	-5.47	1.46	1.52
7	AB	18	HIS	CA-CB	5.47	1.61	1.53
14	AM	41	ARG	CA-C	-5.47	1.46	1.52
33	BC	273	GLN	CA-C	-5.47	1.45	1.52
52	BB	176	GLY	CA-C	-5.47	1.46	1.52
67	B1	1214	C	C3'-C2'	5.47	1.60	1.52
67	B1	1578	C	O4'-C1'	5.47	1.49	1.41
67	B1	2272	G	C3'-O3'	5.47	1.50	1.42
67	B1	2810	G	O4'-C1'	-5.47	1.33	1.41
8	AR	49	VAL	CA-C	-5.47	1.46	1.52
64	Bc	65	GLY	CA-C	-5.47	1.44	1.51
67	B1	1463	C	O4'-C1'	5.47	1.50	1.42
67	B1	1582	G	C2'-C1'	-5.47	1.45	1.53
21	A2	1291	G	O4'-C1'	-5.47	1.33	1.41
48	BR	23	ARG	NE-CZ	5.47	1.39	1.33
49	BQ	8	ARG	CZ-NH1	5.47	1.40	1.32
58	BP	42	ARG	CZ-NH1	5.47	1.40	1.32
67	B1	322	C	O4'-C1'	5.47	1.49	1.41
11	A1	16	C	O4'-C1'	5.47	1.49	1.41
12	AN	24	ARG	CZ-NH2	5.47	1.40	1.33
18	AF	11	ARG	N-CA	5.47	1.52	1.46
21	A2	4	C	C5'-C4'	5.47	1.59	1.51
32	BO	60	VAL	CA-C	-5.47	1.46	1.52
34	B5	11	VAL	CA-C	-5.47	1.47	1.52
62	BN	109	GLY	CA-C	-5.47	1.42	1.52
67	B1	1704	C	O4'-C1'	5.47	1.49	1.41
67	B1	2692	A	C2'-C1'	-5.47	1.45	1.53
21	A2	1143	G	O5'-C5'	5.47	1.50	1.42
67	B1	750	C	O3'-P	-5.47	1.52	1.61
67	B1	885	A	C3'-C2'	-5.47	1.44	1.52
67	B1	2281	A	C5'-C4'	5.47	1.59	1.51
67	B1	2690	U	O4'-C1'	5.47	1.49	1.41
32	BO	8	ARG	CA-CB	5.46	1.62	1.53
67	B1	1172	U	C5'-C4'	5.46	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1269	U	O4'-C1'	5.46	1.50	1.42
67	B1	1569	A	C2'-C1'	5.46	1.61	1.53
67	B1	2756	G	C2'-C1'	-5.46	1.45	1.53
67	B1	2835	A	C4'-C3'	5.46	1.60	1.52
1	AQ	19	ARG	CA-CB	5.46	1.62	1.53
6	AC	67	ARG	CD-NE	5.46	1.53	1.46
65	BJ	58	VAL	C-N	-5.46	1.25	1.33
21	A2	74	U	O4'-C1'	5.46	1.49	1.41
35	BL	127	ARG	NE-CZ	5.46	1.39	1.33
65	BJ	114	ARG	CA-C	-5.46	1.45	1.52
67	B1	20	C	O4'-C1'	5.46	1.49	1.41
67	B1	154	U	O4'-C1'	-5.46	1.33	1.41
67	B1	408	C	O3'-P	-5.46	1.52	1.61
67	B1	2399	C	C2'-C1'	-5.46	1.45	1.53
21	A2	1066	C	O3'-P	-5.46	1.52	1.61
21	A2	1405	C	C3'-C2'	5.46	1.60	1.52
21	A2	228	G	C5'-C4'	5.46	1.59	1.51
47	BI	56	ARG	NE-CZ	5.46	1.39	1.33
67	B1	1712	U	C2'-C1'	-5.46	1.45	1.53
67	B1	1854	G	C2'-C1'	5.46	1.61	1.53
67	B1	2270	G	O4'-C1'	-5.46	1.33	1.41
21	A2	921	G	C2'-C1'	-5.46	1.45	1.53
45	Bi	38	CYS	CA-C	-5.46	1.46	1.52
46	BA	44	ASN	C-N	5.46	1.41	1.33
48	BR	40	ARG	CA-C	-5.46	1.46	1.52
59	BM	107	LYS	CA-CB	5.46	1.61	1.53
67	B1	2167	C	C2'-C1'	-5.46	1.45	1.53
46	BA	200	LYS	CA-CB	5.46	1.61	1.53
67	B1	904	G	C5'-C4'	5.46	1.59	1.51
67	B1	989	G	C2'-C1'	-5.46	1.45	1.53
13	AX	57	LEU	N-CA	-5.45	1.39	1.46
17	AO	51	ALA	C-N	5.45	1.40	1.33
21	A2	1110	U	C4'-C3'	5.45	1.60	1.52
24	AA	187	LYS	CA-CB	5.45	1.62	1.53
31	BY	120	HIS	ND1-CE1	5.45	1.38	1.32
33	BC	15	SER	CA-C	-5.45	1.46	1.53
46	BA	190	GLY	C-N	5.45	1.41	1.33
53	BD	91	ARG	NE-CZ	5.45	1.39	1.33
54	BF	37	ARG	CZ-NH2	5.45	1.40	1.33
67	B1	244	A	O4'-C1'	5.45	1.49	1.41
67	B1	574	C	C2'-C1'	-5.45	1.45	1.53
67	B1	1072	U	C5'-C4'	5.45	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AK	16	ARG	CD-NE	5.45	1.53	1.46
41	Ba	50	ILE	CA-CB	-5.45	1.47	1.54
67	B1	722	C	O4'-C1'	5.45	1.49	1.41
7	AB	39	GLY	CA-C	-5.45	1.43	1.51
32	BO	89	LEU	N-CA	-5.45	1.39	1.46
61	Bd	11	ARG	CA-C	-5.45	1.45	1.52
67	B1	1567	C	O3'-P	-5.45	1.52	1.61
4	AG	45	ILE	C-N	5.45	1.41	1.33
21	A2	1141	G	O4'-C1'	-5.45	1.33	1.41
21	A2	1262	U	C4'-C3'	5.45	1.60	1.52
34	B5	64	ARG	NE-CZ	5.45	1.39	1.33
48	BR	26	PRO	CA-C	-5.45	1.47	1.52
34	BK	62	ILE	N-CA	-5.45	1.41	1.46
67	B1	1062	C	O4'-C1'	5.45	1.49	1.41
21	A2	1134	G	C5'-C4'	5.45	1.59	1.51
26	AP	34	GLN	C-N	5.45	1.40	1.33
67	B1	562	G	C3'-O3'	5.45	1.50	1.42
21	A2	384	G	C2'-C1'	-5.45	1.44	1.53
21	A2	474	G	O5'-C5'	5.45	1.50	1.42
41	Ba	10	ILE	N-CA	-5.45	1.39	1.46
67	B1	27	G	C4'-C3'	5.45	1.61	1.53
67	B1	248	C	C3'-O3'	5.45	1.50	1.42
67	B1	1207	G	C2'-C1'	5.45	1.61	1.53
1	AQ	130	ARG	CD-NE	5.44	1.53	1.46
1	AQ	142	LEU	CA-CB	5.44	1.61	1.53
5	AW	56	ALA	N-CA	-5.44	1.39	1.46
17	AO	72	HIS	ND1-CE1	5.44	1.38	1.32
20	A3	100	ALA	CA-C	5.44	1.58	1.52
67	B1	675	G	C2'-C1'	-5.44	1.45	1.53
12	AN	111	PRO	N-CA	5.44	1.54	1.47
33	BC	264	VAL	CA-C	-5.44	1.46	1.52
52	BB	191	THR	CA-CB	5.44	1.60	1.53
67	B1	1410	A	P-O5'	-5.44	1.51	1.59
67	B1	1706	G	C2'-C1'	5.44	1.61	1.53
67	B1	1790	G	C2'-C1'	-5.44	1.45	1.53
67	B1	1904	G	C2'-C1'	5.44	1.61	1.53
10	AD	70	ARG	CA-C	-5.44	1.45	1.52
15	AE	40	ARG	CD-NE	5.44	1.53	1.46
47	BI	55	LEU	C-N	5.44	1.41	1.33
59	BM	42	PRO	CA-CB	5.44	1.62	1.53
67	B1	278	C	C3'-O3'	-5.44	1.34	1.43
67	B1	1320	C	P-O5'	-5.44	1.51	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2825	A	O3'-P	-5.44	1.52	1.61
67	B1	2965	C	C3'-O3'	5.44	1.50	1.42
17	AO	19	LYS	C-N	5.44	1.41	1.33
20	A3	78	ILE	CB-CG1	5.44	1.64	1.53
67	B1	859	G	O4'-C1'	-5.44	1.33	1.41
67	B1	1765	A	C2'-C1'	-5.44	1.45	1.53
68	B3	46	G	C3'-O3'	-5.44	1.33	1.42
8	AR	13	ALA	C-N	5.44	1.40	1.33
25	AH	83	GLY	C-N	5.44	1.41	1.33
59	BM	31	ARG	CZ-NH1	5.44	1.40	1.32
62	BN	166	ASP	CA-CB	-5.44	1.46	1.53
65	BJ	48	GLY	CA-C	-5.44	1.45	1.52
67	B1	2713	A	C5'-C4'	5.44	1.59	1.51
20	A3	80	VAL	CA-C	-5.44	1.47	1.52
21	A2	186	U	C4'-C3'	5.44	1.60	1.52
33	BC	279	ARG	NE-CZ	5.44	1.39	1.33
49	BQ	50	ILE	C-N	5.44	1.41	1.33
53	BD	129	ALA	CA-CB	5.44	1.61	1.53
67	B1	1476	C	C2'-C1'	5.44	1.61	1.53
16	AJ	66	PHE	C-N	5.43	1.41	1.33
30	AU	83	ARG	NE-CZ	5.43	1.39	1.33
46	BA	32	VAL	C-N	5.43	1.41	1.33
67	B1	2382	A	P-O5'	-5.43	1.51	1.59
21	A2	1300	A	C2'-O2'	-5.43	1.34	1.42
30	AU	81	LYS	C-N	5.43	1.40	1.33
67	B1	1753	G	C4'-C3'	5.43	1.61	1.53
67	B1	2305	U	C3'-C2'	5.43	1.60	1.52
2	AK	121	ARG	NE-CZ	5.43	1.39	1.33
21	A2	590	G	C4'-C3'	5.43	1.60	1.52
21	A2	1034	G	O3'-P	-5.43	1.53	1.61
22	AY	30	PHE	CA-C	-5.43	1.46	1.52
67	B1	2182	A	C2'-O2'	-5.43	1.34	1.42
11	A1	76	C	O3'-P	5.43	1.69	1.61
13	AX	70	ARG	CA-C	-5.43	1.45	1.52
36	Bf	8	ALA	CA-C	-5.43	1.45	1.52
63	Bg	43	ALA	CA-C	-5.43	1.47	1.53
67	B1	224	G	O4'-C1'	5.43	1.49	1.41
67	B1	2871	A	P-O5'	-5.43	1.51	1.59
21	A2	406	U	O4'-C1'	5.43	1.49	1.41
21	A2	756	A	O4'-C1'	5.43	1.49	1.41
24	AA	126	MET	CA-C	-5.43	1.46	1.52
50	BV	5	ASN	CA-C	-5.43	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1495	A	O3'-P	-5.43	1.53	1.61
10	AD	56	ARG	NE-CZ	5.43	1.39	1.33
21	A2	297	G	O4'-C1'	-5.43	1.33	1.41
54	BF	62	ARG	NE-CZ	5.43	1.39	1.33
28	B6	4	ARG	CZ-NH1	5.43	1.40	1.32
58	BP	38	GLU	N-CA	-5.43	1.39	1.46
67	B1	1585	U	C4'-O4'	5.43	1.53	1.45
67	B1	2152	G	C5'-C4'	5.43	1.59	1.51
67	B1	2816	C	C4'-C3'	5.43	1.60	1.52
10	AD	79	ARG	NE-CZ	5.42	1.39	1.33
21	A2	207	G	O5'-C5'	5.42	1.50	1.42
21	A2	862	C	C2'-C1'	-5.42	1.45	1.53
23	AT	97	GLU	C-N	5.42	1.41	1.33
33	BC	206	GLU	N-CA	-5.42	1.39	1.46
35	BL	74	ARG	NE-CZ	5.42	1.39	1.33
35	BL	120	ARG	CD-NE	5.42	1.53	1.46
58	BP	65	PRO	N-CA	-5.42	1.40	1.47
60	BS	40	ARG	NE-CZ	5.42	1.39	1.33
67	B1	625	A	C3'-C2'	5.42	1.60	1.52
67	B1	1260	C	O4'-C1'	5.42	1.49	1.41
67	B1	2710	G	C4'-O4'	-5.42	1.37	1.45
11	A1	62	C	C3'-C2'	5.42	1.60	1.52
30	AU	70	ILE	CA-CB	5.42	1.60	1.54
40	BE	14	ASP	N-CA	-5.42	1.39	1.46
60	BS	15	LYS	C-N	5.42	1.43	1.34
67	B1	1956	G	C3'-O3'	-5.42	1.34	1.42
15	AE	61	GLU	CA-C	-5.42	1.46	1.52
30	AU	30	GLU	CA-C	-5.42	1.45	1.52
44	BW	7	ARG	CD-NE	5.42	1.53	1.46
34	BK	72	ARG	C-N	-5.42	1.27	1.33
59	BM	153	HIS	CA-C	-5.42	1.45	1.52
65	BJ	119	ARG	CZ-NH2	5.42	1.40	1.33
67	B1	109	G	C2'-C1'	5.42	1.61	1.53
67	B1	2642	C	P-O5'	-5.42	1.51	1.59
67	B1	2902	G	O4'-C1'	-5.42	1.33	1.41
63	Bg	34	CYS	C-O	-5.42	1.17	1.24
8	AR	51	ARG	CZ-NH2	5.42	1.40	1.33
21	A2	105	C	C2'-O2'	-5.42	1.33	1.41
21	A2	318	C	C2'-C1'	-5.42	1.45	1.53
21	A2	779	G	O4'-C1'	5.42	1.49	1.41
38	Bb	101	ARG	CD-NE	5.42	1.53	1.46
52	BB	131	VAL	CA-C	-5.42	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
28	B6	4	ARG	N-CA	-5.42	1.39	1.45
67	B1	2097	G	C5'-C4'	5.42	1.59	1.51
67	B1	2147	C	C3'-O3'	5.42	1.50	1.42
23	AT	82	TYR	CA-C	-5.42	1.46	1.52
46	BA	159	ASN	CA-C	-5.42	1.45	1.52
67	B1	2697	G	C2'-C1'	5.42	1.61	1.53
17	AO	113	ARG	NE-CZ	5.42	1.39	1.33
21	A2	1169	C	C4'-C3'	5.42	1.60	1.52
21	A2	281	G	O4'-C1'	5.41	1.49	1.41
33	BC	6	ARG	CZ-NH1	5.41	1.40	1.32
67	B1	200	G	C5'-C4'	5.41	1.59	1.51
21	A2	1006	C	C2'-C1'	5.41	1.61	1.53
67	B1	859	G	O3'-P	-5.41	1.53	1.61
21	A2	393	A	C3'-O3'	5.41	1.50	1.42
31	BY	21	ASP	N-CA	-5.41	1.39	1.46
6	AC	102	ALA	CA-C	-5.41	1.45	1.52
17	AO	132	ARG	CA-C	-5.41	1.45	1.52
21	A2	840	C	O4'-C1'	5.41	1.49	1.41
52	BB	226	LYS	CA-CB	5.41	1.62	1.53
60	BS	21	SER	CA-C	-5.41	1.46	1.52
64	Bc	26	PRO	N-CA	-5.41	1.40	1.46
67	B1	1694	G	O4'-C1'	5.41	1.49	1.41
67	B1	1746	C	C5'-C4'	5.41	1.59	1.51
67	B1	2195	G	O3'-P	-5.41	1.53	1.61
67	B1	2299	G	C5'-C4'	5.41	1.59	1.51
67	B1	2880	C	C2'-C1'	-5.41	1.45	1.53
21	A2	385	A	P-O5'	-5.41	1.51	1.59
27	A0	76	A	C4'-C3'	5.41	1.60	1.52
34	B5	72	ARG	C-N	-5.41	1.27	1.33
58	BP	3	ARG	CD-NE	5.41	1.53	1.46
63	Bg	11	ILE	CA-CB	-5.41	1.48	1.54
67	B1	123	A	C5'-C4'	5.41	1.59	1.51
1	AQ	33	ILE	C-O	-5.41	1.17	1.24
47	BI	88	ASP	CA-C	5.41	1.59	1.52
67	B1	1039	C	C5'-C4'	5.41	1.59	1.51
67	B1	1539	U	O4'-C1'	-5.41	1.33	1.41
67	B1	2859	U	O3'-P	-5.41	1.53	1.61
67	B1	3045	G	C2'-C1'	5.41	1.61	1.53
21	A2	748	A	O3'-P	-5.40	1.53	1.61
53	BD	96	LYS	C-N	5.40	1.39	1.34
67	B1	868	U	C5'-C4'	5.40	1.59	1.51
67	B1	2062	A	O3'-P	-5.40	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	106	A	O4'-C1'	5.40	1.49	1.41
21	A2	317	A	C2'-C1'	-5.40	1.45	1.53
21	A2	1103	G	O4'-C1'	5.40	1.49	1.41
67	B1	1568	A	C2'-C1'	5.40	1.61	1.53
67	B1	2232	U	O4'-C1'	-5.40	1.33	1.41
4	AG	19	VAL	N-CA	-5.40	1.40	1.46
7	AB	34	ARG	CZ-NH2	5.40	1.40	1.33
21	A2	124	C	C4'-C3'	5.40	1.60	1.52
31	BY	8	ARG	NE-CZ	5.40	1.39	1.33
51	Bj	25	VAL	CA-CB	-5.40	1.47	1.54
67	B1	2338	A	C2'-C1'	-5.40	1.45	1.53
67	B1	2603	A	O4'-C1'	5.40	1.49	1.41
24	AA	32	VAL	CA-CB	-5.40	1.48	1.54
31	BY	149	GLU	CA-C	-5.40	1.46	1.52
25	AH	51	HIS	N-CA	-5.40	1.38	1.45
52	BB	189	TRP	NE1-CE2	5.40	1.43	1.37
21	A2	1058	G	C4'-O4'	5.40	1.53	1.45
37	BU	73	ARG	CD-NE	5.39	1.53	1.46
67	B1	1076	G	P-O5'	-5.39	1.51	1.59
21	A2	1139	A	C4'-C3'	5.39	1.60	1.52
42	BT	25	LYS	CA-C	-5.39	1.46	1.52
47	BI	117	GLU	CA-C	-5.39	1.45	1.52
49	BQ	145	HIS	CG-ND1	5.39	1.44	1.38
54	BF	150	THR	CA-C	-5.39	1.45	1.52
56	BH	56	ILE	N-CA	-5.39	1.39	1.46
67	B1	900	C	C4'-C3'	5.39	1.60	1.52
67	B1	1641	G	C5'-C4'	5.39	1.59	1.51
67	B1	1851	U	C2'-C1'	5.39	1.61	1.53
52	BB	123	ARG	NE-CZ	5.39	1.39	1.33
67	B1	305	G	C2'-C1'	5.39	1.61	1.53
67	B1	2580	G	C2'-C1'	-5.39	1.45	1.53
67	B1	2914	U	C4'-C3'	5.39	1.60	1.52
15	AE	163	THR	CA-C	-5.39	1.46	1.52
15	AE	210	PRO	C-N	5.39	1.40	1.33
21	A2	135	U	O4'-C1'	5.39	1.49	1.41
21	A2	153	G	O4'-C1'	5.39	1.49	1.41
21	A2	180	G	C5'-C4'	5.39	1.59	1.51
21	A2	611	A	C2'-C1'	5.39	1.61	1.53
21	A2	990	G	C5'-C4'	5.39	1.59	1.51
35	BL	5	ARG	NE-CZ	5.39	1.39	1.33
40	BE	150	VAL	CA-C	5.39	1.59	1.52
67	B1	2375	C	C4'-C3'	5.39	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	221	A	O4'-C1'	5.39	1.49	1.41
21	A2	1359	C	C2'-C1'	-5.39	1.45	1.53
67	B1	1452	G	C4'-C3'	5.39	1.60	1.52
67	B1	2980	G	P-O5'	-5.39	1.51	1.59
33	BC	236	ARG	C-N	5.39	1.42	1.33
37	BU	41	VAL	CA-C	-5.39	1.45	1.52
67	B1	1636	C	O4'-C1'	5.39	1.49	1.41
67	B1	2414	G	C3'-O3'	5.39	1.50	1.42
67	B1	2609	G	C4'-C3'	-5.39	1.44	1.52
1	AQ	100	ARG	CZ-NH1	5.38	1.40	1.32
60	BS	146	ILE	C-N	5.38	1.40	1.33
21	A2	636	G	C3'-O3'	5.38	1.50	1.42
21	A2	1384	G	C4'-C3'	5.38	1.60	1.52
64	Bc	12	ARG	CD-NE	5.38	1.53	1.46
67	B1	403	G	C3'-O3'	5.38	1.50	1.42
67	B1	1482	G	C5'-C4'	5.38	1.59	1.51
67	B1	1795	C	C5'-C4'	5.38	1.59	1.51
8	AR	99	HIS	CB-CG	5.38	1.57	1.50
33	BC	6	ARG	CD-NE	5.38	1.53	1.46
38	Bb	24	LEU	C-N	5.38	1.41	1.33
67	B1	2359	G	C4'-C3'	-5.38	1.44	1.52
21	A2	78	G	C2'-C1'	-5.38	1.45	1.53
25	AH	111	ILE	N-CA	-5.38	1.40	1.46
40	BE	134	ILE	CA-CB	5.38	1.60	1.54
46	BA	103	LYS	CA-C	-5.38	1.47	1.52
34	BK	64	ARG	NE-CZ	5.38	1.39	1.33
67	B1	1111	G	C2'-C1'	-5.38	1.45	1.53
67	B1	1327	C	C5'-C4'	5.38	1.59	1.51
67	B1	1578	C	C4'-C3'	-5.38	1.44	1.52
67	B1	2114	C	C4'-C3'	5.38	1.60	1.52
3	AI	61	TYR	CA-C	-5.38	1.46	1.52
21	A2	1397	C	C3'-O3'	5.38	1.50	1.42
46	BA	119	ARG	CZ-NH2	5.38	1.40	1.33
67	B1	2506	G	C4'-C3'	5.38	1.60	1.52
18	AF	8	TYR	CA-CB	5.38	1.61	1.53
23	AT	93	GLU	CA-C	-5.38	1.46	1.52
67	B1	2403	G	O4'-C1'	5.38	1.49	1.41
20	A3	19	ALA	N-CA	-5.37	1.39	1.46
27	A0	67	G	C4'-C3'	5.37	1.60	1.52
33	BC	131	ARG	C-O	-5.37	1.17	1.23
64	Bc	33	GLU	N-CA	-5.37	1.40	1.46
67	B1	58	G	C5'-C4'	-5.37	1.43	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	1001	C	C5'-C4'	5.37	1.59	1.51
67	B1	2982	G	O3'-P	5.37	1.69	1.61
2	AK	44	THR	CA-CB	5.37	1.61	1.53
12	AN	30	TYR	CA-CB	-5.37	1.44	1.53
17	AO	89	ARG	C-O	-5.37	1.17	1.24
19	AS	43	SER	CA-CB	5.37	1.62	1.53
21	A2	1196	A	C2'-C1'	-5.37	1.45	1.53
30	AU	114	VAL	C-N	5.37	1.40	1.34
31	BY	69	ARG	NE-CZ	5.37	1.39	1.33
39	Be	2	GLY	C-N	5.37	1.41	1.33
53	BD	55	ARG	CZ-NH1	5.37	1.40	1.32
67	B1	27	G	C3'-C2'	-5.37	1.44	1.52
67	B1	2573	C	C4'-C3'	-5.37	1.45	1.53
67	B1	2941	A	C2'-C1'	5.37	1.61	1.53
1	AQ	85	HIS	ND1-CE1	5.37	1.38	1.32
2	AK	100	MET	CA-CB	5.37	1.61	1.53
21	A2	758	U	C2'-C1'	-5.37	1.45	1.53
44	BW	25	LEU	CA-C	-5.37	1.45	1.52
67	B1	86	G	O4'-C1'	5.37	1.49	1.41
67	B1	165	G	C4'-O4'	-5.37	1.37	1.45
8	AR	112	ARG	C-N	5.37	1.40	1.33
21	A2	1119	U	O4'-C1'	5.37	1.50	1.42
24	AA	93	ARG	CA-CB	5.37	1.61	1.53
24	AA	145	ILE	CA-CB	-5.37	1.47	1.54
33	BC	71	THR	CA-C	-5.37	1.46	1.52
54	BF	26	VAL	C-N	5.37	1.41	1.33
66	Bl	30	GLU	C-N	5.37	1.41	1.34
67	B1	348	G	C5'-C4'	5.37	1.59	1.51
21	A2	278	A	C4'-C3'	5.37	1.60	1.52
67	B1	1643	A	C3'-C2'	5.37	1.61	1.52
37	BU	42	ARG	NE-CZ	5.37	1.39	1.33
40	BE	83	ARG	C-N	5.37	1.41	1.33
67	B1	1912	A	P-O5'	-5.37	1.51	1.59
6	AC	3	ILE	C-N	5.36	1.40	1.33
21	A2	767	U	C2'-C1'	5.36	1.61	1.53
10	AD	32	LYS	CA-C	-5.36	1.46	1.52
10	AD	99	ASP	C-N	5.36	1.40	1.34
20	A3	86	LEU	CA-C	-5.36	1.45	1.52
67	B1	1693	G	O4'-C1'	5.36	1.49	1.41
68	B3	19	G	O4'-C1'	5.36	1.49	1.41
8	AR	34	PHE	CA-C	-5.36	1.46	1.52
15	AE	192	ASN	CG-ND2	5.36	1.44	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1176	C	P-O5'	-5.36	1.51	1.59
30	AU	32	ALA	C-N	5.36	1.40	1.34
57	BZ	45	ILE	CA-CB	-5.36	1.47	1.54
67	B1	613	C	C3'-O3'	5.36	1.50	1.42
67	B1	757	C	O4'-C1'	5.36	1.49	1.41
67	B1	1771	C	C4'-O4'	-5.36	1.37	1.45
21	A2	104	A	O3'-P	5.36	1.69	1.61
21	A2	316	C	O4'-C1'	5.36	1.49	1.41
21	A2	1149	C	C5'-C4'	5.36	1.59	1.51
49	BQ	99	ILE	C-N	5.36	1.41	1.33
10	AD	168	ARG	CA-C	-5.36	1.45	1.52
21	A2	1289	G	C2'-C1'	5.36	1.61	1.53
28	AV	85	TYR	CA-C	-5.36	1.45	1.52
46	BA	17	ALA	N-CA	-5.36	1.39	1.46
65	BJ	52	ARG	CD-NE	5.36	1.53	1.46
67	B1	461	C	C4'-O4'	5.36	1.53	1.45
67	B1	795	G	C3'-O3'	5.36	1.50	1.42
67	B1	840	G	C3'-O3'	5.36	1.50	1.42
67	B1	1613	A	C2'-C1'	5.36	1.61	1.53
67	B1	1779	C	C4'-C3'	5.36	1.60	1.52
4	AG	66	GLY	C-N	5.36	1.41	1.33
41	Ba	73	LYS	CA-C	-5.36	1.46	1.52
56	BH	88	GLY	C-N	5.36	1.39	1.33
67	B1	1178	G	C4'-O4'	5.36	1.53	1.45
67	B1	1871	C	C2'-C1'	-5.36	1.45	1.53
21	A2	201	G	O3'-P	-5.35	1.53	1.61
21	A2	256	G	C2'-C1'	-5.35	1.45	1.53
21	A2	1189	G	O4'-C1'	5.35	1.49	1.41
24	AA	32	VAL	CA-C	-5.35	1.46	1.52
53	BD	190	ARG	CA-C	-5.35	1.46	1.52
58	BP	111	PRO	CA-C	-5.35	1.47	1.52
67	B1	1749	C	O4'-C1'	5.35	1.49	1.41
67	B1	1807	G	C2'-C1'	5.35	1.61	1.53
67	B1	1894	A	C2'-C1'	5.35	1.61	1.53
67	B1	2291	G	O4'-C1'	5.35	1.49	1.41
67	B1	2419	U	O5'-C5'	5.35	1.50	1.42
30	AU	27	LYS	N-CA	-5.35	1.40	1.46
53	BD	135	ASP	N-CA	-5.35	1.40	1.46
60	BS	139	PHE	N-CA	-5.35	1.40	1.46
27	A0	60	U	C4'-C3'	5.35	1.61	1.53
47	BI	140	GLY	N-CA	5.35	1.50	1.45
58	BP	64	VAL	CA-CB	-5.35	1.49	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	425	U	O5'-C5'	5.35	1.50	1.42
67	B1	1279	U	C2'-C1'	5.35	1.61	1.53
67	B1	1306	A	O4'-C1'	5.35	1.49	1.41
67	B1	2728	U	C2'-C1'	-5.35	1.45	1.53
67	B1	3016	G	C3'-C2'	5.35	1.60	1.52
8	AR	8	ARG	CA-C	5.35	1.59	1.53
11	A1	3	G	C3'-O3'	5.35	1.50	1.42
32	BO	92	TYR	CA-C	-5.35	1.45	1.52
57	BZ	43	LYS	CA-CB	5.35	1.61	1.53
62	BN	131	LYS	N-CA	-5.35	1.39	1.46
20	B4	122	MET	C-N	5.35	1.40	1.33
67	B1	62	C	O4'-C1'	5.35	1.49	1.41
67	B1	563	A	C2'-C1'	-5.35	1.45	1.53
67	B1	2443	G	C2'-C1'	-5.35	1.45	1.53
19	AS	46	ILE	C-O	-5.35	1.17	1.24
40	BE	50	GLN	CA-C	-5.35	1.45	1.52
67	B1	1524	A	O4'-C1'	-5.35	1.33	1.42
7	AB	77	GLN	N-CA	-5.34	1.39	1.46
21	A2	939	C	C2'-C1'	-5.34	1.45	1.53
21	A2	1203	G	C5'-C4'	5.34	1.59	1.51
21	A2	1435	G	C5'-C4'	5.34	1.59	1.51
33	BC	353	ARG	CZ-NH1	5.34	1.40	1.32
62	BN	119	PRO	CA-C	5.34	1.58	1.52
67	B1	2480	G	O3'-P	-5.34	1.53	1.61
67	B1	2939	C	C5'-C4'	5.34	1.59	1.51
21	A2	285	C	C2'-C1'	-5.34	1.45	1.53
21	A2	667	G	C4'-O4'	5.34	1.53	1.45
41	Ba	22	VAL	N-CA	-5.34	1.42	1.46
59	BM	139	VAL	C-N	5.34	1.40	1.33
67	B1	1772	A	O3'-P	-5.34	1.53	1.61
2	AK	42	ARG	CZ-NH2	5.34	1.40	1.33
8	AR	49	VAL	CA-CB	5.34	1.61	1.54
21	A2	1261	U	O4'-C1'	5.34	1.50	1.42
25	AH	215	ARG	CZ-NH2	5.34	1.40	1.33
30	AU	110	PHE	C-N	5.34	1.42	1.33
31	BY	58	GLU	CA-C	-5.34	1.46	1.52
38	Bb	56	GLY	CA-C	-5.34	1.44	1.51
40	BE	112	ASN	C-N	5.34	1.40	1.33
49	BQ	94	LEU	C-N	5.34	1.41	1.33
61	Bd	26	PHE	CA-C	-5.34	1.45	1.52
67	B1	1	G	C5'-C4'	5.34	1.59	1.51
67	B1	2102	A	O4'-C1'	5.34	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2435	G	C2'-O2'	-5.34	1.34	1.42
33	BC	180	PRO	CA-C	-5.34	1.44	1.52
46	BA	31	ALA	CA-C	-5.34	1.46	1.52
53	BD	198	LEU	C-N	5.34	1.40	1.33
61	Bd	8	ARG	CA-CB	5.34	1.61	1.53
67	B1	1473	C	C4'-C3'	5.34	1.60	1.52
67	B1	1591	C	O4'-C1'	5.34	1.50	1.42
67	B1	1726	A	C4'-O4'	5.34	1.53	1.45
67	B1	2126	G	O4'-C1'	-5.34	1.33	1.41
19	AS	49	ARG	CD-NE	5.34	1.53	1.46
49	BQ	107	ARG	CD-NE	5.34	1.53	1.46
67	B1	314	A	C5'-C4'	5.34	1.59	1.51
67	B1	2950	G	C2'-C1'	5.34	1.61	1.53
67	B1	2293	G	C4'-C3'	5.33	1.61	1.53
21	A2	513	A	C3'-C2'	5.33	1.60	1.52
31	BY	26	LEU	CA-C	-5.33	1.45	1.52
43	Bk	48	ASN	N-CA	-5.33	1.39	1.46
59	BM	143	ASP	C-N	-5.33	1.29	1.33
67	B1	14	A	C2'-C1'	-5.33	1.45	1.53
67	B1	580	G	C2'-C1'	-5.33	1.45	1.53
67	B1	786	G	O4'-C1'	5.33	1.49	1.41
67	B1	3011	G	O4'-C1'	5.33	1.49	1.41
3	AI	78	ARG	N-CA	-5.33	1.39	1.46
6	AC	100	ALA	C-N	5.33	1.41	1.33
21	A2	714	G	C2'-C1'	5.33	1.61	1.53
27	A0	58	A	C3'-O3'	5.33	1.51	1.43
46	BA	115	PRO	N-CA	-5.33	1.40	1.47
48	BR	67	GLY	CA-C	-5.33	1.45	1.52
65	BJ	124	ARG	CZ-NH2	5.33	1.40	1.33
67	B1	1180	G	C4'-C3'	5.33	1.60	1.52
21	A2	249	U	O4'-C1'	5.33	1.49	1.41
23	AT	71	ILE	CA-CB	5.33	1.60	1.54
31	BY	30	ARG	NE-CZ	5.33	1.39	1.33
67	B1	1761	C	C2'-C1'	-5.33	1.45	1.53
21	A2	955	G	O5'-C5'	5.33	1.50	1.42
40	BE	115	PHE	C-N	5.33	1.41	1.33
56	BH	92	HIS	CA-C	-5.33	1.46	1.52
56	BH	109	MET	CA-C	-5.33	1.45	1.52
66	Bl	61	ARG	CZ-NH2	5.33	1.40	1.33
21	A2	330	U	C4'-C3'	5.33	1.60	1.52
21	A2	1091	C	O5'-C5'	5.33	1.50	1.42
21	A2	1396	C	C2'-C1'	-5.33	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	A0	2	C	C5'-C4'	5.33	1.59	1.51
45	Bi	40	VAL	N-CA	-5.33	1.40	1.46
49	BQ	75	HIS	CE1-NE2	-5.33	1.27	1.32
59	BM	63	ARG	CD-NE	5.33	1.53	1.46
67	B1	149	G	C3'-C2'	-5.33	1.44	1.52
67	B1	2536	A	C2'-C1'	-5.33	1.45	1.53
44	BW	48	ARG	CZ-NH1	5.33	1.40	1.32
44	BW	65	ARG	CZ-NH2	5.33	1.40	1.33
49	BQ	126	ARG	CZ-NH1	5.33	1.40	1.32
67	B1	640	C	C4'-C3'	5.33	1.60	1.52
67	B1	1284	C	O4'-C1'	5.33	1.49	1.41
67	B1	1479	U	O4'-C1'	5.33	1.49	1.41
67	B1	1565	G	P-OP2	5.33	1.59	1.49
68	B3	106	G	O3'-P	-5.33	1.53	1.61
20	A3	65	HIS	N-CA	-5.32	1.39	1.46
21	A2	300	G	O3'-P	-5.32	1.53	1.61
37	BU	47	ARG	NE-CZ	5.32	1.39	1.33
40	BE	59	ARG	CD-NE	5.32	1.53	1.46
64	Bc	68	ARG	CA-C	-5.32	1.46	1.52
67	B1	996	U	C4'-O4'	-5.32	1.37	1.45
67	B1	2350	G	C4'-O4'	-5.32	1.37	1.45
17	AO	132	ARG	CZ-NH2	5.32	1.40	1.33
21	A2	1057	A	C4'-C3'	5.32	1.60	1.52
33	BC	17	ARG	NE-CZ	5.32	1.39	1.33
62	BN	23	ILE	CA-CB	5.32	1.62	1.54
67	B1	914	U	C4'-C3'	5.32	1.60	1.52
67	B1	2027	G	C2'-C1'	-5.32	1.45	1.53
11	A1	6	G	O4'-C1'	5.32	1.49	1.41
22	AY	11	LYS	CA-C	-5.32	1.45	1.53
52	BB	141	VAL	N-CA	5.32	1.52	1.46
53	BD	130	ARG	CD-NE	5.32	1.53	1.46
10	AD	25	ARG	CZ-NH1	5.32	1.40	1.32
17	AO	44	GLY	N-CA	-5.32	1.37	1.45
41	Ba	32	VAL	N-CA	-5.32	1.39	1.46
52	BB	200	VAL	C-N	5.32	1.41	1.34
1	AQ	48	ALA	CA-C	-5.32	1.46	1.52
6	AC	16	LEU	CA-C	-5.32	1.46	1.52
12	AN	98	ASP	C-N	5.32	1.40	1.33
21	A2	236	C	C2'-C1'	5.32	1.61	1.53
31	BY	6	VAL	C-N	5.32	1.41	1.33
46	BA	123	ARG	CD-NE	5.32	1.53	1.46
67	B1	2261	C	C5'-C4'	5.32	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2380	A	P-O5'	-5.32	1.51	1.59
16	AJ	30	ARG	NE-CZ	5.32	1.38	1.33
17	AO	94	ILE	N-CA	-5.32	1.39	1.46
21	A2	10	G	C2'-C1'	-5.32	1.45	1.53
21	A2	118	U	O4'-C1'	5.32	1.49	1.41
21	A2	198	A	O4'-C1'	-5.32	1.33	1.41
21	A2	1302	C	C2'-C1'	5.32	1.61	1.53
46	BA	75	ARG	NE-CZ	5.32	1.38	1.33
46	BA	119	ARG	CZ-NH1	5.32	1.40	1.32
54	BF	140	GLU	N-CA	-5.32	1.39	1.45
61	Bd	27	GLU	N-CA	-5.32	1.39	1.45
67	B1	1354	G	O3'-P	-5.32	1.53	1.61
67	B1	1998	G	C2'-C1'	5.32	1.61	1.53
2	AK	60	VAL	C-N	5.31	1.40	1.33
21	A2	860	G	O4'-C1'	-5.31	1.33	1.41
67	B1	876	C	C4'-C3'	5.31	1.60	1.52
67	B1	1268	A	P-O5'	-5.31	1.51	1.59
67	B1	2846	A	O4'-C1'	-5.31	1.33	1.41
12	AN	33	ARG	CD-NE	5.31	1.53	1.46
21	A2	109	U	O4'-C1'	5.31	1.49	1.41
24	AA	12	LYS	CA-C	-5.31	1.45	1.52
33	BC	286	LEU	CB-CG	5.31	1.64	1.53
65	BJ	84	ARG	CA-C	-5.31	1.46	1.52
66	Bl	26	ARG	C-N	5.31	1.41	1.33
67	B1	1888	G	O4'-C1'	5.31	1.49	1.41
8	AR	51	ARG	C-N	5.31	1.41	1.33
32	BO	106	ILE	CA-CB	-5.31	1.48	1.54
33	BC	175	LYS	C-N	5.31	1.41	1.33
67	B1	1621	G	O4'-C1'	5.31	1.49	1.41
67	B1	1869	U	O4'-C1'	5.31	1.49	1.41
18	AF	15	GLU	CA-C	-5.31	1.47	1.53
33	BC	324	ILE	N-CA	-5.31	1.40	1.46
46	BA	49	GLU	CA-C	-5.31	1.46	1.52
57	BZ	35	ILE	N-CA	5.31	1.52	1.46
58	BP	97	GLY	N-CA	-5.31	1.38	1.45
67	B1	180	A	C4'-O4'	5.31	1.53	1.45
67	B1	1153	U	C3'-O3'	5.31	1.50	1.42
67	B1	2142	U	O4'-C1'	5.31	1.49	1.41
14	AM	38	THR	CA-CB	5.31	1.60	1.53
21	A2	656	U	C4'-C3'	5.31	1.60	1.52
21	A2	1032	A	C2'-C1'	5.31	1.61	1.53
21	A2	1038	C	C2'-C1'	-5.31	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	AI	13	HIS	ND1-CE1	5.30	1.37	1.32
14	AM	135	ARG	CZ-NH2	5.30	1.40	1.33
66	BI	23	LYS	CA-C	-5.30	1.46	1.52
67	B1	1874	G	C2'-C1'	-5.30	1.45	1.53
67	B1	2672	A	C2'-C1'	5.30	1.61	1.53
67	B1	2692	A	P-O5'	-5.30	1.51	1.59
10	AD	40	GLU	N-CA	-5.30	1.40	1.46
21	A2	602	G	C2'-C1'	5.30	1.61	1.53
21	A2	732	G	C2'-C1'	-5.30	1.45	1.53
30	AU	126	ARG	NE-CZ	5.30	1.38	1.33
33	BC	251	ARG	CZ-NH1	5.30	1.40	1.32
49	BQ	142	LEU	CA-C	-5.30	1.46	1.52
67	B1	687	C	C2'-C1'	-5.30	1.45	1.53
21	A2	342	G	C5'-C4'	5.30	1.59	1.51
23	AT	110	ARG	CD-NE	5.30	1.53	1.46
67	B1	647	G	O4'-C1'	5.30	1.49	1.41
67	B1	1431	U	P-O5'	5.30	1.67	1.59
67	B1	2217	C	C4'-C3'	5.30	1.60	1.52
67	B1	2826	U	O4'-C1'	5.30	1.50	1.42
6	AC	60	ARG	NE-CZ	5.30	1.38	1.33
21	A2	796	C	C2'-C1'	-5.30	1.45	1.53
21	A2	850	A	C5'-C4'	5.30	1.59	1.51
21	A2	1089	C	C4'-C3'	5.30	1.60	1.52
36	Bf	30	LYS	CA-C	-5.30	1.45	1.52
40	BE	17	ALA	CA-C	-5.30	1.45	1.52
67	B1	324	C	O4'-C1'	5.30	1.49	1.41
67	B1	2285	G	C2'-C1'	5.30	1.61	1.53
12	AN	78	ILE	C-N	5.30	1.41	1.33
49	BQ	18	GLY	C-N	5.30	1.40	1.33
2	AK	13	ALA	CA-CB	5.30	1.61	1.53
4	AG	103	ARG	CD-NE	5.30	1.53	1.46
61	Bd	47	PRO	N-CA	-5.30	1.40	1.47
67	B1	808	A	P-O5'	-5.30	1.51	1.59
4	AG	31	GLY	C-N	5.29	1.41	1.33
7	AB	201	ARG	NE-CZ	5.29	1.38	1.33
33	BC	164	ARG	CD-NE	5.29	1.53	1.46
38	Bb	123	ILE	CA-C	-5.29	1.46	1.52
19	AS	9	ILE	N-CA	-5.29	1.40	1.46
26	AP	12	ARG	CA-CB	5.29	1.62	1.53
48	BR	59	HIS	ND1-CE1	5.29	1.37	1.32
61	Bd	27	GLU	CA-C	-5.29	1.46	1.52
67	B1	2066	C	O5'-C5'	5.29	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
58	BP	22	SER	N-CA	-5.29	1.39	1.46
67	B1	642	G	O4'-C1'	-5.29	1.33	1.41
67	B1	1831	C	O4'-C1'	5.29	1.49	1.41
24	AA	39	ASP	CA-CB	5.29	1.61	1.53
62	BN	95	ARG	CA-C	5.29	1.59	1.52
16	AJ	96	THR	C-N	5.29	1.41	1.33
21	A2	50	C	P-O5'	-5.29	1.51	1.59
21	A2	878	U	O4'-C1'	5.29	1.49	1.41
65	BJ	101	ASP	N-CA	-5.29	1.40	1.46
27	A0	8	U	O4'-C1'	5.29	1.49	1.41
29	AL	29	ARG	C-N	5.29	1.41	1.33
67	B1	1530	A	C2'-C1'	5.29	1.60	1.53
67	B1	2089	C	O4'-C1'	5.29	1.49	1.41
67	B1	2948	A	O4'-C1'	5.29	1.49	1.41
11	A1	76	C	C2'-C1'	5.29	1.61	1.53
52	BB	150	ALA	N-CA	-5.29	1.39	1.46
60	BS	65	ARG	NE-CZ	5.29	1.38	1.33
64	Bc	21	VAL	C-N	5.29	1.41	1.33
67	B1	232	U	C2'-C1'	5.29	1.61	1.53
67	B1	1625	A	C2'-C1'	-5.29	1.45	1.53
21	A2	93	A	C4'-C3'	5.28	1.61	1.53
21	A2	1373	A	C5'-C4'	5.28	1.59	1.51
30	AU	119	ARG	C-N	5.28	1.40	1.33
52	BB	99	LEU	C-N	5.28	1.40	1.33
54	BF	23	GLY	CA-C	-5.28	1.44	1.51
67	B1	2280	G	C2'-C1'	5.28	1.61	1.53
6	AC	71	LYS	N-CA	-5.28	1.40	1.46
67	B1	591	G	O4'-C1'	5.28	1.49	1.41
67	B1	2215	U	C5'-C4'	5.28	1.59	1.51
68	B3	12	G	O4'-C1'	5.28	1.49	1.41
27	A0	62	C	C4'-C3'	-5.28	1.44	1.52
33	BC	57	GLU	CA-CB	5.28	1.61	1.53
35	BL	43	ASN	CA-C	-5.28	1.46	1.53
52	BB	193	ARG	NE-CZ	5.28	1.38	1.33
60	BS	101	ASN	CA-CB	5.28	1.61	1.53
61	Bd	12	ARG	CA-C	-5.28	1.46	1.52
67	B1	1157	U	O4'-C1'	5.28	1.49	1.41
67	B1	1207	G	C3'-O3'	5.28	1.50	1.42
67	B1	2494	A	C3'-C2'	-5.28	1.44	1.52
10	AD	119	ARG	CD-NE	5.28	1.53	1.46
38	Bb	101	ARG	NE-CZ	5.28	1.38	1.33
42	BT	36	LYS	CA-C	-5.28	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	B4	69	LEU	C-N	5.28	1.41	1.33
67	B1	1753	G	C2'-C1'	5.28	1.60	1.53
67	B1	2499	U	O4'-C1'	5.28	1.49	1.41
67	B1	2700	U	C2'-C1'	-5.28	1.45	1.53
5	AW	15	ARG	NE-CZ	5.28	1.38	1.33
6	AC	140	ARG	CZ-NH2	5.28	1.40	1.33
11	A1	14	A	C3'-C2'	5.28	1.60	1.52
21	A2	826	C	C4'-O4'	5.28	1.53	1.45
42	BT	45	GLU	N-CA	-5.28	1.40	1.46
48	BR	10	ARG	NE-CZ	5.28	1.38	1.33
65	BJ	112	VAL	CA-C	-5.28	1.48	1.52
67	B1	338	A	O4'-C1'	5.28	1.49	1.41
67	B1	1972	C	O4'-C1'	5.28	1.49	1.41
67	B1	2854	A	C5'-C4'	5.28	1.59	1.51
10	AD	94	SER	C-N	5.28	1.40	1.33
43	Bk	187	VAL	N-CA	-5.28	1.39	1.46
67	B1	755	G	C2'-C1'	5.28	1.61	1.53
67	B1	1629	G	P-O5'	-5.28	1.51	1.59
67	B1	1832	G	C2'-C1'	-5.28	1.45	1.53
8	AR	101	VAL	CA-C	-5.27	1.46	1.52
43	Bk	192	LEU	C-N	5.27	1.39	1.33
52	BB	139	VAL	C-N	5.27	1.41	1.33
67	B1	1334	G	O4'-C1'	5.27	1.49	1.41
33	BC	269	PRO	C-N	5.27	1.40	1.33
40	BE	59	ARG	NE-CZ	5.27	1.38	1.33
49	BQ	40	ASP	CA-CB	5.27	1.61	1.53
67	B1	484	C	C4'-O4'	-5.27	1.37	1.45
67	B1	2022	U	C2'-C1'	5.27	1.61	1.53
33	BC	189	GLY	C-N	5.27	1.41	1.33
63	Bg	42	LYS	C-N	5.27	1.40	1.33
67	B1	1928	A	O4'-C1'	5.27	1.49	1.41
67	B1	2376	U	O3'-P	-5.27	1.53	1.61
21	A2	723	G	P-O5'	-5.27	1.51	1.59
34	B5	10	ALA	CA-C	-5.27	1.46	1.52
35	BL	3	ARG	N-CA	-5.27	1.39	1.46
67	B1	1281	A	O4'-C1'	-5.27	1.34	1.42
67	B1	1870	G	O5'-C5'	5.27	1.50	1.42
67	B1	2013	A	C2'-C1'	5.27	1.61	1.53
67	B1	2921	U	C4'-O4'	-5.27	1.37	1.45
68	B3	112	C	O4'-C1'	5.27	1.49	1.41
4	AG	75	ARG	CZ-NH2	5.27	1.40	1.33
28	B6	68	TYR	CA-C	-5.27	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	BN	83	HIS	CB-CG	5.27	1.57	1.50
67	B1	302	U	P-O5'	-5.27	1.51	1.59
1	AQ	119	MET	C-N	5.26	1.40	1.33
2	AK	6	THR	CA-C	-5.26	1.46	1.52
21	A2	315	A	C2'-C1'	5.26	1.61	1.53
58	BP	10	ASN	CA-CB	5.26	1.61	1.53
59	BM	137	HIS	CG-ND1	5.26	1.44	1.38
67	B1	2094	A	C5'-C4'	5.26	1.59	1.51
68	B3	114	G	P-O5'	-5.26	1.51	1.59
11	A1	53	G	C4'-C3'	5.26	1.60	1.52
53	BD	94	PRO	N-CD	-5.26	1.40	1.47
67	B1	702	G	C4'-O4'	-5.26	1.37	1.45
16	AJ	7	ARG	CA-CB	-5.26	1.46	1.53
67	B1	550	A	P-O5'	-5.26	1.51	1.59
67	B1	1818	G	C2'-C1'	-5.26	1.45	1.53
67	B1	2632	C	O3'-P	-5.26	1.53	1.61
13	AX	31	ILE	CA-CB	-5.26	1.47	1.54
15	AE	131	ARG	CZ-NH1	5.26	1.40	1.32
21	A2	27	C	P-O5'	-5.26	1.51	1.59
43	Bk	11	GLU	C-N	5.26	1.40	1.33
60	BS	82	ARG	NE-CZ	5.26	1.38	1.33
67	B1	647	G	O5'-C5'	5.26	1.50	1.42
67	B1	1845	C	C4'-O4'	5.26	1.53	1.45
21	A2	1392	G	C3'-O3'	-5.26	1.34	1.42
21	A2	1488	C	C2'-C1'	-5.26	1.45	1.53
28	AV	95	LYS	CA-C	-5.26	1.45	1.52
32	BO	157	LYS	CA-C	-5.26	1.45	1.52
51	Bj	68	ARG	C-N	5.26	1.40	1.33
67	B1	92	G	P-O5'	-5.26	1.51	1.59
6	AC	43	LYS	N-CA	-5.26	1.39	1.46
16	AJ	91	ARG	CZ-NH1	5.26	1.40	1.32
21	A2	823	A	C4'-C3'	5.26	1.60	1.52
33	BC	211	GLU	CA-C	-5.26	1.46	1.52
54	BF	172	ILE	N-CA	-5.26	1.40	1.46
65	BJ	90	ARG	NE-CZ	5.26	1.38	1.33
66	Bl	28	ILE	CA-C	-5.26	1.46	1.52
67	B1	2743	U	C2'-C1'	5.26	1.61	1.53
21	A2	104	A	C4'-C3'	5.25	1.60	1.52
67	B1	2638	G	C4'-O4'	-5.25	1.37	1.45
12	AN	67	SER	CA-C	-5.25	1.46	1.52
21	A2	646	U	O3'-P	-5.25	1.53	1.61
33	BC	283	ASN	C-N	5.25	1.40	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
34	BK	10	ALA	CA-C	-5.25	1.46	1.52
67	B1	96	C	C2'-C1'	-5.25	1.45	1.53
67	B1	1227	A	C2'-C1'	5.25	1.60	1.53
12	AN	22	LYS	CA-CB	5.25	1.61	1.53
21	A2	1311	C	C4'-C3'	5.25	1.60	1.52
30	AU	90	PHE	CA-C	5.25	1.59	1.52
47	BI	23	LEU	C-N	5.25	1.41	1.34
67	B1	1650	U	C3'-O3'	5.25	1.50	1.42
67	B1	2500	G	C3'-C2'	5.25	1.60	1.52
7	AB	15	ALA	C-N	5.25	1.40	1.33
15	AE	137	ARG	NE-CZ	5.25	1.38	1.33
48	BR	24	GLY	CA-C	-5.25	1.46	1.52
58	BP	109	ARG	NE-CZ	5.25	1.38	1.33
62	BN	22	TYR	N-CA	-5.25	1.39	1.46
8	AR	96	LYS	CA-C	5.25	1.59	1.52
13	AX	50	ARG	CZ-NH2	5.25	1.40	1.33
21	A2	781	U	C4'-O4'	5.25	1.53	1.45
21	A2	1309	A	O5'-C5'	5.25	1.50	1.42
46	BA	56	ARG	CD-NE	5.25	1.53	1.46
61	Bd	25	HIS	CA-C	-5.25	1.46	1.52
65	BJ	57	GLY	CA-C	-5.25	1.44	1.51
67	B1	2416	G	O3'-P	-5.25	1.53	1.61
67	B1	2996	A	C2'-C1'	-5.25	1.45	1.53
19	AS	61	LYS	CA-C	-5.25	1.45	1.52
21	A2	58	U	O4'-C1'	5.25	1.49	1.41
23	AT	7	ARG	NE-CZ	5.25	1.38	1.33
31	BY	132	ARG	CZ-NH1	5.25	1.40	1.32
33	BC	17	ARG	CD-NE	5.25	1.53	1.46
33	BC	226	LYS	CA-C	-5.25	1.46	1.52
39	Be	43	SER	CA-C	-5.25	1.46	1.52
67	B1	381	G	C4'-O4'	5.25	1.53	1.45
67	B1	711	C	C4'-O4'	-5.25	1.37	1.45
8	AR	11	PRO	CA-CB	-5.25	1.46	1.54
24	AA	70	VAL	CA-C	-5.25	1.47	1.53
67	B1	360	G	C3'-C2'	-5.25	1.44	1.52
67	B1	583	A	P-O5'	-5.25	1.51	1.59
67	B1	1676	G	C2'-O2'	-5.25	1.34	1.42
22	AY	37	ARG	CZ-NH1	5.24	1.40	1.32
30	AU	85	HIS	N-CA	-5.24	1.39	1.46
31	BY	8	ARG	N-CA	-5.24	1.40	1.46
59	BM	69	GLY	CA-C	-5.24	1.47	1.52
67	B1	992	G	C3'-C2'	-5.24	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2408	G	C2'-C1'	-5.24	1.45	1.53
47	BI	27	GLU	CA-C	-5.24	1.46	1.52
56	BH	19	PRO	CA-C	5.24	1.57	1.52
67	B1	1188	C	C4'-O4'	5.24	1.53	1.45
67	B1	1722	G	C5'-C4'	5.24	1.59	1.51
7	AB	18	HIS	ND1-CE1	5.24	1.37	1.32
11	A1	40	U	O4'-C1'	5.24	1.49	1.41
21	A2	528	G	C2'-C1'	-5.24	1.45	1.53
67	B1	972	C	P-O5'	-5.24	1.51	1.59
67	B1	2579	G	P-O5'	-5.24	1.51	1.59
15	AE	134	LYS	C-N	5.24	1.40	1.33
21	A2	1187	A	O4'-C1'	5.24	1.49	1.41
49	BQ	116	ASP	CA-CB	5.24	1.61	1.53
54	BF	91	LYS	C-N	5.24	1.40	1.33
67	B1	2126	G	P-O5'	-5.24	1.51	1.59
68	B3	72	G	O3'-P	-5.24	1.53	1.61
2	AK	89	TRP	C-N	5.24	1.41	1.33
16	AJ	32	PRO	CA-CB	5.24	1.61	1.53
21	A2	900	G	C2'-C1'	-5.24	1.45	1.53
37	BU	36	ARG	NE-CZ	5.24	1.38	1.33
68	B3	11	A	C5'-C4'	5.24	1.59	1.51
3	AI	106	THR	N-CA	-5.24	1.38	1.46
31	BY	14	ASN	CA-C	-5.24	1.45	1.52
34	B5	60	ILE	CA-C	-5.24	1.48	1.52
40	BE	57	ILE	N-CA	-5.24	1.40	1.46
58	BP	13	ARG	CA-CB	5.24	1.61	1.53
67	B1	1011	A	P-O5'	-5.24	1.51	1.59
67	B1	1728	C	O3'-P	-5.24	1.53	1.61
13	AX	30	ARG	CD-NE	5.23	1.53	1.46
20	A3	8	LYS	C-N	5.23	1.40	1.33
48	BR	69	ARG	NE-CZ	5.23	1.38	1.33
67	B1	52	A	C2'-C1'	-5.23	1.45	1.53
21	A2	780	C	C5'-C4'	5.23	1.59	1.51
21	A2	1351	U	P-O5'	-5.23	1.51	1.59
40	BE	88	TYR	CA-C	-5.23	1.46	1.52
62	BN	136	ARG	CA-CB	5.23	1.65	1.53
67	B1	1417	U	C3'-C2'	5.23	1.60	1.52
67	B1	2262	C	C2'-C1'	-5.23	1.45	1.53
67	B1	2885	C	C2'-C1'	-5.23	1.45	1.53
21	A2	887	G	C2'-C1'	-5.23	1.45	1.53
67	B1	409	C	C4'-O4'	5.23	1.53	1.45
67	B1	1842	C	C2'-C1'	-5.23	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2817	U	C4'-O4'	5.23	1.53	1.45
67	B1	2961	A	C2'-C1'	5.23	1.61	1.53
58	BP	79	ILE	C-N	5.23	1.40	1.33
67	B1	1655	G	C5'-C4'	5.23	1.59	1.51
68	B3	28	C	O4'-C1'	5.23	1.49	1.41
7	AB	33	TYR	CG-CD1	5.23	1.50	1.39
21	A2	102	U	C3'-O3'	5.23	1.50	1.42
30	AU	139	GLU	C-N	5.23	1.40	1.33
61	Bd	9	SER	CA-C	-5.23	1.45	1.52
62	BN	32	THR	C-N	5.23	1.40	1.33
21	A2	484	U	O4'-C1'	5.23	1.49	1.42
28	AV	62	SER	C-N	5.23	1.41	1.33
30	AU	141	GLU	C-N	5.23	1.41	1.33
67	B1	209	G	O4'-C1'	5.23	1.49	1.41
12	AN	13	GLY	CA-C	-5.22	1.45	1.51
21	A2	1277	C	C2'-C1'	-5.22	1.45	1.53
24	AA	45	ASN	CA-CB	5.22	1.62	1.53
26	AP	53	ARG	N-CA	-5.22	1.39	1.45
27	A0	10	G	C4'-O4'	-5.22	1.37	1.45
67	B1	181	U	O4'-C1'	-5.22	1.33	1.41
62	BN	151	ARG	CA-C	-5.22	1.45	1.52
67	B1	38	U	C2'-C1'	-5.22	1.45	1.53
67	B1	943	G	C2'-O2'	5.22	1.50	1.42
67	B1	1151	G	C2'-C1'	-5.22	1.45	1.53
67	B1	1837	A	C3'-C2'	5.22	1.60	1.52
67	B1	2575	U	O4'-C1'	5.22	1.49	1.41
13	AX	48	PRO	CA-CB	-5.22	1.46	1.53
21	A2	1088	U	C4'-O4'	5.22	1.53	1.45
62	BN	139	ARG	CZ-NH2	5.22	1.40	1.33
67	B1	708	A	O4'-C1'	5.22	1.49	1.41
67	B1	1288	C	C2'-C1'	-5.22	1.45	1.53
67	B1	1373	C	O4'-C1'	5.22	1.49	1.41
3	AI	86	PHE	CA-C	-5.22	1.46	1.52
67	B1	443	C	C2'-C1'	-5.22	1.45	1.53
67	B1	2614	C	C3'-C2'	-5.22	1.45	1.52
67	B1	2872	G	P-O5'	-5.22	1.51	1.59
6	AC	141	ALA	N-CA	-5.22	1.39	1.46
21	A2	412	U	C5'-C4'	5.22	1.59	1.51
21	A2	822	A	C5'-C4'	5.22	1.59	1.51
31	BY	117	PHE	N-CA	-5.22	1.39	1.46
33	BC	304	GLU	N-CA	-5.22	1.39	1.46
39	Be	20	CYS	CA-C	-5.22	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	312	G	O4'-C1'	5.22	1.49	1.41
67	B1	2621	U	C4'-C3'	5.22	1.60	1.52
1	AQ	43	GLU	CA-CB	5.21	1.61	1.53
15	AE	8	ARG	NE-CZ	5.21	1.38	1.33
15	AE	43	ILE	CA-C	-5.21	1.48	1.52
20	A3	45	ARG	NE-CZ	5.21	1.38	1.33
53	BD	230	LEU	CA-CB	5.21	1.61	1.53
65	BJ	13	SER	CA-C	-5.21	1.49	1.52
67	B1	1687	C	O4'-C1'	5.21	1.49	1.41
10	AD	119	ARG	CA-C	5.21	1.59	1.52
15	AE	126	ARG	CZ-NH1	5.21	1.40	1.32
21	A2	832	G	O5'-C5'	5.21	1.50	1.42
21	A2	853	G	C2'-C1'	-5.21	1.45	1.53
33	BC	348	LYS	C-N	5.21	1.39	1.33
48	BR	89	HIS	ND1-CE1	5.21	1.37	1.32
57	BZ	94	LEU	C-O	-5.21	1.17	1.24
28	B6	52	VAL	C-N	5.21	1.40	1.33
67	B1	495	U	C2'-C1'	-5.21	1.45	1.53
6	AC	61	ARG	NE-CZ	5.21	1.38	1.33
10	AD	168	ARG	NE-CZ	5.21	1.38	1.33
15	AE	198	ARG	CZ-NH1	5.21	1.40	1.32
21	A2	687	G	O4'-C1'	5.21	1.49	1.42
21	A2	1072	C	C3'-O3'	5.21	1.50	1.42
67	B1	693	G	C2'-C1'	5.21	1.61	1.53
11	A1	34	U	C2'-C1'	5.21	1.61	1.53
38	Bb	129	ARG	NE-CZ	5.21	1.38	1.33
46	BA	157	LEU	C-N	5.21	1.40	1.33
47	BI	62	ARG	CZ-NH2	5.21	1.40	1.33
52	BB	122	VAL	CA-C	-5.21	1.46	1.52
53	BD	235	HIS	CE1-NE2	-5.21	1.27	1.32
67	B1	199	C	C2'-C1'	-5.21	1.45	1.53
67	B1	2598	C	C5'-C4'	5.21	1.59	1.51
15	AE	50	ARG	CA-C	-5.21	1.45	1.52
21	A2	805	C	C3'-O3'	5.21	1.50	1.42
26	AP	9	ARG	CA-C	-5.21	1.45	1.52
31	BY	75	ILE	CA-C	-5.21	1.46	1.52
67	B1	1170	G	O4'-C1'	-5.21	1.33	1.41
67	B1	1936	C	O3'-P	-5.21	1.53	1.61
22	AY	5	TRP	C-N	5.21	1.40	1.33
53	BD	155	ARG	CZ-NH1	5.21	1.40	1.32
67	B1	571	G	O3'-P	-5.21	1.53	1.61
67	B1	2556	C	C4'-C3'	5.21	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	AC	94	VAL	CA-CB	5.20	1.61	1.54
21	A2	404	C	C2'-C1'	-5.20	1.45	1.53
65	BJ	42	GLY	C-N	5.20	1.40	1.33
8	AR	72	ALA	CA-C	5.20	1.58	1.52
21	A2	833	C	C5'-C4'	5.20	1.59	1.51
24	AA	138	ARG	NE-CZ	5.20	1.38	1.33
68	B3	87	G	C5'-C4'	5.20	1.59	1.51
14	AM	127	ARG	NE-CZ	5.20	1.38	1.33
20	B4	7	VAL	CA-CB	-5.20	1.48	1.53
67	B1	1477	C	P-O5'	-5.20	1.51	1.59
67	B1	2709	C	O5'-C5'	5.20	1.50	1.42
67	B1	2910	G	C5'-C4'	5.20	1.59	1.51
15	AE	89	ASP	C-N	5.20	1.39	1.33
34	BK	60	ILE	CA-C	-5.20	1.48	1.52
49	BQ	15	LEU	N-CA	-5.20	1.39	1.46
46	BA	28	VAL	C-N	5.20	1.41	1.33
3	AI	51	GLU	N-CA	-5.20	1.39	1.46
8	AR	68	SER	CA-CB	5.20	1.61	1.53
21	A2	266	A	O5'-C5'	5.20	1.50	1.42
36	Bf	27	VAL	CA-CB	-5.20	1.48	1.54
7	AB	43	LEU	CA-C	-5.19	1.46	1.52
32	BO	68	ILE	N-CA	5.19	1.52	1.46
67	B1	530	A	C2'-C1'	5.19	1.61	1.53
67	B1	1256	G	C4'-C3'	5.19	1.60	1.52
67	B1	1773	C	C4'-O4'	5.19	1.53	1.45
22	AY	25	CYS	CA-CB	5.19	1.62	1.53
26	AP	22	ILE	N-CA	5.19	1.52	1.46
36	Bf	45	ARG	CA-CB	5.19	1.61	1.53
46	BA	213	LYS	N-CA	-5.19	1.39	1.45
67	B1	513	C	C4'-O4'	-5.19	1.38	1.45
67	B1	734	C	C2'-O2'	-5.19	1.34	1.42
67	B1	1507	A	C2'-C1'	-5.19	1.45	1.53
67	B1	2518	G	O4'-C1'	-5.19	1.33	1.41
4	AG	2	ALA	C-N	5.19	1.41	1.33
15	AE	44	PRO	CA-C	5.19	1.58	1.52
15	AE	201	GLU	CA-C	-5.19	1.46	1.52
16	AJ	63	ALA	CA-CB	5.19	1.60	1.54
67	B1	1241	C	C3'-O3'	5.19	1.50	1.42
67	B1	2144	U	C4'-C3'	-5.19	1.44	1.52
67	B1	2273	U	O4'-C1'	5.19	1.49	1.41
67	B1	2693	G	O4'-C1'	5.19	1.49	1.41
10	AD	51	PHE	CA-C	-5.19	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	207	G	O3'-P	-5.19	1.53	1.61
33	BC	42	ALA	CA-C	5.19	1.59	1.52
67	B1	2700	U	P-O5'	-5.19	1.51	1.59
1	AQ	80	ARG	CA-CB	5.19	1.61	1.53
67	B1	2346	A	C2'-O2'	-5.19	1.34	1.42
15	AE	50	ARG	CA-CB	5.19	1.62	1.53
15	AE	68	GLU	CA-C	5.19	1.59	1.52
21	A2	1030	U	P-O5'	5.19	1.67	1.59
52	BB	54	ARG	CA-C	-5.19	1.45	1.52
60	BS	16	ARG	N-CA	-5.19	1.40	1.46
13	AX	35	ARG	NE-CZ	5.18	1.38	1.33
15	AE	60	ARG	NE-CZ	5.18	1.38	1.33
21	A2	167	G	O3'-P	5.18	1.69	1.61
21	A2	1294	G	O4'-C1'	5.18	1.49	1.41
40	BE	182	GLU	C-N	5.18	1.40	1.33
67	B1	1831	C	C2'-C1'	-5.18	1.45	1.53
20	A3	91	GLY	C-N	5.18	1.40	1.33
20	A3	92	ILE	N-CA	-5.18	1.39	1.46
21	A2	525	A	C2'-C1'	5.18	1.61	1.53
47	BI	74	ILE	N-CA	5.18	1.52	1.46
51	Bj	7	ILE	C-N	5.18	1.40	1.33
67	B1	2763	U	C4'-C3'	5.18	1.60	1.52
10	AD	78	LYS	N-CA	-5.18	1.40	1.46
21	A2	173	G	C5'-C4'	5.18	1.59	1.51
21	A2	285	C	C5'-C4'	5.18	1.59	1.51
21	A2	363	C	C4'-C3'	5.18	1.60	1.53
21	A2	746	A	C5'-C4'	5.18	1.59	1.51
40	BE	163	ARG	CD-NE	5.18	1.53	1.46
46	BA	31	ALA	N-CA	-5.18	1.39	1.46
46	BA	50	VAL	CA-C	-5.18	1.46	1.52
52	BB	40	THR	N-CA	-5.18	1.41	1.46
28	B6	32	SER	CA-C	-5.18	1.46	1.53
67	B1	1838	C	O5'-C5'	-5.18	1.34	1.42
67	B1	2011	U	C2'-C1'	5.18	1.61	1.53
42	BT	10	PRO	CA-C	-5.18	1.46	1.52
47	BI	101	VAL	CA-CB	-5.18	1.47	1.54
67	B1	1821	C	O4'-C1'	5.18	1.49	1.41
3	AI	12	SER	N-CA	-5.18	1.40	1.46
37	BU	120	ALA	C-N	5.18	1.40	1.33
43	Bk	125	PRO	C-N	5.18	1.40	1.33
52	BB	114	ILE	CA-CB	-5.18	1.47	1.54
12	AN	147	ARG	NE-CZ	5.18	1.38	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	AY	38	TRP	CA-CB	5.18	1.63	1.53
38	Bb	19	LYS	C-O	5.18	1.30	1.24
67	B1	704	G	C4'-C3'	-5.18	1.44	1.52
67	B1	869	A	C4'-O4'	-5.18	1.37	1.45
67	B1	1403	C	C4'-C3'	5.18	1.60	1.52
67	B1	1610	C	C2'-C1'	-5.18	1.45	1.53
6	AC	182	ILE	CA-C	5.17	1.58	1.52
21	A2	74	U	O3'-P	-5.17	1.53	1.61
32	BO	145	ARG	CA-C	5.17	1.59	1.52
33	BC	340	PRO	C-N	5.17	1.40	1.33
67	B1	2067	U	C2'-C1'	5.17	1.60	1.53
67	B1	2226	G	O4'-C1'	5.17	1.49	1.41
10	AD	107	THR	CA-C	-5.17	1.46	1.52
13	AX	46	ARG	CZ-NH1	5.17	1.40	1.32
67	B1	482	A	C4'-O4'	5.17	1.53	1.45
67	B1	2143	C	O5'-C5'	5.17	1.50	1.42
3	AI	113	HIS	ND1-CE1	5.17	1.37	1.32
21	A2	504	G	C2'-C1'	-5.17	1.45	1.53
67	B1	2686	A	O3'-P	-5.17	1.53	1.61
67	B1	2691	G	O4'-C1'	5.17	1.49	1.41
21	A2	261	G	C2'-C1'	-5.17	1.45	1.53
21	A2	1272	G	C4'-O4'	5.17	1.53	1.45
35	BL	127	ARG	N-CA	5.17	1.52	1.46
67	B1	1358	C	C2'-C1'	-5.17	1.45	1.53
67	B1	1503	C	O3'-P	-5.17	1.53	1.61
67	B1	1581	A	C4'-O4'	5.17	1.53	1.45
67	B1	2120	C	C5'-C4'	5.17	1.59	1.51
6	AC	98	ARG	CA-CB	5.17	1.61	1.53
11	A1	48	U	C4'-O4'	5.17	1.53	1.45
13	AX	43	ARG	CA-C	-5.17	1.46	1.52
21	A2	178	C	C2'-C1'	5.17	1.61	1.53
21	A2	597	C	C4'-C3'	5.17	1.60	1.52
21	A2	1152	C	C2'-C1'	-5.17	1.45	1.53
21	A2	1187	A	C2'-C1'	-5.17	1.45	1.53
28	AV	27	GLY	CA-C	-5.17	1.44	1.51
53	BD	176	LYS	CA-CB	-5.17	1.45	1.53
53	BD	206	GLY	C-N	5.17	1.40	1.33
67	B1	191	U	O4'-C1'	5.17	1.49	1.41
67	B1	1120	C	C2'-C1'	-5.17	1.45	1.53
67	B1	1695	G	C2'-C1'	-5.17	1.45	1.53
67	B1	2995	A	C4'-C3'	5.17	1.60	1.52
67	B1	3002	A	C3'-O3'	5.17	1.49	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
68	B3	21	C	C2'-C1'	-5.17	1.45	1.53
1	AQ	16	ARG	CZ-NH1	5.17	1.40	1.32
21	A2	321	A	P-O5'	-5.17	1.52	1.59
21	A2	1375	C	C3'-O3'	5.17	1.49	1.42
32	BO	40	SER	N-CA	-5.17	1.39	1.45
65	BJ	137	ALA	CA-C	-5.17	1.46	1.52
67	B1	2012	G	C4'-O4'	5.17	1.53	1.45
67	B1	2060	A	C3'-O3'	5.17	1.50	1.43
6	AC	14	GLU	CA-CB	5.16	1.61	1.53
10	AD	70	ARG	NE-CZ	5.16	1.38	1.33
21	A2	708	C	C5'-C4'	5.16	1.58	1.51
33	BC	117	LYS	CA-C	5.16	1.59	1.52
41	Ba	68	SER	C-N	5.16	1.40	1.33
43	Bk	42	ARG	NE-CZ	5.16	1.38	1.33
67	B1	672	C	C2'-C1'	-5.16	1.45	1.53
67	B1	842	C	P-O5'	-5.16	1.52	1.59
67	B1	1531	C	O4'-C1'	5.16	1.49	1.41
67	B1	2091	U	O5'-C5'	5.16	1.50	1.42
67	B1	2127	G	C5'-C4'	5.16	1.58	1.51
67	B1	2138	A	C2'-C1'	-5.16	1.45	1.53
68	B3	45	C	O4'-C1'	5.16	1.49	1.41
21	A2	1060	G	O3'-P	-5.16	1.53	1.61
31	BY	112	ASN	C-N	5.16	1.39	1.33
67	B1	1599	A	O4'-C1'	-5.16	1.33	1.41
7	AB	100	THR	N-CA	5.16	1.52	1.46
21	A2	612	C	C2'-O2'	-5.16	1.34	1.42
25	AH	126	ALA	N-CA	-5.16	1.40	1.46
32	BO	168	PHE	N-CA	-5.16	1.39	1.46
48	BR	27	PRO	CA-CB	-5.16	1.46	1.53
20	B4	13	LYS	C-O	-5.16	1.18	1.24
67	B1	167	G	C2'-C1'	-5.16	1.45	1.53
67	B1	2293	G	O3'-P	-5.16	1.53	1.61
21	A2	888	A	C3'-O3'	5.16	1.49	1.42
21	A2	914	U	C2'-C1'	-5.16	1.45	1.53
49	BQ	62	ARG	NE-CZ	5.16	1.38	1.33
62	BN	30	LYS	N-CA	5.16	1.53	1.46
12	AN	146	ARG	C-N	5.16	1.40	1.33
17	AO	19	LYS	CA-C	-5.16	1.46	1.52
21	A2	1141	G	C2'-C1'	-5.16	1.45	1.53
32	BO	117	VAL	C-N	5.16	1.41	1.34
33	BC	150	GLN	N-CA	-5.16	1.40	1.46
38	Bb	15	ARG	NE-CZ	5.16	1.38	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	Bk	42	ARG	CG-CD	5.16	1.68	1.52
64	Bc	11	ARG	NE-CZ	5.16	1.38	1.33
67	B1	2135	C	O3'-P	-5.16	1.53	1.61
21	A2	76	U	O4'-C1'	5.15	1.49	1.41
21	A2	1324	U	C3'-C2'	5.15	1.60	1.52
35	BL	34	ARG	C-N	5.15	1.40	1.33
62	BN	84	PHE	N-CA	-5.15	1.39	1.46
67	B1	705	G	C2'-C1'	-5.15	1.45	1.53
12	AN	70	ARG	CZ-NH1	5.15	1.40	1.32
13	AX	52	GLY	C-N	5.15	1.40	1.33
17	AO	45	LEU	CA-C	-5.15	1.46	1.52
21	A2	1070	C	C4'-O4'	-5.15	1.37	1.45
21	A2	1118	C	P-O5'	-5.15	1.52	1.59
27	A0	16	C	O3'-P	-5.15	1.53	1.61
52	BB	14	SER	C-N	-5.15	1.28	1.34
58	BP	96	ALA	C-N	5.15	1.41	1.33
67	B1	815	U	C5'-C4'	5.15	1.58	1.51
67	B1	1054	A	C3'-O3'	5.15	1.49	1.42
67	B1	1370	G	O3'-P	-5.15	1.53	1.61
21	A2	995	G	C2'-C1'	-5.15	1.45	1.53
38	Bb	25	ARG	CD-NE	5.15	1.53	1.46
40	BE	21	ARG	CA-CB	5.15	1.61	1.53
49	BQ	30	ASP	CA-CB	5.15	1.61	1.53
67	B1	797	C	C2'-C1'	5.15	1.61	1.53
67	B1	1434	C	O4'-C1'	5.15	1.49	1.41
67	B1	2120	C	C2'-C1'	-5.15	1.45	1.53
13	AX	71	ARG	NE-CZ	5.15	1.38	1.33
21	A2	1064	C	O4'-C1'	5.15	1.49	1.41
54	BF	69	ARG	NE-CZ	5.15	1.38	1.33
67	B1	1517	G	C2'-C1'	5.15	1.61	1.53
67	B1	2830	C	P-O5'	-5.15	1.52	1.59
7	AB	91	ALA	CA-CB	5.15	1.60	1.53
21	A2	345	G	C2'-O2'	-5.15	1.34	1.42
21	A2	1328	G	C4'-O4'	-5.15	1.37	1.45
64	Bc	54	LYS	CA-C	-5.15	1.46	1.52
16	AJ	109	LYS	CA-C	-5.15	1.46	1.52
24	AA	139	LYS	C-N	5.15	1.40	1.33
25	AH	14	GLU	C-N	5.15	1.40	1.33
67	B1	192	U	O4'-C1'	5.15	1.49	1.41
10	AD	71	GLU	CA-C	-5.14	1.46	1.52
28	AV	10	GLU	CA-C	-5.14	1.46	1.52
36	Bf	8	ALA	CA-CB	-5.14	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	Bk	65	LYS	CA-C	-5.14	1.46	1.52
53	BD	76	PRO	CA-C	-5.14	1.47	1.52
28	B6	22	GLU	N-CA	-5.14	1.40	1.46
67	B1	159	C	C5'-C4'	5.14	1.59	1.51
67	B1	2124	C	C4'-O4'	-5.14	1.37	1.45
4	AG	95	ARG	CD-NE	5.14	1.53	1.46
10	AD	131	GLU	N-CA	-5.14	1.39	1.46
21	A2	265	C	C5'-C4'	5.14	1.58	1.51
23	AT	53	LEU	CA-CB	5.14	1.61	1.53
44	BW	24	GLN	C-N	-5.14	1.27	1.33
67	B1	1436	A	P-O5'	-5.14	1.52	1.59
67	B1	2436	A	C3'-C2'	5.14	1.60	1.52
6	AC	120	ILE	CA-C	-5.14	1.46	1.52
21	A2	1088	U	C5'-C4'	5.14	1.58	1.51
32	BO	43	HIS	CA-C	-5.14	1.46	1.52
67	B1	1517	G	O4'-C1'	-5.14	1.33	1.41
8	AR	88	ILE	N-CA	-5.14	1.40	1.46
16	AJ	53	ARG	N-CA	-5.14	1.39	1.46
27	A0	43	G	C4'-C3'	5.14	1.60	1.52
49	BQ	15	LEU	C-N	5.14	1.40	1.33
67	B1	2487	G	C4'-C3'	5.14	1.60	1.52
67	B1	2709	C	P-O5'	-5.14	1.52	1.59
21	A2	1202	G	O3'-P	-5.14	1.53	1.61
46	BA	191	LYS	C-N	5.14	1.40	1.33
54	BF	165	ARG	C-N	5.14	1.42	1.33
67	B1	134	C	C5'-C4'	5.14	1.58	1.51
67	B1	570	G	C2'-C1'	-5.14	1.45	1.53
2	AK	99	PHE	C-N	5.14	1.40	1.33
21	A2	26	A	C2'-C1'	-5.14	1.45	1.53
21	A2	686	C	C2'-C1'	-5.14	1.45	1.53
42	BT	51	VAL	C-N	5.14	1.40	1.33
67	B1	1171	G	C3'-C2'	5.14	1.60	1.52
67	B1	1285	C	O4'-C1'	5.14	1.49	1.41
14	AM	46	MET	N-CA	-5.13	1.39	1.46
24	AA	14	LYS	C-N	5.13	1.41	1.33
25	AH	51	HIS	ND1-CE1	5.13	1.37	1.32
67	B1	595	C	O4'-C1'	5.13	1.49	1.41
67	B1	2887	C	C4'-C3'	5.13	1.60	1.52
21	A2	481	C	C4'-C3'	5.13	1.60	1.52
32	BO	30	SER	C-N	5.13	1.40	1.33
19	AS	33	LYS	N-CA	-5.13	1.40	1.46
21	A2	267	C	C5'-C4'	5.13	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	1159	U	C4'-C3'	5.13	1.60	1.52
24	AA	79	TYR	CA-C	-5.13	1.46	1.52
30	AU	3	THR	CA-C	-5.13	1.46	1.52
40	BE	142	THR	CA-C	-5.13	1.46	1.52
51	Bj	80	ARG	CA-C	-5.13	1.46	1.52
53	BD	211	ALA	C-N	5.13	1.41	1.33
54	BF	166	ARG	CZ-NH1	5.13	1.40	1.32
67	B1	173	G	C5'-C4'	5.13	1.58	1.51
67	B1	1901	A	C5'-C4'	5.13	1.58	1.51
67	B1	2240	G	O3'-P	-5.13	1.53	1.61
67	B1	2437	G	O4'-C1'	5.13	1.49	1.41
1	AQ	137	LYS	CA-C	-5.13	1.46	1.52
11	A1	18	U	C4'-O4'	5.13	1.53	1.45
16	AJ	88	GLN	N-CA	-5.13	1.40	1.46
42	BT	82	ARG	CA-CB	-5.13	1.45	1.53
67	B1	1221	U	C3'-C2'	5.13	1.60	1.52
8	AR	32	ARG	CZ-NH1	5.13	1.40	1.32
11	A1	20	G	C2'-C1'	5.13	1.61	1.53
21	A2	428	G	C3'-C2'	5.13	1.60	1.52
21	A2	968	C	C2'-C1'	-5.13	1.45	1.53
27	A0	60	U	O4'-C1'	5.13	1.49	1.42
60	BS	39	LEU	C-N	5.13	1.40	1.33
61	Bd	34	ALA	CA-C	-5.13	1.46	1.52
67	B1	1348	G	C4'-C3'	5.13	1.60	1.52
67	B1	1653	U	C4'-C3'	-5.13	1.44	1.52
15	AE	160	THR	CA-CB	5.13	1.62	1.53
21	A2	874	G	C5'-C4'	5.13	1.58	1.51
21	A2	1297	G	C4'-C3'	5.13	1.60	1.52
21	A2	1476	C	C3'-C2'	-5.13	1.45	1.52
24	AA	143	GLU	N-CA	-5.13	1.40	1.46
32	BO	49	ILE	CA-CB	-5.13	1.48	1.54
38	Bb	18	ARG	NE-CZ	5.13	1.38	1.33
67	B1	1819	G	C4'-C3'	5.13	1.60	1.52
67	B1	1921	U	O4'-C1'	5.13	1.49	1.41
21	A2	858	A	C3'-O3'	5.12	1.49	1.42
21	A2	577	C	C2'-C1'	-5.12	1.45	1.53
28	AV	65	SER	CA-C	-5.12	1.46	1.52
30	AU	136	LEU	C-O	-5.12	1.18	1.24
39	Be	22	ARG	NE-CZ	5.12	1.38	1.33
67	B1	53	A	O4'-C1'	-5.12	1.33	1.41
67	B1	1802	G	O3'-P	-5.12	1.53	1.61
67	B1	2730	U	C4'-O4'	-5.12	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	624	G	C2'-C1'	-5.12	1.45	1.53
21	A2	806	G	C3'-C2'	5.12	1.60	1.52
21	A2	1102	A	P-O5'	5.12	1.67	1.59
21	A2	1200	U	C5'-C4'	5.12	1.59	1.51
44	BW	19	ARG	CD-NE	5.12	1.53	1.46
46	BA	164	HIS	CG-CD2	5.12	1.41	1.35
59	BM	157	ARG	CZ-NH2	5.12	1.40	1.33
67	B1	688	G	P-O5'	-5.12	1.52	1.59
67	B1	935	A	O3'-P	-5.12	1.53	1.61
67	B1	2775	G	O3'-P	-5.12	1.53	1.61
13	AX	49	VAL	CA-C	-5.12	1.46	1.52
21	A2	508	C	O4'-C1'	5.12	1.49	1.41
34	B5	44	LYS	C-N	5.12	1.40	1.33
67	B1	916	A	C5'-C4'	5.12	1.58	1.51
67	B1	965	A	C5'-C4'	5.12	1.59	1.51
12	AN	36	ARG	CA-CB	5.12	1.62	1.53
17	AO	55	THR	C-N	5.12	1.41	1.34
33	BC	263	ARG	CD-NE	5.12	1.53	1.46
38	Bb	43	PRO	CA-CB	-5.12	1.46	1.53
38	Bb	104	HIS	ND1-CE1	5.12	1.37	1.32
41	Ba	36	ARG	NE-CZ	5.12	1.38	1.33
52	BB	167	ARG	N-CA	-5.12	1.40	1.46
67	B1	26	G	C2'-C1'	-5.12	1.45	1.53
67	B1	959	U	C5'-C4'	5.12	1.58	1.51
67	B1	2033	G	C2'-C1'	5.12	1.61	1.53
67	B1	2734	C	C5'-C4'	5.12	1.58	1.51
56	BH	48	GLY	CA-C	-5.12	1.47	1.51
1	AQ	12	SER	CA-C	-5.12	1.46	1.52
15	AE	124	PRO	C-N	5.12	1.40	1.33
19	AS	47	ARG	CA-CB	5.12	1.61	1.53
35	BL	12	ARG	CA-C	-5.12	1.46	1.52
35	BL	74	ARG	CZ-NH1	5.12	1.40	1.32
62	BN	151	ARG	CD-NE	5.12	1.53	1.46
67	B1	40	G	O3'-P	-5.12	1.53	1.61
67	B1	1730	C	O4'-C1'	5.12	1.49	1.41
7	AB	103	ASN	N-CA	-5.11	1.39	1.46
7	AB	169	TRP	NE1-CE2	-5.11	1.31	1.37
10	AD	38	LYS	CA-CB	5.11	1.61	1.53
11	A1	49	C	O3'-P	-5.11	1.53	1.61
67	B1	2099	G	O4'-C1'	-5.11	1.33	1.41
67	B1	2716	C	C3'-C2'	-5.11	1.45	1.52
21	A2	627	G	O3'-P	-5.11	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	643	G	C2'-O2'	-5.11	1.34	1.42
35	BL	52	LYS	C-N	5.11	1.40	1.33
60	BS	31	LEU	CA-C	5.11	1.59	1.52
21	A2	767	U	O3'-P	-5.11	1.53	1.61
28	AV	83	PRO	C-N	5.11	1.40	1.34
31	BY	142	TYR	CA-CB	5.11	1.62	1.53
36	Bf	13	LEU	CA-C	-5.11	1.46	1.52
61	Bd	3	PRO	CA-CB	5.11	1.60	1.53
62	BN	86	ILE	C-N	5.11	1.40	1.33
67	B1	280	A	O4'-C1'	5.11	1.49	1.41
67	B1	1281	A	C5'-C4'	5.11	1.59	1.51
67	B1	2630	C	C3'-O3'	5.11	1.49	1.42
4	AG	82	ARG	NE-CZ	5.11	1.38	1.33
21	A2	981	U	C5'-C4'	5.11	1.58	1.51
29	AL	75	ILE	N-CA	-5.11	1.40	1.46
53	BD	82	PHE	CA-C	-5.11	1.45	1.53
67	B1	976	C	C4'-O4'	5.11	1.53	1.45
6	AC	31	GLY	CA-C	-5.11	1.44	1.51
21	A2	386	C	C2'-C1'	-5.11	1.45	1.53
21	A2	666	G	O3'-P	-5.11	1.53	1.61
33	BC	279	ARG	C-N	5.11	1.40	1.33
28	B6	66	LYS	CA-C	-5.11	1.46	1.52
58	BP	37	LEU	CA-C	-5.11	1.46	1.52
67	B1	189	U	O4'-C1'	5.11	1.49	1.41
67	B1	1147	G	C3'-O3'	5.11	1.49	1.42
67	B1	2296	A	O4'-C1'	5.11	1.49	1.41
67	B1	2950	G	O3'-P	-5.11	1.53	1.61
4	AG	81	PRO	C-N	5.11	1.38	1.33
23	AT	65	THR	N-CA	-5.11	1.39	1.45
52	BB	125	GLY	C-N	5.11	1.41	1.33
53	BD	248	GLU	N-CA	-5.11	1.40	1.46
67	B1	1513	G	C3'-C2'	5.11	1.60	1.52
44	BW	29	ARG	NE-CZ	5.10	1.38	1.33
34	BK	46	ARG	CD-NE	5.10	1.53	1.46
67	B1	1577	C	C5'-C4'	5.10	1.59	1.51
67	B1	1789	A	C4'-C3'	5.10	1.60	1.52
21	A2	1055	C	C5'-C4'	5.10	1.58	1.51
21	A2	1215	G	C5'-C4'	5.10	1.58	1.51
32	BO	166	ARG	CZ-NH2	5.10	1.40	1.33
53	BD	8	LEU	C-N	5.10	1.41	1.33
53	BD	185	LYS	C-N	5.10	1.40	1.33
67	B1	727	A	O4'-C1'	5.10	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	818	A	O3'-P	-5.10	1.53	1.61
67	B1	832	A	O4'-C1'	5.10	1.49	1.41
67	B1	1486	G	C3'-C2'	5.10	1.60	1.52
67	B1	1558	U	C2'-C1'	5.10	1.61	1.53
67	B1	1630	U	O4'-C1'	5.10	1.49	1.41
67	B1	2213	G	C5'-C4'	5.10	1.58	1.51
68	B3	105	G	C4'-O4'	5.10	1.53	1.45
38	Bb	112	ILE	CA-CB	-5.10	1.48	1.54
54	BF	63	LYS	CA-C	-5.10	1.46	1.52
59	BM	40	GLU	C-N	5.10	1.39	1.32
67	B1	218	A	C3'-C2'	5.10	1.60	1.52
67	B1	1553	G	C2'-C1'	5.10	1.61	1.53
2	AK	117	HIS	CB-CG	-5.10	1.43	1.50
6	AC	130	ILE	CA-C	-5.10	1.46	1.52
17	AO	70	VAL	CA-CB	-5.10	1.47	1.54
58	BP	1	MET	C-N	5.10	1.40	1.33
62	BN	24	ARG	NE-CZ	5.10	1.38	1.33
67	B1	1154	A	C5'-C4'	5.10	1.58	1.51
67	B1	1843	C	O3'-P	-5.10	1.53	1.61
21	A2	470	G	C4'-O4'	-5.10	1.38	1.45
21	A2	665	G	O4'-C1'	-5.10	1.34	1.41
21	A2	1370	U	C2'-C1'	5.10	1.60	1.53
67	B1	237	G	O3'-P	-5.10	1.53	1.61
67	B1	3000	U	C5'-C4'	5.10	1.58	1.51
10	AD	108	ILE	CA-C	-5.10	1.46	1.52
17	AO	121	GLU	N-CA	-5.10	1.40	1.46
46	BA	47	LYS	CA-CB	5.10	1.62	1.53
54	BF	169	GLN	N-CA	-5.10	1.41	1.46
67	B1	815	U	O5'-C5'	5.10	1.50	1.42
2	AK	70	GLY	CA-C	-5.09	1.46	1.52
21	A2	306	C	C2'-C1'	5.09	1.60	1.53
25	AH	209	ARG	CZ-NH1	5.09	1.39	1.32
37	BU	84	ARG	N-CA	-5.09	1.39	1.46
37	BU	119	ARG	CD-NE	5.09	1.53	1.46
34	BK	50	ILE	CB-CG1	5.09	1.63	1.53
63	Bg	47	ARG	CZ-NH1	5.09	1.39	1.32
67	B1	1536	U	C3'-O3'	5.09	1.49	1.42
6	AC	158	ALA	C-N	5.09	1.40	1.33
10	AD	53	ARG	NE-CZ	5.09	1.38	1.33
32	BO	37	VAL	C-N	5.09	1.40	1.33
11	A1	13	C	O4'-C1'	5.09	1.49	1.41
21	A2	590	G	O3'-P	-5.09	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	A2	591	G	O4'-C1'	-5.09	1.34	1.41
21	A2	694	U	C3'-C2'	5.09	1.60	1.52
67	B1	2842	C	C5'-C4'	5.09	1.58	1.51
68	B3	63	G	C2'-C1'	-5.09	1.45	1.53
12	AN	51	ARG	CZ-NH1	5.09	1.39	1.32
21	A2	603	G	C2'-C1'	-5.09	1.45	1.53
47	BI	30	ILE	CA-C	-5.09	1.46	1.52
34	BK	33	VAL	C-N	5.09	1.40	1.33
67	B1	1245	C	C3'-O3'	5.09	1.49	1.42
67	B1	1699	U	C3'-O3'	5.09	1.49	1.42
59	BM	55	ALA	CA-C	-5.09	1.46	1.52
67	B1	1566	G	O5'-C5'	-5.09	1.34	1.42
10	AD	54	ARG	CD-NE	5.09	1.53	1.46
15	AE	29	ALA	N-CA	-5.09	1.39	1.45
21	A2	778	G	C4'-C3'	5.09	1.60	1.52
21	A2	1340	U	C2'-O2'	-5.09	1.34	1.42
35	BL	143	GLU	C-O	-5.09	1.17	1.23
20	B4	63	VAL	N-CA	-5.09	1.40	1.46
67	B1	980	G	C5'-C4'	5.09	1.58	1.51
67	B1	1284	C	C5'-C4'	5.09	1.58	1.51
34	B5	25	VAL	C-N	5.08	1.39	1.33
34	B5	82	LEU	CA-CB	-5.08	1.45	1.53
67	B1	321	C	C3'-O3'	5.08	1.49	1.42
67	B1	2565	A	C2'-C1'	-5.08	1.45	1.53
21	A2	252	U	P-O5'	-5.08	1.52	1.59
37	BU	79	GLU	N-CA	-5.08	1.39	1.46
44	BW	65	ARG	CD-NE	5.08	1.53	1.46
45	Bi	24	ARG	CA-C	-5.08	1.46	1.52
67	B1	725	G	P-O5'	-5.08	1.52	1.59
67	B1	1393	C	C2'-O2'	-5.08	1.34	1.41
10	AD	28	VAL	N-CA	-5.08	1.40	1.46
21	A2	428	G	C4'-O4'	5.08	1.53	1.45
31	BY	54	ILE	N-CA	5.08	1.52	1.46
43	Bk	70	GLU	CA-C	-5.08	1.45	1.52
67	B1	419	G	O4'-C1'	5.08	1.49	1.41
1	AQ	66	PHE	CA-CB	5.08	1.61	1.53
25	AH	90	HIS	CA-C	-5.08	1.46	1.52
29	AL	83	ARG	NE-CZ	5.08	1.38	1.33
67	B1	848	A	C2'-C1'	5.08	1.60	1.53
21	A2	1464	C	C5'-C4'	5.08	1.58	1.51
22	AY	15	VAL	N-CA	-5.08	1.40	1.46
23	AT	71	ILE	N-CA	-5.08	1.39	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	A0	46	G	C2'-C1'	5.08	1.60	1.53
40	BE	24	ARG	N-CA	-5.08	1.39	1.45
42	BT	84	GLY	C-N	5.08	1.40	1.33
62	BN	143	LYS	CA-C	-5.08	1.45	1.52
67	B1	127	C	C5'-C4'	5.08	1.58	1.51
67	B1	2724	A	O4'-C1'	5.08	1.49	1.42
68	B3	15	G	C2'-C1'	-5.08	1.45	1.53
15	AE	30	VAL	CA-C	-5.08	1.46	1.52
34	B5	50	ILE	CB-CG1	5.08	1.63	1.53
67	B1	2725	U	O3'-P	-5.08	1.53	1.61
14	AM	123	HIS	CG-CD2	5.08	1.41	1.35
17	AO	117	GLY	N-CA	-5.08	1.39	1.45
21	A2	672	G	O3'-P	-5.08	1.53	1.61
26	AP	33	ILE	CB-CG1	5.08	1.63	1.53
41	Ba	61	ARG	CA-C	-5.08	1.45	1.52
46	BA	70	VAL	N-CA	-5.08	1.40	1.46
64	Bc	18	HIS	ND1-CE1	5.08	1.37	1.32
67	B1	390	C	C2'-C1'	-5.08	1.45	1.53
67	B1	2194	A	O4'-C1'	5.08	1.49	1.41
67	B1	2876	G	P-O5'	-5.08	1.52	1.59
68	B3	4	C	O4'-C1'	5.08	1.49	1.41
3	AI	33	LEU	CA-C	-5.07	1.46	1.52
12	AN	34	VAL	C-N	5.07	1.40	1.33
21	A2	201	G	C5'-C4'	5.07	1.58	1.51
21	A2	519	G	O4'-C1'	5.07	1.49	1.42
32	BO	21	TYR	N-CA	-5.07	1.40	1.46
41	Ba	36	ARG	C-N	5.07	1.40	1.33
46	BA	110	GLU	C-N	5.07	1.40	1.33
48	BR	55	ASP	C-N	-5.07	1.27	1.33
34	BK	25	VAL	C-N	5.07	1.39	1.33
67	B1	1283	G	O4'-C1'	-5.07	1.34	1.41
67	B1	1514	C	C2'-C1'	-5.07	1.45	1.53
1	AQ	70	ASP	CA-CB	5.07	1.62	1.53
20	A3	28	ASP	CA-C	-5.07	1.46	1.52
21	A2	534	G	C3'-C2'	5.07	1.60	1.52
21	A2	932	C	C2'-C1'	-5.07	1.45	1.53
33	BC	67	PHE	CA-C	-5.07	1.46	1.52
34	BK	82	LEU	CA-CB	-5.07	1.45	1.53
67	B1	2267	U	C4'-O4'	5.07	1.53	1.45
67	B1	2370	C	C3'-C2'	5.07	1.60	1.52
67	B1	2481	G	C2'-C1'	5.07	1.60	1.53
54	BF	15	GLU	N-CA	5.07	1.52	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	683	C	O4'-C1'	5.07	1.49	1.41
67	B1	1035	G	C4'-C3'	5.07	1.60	1.52
67	B1	1606	C	O5'-C5'	5.07	1.50	1.42
67	B1	1741	C	C2'-C1'	-5.07	1.45	1.53
6	AC	139	GLU	C-N	5.07	1.40	1.33
21	A2	137	A	C5'-C4'	5.07	1.58	1.51
24	AA	117	LEU	CA-C	5.07	1.58	1.52
47	BI	69	LYS	CA-CB	-5.07	1.47	1.54
51	Bj	18	THR	CA-C	-5.07	1.46	1.52
58	BP	42	ARG	CD-NE	5.07	1.53	1.46
59	BM	160	ARG	CZ-NH1	5.07	1.39	1.32
66	Bl	76	GLU	N-CA	-5.07	1.39	1.46
67	B1	760	G	C2'-O2'	5.07	1.50	1.42
67	B1	1270	G	C3'-C2'	-5.07	1.45	1.52
67	B1	1509	C	C4'-C3'	5.07	1.60	1.52
67	B1	1735	G	C3'-O3'	5.07	1.49	1.42
21	A2	1450	U	O4'-C1'	5.07	1.49	1.41
33	BC	109	TYR	CA-CB	5.07	1.60	1.53
43	Bk	53	ARG	CZ-NH1	5.07	1.39	1.32
52	BB	94	GLY	CA-C	5.07	1.59	1.51
56	BH	17	PRO	CA-C	5.07	1.57	1.52
67	B1	433	C	P-O5'	-5.07	1.52	1.59
67	B1	2261	C	O4'-C1'	5.07	1.49	1.41
20	BG	7	VAL	CA-C	-5.06	1.47	1.53
67	B1	1980	U	C5'-C4'	5.06	1.58	1.51
17	AO	76	ARG	CA-C	-5.06	1.45	1.52
21	A2	682	A	C3'-O3'	5.06	1.49	1.42
30	AU	139	GLU	C-O	-5.06	1.18	1.24
46	BA	73	ALA	CA-C	-5.06	1.46	1.52
20	BG	26	ALA	N-CA	-5.06	1.40	1.46
67	B1	667	C	C2'-C1'	-5.06	1.45	1.53
67	B1	1221	U	C4'-O4'	-5.06	1.38	1.45
67	B1	1893	C	C2'-C1'	-5.06	1.45	1.53
67	B1	1897	G	O4'-C1'	-5.06	1.34	1.42
6	AC	64	GLU	CA-C	-5.06	1.46	1.52
16	AJ	87	ARG	CZ-NH1	5.06	1.39	1.32
21	A2	456	U	C5'-C4'	5.06	1.58	1.51
21	A2	654	U	O5'-C5'	5.06	1.50	1.42
67	B1	2530	G	O4'-C1'	-5.06	1.34	1.41
8	AR	108	ARG	CZ-NH1	5.06	1.39	1.32
21	A2	1000	G	C4'-C3'	5.06	1.60	1.52
21	A2	1394	G	C5'-C4'	5.06	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	BU	54	ILE	CA-C	-5.06	1.46	1.52
67	B1	386	A	C2'-C1'	-5.06	1.45	1.53
67	B1	1536	U	O5'-C5'	5.06	1.50	1.42
67	B1	1645	U	O4'-C1'	5.06	1.49	1.41
67	B1	2732	U	C5'-C4'	5.06	1.58	1.51
21	A2	323	A	O4'-C1'	-5.06	1.34	1.42
21	A2	629	U	O4'-C1'	5.06	1.49	1.41
21	A2	799	C	O3'-P	-5.06	1.53	1.61
26	AP	23	ARG	CD-NE	5.06	1.53	1.46
49	BQ	59	SER	N-CA	-5.06	1.39	1.46
58	BP	79	ILE	CA-CB	5.06	1.60	1.54
59	BM	54	GLN	CA-C	-5.06	1.46	1.52
67	B1	1509	C	C5'-C4'	5.06	1.58	1.51
21	A2	349	A	C3'-C2'	5.06	1.60	1.52
21	A2	1425	C	C2'-C1'	-5.06	1.45	1.53
55	Bh	3	TRP	CA-C	-5.06	1.46	1.52
67	B1	888	U	C4'-O4'	-5.06	1.38	1.45
67	B1	2310	G	C5'-C4'	5.06	1.58	1.51
4	AG	87	LEU	CA-C	-5.05	1.46	1.52
7	AB	185	ARG	CA-C	-5.05	1.46	1.52
21	A2	1311	C	C2'-C1'	5.05	1.60	1.53
30	AU	46	GLU	C-N	5.05	1.40	1.33
32	BO	99	ILE	N-CA	5.05	1.52	1.46
37	BU	52	VAL	CA-CB	-5.05	1.47	1.55
43	Bk	124	ILE	CA-C	-5.05	1.47	1.52
67	B1	1382	C	O5'-C5'	5.05	1.50	1.42
67	B1	1458	C	C3'-C2'	5.05	1.60	1.52
7	AB	114	VAL	C-N	5.05	1.40	1.33
19	AS	56	LYS	CA-CB	5.05	1.61	1.53
40	BE	145	ARG	CA-CB	5.05	1.59	1.53
57	BZ	99	ARG	NE-CZ	5.05	1.38	1.33
67	B1	2538	G	C5'-C4'	5.05	1.58	1.51
68	B3	59	C	O4'-C1'	5.05	1.49	1.41
15	AE	64	LYS	CA-C	-5.05	1.46	1.52
21	A2	25	C	C2'-C1'	-5.05	1.45	1.53
21	A2	468	G	C5'-C4'	5.05	1.58	1.51
52	BB	44	VAL	C-N	5.05	1.38	1.33
54	BF	24	TYR	CA-C	-5.05	1.45	1.52
58	BP	63	VAL	N-CA	-5.05	1.40	1.46
58	BP	120	GLU	CA-C	5.05	1.63	1.52
67	B1	431	U	O5'-C5'	-5.05	1.34	1.42
67	B1	825	C	C3'-O3'	5.05	1.49	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	867	C	C3'-O3'	5.05	1.49	1.42
67	B1	2621	U	O4'-C1'	5.05	1.49	1.41
33	BC	188	GLY	C-N	5.05	1.40	1.33
40	BE	149	ARG	C-N	5.05	1.40	1.33
41	Ba	71	ARG	NE-CZ	5.05	1.38	1.33
20	BG	106	LYS	CA-CB	5.05	1.62	1.53
65	BJ	32	ASN	CA-CB	5.05	1.61	1.53
67	B1	828	G	P-O5'	-5.05	1.52	1.59
67	B1	1354	G	O4'-C1'	5.05	1.49	1.42
67	B1	1429	A	O4'-C1'	-5.05	1.34	1.42
67	B1	2086	C	C4'-O4'	-5.05	1.38	1.45
67	B1	2750	C	O5'-C5'	-5.05	1.34	1.42
25	AH	26	VAL	N-CA	-5.05	1.40	1.46
37	BU	113	LYS	CA-CB	5.05	1.61	1.53
67	B1	1709	C	C2'-C1'	-5.05	1.45	1.53
7	AB	94	GLY	C-N	5.05	1.40	1.34
7	AB	128	ARG	CZ-NH2	5.05	1.40	1.33
21	A2	444	G	O4'-C1'	5.05	1.49	1.41
21	A2	1248	A	C3'-O3'	5.05	1.49	1.42
34	B5	8	ARG	CA-CB	5.05	1.60	1.53
34	BK	8	ARG	CA-CB	5.05	1.60	1.53
50	BV	15	GLU	C-N	-5.04	1.26	1.33
54	BF	113	PHE	CA-CB	5.04	1.60	1.53
67	B1	25	U	O3'-P	-5.04	1.53	1.61
3	AI	7	LEU	CA-C	-5.04	1.46	1.52
21	A2	300	G	P-O5'	-5.04	1.52	1.59
24	AA	83	LYS	CA-C	-5.04	1.46	1.53
67	B1	1972	C	C2'-C1'	-5.04	1.45	1.53
67	B1	2042	A	C5'-C4'	-5.04	1.43	1.51
6	AC	52	GLY	C-N	-5.04	1.27	1.33
7	AB	146	LEU	CA-CB	5.04	1.61	1.53
17	AO	116	ARG	CA-C	5.04	1.59	1.52
21	A2	158	U	O4'-C1'	5.04	1.49	1.42
21	A2	810	G	C2'-C1'	-5.04	1.45	1.53
33	BC	242	ARG	N-CA	-5.04	1.43	1.46
46	BA	70	VAL	C-N	5.04	1.40	1.33
65	BJ	132	ARG	CD-NE	5.04	1.53	1.46
67	B1	1444	A	P-O5'	-5.04	1.52	1.59
67	B1	1615	G	C3'-C2'	5.04	1.60	1.52
67	B1	1912	A	O4'-C1'	5.04	1.49	1.41
67	B1	2679	A	C5'-C4'	5.04	1.58	1.51
68	B3	54	A	O5'-C5'	5.04	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	AD	79	ARG	CZ-NH1	5.04	1.39	1.32
67	B1	531	G	C5'-C4'	5.04	1.58	1.51
16	AJ	68	LYS	CA-C	-5.04	1.46	1.53
25	AH	209	ARG	CD-NE	5.04	1.53	1.46
33	BC	125	TYR	N-CA	-5.04	1.39	1.46
41	Ba	81	ARG	CD-NE	5.04	1.53	1.46
47	BI	57	THR	CA-C	-5.04	1.46	1.52
47	BI	77	ARG	N-CA	-5.04	1.40	1.46
67	B1	304	G	O4'-C1'	-5.04	1.34	1.41
67	B1	1686	C	O4'-C1'	5.04	1.49	1.41
67	B1	1967	G	C4'-C3'	5.04	1.60	1.53
67	B1	2182	A	C4'-O4'	-5.04	1.38	1.45
21	A2	1355	C	C2'-C1'	-5.04	1.45	1.53
2	AK	42	ARG	CA-CB	5.04	1.61	1.53
6	AC	169	ALA	CA-C	-5.04	1.46	1.52
17	AO	136	ARG	NE-CZ	5.04	1.38	1.33
21	A2	363	C	P-O5'	-5.04	1.52	1.59
33	BC	207	LEU	C-N	5.04	1.40	1.33
38	Bb	51	ARG	CD-NE	5.04	1.53	1.46
43	Bk	117	LYS	CA-C	-5.04	1.46	1.52
28	B6	8	ILE	CA-C	-5.04	1.46	1.52
67	B1	83	G	O3'-P	-5.04	1.53	1.61
67	B1	983	G	C4'-C3'	5.04	1.60	1.52
67	B1	1375	G	P-O5'	5.04	1.67	1.59
67	B1	2647	G	P-O5'	-5.04	1.52	1.59
11	A1	10	G	C3'-O3'	5.03	1.49	1.42
11	A1	50	G	C2'-C1'	5.03	1.60	1.53
21	A2	510	A	O5'-C5'	5.03	1.50	1.42
23	AT	26	ARG	NE-CZ	5.03	1.38	1.33
53	BD	172	ARG	NE-CZ	5.03	1.38	1.33
62	BN	5	PRO	CA-CB	-5.03	1.46	1.53
62	BN	125	ARG	CZ-NH1	5.03	1.39	1.32
67	B1	327	G	O4'-C1'	-5.03	1.34	1.41
67	B1	685	G	O5'-C5'	5.03	1.50	1.42
67	B1	1092	U	C3'-O3'	5.03	1.49	1.42
67	B1	1536	U	C5'-C4'	5.03	1.58	1.51
67	B1	2864	G	O4'-C1'	5.03	1.49	1.42
67	B1	2816	C	C2'-C1'	5.03	1.60	1.53
14	AM	92	LYS	CA-CB	5.03	1.61	1.53
21	A2	19	G	O4'-C1'	-5.03	1.34	1.41
21	A2	876	A	C2'-O2'	5.03	1.50	1.42
21	A2	1156	A	O4'-C1'	-5.03	1.34	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	AH	133	ARG	NE-CZ	5.03	1.38	1.33
31	BY	42	SER	CA-C	5.03	1.59	1.52
49	BQ	147	LEU	CA-CB	5.03	1.61	1.53
20	B4	93	GLU	CA-C	-5.03	1.46	1.52
67	B1	463	A	C3'-C2'	-5.03	1.45	1.52
67	B1	2025	A	C3'-O3'	5.03	1.49	1.42
67	B1	2217	C	O3'-P	-5.03	1.53	1.61
67	B1	2869	U	C4'-C3'	5.03	1.60	1.53
65	BJ	73	MET	C-N	5.03	1.40	1.33
67	B1	615	A	O4'-C1'	-5.03	1.34	1.41
21	A2	23	G	O5'-C5'	5.03	1.50	1.42
21	A2	331	C	C2'-C1'	5.03	1.60	1.53
21	A2	682	A	C5'-C4'	5.03	1.58	1.51
21	A2	946	G	O4'-C1'	-5.03	1.34	1.41
21	A2	1098	G	C2'-C1'	-5.03	1.45	1.53
30	AU	89	LYS	N-CA	-5.03	1.39	1.45
33	BC	334	ARG	CD-NE	5.03	1.53	1.46
49	BQ	10	ILE	CA-C	-5.03	1.46	1.52
54	BF	133	ARG	C-N	5.03	1.40	1.33
67	B1	186	A	O5'-C5'	-5.03	1.34	1.42
67	B1	1901	A	C4'-O4'	5.03	1.53	1.45
67	B1	3007	A	P-O5'	-5.03	1.52	1.59
3	AI	19	ARG	CA-C	-5.03	1.46	1.52
21	A2	49	C	O4'-C1'	5.03	1.49	1.41
21	A2	391	G	O3'-P	-5.03	1.53	1.61
21	A2	744	A	C5'-C4'	-5.03	1.43	1.51
31	BY	105	MET	CA-C	-5.03	1.46	1.52
38	Bb	18	ARG	CD-NE	5.03	1.53	1.46
40	BE	88	TYR	C-N	5.03	1.40	1.33
45	Bi	60	GLY	C-N	5.03	1.40	1.33
46	BA	146	VAL	CA-C	5.03	1.58	1.52
67	B1	912	G	O4'-C1'	5.03	1.49	1.41
67	B1	1089	C	C3'-C2'	5.03	1.60	1.52
67	B1	1359	C	C5'-C4'	5.03	1.58	1.51
67	B1	1409	U	C3'-O3'	5.03	1.49	1.42
67	B1	2584	A	C3'-C2'	-5.03	1.45	1.52
35	BL	46	LYS	C-N	5.02	1.40	1.33
60	BS	24	ASP	CA-C	-5.02	1.46	1.53
67	B1	630	G	C4'-O4'	5.02	1.53	1.45
67	B1	3009	C	P-O5'	-5.02	1.52	1.59
1	AQ	120	ARG	CZ-NH2	5.02	1.40	1.33
21	A2	1451	C	C2'-C1'	-5.02	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	709	A	O4'-C1'	5.02	1.49	1.41
67	B1	753	A	O4'-C1'	-5.02	1.34	1.41
67	B1	2417	G	C4'-C3'	5.02	1.60	1.52
67	B1	2418	G	O4'-C1'	5.02	1.49	1.41
21	A2	718	G	C3'-O3'	5.02	1.49	1.42
27	A0	67	G	O4'-C1'	-5.02	1.34	1.41
35	BL	56	ASP	N-CA	-5.02	1.39	1.45
35	BL	132	LYS	CA-C	-5.02	1.46	1.52
67	B1	1116	A	C2'-C1'	-5.02	1.45	1.53
67	B1	2751	C	C2'-C1'	-5.02	1.45	1.53
7	AB	176	LEU	N-CA	-5.02	1.40	1.46
14	AM	52	ARG	CD-NE	5.02	1.53	1.46
34	B5	35	VAL	N-CA	-5.02	1.40	1.46
46	BA	64	VAL	CA-C	-5.02	1.46	1.52
67	B1	1066	C	C2'-C1'	5.02	1.60	1.53
67	B1	1952	G	O4'-C1'	5.02	1.49	1.41
67	B1	2704	A	O4'-C1'	5.02	1.49	1.41
6	AC	34	ASP	CA-CB	5.02	1.59	1.52
15	AE	194	ALA	C-N	5.02	1.40	1.33
19	AS	63	GLU	CA-C	-5.02	1.46	1.52
21	A2	776	C	P-O5'	-5.02	1.52	1.59
47	BI	26	GLU	CA-CB	5.02	1.61	1.53
20	B4	27	ARG	CD-NE	5.02	1.53	1.46
1	AQ	92	PRO	C-N	5.02	1.40	1.34
21	A2	412	U	O5'-C5'	5.02	1.50	1.42
21	A2	889	G	P-O5'	-5.02	1.52	1.59
47	BI	34	GLU	CA-CB	5.02	1.61	1.53
21	A2	369	A	P-O5'	-5.01	1.52	1.59
30	AU	59	LEU	C-O	-5.01	1.18	1.24
32	BO	15	ARG	NE-CZ	5.01	1.38	1.33
47	BI	80	ARG	NE-CZ	5.01	1.38	1.33
51	Bj	85	ARG	CD-NE	5.01	1.53	1.46
52	BB	234	ARG	CZ-NH1	5.01	1.39	1.32
65	BJ	91	ARG	CA-C	-5.01	1.46	1.53
67	B1	220	C	C4'-C3'	-5.01	1.45	1.52
67	B1	585	G	O4'-C1'	5.01	1.49	1.41
67	B1	620	G	O4'-C1'	-5.01	1.34	1.41
67	B1	1128	G	C3'-O3'	5.01	1.49	1.42
57	BZ	37	VAL	CA-CB	-5.01	1.47	1.53
67	B1	1696	G	O4'-C1'	5.01	1.49	1.41
67	B1	1944	C	C5'-C4'	5.01	1.58	1.51
67	B1	2398	C	C3'-C2'	-5.01	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2412	A	C4'-O4'	5.01	1.53	1.45
2	AK	27	ARG	CZ-NH1	5.01	1.39	1.32
21	A2	593	G	O4'-C1'	5.01	1.49	1.41
52	BB	46	GLU	N-CA	-5.01	1.40	1.46
67	B1	2	G	C2'-C1'	-5.01	1.45	1.53
67	B1	725	G	O3'-P	-5.01	1.53	1.61
67	B1	842	C	O5'-C5'	5.01	1.50	1.42
67	B1	1078	G	O4'-C1'	5.01	1.49	1.41
67	B1	1264	G	O4'-C1'	5.01	1.49	1.41
67	B1	1361	G	C2'-C1'	-5.01	1.45	1.53
67	B1	1496	A	O4'-C1'	-5.01	1.34	1.41
67	B1	1740	U	C5'-C4'	5.01	1.58	1.51
67	B1	1843	C	C4'-O4'	5.01	1.53	1.45
16	AJ	81	ILE	N-CA	-5.01	1.40	1.46
20	A3	27	ARG	CZ-NH2	5.01	1.40	1.33
21	A2	349	A	C4'-O4'	5.01	1.53	1.45
25	AH	14	GLU	CA-C	5.01	1.59	1.52
27	A0	24	G	C2'-C1'	-5.01	1.45	1.53
49	BQ	136	HIS	C-N	5.01	1.40	1.33
54	BF	180	LYS	C-O	5.01	1.29	1.25
58	BP	119	MET	C-N	5.01	1.40	1.33
67	B1	1299	C	C4'-O4'	5.01	1.53	1.45
7	AB	51	ARG	N-CA	-5.01	1.39	1.46
21	A2	416	A	O3'-P	5.01	1.68	1.61
59	BM	179	ALA	CA-C	-5.01	1.47	1.53
67	B1	208	A	C3'-C2'	5.01	1.60	1.52
67	B1	447	G	P-O5'	-5.01	1.52	1.59
21	A2	599	G	C2'-C1'	-5.01	1.45	1.53
21	A2	1004	U	C2'-C1'	-5.01	1.45	1.53
47	BI	52	ARG	CA-C	-5.01	1.46	1.52
60	BS	117	ILE	C-N	5.01	1.39	1.33
67	B1	35	G	O4'-C1'	5.01	1.49	1.41
21	A2	251	G	O4'-C1'	-5.00	1.34	1.41
21	A2	729	G	C4'-O4'	-5.00	1.38	1.45
21	A2	1068	C	C5'-C4'	5.00	1.58	1.51
36	Bf	3	ARG	CG-CD	5.00	1.67	1.52
45	Bi	12	ARG	NE-CZ	5.00	1.38	1.33
67	B1	1507	A	O4'-C1'	5.00	1.49	1.41
21	A2	251	G	C4'-O4'	-5.00	1.38	1.45
59	BM	118	TRP	CA-C	-5.00	1.46	1.52
62	BN	19	ARG	C-N	5.00	1.40	1.33
67	B1	1023	C	C5'-C4'	5.00	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
67	B1	2294	A	P-O5'	-5.00	1.52	1.59
67	B1	2796	C	C5'-C4'	5.00	1.58	1.51
16	AJ	43	ARG	NE-CZ	5.00	1.38	1.33
21	A2	1346	C	P-O5'	-5.00	1.52	1.59
38	Bb	65	TRP	C-N	5.00	1.40	1.33
67	B1	312	G	C2'-O2'	-5.00	1.34	1.42
67	B1	1089	C	C2'-C1'	-5.00	1.45	1.53
67	B1	2879	G	C5'-C4'	5.00	1.58	1.51

All (14883) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2507	C	O4'-C1'-C2'	-30.58	77.02	107.60
67	B1	1642	G	O4'-C1'-C2'	-25.94	79.86	105.80
67	B1	2363	G	O4'-C1'-N9	23.35	143.53	108.50
67	B1	1037	C	P-O3'-C3'	22.64	154.16	120.20
67	B1	1612	G	P-O3'-C3'	21.78	152.87	120.20
67	B1	715	G	O4'-C1'-C2'	-20.67	86.93	107.60
21	A2	85	A	O4'-C1'-C2'	-20.57	87.03	107.60
67	B1	1045	A	O4'-C1'-C2'	-20.44	87.16	107.60
67	B1	1745	U	O4'-C1'-C2'	-19.87	87.73	107.60
67	B1	2064	U	P-O3'-C3'	19.86	150.00	120.20
67	B1	956	U	O4'-C1'-C2'	-19.80	87.80	107.60
67	B1	1319	U	P-O3'-C3'	19.67	149.70	120.20
67	B1	1754	A	O4'-C1'-N9	19.49	137.74	108.50
67	B1	2068	U	O4'-C1'-C2'	-19.09	86.71	105.80
35	BL	11	LEU	N-CA-CB	18.91	142.44	110.49
21	A2	974	G	O4'-C1'-C2'	-18.85	88.75	107.60
67	B1	1473	C	N1-C1'-C2'	18.61	139.92	112.00
67	B1	1600	G	O4'-C1'-C2'	-18.47	89.13	107.60
43	Bk	33	MET	O-C-N	18.22	139.24	121.57
68	B3	52	U	P-O3'-C3'	18.12	147.38	120.20
67	B1	1245	C	O4'-C1'-C2'	-18.08	89.52	107.60
67	B1	2033	G	O4'-C1'-C2'	-17.96	89.64	107.60
67	B1	1752	C	P-O3'-C3'	17.82	146.93	120.20
56	BH	19	PRO	N-CA-C	17.81	132.42	110.70
25	AH	86	MET	N-CA-C	17.46	132.50	107.88
21	A2	1200	U	C1'-O4'-C4'	17.28	126.98	109.70
67	B1	2134	G	C1'-O4'-C4'	-17.21	92.69	109.90
67	B1	565	A	C1'-O4'-C4'	17.12	127.03	109.90
67	B1	1707	A	O4'-C1'-C2'	-17.11	90.49	107.60
67	B1	366	G	N9-C1'-C2'	17.09	137.63	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1960	U	N1-C1'-C2'	16.97	137.45	112.00
67	B1	1084	G	P-O3'-C3'	16.96	145.64	120.20
67	B1	1178	G	O4'-C1'-C2'	16.89	124.49	107.60
21	A2	192	G	C3'-C2'-C1'	-16.87	84.43	101.30
34	B5	47	ARG	O-C-N	-16.84	103.48	123.19
68	B3	35	A	O4'-C1'-C2'	-16.73	90.87	107.60
67	B1	1440	C	N1-C1'-C2'	16.66	136.99	112.00
67	B1	1042	G	O4'-C1'-C2'	-16.65	90.95	107.60
67	B1	2912	G	P-O3'-C3'	16.65	145.17	120.20
21	A2	1207	G	O4'-C1'-N9	16.60	133.40	108.50
67	B1	1783	U	N1-C1'-C2'	16.51	138.77	114.00
21	A2	1403	U	N1-C1'-C2'	16.47	136.71	112.00
67	B1	404	G	O4'-C1'-C2'	-16.43	89.37	105.80
21	A2	406	U	P-O3'-C3'	16.27	144.60	120.20
67	B1	979	G	O4'-C1'-C2'	16.26	123.86	107.60
67	B1	2174	G	O4'-C1'-N9	16.21	132.52	108.20
67	B1	565	A	O4'-C1'-C2'	-16.16	91.44	107.60
11	A1	49	C	O4'-C1'-N1	16.16	132.75	108.50
21	A2	434	A	O4'-C1'-C2'	-16.14	91.46	107.60
67	B1	2928	C	O4'-C1'-C2'	-16.11	91.49	107.60
21	A2	369	A	N9-C1'-C2'	16.10	138.15	114.00
53	BD	83	VAL	O-C-N	16.09	139.44	121.10
21	A2	965	G	O4'-C1'-C2'	-16.06	91.54	107.60
67	B1	3035	C	P-O3'-C3'	16.01	144.22	120.20
67	B1	1226	G	P-O3'-C3'	16.00	144.20	120.20
67	B1	2590	C	N1-C1'-C2'	15.99	135.99	112.00
21	A2	1458	A	O4'-C1'-C2'	-15.95	89.85	105.80
67	B1	1471	G	N9-C1'-C2'	15.95	135.92	112.00
21	A2	1490	C	N1-C1'-C2'	15.91	135.87	112.00
4	AG	77	ASP	CA-CB-CG	-15.88	96.72	112.60
67	B1	409	C	N1-C1'-C2'	15.88	135.81	112.00
67	B1	1592	U	N1-C1'-C2'	15.86	135.79	112.00
67	B1	2735	C	N1-C1'-C2'	15.82	135.74	112.00
27	A0	6	C	N1-C1'-C2'	15.82	135.73	112.00
61	Bd	18	PRO	CA-C-N	15.81	139.90	120.14
61	Bd	18	PRO	C-N-CA	15.81	139.90	120.14
21	A2	415	C	O4'-C1'-C2'	-15.81	91.79	107.60
67	B1	82	C	N1-C1'-C2'	15.77	135.66	112.00
67	B1	1031	C	N1-C1'-C2'	15.77	135.66	112.00
67	B1	584	G	P-O3'-C3'	15.71	143.77	120.20
67	B1	2287	C	O4'-C1'-N1	15.70	132.05	108.50
68	B3	19	G	P-O3'-C3'	15.67	143.70	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1053	A	P-O3'-C3'	15.53	143.50	120.20
67	B1	1165	C	O4'-C1'-C2'	-15.53	92.07	107.60
67	B1	862	G	O4'-C1'-N9	15.52	131.78	108.50
21	A2	472	C	N1-C1'-C2'	15.51	135.26	112.00
67	B1	83	G	P-O3'-C3'	15.50	143.46	120.20
11	A1	77	A	O4'-C1'-N9	15.45	131.37	108.20
20	B4	35	GLY	CA-C-N	15.44	140.51	120.44
20	B4	35	GLY	C-N-CA	15.44	140.51	120.44
67	B1	2301	C	P-O3'-C3'	15.40	143.30	120.20
67	B1	1388	U	N1-C1'-C2'	15.39	135.09	112.00
21	A2	367	G	N9-C1'-C2'	15.34	135.01	112.00
21	A2	152	G	C1'-O4'-C4'	-15.30	94.60	109.90
21	A2	1424	G	N9-C1'-C2'	15.21	134.81	112.00
68	B3	74	U	P-O3'-C3'	15.20	143.00	120.20
21	A2	455	C	N1-C1'-C2'	15.20	134.79	112.00
67	B1	424	U	N1-C1'-C2'	15.19	134.79	112.00
67	B1	1033	C	O4'-C1'-C2'	-15.17	92.43	107.60
67	B1	1251	G	P-O3'-C3'	15.14	142.91	120.20
67	B1	2702	A	O4'-C1'-C2'	-15.13	92.47	107.60
21	A2	393	A	O4'-C1'-N9	15.13	131.19	108.50
21	A2	804	U	P-O3'-C3'	15.11	142.86	120.20
67	B1	154	U	O4'-C1'-N1	15.06	131.09	108.50
51	Bj	50	PHE	CA-CB-CG	15.00	128.80	113.80
68	B3	26	C	N1-C1'-C2'	14.99	134.48	112.00
21	A2	961	U	O3'-P-O5'	14.96	126.44	104.00
67	B1	129	C	P-O3'-C3'	14.95	142.63	120.20
21	A2	1200	U	O4'-C1'-N1	14.93	130.59	108.20
21	A2	63	G	P-O3'-C3'	14.93	142.59	120.20
21	A2	798	U	O4'-C1'-N1	14.89	130.84	108.50
21	A2	798	U	O4'-C1'-C2'	-14.89	92.71	107.60
67	B1	956	U	C1'-O4'-C4'	14.81	124.71	109.90
21	A2	194	C	P-O3'-C3'	14.80	142.41	120.20
11	A1	51	G	N9-C1'-C2'	14.76	134.14	112.00
67	B1	2363	G	P-O3'-C3'	14.73	142.30	120.20
21	A2	1190	C	N1-C1'-C2'	14.73	134.10	112.00
67	B1	715	G	C3'-C2'-C1'	14.73	116.03	101.30
67	B1	2260	C	N1-C1'-C2'	14.73	134.10	112.00
67	B1	374	C	N1-C1'-C2'	14.73	134.09	112.00
67	B1	1222	U	N1-C1'-C2'	14.72	134.09	112.00
68	B3	122	C	O4'-C1'-N1	14.69	130.24	108.20
21	A2	152	G	O4'-C1'-C2'	14.65	122.25	107.60
68	B3	22	C	O4'-C1'-C2'	-14.64	92.95	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	404	G	C1'-O4'-C4'	14.63	124.33	109.70
67	B1	634	G	P-O3'-C3'	14.62	142.13	120.20
67	B1	1678	A	O4'-C1'-N9	14.61	130.42	108.50
67	B1	131	C	O4'-C1'-C2'	-14.60	93.00	107.60
21	A2	366	C	N1-C1'-C2'	14.58	133.88	112.00
21	A2	871	A	P-O3'-C3'	14.58	142.06	120.20
21	A2	1082	A	C3'-C2'-C1'	14.50	115.80	101.30
67	B1	2304	C	N1-C1'-C2'	14.49	133.73	112.00
21	A2	1336	U	O4'-C1'-N1	14.48	130.23	108.50
67	B1	363	G	P-O5'-C5'	14.48	142.63	120.90
67	B1	1048	C	N1-C1'-C2'	14.48	133.72	112.00
67	B1	1279	U	O4'-C1'-N1	14.48	129.91	108.20
21	A2	260	C	N1-C1'-C2'	14.46	133.69	112.00
67	B1	237	G	O4'-C1'-C2'	-14.45	91.35	105.80
67	B1	44	C	N1-C1'-C2'	14.41	133.62	112.00
67	B1	2890	A	O4'-C1'-C2'	-14.41	91.39	105.80
67	B1	734	C	P-O3'-C3'	14.37	141.75	120.20
67	B1	2086	C	N1-C1'-C2'	14.36	133.54	112.00
11	A1	47	G	O4'-C1'-N9	14.34	130.01	108.50
21	A2	72	C	N1-C1'-C2'	14.33	133.50	112.00
67	B1	1045	A	C1'-O4'-C4'	14.29	124.19	109.90
31	BY	29	HIS	CA-CB-CG	-14.27	99.53	113.80
21	A2	765	U	O4'-C1'-C2'	-14.26	93.34	107.60
41	Ba	86	THR	N-CA-CB	14.26	134.58	110.49
21	A2	434	A	O3'-P-O5'	14.20	125.31	104.00
67	B1	1201	G	N9-C1'-C2'	14.20	133.29	112.00
67	B1	1898	A	O4'-C1'-C2'	-14.19	93.41	107.60
21	A2	641	A	P-O3'-C3'	14.16	141.44	120.20
64	Bc	17	GLN	CB-CA-C	-14.15	89.01	110.95
67	B1	1393	C	O4'-C1'-N1	14.15	129.42	108.20
67	B1	579	C	P-O3'-C3'	14.14	141.41	120.20
67	B1	1643	A	N9-C1'-C2'	14.14	135.21	114.00
27	A0	41	C	O4'-C1'-C2'	-14.11	93.49	107.60
67	B1	1072	U	O4'-C1'-C2'	-14.10	93.50	107.60
27	A0	47	U	O4'-C1'-N1	14.08	129.62	108.50
67	B1	898	G	C3'-C2'-C1'	14.08	115.38	101.30
67	B1	1180	G	P-O3'-C3'	14.07	141.31	120.20
21	A2	121	C	N1-C1'-C2'	14.07	133.10	112.00
67	B1	1348	G	O4'-C1'-N9	14.06	129.59	108.50
21	A2	616	G	C3'-C2'-C1'	-14.04	87.26	101.30
67	B1	1840	G	O4'-C1'-C2'	-14.02	91.78	105.80
21	A2	655	A	P-O3'-C3'	14.02	141.22	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	980	G	P-O3'-C3'	13.99	141.18	120.20
67	B1	2515	U	P-O5'-C5'	13.99	141.88	120.90
67	B1	1080	G	P-O3'-C3'	13.97	141.16	120.20
21	A2	147	A	O4'-C1'-C2'	-13.96	93.64	107.60
27	A0	40	C	O4'-C1'-C2'	-13.96	93.64	107.60
21	A2	581	G	C1'-O4'-C4'	-13.93	95.97	109.90
21	A2	306	C	O4'-C1'-C2'	-13.92	93.68	107.60
67	B1	2043	A	O4'-C1'-C2'	-13.92	93.68	107.60
67	B1	2319	C	N1-C1'-C2'	13.92	132.88	112.00
67	B1	934	G	N9-C1'-C2'	13.91	132.87	112.00
67	B1	614	G	C3'-C2'-C1'	13.91	115.21	101.30
21	A2	1167	C	N1-C1'-C2'	13.90	132.86	112.00
21	A2	699	C	N1-C1'-C2'	13.90	132.84	112.00
21	A2	157	A	O4'-C1'-C2'	-13.88	93.72	107.60
21	A2	1322	C	P-O3'-C3'	13.88	141.03	120.20
67	B1	1037	C	N1-C1'-C2'	-13.88	93.18	114.00
67	B1	258	C	N1-C1'-C2'	13.86	132.78	112.00
67	B1	2308	C	O4'-C1'-C2'	-13.85	93.75	107.60
67	B1	219	G	P-O5'-C5'	13.83	141.64	120.90
68	B3	35	A	C1'-O4'-C4'	13.82	123.72	109.90
21	A2	71	C	N1-C1'-C2'	13.82	132.73	112.00
21	A2	192	G	O4'-C1'-N9	13.82	129.22	108.50
27	A0	62	C	O4'-C1'-C2'	-13.79	93.81	107.60
21	A2	1269	G	O4'-C1'-C2'	-13.79	93.81	107.60
21	A2	1409	G	O4'-C1'-N9	13.79	129.18	108.50
67	B1	96	C	O3'-P-O5'	-13.78	83.33	104.00
38	Bb	75	HIS	CA-CB-CG	13.76	127.56	113.80
67	B1	1981	G	O4'-C1'-N9	13.76	129.14	108.50
21	A2	1491	C	C4'-C3'-C2'	-13.76	88.84	102.60
21	A2	1154	G	N9-C1'-C2'	13.75	132.62	112.00
21	A2	1272	G	C1'-O4'-C4'	-13.74	96.16	109.90
21	A2	1336	U	C1'-O4'-C4'	13.73	123.63	109.90
67	B1	1178	G	C1'-O4'-C4'	-13.73	96.17	109.90
21	A2	1484	C	O4'-C1'-N1	13.72	128.78	108.20
67	B1	1085	G	O3'-P-O5'	-13.71	83.44	104.00
67	B1	2554	A	O4'-C1'-C2'	-13.71	92.09	105.80
21	A2	85	A	N9-C1'-C2'	-13.70	91.45	112.00
21	A2	394	C	P-O5'-C5'	13.70	141.44	120.90
35	BL	15	HIS	CA-CB-CG	13.69	127.49	113.80
67	B1	297	G	N9-C1'-C2'	13.69	132.54	112.00
21	A2	60	A	O4'-C1'-N9	13.69	128.74	108.20
21	A2	831	A	O4'-C1'-C2'	-13.69	92.11	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	85	A	C1'-O4'-C4'	13.65	123.55	109.90
67	B1	2650	G	C3'-C2'-C1'	-13.65	87.65	101.30
67	B1	980	G	N9-C1'-C2'	13.64	132.47	112.00
36	Bf	4	ASN	CA-CB-CG	13.64	126.24	112.60
67	B1	1568	A	C3'-C2'-C1'	-13.63	87.67	101.30
67	B1	1396	A	O4'-C1'-C2'	-13.59	94.01	107.60
67	B1	1037	C	O4'-C1'-C2'	-13.53	92.27	105.80
21	A2	1161	A	P-O3'-C3'	13.51	140.46	120.20
67	B1	3038	A	P-O3'-C3'	13.51	140.46	120.20
21	A2	486	A	P-O3'-C3'	13.50	140.45	120.20
67	B1	700	A	O4'-C1'-C2'	-13.50	94.10	107.60
67	B1	994	G	P-O3'-C3'	13.50	140.45	120.20
51	Bj	84	PHE	CA-CB-CG	-13.49	100.31	113.80
67	B1	408	C	C5'-C4'-C3'	13.49	136.24	116.00
35	BL	10	LYS	N-CA-CB	-13.46	89.86	110.06
21	A2	1082	A	O4'-C1'-C2'	-13.46	94.14	107.60
67	B1	2606	C	P-O3'-C3'	13.46	140.39	120.20
41	Ba	24	ARG	N-CA-C	13.45	125.96	111.03
67	B1	2891	A	P-O3'-C3'	13.43	140.34	120.20
67	B1	1574	A	O4'-C1'-C2'	-13.41	92.39	105.80
21	A2	45	U	O4'-C1'-N1	13.41	128.62	108.50
64	Bc	17	GLN	N-CA-C	13.41	125.91	111.03
21	A2	746	A	O4'-C1'-N9	13.40	128.29	108.20
27	A0	25	C	O4'-C1'-C2'	-13.39	94.21	107.60
21	A2	1453	U	P-O3'-C3'	13.39	140.28	120.20
21	A2	1195	U	C3'-C2'-C1'	-13.37	87.93	101.30
21	A2	1436	U	P-O3'-C3'	13.36	140.25	120.20
21	A2	1128	U	O4'-C1'-N1	13.35	128.23	108.20
21	A2	1262	U	P-O3'-C3'	13.34	140.21	120.20
67	B1	2618	C	O4'-C1'-C2'	-13.34	94.27	107.60
27	A0	11	C	N1-C1'-C2'	13.32	131.98	112.00
67	B1	2077	A	C1'-O4'-C4'	13.31	123.21	109.90
21	A2	434	A	C1'-O4'-C4'	13.30	123.20	109.90
21	A2	1101	G	O4'-C1'-N9	13.30	128.45	108.50
21	A2	660	C	O3'-P-O5'	-13.30	84.05	104.00
41	Ba	25	TRP	CB-CG-CD2	-13.29	108.19	126.80
67	B1	1553	G	O4'-C1'-N9	13.29	128.44	108.50
67	B1	605	A	O4'-C1'-C2'	-13.29	94.31	107.60
67	B1	3026	C	O4'-C1'-N1	13.29	128.13	108.20
49	BQ	101	ALA	N-CA-CB	13.28	129.64	110.12
67	B1	414	G	O4'-C1'-C2'	-13.28	92.52	105.80
67	B1	880	U	N1-C1'-C2'	13.27	131.90	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	976	C	O4'-C1'-C2'	-13.24	94.36	107.60
67	B1	2115	U	O4'-C1'-C2'	-13.24	94.36	107.60
18	AF	12	VAL	CA-C-N	13.23	138.51	120.38
18	AF	12	VAL	C-N-CA	13.23	138.51	120.38
21	A2	362	C	C3'-C2'-C1'	13.23	114.73	101.50
67	B1	2506	G	P-O3'-C3'	-13.23	100.36	120.20
21	A2	1072	C	N1-C1'-C2'	13.21	131.82	112.00
21	A2	324	C	P-O3'-C3'	13.21	140.02	120.20
67	B1	1272	A	O4'-C1'-C2'	-13.19	94.41	107.60
67	B1	274	C	N1-C1'-C2'	13.18	131.77	112.00
21	A2	867	A	O4'-C1'-C2'	-13.16	94.44	107.60
67	B1	1567	C	C4'-C3'-C2'	13.16	115.76	102.60
67	B1	2326	C	N1-C1'-C2'	13.12	131.68	112.00
67	B1	3004	C	P-O3'-C3'	13.11	139.87	120.20
68	B3	44	C	O4'-C1'-C2'	-13.11	94.49	107.60
67	B1	324	C	O4'-C1'-C2'	-13.11	94.49	107.60
28	AV	60	PHE	O-C-N	-13.11	105.16	122.59
67	B1	158	C	C3'-C2'-C1'	13.11	114.41	101.30
67	B1	1029	C	C3'-C2'-C1'	13.11	114.41	101.30
21	A2	633	C	N1-C1'-C2'	13.10	131.65	112.00
67	B1	473	C	N1-C1'-C2'	13.09	131.63	112.00
67	B1	1248	C	O4'-C1'-N1	13.08	128.12	108.50
67	B1	859	G	P-O3'-C3'	13.08	139.82	120.20
67	B1	2916	G	C1'-O4'-C4'	13.08	122.98	109.90
67	B1	2273	U	P-O5'-C5'	13.07	140.51	120.90
67	B1	2674	C	N1-C1'-C2'	13.06	131.59	112.00
67	B1	2314	U	O4'-C1'-C2'	-13.04	94.56	107.60
21	A2	423	U	O4'-C1'-N1	13.04	128.06	108.50
67	B1	2507	C	P-O3'-C3'	13.03	139.75	120.20
11	A1	51	G	C1'-O4'-C4'	-13.03	96.87	109.90
67	B1	1244	C	O4'-C1'-C2'	-13.03	94.57	107.60
67	B1	84	A	P-O5'-C5'	-13.03	101.36	120.90
67	B1	2218	C	N1-C1'-C2'	13.01	131.52	112.00
67	B1	2963	G	O4'-C1'-N9	13.01	128.01	108.50
67	B1	350	A	O4'-C1'-C2'	-12.99	92.81	105.80
67	B1	1936	C	P-O3'-C3'	12.97	139.66	120.20
67	B1	1184	U	O4'-C1'-N1	12.97	127.95	108.50
67	B1	1117	C	P-O3'-C3'	12.97	139.65	120.20
67	B1	1563	G	P-O3'-C3'	12.97	139.65	120.20
21	A2	381	C	N1-C1'-C2'	12.96	131.44	112.00
21	A2	616	G	O4'-C1'-C2'	12.96	120.56	107.60
25	AH	43	LEU	N-CA-CB	-12.96	91.22	110.01

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1115	G	O4'-C1'-C2'	12.93	120.53	107.60
67	B1	2115	U	C1'-O4'-C4'	12.92	122.82	109.90
67	B1	1644	G	O4'-C1'-C2'	-12.89	94.71	107.60
21	A2	615	G	O4'-C1'-C2'	12.89	120.49	107.60
67	B1	1140	C	N1-C1'-C2'	12.88	131.33	112.00
67	B1	1097	G	O5'-C5'-C4'	12.86	130.79	111.50
67	B1	582	A	O4'-C1'-C2'	-12.85	94.75	107.60
67	B1	1163	U	O4'-C1'-N1	12.84	127.75	108.50
21	A2	656	U	O4'-C1'-N1	12.83	127.75	108.50
21	A2	92	G	O4'-C1'-N9	12.83	127.74	108.50
67	B1	379	U	P-O3'-C3'	12.82	139.43	120.20
67	B1	1158	G	N9-C1'-C2'	12.81	131.22	112.00
67	B1	2921	U	P-O3'-C3'	12.81	139.41	120.20
67	B1	2477	G	O4'-C1'-N9	12.79	127.69	108.50
67	B1	58	G	N9-C1'-C2'	12.78	131.16	112.00
21	A2	1095	C	O4'-C1'-N1	12.77	127.66	108.50
67	B1	2069	G	N9-C1'-C2'	12.77	131.16	112.00
21	A2	1335	A	O4'-C1'-C2'	-12.77	94.83	107.60
67	B1	1301	G	O4'-C1'-C2'	12.77	120.37	107.60
67	B1	2402	A	O4'-C1'-C2'	-12.76	93.04	105.80
67	B1	393	C	O4'-C1'-C2'	-12.75	94.85	107.60
53	BD	91	ARG	CA-C-N	12.74	145.87	121.54
53	BD	91	ARG	C-N-CA	12.74	145.87	121.54
67	B1	1944	C	O4'-C1'-C2'	-12.72	94.88	107.60
67	B1	2745	G	C3'-C2'-C1'	-12.72	88.58	101.30
68	B3	20	G	N9-C1'-C2'	12.71	131.07	112.00
67	B1	92	G	N9-C1'-C2'	12.71	131.07	112.00
67	B1	372	A	O4'-C1'-C2'	-12.70	93.10	105.80
67	B1	1080	G	C1'-O4'-C4'	12.70	122.60	109.90
21	A2	239	A	C2'-C3'-O3'	12.66	128.50	109.50
21	A2	407	G	P-O5'-C5'	12.66	139.89	120.90
25	AH	79	TYR	CA-CB-CG	12.66	136.68	113.90
67	B1	2055	U	O4'-C1'-C2'	-12.65	94.95	107.60
21	A2	1261	U	P-O3'-C3'	12.65	139.17	120.20
21	A2	581	G	O4'-C1'-C2'	12.64	120.24	107.60
25	AH	103	VAL	CB-CA-C	-12.64	95.79	111.97
67	B1	1201	G	C1'-O4'-C4'	-12.64	97.26	109.90
67	B1	2754	A	N9-C1'-C2'	12.62	130.93	112.00
67	B1	883	G	O4'-C1'-C2'	-12.60	95.00	107.60
21	A2	236	C	O4'-C1'-C2'	-12.59	95.01	107.60
21	A2	8	U	O4'-C1'-N1	12.58	127.07	108.20
67	B1	2914	U	O4'-C1'-C2'	-12.58	95.02	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	325	A	C3'-C2'-C1'	12.56	114.06	101.50
67	B1	1767	C	N1-C1'-C2'	12.55	130.83	112.00
67	B1	2702	A	C1'-O4'-C4'	12.55	122.45	109.90
67	B1	94	A	O4'-C1'-C2'	-12.55	95.05	107.60
21	A2	1127	A	N9-C1'-C2'	12.55	130.82	112.00
67	B1	1601	G	O3'-P-O5'	-12.54	85.18	104.00
68	B3	53	A	N9-C1'-C2'	12.54	130.81	112.00
21	A2	183	A	N9-C1'-C2'	12.53	130.80	112.00
21	A2	440	C	N1-C1'-C2'	12.51	130.77	112.00
21	A2	112	G	O4'-C1'-C2'	-12.51	95.09	107.60
67	B1	1969	C	N1-C1'-C2'	12.50	130.74	112.00
67	B1	1042	G	P-O5'-C5'	12.49	139.63	120.90
11	A1	59	A	O4'-C1'-N9	12.48	127.23	108.50
67	B1	318	G	O4'-C1'-C2'	12.48	120.08	107.60
21	A2	804	U	C1'-O4'-C4'	12.48	122.38	109.90
67	B1	143	C	O4'-C1'-C2'	-12.47	95.13	107.60
67	B1	957	C	N1-C1'-C2'	12.46	130.70	112.00
25	AH	42	ARG	N-CA-C	12.46	125.64	110.19
21	A2	919	U	N1-C1'-C2'	12.46	132.69	114.00
67	B1	1260	C	P-O3'-C3'	12.43	138.84	120.20
21	A2	1341	C	N1-C1'-C2'	12.43	130.64	112.00
67	B1	166	G	O4'-C1'-N9	12.42	126.83	108.20
67	B1	897	U	P-O3'-C3'	12.42	138.83	120.20
67	B1	715	G	P-O3'-C3'	12.42	138.83	120.20
67	B1	1118	A	N9-C1'-C2'	12.42	130.63	112.00
67	B1	1738	A	O4'-C1'-N9	12.41	127.12	108.50
67	B1	2800	U	O4'-C1'-N1	12.41	127.11	108.50
49	BQ	132	PHE	CA-C-N	12.40	137.02	120.65
49	BQ	132	PHE	C-N-CA	12.40	137.02	120.65
67	B1	847	A	O4'-C1'-C2'	-12.40	95.20	107.60
21	A2	1156	A	O4'-C1'-N9	12.40	126.79	108.20
27	A0	66	C	O4'-C1'-C2'	-12.40	95.20	107.60
67	B1	796	C	N1-C1'-C2'	12.39	130.59	112.00
21	A2	205	C	N1-C1'-C2'	12.39	130.59	112.00
67	B1	1229	U	N1-C1'-C2'	12.37	130.56	112.00
27	A0	72	C	P-O3'-C3'	12.37	138.75	120.20
67	B1	374	C	O4'-C1'-C2'	-12.37	95.23	107.60
21	A2	516	A	N9-C1'-C2'	12.37	130.55	112.00
67	B1	3013	U	N1-C1'-C2'	12.36	132.54	114.00
67	B1	1324	G	O4'-C1'-C2'	-12.36	95.25	107.60
21	A2	804	U	O4'-C1'-C2'	-12.33	95.27	107.60
67	B1	876	C	O4'-C1'-C2'	-12.33	95.27	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1618	G	C1'-O4'-C4'	-12.32	97.58	109.90
21	A2	1406	U	O4'-C1'-N1	12.32	126.97	108.50
29	AL	92	GLU	CA-C-N	12.31	143.87	121.70
29	AL	92	GLU	C-N-CA	12.31	143.87	121.70
67	B1	1706	G	O4'-C1'-N9	12.30	126.95	108.50
67	B1	1780	C	P-O3'-C3'	12.30	138.65	120.20
33	BC	125	TYR	CB-CA-C	12.29	134.88	110.42
35	BL	12	ARG	N-CA-C	-12.29	97.89	111.28
21	A2	408	C	O4'-C1'-C2'	-12.29	95.31	107.60
67	B1	1569	A	O4'-C1'-N9	12.28	126.92	108.50
67	B1	1615	G	O4'-C1'-N9	12.27	126.60	108.20
67	B1	83	G	O3'-P-O5'	-12.26	85.61	104.00
67	B1	1541	U	O4'-C1'-N1	12.24	126.56	108.20
21	A2	166	A	P-O5'-C5'	12.24	139.26	120.90
67	B1	1234	A	C3'-C2'-C1'	12.23	113.53	101.30
67	B1	1817	C	N1-C1'-C2'	12.23	130.34	112.00
67	B1	2936	U	O4'-C1'-N1	12.23	126.85	108.50
67	B1	50	C	O4'-C1'-C2'	-12.23	93.57	105.80
67	B1	2937	U	O4'-C1'-C2'	-12.22	95.38	107.60
21	A2	136	A	N9-C1'-C2'	12.21	130.32	112.00
67	B1	351	C	O4'-C1'-C2'	-12.21	93.58	105.80
67	B1	2594	U	N1-C1'-C2'	12.21	130.31	112.00
67	B1	1253	U	O4'-C1'-C2'	-12.20	95.40	107.60
67	B1	962	C	C3'-C2'-C1'	12.20	113.50	101.30
67	B1	2826	U	O4'-C1'-C2'	-12.19	93.61	105.80
67	B1	1735	G	O4'-C1'-C2'	-12.18	95.42	107.60
35	BL	9	ARG	CB-CA-C	12.18	134.66	110.42
67	B1	825	C	O4'-C1'-C2'	-12.18	95.42	107.60
67	B1	155	U	O4'-C1'-N1	12.17	126.46	108.20
21	A2	304	C	N1-C1'-C2'	12.17	130.25	112.00
67	B1	470	A	C1'-O4'-C4'	12.16	122.06	109.90
67	B1	1179	G	O4'-C1'-N9	12.16	126.73	108.50
67	B1	2793	C	P-O3'-C3'	12.16	138.44	120.20
21	A2	798	U	C1'-O4'-C4'	12.15	122.05	109.90
21	A2	1248	A	O4'-C1'-C2'	-12.15	95.45	107.60
67	B1	1069	A	O4'-C1'-N9	12.15	126.42	108.20
21	A2	246	A	O4'-C1'-C2'	-12.14	95.46	107.60
67	B1	1711	C	O4'-C1'-N1	12.13	126.39	108.20
68	B3	119	C	C3'-C2'-C1'	12.11	113.41	101.30
21	A2	978	G	N9-C1'-C2'	12.10	130.16	112.00
68	B3	40	G	P-O3'-C3'	12.10	138.35	120.20
21	A2	348	C	N1-C1'-C2'	12.09	130.13	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1491	C	C3'-C2'-C1'	12.09	113.39	101.30
21	A2	362	C	N1-C1'-C2'	12.08	132.12	114.00
21	A2	367	G	C1'-O4'-C4'	-12.08	97.82	109.90
21	A2	1323	A	N9-C1'-C2'	12.07	132.10	114.00
67	B1	362	A	P-O3'-C3'	-12.07	102.10	120.20
67	B1	2121	C	O4'-C1'-C2'	-12.07	95.53	107.60
67	B1	3027	C	N1-C1'-C2'	12.07	130.10	112.00
67	B1	111	U	O4'-C1'-N1	12.06	126.60	108.50
68	B3	41	A	C3'-C2'-C1'	12.06	113.36	101.30
67	B1	694	A	O4'-C1'-N9	12.06	126.29	108.20
25	AH	85	PHE	CA-CB-CG	12.05	125.85	113.80
21	A2	1038	C	N1-C1'-C2'	12.05	130.07	112.00
67	B1	1093	G	O4'-C1'-N9	12.05	126.57	108.50
67	B1	2844	G	C1'-O4'-C4'	-12.04	97.86	109.90
67	B1	278	C	O4'-C1'-N1	12.04	126.26	108.20
67	B1	2119	C	O4'-C1'-C2'	-12.04	95.56	107.60
21	A2	616	G	C1'-O4'-C4'	-12.03	97.87	109.90
67	B1	1030	C	C3'-C2'-C1'	12.03	113.33	101.30
21	A2	210	A	C3'-C2'-C1'	12.03	113.33	101.30
67	B1	2424	A	C3'-C2'-C1'	12.03	113.33	101.30
21	A2	1444	G	O4'-C1'-C2'	12.02	119.62	107.60
67	B1	2269	C	O4'-C1'-C2'	-12.02	95.58	107.60
12	AN	133	SER	N-CA-CB	12.00	127.68	110.04
67	B1	1618	G	C3'-C2'-C1'	-12.00	89.30	101.30
67	B1	714	C	P-O3'-C3'	12.00	138.19	120.20
67	B1	1179	G	N9-C1'-C2'	-11.99	94.02	112.00
67	B1	2172	G	C3'-C2'-C1'	-11.99	89.31	101.30
25	AH	86	MET	CA-C-N	11.98	139.09	122.19
25	AH	86	MET	C-N-CA	11.98	139.09	122.19
43	Bk	38	LEU	CA-C-O	-11.98	108.24	120.82
67	B1	1157	U	O4'-C1'-C2'	-11.98	95.62	107.60
67	B1	1223	A	O4'-C1'-C2'	-11.97	95.63	107.60
67	B1	1604	G	P-O5'-C5'	11.97	138.85	120.90
67	B1	486	A	O4'-C1'-N9	11.96	126.15	108.20
68	B3	49	A	O4'-C1'-C2'	-11.96	95.64	107.60
33	BC	329	PRO	N-CA-CB	11.96	112.86	103.30
21	A2	674	C	O4'-C1'-C2'	-11.95	95.66	107.60
21	A2	680	C	O4'-C1'-C2'	-11.94	95.66	107.60
25	AH	78	HIS	CA-C-N	11.94	142.09	122.87
25	AH	78	HIS	C-N-CA	11.94	142.09	122.87
67	B1	2062	A	P-O3'-C3'	11.94	138.11	120.20
21	A2	63	G	O4'-C1'-C2'	11.93	119.53	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
68	B3	110	C	C3'-C2'-C1'	11.93	113.23	101.30
67	B1	1570	C	C4'-C3'-C2'	11.92	114.52	102.60
21	A2	1017	U	P-O3'-C3'	11.92	138.08	120.20
67	B1	787	G	N9-C1'-C2'	11.90	129.85	112.00
68	B3	45	C	O4'-C1'-C2'	-11.88	95.72	107.60
67	B1	241	C	N1-C1'-C2'	11.88	129.82	112.00
67	B1	1709	C	N1-C1'-C2'	11.87	129.81	112.00
21	A2	262	G	P-O3'-C3'	11.87	138.00	120.20
21	A2	1106	A	O4'-C1'-C2'	-11.86	95.74	107.60
67	B1	165	G	N9-C1'-C2'	11.86	129.79	112.00
67	B1	1205	U	O4'-C1'-N1	11.86	126.29	108.50
67	B1	2182	A	O4'-C1'-N9	11.86	126.28	108.50
67	B1	932	C	C3'-C2'-C1'	11.86	113.16	101.30
67	B1	2382	A	O4'-C1'-C2'	-11.86	95.75	107.60
21	A2	175	G	O4'-C1'-N9	11.84	126.26	108.50
21	A2	250	G	O4'-C1'-C2'	11.84	119.44	107.60
67	B1	355	G	O4'-C1'-C2'	11.84	119.44	107.60
21	A2	689	C	O4'-C1'-C2'	-11.83	95.77	107.60
21	A2	1423	A	P-O3'-C3'	11.83	137.94	120.20
67	B1	452	A	C1'-O4'-C4'	-11.82	98.08	109.90
21	A2	284	A	O4'-C1'-C2'	-11.81	95.78	107.60
21	A2	985	C	P-O3'-C3'	11.81	137.91	120.20
67	B1	2011	U	O4'-C1'-C2'	-11.80	95.80	107.60
67	B1	1480	G	O4'-C1'-C2'	-11.79	95.81	107.60
67	B1	187	C	N1-C1'-C2'	11.79	129.69	112.00
67	B1	1485	A	P-O3'-C3'	11.79	137.88	120.20
67	B1	1363	C	O4'-C1'-C2'	-11.79	95.81	107.60
67	B1	1707	A	N9-C1'-C2'	-11.78	94.33	112.00
21	A2	709	G	O4'-C1'-C2'	-11.78	95.82	107.60
67	B1	2545	A	P-O3'-C3'	11.77	137.86	120.20
21	A2	1362	C	O4'-C1'-C2'	-11.77	95.83	107.60
67	B1	1109	G	P-O3'-C3'	11.76	137.84	120.20
36	Bf	1	MET	CA-C-N	11.76	137.21	120.28
36	Bf	1	MET	C-N-CA	11.76	137.21	120.28
67	B1	906	G	O4'-C1'-C2'	11.76	119.36	107.60
68	B3	67	U	O4'-C1'-C2'	-11.75	95.85	107.60
67	B1	1953	U	N1-C1'-C2'	11.75	129.63	112.00
21	A2	904	G	O4'-C1'-C2'	-11.74	95.86	107.60
21	A2	529	C	O4'-C1'-C2'	-11.74	94.06	105.80
46	BA	59	ASP	CA-CB-CG	-11.73	100.87	112.60
67	B1	168	G	O4'-C1'-C2'	11.73	119.33	107.60
67	B1	1547	U	O4'-C1'-C2'	-11.73	95.87	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	A1	25	G	O4'-C1'-C2'	-11.72	95.88	107.60
21	A2	309	A	O4'-C1'-C2'	-11.72	95.88	107.60
21	A2	702	G	N9-C1'-C2'	11.72	129.58	112.00
67	B1	1200	A	O4'-C1'-C2'	-11.72	95.88	107.60
21	A2	1086	C	N1-C1'-C2'	11.71	129.57	112.00
25	AH	84	HIS	CA-C-N	11.71	143.91	121.54
25	AH	84	HIS	C-N-CA	11.71	143.91	121.54
67	B1	1921	U	N1-C1'-C2'	11.71	129.56	112.00
29	AL	44	ARG	N-CA-C	-11.71	89.82	108.90
67	B1	411	U	O4'-C1'-N1	11.70	126.05	108.50
67	B1	2879	G	O4'-C1'-C2'	-11.69	95.91	107.60
67	B1	636	G	N9-C1'-C2'	11.69	129.53	112.00
67	B1	867	C	O4'-C1'-C2'	-11.68	95.92	107.60
67	B1	947	C	O4'-C1'-C2'	-11.68	95.92	107.60
67	B1	1918	U	P-O3'-C3'	11.68	137.72	120.20
64	Bc	14	LYS	CA-C-N	11.68	140.54	120.58
64	Bc	14	LYS	C-N-CA	11.68	140.54	120.58
13	AX	67	ILE	N-CA-C	11.67	120.84	111.62
21	A2	1491	C	P-O3'-C3'	-11.67	102.70	120.20
67	B1	719	C	N1-C1'-C2'	11.66	129.49	112.00
67	B1	1624	U	O4'-C1'-N1	11.66	125.69	108.20
21	A2	292	U	N1-C1'-C2'	11.66	129.49	112.00
27	A0	58	A	O4'-C1'-C2'	-11.65	94.15	105.80
67	B1	2294	A	O4'-C1'-C2'	-11.65	94.15	105.80
67	B1	2654	C	N1-C1'-C2'	11.63	129.45	112.00
4	AG	53	LYS	CA-C-N	11.63	142.63	121.70
4	AG	53	LYS	C-N-CA	11.63	142.63	121.70
21	A2	1079	G	O4'-C1'-C2'	-11.63	95.97	107.60
21	A2	176	U	P-O3'-C3'	11.62	137.64	120.20
21	A2	1336	U	O4'-C1'-C2'	-11.62	95.98	107.60
21	A2	617	A	O4'-C1'-C2'	-11.61	95.99	107.60
67	B1	702	G	O4'-C1'-N9	11.61	125.92	108.50
67	B1	2761	G	O4'-C1'-C2'	-11.61	95.99	107.60
11	A1	41	C	N1-C1'-C2'	11.61	129.41	112.00
67	B1	266	A	N9-C1'-C2'	11.61	129.41	112.00
67	B1	520	G	O4'-C1'-C2'	-11.60	94.20	105.80
21	A2	1076	G	O4'-C1'-C2'	11.59	119.19	107.60
67	B1	435	G	C1'-O4'-C4'	-11.59	98.31	109.90
67	B1	1453	G	O4'-C1'-C2'	11.59	119.19	107.60
21	A2	31	U	O4'-C1'-C2'	-11.59	96.01	107.60
68	B3	119	C	O4'-C1'-C2'	-11.58	96.02	107.60
67	B1	768	C	N1-C1'-C2'	11.57	129.36	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	AH	10	PHE	CA-C-N	11.57	129.59	120.33
25	AH	10	PHE	C-N-CA	11.57	129.59	120.33
67	B1	115	C	N1-C1'-C2'	11.56	129.34	112.00
51	Bj	17	HIS	CA-CB-CG	-11.55	102.25	113.80
67	B1	333	A	O4'-C1'-N9	11.55	125.53	108.20
67	B1	1103	C	P-O5'-C5'	11.54	138.21	120.90
67	B1	358	C	N1-C1'-C2'	11.54	129.30	112.00
67	B1	1096	A	P-O3'-C3'	11.53	137.50	120.20
67	B1	1868	C	O4'-C1'-C2'	-11.53	96.07	107.60
67	B1	2235	G	N9-C1'-C2'	11.53	129.30	112.00
68	B3	43	C	O4'-C1'-C2'	-11.53	96.07	107.60
52	BB	95	ASN	CA-CB-CG	-11.53	101.08	112.60
36	Bf	20	ASN	CA-CB-CG	-11.52	101.08	112.60
67	B1	1670	A	O4'-C1'-N9	11.52	125.78	108.50
67	B1	1932	G	O4'-C1'-C2'	-11.52	96.08	107.60
67	B1	2486	A	O4'-C1'-C2'	-11.52	96.08	107.60
21	A2	439	G	N9-C1'-C2'	11.51	131.27	114.00
67	B1	2879	G	N9-C1'-C2'	11.51	129.27	112.00
67	B1	889	C	O4'-C1'-C2'	-11.51	96.09	107.60
67	B1	1440	C	C1'-O4'-C4'	-11.50	98.40	109.90
67	B1	1779	C	N1-C1'-C2'	11.50	129.25	112.00
21	A2	703	U	C1'-O4'-C4'	11.50	121.40	109.90
67	B1	85	G	C5'-C4'-C3'	11.50	133.25	116.00
67	B1	756	C	P-O3'-C3'	11.49	137.43	120.20
21	A2	513	A	P-O3'-C3'	11.48	137.41	120.20
67	B1	2324	C	P-O3'-C3'	11.47	137.41	120.20
67	B1	2266	C	O4'-C1'-C2'	-11.47	96.13	107.60
21	A2	1423	A	C1'-O4'-C4'	11.46	121.36	109.90
67	B1	459	C	O4'-C1'-C2'	-11.46	96.14	107.60
18	AF	5	TRP	N-CA-C	11.46	125.00	111.02
27	A0	14	A	O4'-C1'-C2'	-11.46	96.14	107.60
67	B1	480	A	P-O3'-C3'	11.46	137.39	120.20
67	B1	2407	G	C1'-O4'-C4'	-11.46	98.44	109.90
67	B1	3049	C	O4'-C1'-C2'	-11.46	96.14	107.60
21	A2	1195	U	C1'-O4'-C4'	-11.45	98.45	109.90
41	Ba	25	TRP	N-CA-CB	11.45	129.84	110.49
67	B1	1707	A	C1'-O4'-C4'	11.45	121.35	109.90
67	B1	415	U	C1'-O4'-C4'	11.45	121.35	109.90
21	A2	1405	C	O4'-C1'-C2'	-11.44	96.16	107.60
67	B1	428	A	O4'-C1'-C2'	-11.44	96.16	107.60
21	A2	1242	C	N1-C1'-C2'	11.44	129.16	112.00
67	B1	2386	U	N1-C1'-C2'	11.43	129.15	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	746	A	P-O3'-C3'	11.43	137.34	120.20
67	B1	1643	A	P-O3'-C3'	11.43	137.34	120.20
21	A2	440	C	O4'-C1'-C2'	-11.42	96.18	107.60
67	B1	2492	G	O4'-C1'-N9	11.41	125.62	108.50
67	B1	2650	G	O4'-C1'-C2'	11.41	119.01	107.60
67	B1	697	U	O4'-C1'-C2'	-11.41	96.19	107.60
67	B1	1082	A	P-O3'-C3'	11.41	137.31	120.20
21	A2	277	G	P-O3'-C3'	11.40	137.30	120.20
67	B1	1630	U	O4'-C1'-C2'	-11.40	96.20	107.60
67	B1	369	G	O4'-C1'-C2'	-11.39	94.41	105.80
68	B3	62	A	P-O3'-C3'	11.39	137.29	120.20
21	A2	392	G	P-O3'-C3'	11.39	137.28	120.20
67	B1	2636	C	N1-C1'-C2'	11.38	129.07	112.00
21	A2	1213	G	N9-C1'-C2'	11.38	129.07	112.00
67	B1	2238	G	O4'-C1'-N9	11.38	125.56	108.50
18	AF	43	GLN	CB-CA-C	-11.37	92.79	109.84
21	A2	243	G	O4'-C1'-N9	11.37	125.55	108.50
21	A2	1200	U	O4'-C1'-C2'	-11.36	94.44	105.80
21	A2	1111	G	O4'-C1'-C2'	-11.36	94.44	105.80
67	B1	1042	G	C1'-O4'-C4'	11.36	121.25	109.90
67	B1	2280	G	P-O3'-C3'	11.35	137.22	120.20
67	B1	2234	C	C3'-C2'-C1'	11.35	112.64	101.30
67	B1	1595	G	O4'-C1'-N9	11.34	125.52	108.50
67	B1	2503	C	O4'-C1'-C2'	-11.34	96.26	107.60
67	B1	435	G	O4'-C1'-C2'	11.34	118.94	107.60
21	A2	1144	G	N9-C1'-C2'	11.33	129.00	112.00
21	A2	965	G	C3'-C2'-C1'	11.33	112.63	101.30
67	B1	1578	C	O4'-C1'-C2'	-11.33	96.27	107.60
67	B1	394	A	C5'-C4'-C3'	11.33	132.99	116.00
67	B1	1642	G	N9-C1'-C2'	-11.33	97.01	114.00
53	BD	241	VAL	CB-CA-C	11.32	125.52	110.12
67	B1	2716	C	O4'-C1'-C2'	-11.32	94.48	105.80
67	B1	2769	U	N1-C1'-C2'	11.32	128.98	112.00
21	A2	1155	U	N1-C1'-C2'	11.32	128.97	112.00
68	B3	75	G	P-O3'-C3'	11.32	137.17	120.20
21	A2	181	G	N9-C1'-C2'	11.31	128.97	112.00
67	B1	1569	A	O4'-C1'-C2'	-11.31	96.28	107.60
67	B1	2173	U	O4'-C1'-C2'	-11.31	96.29	107.60
56	BH	93	ASN	CA-CB-CG	-11.30	101.30	112.60
67	B1	1407	A	P-O3'-C3'	11.29	137.13	120.20
67	B1	797	C	O4'-C1'-C2'	-11.29	96.31	107.60
67	B1	61	G	N9-C1'-C2'	11.28	128.92	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1380	G	O4'-C1'-C2'	-11.28	96.32	107.60
67	B1	2241	U	O4'-C1'-N1	11.28	125.12	108.20
67	B1	2937	U	C1'-O4'-C4'	11.28	121.18	109.90
21	A2	861	G	N9-C1'-C2'	11.28	128.91	112.00
67	B1	2209	U	C1'-O4'-C4'	11.28	121.17	109.90
21	A2	531	G	O4'-C1'-C2'	11.27	118.87	107.60
21	A2	660	C	N1-C1'-C2'	11.27	128.91	112.00
21	A2	966	G	O4'-C1'-C2'	-11.27	96.33	107.60
25	AH	48	HIS	CA-C-N	11.27	143.50	121.41
25	AH	48	HIS	C-N-CA	11.27	143.50	121.41
43	Bk	42	ARG	CB-CA-C	11.27	129.50	110.79
67	B1	18	C	O4'-C1'-C2'	-11.27	96.33	107.60
25	AH	95	SER	CA-C-N	11.27	137.69	121.02
25	AH	95	SER	C-N-CA	11.27	137.69	121.02
67	B1	1301	G	C1'-O4'-C4'	-11.26	98.64	109.90
67	B1	2313	G	O4'-C1'-C2'	-11.26	96.34	107.60
67	B1	1096	A	O3'-P-O5'	11.25	120.87	104.00
67	B1	1817	C	C1'-O4'-C4'	-11.25	98.65	109.90
21	A2	1290	U	C1'-O4'-C4'	-11.24	98.66	109.90
68	B3	96	C	O4'-C1'-C2'	-11.24	96.36	107.60
21	A2	112	G	P-O3'-C3'	11.24	137.06	120.20
67	B1	70	G	O4'-C1'-C2'	11.24	117.04	105.80
67	B1	1494	U	O4'-C1'-C2'	-11.24	96.36	107.60
21	A2	1260	G	P-O3'-C3'	11.23	137.05	120.20
67	B1	817	G	N9-C1'-C2'	11.23	128.85	112.00
67	B1	2916	G	N9-C1'-C2'	-11.23	95.16	112.00
21	A2	539	C	O4'-C1'-C2'	-11.22	96.38	107.60
67	B1	158	C	O4'-C1'-C2'	-11.22	96.38	107.60
67	B1	1802	G	O4'-C1'-C2'	-11.22	96.38	107.60
67	B1	1754	A	N9-C1'-C2'	-11.21	95.18	112.00
67	B1	919	G	P-O3'-C3'	11.20	137.00	120.20
67	B1	2704	A	O4'-C1'-C2'	-11.20	96.40	107.60
21	A2	401	U	O4'-C1'-C2'	-11.20	96.40	107.60
67	B1	3000	U	O4'-C1'-N1	11.18	125.27	108.50
67	B1	519	A	O4'-C1'-C2'	-11.17	96.43	107.60
67	B1	1234	A	O4'-C1'-C2'	-11.17	96.43	107.60
67	B1	2356	U	O4'-C1'-C2'	-11.17	96.43	107.60
21	A2	1393	A	O4'-C1'-C2'	-11.17	96.43	107.60
21	A2	882	C	O4'-C1'-C2'	-11.16	96.44	107.60
67	B1	181	U	N1-C1'-C2'	-11.16	95.26	112.00
21	A2	439	G	C2'-C3'-O3'	11.16	126.24	109.50
67	B1	2948	A	O4'-C1'-C2'	-11.15	96.45	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	835	G	N9-C1'-C2'	11.14	128.72	112.00
67	B1	1411	G	C1'-O4'-C4'	-11.14	98.76	109.90
67	B1	1457	C	N1-C1'-C2'	11.14	128.72	112.00
67	B1	1655	G	O4'-C1'-C2'	11.14	118.74	107.60
67	B1	2234	C	O4'-C1'-C2'	-11.14	96.46	107.60
67	B1	2837	C	N1-C1'-C2'	11.14	128.70	112.00
21	A2	409	C	N1-C1'-C2'	11.13	128.70	112.00
67	B1	883	G	C3'-C2'-C1'	11.13	112.43	101.30
67	B1	2654	C	O4'-C1'-C2'	-11.13	96.47	107.60
67	B1	2906	C	O4'-C1'-C2'	-11.13	96.47	107.60
67	B1	2047	U	O4'-C1'-C2'	-11.12	96.47	107.60
67	B1	210	A	C2'-C3'-O3'	11.12	126.17	109.50
21	A2	56	A	P-O3'-C3'	11.11	136.86	120.20
67	B1	827	G	O4'-C1'-C2'	11.10	118.70	107.60
67	B1	14	A	O4'-C1'-C2'	-11.09	96.51	107.60
21	A2	1272	G	N9-C1'-C2'	11.09	128.63	112.00
32	BO	118	PHE	CA-CB-CG	-11.08	102.72	113.80
67	B1	1732	C	P-O3'-C3'	11.08	136.82	120.20
67	B1	1950	G	O4'-C1'-C2'	-11.08	96.52	107.60
67	B1	2439	G	N9-C1'-C2'	11.08	128.62	112.00
68	B3	47	G	O4'-C1'-C2'	11.08	118.68	107.60
67	B1	1961	G	O4'-C1'-C2'	-11.07	96.53	107.60
67	B1	658	C	O4'-C1'-C2'	-11.07	96.53	107.60
67	B1	537	U	N1-C1'-C2'	11.07	128.60	112.00
21	A2	1306	A	P-O3'-C3'	11.07	136.80	120.20
21	A2	868	C	O4'-C1'-C2'	-11.06	96.53	107.60
67	B1	1600	G	C1'-O4'-C4'	11.06	120.97	109.90
67	B1	1794	C	N1-C1'-C2'	11.06	128.59	112.00
67	B1	2179	G	O4'-C1'-C2'	-11.06	96.54	107.60
21	A2	935	G	O4'-C1'-C2'	-11.06	94.74	105.80
67	B1	565	A	O4'-C1'-N9	11.06	125.08	108.50
67	B1	1085	G	N9-C1'-C2'	11.05	128.58	112.00
25	AH	42	ARG	CA-C-N	11.05	134.80	120.44
25	AH	42	ARG	C-N-CA	11.05	134.80	120.44
21	A2	1371	C	N1-C1'-C2'	11.05	128.57	112.00
21	A2	242	A	O4'-C1'-N9	11.04	124.76	108.20
67	B1	857	U	C1'-O4'-C4'	-11.04	98.86	109.90
36	Bf	34	ARG	CB-CA-C	-11.04	88.46	110.42
67	B1	884	C	N1-C1'-C2'	11.04	128.55	112.00
67	B1	1854	G	O4'-C1'-N9	11.03	125.05	108.50
67	B1	791	C	O4'-C1'-C2'	-11.02	96.58	107.60
67	B1	1038	U	O4'-C1'-C2'	-11.02	96.58	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	111	G	P-O3'-C3'	11.01	136.71	120.20
58	BP	85	PHE	CA-CB-CG	11.01	124.81	113.80
67	B1	1700	U	N1-C1'-C2'	-11.00	95.50	112.00
21	A2	88	G	N9-C1'-C2'	11.00	128.50	112.00
67	B1	84	A	N9-C1'-C2'	11.00	130.50	114.00
21	A2	250	G	C1'-O4'-C4'	-10.99	98.91	109.90
67	B1	2279	G	O4'-C1'-C2'	10.98	118.58	107.60
67	B1	758	C	P-O3'-C3'	10.97	136.66	120.20
29	AL	92	GLU	N-CA-C	10.96	134.15	110.80
21	A2	651	U	N1-C1'-C2'	10.96	128.44	112.00
67	B1	1494	U	C1'-O4'-C4'	10.96	120.86	109.90
67	B1	274	C	O4'-C1'-C2'	-10.96	96.64	107.60
67	B1	1336	G	O4'-C1'-C2'	-10.96	96.64	107.60
67	B1	1200	A	O4'-C1'-N9	10.95	124.93	108.50
21	A2	232	G	N9-C1'-C2'	10.95	128.43	112.00
56	BH	19	PRO	N-CD-CG	-10.95	86.78	103.20
67	B1	220	C	O4'-C1'-C2'	-10.95	96.65	107.60
21	A2	1088	U	O4'-C4'-C3'	-10.95	93.05	104.00
21	A2	161	C	C3'-C2'-C1'	10.94	112.24	101.30
67	B1	1828	A	N9-C1'-C2'	10.94	128.42	112.00
67	B1	2245	C	N1-C1'-C2'	10.94	128.41	112.00
54	BF	67	ILE	CA-C-N	10.94	134.66	120.44
54	BF	67	ILE	C-N-CA	10.94	134.66	120.44
67	B1	1773	C	O4'-C1'-C2'	-10.94	94.86	105.80
21	A2	94	C	N1-C1'-C2'	10.94	128.41	112.00
21	A2	1290	U	N1-C1'-C2'	10.94	128.41	112.00
50	BV	56	TYR	N-CA-C	10.94	123.20	111.28
67	B1	1835	A	C3'-C2'-C1'	10.94	112.23	101.30
21	A2	199	A	N9-C1'-C2'	10.93	130.40	114.00
21	A2	1419	G	O4'-C1'-N9	10.93	124.89	108.50
67	B1	800	G	C1'-O4'-C4'	-10.91	98.99	109.90
67	B1	1255	C	O4'-C1'-C2'	-10.91	96.69	107.60
21	A2	1358	A	O4'-C1'-C2'	-10.91	96.69	107.60
67	B1	441	A	N9-C1'-C2'	10.91	128.36	112.00
68	B3	25	A	N9-C1'-C2'	10.90	128.36	112.00
67	B1	2382	A	C1'-O4'-C4'	10.90	120.80	109.90
21	A2	665	G	C3'-C2'-C1'	-10.89	90.41	101.30
21	A2	1363	C	N1-C1'-C2'	10.89	128.33	112.00
21	A2	275	A	P-O3'-C3'	10.88	136.53	120.20
67	B1	745	C	N1-C1'-C2'	10.89	128.33	112.00
67	B1	301	G	P-O3'-C3'	10.88	136.52	120.20
21	A2	980	C	N1-C1'-C2'	10.88	128.31	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1144	G	O4'-C1'-C2'	-10.87	96.73	107.60
25	AH	95	SER	N-CA-C	10.87	133.96	110.80
67	B1	1622	G	O4'-C1'-C2'	-10.87	96.73	107.60
21	A2	615	G	C3'-C2'-C1'	-10.87	90.43	101.30
67	B1	937	A	N9-C1'-C2'	10.87	128.30	112.00
67	B1	2651	G	C1'-O4'-C4'	-10.86	99.04	109.90
1	AQ	73	ASN	CA-CB-CG	-10.86	101.74	112.60
67	B1	451	C	O4'-C1'-C2'	-10.86	96.74	107.60
67	B1	2949	G	O4'-C1'-C2'	-10.86	96.74	107.60
67	B1	1405	G	C1'-O4'-C4'	-10.85	99.05	109.90
67	B1	1787	U	N1-C1'-C2'	10.85	128.28	112.00
67	B1	777	A	O4'-C1'-N9	10.85	124.77	108.50
67	B1	613	C	O4'-C1'-N1	10.84	124.76	108.50
21	A2	1259	A	N9-C1'-C2'	10.84	128.26	112.00
21	A2	130	G	O4'-C1'-C2'	-10.83	96.77	107.60
67	B1	463	A	C1'-O4'-C4'	-10.83	99.07	109.90
68	B3	50	G	O4'-C1'-C2'	-10.83	96.77	107.60
67	B1	2152	G	O4'-C1'-C2'	-10.83	96.77	107.60
67	B1	1740	U	O4'-C1'-N1	10.82	124.73	108.50
21	A2	455	C	C1'-O4'-C4'	-10.82	99.08	109.90
21	A2	1154	G	C1'-O4'-C4'	-10.82	99.08	109.90
61	Bd	17	THR	N-CA-C	-10.82	95.87	110.36
67	B1	2061	A	C1'-O4'-C4'	10.81	120.51	109.70
68	B3	8	C	O4'-C1'-C2'	-10.81	94.99	105.80
67	B1	2476	A	O4'-C1'-C2'	-10.81	96.79	107.60
67	B1	2062	A	C2'-C3'-O3'	10.81	125.71	109.50
67	B1	922	C	N1-C1'-C2'	10.80	128.21	112.00
67	B1	923	A	O4'-C1'-N9	10.80	124.41	108.20
67	B1	186	A	O4'-C1'-C2'	-10.80	96.80	107.60
8	AR	109	ALA	CA-C-N	10.79	136.03	120.71
8	AR	109	ALA	C-N-CA	10.79	136.03	120.71
67	B1	1290	G	O4'-C1'-C2'	10.78	118.38	107.60
67	B1	1107	G	N9-C1'-C2'	10.78	128.16	112.00
67	B1	711	C	O4'-C1'-C2'	-10.77	96.83	107.60
67	B1	2650	G	C1'-O4'-C4'	-10.77	99.13	109.90
67	B1	2871	A	O4'-C1'-N9	10.76	124.64	108.50
67	B1	2636	C	C3'-C2'-C1'	10.76	112.06	101.30
67	B1	3035	C	O4'-C1'-C2'	-10.76	96.84	107.60
67	B1	1601	G	P-O3'-C3'	10.76	136.33	120.20
21	A2	434	A	C5'-C4'-C3'	-10.75	99.87	116.00
67	B1	2507	C	C1'-O4'-C4'	10.75	120.65	109.90
21	A2	255	G	C1'-O4'-C4'	-10.75	99.15	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2363	G	O4'-C1'-C2'	-10.75	96.85	107.60
68	B3	31	U	O4'-C1'-C2'	-10.75	96.85	107.60
25	AH	90	HIS	CA-CB-CG	10.74	124.54	113.80
67	B1	42	G	N9-C1'-C2'	10.74	128.11	112.00
21	A2	61	A	N9-C1'-C2'	-10.74	97.89	114.00
21	A2	847	A	O4'-C1'-C2'	10.74	116.54	105.80
21	A2	248	U	O4'-C1'-C2'	-10.73	96.87	107.60
21	A2	721	A	O4'-C1'-C2'	-10.73	96.87	107.60
21	A2	1318	U	O4'-C1'-C2'	-10.73	96.87	107.60
21	A2	1116	G	O4'-C1'-C2'	10.73	118.33	107.60
67	B1	2065	C	N1-C1'-C2'	10.73	128.09	112.00
67	B1	2237	A	N9-C1'-C2'	10.72	128.09	112.00
27	A0	17	U	O4'-C1'-C2'	-10.72	96.88	107.60
21	A2	1426	C	C1'-O4'-C4'	-10.71	99.19	109.90
67	B1	2091	U	N1-C1'-C2'	10.71	128.06	112.00
67	B1	2824	C	N1-C1'-C2'	10.70	128.06	112.00
67	B1	1571	G	C5'-C4'-C3'	10.70	132.04	116.00
67	B1	1612	G	P-O5'-C5'	10.70	136.94	120.90
67	B1	99	U	P-O3'-C3'	10.69	136.23	120.20
21	A2	1101	G	N9-C1'-C2'	-10.69	95.97	112.00
67	B1	2189	C	C3'-C2'-C1'	10.69	111.99	101.30
67	B1	1783	U	C3'-C2'-C1'	10.68	112.18	101.50
67	B1	2543	A	P-O3'-C3'	10.67	136.21	120.20
21	A2	1208	A	C2'-C3'-O3'	10.66	129.70	113.70
21	A2	72	C	C3'-C2'-C1'	10.66	111.96	101.30
67	B1	536	G	P-O3'-C3'	10.66	136.19	120.20
67	B1	2951	G	N9-C1'-C2'	10.65	127.98	112.00
21	A2	246	A	P-O3'-C3'	10.65	136.17	120.20
67	B1	2409	C	N1-C1'-C2'	10.64	127.97	112.00
11	A1	16	C	C3'-C2'-C1'	10.64	111.94	101.30
67	B1	1825	G	O4'-C1'-N9	10.64	124.46	108.50
67	B1	1923	A	N9-C1'-C2'	-10.64	98.05	114.00
67	B1	2696	G	C2'-C3'-O3'	10.63	125.45	109.50
67	B1	1350	C	O4'-C1'-C2'	-10.63	96.97	107.60
67	B1	2980	G	O4'-C1'-N9	10.63	124.45	108.50
21	A2	26	A	P-O5'-C5'	10.63	136.84	120.90
33	BC	209	VAL	CA-C-N	10.63	131.78	119.98
33	BC	209	VAL	C-N-CA	10.63	131.78	119.98
67	B1	2818	C	N1-C1'-C2'	10.62	127.94	112.00
67	B1	1989	G	C1'-O4'-C4'	-10.62	99.28	109.90
67	B1	2796	C	C3'-C2'-C1'	10.62	111.92	101.30
68	B3	93	G	O4'-C1'-C2'	10.62	118.22	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	849	U	N1-C1'-C2'	10.62	127.93	112.00
21	A2	1416	C	O4'-C1'-N1	10.62	124.43	108.50
67	B1	1484	U	P-O5'-C5'	10.62	136.83	120.90
67	B1	2987	U	C2'-C3'-O3'	10.62	125.43	109.50
21	A2	1063	A	O4'-C1'-C2'	-10.62	96.98	107.60
67	B1	1565	G	O4'-C1'-C2'	-10.61	86.18	107.40
21	A2	1204	C	O4'-C1'-C2'	-10.60	97.00	107.60
67	B1	2118	C	O4'-C1'-C2'	-10.60	97.00	107.60
67	B1	407	A	C3'-C2'-C1'	10.60	111.90	101.30
67	B1	1655	G	C1'-O4'-C4'	-10.60	99.30	109.90
67	B1	2376	U	O4'-C1'-C2'	-10.60	97.00	107.60
67	B1	1770	A	O4'-C1'-C2'	-10.59	97.01	107.60
67	B1	278	C	O4'-C1'-C2'	10.59	116.39	105.80
21	A2	1175	C	O4'-C1'-C2'	-10.59	97.01	107.60
67	B1	1406	G	N9-C1'-C2'	10.58	127.87	112.00
67	B1	3042	C	O4'-C1'-C2'	-10.58	97.02	107.60
67	B1	2012	G	O4'-C1'-N9	10.58	124.37	108.50
68	B3	41	A	N9-C1'-C2'	10.58	127.86	112.00
67	B1	953	G	O4'-C1'-C2'	-10.57	97.03	107.60
67	B1	2484	C	N1-C1'-C2'	10.57	127.86	112.00
56	BH	2	PRO	N-CA-CB	10.57	114.35	103.25
11	A1	16	C	O4'-C1'-C2'	-10.56	97.04	107.60
67	B1	137	A	O4'-C1'-C2'	-10.56	97.04	107.60
67	B1	2178	A	N9-C1'-C2'	10.56	127.83	112.00
21	A2	1458	A	N9-C1'-C2'	-10.56	98.17	114.00
61	Bd	80	MET	N-CA-CB	10.55	125.78	110.16
67	B1	2969	G	N9-C1'-C2'	10.55	127.83	112.00
21	A2	647	G	C1'-O4'-C4'	-10.55	99.35	109.90
21	A2	267	C	O4'-C1'-C2'	-10.54	97.06	107.60
67	B1	1429	A	O4'-C1'-N9	10.54	124.01	108.20
21	A2	1200	U	N1-C1'-C2'	-10.54	98.20	114.00
67	B1	2587	G	C3'-C2'-C1'	10.53	111.83	101.30
44	BW	43	VAL	N-CA-CB	10.53	122.87	110.55
67	B1	1289	C	N1-C1'-C2'	10.52	127.78	112.00
67	B1	2064	U	C2'-C3'-O3'	10.52	125.28	109.50
67	B1	1568	A	C1'-C2'-O2'	10.50	124.15	108.40
67	B1	2507	C	O4'-C1'-N1	-10.50	92.75	108.50
21	A2	1483	U	P-O3'-C3'	10.50	135.95	120.20
21	A2	1401	U	C1'-O4'-C4'	-10.50	99.40	109.90
67	B1	1814	A	N9-C1'-C2'	10.50	127.75	112.00
25	AH	84	HIS	N-CA-CB	10.49	125.26	110.67
21	A2	440	C	C5'-C4'-C3'	-10.49	100.26	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	143	C	C3'-C2'-C1'	10.49	111.79	101.30
67	B1	2180	C	C3'-C2'-C1'	10.49	111.79	101.30
21	A2	255	G	O4'-C1'-C2'	10.49	118.09	107.60
67	B1	1161	A	O4'-C1'-C2'	-10.49	97.11	107.60
67	B1	2420	C	O4'-C1'-C2'	-10.49	97.11	107.60
67	B1	1575	G	O4'-C1'-C2'	-10.48	97.12	107.60
67	B1	1147	G	N9-C1'-C2'	10.48	127.72	112.00
21	A2	717	C	N1-C1'-C2'	10.48	127.72	112.00
21	A2	746	A	C2'-C3'-O3'	10.48	125.22	109.50
21	A2	369	A	P-O5'-C5'	10.48	136.61	120.90
21	A2	475	C	C3'-C2'-C1'	10.48	111.78	101.30
67	B1	1511	C	N1-C1'-C2'	10.47	127.71	112.00
67	B1	686	C	N1-C1'-C2'	10.47	127.71	112.00
67	B1	1214	C	N1-C1'-C2'	10.47	127.71	112.00
21	A2	435	A	O4'-C1'-C2'	-10.47	97.13	107.60
67	B1	2505	A	C3'-C2'-C1'	10.47	111.77	101.30
67	B1	2754	A	P-O5'-C5'	10.46	136.60	120.90
21	A2	1329	C	N1-C1'-C2'	10.46	127.69	112.00
67	B1	936	G	P-O3'-C3'	10.46	135.89	120.20
67	B1	162	G	C1'-O4'-C4'	-10.46	99.44	109.90
67	B1	2187	C	O4'-C1'-C2'	-10.45	97.15	107.60
21	A2	757	G	O4'-C1'-C2'	10.45	118.05	107.60
67	B1	1039	C	O4'-C1'-C2'	-10.45	97.15	107.60
67	B1	2220	C	O4'-C1'-C2'	-10.45	97.15	107.60
67	B1	1403	C	O4'-C1'-C2'	-10.44	97.16	107.60
21	A2	135	U	N1-C1'-C2'	10.44	127.66	112.00
67	B1	2466	C	N1-C1'-C2'	10.44	127.65	112.00
67	B1	3036	C	P-O3'-C3'	10.43	135.85	120.20
21	A2	1116	G	C1'-O4'-C4'	-10.43	99.47	109.90
67	B1	1439	G	N9-C1'-C2'	10.43	127.64	112.00
67	B1	2251	G	O4'-C1'-C2'	10.43	118.03	107.60
21	A2	1157	G	C1'-O4'-C4'	-10.43	99.47	109.90
67	B1	876	C	C3'-C2'-C1'	10.43	111.72	101.30
21	A2	1406	U	O4'-C1'-C2'	-10.42	97.18	107.60
21	A2	1245	C	P-O3'-C3'	10.42	135.82	120.20
67	B1	2434	A	N9-C1'-C2'	10.42	129.62	114.00
21	A2	1024	G	C1'-O4'-C4'	-10.41	99.49	109.90
21	A2	106	A	O4'-C1'-C2'	-10.41	97.19	107.60
27	A0	9	A	O4'-C1'-N9	10.41	123.81	108.20
67	B1	2173	U	N1-C1'-C2'	10.40	127.61	112.00
21	A2	1241	U	O4'-C1'-C2'	-10.40	97.20	107.60
67	B1	113	C	N1-C1'-C2'	10.40	127.60	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1045	A	N9-C1'-C2'	-10.40	96.40	112.00
21	A2	192	G	C1'-O4'-C4'	-10.39	99.51	109.90
67	B1	1569	A	C1'-C2'-O2'	10.39	123.98	108.40
21	A2	1208	A	O4'-C1'-C2'	-10.39	97.21	107.60
21	A2	1263	C	N1-C1'-C2'	10.39	127.58	112.00
21	A2	6	G	N9-C1'-C2'	10.38	127.57	112.00
67	B1	2747	C	P-O3'-C3'	10.38	135.77	120.20
21	A2	1175	C	N1-C1'-C2'	10.38	127.56	112.00
21	A2	352	A	O4'-C1'-C2'	-10.38	97.22	107.60
21	A2	1294	G	O4'-C1'-C2'	-10.38	97.22	107.60
35	BL	42	ARG	O-C-N	10.37	133.29	122.09
67	B1	311	C	O4'-C1'-C2'	-10.37	97.23	107.60
67	B1	1643	A	C5'-C4'-C3'	10.37	130.76	115.20
67	B1	116	G	N9-C1'-C2'	10.37	127.56	112.00
67	B1	349	A	O4'-C1'-C2'	-10.37	97.23	107.60
21	A2	145	A	O4'-C1'-C2'	-10.36	97.24	107.60
20	A3	62	ILE	N-CA-C	-10.36	103.26	113.20
67	B1	2040	A	O4'-C1'-C2'	-10.36	97.24	107.60
21	A2	1493	C	P-O3'-C3'	10.35	135.72	120.20
21	A2	197	A	P-O5'-C5'	10.35	136.42	120.90
67	B1	1040	C	O4'-C1'-C2'	-10.34	97.26	107.60
67	B1	2015	G	O4'-C1'-C2'	-10.34	97.26	107.60
68	B3	74	U	C2'-C3'-O3'	10.34	125.01	109.50
67	B1	645	U	O4'-C1'-N1	10.33	124.00	108.50
21	A2	263	C	C3'-C2'-C1'	10.33	111.63	101.30
21	A2	483	G	O4'-C1'-C2'	10.33	117.93	107.60
67	B1	1867	C	N1-C1'-C2'	10.32	127.49	112.00
35	BL	10	LYS	CB-CA-C	10.32	128.22	110.68
67	B1	129	C	O4'-C1'-N1	10.32	123.98	108.50
68	B3	79	U	O4'-C1'-C2'	-10.32	97.28	107.60
67	B1	809	A	O4'-C1'-N9	10.31	123.97	108.50
21	A2	926	C	N1-C1'-C2'	10.31	127.47	112.00
67	B1	2463	G	N9-C1'-C2'	10.31	127.46	112.00
67	B1	63	A	O4'-C1'-C2'	-10.30	95.50	105.80
67	B1	2997	G	P-O3'-C3'	10.30	135.66	120.20
21	A2	1120	G	C1'-O4'-C4'	-10.30	99.60	109.90
21	A2	159	C	O3'-P-O5'	-10.30	88.55	104.00
21	A2	1184	U	P-O3'-C3'	10.30	135.65	120.20
35	BL	11	LEU	CB-CA-C	-10.30	89.93	110.42
21	A2	199	A	C3'-C2'-C1'	10.29	111.79	101.50
21	A2	302	A	O4'-C1'-C2'	-10.29	97.31	107.60
21	A2	716	G	C3'-C2'-C1'	-10.29	91.01	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2948	A	C1'-O4'-C4'	10.29	120.19	109.90
67	B1	1299	C	C3'-C2'-C1'	10.29	111.59	101.30
67	B1	1369	G	O4'-C1'-C2'	10.29	117.89	107.60
21	A2	1317	G	N9-C1'-C2'	10.28	127.43	112.00
67	B1	1367	A	P-O3'-C3'	10.28	135.62	120.20
46	BA	23	ASN	CA-C-O	10.28	131.61	120.82
67	B1	1865	U	O4'-C1'-N1	10.27	123.61	108.20
67	B1	364	A	P-O3'-C3'	10.27	135.61	120.20
21	A2	1273	G	N9-C1'-C2'	10.27	127.40	112.00
67	B1	243	G	O4'-C1'-C2'	-10.27	97.33	107.60
67	B1	518	A	P-O3'-C3'	10.27	135.60	120.20
67	B1	1170	G	N9-C1'-C2'	-10.27	96.60	112.00
21	A2	114	A	P-O3'-C3'	10.26	135.59	120.20
21	A2	1167	C	O4'-C1'-C2'	-10.26	97.34	107.60
25	AH	94	ASN	CA-CB-CG	10.26	122.86	112.60
65	BJ	41	ILE	N-CA-C	-10.26	101.90	111.45
21	A2	1151	A	N9-C1'-C2'	10.26	127.38	112.00
67	B1	1290	G	C1'-O4'-C4'	-10.25	99.65	109.90
27	A0	32	C	O4'-C1'-C2'	-10.25	97.35	107.60
21	A2	1261	U	C2'-C3'-O3'	10.25	124.88	109.50
67	B1	1453	G	C1'-O4'-C4'	-10.25	99.65	109.90
21	A2	510	A	O4'-C1'-C2'	-10.24	97.36	107.60
36	Bf	33	ARG	O-C-N	-10.24	108.96	122.59
56	BH	2	PRO	CA-C-N	-10.24	104.75	122.37
56	BH	2	PRO	C-N-CA	-10.24	104.75	122.37
21	A2	1312	C	O4'-C1'-C2'	-10.24	97.36	107.60
64	Bc	15	GLU	CA-CB-CG	10.24	134.58	114.10
35	BL	14	SER	N-CA-C	-10.24	100.11	111.07
21	A2	18	C	N1-C1'-C2'	10.24	127.36	112.00
67	B1	2295	C	O4'-C1'-C2'	-10.24	97.36	107.60
21	A2	379	A	O4'-C1'-N9	10.24	123.85	108.50
21	A2	1278	A	O4'-C1'-C2'	-10.23	97.37	107.60
67	B1	2516	G	N9-C1'-C2'	10.23	127.35	112.00
67	B1	1950	G	C1'-O4'-C4'	10.23	120.13	109.90
67	B1	2544	C	N1-C1'-C2'	10.23	127.34	112.00
68	B3	84	U	O4'-C1'-N1	10.23	123.84	108.50
67	B1	545	G	P-O3'-C3'	10.23	135.54	120.20
21	A2	943	C	N1-C1'-C2'	10.22	127.34	112.00
27	A0	73	G	P-O5'-C5'	10.22	136.23	120.90
67	B1	2319	C	O4'-C1'-C2'	-10.22	97.38	107.60
67	B1	2507	C	C3'-C2'-C1'	10.22	111.52	101.30
21	A2	63	G	C1'-O4'-C4'	-10.22	99.68	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	754	G	N9-C1'-C2'	10.21	127.32	112.00
42	BT	85	LEU	N-CA-C	-10.21	93.69	109.52
67	B1	1368	A	O4'-C1'-C2'	-10.21	97.39	107.60
67	B1	2077	A	O4'-C1'-C2'	-10.21	97.39	107.60
67	B1	2475	G	C1'-O4'-C4'	-10.21	99.69	109.90
21	A2	671	C	C3'-C2'-C1'	10.21	111.71	101.50
21	A2	433	U	O4'-C1'-N1	10.20	123.80	108.50
67	B1	538	G	P-O5'-C5'	-10.20	105.60	120.90
67	B1	2582	C	O4'-C1'-C2'	-10.20	97.40	107.60
67	B1	2875	C	N1-C1'-C2'	10.20	127.30	112.00
67	B1	3048	C	N1-C1'-C2'	10.20	127.30	112.00
67	B1	393	C	N1-C1'-C2'	10.20	127.30	112.00
67	B1	2574	G	O4'-C1'-C2'	-10.20	97.40	107.60
21	A2	439	G	C4'-C3'-C2'	10.19	112.79	102.60
31	BY	121	PRO	N-CA-C	-10.19	99.68	110.58
21	A2	407	G	C5'-C4'-C3'	10.19	131.28	116.00
21	A2	736	A	C1'-O4'-C4'	10.19	120.09	109.90
21	A2	575	A	O4'-C1'-C2'	-10.19	97.42	107.60
67	B1	1494	U	O4'-C1'-N1	10.18	123.78	108.50
67	B1	1408	G	P-O5'-C5'	10.18	136.17	120.90
25	AH	94	ASN	CA-C-N	10.18	140.98	121.54
25	AH	94	ASN	C-N-CA	10.18	140.98	121.54
21	A2	1064	C	N1-C1'-C2'	10.18	127.26	112.00
67	B1	1519	G	O4'-C1'-C2'	-10.17	97.43	107.60
67	B1	2239	C	N1-C1'-C2'	10.17	127.26	112.00
67	B1	1393	C	O4'-C1'-C2'	10.17	115.97	105.80
67	B1	1313	G	O4'-C1'-N9	10.16	123.74	108.50
67	B1	76	C	O4'-C1'-C2'	-10.16	97.44	107.60
67	B1	1617	G	O4'-C1'-N9	10.16	123.73	108.50
21	A2	91	G	C1'-O4'-C4'	-10.15	99.75	109.90
13	AX	69	SER	CA-C-N	10.15	135.94	121.42
13	AX	69	SER	C-N-CA	10.15	135.94	121.42
67	B1	456	G	O4'-C1'-C2'	10.15	117.75	107.60
67	B1	777	A	O4'-C1'-C2'	-10.15	97.45	107.60
67	B1	740	C	N1-C1'-C2'	10.15	127.22	112.00
67	B1	2917	G	O4'-C1'-N9	10.15	123.72	108.50
17	AO	81	ARG	CA-C-O	-10.15	111.68	119.59
21	A2	703	U	O4'-C1'-C2'	-10.14	97.46	107.60
60	BS	35	VAL	CA-C-O	-10.14	110.10	120.85
67	B1	1379	A	O4'-C1'-C2'	-10.14	95.66	105.80
67	B1	1993	A	O4'-C1'-N9	10.14	123.71	108.50
68	B3	30	G	C1'-O4'-C4'	10.13	120.03	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	693	G	C1'-O4'-C4'	10.13	120.03	109.90
67	B1	1250	A	O4'-C1'-N9	10.13	123.69	108.50
67	B1	963	G	N9-C1'-C2'	10.12	127.18	112.00
67	B1	3036	C	O4'-C4'-C3'	-10.12	93.88	104.00
67	B1	1898	A	C3'-C2'-C1'	10.12	111.42	101.30
67	B1	2987	U	P-O3'-C3'	10.11	135.37	120.20
67	B1	426	G	N9-C1'-C2'	10.11	127.17	112.00
67	B1	2298	C	O4'-C1'-C2'	-10.11	97.49	107.60
67	B1	1241	C	O4'-C1'-C2'	-10.10	97.50	107.60
67	B1	1403	C	C3'-C2'-C1'	10.10	111.40	101.30
21	A2	1022	U	O4'-C1'-C2'	-10.10	97.50	107.60
67	B1	14	A	C3'-C2'-C1'	10.10	111.40	101.30
67	B1	778	A	N9-C1'-C2'	10.09	127.14	112.00
67	B1	1562	U	O4'-C1'-C2'	-10.09	97.51	107.60
67	B1	2920	C	O4'-C1'-C2'	-10.09	97.51	107.60
67	B1	582	A	C3'-C2'-C1'	10.09	111.39	101.30
67	B1	1879	U	P-O3'-C3'	10.09	135.33	120.20
62	BN	113	ARG	NE-CZ-NH1	-10.08	111.42	121.50
21	A2	228	G	O4'-C1'-C2'	-10.08	97.52	107.60
67	B1	1228	G	O4'-C1'-C2'	-10.08	95.72	105.80
67	B1	2057	G	O4'-C1'-C2'	-10.08	97.52	107.60
21	A2	1171	G	O4'-C1'-C2'	-10.08	97.52	107.60
67	B1	3035	C	O3'-P-O5'	10.08	119.11	104.00
21	A2	1183	C	C3'-C2'-C1'	10.07	111.38	101.30
49	BQ	25	ASP	CA-C-N	10.07	129.83	119.56
49	BQ	25	ASP	C-N-CA	10.07	129.83	119.56
67	B1	1939	C	C2'-C3'-O3'	10.07	124.61	109.50
21	A2	971	G	O3'-P-O5'	-10.07	88.90	104.00
21	A2	1043	U	O4'-C1'-C2'	-10.07	97.53	107.60
67	B1	1811	G	O4'-C1'-N9	10.07	123.60	108.50
67	B1	2019	C	O4'-C1'-C2'	-10.06	97.54	107.60
67	B1	2554	A	C1'-O4'-C4'	10.06	119.76	109.70
67	B1	1313	G	C3'-C2'-C1'	-10.06	91.24	101.30
67	B1	408	C	O5'-C5'-C4'	10.06	126.58	111.50
67	B1	69	C	O4'-C1'-C2'	-10.05	97.55	107.60
21	A2	68	G	C1'-O4'-C4'	-10.05	99.85	109.90
21	A2	523	C	O4'-C1'-C2'	-10.05	97.55	107.60
21	A2	708	C	O4'-C1'-N1	10.05	123.57	108.50
21	A2	99	C	P-O3'-C3'	10.04	135.27	120.20
67	B1	2869	U	O4'-C1'-N1	-10.05	93.13	108.20
21	A2	110	C	O4'-C1'-C2'	-10.04	97.56	107.60
21	A2	437	A	N9-C1'-C2'	10.04	127.06	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2104	G	C1'-C2'-O2'	-10.04	96.75	111.80
67	B1	1988	U	O4'-C1'-C2'	-10.03	97.57	107.60
21	A2	1019	A	P-O3'-C3'	10.03	135.25	120.20
67	B1	962	C	N1-C1'-C2'	10.03	127.05	112.00
67	B1	2650	G	N9-C1'-C2'	10.03	127.04	112.00
21	A2	1241	U	O4'-C1'-N1	10.03	123.54	108.50
29	AL	43	LYS	N-CA-C	-10.03	93.11	109.96
67	B1	732	G	N9-C1'-C2'	10.03	127.04	112.00
67	B1	2694	C	N1-C1'-C2'	10.03	127.04	112.00
21	A2	99	C	C3'-C2'-C1'	10.02	111.32	101.30
21	A2	1079	G	N9-C1'-C2'	-10.02	96.97	112.00
67	B1	2592	U	N1-C1'-C2'	10.02	127.03	112.00
21	A2	765	U	C1'-O4'-C4'	10.02	119.92	109.90
21	A2	1088	U	P-O3'-C3'	-10.02	105.17	120.20
67	B1	2819	C	O4'-C1'-C2'	-10.02	97.58	107.60
67	B1	1504	C	N1-C1'-C2'	10.02	127.03	112.00
67	B1	2088	G	C1'-C2'-O2'	-10.02	96.78	111.80
12	AN	42	ASP	CA-C-N	10.01	132.36	119.84
12	AN	42	ASP	C-N-CA	10.01	132.36	119.84
18	AF	5	TRP	CA-CB-CG	10.01	132.63	113.60
21	A2	526	A	N9-C1'-C2'	10.01	127.02	112.00
21	A2	1444	G	C1'-O4'-C4'	-10.01	99.89	109.90
67	B1	1813	A	O4'-C1'-C2'	-10.01	97.59	107.60
43	Bk	106	ASN	CA-CB-CG	-10.01	102.59	112.60
67	B1	1835	A	O4'-C1'-C2'	-10.01	97.59	107.60
21	A2	1081	C	O4'-C1'-C2'	-10.01	95.80	105.80
66	Bl	41	ILE	N-CA-CB	10.01	122.26	110.55
68	B3	37	U	O4'-C1'-N1	10.00	123.50	108.50
4	AG	77	ASP	N-CA-C	10.00	133.29	113.29
21	A2	709	G	C1'-O4'-C4'	10.00	119.90	109.90
21	A2	357	C	N1-C1'-C2'	10.00	127.00	112.00
67	B1	135	U	O4'-C1'-C2'	-10.00	97.60	107.60
67	B1	919	G	O4'-C1'-C2'	-10.00	97.60	107.60
67	B1	2819	C	N1-C1'-C2'	10.00	127.00	112.00
67	B1	1335	C	N1-C1'-C2'	9.99	126.99	112.00
21	A2	1317	G	C1'-O4'-C4'	-9.99	99.91	109.90
67	B1	2916	G	O4'-C1'-N9	9.99	123.49	108.50
67	B1	2209	U	O4'-C1'-C2'	-9.99	97.61	107.60
21	A2	1018	C	C3'-C2'-C1'	9.99	111.29	101.30
67	B1	1747	C	N1-C1'-C2'	9.99	126.98	112.00
67	B1	474	G	N9-C1'-C2'	9.98	128.97	114.00
12	AN	66	ASN	CA-CB-CG	9.98	122.58	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	AV	60	PHE	CA-C-N	9.98	140.55	120.80
28	AV	60	PHE	C-N-CA	9.98	140.55	120.80
67	B1	894	C	O4'-C1'-C2'	-9.97	97.63	107.60
21	A2	1162	G	C1'-O4'-C4'	-9.97	99.93	109.90
67	B1	2450	A	O4'-C1'-N9	9.97	123.16	108.20
67	B1	248	C	C3'-C2'-C1'	9.97	111.27	101.30
67	B1	219	G	O4'-C1'-C2'	-9.97	97.63	107.60
67	B1	2177	A	O4'-C1'-N9	9.96	123.45	108.50
67	B1	248	C	O4'-C1'-C2'	-9.96	97.64	107.60
57	BZ	53	ALA	CA-C-N	9.96	133.99	120.44
57	BZ	53	ALA	C-N-CA	9.96	133.99	120.44
67	B1	1047	A	O4'-C1'-C2'	-9.96	97.64	107.60
21	A2	1364	C	O4'-C1'-C2'	-9.95	97.65	107.60
27	A0	41	C	N1-C1'-C2'	9.96	126.93	112.00
67	B1	1263	C	N1-C1'-C2'	9.95	126.93	112.00
21	A2	1035	C	N1-C1'-C2'	9.95	126.93	112.00
64	Bc	18	HIS	N-CA-C	9.95	123.46	111.02
67	B1	303	A	O4'-C1'-C2'	-9.95	97.65	107.60
25	AH	85	PHE	CA-C-O	-9.95	106.29	120.51
67	B1	975	C	O4'-C1'-C2'	-9.94	97.66	107.60
67	B1	2609	G	O4'-C1'-N9	9.94	123.41	108.50
67	B1	2003	C	C3'-C2'-C1'	9.94	111.24	101.30
21	A2	58	U	P-O5'-C5'	9.94	135.81	120.90
68	B3	30	G	O4'-C1'-C2'	-9.94	97.66	107.60
21	A2	832	G	C1'-O4'-C4'	-9.94	99.96	109.90
46	BA	131	MET	CB-CA-C	9.93	124.09	109.09
67	B1	1682	C	N1-C1'-C2'	9.93	126.89	112.00
21	A2	328	G	C4'-C3'-C2'	-9.93	92.67	102.60
21	A2	802	G	O4'-C1'-C2'	9.93	117.53	107.60
67	B1	6	A	O4'-C1'-N9	9.93	123.39	108.50
59	BM	64	VAL	N-CA-C	-9.92	94.19	108.48
67	B1	119	U	C3'-C2'-C1'	9.92	111.42	101.50
67	B1	2529	G	N9-C1'-C2'	9.92	126.88	112.00
67	B1	2024	A	O4'-C1'-C2'	-9.91	95.89	105.80
21	A2	654	U	O4'-C1'-N1	9.91	123.37	108.50
67	B1	140	C	C3'-C2'-C1'	9.91	111.21	101.30
67	B1	1099	C	O4'-C1'-C2'	-9.91	97.69	107.60
67	B1	1580	G	O4'-C1'-C2'	9.91	117.51	107.60
21	A2	583	G	N9-C1'-C2'	9.91	126.86	112.00
67	B1	1039	C	C3'-C2'-C1'	9.91	111.21	101.30
21	A2	762	G	C1'-O4'-C4'	9.90	119.80	109.90
67	B1	3040	G	P-O3'-C3'	9.90	135.05	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AK	47	GLU	O-C-N	-9.90	111.40	120.71
67	B1	1098	C	O4'-C1'-C2'	-9.90	97.70	107.60
67	B1	1569	A	C3'-C2'-C1'	-9.90	91.40	101.30
18	AF	6	LYS	N-CA-C	-9.90	100.49	111.28
21	A2	966	G	C1'-O4'-C4'	9.90	119.80	109.90
67	B1	2612	A	O4'-C1'-C2'	-9.90	95.90	105.80
67	B1	214	C	O4'-C1'-C2'	-9.90	97.70	107.60
29	AL	40	LEU	CA-C-N	9.89	130.51	119.92
29	AL	40	LEU	C-N-CA	9.89	130.51	119.92
27	A0	76	A	O4'-C1'-C2'	-9.89	97.71	107.60
21	A2	1081	C	O4'-C1'-N1	9.89	123.03	108.20
67	B1	252	A	O4'-C1'-C2'	-9.89	97.71	107.60
53	BD	56	ARG	N-CA-C	-9.89	92.29	108.41
67	B1	1773	C	C3'-C2'-C1'	9.89	111.39	101.50
67	B1	359	C	C3'-C2'-C1'	9.89	111.19	101.30
21	A2	183	A	P-O5'-C5'	9.88	135.73	120.90
11	A1	49	C	C1'-C2'-O2'	9.88	123.22	108.40
21	A2	1334	A	O4'-C1'-C2'	-9.88	97.72	107.60
57	BZ	90	GLU	N-CA-CB	9.88	127.19	110.49
68	B3	25	A	P-O3'-C3'	9.88	135.02	120.20
21	A2	422	U	O4'-C1'-N1	9.88	123.02	108.20
67	B1	350	A	C1'-O4'-C4'	9.88	119.58	109.70
21	A2	657	A	C1'-O4'-C4'	9.88	119.58	109.70
21	A2	1195	U	N1-C1'-C2'	9.88	126.81	112.00
67	B1	887	U	O4'-C1'-N1	9.88	123.01	108.20
67	B1	2337	G	N9-C1'-C2'	9.88	126.81	112.00
67	B1	2731	C	O4'-C1'-C2'	-9.88	97.72	107.60
21	A2	1333	G	C1'-O4'-C4'	9.87	119.77	109.90
67	B1	406	G	C5'-C4'-C3'	-9.87	101.19	116.00
67	B1	2621	U	O4'-C1'-C2'	-9.87	97.73	107.60
67	B1	1982	C	O4'-C1'-C2'	-9.87	97.73	107.60
67	B1	135	U	C3'-C2'-C1'	9.86	111.16	101.30
21	A2	14	C	O4'-C1'-C2'	-9.86	97.74	107.60
67	B1	159	C	O4'-C1'-N1	9.86	122.99	108.20
67	B1	1033	C	C1'-O4'-C4'	9.86	119.76	109.90
67	B1	1041	U	P-O5'-C5'	9.86	135.69	120.90
67	B1	1869	U	O4'-C1'-C2'	-9.86	97.74	107.60
67	B1	1554	G	N9-C1'-C2'	9.86	126.79	112.00
21	A2	736	A	O4'-C1'-N9	9.86	123.29	108.50
67	B1	241	C	C1'-O4'-C4'	-9.86	100.04	109.90
11	A1	22	A	N9-C1'-C2'	9.86	126.78	112.00
38	Bb	34	PHE	CA-CB-CG	-9.86	103.94	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	855	G	O4'-C1'-N9	9.86	123.28	108.50
33	BC	124	PHE	CA-C-N	9.85	140.36	121.54
33	BC	124	PHE	C-N-CA	9.85	140.36	121.54
67	B1	2549	A	O4'-C1'-C2'	-9.85	95.95	105.80
21	A2	551	U	N1-C1'-C2'	9.85	126.78	112.00
21	A2	200	G	O4'-C1'-C2'	-9.84	97.76	107.60
67	B1	817	G	C3'-C2'-C1'	9.84	111.14	101.30
67	B1	593	C	O4'-C1'-C2'	-9.84	97.76	107.60
67	B1	2957	G	P-O3'-C3'	9.84	134.96	120.20
67	B1	3003	A	O4'-C1'-C2'	-9.83	97.77	107.60
8	AR	73	HIS	CA-CB-CG	9.83	123.63	113.80
67	B1	1711	C	P-O5'-C5'	9.82	135.64	120.90
67	B1	1738	A	O4'-C1'-C2'	-9.82	97.78	107.60
32	BO	140	ASP	CA-C-N	9.82	133.44	120.28
32	BO	140	ASP	C-N-CA	9.82	133.44	120.28
67	B1	1955	U	O4'-C1'-N1	9.82	122.93	108.20
67	B1	1034	G	O4'-C1'-N9	9.82	123.22	108.50
67	B1	2697	G	O4'-C1'-C2'	-9.82	97.78	107.60
67	B1	2227	G	O4'-C1'-C2'	9.81	117.41	107.60
67	B1	3031	U	N1-C1'-C2'	9.81	126.72	112.00
21	A2	814	C	N1-C1'-C2'	9.81	126.72	112.00
21	A2	1391	U	O4'-C1'-C2'	-9.81	97.79	107.60
21	A2	1396	C	O4'-C1'-C2'	-9.81	97.79	107.60
67	B1	1324	G	C1'-O4'-C4'	9.81	119.71	109.90
67	B1	1574	A	P-O3'-C3'	9.81	134.92	120.20
68	B3	79	U	C1'-O4'-C4'	9.81	119.71	109.90
67	B1	1096	A	C4'-C3'-C2'	-9.81	92.79	102.60
21	A2	531	G	C1'-O4'-C4'	-9.80	100.10	109.90
67	B1	2949	G	C1'-O4'-C4'	9.80	119.70	109.90
61	Bd	58	PRO	CA-C-N	9.80	135.21	120.31
61	Bd	58	PRO	C-N-CA	9.80	135.21	120.31
67	B1	2765	C	N1-C1'-C2'	9.80	126.70	112.00
21	A2	553	C	C3'-C2'-C1'	9.80	111.10	101.30
21	A2	1159	U	O4'-C1'-C2'	-9.80	97.80	107.60
43	Bk	87	ALA	CA-C-N	9.80	130.05	121.82
43	Bk	87	ALA	C-N-CA	9.80	130.05	121.82
25	AH	45	PRO	N-CA-C	9.80	126.10	113.86
67	B1	770	G	O4'-C1'-N9	9.79	123.19	108.50
21	A2	891	A	P-O3'-C3'	9.79	134.88	120.20
67	B1	1036	C	P-O3'-C3'	9.79	134.88	120.20
67	B1	2851	A	O4'-C1'-N9	9.79	123.19	108.50
67	B1	1726	A	O4'-C1'-C2'	-9.79	97.81	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1577	C	O4'-C1'-C2'	-9.79	96.01	105.80
27	A0	13	U	C5'-C4'-C3'	-9.78	101.32	116.00
67	B1	1030	C	O4'-C1'-C2'	-9.78	97.82	107.60
67	B1	2308	C	N1-C1'-C2'	9.78	126.67	112.00
67	B1	1943	C	O4'-C1'-C2'	-9.78	97.82	107.60
21	A2	562	A	O4'-C1'-C2'	-9.78	97.82	107.60
4	AG	77	ASP	CA-C-N	-9.77	110.98	122.22
4	AG	77	ASP	C-N-CA	-9.77	110.98	122.22
67	B1	2613	C	O4'-C1'-C2'	-9.77	97.83	107.60
67	B1	393	C	C5'-C4'-C3'	9.77	130.65	116.00
21	A2	290	C	O4'-C1'-C2'	-9.77	97.83	107.60
21	A2	387	G	N9-C1'-C2'	9.77	126.65	112.00
64	Bc	73	LYS	N-CA-CB	-9.77	95.72	110.07
67	B1	1586	G	O4'-C1'-C2'	-9.77	97.83	107.60
47	BI	113	GLU	N-CA-C	9.76	121.92	111.28
21	A2	953	C	O4'-C1'-C2'	-9.76	97.84	107.60
21	A2	665	G	O4'-C1'-N9	9.75	123.13	108.50
67	B1	1945	C	O4'-C1'-C2'	-9.75	97.85	107.60
21	A2	499	G	O4'-C1'-C2'	9.75	117.35	107.60
21	A2	805	C	C1'-O4'-C4'	-9.75	100.15	109.90
67	B1	363	G	N9-C1'-C2'	-9.75	99.37	114.00
67	B1	452	A	O4'-C1'-C2'	9.75	117.35	107.60
67	B1	2270	G	C4'-C3'-C2'	-9.75	92.85	102.60
67	B1	2422	G	N9-C1'-C2'	9.74	126.61	112.00
21	A2	201	G	O4'-C1'-C2'	-9.74	97.86	107.60
67	B1	919	G	C1'-O4'-C4'	9.74	119.64	109.90
18	AF	57	VAL	N-CA-C	9.74	120.55	110.62
67	B1	976	C	C3'-C2'-C1'	9.74	111.04	101.30
67	B1	1003	C	P-O3'-C3'	9.74	134.80	120.20
43	Bk	107	ARG	CB-CA-C	-9.73	91.05	110.42
67	B1	147	C	N1-C1'-C2'	9.73	126.60	112.00
67	B1	1911	G	O4'-C1'-N9	9.73	123.10	108.50
17	AO	88	GLY	CA-C-O	-9.73	112.06	120.92
67	B1	225	C	N1-C1'-C2'	9.73	126.60	112.00
67	B1	3014	U	C1'-O4'-C4'	9.73	119.63	109.90
27	A0	6	C	C1'-O4'-C4'	-9.73	100.17	109.90
67	B1	700	A	C1'-O4'-C4'	9.73	119.63	109.90
67	B1	1201	G	C1'-C2'-O2'	9.73	122.99	108.40
67	B1	1396	A	C1'-O4'-C4'	9.73	119.63	109.90
21	A2	657	A	O4'-C1'-C2'	-9.72	96.08	105.80
68	B3	43	C	C3'-C2'-C1'	9.72	111.02	101.30
67	B1	617	G	O4'-C1'-C2'	-9.72	97.88	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	825	C	N1-C1'-C2'	9.71	126.57	112.00
67	B1	2301	C	P-O5'-C5'	9.71	135.47	120.90
21	A2	643	G	N9-C1'-C2'	9.71	126.57	112.00
67	B1	3047	C	P-O5'-C5'	9.71	135.47	120.90
67	B1	301	G	O4'-C1'-C2'	-9.71	96.09	105.80
7	AB	190	ILE	CA-C-O	-9.71	112.88	119.19
68	B3	31	U	C3'-C2'-C1'	9.70	111.00	101.30
21	A2	248	U	O3'-P-O5'	-9.70	89.45	104.00
67	B1	124	C	N1-C1'-C2'	9.70	126.55	112.00
67	B1	391	C	O4'-C1'-C2'	-9.70	97.90	107.60
21	A2	42	G	P-O3'-C3'	9.70	134.75	120.20
67	B1	216	A	O4'-C1'-N9	9.70	123.05	108.50
67	B1	700	A	N9-C1'-C2'	-9.70	97.46	112.00
21	A2	177	A	O4'-C1'-C2'	-9.69	97.91	107.60
67	B1	733	A	O4'-C1'-N9	9.69	123.04	108.50
67	B1	757	C	O4'-C1'-C2'	-9.69	97.91	107.60
67	B1	2531	G	O4'-C1'-C2'	-9.69	97.91	107.60
21	A2	671	C	O4'-C1'-C2'	-9.69	96.11	105.80
21	A2	673	C	N1-C1'-C2'	9.69	126.53	112.00
21	A2	959	G	P-O3'-C3'	9.69	134.73	120.20
21	A2	142	G	C3'-C2'-C1'	-9.69	91.61	101.30
67	B1	181	U	C1'-O4'-C4'	9.68	119.58	109.90
67	B1	1678	A	O4'-C1'-C2'	-9.68	97.92	107.60
21	A2	698	A	C1'-O4'-C4'	-9.68	100.22	109.90
67	B1	2033	G	C3'-C2'-C1'	9.68	110.98	101.30
67	B1	1080	G	O3'-P-O5'	9.68	118.52	104.00
67	B1	2573	C	O4'-C1'-C2'	-9.68	96.12	105.80
36	Bf	3	ARG	CB-CG-CD	9.67	133.54	111.30
67	B1	1251	G	O4'-C1'-C2'	-9.67	96.13	105.80
67	B1	1552	C	O4'-C1'-C2'	-9.67	97.93	107.60
67	B1	704	G	O4'-C1'-N9	9.67	123.00	108.50
21	A2	1340	U	P-O3'-C3'	9.66	134.70	120.20
67	B1	2630	C	C1'-O4'-C4'	-9.66	100.24	109.90
21	A2	306	C	C3'-C2'-C1'	9.66	110.96	101.30
21	A2	681	G	O4'-C1'-N9	9.66	122.99	108.50
21	A2	702	G	C5'-C4'-C3'	9.66	130.49	116.00
53	BD	55	ARG	N-CA-C	-9.66	101.50	113.38
21	A2	615	G	C1'-O4'-C4'	-9.66	100.24	109.90
67	B1	2598	C	N1-C1'-C2'	9.65	126.48	112.00
67	B1	1390	U	O4'-C1'-N1	9.65	122.97	108.50
21	A2	648	A	N9-C1'-C2'	9.65	126.47	112.00
67	B1	1204	U	O4'-C1'-C2'	-9.65	97.95	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1259	A	O4'-C1'-N9	-9.64	94.03	108.50
67	B1	2586	A	N9-C1'-C2'	-9.64	97.54	112.00
67	B1	2713	A	C1'-O4'-C4'	9.64	119.54	109.90
67	B1	2877	A	N9-C1'-C2'	9.64	126.46	112.00
21	A2	138	C	C3'-C2'-C1'	9.64	110.94	101.30
21	A2	1253	G	C1'-O4'-C4'	-9.64	100.26	109.90
21	A2	762	G	O4'-C1'-C2'	-9.63	97.97	107.60
67	B1	819	U	O4'-C1'-C2'	-9.63	96.17	105.80
67	B1	1920	A	C3'-C2'-C1'	9.63	111.13	101.50
21	A2	461	A	O4'-C1'-C2'	-9.63	97.97	107.60
43	Bk	42	ARG	CB-CG-CD	9.63	133.44	111.30
67	B1	815	U	O4'-C1'-C2'	-9.63	97.97	107.60
67	B1	2632	C	O4'-C1'-C2'	-9.62	96.18	105.80
67	B1	147	C	O4'-C1'-C2'	-9.62	97.98	107.60
67	B1	577	C	O4'-C1'-C2'	-9.62	97.98	107.60
67	B1	2489	C	P-O5'-C5'	9.61	135.32	120.90
67	B1	1024	G	O4'-C1'-N9	9.61	122.92	108.50
21	A2	1308	U	N1-C1'-C2'	9.61	126.41	112.00
67	B1	243	G	C1'-O4'-C4'	9.61	119.51	109.90
21	A2	1402	C	O4'-C1'-C2'	-9.61	97.99	107.60
67	B1	1570	C	C5'-C4'-C3'	9.61	130.41	116.00
7	AB	49	ASP	N-CA-C	9.60	121.75	111.28
21	A2	961	U	OP1-P-O3'	-9.60	79.19	108.00
21	A2	1491	C	O4'-C1'-C2'	-9.60	98.00	107.60
32	BO	96	GLN	N-CA-C	-9.60	100.04	114.64
67	B1	221	G	O4'-C1'-N9	9.60	122.60	108.20
67	B1	308	C	O4'-C1'-C2'	-9.60	98.00	107.60
67	B1	2753	G	O4'-C1'-N9	9.60	122.60	108.20
11	A1	25	G	C3'-C2'-C1'	9.60	110.90	101.30
56	BH	91	LYS	CA-C-N	9.60	136.74	120.71
56	BH	91	LYS	C-N-CA	9.60	136.74	120.71
67	B1	857	U	N1-C1'-C2'	9.60	126.39	112.00
67	B1	2006	C	C3'-C2'-C1'	9.60	110.90	101.30
67	B1	1728	C	O4'-C1'-C2'	-9.60	98.00	107.60
21	A2	808	C	O4'-C1'-C2'	-9.59	98.01	107.60
46	BA	89	GLU	CA-C-O	-9.59	110.75	120.82
67	B1	162	G	N9-C1'-C2'	9.59	126.38	112.00
67	B1	1181	C	N1-C1'-C2'	9.59	126.38	112.00
67	B1	2169	C	O4'-C1'-C2'	-9.59	98.01	107.60
11	A1	6	G	O4'-C1'-C2'	-9.59	98.01	107.60
46	BA	120	TYR	CA-C-O	-9.59	110.82	120.70
67	B1	1671	A	N9-C1'-C2'	-9.59	97.62	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	Ba	22	VAL	CB-CA-C	9.59	124.58	110.97
67	B1	2596	G	O4'-C1'-C2'	9.59	117.19	107.60
29	AL	91	PRO	CA-C-N	9.58	139.84	121.54
29	AL	91	PRO	C-N-CA	9.58	139.84	121.54
67	B1	1218	C	C1'-O4'-C4'	-9.58	100.32	109.90
67	B1	2020	G	C1'-O4'-C4'	-9.58	100.32	109.90
21	A2	334	G	O4'-C1'-N9	9.58	122.86	108.50
21	A2	1077	U	O4'-C1'-C2'	-9.58	98.02	107.60
21	A2	765	U	C3'-C2'-C1'	9.57	110.87	101.30
67	B1	434	G	C1'-O4'-C4'	-9.57	100.33	109.90
68	B3	106	G	O4'-C1'-N9	9.57	122.86	108.50
67	B1	1843	C	C1'-O4'-C4'	-9.57	100.33	109.90
41	Ba	33	LYS	N-CA-CB	9.57	124.33	110.16
67	B1	179	A	N9-C1'-C2'	9.57	126.36	112.00
67	B1	355	G	C1'-O4'-C4'	-9.57	100.33	109.90
67	B1	2545	A	O4'-C4'-C3'	-9.57	94.43	104.00
21	A2	30	C	C3'-C2'-C1'	9.57	110.87	101.30
36	Bf	2	ALA	N-CA-CB	-9.57	95.48	110.22
67	B1	408	C	C3'-C2'-C1'	9.57	110.87	101.30
21	A2	1004	U	N1-C1'-C2'	9.56	126.35	112.00
25	AH	87	ARG	CB-CA-C	-9.56	98.15	111.73
20	B4	93	GLU	N-CA-C	9.56	121.79	111.36
21	A2	62	G	N9-C1'-C2'	9.56	126.34	112.00
67	B1	1956	G	P-O3'-C3'	9.56	134.54	120.20
21	A2	511	C	P-O5'-C5'	9.56	135.24	120.90
45	Bi	74	ALA	CA-C-N	9.56	130.59	119.98
45	Bi	74	ALA	C-N-CA	9.56	130.59	119.98
67	B1	86	G	P-O5'-C5'	9.56	135.24	120.90
12	AN	93	ALA	N-CA-C	9.55	122.58	111.11
67	B1	325	G	C3'-C2'-C1'	9.55	110.86	101.30
67	B1	428	A	C3'-C2'-C1'	9.55	110.86	101.30
67	B1	1961	G	N9-C1'-C2'	-9.55	97.67	112.00
21	A2	470	G	O4'-C1'-N9	9.55	122.53	108.20
67	B1	1592	U	C1'-O4'-C4'	-9.55	100.35	109.90
67	B1	127	C	O4'-C1'-C2'	-9.55	98.05	107.60
67	B1	677	A	O4'-C1'-N9	9.55	122.82	108.50
67	B1	1090	G	O4'-C1'-C2'	9.55	117.15	107.60
51	Bj	50	PHE	N-CA-CB	9.55	125.23	110.43
67	B1	1734	G	O4'-C1'-C2'	-9.55	98.05	107.60
21	A2	156	A	O4'-C1'-C2'	-9.54	98.06	107.60
35	BL	17	HIS	CA-CB-CG	9.55	123.35	113.80
62	BN	30	LYS	N-CA-C	-9.55	102.72	114.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1452	G	O4'-C1'-N9	9.54	122.82	108.50
67	B1	2003	C	N1-C1'-C2'	9.54	126.32	112.00
14	AM	79	VAL	CA-C-O	-9.54	109.98	120.67
21	A2	634	C	C1'-O4'-C4'	-9.54	100.36	109.90
21	A2	1335	A	C3'-C2'-C1'	9.54	110.84	101.30
67	B1	2450	A	C2'-C3'-O3'	9.54	123.81	109.50
21	A2	512	U	O4'-C1'-C2'	9.54	115.34	105.80
21	A2	1239	A	O4'-C1'-C2'	9.54	115.34	105.80
51	Bj	60	LYS	N-CA-CB	9.54	127.35	110.37
35	BL	74	ARG	N-CA-C	-9.54	90.49	110.80
67	B1	1650	U	N1-C1'-C2'	9.54	126.31	112.00
67	B1	1567	C	O4'-C4'-C3'	-9.54	94.47	104.00
67	B1	744	G	N9-C1'-C2'	9.53	126.30	112.00
67	B1	1322	G	O4'-C1'-C2'	9.53	117.13	107.60
68	B3	110	C	O4'-C1'-C2'	-9.53	98.07	107.60
67	B1	1000	G	O4'-C1'-C2'	9.53	117.13	107.60
21	A2	127	G	O4'-C1'-C2'	-9.53	98.07	107.60
67	B1	1642	G	P-O3'-C3'	9.53	134.49	120.20
67	B1	2095	U	O4'-C1'-N1	9.53	122.79	108.50
14	AM	65	ARG	O-C-N	-9.52	112.03	122.12
67	B1	821	U	O4'-C1'-C2'	-9.52	98.08	107.60
21	A2	801	A	O4'-C1'-N9	9.52	122.48	108.20
25	AH	90	HIS	ND1-CE1-NE2	9.52	117.92	108.40
67	B1	214	C	O4'-C1'-N1	9.52	122.78	108.50
21	A2	803	C	N1-C1'-C2'	9.52	126.27	112.00
67	B1	1244	C	C1'-O4'-C4'	9.52	119.42	109.90
67	B1	2671	C	C3'-C2'-C1'	9.52	110.81	101.30
21	A2	1337	A	O4'-C1'-N9	9.51	122.76	108.50
67	B1	979	G	O3'-P-O5'	9.51	118.27	104.00
46	BA	12	VAL	N-CA-CB	9.51	121.67	110.55
21	A2	1439	G	C1'-O4'-C4'	9.51	119.41	109.90
61	Bd	30	LYS	CB-CA-C	9.51	123.15	108.61
67	B1	443	C	N1-C1'-C2'	9.51	128.26	114.00
67	B1	1990	U	P-O3'-C3'	9.51	134.46	120.20
67	B1	2165	A	P-O3'-C3'	9.51	134.46	120.20
67	B1	530	A	O4'-C1'-N9	9.50	122.76	108.50
67	B1	1270	G	N9-C1'-C2'	9.50	128.25	114.00
44	BW	38	LEU	N-CA-C	-9.50	101.58	113.55
21	A2	807	C	N1-C1'-C2'	9.50	126.25	112.00
51	Bj	1	MET	CG-SD-CE	-9.50	80.00	100.90
21	A2	178	C	O4'-C1'-C2'	-9.50	98.10	107.60
31	BY	40	THR	CA-C-O	-9.49	111.24	120.64

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	926	C	O4'-C1'-C2'	-9.49	96.31	105.80
67	B1	1407	A	C2'-C3'-O3'	9.49	123.74	109.50
29	AL	47	ILE	N-CA-C	-9.49	89.61	109.34
21	A2	27	C	O4'-C1'-C2'	-9.49	98.11	107.60
21	A2	1095	C	C1'-C2'-O2'	9.49	122.63	108.40
67	B1	304	G	O4'-C1'-N9	9.49	122.73	108.50
67	B1	974	U	O4'-C1'-C2'	-9.49	98.11	107.60
67	B1	2604	G	N9-C1'-C2'	9.49	126.23	112.00
67	B1	2016	C	O4'-C1'-C2'	-9.48	98.11	107.60
21	A2	1262	U	O4'-C1'-N1	9.48	122.72	108.50
67	B1	2293	G	O4'-C1'-C2'	-9.48	96.32	105.80
21	A2	1264	G	O4'-C1'-C2'	9.48	117.08	107.60
67	B1	1513	G	O4'-C1'-N9	9.48	122.72	108.50
67	B1	1751	G	N9-C1'-C2'	9.48	126.22	112.00
67	B1	1913	C	N1-C1'-C2'	9.47	126.21	112.00
67	B1	2225	C	O4'-C1'-C2'	-9.47	98.12	107.60
21	A2	1367	C	O4'-C1'-C2'	-9.47	98.13	107.60
21	A2	1459	G	P-O5'-C5'	9.47	135.11	120.90
67	B1	633	A	O4'-C1'-C2'	-9.47	98.13	107.60
1	AQ	118	SER	O-C-N	9.47	132.94	122.15
67	B1	12	C	P-O3'-C3'	9.46	134.40	120.20
67	B1	427	G	P-O3'-C3'	9.46	134.40	120.20
67	B1	1598	U	O4'-C1'-N1	9.46	122.70	108.50
21	A2	751	C	O4'-C1'-C2'	-9.46	98.14	107.60
21	A2	977	G	P-O3'-C3'	9.46	134.39	120.20
21	A2	470	G	N9-C1'-C2'	-9.46	99.81	114.00
67	B1	536	G	O3'-P-O5'	9.46	118.19	104.00
67	B1	2250	G	P-O3'-C3'	9.46	134.39	120.20
67	B1	2941	A	P-O3'-C3'	9.46	134.39	120.20
21	A2	165	U	P-O3'-C3'	-9.46	106.02	120.20
67	B1	460	C	N1-C1'-C2'	9.46	126.19	112.00
67	B1	366	G	C1'-O4'-C4'	-9.46	100.44	109.90
67	B1	1107	G	C1'-C2'-O2'	9.46	122.58	108.40
67	B1	1643	A	O4'-C4'-C3'	-9.46	96.64	106.10
21	A2	1217	C	P-O3'-C3'	9.45	134.38	120.20
48	BR	13	ARG	CA-C-N	9.45	133.30	120.44
48	BR	13	ARG	C-N-CA	9.45	133.30	120.44
67	B1	847	A	C1'-O4'-C4'	9.45	119.35	109.90
67	B1	2468	C	O4'-C1'-C2'	-9.45	98.15	107.60
21	A2	1282	C	C3'-C2'-C1'	9.45	110.95	101.50
51	Bj	82	ARG	CA-CB-CG	9.45	132.99	114.10
67	B1	1204	U	P-O5'-C5'	9.45	135.07	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1653	U	N1-C1'-C2'	9.45	126.17	112.00
37	BU	92	PHE	CA-CB-CG	-9.44	104.36	113.80
21	A2	1290	U	O4'-C1'-C2'	9.44	117.04	107.60
67	B1	2796	C	O4'-C1'-C2'	-9.44	98.16	107.60
67	B1	2524	C	O4'-C1'-C2'	-9.43	98.17	107.60
21	A2	486	A	C3'-C2'-C1'	9.43	110.93	101.50
67	B1	1665	G	O4'-C1'-C2'	-9.43	98.17	107.60
21	A2	751	C	N1-C1'-C2'	9.42	126.14	112.00
67	B1	336	C	O4'-C1'-C2'	-9.42	98.18	107.60
67	B1	2892	A	P-O3'-C3'	9.42	134.33	120.20
54	BF	77	ASN	CA-CB-CG	-9.42	103.18	112.60
67	B1	318	G	C1'-O4'-C4'	-9.42	100.48	109.90
67	B1	2170	C	N1-C1'-C2'	9.42	126.13	112.00
21	A2	999	G	N9-C1'-C2'	9.41	126.12	112.00
67	B1	779	A	P-O3'-C3'	-9.41	106.08	120.20
21	A2	63	G	N9-C1'-C2'	9.41	126.11	112.00
35	BL	120	ARG	CA-C-N	9.41	129.78	119.90
35	BL	120	ARG	C-N-CA	9.41	129.78	119.90
67	B1	1941	A	N9-C1'-C2'	9.41	126.11	112.00
67	B1	2195	G	O4'-C1'-C2'	9.41	117.01	107.60
67	B1	2254	U	O4'-C1'-C2'	-9.41	98.19	107.60
21	A2	1392	G	O3'-P-O5'	-9.41	89.89	104.00
67	B1	297	G	C3'-C2'-C1'	9.40	110.70	101.30
67	B1	1751	G	C1'-C2'-O2'	9.40	122.51	108.40
67	B1	2144	U	O4'-C1'-C2'	-9.40	98.19	107.60
21	A2	834	C	O4'-C1'-C2'	-9.40	98.20	107.60
21	A2	351	C	P-O3'-C3'	-9.39	106.11	120.20
67	B1	545	G	O4'-C1'-N9	9.39	122.29	108.20
67	B1	1405	G	N9-C1'-C2'	9.39	126.09	112.00
67	B1	2485	C	O4'-C1'-C2'	-9.39	98.21	107.60
21	A2	736	A	O4'-C1'-C2'	-9.39	98.21	107.60
67	B1	215	A	O4'-C1'-N9	9.39	122.29	108.20
67	B1	1697	G	C1'-O4'-C4'	9.39	119.29	109.90
21	A2	600	C	O4'-C1'-C2'	-9.38	98.22	107.60
67	B1	593	C	C3'-C2'-C1'	9.38	110.68	101.30
67	B1	2201	C	O4'-C1'-C2'	-9.38	98.22	107.60
17	AO	77	TRP	N-CA-C	-9.38	102.65	114.56
21	A2	108	G	O4'-C1'-C2'	9.38	116.98	107.60
67	B1	58	G	C1'-C2'-O2'	9.38	122.47	108.40
36	Bf	30	LYS	N-CA-CB	9.38	123.90	110.12
21	A2	1093	C	O4'-C1'-C2'	-9.37	96.43	105.80
67	B1	2544	C	C3'-C2'-C1'	9.37	110.67	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	BD	177	SER	N-CA-C	-9.37	99.75	112.03
67	B1	705	G	C3'-C2'-C1'	9.37	110.67	101.30
67	B1	746	C	O4'-C1'-C2'	-9.37	98.23	107.60
21	A2	422	U	P-O3'-C3'	9.37	134.25	120.20
21	A2	1328	G	O4'-C1'-C2'	9.37	116.97	107.60
67	B1	1675	C	N1-C1'-C2'	9.37	126.05	112.00
21	A2	175	G	C3'-C2'-C1'	-9.37	91.94	101.30
48	BR	10	ARG	CA-C-O	9.36	131.59	120.92
61	Bd	59	LYS	CA-C-N	9.37	133.59	120.29
61	Bd	59	LYS	C-N-CA	9.37	133.59	120.29
21	A2	78	G	C1'-O4'-C4'	-9.36	100.54	109.90
21	A2	1424	G	C1'-O4'-C4'	-9.36	100.54	109.90
67	B1	1572	C	P-O3'-C3'	9.36	134.24	120.20
67	B1	1618	G	N9-C1'-C2'	9.36	126.04	112.00
67	B1	561	C	P-O5'-C5'	-9.36	106.86	120.90
21	A2	573	C	C3'-C2'-C1'	9.36	110.66	101.30
66	B1	62	PRO	N-CA-CB	9.36	109.69	101.83
67	B1	891	C	N1-C1'-C2'	9.36	126.03	112.00
13	AX	4	ASP	N-CA-C	-9.35	90.88	110.80
50	BV	50	LEU	CA-C-N	9.35	134.53	120.31
50	BV	50	LEU	C-N-CA	9.35	134.53	120.31
67	B1	814	G	C3'-C2'-C1'	9.35	110.65	101.30
67	B1	2470	U	O4'-C1'-C2'	-9.35	98.25	107.60
67	B1	323	U	O4'-C1'-C2'	-9.35	98.25	107.60
21	A2	635	C	O4'-C1'-C2'	-9.35	98.25	107.60
21	A2	126	G	P-O3'-C3'	9.34	134.22	120.20
67	B1	1214	C	O4'-C1'-C2'	-9.34	98.26	107.60
67	B1	2482	G	N9-C1'-C2'	9.34	126.00	112.00
67	B1	3047	C	N1-C1'-C2'	9.34	126.00	112.00
21	A2	950	C	O4'-C1'-C2'	-9.33	98.27	107.60
49	BQ	85	LYS	N-CA-C	9.33	122.62	111.33
61	Bd	20	GLY	N-CA-C	-9.33	101.51	115.32
67	B1	2109	C	O4'-C1'-C2'	-9.33	98.27	107.60
67	B1	3048	C	O4'-C1'-C2'	-9.33	98.27	107.60
21	A2	1154	G	O4'-C1'-C2'	9.33	116.93	107.60
67	B1	1336	G	C1'-O4'-C4'	9.33	119.23	109.90
67	B1	2733	A	O3'-P-O5'	-9.33	90.01	104.00
67	B1	1438	C	O4'-C1'-C2'	-9.32	98.28	107.60
67	B1	1485	A	O4'-C1'-C2'	-9.32	96.47	105.80
21	A2	1357	C	C1'-C2'-O2'	9.32	122.38	108.40
21	A2	1002	G	P-O5'-C5'	-9.32	106.92	120.90
29	AL	12	ASN	CA-C-N	9.32	133.66	120.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	AL	12	ASN	C-N-CA	9.32	133.66	120.42
67	B1	537	U	C1'-O4'-C4'	-9.32	100.58	109.90
67	B1	2088	G	C1'-O4'-C4'	-9.32	100.38	109.70
67	B1	2585	G	C3'-C2'-C1'	-9.32	91.98	101.30
39	Be	4	GLY	CA-C-N	9.32	132.76	120.28
39	Be	4	GLY	C-N-CA	9.32	132.76	120.28
48	BR	8	PHE	CA-C-N	9.32	136.28	120.72
48	BR	8	PHE	C-N-CA	9.32	136.28	120.72
67	B1	2510	A	C1'-O4'-C4'	-9.32	100.58	109.90
21	A2	832	G	N9-C1'-C2'	9.31	125.97	112.00
21	A2	1493	C	O4'-C1'-C2'	-9.31	98.29	107.60
67	B1	1140	C	C1'-O4'-C4'	-9.31	100.58	109.90
67	B1	1610	C	C3'-C2'-C1'	9.31	110.61	101.30
67	B1	996	U	O4'-C1'-C2'	-9.31	98.29	107.60
67	B1	1235	A	O4'-C1'-C2'	-9.31	98.29	107.60
67	B1	1649	G	C1'-C2'-O2'	9.31	122.37	108.40
67	B1	3042	C	C3'-C2'-C1'	9.31	110.61	101.30
21	A2	268	C	O4'-C1'-C2'	-9.31	98.29	107.60
21	A2	343	G	O4'-C1'-C2'	-9.31	98.29	107.60
67	B1	758	C	O4'-C1'-N1	9.31	122.46	108.50
21	A2	641	A	O4'-C4'-C3'	-9.30	96.80	106.10
67	B1	1182	C	C3'-C2'-C1'	9.30	110.61	101.30
21	A2	1121	C	C3'-C2'-C1'	9.30	110.60	101.30
67	B1	1976	C	O4'-C1'-C2'	-9.30	98.30	107.60
67	B1	437	G	O4'-C1'-C2'	-9.30	98.30	107.60
67	B1	1844	C	O4'-C1'-C2'	-9.30	98.30	107.60
67	B1	2800	U	O4'-C1'-C2'	-9.29	98.31	107.60
43	Bk	57	ASN	CA-CB-CG	-9.29	103.31	112.60
67	B1	953	G	C1'-O4'-C4'	9.29	119.19	109.90
67	B1	2125	C	N1-C1'-C2'	9.29	125.94	112.00
67	B1	2730	U	O4'-C1'-C2'	-9.29	98.31	107.60
21	A2	1378	A	O4'-C1'-C2'	-9.29	98.31	107.60
67	B1	655	C	O4'-C1'-C2'	-9.29	98.31	107.60
21	A2	958	G	O4'-C1'-N9	9.28	122.43	108.50
67	B1	2961	A	O4'-C1'-C2'	-9.29	98.31	107.60
59	BM	81	LYS	CA-C-O	-9.28	112.05	119.66
67	B1	407	A	O3'-P-O5'	9.28	117.92	104.00
46	BA	23	ASN	O-C-N	-9.28	112.51	122.07
67	B1	2790	C	N1-C1'-C2'	9.28	125.92	112.00
67	B1	1272	A	C3'-C2'-C1'	9.28	110.58	101.30
67	B1	1744	A	O4'-C1'-N9	9.28	122.11	108.20
20	A3	6	TYR	N-CA-CB	9.27	125.69	110.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	424	U	C1'-O4'-C4'	-9.27	100.63	109.90
67	B1	2272	G	C1'-O4'-C4'	-9.27	100.63	109.90
36	Bf	34	ARG	N-CA-C	9.26	130.53	110.80
67	B1	1711	C	C1'-O4'-C4'	9.26	118.96	109.70
21	A2	356	G	C1'-O4'-C4'	-9.26	100.64	109.90
67	B1	44	C	O4'-C1'-C2'	-9.26	98.34	107.60
67	B1	323	U	C4'-C3'-O3'	-9.26	99.11	113.00
67	B1	2403	G	N9-C1'-C2'	9.26	125.89	112.00
21	A2	1250	C	N1-C1'-C2'	9.26	125.89	112.00
67	B1	2892	A	N9-C1'-C2'	9.26	127.89	114.00
67	B1	1152	C	N1-C1'-C2'	9.26	125.89	112.00
21	A2	166	A	N9-C1'-C2'	9.25	125.88	112.00
45	Bi	28	VAL	N-CA-CB	9.25	121.37	110.55
67	B1	2764	G	C1'-O4'-C4'	-9.25	100.65	109.90
21	A2	865	A	O4'-C1'-C2'	-9.24	98.36	107.60
67	B1	194	G	O4'-C1'-C2'	-9.24	96.56	105.80
67	B1	1208	A	O4'-C1'-N9	9.24	122.07	108.20
67	B1	2865	C	N1-C1'-C2'	9.24	125.87	112.00
67	B1	2610	C	O4'-C1'-C2'	-9.24	98.36	107.60
18	AF	13	LEU	CB-CA-C	9.24	126.39	110.68
33	BC	5	HIS	CE1-NE2-CD2	-9.24	99.76	109.00
21	A2	1282	C	N1-C1'-C2'	9.23	127.85	114.00
67	B1	2548	A	C1'-O4'-C4'	9.23	118.93	109.70
67	B1	2562	G	O4'-C1'-C2'	-9.23	96.57	105.80
67	B1	2791	C	O4'-C1'-C2'	-9.23	98.37	107.60
67	B1	882	U	N1-C1'-C2'	9.23	125.84	112.00
36	Bf	38	HIS	CA-CB-CG	-9.22	104.58	113.80
67	B1	1437	C	O4'-C1'-N1	9.22	122.33	108.50
25	AH	80	LYS	CB-CA-C	-9.22	94.75	109.13
67	B1	94	A	N9-C1'-C2'	-9.22	98.17	112.00
67	B1	1081	U	C3'-C2'-C1'	9.22	110.52	101.30
67	B1	2260	C	C1'-O4'-C4'	-9.21	100.69	109.90
11	A1	66	C	N1-C1'-C2'	9.21	125.82	112.00
68	B3	86	C	O4'-C1'-C2'	-9.21	98.39	107.60
12	AN	43	PRO	CA-C-N	9.21	139.13	121.54
12	AN	43	PRO	C-N-CA	9.21	139.13	121.54
21	A2	1448	A	N9-C1'-C2'	-9.21	98.19	112.00
67	B1	475	U	O4'-C1'-C2'	-9.21	98.39	107.60
67	B1	1348	G	C3'-C2'-C1'	-9.21	92.09	101.30
21	A2	1142	G	P-O3'-C3'	9.21	134.01	120.20
68	B3	9	A	O4'-C1'-C2'	-9.21	98.39	107.60
67	B1	362	A	N9-C1'-C2'	-9.20	98.19	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2367	C	O4'-C1'-C2'	-9.20	98.40	107.60
19	AS	41	VAL	N-CA-C	-9.20	93.78	106.85
67	B1	1994	G	O4'-C1'-C2'	-9.20	98.40	107.60
25	AH	1	MET	CA-C-N	9.20	132.40	120.44
25	AH	1	MET	C-N-CA	9.20	132.40	120.44
34	BK	13	ILE	N-CA-C	-9.20	104.18	113.10
67	B1	1414	G	C3'-C2'-C1'	9.20	110.70	101.50
21	A2	936	A	N9-C1'-C2'	9.20	125.79	112.00
67	B1	2875	C	C1'-O4'-C4'	-9.20	100.70	109.90
67	B1	486	A	N9-C1'-C2'	-9.19	100.21	114.00
21	A2	179	U	O4'-C1'-N1	9.19	122.29	108.50
67	B1	2011	U	N1-C1'-C2'	-9.19	98.21	112.00
21	A2	577	C	O4'-C1'-C2'	-9.19	98.41	107.60
29	AL	59	ALA	CB-CA-C	9.19	124.91	109.48
34	B5	13	ILE	N-CA-C	-9.19	104.19	113.10
67	B1	324	C	P-O3'-C3'	9.19	133.98	120.20
67	B1	528	G	C1'-O4'-C4'	-9.19	100.71	109.90
67	B1	424	U	C1'-O4'-C4'	-9.19	100.72	109.90
67	B1	2180	C	O4'-C1'-C2'	-9.19	98.42	107.60
67	B1	2277	G	O4'-C1'-C2'	-9.19	98.42	107.60
21	A2	658	A	O4'-C1'-C2'	-9.18	98.42	107.60
67	B1	703	G	P-O3'-C3'	-9.18	106.42	120.20
67	B1	981	A	C1'-O4'-C4'	9.18	118.88	109.70
67	B1	1243	C	C3'-C2'-C1'	9.18	110.48	101.30
67	B1	1903	G	O4'-C1'-C2'	-9.18	98.42	107.60
21	A2	942	A	O4'-C1'-C2'	9.18	116.78	107.60
21	A2	433	U	O3'-P-O5'	-9.18	90.23	104.00
21	A2	701	G	O4'-C1'-C2'	-9.18	98.42	107.60
61	Bd	78	LYS	N-CA-C	9.18	120.89	111.07
67	B1	2651	G	N9-C1'-C2'	9.18	125.77	112.00
68	B3	67	U	C1'-O4'-C4'	9.18	119.08	109.90
67	B1	444	U	O4'-C1'-C2'	-9.18	96.62	105.80
67	B1	511	A	N9-C1'-C2'	-9.18	98.24	112.00
67	B1	1899	C	O4'-C1'-C2'	-9.18	98.42	107.60
21	A2	373	C	N1-C1'-C2'	9.17	125.76	112.00
21	A2	489	C	N1-C1'-C2'	9.17	125.76	112.00
64	Bc	15	GLU	O-C-N	-9.17	110.31	122.23
21	A2	136	A	C1'-O4'-C4'	-9.17	100.73	109.90
50	BV	52	TRP	CA-CB-CG	9.17	131.02	113.60
67	B1	716	U	P-O3'-C3'	9.17	133.95	120.20
67	B1	1322	G	C1'-O4'-C4'	-9.17	100.73	109.90
67	B1	2103	C	N1-C1'-C2'	9.17	125.75	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2895	G	N9-C1'-C2'	9.17	125.75	112.00
67	B1	2920	C	N1-C1'-C2'	9.17	125.75	112.00
21	A2	1269	G	C3'-C2'-C1'	9.16	110.47	101.30
67	B1	2100	U	O4'-C1'-C2'	-9.16	98.44	107.60
51	Bj	56	GLU	CA-C-N	9.16	134.60	121.96
51	Bj	56	GLU	C-N-CA	9.16	134.60	121.96
67	B1	1982	C	C3'-C2'-C1'	9.16	110.46	101.30
21	A2	215	C	N1-C1'-C2'	9.15	125.73	112.00
21	A2	368	C	C2'-C3'-O3'	9.15	123.23	109.50
21	A2	424	U	N1-C1'-C2'	9.15	125.73	112.00
4	AG	55	PHE	O-C-N	-9.15	110.80	121.32
67	B1	69	C	N1-C1'-C2'	9.15	125.73	112.00
67	B1	979	G	C1'-O4'-C4'	-9.15	100.75	109.90
67	B1	629	G	N9-C1'-C2'	-9.15	98.28	112.00
67	B1	2338	A	P-O3'-C3'	9.15	133.92	120.20
67	B1	2614	C	N1-C1'-C2'	9.15	125.72	112.00
21	A2	423	U	O4'-C1'-C2'	-9.14	98.46	107.60
67	B1	1596	G	O4'-C1'-C2'	-9.14	98.46	107.60
50	BV	56	TYR	CB-CA-C	9.14	125.97	110.79
67	B1	2215	U	C3'-C2'-C1'	9.14	110.64	101.50
21	A2	1421	C	O4'-C1'-C2'	-9.14	98.46	107.60
67	B1	1225	A	N9-C1'-C2'	9.14	125.70	112.00
67	B1	1446	G	O4'-C1'-C2'	-9.14	98.46	107.60
18	AF	2	SER	CA-C-N	9.14	132.52	120.28
18	AF	2	SER	C-N-CA	9.14	132.52	120.28
67	B1	1566	G	C4'-C3'-C2'	9.14	111.74	102.60
67	B1	1656	C	O4'-C1'-C2'	-9.13	98.47	107.60
67	B1	2928	C	C1'-O4'-C4'	9.13	119.03	109.90
67	B1	1578	C	C3'-C2'-C1'	9.13	110.43	101.30
67	B1	2359	G	O4'-C1'-C2'	-9.13	98.47	107.60
68	B3	40	G	N9-C1'-C2'	9.13	125.70	112.00
2	AK	102	TYR	CA-C-O	-9.13	111.30	120.70
67	B1	1765	A	C3'-C2'-C1'	9.13	110.43	101.30
67	B1	2523	C	C3'-C2'-C1'	9.13	110.63	101.50
67	B1	2382	A	N9-C1'-C2'	-9.12	98.31	112.00
68	B3	65	G	N9-C1'-C2'	9.12	125.69	112.00
67	B1	2303	A	P-O5'-C5'	9.12	134.58	120.90
21	A2	556	G	C1'-O4'-C4'	-9.12	100.78	109.90
15	AE	61	GLU	N-CA-CB	9.12	123.23	110.01
21	A2	152	G	C3'-C2'-C1'	-9.12	92.18	101.30
67	B1	177	G	C1'-O4'-C4'	-9.12	100.78	109.90
67	B1	246	A	O4'-C1'-N9	9.12	122.18	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	485	G	C3'-C2'-C1'	9.12	110.42	101.30
67	B1	810	A	C3'-C2'-C1'	9.11	110.41	101.30
67	B1	1811	G	C3'-C2'-C1'	-9.12	92.19	101.30
21	A2	457	G	O4'-C1'-C2'	-9.11	98.49	107.60
67	B1	277	A	O4'-C1'-C2'	-9.11	98.49	107.60
67	B1	917	A	O4'-C1'-N9	9.11	121.86	108.20
21	A2	1490	C	P-O3'-C3'	-9.11	106.54	120.20
67	B1	277	A	C3'-C2'-C1'	9.11	110.41	101.30
67	B1	1795	C	O4'-C1'-C2'	-9.11	98.50	107.60
25	AH	84	HIS	O-C-N	-9.10	111.47	122.48
67	B1	2088	G	O4'-C1'-N9	-9.10	94.54	108.20
28	AV	96	LYS	N-CA-CB	9.10	121.63	110.53
67	B1	1899	C	C3'-C2'-C1'	9.10	110.40	101.30
21	A2	93	A	C5'-C4'-C3'	-9.10	101.55	115.20
21	A2	324	C	O4'-C1'-C2'	9.10	114.90	105.80
59	BM	103	LYS	CA-C-N	9.10	132.27	120.44
59	BM	103	LYS	C-N-CA	9.10	132.27	120.44
67	B1	1607	C	O4'-C1'-C2'	-9.10	98.50	107.60
3	AI	89	TRP	CA-C-N	9.10	132.26	120.44
3	AI	89	TRP	C-N-CA	9.10	132.26	120.44
21	A2	532	C	N1-C1'-C2'	9.10	125.64	112.00
67	B1	899	A	P-O3'-C3'	9.10	133.84	120.20
67	B1	1273	C	C3'-C2'-C1'	9.10	110.40	101.30
67	B1	2251	G	P-O5'-C5'	9.10	134.55	120.90
67	B1	2599	C	N1-C1'-C2'	9.09	125.64	112.00
67	B1	2916	G	O4'-C1'-C2'	-9.09	98.51	107.60
4	AG	47	LEU	CA-C-N	9.09	138.90	121.54
4	AG	47	LEU	C-N-CA	9.09	138.90	121.54
67	B1	594	U	O4'-C1'-N1	9.09	122.14	108.50
21	A2	963	A	P-O3'-C3'	9.09	133.83	120.20
21	A2	1020	G	N9-C1'-C2'	9.09	125.63	112.00
1	AQ	56	ASP	CA-CB-CG	-9.09	103.52	112.60
21	A2	32	A	N9-C1'-C2'	-9.08	98.38	112.00
21	A2	367	G	O4'-C1'-N9	-9.08	94.87	108.50
21	A2	1339	G	N9-C1'-C2'	9.08	125.62	112.00
13	AX	67	ILE	CA-C-O	-9.08	112.72	120.80
68	B3	56	C	C3'-C2'-C1'	9.08	110.38	101.30
21	A2	694	U	O4'-C1'-N1	9.08	122.12	108.50
67	B1	157	U	C4'-C3'-C2'	-9.08	93.52	102.60
67	B1	1898	A	C1'-O4'-C4'	9.08	118.98	109.90
21	A2	1004	U	O4'-C1'-C2'	-9.08	98.52	107.60
67	B1	601	A	O4'-C1'-N9	9.08	122.11	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	651	C	O4'-C1'-C2'	-9.08	98.52	107.60
21	A2	3	U	O4'-C1'-C2'	-9.07	96.72	105.80
44	BW	15	ASP	CA-CB-CG	-9.07	103.53	112.60
63	Bg	4	PHE	CA-C-N	-9.07	108.50	119.84
63	Bg	4	PHE	C-N-CA	-9.07	108.50	119.84
67	B1	3043	C	O4'-C1'-N1	9.07	122.11	108.50
67	B1	2283	C	C3'-C2'-C1'	9.07	110.37	101.30
11	A1	76	C	O4'-C1'-C2'	-9.07	98.53	107.60
67	B1	1130	G	O4'-C1'-C2'	-9.07	98.53	107.60
27	A0	76	A	C3'-C2'-C1'	9.06	110.36	101.30
67	B1	2520	C	N1-C1'-C2'	9.06	125.60	112.00
21	A2	1173	A	N9-C1'-C2'	9.06	127.59	114.00
67	B1	22	C	O4'-C1'-C2'	-9.06	98.54	107.60
67	B1	579	C	C2'-C3'-O3'	9.06	123.09	109.50
21	A2	1106	A	C3'-C2'-C1'	9.05	110.35	101.30
67	B1	621	G	N9-C1'-C2'	9.05	125.58	112.00
22	AY	30	PHE	CA-CB-CG	-9.05	104.75	113.80
49	BQ	36	ILE	N-CA-C	-9.05	104.57	111.90
67	B1	1610	C	O4'-C1'-C2'	-9.05	98.55	107.60
67	B1	2210	G	O4'-C1'-C2'	9.05	116.65	107.60
67	B1	202	A	O4'-C1'-N9	9.04	122.07	108.50
21	A2	866	A	O4'-C1'-C2'	-9.04	98.56	107.60
67	B1	2920	C	C3'-C2'-C1'	9.04	110.34	101.30
21	A2	949	G	O4'-C1'-N9	9.04	122.06	108.50
67	B1	1670	A	C3'-C2'-C1'	-9.04	92.26	101.30
67	B1	2858	C	N1-C1'-C2'	9.04	125.56	112.00
21	A2	344	G	O4'-C1'-C2'	-9.04	98.56	107.60
21	A2	1458	A	P-O3'-C3'	9.03	133.75	120.20
67	B1	1068	U	O4'-C1'-C2'	-9.04	96.77	105.80
67	B1	206	A	N9-C1'-C2'	9.03	125.55	112.00
67	B1	2157	U	N1-C1'-C2'	9.03	125.55	112.00
21	A2	61	A	O4'-C1'-N9	9.03	121.74	108.20
21	A2	677	U	O4'-C1'-N1	9.03	122.04	108.50
35	BL	67	PRO	CA-C-N	9.03	132.38	120.28
35	BL	67	PRO	C-N-CA	9.03	132.38	120.28
21	A2	409	C	C1'-O4'-C4'	-9.02	100.88	109.90
27	A0	60	U	C3'-C2'-C1'	9.02	110.52	101.50
30	AU	103	GLN	N-CA-C	9.02	121.20	111.36
21	A2	975	A	P-O3'-C3'	9.02	133.73	120.20
67	B1	415	U	O4'-C1'-C2'	-9.02	98.58	107.60
67	B1	471	U	P-O3'-C3'	9.02	133.74	120.20
67	B1	1042	G	P-O3'-C3'	9.02	133.73	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	96	G	N9-C1'-C2'	9.02	125.53	112.00
67	B1	2687	A	O4'-C1'-N9	9.02	122.03	108.50
67	B1	2947	G	P-O5'-C5'	-9.02	107.37	120.90
21	A2	494	G	C3'-C2'-C1'	-9.02	92.28	101.30
64	Bc	73	LYS	CB-CA-C	9.02	125.74	110.86
40	BE	160	ILE	CA-C-O	-9.02	112.22	119.98
11	A1	52	G	C1'-O4'-C4'	-9.02	100.89	109.90
21	A2	1220	G	P-O5'-C5'	9.02	134.42	120.90
67	B1	2302	C	P-O3'-C3'	-9.02	106.67	120.20
21	A2	172	G	C1'-O4'-C4'	-9.01	100.89	109.90
56	BH	71	PRO	N-CA-C	9.01	121.70	110.70
67	B1	1223	A	C5'-C4'-C3'	-9.01	102.48	116.00
67	B1	1530	A	O4'-C1'-N9	9.01	121.72	108.20
67	B1	1738	A	C1'-O4'-C4'	9.01	118.91	109.90
67	B1	2197	U	O4'-C1'-C2'	-9.01	98.59	107.60
54	BF	174	ILE	CA-CB-CG1	9.01	125.72	110.40
67	B1	2272	G	P-O3'-C3'	-9.01	106.69	120.20
21	A2	356	G	N9-C1'-C2'	9.01	125.51	112.00
21	A2	992	G	C1'-O4'-C4'	-9.01	100.89	109.90
40	BE	110	HIS	ND1-CE1-NE2	9.01	117.41	108.40
67	B1	2585	G	O4'-C1'-C2'	9.01	116.61	107.60
21	A2	456	U	N1-C1'-C2'	9.01	125.51	112.00
21	A2	440	C	C3'-C2'-C1'	9.00	110.30	101.30
24	AA	43	VAL	O-C-N	-9.00	113.73	123.18
67	B1	78	C	N1-C1'-C2'	9.00	125.50	112.00
67	B1	1029	C	O4'-C1'-C2'	-9.00	98.60	107.60
67	B1	1072	U	C1'-O4'-C4'	9.00	118.90	109.90
67	B1	2764	G	O4'-C1'-C2'	9.00	116.60	107.60
7	AB	72	VAL	N-CA-C	-9.00	103.62	113.43
67	B1	485	G	O4'-C1'-C2'	-9.00	98.60	107.60
67	B1	2358	U	O4'-C1'-C2'	-9.00	98.60	107.60
25	AH	14	GLU	N-CA-C	8.99	121.08	111.28
67	B1	895	C	O4'-C1'-C2'	-8.99	98.61	107.60
21	A2	99	C	C2'-C3'-O3'	8.99	127.19	113.70
21	A2	316	C	C3'-C2'-C1'	8.99	110.29	101.30
67	B1	443	C	O4'-C1'-C2'	-8.99	96.81	105.80
21	A2	252	U	O4'-C1'-C2'	-8.99	98.61	107.60
21	A2	1185	A	N9-C1'-C2'	8.99	125.48	112.00
68	B3	123	U	O4'-C1'-C2'	-8.99	96.81	105.80
67	B1	48	G	N9-C1'-C2'	-8.98	98.53	112.00
67	B1	1699	U	N1-C1'-C2'	8.98	125.47	112.00
67	B1	2761	G	C1'-O4'-C4'	8.98	118.88	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	AF	2	SER	N-CA-C	8.98	123.26	108.08
21	A2	44	C	C3'-C2'-C1'	8.98	110.28	101.30
67	B1	1868	C	C1'-O4'-C4'	8.97	118.87	109.90
21	A2	386	C	N1-C1'-C2'	8.97	125.46	112.00
21	A2	605	C	N1-C1'-C2'	8.97	125.45	112.00
67	B1	1569	A	N9-C1'-C2'	8.97	125.45	112.00
67	B1	1280	C	O4'-C1'-C2'	-8.97	98.63	107.60
67	B1	1597	G	O4'-C1'-C2'	-8.97	98.63	107.60
67	B1	2284	C	C3'-C2'-C1'	8.96	110.26	101.30
67	B1	2513	C	N1-C1'-C2'	8.96	125.45	112.00
67	B1	2717	A	O4'-C1'-N9	8.97	121.65	108.20
67	B1	2662	G	O4'-C1'-C2'	8.96	116.56	107.60
67	B1	822	A	C3'-C2'-C1'	8.96	110.26	101.30
67	B1	2578	C	O4'-C1'-C2'	-8.96	98.64	107.60
67	B1	2640	C	N1-C1'-C2'	8.96	125.44	112.00
67	B1	2270	G	O4'-C1'-N9	8.96	121.94	108.50
21	A2	1186	C	O4'-C1'-C2'	8.96	114.76	105.80
21	A2	88	G	C3'-C2'-C1'	8.96	110.26	101.30
67	B1	426	G	O4'-C1'-C2'	8.96	116.56	107.60
67	B1	1457	C	O4'-C1'-C2'	-8.96	98.64	107.60
40	BE	5	ILE	N-CA-CB	8.95	117.43	110.45
21	A2	23	G	O4'-C1'-C2'	-8.95	98.65	107.60
21	A2	400	G	O4'-C1'-C2'	-8.95	98.65	107.60
67	B1	68	G	O4'-C1'-C2'	-8.95	98.65	107.60
67	B1	110	A	O4'-C1'-C2'	-8.95	98.65	107.60
67	B1	2522	C	O4'-C1'-C2'	-8.95	98.65	107.60
67	B1	2774	C	O4'-C1'-C2'	-8.95	98.65	107.60
68	B3	27	C	N1-C1'-C2'	8.95	125.43	112.00
21	A2	192	G	O4'-C1'-C2'	8.95	116.55	107.60
67	B1	2032	G	N9-C1'-C2'	8.95	125.42	112.00
67	B1	1272	A	C1'-O4'-C4'	8.95	118.85	109.90
33	BC	107	ASP	N-CA-CB	8.95	123.57	110.06
64	Bc	80	LEU	N-CA-C	-8.95	92.36	108.02
67	B1	1071	A	O4'-C1'-C2'	-8.95	98.65	107.60
29	AL	74	ASP	CA-CB-CG	-8.94	103.66	112.60
51	Bj	54	LYS	N-CA-CB	8.95	126.29	110.37
21	A2	643	G	C1'-C2'-O2'	8.94	121.81	108.40
67	B1	1889	G	O4'-C1'-N9	8.94	121.91	108.50
51	Bj	50	PHE	CB-CA-C	-8.94	94.97	112.05
67	B1	935	A	O4'-C1'-C2'	-8.94	96.86	105.80
49	BQ	100	ARG	CB-CA-C	-8.94	95.65	110.85
67	B1	251	C	N1-C1'-C2'	8.94	125.41	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	979	G	N9-C1'-C2'	8.94	125.41	112.00
67	B1	3038	A	P-O5'-C5'	8.94	134.31	120.90
21	A2	487	U	O4'-C1'-N1	8.94	121.91	108.50
31	BY	121	PRO	N-CA-CB	8.94	107.87	103.22
2	AK	45	ILE	O-C-N	8.94	131.03	121.83
21	A2	1132	C	O4'-C1'-C2'	-8.93	98.67	107.60
67	B1	1139	C	N1-C1'-C2'	8.93	125.40	112.00
21	A2	103	A	P-O3'-C3'	8.93	133.60	120.20
67	B1	872	G	N9-C1'-C2'	8.93	125.40	112.00
67	B1	1553	G	P-O3'-C3'	8.93	133.60	120.20
51	Bj	87	LYS	CB-CA-C	-8.93	96.86	110.88
67	B1	1982	C	N1-C1'-C2'	8.93	125.39	112.00
67	B1	2099	G	O4'-C1'-C2'	8.93	116.53	107.60
11	A1	33	C	O4'-C1'-C2'	-8.93	98.67	107.60
21	A2	4	C	O4'-C1'-C2'	-8.93	98.67	107.60
21	A2	1436	U	O4'-C1'-N1	8.93	121.89	108.50
40	BE	104	ALA	N-CA-C	-8.93	101.92	113.17
67	B1	249	G	N9-C1'-C2'	8.93	125.39	112.00
67	B1	1764	G	P-O3'-C3'	8.93	133.59	120.20
67	B1	1032	C	O4'-C1'-C2'	-8.92	98.68	107.60
21	A2	687	G	N9-C1'-C2'	8.92	127.38	114.00
21	A2	201	G	P-O3'-C3'	8.92	133.57	120.20
67	B1	1029	C	N1-C1'-C2'	8.92	125.37	112.00
67	B1	1545	C	N1-C1'-C2'	8.92	125.37	112.00
21	A2	424	U	O4'-C1'-C2'	8.91	116.52	107.60
67	B1	2833	G	C1'-O4'-C4'	-8.91	100.98	109.90
21	A2	804	U	O4'-C1'-N1	8.91	121.87	108.50
25	AH	43	LEU	N-CA-C	8.91	120.61	111.07
21	A2	1153	G	N9-C1'-C2'	8.91	125.37	112.00
21	A2	316	C	O4'-C1'-C2'	-8.91	98.69	107.60
67	B1	2803	U	O4'-C1'-N1	8.91	121.86	108.50
67	B1	1827	A	O4'-C1'-C2'	-8.91	96.89	105.80
67	B1	206	A	C3'-C2'-C1'	8.90	110.20	101.30
67	B1	2836	G	N9-C1'-C2'	8.90	125.35	112.00
33	BC	198	TYR	N-CA-C	8.90	120.59	111.07
67	B1	1288	C	N1-C1'-C2'	8.90	125.35	112.00
67	B1	236	G	O4'-C1'-C2'	8.90	116.50	107.60
67	B1	239	G	O4'-C1'-C2'	8.90	116.50	107.60
67	B1	1746	C	O4'-C1'-C2'	-8.89	98.71	107.60
67	B1	2774	C	N1-C1'-C2'	8.89	125.34	112.00
21	A2	924	U	P-O3'-C3'	8.89	133.54	120.20
67	B1	1572	C	O4'-C1'-C2'	-8.89	96.91	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1492	U	C4'-C3'-C2'	-8.89	93.71	102.60
67	B1	1254	C	O4'-C1'-C2'	-8.89	98.71	107.60
67	B1	1038	U	C5'-C4'-C3'	-8.88	102.67	116.00
67	B1	1523	A	C1'-O4'-C4'	8.88	118.58	109.70
21	A2	826	C	O4'-C1'-C2'	-8.88	98.72	107.60
61	Bd	70	HIS	CA-CB-CG	-8.88	104.92	113.80
67	B1	397	G	O4'-C1'-N9	8.88	121.82	108.50
67	B1	1200	A	N9-C1'-C2'	-8.88	98.68	112.00
67	B1	1851	U	O4'-C1'-C2'	-8.88	98.72	107.60
21	A2	181	G	C1'-O4'-C4'	-8.87	101.03	109.90
67	B1	2889	A	C3'-C2'-C1'	8.87	110.37	101.50
21	A2	583	G	C1'-O4'-C4'	-8.87	101.03	109.90
61	Bd	77	ARG	N-CA-CB	8.87	123.16	110.12
68	B3	123	U	P-O3'-C3'	8.87	133.50	120.20
21	A2	474	G	N9-C1'-C2'	8.86	125.30	112.00
67	B1	990	G	O4'-C1'-C2'	8.86	116.46	107.60
67	B1	1256	G	O4'-C1'-N9	8.87	121.80	108.50
21	A2	1252	C	O4'-C1'-C2'	-8.86	98.74	107.60
67	B1	2022	U	O4'-C1'-N1	8.86	121.79	108.50
45	Bi	16	ARG	CA-C-N	8.86	138.46	121.54
45	Bi	16	ARG	C-N-CA	8.86	138.46	121.54
61	Bd	88	LEU	N-CA-CB	8.86	122.86	110.01
21	A2	362	C	C2'-C3'-O3'	8.86	122.79	109.50
67	B1	769	G	N9-C1'-C2'	8.86	125.29	112.00
21	A2	194	C	O4'-C1'-C2'	-8.86	98.74	107.60
21	A2	573	C	O4'-C1'-C2'	-8.85	98.75	107.60
21	A2	1100	G	N9-C1'-C2'	8.85	125.28	112.00
67	B1	2745	G	O4'-C1'-N9	8.85	121.77	108.50
3	AI	60	VAL	N-CA-C	-8.85	95.28	108.46
21	A2	422	U	N1-C1'-C2'	-8.85	100.73	114.00
67	B1	1068	U	C3'-C2'-C1'	8.85	110.35	101.50
67	B1	219	G	C5'-C4'-C3'	8.84	129.27	116.00
67	B1	924	A	O4'-C1'-N9	8.84	121.47	108.20
21	A2	364	U	O4'-C1'-N1	8.84	121.76	108.50
67	B1	2814	U	O4'-C1'-N1	8.84	121.76	108.50
21	A2	773	A	O4'-C1'-C2'	-8.84	96.96	105.80
67	B1	2438	U	O4'-C1'-N1	8.84	121.75	108.50
67	B1	729	A	N9-C1'-C2'	8.83	125.25	112.00
21	A2	1116	G	C3'-C2'-C1'	-8.83	92.47	101.30
60	BS	51	LEU	CA-C-O	-8.83	111.19	120.55
67	B1	98	G	P-O5'-C5'	8.83	134.14	120.90
35	BL	13	GLY	CA-C-N	8.82	131.91	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BL	13	GLY	C-N-CA	8.82	131.91	120.44
67	B1	2562	G	C2'-C3'-O3'	8.82	122.73	109.50
67	B1	2923	G	O4'-C1'-N9	8.82	121.73	108.50
67	B1	2998	G	O4'-C1'-N9	8.82	121.74	108.50
47	BI	44	VAL	CA-C-O	-8.82	111.50	120.85
67	B1	634	G	N9-C1'-C2'	-8.82	98.77	112.00
15	AE	163	THR	N-CA-C	-8.82	95.03	109.40
21	A2	1312	C	C3'-C2'-C1'	8.82	110.12	101.30
67	B1	935	A	C1'-O4'-C4'	8.82	118.52	109.70
67	B1	2963	G	N9-C1'-C2'	-8.82	98.77	112.00
67	B1	161	C	C4'-C3'-C2'	-8.82	93.78	102.60
67	B1	436	C	O4'-C1'-C2'	-8.82	98.78	107.60
21	A2	1196	A	N9-C1'-C2'	8.82	125.22	112.00
21	A2	181	G	O4'-C1'-C2'	8.81	116.42	107.60
21	A2	250	G	C3'-C2'-C1'	-8.81	92.49	101.30
21	A2	746	A	N9-C1'-C2'	-8.81	100.78	114.00
67	B1	639	C	P-O3'-C3'	8.81	133.42	120.20
18	AF	13	LEU	O-C-N	-8.81	112.78	122.12
29	AL	92	GLU	O-C-N	-8.81	110.87	122.59
46	BA	128	ARG	N-CA-C	-8.81	101.84	112.59
21	A2	1182	G	O4'-C1'-N9	8.81	121.71	108.50
21	A2	161	C	O4'-C1'-C2'	-8.81	98.79	107.60
21	A2	553	C	O4'-C1'-C2'	-8.81	98.79	107.60
67	B1	1299	C	O4'-C1'-C2'	-8.81	98.79	107.60
67	B1	2543	A	N9-C1'-C2'	-8.81	100.79	114.00
21	A2	651	U	C1'-C2'-O2'	8.81	121.61	108.40
67	B1	2249	A	O4'-C1'-C2'	-8.80	97.00	105.80
67	B1	716	U	C3'-C2'-C1'	8.80	110.10	101.30
67	B1	2254	U	C1'-O4'-C4'	8.80	118.70	109.90
67	B1	2586	A	O4'-C1'-C2'	-8.80	98.80	107.60
60	BS	108	ASP	CA-C-N	8.80	128.12	118.97
60	BS	108	ASP	C-N-CA	8.80	128.12	118.97
67	B1	1395	G	O4'-C1'-N9	-8.80	95.00	108.20
21	A2	562	A	N9-C1'-C2'	-8.79	98.81	112.00
67	B1	2904	U	C4'-C3'-C2'	-8.79	93.81	102.60
21	A2	695	G	C3'-C2'-C1'	-8.79	92.51	101.30
27	A0	19	G	P-O3'-C3'	8.79	133.39	120.20
67	B1	85	G	O5'-C5'-C4'	-8.79	98.31	111.50
67	B1	1078	G	O4'-C1'-C2'	-8.79	98.81	107.60
67	B1	1369	G	C1'-O4'-C4'	-8.79	101.11	109.90
67	B1	1585	U	O4'-C1'-N1	8.79	121.69	108.50
67	B1	1698	G	P-O3'-C3'	-8.79	107.01	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	774	U	N1-C1'-C2'	8.79	127.18	114.00
67	B1	2897	C	C3'-C2'-C1'	8.79	110.09	101.30
67	B1	457	C	N1-C1'-C2'	8.79	125.18	112.00
67	B1	2904	U	O3'-P-O5'	8.79	117.18	104.00
21	A2	547	U	N1-C1'-C2'	8.79	125.18	112.00
21	A2	733	C	C3'-C2'-C1'	8.78	110.08	101.30
67	B1	547	C	N1-C1'-C2'	8.78	125.17	112.00
67	B1	2714	G	O4'-C1'-C2'	-8.78	98.82	107.60
10	AD	162	ASN	N-CA-C	-8.78	100.26	108.07
21	A2	279	U	N1-C1'-C2'	8.78	125.17	112.00
21	A2	961	U	OP2-P-O3'	-8.78	81.66	108.00
21	A2	806	G	C3'-C2'-C1'	8.78	110.08	101.30
38	Bb	11	ARG	NE-CZ-NH2	-8.78	111.30	119.20
67	B1	2583	G	O4'-C1'-N9	8.78	121.36	108.20
21	A2	820	G	O4'-C1'-C2'	8.77	116.37	107.60
21	A2	1086	C	P-O3'-C3'	-8.77	107.04	120.20
67	B1	439	G	O4'-C1'-C2'	-8.77	98.83	107.60
67	B1	2362	U	P-O3'-C3'	8.77	133.36	120.20
41	Ba	50	ILE	O-C-N	-8.77	113.79	123.26
67	B1	975	C	C3'-C2'-C1'	8.77	110.07	101.30
67	B1	306	G	C3'-C2'-C1'	8.77	110.06	101.30
67	B1	2363	G	C1'-O4'-C4'	8.77	118.67	109.90
67	B1	2630	C	O4'-C1'-C2'	8.76	116.36	107.60
67	B1	2401	A	P-O3'-C3'	8.76	133.34	120.20
67	B1	1411	G	N9-C1'-C2'	8.76	125.14	112.00
67	B1	43	G	O4'-C1'-C2'	-8.76	98.84	107.60
67	B1	2354	A	N9-C1'-C2'	8.76	125.14	112.00
4	AG	102	ARG	CD-NE-CZ	-8.76	112.14	124.40
10	AD	59	LEU	CA-C-N	8.76	132.01	120.28
10	AD	59	LEU	C-N-CA	8.76	132.01	120.28
21	A2	1423	A	O4'-C1'-C2'	-8.75	98.85	107.60
67	B1	2905	C	O4'-C1'-C2'	-8.75	98.85	107.60
21	A2	1439	G	O4'-C1'-C2'	-8.75	98.85	107.60
1	AQ	131	ARG	CA-C-N	8.75	132.34	120.44
1	AQ	131	ARG	C-N-CA	8.75	132.34	120.44
67	B1	429	U	O4'-C1'-N1	8.75	121.32	108.20
21	A2	641	A	C2'-C3'-O3'	8.74	122.61	109.50
49	BQ	125	ILE	CB-CA-C	8.74	124.28	112.22
51	Bj	32	GLU	N-CA-CB	8.74	125.26	110.49
67	B1	1804	G	N9-C1'-C2'	8.74	127.11	114.00
67	B1	2407	G	O4'-C1'-C2'	8.74	116.34	107.60
11	A1	3	G	O4'-C1'-C2'	-8.74	98.86	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1292	A	O4'-C1'-C2'	-8.74	98.86	107.60
14	AM	43	SER	CA-C-N	8.73	131.06	120.14
14	AM	43	SER	C-N-CA	8.73	131.06	120.14
21	A2	35	G	N9-C1'-C2'	8.73	125.10	112.00
67	B1	530	A	O4'-C1'-C2'	-8.73	98.87	107.60
67	B1	1093	G	N9-C1'-C2'	-8.73	98.90	112.00
67	B1	2575	U	O4'-C1'-C2'	8.73	116.33	107.60
67	B1	2794	G	O4'-C1'-N9	8.73	121.59	108.50
21	A2	718	G	O4'-C1'-C2'	8.73	116.33	107.60
51	Bj	35	ALA	N-CA-C	-8.73	100.32	112.45
2	AK	51	LEU	N-CA-C	8.72	121.89	111.33
21	A2	689	C	C3'-C2'-C1'	8.72	110.02	101.30
67	B1	1222	U	C1'-O4'-C4'	-8.72	101.18	109.90
67	B1	2194	A	O4'-C1'-C2'	-8.72	98.88	107.60
67	B1	2750	C	N1-C1'-C2'	8.72	125.09	112.00
21	A2	63	G	O3'-P-O5'	-8.72	90.92	104.00
21	A2	597	C	O4'-C1'-C2'	-8.72	98.88	107.60
67	B1	712	C	O3'-P-O5'	-8.72	90.92	104.00
21	A2	1491	C	N1-C1'-C2'	8.72	125.08	112.00
67	B1	909	A	O4'-C1'-N9	8.72	121.28	108.20
11	A1	22	A	C1'-C2'-O2'	8.72	121.48	108.40
21	A2	709	G	N9-C1'-C2'	-8.72	98.92	112.00
21	A2	994	C	O4'-C1'-C2'	-8.72	98.88	107.60
21	A2	1210	A	O4'-C1'-C2'	-8.72	98.88	107.60
67	B1	1865	U	N1-C1'-C2'	-8.72	100.92	114.00
21	A2	957	A	O4'-C1'-C2'	-8.71	98.89	107.60
67	B1	2571	G	C1'-O4'-C4'	8.71	118.61	109.90
67	B1	2393	G	O4'-C1'-N9	8.71	121.57	108.50
21	A2	1029	G	O4'-C1'-C2'	-8.71	98.89	107.60
67	B1	152	G	O4'-C1'-C2'	-8.71	98.89	107.60
68	B3	24	C	C3'-C2'-C1'	8.71	110.01	101.30
67	B1	1038	U	P-O5'-C5'	8.71	133.96	120.90
11	A1	73	C	O4'-C1'-C2'	-8.71	98.89	107.60
21	A2	1059	C	N1-C1'-C2'	8.71	125.06	112.00
21	A2	1273	G	C1'-O4'-C4'	-8.71	101.19	109.90
25	AH	70	LYS	CA-C-N	8.71	132.39	120.46
25	AH	70	LYS	C-N-CA	8.71	132.39	120.46
67	B1	1712	U	P-O3'-C3'	-8.71	107.14	120.20
67	B1	1753	G	O4'-C1'-C2'	-8.71	97.09	105.80
67	B1	1839	U	O4'-C1'-C2'	-8.71	98.89	107.60
21	A2	1469	G	O4'-C1'-C2'	8.71	116.31	107.60
67	B1	1163	U	C1'-O4'-C4'	8.70	118.60	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1087	C	C3'-C2'-C1'	8.70	110.00	101.30
67	B1	445	G	O4'-C1'-N9	8.70	121.56	108.50
67	B1	906	G	C3'-C2'-C1'	-8.70	92.60	101.30
21	A2	218	C	P-O5'-C5'	8.70	133.95	120.90
67	B1	1891	C	C1'-O4'-C4'	-8.70	101.20	109.90
67	B1	2370	C	O4'-C1'-C2'	-8.70	98.90	107.60
67	B1	507	G	O4'-C1'-N9	8.70	121.55	108.50
67	B1	2188	C	N1-C1'-C2'	8.70	125.04	112.00
67	B1	1822	G	N9-C1'-C2'	-8.69	98.97	112.00
67	B1	2473	C	O4'-C1'-C2'	-8.69	98.91	107.60
67	B1	2515	U	N1-C1'-C2'	8.69	125.03	112.00
21	A2	1186	C	C2'-C3'-O3'	8.69	122.53	109.50
67	B1	2120	C	C3'-C2'-C1'	8.69	110.19	101.50
67	B1	513	C	C2'-C3'-O3'	8.68	122.53	109.50
21	A2	694	U	C1'-O4'-C4'	8.68	118.58	109.90
51	Bj	64	LYS	N-CA-C	8.68	121.99	110.53
67	B1	402	G	O4'-C1'-N9	8.68	121.52	108.50
21	A2	1080	C	C3'-C2'-C1'	8.68	109.98	101.30
67	B1	560	G	C3'-C2'-C1'	-8.68	92.62	101.30
67	B1	2061	A	C3'-C2'-C1'	8.68	110.17	101.50
67	B1	210	A	C3'-C2'-C1'	8.67	110.17	101.50
67	B1	2136	G	N9-C1'-C2'	8.67	125.01	112.00
21	A2	877	A	O4'-C1'-C2'	-8.67	98.93	107.60
53	BD	91	ARG	O-C-N	8.67	133.10	123.13
25	AH	89	GLU	N-CA-CB	8.67	125.14	110.49
67	B1	2936	U	O4'-C4'-C3'	-8.67	95.33	104.00
67	B1	2151	C	C1'-O4'-C4'	-8.67	101.23	109.90
67	B1	370	A	O4'-C1'-C2'	-8.66	97.14	105.80
21	A2	1211	A	O4'-C1'-C2'	-8.66	98.94	107.60
21	A2	1324	U	C2'-C3'-O3'	8.66	122.49	109.50
67	B1	1256	G	C3'-C2'-C1'	-8.66	92.64	101.30
21	A2	238	G	O4'-C1'-C2'	-8.65	98.95	107.60
17	AO	112	ILE	N-CA-C	-8.65	101.80	110.62
21	A2	214	C	N1-C1'-C2'	8.65	124.98	112.00
21	A2	1371	C	O4'-C1'-C2'	-8.65	98.95	107.60
21	A2	1124	G	C3'-C2'-C1'	-8.65	92.65	101.30
67	B1	1971	C	O4'-C1'-C2'	-8.65	98.95	107.60
67	B1	2068	U	C1'-O4'-C4'	8.65	118.35	109.70
67	B1	2489	C	N1-C1'-C2'	8.65	124.98	112.00
67	B1	1196	A	C1'-O4'-C4'	8.65	118.55	109.90
67	B1	1207	G	O4'-C1'-C2'	-8.65	98.95	107.60
10	AD	122	ARG	CA-C-O	-8.64	111.39	120.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	362	A	O4'-C1'-N9	8.64	121.47	108.50
67	B1	1257	G	C3'-C2'-C1'	-8.64	92.66	101.30
67	B1	2908	U	O4'-C1'-N1	8.64	121.47	108.50
2	AK	75	ALA	O-C-N	8.64	131.28	122.12
21	A2	45	U	N1-C1'-C2'	-8.64	99.04	112.00
57	BZ	79	VAL	CA-C-N	8.64	133.31	120.69
57	BZ	79	VAL	C-N-CA	8.64	133.31	120.69
67	B1	2546	G	O4'-C1'-C2'	-8.64	98.96	107.60
67	B1	2708	U	N1-C1'-C2'	8.64	124.97	112.00
67	B1	168	G	C1'-O4'-C4'	-8.64	101.26	109.90
21	A2	626	G	O4'-C1'-C2'	-8.64	98.96	107.60
21	A2	706	G	O4'-C1'-C2'	-8.64	97.16	105.80
21	A2	832	G	O4'-C1'-C2'	8.64	116.24	107.60
21	A2	17	C	O4'-C1'-C2'	-8.63	98.97	107.60
67	B1	1515	G	C1'-O4'-C4'	-8.63	101.27	109.90
68	B3	21	C	P-O3'-C3'	8.63	133.15	120.20
21	A2	46	A	O4'-C1'-N9	8.63	121.14	108.20
21	A2	130	G	C1'-O4'-C4'	8.63	118.53	109.90
48	BR	35	PHE	CA-CB-CG	-8.63	105.17	113.80
67	B1	1864	G	C3'-C2'-C1'	-8.63	92.67	101.30
21	A2	688	C	O4'-C1'-C2'	-8.63	98.97	107.60
21	A2	962	G	O5'-P-OP1	-8.62	82.13	108.00
29	AL	61	PHE	CA-CB-CG	-8.62	105.17	113.80
67	B1	863	C	N1-C1'-C2'	8.62	124.94	112.00
67	B1	1251	G	C3'-C2'-C1'	8.62	110.12	101.50
25	AH	78	HIS	N-CA-C	8.62	129.17	110.80
67	B1	34	C	O4'-C1'-C2'	-8.62	97.18	105.80
67	B1	410	C	P-O3'-C3'	8.62	133.13	120.20
67	B1	2514	C	P-O3'-C3'	-8.62	107.27	120.20
67	B1	1230	G	N9-C1'-C2'	8.62	124.93	112.00
38	Bb	82	VAL	N-CA-C	-8.62	94.94	107.78
67	B1	813	G	O4'-C1'-N9	8.62	121.43	108.50
67	B1	1363	C	C3'-C2'-C1'	8.62	109.92	101.30
67	B1	1722	G	P-O5'-C5'	8.62	133.83	120.90
67	B1	2053	G	O4'-C1'-N9	8.62	121.12	108.20
21	A2	340	A	O4'-C1'-N9	8.62	121.42	108.50
21	A2	1038	C	O4'-C1'-C2'	-8.62	98.98	107.60
67	B1	1394	G	O4'-C1'-N9	-8.62	95.28	108.20
67	B1	1782	C	O4'-C1'-N1	8.62	121.12	108.20
4	AG	79	HIS	N-CA-CB	8.61	123.72	109.94
60	BS	139	PHE	CA-CB-CG	8.61	122.41	113.80
67	B1	1179	G	C1'-C2'-O2'	8.61	121.32	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	B4	75	ILE	CA-C-N	8.61	128.55	119.85
20	B4	75	ILE	C-N-CA	8.61	128.55	119.85
67	B1	406	G	O5'-C5'-C4'	8.61	124.42	111.50
68	B3	98	G	O4'-C1'-C2'	-8.61	98.99	107.60
21	A2	960	A	P-O3'-C3'	8.61	133.11	120.20
67	B1	2488	C	C3'-C2'-C1'	8.61	109.91	101.30
47	BI	53	THR	CA-C-N	8.61	132.67	120.28
47	BI	53	THR	C-N-CA	8.61	132.67	120.28
67	B1	1465	A	C5'-C4'-C3'	8.61	128.91	116.00
1	AQ	55	ARG	CA-C-O	-8.60	111.34	120.55
21	A2	199	A	C2'-C3'-O3'	8.60	122.40	109.50
67	B1	1011	A	N9-C1'-C2'	8.60	124.90	112.00
67	B1	1098	C	N1-C1'-C2'	8.60	124.90	112.00
33	BC	119	LYS	CA-C-N	-8.60	110.70	119.99
33	BC	119	LYS	C-N-CA	-8.60	110.70	119.99
20	B4	110	LEU	CA-C-N	8.60	131.39	120.56
20	B4	110	LEU	C-N-CA	8.60	131.39	120.56
21	A2	392	G	C3'-C2'-C1'	-8.60	92.70	101.30
67	B1	1257	G	C5'-C4'-C3'	-8.60	103.11	116.00
67	B1	1470	C	N1-C1'-C2'	8.60	124.89	112.00
67	B1	1989	G	O4'-C1'-C2'	8.60	116.19	107.60
67	B1	2559	G	N9-C1'-C2'	8.59	124.89	112.00
11	A1	61	U	C3'-C2'-C1'	8.59	109.89	101.30
23	AT	63	ILE	CA-C-N	8.59	135.45	122.65
23	AT	63	ILE	C-N-CA	8.59	135.45	122.65
67	B1	830	G	C1'-O4'-C4'	-8.59	101.31	109.90
67	B1	2058	C	O4'-C1'-C2'	-8.59	99.01	107.60
67	B1	2367	C	C3'-C2'-C1'	8.59	109.89	101.30
7	AB	6	LEU	CA-C-N	8.59	137.16	121.70
7	AB	6	LEU	C-N-CA	8.59	137.16	121.70
21	A2	439	G	O4'-C1'-N9	-8.59	95.32	108.20
67	B1	770	G	C4'-C3'-C2'	-8.59	94.01	102.60
67	B1	1604	G	C1'-O4'-C4'	-8.59	101.31	109.90
67	B1	306	G	N9-C1'-C2'	8.58	124.88	112.00
27	A0	22	G	N9-C1'-C2'	8.58	124.87	112.00
67	B1	943	G	C4'-C3'-C2'	-8.58	94.02	102.60
67	B1	1292	C	C3'-C2'-C1'	8.58	109.88	101.30
67	B1	2458	U	O4'-C1'-C2'	-8.58	97.22	105.80
52	BB	158	THR	CA-CB-CG2	8.58	125.09	110.50
67	B1	543	G	O4'-C1'-N9	8.58	121.07	108.20
67	B1	2258	A	O4'-C1'-C2'	-8.57	99.03	107.60
33	BC	303	ILE	O-C-N	8.57	133.29	122.57

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2304	C	O4'-C1'-C2'	-8.57	99.03	107.60
67	B1	2023	A	O4'-C1'-C2'	-8.57	99.03	107.60
21	A2	956	C	P-O3'-C3'	8.57	133.05	120.20
21	A2	1389	G	O4'-C1'-N9	8.57	121.35	108.50
67	B1	426	G	C1'-O4'-C4'	-8.57	101.33	109.90
67	B1	1443	G	P-O3'-C3'	8.57	133.05	120.20
21	A2	1322	C	C3'-C2'-C1'	8.56	109.86	101.30
67	B1	1389	A	O4'-C1'-C2'	-8.56	97.23	105.80
67	B1	1417	U	O4'-C1'-N1	8.56	121.05	108.20
67	B1	2378	C	N1-C1'-C2'	8.56	124.84	112.00
68	B3	26	C	C1'-O4'-C4'	-8.56	101.34	109.90
21	A2	1142	G	N9-C1'-C2'	8.56	124.84	112.00
23	AT	101	HIS	CE1-NE2-CD2	-8.56	100.44	109.00
67	B1	2371	A	N9-C1'-C2'	8.56	124.84	112.00
21	A2	1394	G	N9-C1'-C2'	8.55	124.83	112.00
68	B3	123	U	O4'-C1'-N1	8.56	121.03	108.20
12	AN	4	LYS	N-CA-C	-8.55	97.16	110.42
27	A0	27	C	N1-C1'-C2'	8.55	124.83	112.00
67	B1	826	C	N1-C1'-C2'	8.55	124.83	112.00
35	BL	48	THR	N-CA-CB	8.55	124.94	110.49
67	B1	576	G	P-O5'-C5'	-8.55	108.07	120.90
67	B1	2554	A	N9-C1'-C2'	-8.55	101.17	114.00
21	A2	78	G	C1'-C2'-O2'	8.55	121.22	108.40
21	A2	255	G	N9-C1'-C2'	8.55	124.82	112.00
21	A2	1169	C	C3'-C2'-C1'	8.55	109.85	101.30
21	A2	1400	A	O4'-C1'-C2'	-8.55	99.05	107.60
67	B1	2514	C	N1-C1'-C2'	8.55	124.82	112.00
21	A2	1183	C	O4'-C1'-C2'	-8.54	99.06	107.60
67	B1	349	A	C3'-C2'-C1'	8.54	109.84	101.30
67	B1	407	A	C5'-C4'-C3'	-8.54	103.18	116.00
67	B1	957	C	O4'-C1'-C2'	-8.55	99.05	107.60
67	B1	2892	A	C3'-C2'-C1'	8.54	110.04	101.50
21	A2	1179	C	C3'-C2'-C1'	8.54	109.84	101.30
67	B1	2082	C	O4'-C1'-C2'	-8.54	99.06	107.60
4	AG	97	LYS	CB-CA-C	-8.54	96.61	110.79
21	A2	510	A	C1'-O4'-C4'	8.54	118.44	109.90
21	A2	1115	G	C1'-O4'-C4'	-8.54	101.36	109.90
67	B1	2427	C	C3'-C2'-C1'	8.54	109.84	101.30
21	A2	1256	C	O4'-C1'-C2'	-8.54	99.06	107.60
21	A2	1321	U	O4'-C1'-N1	8.54	121.31	108.50
21	A2	1463	A	O4'-C1'-C2'	-8.54	99.06	107.60
67	B1	1887	A	O4'-C1'-C2'	-8.54	99.06	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	3004	C	N1-C1'-C2'	8.54	124.81	112.00
67	B1	2279	G	N9-C1'-C2'	8.54	124.80	112.00
18	AF	12	VAL	N-CA-C	-8.53	101.92	110.62
67	B1	120	G	O4'-C1'-C2'	8.54	116.14	107.60
21	A2	41	C	N1-C1'-C2'	8.53	124.80	112.00
21	A2	546	G	C1'-O4'-C4'	-8.53	101.37	109.90
61	Bd	19	GLY	N-CA-C	-8.53	102.06	113.24
67	B1	447	G	O4'-C1'-C2'	8.53	116.13	107.60
67	B1	374	C	C3'-C2'-C1'	8.53	109.83	101.30
67	B1	1080	G	O4'-C1'-C2'	-8.53	99.07	107.60
21	A2	681	G	O4'-C1'-C2'	-8.53	99.07	107.60
20	BG	92	ILE	CB-CA-C	8.53	123.18	110.90
67	B1	232	U	O4'-C1'-C2'	-8.53	99.07	107.60
67	B1	362	A	C1'-O4'-C4'	8.53	118.43	109.90
67	B1	1346	G	C1'-O4'-C4'	-8.53	101.37	109.90
21	A2	1029	G	C1'-O4'-C4'	8.53	118.43	109.90
67	B1	2696	G	O4'-C1'-N9	8.53	120.99	108.20
31	BY	28	LEU	N-CA-C	8.52	124.41	107.62
15	AE	15	ALA	CA-C-O	-8.52	113.03	120.19
17	AO	7	ILE	O-C-N	-8.52	114.17	123.20
67	B1	1409	U	N1-C1'-C2'	8.52	124.78	112.00
21	A2	244	G	P-O3'-C3'	-8.52	107.42	120.20
67	B1	2586	A	O4'-C1'-N9	8.52	121.28	108.50
67	B1	39	C	O4'-C1'-C2'	-8.52	99.08	107.60
67	B1	385	U	O4'-C1'-N1	8.52	121.28	108.50
67	B1	344	G	C1'-O4'-C4'	-8.52	101.38	109.90
67	B1	1317	G	O3'-P-O5'	-8.52	91.23	104.00
67	B1	300	U	P-O5'-C5'	8.51	133.66	120.90
67	B1	1509	C	N1-C1'-C2'	8.51	124.77	112.00
67	B1	303	A	P-O5'-C5'	8.51	133.66	120.90
67	B1	1964	G	C1'-C2'-O2'	8.51	121.16	108.40
67	B1	443	C	O4'-C4'-C3'	-8.51	97.59	106.10
67	B1	898	G	N9-C1'-C2'	8.51	124.76	112.00
67	B1	1084	G	C3'-C2'-C1'	8.50	109.80	101.30
67	B1	1298	C	N1-C1'-C2'	8.50	124.76	112.00
67	B1	990	G	C1'-O4'-C4'	-8.50	101.40	109.90
67	B1	2047	U	C3'-C2'-C1'	8.50	109.80	101.30
67	B1	2677	U	O4'-C1'-N1	8.50	121.25	108.50
68	B3	96	C	C3'-C2'-C1'	8.50	109.80	101.30
67	B1	2571	G	O4'-C1'-C2'	-8.50	99.10	107.60
67	B1	2907	C	N1-C1'-C2'	8.50	124.75	112.00
21	A2	299	G	O4'-C1'-N9	8.49	121.24	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1187	A	O4'-C1'-C2'	-8.49	99.11	107.60
21	A2	1372	C	C1'-O4'-C4'	-8.49	101.41	109.90
52	BB	5	LEU	CA-C-N	8.49	131.26	120.56
52	BB	5	LEU	C-N-CA	8.49	131.26	120.56
67	B1	350	A	O4'-C1'-N9	8.49	120.94	108.20
67	B1	795	G	C1'-O4'-C4'	-8.49	101.41	109.90
67	B1	1976	C	C3'-C2'-C1'	8.49	109.79	101.30
67	B1	2548	A	O4'-C1'-N9	8.49	120.94	108.20
25	AH	14	GLU	CA-C-O	-8.49	111.55	120.55
36	Bf	40	LYS	CA-C-O	-8.49	110.21	119.97
67	B1	575	G	N9-C1'-C2'	8.49	124.74	112.00
67	B1	3043	C	C1'-O4'-C4'	8.49	118.39	109.90
21	A2	1204	C	C3'-C2'-C1'	8.49	109.79	101.30
21	A2	1333	G	O4'-C1'-N9	8.48	121.23	108.50
67	B1	546	C	O4'-C1'-C2'	-8.48	99.12	107.60
67	B1	2670	U	C1'-O4'-C4'	8.48	118.38	109.90
18	AF	1	MET	CB-CA-C	8.48	126.21	110.10
67	B1	1722	G	C3'-C2'-C1'	8.48	109.78	101.30
49	BQ	88	ARG	N-CA-CB	8.48	123.42	110.28
67	B1	1574	A	O4'-C1'-N9	-8.48	95.48	108.20
67	B1	1145	G	C2'-C3'-O3'	8.47	122.21	109.50
51	Bj	64	LYS	CA-C-N	8.47	132.81	120.95
51	Bj	64	LYS	C-N-CA	8.47	132.81	120.95
21	A2	383	C	N1-C1'-C2'	8.47	124.71	112.00
21	A2	1033	G	O4'-C1'-C2'	-8.47	99.13	107.60
55	Bh	4	LYS	CA-C-N	8.47	131.99	120.38
55	Bh	4	LYS	C-N-CA	8.47	131.99	120.38
18	AF	5	TRP	N-CA-CB	-8.47	96.95	109.82
67	B1	751	U	O4'-C1'-N1	8.47	121.20	108.50
21	A2	513	A	O4'-C1'-C2'	-8.47	99.13	107.60
21	A2	797	U	N1-C1'-C2'	8.47	124.70	112.00
47	BI	134	VAL	CA-C-O	-8.46	111.88	120.85
67	B1	393	C	C4'-C3'-C2'	-8.47	94.13	102.60
67	B1	887	U	C1'-O4'-C4'	8.46	118.16	109.70
67	B1	1040	C	N1-C1'-C2'	8.46	124.69	112.00
67	B1	1678	A	C1'-O4'-C4'	8.46	118.36	109.90
67	B1	2932	C	O4'-C1'-C2'	-8.46	99.14	107.60
6	AC	157	PRO	CA-C-N	8.46	131.44	120.44
6	AC	157	PRO	C-N-CA	8.46	131.44	120.44
67	B1	2279	G	C1'-C2'-O2'	8.46	121.09	108.40
68	B3	54	A	N9-C1'-C2'	-8.46	99.31	112.00
33	BC	292	ASN	N-CA-CB	8.46	124.78	110.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	AC	146	PHE	CA-CB-CG	-8.46	105.34	113.80
67	B1	2645	C	O4'-C1'-C2'	-8.45	99.15	107.60
21	A2	616	G	C1'-C2'-O2'	8.45	121.07	108.40
21	A2	866	A	C1'-O4'-C4'	8.45	118.35	109.90
21	A2	1420	U	O4'-C1'-N1	8.45	121.18	108.50
67	B1	393	C	C1'-C2'-O2'	8.45	121.07	108.40
67	B1	1301	G	C3'-C2'-C1'	-8.45	92.85	101.30
67	B1	182	U	N1-C1'-C2'	8.45	124.67	112.00
67	B1	1604	G	O4'-C1'-C2'	8.45	116.05	107.60
67	B1	2587	G	C1'-O4'-C4'	-8.45	101.45	109.90
68	B3	26	C	C1'-C2'-O2'	8.44	121.06	108.40
27	A0	69	C	N1-C1'-C2'	8.44	124.66	112.00
21	A2	1067	G	P-O3'-C3'	8.44	132.86	120.20
67	B1	1896	U	O4'-C1'-C2'	-8.44	99.16	107.60
68	B3	111	G	O4'-C1'-C2'	8.44	116.04	107.60
21	A2	267	C	C3'-C2'-C1'	8.44	109.74	101.30
21	A2	1457	A	N9-C1'-C2'	8.44	126.66	114.00
67	B1	2632	C	C1'-O4'-C4'	8.44	118.14	109.70
21	A2	533	C	N1-C1'-C2'	8.43	124.65	112.00
21	A2	1024	G	N9-C1'-C2'	8.43	124.65	112.00
67	B1	1602	C	P-O3'-C3'	8.43	132.85	120.20
6	AC	49	ALA	CA-C-N	8.43	132.30	122.52
6	AC	49	ALA	C-N-CA	8.43	132.30	122.52
67	B1	1906	G	O4'-C1'-C2'	8.43	116.03	107.60
40	BE	53	GLY	CA-C-O	-8.43	110.52	118.95
43	Bk	33	MET	N-CA-C	-8.42	97.21	110.10
67	B1	2438	U	C4'-C3'-C2'	-8.42	94.18	102.60
49	BQ	97	LYS	CA-C-O	-8.42	111.98	120.82
67	B1	614	G	O4'-C1'-N9	-8.42	95.87	108.50
67	B1	674	G	O4'-C1'-N9	8.42	121.13	108.50
67	B1	767	G	C1'-O4'-C4'	-8.42	101.48	109.90
67	B1	1811	G	P-O3'-C3'	8.42	132.83	120.20
21	A2	1213	G	C1'-C2'-O2'	8.42	121.03	108.40
53	BD	44	GLN	CA-C-N	8.42	130.37	119.84
53	BD	44	GLN	C-N-CA	8.42	130.37	119.84
67	B1	2370	C	C1'-O4'-C4'	8.42	118.32	109.90
67	B1	866	G	N9-C1'-C2'	8.42	124.63	112.00
67	B1	1939	C	P-O3'-C3'	8.42	132.83	120.20
4	AG	88	LEU	N-CA-C	-8.41	102.60	113.12
21	A2	402	G	C1'-O4'-C4'	-8.41	101.49	109.90
21	A2	988	A	P-O3'-C3'	8.41	132.82	120.20
67	B1	1619	C	N1-C1'-C2'	8.41	124.62	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1743	G	O4'-C1'-N9	8.41	121.12	108.50
67	B1	273	G	O3'-P-O5'	8.41	116.62	104.00
21	A2	442	C	O4'-C1'-C2'	-8.41	99.19	107.60
61	Bd	10	TRP	N-CA-C	-8.41	96.58	109.95
67	B1	404	G	O4'-C1'-N9	8.41	120.81	108.20
21	A2	38	G	C5'-C4'-C3'	8.41	128.61	116.00
67	B1	2670	U	O4'-C1'-C2'	-8.41	99.19	107.60
21	A2	949	G	O4'-C1'-C2'	8.40	116.00	107.60
67	B1	1040	C	C3'-C2'-C1'	8.40	109.70	101.30
13	AX	20	THR	CA-C-N	8.40	131.36	120.44
13	AX	20	THR	C-N-CA	8.40	131.36	120.44
21	A2	679	G	O4'-C1'-C2'	-8.40	99.20	107.60
33	BC	232	GLY	CA-C-N	8.40	128.52	119.28
33	BC	232	GLY	C-N-CA	8.40	128.52	119.28
67	B1	425	U	O4'-C1'-N1	8.40	121.10	108.50
67	B1	2251	G	C1'-O4'-C4'	-8.40	101.50	109.90
21	A2	580	G	O4'-C1'-C2'	8.40	116.00	107.60
67	B1	137	A	C3'-C2'-C1'	8.40	109.70	101.30
42	BT	75	SER	CA-C-N	8.40	131.53	120.28
42	BT	75	SER	C-N-CA	8.40	131.53	120.28
57	BZ	51	TYR	CA-CB-CG	8.40	129.01	113.90
60	BS	114	ILE	N-CA-CB	8.40	121.23	111.66
67	B1	1896	U	O4'-C1'-N1	8.40	121.09	108.50
27	A0	43	G	N9-C1'-C2'	8.39	124.59	112.00
67	B1	2467	C	N1-C1'-C2'	8.39	124.59	112.00
67	B1	2503	C	C3'-C2'-C1'	8.39	109.69	101.30
67	B1	2572	U	N1-C1'-C2'	8.39	124.59	112.00
21	A2	750	C	C3'-C2'-C1'	8.39	109.69	101.30
67	B1	2849	C	N1-C1'-C2'	8.39	124.59	112.00
67	B1	2938	G	C3'-C2'-C1'	-8.39	92.91	101.30
52	BB	36	THR	N-CA-C	-8.39	100.13	111.96
45	Bi	9	SER	N-CA-C	-8.39	103.06	113.38
21	A2	1066	C	N1-C1'-C2'	8.38	124.58	112.00
67	B1	795	G	O4'-C1'-C2'	8.38	115.98	107.60
67	B1	2492	G	C3'-C2'-C1'	-8.38	92.92	101.30
67	B1	2647	G	N9-C1'-C2'	8.38	124.58	112.00
67	B1	858	G	N9-C1'-C2'	8.38	124.57	112.00
67	B1	1614	U	C1'-C2'-O2'	8.38	120.97	108.40
35	BL	58	LEU	O-C-N	8.38	134.12	123.23
67	B1	1433	C	O4'-C1'-C2'	-8.38	99.22	107.60
67	B1	2182	A	C1'-O4'-C4'	8.38	118.28	109.90
67	B1	2475	G	N9-C1'-C2'	8.38	124.57	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	159	C	N1-C1'-C2'	8.38	124.56	112.00
21	A2	877	A	C3'-C2'-C1'	8.38	109.68	101.30
21	A2	1161	A	O4'-C1'-C2'	8.38	114.18	105.80
51	Bj	28	ARG	N-CA-CB	8.38	121.34	109.78
67	B1	2626	U	N1-C1'-C2'	8.38	124.57	112.00
30	AU	70	ILE	N-CA-C	-8.38	102.66	110.53
67	B1	948	C	O4'-C1'-C2'	-8.38	99.22	107.60
21	A2	260	C	O4'-C1'-C2'	-8.37	99.23	107.60
21	A2	525	A	O4'-C1'-C2'	-8.37	99.23	107.60
67	B1	2049	U	O4'-C1'-C2'	-8.37	99.23	107.60
1	AQ	95	LEU	N-CA-C	-8.37	102.24	111.36
21	A2	631	C	O4'-C1'-C2'	-8.37	99.23	107.60
56	BH	123	ALA	CA-C-N	8.37	131.49	120.28
56	BH	123	ALA	C-N-CA	8.37	131.49	120.28
67	B1	1763	A	N9-C1'-C2'	8.37	124.55	112.00
5	AW	33	THR	N-CA-C	-8.36	95.54	108.42
21	A2	33	U	C3'-C2'-C1'	-8.37	92.94	101.30
21	A2	702	G	O3'-P-O5'	-8.37	91.45	104.00
49	BQ	131	GLN	N-CA-CB	8.37	123.49	110.44
56	BH	133	MET	CA-C-N	-8.37	106.64	121.70
56	BH	133	MET	C-N-CA	-8.37	106.64	121.70
67	B1	1218	C	O3'-P-O5'	-8.36	91.45	104.00
67	B1	2948	A	P-O3'-C3'	8.36	132.74	120.20
2	AK	117	HIS	CA-CB-CG	8.36	122.16	113.80
67	B1	19	G	O4'-C1'-N9	8.36	121.04	108.50
67	B1	1501	G	N9-C1'-C2'	8.36	124.55	112.00
67	B1	2227	G	C1'-O4'-C4'	-8.36	101.54	109.90
67	B1	112	U	N1-C1'-C2'	8.36	124.54	112.00
21	A2	262	G	N9-C1'-C2'	8.36	124.53	112.00
53	BD	54	LYS	N-CA-C	-8.36	102.27	114.39
21	A2	570	G	O4'-C1'-C2'	8.35	115.95	107.60
67	B1	212	A	P-O5'-C5'	8.35	133.43	120.90
67	B1	993	G	N9-C1'-C2'	8.35	124.53	112.00
67	B1	949	C	O4'-C1'-C2'	-8.35	99.25	107.60
67	B1	2972	G	N9-C1'-C2'	8.35	124.52	112.00
1	AQ	62	SER	CA-C-N	8.35	133.66	120.47
1	AQ	62	SER	C-N-CA	8.35	133.66	120.47
27	A0	2	C	O4'-C1'-C2'	-8.35	99.25	107.60
21	A2	1264	G	C1'-O4'-C4'	-8.35	101.56	109.90
1	AQ	73	ASN	N-CA-C	-8.34	102.13	111.14
67	B1	68	G	C3'-C2'-C1'	8.34	109.64	101.30
67	B1	769	G	C1'-O4'-C4'	-8.34	101.56	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1109	C	N1-C1'-C2'	8.34	124.51	112.00
67	B1	409	C	C1'-O4'-C4'	-8.34	101.56	109.90
67	B1	1841	G	N9-C1'-C2'	8.34	124.51	112.00
67	B1	894	C	C3'-C2'-C1'	8.34	109.64	101.30
67	B1	1382	C	O4'-C1'-C2'	-8.34	99.26	107.60
67	B1	1605	A	O4'-C1'-N9	8.34	121.00	108.50
67	B1	2926	G	N9-C1'-C2'	8.34	124.51	112.00
67	B1	204	G	O4'-C1'-N9	8.34	120.70	108.20
21	A2	723	G	C4'-C3'-C2'	-8.33	94.27	102.60
67	B1	2207	C	O4'-C1'-C2'	-8.33	99.27	107.60
17	AO	137	ARG	N-CA-CB	8.33	124.57	110.49
21	A2	1101	G	C3'-C2'-C1'	-8.33	92.97	101.30
25	AH	48	HIS	CA-CB-CG	8.33	122.13	113.80
3	AI	109	GLY	N-CA-C	-8.33	103.15	111.56
21	A2	268	C	C3'-C2'-C1'	8.33	109.63	101.30
67	B1	966	G	O4'-C1'-N9	8.33	120.99	108.50
21	A2	1217	C	C3'-C2'-C1'	8.32	109.62	101.30
67	B1	352	G	C4'-C3'-O3'	-8.32	100.52	113.00
10	AD	47	GLN	CA-C-N	8.32	131.43	120.28
10	AD	47	GLN	C-N-CA	8.32	131.43	120.28
67	B1	444	U	P-O3'-C3'	8.32	132.68	120.20
67	B1	1070	G	O4'-C1'-C2'	-8.32	97.48	105.80
67	B1	2232	U	O4'-C1'-N1	8.32	120.98	108.50
67	B1	2895	G	C1'-C2'-O2'	8.32	120.88	108.40
54	BF	147	VAL	CA-C-N	8.32	129.21	119.98
54	BF	147	VAL	C-N-CA	8.32	129.21	119.98
67	B1	1902	G	C1'-O4'-C4'	-8.32	101.58	109.90
67	B1	2903	U	P-O5'-C5'	8.32	133.37	120.90
67	B1	50	C	C1'-O4'-C4'	8.31	118.02	109.70
11	A1	26	C	O4'-C1'-C2'	-8.31	99.29	107.60
21	A2	93	A	N9-C1'-C2'	8.31	126.47	114.00
21	A2	662	C	O4'-C1'-C2'	-8.31	99.29	107.60
21	A2	1258	C	O4'-C1'-C2'	-8.31	97.49	105.80
68	B3	74	U	N1-C1'-C2'	8.31	126.47	114.00
67	B1	507	G	C4'-C3'-C2'	-8.31	94.29	102.60
21	A2	1155	U	C3'-C2'-C1'	8.31	109.61	101.30
22	AY	33	ASP	CA-CB-CG	-8.31	104.29	112.60
31	BY	57	GLY	N-CA-C	-8.31	100.65	111.37
56	BH	121	ALA	CB-CA-C	-8.31	97.00	110.79
67	B1	1394	G	O4'-C1'-C2'	-8.31	97.49	105.80
4	AG	75	ARG	N-CA-C	-8.30	91.42	109.11
21	A2	965	G	C5'-C4'-C3'	8.31	128.46	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2926	G	C1'-O4'-C4'	-8.30	101.59	109.90
67	B1	1243	C	N1-C1'-C2'	8.30	124.45	112.00
67	B1	2220	C	N1-C1'-C2'	8.30	124.45	112.00
67	B1	202	A	O4'-C1'-C2'	-8.30	99.30	107.60
67	B1	2833	G	N9-C1'-C2'	8.30	124.45	112.00
21	A2	1261	U	N1-C1'-C2'	8.30	126.45	114.00
67	B1	2834	C	N1-C1'-C2'	8.30	124.45	112.00
21	A2	1358	A	C4'-C3'-C2'	-8.29	94.31	102.60
67	B1	119	U	P-O3'-C3'	8.29	132.64	120.20
68	B3	41	A	O4'-C1'-C2'	-8.29	99.31	107.60
21	A2	975	A	O4'-C1'-C2'	-8.29	99.31	107.60
35	BL	17	HIS	CB-CA-C	8.29	124.61	111.51
49	BQ	95	TRP	CB-CA-C	8.29	124.94	110.85
67	B1	245	A	C3'-C2'-C1'	-8.29	93.01	101.30
67	B1	1066	C	O4'-C1'-N1	8.29	120.94	108.50
67	B1	2891	A	C2'-C3'-O3'	8.29	121.94	109.50
21	A2	110	C	C3'-C2'-C1'	8.29	109.59	101.30
21	A2	1133	C	O4'-C1'-C2'	-8.29	99.31	107.60
67	B1	509	A	O4'-C1'-C2'	-8.29	99.31	107.60
67	B1	1559	A	C3'-C2'-C1'	8.29	109.59	101.30
67	B1	1887	A	C3'-C2'-C1'	8.29	109.59	101.30
67	B1	2098	C	N1-C1'-C2'	8.29	124.43	112.00
21	A2	32	A	O4'-C1'-N9	8.29	120.93	108.50
21	A2	1171	G	C3'-C2'-C1'	8.28	109.58	101.30
25	AH	87	ARG	N-CA-CB	8.29	124.64	112.13
25	AH	180	PHE	CA-CB-CG	8.28	122.08	113.80
67	B1	2685	G	O4'-C1'-C2'	-8.29	99.31	107.60
21	A2	1458	A	C2'-C3'-O3'	8.28	121.92	109.50
56	BH	83	LEU	CA-C-N	8.28	131.89	120.63
56	BH	83	LEU	C-N-CA	8.28	131.89	120.63
33	BC	135	LEU	CA-C-N	8.28	128.31	119.78
33	BC	135	LEU	C-N-CA	8.28	128.31	119.78
67	B1	1644	G	C1'-O4'-C4'	8.28	118.18	109.90
21	A2	1003	G	O4'-C1'-C2'	8.28	115.88	107.60
67	B1	347	G	C1'-O4'-C4'	-8.28	101.62	109.90
67	B1	2353	C	N1-C1'-C2'	8.28	124.41	112.00
67	B1	2680	A	O4'-C1'-C2'	-8.28	99.32	107.60
21	A2	217	C	N1-C1'-C2'	8.27	124.41	112.00
21	A2	705	C	N1-C1'-C2'	8.27	124.41	112.00
67	B1	3033	G	C4'-C3'-C2'	-8.27	94.33	102.60
21	A2	165	U	O3'-P-O5'	-8.27	91.60	104.00
21	A2	613	C	N1-C1'-C2'	8.27	124.41	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1336	U	N1-C1'-C2'	-8.27	99.59	112.00
31	BY	69	ARG	N-CA-C	8.27	120.07	111.14
67	B1	455	G	O4'-C1'-C2'	-8.27	99.33	107.60
67	B1	974	U	C3'-C2'-C1'	8.27	109.56	101.30
21	A2	116	C	C3'-C2'-C1'	8.26	109.56	101.30
35	BL	46	LYS	CA-C-O	-8.26	109.22	119.38
67	B1	848	A	O4'-C1'-C2'	-8.26	99.34	107.60
67	B1	1949	A	O4'-C1'-C2'	-8.26	99.34	107.60
14	AM	67	ALA	CA-C-N	8.26	131.35	120.28
14	AM	67	ALA	C-N-CA	8.26	131.35	120.28
21	A2	1160	C	O4'-C1'-C2'	-8.26	99.34	107.60
21	A2	369	A	C3'-C2'-C1'	8.26	109.76	101.50
67	B1	939	A	O4'-C1'-C2'	-8.26	99.34	107.60
67	B1	970	G	O4'-C1'-C2'	8.26	115.86	107.60
67	B1	1613	A	O4'-C1'-N9	8.26	120.89	108.50
67	B1	2710	G	O4'-C1'-N9	8.26	120.89	108.50
67	B1	1553	G	N9-C1'-C2'	-8.26	99.61	112.00
19	AS	51	ALA	CA-C-N	8.26	129.11	119.94
19	AS	51	ALA	C-N-CA	8.26	129.11	119.94
21	A2	1242	C	C1'-O4'-C4'	-8.26	101.64	109.90
67	B1	2262	C	O4'-C1'-C2'	-8.26	99.34	107.60
67	B1	1322	G	C1'-C2'-O2'	8.25	120.78	108.40
67	B1	2545	A	N9-C1'-C2'	8.25	124.38	112.00
21	A2	563	U	O4'-C1'-C2'	-8.25	99.35	107.60
67	B1	2055	U	C4'-C3'-C2'	-8.25	94.35	102.60
67	B1	3043	C	O4'-C1'-C2'	-8.25	99.35	107.60
68	B3	12	G	O4'-C1'-C2'	-8.25	99.35	107.60
11	A1	22	A	O4'-C1'-C2'	8.25	115.85	107.60
21	A2	278	A	O4'-C1'-C2'	-8.25	99.35	107.60
67	B1	2481	G	O4'-C1'-C2'	-8.25	99.35	107.60
67	B1	2924	G	O4'-C1'-C2'	-8.25	99.35	107.60
3	AI	5	ASP	CA-C-N	8.24	128.35	119.28
3	AI	5	ASP	C-N-CA	8.24	128.35	119.28
21	A2	184	G	P-O3'-C3'	8.24	132.56	120.20
67	B1	2159	C	N1-C1'-C2'	8.24	124.36	112.00
21	A2	1222	C	N1-C1'-C2'	8.24	124.36	112.00
30	AU	130	ASP	N-CA-C	8.24	121.38	111.82
67	B1	476	C	N1-C1'-C2'	8.24	124.35	112.00
8	AR	15	LYS	CA-C-O	-8.23	111.77	120.99
21	A2	368	C	C3'-C2'-C1'	8.23	109.73	101.50
67	B1	2944	G	P-O5'-C5'	8.23	133.25	120.90
67	B1	1547	U	C1'-O4'-C4'	8.23	118.13	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	A1	76	C	C3'-C2'-C1'	8.23	109.53	101.30
68	B3	120	C	N1-C1'-C2'	8.23	124.35	112.00
67	B1	219	G	O4'-C1'-N9	8.23	120.84	108.50
67	B1	923	A	C1'-O4'-C4'	8.23	117.93	109.70
67	B1	1465	A	C1'-O4'-C4'	8.23	118.13	109.90
68	B3	107	G	N9-C1'-C2'	-8.23	99.65	112.00
10	AD	51	PHE	CA-CB-CG	8.23	122.03	113.80
21	A2	147	A	C3'-C2'-C1'	8.23	109.53	101.30
24	AA	155	LYS	CA-C-N	8.23	131.31	120.28
24	AA	155	LYS	C-N-CA	8.23	131.31	120.28
25	AH	47	THR	N-CA-C	8.23	128.33	110.80
53	BD	168	ASP	CA-CB-CG	-8.23	104.37	112.60
56	BH	60	VAL	CA-C-N	8.23	131.31	120.28
56	BH	60	VAL	C-N-CA	8.23	131.31	120.28
21	A2	473	A	C1'-O4'-C4'	-8.23	101.67	109.90
4	AG	54	GLU	N-CA-CB	8.22	124.48	110.50
21	A2	1157	G	O4'-C1'-C2'	8.22	115.83	107.60
27	A0	18	G	P-O3'-C3'	-8.22	107.87	120.20
67	B1	2725	U	O4'-C1'-N1	8.22	120.54	108.20
2	AK	76	GLU	N-CA-C	8.22	119.87	111.07
41	Ba	7	GLU	CA-C-N	8.22	136.50	121.70
41	Ba	7	GLU	C-N-CA	8.22	136.50	121.70
67	B1	435	G	N9-C1'-C2'	8.22	124.33	112.00
67	B1	2907	C	P-O3'-C3'	-8.22	107.87	120.20
21	A2	1250	C	O4'-C1'-C2'	-8.22	99.38	107.60
67	B1	598	C	O4'-C1'-C2'	-8.22	99.38	107.60
67	B1	2396	G	O4'-C1'-C2'	-8.22	99.38	107.60
67	B1	2517	U	C3'-C2'-C1'	8.22	109.52	101.30
56	BH	19	PRO	N-CA-CB	-8.21	95.11	103.08
67	B1	348	G	N9-C1'-C2'	8.21	124.32	112.00
21	A2	1468	A	O4'-C1'-C2'	-8.21	99.39	107.60
67	B1	1924	A	N9-C1'-C2'	8.21	124.32	112.00
67	B1	2745	G	O4'-C1'-C2'	8.21	115.81	107.60
25	AH	94	ASN	O-C-N	8.21	133.51	122.59
67	B1	2846	A	O4'-C1'-C2'	8.21	115.81	107.60
67	B1	1739	U	C2'-C3'-O3'	8.21	121.81	109.50
67	B1	1867	C	O4'-C1'-C2'	-8.21	99.39	107.60
67	B1	225	C	O4'-C1'-C2'	-8.20	99.40	107.60
67	B1	2520	C	C5'-C4'-C3'	8.20	128.31	116.00
68	B3	18	G	O4'-C1'-C2'	8.21	115.81	107.60
21	A2	750	C	O4'-C1'-C2'	-8.20	99.40	107.60
49	BQ	97	LYS	CA-C-N	8.20	131.10	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	BQ	97	LYS	C-N-CA	8.20	131.10	120.44
67	B1	606	A	N9-C1'-C2'	8.20	124.30	112.00
67	B1	2178	A	C3'-C2'-C1'	8.20	109.50	101.30
67	B1	13	U	C5'-C4'-C3'	8.20	128.30	116.00
19	AS	23	GLU	N-CA-C	-8.20	100.31	111.87
21	A2	295	G	O4'-C1'-C2'	-8.20	99.40	107.60
43	Bk	54	VAL	CB-CA-C	-8.20	99.42	110.98
11	A1	19	G	O4'-C1'-N9	8.19	120.79	108.50
21	A2	117	C	C3'-C2'-C1'	8.19	109.49	101.30
21	A2	513	A	C3'-C2'-C1'	8.20	109.50	101.30
21	A2	811	G	O4'-C1'-C2'	-8.19	99.41	107.60
31	BY	107	LEU	CA-C-N	8.19	131.26	120.28
31	BY	107	LEU	C-N-CA	8.19	131.26	120.28
67	B1	2243	G	O3'-P-O5'	8.20	116.29	104.00
67	B1	2266	C	C3'-C2'-C1'	8.20	109.50	101.30
21	A2	367	G	C1'-C2'-O2'	8.19	120.69	108.40
67	B1	3032	C	O4'-C1'-C2'	-8.19	99.41	107.60
21	A2	484	U	O4'-C4'-C3'	-8.19	97.91	106.10
67	B1	17	C	O4'-C1'-C2'	-8.19	99.41	107.60
67	B1	363	G	O4'-C1'-N9	8.19	120.49	108.20
67	B1	2353	C	O4'-C1'-C2'	-8.19	99.41	107.60
12	AN	50	ALA	CA-C-N	8.19	136.07	122.07
12	AN	50	ALA	C-N-CA	8.19	136.07	122.07
16	AJ	31	GLU	O-C-N	-8.19	112.36	121.53
56	BH	115	LEU	CB-CA-C	8.19	125.33	111.41
67	B1	569	G	O4'-C1'-C2'	-8.19	97.61	105.80
67	B1	996	U	C1'-O4'-C4'	8.19	118.09	109.90
67	B1	2702	A	N9-C1'-C2'	-8.19	99.72	112.00
3	AI	32	LYS	CB-CA-C	-8.19	97.20	110.79
21	A2	1338	C	O4'-C1'-C2'	-8.19	99.41	107.60
60	BS	19	ARG	NE-CZ-NH2	-8.19	111.83	119.20
67	B1	403	G	C4'-C3'-C2'	-8.19	94.41	102.60
67	B1	2881	G	C1'-O4'-C4'	-8.19	101.71	109.90
21	A2	1006	C	O4'-C1'-C2'	-8.18	99.42	107.60
47	BI	121	SER	N-CA-C	-8.18	94.92	108.34
46	BA	41	ARG	CA-C-N	8.18	128.28	119.28
46	BA	41	ARG	C-N-CA	8.18	128.28	119.28
67	B1	1179	G	O4'-C4'-C3'	8.18	112.18	104.00
7	AB	124	HIS	CE1-NE2-CD2	-8.18	100.82	109.00
56	BH	73	THR	N-CA-C	-8.18	105.30	114.62
61	Bd	85	ARG	N-CA-C	-8.18	102.37	111.28
67	B1	1241	C	N1-C1'-C2'	8.18	124.26	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2253	G	O4'-C1'-C2'	-8.18	99.42	107.60
21	A2	124	C	N1-C1'-C2'	8.17	124.26	112.00
27	A0	68	G	O3'-P-O5'	8.17	116.26	104.00
48	BR	89	HIS	CA-C-N	8.17	127.90	119.56
48	BR	89	HIS	C-N-CA	8.17	127.90	119.56
67	B1	1368	A	C1'-O4'-C4'	8.17	118.07	109.90
21	A2	1485	G	P-O3'-C3'	-8.17	107.95	120.20
11	A1	55	U	N1-C1'-C2'	8.17	124.25	112.00
32	BO	155	MET	CG-SD-CE	-8.17	82.93	100.90
67	B1	2253	G	O4'-C1'-N9	8.17	120.75	108.50
21	A2	505	U	C1'-O4'-C4'	8.16	118.06	109.90
27	A0	20	U	O4'-C1'-C2'	-8.16	99.44	107.60
67	B1	1969	C	C1'-C2'-O2'	8.16	120.64	108.40
67	B1	2507	C	C2'-C3'-O3'	8.16	125.94	113.70
12	AN	88	CYS	CA-C-O	-8.16	113.28	119.32
24	AA	27	PHE	CA-C-N	8.16	131.67	121.06
24	AA	27	PHE	C-N-CA	8.16	131.67	121.06
65	BJ	47	HIS	N-CA-C	-8.16	96.87	109.52
21	A2	1043	U	C1'-O4'-C4'	8.16	118.06	109.90
67	B1	868	U	N1-C1'-C2'	8.16	124.24	112.00
67	B1	1341	U	N1-C1'-C2'	8.16	124.24	112.00
67	B1	1961	G	O4'-C1'-N9	8.16	120.74	108.50
67	B1	2942	G	P-O5'-C5'	-8.16	108.66	120.90
15	AE	106	ARG	CA-C-N	8.16	134.32	120.29
15	AE	106	ARG	C-N-CA	8.16	134.32	120.29
33	BC	69	PRO	N-CA-CB	8.16	110.92	103.33
67	B1	716	U	O4'-C1'-C2'	-8.16	99.44	107.60
2	AK	45	ILE	CA-C-O	-8.15	112.21	120.85
21	A2	382	G	O4'-C1'-N9	8.15	120.73	108.50
40	BE	120	HIS	N-CA-C	-8.15	93.43	110.80
56	BH	58	ASP	N-CA-C	-8.15	98.01	110.32
20	B4	25	ILE	CA-C-N	8.15	131.21	120.28
20	B4	25	ILE	C-N-CA	8.15	131.21	120.28
67	B1	1645	U	O4'-C1'-C2'	-8.15	99.45	107.60
67	B1	2288	C	N1-C1'-C2'	8.15	124.23	112.00
21	A2	91	G	N9-C1'-C2'	8.15	124.22	112.00
21	A2	705	C	C3'-C2'-C1'	8.15	109.45	101.30
21	A2	1393	A	P-O5'-C5'	-8.15	108.67	120.90
39	Be	53	LYS	CA-C-N	8.15	133.05	120.82
39	Be	53	LYS	C-N-CA	8.15	133.05	120.82
67	B1	2263	G	O4'-C1'-C2'	-8.15	99.45	107.60
67	B1	170	A	O4'-C1'-C2'	-8.15	99.45	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	AM	63	ALA	N-CA-C	-8.15	102.40	111.28
67	B1	719	C	C1'-O4'-C4'	-8.15	101.75	109.90
67	B1	1131	G	O4'-C1'-N9	8.15	120.72	108.50
35	BL	42	ARG	N-CA-CB	-8.14	98.26	110.07
21	A2	1074	C	N1-C1'-C2'	8.14	124.22	112.00
36	Bf	38	HIS	CA-C-N	-8.14	111.76	120.47
36	Bf	38	HIS	C-N-CA	-8.14	111.76	120.47
67	B1	547	C	O4'-C1'-C2'	-8.14	99.46	107.60
67	B1	899	A	C2'-C3'-O3'	8.14	121.72	109.50
67	B1	297	G	O4'-C1'-C2'	-8.14	99.46	107.60
21	A2	1411	G	O4'-C1'-C2'	-8.14	99.46	107.60
67	B1	721	G	O4'-C1'-C2'	-8.14	99.46	107.60
67	B1	775	C	N1-C1'-C2'	8.14	124.21	112.00
67	B1	1830	U	O4'-C1'-N1	8.14	120.71	108.50
67	B1	1944	C	C1'-O4'-C4'	8.14	118.04	109.90
67	B1	2672	A	O4'-C1'-C2'	-8.14	99.46	107.60
14	AM	86	PRO	N-CA-CB	8.14	111.80	103.25
21	A2	177	A	O4'-C1'-N9	8.14	120.71	108.50
27	A0	58	A	N9-C1'-C2'	-8.14	101.79	114.00
49	BQ	135	LYS	CA-C-N	8.14	131.02	120.44
49	BQ	135	LYS	C-N-CA	8.14	131.02	120.44
67	B1	2424	A	O4'-C1'-C2'	-8.13	99.47	107.60
21	A2	802	G	C1'-O4'-C4'	-8.13	101.77	109.90
45	Bi	50	SER	N-CA-C	-8.13	97.40	108.38
49	BQ	10	ILE	CA-C-N	8.13	131.18	120.28
49	BQ	10	ILE	C-N-CA	8.13	131.18	120.28
67	B1	478	C	C3'-C2'-C1'	8.13	109.43	101.30
67	B1	1173	G	N9-C1'-C2'	8.13	124.20	112.00
67	B1	2187	C	N1-C1'-C2'	8.13	124.20	112.00
23	AT	101	HIS	ND1-CE1-NE2	8.13	116.53	108.40
67	B1	1907	G	C3'-C2'-C1'	-8.13	93.17	101.30
27	A0	22	G	O4'-C1'-C2'	8.13	115.73	107.60
36	Bf	4	ASN	N-CA-C	-8.13	88.24	111.00
67	B1	436	C	C3'-C2'-C1'	8.12	109.42	101.30
67	B1	2069	G	C1'-O4'-C4'	-8.12	101.78	109.90
67	B1	2267	U	O4'-C1'-N1	8.12	120.69	108.50
68	B3	98	G	C1'-O4'-C4'	8.12	118.02	109.90
31	BY	27	ARG	N-CA-C	-8.12	102.67	112.58
43	Bk	49	ASN	N-CA-C	8.12	122.89	111.52
67	B1	1454	G	O4'-C1'-N9	8.12	120.38	108.20
67	B1	1767	C	C1'-O4'-C4'	-8.12	101.78	109.90
67	B1	2320	U	O4'-C1'-N1	8.12	120.38	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1254	C	O4'-C1'-C2'	-8.12	99.48	107.60
58	BP	58	ASP	CA-CB-CG	-8.12	104.48	112.60
67	B1	1958	A	C1'-O4'-C4'	8.12	117.82	109.70
67	B1	2135	C	P-O5'-C5'	8.12	133.08	120.90
46	BA	130	LYS	N-CA-C	-8.12	103.17	113.72
21	A2	806	G	O4'-C1'-N9	-8.12	96.33	108.50
32	BO	172	LEU	CA-C-N	8.12	131.94	120.42
32	BO	172	LEU	C-N-CA	8.12	131.94	120.42
38	Bb	34	PHE	N-CA-C	-8.12	97.66	109.59
67	B1	2395	C	N1-C1'-C2'	8.12	124.17	112.00
67	B1	2683	G	N9-C1'-C2'	8.12	124.17	112.00
21	A2	263	C	N1-C1'-C2'	8.11	124.17	112.00
21	A2	1144	G	P-O3'-C3'	-8.11	108.03	120.20
67	B1	820	C	N1-C1'-C2'	8.11	124.17	112.00
67	B1	1726	A	C1'-O4'-C4'	8.11	118.01	109.90
67	B1	1445	G	P-O3'-C3'	8.11	132.37	120.20
67	B1	2195	G	C1'-O4'-C4'	-8.11	101.79	109.90
68	B3	107	G	O4'-C1'-N9	8.11	120.67	108.50
17	AO	21	LEU	N-CA-C	8.11	119.75	111.07
21	A2	723	G	N9-C1'-C2'	8.11	124.17	112.00
30	AU	69	GLY	CA-C-N	8.11	130.94	120.56
30	AU	69	GLY	C-N-CA	8.11	130.94	120.56
67	B1	1235	A	P-O3'-C3'	8.11	132.36	120.20
12	AN	29	ARG	CA-C-O	-8.11	111.96	120.55
67	B1	856	A	O4'-C1'-C2'	-8.11	99.50	107.60
67	B1	2245	C	C3'-C2'-C1'	8.11	109.41	101.30
21	A2	1367	C	N1-C1'-C2'	8.10	124.16	112.00
21	A2	1473	A	O4'-C1'-N9	8.10	120.66	108.50
67	B1	12	C	O4'-C1'-C2'	-8.10	99.50	107.60
67	B1	1449	C	C3'-C2'-C1'	8.10	109.40	101.30
67	B1	1544	C	N1-C1'-C2'	8.10	124.16	112.00
11	A1	15	G	O4'-C1'-N9	8.10	120.65	108.50
21	A2	1276	G	O4'-C1'-C2'	-8.10	99.50	107.60
67	B1	517	A	C1'-O4'-C4'	8.10	118.00	109.90
21	A2	424	U	C3'-C2'-C1'	-8.10	93.20	101.30
67	B1	2276	G	P-O5'-C5'	8.10	133.05	120.90
67	B1	2672	A	C3'-C2'-C1'	8.10	109.40	101.30
21	A2	483	G	C4'-C3'-O3'	-8.10	100.86	113.00
67	B1	2396	G	C3'-C2'-C1'	8.10	109.40	101.30
50	BV	57	GLN	CB-CA-C	-8.10	98.17	110.88
67	B1	324	C	C3'-C2'-C1'	8.10	109.39	101.30
67	B1	569	G	N9-C1'-C2'	8.10	126.14	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2174	G	C4'-C3'-C2'	-8.10	94.50	102.60
67	B1	2914	U	N1-C1'-C2'	-8.10	99.86	112.00
21	A2	756	A	O4'-C1'-C2'	-8.09	99.51	107.60
36	Bf	35	VAL	N-CA-CB	8.09	119.35	110.53
67	B1	1432	C	N1-C1'-C2'	8.09	124.14	112.00
8	AR	24	HIS	O-C-N	-8.09	112.02	122.78
67	B1	1651	A	N9-C1'-C2'	8.09	124.14	112.00
67	B1	2711	U	N1-C1'-C2'	8.09	124.14	112.00
21	A2	361	A	N9-C1'-C2'	8.09	124.13	112.00
21	A2	1021	C	N1-C1'-C2'	8.09	124.13	112.00
11	A1	7	G	C5'-C4'-C3'	8.09	128.13	116.00
21	A2	1203	G	N9-C1'-C2'	8.09	124.13	112.00
53	BD	65	HIS	CA-CB-CG	8.09	121.89	113.80
67	B1	2211	C	N1-C1'-C2'	8.09	124.13	112.00
38	Bb	20	LYS	CA-C-N	8.08	129.94	119.84
38	Bb	20	LYS	C-N-CA	8.08	129.94	119.84
67	B1	324	C	O3'-P-O5'	8.08	116.12	104.00
67	B1	1883	C	C5'-C4'-C3'	8.08	128.13	116.00
67	B1	2040	A	C1'-O4'-C4'	8.08	117.98	109.90
67	B1	2363	G	C1'-C2'-O2'	8.08	120.52	108.40
21	A2	575	A	C1'-O4'-C4'	8.08	117.98	109.90
21	A2	1118	C	O4'-C1'-N1	8.08	120.62	108.50
42	BT	18	SER	N-CA-C	8.08	120.09	111.28
67	B1	942	U	P-O5'-C5'	-8.08	108.78	120.90
67	B1	1031	C	C1'-C2'-O2'	8.08	120.52	108.40
67	B1	2284	C	P-O3'-C3'	8.08	132.32	120.20
67	B1	2688	C	N1-C1'-C2'	8.08	124.12	112.00
2	AK	48	PRO	CA-C-N	8.08	130.94	120.44
2	AK	48	PRO	C-N-CA	8.08	130.94	120.44
67	B1	1197	G	O4'-C1'-N9	8.08	120.62	108.50
8	AR	44	ARG	CA-C-O	-8.08	111.12	120.49
67	B1	434	G	N9-C1'-C2'	8.08	124.11	112.00
67	B1	2546	G	C3'-C2'-C1'	8.08	109.38	101.30
21	A2	842	U	O4'-C1'-C2'	-8.07	97.72	105.80
21	A2	71	C	O4'-C1'-C2'	-8.07	99.53	107.60
21	A2	392	G	C1'-O4'-C4'	-8.07	101.83	109.90
21	A2	438	A	P-O3'-C3'	-8.07	108.10	120.20
20	B4	69	LEU	CA-C-N	8.07	131.75	120.29
20	B4	69	LEU	C-N-CA	8.07	131.75	120.29
66	Bl	67	ASP	CA-C-N	8.07	131.52	120.46
66	Bl	67	ASP	C-N-CA	8.07	131.52	120.46
67	B1	2507	C	N1-C1'-C2'	-8.07	99.89	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	Bk	41	MET	N-CA-CB	8.07	121.71	110.01
47	BI	44	VAL	CA-C-N	8.07	130.72	120.56
47	BI	44	VAL	C-N-CA	8.07	130.72	120.56
67	B1	1196	A	N9-C1'-C2'	-8.07	99.90	112.00
67	B1	2450	A	O4'-C1'-C2'	8.07	113.87	105.80
47	BI	115	ILE	N-CA-C	-8.07	105.01	112.43
64	Bc	15	GLU	CB-CA-C	8.07	125.46	110.70
15	AE	218	GLU	CA-C-N	8.06	131.09	120.28
15	AE	218	GLU	C-N-CA	8.06	131.09	120.28
21	A2	342	G	O4'-C1'-N9	8.06	120.60	108.50
61	Bd	84	ILE	CA-CB-CG1	8.06	124.11	110.40
14	AM	115	VAL	N-CA-C	-8.06	96.45	108.46
21	A2	72	C	O4'-C1'-C2'	-8.06	99.54	107.60
21	A2	764	C	C4'-C3'-C2'	-8.06	94.54	102.60
21	A2	1019	A	C2'-C3'-O3'	8.06	121.59	109.50
67	B1	1501	G	C1'-O4'-C4'	-8.06	101.84	109.90
35	BL	48	THR	O-C-N	-8.06	111.87	122.59
40	BE	64	THR	N-CA-C	-8.06	94.88	108.26
67	B1	569	G	C3'-C2'-C1'	8.06	109.56	101.50
67	B1	849	C	N1-C1'-C2'	8.06	124.09	112.00
67	B1	1623	C	N1-C1'-C2'	8.06	124.09	112.00
67	B1	2617	G	C3'-C2'-C1'	8.06	109.36	101.30
5	AW	30	HIS	CG-CD2-NE2	8.06	115.26	107.20
21	A2	919	U	P-O3'-C3'	8.06	132.28	120.20
67	B1	602	G	O4'-C1'-C2'	8.06	115.66	107.60
67	B1	1298	C	O4'-C1'-C2'	-8.06	99.54	107.60
67	B1	2312	U	O4'-C1'-N1	8.06	120.58	108.50
67	B1	2406	C	O4'-C1'-C2'	-8.05	99.55	107.60
68	B3	71	G	O4'-C1'-N9	8.05	120.58	108.50
14	AM	109	GLY	CA-C-O	-8.05	110.05	119.07
67	B1	784	C	O4'-C1'-C2'	-8.05	99.55	107.60
67	B1	2799	C	N1-C1'-C2'	8.05	124.08	112.00
67	B1	1090	G	C1'-O4'-C4'	-8.05	101.85	109.90
67	B1	1438	C	C3'-C2'-C1'	8.05	109.35	101.30
67	B1	226	C	C3'-C2'-C1'	8.05	109.35	101.30
67	B1	1230	G	C1'-O4'-C4'	-8.05	101.85	109.90
21	A2	218	C	N1-C1'-C2'	8.05	124.07	112.00
67	B1	605	A	C1'-O4'-C4'	8.05	117.95	109.90
10	AD	50	ASN	CA-C-O	-8.04	112.02	120.55
21	A2	962	G	O5'-P-OP2	-8.04	83.86	108.00
24	AA	148	LYS	CA-C-N	8.04	131.06	120.28
24	AA	148	LYS	C-N-CA	8.04	131.06	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1646	G	N9-C1'-C2'	-8.04	99.93	112.00
67	B1	2725	U	C3'-C2'-C1'	8.04	109.54	101.50
67	B1	486	A	C1'-O4'-C4'	8.04	117.74	109.70
67	B1	1954	U	O4'-C1'-C2'	-8.04	97.76	105.80
21	A2	707	A	O4'-C1'-C2'	-8.04	97.76	105.80
21	A2	1100	G	C1'-O4'-C4'	-8.04	101.86	109.90
64	Bc	32	ARG	CB-CA-C	-8.04	97.44	110.79
66	Bl	40	ASP	CA-C-N	8.04	130.69	120.56
66	Bl	40	ASP	C-N-CA	8.04	130.69	120.56
67	B1	1313	G	P-O5'-C5'	-8.04	108.84	120.90
25	AH	90	HIS	CA-C-N	8.04	134.14	120.72
25	AH	90	HIS	C-N-CA	8.04	134.14	120.72
67	B1	318	G	N9-C1'-C2'	8.04	124.05	112.00
67	B1	1553	G	O3'-P-O5'	-8.04	91.95	104.00
62	BN	83	HIS	CE1-NE2-CD2	-8.03	100.97	109.00
67	B1	1296	A	N9-C1'-C2'	8.03	124.05	112.00
11	A1	38	G	O4'-C1'-C2'	-8.03	99.57	107.60
21	A2	467	G	C1'-O4'-C4'	-8.03	101.87	109.90
21	A2	1457	A	C3'-C2'-C1'	8.03	109.53	101.50
21	A2	760	C	N1-C1'-C2'	8.03	124.04	112.00
56	BH	29	GLY	N-CA-C	-8.03	104.92	114.48
64	Bc	11	ARG	CB-CA-C	-8.03	98.60	110.16
66	Bl	44	LYS	N-CA-C	8.03	119.81	111.14
67	B1	932	C	O4'-C1'-C2'	-8.03	99.57	107.60
67	B1	2443	G	O4'-C1'-N9	8.03	120.55	108.50
51	Bj	36	GLY	N-CA-C	8.03	123.75	113.24
67	B1	496	A	O4'-C1'-C2'	-8.03	97.77	105.80
67	B1	130	G	C3'-C2'-C1'	8.03	109.33	101.30
67	B1	1056	C	O4'-C1'-C2'	-8.03	99.57	107.60
67	B1	2512	C	P-O5'-C5'	-8.03	108.86	120.90
21	A2	949	G	C3'-C2'-C1'	-8.02	93.28	101.30
21	A2	1448	A	O4'-C1'-N9	8.02	120.53	108.50
67	B1	839	A	O4'-C1'-C2'	-8.02	99.58	107.60
67	B1	1215	C	O4'-C1'-C2'	-8.02	99.58	107.60
27	A0	35	U	C3'-C2'-C1'	8.02	109.32	101.30
67	B1	125	C	N1-C1'-C2'	8.02	124.03	112.00
67	B1	325	G	O4'-C1'-C2'	-8.02	99.58	107.60
14	AM	53	ASP	CA-C-N	8.02	130.11	120.09
14	AM	53	ASP	C-N-CA	8.02	130.11	120.09
21	A2	670	C	N1-C1'-C2'	8.02	124.03	112.00
21	A2	1406	U	N1-C1'-C2'	-8.02	99.97	112.00
35	BL	9	ARG	CA-C-O	8.02	131.98	120.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	692	C	O4'-C1'-C2'	-8.02	99.58	107.60
67	B1	2912	G	C1'-O4'-C4'	8.02	117.92	109.90
67	B1	2967	C	C1'-O4'-C4'	-8.02	101.88	109.90
6	AC	171	LEU	N-CA-C	-8.02	97.23	109.41
67	B1	320	C	O4'-C1'-C2'	-8.02	99.58	107.60
67	B1	1622	G	C1'-O4'-C4'	8.02	117.92	109.90
21	A2	360	A	P-O3'-C3'	8.01	132.22	120.20
67	B1	1473	C	C1'-C2'-O2'	8.01	120.42	108.40
60	BS	129	TYR	CA-C-N	8.01	127.94	119.85
60	BS	129	TYR	C-N-CA	8.01	127.94	119.85
67	B1	1611	C	N1-C1'-C2'	8.01	124.02	112.00
21	A2	340	A	N9-C1'-C2'	-8.01	99.99	112.00
21	A2	1398	U	O4'-C1'-C2'	-8.01	99.59	107.60
67	B1	2006	C	O4'-C1'-C2'	-8.01	99.59	107.60
21	A2	1440	G	N9-C1'-C2'	-8.01	99.99	112.00
67	B1	32	C	N1-C1'-C2'	8.01	124.01	112.00
67	B1	2134	G	N9-C1'-C2'	8.01	124.01	112.00
67	B1	2176	G	O4'-C1'-C2'	8.01	115.61	107.60
21	A2	423	U	C1'-O4'-C4'	8.00	117.90	109.90
21	A2	1490	C	C3'-C2'-C1'	8.00	109.30	101.30
67	B1	1149	C	N1-C1'-C2'	8.00	124.01	112.00
67	B1	2473	C	C3'-C2'-C1'	8.00	109.30	101.30
13	AX	12	ILE	N-CA-CB	8.00	120.81	110.57
21	A2	91	G	O4'-C1'-C2'	8.00	115.60	107.60
21	A2	821	G	C4'-C3'-O3'	-8.00	101.00	113.00
24	AA	16	LYS	O-C-N	8.00	132.65	122.89
67	B1	998	G	O4'-C1'-N9	8.00	120.50	108.50
67	B1	1071	A	P-O3'-C3'	8.00	132.20	120.20
67	B1	844	C	N1-C1'-C2'	8.00	124.00	112.00
67	B1	1393	C	C1'-C2'-O2'	8.00	123.80	111.80
21	A2	842	U	C1'-O4'-C4'	8.00	117.70	109.70
21	A2	1150	G	P-O3'-C3'	8.00	132.19	120.20
67	B1	981	A	C2'-C3'-O3'	8.00	121.50	109.50
68	B3	117	G	O4'-C1'-C2'	-8.00	99.61	107.60
67	B1	1344	C	O4'-C1'-C2'	-7.99	99.61	107.60
21	A2	157	A	C3'-C2'-C1'	7.99	109.29	101.30
31	BY	27	ARG	CA-C-N	7.99	134.97	123.14
31	BY	27	ARG	C-N-CA	7.99	134.97	123.14
67	B1	2441	A	O4'-C1'-C2'	-7.99	99.61	107.60
67	B1	2541	U	O4'-C1'-C2'	-7.99	99.61	107.60
67	B1	2680	A	C1'-O4'-C4'	7.99	117.89	109.90
21	A2	1017	U	C3'-C2'-C1'	7.99	109.49	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1091	C	O4'-C1'-C2'	-7.99	99.61	107.60
52	BB	71	ILE	N-CA-C	-7.99	96.63	108.45
21	A2	311	A	O4'-C1'-N9	7.99	120.18	108.20
57	BZ	51	TYR	N-CA-CB	-7.99	98.38	110.12
67	B1	188	A	C1'-O4'-C4'	7.99	117.69	109.70
67	B1	2865	C	C1'-O4'-C4'	-7.99	101.92	109.90
21	A2	1124	G	C1'-O4'-C4'	-7.98	101.92	109.90
67	B1	421	C	O4'-C1'-C2'	-7.98	99.62	107.60
67	B1	794	G	C3'-C2'-C1'	-7.98	93.32	101.30
67	B1	899	A	O4'-C1'-N9	7.98	120.17	108.20
67	B1	1195	G	O4'-C1'-C2'	-7.98	99.62	107.60
67	B1	1466	U	O4'-C1'-C2'	-7.98	99.62	107.60
67	B1	1971	C	N1-C1'-C2'	7.98	123.97	112.00
21	A2	292	U	C1'-C2'-O2'	7.98	120.37	108.40
21	A2	539	C	C3'-C2'-C1'	7.98	109.28	101.30
67	B1	555	G	O4'-C1'-C2'	7.98	115.58	107.60
67	B1	2370	C	P-O3'-C3'	7.98	132.17	120.20
67	B1	2706	C	N1-C1'-C2'	7.98	123.97	112.00
67	B1	1034	G	O4'-C1'-C2'	7.98	115.58	107.60
27	A0	34	G	C4'-C3'-O3'	-7.98	101.04	113.00
21	A2	473	A	N9-C1'-C2'	7.97	123.96	112.00
21	A2	721	A	C1'-O4'-C4'	7.97	117.88	109.90
21	A2	511	C	O4'-C1'-C2'	-7.97	99.63	107.60
67	B1	2902	G	O4'-C1'-N9	7.97	120.46	108.50
21	A2	78	G	O4'-C1'-N9	7.97	120.46	108.50
67	B1	3033	G	C1'-O4'-C4'	-7.97	101.93	109.90
67	B1	1826	G	O4'-C1'-C2'	7.97	113.77	105.80
67	B1	2020	G	N9-C1'-C2'	7.97	123.95	112.00
21	A2	283	U	O4'-C1'-N1	7.97	120.45	108.50
67	B1	1396	A	C3'-C2'-C1'	7.97	109.27	101.30
67	B1	2988	A	C1'-O4'-C4'	7.97	117.87	109.90
21	A2	1352	G	N9-C1'-C2'	7.96	123.95	112.00
41	Ba	35	VAL	N-CA-CB	7.96	121.37	110.54
67	B1	905	G	C1'-O4'-C4'	-7.96	101.94	109.90
67	B1	1194	G	N9-C1'-C2'	7.96	123.95	112.00
67	B1	2428	C	P-O3'-C3'	-7.96	108.25	120.20
34	B5	48	MET	CA-C-O	-7.96	112.59	121.51
21	A2	79	G	O4'-C1'-N9	7.96	120.44	108.50
21	A2	312	U	O4'-C1'-C2'	-7.96	99.64	107.60
21	A2	1438	A	O4'-C1'-C2'	-7.96	99.64	107.60
46	BA	2	PRO	CA-C-N	7.96	130.79	120.44
46	BA	2	PRO	C-N-CA	7.96	130.79	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	825	C	C3'-C2'-C1'	7.96	109.26	101.30
21	A2	794	A	C1'-O4'-C4'	-7.96	101.94	109.90
21	A2	866	A	O4'-C1'-N9	7.96	120.44	108.50
29	AL	41	PRO	CA-N-CD	-7.96	100.86	112.00
67	B1	2206	G	C1'-O4'-C4'	-7.96	101.94	109.90
67	B1	2905	C	N1-C1'-C2'	7.96	123.93	112.00
26	AP	29	PRO	CA-C-N	7.96	136.29	121.97
26	AP	29	PRO	C-N-CA	7.96	136.29	121.97
11	A1	64	C	O4'-C1'-C2'	-7.95	99.65	107.60
49	BQ	61	TYR	CA-CB-CG	-7.95	99.58	113.90
67	B1	1550	C	O3'-P-O5'	-7.95	92.07	104.00
67	B1	2152	G	C1'-O4'-C4'	7.95	117.85	109.90
7	AB	172	ALA	N-CA-C	-7.95	102.61	111.28
67	B1	1168	A	O4'-C1'-C2'	-7.95	99.65	107.60
59	BM	182	VAL	N-CA-C	-7.95	104.62	112.17
67	B1	439	G	C3'-C2'-C1'	7.95	109.25	101.30
21	A2	318	C	N1-C1'-C2'	7.95	123.92	112.00
50	BV	13	PRO	CA-C-N	7.95	133.03	122.30
50	BV	13	PRO	C-N-CA	7.95	133.03	122.30
21	A2	534	G	C4'-C3'-C2'	-7.94	94.66	102.60
21	A2	185	G	O4'-C1'-C2'	-7.94	99.66	107.60
21	A2	833	C	N1-C1'-C2'	7.94	123.92	112.00
67	B1	147	C	C1'-C2'-O2'	7.94	120.31	108.40
67	B1	324	C	C4'-C3'-C2'	-7.94	94.66	102.60
46	BA	85	ALA	CA-C-N	7.94	131.72	120.28
46	BA	85	ALA	C-N-CA	7.94	131.72	120.28
67	B1	1158	G	C1'-C2'-O2'	7.94	120.31	108.40
67	B1	1407	A	O4'-C1'-C2'	-7.94	97.86	105.80
65	BJ	122	VAL	CA-C-O	-7.94	113.77	121.63
7	AB	78	LYS	CA-C-O	-7.94	111.17	118.79
21	A2	629	U	O4'-C1'-N1	7.94	120.41	108.50
67	B1	1674	G	O4'-C1'-C2'	7.94	115.54	107.60
67	B1	2483	U	O4'-C1'-C2'	-7.94	99.66	107.60
39	Be	16	THR	CA-C-O	-7.93	112.95	121.20
46	BA	71	ALA	CA-C-N	7.93	131.56	120.29
46	BA	71	ALA	C-N-CA	7.93	131.56	120.29
61	Bd	76	MET	CA-C-N	7.93	130.91	120.28
61	Bd	76	MET	C-N-CA	7.93	130.91	120.28
67	B1	812	C	N1-C1'-C2'	7.93	123.90	112.00
67	B1	2627	C	O4'-C1'-C2'	-7.93	99.67	107.60
13	AX	69	SER	N-CA-CB	7.93	123.98	110.50
53	BD	162	LYS	N-CA-CB	7.93	121.78	110.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	241	C	C1'-C2'-O2'	7.93	120.30	108.40
67	B1	2622	C	N1-C1'-C2'	7.93	123.90	112.00
67	B1	3022	C	C1'-O4'-C4'	-7.93	101.97	109.90
67	B1	2199	U	O4'-C1'-N1	7.93	120.40	108.50
67	B1	2749	G	O4'-C1'-N9	7.93	120.40	108.50
67	B1	1557	G	O4'-C4'-C3'	7.93	111.93	104.00
67	B1	1713	G	P-O5'-C5'	-7.93	109.00	120.90
11	A1	55	U	C1'-C2'-O2'	7.93	120.29	108.40
67	B1	1288	C	O4'-C1'-C2'	-7.93	99.67	107.60
67	B1	2201	C	N1-C1'-C2'	7.93	123.89	112.00
67	B1	2500	G	N9-C1'-C2'	-7.92	100.12	112.00
41	Ba	80	LYS	CA-C-N	7.92	135.96	121.70
41	Ba	80	LYS	C-N-CA	7.92	135.96	121.70
67	B1	544	A	C3'-C2'-C1'	7.92	109.42	101.50
67	B1	1048	C	C1'-O4'-C4'	-7.92	101.98	109.90
67	B1	2475	G	O4'-C4'-C3'	7.92	111.92	104.00
21	A2	111	G	O3'-P-O5'	-7.92	92.12	104.00
21	A2	884	G	N9-C1'-C2'	7.92	123.88	112.00
68	B3	35	A	N9-C1'-C2'	-7.92	100.12	112.00
11	A1	28	C	C3'-C2'-C1'	7.92	109.22	101.30
32	BO	67	LEU	N-CA-C	-7.92	104.14	113.88
52	BB	213	LYS	CA-C-N	7.92	127.97	119.90
52	BB	213	LYS	C-N-CA	7.92	127.97	119.90
67	B1	1893	C	N1-C1'-C2'	7.92	123.88	112.00
67	B1	2575	U	C1'-O4'-C4'	-7.92	101.98	109.90
25	AH	13	HIS	CA-CB-CG	7.92	121.72	113.80
67	B1	1674	G	C3'-C2'-C1'	-7.92	93.39	101.30
67	B1	2243	G	O4'-C1'-N9	7.92	120.37	108.50
21	A2	491	G	N9-C1'-C2'	7.91	123.87	112.00
33	BC	24	VAL	CB-CA-C	7.91	119.78	110.68
67	B1	730	C	C3'-C2'-C1'	7.91	109.21	101.30
67	B1	2435	G	O4'-C1'-C2'	7.91	115.51	107.60
53	BD	11	GLN	CA-C-O	-7.91	110.55	120.04
21	A2	1460	G	O4'-C1'-C2'	-7.91	99.69	107.60
53	BD	224	ASN	CA-CB-CG	-7.91	104.69	112.60
67	B1	1760	C	N1-C1'-C2'	7.91	123.87	112.00
67	B1	2262	C	C3'-C2'-C1'	7.91	109.21	101.30
68	B3	115	C	C3'-C2'-C1'	7.91	109.21	101.30
21	A2	1095	C	C1'-O4'-C4'	-7.91	101.99	109.90
67	B1	2010	G	O4'-C4'-C3'	-7.91	96.09	104.00
41	Ba	38	PHE	O-C-N	7.90	130.21	122.07
67	B1	2145	G	C5'-C4'-C3'	7.90	127.86	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2418	G	P-O3'-C3'	7.90	132.06	120.20
67	B1	76	C	C1'-O4'-C4'	7.90	117.80	109.90
67	B1	997	A	O4'-C1'-C2'	-7.90	99.70	107.60
67	B1	1646	G	O4'-C1'-C2'	-7.90	99.70	107.60
67	B1	2231	G	O4'-C1'-C2'	-7.90	99.70	107.60
67	B1	1317	G	C3'-C2'-C1'	-7.90	93.40	101.30
67	B1	2235	G	C1'-C2'-O2'	7.90	120.25	108.40
67	B1	2801	G	C1'-O4'-C4'	-7.90	102.00	109.90
21	A2	919	U	C3'-C2'-C1'	7.90	109.40	101.50
67	B1	2479	C	O4'-C1'-C2'	-7.90	99.70	107.60
21	A2	1005	G	C3'-C2'-C1'	-7.90	93.60	101.50
21	A2	1162	G	C3'-C2'-C1'	7.90	109.20	101.30
67	B1	152	G	O4'-C1'-N9	7.90	120.35	108.50
67	B1	754	U	C3'-C2'-C1'	-7.90	93.40	101.30
21	A2	822	A	C3'-C2'-C1'	7.89	109.19	101.30
61	Bd	45	GLY	CA-C-N	7.89	130.20	123.33
61	Bd	45	GLY	C-N-CA	7.89	130.20	123.33
20	B4	4	PRO	N-CA-C	7.89	124.50	113.53
67	B1	887	U	O4'-C1'-C2'	-7.89	97.91	105.80
67	B1	2997	G	N9-C1'-C2'	7.89	123.84	112.00
11	A1	40	U	O4'-C1'-C2'	-7.89	99.71	107.60
21	A2	321	A	N9-C1'-C2'	7.89	123.84	112.00
25	AH	86	MET	CA-C-O	-7.89	112.65	121.25
67	B1	286	G	O4'-C1'-C2'	-7.89	99.71	107.60
67	B1	2727	C	N1-C1'-C2'	7.89	123.84	112.00
68	B3	48	A	P-O3'-C3'	7.89	132.04	120.20
21	A2	44	C	O4'-C1'-C2'	-7.89	99.71	107.60
27	A0	32	C	N1-C1'-C2'	7.89	123.83	112.00
67	B1	1038	U	O4'-C1'-N1	7.89	120.33	108.50
67	B1	2489	C	C3'-C2'-C1'	7.89	109.19	101.30
21	A2	1131	G	N9-C1'-C2'	7.89	123.83	112.00
59	BM	143	ASP	O-C-N	-7.89	113.06	121.42
17	AO	81	ARG	O-C-N	7.89	130.14	121.23
35	BL	46	LYS	N-CA-C	7.88	122.16	112.54
67	B1	764	G	O4'-C1'-C2'	-7.88	99.72	107.60
67	B1	334	G	C4'-C3'-C2'	-7.88	94.72	102.60
21	A2	1149	C	O4'-C1'-C2'	-7.88	99.72	107.60
10	AD	92	VAL	CA-C-N	7.88	131.15	120.44
10	AD	92	VAL	C-N-CA	7.88	131.15	120.44
21	A2	1064	C	C1'-O4'-C4'	-7.88	102.02	109.90
62	BN	12	VAL	N-CA-C	-7.88	105.64	113.20
67	B1	1766	A	O4'-C1'-C2'	-7.88	97.92	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2730	U	C1'-O4'-C4'	7.88	117.78	109.90
67	B1	2026	C	N1-C1'-C2'	7.88	123.81	112.00
67	B1	3007	A	O4'-C1'-C2'	-7.88	99.72	107.60
21	A2	354	G	N9-C1'-C2'	7.87	123.81	112.00
21	A2	977	G	C2'-C3'-O3'	7.87	121.31	109.50
24	AA	55	VAL	N-CA-C	-7.87	96.12	107.77
67	B1	1485	A	C3'-C2'-C1'	7.87	109.37	101.50
68	B3	71	G	C3'-C2'-C1'	-7.87	93.43	101.30
67	B1	1483	U	C3'-C2'-C1'	7.87	109.37	101.50
67	B1	1717	C	N1-C1'-C2'	7.87	123.81	112.00
21	A2	564	C	C4'-C3'-O3'	-7.87	101.19	113.00
42	BT	78	GLU	CA-C-N	7.87	130.48	120.56
42	BT	78	GLU	C-N-CA	7.87	130.48	120.56
21	A2	577	C	C3'-C2'-C1'	7.87	109.17	101.30
21	A2	1121	C	O4'-C1'-C2'	-7.87	99.73	107.60
67	B1	1180	G	N9-C1'-C2'	7.87	123.80	112.00
21	A2	571	C	N1-C1'-C2'	7.87	123.80	112.00
21	A2	545	C	O4'-C1'-C2'	-7.87	99.73	107.60
21	A2	1391	U	P-O3'-C3'	7.87	132.00	120.20
53	BD	133	ILE	N-CA-C	-7.87	96.27	107.75
67	B1	1963	G	O4'-C1'-C2'	7.86	115.46	107.60
21	A2	1292	A	C1'-O4'-C4'	7.86	117.76	109.90
7	AB	74	LEU	CA-C-N	7.86	130.66	120.44
7	AB	74	LEU	C-N-CA	7.86	130.66	120.44
30	AU	15	ARG	NE-CZ-NH1	7.86	129.36	121.50
67	B1	937	A	C1'-O4'-C4'	-7.86	102.04	109.90
67	B1	1036	C	N1-C1'-C2'	7.86	123.79	112.00
67	B1	1131	G	C1'-C2'-O2'	7.86	120.19	108.40
52	BB	73	ALA	CA-C-O	-7.86	111.94	119.80
67	B1	576	G	C1'-O4'-C4'	-7.86	102.04	109.90
67	B1	1568	A	C2'-C3'-O3'	-7.86	101.91	113.70
21	A2	217	C	C3'-C2'-C1'	7.86	109.16	101.30
21	A2	1160	C	O4'-C1'-N1	7.86	120.28	108.50
67	B1	2620	G	N9-C1'-C2'	7.86	123.78	112.00
21	A2	867	A	C1'-O4'-C4'	7.85	117.75	109.90
67	B1	605	A	C3'-C2'-C1'	7.85	109.15	101.30
29	AL	45	ILE	N-CA-C	-7.85	97.18	108.17
35	BL	45	SER	N-CA-CB	7.85	123.76	110.49
21	A2	332	C	N1-C1'-C2'	7.85	123.77	112.00
67	B1	919	G	C3'-C2'-C1'	7.85	109.15	101.30
67	B1	2912	G	O4'-C1'-C2'	-7.85	99.75	107.60
68	B3	21	C	O4'-C1'-C2'	-7.85	99.75	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2151	C	N1-C1'-C2'	7.84	123.77	112.00
67	B1	2961	A	C1'-O4'-C4'	7.84	117.74	109.90
21	A2	804	U	P-O5'-C5'	-7.84	109.14	120.90
21	A2	806	G	N9-C1'-C2'	7.84	123.76	112.00
21	A2	1149	C	C3'-C2'-C1'	7.84	109.14	101.30
67	B1	713	C	O4'-C1'-N1	7.84	120.26	108.50
67	B1	954	A	O4'-C1'-C2'	-7.84	99.76	107.60
67	B1	2671	C	N1-C1'-C2'	7.84	123.76	112.00
24	AA	19	TYR	N-CA-C	-7.84	97.46	109.14
27	A0	26	G	O4'-C1'-C2'	-7.84	99.76	107.60
67	B1	152	G	P-O3'-C3'	7.84	131.96	120.20
2	AK	85	ALA	CA-C-N	7.84	130.63	120.44
2	AK	85	ALA	C-N-CA	7.84	130.63	120.44
21	A2	1019	A	C3'-C2'-C1'	7.84	109.34	101.50
21	A2	1195	U	O4'-C1'-C2'	7.84	115.44	107.60
67	B1	371	U	C3'-C2'-C1'	7.84	109.34	101.50
21	A2	686	C	N1-C1'-C2'	7.84	123.75	112.00
67	B1	1064	G	O4'-C1'-C2'	7.84	115.44	107.60
21	A2	338	C	O4'-C1'-C2'	-7.83	99.77	107.60
21	A2	1219	C	N1-C1'-C2'	7.83	123.75	112.00
67	B1	2046	C	O4'-C1'-C2'	-7.83	99.77	107.60
36	Bf	12	ARG	NE-CZ-NH2	-7.83	112.15	119.20
21	A2	1081	C	C1'-O4'-C4'	7.83	117.53	109.70
40	BE	147	GLY	CA-C-N	7.83	131.81	120.38
40	BE	147	GLY	C-N-CA	7.83	131.81	120.38
67	B1	3036	C	N1-C1'-C2'	7.83	123.75	112.00
21	A2	34	G	N9-C1'-C2'	-7.83	100.25	112.00
57	BZ	41	ALA	CA-C-N	7.83	129.63	119.84
57	BZ	41	ALA	C-N-CA	7.83	129.63	119.84
60	BS	101	ASN	CA-CB-CG	7.83	120.43	112.60
67	B1	2719	G	O4'-C1'-C2'	-7.83	99.77	107.60
67	B1	3037	G	C3'-C2'-C1'	7.83	109.13	101.30
21	A2	1372	C	N1-C1'-C2'	7.83	123.74	112.00
67	B1	1733	C	N1-C1'-C2'	7.83	123.74	112.00
67	B1	741	G	C3'-C2'-C1'	7.82	109.12	101.30
67	B1	431	U	C3'-C2'-C1'	7.82	109.12	101.30
67	B1	1728	C	N1-C1'-C2'	7.82	123.73	112.00
67	B1	2022	U	C1'-C2'-O2'	7.82	120.13	108.40
67	B1	788	A	O4'-C1'-N9	7.82	119.93	108.20
67	B1	2318	G	C1'-O4'-C4'	-7.82	102.08	109.90
21	A2	127	G	C3'-C2'-C1'	7.82	109.12	101.30
21	A2	806	G	P-O5'-C5'	7.82	132.62	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1001	A	O4'-C4'-C3'	-7.82	98.28	106.10
21	A2	1180	G	O4'-C1'-C2'	-7.82	99.78	107.60
67	B1	251	C	C1'-O4'-C4'	-7.82	102.08	109.90
67	B1	306	G	C5'-C4'-C3'	-7.82	104.27	116.00
67	B1	538	G	N9-C1'-C2'	7.82	123.72	112.00
67	B1	2970	U	P-O3'-C3'	7.82	131.93	120.20
11	A1	13	C	N1-C1'-C2'	7.82	123.72	112.00
21	A2	112	G	P-O5'-C5'	7.82	132.62	120.90
21	A2	974	G	C3'-C2'-C1'	7.82	109.12	101.30
67	B1	2686	A	P-O3'-C3'	7.82	131.92	120.20
67	B1	2969	G	C1'-O4'-C4'	-7.82	102.08	109.90
64	Bc	53	LEU	CB-CA-C	-7.81	98.82	110.62
67	B1	1023	C	N1-C1'-C2'	7.81	123.72	112.00
67	B1	3049	C	C3'-C2'-C1'	7.81	109.11	101.30
21	A2	873	A	O4'-C1'-C2'	-7.81	99.79	107.60
67	B1	2012	G	C3'-C2'-C1'	-7.81	93.49	101.30
44	BW	42	MET	CB-CA-C	-7.81	98.62	110.88
67	B1	646	U	O4'-C1'-N1	7.81	120.22	108.50
21	A2	199	A	P-O3'-C3'	7.81	131.91	120.20
67	B1	937	A	P-O5'-C5'	7.81	132.62	120.90
21	A2	200	G	C1'-O4'-C4'	7.81	117.71	109.90
21	A2	1115	G	C3'-C2'-C1'	-7.81	93.49	101.30
64	Bc	16	ASN	N-CA-CB	7.81	123.35	110.63
67	B1	2556	C	N1-C1'-C2'	7.80	123.70	112.00
68	B3	106	G	C3'-C2'-O2'	7.80	122.40	110.70
21	A2	201	G	C1'-O4'-C4'	7.80	117.70	109.90
32	BO	61	SER	N-CA-CB	7.80	122.86	110.85
67	B1	885	A	O4'-C1'-C2'	-7.80	99.80	107.60
67	B1	2345	U	C1'-O4'-C4'	-7.80	102.10	109.90
21	A2	437	A	C5'-C4'-C3'	7.80	127.70	116.00
67	B1	408	C	P-O5'-C5'	7.80	132.60	120.90
67	B1	2846	A	O4'-C1'-N9	7.80	120.20	108.50
29	AL	44	ARG	N-CA-CB	7.80	123.78	110.68
33	BC	154	MET	CA-C-N	7.80	130.66	120.60
33	BC	154	MET	C-N-CA	7.80	130.66	120.60
67	B1	2101	A	O4'-C1'-C2'	-7.80	99.80	107.60
1	AQ	112	HIS	O-C-N	-7.79	112.36	121.32
4	AG	119	VAL	O-C-N	-7.79	114.84	123.26
6	AC	16	LEU	CB-CA-C	-7.79	97.60	110.85
21	A2	466	C	C1'-O4'-C4'	-7.79	102.11	109.90
49	BQ	24	ILE	N-CA-C	-7.79	97.20	108.11
30	AU	74	ARG	CD-NE-CZ	-7.79	113.49	124.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	17	C	C3'-C2'-C1'	7.79	109.09	101.30
22	AY	17	ARG	CA-C-N	7.79	130.71	120.28
22	AY	17	ARG	C-N-CA	7.79	130.71	120.28
53	BD	33	ARG	N-CA-C	-7.79	102.87	111.36
21	A2	580	G	C3'-C2'-C1'	-7.79	93.52	101.30
21	A2	641	A	C4'-C3'-C2'	7.79	110.39	102.60
33	BC	151	LEU	CA-C-N	7.79	131.05	120.54
33	BC	151	LEU	C-N-CA	7.79	131.05	120.54
67	B1	1571	G	N9-C1'-C2'	7.79	123.68	112.00
67	B1	2954	C	O4'-C1'-C2'	-7.79	99.81	107.60
26	AP	40	ARG	CA-C-N	7.78	130.71	120.28
26	AP	40	ARG	C-N-CA	7.78	130.71	120.28
67	B1	2076	A	C1'-O4'-C4'	-7.78	102.12	109.90
31	BY	21	ASP	CA-C-N	7.78	130.71	120.28
31	BY	21	ASP	C-N-CA	7.78	130.71	120.28
67	B1	58	G	C1'-O4'-C4'	-7.78	102.12	109.90
67	B1	1052	G	N9-C1'-C2'	7.78	123.67	112.00
21	A2	228	G	C1'-O4'-C4'	7.78	117.68	109.90
21	A2	1156	A	P-O3'-C3'	7.78	131.87	120.20
27	A0	2	C	N1-C1'-C2'	7.78	123.67	112.00
67	B1	59	U	O4'-C1'-C2'	-7.78	99.82	107.60
67	B1	874	U	O4'-C1'-C2'	-7.78	99.82	107.60
67	B1	934	G	C1'-O4'-C4'	-7.78	102.12	109.90
67	B1	2922	G	O4'-C1'-C2'	-7.78	99.82	107.60
21	A2	941	C	N1-C1'-C2'	7.78	125.66	114.00
25	AH	91	ARG	N-CA-CB	7.78	123.30	110.39
46	BA	131	MET	CA-C-N	7.77	127.53	119.76
46	BA	131	MET	C-N-CA	7.77	127.53	119.76
60	BS	13	ASP	CA-C-O	-7.77	109.51	120.16
21	A2	945	G	C1'-O4'-C4'	-7.77	102.13	109.90
56	BH	121	ALA	N-CA-CB	-7.77	98.69	110.12
67	B1	1149	C	O4'-C1'-C2'	-7.77	99.83	107.60
67	B1	461	C	O4'-C1'-C2'	-7.77	98.03	105.80
21	A2	828	U	O4'-C1'-N1	7.77	119.85	108.20
21	A2	1333	G	O4'-C1'-C2'	-7.77	99.83	107.60
61	Bd	87	GLN	CB-CA-C	7.77	124.06	110.85
67	B1	1308	G	C1'-O4'-C4'	-7.77	102.13	109.90
67	B1	1470	C	C1'-O4'-C4'	-7.77	102.13	109.90
67	B1	2990	G	N9-C1'-C2'	7.77	123.66	112.00
67	B1	220	C	P-O3'-C3'	7.77	131.85	120.20
67	B1	1127	C	O4'-C1'-C2'	-7.77	99.83	107.60
67	B1	2857	C	O4'-C1'-C2'	-7.77	99.83	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	872	A	C4'-C3'-C2'	-7.77	94.83	102.60
41	Ba	49	ILE	O-C-N	-7.77	115.03	123.18
21	A2	196	G	C3'-C2'-C1'	7.76	109.06	101.30
67	B1	1669	A	O4'-C1'-C2'	7.76	115.36	107.60
67	B1	2926	G	O4'-C1'-C2'	7.76	115.36	107.60
30	AU	75	THR	CA-C-N	7.76	131.46	120.28
30	AU	75	THR	C-N-CA	7.76	131.46	120.28
67	B1	245	A	C1'-C2'-O2'	7.76	120.04	108.40
67	B1	1513	G	C3'-C2'-C1'	-7.76	93.54	101.30
21	A2	1423	A	C5'-C4'-C3'	7.76	127.64	116.00
67	B1	2491	C	O4'-C1'-C2'	-7.76	99.84	107.60
21	A2	1416	C	O4'-C1'-C2'	-7.76	99.84	107.60
67	B1	293	G	C1'-O4'-C4'	7.76	117.46	109.70
67	B1	111	U	O4'-C1'-C2'	-7.76	99.84	107.60
67	B1	2060	A	O4'-C1'-C2'	-7.76	98.04	105.80
68	B3	99	G	N9-C1'-C2'	7.76	123.64	112.00
26	AP	10	LYS	CA-C-N	7.75	129.53	119.84
26	AP	10	LYS	C-N-CA	7.75	129.53	119.84
67	B1	1927	C	O4'-C1'-C2'	-7.75	99.85	107.60
21	A2	324	C	C2'-C3'-O3'	7.75	121.12	109.50
21	A2	296	A	C4'-C3'-C2'	-7.75	94.85	102.60
21	A2	1144	G	C3'-C2'-C1'	7.75	109.05	101.30
62	BN	113	ARG	NE-CZ-NH2	7.75	126.17	119.20
67	B1	1574	A	C3'-C2'-C1'	7.75	109.25	101.50
67	B1	2335	G	C1'-O4'-C4'	-7.75	102.16	109.90
67	B1	956	U	C3'-C2'-C1'	7.74	109.04	101.30
67	B1	1451	A	O4'-C1'-C2'	-7.74	99.86	107.60
67	B1	1857	A	O4'-C1'-C2'	7.74	113.54	105.80
67	B1	2594	U	C1'-O4'-C4'	-7.74	102.16	109.90
67	B1	1770	A	N9-C1'-C2'	7.74	123.61	112.00
6	AC	20	PHE	N-CA-C	7.74	119.35	111.07
67	B1	1202	G	C5'-C4'-C3'	7.74	127.61	116.00
67	B1	130	G	O4'-C1'-C2'	-7.74	99.86	107.60
62	BN	149	ALA	N-CA-C	7.74	119.71	111.28
67	B1	437	G	C1'-O4'-C4'	7.74	117.64	109.90
21	A2	1117	A	N9-C1'-C2'	7.73	125.60	114.00
67	B1	770	G	O3'-P-O5'	7.73	115.60	104.00
21	A2	441	U	P-O5'-C5'	7.73	132.50	120.90
67	B1	85	G	P-O5'-C5'	7.73	132.50	120.90
67	B1	2965	C	N1-C1'-C2'	7.73	123.60	112.00
21	A2	323	A	O4'-C1'-N9	7.73	119.79	108.20
67	B1	1555	G	O4'-C1'-C2'	-7.73	99.87	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	B5	18	ALA	CB-CA-C	7.72	122.08	110.50
56	BH	15	ALA	CA-C-N	7.72	131.17	122.83
56	BH	15	ALA	C-N-CA	7.72	131.17	122.83
67	B1	1356	A	C3'-C2'-C1'	7.72	109.02	101.30
25	AH	88	ARG	CA-CB-CG	7.72	129.54	114.10
38	Bb	102	ILE	N-CA-CB	7.72	118.95	110.53
67	B1	314	A	O4'-C1'-N9	7.72	120.08	108.50
67	B1	840	G	C5'-C4'-C3'	-7.72	104.42	116.00
25	AH	81	VAL	CB-CA-C	-7.72	98.63	111.29
21	A2	202	G	O4'-C1'-N9	7.72	120.08	108.50
21	A2	852	G	P-O5'-C5'	7.72	132.47	120.90
49	BQ	110	LYS	N-CA-C	-7.72	102.20	111.69
67	B1	515	G	P-O5'-C5'	-7.72	109.33	120.90
67	B1	1347	U	P-O3'-C3'	7.72	131.78	120.20
67	B1	1739	U	P-O3'-C3'	7.72	131.78	120.20
67	B1	2932	C	C3'-C2'-C1'	7.72	109.02	101.30
21	A2	556	G	O4'-C1'-C2'	7.71	115.31	107.60
21	A2	857	C	C3'-C2'-C1'	7.71	109.01	101.30
64	Bc	15	GLU	CB-CG-CD	-7.71	99.48	112.60
20	A3	47	GLN	OE1-CD-NE2	7.71	130.31	122.60
67	B1	1450	C	N1-C1'-C2'	7.71	123.57	112.00
12	AN	122	ILE	N-CA-C	7.71	119.02	108.84
31	BY	50	ALA	CA-C-N	7.71	130.94	120.38
31	BY	50	ALA	C-N-CA	7.71	130.94	120.38
34	B5	50	ILE	N-CA-CB	7.71	123.95	111.23
67	B1	528	G	N9-C1'-C2'	7.71	123.57	112.00
67	B1	969	U	O4'-C1'-C2'	-7.71	99.89	107.60
67	B1	1523	A	O4'-C1'-C2'	-7.71	98.09	105.80
21	A2	1323	A	C3'-C2'-C1'	7.71	109.21	101.50
24	AA	12	LYS	N-CA-C	7.71	121.17	111.69
47	BI	33	ALA	CA-C-N	7.71	130.61	120.28
47	BI	33	ALA	C-N-CA	7.71	130.61	120.28
67	B1	1616	A	O4'-C1'-N9	7.71	120.06	108.50
21	A2	949	G	P-O5'-C5'	7.71	132.46	120.90
23	AT	36	LEU	CA-C-N	7.71	130.46	120.44
23	AT	36	LEU	C-N-CA	7.71	130.46	120.44
67	B1	684	G	O4'-C1'-C2'	7.71	115.31	107.60
67	B1	1265	A	O4'-C1'-C2'	-7.71	98.09	105.80
4	AG	109	GLY	CA-C-N	7.71	130.92	120.44
4	AG	109	GLY	C-N-CA	7.71	130.92	120.44
11	A1	66	C	O4'-C1'-C2'	-7.71	99.89	107.60
21	A2	177	A	C1'-O4'-C4'	7.71	117.61	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	528	G	O4'-C1'-C2'	7.71	115.31	107.60
67	B1	900	C	O4'-C1'-C2'	-7.71	99.89	107.60
67	B1	2562	G	P-O3'-C3'	7.71	131.76	120.20
2	AK	100	MET	CA-C-N	7.70	130.46	120.44
2	AK	100	MET	C-N-CA	7.70	130.46	120.44
21	A2	156	A	C3'-C2'-C1'	7.70	109.00	101.30
67	B1	867	C	O4'-C1'-N1	7.70	120.06	108.50
67	B1	1346	G	O4'-C1'-C2'	7.70	115.30	107.60
67	B1	3041	U	C3'-C2'-C1'	7.70	109.20	101.50
52	BB	56	ALA	O-C-N	-7.70	116.03	121.65
67	B1	1226	G	O3'-P-O5'	-7.70	92.45	104.00
21	A2	47	A	P-O3'-C3'	7.70	131.75	120.20
64	Bc	16	ASN	CB-CA-C	-7.70	96.49	109.50
67	B1	1080	G	C5'-C4'-C3'	7.70	127.55	116.00
67	B1	1473	C	C1'-O4'-C4'	-7.70	102.20	109.90
67	B1	2635	C	P-O5'-C5'	7.70	132.45	120.90
32	BO	18	LYS	CA-C-N	7.70	131.75	120.90
32	BO	18	LYS	C-N-CA	7.70	131.75	120.90
38	Bb	28	TRP	N-CA-C	-7.70	105.85	114.62
20	A3	87	GLY	CA-C-N	7.70	130.59	120.28
20	A3	87	GLY	C-N-CA	7.70	130.59	120.28
21	A2	108	G	C1'-O4'-C4'	-7.70	102.20	109.90
67	B1	2196	C	N1-C1'-C2'	7.70	123.54	112.00
11	A1	50	G	O4'-C1'-C2'	-7.69	99.91	107.60
34	BK	18	ALA	CB-CA-C	7.69	122.04	110.50
67	B1	655	C	C3'-C2'-C1'	7.69	108.99	101.30
67	B1	165	G	C1'-O4'-C4'	-7.69	102.21	109.90
67	B1	1712	U	C4'-C3'-C2'	-7.69	94.91	102.60
67	B1	936	G	C2'-C3'-O3'	7.69	121.03	109.50
67	B1	654	C	N1-C1'-C2'	7.69	123.53	112.00
67	B1	1398	C	N1-C1'-C2'	7.69	123.53	112.00
67	B1	1795	C	N1-C1'-C2'	7.69	123.53	112.00
67	B1	2857	C	N1-C1'-C2'	7.69	123.53	112.00
68	B3	73	U	N1-C1'-C2'	7.68	123.53	112.00
2	AK	97	GLU	CA-C-N	7.68	130.57	120.28
2	AK	97	GLU	C-N-CA	7.68	130.57	120.28
34	BK	50	ILE	N-CA-CB	7.68	123.90	111.23
56	BH	87	SER	N-CA-CB	7.68	121.29	109.85
67	B1	448	A	O4'-C1'-C2'	-7.68	99.92	107.60
67	B1	2232	U	C1'-C2'-O2'	7.68	119.92	108.40
31	BY	102	ASN	OD1-CG-ND2	7.68	130.28	122.60
67	B1	1306	A	C3'-C2'-C1'	7.68	108.98	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	AO	125	PRO	CA-C-N	7.68	131.72	120.74
17	AO	125	PRO	C-N-CA	7.68	131.72	120.74
67	B1	2306	C	O4'-C1'-N1	7.68	120.02	108.50
48	BR	89	HIS	CE1-NE2-CD2	-7.67	101.33	109.00
67	B1	2078	A	C1'-O4'-C4'	7.67	117.58	109.90
67	B1	2720	U	O4'-C1'-C2'	-7.67	99.92	107.60
67	B1	2129	G	N9-C1'-C2'	7.67	123.51	112.00
21	A2	1303	C	N1-C1'-C2'	7.67	123.51	112.00
27	A0	44	C	O4'-C1'-C2'	-7.67	99.93	107.60
39	Be	7	THR	N-CA-C	-7.67	103.00	111.36
67	B1	1923	A	O4'-C1'-C2'	-7.67	98.13	105.80
67	B1	2144	U	O4'-C1'-N1	7.67	120.01	108.50
67	B1	1412	C	C3'-C2'-C1'	7.67	108.97	101.30
67	B1	2304	C	C3'-C2'-C1'	7.67	108.97	101.30
21	A2	113	U	O4'-C1'-N1	7.67	120.00	108.50
21	A2	538	C	C3'-C2'-C1'	7.67	108.97	101.30
67	B1	2924	G	N9-C1'-C2'	-7.67	100.50	112.00
11	A1	55	U	O4'-C1'-N1	7.67	120.00	108.50
67	B1	2830	C	O4'-C1'-C2'	-7.67	99.93	107.60
67	B1	2925	C	C1'-C2'-O2'	7.67	119.90	108.40
21	A2	494	G	O4'-C1'-C2'	7.66	115.26	107.60
37	BU	96	HIS	CE1-NE2-CD2	-7.66	101.34	109.00
67	B1	1673	C	N1-C1'-C2'	7.66	123.49	112.00
27	A0	16	C	O4'-C1'-C2'	-7.66	99.94	107.60
67	B1	713	C	C3'-C2'-C1'	7.66	108.96	101.30
67	B1	1694	G	O4'-C4'-C3'	-7.66	96.34	104.00
21	A2	1043	U	O4'-C1'-N1	7.66	119.99	108.50
21	A2	1067	G	O4'-C1'-C2'	-7.66	99.94	107.60
67	B1	458	U	N1-C1'-C2'	7.66	123.49	112.00
67	B1	518	A	C3'-C2'-C1'	7.66	109.16	101.50
67	B1	1140	C	C4'-C3'-C2'	-7.66	94.94	102.60
67	B1	2033	G	C1'-O4'-C4'	7.66	117.56	109.90
25	AH	14	GLU	O-C-N	-7.66	114.00	122.12
67	B1	2595	C	O4'-C1'-C2'	-7.66	99.94	107.60
21	A2	27	C	P-O5'-C5'	7.66	132.38	120.90
44	BW	67	LYS	CA-C-O	-7.66	112.78	120.82
67	B1	754	U	O4'-C1'-N1	7.66	119.98	108.50
67	B1	1407	A	C4'-C3'-C2'	7.66	110.25	102.60
67	B1	2590	C	C3'-C2'-C1'	7.66	108.96	101.30
21	A2	508	C	P-O5'-C5'	7.65	132.38	120.90
67	B1	1097	G	C5'-C4'-C3'	7.65	127.48	116.00
67	B1	1414	G	O4'-C1'-C2'	-7.65	98.15	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	A0	21	G	N9-C1'-C2'	7.65	123.48	112.00
45	Bi	12	ARG	CA-C-N	7.65	131.30	120.28
45	Bi	12	ARG	C-N-CA	7.65	131.30	120.28
67	B1	818	A	P-O5'-C5'	-7.65	109.42	120.90
68	B3	87	G	P-O3'-C3'	-7.65	108.72	120.20
21	A2	92	G	C1'-C2'-O2'	7.65	119.88	108.40
21	A2	227	C	P-O3'-C3'	-7.65	108.72	120.20
67	B1	727	A	N9-C1'-C2'	7.65	123.47	112.00
67	B1	2222	C	O4'-C1'-C2'	-7.65	99.95	107.60
67	B1	2254	U	O4'-C4'-C3'	-7.65	96.35	104.00
67	B1	2427	C	N1-C1'-C2'	7.65	123.48	112.00
67	B1	820	C	O4'-C1'-C2'	-7.65	99.95	107.60
6	AC	4	GLU	CA-C-N	7.65	130.84	120.44
6	AC	4	GLU	C-N-CA	7.65	130.84	120.44
21	A2	962	G	OP1-P-OP2	7.65	142.54	119.60
35	BL	17	HIS	CE1-NE2-CD2	-7.65	101.35	109.00
21	A2	238	G	C1'-O4'-C4'	7.65	117.55	109.90
21	A2	547	U	C1'-O4'-C4'	-7.65	102.25	109.90
21	A2	1022	U	C1'-O4'-C4'	7.65	117.55	109.90
67	B1	835	G	C1'-O4'-C4'	-7.64	102.25	109.90
67	B1	982	G	O4'-C1'-C2'	-7.64	99.95	107.60
67	B1	776	G	O4'-C1'-C2'	-7.64	99.96	107.60
21	A2	528	G	P-O3'-C3'	7.64	131.66	120.20
65	BJ	109	PRO	CA-N-CD	-7.64	101.30	112.00
67	B1	502	G	N9-C1'-C2'	-7.64	100.54	112.00
67	B1	594	U	O4'-C1'-C2'	-7.64	99.96	107.60
67	B1	1562	U	C3'-C2'-C1'	7.64	108.94	101.30
21	A2	186	U	O4'-C1'-N1	7.64	119.96	108.50
27	A0	37	A	O4'-C1'-N9	7.64	119.95	108.50
54	BF	56	TYR	O-C-N	-7.64	113.93	123.17
24	AA	138	ARG	NE-CZ-NH2	7.63	126.07	119.20
67	B1	2867	U	N1-C1'-C2'	7.63	123.45	112.00
41	Ba	26	LYS	N-CA-C	-7.63	101.87	112.25
62	BN	119	PRO	CA-C-O	-7.63	113.26	121.27
67	B1	2061	A	O4'-C1'-C2'	-7.63	98.17	105.80
6	AC	172	LYS	N-CA-C	-7.63	103.99	113.38
51	Bj	57	GLY	O-C-N	-7.63	116.25	122.81
67	B1	1972	C	N1-C1'-C2'	7.63	123.45	112.00
1	AQ	152	THR	CA-C-N	7.63	131.12	120.29
1	AQ	152	THR	C-N-CA	7.63	131.12	120.29
21	A2	168	G	N9-C1'-C2'	7.63	123.44	112.00
67	B1	231	G	O4'-C1'-C2'	-7.63	98.17	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1745	U	C3'-C2'-C1'	7.63	108.93	101.30
67	B1	2229	G	O4'-C1'-C2'	-7.63	99.97	107.60
67	B1	1860	A	O4'-C1'-C2'	-7.63	99.97	107.60
11	A1	39	A	P-O5'-C5'	7.62	132.34	120.90
32	BO	196	PHE	CA-CB-CG	7.62	121.42	113.80
67	B1	2308	C	C4'-C3'-C2'	-7.62	94.98	102.60
67	B1	2815	C	O4'-C1'-C2'	-7.62	99.98	107.60
21	A2	1345	G	C3'-C2'-C1'	-7.62	93.68	101.30
67	B1	392	G	C1'-O4'-C4'	-7.62	102.28	109.90
67	B1	997	A	C4'-C3'-C2'	-7.62	94.98	102.60
67	B1	1939	C	C3'-C2'-C1'	7.62	109.12	101.50
46	BA	50	VAL	N-CA-C	-7.62	97.17	108.45
46	BA	54	HIS	CA-CB-CG	-7.62	106.18	113.80
67	B1	596	C	N1-C1'-C2'	7.62	123.43	112.00
67	B1	2535	C	N1-C1'-C2'	7.62	123.43	112.00
67	B1	2808	C	N1-C1'-C2'	7.62	123.43	112.00
35	BL	123	VAL	N-CA-CB	7.62	121.06	111.46
67	B1	544	A	C2'-C3'-O3'	7.62	120.92	109.50
67	B1	1589	G	O4'-C1'-C2'	-7.62	99.98	107.60
23	AT	62	PRO	O-C-N	-7.62	113.56	122.85
27	A0	33	U	O4'-C1'-C2'	-7.62	99.98	107.60
48	BR	24	GLY	CA-C-O	-7.62	116.97	122.23
67	B1	1742	C	N1-C1'-C2'	7.62	123.42	112.00
67	B1	1906	G	O4'-C1'-N9	7.62	119.92	108.50
67	B1	1956	G	C3'-C2'-C1'	-7.62	93.68	101.30
7	AB	45	VAL	CA-C-N	7.61	130.48	120.28
7	AB	45	VAL	C-N-CA	7.61	130.48	120.28
21	A2	395	C	N1-C1'-C2'	7.61	123.42	112.00
54	BF	99	ILE	CA-C-O	7.61	127.96	120.27
67	B1	2889	A	O4'-C1'-C2'	-7.61	98.19	105.80
21	A2	142	G	O4'-C1'-C2'	7.61	115.21	107.60
1	AQ	88	ALA	CA-C-N	7.61	127.37	119.76
1	AQ	88	ALA	C-N-CA	7.61	127.37	119.76
15	AE	215	ILE	CA-C-O	-7.61	113.84	121.45
17	AO	6	HIS	CE1-NE2-CD2	-7.61	101.39	109.00
21	A2	528	G	C2'-C3'-O3'	7.61	120.92	109.50
36	Bf	27	VAL	CB-CA-C	-7.61	101.87	112.14
38	Bb	128	PRO	CA-C-N	7.61	135.40	121.70
38	Bb	128	PRO	C-N-CA	7.61	135.40	121.70
67	B1	3	G	O4'-C1'-N9	7.61	119.92	108.50
67	B1	1439	G	C3'-C2'-C1'	7.61	108.91	101.30
68	B3	55	G	N9-C1'-C2'	7.61	123.42	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1272	G	O4'-C1'-C2'	7.61	115.21	107.60
68	B3	93	G	C1'-O4'-C4'	-7.61	102.29	109.90
21	A2	543	C	O4'-C1'-C2'	-7.61	99.99	107.60
21	A2	1378	A	C1'-O4'-C4'	7.61	117.51	109.90
28	AV	35	ASP	N-CA-C	7.61	120.46	111.71
67	B1	138	U	O4'-C1'-C2'	-7.61	99.99	107.60
67	B1	732	G	C1'-C2'-O2'	7.61	119.81	108.40
15	AE	179	PHE	CA-CB-CG	7.61	121.41	113.80
67	B1	406	G	P-O3'-C3'	7.61	131.61	120.20
67	B1	1921	U	C1'-C2'-O2'	7.60	119.81	108.40
16	AJ	63	ALA	O-C-N	7.60	129.17	120.58
21	A2	295	G	N9-C1'-C2'	7.60	123.40	112.00
21	A2	827	G	C4'-C3'-O3'	-7.60	101.60	113.00
63	Bg	25	PRO	CA-C-N	7.60	131.23	120.28
63	Bg	25	PRO	C-N-CA	7.60	131.23	120.28
67	B1	620	G	O4'-C1'-C2'	7.60	115.20	107.60
67	B1	2851	A	O4'-C1'-C2'	7.60	115.20	107.60
67	B1	547	C	O4'-C1'-N1	7.60	119.90	108.50
67	B1	2624	G	O4'-C1'-N9	7.60	119.90	108.50
67	B1	745	C	C1'-C2'-O2'	7.60	119.80	108.40
67	B1	2691	G	N9-C1'-C2'	7.60	123.39	112.00
35	BL	105	VAL	CA-C-N	7.60	132.86	120.63
35	BL	105	VAL	C-N-CA	7.60	132.86	120.63
11	A1	17	C	O4'-C1'-C2'	-7.59	100.01	107.60
21	A2	694	U	O4'-C1'-C2'	-7.59	100.00	107.60
67	B1	745	C	C1'-O4'-C4'	-7.59	102.31	109.90
67	B1	2239	C	P-O5'-C5'	-7.59	109.51	120.90
67	B1	2967	C	N1-C1'-C2'	7.59	123.39	112.00
67	B1	2706	C	O4'-C1'-C2'	-7.59	100.01	107.60
21	A2	504	G	C4'-C3'-C2'	-7.59	95.01	102.60
21	A2	805	C	P-O3'-C3'	-7.59	108.81	120.20
67	B1	1725	A	O4'-C1'-C2'	-7.59	100.01	107.60
21	A2	519	G	O4'-C1'-C2'	-7.59	98.21	105.80
61	Bd	16	ARG	CA-CB-CG	-7.59	98.92	114.10
67	B1	2543	A	O4'-C1'-N9	7.59	119.58	108.20
67	B1	2574	G	C1'-O4'-C4'	7.59	117.49	109.90
21	A2	271	G	N9-C1'-C2'	7.59	123.38	112.00
21	A2	393	A	C1'-O4'-C4'	7.59	117.49	109.90
34	B5	24	VAL	CA-C-O	7.59	129.53	120.65
21	A2	714	G	O4'-C1'-N9	7.59	119.88	108.50
41	Ba	73	LYS	CA-C-O	-7.59	112.11	120.38
47	BI	88	ASP	N-CA-CB	7.59	121.01	110.01

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1496	A	O4'-C1'-N9	7.59	119.88	108.50
21	A2	1144	G	P-O5'-C5'	7.58	132.27	120.90
21	A2	1339	G	C1'-O4'-C4'	-7.58	102.32	109.90
65	BJ	47	HIS	CB-CA-C	7.58	125.33	109.79
67	B1	768	C	C1'-O4'-C4'	-7.58	102.32	109.90
67	B1	1519	G	C1'-O4'-C4'	7.58	117.48	109.90
67	B1	2413	G	C4'-C3'-C2'	-7.58	95.02	102.60
67	B1	3027	C	C1'-O4'-C4'	-7.58	102.32	109.90
67	B1	1141	C	C3'-C2'-C1'	7.58	108.88	101.30
67	B1	2619	U	O4'-C1'-C2'	-7.58	98.22	105.80
67	B1	1570	C	O3'-P-O5'	7.58	115.37	104.00
21	A2	463	G	O4'-C1'-C2'	7.58	115.18	107.60
21	A2	943	C	O4'-C1'-C2'	-7.58	100.02	107.60
52	BB	102	ILE	CA-C-O	-7.58	113.26	119.47
67	B1	2273	U	N1-C1'-C2'	7.58	123.36	112.00
67	B1	2490	C	N1-C1'-C2'	7.58	123.36	112.00
67	B1	2935	A	P-O3'-C3'	7.58	131.56	120.20
8	AR	30	HIS	CA-CB-CG	-7.57	106.23	113.80
21	A2	392	G	N9-C1'-C2'	7.57	123.36	112.00
68	B3	54	A	O4'-C1'-N9	7.57	119.86	108.50
27	A0	50	C	N1-C1'-C2'	7.57	123.36	112.00
43	Bk	33	MET	CA-C-N	7.57	127.50	119.85
43	Bk	33	MET	C-N-CA	7.57	127.50	119.85
67	B1	208	A	O4'-C1'-C2'	-7.57	100.03	107.60
67	B1	1580	G	C3'-C2'-C1'	-7.57	93.73	101.30
67	B1	1221	U	C5'-C4'-C3'	-7.57	104.65	116.00
21	A2	358	G	O4'-C1'-N9	7.57	119.85	108.50
21	A2	718	G	C1'-O4'-C4'	-7.57	102.33	109.90
21	A2	1269	G	C4'-C3'-C2'	-7.57	95.03	102.60
53	BD	82	PHE	CA-CB-CG	7.57	121.37	113.80
67	B1	2289	A	C3'-C2'-C1'	7.57	108.87	101.30
67	B1	2658	G	O4'-C4'-C3'	7.57	111.57	104.00
21	A2	415	C	C3'-C2'-C1'	7.57	108.87	101.30
67	B1	447	G	C1'-O4'-C4'	-7.57	102.33	109.90
67	B1	1485	A	C2'-C3'-O3'	7.57	120.85	109.50
67	B1	809	A	C1'-O4'-C4'	7.56	117.46	109.90
21	A2	241	U	O4'-C1'-C2'	-7.56	100.04	107.60
24	AA	12	LYS	CA-C-N	7.56	135.31	121.70
24	AA	12	LYS	C-N-CA	7.56	135.31	121.70
67	B1	1530	A	N9-C1'-C2'	-7.56	102.66	114.00
67	B1	2917	G	C5'-C4'-C3'	7.56	127.34	116.00
67	B1	354	G	O4'-C1'-C2'	7.56	115.16	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	348	C	C1'-O4'-C4'	-7.56	102.34	109.90
67	B1	2189	C	N1-C1'-C2'	7.56	123.34	112.00
67	B1	2218	C	C1'-C2'-O2'	7.56	119.73	108.40
67	B1	2414	G	P-O3'-C3'	-7.56	108.86	120.20
67	B1	2676	A	O4'-C1'-C2'	-7.56	100.04	107.60
21	A2	610	G	C1'-O4'-C4'	-7.56	102.34	109.90
21	A2	1187	A	C3'-C2'-C1'	7.56	108.86	101.30
67	B1	994	G	C2'-C3'-O3'	7.56	120.83	109.50
67	B1	459	C	N1-C1'-C2'	7.55	123.33	112.00
67	B1	2461	C	C3'-C2'-C1'	7.55	108.85	101.30
6	AC	47	PHE	CA-CB-CG	-7.55	106.25	113.80
34	BK	24	VAL	CA-C-O	7.55	129.49	120.65
65	BJ	126	ALA	N-CA-C	7.55	120.58	111.82
67	B1	3041	U	P-O3'-C3'	7.55	131.53	120.20
3	AI	35	GLY	CA-C-N	7.55	130.71	120.44
3	AI	35	GLY	C-N-CA	7.55	130.71	120.44
11	A1	47	G	C1'-C2'-O2'	7.55	119.72	108.40
21	A2	1164	A	C1'-O4'-C4'	-7.55	102.35	109.90
67	B1	1604	G	C3'-C2'-C1'	-7.55	93.75	101.30
20	A3	47	GLN	N-CA-C	-7.55	104.31	113.97
21	A2	483	G	O4'-C1'-N9	7.55	119.82	108.50
21	A2	976	A	O4'-C1'-N9	7.55	119.82	108.50
67	B1	1291	C	O4'-C1'-N1	7.55	119.82	108.50
67	B1	2351	G	N9-C1'-C2'	-7.55	102.68	114.00
68	B3	83	C	O4'-C1'-C2'	-7.55	100.05	107.60
11	A1	27	A	N9-C1'-C2'	7.54	123.32	112.00
21	A2	680	C	C1'-O4'-C4'	7.54	117.44	109.90
21	A2	952	A	O4'-C1'-C2'	-7.54	100.06	107.60
21	A2	1169	C	O4'-C1'-C2'	-7.54	100.06	107.60
27	A0	56	C	N1-C1'-C2'	7.54	123.31	112.00
67	B1	391	C	C3'-C2'-C1'	7.54	108.84	101.30
6	AC	27	ARG	CA-C-O	7.54	128.41	120.42
21	A2	724	C	C1'-O4'-C4'	-7.54	102.36	109.90
31	BY	102	ASN	CA-CB-CG	7.54	120.14	112.60
67	B1	2955	G	C3'-C2'-C1'	7.54	108.84	101.30
12	AN	98	ASP	N-CA-C	-7.54	98.03	110.17
45	Bi	77	ALA	CA-C-N	7.54	130.79	120.46
45	Bi	77	ALA	C-N-CA	7.54	130.79	120.46
67	B1	219	G	O4'-C4'-C3'	-7.54	96.46	104.00
67	B1	1755	C	O4'-C1'-C2'	-7.54	100.06	107.60
1	AQ	66	PHE	CA-CB-CG	-7.54	106.27	113.80
67	B1	578	C	O4'-C1'-C2'	-7.53	100.07	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	BQ	118	LYS	N-CA-C	7.53	119.57	111.36
21	A2	1221	A	N9-C1'-C2'	7.53	123.30	112.00
27	A0	74	C	O3'-P-O5'	-7.53	92.70	104.00
30	AU	27	LYS	CA-C-N	7.53	128.14	120.38
30	AU	27	LYS	C-N-CA	7.53	128.14	120.38
38	Bb	52	LEU	N-CA-CB	7.53	121.82	110.22
54	BF	73	ALA	N-CA-C	7.53	119.49	111.28
67	B1	1858	G	P-O5'-C5'	7.53	132.20	120.90
8	AR	93	PRO	CB-CA-C	-7.53	101.75	111.46
21	A2	342	G	C1'-C2'-O2'	7.53	119.69	108.40
57	BZ	57	ASP	CA-C-N	-7.53	115.15	123.43
57	BZ	57	ASP	C-N-CA	-7.53	115.15	123.43
67	B1	764	G	N9-C1'-C2'	-7.53	100.71	112.00
67	B1	2904	U	C2'-C3'-O3'	7.53	124.99	113.70
21	A2	402	G	P-O5'-C5'	7.53	132.19	120.90
52	BB	181	LYS	CA-C-N	7.53	131.75	120.31
52	BB	181	LYS	C-N-CA	7.53	131.75	120.31
65	BJ	26	TYR	N-CA-C	-7.53	96.97	109.24
11	A1	27	A	C4'-C3'-C2'	-7.52	95.08	102.60
21	A2	6	G	C1'-C2'-O2'	7.52	119.68	108.40
21	A2	470	G	C1'-O4'-C4'	7.52	117.22	109.70
67	B1	2665	G	O4'-C1'-N9	7.52	119.78	108.50
6	AC	8	ILE	N-CA-CB	7.52	120.77	110.54
21	A2	1294	G	C3'-C2'-C1'	7.52	108.82	101.30
21	A2	1403	U	O4'-C1'-C2'	-7.52	100.08	107.60
67	B1	1886	C	O4'-C1'-N1	7.52	119.78	108.50
33	BC	62	ASN	N-CA-C	-7.52	99.31	110.06
67	B1	1563	G	O3'-P-O5'	-7.52	92.72	104.00
67	B1	2174	G	N9-C1'-C2'	-7.52	102.72	114.00
28	B6	82	GLU	CA-C-N	7.52	129.24	119.84
28	B6	82	GLU	C-N-CA	7.52	129.24	119.84
67	B1	428	A	C1'-O4'-C4'	7.52	117.42	109.90
67	B1	2605	G	O4'-C1'-N9	7.52	119.47	108.20
21	A2	217	C	O4'-C1'-C2'	-7.51	100.08	107.60
25	AH	103	VAL	CA-CB-CG2	-7.51	97.62	110.40
67	B1	78	C	C4'-C3'-O3'	-7.51	101.73	113.00
67	B1	1077	G	C3'-C2'-C1'	-7.51	93.79	101.30
56	BH	16	THR	CA-C-N	-7.51	112.47	120.66
56	BH	16	THR	C-N-CA	-7.51	112.47	120.66
35	BL	49	TRP	N-CA-C	-7.51	98.24	108.38
11	A1	51	G	C1'-C2'-O2'	7.51	119.67	108.40
21	A2	100	A	C3'-C2'-C1'	7.51	108.81	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	218	C	C3'-C2'-C1'	7.51	108.81	101.30
67	B1	55	G	C1'-O4'-C4'	7.51	117.41	109.90
67	B1	845	U	O4'-C1'-C2'	-7.51	100.09	107.60
67	B1	2860	G	O4'-C1'-N9	7.51	119.76	108.50
21	A2	422	U	C1'-O4'-C4'	7.51	117.21	109.70
67	B1	2136	G	C1'-O4'-C4'	-7.51	102.39	109.90
21	A2	626	G	N9-C1'-C2'	-7.51	100.74	112.00
68	B3	97	G	O4'-C1'-N9	7.51	119.76	108.50
67	B1	2897	C	O4'-C1'-C2'	-7.50	100.09	107.60
42	BT	56	THR	CA-C-O	-7.50	112.33	121.11
67	B1	2028	G	C1'-O4'-C4'	-7.50	102.40	109.90
20	A3	52	ILE	CB-CA-C	7.50	121.80	110.62
36	Bf	33	ARG	CB-CA-C	7.50	125.35	110.42
52	BB	170	LYS	CA-C-O	-7.50	113.89	120.19
21	A2	434	A	O4'-C1'-N9	7.50	119.75	108.50
21	A2	699	C	C1'-O4'-C4'	-7.50	102.40	109.90
67	B1	2305	U	O4'-C1'-N1	7.50	119.75	108.50
67	B1	2731	C	C1'-O4'-C4'	7.50	117.40	109.90
17	AO	90	ASP	CA-CB-CG	7.50	120.10	112.60
21	A2	1054	A	O4'-C1'-C2'	-7.50	100.10	107.60
35	BL	15	HIS	CA-C-N	7.50	131.71	120.31
35	BL	15	HIS	C-N-CA	7.50	131.71	120.31
39	Be	18	ILE	N-CA-C	7.50	119.52	108.65
67	B1	1519	G	O4'-C1'-N9	7.50	119.74	108.50
67	B1	2989	A	O5'-C5'-C4'	-7.50	100.25	111.50
67	B1	1850	C	O4'-C1'-C2'	-7.50	100.11	107.60
67	B1	3037	G	O4'-C1'-C2'	-7.50	100.11	107.60
15	AE	37	HIS	CA-CB-CG	7.49	121.29	113.80
67	B1	895	C	N1-C1'-C2'	7.49	123.24	112.00
67	B1	1452	G	C3'-C2'-C1'	-7.49	93.81	101.30
67	B1	2009	G	O4'-C1'-C2'	7.49	115.09	107.60
67	B1	1063	C	O4'-C1'-N1	7.49	119.74	108.50
67	B1	1671	A	O4'-C1'-C2'	-7.49	100.11	107.60
67	B1	2327	C	O4'-C1'-C2'	-7.49	100.11	107.60
21	A2	1079	G	C1'-O4'-C4'	7.49	117.39	109.90
21	A2	1192	C	O4'-C1'-C2'	-7.49	100.11	107.60
40	BE	74	GLU	O-C-N	-7.49	113.58	121.30
67	B1	993	G	C1'-O4'-C4'	-7.49	102.41	109.90
21	A2	1227	A	N9-C1'-C2'	7.49	123.23	112.00
33	BC	296	LYS	N-CA-C	-7.49	96.93	108.76
53	BD	243	THR	N-CA-C	-7.49	96.74	109.24
21	A2	1422	G	O4'-C1'-C2'	-7.49	100.11	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	AA	101	THR	N-CA-CB	7.49	123.16	111.56
35	BL	47	TRP	O-C-N	-7.49	112.63	122.59
67	B1	673	A	C1'-O4'-C4'	-7.49	102.41	109.90
62	BN	167	LYS	CA-C-O	-7.48	112.49	120.42
49	BQ	115	ILE	CB-CA-C	7.48	121.77	110.62
18	AF	4	GLU	CA-C-N	7.48	131.19	120.79
18	AF	4	GLU	C-N-CA	7.48	131.19	120.79
21	A2	166	A	C1'-O4'-C4'	-7.48	102.42	109.90
21	A2	949	G	C1'-O4'-C4'	-7.48	102.42	109.90
22	AY	35	GLY	CA-C-O	7.48	127.28	119.27
27	A0	59	A	C1'-O4'-C4'	7.48	117.38	109.90
67	B1	408	C	O3'-P-O5'	-7.48	92.78	104.00
67	B1	2501	G	C2'-C3'-O3'	7.48	124.92	113.70
42	BT	56	THR	O-C-N	7.48	132.44	123.24
34	BK	76	GLU	N-CA-C	7.48	119.51	111.36
67	B1	163	G	C5'-C4'-C3'	7.48	127.22	116.00
21	A2	167	G	C3'-C2'-C1'	7.48	108.78	101.30
67	B1	2693	G	C4'-C3'-C2'	-7.48	95.12	102.60
14	AM	33	ILE	N-CA-C	7.48	118.27	110.72
21	A2	119	A	C3'-C2'-C1'	7.48	108.78	101.30
21	A2	1047	U	C1'-O4'-C4'	-7.48	102.42	109.90
21	A2	753	G	O4'-C1'-C2'	-7.47	100.12	107.60
33	BC	192	VAL	CA-C-N	7.47	130.91	120.29
33	BC	192	VAL	C-N-CA	7.47	130.91	120.29
47	BI	10	ILE	CA-C-N	7.47	130.30	120.28
47	BI	10	ILE	C-N-CA	7.47	130.30	120.28
37	BU	21	HIS	CE1-NE2-CD2	-7.47	101.53	109.00
67	B1	760	G	N9-C1'-C2'	7.47	123.21	112.00
67	B1	1568	A	P-O3'-C3'	-7.47	108.99	120.20
67	B1	1649	G	N9-C1'-C2'	7.47	123.21	112.00
27	A0	75	C	N1-C1'-C2'	7.47	123.21	112.00
67	B1	1814	A	C1'-O4'-C4'	-7.47	102.43	109.90
21	A2	1404	C	C5'-C4'-C3'	7.47	127.20	116.00
33	BC	242	ARG	N-CA-CB	-7.47	104.64	111.59
67	B1	1999	G	O4'-C1'-N9	7.47	119.70	108.50
67	B1	2809	G	O4'-C1'-C2'	7.47	115.07	107.60
67	B1	2866	A	C1'-O4'-C4'	-7.47	102.43	109.90
48	BR	14	LYS	N-CA-C	7.47	119.20	111.14
53	BD	119	ALA	CA-C-N	7.47	131.03	120.28
53	BD	119	ALA	C-N-CA	7.47	131.03	120.28
58	BP	88	THR	CA-CB-OG1	7.47	120.80	109.60
67	B1	66	C	C3'-C2'-C1'	7.47	108.77	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	171	A	N9-C1'-C2'	7.47	123.20	112.00
68	B3	112	C	C4'-C3'-C2'	-7.47	95.13	102.60
21	A2	229	G	P-O5'-C5'	-7.46	109.70	120.90
21	A2	1406	U	C1'-O4'-C4'	7.46	117.36	109.90
67	B1	1491	U	P-O5'-C5'	7.46	132.10	120.90
67	B1	2172	G	O4'-C1'-C2'	7.46	115.06	107.60
67	B1	1403	C	C4'-C3'-C2'	-7.46	95.14	102.60
54	BF	177	LYS	N-CA-C	-7.46	99.68	111.02
67	B1	1374	G	C3'-C2'-C1'	-7.46	93.84	101.30
67	B1	1700	U	C1'-O4'-C4'	7.46	117.36	109.90
67	B1	1770	A	C1'-C2'-O2'	7.46	119.59	108.40
20	BG	55	GLU	N-CA-CB	7.46	121.52	110.33
11	A1	54	G	C1'-O4'-C4'	-7.46	102.44	109.90
26	AP	28	GLY	CA-C-O	-7.46	110.86	121.52
57	BZ	50	TYR	CA-C-N	7.46	130.27	120.28
57	BZ	50	TYR	C-N-CA	7.46	130.27	120.28
34	B5	76	GLU	N-CA-C	7.46	119.49	111.36
21	A2	1280	C	N1-C1'-C2'	7.46	123.18	112.00
67	B1	2800	U	C4'-C3'-C2'	-7.45	95.15	102.60
68	B3	76	U	O4'-C1'-N1	7.45	119.68	108.50
67	B1	2103	C	C1'-O4'-C4'	-7.45	102.45	109.90
68	B3	43	C	N1-C1'-C2'	7.45	123.17	112.00
15	AE	158	TYR	CA-C-N	7.45	130.48	120.65
15	AE	158	TYR	C-N-CA	7.45	130.48	120.65
21	A2	262	G	C3'-C2'-C1'	7.45	108.75	101.30
21	A2	1298	G	N9-C1'-C2'	7.45	123.17	112.00
25	AH	87	ARG	N-CA-C	7.45	121.80	111.74
33	BC	278	HIS	CA-CB-CG	7.45	121.25	113.80
21	A2	796	C	P-O5'-C5'	7.45	132.07	120.90
47	BI	88	ASP	CA-CB-CG	7.45	120.05	112.60
67	B1	232	U	C1'-O4'-C4'	7.45	117.34	109.90
67	B1	368	U	N1-C1'-C2'	7.45	123.17	112.00
67	B1	744	G	C1'-O4'-C4'	-7.45	102.45	109.90
67	B1	2458	U	C1'-O4'-C4'	7.45	117.15	109.70
67	B1	2574	G	C3'-C2'-C1'	7.45	108.75	101.30
41	Ba	8	GLU	CB-CA-C	-7.44	95.96	110.10
67	B1	676	G	N9-C1'-C2'	7.44	123.17	112.00
21	A2	1470	G	N9-C1'-C2'	7.44	123.17	112.00
43	Bk	43	ARG	CB-CA-C	-7.44	98.44	110.79
49	BQ	85	LYS	CB-CA-C	-7.44	98.03	110.68
52	BB	108	VAL	CA-C-O	-7.44	113.53	121.19
62	BN	83	HIS	ND1-CE1-NE2	7.44	115.84	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	313	U	N1-C1'-C2'	7.44	123.16	112.00
67	B1	636	G	C1'-O4'-C4'	-7.44	102.46	109.90
68	B3	7	C	O4'-C1'-N1	7.44	119.67	108.50
21	A2	654	U	O4'-C1'-C2'	-7.44	100.16	107.60
21	A2	1067	G	O3'-P-O5'	7.44	115.16	104.00
67	B1	1812	A	O3'-P-O5'	-7.44	92.84	104.00
67	B1	1946	G	C1'-O4'-C4'	7.44	117.34	109.90
67	B1	1956	G	O3'-P-O5'	7.44	115.16	104.00
2	AK	52	ALA	N-CA-CB	7.44	120.86	110.07
67	B1	2778	A	N9-C1'-C2'	7.44	123.16	112.00
5	AW	43	THR	N-CA-C	-7.44	96.61	108.73
21	A2	643	G	C1'-O4'-C4'	-7.44	102.46	109.90
57	BZ	96	ILE	CA-C-N	7.44	133.14	120.72
57	BZ	96	ILE	C-N-CA	7.44	133.14	120.72
67	B1	1223	A	C3'-C2'-C1'	7.44	108.74	101.30
67	B1	2372	C	O4'-C1'-C2'	-7.44	98.36	105.80
21	A2	315	A	O4'-C1'-C2'	-7.44	100.16	107.60
67	B1	433	C	O4'-C1'-C2'	-7.44	100.16	107.60
67	B1	2329	A	O4'-C1'-N9	7.44	119.66	108.50
6	AC	49	ALA	N-CA-C	-7.43	103.26	111.36
67	B1	129	C	O4'-C1'-C2'	-7.43	100.17	107.60
67	B1	857	U	O4'-C1'-C2'	7.43	115.03	107.60
67	B1	2301	C	N1-C1'-C2'	7.43	123.15	112.00
21	A2	484	U	O4'-C1'-C2'	-7.43	98.37	105.80
41	Ba	30	ARG	N-CA-CB	7.43	121.16	110.16
66	B1	29	LYS	CA-C-N	7.43	130.98	120.28
66	B1	29	LYS	C-N-CA	7.43	130.98	120.28
67	B1	553	C	O4'-C1'-C2'	-7.43	100.17	107.60
67	B1	1719	C	P-O3'-C3'	7.43	131.35	120.20
67	B1	2395	C	C3'-C2'-C1'	7.43	108.73	101.30
21	A2	697	A	O4'-C1'-C2'	7.43	115.03	107.60
27	A0	11	C	C1'-O4'-C4'	-7.43	102.47	109.90
61	Bd	79	VAL	CB-CA-C	-7.43	101.97	112.22
67	B1	2257	A	N9-C1'-C2'	-7.43	100.85	112.00
21	A2	116	C	C1'-O4'-C4'	-7.43	102.47	109.90
21	A2	1194	C	N1-C1'-C2'	7.43	123.14	112.00
21	A2	1399	G	C4'-C3'-C2'	-7.43	95.17	102.60
67	B1	462	A	N9-C1'-C2'	7.43	123.14	112.00
67	B1	1171	G	C1'-O4'-C4'	7.43	117.33	109.90
67	B1	1910	C	O4'-C1'-C2'	-7.43	100.17	107.60
67	B1	2119	C	C1'-O4'-C4'	7.43	117.33	109.90
67	B1	2407	G	N9-C1'-C2'	7.43	123.14	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1008	U	O4'-C1'-C2'	-7.43	100.17	107.60
21	A2	1448	A	O4'-C1'-C2'	-7.43	100.17	107.60
25	AH	61	VAL	N-CA-CB	7.43	119.90	110.99
32	BO	70	ASP	CA-CB-CG	-7.43	105.17	112.60
67	B1	407	A	P-O5'-C5'	-7.43	109.76	120.90
21	A2	495	G	C1'-C2'-O2'	7.42	119.54	108.40
21	A2	1425	C	P-O5'-C5'	7.42	132.03	120.90
67	B1	554	C	O4'-C1'-C2'	-7.42	100.18	107.60
67	B1	1764	G	C2'-C3'-O3'	7.42	120.64	109.50
67	B1	2301	C	O4'-C1'-C2'	-7.42	100.17	107.60
67	B1	2303	A	O4'-C1'-C2'	-7.42	100.18	107.60
3	AI	62	ARG	N-CA-C	-7.42	96.31	108.41
57	BZ	13	THR	N-CA-C	-7.42	102.81	112.68
67	B1	1642	G	C1'-O4'-C4'	7.42	117.12	109.70
42	BT	65	LYS	N-CA-C	-7.42	97.30	109.40
67	B1	1135	A	C5'-C4'-C3'	-7.42	104.87	116.00
67	B1	2774	C	C1'-C2'-O2'	7.42	119.53	108.40
21	A2	284	A	C3'-C2'-C1'	7.42	108.72	101.30
21	A2	674	C	C3'-C2'-C1'	7.42	108.72	101.30
67	B1	1669	A	C1'-O4'-C4'	-7.42	102.48	109.90
67	B1	2618	C	C3'-C2'-C1'	7.42	108.72	101.30
67	B1	215	A	P-O3'-C3'	7.42	131.32	120.20
67	B1	1245	C	C1'-O4'-C4'	7.42	117.32	109.90
68	B3	68	C	P-O5'-C5'	7.42	132.02	120.90
67	B1	771	G	P-O5'-C5'	7.42	132.02	120.90
48	BR	8	PHE	CB-CA-C	-7.41	99.24	110.88
67	B1	500	C	O4'-C1'-C2'	-7.41	100.19	107.60
67	B1	2021	G	C1'-O4'-C4'	-7.41	102.49	109.90
67	B1	2739	G	N9-C1'-C2'	7.41	123.12	112.00
21	A2	1459	G	C2'-C3'-O3'	7.41	120.61	109.50
29	AL	39	PRO	CA-C-N	7.41	134.49	122.48
29	AL	39	PRO	C-N-CA	7.41	134.49	122.48
67	B1	293	G	N9-C1'-C2'	-7.41	102.88	114.00
7	AB	35	VAL	N-CA-CB	-7.41	102.65	110.72
25	AH	7	GLU	CA-C-N	7.41	130.95	120.28
25	AH	7	GLU	C-N-CA	7.41	130.95	120.28
56	BH	110	LYS	CA-C-N	7.41	130.54	120.54
56	BH	110	LYS	C-N-CA	7.41	130.54	120.54
63	Bg	35	GLY	CA-C-N	7.41	135.69	121.54
63	Bg	35	GLY	C-N-CA	7.41	135.69	121.54
21	A2	710	G	C4'-C3'-O3'	-7.41	101.89	113.00
43	Bk	53	ARG	N-CA-C	7.41	119.30	108.86

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
34	BK	17	ARG	CA-C-N	7.41	135.03	121.70
34	BK	17	ARG	C-N-CA	7.41	135.03	121.70
21	A2	1437	G	C3'-C2'-C1'	7.40	108.70	101.30
43	Bk	43	ARG	CA-C-N	7.40	130.20	120.28
43	Bk	43	ARG	C-N-CA	7.40	130.20	120.28
67	B1	2566	A	O4'-C1'-C2'	-7.40	100.20	107.60
67	B1	434	G	O4'-C1'-C2'	7.40	115.00	107.60
67	B1	517	A	O4'-C1'-C2'	-7.40	100.20	107.60
67	B1	1202	G	N9-C1'-C2'	7.40	123.11	112.00
21	A2	1307	G	P-O3'-C3'	7.40	131.30	120.20
67	B1	576	G	N9-C1'-C2'	7.40	123.10	112.00
12	AN	87	PHE	CA-CB-CG	7.40	121.20	113.80
51	Bj	54	LYS	CG-CD-CE	7.40	128.32	111.30
53	BD	169	ASP	CA-CB-CG	-7.40	105.20	112.60
67	B1	1273	C	N1-C1'-C2'	7.40	123.09	112.00
61	Bd	11	ARG	N-CA-C	-7.40	95.05	110.80
68	B3	124	A	C2'-C3'-O3'	7.40	120.59	109.50
21	A2	897	A	P-O5'-C5'	-7.39	109.81	120.90
21	A2	1093	C	C3'-C2'-C1'	7.39	108.89	101.50
67	B1	428	A	N9-C1'-C2'	-7.39	100.91	112.00
67	B1	1964	G	O4'-C1'-C2'	7.39	115.00	107.60
67	B1	2353	C	C4'-C3'-C2'	-7.39	95.20	102.60
67	B1	2828	G	N9-C1'-C2'	7.39	123.09	112.00
21	A2	1271	G	O4'-C1'-C2'	-7.39	100.21	107.60
25	AH	8	ARG	N-CA-CB	7.39	121.60	110.22
67	B1	216	A	O4'-C1'-C2'	-7.39	100.21	107.60
67	B1	1420	U	O4'-C4'-C3'	-7.39	96.61	104.00
68	B3	81	C	O4'-C1'-C2'	-7.39	100.21	107.60
15	AE	58	THR	CA-CB-OG1	7.39	120.69	109.60
21	A2	1139	A	P-O5'-C5'	-7.39	109.81	120.90
67	B1	2548	A	O4'-C4'-C3'	-7.39	98.71	106.10
1	AQ	84	LYS	N-CA-C	7.39	120.21	111.71
7	AB	8	PRO	CA-C-N	7.39	130.78	120.29
7	AB	8	PRO	C-N-CA	7.39	130.78	120.29
67	B1	70	G	O4'-C4'-C3'	-7.39	98.71	106.10
67	B1	753	A	P-O3'-C3'	7.39	131.28	120.20
21	A2	71	C	C3'-C2'-C1'	7.39	108.69	101.30
31	BY	78	LYS	CA-C-N	7.39	127.55	120.31
31	BY	78	LYS	C-N-CA	7.39	127.55	120.31
35	BL	7	LYS	N-CA-C	7.39	119.41	111.36
67	B1	228	U	O4'-C1'-N1	7.39	119.58	108.50
21	A2	1021	C	C1'-O4'-C4'	-7.38	102.52	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
39	Be	58	LYS	N-CA-C	7.38	118.97	111.07
58	BP	20	LYS	N-CA-CB	7.38	120.97	110.12
67	B1	701	G	O4'-C1'-C2'	7.38	114.98	107.60
67	B1	1206	A	C3'-C2'-C1'	7.38	108.68	101.30
67	B1	3001	C	N1-C1'-C2'	7.38	123.08	112.00
29	AL	56	GLU	N-CA-CB	-7.38	99.24	111.20
62	BN	162	TYR	N-CA-C	-7.38	104.79	114.31
67	B1	203	G	P-O5'-C5'	-7.38	109.83	120.90
11	A1	58	A	O4'-C1'-C2'	-7.38	100.22	107.60
21	A2	152	G	P-O3'-C3'	7.38	131.27	120.20
67	B1	1537	U	N1-C1'-C2'	7.38	123.07	112.00
21	A2	399	A	O4'-C4'-C3'	-7.38	96.62	104.00
21	A2	865	A	C1'-O4'-C4'	7.38	117.28	109.90
21	A2	1141	G	O4'-C1'-C2'	7.38	114.98	107.60
29	AL	49	THR	N-CA-CB	7.38	124.39	111.55
67	B1	20	C	C3'-C2'-C1'	7.38	108.68	101.30
67	B1	909	A	C1'-O4'-C4'	7.38	117.08	109.70
67	B1	565	A	O4'-C4'-C3'	-7.38	96.62	104.00
67	B1	2039	U	N1-C1'-C2'	7.38	123.06	112.00
68	B3	75	G	O4'-C1'-C2'	-7.38	100.22	107.60
21	A2	1101	G	C1'-O4'-C4'	7.38	117.28	109.90
46	BA	160	ASN	N-CA-CB	7.38	123.50	110.37
67	B1	1542	U	P-O3'-C3'	7.38	131.26	120.20
67	B1	2362	U	C2'-C3'-O3'	7.38	120.56	109.50
11	A1	73	C	C3'-C2'-C1'	7.37	108.67	101.30
21	A2	969	A	O4'-C1'-C2'	-7.37	100.23	107.60
23	AT	47	LEU	CA-C-N	7.37	130.16	120.28
23	AT	47	LEU	C-N-CA	7.37	130.16	120.28
67	B1	1969	C	C1'-O4'-C4'	-7.37	102.53	109.90
67	B1	2001	U	O4'-C1'-C2'	-7.37	100.23	107.60
7	AB	61	LYS	CA-C-O	-7.37	112.74	120.55
62	BN	65	ALA	CA-C-N	7.37	130.16	120.28
62	BN	65	ALA	C-N-CA	7.37	130.16	120.28
67	B1	1381	C	N1-C1'-C2'	7.37	123.06	112.00
67	B1	2277	G	P-O5'-C5'	7.37	131.96	120.90
67	B1	2840	C	C3'-C2'-C1'	7.37	108.87	101.50
67	B1	2877	A	C1'-O4'-C4'	-7.37	102.53	109.90
11	A1	13	C	P-O5'-C5'	7.37	131.95	120.90
21	A2	1110	U	N1-C1'-C2'	7.37	123.05	112.00
21	A2	1485	G	O3'-P-O5'	-7.37	92.95	104.00
67	B1	219	G	C1'-O4'-C4'	7.37	117.27	109.90
67	B1	1851	U	O4'-C1'-N1	7.37	119.55	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1145	C	P-O3'-C3'	-7.37	109.15	120.20
49	BQ	6	MET	CB-CA-C	7.37	123.02	110.79
65	BJ	109	PRO	CA-C-N	7.37	130.15	120.28
65	BJ	109	PRO	C-N-CA	7.37	130.15	120.28
68	B3	122	C	P-O3'-C3'	7.37	131.25	120.20
67	B1	2326	C	C1'-C2'-O2'	7.37	119.45	108.40
67	B1	900	C	C3'-C2'-C1'	7.36	108.66	101.30
67	B1	1097	G	C1'-C2'-O2'	7.36	119.44	108.40
67	B1	1231	C	N1-C1'-C2'	7.36	123.04	112.00
67	B1	2694	C	P-O3'-C3'	-7.36	109.16	120.20
67	B1	3038	A	C4'-C3'-O3'	-7.36	101.95	113.00
21	A2	95	G	O4'-C1'-C2'	-7.36	100.24	107.60
50	BV	46	ASN	CB-CA-C	7.36	118.91	108.68
67	B1	1897	G	O4'-C1'-N9	7.36	119.24	108.20
16	AJ	63	ALA	CA-C-N	7.36	135.60	121.54
16	AJ	63	ALA	C-N-CA	7.36	135.60	121.54
25	AH	92	SER	CA-C-O	-7.36	109.98	120.51
67	B1	1522	A	O4'-C1'-C2'	-7.36	98.44	105.80
67	B1	2938	G	C1'-C2'-O2'	7.36	119.44	108.40
67	B1	185	A	C3'-C2'-C1'	7.36	108.86	101.50
21	A2	532	C	O4'-C1'-C2'	-7.36	100.24	107.60
52	BB	34	ASN	CA-CB-CG	7.36	119.96	112.60
67	B1	652	G	O4'-C1'-C2'	-7.36	100.24	107.60
44	BW	25	LEU	CA-C-N	7.36	130.14	120.28
44	BW	25	LEU	C-N-CA	7.36	130.14	120.28
67	B1	712	C	N1-C1'-C2'	7.36	123.03	112.00
67	B1	1039	C	P-O3'-C3'	7.36	131.23	120.20
67	B1	127	C	C3'-C2'-C1'	7.35	108.65	101.30
67	B1	1323	U	O4'-C1'-C2'	-7.35	100.25	107.60
67	B1	2952	C	N1-C1'-C2'	7.35	123.03	112.00
67	B1	470	A	O4'-C1'-C2'	-7.35	100.25	107.60
67	B1	625	A	O4'-C1'-C2'	-7.35	100.25	107.60
67	B1	585	G	O4'-C1'-C2'	7.35	114.95	107.60
67	B1	863	C	O4'-C4'-C3'	-7.35	96.65	104.00
67	B1	2441	A	C3'-C2'-C1'	7.35	108.65	101.30
21	A2	8	U	C1'-O4'-C4'	7.35	117.05	109.70
21	A2	1075	A	O4'-C1'-N9	7.35	119.52	108.50
27	A0	40	C	C1'-O4'-C4'	7.35	117.25	109.90
67	B1	2050	U	O4'-C1'-C2'	-7.35	98.45	105.80
67	B1	2895	G	C1'-O4'-C4'	-7.35	102.55	109.90
21	A2	492	G	C3'-C2'-C1'	7.35	108.65	101.30
21	A2	692	G	C1'-O4'-C4'	-7.35	102.55	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1336	U	C4'-C3'-C2'	-7.35	95.25	102.60
67	B1	627	G	C4'-C3'-C2'	-7.35	95.25	102.60
21	A2	42	G	C1'-O4'-C4'	-7.34	102.36	109.70
21	A2	1035	C	C1'-C2'-O2'	7.34	119.42	108.40
21	A2	1459	G	P-O3'-C3'	7.34	131.22	120.20
41	Ba	31	ALA	CB-CA-C	-7.34	98.60	110.79
67	B1	1576	C	C3'-C2'-C1'	7.34	108.64	101.30
67	B1	2984	A	O4'-C1'-C2'	-7.34	100.26	107.60
13	AX	36	ASP	N-CA-CB	7.34	120.53	110.10
67	B1	466	C	N1-C1'-C2'	7.34	123.01	112.00
67	B1	777	A	C1'-C2'-O2'	7.34	119.41	108.40
67	B1	2442	A	O4'-C1'-N9	7.34	119.51	108.50
67	B1	2666	G	O4'-C1'-C2'	7.34	114.94	107.60
21	A2	64	G	C3'-C2'-C1'	7.34	108.64	101.30
21	A2	239	A	P-O3'-C3'	7.34	131.21	120.20
21	A2	762	G	O4'-C1'-N9	7.34	119.51	108.50
21	A2	1469	G	N9-C1'-C2'	7.34	123.01	112.00
67	B1	268	C	C3'-C2'-C1'	7.34	108.64	101.30
67	B1	839	A	N9-C1'-C2'	7.34	123.01	112.00
67	B1	1564	C	O4'-C1'-C2'	-7.34	100.26	107.60
67	B1	1618	G	O4'-C1'-C2'	7.34	114.94	107.60
67	B1	737	G	C1'-O4'-C4'	-7.34	102.56	109.90
67	B1	2146	C	C3'-C2'-C1'	7.34	108.64	101.30
67	B1	2835	A	O4'-C1'-C2'	-7.34	100.26	107.60
21	A2	60	A	N9-C1'-C2'	-7.33	103.00	114.00
21	A2	868	C	C3'-C2'-C1'	7.33	108.63	101.30
21	A2	1207	G	C3'-C2'-C1'	-7.33	93.97	101.30
46	BA	14	GLU	CA-C-N	7.33	130.11	120.28
46	BA	14	GLU	C-N-CA	7.33	130.11	120.28
21	A2	133	G	O4'-C1'-C2'	-7.33	100.27	107.60
21	A2	416	A	O4'-C1'-N9	7.33	119.50	108.50
46	BA	127	PRO	N-CA-CB	-7.33	95.55	103.25
67	B1	116	G	C3'-C2'-C1'	7.33	108.63	101.30
67	B1	1585	U	C5'-C4'-O4'	-7.33	98.80	109.80
67	B1	2476	A	C3'-C2'-C1'	7.33	108.63	101.30
67	B1	2671	C	O4'-C1'-C2'	-7.33	100.27	107.60
67	B1	2844	G	O4'-C1'-C2'	7.33	114.93	107.60
11	A1	42	C	O4'-C1'-C2'	-7.33	100.27	107.60
67	B1	697	U	C3'-C2'-C1'	7.33	108.63	101.30
67	B1	3005	C	P-O5'-C5'	-7.33	109.91	120.90
16	AJ	67	ASP	CA-CB-CG	-7.33	105.27	112.60
21	A2	411	C	O4'-C1'-C2'	-7.33	100.27	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	812	C	C4'-C3'-C2'	-7.33	95.27	102.60
7	AB	165	ALA	N-CA-C	7.33	119.27	111.28
21	A2	21	A	O4'-C1'-N9	7.33	119.49	108.50
21	A2	1088	U	N1-C1'-C2'	7.33	122.99	112.00
21	A2	1186	C	P-O3'-C3'	7.33	131.19	120.20
32	BO	24	ARG	CA-C-N	7.33	130.09	120.28
32	BO	24	ARG	C-N-CA	7.33	130.09	120.28
40	BE	150	VAL	CB-CA-C	-7.33	102.25	112.14
67	B1	1382	C	C5'-C4'-C3'	-7.33	105.01	116.00
67	B1	2020	G	C1'-C2'-O2'	7.33	119.39	108.40
15	AE	137	ARG	N-CA-CB	7.32	123.60	111.08
21	A2	904	G	C1'-O4'-C4'	7.32	117.22	109.90
67	B1	2698	G	O4'-C1'-N9	7.32	119.48	108.50
21	A2	495	G	N9-C1'-C2'	7.32	122.98	112.00
67	B1	2036	A	O4'-C1'-N9	7.32	119.48	108.50
21	A2	455	C	C1'-C2'-O2'	7.32	119.38	108.40
21	A2	1081	C	C2'-C3'-O3'	7.32	120.48	109.50
21	A2	207	G	C1'-O4'-C4'	7.32	117.22	109.90
21	A2	747	U	P-O3'-C3'	7.32	131.18	120.20
32	BO	185	PHE	CA-C-N	7.32	131.43	120.31
32	BO	185	PHE	C-N-CA	7.32	131.43	120.31
33	BC	14	PHE	N-CA-C	-7.32	101.63	113.19
67	B1	300	U	P-O3'-C3'	7.32	131.18	120.20
67	B1	1509	C	P-O3'-C3'	7.32	131.18	120.20
67	B1	1326	U	N1-C1'-C2'	-7.32	101.03	112.00
67	B1	2869	U	O4'-C1'-C2'	-7.32	98.48	105.80
21	A2	306	C	C1'-O4'-C4'	7.31	117.21	109.90
43	Bk	57	ASN	N-CA-C	-7.31	103.01	112.23
67	B1	1653	U	C1'-O4'-C4'	-7.31	102.59	109.90
67	B1	2880	C	O4'-C1'-C2'	-7.31	100.29	107.60
21	A2	560	A	O4'-C1'-C2'	-7.31	100.29	107.60
21	A2	1156	A	O4'-C1'-C2'	-7.31	98.49	105.80
67	B1	1681	G	C1'-O4'-C4'	-7.31	102.59	109.90
67	B1	1934	C	C3'-C2'-C1'	7.31	108.61	101.30
67	B1	2884	C	N1-C1'-C2'	7.31	122.97	112.00
67	B1	2683	G	C1'-C2'-O2'	7.31	119.37	108.40
21	A2	776	C	O4'-C1'-C2'	-7.31	100.29	107.60
67	B1	306	G	O4'-C1'-C2'	-7.31	100.29	107.60
67	B1	2133	G	O5'-C5'-C4'	-7.31	100.53	111.50
68	B3	1	C	C5'-C4'-C3'	7.31	126.97	116.00
11	A1	59	A	P-O3'-C3'	7.31	131.16	120.20
21	A2	1112	G	C4'-C3'-C2'	-7.31	95.29	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1785	G	C1'-C2'-O2'	7.31	119.36	108.40
67	B1	2810	G	O4'-C1'-N9	7.31	119.46	108.50
14	AM	16	ILE	N-CA-CB	7.31	120.54	111.41
20	A3	111	VAL	CA-C-O	-7.31	112.94	121.05
32	BO	162	GLU	CA-C-N	7.31	133.10	120.68
32	BO	162	GLU	C-N-CA	7.31	133.10	120.68
67	B1	1499	C	N1-C1'-C2'	7.31	122.96	112.00
67	B1	2281	A	P-O3'-C3'	7.31	131.16	120.20
21	A2	459	G	P-O3'-C3'	7.30	131.16	120.20
21	A2	1430	G	O4'-C1'-N9	7.30	119.46	108.50
28	AV	33	ARG	CB-CA-C	7.30	124.14	110.63
67	B1	2246	G	P-O5'-C5'	7.30	131.86	120.90
67	B1	1976	C	N1-C1'-C2'	7.30	122.95	112.00
67	B1	2838	U	N1-C1'-C2'	7.30	122.95	112.00
20	A3	39	THR	CA-C-N	7.30	130.06	120.28
20	A3	39	THR	C-N-CA	7.30	130.06	120.28
43	Bk	55	SER	CA-C-O	-7.30	112.95	121.06
43	Bk	108	GLN	N-CA-C	7.30	118.00	109.60
67	B1	2860	G	C4'-C3'-C2'	-7.30	95.30	102.60
68	B3	45	C	C1'-O4'-C4'	7.30	117.20	109.90
21	A2	790	G	O4'-C1'-N9	7.30	119.45	108.50
67	B1	218	A	C4'-C3'-C2'	-7.30	95.30	102.60
67	B1	768	C	C5'-C4'-C3'	-7.30	105.05	116.00
67	B1	955	A	P-O5'-C5'	-7.30	109.95	120.90
67	B1	1263	C	C1'-C2'-O2'	7.30	119.35	108.40
21	A2	1124	G	N9-C1'-C2'	7.30	122.95	112.00
21	A2	1222	C	O4'-C1'-N1	7.30	119.45	108.50
32	BO	83	ALA	CA-C-N	7.30	130.06	120.28
32	BO	83	ALA	C-N-CA	7.30	130.06	120.28
67	B1	196	A	P-O5'-C5'	-7.30	109.95	120.90
67	B1	2707	G	N9-C1'-C2'	7.30	122.94	112.00
3	AI	19	ARG	CA-C-N	7.29	130.78	120.42
3	AI	19	ARG	C-N-CA	7.29	130.78	120.42
24	AA	190	VAL	O-C-N	7.29	130.26	122.45
21	A2	957	A	C1'-O4'-C4'	7.29	117.19	109.90
67	B1	1476	C	O4'-C1'-C2'	-7.29	100.31	107.60
27	A0	64	G	O4'-C1'-N9	7.29	119.44	108.50
67	B1	592	C	N1-C1'-C2'	7.29	122.94	112.00
67	B1	622	A	O4'-C1'-C2'	7.29	113.09	105.80
67	B1	1223	A	N9-C1'-C2'	7.29	122.94	112.00
67	B1	1376	U	N1-C1'-C2'	7.29	122.94	112.00
67	B1	2321	A	O4'-C1'-N9	7.29	119.14	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2263	G	O4'-C1'-N9	7.29	119.44	108.50
67	B1	2392	A	C1'-O4'-C4'	-7.29	102.61	109.90
67	B1	2666	G	C1'-O4'-C4'	-7.29	102.61	109.90
21	A2	1311	C	O4'-C1'-C2'	-7.29	100.31	107.60
67	B1	467	U	N1-C1'-C2'	7.29	122.93	112.00
67	B1	2208	C	N1-C1'-C2'	7.29	122.93	112.00
67	B1	2329	A	C4'-C3'-C2'	-7.29	95.31	102.60
35	BL	25	HIS	CB-CG-CD2	-7.29	121.73	131.20
11	A1	50	G	C1'-O4'-C4'	7.29	117.19	109.90
12	AN	133	SER	CA-C-N	7.29	130.04	120.28
12	AN	133	SER	C-N-CA	7.29	130.04	120.28
21	A2	50	C	O4'-C1'-C2'	-7.29	100.31	107.60
67	B1	924	A	C3'-C2'-C1'	-7.29	94.21	101.50
67	B1	1001	C	O4'-C1'-C2'	-7.29	98.52	105.80
67	B1	1045	A	C3'-C2'-C1'	7.29	108.58	101.30
67	B1	1807	G	O4'-C1'-C2'	-7.29	100.31	107.60
21	A2	85	A	O3'-P-O5'	7.28	114.93	104.00
21	A2	138	C	N1-C1'-C2'	7.28	122.92	112.00
21	A2	871	A	C2'-C3'-O3'	7.28	120.42	109.50
40	BE	14	ASP	CA-C-N	7.28	130.36	120.38
40	BE	14	ASP	C-N-CA	7.28	130.36	120.38
28	B6	14	ILE	N-CA-CB	-7.28	104.20	112.21
67	B1	412	G	O4'-C1'-C2'	-7.28	98.52	105.80
67	B1	671	G	O4'-C1'-C2'	7.28	114.88	107.60
67	B1	2494	A	O4'-C1'-C2'	-7.28	100.32	107.60
15	AE	237	LYS	CA-C-O	-7.28	110.18	120.16
40	BE	11	ILE	N-CA-C	7.28	118.05	110.62
60	BS	51	LEU	O-C-N	7.28	129.84	122.12
64	Bc	40	GLY	N-CA-C	-7.28	105.75	115.21
14	AM	58	TYR	O-C-N	7.28	130.45	122.15
21	A2	739	G	C3'-C2'-C1'	-7.28	94.02	101.30
67	B1	373	G	N9-C1'-C2'	7.28	122.92	112.00
21	A2	1403	U	C5'-C4'-O4'	-7.28	98.89	109.80
24	AA	140	ILE	N-CA-C	-7.28	103.37	110.72
40	BE	110	HIS	O-C-N	-7.28	113.61	122.20
67	B1	199	C	N1-C1'-C2'	7.28	122.92	112.00
67	B1	293	G	O4'-C1'-N9	7.28	119.11	108.20
34	B5	17	ARG	CA-C-N	7.28	134.80	121.70
34	B5	17	ARG	C-N-CA	7.28	134.80	121.70
67	B1	18	C	C1'-O4'-C4'	7.28	117.18	109.90
67	B1	422	G	O4'-C1'-C2'	-7.28	100.32	107.60
67	B1	1243	C	C1'-O4'-C4'	-7.27	102.63	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	433	U	O5'-C5'-C4'	7.27	122.41	111.50
67	B1	2952	C	C3'-C2'-C1'	-7.27	94.03	101.30
67	B1	1080	G	N9-C1'-C2'	-7.27	101.09	112.00
68	B3	14	G	O4'-C1'-N9	7.27	119.41	108.50
58	BP	54	ARG	CA-C-O	7.27	127.44	119.15
67	B1	1547	U	O4'-C1'-N1	7.27	119.40	108.50
67	B1	2322	A	O4'-C1'-C2'	-7.27	100.33	107.60
67	B1	2356	U	O4'-C1'-N1	7.27	119.40	108.50
21	A2	516	A	P-O3'-C3'	7.27	131.10	120.20
43	Bk	42	ARG	NH1-CZ-NH2	-7.27	109.85	119.30
59	BM	153	HIS	N-CA-C	7.27	120.07	111.71
67	B1	850	C	C3'-C2'-C1'	7.27	108.57	101.30
67	B1	1174	U	N1-C1'-C2'	7.27	122.90	112.00
21	A2	529	C	C1'-C2'-O2'	-7.27	100.90	111.80
46	BA	174	ASP	CA-CB-CG	-7.27	105.33	112.60
67	B1	2972	G	C1'-O4'-C4'	-7.27	102.63	109.90
54	BF	133	ARG	CA-C-O	-7.26	110.42	120.52
67	B1	254	A	C1'-O4'-C4'	-7.26	102.44	109.70
21	A2	1008	U	O4'-C1'-N1	7.26	119.39	108.50
21	A2	1037	U	C4'-C3'-C2'	7.26	109.86	102.60
67	B1	821	U	C1'-O4'-C4'	7.26	117.16	109.90
67	B1	1405	G	C4'-C3'-C2'	-7.26	95.34	102.60
11	A1	18	U	O4'-C1'-C2'	-7.26	98.54	105.80
21	A2	356	G	C1'-C2'-O2'	7.26	119.29	108.40
21	A2	540	G	N9-C1'-C2'	-7.26	101.11	112.00
59	BM	50	ALA	CA-C-O	-7.26	112.85	120.55
62	BN	126	LEU	CA-C-O	-7.26	112.52	120.36
67	B1	1085	G	C1'-C2'-O2'	7.26	119.29	108.40
67	B1	2826	U	P-O3'-C3'	7.26	131.09	120.20
7	AB	62	PHE	CA-CB-CG	-7.26	106.54	113.80
11	A1	26	C	C1'-C2'-O2'	7.26	119.29	108.40
21	A2	1297	G	O4'-C1'-C2'	-7.26	100.34	107.60
26	AP	55	TYR	N-CA-CB	7.26	120.62	110.17
27	A0	62	C	N1-C1'-C2'	7.26	122.89	112.00
33	BC	275	GLY	CA-C-O	-7.26	115.89	122.57
33	BC	54	ILE	N-CA-C	-7.26	97.98	108.36
36	Bf	30	LYS	CA-C-N	7.26	131.34	120.31
36	Bf	30	LYS	C-N-CA	7.26	131.34	120.31
21	A2	1087	C	C5'-C4'-C3'	7.26	126.89	116.00
21	A2	1317	G	C3'-C2'-C1'	-7.26	94.04	101.30
61	Bd	63	ARG	N-CA-C	7.26	119.87	108.55
67	B1	2592	U	C1'-C2'-O2'	7.26	119.28	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1170	C	C3'-C2'-C1'	7.25	108.56	101.30
21	A2	167	G	O4'-C1'-C2'	-7.25	100.35	107.60
21	A2	1291	G	C4'-C3'-C2'	-7.25	95.35	102.60
67	B1	406	G	O3'-P-O5'	7.25	114.88	104.00
67	B1	2965	C	O4'-C1'-C2'	-7.25	100.35	107.60
67	B1	2991	C	C1'-C2'-O2'	7.25	119.28	108.40
18	AF	38	PHE	CA-CB-CG	-7.25	106.55	113.80
67	B1	1925	A	C1'-O4'-C4'	-7.25	102.45	109.70
21	A2	762	G	P-O5'-C5'	-7.25	110.02	120.90
33	BC	68	MET	CA-C-N	7.25	127.17	119.85
33	BC	68	MET	C-N-CA	7.25	127.17	119.85
58	BP	16	ARG	O-C-N	7.25	129.81	122.12
21	A2	840	C	N1-C1'-C2'	7.25	122.87	112.00
67	B1	1462	G	N9-C1'-C2'	7.25	122.87	112.00
21	A2	468	G	N9-C1'-C2'	7.25	122.87	112.00
47	BI	41	ASN	CA-C-N	7.25	129.99	120.28
47	BI	41	ASN	C-N-CA	7.25	129.99	120.28
67	B1	613	C	C1'-C2'-O2'	7.25	119.27	108.40
21	A2	597	C	C3'-C2'-C1'	7.25	108.55	101.30
67	B1	683	C	O4'-C1'-C2'	-7.25	100.36	107.60
67	B1	1462	G	O4'-C4'-C3'	-7.25	96.75	104.00
67	B1	2658	G	C5'-C4'-C3'	-7.25	105.13	116.00
1	AQ	47	THR	N-CA-C	7.24	120.04	111.71
67	B1	2900	C	O4'-C1'-C2'	-7.24	100.36	107.60
67	B1	62	C	O4'-C1'-C2'	-7.24	100.36	107.60
67	B1	1926	A	N9-C1'-C2'	7.24	122.86	112.00
21	A2	31	U	C3'-C2'-C1'	7.24	108.54	101.30
20	BG	44	GLU	CA-C-N	7.24	130.57	120.29
20	BG	44	GLU	C-N-CA	7.24	130.57	120.29
60	BS	99	LYS	CA-C-O	-7.24	112.88	120.55
61	Bd	9	SER	N-CA-CB	7.24	123.06	110.39
21	A2	1199	A	C1'-O4'-C4'	7.24	116.94	109.70
67	B1	34	C	C1'-O4'-C4'	7.24	116.94	109.70
67	B1	2284	C	O4'-C1'-C2'	-7.24	100.36	107.60
27	A0	58	A	C1'-O4'-C4'	7.24	116.94	109.70
21	A2	309	A	C1'-O4'-C4'	7.23	117.13	109.90
15	AE	99	HIS	ND1-CE1-NE2	7.23	115.63	108.40
33	BC	287	ILE	CB-CA-C	-7.23	102.24	112.22
67	B1	666	A	N9-C1'-C2'	7.23	122.85	112.00
67	B1	750	C	N1-C1'-C2'	7.23	122.85	112.00
67	B1	2870	A	C5'-C4'-C3'	-7.23	105.15	116.00
10	AD	167	GLU	CA-C-N	7.23	129.97	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	AD	167	GLU	C-N-CA	7.23	129.97	120.28
67	B1	937	A	O5'-C5'-C4'	-7.23	100.66	111.50
21	A2	1262	U	C1'-C2'-O2'	7.23	119.24	108.40
21	A2	1324	U	P-O3'-C3'	7.23	131.04	120.20
27	A0	71	G	O4'-C1'-C2'	-7.23	100.37	107.60
67	B1	878	G	C4'-C3'-C2'	-7.23	95.37	102.60
67	B1	1092	U	O5'-C5'-C4'	-7.23	100.66	111.50
67	B1	1154	A	O4'-C1'-N9	7.23	119.04	108.20
67	B1	1415	C	O4'-C1'-C2'	-7.23	98.57	105.80
67	B1	1638	C	O4'-C1'-C2'	-7.23	100.37	107.60
21	A2	435	A	O5'-C5'-C4'	7.22	122.34	111.50
21	A2	485	A	P-O3'-C3'	7.22	131.03	120.20
35	BL	65	ARG	CB-CA-C	-7.22	97.50	108.63
67	B1	10	C	O4'-C1'-C2'	-7.22	100.38	107.60
67	B1	1574	A	C1'-O4'-C4'	7.22	116.92	109.70
12	AN	5	LYS	N-CA-C	7.22	119.55	109.15
21	A2	1362	C	C3'-C2'-C1'	7.22	108.52	101.30
21	A2	1399	G	P-O3'-C3'	-7.22	109.37	120.20
67	B1	24	G	C3'-C2'-C1'	7.22	108.52	101.30
67	B1	800	G	N9-C1'-C2'	7.22	122.83	112.00
67	B1	805	C	C4'-C3'-C2'	-7.22	95.38	102.60
67	B1	822	A	C1'-O4'-C4'	-7.22	102.68	109.90
67	B1	1571	G	P-O3'-C3'	7.22	131.03	120.20
67	B1	1796	U	O4'-C1'-N1	7.22	119.33	108.50
67	B1	2450	A	P-O3'-C3'	7.22	131.03	120.20
67	B1	2458	U	O4'-C1'-N1	7.22	119.03	108.20
67	B1	2710	G	C1'-O4'-C4'	7.22	117.12	109.90
21	A2	439	G	P-O3'-C3'	7.22	131.03	120.20
67	B1	1561	G	O4'-C1'-N9	7.22	119.03	108.20
67	B1	2377	C	C1'-O4'-C4'	-7.22	102.68	109.90
21	A2	765	U	P-O5'-C5'	7.22	131.73	120.90
67	B1	2238	G	C1'-O4'-C4'	7.22	117.12	109.90
67	B1	75	G	P-O5'-C5'	7.22	131.72	120.90
15	AE	119	GLU	N-CA-C	-7.21	103.94	112.89
21	A2	652	C	N1-C1'-C2'	7.21	122.82	112.00
28	AV	32	SER	N-CA-C	-7.21	99.60	110.28
54	BF	70	THR	CA-C-N	7.21	130.54	120.29
54	BF	70	THR	C-N-CA	7.21	130.54	120.29
67	B1	686	C	O4'-C1'-C2'	-7.21	100.39	107.60
67	B1	1721	U	O4'-C1'-C2'	7.21	113.02	105.80
46	BA	82	ILE	CA-C-N	7.21	131.42	120.82
46	BA	82	ILE	C-N-CA	7.21	131.42	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	660	U	C1'-O4'-C4'	-7.21	102.69	109.90
67	B1	1411	G	C1'-C2'-O2'	7.21	119.22	108.40
67	B1	2735	C	C3'-C2'-C1'	7.21	108.51	101.30
6	AC	44	VAL	CB-CA-C	7.21	120.65	110.84
21	A2	192	G	C1'-C2'-O2'	7.21	119.22	108.40
67	B1	3041	U	N1-C1'-C2'	7.21	124.82	114.00
24	AA	26	PHE	CA-C-O	7.21	130.82	120.51
57	BZ	1	MET	CA-C-N	7.21	129.94	120.28
57	BZ	1	MET	C-N-CA	7.21	129.94	120.28
67	B1	970	G	C1'-C2'-O2'	7.21	119.22	108.40
67	B1	1907	G	O4'-C1'-C2'	7.21	114.81	107.60
67	B1	2261	C	P-O3'-C3'	-7.21	109.38	120.20
21	A2	1445	A	P-O3'-C3'	-7.21	109.39	120.20
50	BV	52	TRP	N-CA-C	7.21	119.22	111.36
67	B1	1137	G	N9-C1'-C2'	7.21	122.81	112.00
67	B1	1991	G	O4'-C1'-N9	7.21	119.31	108.50
67	B1	2215	U	N1-C1'-C2'	7.21	124.81	114.00
68	B3	39	C	P-O3'-C3'	7.21	131.01	120.20
67	B1	389	C	O4'-C1'-C2'	-7.20	100.40	107.60
67	B1	592	C	O4'-C1'-C2'	-7.20	100.40	107.60
67	B1	2209	U	N1-C1'-C2'	-7.20	101.19	112.00
67	B1	2583	G	N9-C1'-C2'	-7.20	103.20	114.00
10	AD	175	LYS	N-CA-CB	7.20	122.66	110.49
67	B1	2003	C	O4'-C1'-C2'	-7.20	100.40	107.60
67	B1	2446	C	N1-C1'-C2'	7.20	122.80	112.00
21	A2	1370	U	O4'-C1'-N1	7.20	119.30	108.50
67	B1	2374	C	C1'-C2'-O2'	7.20	119.20	108.40
67	B1	2784	A	C4'-C3'-C2'	-7.20	95.40	102.60
21	A2	860	G	O4'-C1'-N9	7.20	119.30	108.50
67	B1	1430	A	O4'-C1'-C2'	-7.20	100.40	107.60
11	A1	22	A	C1'-O4'-C4'	-7.20	102.70	109.90
47	BI	78	THR	N-CA-C	7.20	119.20	111.36
6	AC	48	ALA	CA-C-N	7.20	130.51	120.29
6	AC	48	ALA	C-N-CA	7.20	130.51	120.29
12	AN	12	ALA	CA-C-N	7.20	129.19	120.13
12	AN	12	ALA	C-N-CA	7.20	129.19	120.13
21	A2	114	A	O4'-C1'-C2'	7.20	113.00	105.80
21	A2	412	U	O4'-C1'-C2'	-7.20	100.40	107.60
21	A2	553	C	N1-C1'-C2'	7.20	122.79	112.00
21	A2	1291	G	O4'-C1'-N9	7.20	119.29	108.50
53	BD	56	ARG	NE-CZ-NH1	7.20	128.69	121.50
58	BP	8	ASP	O-C-N	7.20	127.87	121.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1517	G	O4'-C4'-C3'	-7.20	96.80	104.00
67	B1	2562	G	C3'-C2'-C1'	7.20	108.69	101.50
27	A0	67	G	O4'-C1'-N9	7.19	119.29	108.50
15	AE	37	HIS	CA-C-N	7.19	131.04	120.90
15	AE	37	HIS	C-N-CA	7.19	131.04	120.90
21	A2	22	G	P-O3'-C3'	-7.19	109.41	120.20
21	A2	1337	A	O4'-C1'-C2'	-7.19	100.41	107.60
45	Bi	14	GLY	CA-C-N	7.19	130.64	120.28
45	Bi	14	GLY	C-N-CA	7.19	130.64	120.28
3	AI	41	MET	CA-C-N	7.19	130.50	120.29
3	AI	41	MET	C-N-CA	7.19	130.50	120.29
21	A2	1478	A	N9-C1'-C2'	7.19	122.79	112.00
27	A0	28	C	O4'-C1'-C2'	-7.19	100.41	107.60
29	AL	86	MET	CA-C-N	7.19	130.88	120.38
29	AL	86	MET	C-N-CA	7.19	130.88	120.38
28	B6	40	LEU	O-C-N	-7.19	113.95	122.15
67	B1	170	A	O4'-C1'-N9	7.19	119.28	108.50
67	B1	2883	C	O4'-C1'-C2'	-7.19	100.41	107.60
33	BC	307	PRO	CA-C-O	-7.19	113.22	121.56
67	B1	222	A	N9-C1'-C2'	7.19	122.78	112.00
67	B1	1782	C	C2'-C3'-O3'	7.19	120.28	109.50
11	A1	41	C	C1'-O4'-C4'	-7.19	102.71	109.90
21	A2	1338	C	C3'-C2'-C1'	7.19	108.49	101.30
59	BM	154	HIS	CE1-NE2-CD2	-7.19	101.81	109.00
67	B1	519	A	C3'-C2'-C1'	7.19	108.49	101.30
67	B1	1076	G	N9-C1'-C2'	-7.19	101.22	112.00
21	A2	379	A	O4'-C1'-C2'	-7.19	100.41	107.60
67	B1	852	A	O4'-C1'-C2'	7.19	114.79	107.60
67	B1	934	G	O4'-C1'-C2'	7.18	114.78	107.60
21	A2	723	G	C1'-C2'-O2'	7.18	119.17	108.40
21	A2	1097	G	P-O3'-C3'	-7.18	109.43	120.20
67	B1	751	U	C1'-O4'-C4'	7.18	117.08	109.90
11	A1	17	C	C4'-C3'-O3'	-7.18	102.23	113.00
49	BQ	96	ILE	CA-C-N	7.18	129.77	120.44
49	BQ	96	ILE	C-N-CA	7.18	129.77	120.44
36	Bf	15	LYS	CG-CD-CE	7.18	127.81	111.30
67	B1	2045	C	O4'-C1'-C2'	-7.18	100.42	107.60
12	AN	119	ILE	N-CA-CB	7.18	117.38	109.99
15	AE	31	ARG	N-CA-C	-7.18	98.45	109.64
21	A2	148	C	O4'-C1'-C2'	-7.18	100.42	107.60
21	A2	186	U	O4'-C1'-C2'	-7.18	100.42	107.60
42	BT	42	ALA	CA-C-N	7.18	130.29	120.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	BT	42	ALA	C-N-CA	7.18	130.29	120.46
52	BB	61	VAL	O-C-N	-7.18	115.43	123.18
57	BZ	16	VAL	CA-CB-CG1	7.18	122.60	110.40
67	B1	1193	G	O4'-C1'-C2'	-7.18	100.42	107.60
21	A2	70	C	O4'-C1'-N1	7.17	119.26	108.50
45	Bi	9	SER	CA-C-N	7.17	132.08	120.60
45	Bi	9	SER	C-N-CA	7.17	132.08	120.60
15	AE	9	HIS	ND1-CE1-NE2	7.17	115.57	108.40
67	B1	1042	G	C3'-C2'-C1'	7.17	108.47	101.30
21	A2	1054	A	C3'-C2'-C1'	7.17	108.47	101.30
25	AH	80	LYS	N-CA-C	7.17	123.67	114.56
49	BQ	97	LYS	CB-CA-C	7.17	122.14	110.88
67	B1	1864	G	O4'-C1'-C2'	7.17	114.77	107.60
20	A3	42	ALA	N-CA-C	7.17	119.10	111.28
21	A2	944	C	N1-C1'-C2'	7.17	122.75	112.00
30	AU	70	ILE	CB-CA-C	-7.17	102.63	112.02
67	B1	640	C	C1'-O4'-C4'	-7.17	102.73	109.90
67	B1	2124	C	O4'-C1'-C2'	-7.17	100.43	107.60
21	A2	167	G	C4'-C3'-C2'	-7.17	95.43	102.60
67	B1	1057	C	P-O3'-C3'	-7.17	109.45	120.20
67	B1	2155	C	O4'-C1'-N1	7.17	118.95	108.20
67	B1	2302	C	O4'-C1'-C2'	-7.17	100.43	107.60
67	B1	2411	C	O4'-C1'-C2'	-7.17	100.43	107.60
67	B1	2559	G	C1'-O4'-C4'	-7.17	102.73	109.90
51	Bj	61	PRO	N-CA-C	7.17	127.23	112.47
21	A2	75	C	O4'-C1'-C2'	-7.17	100.44	107.60
7	AB	182	ILE	O-C-N	-7.16	115.83	123.14
21	A2	141	C	O4'-C1'-C2'	-7.16	100.44	107.60
21	A2	975	A	O4'-C1'-N9	7.16	119.25	108.50
21	A2	992	G	N9-C1'-C2'	7.16	122.74	112.00
21	A2	1119	U	C3'-C2'-C1'	7.16	108.66	101.50
21	A2	1275	U	N1-C1'-C2'	7.16	122.75	112.00
27	A0	36	U	O3'-P-O5'	-7.16	93.26	104.00
67	B1	658	C	C3'-C2'-C1'	7.16	108.46	101.30
67	B1	1245	C	C2'-C3'-O3'	7.16	124.45	113.70
67	B1	1404	G	O4'-C1'-C2'	7.16	114.76	107.60
67	B1	259	A	O4'-C1'-C2'	-7.16	100.44	107.60
67	B1	2089	C	N1-C1'-C2'	7.16	122.74	112.00
68	B3	30	G	O4'-C1'-N9	7.16	119.24	108.50
27	A0	39	U	O4'-C1'-C2'	-7.16	100.44	107.60
63	Bg	40	ARG	CA-C-N	7.16	130.10	120.79
63	Bg	40	ARG	C-N-CA	7.16	130.10	120.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1270	G	O5'-C5'-C4'	-7.16	100.96	111.70
67	B1	2300	C	O4'-C1'-C2'	-7.16	100.44	107.60
67	B1	2536	A	O3'-P-O5'	7.16	114.74	104.00
67	B1	2985	U	O4'-C1'-C2'	-7.16	100.44	107.60
4	AG	46	ASN	N-CA-CB	7.16	122.59	110.49
53	BD	182	GLY	CA-C-N	7.16	131.19	120.31
53	BD	182	GLY	C-N-CA	7.16	131.19	120.31
67	B1	1227	A	O5'-C5'-C4'	-7.16	100.96	111.70
67	B1	1951	G	N9-C1'-C2'	-7.16	101.26	112.00
21	A2	952	A	P-O5'-C5'	7.16	131.64	120.90
67	B1	1340	G	N9-C1'-C2'	7.16	122.73	112.00
21	A2	540	G	C1'-O4'-C4'	7.16	117.06	109.90
21	A2	773	A	C1'-O4'-C4'	7.16	116.86	109.70
50	BV	49	LYS	N-CA-C	-7.16	103.56	111.36
67	B1	1146	U	O4'-C1'-N1	7.16	118.93	108.20
67	B1	1402	C	N1-C1'-C2'	7.16	122.73	112.00
67	B1	2078	A	N9-C1'-C2'	-7.16	101.27	112.00
37	BU	52	VAL	CA-C-N	7.15	133.08	122.99
37	BU	52	VAL	C-N-CA	7.15	133.08	122.99
16	AJ	20	ALA	N-CA-C	-7.15	101.97	110.41
19	AS	24	PHE	CA-CB-CG	-7.15	106.65	113.80
35	BL	7	LYS	CA-C-N	7.15	132.80	120.86
35	BL	7	LYS	C-N-CA	7.15	132.80	120.86
43	Bk	19	ILE	CA-C-N	7.15	130.58	120.28
43	Bk	19	ILE	C-N-CA	7.15	130.58	120.28
44	BW	57	ILE	O-C-N	7.15	128.81	121.87
67	B1	1734	G	C1'-O4'-C4'	7.15	117.05	109.90
67	B1	2041	U	O4'-C1'-C2'	-7.15	100.45	107.60
21	A2	242	A	N9-C1'-C2'	-7.15	103.27	114.00
67	B1	1710	C	P-O5'-C5'	7.15	131.62	120.90
21	A2	509	C	N1-C1'-C2'	7.15	122.72	112.00
21	A2	1400	A	P-O3'-C3'	7.15	130.92	120.20
30	AU	40	HIS	CA-C-N	7.15	133.75	122.74
30	AU	40	HIS	C-N-CA	7.15	133.75	122.74
56	BH	121	ALA	N-CA-C	7.15	119.07	111.28
67	B1	699	A	P-O3'-C3'	-7.15	109.48	120.20
67	B1	872	G	C1'-O4'-C4'	-7.15	102.75	109.90
67	B1	1851	U	C1'-O4'-C4'	7.15	117.05	109.90
67	B1	406	G	O4'-C1'-N9	7.15	119.22	108.50
21	A2	18	C	P-O3'-C3'	-7.14	109.48	120.20
21	A2	520	G	O4'-C1'-C2'	-7.14	100.45	107.60
33	BC	334	ARG	N-CA-CB	7.14	122.06	110.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	BP	11	LEU	N-CA-C	7.14	119.07	111.28
21	A2	1049	U	O4'-C1'-C2'	-7.14	100.46	107.60
33	BC	125	TYR	N-CA-C	-7.14	95.59	110.80
67	B1	100	C	O4'-C1'-C2'	-7.14	100.46	107.60
67	B1	2061	A	P-O3'-C3'	7.14	130.91	120.20
21	A2	331	C	C4'-C3'-O3'	-7.14	102.29	113.00
67	B1	1294	A	O4'-C1'-C2'	-7.14	100.46	107.60
21	A2	339	U	O4'-C1'-C2'	-7.14	100.46	107.60
21	A2	483	G	O3'-P-O5'	-7.14	93.29	104.00
49	BQ	111	ALA	N-CA-C	7.14	121.25	112.54
67	B1	1199	U	C5'-C4'-C3'	7.14	125.91	115.20
67	B1	1516	C	O4'-C1'-C2'	-7.14	100.46	107.60
21	A2	176	U	O4'-C1'-N1	7.14	119.21	108.50
21	A2	977	G	O4'-C1'-C2'	7.14	112.94	105.80
27	A0	73	G	O4'-C1'-C2'	7.14	114.74	107.60
20	B4	23	VAL	CB-CA-C	7.14	121.77	112.14
67	B1	379	U	O4'-C1'-C2'	-7.14	100.46	107.60
67	B1	3047	C	C4'-C3'-O3'	-7.14	102.30	113.00
11	A1	6	G	O4'-C1'-N9	7.13	119.20	108.50
17	AO	5	ARG	N-CA-C	-7.13	97.49	108.76
21	A2	825	C	C4'-C3'-C2'	-7.13	95.47	102.60
21	A2	1369	C	O4'-C1'-C2'	-7.13	100.47	107.60
38	Bb	39	LYS	N-CA-CB	7.13	122.55	110.49
67	B1	2099	G	C1'-O4'-C4'	-7.13	102.77	109.90
67	B1	2886	C	O4'-C1'-C2'	-7.13	100.47	107.60
67	B1	2113	G	O4'-C1'-N9	7.13	119.20	108.50
67	B1	2516	G	C1'-O4'-C4'	-7.13	102.77	109.90
67	B1	1894	A	O4'-C1'-C2'	-7.13	100.47	107.60
21	A2	373	C	P-O5'-C5'	7.13	131.59	120.90
61	Bd	48	ARG	N-CA-C	-7.13	96.94	109.06
63	Bg	13	LYS	CB-CA-C	7.13	123.29	111.31
67	B1	461	C	C3'-C2'-C1'	7.13	108.63	101.50
21	A2	573	C	N1-C1'-C2'	7.13	122.69	112.00
21	A2	680	C	C3'-C2'-C1'	7.13	108.43	101.30
21	A2	836	G	O4'-C1'-C2'	7.13	114.73	107.60
27	A0	27	C	C4'-C3'-C2'	-7.13	95.47	102.60
67	B1	1470	C	C4'-C3'-C2'	-7.13	95.47	102.60
32	BO	80	THR	O-C-N	-7.12	114.01	120.71
62	BN	89	TYR	N-CA-C	-7.12	99.38	110.14
67	B1	1071	A	C3'-C2'-C1'	7.12	108.42	101.30
67	B1	1136	G	O4'-C1'-C2'	7.12	114.72	107.60
67	B1	1468	G	O4'-C1'-C2'	-7.12	98.67	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	AW	20	ASP	CA-CB-CG	-7.12	105.48	112.60
67	B1	1953	U	C4'-C3'-O3'	-7.12	102.31	113.00
67	B1	2808	C	O4'-C1'-C2'	-7.12	100.48	107.60
15	AE	229	TYR	CA-C-N	7.12	130.92	120.95
15	AE	229	TYR	C-N-CA	7.12	130.92	120.95
21	A2	897	A	O4'-C1'-C2'	-7.12	100.48	107.60
49	BQ	147	LEU	N-CA-C	7.12	119.04	111.28
67	B1	414	G	C4'-C3'-C2'	-7.12	95.48	102.60
20	A3	86	LEU	N-CA-CB	7.12	120.59	110.12
67	B1	2596	G	C1'-O4'-C4'	-7.12	102.78	109.90
2	AK	32	PRO	CB-CA-C	7.12	120.50	111.39
21	A2	565	C	P-O3'-C3'	-7.12	109.52	120.20
21	A2	605	C	C3'-C2'-C1'	7.12	108.42	101.30
21	A2	1416	C	N1-C1'-C2'	-7.12	101.32	112.00
21	A2	1488	C	O4'-C1'-C2'	-7.12	100.48	107.60
52	BB	57	PRO	CA-C-O	-7.12	113.18	121.86
58	BP	58	ASP	CB-CA-C	-7.12	96.26	110.42
67	B1	1876	G	O4'-C1'-N9	7.12	119.18	108.50
21	A2	691	G	N9-C1'-C2'	7.12	122.67	112.00
35	BL	51	ILE	N-CA-C	-7.12	97.26	108.86
41	Ba	17	LYS	CA-C-N	7.12	130.21	120.46
41	Ba	17	LYS	C-N-CA	7.12	130.21	120.46
67	B1	355	G	C3'-C2'-C1'	-7.12	94.18	101.30
67	B1	2985	U	C3'-C2'-C1'	7.12	108.42	101.30
21	A2	391	G	O4'-C1'-N9	7.11	119.17	108.50
67	B1	370	A	C3'-C2'-C1'	7.11	108.61	101.50
67	B1	775	C	C3'-C2'-C1'	7.11	108.41	101.30
67	B1	886	G	O4'-C1'-N9	7.11	119.17	108.50
67	B1	1268	A	O4'-C1'-C2'	-7.11	100.49	107.60
67	B1	2989	A	C4'-C3'-C2'	-7.11	95.49	102.60
21	A2	696	G	N9-C1'-C2'	7.11	122.66	112.00
21	A2	1132	C	C3'-C2'-C1'	7.11	108.41	101.30
58	BP	78	VAL	N-CA-C	7.11	118.75	109.58
67	B1	2648	C	O4'-C1'-C2'	-7.11	100.49	107.60
67	B1	2912	G	O4'-C1'-N9	7.11	119.17	108.50
67	B1	161	C	C1'-C2'-O2'	7.11	119.06	108.40
67	B1	493	A	O4'-C1'-C2'	-7.11	98.69	105.80
67	B1	1615	G	N9-C1'-C2'	-7.11	103.34	114.00
21	A2	1411	G	C3'-C2'-C1'	7.11	108.41	101.30
67	B1	1086	U	C5'-C4'-C3'	7.11	126.66	116.00
67	B1	1650	U	C4'-C3'-O3'	-7.11	102.34	113.00
21	A2	681	G	C1'-O4'-C4'	7.11	117.00	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	BH	71	PRO	CA-N-CD	-7.11	102.05	112.00
67	B1	274	C	C3'-C2'-C1'	7.11	108.41	101.30
67	B1	344	G	O4'-C1'-N9	7.11	119.16	108.50
67	B1	1960	U	P-O5'-C5'	7.11	131.56	120.90
67	B1	2411	C	O4'-C1'-N1	7.11	119.16	108.50
46	BA	89	GLU	O-C-N	7.10	129.39	122.07
67	B1	117	A	C3'-C2'-C1'	7.10	108.40	101.30
11	A1	27	A	O4'-C4'-C3'	7.10	111.10	104.00
67	B1	426	G	C4'-C3'-C2'	-7.10	95.50	102.60
67	B1	1589	G	C3'-C2'-C1'	7.10	108.40	101.30
67	B1	1869	U	C1'-O4'-C4'	7.10	117.00	109.90
67	B1	2169	C	C3'-C2'-C1'	7.10	108.40	101.30
67	B1	1666	G	N9-C1'-C2'	7.10	122.65	112.00
21	A2	1130	A	P-O3'-C3'	7.10	130.85	120.20
67	B1	1479	U	O4'-C1'-C2'	-7.10	100.50	107.60
67	B1	2254	U	N1-C1'-C2'	7.10	122.65	112.00
11	A1	46	U	O4'-C1'-N1	7.10	119.15	108.50
21	A2	1074	C	C1'-O4'-C4'	-7.10	102.80	109.90
49	BQ	134	ASN	CA-CB-CG	7.10	119.70	112.60
67	B1	1106	C	C1'-O4'-C4'	-7.10	102.80	109.90
67	B1	2588	C	O4'-C1'-C2'	-7.10	100.50	107.60
21	A2	1492	U	O4'-C1'-C2'	-7.10	100.50	107.60
53	BD	225	LEU	CA-C-N	7.10	127.68	121.58
53	BD	225	LEU	C-N-CA	7.10	127.68	121.58
67	B1	285	C	C5'-C4'-C3'	7.10	126.64	116.00
21	A2	1412	A	O4'-C1'-C2'	-7.09	100.50	107.60
67	B1	77	C	N1-C1'-C2'	7.09	122.64	112.00
67	B1	1570	C	O4'-C4'-C3'	-7.09	96.91	104.00
67	B1	1228	G	C1'-O4'-C4'	7.09	116.79	109.70
67	B1	2225	C	C3'-C2'-C1'	7.09	108.39	101.30
21	A2	894	A	O4'-C4'-C3'	-7.09	96.91	104.00
27	A0	75	C	O4'-C1'-C2'	-7.09	100.51	107.60
67	B1	51	G	O4'-C1'-C2'	-7.09	98.71	105.80
67	B1	1550	C	P-O5'-C5'	7.09	131.54	120.90
21	A2	665	G	C1'-O4'-C4'	-7.09	102.81	109.90
67	B1	708	A	N9-C1'-C2'	7.09	122.63	112.00
11	A1	30	G	O4'-C1'-N9	7.09	119.13	108.50
21	A2	335	G	N9-C1'-C2'	7.09	122.63	112.00
21	A2	1036	G	O4'-C1'-N9	7.09	119.13	108.50
67	B1	1134	A	N9-C1'-C2'	7.09	122.63	112.00
67	B1	1283	G	C1'-O4'-C4'	7.09	116.99	109.90
21	A2	972	C	P-O5'-C5'	7.09	131.53	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	BH	61	THR	O-C-N	7.09	129.63	122.12
67	B1	750	C	C3'-C2'-C1'	7.09	108.39	101.30
67	B1	2232	U	P-O3'-C3'	7.09	130.83	120.20
67	B1	2560	G	C3'-C2'-C1'	-7.09	94.21	101.30
67	B1	1222	U	P-O3'-C3'	7.08	130.83	120.20
67	B1	2226	G	O4'-C1'-N9	7.08	119.13	108.50
16	AJ	18	VAL	N-CA-C	-7.08	98.26	109.17
38	Bb	104	HIS	CA-C-N	7.08	129.77	120.28
38	Bb	104	HIS	C-N-CA	7.08	129.77	120.28
66	Bl	52	ILE	N-CA-CB	7.08	118.44	110.72
67	B1	1804	G	C2'-C3'-O3'	7.08	120.13	109.50
21	A2	633	C	O4'-C1'-C2'	-7.08	100.52	107.60
21	A2	1266	A	C4'-C3'-C2'	-7.08	95.52	102.60
31	BY	120	HIS	CB-CG-CD2	-7.08	121.99	131.20
33	BC	34	THR	CA-CB-OG1	7.08	120.22	109.60
34	B5	5	ASP	O-C-N	-7.08	113.24	122.94
67	B1	1551	G	O4'-C1'-C2'	-7.08	100.52	107.60
67	B1	1799	G	C1'-O4'-C4'	-7.08	102.82	109.90
67	B1	1995	C	N1-C1'-C2'	7.08	122.62	112.00
13	AX	9	ALA	N-CA-C	-7.08	98.26	109.23
21	A2	831	A	C1'-O4'-C4'	7.08	116.78	109.70
46	BA	7	LYS	CA-C-N	7.08	130.61	120.98
46	BA	7	LYS	C-N-CA	7.08	130.61	120.98
67	B1	241	C	C3'-C2'-C1'	-7.08	94.22	101.30
67	B1	770	G	P-O3'-C3'	-7.08	109.58	120.20
67	B1	1533	G	O4'-C1'-N9	7.08	119.12	108.50
32	BO	12	ARG	NE-CZ-NH1	7.08	128.58	121.50
67	B1	2783	C	O4'-C1'-C2'	-7.08	100.52	107.60
25	AH	113	GLN	N-CA-CB	7.08	120.52	110.12
41	Ba	49	ILE	CA-C-O	7.08	127.98	120.48
67	B1	347	G	N9-C1'-C2'	7.08	122.61	112.00
67	B1	1077	G	C5'-C4'-C3'	-7.08	105.39	116.00
21	A2	330	U	P-O3'-C3'	-7.07	109.59	120.20
21	A2	626	G	C1'-O4'-C4'	7.07	116.97	109.90
21	A2	715	C	N1-C1'-C2'	7.07	122.61	112.00
33	BC	244	HIS	CE1-NE2-CD2	-7.07	101.93	109.00
58	BP	59	GLY	N-CA-C	7.07	124.78	114.10
67	B1	2514	C	C1'-O4'-C4'	-7.07	102.83	109.90
67	B1	2829	C	O4'-C1'-C2'	-7.07	100.53	107.60
67	B1	1642	G	C4'-C3'-O3'	7.07	120.01	109.40
4	AG	78	ILE	N-CA-C	7.07	116.80	106.55
17	AO	18	ASN	N-CA-C	-7.07	102.24	111.71

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	565	C	O4'-C1'-C2'	-7.07	100.53	107.60
67	B1	1171	G	O4'-C1'-C2'	-7.07	100.53	107.60
67	B1	1523	A	O4'-C1'-N9	7.07	118.81	108.20
67	B1	1586	G	P-O3'-C3'	7.07	130.81	120.20
67	B1	2272	G	N9-C1'-C2'	7.07	122.61	112.00
68	B3	101	A	N9-C1'-C2'	7.07	122.61	112.00
1	AQ	85	HIS	CG-CD2-NE2	7.07	114.27	107.20
11	A1	24	A	O4'-C1'-C2'	-7.07	100.53	107.60
21	A2	1374	C	O4'-C1'-C2'	-7.07	100.53	107.60
34	BK	56	LEU	CA-C-O	-7.07	113.92	121.27
52	BB	210	HIS	CE1-NE2-CD2	-7.07	101.93	109.00
67	B1	2545	A	O4'-C1'-C2'	-7.07	100.53	107.60
67	B1	2733	A	P-O5'-C5'	7.07	131.50	120.90
2	AK	20	ARG	NE-CZ-NH2	7.07	125.56	119.20
11	A1	32	A	O4'-C1'-C2'	-7.07	100.53	107.60
25	AH	79	TYR	N-CA-CB	-7.07	99.55	110.85
67	B1	1864	G	O4'-C1'-N9	7.07	119.10	108.50
64	Bc	77	GLY	N-CA-C	-7.06	106.28	114.69
67	B1	2850	G	C1'-O4'-C4'	-7.06	102.84	109.90
21	A2	34	G	O4'-C1'-N9	7.06	119.09	108.50
21	A2	800	G	N9-C1'-C2'	7.06	122.59	112.00
21	A2	1418	G	N9-C1'-C2'	7.06	122.59	112.00
67	B1	408	C	O4'-C4'-C3'	-7.06	96.94	104.00
67	B1	898	G	O4'-C1'-C2'	-7.06	100.54	107.60
67	B1	1533	G	C3'-C2'-C1'	-7.06	94.24	101.30
67	B1	2421	A	N9-C1'-C2'	7.06	122.59	112.00
7	AB	72	VAL	CA-C-N	7.06	130.74	120.71
7	AB	72	VAL	C-N-CA	7.06	130.74	120.71
21	A2	1418	G	C1'-O4'-C4'	-7.06	102.84	109.90
21	A2	1460	G	P-O3'-C3'	7.06	130.79	120.20
21	A2	1458	A	C1'-O4'-C4'	7.06	116.76	109.70
26	AP	29	PRO	N-CA-CB	7.06	110.66	103.25
34	B5	56	LEU	CA-C-O	-7.06	113.93	121.27
67	B1	1272	A	O4'-C1'-N9	7.06	119.09	108.50
68	B3	69	C	N1-C1'-C2'	7.06	122.59	112.00
16	AJ	28	LEU	N-CA-C	-7.06	101.42	110.53
20	A3	11	VAL	CA-C-N	7.06	127.09	119.89
20	A3	11	VAL	C-N-CA	7.06	127.09	119.89
21	A2	1087	C	O4'-C1'-C2'	-7.06	100.54	107.60
66	Bl	2	LYS	N-CA-C	-7.06	97.06	109.06
67	B1	1670	A	P-O3'-C3'	7.06	130.79	120.20
25	AH	98	VAL	CA-CB-CG1	-7.06	98.40	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1499	C	C1'-O4'-C4'	-7.06	102.84	109.90
3	AI	105	SER	N-CA-C	-7.05	97.90	109.40
21	A2	1178	C	O4'-C1'-C2'	-7.05	100.55	107.60
25	AH	140	MET	N-CA-C	-7.05	97.90	109.40
41	Ba	63	ILE	CB-CA-C	7.05	121.95	112.22
67	B1	137	A	C1'-C2'-O2'	-7.05	97.82	108.40
67	B1	781	C	N1-C1'-C2'	7.05	122.58	112.00
67	B1	2713	A	O4'-C1'-C2'	-7.05	100.55	107.60
67	B1	2807	C	N1-C1'-C2'	7.05	122.58	112.00
67	B1	2846	A	C3'-C2'-C1'	-7.05	94.25	101.30
67	B1	2915	U	O4'-C4'-C3'	-7.05	96.95	104.00
21	A2	421	U	C1'-O4'-C4'	-7.05	102.85	109.90
67	B1	2161	A	O4'-C1'-N9	7.05	119.08	108.50
19	AS	28	PHE	CA-C-N	7.05	129.73	120.28
19	AS	28	PHE	C-N-CA	7.05	129.73	120.28
20	A3	94	VAL	CA-C-N	7.05	135.01	121.54
20	A3	94	VAL	C-N-CA	7.05	135.01	121.54
21	A2	527	A	C1'-O4'-C4'	7.05	116.95	109.90
47	BI	66	PHE	CA-CB-CG	-7.05	106.75	113.80
67	B1	1262	C	O4'-C1'-C2'	-7.05	100.55	107.60
11	A1	49	C	C4'-C3'-C2'	-7.05	95.55	102.60
67	B1	2585	G	O4'-C1'-N9	7.05	119.07	108.50
21	A2	742	U	N1-C1'-C2'	7.05	122.57	112.00
21	A2	1057	A	O4'-C1'-C2'	-7.05	100.55	107.60
35	BL	89	MET	CA-C-N	7.05	129.72	120.28
35	BL	89	MET	C-N-CA	7.05	129.72	120.28
19	AS	38	LEU	N-CA-C	7.04	118.61	111.07
21	A2	621	G	O4'-C1'-C2'	-7.04	100.56	107.60
25	AH	170	SER	CA-C-N	7.04	129.60	120.44
25	AH	170	SER	C-N-CA	7.04	129.60	120.44
34	BK	5	ASP	O-C-N	-7.04	113.29	122.94
67	B1	116	G	P-O3'-C3'	-7.04	109.63	120.20
67	B1	424	U	C1'-C2'-O2'	7.04	118.97	108.40
67	B1	1126	C	O4'-C1'-C2'	-7.04	100.56	107.60
67	B1	2258	A	C3'-C2'-C1'	7.04	108.34	101.30
21	A2	167	G	O3'-P-O5'	7.04	114.56	104.00
21	A2	472	C	C3'-C2'-C1'	7.04	108.34	101.30
27	A0	36	U	C5'-C4'-O4'	7.04	120.36	109.80
67	B1	2258	A	O4'-C4'-C3'	-7.04	96.96	104.00
21	A2	165	U	N1-C1'-C2'	7.04	122.56	112.00
25	AH	97	LYS	CA-C-N	-7.04	111.69	120.56
25	AH	97	LYS	C-N-CA	-7.04	111.69	120.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1612	G	O3'-P-O5'	-7.04	93.44	104.00
41	Ba	23	PRO	CA-C-N	7.04	130.20	120.63
41	Ba	23	PRO	C-N-CA	7.04	130.20	120.63
51	Bj	52	ARG	O-C-N	-7.04	113.23	121.32
67	B1	2402	A	C3'-C2'-C1'	7.04	108.54	101.50
67	B1	2933	C	O4'-C1'-C2'	-7.04	100.56	107.60
6	AC	122	ASN	CA-CB-CG	7.04	119.64	112.60
30	AU	142	GLU	CA-C-O	7.04	128.03	119.38
35	BL	54	ALA	O-C-N	7.04	128.27	121.66
67	B1	2097	G	N9-C1'-C2'	7.04	122.56	112.00
1	AQ	112	HIS	N-CA-C	7.04	125.36	109.81
4	AG	41	LYS	CA-C-N	7.04	132.62	122.21
4	AG	41	LYS	C-N-CA	7.04	132.62	122.21
34	BK	17	ARG	N-CA-CB	7.04	122.38	110.49
67	B1	1979	G	C1'-C2'-O2'	7.04	118.95	108.40
67	B1	878	G	P-O3'-C3'	-7.03	109.65	120.20
67	B1	1852	U	C3'-C2'-C1'	7.03	108.53	101.50
11	A1	37	A	C1'-O4'-C4'	-7.03	102.87	109.90
15	AE	62	ALA	CA-C-N	7.03	129.70	120.28
15	AE	62	ALA	C-N-CA	7.03	129.70	120.28
67	B1	1754	A	C3'-C2'-C1'	-7.03	94.27	101.30
27	A0	28	C	C3'-C2'-C1'	7.03	108.33	101.30
67	B1	1251	G	C2'-C3'-O3'	7.03	120.04	109.50
16	AJ	113	ARG	NE-CZ-NH1	-7.03	114.47	121.50
27	A0	18	G	O4'-C1'-C2'	-7.03	98.77	105.80
30	AU	2	ALA	O-C-N	7.03	130.32	123.29
64	Bc	17	GLN	CA-CB-CG	7.03	128.16	114.10
67	B1	2213	G	C1'-O4'-C4'	-7.03	102.87	109.90
40	BE	55	LYS	N-CA-C	7.03	118.21	109.57
4	AG	11	PRO	CA-C-N	7.02	129.57	120.44
4	AG	11	PRO	C-N-CA	7.02	129.57	120.44
21	A2	246	A	C1'-O4'-C4'	7.02	116.92	109.90
67	B1	2607	U	O4'-C1'-N1	7.02	119.04	108.50
15	AE	210	PRO	CA-C-O	-7.02	113.05	121.48
31	BY	120	HIS	N-CA-CB	7.02	117.42	109.49
50	BV	60	ARG	CA-C-N	7.02	129.57	120.44
50	BV	60	ARG	C-N-CA	7.02	129.57	120.44
67	B1	1913	C	C1'-O4'-C4'	-7.02	102.88	109.90
67	B1	2415	C	P-O5'-C5'	7.02	131.43	120.90
67	B1	2617	G	P-O3'-C3'	7.02	130.73	120.20
14	AM	72	LEU	N-CA-C	7.02	118.93	111.28
67	B1	2484	C	C1'-O4'-C4'	-7.02	102.88	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
19	AS	59	ARG	CB-CA-C	-7.02	98.92	110.85
21	A2	1055	C	O4'-C1'-C2'	-7.02	100.58	107.60
35	BL	114	GLY	N-CA-C	7.02	122.39	114.67
67	B1	1626	A	C5'-C4'-C3'	7.02	126.53	116.00
67	B1	2873	G	C3'-C2'-C1'	-7.02	94.28	101.30
21	A2	409	C	C1'-C2'-O2'	7.01	118.92	108.40
21	A2	674	C	N1-C1'-C2'	7.01	122.52	112.00
21	A2	760	C	C1'-O4'-C4'	-7.01	102.89	109.90
34	BK	24	VAL	CB-CA-C	7.01	119.45	110.96
20	BG	36	THR	CA-C-N	7.01	130.25	120.29
20	BG	36	THR	C-N-CA	7.01	130.25	120.29
68	B3	79	U	C3'-C2'-C1'	7.01	108.31	101.30
67	B1	1679	U	O4'-C1'-C2'	-7.01	100.59	107.60
68	B3	102	G	O4'-C1'-N9	7.01	119.02	108.50
21	A2	76	U	O5'-C5'-C4'	-7.01	100.98	111.50
67	B1	565	A	N9-C1'-C2'	-7.01	101.48	112.00
67	B1	1566	G	C5'-C4'-C3'	7.01	126.52	116.00
67	B1	2426	U	O4'-C4'-C3'	-7.01	96.99	104.00
21	A2	374	G	C1'-O4'-C4'	-7.01	102.89	109.90
57	BZ	4	ALA	CA-C-O	-7.01	113.12	120.55
67	B1	2927	A	C3'-C2'-C1'	7.01	108.31	101.30
51	Bj	55	PRO	CA-N-CD	-7.01	102.19	112.00
55	Bh	3	TRP	CB-CG-CD2	-7.01	116.99	126.80
67	B1	671	G	C1'-C2'-O2'	7.01	118.91	108.40
67	B1	2317	G	C4'-C3'-C2'	-7.01	95.59	102.60
21	A2	510	A	P-O5'-C5'	-7.01	110.39	120.90
21	A2	1120	G	N9-C1'-C2'	7.01	122.51	112.00
21	A2	1151	A	C1'-O4'-C4'	-7.01	102.89	109.90
23	AT	101	HIS	N-CA-C	-7.01	98.81	109.95
62	BN	47	VAL	N-CA-C	-7.01	98.39	108.48
67	B1	921	C	N1-C1'-C2'	7.01	122.51	112.00
67	B1	1029	C	P-O5'-C5'	7.01	131.41	120.90
67	B1	2310	G	P-O5'-C5'	-7.01	110.39	120.90
68	B3	85	C	O4'-C1'-C2'	-7.01	100.59	107.60
67	B1	2300	C	C5'-C4'-C3'	-7.00	105.49	116.00
67	B1	2438	U	C1'-C2'-O2'	7.00	118.91	108.40
15	AE	27	LYS	N-CA-CB	-7.00	99.46	110.46
20	B4	28	ASP	CA-CB-CG	-7.00	105.60	112.60
67	B1	1816	C	P-O5'-C5'	7.00	131.41	120.90
46	BA	93	SER	O-C-N	7.00	129.13	121.36
67	B1	1136	G	C3'-C2'-C1'	-7.00	94.30	101.30
67	B1	1323	U	O4'-C1'-N1	7.00	119.00	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1834	C	C1'-O4'-C4'	-7.00	102.90	109.90
67	B1	2205	A	N9-C1'-C2'	7.00	122.50	112.00
67	B1	2260	C	C1'-C2'-O2'	7.00	118.90	108.40
67	B1	2890	A	C1'-C2'-O2'	-7.00	101.30	111.80
21	A2	65	G	C3'-C2'-C1'	-7.00	94.30	101.30
34	B5	24	VAL	CB-CA-C	7.00	119.43	110.96
57	BZ	69	GLU	CA-C-N	7.00	131.80	120.60
57	BZ	69	GLU	C-N-CA	7.00	131.80	120.60
67	B1	386	A	C1'-O4'-C4'	-7.00	102.90	109.90
21	A2	393	A	N9-C1'-C2'	-7.00	101.50	112.00
67	B1	2298	C	C3'-C2'-C1'	7.00	108.30	101.30
67	B1	2514	C	C1'-C2'-O2'	7.00	118.90	108.40
21	A2	1099	A	O3'-P-O5'	7.00	114.50	104.00
21	A2	347	G	O4'-C1'-C2'	7.00	112.80	105.80
67	B1	1955	U	C1'-O4'-C4'	7.00	116.69	109.70
27	A0	36	U	P-O5'-C5'	-6.99	110.41	120.90
67	B1	216	A	C1'-O4'-C4'	6.99	116.89	109.90
67	B1	299	U	P-O5'-C5'	6.99	131.39	120.90
38	Bb	62	SER	N-CA-C	-6.99	97.17	109.06
48	BR	6	HIS	N-CA-C	6.99	118.40	108.54
21	A2	570	G	N9-C1'-C2'	6.99	122.48	112.00
21	A2	1353	C	C3'-C2'-C1'	6.99	108.29	101.30
36	Bf	30	LYS	CB-CA-C	-6.99	99.19	110.79
39	Be	24	GLY	O-C-N	-6.99	114.28	122.60
52	BB	28	VAL	N-CA-CB	6.99	119.84	110.26
67	B1	1164	C	O4'-C1'-C2'	-6.99	98.81	105.80
67	B1	2448	A	C3'-C2'-C1'	-6.99	94.31	101.30
2	AK	7	THR	CA-C-N	6.99	126.99	121.61
2	AK	7	THR	C-N-CA	6.99	126.99	121.61
21	A2	947	G	O4'-C1'-C2'	-6.99	100.61	107.60
24	AA	138	ARG	CA-C-N	6.99	129.95	120.38
24	AA	138	ARG	C-N-CA	6.99	129.95	120.38
67	B1	751	U	N1-C1'-C2'	-6.99	101.52	112.00
67	B1	1476	C	C1'-O4'-C4'	6.99	116.89	109.90
67	B1	2809	G	C1'-O4'-C4'	-6.99	102.91	109.90
62	BN	125	ARG	O-C-N	6.99	131.16	123.27
21	A2	120	C	N1-C1'-C2'	6.99	122.48	112.00
34	B5	17	ARG	N-CA-CB	6.99	122.30	110.49
53	BD	233	GLY	CA-C-N	6.99	132.69	122.63
53	BD	233	GLY	C-N-CA	6.99	132.69	122.63
20	B4	99	VAL	N-CA-C	-6.99	97.61	108.44
67	B1	1117	C	N1-C1'-C2'	6.99	124.48	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	A1	66	C	C3'-C2'-C1'	6.98	108.28	101.30
33	BC	200	LYS	CA-C-O	-6.98	113.15	120.55
67	B1	942	U	C4'-C3'-C2'	-6.98	95.62	102.60
67	B1	1255	C	C5'-C4'-C3'	-6.98	105.53	116.00
67	B1	2293	G	N9-C1'-C2'	-6.98	103.53	114.00
67	B1	2893	U	O4'-C1'-N1	6.98	118.67	108.20
68	B3	108	G	O4'-C1'-N9	6.98	118.97	108.50
21	A2	133	G	O3'-P-O5'	6.98	114.47	104.00
21	A2	559	G	O4'-C1'-C2'	-6.98	100.62	107.60
21	A2	1453	U	C1'-O4'-C4'	6.98	116.68	109.70
53	BD	105	ILE	CA-C-N	6.98	131.29	120.75
53	BD	105	ILE	C-N-CA	6.98	131.29	120.75
67	B1	119	U	N1-C1'-C2'	6.98	124.47	114.00
67	B1	1141	C	N1-C1'-C2'	6.98	122.47	112.00
67	B1	1196	A	O4'-C1'-C2'	-6.98	100.62	107.60
67	B1	1245	C	C3'-C2'-C1'	6.98	108.28	101.30
67	B1	2192	G	C3'-C2'-C1'	-6.98	94.32	101.30
67	B1	2586	A	C1'-C2'-O2'	6.98	118.87	108.40
67	B1	2909	G	C3'-C2'-O2'	6.98	121.17	110.70
40	BE	145	ARG	NE-CZ-NH1	-6.98	114.52	121.50
67	B1	571	G	C1'-O4'-C4'	-6.98	102.92	109.90
67	B1	1048	C	C5'-C4'-O4'	-6.98	99.33	109.80
67	B1	1896	U	C4'-C3'-O3'	-6.98	102.53	113.00
67	B1	2788	U	C1'-O4'-C4'	-6.98	102.92	109.90
21	A2	1050	G	O4'-C1'-N9	6.98	118.97	108.50
33	BC	156	LYS	CA-C-O	-6.98	110.31	119.10
48	BR	59	HIS	CA-CB-CG	6.98	120.78	113.80
21	A2	687	G	C5'-C4'-C3'	6.98	125.66	115.20
67	B1	666	A	P-O5'-C5'	6.98	131.36	120.90
67	B1	1476	C	C3'-C2'-C1'	6.98	108.28	101.30
67	B1	2772	U	N1-C1'-C2'	6.98	122.47	112.00
25	AH	172	LYS	CA-C-N	6.97	130.32	120.28
25	AH	172	LYS	C-N-CA	6.97	130.32	120.28
49	BQ	6	MET	N-CA-CB	6.97	120.37	110.12
21	A2	207	G	O4'-C1'-C2'	-6.97	100.63	107.60
21	A2	621	G	C4'-C3'-C2'	-6.97	95.63	102.60
43	Bk	35	ALA	N-CA-CB	6.97	120.86	110.40
57	BZ	6	GLU	CA-C-N	6.97	129.62	120.28
57	BZ	6	GLU	C-N-CA	6.97	129.62	120.28
67	B1	155	U	C1'-C2'-O2'	6.97	122.26	111.80
67	B1	239	G	C1'-O4'-C4'	-6.97	102.93	109.90
21	A2	9	U	O4'-C1'-N1	6.97	118.95	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1009	G	N9-C1'-C2'	6.97	122.45	112.00
21	A2	1131	G	P-O3'-C3'	6.97	130.66	120.20
67	B1	1995	C	C3'-C2'-C1'	-6.97	94.33	101.30
21	A2	440	C	O4'-C1'-N1	-6.97	98.05	108.50
11	A1	52	G	O4'-C1'-C2'	6.97	114.57	107.60
15	AE	31	ARG	CA-C-O	6.97	128.31	119.67
32	BO	163	LYS	CA-C-O	6.97	128.01	119.79
35	BL	63	PHE	CA-C-N	6.97	134.84	121.54
35	BL	63	PHE	C-N-CA	6.97	134.84	121.54
34	BK	16	ARG	CA-C-N	6.97	134.85	121.54
34	BK	16	ARG	C-N-CA	6.97	134.85	121.54
28	B6	40	LEU	CA-C-O	6.97	127.80	120.42
60	BS	61	VAL	N-CA-C	-6.97	99.97	107.77
67	B1	734	C	O4'-C1'-C2'	-6.97	100.63	107.60
67	B1	974	U	C4'-C3'-C2'	-6.97	95.63	102.60
67	B1	2962	A	C1'-O4'-C4'	-6.97	102.93	109.90
21	A2	1403	U	C3'-C2'-C1'	6.96	108.27	101.30
25	AH	87	ARG	CD-NE-CZ	-6.96	114.65	124.40
26	AP	50	LEU	CB-CA-C	-6.96	97.75	110.63
67	B1	305	G	O4'-C1'-N9	6.96	118.95	108.50
12	AN	86	ALA	CA-C-N	6.96	131.46	121.50
12	AN	86	ALA	C-N-CA	6.96	131.46	121.50
21	A2	1059	C	C1'-C2'-O2'	6.96	118.84	108.40
52	BB	98	PRO	CA-C-O	-6.96	113.48	121.56
67	B1	767	G	O4'-C1'-C2'	6.96	114.56	107.60
67	B1	1504	C	O4'-C1'-C2'	-6.96	100.64	107.60
67	B1	1637	C	N1-C1'-C2'	6.96	122.44	112.00
67	B1	2360	G	O4'-C1'-N9	6.96	118.94	108.50
21	A2	1067	G	C4'-C3'-C2'	-6.96	95.64	102.60
38	Bb	62	SER	CA-C-N	6.96	134.50	121.97
38	Bb	62	SER	C-N-CA	6.96	134.50	121.97
52	BB	79	VAL	N-CA-CB	6.96	119.87	111.31
67	B1	308	C	P-O3'-C3'	6.96	130.64	120.20
67	B1	310	C	C4'-C3'-C2'	-6.96	95.64	102.60
67	B1	1163	U	O4'-C1'-C2'	-6.96	100.64	107.60
67	B1	2391	G	O4'-C4'-C3'	-6.96	97.04	104.00
67	B1	2869	U	C1'-C2'-O2'	-6.96	101.36	111.80
21	A2	89	G	C1'-O4'-C4'	-6.96	102.94	109.90
21	A2	842	U	O4'-C1'-N1	6.96	118.64	108.20
24	AA	160	GLU	CB-CA-C	-6.96	99.02	110.85
67	B1	192	U	N1-C1'-C2'	6.96	122.44	112.00
21	A2	1045	A	C1'-O4'-C4'	-6.96	102.94	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1431	U	P-O3'-C3'	-6.96	109.76	120.20
67	B1	2168	C	N1-C1'-C2'	6.96	122.44	112.00
67	B1	2179	G	C1'-O4'-C4'	6.96	116.86	109.90
21	A2	321	A	P-O5'-C5'	-6.96	110.46	120.90
40	BE	18	HIS	CE1-NE2-CD2	-6.96	102.04	109.00
67	B1	1105	C	O4'-C1'-C2'	-6.96	100.64	107.60
67	B1	2737	G	O4'-C1'-N9	6.96	118.94	108.50
11	A1	67	C	O4'-C1'-C2'	-6.96	100.64	107.60
21	A2	50	C	C3'-C2'-C1'	6.96	108.25	101.30
14	AM	132	ARG	N-CA-CB	6.95	122.24	110.49
21	A2	559	G	C3'-C2'-C1'	6.95	108.25	101.30
21	A2	1270	C	O4'-C1'-C2'	-6.95	100.65	107.60
40	BE	110	HIS	CE1-NE2-CD2	-6.95	102.05	109.00
67	B1	907	C	N1-C1'-C2'	6.95	122.43	112.00
7	AB	92	ILE	CA-C-O	-6.95	110.63	119.95
21	A2	980	C	C1'-O4'-C4'	-6.95	102.95	109.90
21	A2	99	C	C1'-C2'-O2'	-6.95	97.97	108.40
21	A2	104	A	O4'-C1'-C2'	-6.95	100.65	107.60
21	A2	1360	C	O4'-C1'-C2'	-6.95	98.85	105.80
35	BL	17	HIS	CG-CD2-NE2	6.95	114.15	107.20
56	BH	94	ILE	CA-C-O	6.95	127.97	120.53
61	Bd	60	THR	N-CA-C	-6.95	103.78	111.36
67	B1	211	A	O4'-C1'-C2'	-6.95	98.85	105.80
67	B1	670	G	C3'-C2'-C1'	6.95	108.25	101.30
68	B3	115	C	O4'-C1'-C2'	-6.95	100.65	107.60
19	AS	42	THR	CA-CB-CG2	6.95	122.31	110.50
56	BH	129	THR	CB-CA-C	-6.95	97.33	110.67
47	BI	38	ILE	CB-CA-C	6.95	120.47	110.33
67	B1	1060	C	O4'-C1'-C2'	-6.95	100.65	107.60
18	AF	217	MET	CA-C-O	-6.95	108.99	120.80
67	B1	1924	A	C3'-C2'-C1'	-6.95	94.35	101.30
67	B1	2007	C	O4'-C1'-C2'	6.95	114.55	107.60
67	B1	2042	A	O3'-P-O5'	-6.95	93.58	104.00
24	AA	89	ARG	CA-C-N	6.94	129.91	120.54
24	AA	89	ARG	C-N-CA	6.94	129.91	120.54
67	B1	699	A	C1'-C2'-O2'	6.94	118.82	108.40
21	A2	280	C	N1-C1'-C2'	6.94	122.41	112.00
21	A2	703	U	N1-C1'-C2'	-6.94	101.59	112.00
21	A2	861	G	C1'-C2'-O2'	6.94	118.81	108.40
32	BO	15	ARG	N-CA-CB	6.94	120.33	110.12
37	BU	67	VAL	CB-CA-C	-6.94	102.94	112.24
67	B1	1613	A	C5'-C4'-C3'	-6.94	105.58	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2396	G	P-O3'-C3'	6.94	130.61	120.20
67	B1	2563	A	C1'-O4'-C4'	6.94	116.64	109.70
7	AB	7	VAL	CA-C-N	6.94	128.51	119.84
7	AB	7	VAL	C-N-CA	6.94	128.51	119.84
21	A2	33	U	O4'-C1'-N1	6.94	118.91	108.50
21	A2	828	U	C4'-C3'-C2'	-6.94	95.66	102.60
67	B1	407	A	N9-C1'-C2'	6.94	122.41	112.00
67	B1	1699	U	O4'-C4'-C3'	-6.94	97.06	104.00
68	B3	1	C	O4'-C1'-C2'	-6.94	100.66	107.60
67	B1	2220	C	C3'-C2'-C1'	6.94	108.24	101.30
2	AK	36	ILE	O-C-N	-6.94	116.06	122.79
21	A2	1185	A	C3'-C2'-C1'	6.94	108.24	101.30
67	B1	617	G	O4'-C1'-N9	6.94	118.91	108.50
67	B1	43	G	O4'-C1'-N9	6.94	118.90	108.50
67	B1	2081	C	N1-C1'-C2'	6.94	122.41	112.00
21	A2	924	U	C2'-C3'-O3'	6.93	119.90	109.50
21	A2	1183	C	N1-C1'-C2'	6.93	122.40	112.00
64	Bc	64	LYS	CB-CA-C	-6.93	99.51	111.30
67	B1	522	A	N9-C1'-C2'	6.93	122.40	112.00
67	B1	878	G	C1'-O4'-C4'	-6.93	102.97	109.90
30	AU	18	GLN	CA-C-N	6.93	130.26	120.28
30	AU	18	GLN	C-N-CA	6.93	130.26	120.28
20	BG	113	GLU	N-CA-CB	6.93	120.42	110.16
67	B1	1341	U	C1'-C2'-O2'	6.93	118.80	108.40
67	B1	2634	U	C1'-C2'-O2'	-6.93	101.40	111.80
67	B1	1186	G	C1'-O4'-C4'	-6.93	102.97	109.90
67	B1	2208	C	O4'-C1'-C2'	-6.93	100.67	107.60
67	B1	2218	C	C1'-O4'-C4'	-6.93	102.97	109.90
1	AQ	132	LEU	CA-C-N	6.93	129.95	120.46
1	AQ	132	LEU	C-N-CA	6.93	129.95	120.46
21	A2	65	G	N9-C1'-C2'	6.93	122.39	112.00
21	A2	1080	C	N1-C1'-C2'	6.93	122.39	112.00
67	B1	1817	C	C1'-C2'-O2'	6.93	118.80	108.40
12	AN	113	GLY	CA-C-O	6.93	126.30	119.37
17	AO	113	ARG	N-CA-CB	6.93	122.20	110.49
21	A2	570	G	C1'-O4'-C4'	-6.93	102.97	109.90
21	A2	806	G	P-O3'-C3'	-6.93	109.81	120.20
49	BQ	126	ARG	NE-CZ-NH2	6.93	125.44	119.20
67	B1	209	G	O4'-C1'-C2'	-6.93	100.67	107.60
67	B1	1648	C	C5'-C4'-C3'	6.93	126.39	116.00
22	AY	21	PHE	CA-C-N	6.93	130.02	120.39
22	AY	21	PHE	C-N-CA	6.93	130.02	120.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
52	BB	48	ILE	CB-CA-C	-6.93	100.38	110.63
54	BF	170	ASP	N-CA-C	-6.93	100.19	110.23
20	A3	82	SER	CA-C-N	6.92	129.44	120.44
20	A3	82	SER	C-N-CA	6.92	129.44	120.44
49	BQ	46	LYS	N-CA-C	6.92	118.83	111.28
67	B1	72	U	O4'-C1'-N1	6.92	118.59	108.20
67	B1	667	C	N1-C1'-C2'	6.92	122.39	112.00
67	B1	1624	U	C1'-C2'-O2'	6.92	122.19	111.80
67	B1	96	C	C5'-C4'-C3'	6.92	126.39	116.00
67	B1	465	C	C4'-C3'-C2'	-6.92	95.68	102.60
21	A2	92	G	C3'-C2'-C1'	-6.92	94.38	101.30
21	A2	1288	C	O4'-C1'-C2'	-6.92	100.68	107.60
21	A2	541	G	C1'-O4'-C4'	-6.92	102.98	109.90
20	BG	92	ILE	CA-C-N	6.92	130.12	120.29
20	BG	92	ILE	C-N-CA	6.92	130.12	120.29
67	B1	603	G	N9-C1'-C2'	6.92	122.38	112.00
67	B1	2317	G	C1'-C2'-O2'	6.92	118.78	108.40
17	AO	139	GLN	OE1-CD-NE2	6.92	129.52	122.60
21	A2	919	U	C2'-C3'-O3'	6.92	119.88	109.50
67	B1	89	C	O4'-C1'-C2'	-6.92	100.68	107.60
67	B1	171	A	C3'-C2'-C1'	6.92	108.22	101.30
67	B1	1831	C	N1-C1'-C2'	6.92	122.38	112.00
67	B1	1963	G	C1'-O4'-C4'	-6.92	102.98	109.90
21	A2	495	G	C1'-O4'-C4'	-6.92	102.98	109.90
67	B1	206	A	O4'-C1'-C2'	-6.92	100.68	107.60
67	B1	701	G	C1'-O4'-C4'	-6.92	102.98	109.90
67	B1	1191	C	O4'-C1'-C2'	-6.92	100.68	107.60
68	B3	117	G	C4'-C3'-C2'	-6.92	95.68	102.60
21	A2	1120	G	O4'-C1'-C2'	6.92	114.52	107.60
21	A2	1278	A	C1'-O4'-C4'	6.92	116.81	109.90
13	AX	16	GLY	N-CA-C	-6.91	101.50	110.69
29	AL	53	PRO	CA-C-N	6.91	130.11	120.29
29	AL	53	PRO	C-N-CA	6.91	130.11	120.29
64	Bc	8	LEU	CB-CA-C	-6.91	99.61	110.74
67	B1	2396	G	C4'-C3'-C2'	-6.91	95.69	102.60
67	B1	2467	C	O4'-C1'-C2'	-6.91	100.69	107.60
21	A2	593	G	P-O3'-C3'	-6.91	109.83	120.20
67	B1	2337	G	O4'-C1'-C2'	-6.91	100.69	107.60
67	B1	2636	C	O4'-C1'-C2'	-6.91	100.69	107.60
33	BC	196	PHE	CA-CB-CG	-6.91	106.89	113.80
67	B1	139	G	O4'-C1'-N9	6.91	118.86	108.50
67	B1	386	A	C1'-C2'-O2'	6.91	118.77	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	390	G	O4'-C1'-C2'	6.91	114.51	107.60
38	Bb	32	PRO	CA-C-N	6.91	129.42	120.44
38	Bb	32	PRO	C-N-CA	6.91	129.42	120.44
67	B1	404	G	N9-C1'-C2'	-6.91	103.64	114.00
67	B1	603	G	C1'-O4'-C4'	-6.91	102.99	109.90
67	B1	2112	C	O4'-C1'-C2'	-6.91	100.69	107.60
67	B1	2354	A	C1'-O4'-C4'	-6.91	102.99	109.90
51	Bj	17	HIS	CA-C-O	6.91	128.90	121.16
17	AO	64	GLU	CA-C-N	6.91	129.92	120.46
17	AO	64	GLU	C-N-CA	6.91	129.92	120.46
21	A2	338	C	O4'-C1'-N1	6.91	118.86	108.50
21	A2	1231	G	O4'-C1'-C2'	-6.91	100.69	107.60
21	A2	1327	C	O4'-C1'-C2'	-6.91	100.69	107.60
44	BW	62	LEU	N-CA-C	-6.91	103.68	111.07
21	A2	294	A	O4'-C1'-C2'	6.90	114.50	107.60
21	A2	365	C	C3'-C2'-C1'	6.90	108.20	101.30
21	A2	772	G	O4'-C1'-C2'	6.90	112.70	105.80
32	BO	37	VAL	CA-C-O	-6.90	113.07	120.59
67	B1	2655	C	N1-C1'-C2'	6.90	122.35	112.00
67	B1	2943	G	O3'-P-O5'	6.90	114.36	104.00
2	AK	12	THR	CA-CB-OG1	6.90	119.95	109.60
21	A2	240	U	P-O5'-C5'	6.90	131.25	120.90
61	Bd	17	THR	CA-C-N	6.90	126.53	119.56
61	Bd	17	THR	C-N-CA	6.90	126.53	119.56
67	B1	1420	U	O4'-C1'-N1	6.90	118.85	108.50
21	A2	715	C	P-O5'-C5'	6.90	131.25	120.90
20	A3	121	LEU	CA-C-N	6.90	134.72	121.54
20	A3	121	LEU	C-N-CA	6.90	134.72	121.54
21	A2	481	C	N1-C1'-C2'	6.90	122.35	112.00
35	BL	9	ARG	CB-CG-CD	6.90	127.16	111.30
67	B1	2511	C	C3'-C2'-C1'	6.90	108.20	101.30
2	AK	57	TRP	CA-C-O	6.89	128.06	120.82
21	A2	1493	C	P-O5'-C5'	-6.89	110.56	120.90
47	BI	72	ASP	CA-C-N	6.89	130.08	120.29
47	BI	72	ASP	C-N-CA	6.89	130.08	120.29
67	B1	2334	G	C1'-O4'-C4'	-6.89	103.01	109.90
14	AM	81	ILE	CA-C-O	6.89	127.63	120.39
21	A2	1240	A	O4'-C4'-C3'	-6.89	99.21	106.10
67	B1	59	U	C3'-C2'-C1'	6.89	108.19	101.30
67	B1	1905	G	N9-C1'-C2'	-6.89	101.66	112.00
67	B1	2878	A	O4'-C1'-N9	6.89	118.84	108.50
18	AF	16	TRP	CA-C-O	-6.89	113.09	120.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	227	C	O4'-C1'-C2'	-6.89	100.71	107.60
21	A2	1129	A	P-O5'-C5'	6.89	131.23	120.90
27	A0	61	C	O4'-C1'-C2'	-6.89	100.71	107.60
67	B1	335	C	N1-C1'-C2'	6.89	122.33	112.00
67	B1	1627	G	O4'-C1'-N9	6.89	118.83	108.50
27	A0	30	G	O4'-C1'-C2'	-6.89	100.71	107.60
56	BH	90	PRO	CB-CA-C	-6.89	101.09	110.60
67	B1	90	A	O4'-C1'-C2'	-6.89	98.91	105.80
67	B1	787	G	C1'-C2'-O2'	6.89	118.73	108.40
21	A2	1483	U	C2'-C3'-O3'	6.89	119.83	109.50
52	BB	175	ALA	CA-C-N	6.89	127.58	119.94
52	BB	175	ALA	C-N-CA	6.89	127.58	119.94
67	B1	719	C	C3'-C2'-O2'	6.89	121.03	110.70
67	B1	967	G	P-O5'-C5'	-6.89	110.57	120.90
67	B1	1814	A	C1'-C2'-O2'	6.89	118.73	108.40
24	AA	77	ASN	CA-CB-CG	-6.88	105.72	112.60
33	BC	221	VAL	N-CA-CB	6.88	122.74	111.45
67	B1	113	C	O4'-C1'-C2'	-6.88	100.72	107.60
31	BY	100	VAL	CA-C-N	6.88	129.23	120.56
31	BY	100	VAL	C-N-CA	6.88	129.23	120.56
41	Ba	37	GLU	CB-CA-C	-6.88	99.15	110.85
49	BQ	145	HIS	ND1-CE1-NE2	6.88	115.28	108.40
67	B1	913	G	N9-C1'-C2'	6.88	122.32	112.00
2	AK	100	MET	CG-SD-CE	-6.88	85.77	100.90
20	BG	92	ILE	N-CA-C	6.88	119.72	108.99
59	BM	112	GLU	CA-C-N	6.88	131.43	121.80
59	BM	112	GLU	C-N-CA	6.88	131.43	121.80
67	B1	1677	A	P-O3'-C3'	6.88	130.52	120.20
67	B1	1782	C	P-O3'-C3'	6.88	130.52	120.20
6	AC	176	ILE	CA-C-O	6.88	128.37	120.67
7	AB	102	THR	N-CA-C	-6.88	105.44	114.31
67	B1	1235	A	O3'-P-O5'	6.88	114.31	104.00
67	B1	2432	G	C1'-O4'-C4'	6.88	116.78	109.90
10	AD	30	MET	O-C-N	-6.88	114.83	122.12
21	A2	1249	A	O4'-C1'-C2'	-6.88	100.72	107.60
33	BC	94	GLU	CA-C-N	6.88	131.69	121.72
33	BC	94	GLU	C-N-CA	6.88	131.69	121.72
67	B1	711	C	C1'-O4'-C4'	6.88	116.78	109.90
21	A2	1281	U	N1-C1'-C2'	6.87	122.31	112.00
29	AL	95	THR	N-CA-CB	6.87	120.44	110.06
67	B1	692	C	C3'-C2'-C1'	6.87	108.17	101.30
67	B1	845	U	C3'-C2'-C1'	6.87	108.17	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	3045	G	O4'-C1'-C2'	-6.87	100.73	107.60
7	AB	119	ASP	CA-C-N	6.87	128.43	119.84
7	AB	119	ASP	C-N-CA	6.87	128.43	119.84
29	AL	90	VAL	CA-C-N	6.87	128.43	119.84
29	AL	90	VAL	C-N-CA	6.87	128.43	119.84
66	B1	62	PRO	N-CA-C	-6.87	105.88	114.68
67	B1	2283	C	O4'-C1'-C2'	-6.87	100.73	107.60
67	B1	2350	G	O4'-C1'-C2'	-6.87	100.73	107.60
67	B1	2968	G	O4'-C1'-N9	6.87	118.81	108.50
39	Be	36	ALA	O-C-N	6.87	129.40	122.12
54	BF	1	MET	CA-C-N	6.87	127.41	119.99
54	BF	1	MET	C-N-CA	6.87	127.41	119.99
67	B1	2710	G	O4'-C1'-C2'	-6.87	100.73	107.60
21	A2	65	G	O4'-C1'-N9	6.87	118.80	108.50
34	B5	22	VAL	CA-C-O	-6.87	114.55	121.49
67	B1	540	A	C3'-C2'-C1'	6.87	108.37	101.50
67	B1	1882	C	P-O5'-C5'	6.87	131.20	120.90
67	B1	2265	C	O4'-C1'-C2'	-6.87	100.73	107.60
67	B1	2502	C	N1-C1'-C2'	6.87	122.30	112.00
21	A2	640	U	P-O3'-C3'	6.87	130.50	120.20
12	AN	89	PRO	CA-C-N	6.87	134.87	121.41
12	AN	89	PRO	C-N-CA	6.87	134.87	121.41
21	A2	367	G	P-O5'-C5'	-6.87	110.60	120.90
67	B1	2537	G	N9-C1'-C2'	6.87	122.30	112.00
40	BE	93	ARG	CD-NE-CZ	6.86	134.01	124.40
67	B1	1576	C	N1-C1'-C2'	6.86	122.30	112.00
53	BD	117	ALA	N-CA-C	6.86	118.84	111.36
67	B1	2890	A	C3'-C2'-C1'	6.86	108.36	101.50
15	AE	128	ARG	N-CA-CB	6.86	120.20	110.12
21	A2	426	C	O4'-C1'-C2'	-6.86	100.74	107.60
21	A2	1319	C	P-O3'-C3'	-6.86	109.91	120.20
21	A2	1348	C	N1-C1'-C2'	6.86	122.29	112.00
58	BP	118	ILE	N-CA-CB	6.86	120.03	110.56
67	B1	1095	A	N9-C1'-C2'	6.86	122.29	112.00
67	B1	1125	A	P-O3'-C3'	6.86	130.49	120.20
67	B1	917	A	C5'-C4'-O4'	6.86	119.39	109.10
67	B1	1478	G	O4'-C1'-C2'	6.86	114.46	107.60
1	AQ	22	PRO	CA-C-N	6.86	126.89	119.90
1	AQ	22	PRO	C-N-CA	6.86	126.89	119.90
4	AG	76	PRO	CA-C-O	-6.86	113.52	121.34
21	A2	106	A	C1'-O4'-C4'	6.86	116.76	109.90
21	A2	367	G	C5'-C4'-C3'	6.86	126.28	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	AA	100	THR	CA-CB-CG2	6.86	122.16	110.50
67	B1	1937	A	O4'-C1'-C2'	-6.86	100.74	107.60
67	B1	2538	G	O4'-C4'-C3'	-6.86	97.14	104.00
67	B1	2622	C	C1'-O4'-C4'	-6.86	103.04	109.90
21	A2	538	C	O4'-C1'-C2'	-6.86	100.74	107.60
21	A2	1105	C	N1-C1'-C2'	6.86	122.28	112.00
21	A2	1410	G	C3'-C2'-C1'	6.86	108.16	101.30
67	B1	1614	U	C5'-C4'-C3'	-6.86	105.72	116.00
67	B1	2518	G	O4'-C1'-N9	6.86	118.78	108.50
21	A2	179	U	O4'-C1'-C2'	-6.85	100.75	107.60
67	B1	1898	A	C1'-C2'-O2'	-6.85	98.12	108.40
4	AG	49	GLU	CA-C-N	6.85	134.63	121.54
4	AG	49	GLU	C-N-CA	6.85	134.63	121.54
8	AR	28	LYS	CA-C-N	6.85	129.68	120.50
8	AR	28	LYS	C-N-CA	6.85	129.68	120.50
21	A2	335	G	C1'-O4'-C4'	-6.85	103.05	109.90
34	BK	22	VAL	CA-C-O	-6.85	114.57	121.49
67	B1	645	U	C1'-O4'-C4'	6.85	116.75	109.90
67	B1	742	C	N1-C1'-C2'	6.85	122.28	112.00
67	B1	2409	C	O4'-C1'-C2'	-6.85	100.75	107.60
67	B1	3024	C	N1-C1'-C2'	6.85	122.28	112.00
62	BN	128	LYS	CA-C-N	6.85	132.12	122.46
62	BN	128	LYS	C-N-CA	6.85	132.12	122.46
67	B1	2873	G	O4'-C1'-N9	6.85	118.78	108.50
21	A2	821	G	O4'-C1'-C2'	-6.85	100.75	107.60
33	BC	197	ASN	N-CA-CB	6.85	119.94	110.01
19	AS	4	ILE	CA-C-N	6.85	131.29	121.50
19	AS	4	ILE	C-N-CA	6.85	131.29	121.50
21	A2	1279	A	O4'-C1'-C2'	-6.85	100.75	107.60
67	B1	117	A	O4'-C1'-C2'	-6.85	100.75	107.60
67	B1	475	U	N1-C1'-C2'	-6.85	101.73	112.00
67	B1	1407	A	C3'-C2'-C1'	6.85	108.35	101.50
67	B1	2617	G	N9-C1'-C2'	6.85	122.27	112.00
67	B1	1271	G	N9-C1'-C2'	6.85	122.27	112.00
67	B1	2970	U	O4'-C1'-N1	6.85	118.77	108.50
21	A2	658	A	C3'-C2'-C1'	6.84	108.14	101.30
60	BS	40	ARG	CB-CA-C	6.84	120.58	109.90
67	B1	956	U	P-O3'-C3'	6.84	130.47	120.20
67	B1	1416	G	O5'-C5'-C4'	-6.84	101.43	111.70
67	B1	1734	G	C5'-C4'-C3'	-6.84	105.73	116.00
67	B1	2431	C	C3'-C2'-C1'	6.84	108.14	101.30
21	A2	1229	A	C1'-O4'-C4'	6.84	116.74	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
51	Bj	29	PRO	CA-C-N	6.84	133.77	122.07
51	Bj	29	PRO	C-N-CA	6.84	133.77	122.07
67	B1	132	G	C3'-C2'-C1'	-6.84	94.46	101.30
67	B1	1793	G	N9-C1'-C2'	6.84	122.26	112.00
67	B1	1933	U	N1-C1'-C2'	6.84	122.26	112.00
17	AO	121	GLU	CA-C-N	6.84	129.45	120.28
17	AO	121	GLU	C-N-CA	6.84	129.45	120.28
21	A2	81	C	O4'-C1'-C2'	-6.84	100.76	107.60
67	B1	1165	C	C3'-C2'-C1'	6.84	108.14	101.30
7	AB	122	ALA	CB-CA-C	-6.84	96.84	109.29
21	A2	335	G	O4'-C1'-C2'	6.84	114.44	107.60
32	BO	62	ALA	N-CA-C	-6.84	97.95	108.76
49	BQ	142	LEU	CA-C-N	6.84	129.44	120.28
49	BQ	142	LEU	C-N-CA	6.84	129.44	120.28
52	BB	237	ARG	NE-CZ-NH2	-6.84	113.04	119.20
67	B1	392	G	N9-C1'-C2'	6.84	122.26	112.00
67	B1	726	G	O4'-C1'-N9	6.84	118.76	108.50
67	B1	1303	C	C3'-C2'-O2'	6.84	120.96	110.70
67	B1	2868	C	N1-C1'-C2'	6.84	122.26	112.00
14	AM	23	PHE	N-CA-C	-6.84	104.06	112.88
67	B1	2597	A	C3'-C2'-C1'	6.84	108.14	101.30
25	AH	176	ASN	CA-C-N	6.84	130.13	120.28
25	AH	176	ASN	C-N-CA	6.84	130.13	120.28
67	B1	1241	C	C3'-C2'-C1'	6.84	108.14	101.30
67	B1	1976	C	P-O5'-C5'	6.84	131.16	120.90
67	B1	2783	C	N1-C1'-C2'	6.84	122.26	112.00
67	B1	2985	U	C1'-O4'-C4'	6.84	116.74	109.90
21	A2	749	C	N1-C1'-C2'	6.83	122.25	112.00
21	A2	1322	C	O4'-C1'-C2'	-6.83	100.77	107.60
21	A2	1413	G	C3'-C2'-C1'	-6.83	94.47	101.30
22	AY	25	CYS	N-CA-C	-6.83	99.35	109.81
67	B1	474	G	C1'-O4'-C4'	-6.83	102.86	109.70
67	B1	860	A	C4'-C3'-O3'	-6.83	102.75	113.00
2	AK	130	ARG	N-CA-CB	6.83	120.03	109.85
21	A2	272	C	N1-C1'-C2'	6.83	122.25	112.00
52	BB	98	PRO	CB-CA-C	-6.83	102.48	111.23
65	BJ	108	THR	CA-C-O	-6.83	113.23	120.88
67	B1	1907	G	N9-C1'-C2'	6.83	122.25	112.00
67	B1	2189	C	C1'-O4'-C4'	-6.83	103.07	109.90
10	AD	165	HIS	CB-CG-CD2	-6.83	122.32	131.20
21	A2	1174	A	C3'-C2'-C1'	6.83	108.33	101.50
21	A2	1451	C	O4'-C1'-C2'	-6.83	100.77	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	246	A	O4'-C1'-C2'	-6.83	100.77	107.60
67	B1	634	G	O4'-C1'-N9	6.83	118.75	108.50
21	A2	211	G	N9-C1'-C2'	6.83	122.25	112.00
21	A2	1271	G	N9-C1'-C2'	6.83	122.25	112.00
67	B1	498	U	N1-C1'-C2'	6.83	122.24	112.00
67	B1	1920	A	N9-C1'-C2'	6.83	124.25	114.00
67	B1	2753	G	C3'-C2'-C1'	-6.83	94.67	101.50
21	A2	1252	C	P-O5'-C5'	6.83	131.14	120.90
24	AA	168	ALA	N-CA-C	6.83	118.72	111.28
67	B1	1632	U	C1'-O4'-C4'	6.83	116.73	109.90
67	B1	2143	C	N1-C1'-C2'	6.83	122.24	112.00
67	B1	2796	C	P-O3'-C3'	6.83	130.44	120.20
68	B3	56	C	N1-C1'-C2'	6.83	122.24	112.00
27	A0	66	C	P-O3'-C3'	6.83	130.44	120.20
37	BU	106	ASN	CA-CB-CG	-6.83	105.77	112.60
67	B1	149	G	O4'-C1'-N9	6.83	118.74	108.50
67	B1	962	C	O4'-C1'-C2'	-6.83	100.77	107.60
67	B1	1762	G	O4'-C1'-C2'	-6.83	100.77	107.60
12	AN	11	PHE	CA-C-N	6.83	131.52	120.60
12	AN	11	PHE	C-N-CA	6.83	131.52	120.60
67	B1	1287	G	O4'-C1'-C2'	-6.83	100.77	107.60
2	AK	77	ALA	CA-C-N	6.82	129.98	120.29
2	AK	77	ALA	C-N-CA	6.82	129.98	120.29
4	AG	72	PHE	N-CA-CB	6.82	120.54	109.90
15	AE	230	ALA	N-CA-CB	6.82	120.02	109.85
21	A2	101	G	C3'-C2'-C1'	-6.82	94.48	101.30
21	A2	240	U	O4'-C1'-N1	6.82	118.43	108.20
21	A2	392	G	C1'-C2'-O2'	6.82	118.64	108.40
59	BM	23	LEU	CA-C-N	6.82	129.42	120.28
59	BM	23	LEU	C-N-CA	6.82	129.42	120.28
67	B1	806	C	N1-C1'-C2'	6.82	122.23	112.00
67	B1	1246	G	O4'-C1'-N9	6.82	118.44	108.20
67	B1	1628	C	C3'-C2'-C1'	6.82	108.12	101.30
67	B1	2013	A	C4'-C3'-C2'	-6.82	95.78	102.60
21	A2	483	G	C3'-C2'-C1'	-6.82	94.48	101.30
34	B5	74	ALA	CA-C-N	6.82	129.42	120.28
34	B5	74	ALA	C-N-CA	6.82	129.42	120.28
58	BP	74	LEU	N-CA-C	-6.82	95.60	107.20
67	B1	940	G	C5'-C4'-C3'	6.82	125.43	115.20
67	B1	2196	C	O4'-C1'-C2'	-6.82	100.78	107.60
21	A2	798	U	C3'-C2'-C1'	6.82	108.12	101.30
67	B1	798	G	C1'-O4'-C4'	-6.82	103.08	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2488	C	O4'-C1'-C2'	-6.82	100.78	107.60
67	B1	1724	A	O4'-C1'-C2'	-6.82	100.78	107.60
21	A2	528	G	O4'-C1'-N9	-6.82	97.97	108.20
67	B1	2586	A	C3'-C2'-C1'	-6.82	94.48	101.30
21	A2	1311	C	C3'-C2'-C1'	6.82	108.11	101.30
25	AH	14	GLU	CA-C-N	6.82	133.06	122.84
25	AH	14	GLU	C-N-CA	6.82	133.06	122.84
33	BC	61	THR	N-CA-C	-6.82	98.65	108.60
33	BC	349	PRO	N-CA-C	6.82	119.01	110.70
47	BI	78	THR	CA-CB-OG1	6.82	119.82	109.60
50	BV	18	THR	CA-CB-CG2	6.82	122.09	110.50
62	BN	135	ILE	N-CA-C	-6.82	98.36	108.85
67	B1	1274	G	O4'-C1'-C2'	6.82	114.42	107.60
67	B1	1548	A	O4'-C1'-N9	6.82	118.72	108.50
7	AB	15	ALA	N-CA-CB	6.81	121.70	110.39
21	A2	323	A	C3'-C2'-O2'	-6.81	104.38	114.60
21	A2	1073	C	N1-C1'-C2'	6.81	122.22	112.00
41	Ba	8	GLU	N-CA-CB	6.81	122.08	110.50
67	B1	1152	C	C1'-O4'-C4'	-6.81	103.09	109.90
16	AJ	102	GLU	N-CA-C	-6.81	98.82	109.72
21	A2	167	G	C5'-C4'-C3'	-6.81	105.78	116.00
21	A2	1231	G	C3'-C2'-C1'	6.81	108.11	101.30
20	B4	113	GLU	CA-C-N	6.81	129.14	120.56
20	B4	113	GLU	C-N-CA	6.81	129.14	120.56
65	BJ	39	GLN	N-CA-C	-6.81	97.80	108.90
67	B1	1367	A	C2'-C3'-O3'	6.81	123.92	113.70
67	B1	1748	C	O4'-C1'-C2'	-6.81	100.79	107.60
21	A2	159	C	C3'-C2'-C1'	6.81	108.11	101.30
49	BQ	85	LYS	CA-C-N	6.81	132.09	120.72
49	BQ	85	LYS	C-N-CA	6.81	132.09	120.72
49	BQ	86	THR	N-CA-CB	6.81	121.70	110.39
49	BQ	123	LEU	N-CA-C	6.81	118.50	111.14
21	A2	1043	U	N1-C1'-C2'	-6.81	101.79	112.00
36	Bf	49	LEU	CD1-CG-CD2	6.81	125.78	110.80
40	BE	90	LEU	O-C-N	6.81	129.91	122.15
67	B1	553	C	C3'-C2'-C1'	6.81	108.11	101.30
67	B1	1723	A	O4'-C1'-C2'	-6.81	100.79	107.60
15	AE	64	LYS	CB-CA-C	-6.81	99.28	110.85
21	A2	348	C	P-O3'-C3'	6.81	130.41	120.20
21	A2	829	U	O4'-C1'-N1	6.81	118.41	108.20
67	B1	1365	G	O4'-C1'-C2'	6.81	114.41	107.60
67	B1	1882	C	C3'-C2'-C1'	6.81	108.11	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2319	C	C3'-C2'-C1'	6.81	108.11	101.30
67	B1	2891	A	C1'-O4'-C4'	-6.81	102.89	109.70
7	AB	146	LEU	CB-CA-C	-6.81	96.88	110.42
16	AJ	103	THR	N-CA-C	-6.81	98.96	109.24
21	A2	602	G	O4'-C1'-N9	6.81	118.71	108.50
67	B1	1196	A	P-O3'-C3'	6.81	130.41	120.20
67	B1	2070	U	C1'-O4'-C4'	-6.81	103.09	109.90
2	AK	66	VAL	N-CA-CB	6.80	120.47	111.90
5	AW	37	CYS	N-CA-C	-6.80	99.21	110.17
15	AE	191	LYS	N-CA-C	-6.80	104.55	112.92
21	A2	813	G	O4'-C1'-N9	6.80	118.71	108.50
28	AV	97	GLU	CA-C-N	6.80	134.75	121.41
28	AV	97	GLU	C-N-CA	6.80	134.75	121.41
33	BC	323	MET	CG-SD-CE	-6.80	85.93	100.90
67	B1	652	G	C3'-C2'-C1'	6.80	108.11	101.30
67	B1	1464	A	O4'-C1'-C2'	-6.80	100.80	107.60
67	B1	1465	A	O4'-C1'-N9	6.80	118.71	108.50
67	B1	2088	G	O4'-C1'-C2'	-6.80	99.00	105.80
7	AB	78	LYS	CA-C-N	6.80	126.31	119.24
7	AB	78	LYS	C-N-CA	6.80	126.31	119.24
21	A2	1435	G	N9-C1'-C2'	6.80	122.20	112.00
67	B1	859	G	N9-C1'-C2'	-6.80	101.80	112.00
21	A2	200	G	C5'-C4'-C3'	6.80	126.20	116.00
21	A2	1204	C	P-O5'-C5'	6.80	131.10	120.90
25	AH	147	HIS	N-CA-C	-6.80	98.95	108.54
67	B1	25	U	C1'-C2'-O2'	6.80	118.60	108.40
67	B1	1082	A	C1'-O4'-C4'	-6.80	102.90	109.70
67	B1	2448	A	O4'-C1'-N9	6.80	118.70	108.50
67	B1	3024	C	O4'-C1'-C2'	-6.80	100.80	107.60
21	A2	484	U	C4'-C3'-C2'	6.80	109.40	102.60
67	B1	665	C	C3'-C2'-C1'	6.80	108.30	101.50
25	AH	149	ALA	CB-CA-C	-6.80	98.65	109.80
52	BB	25	ARG	NE-CZ-NH2	6.80	125.32	119.20
65	BJ	12	VAL	O-C-N	6.80	130.02	122.61
6	AC	109	PHE	O-C-N	6.80	129.43	122.09
11	A1	58	A	C1'-O4'-C4'	6.80	116.70	109.90
15	AE	26	TYR	CB-CG-CD2	-6.80	110.60	120.80
21	A2	195	C	C3'-C2'-C1'	6.80	108.10	101.30
21	A2	827	G	N9-C1'-C2'	6.80	122.19	112.00
67	B1	805	C	O4'-C1'-C2'	-6.80	100.80	107.60
67	B1	2794	G	O4'-C1'-C2'	6.80	114.40	107.60
21	A2	26	A	O4'-C1'-N9	-6.79	98.31	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	BM	45	LEU	N-CA-CB	6.79	120.11	110.12
67	B1	539	A	P-O3'-C3'	6.79	130.39	120.20
21	A2	908	G	N9-C1'-C2'	6.79	122.19	112.00
21	A2	1089	C	P-O3'-C3'	-6.79	110.01	120.20
46	BA	58	LYS	CA-C-N	6.79	130.40	120.82
46	BA	58	LYS	C-N-CA	6.79	130.40	120.82
67	B1	839	A	P-O3'-C3'	-6.79	110.01	120.20
67	B1	2013	A	C3'-C2'-C1'	6.79	108.09	101.30
67	B1	2385	G	C3'-C2'-C1'	6.79	108.09	101.30
67	B1	2805	U	C2'-C3'-O3'	6.79	119.69	109.50
21	A2	523	C	N1-C1'-C2'	6.79	122.19	112.00
21	A2	1274	C	O4'-C1'-C2'	-6.79	100.81	107.60
34	BK	74	ALA	CA-C-N	6.79	129.38	120.28
34	BK	74	ALA	C-N-CA	6.79	129.38	120.28
67	B1	1920	A	O4'-C1'-C2'	-6.79	99.01	105.80
67	B1	2334	G	P-O5'-C5'	-6.79	110.71	120.90
67	B1	443	C	C3'-C2'-C1'	6.79	108.29	101.50
21	A2	1439	G	N9-C1'-C2'	-6.79	101.82	112.00
25	AH	13	HIS	CE1-NE2-CD2	-6.79	102.21	109.00
30	AU	55	VAL	CA-C-N	6.79	129.38	120.28
30	AU	55	VAL	C-N-CA	6.79	129.38	120.28
67	B1	1704	C	O3'-P-O5'	6.79	114.18	104.00
67	B1	1847	U	O4'-C1'-N1	6.79	118.68	108.50
67	B1	2933	C	C4'-C3'-C2'	-6.79	95.81	102.60
21	A2	423	U	N1-C1'-C2'	-6.79	101.82	112.00
67	B1	2573	C	O4'-C1'-N1	6.79	118.38	108.20
67	B1	372	A	C1'-O4'-C4'	6.79	116.48	109.70
67	B1	2843	C	C1'-O4'-C4'	-6.79	103.11	109.90
7	AB	190	ILE	CA-C-N	6.78	126.70	119.85
7	AB	190	ILE	C-N-CA	6.78	126.70	119.85
67	B1	84	A	O3'-P-O5'	6.78	114.17	104.00
11	A1	43	G	O4'-C1'-N9	6.78	118.67	108.50
21	A2	112	G	C3'-C2'-C1'	6.78	108.08	101.30
21	A2	311	A	N9-C1'-C2'	-6.78	103.83	114.00
67	B1	1224	A	O4'-C1'-N9	6.78	118.67	108.50
67	B1	2157	U	O4'-C1'-C2'	-6.78	100.82	107.60
68	B3	27	C	O4'-C4'-C3'	-6.78	97.22	104.00
7	AB	124	HIS	CG-CD2-NE2	6.78	113.98	107.20
68	B3	4	C	O4'-C1'-C2'	-6.78	100.82	107.60
21	A2	1113	G	C4'-C3'-C2'	-6.78	95.82	102.60
33	BC	36	VAL	N-CA-CB	6.78	118.64	112.06
67	B1	585	G	C1'-O4'-C4'	-6.78	103.12	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	779	A	O4'-C1'-C2'	-6.78	100.82	107.60
67	B1	797	C	C3'-C2'-C1'	6.78	108.08	101.30
21	A2	31	U	P-O3'-C3'	-6.78	110.04	120.20
21	A2	1045	A	P-O5'-C5'	-6.78	110.74	120.90
21	A2	1274	C	C1'-C2'-O2'	6.78	118.56	108.40
41	Ba	37	GLU	N-CA-CB	6.78	120.19	110.16
67	B1	1118	A	C4'-C3'-O3'	-6.78	102.84	113.00
67	B1	2604	G	C1'-O4'-C4'	-6.78	103.12	109.90
1	AQ	24	ILE	N-CA-C	-6.77	105.73	112.17
7	AB	175	ILE	N-CA-CB	6.77	119.75	110.54
67	B1	2959	A	N9-C1'-C2'	6.77	122.16	112.00
10	AD	50	ASN	CA-C-N	6.77	129.25	120.44
10	AD	50	ASN	C-N-CA	6.77	129.25	120.44
21	A2	42	G	N9-C1'-C2'	6.77	124.16	114.00
21	A2	1365	G	C1'-O4'-C4'	-6.77	103.13	109.90
67	B1	415	U	O4'-C1'-N1	6.77	118.66	108.50
67	B1	2118	C	O4'-C1'-N1	6.77	118.66	108.50
67	B1	2307	C	O4'-C4'-C3'	-6.77	97.23	104.00
36	Bf	29	VAL	CA-C-N	6.77	129.35	120.28
36	Bf	29	VAL	C-N-CA	6.77	129.35	120.28
67	B1	2153	C	C3'-C2'-C1'	6.77	108.07	101.30
67	B1	2939	C	O4'-C1'-N1	6.77	118.66	108.50
21	A2	226	G	O4'-C1'-N9	6.77	118.65	108.50
21	A2	647	G	O4'-C1'-C2'	6.77	114.37	107.60
21	A2	1145	C	C4'-C3'-C2'	-6.77	95.83	102.60
27	A0	27	C	C3'-C2'-O2'	6.77	120.86	110.70
33	BC	292	ASN	CB-CA-C	6.77	123.89	110.42
34	B5	16	ARG	CA-C-N	6.77	134.47	121.54
34	B5	16	ARG	C-N-CA	6.77	134.47	121.54
49	BQ	87	ALA	CB-CA-C	-6.77	99.34	110.85
67	B1	876	C	P-O3'-C3'	6.77	130.35	120.20
67	B1	1225	A	O3'-P-O5'	-6.77	93.85	104.00
67	B1	2037	A	C4'-C3'-C2'	6.77	109.37	102.60
21	A2	8	U	C1'-C2'-O2'	6.77	121.95	111.80
52	BB	22	HIS	CE1-NE2-CD2	-6.77	102.23	109.00
67	B1	1035	G	P-O5'-C5'	6.77	131.05	120.90
67	B1	1302	G	N9-C1'-C2'	6.77	122.15	112.00
67	B1	2967	C	C4'-C3'-C2'	-6.77	95.83	102.60
68	B3	122	C	N1-C1'-C2'	-6.77	103.85	114.00
7	AB	157	ASN	N-CA-C	-6.76	99.57	110.32
21	A2	335	G	C3'-C2'-C1'	-6.76	94.53	101.30
21	A2	1318	U	N1-C1'-C2'	6.76	122.15	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1417	A	O4'-C1'-C2'	-6.76	100.84	107.60
61	Bd	18	PRO	CB-CA-C	6.76	121.56	111.68
67	B1	1168	A	C3'-C2'-C1'	6.76	108.06	101.30
67	B1	1542	U	O4'-C1'-N1	6.76	118.35	108.20
67	B1	1960	U	C3'-C2'-C1'	6.76	108.06	101.30
67	B1	1973	U	P-O3'-C3'	6.76	130.35	120.20
68	B3	87	G	O4'-C1'-C2'	-6.76	100.83	107.60
15	AE	144	ASP	CA-CB-CG	6.76	119.36	112.60
21	A2	989	C	P-O3'-C3'	6.76	130.34	120.20
21	A2	1401	U	O4'-C1'-C2'	6.76	114.36	107.60
67	B1	159	C	P-O5'-C5'	6.76	131.04	120.90
67	B1	229	G	N9-C1'-C2'	6.76	122.14	112.00
67	B1	1060	C	C1'-O4'-C4'	6.76	116.66	109.90
67	B1	1726	A	N9-C1'-C2'	-6.76	101.86	112.00
67	B1	2018	C	O4'-C1'-C2'	-6.76	100.84	107.60
67	B1	2368	G	O4'-C1'-N9	6.76	118.64	108.50
68	B3	21	C	C3'-C2'-C1'	6.76	108.06	101.30
25	AH	97	LYS	N-CA-CB	6.76	121.81	110.32
25	AH	171	ALA	CA-C-N	6.76	129.89	120.29
25	AH	171	ALA	C-N-CA	6.76	129.89	120.29
21	A2	248	U	P-O5'-C5'	-6.76	110.76	120.90
21	A2	1486	A	O4'-C1'-N9	6.76	118.64	108.50
62	BN	103	ARG	CD-NE-CZ	-6.76	114.94	124.40
20	B4	88	ALA	O-C-N	-6.76	114.45	122.15
67	B1	1816	C	N1-C1'-C2'	6.76	122.14	112.00
14	AM	74	LYS	O-C-N	6.76	130.58	122.27
46	BA	146	VAL	CB-CA-C	-6.76	103.32	111.97
47	BI	106	GLU	N-CA-C	-6.76	104.66	113.17
54	BF	44	ILE	N-CA-C	-6.76	97.89	107.75
67	B1	553	C	N1-C1'-C2'	6.76	122.13	112.00
67	B1	1951	G	O4'-C1'-C2'	-6.76	100.84	107.60
67	B1	2977	G	N9-C1'-C2'	6.76	122.14	112.00
11	A1	66	C	C4'-C3'-O3'	-6.75	102.87	113.00
30	AU	26	ILE	N-CA-C	-6.75	98.50	108.97
67	B1	1481	G	N9-C1'-C2'	6.75	122.13	112.00
67	B1	2098	C	O4'-C1'-C2'	-6.75	100.84	107.60
21	A2	1255	C	C1'-O4'-C4'	-6.75	103.15	109.90
30	AU	73	LEU	CA-C-N	6.75	129.33	120.28
30	AU	73	LEU	C-N-CA	6.75	129.33	120.28
46	BA	173	SER	CA-C-N	6.75	129.33	120.28
46	BA	173	SER	C-N-CA	6.75	129.33	120.28
67	B1	1191	C	C3'-C2'-C1'	6.75	108.05	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	AB	58	PHE	CA-C-N	6.75	129.88	120.29
7	AB	58	PHE	C-N-CA	6.75	129.88	120.29
21	A2	88	G	P-O5'-C5'	6.75	131.03	120.90
21	A2	732	G	P-O5'-C5'	6.75	131.03	120.90
43	Bk	101	LYS	CA-C-N	6.75	129.33	120.28
43	Bk	101	LYS	C-N-CA	6.75	129.33	120.28
67	B1	273	G	P-O3'-C3'	6.75	130.33	120.20
67	B1	1082	A	C3'-C2'-C1'	6.75	108.25	101.50
21	A2	607	U	O4'-C1'-N1	6.75	118.32	108.20
21	A2	618	G	O4'-C1'-N9	6.75	118.62	108.50
32	BO	60	VAL	O-C-N	6.75	130.43	123.00
67	B1	474	G	O4'-C1'-C2'	6.75	112.55	105.80
67	B1	2104	G	O4'-C1'-C2'	-6.75	99.05	105.80
68	B3	65	G	C1'-C2'-O2'	6.75	118.52	108.40
7	AB	53	LYS	CA-C-N	6.75	129.70	120.46
7	AB	53	LYS	C-N-CA	6.75	129.70	120.46
21	A2	1374	C	N1-C1'-C2'	6.75	122.12	112.00
20	BG	61	GLU	N-CA-C	6.75	119.50	111.33
53	BD	35	VAL	CA-C-O	-6.75	113.70	120.85
67	B1	1738	A	N9-C1'-C2'	-6.75	101.88	112.00
67	B1	2696	G	N9-C1'-C2'	-6.75	103.88	114.00
68	B3	15	G	C3'-C2'-C1'	-6.75	94.55	101.30
21	A2	66	G	N9-C1'-C2'	6.75	122.12	112.00
21	A2	1405	C	C1'-O4'-C4'	6.75	116.65	109.90
25	AH	181	ALA	N-CA-C	6.75	118.29	111.07
39	Be	11	ARG	CA-C-N	6.75	133.84	121.70
39	Be	11	ARG	C-N-CA	6.75	133.84	121.70
67	B1	1584	G	P-O5'-C5'	6.75	131.02	120.90
67	B1	1772	A	O3'-P-O5'	-6.75	93.88	104.00
67	B1	2589	C	C4'-C3'-C2'	6.75	109.35	102.60
7	AB	152	LEU	CA-C-N	6.75	132.31	123.00
7	AB	152	LEU	C-N-CA	6.75	132.31	123.00
21	A2	30	C	C1'-O4'-C4'	-6.75	103.16	109.90
21	A2	943	C	C3'-C2'-C1'	6.74	108.04	101.30
54	BF	65	VAL	CB-CA-C	-6.74	103.04	112.14
57	BZ	29	THR	N-CA-C	-6.74	104.00	111.82
67	B1	463	A	N9-C1'-C2'	6.74	122.12	112.00
67	B1	1561	G	P-O3'-C3'	6.74	130.31	120.20
67	B1	1722	G	O5'-C5'-C4'	6.74	121.62	111.50
67	B1	1964	G	C5'-C4'-C3'	-6.74	105.89	116.00
67	B1	2050	U	N1-C1'-C2'	6.74	124.12	114.00
26	AP	35	GLY	O-C-N	6.74	130.32	122.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
57	BZ	7	LEU	CA-C-N	6.74	129.31	120.28
57	BZ	7	LEU	C-N-CA	6.74	129.31	120.28
67	B1	1328	G	C3'-C2'-C1'	6.74	108.24	101.50
21	A2	1095	C	C3'-C2'-C1'	-6.74	94.56	101.30
21	A2	1308	U	C3'-C2'-C1'	6.74	108.04	101.30
68	B3	58	C	N1-C1'-C2'	6.74	122.11	112.00
10	AD	68	ILE	N-CA-CB	6.74	118.89	110.47
21	A2	340	A	C4'-C3'-O3'	-6.74	102.89	113.00
34	B5	46	ARG	O-C-N	-6.74	116.21	123.42
35	BL	58	LEU	N-CA-C	-6.74	98.42	109.40
67	B1	1003	C	O4'-C1'-C2'	-6.74	100.86	107.60
67	B1	1556	G	C4'-C3'-C2'	-6.74	95.86	102.60
67	B1	1559	A	N9-C1'-C2'	6.74	122.11	112.00
67	B1	2597	A	O4'-C1'-C2'	-6.74	100.86	107.60
51	Bj	62	VAL	CA-C-N	6.74	133.17	122.59
51	Bj	62	VAL	C-N-CA	6.74	133.17	122.59
63	Bg	18	LEU	N-CA-CB	-6.74	100.22	110.12
8	AR	18	ASP	CA-C-N	6.74	126.43	119.56
8	AR	18	ASP	C-N-CA	6.74	126.43	119.56
21	A2	152	G	P-O5'-C5'	-6.74	110.80	120.90
21	A2	408	C	O4'-C1'-N1	6.74	118.60	108.50
67	B1	562	G	O4'-C1'-N9	6.74	118.60	108.50
67	B1	1011	A	O4'-C1'-C2'	-6.74	100.86	107.60
68	B3	91	G	P-O5'-C5'	6.74	131.00	120.90
27	A0	66	C	C3'-C2'-C1'	6.73	108.03	101.30
67	B1	1924	A	O5'-C5'-C4'	-6.73	101.40	111.50
67	B1	1959	C	C4'-C3'-C2'	-6.73	95.87	102.60
25	AH	9	PHE	N-CA-C	6.73	118.70	111.36
48	BR	31	PHE	CB-CA-C	-6.73	99.61	110.79
67	B1	413	A	O4'-C1'-C2'	-6.73	99.07	105.80
67	B1	1336	G	N9-C1'-C2'	-6.73	101.90	112.00
67	B1	2230	G	O5'-C5'-C4'	-6.73	101.40	111.50
67	B1	3004	C	P-O5'-C5'	6.73	131.00	120.90
68	B3	30	G	O4'-C4'-C3'	-6.73	97.27	104.00
10	AD	27	ARG	NE-CZ-NH2	6.73	125.26	119.20
21	A2	925	U	N1-C1'-C2'	6.73	122.09	112.00
21	A2	1295	C	O4'-C1'-C2'	-6.73	100.87	107.60
49	BQ	109	LEU	CA-C-O	-6.73	112.50	120.10
20	BG	67	PRO	CA-C-O	-6.73	110.80	120.56
59	BM	71	ARG	NE-CZ-NH2	6.73	125.26	119.20
68	B3	19	G	P-O5'-C5'	6.73	131.00	120.90
1	AQ	61	PRO	CB-CA-C	6.73	122.66	111.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2371	A	O4'-C1'-N9	6.73	118.59	108.50
67	B1	2405	U	C5'-C4'-C3'	-6.73	105.91	116.00
67	B1	2855	G	O4'-C1'-C2'	6.73	114.33	107.60
21	A2	39	U	O4'-C1'-C2'	-6.73	100.87	107.60
21	A2	150	G	O4'-C1'-N9	6.73	118.59	108.50
21	A2	187	C	O4'-C1'-C2'	-6.73	100.87	107.60
21	A2	574	A	O4'-C1'-N9	6.73	118.59	108.50
24	AA	127	ARG	CA-C-N	6.73	130.91	120.75
24	AA	127	ARG	C-N-CA	6.73	130.91	120.75
52	BB	55	THR	CB-CA-C	6.73	121.28	111.73
67	B1	12	C	C3'-C2'-C1'	6.73	108.03	101.30
27	A0	9	A	C1'-O4'-C4'	6.73	116.43	109.70
49	BQ	61	TYR	O-C-N	6.73	129.00	122.07
67	B1	63	A	C1'-C2'-O2'	-6.73	101.71	111.80
67	B1	1278	C	C3'-C2'-C1'	6.73	108.03	101.30
14	AM	102	ILE	CA-C-N	6.72	129.29	120.28
14	AM	102	ILE	C-N-CA	6.72	129.29	120.28
21	A2	211	G	O4'-C1'-C2'	-6.72	100.88	107.60
21	A2	527	A	C5'-C4'-C3'	6.72	126.09	116.00
31	BY	22	THR	N-CA-CB	6.72	120.00	110.12
67	B1	1845	C	O4'-C1'-C2'	-6.72	100.88	107.60
67	B1	27	G	O4'-C4'-C3'	-6.72	99.38	106.10
67	B1	128	C	C1'-O4'-C4'	-6.72	103.18	109.90
67	B1	980	G	P-O5'-C5'	6.72	130.98	120.90
67	B1	1456	U	P-O5'-C5'	-6.72	110.82	120.90
67	B1	1856	G	N9-C1'-C2'	6.72	122.08	112.00
67	B1	1944	C	C3'-C2'-C1'	6.72	108.02	101.30
67	B1	2150	G	O4'-C1'-C2'	-6.72	100.88	107.60
67	B1	2842	C	C3'-C2'-C1'	6.72	108.02	101.30
21	A2	1051	G	O4'-C4'-C3'	-6.72	97.28	104.00
57	BZ	87	ASP	CA-CB-CG	-6.72	105.88	112.60
67	B1	1599	A	O4'-C1'-N9	6.72	118.58	108.50
24	AA	43	VAL	CA-C-O	6.72	127.60	120.48
34	BK	75	LEU	N-CA-C	-6.72	103.96	111.28
53	BD	94	PRO	CA-C-O	-6.72	116.06	120.90
55	Bh	23	LEU	N-CA-C	-6.72	104.30	113.30
21	A2	1118	C	O4'-C1'-C2'	6.72	114.32	107.60
21	A2	1385	U	O4'-C1'-C2'	-6.72	100.88	107.60
67	B1	968	A	C1'-C2'-O2'	-6.72	98.32	108.40
67	B1	2238	G	C3'-C2'-C1'	-6.72	94.58	101.30
20	A3	106	LYS	N-CA-CB	6.72	121.84	110.49
21	A2	1318	U	C3'-C2'-C1'	6.72	108.02	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BY	9	ILE	CA-C-N	-6.72	113.19	122.93
31	BY	9	ILE	C-N-CA	-6.72	113.19	122.93
40	BE	4	GLU	CB-CG-CD	-6.72	101.18	112.60
67	B1	358	C	C1'-C2'-O2'	6.72	118.47	108.40
67	B1	420	U	C1'-O4'-C4'	6.72	116.62	109.90
67	B1	1860	A	C1'-O4'-C4'	6.72	116.62	109.90
67	B1	2734	C	O4'-C1'-C2'	-6.72	100.88	107.60
7	AB	171	LEU	CA-C-O	-6.71	113.77	120.82
21	A2	945	G	O4'-C1'-C2'	6.71	114.31	107.60
21	A2	1448	A	C1'-O4'-C4'	6.71	116.61	109.90
67	B1	185	A	N9-C1'-C2'	6.71	124.07	114.00
67	B1	728	A	N9-C1'-C2'	6.71	122.07	112.00
21	A2	499	G	C1'-O4'-C4'	-6.71	103.19	109.90
25	AH	86	MET	CB-CA-C	-6.71	98.49	111.78
11	A1	20	G	O4'-C1'-C2'	-6.71	100.89	107.60
21	A2	1352	G	C1'-O4'-C4'	-6.71	103.19	109.90
48	BR	97	LYS	N-CA-CB	6.71	121.91	110.50
49	BQ	29	ILE	CA-C-N	6.71	129.27	120.28
49	BQ	29	ILE	C-N-CA	6.71	129.27	120.28
67	B1	101	G	C5'-C4'-C3'	-6.71	105.13	115.20
67	B1	1455	U	P-O5'-C5'	-6.71	110.83	120.90
67	B1	1618	G	C1'-C2'-O2'	6.71	118.47	108.40
67	B1	2386	U	O4'-C1'-C2'	-6.71	100.89	107.60
67	B1	2633	A	O4'-C1'-C2'	6.71	112.51	105.80
21	A2	746	A	C1'-O4'-C4'	6.71	116.41	109.70
67	B1	92	G	O4'-C1'-C2'	-6.71	100.89	107.60
67	B1	500	C	N1-C1'-C2'	6.71	122.07	112.00
67	B1	1130	G	C3'-C2'-C1'	6.71	108.01	101.30
10	AD	35	LEU	N-CA-CB	6.71	119.83	110.17
16	AJ	13	SER	N-CA-C	-6.71	105.13	113.38
67	B1	2923	G	N9-C1'-C2'	-6.71	101.94	112.00
68	B3	99	G	C1'-O4'-C4'	-6.71	103.19	109.90
21	A2	583	G	C1'-C2'-O2'	6.71	118.46	108.40
23	AT	28	PHE	CA-C-N	6.71	128.22	119.84
23	AT	28	PHE	C-N-CA	6.71	128.22	119.84
61	Bd	76	MET	N-CA-CB	6.71	120.67	110.28
67	B1	485	G	P-O3'-C3'	6.71	130.26	120.20
67	B1	1402	C	C1'-O4'-C4'	-6.71	103.19	109.90
39	Be	53	LYS	CB-CG-CD	6.71	126.72	111.30
54	BF	115	GLY	N-CA-C	-6.71	105.98	115.30
21	A2	622	C	O4'-C1'-C2'	-6.70	100.90	107.60
21	A2	1176	C	N1-C1'-C2'	6.70	122.06	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	BQ	119	THR	N-CA-C	6.70	118.67	111.36
67	B1	1997	C	O4'-C1'-C2'	6.70	114.30	107.60
67	B1	2266	C	N1-C1'-C2'	6.70	122.06	112.00
68	B3	74	U	C3'-C2'-C1'	6.70	108.20	101.50
37	BU	72	LYS	CA-CB-CG	6.70	127.50	114.10
66	B1	59	GLU	CB-CG-CD	-6.70	101.21	112.60
21	A2	768	A	O4'-C1'-N9	6.70	118.55	108.50
21	A2	1209	C	N1-C1'-C2'	6.70	122.05	112.00
21	A2	1460	G	C2'-C3'-O3'	6.70	123.75	113.70
60	BS	22	ALA	N-CA-CB	6.70	122.54	111.08
67	B1	2811	U	O4'-C1'-N1	6.70	118.55	108.50
67	B1	2938	G	C1'-O4'-C4'	-6.70	103.20	109.90
21	A2	96	G	C1'-C2'-O2'	6.70	118.45	108.40
21	A2	643	G	C3'-C2'-C1'	-6.70	94.60	101.30
21	A2	976	A	N9-C1'-C2'	-6.70	101.95	112.00
67	B1	323	U	P-O5'-C5'	-6.70	110.86	120.90
67	B1	1645	U	O4'-C1'-N1	6.70	118.55	108.50
67	B1	2293	G	C4'-C3'-C2'	-6.70	95.90	102.60
67	B1	2766	C	C1'-O4'-C4'	-6.70	103.20	109.90
21	A2	746	A	O3'-P-O5'	6.70	114.04	104.00
35	BL	10	LYS	CA-C-N	6.70	134.33	121.54
35	BL	10	LYS	C-N-CA	6.70	134.33	121.54
67	B1	492	A	O4'-C1'-C2'	-6.70	100.90	107.60
12	AN	38	LYS	CB-CA-C	-6.69	100.37	110.88
32	BO	187	GLU	CA-C-N	6.69	129.93	120.42
32	BO	187	GLU	C-N-CA	6.69	129.93	120.42
67	B1	836	U	N1-C1'-C2'	6.69	122.04	112.00
21	A2	1438	A	C3'-C2'-C1'	6.69	107.99	101.30
24	AA	133	GLN	CA-C-N	6.69	129.14	120.44
24	AA	133	GLN	C-N-CA	6.69	129.14	120.44
67	B1	78	C	C1'-C2'-O2'	6.69	118.44	108.40
67	B1	1077	G	O4'-C1'-C2'	6.69	114.29	107.60
67	B1	1539	U	C1'-O4'-C4'	6.69	116.59	109.90
2	AK	98	LYS	O-C-N	6.69	129.21	122.12
21	A2	92	G	O4'-C1'-C2'	6.69	114.29	107.60
21	A2	688	C	C3'-C2'-C1'	6.69	107.99	101.30
34	B5	75	LEU	N-CA-C	-6.69	103.99	111.28
37	BU	57	GLY	N-CA-C	-6.69	102.08	112.45
47	BI	44	VAL	O-C-N	6.69	128.72	121.83
67	B1	948	C	O4'-C1'-N1	6.69	118.53	108.50
67	B1	2427	C	P-O3'-C3'	6.69	130.24	120.20
67	B1	2971	U	C5'-C4'-C3'	6.69	125.24	115.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	215	A	C2'-C3'-O3'	6.69	119.53	109.50
67	B1	809	A	O4'-C4'-C3'	-6.69	97.31	104.00
20	A3	51	VAL	N-CA-C	-6.69	98.60	108.97
21	A2	1052	U	O4'-C1'-C2'	-6.69	100.91	107.60
23	AT	63	ILE	CB-CA-C	6.69	118.90	111.08
24	AA	76	GLN	N-CA-CB	6.69	121.79	110.49
46	BA	69	ALA	N-CA-CB	-6.69	99.92	110.22
57	BZ	47	ASP	N-CA-C	-6.69	104.06	111.82
67	B1	1445	G	C2'-C3'-O3'	6.69	119.53	109.50
21	A2	681	G	P-O5'-C5'	-6.69	110.87	120.90
31	BY	143	ARG	N-CA-C	-6.69	99.69	109.18
63	Bg	19	ARG	N-CA-C	6.69	119.56	111.40
21	A2	97	C	C1'-C2'-O2'	6.68	118.42	108.40
21	A2	421	U	N1-C1'-C2'	6.68	122.03	112.00
31	BY	126	PHE	CB-CG-CD1	-6.68	109.34	120.70
68	B3	57	C	N1-C1'-C2'	6.68	122.03	112.00
21	A2	426	C	N1-C1'-C2'	6.68	122.03	112.00
21	A2	1429	G	O4'-C1'-N9	6.68	118.52	108.50
57	BZ	95	ALA	N-CA-C	6.68	118.56	111.28
67	B1	817	G	O4'-C1'-C2'	-6.68	100.92	107.60
67	B1	958	A	O4'-C1'-N9	6.68	118.53	108.50
67	B1	1159	U	P-O3'-C3'	-6.68	110.18	120.20
21	A2	486	A	C5'-C4'-O4'	6.68	119.12	109.10
21	A2	698	A	N9-C1'-C2'	6.68	122.02	112.00
21	A2	86	C	O4'-C1'-C2'	-6.68	100.92	107.60
21	A2	409	C	O4'-C1'-C2'	-6.68	100.92	107.60
21	A2	1279	A	C3'-C2'-C1'	6.68	107.98	101.30
36	Bf	32	ASN	CA-C-N	6.68	134.30	121.54
36	Bf	32	ASN	C-N-CA	6.68	134.30	121.54
38	Bb	104	HIS	CB-CG-CD2	-6.68	122.52	131.20
62	BN	13	ASP	CA-CB-CG	-6.68	105.92	112.60
67	B1	1195	G	C1'-O4'-C4'	6.68	116.58	109.90
67	B1	1206	A	P-O3'-C3'	6.68	130.22	120.20
67	B1	1432	C	C1'-C2'-O2'	6.68	118.42	108.40
67	B1	2718	G	C5'-C4'-C3'	-6.68	105.98	116.00
67	B1	234	G	O4'-C1'-N9	6.68	118.52	108.50
67	B1	1188	C	C3'-C2'-C1'	6.68	107.98	101.30
67	B1	1634	A	C4'-C3'-C2'	-6.68	95.92	102.60
20	A3	83	LYS	CA-C-N	6.68	129.23	120.28
20	A3	83	LYS	C-N-CA	6.68	129.23	120.28
21	A2	7	G	O4'-C1'-C2'	-6.68	100.92	107.60
21	A2	1223	C	C3'-C2'-C1'	6.68	107.98	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	AH	69	ASN	N-CA-C	6.68	118.21	111.07
47	BI	61	PRO	N-CA-C	-6.68	103.40	114.75
67	B1	947	C	C3'-C2'-C1'	6.68	107.98	101.30
67	B1	2152	G	P-O3'-C3'	-6.68	110.19	120.20
7	AB	18	HIS	CE1-NE2-CD2	-6.67	102.33	109.00
46	BA	13	LYS	N-CA-C	6.67	118.35	111.14
66	BI	34	LYS	CB-CA-C	-6.67	100.40	110.88
67	B1	196	A	C3'-C2'-C1'	6.67	107.97	101.30
67	B1	1180	G	C4'-C3'-O3'	-6.67	102.99	113.00
67	B1	2420	C	C3'-C2'-C1'	6.67	107.97	101.30
30	AU	97	ILE	CB-CA-C	-6.67	103.01	112.22
10	AD	38	LYS	CA-C-N	6.67	129.52	120.38
10	AD	38	LYS	C-N-CA	6.67	129.52	120.38
15	AE	43	ILE	O-C-N	-6.67	114.05	120.59
21	A2	625	G	O4'-C1'-N9	6.67	118.51	108.50
21	A2	867	A	C3'-C2'-C1'	6.67	107.97	101.30
21	A2	1473	A	C3'-C2'-C1'	6.67	107.97	101.30
21	A2	1488	C	C3'-C2'-C1'	6.67	107.97	101.30
48	BR	31	PHE	CA-C-O	-6.67	113.48	120.55
67	B1	233	A	C1'-O4'-C4'	-6.67	103.23	109.90
67	B1	492	A	O4'-C1'-N9	6.67	118.51	108.50
67	B1	1705	C	C1'-O4'-C4'	-6.67	103.23	109.90
67	B1	2144	U	C1'-O4'-C4'	6.67	116.57	109.90
68	B3	45	C	P-O3'-C3'	-6.67	110.19	120.20
21	A2	941	C	C3'-C2'-C1'	6.67	108.17	101.50
36	Bf	24	PRO	CA-C-N	6.67	129.60	120.46
36	Bf	24	PRO	C-N-CA	6.67	129.60	120.46
67	B1	120	G	N9-C1'-C2'	6.67	122.00	112.00
67	B1	2207	C	C3'-C2'-C1'	6.67	107.97	101.30
21	A2	1167	C	C1'-C2'-O2'	6.67	118.40	108.40
37	BU	115	ILE	N-CA-C	6.67	116.80	110.53
67	B1	496	A	P-O3'-C3'	6.67	130.20	120.20
67	B1	835	G	C1'-C2'-O2'	6.67	118.40	108.40
67	B1	1673	C	O4'-C1'-C2'	-6.67	100.93	107.60
67	B1	1823	A	C5'-C4'-C3'	-6.67	106.00	116.00
67	B1	1885	G	P-O3'-C3'	-6.67	110.20	120.20
67	B1	1948	A	C3'-C2'-C1'	6.67	107.97	101.30
67	B1	2650	G	C1'-C2'-O2'	6.67	118.40	108.40
43	Bk	62	LEU	CA-C-N	6.67	129.21	120.28
43	Bk	62	LEU	C-N-CA	6.67	129.21	120.28
59	BM	147	ALA	N-CA-C	6.67	120.28	111.75
12	AN	38	LYS	N-CA-C	6.67	118.20	111.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	BF	59	PHE	N-CA-CB	6.67	119.29	110.29
60	BS	90	ALA	CA-C-N	6.67	131.23	120.30
60	BS	90	ALA	C-N-CA	6.67	131.23	120.30
67	B1	65	G	N9-C1'-C2'	6.67	122.00	112.00
67	B1	128	C	N1-C1'-C2'	6.67	122.00	112.00
67	B1	437	G	C3'-C2'-C1'	6.67	107.97	101.30
67	B1	580	G	O4'-C4'-C3'	-6.66	97.34	104.00
67	B1	2134	G	O4'-C1'-C2'	6.66	114.26	107.60
67	B1	2739	G	C1'-O4'-C4'	-6.66	103.24	109.90
32	BO	120	VAL	CA-C-N	6.66	129.10	120.44
32	BO	120	VAL	C-N-CA	6.66	129.10	120.44
21	A2	737	C	C3'-C2'-C1'	6.66	107.96	101.30
21	A2	1197	C	N1-C1'-C2'	6.66	121.99	112.00
33	BC	203	LEU	CB-CA-C	-6.66	99.36	110.68
67	B1	2078	A	O4'-C1'-C2'	-6.66	100.94	107.60
24	AA	55	VAL	O-C-N	-6.66	116.26	123.18
49	BQ	121	ARG	CB-CA-C	-6.66	100.43	110.88
49	BQ	133	LYS	N-CA-C	6.66	118.23	110.97
67	B1	2926	G	C4'-C3'-O3'	-6.66	103.01	113.00
27	A0	8	U	O4'-C1'-N1	6.66	118.49	108.50
57	BZ	90	GLU	N-CA-C	-6.66	96.62	110.80
64	Bc	15	GLU	CA-C-O	-6.66	112.85	120.24
33	BC	55	ASP	CA-C-N	6.66	133.68	121.70
33	BC	55	ASP	C-N-CA	6.66	133.68	121.70
59	BM	116	SER	O-C-N	6.66	130.54	123.42
67	B1	1211	C	O4'-C1'-C2'	-6.66	100.94	107.60
67	B1	1515	G	N9-C1'-C2'	6.66	121.98	112.00
67	B1	2522	C	C1'-O4'-C4'	6.66	116.56	109.90
67	B1	2263	G	C1'-O4'-C4'	6.65	116.55	109.90
67	B1	2601	C	N1-C1'-C2'	6.65	121.98	112.00
67	B1	2628	U	O4'-C1'-N1	6.65	118.48	108.50
67	B1	2999	G	C1'-O4'-C4'	-6.65	103.25	109.90
68	B3	9	A	N9-C1'-C2'	-6.65	102.02	112.00
15	AE	9	HIS	CE1-NE2-CD2	-6.65	102.35	109.00
21	A2	27	C	C3'-C2'-C1'	6.65	107.95	101.30
21	A2	1060	G	P-O3'-C3'	6.65	130.18	120.20
59	BM	50	ALA	O-C-N	6.65	129.17	122.12
59	BM	81	LYS	CA-C-N	6.65	128.16	119.84
59	BM	81	LYS	C-N-CA	6.65	128.16	119.84
67	B1	124	C	O4'-C1'-C2'	-6.65	100.95	107.60
67	B1	1313	G	O4'-C1'-C2'	6.65	114.25	107.60
4	AG	68	ASP	CA-C-N	6.65	129.19	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AG	68	ASP	C-N-CA	6.65	129.19	120.28
12	AN	9	GLY	N-CA-C	-6.65	97.42	113.18
21	A2	1217	C	O4'-C1'-C2'	-6.65	100.95	107.60
27	A0	56	C	C4'-C3'-C2'	6.65	109.25	102.60
46	BA	31	ALA	N-CA-C	-6.65	97.75	109.06
67	B1	1271	G	C1'-O4'-C4'	-6.65	103.25	109.90
67	B1	1390	U	P-O3'-C3'	6.65	130.18	120.20
67	B1	1876	G	O4'-C1'-C2'	-6.65	100.95	107.60
67	B1	2064	U	C4'-C3'-C2'	6.65	109.25	102.60
42	BT	43	VAL	CA-CB-CG2	-6.65	99.10	110.40
52	BB	202	HIS	O-C-N	-6.65	116.64	121.83
62	BN	74	GLN	CB-CG-CD	-6.65	101.30	112.60
67	B1	1165	C	P-O3'-C3'	6.65	130.17	120.20
67	B1	2053	G	N9-C1'-C2'	-6.65	104.03	114.00
21	A2	489	C	O4'-C1'-C2'	-6.65	100.95	107.60
25	AH	167	LEU	CA-C-N	6.65	127.31	120.00
25	AH	167	LEU	C-N-CA	6.65	127.31	120.00
29	AL	88	ILE	CA-C-N	6.65	129.08	120.44
29	AL	88	ILE	C-N-CA	6.65	129.08	120.44
54	BF	38	GLU	CB-CG-CD	-6.65	101.30	112.60
64	Bc	32	ARG	CA-C-N	6.65	129.08	120.44
64	Bc	32	ARG	C-N-CA	6.65	129.08	120.44
67	B1	242	C	N1-C1'-C2'	6.65	121.97	112.00
67	B1	1251	G	C1'-O4'-C4'	6.65	116.35	109.70
67	B1	1365	G	C3'-C2'-C1'	-6.65	94.65	101.30
67	B1	2435	G	C3'-C2'-C1'	-6.65	94.65	101.30
10	AD	141	SER	CA-C-N	6.65	133.47	121.97
10	AD	141	SER	C-N-CA	6.65	133.47	121.97
67	B1	132	G	P-O3'-C3'	-6.65	110.23	120.20
3	AI	17	SER	CA-C-N	6.64	129.18	120.28
3	AI	17	SER	C-N-CA	6.64	129.18	120.28
21	A2	425	C	O4'-C4'-C3'	-6.64	97.36	104.00
21	A2	1021	C	C4'-C3'-O3'	-6.64	103.03	113.00
67	B1	791	C	C1'-O4'-C4'	6.64	116.55	109.90
67	B1	2374	C	N1-C1'-C2'	6.64	121.97	112.00
11	A1	12	U	O4'-C1'-C2'	-6.64	100.96	107.60
32	BO	145	ARG	CA-C-O	6.64	127.80	120.82
33	BC	346	LYS	N-CA-C	-6.64	106.38	114.75
43	Bk	42	ARG	NE-CZ-NH2	6.64	125.18	119.20
58	BP	16	ARG	CA-C-O	-6.64	113.51	120.55
67	B1	85	G	C5'-C4'-O4'	-6.64	99.84	109.80
67	B1	1625	A	C1'-C2'-O2'	6.64	118.36	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1651	A	C3'-C2'-C1'	6.64	107.94	101.30
21	A2	601	G	O4'-C1'-N9	6.64	118.46	108.50
67	B1	2052	A	C3'-C2'-C1'	-6.64	94.66	101.30
67	B1	2943	G	O4'-C1'-C2'	-6.64	100.96	107.60
21	A2	660	C	O4'-C1'-C2'	-6.64	100.96	107.60
21	A2	1432	U	C3'-C2'-C1'	6.64	107.94	101.30
67	B1	1431	U	C3'-C2'-C1'	-6.64	94.66	101.30
21	A2	1363	C	P-O5'-C5'	6.64	130.86	120.90
53	BD	20	LYS	N-CA-C	6.64	118.52	111.28
67	B1	2057	G	C1'-O4'-C4'	6.64	116.54	109.90
67	B1	2839	A	O4'-C1'-C2'	-6.64	99.16	105.80
21	A2	365	C	N1-C1'-C2'	6.64	121.95	112.00
67	B1	2554	A	O4'-C1'-N9	6.64	118.15	108.20
67	B1	2582	C	C3'-C2'-C1'	6.64	107.94	101.30
21	A2	946	G	O4'-C1'-C2'	6.63	114.23	107.60
25	AH	9	PHE	CA-CB-CG	6.63	120.43	113.80
52	BB	51	ASP	CA-C-O	-6.63	111.89	119.32
62	BN	71	ARG	CA-C-N	6.63	129.46	120.44
62	BN	71	ARG	C-N-CA	6.63	129.46	120.44
67	B1	715	G	O4'-C1'-N9	-6.63	98.55	108.50
67	B1	2543	A	C1'-O4'-C4'	6.63	116.33	109.70
21	A2	792	C	N1-C1'-C2'	6.63	121.95	112.00
67	B1	1749	C	N1-C1'-C2'	-6.63	102.05	112.00
4	AG	99	LYS	CA-CB-CG	6.63	127.36	114.10
33	BC	195	LYS	CB-CA-C	-6.63	98.36	110.63
40	BE	123	ILE	N-CA-CB	6.63	120.49	111.21
67	B1	1331	U	N1-C1'-C2'	6.63	121.95	112.00
67	B1	1713	G	O5'-C5'-C4'	-6.63	101.55	111.50
17	AO	94	ILE	CA-C-N	6.63	129.06	120.44
17	AO	94	ILE	C-N-CA	6.63	129.06	120.44
67	B1	830	G	O4'-C1'-C2'	6.63	114.23	107.60
21	A2	141	C	P-O3'-C3'	-6.63	110.26	120.20
67	B1	1176	C	C1'-C2'-O2'	6.63	118.34	108.40
67	B1	1852	U	C1'-C2'-O2'	-6.63	101.86	111.80
15	AE	133	ILE	N-CA-C	-6.63	99.13	108.80
35	BL	80	PHE	CA-C-N	6.63	128.91	120.56
35	BL	80	PHE	C-N-CA	6.63	128.91	120.56
67	B1	2080	G	C3'-C2'-C1'	6.63	107.93	101.30
17	AO	53	TYR	N-CA-C	-6.62	96.69	110.80
21	A2	101	G	P-O3'-C3'	6.62	130.14	120.20
67	B1	2182	A	O4'-C1'-C2'	-6.62	100.97	107.60
67	B1	3008	C	O4'-C1'-C2'	-6.62	100.97	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AI	16	ASN	CA-C-N	6.62	129.45	120.44
3	AI	16	ASN	C-N-CA	6.62	129.45	120.44
67	B1	955	A	O4'-C1'-N9	6.62	118.44	108.50
67	B1	1001	C	P-O5'-C5'	-6.62	110.96	120.90
67	B1	1371	U	N1-C1'-C2'	6.62	121.94	112.00
67	B1	1732	C	C3'-C2'-C1'	6.62	107.92	101.30
67	B1	2415	C	O4'-C1'-C2'	-6.62	100.98	107.60
67	B1	2494	A	P-O5'-C5'	-6.62	110.96	120.90
21	A2	1111	G	C1'-O4'-C4'	6.62	116.32	109.70
67	B1	374	C	C1'-C2'-O2'	6.62	118.33	108.40
67	B1	2738	G	P-O5'-C5'	-6.62	110.97	120.90
67	B1	1147	G	C4'-C3'-O3'	-6.62	103.07	113.00
67	B1	1185	A	C4'-C3'-C2'	-6.62	95.98	102.60
21	A2	104	A	N9-C1'-C2'	6.62	121.93	112.00
46	BA	41	ARG	O-C-N	-6.62	115.03	121.38
67	B1	2213	G	N9-C1'-C2'	6.62	121.93	112.00
21	A2	542	G	C3'-C2'-C1'	-6.62	94.68	101.30
53	BD	243	THR	CA-C-N	6.62	129.13	120.60
53	BD	243	THR	C-N-CA	6.62	129.13	120.60
21	A2	835	C	O4'-C4'-C3'	6.62	110.62	104.00
67	B1	846	C	O4'-C1'-C2'	-6.62	100.98	107.60
10	AD	79	ARG	O-C-N	6.61	129.23	122.09
21	A2	1250	C	O3'-P-O5'	-6.61	94.08	104.00
67	B1	1074	G	P-O5'-C5'	6.61	130.82	120.90
67	B1	1484	U	C3'-C2'-C1'	6.61	108.11	101.50
67	B1	2615	U	C1'-O4'-C4'	-6.61	103.29	109.90
37	BU	21	HIS	CG-CD2-NE2	6.61	113.81	107.20
48	BR	43	ILE	CA-CB-CG1	6.61	121.64	110.40
67	B1	1568	A	N9-C1'-C2'	6.61	121.92	112.00
68	B3	18	G	C4'-C3'-C2'	-6.61	95.99	102.60
17	AO	39	VAL	N-CA-CB	6.61	120.50	110.58
21	A2	266	A	O4'-C1'-N9	6.61	118.42	108.50
27	A0	36	U	O4'-C1'-N1	6.61	118.42	108.50
67	B1	746	C	P-O3'-C3'	-6.61	110.28	120.20
67	B1	891	C	O4'-C1'-C2'	-6.61	100.99	107.60
67	B1	2673	C	C3'-C2'-C1'	6.61	107.91	101.30
67	B1	2962	A	O4'-C1'-N9	6.61	118.42	108.50
21	A2	43	A	C4'-C3'-C2'	-6.61	95.99	102.60
49	BQ	54	PRO	CA-C-N	6.61	130.78	121.66
49	BQ	54	PRO	C-N-CA	6.61	130.78	121.66
51	Bj	25	VAL	CA-CB-CG1	6.61	121.64	110.40
67	B1	55	G	O4'-C1'-N9	6.61	118.41	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	AF	9	ALA	CA-C-N	6.61	129.03	120.44
18	AF	9	ALA	C-N-CA	6.61	129.03	120.44
20	A3	103	GLU	CA-C-N	6.61	126.57	119.76
20	A3	103	GLU	C-N-CA	6.61	126.57	119.76
21	A2	1251	C	O4'-C1'-N1	6.61	118.41	108.50
67	B1	421	C	N1-C1'-C2'	6.61	121.91	112.00
67	B1	1126	C	C3'-C2'-C1'	6.61	107.91	101.30
67	B1	2416	G	C1'-O4'-C4'	6.61	116.51	109.90
67	B1	2512	C	C3'-C2'-C1'	6.61	107.91	101.30
67	B1	2990	G	C1'-O4'-C4'	-6.61	103.29	109.90
68	B3	38	U	P-O5'-C5'	6.61	130.81	120.90
68	B3	43	C	C4'-C3'-O3'	-6.61	103.09	113.00
11	A1	23	G	O4'-C1'-C2'	-6.61	101.00	107.60
14	AM	44	GLY	O-C-N	6.61	129.24	122.24
21	A2	654	U	C1'-O4'-C4'	6.61	116.50	109.90
21	A2	1403	U	P-O5'-C5'	-6.61	110.99	120.90
37	BU	61	GLY	CA-C-O	6.61	126.46	119.06
49	BQ	131	GLN	N-CA-C	-6.61	105.04	113.23
67	B1	2062	A	O4'-C1'-C2'	6.61	112.41	105.80
67	B1	2675	C	N1-C1'-C2'	6.61	121.91	112.00
68	B3	52	U	O4'-C1'-C2'	6.61	112.41	105.80
21	A2	1274	C	N1-C1'-C2'	6.60	121.91	112.00
67	B1	2417	G	N9-C1'-C2'	-6.60	102.09	112.00
4	AG	99	LYS	N-CA-CB	-6.60	99.86	109.83
21	A2	1082	A	N9-C1'-C2'	6.60	121.90	112.00
21	A2	1182	G	C3'-C2'-C1'	-6.60	94.70	101.30
67	B1	39	C	C3'-C2'-C1'	6.60	107.90	101.30
67	B1	160	C	N1-C1'-C2'	6.60	121.90	112.00
67	B1	793	C	O4'-C1'-C2'	-6.60	101.00	107.60
67	B1	1561	G	O5'-C5'-C4'	-6.60	101.80	111.70
67	B1	1626	A	O4'-C1'-C2'	-6.60	101.00	107.60
67	B1	1747	C	C3'-C2'-C1'	6.60	107.90	101.30
67	B1	1823	A	C3'-C2'-C1'	6.60	107.90	101.30
67	B1	1923	A	C4'-C3'-C2'	-6.60	96.00	102.60
21	A2	561	A	P-O5'-C5'	-6.60	111.00	120.90
21	A2	724	C	N1-C1'-C2'	6.60	121.90	112.00
30	AU	44	LEU	CB-CA-C	-6.60	101.28	110.13
36	Bf	42	ARG	N-CA-C	-6.60	98.64	109.40
67	B1	42	G	C1'-O4'-C4'	-6.60	103.30	109.90
67	B1	1995	C	O4'-C1'-N1	6.60	118.40	108.50
7	AB	60	ALA	CA-C-N	6.60	129.12	120.28
7	AB	60	ALA	C-N-CA	6.60	129.12	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	892	C	P-O3'-C3'	6.60	130.10	120.20
67	B1	2011	U	O4'-C1'-N1	6.60	118.40	108.50
11	A1	44	G	C1'-O4'-C4'	-6.60	103.30	109.90
15	AE	83	PHE	CB-CA-C	-6.60	99.25	109.08
21	A2	1053	A	O4'-C1'-N9	-6.60	98.30	108.20
37	BU	93	TYR	CA-C-N	6.60	126.95	119.83
37	BU	93	TYR	C-N-CA	6.60	126.95	119.83
52	BB	78	LEU	N-CA-C	-6.60	99.43	109.85
53	BD	70	VAL	CA-C-O	6.60	128.17	120.71
67	B1	2922	G	O3'-P-O5'	6.60	113.90	104.00
67	B1	2986	G	O4'-C1'-C2'	-6.60	99.20	105.80
67	B1	591	G	O4'-C1'-C2'	-6.60	101.00	107.60
67	B1	2002	A	C2'-C3'-O3'	6.60	119.39	109.50
67	B1	2674	C	C1'-C2'-O2'	6.60	118.29	108.40
10	AD	158	SER	O-C-N	6.59	128.90	121.32
13	AX	51	ILE	O-C-N	-6.59	115.43	122.95
21	A2	958	G	O4'-C1'-C2'	-6.59	101.00	107.60
31	BY	16	LYS	N-CA-CB	6.59	119.73	110.04
49	BQ	7	GLN	OE1-CD-NE2	6.59	129.19	122.60
67	B1	564	U	O4'-C1'-N1	6.59	118.09	108.20
67	B1	1070	G	C3'-C2'-C1'	6.59	108.09	101.50
67	B1	1600	G	O4'-C1'-N9	6.59	118.39	108.50
21	A2	967	C	N1-C1'-C2'	6.59	121.89	112.00
21	A2	990	G	O4'-C1'-C2'	-6.59	101.01	107.60
33	BC	163	VAL	O-C-N	-6.59	116.06	123.18
38	Bb	23	PHE	CA-CB-CG	-6.59	107.21	113.80
50	BV	46	ASN	CA-CB-CG	-6.59	106.01	112.60
67	B1	1700	U	O4'-C1'-C2'	-6.59	101.01	107.60
67	B1	1787	U	C1'-O4'-C4'	-6.59	103.31	109.90
67	B1	1852	U	C5'-C4'-C3'	6.59	125.09	115.20
67	B1	1869	U	P-O3'-C3'	-6.59	110.31	120.20
68	B3	2	G	O4'-C1'-C2'	-6.59	101.01	107.60
38	Bb	120	GLU	CA-C-O	-6.59	113.56	120.55
52	BB	129	ALA	N-CA-C	-6.59	99.47	109.95
67	B1	1771	C	P-O3'-C3'	6.59	130.09	120.20
21	A2	462	A	C2'-C3'-O3'	6.59	123.58	113.70
21	A2	1237	G	O4'-C1'-C2'	6.59	114.19	107.60
67	B1	2926	G	P-O3'-C3'	-6.59	110.32	120.20
67	B1	566	G	P-O5'-C5'	-6.59	111.02	120.90
68	B3	104	C	O4'-C1'-C2'	-6.59	101.01	107.60
67	B1	27	G	C1'-O4'-C4'	6.58	116.28	109.70
67	B1	380	A	N9-C1'-C2'	6.58	121.88	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1281	A	C4'-C3'-C2'	-6.58	96.02	102.60
67	B1	1628	C	N1-C1'-C2'	6.58	121.88	112.00
49	BQ	54	PRO	N-CA-CB	6.58	109.70	102.72
59	BM	173	ARG	N-CA-C	-6.58	106.45	114.75
67	B1	1277	G	O4'-C1'-N9	6.58	118.38	108.50
67	B1	2535	C	O4'-C1'-C2'	-6.58	101.02	107.60
68	B3	49	A	C1'-O4'-C4'	6.58	116.48	109.90
21	A2	562	A	C1'-O4'-C4'	6.58	116.48	109.90
21	A2	788	C	C3'-C2'-C1'	6.58	107.88	101.30
25	AH	136	THR	N-CA-C	-6.58	98.17	108.90
67	B1	366	G	O4'-C1'-N9	-6.58	98.63	108.50
67	B1	1547	U	C4'-C3'-C2'	-6.58	96.02	102.60
67	B1	1975	C	O4'-C1'-N1	6.58	118.37	108.50
67	B1	2779	G	O4'-C1'-N9	6.58	118.37	108.50
21	A2	1060	G	C4'-C3'-C2'	-6.58	96.02	102.60
37	BU	112	ARG	CA-C-O	6.58	127.53	120.55
40	BE	18	HIS	CA-CB-CG	-6.58	107.22	113.80
21	A2	20	G	N9-C1'-C2'	6.58	121.87	112.00
27	A0	74	C	C4'-C3'-C2'	-6.58	96.02	102.60
39	Be	34	TYR	N-CA-C	-6.58	98.25	109.24
58	BP	15	ILE	CA-C-O	-6.58	114.20	121.17
67	B1	1011	A	C5'-C4'-C3'	6.58	125.87	116.00
55	Bh	3	TRP	CB-CG-CD1	6.58	136.76	126.90
67	B1	237	G	C2'-C3'-O3'	6.58	119.36	109.50
67	B1	1790	G	C3'-C2'-C1'	6.58	107.88	101.30
67	B1	2432	G	O4'-C1'-N9	6.58	118.36	108.50
3	AI	55	ASP	CA-C-N	6.57	128.57	120.22
3	AI	55	ASP	C-N-CA	6.57	128.57	120.22
34	BK	67	SER	O-C-N	-6.57	115.75	123.25
51	Bj	33	LEU	CA-CB-CG	6.57	139.31	116.30
67	B1	906	G	C1'-O4'-C4'	-6.57	103.33	109.90
67	B1	1184	U	C4'-C3'-C2'	-6.57	96.03	102.60
67	B1	2299	G	P-O5'-C5'	-6.57	111.04	120.90
67	B1	2408	G	C1'-O4'-C4'	-6.57	103.33	109.90
67	B1	2664	G	O4'-C4'-C3'	6.57	110.57	104.00
67	B1	3048	C	C3'-C2'-C1'	6.57	107.87	101.30
21	A2	484	U	C1'-O4'-C4'	6.57	116.27	109.70
21	A2	1464	C	C3'-C2'-C1'	6.57	107.87	101.30
67	B1	730	C	O4'-C1'-C2'	-6.57	101.03	107.60
68	B3	74	U	O4'-C4'-C3'	-6.57	99.53	106.10
21	A2	70	C	O4'-C1'-C2'	-6.57	101.03	107.60
21	A2	167	G	N9-C1'-C2'	6.57	121.86	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	A0	41	C	C3'-C2'-C1'	6.57	107.87	101.30
40	BE	155	ARG	CA-C-N	6.57	131.47	122.34
40	BE	155	ARG	C-N-CA	6.57	131.47	122.34
57	BZ	9	LYS	CA-C-N	6.57	129.62	120.29
57	BZ	9	LYS	C-N-CA	6.57	129.62	120.29
67	B1	366	G	P-O3'-C3'	-6.57	110.34	120.20
67	B1	1267	A	O4'-C1'-N9	6.57	118.06	108.20
21	A2	185	G	C3'-C2'-C1'	6.57	107.87	101.30
44	BW	33	THR	N-CA-C	6.57	118.44	111.28
7	AB	123	ASP	N-CA-CB	6.57	120.57	110.46
37	BU	94	PRO	O-C-N	6.57	130.56	123.01
57	BZ	71	GLY	CA-C-N	6.57	128.98	120.44
57	BZ	71	GLY	C-N-CA	6.57	128.98	120.44
67	B1	1325	A	P-O5'-C5'	6.57	130.75	120.90
68	B3	58	C	C1'-O4'-C4'	-6.57	103.33	109.90
67	B1	252	A	C1'-O4'-C4'	6.57	116.47	109.90
67	B1	427	G	C2'-C3'-O3'	6.57	123.55	113.70
67	B1	1795	C	C4'-C3'-C2'	-6.57	96.03	102.60
67	B1	516	A	C4'-C3'-O3'	-6.56	103.15	113.00
67	B1	2680	A	C3'-C2'-C1'	6.56	107.86	101.30
46	BA	108	ILE	N-CA-C	-6.56	98.16	108.86
49	BQ	140	LEU	N-CA-C	6.56	118.09	111.07
61	Bd	87	GLN	CA-C-N	6.56	128.97	120.44
61	Bd	87	GLN	C-N-CA	6.56	128.97	120.44
67	B1	24	G	O4'-C1'-C2'	-6.56	101.04	107.60
10	AD	39	LYS	CA-C-N	6.56	129.07	120.28
10	AD	39	LYS	C-N-CA	6.56	129.07	120.28
19	AS	47	ARG	CA-C-N	6.56	129.61	120.29
19	AS	47	ARG	C-N-CA	6.56	129.61	120.29
21	A2	439	G	C3'-C2'-C1'	6.56	108.06	101.50
21	A2	1338	C	O4'-C1'-N1	6.56	118.34	108.50
21	A2	1339	G	C1'-C2'-O2'	6.56	118.24	108.40
40	BE	18	HIS	ND1-CE1-NE2	6.56	114.96	108.40
65	BJ	58	VAL	N-CA-C	-6.56	99.03	108.48
67	B1	1832	G	P-O5'-C5'	-6.56	111.06	120.90
67	B1	2001	U	C3'-C2'-C1'	6.56	107.86	101.30
24	AA	149	ALA	O-C-N	6.56	129.07	122.12
46	BA	177	ILE	CA-C-N	6.56	129.07	120.28
46	BA	177	ILE	C-N-CA	6.56	129.07	120.28
20	B4	66	LEU	N-CA-C	6.56	121.67	112.75
67	B1	190	C	N1-C1'-C2'	6.56	121.84	112.00
67	B1	2678	U	O4'-C1'-N1	6.56	118.33	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	503	G	C3'-C2'-C1'	-6.56	94.74	101.30
21	A2	654	U	O5'-C5'-C4'	-6.56	101.67	111.50
21	A2	989	C	P-O5'-C5'	6.56	130.73	120.90
24	AA	128	ARG	CD-NE-CZ	6.56	133.58	124.40
67	B1	1597	G	C3'-C2'-C1'	6.56	107.86	101.30
21	A2	294	A	N9-C1'-C2'	6.55	121.83	112.00
35	BL	73	VAL	N-CA-C	-6.55	95.70	109.34
43	Bk	20	LYS	CB-CA-C	-6.55	98.50	110.63
67	B1	97	C	C3'-C2'-C1'	6.55	107.85	101.30
67	B1	969	U	O4'-C1'-N1	6.55	118.33	108.50
67	B1	1938	G	O4'-C1'-N9	6.55	118.03	108.20
67	B1	462	A	O4'-C1'-C2'	-6.55	101.05	107.60
67	B1	2289	A	C1'-O4'-C4'	6.55	116.45	109.90
21	A2	259	A	O4'-C1'-N9	6.55	118.33	108.50
21	A2	948	G	N9-C1'-C2'	-6.55	102.17	112.00
35	BL	47	TRP	N-CA-CB	6.55	121.56	110.49
67	B1	165	G	P-O5'-C5'	6.55	130.73	120.90
67	B1	2318	G	C1'-C2'-O2'	6.55	118.23	108.40
7	AB	103	ASN	CA-CB-CG	-6.55	106.05	112.60
21	A2	227	C	C3'-C2'-C1'	6.55	107.85	101.30
21	A2	1046	G	C3'-C2'-C1'	-6.55	94.95	101.50
21	A2	1116	G	C1'-C2'-O2'	6.55	118.22	108.40
21	A2	1179	C	O4'-C1'-C2'	-6.55	101.05	107.60
27	A0	27	C	O4'-C1'-C2'	-6.55	101.05	107.60
48	BR	47	PRO	O-C-N	6.55	130.67	122.22
64	Bc	18	HIS	CA-CB-CG	-6.55	107.25	113.80
67	B1	240	A	O4'-C1'-C2'	-6.55	101.05	107.60
67	B1	894	C	C1'-O4'-C4'	6.55	116.45	109.90
67	B1	1534	G	C1'-C2'-O2'	6.55	118.22	108.40
67	B1	2958	U	C1'-O4'-C4'	6.55	116.25	109.70
68	B3	25	A	O4'-C1'-C2'	-6.55	101.05	107.60
67	B1	712	C	C4'-C3'-C2'	6.55	109.15	102.60
24	AA	43	VAL	N-CA-C	-6.55	99.00	108.17
53	BD	24	THR	CA-C-N	6.55	126.58	119.90
53	BD	24	THR	C-N-CA	6.55	126.58	119.90
28	B6	55	TYR	O-C-N	-6.55	113.88	122.59
67	B1	941	C	C1'-C2'-O2'	6.55	118.22	108.40
67	B1	1233	U	N1-C1'-C2'	-6.55	102.18	112.00
67	B1	2005	A	O4'-C1'-N9	6.55	118.32	108.50
68	B3	67	U	O4'-C1'-N1	6.55	118.32	108.50
33	BC	112	LYS	N-CA-CB	6.54	121.55	110.49
67	B1	706	U	O4'-C1'-N1	6.54	118.32	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2095	U	N1-C1'-C2'	6.54	121.82	112.00
16	AJ	7	ARG	N-CA-C	-6.54	103.90	112.41
21	A2	177	A	N9-C1'-C2'	-6.54	102.19	112.00
21	A2	276	A	N9-C1'-C2'	6.54	123.81	114.00
21	A2	434	A	P-O5'-C5'	6.54	130.71	120.90
67	B1	584	G	O4'-C1'-N9	6.54	118.31	108.50
25	AH	165	ILE	CA-C-N	6.54	128.94	120.44
25	AH	165	ILE	C-N-CA	6.54	128.94	120.44
67	B1	1464	A	C3'-C2'-C1'	6.54	107.84	101.30
67	B1	1522	A	C1'-O4'-C4'	6.54	116.24	109.70
67	B1	1991	G	C1'-O4'-C4'	6.54	116.44	109.90
21	A2	584	C	C4'-C3'-O3'	6.54	119.21	109.40
27	A0	47	U	C3'-C2'-C1'	-6.54	94.76	101.30
67	B1	794	G	O4'-C1'-C2'	6.54	114.14	107.60
67	B1	1760	C	C1'-C2'-O2'	6.54	118.21	108.40
67	B1	1912	A	O4'-C1'-N9	6.54	118.31	108.50
21	A2	559	G	O5'-C5'-C4'	-6.54	101.69	111.50
34	B5	67	SER	O-C-N	-6.54	115.80	123.25
67	B1	1632	U	O4'-C1'-C2'	-6.54	101.06	107.60
67	B1	2304	C	O4'-C4'-C3'	-6.54	97.46	104.00
67	B1	2491	C	C3'-C2'-C1'	6.54	107.84	101.30
21	A2	142	G	C5'-C4'-C3'	6.54	125.81	116.00
21	A2	1282	C	O4'-C1'-C2'	-6.54	99.26	105.80
32	BO	184	HIS	CB-CG-CD2	-6.54	122.70	131.20
43	Bk	42	ARG	CA-CB-CG	6.54	127.17	114.10
57	BZ	80	VAL	N-CA-CB	6.54	118.68	110.05
61	Bd	73	PRO	CA-C-N	6.54	129.57	120.29
61	Bd	73	PRO	C-N-CA	6.54	129.57	120.29
67	B1	143	C	N1-C1'-C2'	6.54	121.81	112.00
67	B1	184	A	O4'-C1'-C2'	-6.54	101.06	107.60
6	AC	15	MET	CA-C-N	6.54	129.57	120.29
6	AC	15	MET	C-N-CA	6.54	129.57	120.29
21	A2	1416	C	P-O3'-C3'	-6.54	110.40	120.20
56	BH	61	THR	N-CA-C	-6.54	104.16	111.28
67	B1	1037	C	C1'-O4'-C4'	6.54	116.24	109.70
50	BV	5	ASN	N-CA-C	-6.53	97.60	108.32
67	B1	981	A	C4'-C3'-C2'	6.53	109.13	102.60
67	B1	1201	G	C3'-C2'-C1'	-6.53	94.77	101.30
20	A3	14	GLU	CA-C-N	6.53	128.93	120.44
20	A3	14	GLU	C-N-CA	6.53	128.93	120.44
21	A2	265	C	P-O3'-C3'	-6.53	110.40	120.20
21	A2	1198	A	C3'-C2'-C1'	6.53	107.83	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1332	C	P-O5'-C5'	6.53	130.70	120.90
67	B1	1325	A	C3'-C2'-C1'	6.53	107.83	101.30
67	B1	2338	A	C2'-C3'-O3'	6.53	119.30	109.50
1	AQ	110	GLU	CB-CG-CD	-6.53	101.50	112.60
20	A3	25	ILE	CA-C-O	-6.53	113.93	120.85
21	A2	619	A	P-O5'-C5'	-6.53	111.10	120.90
52	BB	10	ARG	CA-C-O	6.53	127.47	120.55
58	BP	52	ILE	CA-C-N	6.53	131.63	120.72
58	BP	52	ILE	C-N-CA	6.53	131.63	120.72
67	B1	1510	U	C2'-C3'-O3'	6.53	119.30	109.50
67	B1	1697	G	O4'-C1'-C2'	-6.53	101.07	107.60
21	A2	1203	G	C5'-C4'-C3'	-6.53	106.21	116.00
21	A2	1213	G	C1'-O4'-C4'	-6.53	103.37	109.90
21	A2	1473	A	O4'-C1'-C2'	-6.53	101.07	107.60
67	B1	2914	U	O4'-C1'-N1	6.53	118.29	108.50
1	AQ	129	ILE	N-CA-C	-6.53	103.96	110.62
16	AJ	120	VAL	N-CA-C	-6.53	98.06	107.78
17	AO	6	HIS	ND1-CE1-NE2	6.53	114.93	108.40
27	A0	14	A	C3'-C2'-C1'	6.53	107.83	101.30
44	BW	56	THR	CA-C-N	6.53	129.40	120.46
44	BW	56	THR	C-N-CA	6.53	129.40	120.46
67	B1	234	G	P-O5'-C5'	6.53	130.69	120.90
67	B1	489	G	O4'-C1'-N9	6.53	118.29	108.50
67	B1	780	G	P-O5'-C5'	6.53	130.69	120.90
67	B1	1029	C	C5'-C4'-C3'	-6.53	106.21	116.00
67	B1	1105	C	N1-C1'-C2'	6.53	121.79	112.00
67	B1	1292	C	O4'-C1'-C2'	-6.53	101.07	107.60
67	B1	1875	U	P-O5'-C5'	6.53	130.69	120.90
25	AH	132	PRO	CA-C-N	6.53	131.78	120.68
25	AH	132	PRO	C-N-CA	6.53	131.78	120.68
31	BY	84	TYR	O-C-N	6.53	129.04	122.12
67	B1	2149	G	C5'-C4'-C3'	-6.53	106.21	116.00
67	B1	2801	G	P-O5'-C5'	-6.53	111.11	120.90
21	A2	836	G	C1'-O4'-C4'	-6.52	103.38	109.90
67	B1	276	G	O4'-C1'-C2'	-6.52	101.08	107.60
67	B1	1490	G	O4'-C1'-N9	6.52	118.28	108.50
54	BF	145	GLU	N-CA-CB	6.52	119.53	110.07
67	B1	902	C	O4'-C1'-C2'	-6.52	101.08	107.60
67	B1	2155	C	C3'-C2'-C1'	-6.52	94.98	101.50
67	B1	2318	G	C3'-C2'-C1'	-6.52	94.78	101.30
6	AC	23	LYS	N-CA-C	6.52	118.47	111.36
6	AC	119	ALA	N-CA-CB	6.52	119.47	110.01

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	AD	146	LYS	CA-C-N	6.52	129.02	120.28
10	AD	146	LYS	C-N-CA	6.52	129.02	120.28
21	A2	1181	G	O4'-C1'-C2'	-6.52	101.08	107.60
67	B1	700	A	C4'-C3'-C2'	-6.52	96.08	102.60
21	A2	759	C	C3'-C2'-C1'	6.52	107.82	101.30
21	A2	825	C	C1'-C2'-O2'	6.52	118.18	108.40
21	A2	880	G	N9-C1'-C2'	6.52	121.78	112.00
23	AT	42	PRO	CA-C-N	6.52	129.67	120.28
23	AT	42	PRO	C-N-CA	6.52	129.67	120.28
33	BC	282	LEU	CA-C-N	6.52	132.77	122.93
33	BC	282	LEU	C-N-CA	6.52	132.77	122.93
59	BM	134	ASP	CA-CB-CG	6.52	119.12	112.60
67	B1	1547	U	N1-C1'-C2'	-6.52	102.22	112.00
67	B1	2048	C	O4'-C4'-C3'	-6.52	97.48	104.00
67	B1	2303	A	C3'-C2'-C1'	6.52	107.82	101.30
67	B1	2450	A	C1'-C2'-O2'	6.52	121.58	111.80
67	B1	2925	C	N1-C1'-C2'	6.52	121.78	112.00
21	A2	263	C	O4'-C1'-C2'	-6.52	101.08	107.60
21	A2	1291	G	O5'-C5'-C4'	-6.52	101.72	111.50
21	A2	1345	G	O4'-C1'-N9	6.52	118.28	108.50
35	BL	12	ARG	CB-CA-C	6.52	121.61	110.79
67	B1	876	C	N1-C1'-C2'	6.52	121.78	112.00
67	B1	1805	U	O4'-C1'-C2'	-6.52	101.08	107.60
67	B1	2868	C	C3'-C2'-C1'	6.52	107.82	101.30
21	A2	14	C	N1-C1'-C2'	6.52	121.77	112.00
21	A2	668	G	O4'-C1'-N9	6.52	118.27	108.50
38	Bb	5	GLU	N-CA-C	6.52	118.42	110.41
48	BR	10	ARG	O-C-N	-6.52	114.87	122.95
67	B1	2875	C	O5'-C5'-C4'	-6.52	101.73	111.50
21	A2	217	C	O3'-P-O5'	6.51	113.77	104.00
21	A2	289	C	C5'-C4'-C3'	-6.51	106.23	116.00
21	A2	385	A	C1'-C2'-O2'	6.51	118.17	108.40
21	A2	756	A	O4'-C1'-N9	6.51	118.27	108.50
21	A2	1257	U	C3'-C2'-C1'	6.51	108.02	101.50
21	A2	1325	C	N1-C1'-C2'	6.51	121.77	112.00
67	B1	66	C	N1-C1'-C2'	6.51	121.77	112.00
67	B1	865	C	N1-C1'-C2'	6.51	121.77	112.00
67	B1	1925	A	C3'-C2'-C1'	-6.51	94.99	101.50
67	B1	2082	C	C3'-C2'-C1'	6.51	107.81	101.30
67	B1	2536	A	C3'-C2'-C1'	6.51	107.81	101.30
21	A2	241	U	O4'-C1'-N1	6.51	118.27	108.50
21	A2	209	A	O4'-C1'-C2'	-6.51	101.09	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	737	C	O4'-C1'-C2'	-6.51	101.09	107.60
21	A2	1037	U	O4'-C1'-C2'	6.51	112.31	105.80
49	BQ	55	ILE	N-CA-C	-6.51	100.30	108.89
51	Bj	31	SER	N-CA-C	6.51	124.67	110.80
67	B1	220	C	C3'-C2'-C1'	6.51	107.81	101.30
21	A2	540	G	O4'-C1'-C2'	-6.51	101.09	107.60
21	A2	804	U	O3'-P-O5'	6.51	113.76	104.00
21	A2	1237	G	C1'-O4'-C4'	-6.51	103.39	109.90
29	AL	24	LYS	CA-C-N	6.51	129.53	120.29
29	AL	24	LYS	C-N-CA	6.51	129.53	120.29
67	B1	511	A	O4'-C1'-N9	6.51	118.26	108.50
67	B1	821	U	O4'-C1'-N1	6.51	118.26	108.50
67	B1	1786	G	O4'-C1'-N9	6.51	118.26	108.50
67	B1	2463	G	C1'-O4'-C4'	-6.51	103.39	109.90
67	B1	2776	A	C3'-C2'-C1'	6.51	107.81	101.30
68	B3	43	C	P-O5'-C5'	6.51	130.66	120.90
61	Bd	8	ARG	N-CA-C	6.51	118.45	111.36
21	A2	184	G	O4'-C1'-N9	6.51	118.26	108.50
32	BO	18	LYS	N-CA-CB	6.51	120.83	109.18
48	BR	5	ALA	N-CA-CB	-6.51	99.95	111.08
67	B1	397	G	C3'-C2'-C1'	-6.51	94.79	101.30
67	B1	2356	U	C1'-O4'-C4'	6.51	116.41	109.90
68	B3	94	G	N9-C1'-C2'	6.51	121.76	112.00
17	AO	73	GLY	O-C-N	6.50	131.16	122.70
21	A2	1249	A	O4'-C1'-N9	6.50	118.26	108.50
24	AA	26	PHE	CA-C-N	6.50	132.90	122.10
24	AA	26	PHE	C-N-CA	6.50	132.90	122.10
59	BM	76	TRP	CA-C-O	-6.50	114.66	121.55
7	AB	51	ARG	CA-C-N	6.50	129.00	120.28
7	AB	51	ARG	C-N-CA	6.50	129.00	120.28
21	A2	85	A	C3'-C2'-C1'	6.50	107.80	101.30
21	A2	539	C	C1'-O4'-C4'	6.50	116.40	109.90
38	Bb	27	GLU	CB-CA-C	6.50	123.36	110.42
59	BM	134	ASP	CA-C-O	-6.50	113.97	119.76
67	B1	773	U	O4'-C1'-N1	6.50	118.25	108.50
67	B1	3024	C	C1'-O4'-C4'	-6.50	103.40	109.90
21	A2	207	G	N9-C1'-C2'	-6.50	102.25	112.00
21	A2	1029	G	O4'-C1'-N9	6.50	118.25	108.50
42	BT	34	ALA	N-CA-C	6.50	118.72	110.33
48	BR	30	ARG	CA-C-N	6.50	128.99	120.28
48	BR	30	ARG	C-N-CA	6.50	128.99	120.28
62	BN	163	ARG	CB-CA-C	6.50	123.36	110.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1136	G	O4'-C1'-N9	6.50	118.25	108.50
67	B1	1677	A	C1'-O4'-C4'	-6.50	103.20	109.70
67	B1	2666	G	N9-C1'-C2'	6.50	121.75	112.00
2	AK	74	GLN	N-CA-CB	6.50	119.67	110.12
21	A2	589	U	O4'-C1'-N1	6.50	118.25	108.50
32	BO	9	VAL	CA-C-O	-6.50	114.45	119.20
32	BO	22	ARG	N-CA-CB	6.50	119.63	109.94
61	Bd	52	VAL	N-CA-CB	-6.50	99.70	110.56
67	B1	465	C	N1-C1'-C2'	6.50	121.75	112.00
1	AQ	63	VAL	N-CA-C	6.50	119.17	111.05
21	A2	1367	C	C3'-C2'-C1'	6.50	107.80	101.30
67	B1	2185	A	O4'-C1'-N9	6.50	118.25	108.50
6	AC	140	ARG	N-CA-CB	6.50	123.61	111.53
12	AN	110	GLY	CA-C-N	6.50	127.33	120.12
12	AN	110	GLY	C-N-CA	6.50	127.33	120.12
14	AM	58	TYR	CA-C-O	-6.50	113.53	120.42
32	BO	149	ILE	N-CA-C	6.50	117.28	110.72
46	BA	98	ARG	NE-CZ-NH2	6.50	125.05	119.20
67	B1	1035	G	O4'-C1'-C2'	6.50	114.10	107.60
67	B1	1595	G	C1'-O4'-C4'	6.50	116.40	109.90
67	B1	1640	G	C1'-O4'-C4'	-6.50	103.40	109.90
67	B1	2057	G	O5'-C5'-C4'	-6.50	101.75	111.50
67	B1	2700	U	O4'-C1'-C2'	-6.50	99.30	105.80
7	AB	170	ILE	CA-C-N	6.50	128.88	120.44
7	AB	170	ILE	C-N-CA	6.50	128.88	120.44
21	A2	565	C	P-O5'-C5'	6.50	130.64	120.90
21	A2	1346	C	N1-C1'-C2'	6.50	121.74	112.00
67	B1	2028	G	N9-C1'-C2'	6.50	121.74	112.00
21	A2	687	G	C2'-C3'-O3'	6.49	119.24	109.50
21	A2	878	U	C1'-O4'-C4'	-6.49	103.41	109.90
67	B1	693	G	O4'-C1'-N9	6.49	118.24	108.50
67	B1	2244	G	P-O5'-C5'	6.49	130.64	120.90
21	A2	256	G	C4'-C3'-C2'	-6.49	96.11	102.60
67	B1	901	C	C3'-C2'-C1'	6.49	107.79	101.30
67	B1	1442	G	O4'-C1'-C2'	6.49	112.29	105.80
67	B1	1491	U	O4'-C1'-N1	6.49	118.24	108.50
67	B1	2372	C	C1'-O4'-C4'	6.49	116.19	109.70
47	BI	34	GLU	N-CA-C	6.49	118.36	111.28
67	B1	917	A	P-O5'-C5'	-6.49	111.16	120.90
67	B1	1103	C	O4'-C1'-C2'	-6.49	101.11	107.60
67	B1	1936	C	O4'-C1'-C2'	-6.49	101.11	107.60
21	A2	1052	U	C1'-O4'-C4'	6.49	116.39	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1182	G	C5'-C4'-O4'	6.49	119.53	109.80
21	A2	1413	G	C4'-C3'-C2'	-6.49	96.11	102.60
21	A2	1470	G	C1'-O4'-C4'	-6.49	103.41	109.90
27	A0	61	C	C3'-C2'-C1'	6.49	107.79	101.30
30	AU	45	PRO	N-CA-CB	6.49	109.74	102.67
56	BH	17	PRO	N-CA-CB	6.49	110.18	102.85
67	B1	180	A	O4'-C1'-C2'	-6.49	101.11	107.60
1	AQ	88	ALA	CA-C-O	-6.49	113.25	120.25
21	A2	951	G	C1'-O4'-C4'	-6.49	103.41	109.90
21	A2	1423	A	N9-C1'-C2'	-6.49	102.27	112.00
49	BQ	44	LEU	CA-C-N	6.49	128.73	120.56
49	BQ	44	LEU	C-N-CA	6.49	128.73	120.56
53	BD	91	ARG	CB-CA-C	6.49	121.05	110.22
54	BF	15	GLU	CA-C-O	6.49	126.86	119.27
67	B1	481	G	O4'-C1'-N9	6.49	117.93	108.20
67	B1	2300	C	N1-C1'-C2'	6.49	121.73	112.00
67	B1	2430	C	P-O5'-C5'	6.49	130.63	120.90
21	A2	651	U	C1'-O4'-C4'	-6.48	103.42	109.90
30	AU	95	GLY	O-C-N	6.48	129.35	122.28
40	BE	163	ARG	NE-CZ-NH2	6.48	125.04	119.20
67	B1	249	G	C1'-C2'-O2'	6.48	118.13	108.40
67	B1	1134	A	C3'-C2'-C1'	6.48	107.78	101.30
2	AK	110	ASP	N-CA-C	-6.48	100.73	108.25
10	AD	178	GLY	O-C-N	-6.48	116.37	123.05
58	BP	23	ASN	CA-C-N	6.48	128.97	120.28
58	BP	23	ASN	C-N-CA	6.48	128.97	120.28
67	B1	893	C	P-O3'-C3'	-6.48	110.48	120.20
67	B1	1866	G	O4'-C1'-N9	6.48	118.22	108.50
67	B1	2300	C	C3'-C2'-C1'	6.48	107.78	101.30
21	A2	696	G	C1'-O4'-C4'	-6.48	103.42	109.90
21	A2	751	C	C3'-C2'-C1'	6.48	107.78	101.30
21	A2	1008	U	N1-C1'-C2'	6.48	121.72	112.00
21	A2	1474	A	N9-C1'-C2'	-6.48	102.28	112.00
37	BU	106	ASN	OD1-CG-ND2	6.48	129.08	122.60
52	BB	188	PHE	CA-CB-CG	-6.48	107.32	113.80
67	B1	511	A	C1'-O4'-C4'	6.48	116.38	109.90
67	B1	687	C	O4'-C1'-C2'	-6.48	101.12	107.60
68	B3	100	A	C3'-C2'-C1'	-6.48	94.82	101.30
62	BN	38	ASN	CA-CB-CG	-6.48	106.12	112.60
67	B1	959	U	P-O3'-C3'	-6.48	110.48	120.20
21	A2	1072	C	C1'-O4'-C4'	-6.48	103.42	109.90
21	A2	1098	G	C4'-C3'-C2'	-6.48	96.12	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	AH	81	VAL	N-CA-C	6.48	122.81	109.34
31	BY	78	LYS	CA-C-O	-6.48	114.27	119.71
67	B1	175	G	O4'-C1'-N9	6.48	118.22	108.50
67	B1	493	A	C3'-C2'-C1'	6.48	107.98	101.50
67	B1	1708	U	O4'-C1'-N1	6.48	118.22	108.50
67	B1	2406	C	C3'-C2'-C1'	6.48	107.78	101.30
40	BE	49	GLN	CA-C-N	6.48	128.96	120.28
40	BE	49	GLN	C-N-CA	6.48	128.96	120.28
41	Ba	24	ARG	CB-CA-C	6.48	120.99	110.95
21	A2	47	A	C2'-C3'-O3'	6.47	119.21	109.50
21	A2	726	A	N9-C1'-C2'	6.47	121.71	112.00
21	A2	805	C	O4'-C1'-C2'	6.47	114.08	107.60
21	A2	1469	G	O4'-C4'-C3'	-6.47	97.53	104.00
33	BC	194	GLU	CB-CG-CD	-6.47	101.59	112.60
67	B1	1724	A	O4'-C1'-N9	6.47	118.21	108.50
67	B1	2613	C	P-O5'-C5'	6.47	130.61	120.90
67	B1	2753	G	C1'-O4'-C4'	6.47	116.17	109.70
68	B3	117	G	P-O3'-C3'	-6.47	110.49	120.20
21	A2	332	C	P-O3'-C3'	-6.47	110.49	120.20
61	Bd	35	HIS	CA-C-N	6.47	128.85	120.44
61	Bd	35	HIS	C-N-CA	6.47	128.85	120.44
67	B1	1481	G	C1'-O4'-C4'	-6.47	103.43	109.90
67	B1	2264	G	O3'-P-O5'	6.47	113.71	104.00
67	B1	2495	A	O4'-C4'-C3'	-6.47	97.53	104.00
68	B3	114	G	P-O5'-C5'	6.47	130.61	120.90
21	A2	1421	C	N1-C1'-C2'	6.47	121.71	112.00
23	AT	99	ILE	N-CA-CB	6.47	117.93	110.49
35	BL	15	HIS	CE1-NE2-CD2	-6.47	102.53	109.00
58	BP	110	ASN	OD1-CG-ND2	6.47	129.07	122.60
67	B1	2938	G	O4'-C1'-N9	6.47	118.20	108.50
68	B3	117	G	C3'-C2'-C1'	6.47	107.77	101.30
21	A2	104	A	C3'-C2'-C1'	6.47	107.77	101.30
21	A2	401	U	C1'-O4'-C4'	6.47	116.37	109.90
67	B1	837	G	C1'-O4'-C4'	-6.47	103.43	109.90
67	B1	2700	U	C3'-C2'-C1'	6.47	107.97	101.50
67	B1	2972	G	C4'-C3'-C2'	-6.47	96.13	102.60
21	A2	295	G	C3'-C2'-C1'	6.47	107.77	101.30
21	A2	1124	G	O4'-C1'-C2'	6.47	114.07	107.60
67	B1	646	U	C1'-O4'-C4'	6.47	116.37	109.90
67	B1	770	G	P-O5'-C5'	6.47	130.60	120.90
67	B1	1984	G	C1'-O4'-C4'	-6.47	103.43	109.90
20	BG	66	LEU	CA-C-O	-6.46	111.31	120.16

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
60	BS	46	ASP	N-CA-C	-6.46	104.31	111.36
67	B1	591	G	P-O5'-C5'	-6.46	111.20	120.90
67	B1	946	U	O3'-P-O5'	6.46	113.70	104.00
67	B1	1893	C	P-O5'-C5'	-6.46	111.20	120.90
67	B1	2088	G	P-O5'-C5'	6.46	130.60	120.90
67	B1	2158	G	P-O3'-C3'	6.46	129.90	120.20
67	B1	2882	G	O4'-C1'-N9	6.46	118.19	108.50
18	AF	143	PHE	CA-CB-CG	-6.46	107.34	113.80
21	A2	766	G	O4'-C1'-C2'	6.46	114.06	107.60
21	A2	1117	A	C5'-C4'-C3'	6.46	124.89	115.20
33	BC	137	LYS	N-CA-CB	6.46	121.49	110.50
35	BL	4	ARG	CD-NE-CZ	6.46	133.44	124.40
36	Bf	48	LYS	CB-CG-CD	6.46	126.16	111.30
46	BA	56	ARG	O-C-N	6.46	128.73	122.07
58	BP	28	LYS	CA-C-N	6.46	129.31	120.46
58	BP	28	LYS	C-N-CA	6.46	129.31	120.46
67	B1	131	C	N1-C1'-C2'	6.46	121.69	112.00
67	B1	624	U	O4'-C1'-C2'	-6.46	101.14	107.60
67	B1	2304	C	C1'-O4'-C4'	-6.46	103.44	109.90
31	BY	108	LYS	CA-C-N	6.46	128.94	120.28
31	BY	108	LYS	C-N-CA	6.46	128.94	120.28
8	AR	24	HIS	CE1-NE2-CD2	-6.46	102.54	109.00
21	A2	547	U	O4'-C1'-C2'	6.46	114.06	107.60
28	AV	59	TYR	CA-C-N	6.46	133.88	121.54
28	AV	59	TYR	C-N-CA	6.46	133.88	121.54
67	B1	2268	C	O4'-C1'-C2'	-6.46	101.14	107.60
21	A2	1105	C	O4'-C1'-C2'	-6.46	101.14	107.60
30	AU	127	SER	O-C-N	6.46	128.72	122.07
51	Bj	25	VAL	N-CA-CB	-6.46	100.58	111.23
52	BB	176	GLY	N-CA-C	6.46	119.99	112.50
67	B1	1049	U	O4'-C1'-N1	6.46	117.89	108.20
67	B1	1283	G	O4'-C1'-N9	6.46	118.18	108.50
67	B1	2146	C	N1-C1'-C2'	6.46	121.69	112.00
67	B1	2847	G	O4'-C1'-N9	6.46	118.19	108.50
21	A2	215	C	C1'-O4'-C4'	-6.46	103.44	109.90
67	B1	889	C	C3'-C2'-C1'	6.46	107.75	101.30
67	B1	2160	C	C1'-C2'-O2'	6.46	118.08	108.40
21	A2	1114	G	O4'-C1'-N9	6.45	118.18	108.50
67	B1	310	C	O4'-C1'-N1	6.45	118.18	108.50
21	A2	489	C	P-O5'-C5'	6.45	130.58	120.90
67	B1	1431	U	C4'-C3'-O3'	-6.45	103.32	113.00
1	AQ	33	ILE	N-CA-C	6.45	117.24	110.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	AX	15	ILE	N-CA-CB	6.45	118.83	110.57
21	A2	1095	C	O4'-C1'-C2'	6.45	114.05	107.60
21	A2	1441	G	O4'-C1'-C2'	-6.45	101.15	107.60
24	AA	157	PHE	N-CA-C	6.45	117.97	111.07
43	Bk	97	PHE	CA-C-N	6.45	128.92	120.28
43	Bk	97	PHE	C-N-CA	6.45	128.92	120.28
67	B1	2493	A	C1'-O4'-C4'	-6.45	103.45	109.90
67	B1	2944	G	P-O3'-C3'	-6.45	110.53	120.20
11	A1	8	U	O4'-C1'-C2'	-6.45	101.15	107.60
21	A2	409	C	P-O5'-C5'	6.45	130.57	120.90
21	A2	872	A	N9-C1'-C2'	6.45	121.67	112.00
21	A2	1456	C	N1-C1'-C2'	6.45	121.67	112.00
31	BY	20	ARG	NE-CZ-NH1	-6.45	115.05	121.50
43	Bk	75	GLU	CA-C-O	-6.45	113.58	120.42
50	BV	53	THR	N-CA-CB	-6.45	99.82	109.69
67	B1	991	U	N1-C1'-C2'	6.45	121.67	112.00
67	B1	1468	G	O5'-C5'-C4'	-6.45	102.03	111.70
67	B1	1958	A	O4'-C1'-C2'	-6.45	99.35	105.80
21	A2	248	U	C5'-C4'-C3'	6.45	125.67	116.00
21	A2	520	G	O4'-C1'-N9	6.45	118.17	108.50
21	A2	589	U	O4'-C1'-C2'	-6.45	101.16	107.60
56	BH	114	MET	N-CA-C	-6.45	100.15	110.14
67	B1	209	G	C4'-C3'-O3'	-6.45	103.33	113.00
67	B1	664	A	C2'-C3'-O3'	6.45	119.17	109.50
67	B1	2853	A	C1'-O4'-C4'	-6.45	103.45	109.90
67	B1	2883	C	C3'-C2'-C1'	6.45	107.75	101.30
59	BM	61	ILE	CB-CA-C	6.44	120.42	110.50
67	B1	509	A	C3'-C2'-C1'	6.44	107.74	101.30
3	AI	87	GLU	N-CA-CB	6.44	119.59	110.12
10	AD	171	ILE	CA-C-N	6.44	128.91	120.28
10	AD	171	ILE	C-N-CA	6.44	128.91	120.28
53	BD	174	LYS	CA-C-O	-6.44	113.59	120.42
67	B1	518	A	C2'-C3'-O3'	6.44	119.17	109.50
67	B1	1555	G	C3'-C2'-C1'	6.44	107.74	101.30
1	AQ	77	THR	CA-C-N	6.44	133.56	121.97
1	AQ	77	THR	C-N-CA	6.44	133.56	121.97
24	AA	46	ARG	NE-CZ-NH2	-6.44	113.40	119.20
49	BQ	117	ARG	CA-C-N	6.44	129.44	120.29
49	BQ	117	ARG	C-N-CA	6.44	129.44	120.29
58	BP	87	GLU	CA-C-N	6.44	129.44	120.29
58	BP	87	GLU	C-N-CA	6.44	129.44	120.29
67	B1	119	U	C2'-C3'-O3'	6.44	119.16	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	224	G	C3'-C2'-C1'	6.44	107.74	101.30
67	B1	1077	G	O4'-C1'-N9	6.44	118.16	108.50
67	B1	1466	U	C4'-C3'-C2'	-6.44	96.16	102.60
67	B1	1937	A	C1'-O4'-C4'	6.44	116.34	109.90
67	B1	2447	A	C1'-O4'-C4'	-6.44	103.26	109.70
23	AT	113	VAL	CA-CB-CG2	6.44	121.35	110.40
38	Bb	41	ARG	CA-C-N	6.44	129.63	120.49
38	Bb	41	ARG	C-N-CA	6.44	129.63	120.49
43	Bk	109	PRO	N-CA-CB	-6.44	95.52	102.60
67	B1	438	G	C4'-C3'-C2'	-6.44	96.16	102.60
33	BC	136	PRO	O-C-N	-6.44	115.03	123.01
35	BL	45	SER	N-CA-C	-6.44	97.09	110.80
20	BG	107	ALA	CA-C-N	6.44	129.20	120.38
20	BG	107	ALA	C-N-CA	6.44	129.20	120.38
67	B1	519	A	C1'-O4'-C4'	6.44	116.34	109.90
67	B1	1517	G	C3'-C2'-C1'	-6.44	94.86	101.30
67	B1	2891	A	C3'-C2'-C1'	6.44	107.94	101.50
67	B1	2921	U	O4'-C1'-N1	6.44	118.16	108.50
21	A2	975	A	O3'-P-O5'	6.44	113.65	104.00
27	A0	12	U	O4'-C1'-C2'	-6.44	101.16	107.60
21	A2	775	G	O4'-C1'-C2'	-6.43	101.17	107.60
21	A2	1361	G	O4'-C1'-C2'	-6.43	101.17	107.60
27	A0	8	U	O4'-C1'-C2'	-6.43	101.17	107.60
33	BC	294	LYS	O-C-N	6.43	131.15	122.59
49	BQ	119	THR	CA-C-N	6.43	129.23	120.54
49	BQ	119	THR	C-N-CA	6.43	129.23	120.54
50	BV	63	ARG	CA-C-N	6.43	127.26	119.99
50	BV	63	ARG	C-N-CA	6.43	127.26	119.99
28	B6	14	ILE	CB-CA-C	6.43	118.88	110.84
67	B1	1051	C	C3'-C2'-C1'	6.43	107.73	101.30
67	B1	1056	C	C3'-C2'-C1'	6.43	107.73	101.30
67	B1	1682	C	O4'-C1'-C2'	-6.43	101.17	107.60
67	B1	2288	C	C1'-O4'-C4'	-6.43	103.47	109.90
47	BI	108	GLN	N-CA-CB	6.43	119.43	110.17
67	B1	331	G	P-O3'-C3'	6.43	129.85	120.20
67	B1	628	A	P-O3'-C3'	-6.43	110.55	120.20
67	B1	880	U	C1'-C2'-O2'	6.43	118.05	108.40
24	AA	39	ASP	CA-CB-CG	-6.43	106.17	112.60
67	B1	308	C	C1'-O4'-C4'	6.43	116.33	109.90
21	A2	989	C	O4'-C1'-N1	6.43	118.14	108.50
27	A0	34	G	O4'-C1'-C2'	6.43	114.03	107.60
40	BE	124	PRO	O-C-N	-6.43	115.03	123.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	537	U	P-O5'-C5'	-6.43	111.26	120.90
67	B1	816	C	N1-C1'-C2'	6.43	121.64	112.00
67	B1	1736	G	N9-C1'-C2'	6.43	121.64	112.00
15	AE	224	ASP	N-CA-C	-6.43	97.31	108.69
23	AT	57	GLY	CA-C-N	6.43	130.24	121.05
23	AT	57	GLY	C-N-CA	6.43	130.24	121.05
67	B1	1735	G	C1'-O4'-C4'	6.43	116.33	109.90
16	AJ	34	ASN	CA-C-O	6.43	127.05	120.24
19	AS	5	ARG	CB-CA-C	6.43	120.32	109.84
21	A2	454	G	C1'-C2'-O2'	6.43	118.04	108.40
21	A2	1293	A	C1'-O4'-C4'	6.43	116.33	109.90
28	AV	57	ARG	N-CA-C	-6.43	99.64	109.41
65	BJ	47	HIS	CE1-NE2-CD2	-6.43	102.57	109.00
65	BJ	91	ARG	N-CA-CB	6.43	119.63	110.44
67	B1	761	U	P-O3'-C3'	6.43	129.84	120.20
67	B1	1043	U	C5'-C4'-C3'	6.43	125.64	116.00
67	B1	1264	G	N9-C1'-C2'	6.43	121.64	112.00
67	B1	2722	G	C1'-O4'-C4'	-6.43	103.47	109.90
67	B1	2776	A	N9-C1'-C2'	6.43	121.64	112.00
68	B3	16	G	C1'-O4'-C4'	-6.43	103.47	109.90
20	A3	7	VAL	N-CA-C	-6.42	98.21	107.78
21	A2	79	G	P-O3'-C3'	-6.42	110.56	120.20
24	AA	88	ALA	CA-C-N	6.42	129.41	120.29
24	AA	88	ALA	C-N-CA	6.42	129.41	120.29
24	AA	176	LYS	CA-C-N	6.42	128.78	120.56
24	AA	176	LYS	C-N-CA	6.42	128.78	120.56
67	B1	1249	G	N9-C1'-C2'	6.42	123.64	114.00
67	B1	2272	G	O4'-C1'-C2'	6.42	114.02	107.60
33	BC	5	HIS	CG-CD2-NE2	6.42	113.62	107.20
67	B1	43	G	P-O3'-C3'	6.42	129.84	120.20
67	B1	1034	G	C1'-C2'-O2'	6.42	118.03	108.40
15	AE	202	ILE	CA-C-O	6.42	126.27	119.91
21	A2	1054	A	C5'-C4'-C3'	-6.42	106.37	116.00
46	BA	51	VAL	N-CA-CB	6.42	118.72	111.21
67	B1	197	C	P-O3'-C3'	-6.42	110.57	120.20
67	B1	594	U	C1'-O4'-C4'	6.42	116.32	109.90
67	B1	903	C	N1-C1'-C2'	6.42	121.63	112.00
67	B1	1070	G	C1'-C2'-O2'	-6.42	102.17	111.80
67	B1	1575	G	O4'-C1'-N9	6.42	118.13	108.50
2	AK	16	ARG	NE-CZ-NH2	-6.42	113.42	119.20
7	AB	31	PHE	CA-CB-CG	-6.42	107.38	113.80
7	AB	33	TYR	CB-CG-CD2	-6.42	111.17	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1477	U	O4'-C1'-N1	6.42	118.13	108.50
67	B1	1180	G	C3'-C2'-C1'	6.42	107.72	101.30
67	B1	2076	A	O4'-C1'-C2'	6.42	114.02	107.60
67	B1	2662	G	C4'-C3'-C2'	-6.42	96.18	102.60
67	B1	2813	G	O4'-C4'-C3'	-6.42	97.58	104.00
21	A2	1256	C	P-O3'-C3'	6.42	129.82	120.20
35	BL	77	ASN	CA-CB-CG	-6.42	106.18	112.60
67	B1	111	U	C1'-O4'-C4'	6.42	116.32	109.90
67	B1	121	G	N9-C1'-C2'	6.42	121.63	112.00
67	B1	568	A	N9-C1'-C2'	6.42	123.62	114.00
60	BS	141	GLU	O-C-N	-6.42	115.67	123.30
17	AO	131	THR	N-CA-C	-6.41	102.66	112.99
20	A3	65	HIS	CE1-NE2-CD2	-6.41	102.59	109.00
21	A2	748	A	C1'-C2'-O2'	6.41	118.02	108.40
33	BC	313	HIS	CE1-NE2-CD2	-6.41	102.59	109.00
67	B1	215	A	N9-C1'-C2'	-6.41	104.38	114.00
67	B1	1567	C	O4'-C1'-N1	-6.41	98.88	108.50
68	B3	3	G	O5'-C5'-C4'	-6.41	101.88	111.50
67	B1	1629	G	O4'-C1'-N9	6.41	118.12	108.50
67	B1	2991	C	N1-C1'-C2'	6.41	121.62	112.00
21	A2	117	C	P-O5'-C5'	6.41	130.52	120.90
21	A2	1192	C	C3'-C2'-C1'	6.41	107.71	101.30
37	BU	35	LEU	CA-C-N	6.41	128.87	120.28
37	BU	35	LEU	C-N-CA	6.41	128.87	120.28
44	BW	63	ARG	CA-C-N	6.41	129.19	120.54
44	BW	63	ARG	C-N-CA	6.41	129.19	120.54
15	AE	20	TYR	CA-C-N	6.41	129.70	120.98
15	AE	20	TYR	C-N-CA	6.41	129.70	120.98
16	AJ	17	ILE	CB-CA-C	6.41	118.71	110.96
21	A2	255	G	C1'-C2'-O2'	6.41	118.01	108.40
21	A2	720	A	C5'-C4'-C3'	6.41	125.61	116.00
21	A2	876	A	C3'-C2'-C1'	6.41	107.71	101.30
67	B1	2181	G	C1'-C2'-O2'	6.41	118.01	108.40
7	AB	26	LYS	CA-C-O	-6.41	113.76	120.55
61	Bd	32	LYS	CA-C-N	6.41	131.11	122.01
61	Bd	32	LYS	C-N-CA	6.41	131.11	122.01
67	B1	2526	G	O4'-C1'-C2'	-6.41	101.19	107.60
6	AC	130	ILE	N-CA-C	-6.41	98.92	108.46
35	BL	4	ARG	N-CA-CB	6.41	119.54	110.12
37	BU	42	ARG	NE-CZ-NH1	6.41	127.91	121.50
60	BS	129	TYR	CB-CG-CD1	-6.41	111.19	120.80
67	B1	1102	C	C1'-C2'-O2'	6.41	118.01	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1158	G	C1'-O4'-C4'	-6.41	103.49	109.90
21	A2	426	C	C3'-C2'-C1'	6.40	107.70	101.30
67	B1	948	C	C4'-C3'-C2'	-6.40	96.20	102.60
67	B1	1087	G	O4'-C1'-N9	6.40	118.11	108.50
17	AO	95	THR	N-CA-C	6.40	117.92	111.07
21	A2	777	G	O4'-C1'-N9	6.40	118.10	108.50
25	AH	13	HIS	N-CA-C	-6.40	103.43	111.11
39	Be	7	THR	CA-C-N	6.40	128.76	120.44
39	Be	7	THR	C-N-CA	6.40	128.76	120.44
54	BF	162	LYS	CA-C-N	6.40	132.29	122.11
54	BF	162	LYS	C-N-CA	6.40	132.29	122.11
57	BZ	24	ILE	N-CA-CB	6.40	121.60	110.65
67	B1	1607	C	O3'-P-O5'	-6.40	94.40	104.00
21	A2	340	A	P-O5'-C5'	-6.40	111.30	120.90
21	A2	821	G	O4'-C1'-N9	6.40	118.10	108.50
21	A2	1159	U	N1-C1'-C2'	6.40	121.60	112.00
40	BE	88	TYR	CA-C-N	6.40	128.86	120.28
40	BE	88	TYR	C-N-CA	6.40	128.86	120.28
23	AT	12	THR	O-C-N	6.40	129.79	123.46
67	B1	929	G	C3'-C2'-C1'	6.40	107.70	101.30
67	B1	1337	G	O4'-C1'-N9	6.40	118.10	108.50
67	B1	1927	C	N1-C1'-C2'	6.40	121.60	112.00
17	AO	115	TYR	O-C-N	6.40	128.90	122.12
43	Bk	53	ARG	CA-C-N	6.40	132.06	122.91
43	Bk	53	ARG	C-N-CA	6.40	132.06	122.91
53	BD	170	ILE	CA-C-O	6.40	127.38	120.47
54	BF	169	GLN	CA-C-N	6.40	129.79	120.71
54	BF	169	GLN	C-N-CA	6.40	129.79	120.71
60	BS	47	ALA	CA-C-N	6.40	128.76	120.44
60	BS	47	ALA	C-N-CA	6.40	128.76	120.44
63	Bg	13	LYS	N-CA-CB	6.40	120.95	110.39
67	B1	729	A	C1'-O4'-C4'	-6.40	103.50	109.90
67	B1	2892	A	C2'-C3'-O3'	6.40	119.10	109.50
21	A2	561	A	C4'-C3'-C2'	-6.40	96.20	102.60
21	A2	1330	G	O4'-C1'-C2'	-6.40	101.20	107.60
40	BE	165	LYS	O-C-N	-6.40	115.47	123.27
67	B1	717	A	O4'-C1'-N9	6.40	118.09	108.50
67	B1	1672	G	C5'-C4'-C3'	6.40	125.59	116.00
35	BL	8	VAL	O-C-N	6.39	129.35	122.06
46	BA	43	GLU	N-CA-C	6.39	119.06	111.71
67	B1	262	C	O4'-C1'-C2'	-6.39	101.20	107.60
67	B1	682	G	O4'-C1'-C2'	6.39	113.99	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	724	G	O4'-C1'-N9	6.39	118.09	108.50
67	B1	758	C	C1'-O4'-C4'	6.39	116.29	109.90
67	B1	1567	C	C5'-C4'-C3'	6.39	125.59	116.00
21	A2	88	G	O4'-C1'-N9	-6.39	98.91	108.50
21	A2	324	C	O4'-C1'-N1	6.39	117.79	108.20
67	B1	847	A	N9-C1'-C2'	-6.39	102.41	112.00
67	B1	931	C	N1-C1'-C2'	6.39	121.59	112.00
67	B1	2926	G	O4'-C4'-C3'	-6.39	97.61	104.00
21	A2	846	G	O4'-C1'-N9	6.39	118.09	108.50
60	BS	104	GLN	CA-C-N	6.39	131.39	120.72
60	BS	104	GLN	C-N-CA	6.39	131.39	120.72
8	AR	47	VAL	CA-C-O	-6.39	114.51	121.28
67	B1	826	C	C3'-C2'-C1'	6.39	107.69	101.30
67	B1	1340	G	P-O5'-C5'	-6.39	111.32	120.90
67	B1	1655	G	N9-C1'-C2'	6.39	121.58	112.00
67	B1	1901	A	C1'-O4'-C4'	6.39	116.29	109.90
67	B1	2173	U	P-O5'-C5'	-6.39	111.32	120.90
21	A2	1214	G	C1'-O4'-C4'	-6.39	103.51	109.90
54	BF	72	ALA	CA-C-N	6.39	128.84	120.28
54	BF	72	ALA	C-N-CA	6.39	128.84	120.28
21	A2	141	C	O4'-C1'-N1	6.39	118.08	108.50
21	A2	765	U	C4'-C3'-O3'	-6.39	103.42	113.00
37	BU	47	ARG	CA-C-N	6.39	131.12	120.64
37	BU	47	ARG	C-N-CA	6.39	131.12	120.64
67	B1	1521	G	C1'-O4'-C4'	-6.39	103.51	109.90
1	AQ	106	ARG	CA-C-N	6.38	128.84	120.28
1	AQ	106	ARG	C-N-CA	6.38	128.84	120.28
13	AX	7	TYR	N-CA-CB	-6.38	99.19	110.05
21	A2	562	A	O4'-C1'-N9	6.38	118.08	108.50
21	A2	1480	G	O4'-C1'-N9	6.38	118.08	108.50
33	BC	328	VAL	CA-C-N	6.38	128.08	120.23
33	BC	328	VAL	C-N-CA	6.38	128.08	120.23
52	BB	187	LYS	N-CA-CB	6.38	121.28	110.49
67	B1	412	G	P-O5'-C5'	-6.38	111.32	120.90
67	B1	1084	G	N9-C1'-C2'	6.38	121.58	112.00
67	B1	1085	G	O4'-C1'-C2'	-6.38	101.22	107.60
67	B1	1603	G	C3'-C2'-C1'	6.38	107.69	101.30
22	AY	11	LYS	N-CA-CB	6.38	120.12	110.42
67	B1	136	U	O4'-C1'-N1	6.38	118.08	108.50
67	B1	208	A	C3'-C2'-C1'	6.38	107.68	101.30
67	B1	415	U	O4'-C4'-C3'	-6.38	97.62	104.00
67	B1	2698	G	C1'-O4'-C4'	6.38	116.28	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2732	U	P-O3'-C3'	6.38	129.77	120.20
68	B3	50	G	C3'-C2'-C1'	6.38	107.68	101.30
6	AC	65	LEU	CA-C-N	6.38	128.83	120.28
6	AC	65	LEU	C-N-CA	6.38	128.83	120.28
20	A3	80	VAL	O-C-N	-6.38	113.82	121.10
21	A2	547	U	C3'-C2'-C1'	-6.38	94.92	101.30
21	A2	768	A	N9-C1'-C2'	-6.38	102.43	112.00
21	A2	1205	G	O4'-C1'-N9	6.38	118.07	108.50
21	A2	1317	G	O4'-C1'-C2'	6.38	113.98	107.60
37	BU	36	ARG	CA-C-O	-6.38	113.78	120.55
48	BR	39	GLN	N-CA-CB	6.38	119.70	110.06
6	AC	141	ALA	N-CA-CB	6.38	120.90	110.37
21	A2	35	G	O4'-C1'-C2'	6.38	113.98	107.60
36	Bf	44	TRP	CA-CB-CG	6.38	125.72	113.60
67	B1	2299	G	O4'-C1'-N9	6.38	118.07	108.50
4	AG	79	HIS	CB-CG-ND1	6.38	132.27	122.70
21	A2	556	G	P-O3'-C3'	-6.38	110.63	120.20
21	A2	1000	G	O3'-P-O5'	-6.38	94.43	104.00
31	BY	29	HIS	CB-CG-CD2	-6.38	122.91	131.20
60	BS	109	PRO	N-CA-CB	6.38	110.06	103.23
67	B1	49	A	N9-C1'-C2'	-6.38	104.43	114.00
67	B1	1178	G	N9-C1'-C2'	6.38	121.57	112.00
21	A2	703	U	C3'-C2'-C1'	6.38	107.68	101.30
37	BU	62	HIS	CG-CD2-NE2	6.38	113.58	107.20
40	BE	55	LYS	O-C-N	-6.38	116.15	121.38
49	BQ	124	TYR	CA-C-N	6.38	129.47	120.42
49	BQ	124	TYR	C-N-CA	6.38	129.47	120.42
67	B1	464	C	C1'-O4'-C4'	6.38	116.28	109.90
67	B1	490	C	O4'-C4'-C3'	-6.38	97.62	104.00
67	B1	1377	G	C3'-C2'-C1'	6.38	107.68	101.30
27	A0	71	G	O3'-P-O5'	6.38	113.56	104.00
47	BI	37	VAL	CA-C-N	6.38	131.85	122.99
47	BI	37	VAL	C-N-CA	6.38	131.85	122.99
67	B1	2308	C	C3'-C2'-C1'	6.38	107.67	101.30
14	AM	65	ARG	CA-C-O	6.37	127.31	120.55
21	A2	1264	G	C3'-C2'-C1'	-6.37	94.93	101.30
65	BJ	53	LEU	O-C-N	6.37	130.53	123.01
67	B1	118	A	C1'-O4'-C4'	-6.37	103.33	109.70
67	B1	651	C	P-O3'-C3'	-6.37	110.64	120.20
67	B1	1436	A	O4'-C4'-C3'	-6.37	97.63	104.00
21	A2	189	C	O4'-C1'-C2'	-6.37	101.23	107.60
21	A2	212	G	C1'-O4'-C4'	-6.37	103.53	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	375	G	N9-C1'-C2'	6.37	121.56	112.00
21	A2	468	G	C4'-C3'-C2'	-6.37	96.23	102.60
21	A2	754	G	C1'-C2'-O2'	6.37	117.96	108.40
21	A2	1005	G	O4'-C4'-C3'	-6.37	99.73	106.10
25	AH	99	LYS	CB-CA-C	6.37	121.37	110.79
47	BI	92	LYS	CA-C-N	6.37	128.82	120.28
47	BI	92	LYS	C-N-CA	6.37	128.82	120.28
67	B1	237	G	P-O3'-C3'	6.37	129.76	120.20
67	B1	275	C	O4'-C1'-C2'	-6.37	101.23	107.60
67	B1	1043	U	O4'-C1'-N1	6.37	118.06	108.50
67	B1	1143	A	C4'-C3'-O3'	-6.37	103.44	113.00
67	B1	1406	G	C1'-O4'-C4'	-6.37	103.53	109.90
67	B1	2735	C	C1'-O4'-C4'	-6.37	103.53	109.90
67	B1	2762	G	C1'-O4'-C4'	-6.37	103.53	109.90
21	A2	294	A	C1'-O4'-C4'	-6.37	103.53	109.90
21	A2	377	A	O4'-C1'-C2'	-6.37	101.23	107.60
21	A2	827	G	C1'-C2'-O2'	6.37	117.95	108.40
43	Bk	38	LEU	N-CA-C	6.37	117.89	111.07
67	B1	1303	C	N1-C1'-C2'	6.37	121.55	112.00
67	B1	2400	U	C1'-O4'-C4'	-6.37	103.33	109.70
67	B1	2615	U	O4'-C1'-N1	6.37	118.05	108.50
67	B1	2793	C	O4'-C1'-C2'	-6.37	101.23	107.60
67	B1	3030	A	N9-C1'-C2'	-6.37	102.45	112.00
67	B1	1518	G	C5'-C4'-C3'	6.37	125.55	116.00
16	AJ	64	ASN	CA-CB-CG	-6.37	106.23	112.60
21	A2	487	U	O4'-C1'-C2'	-6.37	101.23	107.60
36	Bf	27	VAL	N-CA-C	-6.37	104.13	110.62
49	BQ	137	GLN	N-CA-CB	6.37	119.24	110.01
67	B1	506	G	C3'-C2'-C1'	-6.37	94.94	101.30
67	B1	701	G	P-O3'-C3'	6.37	129.75	120.20
67	B1	1305	C	N1-C1'-C2'	6.37	121.55	112.00
67	B1	2289	A	O4'-C1'-C2'	-6.37	101.23	107.60
67	B1	2483	U	C4'-C3'-C2'	-6.37	96.23	102.60
67	B1	310	C	C3'-C2'-C1'	6.36	107.66	101.30
67	B1	1557	G	O3'-P-O5'	-6.36	94.46	104.00
67	B1	2211	C	O4'-C1'-C2'	-6.36	101.24	107.60
67	B1	2838	U	O4'-C4'-C3'	6.36	110.36	104.00
21	A2	90	C	N1-C1'-C2'	6.36	121.54	112.00
27	A0	37	A	O4'-C1'-C2'	-6.36	101.24	107.60
67	B1	256	G	C1'-C2'-O2'	6.36	117.94	108.40
67	B1	322	C	O4'-C1'-C2'	-6.36	101.24	107.60
32	BO	56	ASP	CA-CB-CG	-6.36	106.24	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	BA	147	GLU	CA-C-N	6.36	129.32	120.29
46	BA	147	GLU	C-N-CA	6.36	129.32	120.29
67	B1	302	U	P-O3'-C3'	6.36	129.74	120.20
67	B1	359	C	N1-C1'-C2'	6.36	121.54	112.00
67	B1	2209	U	O4'-C1'-N1	6.36	118.04	108.50
67	B1	2908	U	C1'-O4'-C4'	6.36	116.26	109.90
68	B3	78	C	C3'-C2'-C1'	6.36	107.66	101.30
7	AB	196	GLU	CA-C-O	-6.36	114.63	121.56
20	A3	65	HIS	CG-CD2-NE2	6.36	113.56	107.20
13	AX	21	THR	N-CA-CB	6.36	119.23	110.01
17	AO	4	PHE	CA-CB-CG	-6.36	107.44	113.80
21	A2	477	G	C3'-C2'-C1'	6.36	107.66	101.30
24	AA	16	LYS	CA-C-O	-6.36	114.04	121.16
32	BO	109	HIS	CG-CD2-NE2	6.36	113.56	107.20
33	BC	172	TRP	N-CA-C	-6.36	103.14	113.19
38	Bb	11	ARG	NE-CZ-NH1	6.36	127.86	121.50
41	Ba	55	ASN	CA-CB-CG	6.36	118.96	112.60
44	BW	58	LYS	CA-C-N	6.36	128.70	120.44
44	BW	58	LYS	C-N-CA	6.36	128.70	120.44
52	BB	162	VAL	N-CA-C	-6.36	103.12	110.05
67	B1	2434	A	C1'-C2'-O2'	-6.36	102.26	111.80
67	B1	2532	G	P-O5'-C5'	-6.36	111.36	120.90
67	B1	2825	A	C3'-C2'-C1'	6.36	107.66	101.30
21	A2	374	G	O4'-C1'-C2'	6.36	113.95	107.60
25	AH	99	LYS	CA-C-N	6.36	129.09	120.38
25	AH	99	LYS	C-N-CA	6.36	129.09	120.38
31	BY	124	GLY	N-CA-C	-6.36	106.55	115.32
36	Bf	35	VAL	N-CA-C	-6.36	100.50	108.89
67	B1	1177	C	O3'-P-O5'	6.36	113.53	104.00
67	B1	1673	C	C1'-O4'-C4'	-6.35	103.55	109.90
21	A2	457	G	N9-C1'-C2'	6.35	121.53	112.00
67	B1	3035	C	C4'-C3'-O3'	-6.35	103.47	113.00
11	A1	52	G	N9-C1'-C2'	6.35	121.53	112.00
67	B1	1684	C	N1-C1'-C2'	6.35	121.53	112.00
67	B1	1971	C	C1'-C2'-O2'	6.35	117.93	108.40
15	AE	148	HIS	ND1-CE1-NE2	6.35	114.75	108.40
21	A2	1030	U	P-O5'-C5'	-6.35	111.38	120.90
20	BG	21	GLN	CA-C-O	-6.35	113.82	120.55
67	B1	927	G	N9-C1'-C2'	6.35	123.53	114.00
67	B1	2234	C	O5'-C5'-C4'	-6.35	101.97	111.50
67	B1	2257	A	O4'-C1'-N9	6.35	118.02	108.50
68	B3	10	U	N1-C1'-C2'	6.35	123.52	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	AO	9	ARG	NE-CZ-NH2	6.35	124.91	119.20
21	A2	1037	U	C2'-C3'-O3'	6.35	119.02	109.50
56	BH	95	VAL	CB-CA-C	-6.35	103.46	112.22
67	B1	275	C	O3'-P-O5'	6.35	113.52	104.00
67	B1	855	G	C1'-O4'-C4'	6.35	116.25	109.90
67	B1	897	U	N1-C1'-C2'	-6.35	104.48	114.00
67	B1	927	G	O4'-C1'-C2'	-6.35	99.45	105.80
67	B1	1990	U	C4'-C3'-O3'	-6.35	103.48	113.00
67	B1	2048	C	C3'-C2'-O2'	6.35	120.22	110.70
67	B1	2850	G	C1'-C2'-O2'	6.35	117.92	108.40
15	AE	118	ASP	CA-CB-CG	-6.35	106.25	112.60
49	BQ	144	GLU	CA-C-N	6.34	129.42	120.28
49	BQ	144	GLU	C-N-CA	6.34	129.42	120.28
67	B1	319	A	O4'-C1'-N9	6.34	118.02	108.50
67	B1	1330	G	O4'-C1'-C2'	6.34	113.94	107.60
67	B1	3015	A	C3'-C2'-C1'	6.34	107.64	101.30
12	AN	30	TYR	CB-CG-CD2	-6.34	111.28	120.80
21	A2	762	G	N9-C1'-C2'	-6.34	102.49	112.00
27	A0	71	G	O5'-C5'-C4'	-6.34	101.99	111.50
67	B1	1138	C	O5'-C5'-C4'	-6.34	101.99	111.50
7	AB	34	ARG	CA-C-N	6.34	130.55	122.37
7	AB	34	ARG	C-N-CA	6.34	130.55	122.37
21	A2	550	G	N9-C1'-C2'	6.34	121.51	112.00
21	A2	1440	G	O4'-C1'-N9	6.34	118.01	108.50
24	AA	119	VAL	N-CA-C	-6.34	99.23	108.11
26	AP	15	GLY	CA-C-O	-6.34	115.86	122.01
30	AU	65	ASP	CA-CB-CG	-6.34	106.26	112.60
47	BI	114	THR	N-CA-CB	6.34	119.30	110.17
65	BJ	117	GLU	N-CA-C	-6.34	99.69	109.14
67	B1	857	U	C3'-C2'-C1'	-6.34	94.96	101.30
67	B1	1797	A	P-O5'-C5'	6.34	130.41	120.90
21	A2	112	G	C4'-C3'-O3'	-6.34	103.49	113.00
67	B1	921	C	C1'-O4'-C4'	-6.34	103.56	109.90
21	A2	1177	C	N1-C1'-C2'	6.34	121.51	112.00
38	Bb	57	LYS	CA-C-N	6.34	127.76	119.84
38	Bb	57	LYS	C-N-CA	6.34	127.76	119.84
67	B1	1387	G	O4'-C1'-N9	6.34	118.01	108.50
67	B1	1568	A	O5'-C5'-C4'	6.34	121.01	111.50
68	B3	37	U	C4'-C3'-C2'	-6.34	96.26	102.60
14	AM	105	LEU	O-C-N	6.34	129.37	122.15
21	A2	78	G	O4'-C1'-C2'	6.34	113.94	107.60
41	Ba	64	GLU	N-CA-C	6.34	119.17	111.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
60	BS	82	ARG	NE-CZ-NH1	-6.34	115.16	121.50
67	B1	2512	C	O4'-C1'-C2'	-6.34	101.26	107.60
67	B1	2217	C	C4'-C3'-O3'	-6.33	103.50	113.00
67	B1	2685	G	C3'-C2'-C1'	6.33	107.64	101.30
68	B3	44	C	C3'-C2'-C1'	6.33	107.64	101.30
21	A2	212	G	C1'-C2'-O2'	6.33	117.90	108.40
27	A0	38	A	C1'-O4'-C4'	-6.33	103.57	109.90
42	BT	20	ILE	CA-C-N	6.33	131.14	120.88
42	BT	20	ILE	C-N-CA	6.33	131.14	120.88
67	B1	2524	C	N1-C1'-C2'	6.33	121.50	112.00
21	A2	34	G	C1'-O4'-C4'	6.33	116.23	109.90
21	A2	740	G	O4'-C1'-C2'	-6.33	101.27	107.60
32	BO	112	VAL	CA-C-O	6.33	127.71	121.19
67	B1	147	C	C3'-C2'-C1'	6.33	107.63	101.30
67	B1	732	G	C1'-O4'-C4'	-6.33	103.57	109.90
67	B1	1214	C	C3'-C2'-C1'	6.33	107.63	101.30
67	B1	1666	G	C4'-C3'-C2'	-6.33	96.27	102.60
67	B1	2023	A	C1'-O4'-C4'	6.33	116.23	109.90
1	AQ	142	LEU	CA-C-N	6.33	126.51	120.31
1	AQ	142	LEU	C-N-CA	6.33	126.51	120.31
31	BY	21	ASP	N-CA-CB	6.33	119.42	110.12
67	B1	1407	A	P-O5'-C5'	6.33	130.40	120.90
21	A2	533	C	C1'-C2'-O2'	6.33	117.89	108.40
21	A2	534	G	O4'-C4'-C3'	6.33	110.33	104.00
21	A2	1139	A	O4'-C1'-N9	6.33	117.99	108.50
21	A2	1288	C	C3'-C2'-C1'	6.33	107.63	101.30
67	B1	1310	A	O4'-C1'-C2'	6.33	113.93	107.60
67	B1	1692	A	O4'-C1'-C2'	6.33	113.93	107.60
67	B1	2622	C	C3'-C2'-C1'	6.33	107.63	101.30
21	A2	1162	G	C1'-C2'-O2'	-6.33	98.91	108.40
24	AA	167	ALA	CA-C-N	6.33	128.76	120.28
24	AA	167	ALA	C-N-CA	6.33	128.76	120.28
67	B1	184	A	C1'-O4'-C4'	6.33	116.23	109.90
67	B1	2206	G	O4'-C1'-C2'	6.33	113.93	107.60
68	B3	86	C	O4'-C1'-N1	6.33	117.99	108.50
7	AB	103	ASN	OD1-CG-ND2	6.33	128.93	122.60
21	A2	1255	C	N1-C1'-C2'	6.33	121.49	112.00
30	AU	71	GLU	CA-C-N	6.33	129.04	120.44
30	AU	71	GLU	C-N-CA	6.33	129.04	120.44
57	BZ	51	TYR	CB-CA-C	6.33	121.29	110.79
67	B1	518	A	O4'-C1'-C2'	-6.33	99.47	105.80
67	B1	2720	U	O4'-C1'-N1	6.33	117.99	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1089	C	C5'-C4'-C3'	6.32	125.49	116.00
21	A2	1203	G	C4'-C3'-C2'	-6.32	96.28	102.60
21	A2	1419	G	O4'-C4'-C3'	-6.32	97.68	104.00
30	AU	37	THR	N-CA-CB	6.32	120.26	110.46
67	B1	131	C	C3'-C2'-C1'	6.32	107.62	101.30
67	B1	1318	G	C5'-C4'-C3'	6.32	125.49	116.00
67	B1	2070	U	O4'-C1'-C2'	6.32	113.92	107.60
21	A2	647	G	N9-C1'-C2'	6.32	121.48	112.00
23	AT	72	ILE	CA-CB-CG2	6.32	121.24	110.50
24	AA	171	ALA	CB-CA-C	-6.32	100.30	110.79
67	B1	236	G	C1'-O4'-C4'	-6.32	103.58	109.90
67	B1	817	G	C4'-C3'-O3'	-6.32	103.52	113.00
67	B1	1521	G	O4'-C1'-C2'	6.32	113.92	107.60
67	B1	1771	C	C1'-C2'-O2'	-6.32	102.32	111.80
67	B1	2502	C	P-O5'-C5'	6.32	130.38	120.90
67	B1	2687	A	O4'-C1'-C2'	-6.32	101.28	107.60
68	B3	69	C	O4'-C4'-C3'	-6.32	97.68	104.00
33	BC	18	LYS	CA-C-N	6.32	129.81	120.90
33	BC	18	LYS	C-N-CA	6.32	129.81	120.90
67	B1	2657	A	O4'-C4'-C3'	-6.32	99.78	106.10
12	AN	123	ARG	CA-C-O	6.32	126.66	119.27
21	A2	1415	U	O4'-C4'-C3'	-6.32	97.68	104.00
30	AU	57	SER	CA-C-O	-6.32	112.34	119.79
33	BC	22	SER	CA-C-O	-6.32	114.47	121.23
67	B1	496	A	O3'-P-O5'	-6.32	94.52	104.00
67	B1	2112	C	C3'-C2'-C1'	6.32	107.62	101.30
67	B1	2736	G	O4'-C1'-N9	6.32	117.98	108.50
10	AD	44	HIS	CE1-NE2-CD2	-6.32	102.68	109.00
21	A2	144	G	O4'-C1'-C2'	-6.32	101.28	107.60
33	BC	75	THR	CA-C-N	6.32	126.89	120.38
33	BC	75	THR	C-N-CA	6.32	126.89	120.38
52	BB	186	ASN	N-CA-C	-6.32	97.96	108.32
53	BD	203	LYS	CA-C-N	6.32	133.60	121.54
53	BD	203	LYS	C-N-CA	6.32	133.60	121.54
67	B1	490	C	P-O5'-C5'	6.32	130.37	120.90
67	B1	2213	G	C1'-C2'-O2'	6.32	117.87	108.40
67	B1	2725	U	O4'-C1'-C2'	-6.32	99.48	105.80
21	A2	1185	A	C2'-C3'-O3'	-6.31	104.23	113.70
31	BY	56	TRP	N-CA-CB	6.31	122.20	111.66
41	Ba	39	VAL	CA-C-N	6.31	128.74	120.28
41	Ba	39	VAL	C-N-CA	6.31	128.74	120.28
41	Ba	53	LYS	O-C-N	-6.31	115.43	122.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	BH	78	LYS	CB-CA-C	-6.31	100.31	110.79
67	B1	999	A	O4'-C1'-N9	6.31	117.97	108.50
67	B1	1143	A	C4'-C3'-C2'	6.31	108.91	102.60
21	A2	329	G	N9-C1'-C2'	6.31	121.47	112.00
29	AL	31	GLY	CA-C-N	6.31	131.18	121.71
29	AL	31	GLY	C-N-CA	6.31	131.18	121.71
52	BB	180	TYR	N-CA-CB	6.31	119.40	110.12
58	BP	30	TRP	CA-C-N	6.31	128.74	120.28
58	BP	30	TRP	C-N-CA	6.31	128.74	120.28
67	B1	502	G	O4'-C1'-N9	6.31	117.97	108.50
67	B1	2673	C	O4'-C1'-C2'	-6.31	101.29	107.60
10	AD	149	GLU	N-CA-C	-6.31	105.55	113.18
67	B1	775	C	O4'-C1'-C2'	-6.31	101.29	107.60
3	AI	46	TYR	O-C-N	6.31	128.90	122.09
21	A2	619	A	O4'-C1'-N9	6.31	117.96	108.50
21	A2	664	G	O4'-C1'-N9	6.31	117.96	108.50
21	A2	677	U	O4'-C1'-C2'	-6.31	101.29	107.60
21	A2	877	A	C4'-C3'-C2'	-6.31	96.29	102.60
21	A2	959	G	O4'-C1'-N9	6.31	117.66	108.20
30	AU	21	LYS	CA-C-O	6.31	127.11	120.42
32	BO	22	ARG	CB-CA-C	-6.31	100.72	110.81
64	Bc	26	PRO	CA-C-N	6.31	129.21	120.63
64	Bc	26	PRO	C-N-CA	6.31	129.21	120.63
67	B1	408	C	O4'-C1'-C2'	-6.31	101.29	107.60
67	B1	611	G	N9-C1'-C2'	6.31	121.46	112.00
67	B1	1849	A	C4'-C3'-C2'	-6.31	96.29	102.60
67	B1	2287	C	C4'-C3'-C2'	-6.31	96.29	102.60
67	B1	2318	G	O4'-C1'-C2'	6.31	113.91	107.60
67	B1	2437	G	O4'-C1'-N9	6.31	117.96	108.50
21	A2	29	G	O4'-C1'-C2'	-6.31	101.29	107.60
21	A2	172	G	O4'-C1'-C2'	6.31	113.91	107.60
35	BL	72	GLU	N-CA-C	-6.31	100.64	110.42
36	Bf	15	LYS	CB-CA-C	-6.31	100.98	110.88
67	B1	2948	A	O3'-P-O5'	-6.31	94.54	104.00
53	BD	179	VAL	N-CA-C	-6.30	97.90	106.85
60	BS	136	ALA	CA-C-O	-6.30	113.89	120.70
61	Bd	11	ARG	N-CA-CB	6.30	121.14	110.49
67	B1	32	C	C3'-C2'-C1'	6.30	107.60	101.30
67	B1	365	G	O4'-C1'-N9	6.30	117.96	108.50
67	B1	715	G	C1'-O4'-C4'	6.30	116.20	109.90
67	B1	1629	G	C1'-C2'-O2'	6.30	117.86	108.40
67	B1	1802	G	C1'-O4'-C4'	6.30	116.20	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2610	C	O4'-C4'-C3'	-6.30	97.69	104.00
67	B1	3000	U	O4'-C1'-C2'	6.30	113.90	107.60
15	AE	13	LEU	N-CA-C	-6.30	105.59	113.28
35	BL	37	ALA	N-CA-CB	6.30	118.98	109.34
67	B1	2272	G	C4'-C3'-C2'	-6.30	96.30	102.60
18	AF	43	GLN	N-CA-CB	6.30	119.25	109.48
53	BD	115	MET	O-C-N	6.30	128.80	122.12
67	B1	952	C	O4'-C1'-C2'	-6.30	101.30	107.60
67	B1	2954	C	N1-C1'-C2'	6.30	121.45	112.00
21	A2	9	U	C4'-C3'-O3'	-6.30	103.55	113.00
21	A2	69	U	C1'-O4'-C4'	-6.30	103.60	109.90
21	A2	409	C	O3'-P-O5'	-6.30	94.55	104.00
21	A2	872	A	C1'-O4'-C4'	-6.30	103.60	109.90
35	BL	17	HIS	CA-C-N	6.30	130.21	121.26
35	BL	17	HIS	C-N-CA	6.30	130.21	121.26
68	B3	24	C	O4'-C1'-C2'	-6.30	101.30	107.60
68	B3	100	A	C4'-C3'-C2'	6.30	108.90	102.60
21	A2	256	G	O4'-C1'-C2'	-6.30	101.30	107.60
21	A2	938	C	N1-C1'-C2'	6.30	121.45	112.00
59	BM	171	GLY	O-C-N	-6.30	114.54	122.41
21	A2	210	A	O4'-C1'-C2'	-6.30	101.30	107.60
21	A2	402	G	C4'-C3'-C2'	-6.30	96.30	102.60
21	A2	531	G	P-O5'-C5'	6.30	130.35	120.90
32	BO	75	GLY	CA-C-N	6.30	129.70	120.82
32	BO	75	GLY	C-N-CA	6.30	129.70	120.82
33	BC	159	GLU	CA-C-N	6.30	129.00	120.63
33	BC	159	GLU	C-N-CA	6.30	129.00	120.63
67	B1	180	A	N9-C1'-C2'	6.30	121.44	112.00
67	B1	549	G	O4'-C1'-N9	6.30	117.64	108.20
67	B1	1200	A	C3'-C2'-C1'	-6.30	95.00	101.30
67	B1	1428	G	C4'-C3'-O3'	-6.30	103.56	113.00
67	B1	2212	C	C3'-C2'-C1'	6.30	107.60	101.30
67	B1	3029	A	O4'-C1'-C2'	-6.30	101.30	107.60
40	BE	69	GLY	CA-C-O	6.29	127.00	119.82
46	BA	176	GLU	N-CA-CB	6.29	119.48	110.16
67	B1	216	A	C4'-C3'-C2'	-6.29	96.31	102.60
67	B1	1642	G	C4'-C3'-C2'	-6.29	96.31	102.60
67	B1	1839	U	O4'-C1'-N1	6.29	117.94	108.50
17	AO	57	GLU	CA-C-N	6.29	128.71	120.28
17	AO	57	GLU	C-N-CA	6.29	128.71	120.28
67	B1	606	A	C4'-C3'-C2'	-6.29	96.31	102.60
67	B1	1202	G	C1'-C2'-O2'	6.29	117.84	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	3006	G	C3'-C2'-C1'	6.29	107.59	101.30
10	AD	52	ARG	CB-CA-C	-6.29	100.15	110.85
21	A2	199	A	C4'-C3'-C2'	6.29	108.89	102.60
22	AY	3	GLN	N-CA-CB	6.29	119.56	110.06
43	Bk	175	ASN	CA-C-N	6.29	129.08	120.46
43	Bk	175	ASN	C-N-CA	6.29	129.08	120.46
46	BA	86	GLU	CA-C-N	6.29	128.71	120.28
46	BA	86	GLU	C-N-CA	6.29	128.71	120.28
53	BD	118	ILE	N-CA-C	6.29	117.07	110.72
61	Bd	18	PRO	N-CA-CB	6.29	109.55	103.51
67	B1	2417	G	O3'-P-O5'	6.29	113.44	104.00
68	B3	52	U	C2'-C3'-O3'	6.29	118.94	109.50
11	A1	42	C	N1-C1'-C2'	6.29	121.44	112.00
21	A2	1080	C	O4'-C1'-C2'	-6.29	101.31	107.60
43	Bk	34	PRO	CA-C-N	6.29	133.02	121.70
43	Bk	34	PRO	C-N-CA	6.29	133.02	121.70
20	BG	7	VAL	N-CA-CB	6.29	118.69	111.39
7	AB	185	ARG	NE-CZ-NH2	-6.29	113.54	119.20
21	A2	63	G	P-O5'-C5'	-6.29	111.47	120.90
21	A2	488	A	O4'-C1'-C2'	-6.29	99.51	105.80
21	A2	1058	G	C4'-C3'-O3'	-6.29	103.57	113.00
33	BC	138	ASN	CA-C-N	6.29	128.62	120.44
33	BC	138	ASN	C-N-CA	6.29	128.62	120.44
67	B1	2676	A	C1'-O4'-C4'	6.29	116.19	109.90
21	A2	1053	A	C4'-C3'-C2'	6.29	108.89	102.60
21	A2	429	A	O4'-C1'-C2'	-6.29	101.31	107.60
21	A2	1139	A	C1'-O4'-C4'	-6.29	103.61	109.90
36	Bf	14	ALA	CA-C-O	6.29	127.21	120.55
21	A2	316	C	N1-C1'-C2'	6.28	121.42	112.00
34	B5	53	ILE	N-CA-C	-6.28	98.62	108.23
67	B1	464	C	O4'-C1'-C2'	-6.28	101.32	107.60
67	B1	946	U	O4'-C1'-N1	6.28	117.62	108.20
67	B1	967	G	O4'-C1'-C2'	6.28	113.88	107.60
67	B1	1916	U	O4'-C1'-C2'	-6.28	101.32	107.60
67	B1	2722	G	C1'-C2'-O2'	6.28	117.82	108.40
18	AF	197	PHE	CA-CB-CG	-6.28	107.52	113.80
24	AA	119	VAL	N-CA-CB	6.28	120.08	111.41
67	B1	1678	A	C1'-C2'-O2'	6.28	117.82	108.40
21	A2	158	U	C5'-C4'-C3'	-6.28	105.78	115.20
21	A2	250	G	N9-C1'-C2'	6.28	121.42	112.00
21	A2	713	A	O4'-C4'-C3'	-6.28	97.72	104.00
25	AH	139	VAL	N-CA-CB	6.28	119.81	111.64

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	AU	132	ILE	CB-CA-C	6.28	120.01	111.97
67	B1	1128	G	C3'-C2'-C1'	-6.28	95.02	101.30
67	B1	1252	G	C5'-C4'-C3'	6.28	125.42	116.00
67	B1	1600	G	N9-C1'-C2'	-6.28	102.58	112.00
67	B1	1684	C	O4'-C1'-C2'	-6.28	101.32	107.60
67	B1	2603	A	O4'-C1'-C2'	-6.28	101.32	107.60
33	BC	201	GLU	CA-C-N	6.28	128.69	120.28
33	BC	201	GLU	C-N-CA	6.28	128.69	120.28
59	BM	61	ILE	O-C-N	6.28	129.82	123.10
67	B1	998	G	N9-C1'-C2'	-6.28	102.58	112.00
67	B1	2264	G	O4'-C1'-N9	6.28	117.92	108.50
21	A2	619	A	O4'-C1'-C2'	-6.28	101.32	107.60
21	A2	1149	C	C5'-C4'-C3'	-6.28	106.58	116.00
21	A2	1256	C	O4'-C1'-N1	6.28	117.92	108.50
25	AH	11	ILE	CA-C-O	-6.28	114.48	118.69
27	A0	76	A	C4'-C3'-C2'	-6.28	96.32	102.60
28	B6	88	ILE	CA-C-N	6.28	128.69	120.28
28	B6	88	ILE	C-N-CA	6.28	128.69	120.28
67	B1	1301	G	C1'-C2'-O2'	6.28	117.82	108.40
67	B1	1577	C	O4'-C1'-N1	6.28	117.61	108.20
67	B1	2300	C	P-O5'-C5'	6.28	130.32	120.90
67	B1	2314	U	C5'-C4'-C3'	-6.28	106.58	116.00
67	B1	2330	A	O4'-C1'-C2'	-6.28	101.32	107.60
24	AA	91	TYR	CB-CA-C	-6.28	101.03	110.88
32	BO	71	PHE	N-CA-C	-6.28	104.87	114.16
67	B1	208	A	N9-C1'-C2'	6.28	121.42	112.00
67	B1	1151	G	O4'-C1'-N9	6.28	117.91	108.50
67	B1	2513	C	C1'-O4'-C4'	-6.28	103.62	109.90
67	B1	2578	C	C4'-C3'-C2'	-6.28	96.32	102.60
15	AE	41	THR	CA-C-O	6.27	126.99	119.59
18	AF	128	CYS	N-CA-C	-6.27	99.78	109.76
21	A2	367	G	C3'-C2'-C1'	6.27	107.57	101.30
25	AH	84	HIS	N-CA-C	6.27	122.00	113.97
67	B1	410	C	C2'-C3'-O3'	6.27	118.91	109.50
67	B1	500	C	C3'-C2'-C1'	6.27	107.57	101.30
67	B1	2381	A	C5'-C4'-C3'	6.27	125.41	116.00
3	AI	25	VAL	CA-C-N	-6.27	114.16	123.00
3	AI	25	VAL	C-N-CA	-6.27	114.16	123.00
20	A3	80	VAL	N-CA-CB	6.27	119.99	111.21
21	A2	136	A	O4'-C1'-C2'	6.27	113.87	107.60
21	A2	425	C	O4'-C1'-C2'	-6.27	101.33	107.60
25	AH	84	HIS	CA-C-O	-6.27	112.26	118.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	349	A	C1'-O4'-C4'	6.27	116.17	109.90
67	B1	1440	C	C1'-C2'-O2'	6.27	117.81	108.40
67	B1	1709	C	O4'-C1'-C2'	-6.27	101.33	107.60
67	B1	2042	A	C1'-O4'-C4'	6.27	115.97	109.70
11	A1	71	C	O4'-C1'-N1	6.27	117.91	108.50
21	A2	239	A	O4'-C1'-N9	-6.27	98.79	108.20
67	B1	2085	C	N1-C1'-C2'	6.27	121.41	112.00
4	AG	82	ARG	N-CA-C	6.27	116.28	108.19
8	AR	94	LEU	N-CA-C	-6.27	103.74	112.45
27	A0	12	U	C3'-C2'-C1'	6.27	107.57	101.30
32	BO	177	ASP	CA-C-N	6.27	125.83	119.19
32	BO	177	ASP	C-N-CA	6.27	125.83	119.19
21	A2	694	U	N1-C1'-C2'	-6.27	102.60	112.00
21	A2	1111	G	N9-C1'-C2'	-6.27	104.60	114.00
67	B1	2087	U	O4'-C1'-C2'	-6.27	101.33	107.60
67	B1	2088	G	C3'-C2'-C1'	6.27	107.77	101.50
67	B1	2565	A	C3'-C2'-C1'	6.27	107.57	101.30
67	B1	2855	G	N9-C1'-C2'	6.27	121.40	112.00
67	B1	1754	A	C1'-O4'-C4'	6.27	116.17	109.90
67	B1	2834	C	C1'-O4'-C4'	-6.27	103.63	109.90
2	AK	33	VAL	CA-C-N	6.26	129.30	120.28
2	AK	33	VAL	C-N-CA	6.26	129.30	120.28
15	AE	8	ARG	NE-CZ-NH1	-6.26	115.23	121.50
21	A2	770	A	C3'-C2'-C1'	6.26	107.56	101.30
21	A2	1046	G	N9-C1'-C2'	-6.26	104.60	114.00
59	BM	30	TRP	N-CA-C	6.26	118.11	111.28
67	B1	546	C	C3'-C2'-C1'	6.26	107.56	101.30
21	A2	167	G	C3'-C2'-O2'	6.26	120.09	110.70
21	A2	200	G	N9-C1'-C2'	-6.26	102.61	112.00
34	BK	53	ILE	N-CA-C	-6.26	98.65	108.23
67	B1	581	A	O4'-C1'-C2'	-6.26	101.34	107.60
67	B1	993	G	O4'-C1'-C2'	6.26	113.86	107.60
67	B1	2753	G	C1'-C2'-O2'	6.26	121.19	111.80
67	B1	3004	C	C1'-O4'-C4'	-6.26	103.64	109.90
2	AK	35	ILE	N-CA-C	6.26	117.01	110.62
4	AG	104	LYS	N-CA-CB	6.26	119.68	110.35
10	AD	172	GLU	N-CA-CB	6.26	119.32	110.12
15	AE	48	ILE	N-CA-CB	6.26	119.06	110.54
21	A2	1218	C	P-O3'-C3'	-6.26	110.81	120.20
53	BD	98	GLU	CA-C-N	6.26	129.60	120.71
53	BD	98	GLU	C-N-CA	6.26	129.60	120.71
59	BM	28	ILE	N-CA-CB	6.26	119.06	110.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
63	Bg	15	TYR	CB-CA-C	6.26	122.01	110.24
63	Bg	41	PRO	CA-C-N	-6.26	109.58	121.54
63	Bg	41	PRO	C-N-CA	-6.26	109.58	121.54
67	B1	1163	U	N1-C1'-C2'	-6.26	102.61	112.00
67	B1	2883	C	O5'-C5'-C4'	-6.26	102.11	111.50
21	A2	615	G	N9-C1'-C2'	6.26	121.39	112.00
21	A2	645	G	C1'-O4'-C4'	6.26	116.16	109.90
21	A2	1003	G	C1'-O4'-C4'	-6.26	103.64	109.90
21	A2	1136	A	N9-C1'-C2'	6.26	121.39	112.00
59	BM	12	LYS	N-CA-CB	6.26	119.32	110.12
67	B1	787	G	C1'-O4'-C4'	-6.26	103.64	109.90
67	B1	2372	C	C1'-C2'-O2'	-6.26	102.41	111.80
67	B1	285	C	P-O3'-C3'	6.26	129.59	120.20
67	B1	723	A	O4'-C1'-C2'	-6.26	99.54	105.80
67	B1	935	A	C3'-C2'-O2'	-6.26	105.21	114.60
10	AD	160	PHE	CA-CB-CG	-6.26	107.54	113.80
21	A2	1435	G	C3'-C2'-C1'	6.26	107.56	101.30
51	Bj	33	LEU	CA-C-N	-6.26	109.59	121.54
51	Bj	33	LEU	C-N-CA	-6.26	109.59	121.54
58	BP	103	ILE	CA-C-O	6.26	126.74	119.36
67	B1	101	G	P-O5'-C5'	-6.26	111.52	120.90
67	B1	1049	U	N1-C1'-C2'	-6.26	104.62	114.00
67	B1	2869	U	C4'-C3'-C2'	-6.26	96.34	102.60
14	AM	49	LYS	O-C-N	-6.25	114.62	122.19
25	AH	137	THR	N-CA-C	-6.25	98.33	108.52
41	Ba	23	PRO	CB-CA-C	-6.25	103.05	111.12
68	B3	45	C	O3'-P-O5'	6.25	113.38	104.00
16	AJ	62	TYR	CA-CB-CG	-6.25	102.64	113.90
21	A2	1208	A	C5'-C4'-O4'	6.25	119.18	109.80
32	BO	137	ILE	CA-C-N	6.25	129.16	120.65
32	BO	137	ILE	C-N-CA	6.25	129.16	120.65
61	Bd	52	VAL	CB-CA-C	-6.25	103.86	112.24
67	B1	240	A	C1'-O4'-C4'	6.25	116.15	109.90
67	B1	294	U	N1-C1'-C2'	6.25	121.38	112.00
67	B1	2434	A	C3'-C2'-C1'	6.25	107.75	101.50
21	A2	1412	A	P-O3'-C3'	6.25	129.58	120.20
34	B5	77	LYS	N-CA-C	-6.25	104.35	112.23
38	Bb	48	SER	N-CA-CB	6.25	119.25	109.69
67	B1	223	U	N1-C1'-C2'	6.25	121.38	112.00
67	B1	898	G	O3'-P-O5'	-6.25	94.62	104.00
68	B3	33	U	O4'-C1'-N1	6.25	117.88	108.50
68	B3	96	C	C4'-C3'-C2'	-6.25	96.35	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AG	63	ILE	N-CA-CB	6.25	118.64	111.39
17	AO	10	VAL	N-CA-CB	6.25	123.92	112.36
21	A2	1160	C	N1-C1'-C2'	6.25	121.38	112.00
21	A2	1235	A	C1'-O4'-C4'	-6.25	103.65	109.90
67	B1	973	C	C1'-O4'-C4'	-6.25	103.65	109.90
67	B1	3039	G	O4'-C1'-C2'	-6.25	101.35	107.60
4	AG	76	PRO	N-CA-C	-6.25	101.39	111.14
15	AE	57	LYS	CA-C-O	6.25	126.87	119.06
31	BY	34	CYS	CA-C-O	-6.25	114.05	121.11
37	BU	119	ARG	CD-NE-CZ	-6.25	115.65	124.40
39	Be	38	CYS	N-CA-CB	6.25	119.92	110.30
67	B1	365	G	N9-C1'-C2'	-6.25	102.63	112.00
67	B1	2240	G	O4'-C1'-N9	6.25	117.57	108.20
67	B1	2461	C	O4'-C1'-C2'	-6.25	101.35	107.60
14	AM	110	LEU	N-CA-CB	6.25	119.17	110.17
21	A2	125	G	O4'-C1'-C2'	-6.25	101.35	107.60
21	A2	353	G	O4'-C1'-N9	6.25	117.87	108.50
21	A2	691	G	C1'-O4'-C4'	-6.25	103.65	109.90
63	Bg	45	GLU	N-CA-C	6.25	123.61	109.81
21	A2	848	G	C4'-C3'-C2'	-6.25	96.36	102.60
30	AU	86	ALA	CA-C-N	6.25	126.21	119.78
30	AU	86	ALA	C-N-CA	6.25	126.21	119.78
43	Bk	36	TYR	CA-CB-CG	-6.25	102.66	113.90
67	B1	156	A	O4'-C1'-N9	6.25	117.87	108.50
67	B1	2504	U	C1'-C2'-O2'	6.25	117.77	108.40
21	A2	59	C	O4'-C1'-C2'	-6.24	101.36	107.60
21	A2	1289	G	C4'-C3'-C2'	-6.24	96.36	102.60
48	BR	89	HIS	CG-CD2-NE2	6.24	113.44	107.20
64	Bc	14	LYS	N-CA-C	6.24	117.88	111.14
67	B1	1408	G	C4'-C3'-C2'	-6.24	96.36	102.60
30	AU	32	ALA	CA-C-O	-6.24	112.80	118.79
53	BD	174	LYS	O-C-N	6.24	129.27	122.15
67	B1	685	G	C3'-C2'-C1'	6.24	107.54	101.30
67	B1	979	G	O5'-C5'-C4'	-6.24	102.14	111.50
67	B1	2245	C	O4'-C1'-C2'	-6.24	101.36	107.60
2	AK	42	ARG	CA-C-N	6.24	129.27	120.28
2	AK	42	ARG	C-N-CA	6.24	129.27	120.28
40	BE	55	LYS	CA-C-N	6.24	127.59	120.85
40	BE	55	LYS	C-N-CA	6.24	127.59	120.85
44	BW	65	ARG	CA-C-N	6.24	128.55	120.44
44	BW	65	ARG	C-N-CA	6.24	128.55	120.44
54	BF	110	ILE	CA-CB-CG1	6.24	121.01	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1369	G	C3'-C2'-C1'	-6.24	95.06	101.30
67	B1	2419	U	C5'-C4'-C3'	-6.24	106.64	116.00
21	A2	1053	A	O4'-C1'-C2'	-6.24	99.56	105.80
24	AA	40	PRO	N-CA-C	6.24	120.99	111.19
51	Bj	18	THR	CA-C-N	6.24	130.27	121.66
51	Bj	18	THR	C-N-CA	6.24	130.27	121.66
67	B1	179	A	C1'-C2'-O2'	6.24	117.76	108.40
67	B1	1011	A	P-O5'-C5'	6.24	130.26	120.90
67	B1	2958	U	O4'-C1'-C2'	-6.24	99.56	105.80
68	B3	18	G	C1'-O4'-C4'	-6.24	103.66	109.90
35	BL	136	LYS	CA-C-O	-6.24	113.81	120.42
38	Bb	10	LEU	CA-C-N	6.24	129.15	120.29
38	Bb	10	LEU	C-N-CA	6.24	129.15	120.29
46	BA	54	HIS	CB-CG-CD2	-6.24	123.09	131.20
52	BB	63	PHE	CA-CB-CG	-6.24	107.56	113.80
67	B1	1851	U	C3'-C2'-C1'	6.24	107.54	101.30
21	A2	1060	G	C1'-C2'-O2'	6.24	117.75	108.40
44	BW	5	GLU	CA-C-N	6.24	129.27	120.42
44	BW	5	GLU	C-N-CA	6.24	129.27	120.42
67	B1	614	G	N9-C1'-C2'	6.24	121.35	112.00
67	B1	878	G	N9-C1'-C2'	6.24	121.35	112.00
67	B1	1314	A	C1'-O4'-C4'	6.24	116.14	109.90
67	B1	1413	A	P-O3'-C3'	-6.24	110.85	120.20
67	B1	1489	G	P-O5'-C5'	-6.24	111.55	120.90
67	B1	1761	C	C1'-C2'-O2'	6.24	117.75	108.40
67	B1	2155	C	C1'-O4'-C4'	6.24	115.94	109.70
17	AO	146	LYS	CA-C-O	6.23	127.35	120.31
21	A2	366	C	C1'-O4'-C4'	-6.23	103.67	109.90
33	BC	284	LYS	CA-C-O	6.23	127.18	120.32
59	BM	154	HIS	N-CA-C	6.23	120.49	113.01
67	B1	1494	U	N1-C1'-C2'	-6.23	102.65	112.00
21	A2	89	G	C5'-C4'-C3'	-6.23	106.65	116.00
21	A2	265	C	N1-C1'-C2'	6.23	121.35	112.00
37	BU	96	HIS	CA-C-N	6.23	125.92	119.56
37	BU	96	HIS	C-N-CA	6.23	125.92	119.56
53	BD	224	ASN	N-CA-C	-6.23	104.43	114.09
67	B1	1733	C	O4'-C1'-C2'	-6.23	101.37	107.60
68	B3	40	G	C1'-O4'-C4'	-6.23	103.67	109.90
4	AG	102	ARG	NE-CZ-NH1	-6.23	115.27	121.50
6	AC	146	PHE	N-CA-C	-6.23	98.23	108.76
21	A2	241	U	C4'-C3'-O3'	-6.23	103.65	113.00
21	A2	604	C	C4'-C3'-C2'	-6.23	96.37	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1363	C	O4'-C1'-C2'	-6.23	101.37	107.60
21	A2	1492	U	C3'-C2'-C1'	6.23	107.53	101.30
24	AA	58	ASP	N-CA-C	6.23	118.88	111.71
38	Bb	46	ILE	CA-C-N	6.23	129.78	120.31
38	Bb	46	ILE	C-N-CA	6.23	129.78	120.31
42	BT	66	ALA	N-CA-CB	6.23	121.15	110.68
20	BG	97	ALA	N-CA-CB	6.23	119.38	110.16
67	B1	1278	C	C1'-O4'-C4'	-6.23	103.67	109.90
67	B1	1390	U	C3'-C2'-C1'	-6.23	95.07	101.30
67	B1	1979	G	O4'-C1'-C2'	6.23	113.83	107.60
67	B1	2007	C	O4'-C1'-N1	6.23	117.84	108.50
10	AD	52	ARG	N-CA-C	6.23	118.15	111.36
21	A2	53	G	C3'-C2'-C1'	6.23	107.53	101.30
21	A2	477	G	O4'-C1'-C2'	-6.23	101.37	107.60
21	A2	1293	A	O4'-C1'-C2'	-6.23	101.37	107.60
54	BF	179	GLY	N-CA-C	-6.23	98.42	113.18
56	BH	114	MET	CB-CA-C	-6.23	98.50	109.71
67	B1	646	U	O4'-C1'-C2'	-6.23	101.37	107.60
67	B1	2510	A	O4'-C1'-C2'	6.23	113.83	107.60
54	BF	56	TYR	CA-C-N	6.23	132.87	121.85
54	BF	56	TYR	C-N-CA	6.23	132.87	121.85
20	B4	22	ALA	CA-C-N	6.23	128.99	120.46
20	B4	22	ALA	C-N-CA	6.23	128.99	120.46
67	B1	114	C	C3'-C2'-O2'	6.23	120.04	110.70
67	B1	1504	C	C3'-C2'-C1'	6.23	107.53	101.30
15	AE	209	TRP	O-C-N	-6.22	114.16	121.32
21	A2	834	C	C3'-C2'-C1'	6.22	107.53	101.30
25	AH	12	PRO	CB-CA-C	-6.22	102.35	112.62
52	BB	220	ARG	N-CA-C	-6.22	103.75	113.02
4	AG	93	GLY	CA-C-N	6.22	131.70	122.74
4	AG	93	GLY	C-N-CA	6.22	131.70	122.74
21	A2	885	G	C1'-O4'-C4'	-6.22	103.68	109.90
31	BY	76	GLY	N-CA-C	-6.22	105.32	112.29
35	BL	86	ASP	CA-C-N	6.22	129.24	120.28
35	BL	86	ASP	C-N-CA	6.22	129.24	120.28
48	BR	42	HIS	CE1-NE2-CD2	-6.22	102.78	109.00
56	BH	85	LYS	CA-C-N	-6.22	112.73	121.13
56	BH	85	LYS	C-N-CA	-6.22	112.73	121.13
67	B1	712	C	O4'-C1'-C2'	-6.22	101.38	107.60
67	B1	2125	C	C1'-O4'-C4'	-6.22	103.68	109.90
67	B1	2334	G	O4'-C1'-C2'	6.22	113.82	107.60
67	B1	1357	G	O4'-C1'-N9	6.22	117.83	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	489	C	C1'-C2'-O2'	6.22	117.73	108.40
21	A2	1494	C	P-O5'-C5'	6.22	130.23	120.90
27	A0	43	G	C3'-C2'-C1'	6.22	107.52	101.30
31	BY	82	ASP	N-CA-C	6.22	118.06	111.28
67	B1	357	G	C1'-O4'-C4'	6.22	116.12	109.90
67	B1	2968	G	C1'-O4'-C4'	-6.22	103.68	109.90
21	A2	625	G	C1'-C2'-O2'	6.22	117.73	108.40
35	BL	27	GLY	CA-C-N	6.22	127.91	120.14
35	BL	27	GLY	C-N-CA	6.22	127.91	120.14
67	B1	2592	U	C1'-O4'-C4'	-6.22	103.68	109.90
21	A2	1254	C	C3'-C2'-C1'	6.22	107.52	101.30
21	A2	1391	U	C1'-O4'-C4'	6.22	116.12	109.90
25	AH	47	THR	CA-C-N	6.22	133.41	121.54
25	AH	47	THR	C-N-CA	6.22	133.41	121.54
30	AU	81	LYS	CA-C-N	6.22	130.14	120.75
30	AU	81	LYS	C-N-CA	6.22	130.14	120.75
44	BW	26	ALA	CA-C-N	6.22	129.12	120.29
44	BW	26	ALA	C-N-CA	6.22	129.12	120.29
67	B1	749	G	O4'-C1'-N9	6.22	117.82	108.50
67	B1	1115	A	C3'-C2'-C1'	6.22	107.52	101.30
67	B1	1164	C	C3'-C2'-C1'	6.22	107.72	101.50
67	B1	1953	U	O4'-C1'-C2'	-6.22	101.38	107.60
67	B1	2053	G	C3'-C2'-C1'	-6.22	95.28	101.50
67	B1	2949	G	C3'-C2'-C1'	6.22	107.52	101.30
15	AE	104	PRO	N-CA-C	-6.21	102.12	111.57
21	A2	434	A	C2'-C3'-O3'	6.21	123.02	113.70
23	AT	37	LYS	N-CA-C	6.21	117.72	111.07
29	AL	10	SER	CA-C-N	6.21	129.12	120.29
29	AL	10	SER	C-N-CA	6.21	129.12	120.29
50	BV	47	PRO	CA-C-N	6.21	128.61	120.28
50	BV	47	PRO	C-N-CA	6.21	128.61	120.28
20	B4	64	ALA	N-CA-C	6.21	118.85	111.33
67	B1	2212	C	O4'-C1'-C2'	-6.21	101.39	107.60
16	AJ	80	VAL	CA-C-O	-6.21	113.41	120.74
21	A2	917	A	N9-C1'-C2'	6.21	121.32	112.00
67	B1	306	G	O5'-C5'-C4'	-6.21	102.18	111.50
67	B1	2504	U	O4'-C1'-N1	6.21	117.82	108.50
68	B3	40	G	C5'-C4'-C3'	-6.21	106.68	116.00
1	AQ	105	LEU	CB-CA-C	-6.21	100.48	110.79
15	AE	202	ILE	N-CA-C	-6.21	106.27	112.17
21	A2	319	U	O4'-C1'-C2'	-6.21	101.39	107.60
21	A2	601	G	N9-C1'-C2'	-6.21	102.68	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	675	A	C1'-O4'-C4'	6.21	115.91	109.70
34	BK	77	LYS	N-CA-C	-6.21	104.40	112.23
67	B1	2307	C	O4'-C1'-N1	6.21	117.82	108.50
21	A2	410	U	O4'-C4'-C3'	-6.21	97.79	104.00
53	BD	214	HIS	CE1-NE2-CD2	-6.21	102.79	109.00
67	B1	1327	C	P-O3'-C3'	6.21	129.51	120.20
67	B1	2229	G	N9-C1'-C2'	6.21	121.31	112.00
17	AO	38	MET	CA-C-O	6.21	127.13	120.55
21	A2	770	A	O4'-C1'-C2'	-6.21	101.39	107.60
21	A2	1461	U	P-O5'-C5'	-6.21	111.59	120.90
67	B1	781	C	O4'-C1'-C2'	-6.21	101.39	107.60
21	A2	672	G	N9-C1'-C2'	6.21	121.31	112.00
21	A2	1375	C	O4'-C1'-C2'	-6.21	101.39	107.60
21	A2	1469	G	C1'-O4'-C4'	-6.21	103.69	109.90
38	Bb	21	PRO	N-CA-CB	6.21	109.77	103.25
20	BG	84	LYS	N-CA-C	-6.21	104.59	111.36
59	BM	105	ALA	N-CA-C	6.21	118.05	111.28
67	B1	512	G	N9-C1'-C2'	6.21	121.31	112.00
67	B1	514	U	O4'-C1'-N1	6.21	117.81	108.50
67	B1	943	G	O4'-C1'-C2'	-6.21	101.39	107.60
67	B1	1631	A	O4'-C1'-C2'	-6.21	101.39	107.60
67	B1	2808	C	C3'-C2'-C1'	6.21	107.51	101.30
67	B1	2899	G	N9-C1'-C2'	6.21	121.31	112.00
67	B1	583	A	C1'-O4'-C4'	6.21	116.11	109.90
67	B1	2397	C	O4'-C1'-N1	6.21	117.81	108.50
11	A1	38	G	C5'-C4'-O4'	6.20	119.11	109.80
20	A3	43	VAL	CA-C-N	6.20	128.88	120.44
20	A3	43	VAL	C-N-CA	6.20	128.88	120.44
21	A2	664	G	C4'-C3'-C2'	-6.20	96.40	102.60
21	A2	788	C	C1'-O4'-C4'	-6.20	103.70	109.90
53	BD	22	PHE	O-C-N	-6.20	114.12	122.43
67	B1	475	U	C3'-C2'-C1'	6.20	107.50	101.30
67	B1	1145	G	C4'-C3'-C2'	6.20	108.80	102.60
67	B1	1501	G	C1'-C2'-O2'	6.20	117.70	108.40
67	B1	1510	U	P-O3'-C3'	6.20	129.50	120.20
21	A2	974	G	C1'-O4'-C4'	6.20	116.10	109.90
67	B1	1507	A	C4'-C3'-O3'	-6.20	103.70	113.00
67	B1	2487	G	O4'-C1'-N9	6.20	117.80	108.50
67	B1	2945	A	C4'-C3'-C2'	-6.20	96.40	102.60
15	AE	70	LYS	N-CA-C	-6.20	104.31	113.61
21	A2	121	C	C1'-O4'-C4'	-6.20	103.70	109.90
21	A2	457	G	C3'-C2'-C1'	6.20	107.50	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1337	A	N9-C1'-C2'	-6.20	102.70	112.00
38	Bb	105	THR	CA-C-N	6.20	128.87	120.63
38	Bb	105	THR	C-N-CA	6.20	128.87	120.63
49	BQ	14	ILE	CB-CA-C	-6.20	103.67	112.22
67	B1	259	A	C5'-C4'-C3'	6.20	125.30	116.00
67	B1	604	A	O4'-C1'-C2'	-6.20	101.40	107.60
67	B1	1392	G	O4'-C1'-C2'	6.20	112.00	105.80
67	B1	2764	G	O4'-C4'-C3'	6.20	110.20	104.00
21	A2	383	C	C1'-O4'-C4'	-6.20	103.70	109.90
33	BC	189	GLY	N-CA-C	-6.20	98.49	113.18
46	BA	23	ASN	CA-C-N	6.20	130.16	121.24
46	BA	23	ASN	C-N-CA	6.20	130.16	121.24
58	BP	43	GLN	N-CA-C	-6.20	105.22	114.64
11	A1	39	A	O5'-C5'-C4'	6.20	120.79	111.50
21	A2	1402	C	O4'-C1'-N1	6.20	117.79	108.50
41	Ba	15	ILE	CA-C-N	6.20	130.61	120.63
41	Ba	15	ILE	C-N-CA	6.20	130.61	120.63
64	Bc	51	LYS	N-CA-CB	6.20	123.06	111.53
67	B1	140	C	P-O5'-C5'	-6.20	111.61	120.90
67	B1	394	A	C5'-C4'-O4'	-6.20	100.51	109.80
67	B1	963	G	C1'-O4'-C4'	-6.20	103.70	109.90
67	B1	1180	G	C2'-C3'-O3'	6.20	122.99	113.70
67	B1	1607	C	C3'-C2'-C1'	6.20	107.50	101.30
16	AJ	28	LEU	CA-C-N	6.19	127.02	121.82
16	AJ	28	LEU	C-N-CA	6.19	127.02	121.82
19	AS	43	SER	CA-C-N	6.19	128.58	120.28
19	AS	43	SER	C-N-CA	6.19	128.58	120.28
31	BY	43	TYR	CA-C-N	6.19	128.58	120.28
31	BY	43	TYR	C-N-CA	6.19	128.58	120.28
67	B1	1539	U	O4'-C1'-N1	6.19	117.79	108.50
67	B1	2337	G	C3'-C2'-C1'	6.19	107.49	101.30
67	B1	2778	A	C4'-C3'-C2'	-6.19	96.41	102.60
11	A1	11	C	N1-C1'-C2'	6.19	121.29	112.00
21	A2	504	G	C1'-O4'-C4'	-6.19	103.71	109.90
21	A2	822	A	O4'-C1'-C2'	-6.19	101.41	107.60
67	B1	1157	U	O4'-C1'-N1	6.19	117.79	108.50
67	B1	1586	G	C3'-C2'-C1'	6.19	107.49	101.30
67	B1	1726	A	O4'-C1'-N9	6.19	117.79	108.50
21	A2	111	G	C1'-O4'-C4'	-6.19	103.71	109.90
21	A2	1381	G	C4'-C3'-C2'	-6.19	96.41	102.60
67	B1	64	A	O4'-C1'-N9	6.19	117.79	108.50
67	B1	298	G	P-O3'-C3'	6.19	129.49	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	337	G	C1'-O4'-C4'	-6.19	103.71	109.90
67	B1	496	A	N9-C1'-C2'	-6.19	104.72	114.00
67	B1	616	C	C1'-O4'-C4'	6.19	116.09	109.90
11	A1	54	G	C3'-C2'-C1'	6.19	107.49	101.30
44	BW	21	LEU	N-CA-CB	6.19	118.98	110.01
14	AM	95	GLY	O-C-N	-6.19	115.58	121.77
21	A2	642	G	C4'-C3'-C2'	-6.19	96.41	102.60
21	A2	714	G	O4'-C1'-C2'	-6.19	101.41	107.60
36	Bf	27	VAL	CA-CB-CG2	-6.19	99.88	110.40
67	B1	634	G	C3'-C2'-C1'	-6.19	95.11	101.30
53	BD	88	GLY	CA-C-O	6.19	125.89	119.02
67	B1	2318	G	N9-C1'-C2'	6.19	121.28	112.00
16	AJ	124	LEU	N-CA-CB	6.18	119.13	110.04
21	A2	1154	G	C1'-C2'-O2'	6.18	117.68	108.40
33	BC	195	LYS	CA-C-N	6.18	128.85	120.44
33	BC	195	LYS	C-N-CA	6.18	128.85	120.44
44	BW	2	LYS	N-CA-CB	6.18	117.51	110.03
44	BW	6	ILE	CA-C-O	-6.18	114.30	120.85
48	BR	19	HIS	CA-C-N	6.18	126.08	119.28
48	BR	19	HIS	C-N-CA	6.18	126.08	119.28
67	B1	1742	C	O4'-C1'-C2'	-6.18	101.42	107.60
67	B1	1962	G	C4'-C3'-C2'	-6.18	96.42	102.60
67	B1	2151	C	P-O5'-C5'	6.18	130.18	120.90
67	B1	2754	A	C3'-C2'-C1'	-6.18	95.12	101.30
68	B3	77	A	O4'-C1'-C2'	-6.18	101.42	107.60
21	A2	564	C	O4'-C1'-C2'	-6.18	101.42	107.60
21	A2	1377	G	C3'-C2'-C1'	-6.18	95.12	101.30
24	AA	175	LYS	N-CA-CB	6.18	119.74	110.22
39	Be	59	LYS	CA-C-N	6.18	128.56	120.28
39	Be	59	LYS	C-N-CA	6.18	128.56	120.28
63	Bg	4	PHE	O-C-N	-6.18	114.21	121.32
67	B1	365	G	C4'-C3'-C2'	-6.18	96.42	102.60
1	AQ	136	TYR	CA-CB-CG	-6.18	102.77	113.90
21	A2	1093	C	N1-C1'-C2'	-6.18	104.73	114.00
47	BI	55	LEU	CA-C-N	6.18	132.83	121.70
47	BI	55	LEU	C-N-CA	6.18	132.83	121.70
7	AB	46	ARG	CA-C-O	-6.18	114.00	120.55
13	AX	31	ILE	CA-CB-CG2	6.18	121.00	110.50
21	A2	1125	C	O4'-C1'-C2'	-6.18	101.42	107.60
48	BR	7	SER	N-CA-CB	6.18	120.04	110.46
65	BJ	50	ARG	CA-C-N	6.18	131.76	122.68
65	BJ	50	ARG	C-N-CA	6.18	131.76	122.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	478	C	O4'-C1'-C2'	-6.18	101.42	107.60
67	B1	1205	U	O4'-C1'-C2'	-6.18	101.42	107.60
67	B1	1643	A	C1'-C2'-O2'	6.18	121.07	111.80
67	B1	2057	G	C4'-C3'-O3'	-6.18	103.73	113.00
67	B1	2826	U	C1'-O4'-C4'	6.18	115.88	109.70
67	B1	2918	G	C1'-C2'-O2'	6.18	117.67	108.40
40	BE	123	ILE	CA-CB-CG1	6.18	120.90	110.40
52	BB	51	ASP	CA-C-N	6.18	125.91	119.05
52	BB	51	ASP	C-N-CA	6.18	125.91	119.05
67	B1	2284	C	N1-C1'-C2'	6.18	121.27	112.00
10	AD	37	ASN	O-C-N	6.18	130.03	123.42
21	A2	18	C	C1'-C2'-O2'	6.18	117.66	108.40
21	A2	1168	C	N1-C1'-C2'	6.18	121.27	112.00
21	A2	1198	A	C5'-C4'-C3'	-6.18	106.74	116.00
59	BM	111	LEU	N-CA-CB	6.18	122.18	111.00
63	Bg	44	LYS	CB-CG-CD	6.18	125.50	111.30
67	B1	3037	G	C2'-C3'-O3'	6.18	122.96	113.70
14	AM	80	HIS	CA-C-O	-6.17	113.95	121.36
53	BD	213	ASN	CA-CB-CG	-6.17	106.42	112.60
67	B1	629	G	O4'-C1'-C2'	-6.17	101.43	107.60
67	B1	1260	C	C4'-C3'-C2'	-6.17	96.43	102.60
67	B1	1642	G	O4'-C1'-N9	6.17	117.46	108.20
21	A2	32	A	C4'-C3'-C2'	-6.17	96.43	102.60
67	B1	1146	U	C2'-C3'-O3'	6.17	118.76	109.50
67	B1	1223	A	P-O3'-C3'	6.17	129.46	120.20
67	B1	2172	G	O4'-C1'-N9	6.17	117.76	108.50
2	AK	50	ILE	CA-C-O	-6.17	114.31	120.85
15	AE	37	HIS	CG-CD2-NE2	6.17	113.37	107.20
21	A2	711	U	P-O5'-C5'	6.17	130.16	120.90
21	A2	1309	A	O4'-C1'-C2'	-6.17	101.43	107.60
27	A0	63	G	N9-C1'-C2'	6.17	121.26	112.00
58	BP	94	ILE	N-CA-C	-6.17	106.31	112.17
67	B1	761	U	O4'-C1'-N1	6.17	117.76	108.50
67	B1	1117	C	C1'-O4'-C4'	-6.17	103.53	109.70
67	B1	2568	A	O4'-C1'-C2'	-6.17	101.43	107.60
10	AD	124	LEU	N-CA-C	6.17	117.67	111.07
21	A2	757	G	C1'-O4'-C4'	-6.17	103.73	109.90
32	BO	115	SER	CA-C-N	6.17	129.05	120.29
32	BO	115	SER	C-N-CA	6.17	129.05	120.29
35	BL	110	ASP	CB-CA-C	-6.17	99.56	111.78
7	AB	11	GLN	N-CA-C	6.17	117.80	111.14
8	AR	15	LYS	O-C-N	6.17	130.30	123.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	AE	164	VAL	N-CA-C	-6.17	99.35	108.85
21	A2	105	C	C5'-C4'-C3'	6.17	124.45	115.20
21	A2	934	G	C2'-C3'-O3'	6.17	118.75	109.50
59	BM	33	GLU	CA-C-O	-6.17	113.97	120.70
67	B1	1162	C	O4'-C1'-C2'	-6.17	99.63	105.80
67	B1	1225	A	C4'-C3'-C2'	6.17	108.77	102.60
67	B1	1952	G	O4'-C1'-C2'	-6.17	101.43	107.60
67	B1	2071	C	C3'-C2'-C1'	6.17	107.47	101.30
67	B1	2072	G	C4'-C3'-C2'	-6.17	96.43	102.60
67	B1	2421	A	C1'-O4'-C4'	-6.17	103.73	109.90
68	B3	79	U	O4'-C1'-N1	6.17	117.75	108.50
2	AK	108	VAL	CA-C-O	-6.17	114.74	121.28
21	A2	99	C	O4'-C1'-C2'	-6.17	101.43	107.60
21	A2	851	C	P-O3'-C3'	-6.17	110.95	120.20
36	Bf	49	LEU	N-CA-CB	6.17	120.91	110.49
49	BQ	20	ASN	CA-CB-CG	-6.17	106.43	112.60
52	BB	137	ASP	CA-C-N	6.17	133.10	121.69
52	BB	137	ASP	C-N-CA	6.17	133.10	121.69
53	BD	104	ASP	CA-CB-CG	-6.17	106.43	112.60
54	BF	66	ALA	CA-C-N	6.17	129.18	120.42
54	BF	66	ALA	C-N-CA	6.17	129.18	120.42
54	BF	156	GLN	CA-C-N	6.17	128.54	120.28
54	BF	156	GLN	C-N-CA	6.17	128.54	120.28
58	BP	86	SER	CA-C-O	6.17	129.02	121.99
20	B4	94	VAL	CA-CB-CG1	6.17	120.88	110.40
67	B1	1525	G	N9-C1'-C2'	6.17	121.25	112.00
67	B1	1924	A	C1'-O4'-C4'	-6.17	103.73	109.90
21	A2	20	G	C1'-O4'-C4'	-6.17	103.73	109.90
27	A0	68	G	C1'-O4'-C4'	-6.17	103.73	109.90
28	AV	31	PRO	N-CA-C	-6.17	101.51	111.19
36	Bf	48	LYS	CA-C-N	-6.17	109.77	121.54
36	Bf	48	LYS	C-N-CA	-6.17	109.77	121.54
47	BI	67	TYR	CB-CG-CD2	-6.17	111.55	120.80
67	B1	1104	A	C1'-O4'-C4'	-6.17	103.73	109.90
21	A2	113	U	C1'-O4'-C4'	6.16	116.06	109.90
21	A2	1155	U	O4'-C1'-C2'	-6.16	101.44	107.60
21	A2	1313	G	O4'-C1'-C2'	6.16	113.76	107.60
25	AH	67	LEU	CA-C-O	-6.16	114.35	120.82
33	BC	230	THR	N-CA-CB	6.16	119.03	109.97
34	BK	46	ARG	CA-CB-CG	6.16	126.43	114.10
28	B6	4	ARG	CD-NE-CZ	-6.16	115.77	124.40
67	B1	625	A	C4'-C3'-C2'	-6.16	96.44	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	716	U	N1-C1'-C2'	6.16	121.24	112.00
67	B1	1730	C	O4'-C1'-C2'	-6.16	101.44	107.60
67	B1	2519	C	P-O5'-C5'	6.16	130.15	120.90
67	B1	3009	C	P-O5'-C5'	6.16	130.15	120.90
21	A2	86	C	P-O3'-C3'	-6.16	110.96	120.20
21	A2	93	A	O4'-C1'-C2'	6.16	111.96	105.80
25	AH	180	PHE	N-CA-CB	6.16	120.90	110.49
20	BG	20	LEU	CA-C-N	6.16	128.54	120.28
20	BG	20	LEU	C-N-CA	6.16	128.54	120.28
67	B1	286	G	C5'-C4'-C3'	6.16	125.24	116.00
67	B1	1515	G	O3'-P-O5'	-6.16	94.76	104.00
67	B1	1955	U	O4'-C1'-C2'	-6.16	99.64	105.80
67	B1	2431	C	N1-C1'-C2'	6.16	121.24	112.00
21	A2	795	G	C5'-C4'-C3'	6.16	125.24	116.00
21	A2	1403	U	P-O3'-C3'	-6.16	110.96	120.20
31	BY	64	LEU	CA-C-N	6.16	129.04	120.29
31	BY	64	LEU	C-N-CA	6.16	129.04	120.29
49	BQ	142	LEU	CB-CA-C	6.16	121.32	110.85
61	Bd	50	ARG	CA-C-O	-6.16	115.06	120.60
67	B1	2470	U	O4'-C1'-N1	6.16	117.74	108.50
17	AO	68	ASP	CA-C-N	6.16	125.89	119.05
17	AO	68	ASP	C-N-CA	6.16	125.89	119.05
21	A2	135	U	O3'-P-O5'	-6.16	94.76	104.00
30	AU	52	TYR	N-CA-CB	6.16	119.27	110.16
39	Be	13	SER	N-CA-C	-6.16	97.68	110.80
62	BN	115	PRO	N-CA-CB	6.16	109.72	103.25
67	B1	2795	G	N9-C1'-C2'	6.16	121.24	112.00
3	AI	104	VAL	N-CA-C	-6.16	98.79	108.95
21	A2	142	G	C5'-C4'-O4'	-6.16	100.56	109.80
21	A2	1001	A	C4'-C3'-C2'	6.16	108.76	102.60
21	A2	1434	C	C3'-C2'-C1'	6.16	107.46	101.30
35	BL	2	ILE	N-CA-CB	6.16	117.88	110.31
23	AT	29	PRO	CA-C-N	6.16	128.53	120.28
23	AT	29	PRO	C-N-CA	6.16	128.53	120.28
29	AL	89	ARG	N-CA-C	6.16	117.66	111.07
32	BO	109	HIS	CE1-NE2-CD2	-6.16	102.84	109.00
59	BM	39	ILE	O-C-N	-6.16	116.53	123.18
67	B1	156	A	O4'-C1'-C2'	6.16	113.76	107.60
67	B1	393	C	O3'-P-O5'	6.16	113.23	104.00
67	B1	793	C	P-O3'-C3'	-6.16	110.97	120.20
67	B1	897	U	C1'-O4'-C4'	6.16	115.86	109.70
67	B1	1359	C	O4'-C1'-N1	6.16	117.73	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1501	G	O4'-C1'-C2'	6.16	113.75	107.60
67	B1	2565	A	O4'-C1'-C2'	-6.16	101.44	107.60
8	AR	11	PRO	N-CA-C	6.15	118.21	110.70
2	AK	107	LEU	CA-C-O	-6.15	112.62	119.08
21	A2	683	A	P-O5'-C5'	6.15	130.13	120.90
67	B1	385	U	C4'-C3'-O3'	-6.15	103.77	113.00
67	B1	1326	U	O4'-C1'-C2'	-6.15	101.45	107.60
67	B1	2299	G	C1'-O4'-C4'	-6.15	103.75	109.90
68	B3	71	G	C1'-O4'-C4'	-6.15	103.75	109.90
3	AI	53	ILE	N-CA-C	-6.15	99.72	108.58
21	A2	503	G	O4'-C1'-C2'	6.15	113.75	107.60
21	A2	1166	G	C1'-C2'-O2'	6.15	117.63	108.40
21	A2	1174	A	N9-C1'-C2'	6.15	123.22	114.00
67	B1	1139	C	C1'-C2'-O2'	6.15	117.62	108.40
67	B1	1814	A	C3'-C2'-C1'	-6.15	95.15	101.30
21	A2	745	G	C4'-C3'-O3'	-6.15	103.78	113.00
67	B1	43	G	C1'-O4'-C4'	6.15	116.05	109.90
67	B1	437	G	N9-C1'-C2'	-6.15	102.78	112.00
67	B1	955	A	O3'-P-O5'	-6.15	94.78	104.00
67	B1	1204	U	C3'-C2'-C1'	6.15	107.45	101.30
67	B1	1706	G	N9-C1'-C2'	-6.15	102.78	112.00
67	B1	2828	G	C3'-C2'-C1'	-6.15	95.15	101.30
21	A2	371	U	O4'-C1'-N1	6.15	117.72	108.50
21	A2	1029	G	C4'-C3'-C2'	-6.15	96.45	102.60
42	BT	71	LYS	CA-C-O	-6.15	113.61	120.25
52	BB	184	ALA	N-CA-CB	6.15	120.60	110.39
60	BS	32	ALA	O-C-N	-6.15	115.60	122.12
67	B1	269	C	N1-C1'-C2'	6.15	121.22	112.00
67	B1	688	G	C3'-C2'-C1'	6.15	107.45	101.30
67	B1	876	C	C1'-O4'-C4'	6.15	116.05	109.90
67	B1	1211	C	C1'-O4'-C4'	6.15	116.05	109.90
67	B1	1309	G	P-O3'-C3'	-6.15	110.98	120.20
67	B1	1319	U	O4'-C1'-N1	6.15	117.72	108.50
67	B1	2485	C	C1'-O4'-C4'	6.15	116.05	109.90
68	B3	37	U	O4'-C1'-C2'	-6.15	101.45	107.60
15	AE	181	LYS	CA-C-O	6.15	127.09	119.78
21	A2	1233	G	C4'-C3'-C2'	-6.15	96.45	102.60
67	B1	1837	A	O5'-C5'-C4'	-6.15	102.28	111.50
67	B1	2279	G	C1'-O4'-C4'	-6.15	103.75	109.90
67	B1	2874	C	N1-C1'-C2'	6.15	121.22	112.00
68	B3	25	A	C4'-C3'-C2'	-6.15	96.45	102.60
1	AQ	50	ILE	N-CA-CB	6.14	118.44	110.57

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
14	AM	40	SER	CA-C-O	-6.14	114.06	120.70
15	AE	235	THR	N-CA-C	-6.14	105.09	112.59
21	A2	357	C	C1'-C2'-O2'	6.14	117.62	108.40
21	A2	1495	U	O4'-C1'-N1	6.14	117.72	108.50
34	B5	6	VAL	CA-C-O	-6.14	115.44	121.58
40	BE	58	ARG	O-C-N	-6.14	115.78	122.79
58	BP	23	ASN	CA-CB-CG	-6.14	106.46	112.60
67	B1	468	A	N9-C1'-C2'	6.14	121.22	112.00
67	B1	1204	U	N1-C1'-C2'	6.14	121.22	112.00
67	B1	1653	U	C1'-C2'-O2'	6.14	117.62	108.40
67	B1	2032	G	C1'-C2'-O2'	6.14	117.62	108.40
67	B1	2283	C	N1-C1'-C2'	6.14	121.22	112.00
67	B1	2599	C	C1'-C2'-O2'	6.14	117.62	108.40
21	A2	242	A	C1'-O4'-C4'	6.14	115.84	109.70
21	A2	1339	G	O4'-C1'-C2'	6.14	113.74	107.60
33	BC	244	HIS	CG-CD2-NE2	6.14	113.34	107.20
58	BP	94	ILE	CA-CB-CG1	6.14	120.84	110.40
60	BS	12	PHE	N-CA-C	-6.14	97.72	110.80
67	B1	571	G	O4'-C1'-C2'	6.14	113.74	107.60
21	A2	109	U	C1'-C2'-O2'	6.14	117.61	108.40
27	A0	21	G	O4'-C1'-C2'	-6.14	101.46	107.60
46	BA	110	GLU	CA-C-O	-6.14	114.56	121.81
65	BJ	136	ILE	N-CA-CB	6.14	122.56	110.95
67	B1	1482	G	O4'-C1'-N9	6.14	117.71	108.50
67	B1	2297	C	C3'-C2'-C1'	6.14	107.44	101.30
11	A1	24	A	C1'-C2'-O2'	6.14	117.61	108.40
21	A2	11	A	C3'-C2'-C1'	6.14	107.44	101.30
21	A2	1062	G	C1'-C2'-O2'	6.14	117.61	108.40
56	BH	17	PRO	CA-C-N	6.14	131.51	121.87
56	BH	17	PRO	C-N-CA	6.14	131.51	121.87
65	BJ	100	GLU	CB-CA-C	-6.14	99.84	110.09
67	B1	1434	C	P-O5'-C5'	6.14	130.11	120.90
67	B1	1591	C	O4'-C1'-C2'	-6.14	99.66	105.80
34	BK	75	LEU	CB-CA-C	6.14	120.98	110.79
67	B1	1416	G	O4'-C1'-C2'	6.14	111.94	105.80
67	B1	2374	C	P-O5'-C5'	-6.14	111.69	120.90
12	AN	18	LEU	CA-C-N	6.14	128.75	120.65
12	AN	18	LEU	C-N-CA	6.14	128.75	120.65
21	A2	384	G	O4'-C1'-C2'	-6.14	99.66	105.80
67	B1	2745	G	C1'-O4'-C4'	-6.14	103.76	109.90
7	AB	185	ARG	NH1-CZ-NH2	6.13	127.28	119.30
21	A2	524	U	O4'-C1'-C2'	-6.13	101.47	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	800	G	C1'-C2'-O2'	6.13	117.60	108.40
35	BL	105	VAL	CA-C-O	-6.13	114.57	120.95
46	BA	30	VAL	N-CA-CB	6.13	119.88	111.41
67	B1	665	C	O4'-C1'-C2'	-6.13	99.67	105.80
67	B1	1295	G	N9-C1'-C2'	6.13	123.20	114.00
67	B1	2344	G	C4'-C3'-C2'	-6.13	96.47	102.60
21	A2	615	G	C1'-C2'-O2'	6.13	117.60	108.40
21	A2	1079	G	O5'-C5'-C4'	-6.13	102.30	111.50
23	AT	8	TYR	N-CA-CB	6.13	120.85	110.49
43	Bk	104	GLN	OE1-CD-NE2	6.13	128.73	122.60
7	AB	11	GLN	O-C-N	6.13	128.71	122.09
20	A3	108	ARG	N-CA-C	6.13	118.75	111.33
21	A2	43	A	P-O5'-C5'	-6.13	111.70	120.90
31	BY	115	PRO	CA-C-O	-6.13	110.40	118.86
50	BV	50	LEU	CA-C-O	6.13	127.30	120.43
61	Bd	26	PHE	N-CA-CB	6.13	119.61	110.29
67	B1	237	G	C1'-O4'-C4'	6.13	115.83	109.70
67	B1	1141	C	O4'-C1'-C2'	-6.13	101.47	107.60
67	B1	2216	G	C1'-O4'-C4'	6.13	116.03	109.90
11	A1	56	U	C4'-C3'-O3'	-6.13	103.80	113.00
41	Ba	65	LYS	CA-C-O	-6.13	113.12	120.54
44	BW	20	GLU	O-C-N	-6.13	115.16	122.15
21	A2	1426	C	N1-C1'-C2'	6.13	121.19	112.00
63	Bg	44	LYS	CA-C-N	6.13	136.75	121.80
63	Bg	44	LYS	C-N-CA	6.13	136.75	121.80
67	B1	2700	U	N1-C1'-C2'	6.13	123.19	114.00
21	A2	473	A	C3'-C2'-C1'	-6.13	95.17	101.30
37	BU	48	VAL	O-C-N	-6.13	113.67	122.12
61	Bd	49	GLY	N-CA-C	-6.13	100.62	110.18
67	B1	1671	A	C4'-C3'-C2'	-6.13	96.47	102.60
67	B1	2012	G	O4'-C4'-C3'	-6.13	97.87	104.00
21	A2	439	G	C4'-C3'-O3'	6.12	118.59	109.40
6	AC	140	ARG	NE-CZ-NH2	-6.12	113.69	119.20
15	AE	167	LYS	N-CA-C	-6.12	98.55	108.41
17	AO	88	GLY	O-C-N	6.12	129.85	123.48
18	AF	3	GLN	N-CA-C	6.12	117.95	111.28
21	A2	370	A	N9-C1'-C2'	-6.12	102.81	112.00
21	A2	1226	G	O3'-P-O5'	-6.12	94.82	104.00
60	BS	152	GLU	CB-CG-CD	-6.12	102.19	112.60
61	Bd	5	TYR	N-CA-CB	6.12	118.99	110.17
67	B1	1014	U	P-O3'-C3'	6.12	129.39	120.20
67	B1	1313	G	O3'-P-O5'	-6.12	94.81	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2143	C	P-O5'-C5'	-6.12	111.71	120.90
67	B1	2791	C	P-O3'-C3'	-6.12	111.01	120.20
15	AE	60	ARG	CA-C-N	6.12	128.40	120.44
15	AE	60	ARG	C-N-CA	6.12	128.40	120.44
21	A2	136	A	C1'-C2'-O2'	6.12	117.58	108.40
21	A2	145	A	C1'-O4'-C4'	6.12	116.02	109.90
23	AT	15	GLN	CA-C-N	6.12	129.10	120.28
23	AT	15	GLN	C-N-CA	6.12	129.10	120.28
32	BO	66	GLU	N-CA-CB	6.12	120.22	110.73
34	B5	75	LEU	CB-CA-C	6.12	120.95	110.79
67	B1	1926	A	C1'-O4'-C4'	-6.12	103.78	109.90
10	AD	91	ASP	CA-C-O	-6.12	112.93	119.97
10	AD	111	LYS	CA-CB-CG	6.12	126.34	114.10
21	A2	696	G	C1'-C2'-O2'	6.12	117.58	108.40
21	A2	1164	A	C4'-C3'-C2'	-6.12	96.48	102.60
62	BN	139	ARG	N-CA-C	-6.12	105.81	113.28
67	B1	981	A	C4'-C3'-O3'	6.12	118.58	109.40
67	B1	2427	C	C1'-O4'-C4'	-6.12	103.78	109.90
67	B1	2619	U	P-O3'-C3'	-6.12	111.02	120.20
67	B1	2767	C	N1-C1'-C2'	6.12	121.18	112.00
21	A2	993	C	N1-C1'-C2'	6.12	121.18	112.00
49	BQ	118	LYS	CB-CA-C	-6.12	100.45	110.85
67	B1	1833	G	O4'-C1'-C2'	-6.12	99.68	105.80
67	B1	2056	A	O4'-C1'-N9	6.12	117.68	108.50
67	B1	2264	G	C3'-C2'-C1'	-6.12	95.18	101.30
68	B3	54	A	O5'-C5'-C4'	-6.12	102.32	111.50
4	AG	25	GLU	CA-C-N	6.12	129.09	120.28
4	AG	25	GLU	C-N-CA	6.12	129.09	120.28
21	A2	1265	G	P-O3'-C3'	6.12	129.38	120.20
29	AL	11	THR	O-C-N	-6.12	115.18	122.15
67	B1	1165	C	C1'-O4'-C4'	6.12	116.02	109.90
31	BY	11	GLY	CA-C-N	6.12	129.09	120.28
31	BY	11	GLY	C-N-CA	6.12	129.09	120.28
31	BY	121	PRO	CA-C-N	-6.12	113.48	119.90
31	BY	121	PRO	C-N-CA	-6.12	113.48	119.90
43	Bk	107	ARG	N-CA-C	6.12	123.83	110.80
54	BF	157	ALA	CA-C-O	-6.12	114.07	120.55
67	B1	515	G	O4'-C1'-N9	6.12	117.67	108.50
67	B1	759	G	O5'-C5'-C4'	6.12	120.67	111.50
67	B1	2799	C	O4'-C1'-C2'	-6.12	101.48	107.60
15	AE	220	GLY	N-CA-C	-6.11	106.49	115.72
21	A2	304	C	O4'-C4'-C3'	-6.11	97.89	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	AH	105	LYS	CA-C-N	6.11	128.47	120.28
25	AH	105	LYS	C-N-CA	6.11	128.47	120.28
34	BK	6	VAL	CA-C-O	-6.11	115.47	121.58
67	B1	128	C	C5'-C4'-C3'	6.11	125.17	116.00
67	B1	204	G	C5'-C4'-C3'	-6.11	106.03	115.20
67	B1	221	G	C1'-C2'-O2'	6.11	120.97	111.80
67	B1	977	C	C3'-C2'-C1'	6.11	107.41	101.30
67	B1	1906	G	C4'-C3'-C2'	-6.11	96.49	102.60
21	A2	672	G	P-O3'-C3'	6.11	129.37	120.20
67	B1	2417	G	O4'-C1'-C2'	-6.11	101.49	107.60
10	AD	25	ARG	O-C-N	6.11	128.36	122.07
21	A2	634	C	N1-C1'-C2'	6.11	121.17	112.00
32	BO	141	GLU	CA-C-N	6.11	129.08	120.28
32	BO	141	GLU	C-N-CA	6.11	129.08	120.28
47	BI	82	MET	CG-SD-CE	-6.11	87.45	100.90
67	B1	905	G	N9-C1'-C2'	6.11	121.17	112.00
21	A2	203	A	O4'-C1'-C2'	-6.11	101.49	107.60
21	A2	1120	G	C4'-C3'-O3'	-6.11	103.84	113.00
21	A2	1258	C	C1'-C2'-O2'	-6.11	102.64	111.80
11	A1	27	A	O4'-C1'-C2'	-6.11	101.49	107.60
12	AN	29	ARG	O-C-N	6.11	128.59	122.12
21	A2	202	G	O4'-C1'-C2'	-6.11	101.49	107.60
21	A2	350	G	C1'-O4'-C4'	-6.11	103.79	109.90
31	BY	13	VAL	CB-CA-C	-6.11	101.37	111.32
34	BK	8	ARG	CD-NE-CZ	-6.11	115.85	124.40
67	B1	320	C	O5'-C5'-C4'	-6.11	102.34	111.50
67	B1	774	G	N9-C1'-C2'	6.11	121.16	112.00
67	B1	1128	G	P-O3'-C3'	-6.11	111.04	120.20
67	B1	1217	U	P-O3'-C3'	6.11	129.36	120.20
67	B1	1705	C	C4'-C3'-O3'	-6.11	103.84	113.00
67	B1	2471	A	O4'-C1'-C2'	-6.11	99.69	105.80
67	B1	2544	C	O4'-C1'-C2'	-6.11	101.49	107.60
67	B1	2754	A	C1'-O4'-C4'	-6.11	103.79	109.90
68	B3	30	G	C4'-C3'-C2'	6.11	108.71	102.60
21	A2	454	G	O4'-C1'-N9	6.11	117.66	108.50
24	AA	42	LYS	N-CA-C	-6.11	105.64	114.12
33	BC	304	GLU	N-CA-CB	6.11	120.81	110.49
60	BS	106	GLY	N-CA-C	-6.11	106.73	115.64
67	B1	1884	C	O4'-C1'-C2'	-6.11	101.49	107.60
67	B1	2955	G	O4'-C1'-C2'	-6.11	101.50	107.60
21	A2	178	C	O4'-C1'-N1	6.10	117.66	108.50
21	A2	852	G	O4'-C4'-C3'	-6.10	97.90	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
52	BB	99	LEU	N-CA-CB	6.10	119.09	110.12
67	B1	302	U	O4'-C1'-N1	6.10	117.36	108.20
67	B1	597	C	O4'-C1'-C2'	-6.10	101.50	107.60
67	B1	1626	A	P-O5'-C5'	6.10	130.06	120.90
21	A2	220	G	O3'-P-O5'	6.10	113.15	104.00
21	A2	255	G	C3'-C2'-C1'	-6.10	95.20	101.30
40	BE	148	PHE	CA-C-N	6.10	129.29	120.38
40	BE	148	PHE	C-N-CA	6.10	129.29	120.38
67	B1	674	G	C3'-C2'-C1'	-6.10	95.20	101.30
67	B1	945	U	O4'-C4'-C3'	-6.10	97.90	104.00
67	B1	1049	U	O4'-C4'-C3'	-6.10	100.00	106.10
67	B1	1613	A	O5'-C5'-C4'	6.10	120.65	111.50
67	B1	2168	C	O4'-C1'-C2'	-6.10	101.50	107.60
67	B1	2541	U	C1'-C2'-O2'	6.10	117.55	108.40
4	AG	56	PRO	CA-C-N	6.10	132.68	121.70
4	AG	56	PRO	C-N-CA	6.10	132.68	121.70
34	B5	8	ARG	CD-NE-CZ	-6.10	115.86	124.40
39	Be	29	ASN	CA-CB-CG	6.10	118.70	112.60
67	B1	560	G	C3'-C2'-O2'	6.10	119.85	110.70
21	A2	181	G	C5'-C4'-C3'	6.10	125.15	116.00
21	A2	435	A	C3'-C2'-C1'	6.10	107.40	101.30
35	BL	47	TRP	CB-CG-CD2	-6.10	118.26	126.80
65	BJ	14	ALA	CA-C-O	6.10	127.58	119.59
67	B1	410	C	O4'-C1'-C2'	-6.10	99.70	105.80
67	B1	1038	U	C1'-O4'-C4'	6.10	116.00	109.90
67	B1	1339	C	C1'-O4'-C4'	-6.10	103.80	109.90
67	B1	2621	U	C1'-O4'-C4'	6.10	116.00	109.90
1	AQ	59	GLY	N-CA-C	-6.10	105.08	115.08
6	AC	77	ASN	O-C-N	-6.10	115.88	121.37
21	A2	1007	A	O4'-C1'-C2'	-6.10	101.50	107.60
21	A2	1468	A	N9-C1'-C2'	-6.10	102.85	112.00
21	A2	1490	C	C1'-O4'-C4'	-6.10	103.80	109.90
27	A0	30	G	N9-C1'-C2'	6.10	121.15	112.00
20	B4	63	VAL	N-CA-CB	-6.10	100.38	110.56
67	B1	1000	G	N9-C1'-C2'	6.10	121.15	112.00
21	A2	883	G	P-O3'-C3'	-6.10	111.06	120.20
67	B1	82	C	C4'-C3'-C2'	-6.10	96.50	102.60
67	B1	303	A	C3'-C2'-C1'	6.10	107.40	101.30
67	B1	1630	U	O4'-C1'-N1	6.10	117.64	108.50
3	AI	121	ILE	N-CA-C	-6.09	96.66	109.34
7	AB	150	VAL	N-CA-C	-6.09	99.64	108.17
21	A2	1173	A	O4'-C4'-C3'	-6.09	100.00	106.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	BO	147	GLU	CA-C-N	6.09	128.45	120.28
32	BO	147	GLU	C-N-CA	6.09	128.45	120.28
35	BL	14	SER	N-CA-CB	6.09	118.85	110.01
67	B1	360	G	C5'-C4'-O4'	6.09	118.94	109.80
67	B1	2548	A	C2'-C3'-O3'	6.09	118.64	109.50
16	AJ	30	ARG	NE-CZ-NH1	6.09	127.59	121.50
21	A2	1241	U	C4'-C3'-C2'	-6.09	96.51	102.60
31	BY	42	SER	CA-C-N	6.09	128.94	120.29
31	BY	42	SER	C-N-CA	6.09	128.94	120.29
67	B1	481	G	O4'-C1'-C2'	-6.09	99.71	105.80
67	B1	2728	U	N1-C1'-C2'	6.09	123.14	114.00
21	A2	708	C	P-O3'-C3'	6.09	129.34	120.20
31	BY	75	ILE	CA-CB-CG1	6.09	120.76	110.40
54	BF	47	PHE	CA-CB-CG	-6.09	107.71	113.80
67	B1	689	U	C1'-C2'-O2'	6.09	117.54	108.40
67	B1	1244	C	C3'-C2'-C1'	6.09	107.39	101.30
67	B1	1553	G	C3'-C2'-C1'	-6.09	95.21	101.30
67	B1	1806	C	C5'-C4'-C3'	-6.09	106.86	116.00
67	B1	2101	A	C3'-C2'-C1'	6.09	107.39	101.30
2	AK	74	GLN	CA-C-N	6.09	128.44	120.28
2	AK	74	GLN	C-N-CA	6.09	128.44	120.28
21	A2	1490	C	O4'-C1'-C2'	-6.09	101.51	107.60
67	B1	576	G	C1'-C2'-O2'	6.09	117.53	108.40
67	B1	583	A	P-O5'-C5'	6.09	130.03	120.90
59	BM	5	LYS	N-CA-CB	-6.09	101.17	110.12
67	B1	753	A	C1'-O4'-C4'	6.09	115.99	109.90
67	B1	1493	C	N1-C1'-C2'	6.09	121.13	112.00
8	AR	71	HIS	CE1-NE2-CD2	-6.09	102.91	109.00
21	A2	762	G	O5'-C5'-C4'	-6.09	102.37	111.50
67	B1	996	U	N1-C1'-C2'	-6.09	102.87	112.00
67	B1	1988	U	C4'-C3'-O3'	-6.09	103.87	113.00
33	BC	319	SER	N-CA-CB	6.08	120.77	110.49
37	BU	96	HIS	ND1-CE1-NE2	6.08	114.48	108.40
67	B1	1860	A	O4'-C1'-N9	6.08	117.63	108.50
68	B3	105	G	P-O5'-C5'	6.08	130.03	120.90
15	AE	144	ASP	N-CA-C	-6.08	105.15	113.30
16	AJ	82	GLU	N-CA-CB	6.08	120.77	110.49
32	BO	73	TRP	N-CA-CB	6.08	118.91	109.85
53	BD	163	LYS	CB-CA-C	-6.08	100.69	110.79
66	Bl	36	LEU	N-CA-CB	6.08	118.83	110.01
67	B1	677	A	P-O5'-C5'	-6.08	111.78	120.90
67	B1	823	G	C1'-O4'-C4'	-6.08	103.82	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	843	C	C4'-C3'-O3'	-6.08	103.87	113.00
21	A2	1398	U	O4'-C1'-N1	6.08	117.62	108.50
21	A2	1465	C	N1-C1'-C2'	6.08	121.12	112.00
30	AU	21	LYS	CB-CA-C	-6.08	100.51	110.85
42	BT	46	ILE	N-CA-CB	6.08	118.36	110.57
67	B1	217	A	N9-C1'-C2'	-6.08	104.88	114.00
67	B1	1920	A	P-O5'-C5'	-6.08	111.78	120.90
67	B1	2375	C	O4'-C1'-C2'	-6.08	101.52	107.60
21	A2	26	A	N9-C1'-C2'	6.08	121.12	112.00
21	A2	1426	C	O4'-C1'-C2'	6.08	113.68	107.60
40	BE	78	VAL	N-CA-C	-6.08	100.33	108.35
67	B1	1761	C	N1-C1'-C2'	6.08	121.12	112.00
21	A2	703	U	P-O5'-C5'	6.08	130.02	120.90
59	BM	128	PHE	CA-CB-CG	-6.08	107.72	113.80
67	B1	380	A	O5'-C5'-C4'	-6.08	102.38	111.50
67	B1	797	C	C1'-O4'-C4'	6.08	115.98	109.90
67	B1	2383	A	O4'-C1'-C2'	-6.08	101.52	107.60
12	AN	124	TYR	N-CA-C	6.08	118.65	109.41
23	AT	26	ARG	CA-C-N	6.08	128.92	120.29
23	AT	26	ARG	C-N-CA	6.08	128.92	120.29
61	Bd	46	ILE	N-CA-C	-6.08	100.38	107.61
67	B1	1188	C	P-O5'-C5'	6.08	130.01	120.90
67	B1	1977	C	C1'-C2'-O2'	-6.08	102.69	111.80
67	B1	1993	A	C3'-C2'-C1'	-6.08	95.22	101.30
20	A3	20	LEU	CA-C-N	6.08	128.92	120.29
20	A3	20	LEU	C-N-CA	6.08	128.92	120.29
21	A2	63	G	C3'-C2'-C1'	-6.08	95.22	101.30
21	A2	235	G	P-O3'-C3'	-6.08	111.09	120.20
21	A2	337	C	N1-C1'-C2'	6.08	121.11	112.00
21	A2	1177	C	O4'-C4'-C3'	-6.08	97.92	104.00
21	A2	1342	C	C3'-C2'-C1'	6.08	107.38	101.30
25	AH	88	ARG	NE-CZ-NH1	6.08	127.58	121.50
27	A0	25	C	C3'-C2'-C1'	6.08	107.38	101.30
53	BD	11	GLN	CA-C-N	6.08	126.42	119.92
53	BD	11	GLN	C-N-CA	6.08	126.42	119.92
67	B1	1250	A	C1'-O4'-C4'	6.08	115.97	109.90
67	B1	1475	G	N9-C1'-C2'	6.08	123.11	114.00
67	B1	1514	C	N1-C1'-C2'	6.08	121.11	112.00
67	B1	1670	A	O4'-C4'-C3'	-6.08	97.92	104.00
67	B1	1865	U	C1'-O4'-C4'	6.08	115.78	109.70
21	A2	1319	C	O4'-C1'-N1	6.07	117.61	108.50
58	BP	118	ILE	CB-CA-C	6.07	119.53	111.21

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	783	C	O4'-C1'-C2'	-6.07	101.53	107.60
67	B1	1248	C	C1'-C2'-O2'	6.07	117.51	108.40
21	A2	1000	G	C1'-O4'-C4'	-6.07	103.83	109.90
37	BU	43	ASN	CA-CB-CG	6.07	118.67	112.60
67	B1	205	A	O4'-C1'-C2'	-6.07	101.53	107.60
67	B1	1597	G	N9-C1'-C2'	-6.07	102.89	112.00
67	B1	1601	G	O4'-C1'-N9	6.07	117.61	108.50
21	A2	607	U	C5'-C4'-C3'	-6.07	106.09	115.20
60	BS	22	ALA	CA-C-N	6.07	132.56	122.73
60	BS	22	ALA	C-N-CA	6.07	132.56	122.73
67	B1	159	C	O4'-C1'-C2'	-6.07	99.73	105.80
67	B1	362	A	O4'-C1'-C2'	-6.07	101.53	107.60
67	B1	1386	G	O4'-C1'-C2'	6.07	113.67	107.60
21	A2	665	G	O4'-C1'-C2'	6.07	113.67	107.60
21	A2	1164	A	N9-C1'-C2'	6.07	121.10	112.00
21	A2	1376	C	C5'-C4'-C3'	6.07	125.10	116.00
28	AV	27	GLY	CA-C-N	6.07	131.40	121.57
28	AV	27	GLY	C-N-CA	6.07	131.40	121.57
67	B1	1685	C	N1-C1'-C2'	6.07	121.10	112.00
15	AE	102	VAL	O-C-N	-6.07	113.84	122.76
17	AO	15	LEU	CA-C-N	6.07	132.04	122.94
17	AO	15	LEU	C-N-CA	6.07	132.04	122.94
21	A2	1391	U	O4'-C1'-N1	6.07	117.60	108.50
33	BC	126	LYS	CA-C-O	-6.07	111.83	120.51
67	B1	791	C	C3'-C2'-C1'	6.07	107.37	101.30
67	B1	1406	G	C3'-C2'-C1'	6.07	107.37	101.30
67	B1	2251	G	C3'-C2'-C1'	-6.07	95.23	101.30
67	B1	2651	G	C1'-C2'-O2'	6.07	117.50	108.40
21	A2	126	G	O3'-P-O5'	6.07	113.10	104.00
21	A2	1121	C	N1-C1'-C2'	6.07	121.10	112.00
33	BC	253	VAL	CA-C-O	-6.07	112.77	119.20
51	Bj	31	SER	N-CA-CB	6.07	120.74	110.49
53	BD	35	VAL	CA-C-N	6.07	128.20	120.56
53	BD	35	VAL	C-N-CA	6.07	128.20	120.56
67	B1	279	G	P-O5'-C5'	-6.07	111.80	120.90
67	B1	2826	U	C4'-C3'-O3'	6.07	118.50	109.40
67	B1	2852	U	O4'-C1'-N1	6.06	117.60	108.50
6	AC	14	GLU	CA-CB-CG	6.06	126.23	114.10
12	AN	111	PRO	CA-C-N	6.06	130.30	120.60
12	AN	111	PRO	C-N-CA	6.06	130.30	120.60
21	A2	395	C	P-O5'-C5'	-6.06	111.81	120.90
21	A2	764	C	C3'-C2'-C1'	6.06	107.36	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1144	G	O3'-P-O5'	-6.06	94.91	104.00
35	BL	25	HIS	CB-CA-C	-6.06	98.35	110.42
52	BB	180	TYR	CB-CA-C	-6.06	100.73	110.79
56	BH	71	PRO	N-CA-CB	6.06	108.96	103.08
57	BZ	85	ILE	N-CA-C	-6.06	99.74	108.53
67	B1	94	A	C3'-C2'-C1'	6.06	107.36	101.30
67	B1	743	A	N9-C1'-C2'	6.06	121.09	112.00
67	B1	1364	C	N1-C1'-C2'	6.06	121.09	112.00
67	B1	1868	C	O4'-C4'-C3'	-6.06	97.94	104.00
67	B1	2376	U	C1'-O4'-C4'	6.06	115.96	109.90
67	B1	2376	U	C3'-C2'-C1'	6.06	107.36	101.30
67	B1	2724	A	C5'-C4'-C3'	-6.06	106.11	115.20
7	AB	161	ARG	NE-CZ-NH1	-6.06	115.44	121.50
20	A3	109	ASP	CA-C-N	6.06	128.90	120.29
20	A3	109	ASP	C-N-CA	6.06	128.90	120.29
21	A2	1198	A	O4'-C1'-C2'	-6.06	101.54	107.60
48	BR	92	HIS	N-CA-C	-6.06	105.20	112.59
8	AR	93	PRO	N-CA-C	6.06	120.59	111.14
17	AO	107	MET	CA-C-O	6.06	126.97	120.55
21	A2	146	A	C3'-C2'-C1'	6.06	107.36	101.30
21	A2	542	G	C1'-O4'-C4'	-6.06	103.84	109.90
21	A2	748	A	O4'-C1'-N9	6.06	117.59	108.50
46	BA	46	PHE	CB-CA-C	6.06	119.72	109.84
52	BB	114	ILE	CA-C-N	6.06	126.38	119.83
52	BB	114	ILE	C-N-CA	6.06	126.38	119.83
52	BB	229	HIS	CA-CB-CG	6.06	119.86	113.80
67	B1	51	G	C1'-C2'-O2'	-6.06	102.71	111.80
67	B1	222	A	C5'-C4'-C3'	6.06	125.09	116.00
67	B1	307	C	O5'-C5'-C4'	-6.06	102.41	111.50
67	B1	1309	G	N9-C1'-C2'	6.06	121.09	112.00
67	B1	1870	G	O4'-C1'-N9	6.06	117.59	108.50
67	B1	2134	G	C4'-C3'-C2'	-6.06	96.54	102.60
67	B1	2353	C	C3'-C2'-C1'	6.06	107.36	101.30
67	B1	2641	C	N1-C1'-C2'	6.06	121.09	112.00
67	B1	2894	A	P-O3'-C3'	-6.06	111.11	120.20
6	AC	112	ALA	CA-C-N	6.06	128.40	120.28
6	AC	112	ALA	C-N-CA	6.06	128.40	120.28
15	AE	168	VAL	CA-C-O	-6.06	111.83	119.95
60	BS	65	ARG	CA-CB-CG	6.06	126.21	114.10
67	B1	342	C	P-O5'-C5'	-6.06	111.81	120.90
67	B1	396	G	P-O5'-C5'	6.06	129.99	120.90
67	B1	2015	G	C3'-C2'-C1'	6.06	107.36	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2153	C	P-O5'-C5'	-6.06	111.81	120.90
67	B1	2173	U	C3'-C2'-C1'	6.06	107.36	101.30
21	A2	4	C	C1'-O4'-C4'	6.05	115.95	109.90
35	BL	15	HIS	CG-CD2-NE2	6.05	113.25	107.20
41	Ba	56	GLU	CB-CA-C	-6.05	100.56	110.85
49	BQ	43	ARG	O-C-N	6.05	129.05	122.15
20	B4	108	ARG	N-CA-C	6.05	118.66	111.33
67	B1	2642	C	C3'-C2'-C1'	6.05	107.35	101.30
21	A2	1104	G	C1'-O4'-C4'	6.05	115.95	109.90
21	A2	1142	G	C3'-C2'-C1'	6.05	107.35	101.30
21	A2	1479	C	C3'-C2'-C1'	6.05	107.35	101.30
67	B1	304	G	C5'-C4'-C3'	6.05	125.08	116.00
67	B1	2333	G	N9-C1'-C2'	6.05	121.08	112.00
21	A2	5	C	C4'-C3'-O3'	-6.05	103.92	113.00
21	A2	1355	C	C4'-C3'-O3'	-6.05	103.92	113.00
43	Bk	179	ALA	CA-C-N	6.05	130.83	120.72
43	Bk	179	ALA	C-N-CA	6.05	130.83	120.72
20	B4	33	ARG	N-CA-C	-6.05	99.85	109.59
67	B1	669	G	O5'-C5'-C4'	-6.05	102.42	111.50
67	B1	1395	G	C1'-C2'-O2'	-6.05	102.72	111.80
67	B1	1909	C	N1-C1'-C2'	6.05	121.08	112.00
67	B1	2730	U	C3'-C2'-C1'	6.05	107.35	101.30
7	AB	141	VAL	CB-CA-C	-6.05	101.61	110.62
21	A2	223	G	O4'-C1'-N9	6.05	117.58	108.50
21	A2	1433	C	P-O5'-C5'	6.05	129.97	120.90
53	BD	123	ASN	O-C-N	-6.05	115.49	122.93
56	BH	120	LYS	CA-C-N	6.05	128.38	120.28
56	BH	120	LYS	C-N-CA	6.05	128.38	120.28
62	BN	166	ASP	CA-CB-CG	-6.05	106.55	112.60
16	AJ	78	ILE	CA-C-N	6.05	129.43	120.90
16	AJ	78	ILE	C-N-CA	6.05	129.43	120.90
21	A2	971	G	N9-C1'-C2'	6.05	121.07	112.00
67	B1	1619	C	C3'-C2'-C1'	6.05	107.35	101.30
10	AD	75	ALA	N-CA-C	-6.05	104.60	111.07
21	A2	989	C	C3'-C2'-C1'	6.05	107.35	101.30
33	BC	12	LEU	N-CA-C	-6.05	105.08	112.88
20	B4	80	VAL	CA-C-O	-6.05	115.76	119.51
67	B1	494	C	O4'-C1'-N1	6.05	117.27	108.20
67	B1	1473	C	P-O3'-C3'	-6.05	111.13	120.20
67	B1	2208	C	C1'-C2'-O2'	6.05	117.47	108.40
67	B1	2317	G	O4'-C1'-C2'	6.05	113.65	107.60
67	B1	2464	G	C1'-O4'-C4'	6.05	115.95	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2881	G	O4'-C1'-C2'	6.05	113.65	107.60
67	B1	2922	G	N9-C1'-C2'	-6.05	102.93	112.00
68	B3	30	G	C3'-C2'-C1'	6.05	107.35	101.30
21	A2	622	C	N1-C1'-C2'	6.04	121.07	112.00
21	A2	1354	A	O4'-C1'-C2'	-6.04	99.75	105.80
25	AH	86	MET	CG-SD-CE	-6.04	87.60	100.90
53	BD	229	HIS	N-CA-C	6.04	117.95	111.36
67	B1	328	G	O4'-C1'-C2'	-6.04	101.56	107.60
67	B1	1307	C	O4'-C1'-C2'	-6.04	101.56	107.60
67	B1	2563	A	C5'-C4'-C3'	-6.04	106.13	115.20
14	AM	123	HIS	O-C-N	6.04	129.59	122.34
21	A2	88	G	C1'-O4'-C4'	-6.04	103.86	109.90
21	A2	300	G	O4'-C1'-N9	6.04	117.56	108.50
21	A2	555	U	C4'-C3'-O3'	-6.04	103.94	113.00
23	AT	61	LYS	N-CA-C	-6.04	101.19	110.32
47	BI	74	ILE	CB-CA-C	6.04	119.71	111.97
47	BI	127	LYS	N-CA-C	-6.04	97.60	108.48
67	B1	1356	A	O5'-C5'-C4'	-6.04	102.43	111.50
67	B1	2134	G	P-O5'-C5'	-6.04	111.83	120.90
8	AR	70	ILE	CA-C-N	6.04	130.71	122.19
8	AR	70	ILE	C-N-CA	6.04	130.71	122.19
21	A2	14	C	O4'-C1'-N1	6.04	117.56	108.50
21	A2	702	G	C2'-C3'-O3'	6.04	122.76	113.70
21	A2	988	A	O3'-P-O5'	6.04	113.06	104.00
21	A2	1153	G	C1'-O4'-C4'	-6.04	103.86	109.90
30	AU	85	HIS	N-CA-C	-6.04	104.62	112.23
57	BZ	64	GLU	N-CA-C	-6.04	105.09	112.88
67	B1	667	C	P-O3'-C3'	-6.04	111.14	120.20
67	B1	1376	U	O4'-C1'-N1	6.04	117.56	108.50
67	B1	1422	G	C1'-C2'-O2'	6.04	117.46	108.40
67	B1	2108	U	O5'-C5'-C4'	-6.04	102.44	111.50
67	B1	2543	A	C4'-C3'-C2'	6.04	108.64	102.60
67	B1	2851	A	C3'-C2'-C1'	-6.04	95.26	101.30
67	B1	2913	C	P-O5'-C5'	6.04	129.96	120.90
68	B3	18	G	O3'-P-O5'	-6.04	94.94	104.00
21	A2	953	C	N1-C1'-C2'	6.04	121.06	112.00
67	B1	2610	C	C1'-O4'-C4'	6.04	115.94	109.90
21	A2	608	G	P-O3'-C3'	-6.04	111.14	120.20
21	A2	1250	C	C1'-C2'-O2'	6.04	117.46	108.40
21	A2	1459	G	O4'-C1'-C2'	6.04	111.84	105.80
56	BH	114	MET	CA-C-N	-6.04	113.75	123.23
56	BH	114	MET	C-N-CA	-6.04	113.75	123.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	BN	152	ALA	O-C-N	6.04	128.52	122.12
67	B1	1285	C	C1'-O4'-C4'	-6.04	103.86	109.90
67	B1	2044	C	O4'-C1'-C2'	-6.04	101.56	107.60
67	B1	2547	A	C4'-C3'-C2'	6.04	108.64	102.60
19	AS	20	TYR	CA-C-N	6.04	126.20	119.32
19	AS	20	TYR	C-N-CA	6.04	126.20	119.32
24	AA	157	PHE	CA-CB-CG	-6.04	107.76	113.80
67	B1	1937	A	N9-C1'-C2'	-6.04	102.94	112.00
67	B1	2313	G	C3'-C2'-C1'	6.04	107.34	101.30
21	A2	107	C	N1-C1'-C2'	6.04	121.05	112.00
21	A2	549	A	O4'-C1'-C2'	-6.04	101.56	107.60
32	BO	32	LYS	CA-C-N	6.04	126.00	119.78
32	BO	32	LYS	C-N-CA	6.04	126.00	119.78
67	B1	698	U	O4'-C4'-C3'	-6.04	97.96	104.00
67	B1	957	C	C1'-C2'-O2'	6.04	117.45	108.40
67	B1	2311	C	N1-C1'-C2'	6.04	121.05	112.00
67	B1	2377	C	N1-C1'-C2'	6.04	121.06	112.00
67	B1	2777	G	P-O3'-C3'	6.04	129.25	120.20
67	B1	2962	A	O4'-C1'-C2'	6.04	113.64	107.60
21	A2	560	A	C1'-O4'-C4'	6.03	115.93	109.90
21	A2	902	U	N1-C1'-C2'	6.03	121.05	112.00
59	BM	85	MET	CA-C-N	6.03	126.47	120.31
59	BM	85	MET	C-N-CA	6.03	126.47	120.31
67	B1	565	A	P-O5'-C5'	-6.03	111.85	120.90
67	B1	883	G	C1'-C2'-O2'	-6.03	99.35	108.40
67	B1	935	A	C3'-C2'-C1'	-6.03	95.47	101.50
67	B1	1308	G	N9-C1'-C2'	6.03	121.05	112.00
67	B1	1514	C	C3'-C2'-C1'	6.03	107.33	101.30
67	B1	2690	U	N1-C1'-C2'	6.03	121.05	112.00
41	Ba	22	VAL	CA-C-N	6.03	126.37	119.92
41	Ba	22	VAL	C-N-CA	6.03	126.37	119.92
67	B1	443	C	C4'-C3'-C2'	6.03	108.63	102.60
67	B1	1332	A	N9-C1'-C2'	6.03	121.05	112.00
67	B1	2181	G	N9-C1'-C2'	6.03	121.05	112.00
67	B1	2357	U	C1'-O4'-C4'	6.03	115.93	109.90
15	AE	165	LEU	N-CA-C	-6.03	99.41	109.24
23	AT	101	HIS	CG-CD2-NE2	6.03	113.23	107.20
38	Bb	41	ARG	NH1-CZ-NH2	6.03	127.14	119.30
40	BE	90	LEU	CA-C-O	-6.03	114.03	120.42
52	BB	131	VAL	CB-CA-C	-6.03	105.41	111.80
60	BS	110	ASP	CA-CB-CG	-6.03	106.57	112.60
61	Bd	8	ARG	CA-C-N	6.03	133.12	121.18

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	Bd	8	ARG	C-N-CA	6.03	133.12	121.18
67	B1	1211	C	P-O3'-C3'	-6.03	111.15	120.20
67	B1	1370	G	N9-C1'-C2'	6.03	121.05	112.00
21	A2	188	C	N1-C1'-C2'	6.03	121.04	112.00
21	A2	205	C	C1'-O4'-C4'	-6.03	103.87	109.90
59	BM	139	VAL	CA-C-N	6.03	130.20	120.55
59	BM	139	VAL	C-N-CA	6.03	130.20	120.55
67	B1	1001	C	O3'-P-O5'	-6.03	94.96	104.00
67	B1	1248	C	C3'-C2'-C1'	-6.03	95.27	101.30
7	AB	116	ILE	N-CA-CB	6.03	119.73	111.41
31	BY	113	LEU	N-CA-C	-6.03	99.14	108.42
20	BG	13	LYS	O-C-N	-6.03	115.73	122.12
67	B1	159	C	C1'-O4'-C4'	6.03	115.73	109.70
67	B1	285	C	O4'-C1'-C2'	-6.03	101.57	107.60
67	B1	532	G	O4'-C1'-N9	6.03	117.54	108.50
67	B1	2769	U	C1'-C2'-O2'	6.03	117.44	108.40
21	A2	885	G	O4'-C1'-C2'	6.03	113.63	107.60
26	AP	39	CYS	CA-C-N	6.03	128.27	120.44
26	AP	39	CYS	C-N-CA	6.03	128.27	120.44
31	BY	22	THR	N-CA-C	-6.03	104.71	111.28
67	B1	664	A	O4'-C1'-C2'	-6.03	99.77	105.80
67	B1	860	A	N9-C1'-C2'	-6.03	102.96	112.00
67	B1	1834	C	N1-C1'-C2'	6.03	121.04	112.00
67	B1	2893	U	O4'-C1'-C2'	6.03	111.83	105.80
15	AE	149	ILE	N-CA-C	-6.02	99.01	108.95
20	A3	65	HIS	CA-CB-CG	6.02	119.82	113.80
21	A2	1417	A	P-O5'-C5'	6.02	129.94	120.90
45	Bi	80	ARG	N-CA-C	6.02	117.85	111.28
57	BZ	13	THR	CA-C-N	6.02	127.34	120.53
57	BZ	13	THR	C-N-CA	6.02	127.34	120.53
3	AI	121	ILE	N-CA-CB	6.02	121.17	111.23
21	A2	536	A	C3'-C2'-C1'	6.02	107.32	101.30
35	BL	55	PRO	N-CA-CB	6.02	109.57	103.25
34	BK	42	LYS	CB-CA-C	6.02	119.53	111.82
67	B1	118	A	N9-C1'-C2'	6.02	123.03	114.00
67	B1	1395	G	O4'-C1'-C2'	-6.02	99.78	105.80
67	B1	2714	G	C3'-C2'-C1'	6.02	107.32	101.30
20	A3	122	MET	CA-C-N	6.02	132.54	121.70
20	A3	122	MET	C-N-CA	6.02	132.54	121.70
21	A2	527	A	O5'-C5'-C4'	-6.02	102.47	111.50
21	A2	565	C	N1-C1'-C2'	6.02	121.03	112.00
21	A2	1137	G	O4'-C1'-C2'	-6.02	101.58	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	AA	154	PHE	CA-CB-CG	6.02	119.82	113.80
67	B1	1264	G	C2'-C3'-O3'	6.02	122.73	113.70
6	AC	162	VAL	CA-C-N	6.02	131.97	122.94
6	AC	162	VAL	C-N-CA	6.02	131.97	122.94
21	A2	728	G	O4'-C1'-C2'	6.02	113.62	107.60
21	A2	1012	C	O4'-C1'-C2'	-6.02	101.58	107.60
31	BY	117	PHE	CA-C-N	-6.02	113.56	122.41
31	BY	117	PHE	C-N-CA	-6.02	113.56	122.41
51	Bj	83	GLY	O-C-N	6.02	129.60	122.50
67	B1	210	A	P-O3'-C3'	6.02	129.23	120.20
67	B1	2159	C	P-O5'-C5'	6.02	129.93	120.90
67	B1	2786	G	C5'-C4'-C3'	6.02	125.03	116.00
67	B1	2958	U	N1-C1'-C2'	-6.02	104.97	114.00
67	B1	3038	A	N9-C1'-C2'	-6.02	102.97	112.00
3	AI	101	ILE	N-CA-CB	6.02	119.51	112.35
17	AO	9	ARG	NE-CZ-NH1	-6.02	115.48	121.50
21	A2	1426	C	O5'-C5'-C4'	-6.02	102.47	111.50
37	BU	23	ARG	NE-CZ-NH2	6.02	124.62	119.20
44	BW	21	LEU	CA-C-N	6.02	128.34	120.28
44	BW	21	LEU	C-N-CA	6.02	128.34	120.28
28	B6	87	LEU	CA-C-N	6.02	128.70	120.46
28	B6	87	LEU	C-N-CA	6.02	128.70	120.46
67	B1	397	G	C1'-C2'-O2'	6.02	117.42	108.40
67	B1	642	G	P-O3'-C3'	-6.02	111.17	120.20
67	B1	714	C	C4'-C3'-O3'	-6.02	103.97	113.00
67	B1	742	C	C1'-O4'-C4'	-6.02	103.88	109.90
67	B1	1338	G	C4'-C3'-C2'	-6.02	96.58	102.60
67	B1	1533	G	C1'-O4'-C4'	-6.02	103.88	109.90
21	A2	418	G	O4'-C1'-N9	6.02	117.53	108.50
21	A2	1490	C	O3'-P-O5'	-6.02	94.98	104.00
67	B1	1002	A	C4'-C3'-O3'	-6.02	103.98	113.00
67	B1	1713	G	P-O3'-C3'	6.02	129.22	120.20
32	BO	138	PHE	O-C-N	-6.01	115.95	121.30
56	BH	71	PRO	CA-C-O	-6.01	111.84	120.56
20	B4	107	ALA	N-CA-C	-6.01	106.10	113.50
67	B1	1139	C	C1'-O4'-C4'	-6.01	103.89	109.90
4	AG	76	PRO	CA-C-N	-6.01	114.54	125.66
4	AG	76	PRO	C-N-CA	-6.01	114.54	125.66
21	A2	625	G	N9-C1'-C2'	6.01	121.02	112.00
21	A2	649	A	P-O5'-C5'	-6.01	111.88	120.90
21	A2	885	G	C4'-C3'-C2'	-6.01	96.59	102.60
23	AT	102	TYR	CA-C-N	6.01	128.94	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	AT	102	TYR	C-N-CA	6.01	128.94	120.28
67	B1	17	C	C4'-C3'-O3'	-6.01	103.98	113.00
5	AW	49	GLY	CA-C-O	6.01	126.99	121.58
13	AX	26	GLN	N-CA-C	-6.01	99.91	109.59
20	A3	17	GLU	O-C-N	6.01	129.00	122.15
21	A2	852	G	O4'-C1'-C2'	6.01	113.61	107.60
25	AH	6	ASN	CA-C-N	6.01	128.34	120.28
25	AH	6	ASN	C-N-CA	6.01	128.34	120.28
38	Bb	119	GLU	CA-C-O	-6.01	114.18	120.55
65	BJ	17	PRO	N-CD-CG	6.01	112.22	103.20
67	B1	631	G	C3'-C2'-O2'	6.01	119.72	110.70
67	B1	815	U	O4'-C1'-N1	6.01	117.52	108.50
67	B1	1058	A	N9-C1'-C2'	-6.01	102.98	112.00
67	B1	1673	C	C3'-C2'-C1'	6.01	107.31	101.30
21	A2	1333	G	C4'-C3'-O3'	-6.01	103.99	113.00
24	AA	133	GLN	N-CA-CB	6.01	119.48	110.22
27	A0	11	C	O4'-C1'-C2'	-6.01	101.59	107.60
28	B6	64	ILE	N-CA-C	-6.01	99.51	108.46
60	BS	59	ARG	CA-C-N	6.01	126.20	120.31
60	BS	59	ARG	C-N-CA	6.01	126.20	120.31
67	B1	673	A	O4'-C1'-N9	6.01	117.52	108.50
67	B1	750	C	C1'-O4'-C4'	-6.01	103.89	109.90
67	B1	1327	C	O4'-C1'-C2'	-6.01	101.59	107.60
67	B1	1997	C	C1'-O4'-C4'	-6.01	103.89	109.90
68	B3	23	A	C4'-C3'-O3'	-6.01	103.99	113.00
3	AI	40	VAL	CA-C-N	6.01	128.25	120.44
3	AI	40	VAL	C-N-CA	6.01	128.25	120.44
47	BI	55	LEU	CA-C-O	-6.01	114.58	121.19
67	B1	1832	G	N9-C1'-C2'	6.01	121.01	112.00
67	B1	2274	C	O4'-C1'-C2'	-6.01	101.59	107.60
21	A2	359	A	P-O5'-C5'	-6.01	111.89	120.90
21	A2	1396	C	C3'-C2'-C1'	6.01	107.31	101.30
25	AH	46	HIS	CA-C-N	6.01	133.01	121.54
25	AH	46	HIS	C-N-CA	6.01	133.01	121.54
33	BC	278	HIS	CE1-NE2-CD2	-6.01	102.99	109.00
49	BQ	77	GLY	N-CA-C	-6.01	104.79	112.00
67	B1	1276	G	C1'-C2'-O2'	6.01	117.41	108.40
67	B1	1437	C	N1-C1'-C2'	6.01	121.01	112.00
67	B1	1701	C	O4'-C1'-C2'	-6.01	101.59	107.60
7	AB	16	GLY	CA-C-O	6.00	127.18	119.68
21	A2	25	C	C3'-C2'-C1'	6.00	107.30	101.30
21	A2	189	C	C3'-C2'-C1'	6.00	107.30	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	597	C	C4'-C3'-C2'	-6.00	96.60	102.60
21	A2	1080	C	C5'-C4'-C3'	-6.00	107.00	116.00
30	AU	119	ARG	NE-CZ-NH2	6.00	124.60	119.20
37	BU	45	PRO	N-CA-CB	6.00	107.25	103.23
43	Bk	66	LYS	N-CA-CB	6.00	118.95	110.12
46	BA	73	ALA	CA-C-N	6.00	128.82	120.29
46	BA	73	ALA	C-N-CA	6.00	128.82	120.29
59	BM	95	SER	N-CA-C	-6.00	102.44	110.55
64	Bc	63	THR	CB-CA-C	6.00	122.31	109.10
67	B1	1366	U	P-O3'-C3'	6.00	129.21	120.20
67	B1	1733	C	C1'-C2'-O2'	6.00	117.41	108.40
67	B1	1994	G	O4'-C1'-N9	6.00	117.50	108.50
67	B1	2431	C	O4'-C1'-C2'	-6.00	101.60	107.60
67	B1	2846	A	O3'-P-O5'	6.00	113.01	104.00
15	AE	43	ILE	CB-CA-C	6.00	116.22	110.16
21	A2	57	G	C3'-C2'-C1'	-6.00	95.30	101.30
21	A2	371	U	O4'-C1'-C2'	-6.00	101.60	107.60
21	A2	567	A	C3'-C2'-C1'	6.00	107.30	101.30
65	BJ	112	VAL	CA-C-N	-6.00	113.78	120.14
65	BJ	112	VAL	C-N-CA	-6.00	113.78	120.14
67	B1	717	A	C5'-C4'-C3'	6.00	125.00	116.00
67	B1	731	C	N1-C1'-C2'	6.00	121.00	112.00
67	B1	1968	A	O4'-C1'-C2'	-6.00	101.60	107.60
67	B1	2575	U	N1-C1'-C2'	6.00	121.00	112.00
12	AN	90	GLY	O-C-N	-6.00	114.90	122.70
12	AN	130	ASN	CA-C-N	6.00	130.65	122.19
12	AN	130	ASN	C-N-CA	6.00	130.65	122.19
14	AM	123	HIS	ND1-CE1-NE2	6.00	114.40	108.40
16	AJ	105	ILE	CA-C-N	6.00	130.14	121.44
16	AJ	105	ILE	C-N-CA	6.00	130.14	121.44
67	B1	685	G	C1'-O4'-C4'	-6.00	103.90	109.90
67	B1	764	G	C4'-C3'-C2'	-6.00	96.60	102.60
67	B1	2122	G	C3'-C2'-O2'	6.00	119.70	110.70
67	B1	2262	C	C4'-C3'-C2'	-6.00	96.60	102.60
21	A2	415	C	P-O3'-C3'	-6.00	111.20	120.20
33	BC	199	ILE	CA-C-N	6.00	128.32	120.28
33	BC	199	ILE	C-N-CA	6.00	128.32	120.28
53	BD	147	ASP	N-CA-C	6.00	119.70	112.38
67	B1	374	C	C4'-C3'-C2'	-6.00	96.60	102.60
67	B1	2109	C	C3'-C2'-C1'	6.00	107.30	101.30
67	B1	2765	C	C1'-O4'-C4'	-6.00	103.90	109.90
8	AR	74	ASN	CA-C-N	6.00	126.56	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	AR	74	ASN	C-N-CA	6.00	126.56	120.38
21	A2	319	U	C1'-O4'-C4'	6.00	115.90	109.90
21	A2	1340	U	O4'-C1'-N1	6.00	117.50	108.50
43	Bk	170	THR	CB-CA-C	6.00	118.92	109.27
67	B1	222	A	P-O3'-C3'	-6.00	111.20	120.20
67	B1	279	G	N9-C1'-C2'	6.00	120.99	112.00
35	BL	4	ARG	CG-CD-NE	-6.00	98.81	112.00
67	B1	2007	C	C1'-O4'-C4'	-6.00	103.91	109.90
1	AQ	151	GLU	CA-C-N	5.99	128.91	120.28
1	AQ	151	GLU	C-N-CA	5.99	128.91	120.28
6	AC	15	MET	N-CA-C	5.99	117.48	111.07
18	AF	188	PHE	CA-CB-CG	-5.99	107.81	113.80
40	BE	12	LEU	CA-C-N	5.99	128.23	120.44
40	BE	12	LEU	C-N-CA	5.99	128.23	120.44
62	BN	163	ARG	CA-C-N	5.99	129.86	122.37
62	BN	163	ARG	C-N-CA	5.99	129.86	122.37
67	B1	156	A	C1'-C2'-O2'	5.99	117.39	108.40
67	B1	1145	G	P-O3'-C3'	5.99	129.19	120.20
68	B3	19	G	N9-C1'-C2'	5.99	120.99	112.00
68	B3	74	U	O4'-C1'-C2'	-5.99	99.81	105.80
21	A2	187	C	N1-C1'-C2'	5.99	120.99	112.00
21	A2	1197	C	P-O3'-C3'	5.99	129.19	120.20
21	A2	1442	G	O4'-C1'-C2'	5.99	113.59	107.60
27	A0	40	C	C3'-C2'-C1'	5.99	107.29	101.30
37	BU	115	ILE	O-C-N	5.99	128.13	121.90
53	BD	3	VAL	O-C-N	-5.99	116.79	123.26
67	B1	513	C	O4'-C1'-N1	-5.99	99.22	108.20
67	B1	1750	C	C5'-C4'-C3'	5.99	124.99	116.00
67	B1	1851	U	C2'-C3'-O3'	5.99	122.69	113.70
67	B1	2531	G	C3'-C2'-C1'	5.99	107.29	101.30
67	B1	2862	A	O4'-C1'-C2'	-5.99	101.61	107.60
21	A2	1486	A	O4'-C1'-C2'	-5.99	101.61	107.60
24	AA	155	LYS	O-C-N	-5.99	115.77	122.12
48	BR	42	HIS	CG-CD2-NE2	5.99	113.19	107.20
59	BM	47	ARG	NE-CZ-NH2	-5.99	113.81	119.20
20	B4	117	LYS	CA-C-N	5.99	128.22	120.56
20	B4	117	LYS	C-N-CA	5.99	128.22	120.56
67	B1	193	A	O4'-C4'-C3'	-5.99	100.11	106.10
67	B1	1324	G	O4'-C1'-N9	5.99	117.48	108.50
67	B1	1383	G	C1'-O4'-C4'	-5.99	103.91	109.90
67	B1	1715	G	O4'-C1'-N9	5.99	117.48	108.50
67	B1	1901	A	O4'-C1'-C2'	-5.99	101.61	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1221	A	C1'-C2'-O2'	5.99	117.38	108.40
31	BY	30	ARG	N-CA-C	-5.99	100.22	109.14
37	BU	112	ARG	N-CA-C	5.99	117.81	111.28
48	BR	15	LYS	CA-C-N	5.99	133.25	121.58
48	BR	15	LYS	C-N-CA	5.99	133.25	121.58
21	A2	1162	G	C4'-C3'-C2'	-5.99	96.61	102.60
25	AH	175	ARG	CA-C-N	5.99	132.11	121.75
25	AH	175	ARG	C-N-CA	5.99	132.11	121.75
33	BC	79	ARG	N-CA-C	-5.99	98.32	108.26
34	B5	42	LYS	CB-CA-C	5.99	119.48	111.82
53	BD	26	PHE	CA-CB-CG	-5.99	107.81	113.80
67	B1	216	A	C4'-C3'-O3'	-5.99	104.02	113.00
67	B1	1458	C	C3'-C2'-C1'	5.99	107.29	101.30
67	B1	1553	G	C3'-C2'-O2'	5.99	119.68	110.70
67	B1	1794	C	O4'-C1'-C2'	-5.99	101.61	107.60
67	B1	2156	A	P-O3'-C3'	5.99	129.18	120.20
67	B1	2240	G	O3'-P-O5'	-5.99	95.02	104.00
67	B1	2276	G	O4'-C1'-C2'	-5.99	101.61	107.60
67	B1	2302	C	O4'-C1'-N1	5.99	117.48	108.50
3	AI	102	LEU	N-CA-C	-5.98	94.56	107.49
21	A2	190	C	N1-C1'-C2'	5.98	120.98	112.00
56	BH	16	THR	CB-CA-C	5.98	116.21	111.00
59	BM	101	GLU	CA-C-O	5.98	126.89	120.55
62	BN	97	ASN	CA-CB-CG	5.98	118.58	112.60
67	B1	367	G	O4'-C1'-N9	5.98	117.48	108.50
67	B1	2032	G	C3'-C2'-C1'	-5.98	95.32	101.30
67	B1	2170	C	C1'-O4'-C4'	-5.98	103.92	109.90
14	AM	56	SER	CA-C-N	5.98	125.53	119.19
14	AM	56	SER	C-N-CA	5.98	125.53	119.19
21	A2	820	G	P-O5'-C5'	5.98	129.88	120.90
21	A2	1491	C	C5'-C4'-C3'	-5.98	107.03	116.00
31	BY	151	ILE	CA-C-O	-5.98	114.01	120.47
59	BM	4	TYR	CA-C-O	5.98	126.86	120.70
67	B1	1398	C	O4'-C1'-C2'	-5.98	101.62	107.60
67	B1	1614	U	O4'-C1'-N1	5.98	117.47	108.50
67	B1	2381	A	N9-C1'-C2'	5.98	120.97	112.00
67	B1	2782	A	O4'-C1'-C2'	-5.98	101.62	107.60
11	A1	9	A	O4'-C4'-C3'	-5.98	100.12	106.10
17	AO	22	ARG	CA-C-N	5.98	128.78	120.29
17	AO	22	ARG	C-N-CA	5.98	128.78	120.29
21	A2	160	C	P-O5'-C5'	5.98	129.87	120.90
67	B1	180	A	C3'-C2'-C1'	5.98	107.28	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1741	C	P-O3'-C3'	5.98	129.17	120.20
6	AC	93	LYS	CA-C-N	5.98	128.91	120.42
6	AC	93	LYS	C-N-CA	5.98	128.91	120.42
11	A1	57	C	O4'-C1'-C2'	-5.98	101.62	107.60
21	A2	771	G	C1'-O4'-C4'	-5.98	103.72	109.70
67	B1	198	C	O4'-C1'-C2'	-5.98	101.62	107.60
67	B1	412	G	C3'-C2'-C1'	5.98	107.48	101.50
67	B1	1221	U	C4'-C3'-C2'	-5.98	96.62	102.60
67	B1	1746	C	N1-C1'-C2'	5.98	120.97	112.00
21	A2	722	G	O4'-C1'-N9	5.98	117.47	108.50
30	AU	29	PRO	CA-C-N	5.98	128.78	120.29
30	AU	29	PRO	C-N-CA	5.98	128.78	120.29
30	AU	141	GLU	N-CA-C	5.98	117.80	111.28
32	BO	109	HIS	CA-C-N	5.98	126.54	120.38
32	BO	109	HIS	C-N-CA	5.98	126.54	120.38
58	BP	21	LYS	CA-C-N	5.98	128.78	120.29
58	BP	21	LYS	C-N-CA	5.98	128.78	120.29
67	B1	161	C	N1-C1'-C2'	5.98	120.97	112.00
67	B1	1374	G	O4'-C1'-C2'	5.98	113.58	107.60
67	B1	2662	G	C3'-C2'-C1'	-5.98	95.32	101.30
67	B1	2734	C	O4'-C1'-N1	5.98	117.47	108.50
67	B1	2910	G	O4'-C1'-C2'	-5.98	101.62	107.60
68	B3	66	A	O4'-C1'-N9	5.98	117.47	108.50
67	B1	1025	A	P-O3'-C3'	-5.98	111.24	120.20
67	B1	2038	C	O4'-C1'-C2'	-5.98	101.62	107.60
67	B1	2820	C	N1-C1'-C2'	5.98	120.96	112.00
21	A2	716	G	N9-C1'-C2'	5.97	120.96	112.00
21	A2	1479	C	O4'-C1'-C2'	-5.97	101.62	107.60
37	BU	67	VAL	N-CA-C	5.97	117.51	111.00
43	Bk	209	ASP	CA-C-N	5.97	128.29	120.28
43	Bk	209	ASP	C-N-CA	5.97	128.29	120.28
51	Bj	48	GLY	CA-C-O	-5.97	114.55	121.00
53	BD	75	THR	CA-C-O	-5.97	111.97	120.16
67	B1	683	C	C4'-C3'-C2'	-5.97	96.62	102.60
67	B1	1152	C	C3'-C2'-C1'	5.97	107.27	101.30
67	B1	1384	C	N1-C1'-C2'	5.97	120.96	112.00
67	B1	2150	G	C4'-C3'-C2'	-5.97	96.62	102.60
67	B1	2975	A	N9-C1'-C2'	-5.97	103.04	112.00
7	AB	58	PHE	O-C-N	-5.97	115.64	122.09
14	AM	12	GLU	N-CA-C	-5.97	99.32	108.76
21	A2	47	A	C3'-C2'-C1'	5.97	107.47	101.50
21	A2	216	G	O4'-C1'-N9	5.97	117.46	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	777	G	P-O3'-C3'	-5.97	111.24	120.20
21	A2	820	G	C1'-O4'-C4'	-5.97	103.93	109.90
33	BC	121	LYS	N-CA-C	-5.97	106.15	113.50
39	Be	29	ASN	CA-C-N	5.97	128.64	120.46
39	Be	29	ASN	C-N-CA	5.97	128.64	120.46
67	B1	204	G	C5'-C4'-O4'	5.97	118.06	109.10
23	AT	72	ILE	N-CA-C	5.97	117.12	109.30
27	A0	65	G	O4'-C1'-C2'	-5.97	101.63	107.60
35	BL	61	ARG	N-CA-C	-5.97	100.67	109.81
59	BM	91	SER	N-CA-C	-5.97	98.56	108.23
21	A2	288	G	O4'-C1'-N9	5.97	117.46	108.50
21	A2	838	C	N1-C1'-C2'	5.97	120.95	112.00
21	A2	1007	A	P-O3'-C3'	-5.97	111.25	120.20
60	BS	95	LEU	CA-C-N	5.97	128.28	120.28
60	BS	95	LEU	C-N-CA	5.97	128.28	120.28
67	B1	454	C	P-O5'-C5'	-5.97	111.94	120.90
67	B1	1646	G	C1'-O4'-C4'	5.97	115.87	109.90
33	BC	156	LYS	N-CA-C	5.97	120.03	112.87
67	B1	595	C	O4'-C1'-N1	5.97	117.45	108.50
67	B1	794	G	N9-C1'-C2'	5.97	120.95	112.00
67	B1	1171	G	C3'-C2'-O2'	5.97	119.65	110.70
4	AG	80	GLY	N-CA-C	-5.97	100.17	112.34
21	A2	33	U	P-O3'-C3'	5.97	129.15	120.20
21	A2	596	A	N9-C1'-C2'	5.97	120.95	112.00
21	A2	781	U	P-O5'-C5'	5.97	129.85	120.90
21	A2	1048	G	O4'-C1'-N9	5.97	117.45	108.50
30	AU	97	ILE	O-C-N	5.97	127.98	121.83
37	BU	96	HIS	CG-CD2-NE2	5.97	113.17	107.20
40	BE	10	GLN	N-CA-C	5.97	117.78	111.28
40	BE	39	GLU	N-CA-C	-5.97	104.71	112.23
67	B1	1490	G	O4'-C1'-C2'	-5.97	101.63	107.60
67	B1	1650	U	C3'-C2'-C1'	-5.97	95.33	101.30
67	B1	2964	A	O4'-C1'-C2'	-5.97	101.63	107.60
21	A2	311	A	C3'-C2'-C1'	-5.96	95.53	101.50
21	A2	434	A	C3'-C2'-C1'	5.96	107.27	101.30
24	AA	129	ILE	N-CA-CB	5.96	121.07	111.23
30	AU	48	GLU	CA-C-N	5.96	128.27	120.28
30	AU	48	GLU	C-N-CA	5.96	128.27	120.28
52	BB	15	PRO	CA-C-O	-5.96	110.43	118.78
53	BD	226	GLY	O-C-N	-5.96	117.99	123.42
64	Bc	63	THR	N-CA-CB	5.96	121.64	111.50
67	B1	1003	C	C3'-C2'-C1'	5.96	107.26	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1218	C	N1-C1'-C2'	5.96	120.95	112.00
67	B1	1244	C	P-O3'-C3'	5.96	129.15	120.20
67	B1	1640	G	N9-C1'-C2'	5.96	120.95	112.00
67	B1	2231	G	C3'-C2'-O2'	5.96	119.65	110.70
68	B3	21	C	O4'-C1'-N1	5.96	117.44	108.50
49	BQ	57	GLY	CA-C-N	5.96	129.30	120.95
49	BQ	57	GLY	C-N-CA	5.96	129.30	120.95
54	BF	4	ASP	O-C-N	-5.96	115.95	123.17
67	B1	181	U	O4'-C1'-C2'	-5.96	101.64	107.60
68	B3	75	G	O4'-C4'-C3'	-5.96	98.04	104.00
21	A2	352	A	P-O5'-C5'	5.96	129.84	120.90
25	AH	37	ILE	N-CA-CB	-5.96	104.17	112.52
25	AH	62	HIS	CE1-NE2-CD2	-5.96	103.04	109.00
25	AH	88	ARG	NH1-CZ-NH2	-5.96	111.55	119.30
30	AU	47	GLN	CA-C-N	5.96	129.37	120.31
30	AU	47	GLN	C-N-CA	5.96	129.37	120.31
41	Ba	89	ILE	N-CA-C	-5.96	99.16	107.80
67	B1	380	A	O4'-C4'-C3'	-5.96	98.04	104.00
67	B1	616	C	O4'-C1'-N1	5.96	117.44	108.50
67	B1	762	G	C4'-C3'-C2'	5.96	108.56	102.60
67	B1	1111	G	O4'-C1'-C2'	-5.96	101.64	107.60
67	B1	1584	G	N9-C1'-C2'	5.96	120.94	112.00
67	B1	2042	A	N9-C1'-C2'	-5.96	105.06	114.00
67	B1	2209	U	C5'-C4'-C3'	5.96	124.94	116.00
67	B1	2261	C	O4'-C1'-C2'	-5.96	101.64	107.60
7	AB	191	PRO	CA-C-N	5.96	130.53	120.64
7	AB	191	PRO	C-N-CA	5.96	130.53	120.64
17	AO	114	ALA	CA-C-N	5.96	128.27	120.28
17	AO	114	ALA	C-N-CA	5.96	128.27	120.28
21	A2	198	A	O3'-P-O5'	-5.96	95.06	104.00
21	A2	822	A	N9-C1'-C2'	5.96	120.94	112.00
30	AU	10	ASP	CA-CB-CG	-5.96	106.64	112.60
20	BG	62	ILE	N-CA-C	-5.96	104.54	110.62
54	BF	161	THR	CA-CB-OG1	5.96	118.54	109.60
67	B1	2245	C	C4'-C3'-C2'	-5.96	96.64	102.60
67	B1	2679	A	N9-C1'-C2'	5.96	120.94	112.00
1	AQ	80	ARG	CA-C-N	5.96	128.07	120.56
1	AQ	80	ARG	C-N-CA	5.96	128.07	120.56
21	A2	859	A	C1'-O4'-C4'	5.96	115.86	109.90
40	BE	165	LYS	CA-C-O	5.96	127.51	120.66
67	B1	1250	A	O4'-C4'-C3'	-5.96	98.04	104.00
67	B1	1366	U	O4'-C4'-C3'	-5.96	98.04	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2067	U	O4'-C1'-C2'	-5.96	99.84	105.80
67	B1	2651	G	P-O3'-C3'	-5.96	111.26	120.20
67	B1	2732	U	O4'-C1'-N1	5.96	117.44	108.50
67	B1	2941	A	O4'-C1'-C2'	-5.96	101.64	107.60
21	A2	1202	G	N9-C1'-C2'	5.96	120.93	112.00
36	Bf	30	LYS	CA-C-O	-5.96	114.23	120.55
37	BU	59	TYR	O-C-N	5.96	130.35	123.02
67	B1	378	G	P-O3'-C3'	5.96	129.13	120.20
67	B1	398	U	P-O3'-C3'	5.96	129.14	120.20
67	B1	405	G	O3'-P-O5'	5.96	112.93	104.00
67	B1	663	A	P-O5'-C5'	5.96	129.84	120.90
1	AQ	131	ARG	CB-CA-C	-5.96	100.73	110.85
10	AD	178	GLY	CA-C-N	5.96	129.30	120.90
10	AD	178	GLY	C-N-CA	5.96	129.30	120.90
33	BC	321	PHE	CA-CB-CG	-5.96	107.84	113.80
67	B1	1480	G	C3'-C2'-C1'	5.96	107.25	101.30
67	B1	2869	U	C3'-C2'-C1'	5.96	107.45	101.50
68	B3	102	G	P-O5'-C5'	5.96	129.83	120.90
21	A2	497	C	C3'-C2'-C1'	5.95	107.25	101.30
21	A2	792	C	C1'-O4'-C4'	-5.95	103.95	109.90
21	A2	1188	C	N1-C1'-C2'	5.95	120.93	112.00
23	AT	18	ASN	CA-C-N	5.95	130.66	120.72
23	AT	18	ASN	C-N-CA	5.95	130.66	120.72
41	Ba	7	GLU	N-CA-CB	-5.95	100.69	110.52
28	B6	43	MET	N-CA-C	5.95	117.44	111.07
64	Bc	30	ASN	CA-C-N	-5.95	112.11	121.87
64	Bc	30	ASN	C-N-CA	-5.95	112.11	121.87
67	B1	1989	G	N9-C1'-C2'	5.95	120.93	112.00
67	B1	2029	C	C3'-C2'-C1'	5.95	107.25	101.30
21	A2	1017	U	O4'-C1'-C2'	-5.95	99.85	105.80
21	A2	1076	G	C1'-O4'-C4'	-5.95	103.95	109.90
27	A0	8	U	N1-C1'-C2'	5.95	120.93	112.00
67	B1	1284	C	O4'-C1'-C2'	-5.95	101.65	107.60
67	B1	1509	C	C3'-C2'-C1'	5.95	107.25	101.30
67	B1	2979	C	O4'-C1'-C2'	-5.95	101.65	107.60
1	AQ	85	HIS	CE1-NE2-CD2	-5.95	103.05	109.00
7	AB	56	GLY	CA-C-N	5.95	128.25	120.28
7	AB	56	GLY	C-N-CA	5.95	128.25	120.28
17	AO	110	ARG	NE-CZ-NH1	-5.95	115.55	121.50
21	A2	1492	U	C1'-C2'-O2'	-5.95	99.48	108.40
33	BC	66	ILE	N-CA-CB	5.95	121.21	111.45
34	B5	54	GLU	N-CA-C	-5.95	96.97	108.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
41	Ba	12	THR	CA-C-N	-5.95	117.56	123.04
41	Ba	12	THR	C-N-CA	-5.95	117.56	123.04
41	Ba	63	ILE	N-CA-CB	-5.95	101.66	110.58
67	B1	651	C	C3'-C2'-C1'	5.95	107.25	101.30
67	B1	1611	C	O4'-C1'-C2'	-5.95	101.65	107.60
67	B1	1779	C	C1'-C2'-O2'	5.95	117.33	108.40
67	B1	1905	G	O4'-C1'-C2'	-5.95	101.65	107.60
67	B1	2327	C	C4'-C3'-C2'	-5.95	96.65	102.60
67	B1	3045	G	P-O3'-C3'	-5.95	111.28	120.20
21	A2	785	U	O4'-C1'-C2'	-5.95	101.65	107.60
40	BE	173	VAL	N-CA-C	5.95	118.53	111.09
48	BR	23	ARG	N-CA-CB	5.95	120.54	110.49
53	BD	126	LEU	CA-C-N	5.95	128.61	120.46
53	BD	126	LEU	C-N-CA	5.95	128.61	120.46
54	BF	163	TRP	CE2-CD2-CE3	5.95	124.75	118.80
67	B1	109	G	C4'-C3'-C2'	-5.95	96.65	102.60
21	A2	1208	A	C1'-O4'-C4'	5.95	115.85	109.90
36	Bf	27	VAL	O-C-N	5.95	127.64	121.87
67	B1	582	A	C1'-O4'-C4'	5.95	115.85	109.90
21	A2	119	A	O4'-C1'-C2'	-5.95	101.65	107.60
21	A2	1174	A	P-O3'-C3'	5.95	129.12	120.20
21	A2	1316	U	O4'-C1'-C2'	-5.95	101.66	107.60
49	BQ	123	LEU	CA-C-N	5.95	128.53	120.44
49	BQ	123	LEU	C-N-CA	5.95	128.53	120.44
51	Bj	15	LYS	N-CA-C	-5.95	105.33	112.58
67	B1	567	G	P-O3'-C3'	5.95	129.12	120.20
67	B1	899	A	C1'-O4'-C4'	5.95	115.65	109.70
67	B1	2781	A	C1'-C2'-O2'	5.95	117.32	108.40
4	AG	97	LYS	N-CA-C	5.94	117.76	111.28
67	B1	1484	U	N1-C1'-C2'	5.94	122.92	114.00
67	B1	2752	U	N1-C1'-C2'	5.94	120.92	112.00
15	AE	133	ILE	CA-CB-CG1	5.94	120.50	110.40
21	A2	62	G	C3'-C2'-C1'	5.94	107.24	101.30
21	A2	948	G	O4'-C1'-N9	5.94	117.41	108.50
21	A2	1185	A	C1'-O4'-C4'	-5.94	103.96	109.90
23	AT	61	LYS	CA-C-N	5.94	126.29	119.93
23	AT	61	LYS	C-N-CA	5.94	126.29	119.93
49	BQ	110	LYS	N-CA-CB	5.94	119.05	110.20
56	BH	60	VAL	CG1-CB-CG2	-5.94	97.72	110.80
20	B4	44	GLU	CA-C-N	5.94	129.34	120.31
20	B4	44	GLU	C-N-CA	5.94	129.34	120.31
21	A2	7	G	C3'-C2'-C1'	5.94	107.24	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	126	G	C1'-C2'-O2'	-5.94	99.49	108.40
21	A2	1072	C	C4'-C3'-O3'	-5.94	104.09	113.00
21	A2	1139	A	C4'-C3'-C2'	-5.94	96.66	102.60
21	A2	1407	U	O4'-C1'-C2'	5.94	111.74	105.80
25	AH	81	VAL	CA-CB-CG2	-5.94	100.30	110.40
32	BO	96	GLN	CB-CG-CD	-5.94	102.50	112.60
46	BA	196	GLU	CA-C-N	5.94	131.02	122.35
46	BA	196	GLU	C-N-CA	5.94	131.02	122.35
67	B1	1064	G	O4'-C1'-N9	5.94	117.41	108.50
21	A2	766	G	C2'-C3'-O3'	5.94	122.61	113.70
50	BV	61	LEU	N-CA-CB	5.94	118.62	110.01
52	BB	189	TRP	CA-C-O	-5.94	114.62	120.26
20	B4	64	ALA	CA-C-N	5.94	129.34	120.31
20	B4	64	ALA	C-N-CA	5.94	129.34	120.31
67	B1	130	G	C4'-C3'-C2'	-5.94	96.66	102.60
15	AE	168	VAL	N-CA-CB	5.94	119.52	111.21
21	A2	511	C	C2'-C3'-O3'	-5.94	104.80	113.70
21	A2	620	G	C3'-C2'-C1'	5.94	107.24	101.30
21	A2	683	A	O4'-C4'-C3'	-5.94	98.06	104.00
21	A2	889	G	C1'-O4'-C4'	-5.94	103.96	109.90
21	A2	1053	A	C3'-C2'-C1'	5.94	107.44	101.50
21	A2	1318	U	O4'-C1'-N1	5.94	117.41	108.50
25	AH	91	ARG	N-CA-C	-5.94	105.30	112.54
60	BS	117	ILE	CB-CA-C	5.94	121.10	110.65
67	B1	350	A	N9-C1'-C2'	-5.94	105.09	114.00
67	B1	1581	A	O4'-C1'-C2'	-5.94	101.66	107.60
67	B1	1980	U	P-O5'-C5'	-5.94	111.99	120.90
67	B1	3002	A	P-O3'-C3'	-5.94	111.29	120.20
62	BN	159	LYS	O-C-N	-5.94	117.03	123.26
20	B4	80	VAL	CA-C-N	5.94	125.64	119.05
20	B4	80	VAL	C-N-CA	5.94	125.64	119.05
67	B1	140	C	O4'-C1'-C2'	-5.94	101.66	107.60
67	B1	1250	A	O4'-C1'-C2'	-5.94	101.66	107.60
67	B1	1606	C	N1-C1'-C2'	5.94	120.90	112.00
67	B1	2410	U	N1-C1'-C2'	5.94	122.91	114.00
14	AM	45	GLY	O-C-N	5.93	127.89	122.19
21	A2	294	A	C4'-C3'-O3'	-5.93	104.10	113.00
27	A0	56	C	C3'-C2'-C1'	-5.93	95.37	101.30
30	AU	82	ASN	CA-C-N	5.93	130.88	121.44
30	AU	82	ASN	C-N-CA	5.93	130.88	121.44
32	BO	137	ILE	CA-C-O	-5.93	113.36	120.78
60	BS	17	MET	N-CA-CB	5.93	122.57	111.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	312	G	C5'-C4'-C3'	5.93	124.90	116.00
67	B1	1309	G	O4'-C4'-C3'	-5.93	98.07	104.00
21	A2	1127	A	C1'-O4'-C4'	-5.93	103.97	109.90
30	AU	70	ILE	CA-C-N	5.93	128.23	120.28
30	AU	70	ILE	C-N-CA	5.93	128.23	120.28
42	BT	11	VAL	N-CA-C	-5.93	99.87	108.89
42	BT	48	ASN	O-C-N	5.93	130.48	122.59
34	BK	54	GLU	N-CA-C	-5.93	97.00	108.45
67	B1	1191	C	N1-C1'-C2'	5.93	120.90	112.00
67	B1	1209	A	O4'-C1'-C2'	-5.93	99.87	105.80
67	B1	1449	C	N1-C1'-C2'	5.93	120.90	112.00
67	B1	2954	C	C3'-C2'-C1'	5.93	107.23	101.30
67	B1	3021	C	O4'-C1'-N1	5.93	117.40	108.50
1	AQ	129	ILE	N-CA-CB	5.93	118.61	110.54
21	A2	805	C	N1-C1'-C2'	5.93	120.90	112.00
20	BG	37	ASN	CA-CB-CG	5.93	118.53	112.60
65	BJ	120	GLY	CA-C-N	5.93	125.90	120.21
65	BJ	120	GLY	C-N-CA	5.93	125.90	120.21
67	B1	1356	A	P-O3'-C3'	-5.93	111.30	120.20
67	B1	2362	U	C1'-O4'-C4'	5.93	115.63	109.70
17	AO	29	LYS	O-C-N	5.93	130.12	122.89
18	AF	123	GLU	N-CA-CB	5.93	119.94	110.16
21	A2	1378	A	N9-C1'-C2'	-5.93	103.11	112.00
33	BC	280	THR	N-CA-C	-5.93	99.24	108.90
52	BB	179	TYR	CA-C-N	5.93	128.22	120.28
52	BB	179	TYR	C-N-CA	5.93	128.22	120.28
67	B1	1131	G	N9-C1'-C2'	5.93	120.89	112.00
67	B1	1774	A	O4'-C1'-N9	5.93	117.10	108.20
67	B1	2635	C	O4'-C1'-C2'	-5.93	101.67	107.60
68	B3	22	C	C3'-C2'-C1'	5.93	107.23	101.30
20	A3	122	MET	N-CA-C	-5.93	98.17	110.80
21	A2	1130	A	O4'-C1'-N9	5.93	117.39	108.50
25	AH	127	ILE	N-CA-CB	5.93	119.47	110.58
33	BC	4	VAL	N-CA-C	-5.93	99.68	108.45
67	B1	312	G	P-O5'-C5'	-5.93	112.01	120.90
67	B1	2907	C	O4'-C1'-C2'	-5.93	101.67	107.60
6	AC	32	GLY	N-CA-C	5.93	121.17	111.27
7	AB	86	VAL	CA-C-O	-5.93	114.79	120.95
21	A2	133	G	C5'-C4'-C3'	-5.93	107.11	116.00
67	B1	309	C	C1'-C2'-O2'	-5.93	99.51	108.40
67	B1	1548	A	N9-C1'-C2'	-5.93	103.11	112.00
67	B1	1826	G	C1'-C2'-O2'	5.93	120.69	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1859	A	O4'-C1'-N9	5.93	117.39	108.50
67	B1	2079	U	C1'-O4'-C4'	-5.93	103.77	109.70
67	B1	2823	G	C4'-C3'-O3'	-5.93	104.11	113.00
68	B3	36	U	N1-C1'-C2'	5.93	120.89	112.00
21	A2	80	A	P-O5'-C5'	5.92	129.79	120.90
29	AL	55	GLY	N-CA-C	-5.92	107.48	115.36
44	BW	43	VAL	N-CA-C	-5.92	104.73	110.42
59	BM	31	ARG	CA-C-O	5.92	126.79	120.10
67	B1	626	C	O4'-C1'-C2'	-5.92	101.67	107.60
67	B1	1036	C	O4'-C1'-C2'	-5.92	101.68	107.60
67	B1	1514	C	O4'-C1'-C2'	-5.92	101.67	107.60
67	B1	1590	C	O4'-C1'-C2'	-5.92	101.67	107.60
21	A2	807	C	C3'-C2'-C1'	5.92	107.22	101.30
31	BY	98	GLN	N-CA-C	-5.92	104.90	111.36
67	B1	513	C	N1-C1'-C2'	5.92	122.88	114.00
67	B1	529	G	O4'-C1'-N9	5.92	117.08	108.20
67	B1	1336	G	C4'-C3'-C2'	-5.92	96.68	102.60
67	B1	2924	G	C1'-O4'-C4'	5.92	115.82	109.90
8	AR	47	VAL	N-CA-C	-5.92	99.22	108.81
11	A1	2	G	O4'-C4'-C3'	-5.92	98.08	104.00
21	A2	108	G	C1'-C2'-O2'	5.92	117.28	108.40
21	A2	187	C	P-O3'-C3'	-5.92	111.32	120.20
21	A2	1185	A	C1'-C2'-O2'	-5.92	99.52	108.40
21	A2	1354	A	C3'-C2'-C1'	5.92	107.42	101.50
42	BT	72	PRO	CA-C-N	5.92	128.49	120.44
42	BT	72	PRO	C-N-CA	5.92	128.49	120.44
49	BQ	87	ALA	N-CA-C	-5.92	104.91	111.36
63	Bg	42	LYS	CB-CA-C	-5.92	98.64	110.42
67	B1	2552	C	O4'-C1'-C2'	-5.92	101.68	107.60
15	AE	15	ALA	N-CA-CB	5.92	118.28	110.29
21	A2	1029	G	N9-C1'-C2'	-5.92	103.12	112.00
36	Bf	31	THR	CA-C-N	5.92	130.57	122.34
36	Bf	31	THR	C-N-CA	5.92	130.57	122.34
50	BV	54	LYS	N-CA-CB	5.92	118.65	110.07
67	B1	1171	G	C2'-C3'-O3'	-5.92	104.82	113.70
21	A2	505	U	N1-C1'-C2'	-5.92	103.12	112.00
21	A2	557	G	C4'-C3'-C2'	-5.92	96.68	102.60
21	A2	875	G	P-O3'-C3'	5.92	129.08	120.20
48	BR	18	LYS	N-CA-C	-5.92	101.25	110.42
50	BV	15	GLU	O-C-N	-5.92	115.02	121.53
51	Bj	62	VAL	CB-CA-C	5.92	121.00	111.29
65	BJ	47	HIS	CA-C-O	5.92	128.36	121.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	AB	113	ASP	CA-CB-CG	5.92	118.52	112.60
10	AD	47	GLN	N-CA-C	5.92	117.40	111.07
21	A2	32	A	P-O3'-C3'	-5.92	111.33	120.20
21	A2	246	A	P-O5'-C5'	-5.92	112.03	120.90
53	BD	235	HIS	ND1-CE1-NE2	5.92	114.32	108.40
57	BZ	11	MET	N-CA-C	5.92	118.51	111.71
67	B1	1234	A	C5'-C4'-C3'	-5.92	107.12	116.00
67	B1	1569	A	P-O3'-C3'	-5.92	111.33	120.20
67	B1	2231	G	P-O3'-C3'	5.92	129.08	120.20
67	B1	2878	A	C1'-C2'-O2'	5.92	117.28	108.40
67	B1	2911	C	O4'-C1'-N1	5.92	117.38	108.50
1	AQ	16	ARG	NE-CZ-NH2	5.92	124.52	119.20
21	A2	1286	C	C3'-C2'-C1'	5.92	107.22	101.30
47	BI	29	VAL	N-CA-C	-5.92	99.60	108.12
57	BZ	97	ALA	CA-C-N	5.92	128.53	120.54
57	BZ	97	ALA	C-N-CA	5.92	128.53	120.54
67	B1	781	C	C1'-C2'-O2'	5.92	117.27	108.40
67	B1	2167	C	O4'-C1'-C2'	-5.92	101.69	107.60
67	B1	2359	G	O4'-C1'-N9	5.92	117.37	108.50
21	A2	52	U	O4'-C1'-N1	5.91	117.37	108.50
21	A2	103	A	C2'-C3'-O3'	5.91	118.37	109.50
21	A2	475	C	O4'-C1'-C2'	-5.91	101.69	107.60
21	A2	1037	U	C1'-O4'-C4'	-5.91	103.79	109.70
37	BU	15	LEU	O-C-N	-5.91	115.70	122.09
62	BN	79	ARG	N-CA-C	-5.91	105.98	112.72
67	B1	843	C	C3'-C2'-C1'	5.91	107.21	101.30
67	B1	927	G	C3'-C2'-C1'	5.91	107.41	101.50
67	B1	1492	C	C3'-C2'-C1'	5.91	107.21	101.30
67	B1	1505	G	P-O5'-C5'	-5.91	112.03	120.90
67	B1	2433	U	C1'-O4'-C4'	-5.91	103.79	109.70
67	B1	2839	A	O4'-C1'-N9	5.91	117.07	108.20
67	B1	567	G	C5'-C4'-C3'	5.91	124.87	116.00
21	A2	157	A	C4'-C3'-C2'	-5.91	96.69	102.60
21	A2	212	G	N9-C1'-C2'	5.91	120.87	112.00
27	A0	71	G	C5'-C4'-C3'	5.91	124.86	116.00
53	BD	186	MET	CA-C-N	5.91	129.29	120.31
53	BD	186	MET	C-N-CA	5.91	129.29	120.31
56	BH	45	ASP	N-CA-C	-5.91	99.71	108.99
60	BS	55	ILE	CA-C-N	5.91	129.29	120.31
60	BS	55	ILE	C-N-CA	5.91	129.29	120.31
67	B1	1689	G	C2'-C3'-O3'	5.91	118.36	109.50
68	B3	12	G	O5'-C5'-C4'	-5.91	102.64	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	490	C	O4'-C1'-C2'	-5.91	101.69	107.60
21	A2	1091	C	C4'-C3'-O3'	-5.91	104.14	113.00
52	BB	81	GLN	N-CA-CB	5.91	118.68	110.17
67	B1	1790	G	N9-C1'-C2'	5.91	120.86	112.00
6	AC	180	VAL	CA-C-N	5.91	131.69	123.07
6	AC	180	VAL	C-N-CA	5.91	131.69	123.07
11	A1	8	U	C3'-C2'-C1'	5.91	107.20	101.30
35	BL	71	ARG	N-CA-C	-5.91	101.54	110.28
38	Bb	69	LYS	CB-CA-C	-5.91	100.99	110.79
67	B1	1460	C	N1-C1'-C2'	5.91	120.86	112.00
67	B1	2037	A	O4'-C1'-N9	5.91	117.36	108.50
67	B1	2331	A	C3'-C2'-C1'	5.91	107.21	101.30
67	B1	2614	C	C1'-O4'-C4'	-5.91	103.99	109.90
67	B1	2810	G	C3'-C2'-C1'	-5.91	95.39	101.30
2	AK	16	ARG	NE-CZ-NH1	5.90	127.40	121.50
21	A2	859	A	O4'-C1'-N9	5.90	117.36	108.50
33	BC	270	MET	CG-SD-CE	-5.90	87.91	100.90
41	Ba	73	LYS	N-CA-CB	5.90	119.84	110.57
67	B1	2298	C	C1'-O4'-C4'	5.90	115.80	109.90
1	AQ	142	LEU	CA-C-O	-5.90	113.23	119.13
15	AE	8	ARG	NH1-CZ-NH2	5.90	126.97	119.30
16	AJ	113	ARG	N-CA-C	-5.90	102.34	109.72
67	B1	1147	G	C1'-O4'-C4'	-5.90	104.00	109.90
67	B1	2263	G	C1'-C2'-O2'	5.90	117.25	108.40
67	B1	2662	G	C1'-O4'-C4'	-5.90	104.00	109.90
21	A2	606	U	N1-C1'-C2'	5.90	122.85	114.00
27	A0	44	C	C3'-C2'-C1'	5.90	107.20	101.30
33	BC	347	LYS	N-CA-C	-5.90	105.91	113.23
17	AO	17	GLY	CA-C-O	5.90	127.78	121.53
21	A2	384	G	C3'-C2'-C1'	5.90	107.40	101.50
21	A2	641	A	P-O5'-C5'	-5.90	112.05	120.90
21	A2	1279	A	P-O5'-C5'	-5.90	112.05	120.90
6	AC	99	LEU	CA-C-N	5.90	128.18	120.28
6	AC	99	LEU	C-N-CA	5.90	128.18	120.28
21	A2	1006	C	C3'-C2'-C1'	5.90	107.20	101.30
34	B5	69	GLU	CB-CG-CD	5.90	122.62	112.60
52	BB	81	GLN	OE1-CD-NE2	5.90	128.50	122.60
67	B1	935	A	O4'-C1'-N9	5.90	117.05	108.20
67	B1	948	C	N1-C1'-C2'	5.90	120.85	112.00
67	B1	1315	U	O4'-C1'-N1	5.90	117.35	108.50
67	B1	2255	C	P-O3'-C3'	5.90	129.05	120.20
21	A2	1443	G	O4'-C1'-N9	5.90	117.34	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BL	33	GLY	N-CA-C	-5.90	105.69	112.29
36	Bf	3	ARG	CA-CB-CG	5.90	125.89	114.10
20	BG	106	LYS	N-CA-CB	5.90	120.45	110.49
21	A2	372	G	C1'-O4'-C4'	-5.89	104.00	109.90
21	A2	387	G	C1'-C2'-O2'	5.89	117.24	108.40
50	BV	10	CYS	N-CA-CB	5.89	118.98	110.20
53	BD	87	ARG	NE-CZ-NH2	-5.89	113.89	119.20
67	B1	596	C	O4'-C1'-N1	5.89	117.34	108.50
67	B1	937	A	C1'-C2'-O2'	5.89	117.24	108.40
67	B1	971	G	C3'-C2'-C1'	-5.89	95.41	101.30
67	B1	1316	U	C2'-C3'-O3'	-5.89	104.86	113.70
67	B1	1421	C	C4'-C3'-C2'	5.89	108.49	102.60
67	B1	1475	G	C5'-C4'-O4'	5.89	117.94	109.10
67	B1	1713	G	N9-C1'-C2'	5.89	120.84	112.00
67	B1	2121	C	C4'-C3'-C2'	-5.89	96.71	102.60
15	AE	190	GLY	N-CA-C	-5.89	103.92	112.17
21	A2	101	G	O4'-C1'-N9	5.89	117.34	108.50
21	A2	116	C	P-O5'-C5'	-5.89	112.06	120.90
21	A2	160	C	O4'-C1'-N1	5.89	117.34	108.50
21	A2	342	G	P-O5'-C5'	-5.89	112.06	120.90
24	AA	149	ALA	CA-C-N	5.89	128.18	120.28
24	AA	149	ALA	C-N-CA	5.89	128.18	120.28
37	BU	44	LEU	CA-C-O	-5.89	114.92	120.34
53	BD	203	LYS	N-CA-C	-5.89	100.61	108.74
67	B1	319	A	O4'-C1'-C2'	-5.89	101.71	107.60
67	B1	807	G	C4'-C3'-C2'	-5.89	96.71	102.60
67	B1	879	A	P-O5'-C5'	-5.89	112.06	120.90
67	B1	1908	C	N1-C1'-C2'	5.89	120.84	112.00
67	B1	2684	G	C3'-C2'-C1'	5.89	107.19	101.30
67	B1	2937	U	O4'-C4'-C3'	-5.89	98.11	104.00
21	A2	257	U	O4'-C1'-N1	5.89	117.34	108.50
21	A2	1141	G	C1'-O4'-C4'	-5.89	104.01	109.90
25	AH	74	SER	N-CA-C	5.89	117.63	109.15
29	AL	40	LEU	CB-CA-C	5.89	120.90	110.47
67	B1	40	G	N9-C1'-C2'	5.89	120.84	112.00
21	A2	393	A	C3'-C2'-C1'	-5.89	95.41	101.30
21	A2	489	C	C3'-C2'-C1'	5.89	107.19	101.30
21	A2	1351	U	C4'-C3'-O3'	-5.89	104.17	113.00
49	BQ	63	ALA	N-CA-C	5.89	117.50	111.14
67	B1	2019	C	N1-C1'-C2'	5.89	120.83	112.00
67	B1	2132	C	N1-C1'-C2'	5.89	120.83	112.00
12	AN	95	LYS	N-CA-C	5.89	117.70	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BC	162	ASP	O-C-N	5.89	130.42	122.59
67	B1	1227	A	O4'-C1'-N9	5.89	117.03	108.20
67	B1	1459	A	P-O5'-C5'	-5.89	112.07	120.90
21	A2	133	G	O4'-C1'-N9	5.89	117.33	108.50
21	A2	408	C	C4'-C3'-C2'	-5.89	96.71	102.60
21	A2	1195	U	O5'-C5'-C4'	-5.89	102.67	111.50
40	BE	83	ARG	N-CA-C	-5.89	100.11	109.23
67	B1	29	U	N1-C1'-C2'	5.89	120.83	112.00
67	B1	161	C	C1'-O4'-C4'	-5.89	104.01	109.90
67	B1	410	C	C5'-C4'-C3'	-5.89	106.37	115.20
67	B1	2854	A	C3'-C2'-C1'	-5.89	95.41	101.30
2	AK	123	THR	CA-C-O	5.88	127.36	120.89
14	AM	14	TRP	CB-CG-CD2	-5.88	118.56	126.80
33	BC	278	HIS	ND1-CE1-NE2	5.88	114.28	108.40
53	BD	115	MET	CA-C-O	-5.88	114.31	120.55
59	BM	174	ASN	CA-CB-CG	-5.88	106.72	112.60
67	B1	680	U	O4'-C1'-C2'	-5.88	101.72	107.60
67	B1	1456	U	O4'-C1'-N1	5.88	117.33	108.50
67	B1	2201	C	C3'-C2'-C1'	5.88	107.19	101.30
68	B3	111	G	C1'-O4'-C4'	-5.88	104.02	109.90
15	AE	74	ASP	CA-CB-CG	5.88	118.48	112.60
21	A2	1127	A	C1'-C2'-O2'	5.88	117.22	108.40
52	BB	102	ILE	CA-C-N	5.88	127.19	119.84
52	BB	102	ILE	C-N-CA	5.88	127.19	119.84
67	B1	1568	A	P-O5'-C5'	5.88	129.72	120.90
67	B1	2210	G	C3'-C2'-C1'	-5.88	95.42	101.30
7	AB	56	GLY	CA-C-O	-5.88	114.65	121.00
21	A2	808	C	O4'-C1'-N1	5.88	117.32	108.50
21	A2	1126	G	C4'-C3'-O3'	-5.88	104.18	113.00
53	BD	64	GLY	CA-C-O	-5.88	113.00	119.88
67	B1	121	G	C1'-O4'-C4'	-5.88	104.02	109.90
67	B1	2401	A	C2'-C3'-O3'	5.88	118.32	109.50
14	AM	126	THR	N-CA-C	-5.88	99.79	108.79
67	B1	1772	A	O4'-C1'-C2'	-5.88	99.92	105.80
67	B1	1946	G	O4'-C1'-N9	5.88	117.32	108.50
21	A2	1402	C	C1'-O4'-C4'	5.88	115.78	109.90
27	A0	36	U	C1'-C2'-O2'	5.88	117.22	108.40
34	BK	69	GLU	CB-CG-CD	5.88	122.59	112.60
67	B1	2637	U	C4'-C3'-O3'	-5.88	104.18	113.00
3	AI	27	ILE	CB-CA-C	5.88	119.03	110.98
10	AD	78	LYS	CA-C-N	5.88	128.43	120.44
10	AD	78	LYS	C-N-CA	5.88	128.43	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	424	U	C1'-C2'-O2'	5.88	117.21	108.40
21	A2	1420	U	O4'-C1'-C2'	-5.88	101.72	107.60
25	AH	90	HIS	CE1-NE2-CD2	-5.88	103.12	109.00
27	A0	68	G	O4'-C1'-C2'	5.88	113.48	107.60
31	BY	73	ARG	N-CA-CB	5.88	120.42	110.49
52	BB	25	ARG	N-CA-CB	5.88	119.86	111.05
67	B1	592	C	P-O5'-C5'	-5.88	112.08	120.90
67	B1	994	G	O5'-C5'-C4'	-5.88	102.89	111.70
67	B1	1102	C	O4'-C1'-C2'	-5.88	101.72	107.60
67	B1	1354	G	O4'-C1'-C2'	-5.88	99.92	105.80
67	B1	1579	G	O4'-C1'-N9	5.88	117.31	108.50
67	B1	1875	U	O4'-C1'-N1	5.88	117.31	108.50
67	B1	2936	U	N1-C1'-C2'	-5.88	103.18	112.00
21	A2	1146	G	O5'-C5'-C4'	-5.88	102.69	111.50
31	BY	29	HIS	ND1-CE1-NE2	5.88	114.28	108.40
61	Bd	46	ILE	CB-CA-C	5.88	115.83	110.13
64	Bc	41	ARG	N-CA-CB	5.88	118.63	110.17
67	B1	2079	U	O4'-C1'-C2'	-5.88	99.92	105.80
67	B1	2432	G	P-O5'-C5'	5.88	129.71	120.90
1	AQ	152	THR	N-CA-CB	5.87	119.27	110.22
6	AC	33	LEU	CA-C-O	-5.87	112.06	120.11
21	A2	825	C	P-O3'-C3'	-5.87	111.39	120.20
21	A2	1393	A	C3'-C2'-C1'	5.87	107.17	101.30
30	AU	120	VAL	CA-C-N	5.87	129.33	120.75
30	AU	120	VAL	C-N-CA	5.87	129.33	120.75
21	A2	755	U	C1'-O4'-C4'	-5.87	104.03	109.90
21	A2	865	A	C4'-C3'-O3'	-5.87	104.19	113.00
21	A2	1278	A	O4'-C1'-N9	5.87	117.31	108.50
49	BQ	10	ILE	O-C-N	5.87	128.01	121.90
49	BQ	24	ILE	N-CA-CB	5.87	119.51	111.41
60	BS	84	PRO	CA-C-N	5.87	128.50	120.46
60	BS	84	PRO	C-N-CA	5.87	128.50	120.46
67	B1	1153	U	O4'-C1'-C2'	-5.87	101.73	107.60
67	B1	1303	C	C1'-O4'-C4'	-5.87	104.03	109.90
67	B1	1844	C	O4'-C4'-C3'	-5.87	98.13	104.00
67	B1	2719	G	C3'-C2'-C1'	5.87	107.17	101.30
21	A2	132	G	C3'-C2'-O2'	5.87	119.50	110.70
40	BE	71	ARG	CA-C-N	5.87	129.69	121.24
40	BE	71	ARG	C-N-CA	5.87	129.69	121.24
43	Bk	63	ALA	N-CA-C	5.87	117.68	111.28
33	BC	221	VAL	N-CA-C	-5.87	99.77	108.45
53	BD	37	ALA	O-C-N	-5.87	116.03	122.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	BH	91	LYS	N-CA-CB	5.87	120.41	110.49
67	B1	205	A	C3'-C2'-C1'	5.87	107.17	101.30
67	B1	693	G	O4'-C4'-C3'	-5.87	98.13	104.00
67	B1	1038	U	C3'-C2'-C1'	5.87	107.17	101.30
67	B1	1802	G	C3'-C2'-C1'	5.87	107.17	101.30
68	B3	34	C	C3'-C2'-C1'	5.87	107.17	101.30
17	AO	107	MET	CA-C-N	5.87	128.46	120.54
17	AO	107	MET	C-N-CA	5.87	128.46	120.54
21	A2	1123	G	C3'-C2'-O2'	5.87	119.50	110.70
61	Bd	50	ARG	N-CA-CB	-5.87	102.93	110.03
67	B1	2309	C	N1-C1'-C2'	5.87	120.80	112.00
2	AK	65	LYS	CA-C-O	5.87	126.46	120.24
21	A2	671	C	C1'-C2'-O2'	-5.87	103.00	111.80
21	A2	739	G	O4'-C1'-C2'	5.87	113.47	107.60
21	A2	1130	A	P-O5'-C5'	-5.87	112.10	120.90
31	BY	95	GLU	CA-C-N	5.87	128.14	120.28
31	BY	95	GLU	C-N-CA	5.87	128.14	120.28
52	BB	210	HIS	CG-CD2-NE2	5.87	113.06	107.20
56	BH	5	VAL	N-CA-C	-5.87	97.14	109.34
67	B1	683	C	O4'-C1'-N1	5.87	117.30	108.50
67	B1	1615	G	C1'-O4'-C4'	5.87	115.56	109.70
7	AB	27	ASP	CA-C-N	5.86	130.51	120.72
7	AB	27	ASP	C-N-CA	5.86	130.51	120.72
15	AE	99	HIS	CE1-NE2-CD2	-5.86	103.14	109.00
21	A2	592	G	O4'-C1'-N9	5.86	117.30	108.50
21	A2	1133	C	C5'-C4'-C3'	5.86	124.80	116.00
21	A2	1177	C	C1'-O4'-C4'	-5.86	104.04	109.90
67	B1	90	A	C1'-C2'-O2'	-5.86	103.00	111.80
67	B1	654	C	C4'-C3'-C2'	-5.86	96.74	102.60
67	B1	1751	G	O4'-C4'-C3'	-5.86	98.14	104.00
11	A1	32	A	C4'-C3'-O3'	-5.86	104.21	113.00
64	Bc	37	LYS	CA-C-N	5.86	129.22	120.31
64	Bc	37	LYS	C-N-CA	5.86	129.22	120.31
67	B1	665	C	C5'-C4'-C3'	-5.86	106.41	115.20
67	B1	1603	G	P-O3'-C3'	5.86	128.99	120.20
67	B1	2884	C	C3'-C2'-C1'	5.86	107.16	101.30
11	A1	74	A	O4'-C1'-N9	5.86	117.29	108.50
21	A2	144	G	P-O3'-C3'	5.86	128.99	120.20
21	A2	225	U	O4'-C1'-C2'	-5.86	101.74	107.60
23	AT	109	THR	N-CA-C	-5.86	105.73	114.64
49	BQ	68	GLU	CA-C-N	5.86	128.06	120.44
49	BQ	68	GLU	C-N-CA	5.86	128.06	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
65	BJ	126	ALA	CA-C-N	5.86	128.13	120.28
65	BJ	126	ALA	C-N-CA	5.86	128.13	120.28
67	B1	888	U	N1-C1'-C2'	5.86	120.79	112.00
67	B1	2459	G	P-O3'-C3'	5.86	128.99	120.20
67	B1	2848	C	C1'-O4'-C4'	-5.86	104.04	109.90
15	AE	202	ILE	CB-CA-C	5.86	119.29	111.85
21	A2	368	C	P-O5'-C5'	5.86	129.69	120.90
37	BU	108	GLU	N-CA-C	-5.86	104.36	112.03
59	BM	7	ILE	CB-CA-C	-5.86	104.14	112.22
67	B1	2472	A	O4'-C1'-C2'	-5.86	101.74	107.60
10	AD	64	LYS	N-CA-C	-5.86	106.18	113.38
21	A2	149	U	C4'-C3'-O3'	-5.86	104.21	113.00
21	A2	932	C	N1-C1'-C2'	5.86	120.79	112.00
31	BY	32	ASN	CA-CB-CG	5.86	118.46	112.60
54	BF	173	TYR	CA-C-N	5.86	129.80	122.48
54	BF	173	TYR	C-N-CA	5.86	129.80	122.48
67	B1	292	U	C1'-O4'-C4'	5.86	115.56	109.70
67	B1	1996	C	C4'-C3'-O3'	-5.86	104.22	113.00
67	B1	2146	C	O4'-C1'-C2'	-5.86	101.74	107.60
67	B1	2629	U	O5'-C5'-C4'	-5.86	102.71	111.50
67	B1	2802	G	C4'-C3'-O3'	-5.86	104.21	113.00
1	AQ	111	GLN	CB-CG-CD	-5.86	102.65	112.60
5	AW	63	GLU	CB-CG-CD	-5.86	102.65	112.60
6	AC	146	PHE	N-CA-CB	5.86	120.93	110.80
15	AE	42	SER	CA-C-N	5.86	127.94	122.85
15	AE	42	SER	C-N-CA	5.86	127.94	122.85
21	A2	114	A	C4'-C3'-C2'	5.86	108.45	102.60
21	A2	234	G	O4'-C1'-N9	5.86	117.28	108.50
29	AL	36	GLY	CA-C-N	5.86	126.20	119.93
29	AL	36	GLY	C-N-CA	5.86	126.20	119.93
33	BC	192	VAL	CA-C-O	-5.86	114.86	120.95
33	BC	358	TYR	N-CA-C	-5.86	99.83	108.79
67	B1	268	C	O4'-C1'-C2'	-5.86	101.74	107.60
67	B1	361	G	C4'-C3'-C2'	-5.86	96.74	102.60
67	B1	477	C	O4'-C1'-N1	5.86	117.28	108.50
67	B1	1234	A	O4'-C1'-N9	-5.86	99.72	108.50
67	B1	2454	G	C1'-C2'-O2'	5.86	117.19	108.40
21	A2	1060	G	O4'-C1'-N9	5.85	117.28	108.50
21	A2	1222	C	O4'-C1'-C2'	-5.85	101.75	107.60
53	BD	143	ILE	CA-C-O	5.85	127.39	120.72
67	B1	2936	U	O3'-P-O5'	5.85	112.78	104.00
21	A2	1161	A	C1'-O4'-C4'	-5.85	103.85	109.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	BA	198	GLN	N-CA-C	5.85	117.66	111.28
59	BM	14	PRO	N-CA-C	-5.85	107.03	114.35
65	BJ	119	ARG	CA-C-O	-5.85	114.27	121.06
67	B1	154	U	N1-C1'-C2'	-5.85	103.22	112.00
67	B1	472	A	N9-C1'-C2'	5.85	120.78	112.00
67	B1	1000	G	C4'-C3'-O3'	-5.85	104.22	113.00
67	B1	2921	U	O3'-P-O5'	5.85	112.78	104.00
21	A2	232	G	C1'-O4'-C4'	-5.85	104.05	109.90
21	A2	1047	U	N1-C1'-C2'	5.85	120.78	112.00
67	B1	2167	C	N1-C1'-C2'	5.85	120.78	112.00
67	B1	2791	C	P-O5'-C5'	5.85	129.68	120.90
68	B3	100	A	O4'-C1'-N9	5.85	117.28	108.50
8	AR	11	PRO	CA-C-N	5.85	127.15	119.84
8	AR	11	PRO	C-N-CA	5.85	127.15	119.84
21	A2	45	U	O4'-C1'-C2'	-5.85	101.75	107.60
21	A2	262	G	O4'-C1'-N9	-5.85	99.73	108.50
21	A2	635	C	C3'-C2'-C1'	5.85	107.15	101.30
25	AH	75	GLY	N-CA-C	5.85	127.04	113.18
51	Bj	54	LYS	O-C-N	5.85	128.05	121.32
67	B1	159	C	C3'-C2'-C1'	5.85	107.35	101.50
67	B1	1810	G	P-O5'-C5'	5.85	129.67	120.90
67	B1	2677	U	O4'-C1'-C2'	-5.85	101.75	107.60
4	AG	65	GLY	CA-C-N	5.85	127.37	121.35
4	AG	65	GLY	C-N-CA	5.85	127.37	121.35
21	A2	711	U	O4'-C1'-C2'	-5.85	101.75	107.60
21	A2	1061	A	C4'-C3'-C2'	-5.85	96.75	102.60
21	A2	1248	A	O4'-C1'-N9	5.85	117.27	108.50
50	BV	42	PHE	CB-CA-C	-5.85	101.08	110.79
52	BB	37	GLN	CA-C-N	5.85	131.16	122.74
52	BB	37	GLN	C-N-CA	5.85	131.16	122.74
59	BM	29	LYS	O-C-N	5.85	128.09	122.07
60	BS	145	HIS	CE1-NE2-CD2	-5.85	103.15	109.00
65	BJ	81	VAL	N-CA-C	-5.85	99.70	108.12
67	B1	1515	G	C1'-C2'-O2'	5.85	117.17	108.40
67	B1	2894	A	O4'-C1'-N9	5.85	117.27	108.50
7	AB	115	LEU	CA-C-N	5.85	130.80	123.14
7	AB	115	LEU	C-N-CA	5.85	130.80	123.14
11	A1	15	G	P-O3'-C3'	5.85	128.97	120.20
67	B1	281	G	N9-C1'-C2'	5.85	120.77	112.00
67	B1	1276	G	O4'-C1'-N9	5.85	117.27	108.50
67	B1	1821	C	C4'-C3'-O3'	-5.85	104.23	113.00
67	B1	2546	G	C1'-C2'-O2'	-5.85	99.63	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2705	C	O4'-C1'-C2'	-5.85	101.75	107.60
13	AX	21	THR	CA-C-N	5.84	130.59	122.29
13	AX	21	THR	C-N-CA	5.84	130.59	122.29
40	BE	47	MET	CA-C-N	5.84	128.11	120.28
40	BE	47	MET	C-N-CA	5.84	128.11	120.28
67	B1	516	A	O4'-C4'-C3'	-5.84	98.16	104.00
67	B1	977	C	O4'-C1'-C2'	-5.84	101.75	107.60
67	B1	1316	U	O3'-P-O5'	5.84	112.77	104.00
67	B1	1688	C	C1'-O4'-C4'	-5.84	104.06	109.90
67	B1	1822	G	O3'-P-O5'	-5.84	95.23	104.00
67	B1	2142	U	O4'-C1'-N1	5.84	117.27	108.50
67	B1	2676	A	O5'-C5'-C4'	-5.84	102.73	111.50
21	A2	676	G	C4'-C3'-C2'	5.84	108.44	102.60
67	B1	632	G	C1'-O4'-C4'	-5.84	104.06	109.90
67	B1	1093	G	P-O5'-C5'	-5.84	112.14	120.90
67	B1	1400	U	P-O3'-C3'	-5.84	111.44	120.20
67	B1	2469	G	P-O3'-C3'	-5.84	111.44	120.20
21	A2	503	G	O4'-C1'-N9	5.84	117.26	108.50
21	A2	991	C	O4'-C1'-C2'	-5.84	101.76	107.60
35	BL	57	HIS	CA-C-N	-5.84	114.18	122.94
35	BL	57	HIS	C-N-CA	-5.84	114.18	122.94
52	BB	14	SER	CA-C-O	-5.84	112.87	121.46
59	BM	49	ARG	CA-C-N	5.84	128.11	120.28
59	BM	49	ARG	C-N-CA	5.84	128.11	120.28
60	BS	96	LEU	O-C-N	5.84	128.31	122.12
67	B1	1153	U	C2'-C3'-O3'	5.84	122.46	113.70
46	BA	110	GLU	N-CA-CB	5.84	119.33	110.45
67	B1	379	U	C3'-C2'-C1'	5.84	107.14	101.30
67	B1	861	G	P-O5'-C5'	-5.84	112.14	120.90
67	B1	1317	G	C5'-C4'-C3'	5.84	124.76	116.00
67	B1	1808	G	O4'-C1'-N9	5.84	117.26	108.50
67	B1	2038	C	P-O3'-C3'	-5.84	111.44	120.20
67	B1	2120	C	C1'-C2'-O2'	-5.84	103.04	111.80
67	B1	2750	C	C1'-O4'-C4'	-5.84	104.06	109.90
67	B1	2952	C	C4'-C3'-O3'	-5.84	104.24	113.00
68	B3	39	C	C1'-O4'-C4'	-5.84	104.06	109.90
11	A1	24	A	P-O5'-C5'	5.84	129.66	120.90
50	BV	52	TRP	CB-CA-C	-5.84	100.92	110.85
15	AE	230	ALA	N-CA-C	-5.84	101.20	109.96
21	A2	1053	A	O4'-C4'-C3'	-5.84	100.26	106.10
25	AH	78	HIS	O-C-N	5.84	130.35	122.59
66	Bl	73	LEU	CB-CA-C	-5.84	101.10	110.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1058	A	C1'-O4'-C4'	5.84	115.74	109.90
67	B1	2273	U	C1'-O4'-C4'	-5.84	104.06	109.90
67	B1	2946	C	N1-C1'-C2'	5.84	120.75	112.00
7	AB	106	VAL	N-CA-C	-5.83	99.90	109.12
48	BR	59	HIS	CB-CG-CD2	-5.83	123.61	131.20
67	B1	1082	A	P-O5'-C5'	-5.83	112.15	120.90
17	AO	67	ALA	N-CA-C	5.83	117.31	111.07
21	A2	972	C	N1-C1'-C2'	5.83	120.75	112.00
21	A2	1453	U	O5'-C5'-C4'	5.83	120.45	111.70
33	BC	151	LEU	N-CA-C	-5.83	104.92	111.28
35	BL	39	THR	O-C-N	5.83	128.08	122.07
28	B6	77	ARG	NE-CZ-NH2	-5.83	113.95	119.20
62	BN	26	ALA	CB-CA-C	-5.83	100.39	109.55
67	B1	903	C	O4'-C1'-C2'	-5.83	101.77	107.60
67	B1	2397	C	N1-C1'-C2'	5.83	120.75	112.00
67	B1	3044	U	O4'-C1'-N1	5.83	117.25	108.50
68	B3	8	C	O4'-C1'-N1	5.83	116.95	108.20
68	B3	119	C	C4'-C3'-C2'	-5.83	96.77	102.60
21	A2	180	G	O4'-C1'-C2'	-5.83	101.77	107.60
21	A2	709	G	C4'-C3'-O3'	-5.83	104.25	113.00
25	AH	63	ILE	CB-CA-C	-5.83	104.40	112.04
53	BD	93	HIS	CA-C-N	5.83	123.92	119.66
53	BD	93	HIS	C-N-CA	5.83	123.92	119.66
67	B1	61	G	P-O5'-C5'	-5.83	112.15	120.90
67	B1	344	G	P-O3'-C3'	-5.83	111.45	120.20
67	B1	1221	U	N1-C1'-C2'	-5.83	103.25	112.00
67	B1	1603	G	O3'-P-O5'	5.83	112.75	104.00
15	AE	154	GLU	CB-CA-C	-5.83	108.85	115.79
67	B1	1022	G	O4'-C1'-N9	5.83	117.25	108.50
67	B1	1443	G	C2'-C3'-O3'	5.83	118.25	109.50
67	B1	1681	G	C2'-C3'-O3'	5.83	122.44	113.70
67	B1	1996	C	N1-C1'-C2'	5.83	120.75	112.00
67	B1	2508	G	C3'-C2'-C1'	5.83	107.33	101.50
67	B1	2924	G	O3'-P-O5'	-5.83	95.25	104.00
11	A1	46	U	C3'-C2'-C1'	-5.83	95.47	101.30
21	A2	408	C	P-O3'-C3'	5.83	128.94	120.20
21	A2	1208	A	O5'-C5'-C4'	-5.83	102.76	111.50
21	A2	1380	C	C3'-C2'-C1'	5.83	107.13	101.30
43	Bk	54	VAL	O-C-N	-5.83	116.75	122.93
34	BK	16	ARG	N-CA-CB	5.83	119.37	109.87
59	BM	12	LYS	O-C-N	5.83	128.30	122.12
67	B1	142	G	C1'-O4'-C4'	5.83	115.73	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	588	U	C2'-C3'-O3'	5.83	118.24	109.50
67	B1	1627	G	C3'-C2'-C1'	-5.83	95.47	101.30
67	B1	2617	G	O4'-C1'-C2'	-5.83	101.77	107.60
67	B1	2645	C	C3'-C2'-C1'	5.83	107.13	101.30
27	A0	19	G	C5'-C4'-C3'	-5.83	106.46	115.20
36	Bf	32	ASN	OD1-CG-ND2	5.83	128.43	122.60
41	Ba	22	VAL	N-CA-C	-5.83	101.46	108.45
53	BD	215	PRO	CA-C-O	-5.83	115.15	121.27
7	AB	46	ARG	N-CA-C	-5.83	104.93	111.28
21	A2	879	U	N1-C1'-C2'	-5.83	103.26	112.00
49	BQ	88	ARG	CB-CA-C	5.83	121.85	110.67
54	BF	92	VAL	CB-CA-C	5.83	118.96	110.98
67	B1	344	G	C4'-C3'-C2'	-5.83	96.78	102.60
67	B1	882	U	C3'-C2'-C1'	5.83	107.12	101.30
67	B1	971	G	N9-C1'-C2'	5.83	120.74	112.00
67	B1	1911	G	O4'-C1'-C2'	-5.83	101.77	107.60
67	B1	2092	G	O4'-C4'-C3'	-5.83	98.17	104.00
67	B1	2892	A	P-O5'-C5'	5.83	129.64	120.90
10	AD	52	ARG	CA-C-N	5.82	128.01	120.44
10	AD	52	ARG	C-N-CA	5.82	128.01	120.44
17	AO	146	LYS	N-CA-C	-5.82	99.67	108.46
21	A2	471	G	P-O3'-C3'	5.82	128.94	120.20
21	A2	594	A	C3'-C2'-C1'	5.82	107.12	101.30
21	A2	1475	C	N1-C1'-C2'	5.82	120.73	112.00
29	AL	37	PRO	CA-C-O	-5.82	114.97	121.32
36	Bf	30	LYS	N-CA-C	-5.82	104.93	111.28
38	Bb	23	PHE	N-CA-CB	5.82	120.92	112.13
67	B1	33	U	P-O3'-C3'	-5.82	111.47	120.20
67	B1	226	C	C1'-O4'-C4'	-5.82	104.08	109.90
67	B1	1245	C	C4'-C3'-C2'	5.82	108.42	102.60
67	B1	1978	A	P-O5'-C5'	-5.82	112.16	120.90
67	B1	2952	C	C1'-O4'-C4'	-5.82	104.08	109.90
21	A2	401	U	P-O5'-C5'	5.82	129.63	120.90
24	AA	70	VAL	N-CA-CB	5.82	118.14	111.39
34	B5	16	ARG	N-CA-CB	5.82	119.36	109.87
11	A1	9	A	P-O5'-C5'	-5.82	112.17	120.90
21	A2	608	G	C4'-C3'-O3'	-5.82	104.27	113.00
21	A2	1340	U	O4'-C1'-C2'	-5.82	101.78	107.60
21	A2	1352	G	O4'-C1'-C2'	5.82	113.42	107.60
23	AT	18	ASN	N-CA-CB	5.82	119.18	110.22
45	Bi	27	ALA	N-CA-C	5.82	117.30	111.07
67	B1	789	G	C4'-C3'-O3'	-5.82	104.27	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2571	G	P-O3'-C3'	-5.82	111.47	120.20
67	B1	2623	G	P-O5'-C5'	-5.82	112.17	120.90
68	B3	12	G	C1'-O4'-C4'	5.82	115.72	109.90
21	A2	1098	G	O4'-C1'-N9	5.82	117.23	108.50
31	BY	25	MET	O-C-N	-5.82	115.11	122.27
1	AQ	20	THR	CA-C-O	5.82	125.70	118.43
21	A2	566	C	C1'-O4'-C4'	-5.82	104.08	109.90
21	A2	845	G	C3'-C2'-C1'	-5.82	95.48	101.30
25	AH	90	HIS	N-CA-C	5.82	123.19	110.80
52	BB	148	LEU	CA-C-O	-5.82	113.92	120.43
28	B6	40	LEU	N-CA-CB	-5.82	101.55	110.16
67	B1	538	G	O4'-C1'-N9	5.82	117.23	108.50
67	B1	573	G	O4'-C1'-N9	5.82	117.23	108.50
21	A2	349	A	N9-C1'-C2'	-5.82	103.28	112.00
59	BM	131	ILE	CA-C-O	5.82	126.93	120.59
67	B1	228	U	N1-C1'-C2'	5.82	120.72	112.00
67	B1	899	A	N9-C1'-C2'	-5.82	105.28	114.00
67	B1	1220	U	O4'-C1'-C2'	-5.82	101.78	107.60
67	B1	2154	G	C2'-C3'-O3'	5.82	118.22	109.50
4	AG	79	HIS	CB-CG-CD2	-5.81	123.64	131.20
40	BE	78	VAL	CA-C-O	-5.81	114.68	120.90
59	BM	113	VAL	CB-CA-C	-5.81	104.28	111.08
67	B1	1908	C	C1'-O4'-C4'	-5.81	104.09	109.90
67	B1	2285	G	O4'-C1'-N9	5.81	116.92	108.20
67	B1	2669	U	O4'-C1'-N1	5.81	117.22	108.50
68	B3	77	A	C3'-C2'-C1'	5.81	107.11	101.30
3	AI	92	ARG	CA-C-N	5.81	130.42	120.71
3	AI	92	ARG	C-N-CA	5.81	130.42	120.71
5	AW	17	LYS	CA-C-N	5.81	129.53	120.75
5	AW	17	LYS	C-N-CA	5.81	129.53	120.75
21	A2	113	U	N1-C1'-C2'	-5.81	103.28	112.00
21	A2	903	G	N9-C1'-C2'	5.81	120.72	112.00
21	A2	1106	A	N9-C1'-C2'	5.81	120.72	112.00
25	AH	13	HIS	ND1-CE1-NE2	5.81	114.21	108.40
25	AH	51	HIS	CA-CB-CG	-5.81	107.99	113.80
34	B5	44	LYS	N-CA-C	-5.81	100.46	109.24
44	BW	14	ILE	CA-C-O	-5.81	114.91	120.95
58	BP	82	ALA	CA-C-N	5.81	128.65	120.28
58	BP	82	ALA	C-N-CA	5.81	128.65	120.28
67	B1	799	C	O4'-C1'-C2'	-5.81	101.79	107.60
67	B1	890	G	N9-C1'-C2'	5.81	120.72	112.00
67	B1	2417	G	C4'-C3'-C2'	-5.81	96.79	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2665	G	C1'-O4'-C4'	5.81	115.71	109.90
33	BC	140	THR	CA-C-N	5.81	127.99	120.44
33	BC	140	THR	C-N-CA	5.81	127.99	120.44
46	BA	10	LYS	CA-C-O	-5.81	114.95	121.40
67	B1	971	G	O4'-C1'-C2'	5.81	113.41	107.60
21	A2	176	U	C5'-C4'-O4'	-5.81	101.09	109.80
56	BH	59	PRO	CA-C-N	5.81	132.43	121.97
56	BH	59	PRO	C-N-CA	5.81	132.43	121.97
67	B1	151	G	P-O3'-C3'	5.81	128.91	120.20
67	B1	1050	C	O3'-P-O5'	-5.81	95.29	104.00
67	B1	1630	U	C3'-C2'-C1'	5.81	107.11	101.30
67	B1	2122	G	N9-C1'-C2'	5.81	120.71	112.00
67	B1	2474	A	O4'-C4'-C3'	-5.81	100.29	106.10
67	B1	2869	U	N1-C1'-C2'	5.81	122.71	114.00
1	AQ	145	ASN	OD1-CG-ND2	5.81	128.41	122.60
21	A2	981	U	C3'-C2'-C1'	5.81	107.11	101.30
21	A2	1492	U	O4'-C1'-N1	5.81	117.21	108.50
44	BW	65	ARG	CA-C-O	5.81	126.68	120.70
47	BI	34	GLU	CA-CB-CG	5.81	125.72	114.10
47	BI	107	PHE	CA-CB-CG	-5.81	107.99	113.80
61	Bd	85	ARG	N-CA-CB	5.81	118.66	110.12
67	B1	865	C	C1'-O4'-C4'	-5.81	104.09	109.90
67	B1	1808	G	O4'-C1'-C2'	5.81	113.41	107.60
67	B1	1968	A	O4'-C1'-N9	5.81	117.21	108.50
67	B1	2797	C	O4'-C1'-N1	5.81	116.91	108.20
67	B1	2929	C	O4'-C1'-C2'	-5.81	101.79	107.60
67	B1	90	A	C3'-C2'-C1'	5.81	107.31	101.50
67	B1	779	A	O4'-C1'-N9	5.81	117.21	108.50
67	B1	2454	G	C4'-C3'-C2'	-5.81	96.79	102.60
21	A2	212	G	O4'-C1'-C2'	5.80	113.41	107.60
31	BY	119	LEU	CA-C-O	-5.80	115.27	121.94
37	BU	91	VAL	CB-CA-C	-5.80	102.54	110.90
60	BS	53	ASP	CB-CA-C	-5.80	100.98	110.85
67	B1	1001	C	P-O3'-C3'	5.80	128.91	120.20
67	B1	3045	G	O4'-C1'-N9	5.80	117.21	108.50
7	AB	182	ILE	N-CA-CB	5.80	121.94	111.21
21	A2	483	G	P-O3'-C3'	-5.80	111.50	120.20
21	A2	1139	A	C1'-C2'-O2'	5.80	117.11	108.40
21	A2	1491	C	O4'-C1'-N1	5.80	117.20	108.50
67	B1	142	G	P-O5'-C5'	-5.80	112.19	120.90
67	B1	599	G	C4'-C3'-O3'	-5.80	104.30	113.00
67	B1	1591	C	O3'-P-O5'	5.80	112.70	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	45	U	C1'-O4'-C4'	5.80	115.70	109.90
21	A2	222	G	N9-C1'-C2'	-5.80	103.30	112.00
21	A2	541	G	O4'-C1'-C2'	5.80	113.40	107.60
31	BY	35	VAL	CB-CA-C	-5.80	100.50	110.30
52	BB	44	VAL	CA-C-O	-5.80	114.21	120.36
67	B1	823	G	N9-C1'-C2'	5.80	120.70	112.00
67	B1	1158	G	P-O3'-C3'	-5.80	111.50	120.20
21	A2	1031	G	O4'-C1'-C2'	-5.80	101.80	107.60
21	A2	1230	G	P-O3'-C3'	-5.80	111.50	120.20
31	BY	71	ARG	NE-CZ-NH2	-5.80	113.98	119.20
42	BT	82	ARG	NE-CZ-NH1	5.80	127.30	121.50
52	BB	168	LEU	CA-C-N	5.80	128.05	120.28
52	BB	168	LEU	C-N-CA	5.80	128.05	120.28
20	B4	26	ALA	N-CA-C	5.80	117.60	111.28
67	B1	292	U	O4'-C1'-N1	5.80	116.90	108.20
67	B1	1912	A	C3'-C2'-C1'	-5.80	95.50	101.30
67	B1	2222	C	O4'-C1'-N1	5.80	117.20	108.50
15	AE	216	GLU	CA-C-O	-5.80	114.85	121.58
19	AS	29	GLU	CB-CG-CD	-5.80	102.74	112.60
21	A2	1199	A	C5'-C4'-C3'	5.80	123.90	115.20
21	A2	1414	G	O4'-C1'-C2'	-5.80	101.80	107.60
21	A2	1419	G	N9-C1'-C2'	-5.80	103.30	112.00
51	Bj	32	GLU	CA-C-N	5.80	132.14	121.70
51	Bj	32	GLU	C-N-CA	5.80	132.14	121.70
67	B1	177	G	N9-C1'-C2'	5.80	120.70	112.00
67	B1	471	U	C3'-C2'-O2'	5.80	119.40	110.70
67	B1	488	A	O4'-C1'-C2'	-5.80	101.80	107.60
67	B1	582	A	C5'-C4'-C3'	5.80	124.70	116.00
67	B1	1472	U	C1'-C2'-O2'	-5.80	103.10	111.80
68	B3	95	G	C4'-C3'-C2'	-5.80	96.80	102.60
21	A2	13	C	C1'-O4'-C4'	-5.80	104.10	109.90
31	BY	112	ASN	N-CA-CB	5.80	120.29	110.49
67	B1	1259	G	C1'-O4'-C4'	-5.80	104.10	109.90
67	B1	2511	C	O4'-C1'-C2'	-5.80	101.80	107.60
21	A2	429	A	C3'-C2'-C1'	5.79	107.09	101.30
62	BN	63	GLU	CA-C-N	5.79	127.97	120.44
62	BN	63	GLU	C-N-CA	5.79	127.97	120.44
67	B1	2297	C	O4'-C1'-C2'	-5.79	101.81	107.60
7	AB	60	ALA	N-CA-CB	5.79	119.14	110.22
11	A1	2	G	N9-C1'-C2'	5.79	120.69	112.00
30	AU	91	TYR	N-CA-C	-5.79	100.56	108.38
33	BC	117	LYS	CA-C-N	5.79	125.65	119.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BC	117	LYS	C-N-CA	5.79	125.65	119.28
67	B1	505	A	O4'-C1'-C2'	-5.79	101.81	107.60
67	B1	1793	G	O4'-C1'-N9	5.79	117.19	108.50
5	AW	27	VAL	CA-C-N	5.79	130.66	122.09
5	AW	27	VAL	C-N-CA	5.79	130.66	122.09
15	AE	192	ASN	CA-C-N	5.79	132.40	121.97
15	AE	192	ASN	C-N-CA	5.79	132.40	121.97
21	A2	613	C	C1'-O4'-C4'	-5.79	104.11	109.90
30	AU	83	ARG	N-CA-C	-5.79	105.11	114.09
40	BE	66	ARG	N-CA-C	5.79	117.59	111.28
45	Bi	53	ILE	N-CA-C	-5.79	100.00	108.11
67	B1	2409	C	C3'-C2'-C1'	5.79	107.09	101.30
67	B1	2416	G	P-O3'-C3'	-5.79	111.51	120.20
67	B1	2877	A	C1'-C2'-O2'	5.79	117.09	108.40
21	A2	1440	G	C1'-O4'-C4'	5.79	115.69	109.90
23	AT	85	ASN	OD1-CG-ND2	-5.79	116.81	122.60
60	BS	19	ARG	CA-C-O	5.79	127.94	121.40
67	B1	2410	U	C3'-C2'-C1'	5.79	107.29	101.50
6	AC	45	ILE	N-CA-CB	5.79	119.19	111.90
11	A1	28	C	O4'-C1'-C2'	-5.79	101.81	107.60
20	A3	25	ILE	O-C-N	5.79	127.79	121.83
22	AY	35	GLY	O-C-N	-5.79	116.11	122.65
33	BC	138	ASN	N-CA-CB	5.79	120.27	110.49
44	BW	34	MET	CA-C-O	5.79	126.64	120.10
45	Bi	24	ARG	N-CA-CB	5.79	118.40	110.01
67	B1	1574	A	C1'-C2'-O2'	-5.79	103.12	111.80
67	B1	1826	G	C1'-O4'-C4'	-5.79	103.91	109.70
67	B1	1903	G	C3'-C2'-C1'	5.79	107.09	101.30
67	B1	2487	G	C4'-C3'-O3'	-5.79	104.32	113.00
67	B1	2856	G	O4'-C1'-N9	5.79	117.18	108.50
21	A2	1370	U	N1-C1'-C2'	-5.79	103.32	112.00
21	A2	1449	G	C1'-O4'-C4'	-5.79	104.11	109.90
27	A0	56	C	O3'-P-O5'	-5.79	95.32	104.00
67	B1	845	U	P-O5'-C5'	5.79	129.58	120.90
67	B1	1228	G	O4'-C1'-N9	5.79	116.88	108.20
67	B1	1400	U	O4'-C4'-C3'	-5.79	98.21	104.00
7	AB	121	ARG	CA-C-O	-5.79	114.29	120.42
24	AA	94	SER	N-CA-CB	5.79	118.36	109.91
31	BY	126	PHE	CA-CB-CG	5.79	119.59	113.80
43	Bk	137	VAL	CB-CA-C	-5.79	104.33	112.14
52	BB	214	PRO	CA-C-O	5.79	127.90	121.36
67	B1	73	A	C5'-C4'-C3'	-5.79	107.32	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	245	A	O4'-C1'-N9	5.79	117.18	108.50
67	B1	794	G	C1'-O4'-C4'	-5.79	104.11	109.90
67	B1	810	A	N9-C1'-C2'	5.79	120.68	112.00
67	B1	2566	A	P-O5'-C5'	5.79	129.58	120.90
67	B1	2644	G	C3'-C2'-C1'	5.79	107.08	101.30
10	AD	64	LYS	N-CA-CB	5.78	119.15	110.53
21	A2	895	C	C3'-C2'-C1'	5.78	107.08	101.30
27	A0	19	G	C1'-O4'-C4'	5.78	115.48	109.70
49	BQ	48	GLY	CA-C-N	5.78	129.78	120.30
49	BQ	48	GLY	C-N-CA	5.78	129.78	120.30
59	BM	8	ARG	O-C-N	5.78	128.03	122.07
67	B1	43	G	C4'-C3'-O3'	-5.78	104.33	113.00
67	B1	1028	G	P-O3'-C3'	5.78	128.87	120.20
67	B1	1563	G	O4'-C1'-N9	5.78	117.18	108.50
67	B1	2260	C	P-O3'-C3'	5.78	128.88	120.20
24	AA	55	VAL	CA-C-O	5.78	126.11	120.27
31	BY	69	ARG	NE-CZ-NH1	-5.78	115.72	121.50
42	BT	56	THR	CA-CB-OG1	5.78	118.27	109.60
61	Bd	86	ALA	N-CA-C	5.78	117.66	111.36
64	Bc	25	LYS	CB-CA-C	5.78	116.80	110.15
67	B1	1381	C	O3'-P-O5'	-5.78	95.33	104.00
67	B1	1782	C	C3'-C2'-C1'	5.78	107.28	101.50
67	B1	1927	C	C4'-C3'-O3'	-5.78	104.33	113.00
6	AC	126	ARG	CD-NE-CZ	5.78	132.49	124.40
11	A1	36	A	O4'-C1'-C2'	-5.78	101.82	107.60
15	AE	37	HIS	CE1-NE2-CD2	-5.78	103.22	109.00
17	AO	132	ARG	N-CA-C	-5.78	104.35	111.40
21	A2	196	G	P-O3'-C3'	5.78	128.87	120.20
21	A2	831	A	C1'-C2'-O2'	-5.78	103.13	111.80
21	A2	1405	C	C3'-C2'-O2'	5.78	119.37	110.70
44	BW	41	PRO	CB-CA-C	-5.78	103.18	111.62
53	BD	87	ARG	NH1-CZ-NH2	5.78	126.81	119.30
67	B1	152	G	C1'-O4'-C4'	5.78	115.68	109.90
67	B1	1496	A	O5'-C5'-C4'	-5.78	102.83	111.50
67	B1	1740	U	C1'-C2'-O2'	5.78	117.07	108.40
67	B1	2601	C	O4'-C1'-C2'	-5.78	101.82	107.60
7	AB	185	ARG	CB-CG-CD	5.78	124.59	111.30
21	A2	989	C	O4'-C1'-C2'	-5.78	101.82	107.60
50	BV	6	VAL	N-CA-C	-5.78	100.16	108.48
52	BB	117	ASP	CA-CB-CG	5.78	118.38	112.60
67	B1	935	A	N9-C1'-C2'	-5.78	105.33	114.00
67	B1	1028	G	O4'-C1'-C2'	-5.78	101.82	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2197	U	N1-C1'-C2'	5.78	120.67	112.00
21	A2	864	G	C1'-O4'-C4'	5.78	115.68	109.90
37	BU	24	GLN	OE1-CD-NE2	-5.78	116.82	122.60
43	Bk	107	ARG	CD-NE-CZ	-5.78	116.31	124.40
43	Bk	136	ILE	CA-C-N	5.78	128.38	120.46
43	Bk	136	ILE	C-N-CA	5.78	128.38	120.46
65	BJ	49	THR	N-CA-C	-5.78	100.16	108.60
66	Bl	8	VAL	N-CA-CB	5.78	118.53	110.56
67	B1	751	U	O4'-C1'-C2'	-5.78	101.82	107.60
68	B3	15	G	O4'-C1'-C2'	5.78	113.38	107.60
1	AQ	125	ILE	N-CA-CB	5.78	119.24	110.58
21	A2	105	C	O4'-C4'-C3'	-5.78	100.33	106.10
21	A2	250	G	C3'-C2'-O2'	5.78	119.36	110.70
21	A2	418	G	O4'-C1'-C2'	-5.78	101.82	107.60
32	BO	145	ARG	N-CA-C	5.78	117.25	111.07
38	Bb	15	ARG	NE-CZ-NH2	-5.78	114.00	119.20
39	Be	14	THR	O-C-N	5.78	127.96	121.32
49	BQ	126	ARG	N-CA-CB	5.78	118.61	110.12
52	BB	167	ARG	CD-NE-CZ	-5.78	116.32	124.40
59	BM	118	TRP	CE2-CD2-CE3	5.78	124.58	118.80
67	B1	435	G	C4'-C3'-O3'	-5.78	104.34	113.00
67	B1	722	C	N1-C1'-C2'	5.78	120.66	112.00
67	B1	2835	A	C4'-C3'-O3'	-5.78	104.34	113.00
68	B3	29	G	P-O3'-C3'	5.78	128.86	120.20
46	BA	93	SER	CA-C-O	-5.77	112.85	119.32
67	B1	299	U	P-O3'-C3'	5.77	128.86	120.20
67	B1	923	A	N9-C1'-C2'	-5.77	105.34	114.00
68	B3	42	A	P-O3'-C3'	5.77	128.86	120.20
6	AC	75	LEU	CA-C-O	5.77	126.67	120.32
16	AJ	4	TRP	CA-C-N	5.77	132.09	121.70
16	AJ	4	TRP	C-N-CA	5.77	132.09	121.70
19	AS	28	PHE	CA-CB-CG	-5.77	108.03	113.80
21	A2	410	U	O4'-C1'-N1	5.77	117.16	108.50
21	A2	1050	G	O4'-C1'-C2'	5.77	113.37	107.60
25	AH	153	SER	CA-C-N	5.77	125.46	119.05
25	AH	153	SER	C-N-CA	5.77	125.46	119.05
27	A0	9	A	N9-C1'-C2'	-5.77	105.34	114.00
31	BY	137	GLY	O-C-N	5.77	129.08	122.33
38	Bb	37	ASP	N-CA-C	5.77	122.57	109.81
67	B1	24	G	C4'-C3'-C2'	-5.77	96.83	102.60
67	B1	354	G	O4'-C1'-N9	5.77	117.16	108.50
67	B1	467	U	P-O3'-C3'	5.77	128.86	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1054	A	O4'-C1'-C2'	5.77	113.37	107.60
67	B1	1676	G	C3'-C2'-C1'	5.77	107.07	101.30
67	B1	1839	U	C1'-O4'-C4'	5.77	115.67	109.90
67	B1	2985	U	O4'-C1'-N1	5.77	117.16	108.50
13	AX	66	GLU	CA-C-N	-5.77	117.04	123.16
13	AX	66	GLU	C-N-CA	-5.77	117.04	123.16
42	BT	43	VAL	O-C-N	5.77	127.47	121.87
67	B1	189	U	C1'-O4'-C4'	-5.77	104.13	109.90
67	B1	1582	G	C4'-C3'-C2'	-5.77	96.83	102.60
67	B1	3044	U	O4'-C1'-C2'	-5.77	101.83	107.60
21	A2	981	U	O4'-C1'-C2'	-5.77	101.83	107.60
29	AL	59	ALA	N-CA-CB	5.77	120.04	110.52
33	BC	300	ASN	CB-CG-ND2	5.77	125.06	116.40
48	BR	31	PHE	CA-CB-CG	5.77	119.57	113.80
67	B1	349	A	C1'-C2'-O2'	-5.77	99.75	108.40
67	B1	1147	G	O4'-C4'-C3'	-5.77	98.23	104.00
67	B1	1554	G	C5'-C4'-C3'	-5.77	107.34	116.00
67	B1	1928	A	C1'-O4'-C4'	-5.77	104.13	109.90
67	B1	2231	G	N9-C1'-C2'	5.77	120.66	112.00
67	B1	2464	G	O4'-C1'-N9	5.77	117.16	108.50
67	B1	2868	C	O4'-C1'-C2'	-5.77	101.83	107.60
21	A2	302	A	N9-C1'-C2'	-5.77	103.35	112.00
52	BB	232	ALA	CA-C-N	5.77	128.48	120.29
52	BB	232	ALA	C-N-CA	5.77	128.48	120.29
67	B1	33	U	O4'-C4'-C3'	-5.77	100.33	106.10
25	AH	4	PRO	CA-C-N	5.77	128.01	120.28
25	AH	4	PRO	C-N-CA	5.77	128.01	120.28
31	BY	26	LEU	CA-C-N	5.77	131.04	122.74
31	BY	26	LEU	C-N-CA	5.77	131.04	122.74
32	BO	109	HIS	CB-CG-CD2	5.77	138.70	131.20
67	B1	2128	G	P-O5'-C5'	-5.77	112.25	120.90
14	AM	124	ASP	CA-C-N	5.76	127.56	121.45
14	AM	124	ASP	C-N-CA	5.76	127.56	121.45
20	A3	9	PHE	N-CA-CB	5.76	120.50	111.56
38	Bb	75	HIS	CB-CG-CD2	-5.76	123.70	131.20
67	B1	448	A	C1'-O4'-C4'	5.76	115.67	109.90
67	B1	710	G	C3'-C2'-C1'	5.76	107.06	101.30
67	B1	1145	G	O4'-C4'-C3'	-5.76	100.33	106.10
67	B1	3037	G	C5'-C4'-C3'	-5.76	107.35	116.00
68	B3	45	C	C3'-C2'-C1'	5.76	107.06	101.30
56	BH	91	LYS	CA-C-O	5.76	128.75	120.51
65	BJ	104	ALA	CA-C-O	-5.76	114.38	121.06

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	887	U	N1-C1'-C2'	-5.76	105.36	114.00
23	AT	115	HIS	CG-CD2-NE2	5.76	112.96	107.20
33	BC	128	LEU	N-CA-C	-5.76	105.08	111.36
33	BC	345	PRO	CA-C-O	-5.76	114.75	121.95
40	BE	7	ASN	OD1-CG-ND2	5.76	128.36	122.60
67	B1	308	C	C3'-C2'-C1'	5.76	107.06	101.30
67	B1	1254	C	C3'-C2'-C1'	5.76	107.06	101.30
67	B1	2500	G	C4'-C3'-C2'	-5.76	96.84	102.60
68	B3	97	G	C3'-C2'-C1'	-5.76	95.54	101.30
11	A1	15	G	O4'-C1'-C2'	-5.76	101.84	107.60
21	A2	657	A	C3'-C2'-C1'	5.76	107.26	101.50
21	A2	1415	U	C4'-C3'-O3'	-5.76	104.36	113.00
23	AT	33	ARG	CB-CA-C	-5.76	101.84	110.88
51	Bj	84	PHE	N-CA-C	-5.76	98.32	108.23
61	Bd	4	MET	CG-SD-CE	-5.76	88.23	100.90
67	B1	238	C	C5'-C4'-C3'	-5.76	106.56	115.20
67	B1	373	G	O4'-C1'-C2'	-5.76	101.84	107.60
67	B1	1068	U	C1'-C2'-O2'	-5.76	103.16	111.80
67	B1	2705	C	C3'-C2'-C1'	5.76	107.06	101.30
68	B3	71	G	O4'-C1'-C2'	5.76	113.36	107.60
25	AH	112	GLU	O-C-N	-5.76	116.02	122.12
67	B1	1371	U	O4'-C1'-C2'	-5.76	101.84	107.60
67	B1	1583	G	C4'-C3'-O3'	-5.76	104.36	113.00
6	AC	8	ILE	CA-C-N	5.76	127.99	120.28
6	AC	8	ILE	C-N-CA	5.76	127.99	120.28
21	A2	465	C	C4'-C3'-C2'	-5.76	96.84	102.60
21	A2	471	G	C2'-C3'-O3'	5.76	118.14	109.50
21	A2	1394	G	C4'-C3'-C2'	5.76	108.36	102.60
48	BR	31	PHE	N-CA-CB	5.76	118.58	110.12
65	BJ	15	VAL	CA-C-O	-5.76	116.00	121.64
67	B1	1773	C	C2'-C3'-O3'	5.76	118.13	109.50
67	B1	2364	G	P-O3'-C3'	-5.76	111.57	120.20
67	B1	2625	C	N1-C1'-C2'	5.76	120.63	112.00
21	A2	1009	G	C1'-C2'-O2'	5.75	117.03	108.40
26	AP	27	TYR	CA-C-N	5.75	130.91	121.87
26	AP	27	TYR	C-N-CA	5.75	130.91	121.87
44	BW	60	GLU	CA-C-N	5.75	127.92	120.44
44	BW	60	GLU	C-N-CA	5.75	127.92	120.44
67	B1	930	G	N9-C1'-C2'	5.75	120.63	112.00
67	B1	1353	A	O4'-C4'-C3'	-5.75	100.34	106.10
67	B1	1559	A	O4'-C1'-N9	-5.75	99.87	108.50
67	B1	1836	A	O4'-C1'-C2'	-5.75	101.84	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	AO	77	TRP	CB-CA-C	5.75	118.11	109.13
21	A2	201	G	N9-C1'-C2'	-5.75	103.37	112.00
27	A0	48	C	C4'-C3'-O3'	5.75	118.03	109.40
38	Bb	128	PRO	CB-CA-C	-5.75	102.07	111.56
46	BA	88	GLU	CA-C-N	5.75	127.92	120.44
46	BA	88	GLU	C-N-CA	5.75	127.92	120.44
67	B1	425	U	O3'-P-O5'	-5.75	95.37	104.00
67	B1	2771	G	C3'-C2'-C1'	-5.75	95.75	101.50
19	AS	57	LEU	N-CA-CB	5.75	118.57	110.12
21	A2	1423	A	C3'-C2'-C1'	5.75	107.05	101.30
66	Bl	57	ILE	CB-CA-C	-5.75	102.30	110.12
67	B1	433	C	C4'-C3'-C2'	-5.75	96.85	102.60
67	B1	1391	C	O4'-C1'-C2'	-5.75	101.85	107.60
67	B1	2836	G	C3'-C2'-C1'	5.75	107.05	101.30
67	B1	2987	U	C5'-C4'-C3'	5.75	123.83	115.20
11	A1	51	G	C4'-C3'-C2'	-5.75	96.85	102.60
16	AJ	60	ALA	N-CA-CB	5.75	120.47	111.56
18	AF	23	GLY	N-CA-C	-5.75	105.71	113.24
26	AP	47	ALA	CA-C-N	5.75	125.43	119.05
26	AP	47	ALA	C-N-CA	5.75	125.43	119.05
33	BC	37	ARG	CA-C-N	5.75	129.00	120.95
33	BC	37	ARG	C-N-CA	5.75	129.00	120.95
48	BR	92	HIS	ND1-CE1-NE2	5.75	114.15	108.40
67	B1	1851	U	N1-C1'-C2'	5.75	120.62	112.00
21	A2	1168	C	O4'-C1'-N1	5.75	117.12	108.50
21	A2	1366	U	C1'-C2'-O2'	5.75	117.02	108.40
46	BA	165	ALA	CA-C-N	5.75	127.03	119.84
46	BA	165	ALA	C-N-CA	5.75	127.03	119.84
67	B1	302	U	C4'-C3'-O3'	5.75	118.02	109.40
67	B1	739	C	O4'-C1'-N1	5.75	117.12	108.50
67	B1	1520	G	C1'-O4'-C4'	-5.75	104.15	109.90
67	B1	3028	U	P-O3'-C3'	-5.75	111.58	120.20
17	AO	45	LEU	N-CA-CB	5.75	120.93	111.62
21	A2	170	C	P-O5'-C5'	-5.75	112.28	120.90
38	Bb	128	PRO	N-CA-CB	-5.75	97.22	103.25
67	B1	1000	G	C1'-O4'-C4'	-5.75	104.15	109.90
21	A2	385	A	O4'-C4'-C3'	-5.75	98.25	104.00
27	A0	18	G	N9-C1'-C2'	-5.75	105.38	114.00
57	BZ	75	GLY	CA-C-O	5.75	126.94	122.29
59	BM	47	ARG	NH1-CZ-NH2	5.75	126.77	119.30
24	AA	59	PHE	CA-C-N	5.74	127.91	120.44
24	AA	59	PHE	C-N-CA	5.74	127.91	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BY	82	ASP	CA-C-O	5.74	126.64	120.55
20	BG	93	GLU	CA-C-N	5.74	128.41	122.27
20	BG	93	GLU	C-N-CA	5.74	128.41	122.27
53	BD	13	VAL	N-CA-C	-5.74	97.39	109.34
67	B1	1229	U	C3'-C2'-C1'	5.74	107.04	101.30
67	B1	1499	C	C1'-C2'-O2'	5.74	117.02	108.40
67	B1	2085	C	C1'-O4'-C4'	-5.74	104.16	109.90
67	B1	2522	C	P-O5'-C5'	5.74	129.51	120.90
57	BZ	52	TYR	O-C-N	5.74	128.70	122.15
67	B1	394	A	O4'-C1'-C2'	-5.74	101.86	107.60
21	A2	1032	A	O3'-P-O5'	5.74	112.61	104.00
49	BQ	8	ARG	N-CA-C	5.74	117.54	111.28
59	BM	13	SER	CA-C-O	-5.74	115.06	119.71
67	B1	337	G	C5'-C4'-C3'	-5.74	107.39	116.00
67	B1	776	G	O4'-C4'-C3'	-5.74	98.26	104.00
67	B1	1670	A	C5'-C4'-O4'	5.74	118.41	109.80
67	B1	2138	A	C3'-C2'-C1'	5.74	107.04	101.30
68	B3	55	G	C1'-O4'-C4'	-5.74	104.16	109.90
68	B3	118	G	P-O5'-C5'	5.74	129.51	120.90
21	A2	819	G	C1'-O4'-C4'	-5.74	104.16	109.90
21	A2	1388	G	C4'-C3'-O3'	-5.74	104.39	113.00
33	BC	244	HIS	CB-CG-CD2	5.74	138.66	131.20
46	BA	51	VAL	CB-CA-C	-5.74	103.12	110.98
67	B1	1092	U	C1'-C2'-O2'	5.74	117.01	108.40
67	B1	1425	U	O4'-C1'-C2'	-5.74	101.86	107.60
67	B1	1670	A	C4'-C3'-O3'	-5.74	104.39	113.00
67	B1	2061	A	C2'-C3'-O3'	5.74	118.11	109.50
68	B3	48	A	C3'-C2'-C1'	5.74	107.04	101.30
21	A2	885	G	C4'-C3'-O3'	-5.74	104.39	113.00
25	AH	103	VAL	CA-C-N	5.74	127.79	120.56
25	AH	103	VAL	C-N-CA	5.74	127.79	120.56
30	AU	40	HIS	CA-CB-CG	5.74	119.54	113.80
67	B1	1388	U	C1'-O4'-C4'	-5.74	104.16	109.90
4	AG	4	PHE	N-CA-CB	5.74	119.81	110.17
12	AN	91	ASP	CA-C-N	5.74	131.00	120.79
12	AN	91	ASP	C-N-CA	5.74	131.00	120.79
21	A2	400	G	C1'-O4'-C4'	5.74	115.64	109.90
21	A2	428	G	C1'-O4'-C4'	-5.74	104.17	109.90
21	A2	1401	U	P-O5'-C5'	5.74	129.50	120.90
21	A2	1408	C	O4'-C1'-C2'	-5.74	100.06	105.80
21	A2	1455	A	N9-C1'-C2'	5.74	120.60	112.00
24	AA	143	GLU	N-CA-C	5.74	117.53	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
38	Bb	33	LYS	CB-CA-C	-5.74	101.88	110.88
34	BK	41	ASN	OD1-CG-ND2	-5.74	116.86	122.60
49	BQ	100	ARG	CA-C-N	5.74	127.97	120.28
49	BQ	100	ARG	C-N-CA	5.74	127.97	120.28
61	Bd	76	MET	N-CA-C	-5.74	105.17	111.82
65	BJ	103	ALA	N-CA-C	-5.74	100.35	109.07
67	B1	753	A	O4'-C1'-N9	5.74	117.10	108.50
67	B1	837	G	N9-C1'-C2'	5.74	120.60	112.00
67	B1	1098	C	P-O5'-C5'	5.74	129.50	120.90
67	B1	1218	C	P-O3'-C3'	5.74	128.80	120.20
67	B1	2760	A	C5'-C4'-O4'	5.74	117.70	109.10
21	A2	565	C	C3'-C2'-C1'	5.73	107.03	101.30
21	A2	1476	C	N1-C1'-C2'	5.73	120.60	112.00
67	B1	1253	U	C1'-O4'-C4'	5.73	115.63	109.90
8	AR	8	ARG	N-CA-CB	5.73	120.62	111.91
21	A2	617	A	C4'-C3'-C2'	-5.73	96.87	102.60
21	A2	878	U	C3'-C2'-O2'	5.73	119.30	110.70
21	A2	949	G	P-O3'-C3'	5.73	128.80	120.20
35	BL	66	PRO	CA-C-N	5.73	125.59	119.28
35	BL	66	PRO	C-N-CA	5.73	125.59	119.28
43	Bk	190	ASP	CA-CB-CG	-5.73	106.87	112.60
54	BF	135	GLN	N-CA-CB	-5.73	102.19	110.56
64	Bc	7	VAL	N-CA-CB	5.73	118.58	111.41
67	B1	157	U	O4'-C1'-C2'	-5.73	100.07	105.80
67	B1	1602	C	C4'-C3'-O3'	-5.73	104.40	113.00
67	B1	1759	A	C4'-C3'-O3'	-5.73	104.40	113.00
67	B1	1785	G	O5'-C5'-C4'	-5.73	102.90	111.50
67	B1	2579	G	O4'-C1'-N9	5.73	117.10	108.50
67	B1	2761	G	C4'-C3'-C2'	-5.73	96.87	102.60
11	A1	12	U	C3'-C2'-C1'	5.73	107.03	101.30
21	A2	252	U	C4'-C3'-C2'	-5.73	96.87	102.60
21	A2	317	A	N9-C1'-C2'	5.73	120.59	112.00
21	A2	352	A	C3'-C2'-C1'	5.73	107.03	101.30
21	A2	652	C	C5'-C4'-C3'	-5.73	107.40	116.00
21	A2	1420	U	C4'-C3'-O3'	-5.73	104.41	113.00
52	BB	3	LYS	N-CA-C	-5.73	102.28	110.59
20	BG	6	TYR	CA-CB-CG	-5.73	103.59	113.90
20	BG	114	ILE	O-C-N	5.73	127.43	121.87
61	Bd	50	ARG	CB-CA-C	5.73	117.11	108.86
67	B1	528	G	C4'-C3'-C2'	-5.73	96.87	102.60
67	B1	1033	C	C3'-C2'-C1'	5.73	107.03	101.30
67	B1	1252	G	O4'-C1'-C2'	-5.73	101.87	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1622	G	N9-C1'-C2'	-5.73	103.40	112.00
67	B1	2202	U	N1-C1'-C2'	5.73	120.60	112.00
8	AR	92	ARG	CA-C-N	5.73	125.66	119.76
8	AR	92	ARG	C-N-CA	5.73	125.66	119.76
21	A2	28	U	P-O3'-C3'	-5.73	111.61	120.20
67	B1	481	G	C1'-O4'-C4'	5.73	115.43	109.70
1	AQ	72	PRO	CA-C-N	5.73	128.23	120.44
1	AQ	72	PRO	C-N-CA	5.73	128.23	120.44
40	BE	122	ASN	O-C-N	5.73	129.24	121.74
49	BQ	81	ARG	NE-CZ-NH1	5.73	127.23	121.50
51	Bj	14	CYS	CA-C-N	5.73	130.99	122.74
51	Bj	14	CYS	C-N-CA	5.73	130.99	122.74
67	B1	38	U	O3'-P-O5'	5.73	112.59	104.00
67	B1	107	G	O4'-C1'-N9	5.73	117.09	108.50
67	B1	408	C	C5'-C4'-O4'	-5.73	101.21	109.80
67	B1	2448	A	C1'-O4'-C4'	5.73	115.63	109.90
15	AE	186	PHE	CA-CB-CG	5.73	119.53	113.80
21	A2	1299	A	C4'-C3'-C2'	-5.73	96.87	102.60
51	Bj	33	LEU	CB-CA-C	-5.73	99.22	110.10
54	BF	86	PHE	CA-CB-CG	-5.73	108.07	113.80
67	B1	735	A	C5'-C4'-O4'	5.73	118.39	109.80
67	B1	2271	G	C4'-C3'-C2'	-5.73	96.87	102.60
15	AE	51	ASP	O-C-N	-5.72	115.62	122.15
21	A2	165	U	C1'-C2'-O2'	5.72	116.99	108.40
21	A2	373	C	C1'-O4'-C4'	-5.72	104.18	109.90
23	AT	106	PHE	N-CA-CB	5.72	118.73	110.20
35	BL	57	HIS	ND1-CE1-NE2	5.72	114.12	108.40
53	BD	29	ASP	N-CA-C	-5.72	105.12	111.36
67	B1	1412	C	O5'-C5'-C4'	-5.72	102.92	111.50
21	A2	547	U	P-O3'-C3'	-5.72	111.61	120.20
21	A2	992	G	C1'-C2'-O2'	5.72	116.98	108.40
33	BC	163	VAL	N-CA-C	-5.72	100.24	108.48
35	BL	29	GLY	N-CA-C	5.72	120.74	113.24
46	BA	23	ASN	OD1-CG-ND2	5.72	128.32	122.60
67	B1	459	C	C5'-C4'-C3'	5.72	124.58	116.00
67	B1	2331	A	O4'-C1'-C2'	-5.72	101.88	107.60
21	A2	491	G	C1'-O4'-C4'	-5.72	104.18	109.90
21	A2	760	C	O5'-C5'-C4'	-5.72	102.92	111.50
21	A2	1386	C	N1-C1'-C2'	5.72	120.58	112.00
27	A0	66	C	C4'-C3'-C2'	-5.72	96.88	102.60
67	B1	735	A	C5'-C4'-C3'	-5.72	107.42	116.00
67	B1	2240	G	O4'-C1'-C2'	5.72	111.52	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	149	U	O4'-C1'-N1	5.72	117.08	108.50
21	A2	1466	G	O4'-C1'-N9	5.72	117.08	108.50
56	BH	23	PRO	CA-C-N	5.72	127.94	120.28
56	BH	23	PRO	C-N-CA	5.72	127.94	120.28
64	Bc	64	LYS	CA-C-N	5.72	132.62	121.41
64	Bc	64	LYS	C-N-CA	5.72	132.62	121.41
67	B1	354	G	C3'-C2'-C1'	-5.72	95.58	101.30
67	B1	803	A	O4'-C1'-C2'	-5.72	100.08	105.80
67	B1	1339	C	N1-C1'-C2'	5.72	120.58	112.00
67	B1	1425	U	C1'-O4'-C4'	5.72	115.62	109.90
67	B1	1909	C	O4'-C1'-C2'	-5.72	101.88	107.60
67	B1	2453	C	O4'-C1'-N1	5.72	117.08	108.50
21	A2	913	G	N9-C1'-C2'	5.72	120.58	112.00
33	BC	6	ARG	CA-C-O	-5.72	113.60	119.49
34	B5	41	ASN	OD1-CG-ND2	-5.72	116.88	122.60
67	B1	693	G	N9-C1'-C2'	-5.72	103.42	112.00
6	AC	116	ALA	CA-C-O	-5.72	114.82	120.82
21	A2	952	A	C5'-C4'-C3'	5.72	124.57	116.00
53	BD	57	VAL	CA-C-O	-5.72	114.55	121.18
54	BF	88	TYR	N-CA-C	-5.72	100.08	109.40
67	B1	116	G	C1'-O4'-C4'	-5.72	104.18	109.90
1	AQ	46	SER	CA-C-O	-5.71	114.69	121.66
2	AK	50	ILE	O-C-N	5.71	127.72	121.83
17	AO	61	LYS	CA-C-N	5.71	128.53	120.42
17	AO	61	LYS	C-N-CA	5.71	128.53	120.42
21	A2	472	C	C4'-C3'-C2'	-5.71	96.89	102.60
45	Bi	76	LYS	CA-C-N	5.71	127.94	120.28
45	Bi	76	LYS	C-N-CA	5.71	127.94	120.28
54	BF	182	ILE	CA-C-N	5.71	130.55	122.09
54	BF	182	ILE	C-N-CA	5.71	130.55	122.09
67	B1	456	G	P-O3'-C3'	-5.71	111.63	120.20
67	B1	2090	A	P-O3'-C3'	-5.71	111.63	120.20
67	B1	2369	G	O4'-C1'-N9	5.71	117.07	108.50
67	B1	2826	U	C1'-C2'-O2'	-5.71	103.23	111.80
68	B3	57	C	C1'-O4'-C4'	-5.71	104.19	109.90
21	A2	284	A	P-O3'-C3'	-5.71	111.63	120.20
21	A2	351	C	C4'-C3'-C2'	-5.71	96.89	102.60
21	A2	830	A	N9-C1'-C2'	5.71	122.57	114.00
40	BE	110	HIS	N-CA-C	-5.71	105.04	113.61
59	BM	162	LEU	N-CA-CB	5.71	120.14	110.49
67	B1	466	C	C3'-C2'-C1'	5.71	107.01	101.30
67	B1	533	G	O4'-C1'-N9	5.71	117.07	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	53	G	O4'-C1'-C2'	-5.71	101.89	107.60
21	A2	56	A	O3'-P-O5'	5.71	112.57	104.00
21	A2	978	G	C3'-C2'-C1'	5.71	107.01	101.30
38	Bb	29	TRP	CA-C-N	5.71	128.40	120.29
38	Bb	29	TRP	C-N-CA	5.71	128.40	120.29
58	BP	87	GLU	N-CA-C	-5.71	105.13	111.36
67	B1	153	U	O4'-C1'-N1	5.71	117.07	108.50
67	B1	207	A	N9-C1'-C2'	5.71	120.57	112.00
67	B1	2701	U	O4'-C1'-N1	5.71	117.07	108.50
67	B1	2834	C	C1'-C2'-O2'	5.71	116.97	108.40
21	A2	687	G	C3'-C2'-C1'	5.71	107.21	101.50
52	BB	217	THR	CA-C-O	-5.71	114.66	121.11
21	A2	692	G	O4'-C1'-C2'	5.71	113.31	107.60
21	A2	748	A	C3'-C2'-C1'	-5.71	95.59	101.30
25	AH	139	VAL	N-CA-C	-5.71	99.42	107.75
52	BB	12	LYS	CA-C-N	5.71	132.71	121.06
52	BB	12	LYS	C-N-CA	5.71	132.71	121.06
53	BD	64	GLY	O-C-N	5.71	129.02	122.34
67	B1	1789	A	C3'-C2'-C1'	5.71	107.01	101.30
67	B1	2145	G	C1'-O4'-C4'	5.71	115.61	109.90
67	B1	2156	A	C4'-C3'-C2'	5.71	108.31	102.60
67	B1	2275	G	O4'-C1'-C2'	-5.71	101.89	107.60
4	AG	98	GLU	N-CA-C	5.71	118.11	110.35
21	A2	111	G	C4'-C3'-C2'	-5.71	96.89	102.60
31	BY	31	VAL	CA-CB-CG1	5.71	120.10	110.40
46	BA	8	ILE	CA-CB-CG1	5.71	120.10	110.40
28	B6	10	GLU	N-CA-CB	5.71	119.73	110.77
58	BP	105	GLU	N-CA-CB	5.71	118.94	110.49
67	B1	89	C	C3'-C2'-C1'	5.71	107.01	101.30
67	B1	868	U	O4'-C1'-C2'	-5.71	101.89	107.60
67	B1	1630	U	C1'-O4'-C4'	5.71	115.61	109.90
67	B1	2812	U	C1'-O4'-C4'	-5.71	104.19	109.90
67	B1	2851	A	P-O3'-C3'	5.71	128.76	120.20
21	A2	270	A	N9-C1'-C2'	-5.71	105.44	114.00
31	BY	12	ARG	CA-C-N	5.71	128.14	120.50
31	BY	12	ARG	C-N-CA	5.71	128.14	120.50
67	B1	299	U	C4'-C3'-O3'	5.71	117.96	109.40
67	B1	1841	G	C1'-O4'-C4'	-5.71	104.19	109.90
67	B1	2266	C	C1'-O4'-C4'	5.71	115.61	109.90
67	B1	2773	A	C3'-C2'-C1'	5.71	107.00	101.30
67	B1	3013	U	C3'-C2'-C1'	5.71	107.20	101.50
21	A2	542	G	O4'-C1'-C2'	5.70	113.30	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	686	C	C4'-C3'-O3'	-5.70	104.44	113.00
21	A2	1100	G	O4'-C1'-N9	-5.70	99.94	108.50
30	AU	82	ASN	O-C-N	-5.70	115.80	122.81
49	BQ	89	MET	CA-C-N	5.70	126.11	120.98
49	BQ	89	MET	C-N-CA	5.70	126.11	120.98
67	B1	703	G	O4'-C4'-C3'	-5.70	98.30	104.00
67	B1	1087	G	P-O3'-C3'	5.70	128.75	120.20
67	B1	1616	A	N9-C1'-C2'	-5.70	103.44	112.00
67	B1	2450	A	C4'-C3'-C2'	5.70	108.30	102.60
67	B1	2612	A	P-O3'-C3'	5.70	128.76	120.20
42	BT	33	ARG	N-CA-C	-5.70	104.55	112.30
46	BA	42	PRO	CA-C-N	5.70	128.49	120.28
46	BA	42	PRO	C-N-CA	5.70	128.49	120.28
67	B1	430	A	O4'-C4'-C3'	5.70	109.70	104.00
67	B1	701	G	O4'-C4'-C3'	-5.70	98.30	104.00
67	B1	2231	G	C5'-C4'-C3'	-5.70	107.45	116.00
2	AK	125	GLY	O-C-N	-5.70	116.07	121.77
21	A2	495	G	O4'-C1'-N9	5.70	117.05	108.50
21	A2	1117	A	C3'-C2'-C1'	5.70	107.20	101.50
21	A2	1394	G	O4'-C1'-C2'	-5.70	101.90	107.60
22	AY	32	ALA	N-CA-CB	5.70	118.79	109.95
29	AL	7	LYS	N-CA-C	-5.70	99.61	108.90
30	AU	8	PRO	CA-C-N	5.70	127.46	120.22
30	AU	8	PRO	C-N-CA	5.70	127.46	120.22
67	B1	454	C	O5'-C5'-C4'	-5.70	102.95	111.50
67	B1	516	A	N9-C1'-C2'	5.70	120.55	112.00
67	B1	1236	C	C5'-C4'-C3'	5.70	124.55	116.00
67	B1	1548	A	O4'-C1'-C2'	-5.70	101.90	107.60
68	B3	55	G	O4'-C1'-C2'	5.70	113.30	107.60
1	AQ	120	ARG	CA-C-N	5.70	127.26	120.14
1	AQ	120	ARG	C-N-CA	5.70	127.26	120.14
7	AB	77	GLN	O-C-N	5.70	128.16	122.12
11	A1	61	U	O4'-C1'-C2'	-5.70	101.90	107.60
21	A2	1261	U	O4'-C1'-C2'	5.70	111.50	105.80
67	B1	811	C	N1-C1'-C2'	5.70	120.55	112.00
67	B1	1040	C	C4'-C3'-C2'	-5.70	96.90	102.60
67	B1	2021	G	O4'-C1'-C2'	5.70	113.30	107.60
67	B1	2191	U	C1'-O4'-C4'	-5.70	104.20	109.90
31	BY	134	PHE	O-C-N	5.70	128.16	122.12
45	Bi	68	TYR	CA-CB-CG	-5.70	103.64	113.90
67	B1	2587	G	O4'-C1'-N9	-5.70	99.95	108.50
21	A2	1345	G	P-O3'-C3'	-5.70	111.66	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	AA	21	ILE	O-C-N	5.70	129.13	122.81
25	AH	73	ARG	CA-CB-CG	5.70	125.49	114.10
25	AH	98	VAL	N-CA-C	5.70	115.89	110.42
56	BH	118	THR	N-CA-C	-5.70	101.00	109.94
67	B1	1577	C	C1'-C2'-O2'	-5.70	103.26	111.80
67	B1	2440	C	O5'-C5'-C4'	-5.70	102.96	111.50
67	B1	2877	A	O4'-C1'-C2'	5.70	113.30	107.60
67	B1	2929	C	P-O3'-C3'	5.70	128.74	120.20
7	AB	32	ILE	CA-C-N	5.69	130.10	120.88
7	AB	32	ILE	C-N-CA	5.69	130.10	120.88
21	A2	566	C	P-O3'-C3'	5.69	128.74	120.20
21	A2	605	C	C1'-O4'-C4'	-5.69	104.21	109.90
36	Bf	51	GLU	CB-CA-C	-5.69	99.28	110.10
42	BT	58	ILE	CB-CA-C	5.69	117.85	110.96
21	A2	171	U	O4'-C1'-N1	5.69	117.04	108.50
21	A2	237	C	N1-C1'-C2'	5.69	120.54	112.00
21	A2	440	C	C5'-C4'-O4'	5.69	118.34	109.80
21	A2	1057	A	C1'-O4'-C4'	5.69	115.59	109.90
31	BY	33	HIS	CE1-NE2-CD2	-5.69	103.31	109.00
67	B1	925	U	O4'-C1'-N1	5.69	117.04	108.50
67	B1	2416	G	N9-C1'-C2'	-5.69	103.46	112.00
1	AQ	156	LEU	CA-C-N	5.69	127.73	120.56
1	AQ	156	LEU	C-N-CA	5.69	127.73	120.56
3	AI	48	GLY	CA-C-N	5.69	129.34	120.75
3	AI	48	GLY	C-N-CA	5.69	129.34	120.75
21	A2	13	C	P-O3'-C3'	-5.69	111.67	120.20
21	A2	510	A	C1'-C2'-O2'	-5.69	99.86	108.40
21	A2	577	C	P-O3'-C3'	-5.69	111.67	120.20
53	BD	229	HIS	CA-CB-CG	-5.69	108.11	113.80
54	BF	181	PRO	CA-C-N	5.69	131.94	121.70
54	BF	181	PRO	C-N-CA	5.69	131.94	121.70
67	B1	642	G	O4'-C1'-N9	5.69	117.04	108.50
67	B1	1541	U	C1'-C2'-O2'	5.69	120.33	111.80
67	B1	2850	G	N9-C1'-C2'	5.69	120.54	112.00
21	A2	448	A	P-O3'-C3'	5.69	128.73	120.20
67	B1	326	C	O4'-C1'-N1	5.69	117.03	108.50
21	A2	330	U	O4'-C1'-C2'	-5.69	101.91	107.60
21	A2	727	G	O4'-C1'-N9	5.69	117.03	108.50
28	AV	37	LYS	CA-C-N	5.69	126.26	120.00
28	AV	37	LYS	C-N-CA	5.69	126.26	120.00
34	B5	33	VAL	CA-C-O	-5.69	115.70	121.67
49	BQ	12	ALA	CA-C-N	5.69	128.37	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
49	BQ	12	ALA	C-N-CA	5.69	128.37	120.29
61	Bd	44	ASN	CA-CB-CG	-5.69	106.91	112.60
66	Bl	8	VAL	CB-CA-C	-5.69	103.42	111.21
67	B1	1426	G	O4'-C1'-C2'	-5.69	101.91	107.60
67	B1	1503	C	P-O5'-C5'	-5.69	112.37	120.90
67	B1	2466	C	C1'-C2'-O2'	5.69	116.93	108.40
24	AA	37	ALA	N-CA-C	-5.69	100.30	108.60
67	B1	1934	C	O4'-C1'-C2'	-5.69	101.91	107.60
67	B1	1957	U	O4'-C1'-N1	5.69	116.73	108.20
27	A0	33	U	O5'-C5'-C4'	-5.68	102.97	111.50
67	B1	1593	C	O3'-P-O5'	-5.68	95.47	104.00
21	A2	234	G	P-O3'-C3'	-5.68	111.68	120.20
21	A2	308	G	O4'-C1'-C2'	-5.68	101.92	107.60
31	BY	22	THR	CB-CA-C	-5.68	101.36	110.79
35	BL	2	ILE	N-CA-C	-5.68	102.20	109.30
54	BF	153	ASN	CA-CB-CG	5.68	118.28	112.60
67	B1	2493	A	O4'-C1'-C2'	5.68	113.28	107.60
67	B1	2548	A	P-O3'-C3'	5.68	128.72	120.20
68	B3	34	C	O4'-C1'-N1	5.68	117.03	108.50
68	B3	48	A	O4'-C1'-C2'	-5.68	101.92	107.60
12	AN	136	GLU	CA-CB-CG	5.68	125.46	114.10
21	A2	936	A	C1'-O4'-C4'	-5.68	104.22	109.90
60	BS	11	ASN	CA-C-N	5.68	132.39	121.54
60	BS	11	ASN	C-N-CA	5.68	132.39	121.54
67	B1	2766	C	N1-C1'-C2'	5.68	120.52	112.00
21	A2	440	C	C1'-O4'-C4'	-5.68	104.22	109.90
21	A2	523	C	C3'-C2'-C1'	5.68	106.98	101.30
21	A2	1243	C	N1-C1'-C2'	5.68	120.52	112.00
29	AL	52	SER	CA-C-N	5.68	126.17	120.04
29	AL	52	SER	C-N-CA	5.68	126.17	120.04
67	B1	2174	G	C1'-O4'-C4'	5.68	115.38	109.70
67	B1	2660	G	C1'-O4'-C4'	-5.68	104.22	109.90
67	B1	2836	G	C1'-C2'-O2'	5.68	116.92	108.40
67	B1	837	G	C4'-C3'-C2'	-5.68	96.92	102.60
67	B1	2321	A	C1'-C2'-O2'	5.68	120.32	111.80
67	B1	2907	C	O4'-C4'-C3'	-5.68	98.32	104.00
15	AE	100	TYR	N-CA-CB	5.68	121.43	111.55
21	A2	78	G	C3'-C2'-C1'	-5.68	95.62	101.30
31	BY	82	ASP	CA-C-N	5.68	127.82	120.44
31	BY	82	ASP	C-N-CA	5.68	127.82	120.44
59	BM	174	ASN	N-CA-CB	5.68	120.19	111.22
61	Bd	71	LEU	CA-C-N	5.68	129.31	120.68

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	Bd	71	LEU	C-N-CA	5.68	129.31	120.68
67	B1	379	U	O4'-C1'-N1	5.68	117.01	108.50
67	B1	653	U	P-O3'-C3'	5.68	128.71	120.20
67	B1	1266	A	P-O5'-C5'	5.68	129.41	120.90
67	B1	2866	A	N9-C1'-C2'	5.68	120.52	112.00
7	AB	162	LYS	CA-CB-CG	5.67	125.45	114.10
16	AJ	45	ILE	N-CA-C	-5.67	99.47	107.75
32	BO	167	GLN	CA-C-N	5.67	131.10	122.65
32	BO	167	GLN	C-N-CA	5.67	131.10	122.65
39	Be	45	ARG	CA-C-N	5.67	129.85	120.94
39	Be	45	ARG	C-N-CA	5.67	129.85	120.94
65	BJ	123	ALA	CA-C-N	5.67	128.45	120.28
65	BJ	123	ALA	C-N-CA	5.67	128.45	120.28
67	B1	333	A	C1'-O4'-C4'	5.67	115.38	109.70
67	B1	1134	A	C1'-O4'-C4'	-5.67	104.23	109.90
67	B1	1176	C	O4'-C1'-N1	5.67	117.01	108.50
67	B1	1646	G	P-O3'-C3'	5.67	128.71	120.20
67	B1	1806	C	O5'-C5'-C4'	-5.67	102.99	111.50
67	B1	2108	U	C3'-C2'-O2'	5.67	119.21	110.70
49	BQ	22	ILE	O-C-N	5.67	129.41	122.72
52	BB	54	ARG	CA-C-N	5.67	130.19	122.19
52	BB	54	ARG	C-N-CA	5.67	130.19	122.19
67	B1	1066	C	C4'-C3'-O3'	-5.67	104.49	113.00
6	AC	62	ILE	CA-C-N	5.67	127.88	120.28
6	AC	62	ILE	C-N-CA	5.67	127.88	120.28
21	A2	551	U	C4'-C3'-O3'	-5.67	104.49	113.00
21	A2	1493	C	C4'-C3'-O3'	-5.67	104.49	113.00
29	AL	6	ILE	N-CA-C	-5.67	99.58	107.80
32	BO	44	HIS	CE1-NE2-CD2	-5.67	103.33	109.00
53	BD	65	HIS	CE1-NE2-CD2	-5.67	103.33	109.00
20	B4	67	PRO	CB-CA-C	5.67	117.84	110.92
67	B1	834	G	N9-C1'-C2'	-5.67	103.49	112.00
67	B1	989	G	C5'-C4'-C3'	5.67	124.51	116.00
67	B1	1170	G	C1'-O4'-C4'	5.67	115.57	109.90
67	B1	1487	U	C1'-C2'-O2'	-5.67	103.29	111.80
67	B1	2230	G	C4'-C3'-C2'	-5.67	96.93	102.60
53	BD	19	PRO	N-CA-C	5.67	120.13	111.34
67	B1	1035	G	C1'-O4'-C4'	-5.67	104.23	109.90
1	AQ	29	THR	N-CA-C	-5.67	102.13	110.52
7	AB	54	VAL	N-CA-CB	5.67	118.25	110.54
17	AO	71	ALA	CB-CA-C	-5.67	101.98	110.88
25	AH	195	ASP	CA-CB-CG	5.67	118.27	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	AL	48	THR	N-CA-C	-5.67	99.94	109.07
28	B6	73	ASP	CA-C-O	5.67	126.54	120.70
59	BM	128	PHE	N-CA-C	-5.67	100.44	109.23
67	B1	325	G	P-O3'-C3'	-5.67	111.70	120.20
67	B1	1219	C	O4'-C1'-C2'	-5.67	101.93	107.60
67	B1	2401	A	O4'-C1'-N9	5.67	116.70	108.20
20	A3	54	ALA	O-C-N	5.67	129.36	122.96
21	A2	158	U	O4'-C1'-C2'	-5.67	100.13	105.80
27	A0	9	A	C1'-C2'-O2'	5.67	120.30	111.80
39	Be	47	ARG	N-CA-C	-5.67	101.46	109.96
67	B1	807	G	C3'-C2'-O2'	5.67	119.20	110.70
67	B1	2442	A	C1'-C2'-O2'	5.67	116.90	108.40
67	B1	2777	G	C1'-O4'-C4'	-5.67	104.23	109.90
6	AC	141	ALA	N-CA-C	-5.67	98.51	108.20
10	AD	71	GLU	CA-C-N	5.67	127.87	120.28
10	AD	71	GLU	C-N-CA	5.67	127.87	120.28
21	A2	743	U	C5'-C4'-O4'	5.67	118.30	109.80
33	BC	294	LYS	CA-C-N	5.67	132.36	121.54
33	BC	294	LYS	C-N-CA	5.67	132.36	121.54
1	AQ	121	GLY	O-C-N	5.66	128.24	122.24
8	AR	28	LYS	CA-C-O	-5.66	114.15	120.66
21	A2	347	G	N9-C1'-C2'	5.66	122.49	114.00
21	A2	695	G	O4'-C1'-N9	5.66	116.99	108.50
47	BI	107	PHE	CB-CA-C	-5.66	100.46	109.80
52	BB	67	ILE	N-CA-C	-5.66	100.32	108.48
53	BD	56	ARG	NH1-CZ-NH2	-5.66	111.94	119.30
53	BD	106	ASN	CA-CB-CG	-5.66	106.94	112.60
53	BD	146	ASP	O-C-N	-5.66	115.03	122.39
59	BM	39	ILE	CB-CA-C	-5.66	102.18	110.62
67	B1	529	G	P-O3'-C3'	5.66	128.69	120.20
67	B1	596	C	C4'-C3'-O3'	-5.66	104.50	113.00
67	B1	1769	G	N9-C1'-C2'	5.66	120.50	112.00
67	B1	2444	G	C4'-C3'-C2'	-5.66	96.94	102.60
68	B3	98	G	O4'-C1'-N9	5.66	117.00	108.50
10	AD	127	HIS	CG-CD2-NE2	5.66	112.86	107.20
21	A2	1056	G	O4'-C1'-N9	5.66	116.99	108.50
21	A2	1327	C	N1-C1'-C2'	5.66	120.49	112.00
61	Bd	25	HIS	CB-CG-CD2	-5.66	123.84	131.20
67	B1	524	C	P-O3'-C3'	-5.66	111.71	120.20
67	B1	824	C	C4'-C3'-C2'	-5.66	96.94	102.60
6	AC	91	ASN	CA-CB-CG	5.66	118.26	112.60
11	A1	27	A	C1'-O4'-C4'	-5.66	104.24	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
12	AN	79	LYS	CA-C-N	5.66	127.80	120.44
12	AN	79	LYS	C-N-CA	5.66	127.80	120.44
21	A2	367	G	O4'-C1'-C2'	-5.66	101.94	107.60
22	AY	48	TRP	N-CA-C	-5.66	100.56	109.50
40	BE	122	ASN	CA-C-N	5.66	132.60	122.13
40	BE	122	ASN	C-N-CA	5.66	132.60	122.13
40	BE	149	ARG	N-CA-C	5.66	119.00	111.75
49	BQ	121	ARG	NH1-CZ-NH2	5.66	126.66	119.30
60	BS	129	TYR	N-CA-CB	5.66	120.68	110.72
63	Bg	36	TYR	CB-CA-C	-5.66	99.15	110.42
67	B1	407	A	C4'-C3'-C2'	-5.66	96.94	102.60
67	B1	474	G	C3'-C2'-C1'	5.66	107.16	101.50
67	B1	1256	G	O4'-C1'-C2'	5.66	113.26	107.60
67	B1	2304	C	C5'-C4'-C3'	5.66	124.49	116.00
67	B1	2319	C	C1'-O4'-C4'	-5.66	104.24	109.90
6	AC	71	LYS	N-CA-CB	5.66	118.21	110.01
16	AJ	83	ASN	CA-CB-CG	5.66	118.26	112.60
21	A2	1173	A	C3'-C2'-O2'	-5.66	106.11	114.60
21	A2	1395	G	P-O5'-C5'	5.66	129.39	120.90
32	BO	168	PHE	CA-CB-CG	-5.66	108.14	113.80
33	BC	304	GLU	CB-CA-C	5.66	121.68	110.42
49	BQ	38	ARG	CB-CA-C	-5.66	99.81	110.67
53	BD	109	GLU	CA-C-N	5.66	128.32	120.29
53	BD	109	GLU	C-N-CA	5.66	128.32	120.29
53	BD	234	THR	N-CA-CB	5.66	120.68	111.74
56	BH	128	GLY	CA-C-N	5.66	128.91	120.31
56	BH	128	GLY	C-N-CA	5.66	128.91	120.31
67	B1	324	C	N1-C1'-C2'	-5.66	103.51	112.00
67	B1	559	G	C1'-O4'-C4'	-5.66	104.24	109.90
67	B1	629	G	C1'-O4'-C4'	5.66	115.56	109.90
67	B1	729	A	C1'-C2'-O2'	5.66	116.89	108.40
67	B1	993	G	C1'-C2'-O2'	5.66	116.89	108.40
67	B1	1041	U	O4'-C4'-C3'	-5.66	98.34	104.00
67	B1	2065	C	C3'-C2'-O2'	5.66	119.19	110.70
21	A2	1477	U	O4'-C1'-C2'	-5.66	101.94	107.60
53	BD	224	ASN	CA-C-O	-5.66	112.40	118.79
67	B1	703	G	C5'-C4'-C3'	5.66	124.48	116.00
67	B1	814	G	C4'-C3'-C2'	-5.66	96.94	102.60
67	B1	996	U	O4'-C1'-N1	5.66	116.99	108.50
17	AO	85	TYR	CB-CA-C	5.66	120.06	111.80
21	A2	1056	G	O4'-C1'-C2'	5.66	113.26	107.60
21	A2	1327	C	C1'-C2'-O2'	5.66	116.89	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	AP	19	ARG	N-CA-C	-5.66	101.66	110.42
27	A0	51	C	O4'-C1'-C2'	-5.66	101.94	107.60
37	BU	18	ALA	CA-C-N	5.66	125.61	119.78
37	BU	18	ALA	C-N-CA	5.66	125.61	119.78
46	BA	54	HIS	CB-CG-ND1	5.66	131.18	122.70
67	B1	659	U	O4'-C1'-C2'	-5.66	101.94	107.60
67	B1	2144	U	O4'-C4'-C3'	5.66	109.66	104.00
67	B1	2807	C	O4'-C1'-C2'	-5.66	101.94	107.60
6	AC	171	LEU	CA-C-O	5.65	128.14	121.58
21	A2	635	C	C4'-C3'-C2'	-5.65	96.95	102.60
21	A2	1156	A	C1'-O4'-C4'	5.65	115.35	109.70
65	BJ	76	GLN	OE1-CD-NE2	5.65	128.25	122.60
67	B1	878	G	C1'-C2'-O2'	5.65	116.88	108.40
21	A2	156	A	C4'-C3'-O3'	-5.65	104.52	113.00
21	A2	1449	G	C3'-C2'-C1'	5.65	106.95	101.30
42	BT	54	VAL	CA-C-O	5.65	126.35	120.36
51	Bj	37	GLN	CA-C-N	5.65	128.42	120.28
51	Bj	37	GLN	C-N-CA	5.65	128.42	120.28
28	B6	38	GLY	CA-C-N	5.65	128.31	120.29
28	B6	38	GLY	C-N-CA	5.65	128.31	120.29
67	B1	102	A	N9-C1'-C2'	5.65	120.48	112.00
67	B1	858	G	C3'-C2'-C1'	5.65	106.95	101.30
67	B1	1030	C	C4'-C3'-C2'	-5.65	96.95	102.60
67	B1	1043	U	P-O5'-C5'	-5.65	112.42	120.90
67	B1	1683	C	O4'-C1'-C2'	-5.65	101.95	107.60
67	B1	2198	U	C3'-C2'-C1'	5.65	106.95	101.30
67	B1	2646	A	O4'-C1'-N9	5.65	116.98	108.50
67	B1	2898	G	P-O3'-C3'	-5.65	111.72	120.20
8	AR	93	PRO	CA-C-O	-5.65	114.90	121.34
21	A2	1141	G	N9-C1'-C2'	5.65	120.48	112.00
27	A0	22	G	C1'-O4'-C4'	-5.65	104.25	109.90
40	BE	80	VAL	CA-C-O	5.65	126.97	120.76
40	BE	142	THR	CB-CA-C	5.65	119.34	110.19
54	BF	103	VAL	CA-C-N	-5.65	115.03	123.00
54	BF	103	VAL	C-N-CA	-5.65	115.03	123.00
62	BN	6	ALA	N-CA-CB	5.65	119.08	109.87
67	B1	209	G	C1'-O4'-C4'	5.65	115.55	109.90
67	B1	301	G	C2'-C3'-O3'	5.65	117.98	109.50
67	B1	615	A	C1'-O4'-C4'	5.65	115.55	109.90
67	B1	666	A	C1'-O4'-C4'	-5.65	104.25	109.90
67	B1	847	A	O4'-C4'-C3'	-5.65	98.35	104.00
67	B1	891	C	C4'-C3'-C2'	-5.65	96.95	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1604	G	N9-C1'-C2'	5.65	120.48	112.00
67	B1	1730	C	N1-C1'-C2'	5.65	120.48	112.00
67	B1	2940	C	O4'-C1'-C2'	-5.65	101.95	107.60
45	Bi	23	ARG	NE-CZ-NH2	-5.65	114.12	119.20
51	Bj	33	LEU	CB-CG-CD1	5.65	127.65	110.70
67	B1	60	G	C4'-C3'-C2'	5.65	108.25	102.60
67	B1	1524	A	C5'-C4'-C3'	5.65	123.67	115.20
67	B1	2476	A	O4'-C1'-N9	-5.65	100.03	108.50
67	B1	2812	U	C5'-C4'-C3'	-5.65	107.53	116.00
5	AW	28	PHE	CA-C-O	-5.65	114.43	120.92
21	A2	69	U	N1-C1'-C2'	5.65	120.47	112.00
21	A2	1000	G	O4'-C4'-C3'	-5.65	98.35	104.00
21	A2	1359	C	C1'-C2'-O2'	-5.65	103.33	111.80
37	BU	62	HIS	CA-C-O	-5.65	114.98	121.47
37	BU	75	ARG	CA-C-N	5.65	131.60	122.68
37	BU	75	ARG	C-N-CA	5.65	131.60	122.68
43	Bk	97	PHE	CA-CB-CG	-5.65	108.15	113.80
57	BZ	49	ILE	CA-C-N	5.65	127.85	120.28
57	BZ	49	ILE	C-N-CA	5.65	127.85	120.28
60	BS	146	ILE	CA-C-N	5.65	131.96	122.87
60	BS	146	ILE	C-N-CA	5.65	131.96	122.87
67	B1	528	G	C1'-C2'-O2'	5.65	116.87	108.40
67	B1	545	G	P-O5'-C5'	-5.65	112.43	120.90
67	B1	1132	U	O4'-C1'-N1	5.65	116.97	108.50
67	B1	2217	C	C1'-C2'-O2'	5.65	116.87	108.40
68	B3	119	C	N1-C1'-C2'	5.65	120.47	112.00
15	AE	142	PHE	CA-CB-CG	5.65	119.45	113.80
53	BD	189	ARG	N-CA-CB	5.65	120.03	110.49
67	B1	1289	C	C1'-O4'-C4'	-5.65	104.25	109.90
67	B1	1870	G	C4'-C3'-O3'	-5.65	104.53	113.00
15	AE	227	LYS	CA-C-N	5.64	127.84	120.28
15	AE	227	LYS	C-N-CA	5.64	127.84	120.28
28	AV	54	GLN	CA-C-N	5.64	132.32	121.54
28	AV	54	GLN	C-N-CA	5.64	132.32	121.54
43	Bk	56	ARG	CA-CB-CG	5.64	125.39	114.10
62	BN	114	ARG	NE-CZ-NH2	5.64	124.28	119.20
67	B1	856	A	C3'-C2'-C1'	5.64	106.94	101.30
67	B1	1454	G	P-O5'-C5'	-5.64	112.44	120.90
67	B1	1911	G	C5'-C4'-C3'	5.64	124.47	116.00
67	B1	2332	G	O3'-P-O5'	5.64	112.47	104.00
17	AO	7	ILE	CA-C-O	5.64	126.26	120.39
21	A2	5	C	P-O3'-C3'	-5.64	111.74	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	789	G	O4'-C1'-N9	5.64	116.96	108.50
31	BY	126	PHE	N-CA-CB	5.64	118.35	109.83
67	B1	1104	A	C4'-C3'-O3'	-5.64	104.53	113.00
32	BO	112	VAL	N-CA-C	-5.64	100.35	108.42
48	BR	14	LYS	N-CA-CB	-5.64	101.89	110.07
67	B1	1287	G	C1'-C2'-O2'	5.64	116.86	108.40
67	B1	1778	G	O4'-C1'-C2'	-5.64	101.96	107.60
67	B1	1780	C	O4'-C1'-C2'	-5.64	101.96	107.60
67	B1	2071	C	C4'-C3'-C2'	-5.64	96.96	102.60
67	B1	2176	G	C1'-O4'-C4'	-5.64	104.26	109.90
68	B3	36	U	C1'-O4'-C4'	-5.64	104.26	109.90
17	AO	37	THR	N-CA-C	5.64	118.36	111.82
17	AO	84	ASP	CA-C-O	5.64	126.39	120.36
21	A2	158	U	C2'-C3'-O3'	5.64	117.96	109.50
25	AH	45	PRO	CA-C-N	5.64	132.31	121.54
25	AH	45	PRO	C-N-CA	5.64	132.31	121.54
44	BW	15	ASP	N-CA-CB	5.64	118.19	110.01
46	BA	170	GLU	N-CA-CB	5.64	118.39	109.71
58	BP	86	SER	N-CA-CB	5.64	118.11	110.38
67	B1	311	C	O3'-P-O5'	-5.64	95.54	104.00
67	B1	1035	G	P-O3'-C3'	5.64	128.66	120.20
67	B1	1580	G	O4'-C1'-N9	5.64	116.96	108.50
67	B1	2887	C	C3'-C2'-C1'	5.64	106.94	101.30
5	AW	58	ILE	N-CA-C	-5.64	100.11	108.45
31	BY	49	LYS	N-CA-CB	5.64	118.50	110.16
49	BQ	92	LYS	CA-C-N	5.64	127.83	120.28
49	BQ	92	LYS	C-N-CA	5.64	127.83	120.28
51	Bj	42	ARG	CB-CA-C	-5.64	99.20	110.42
54	BF	138	ILE	CB-CA-C	5.64	119.18	110.50
67	B1	53	A	O4'-C1'-N9	5.64	116.96	108.50
67	B1	123	A	C1'-O4'-C4'	-5.64	104.26	109.90
67	B1	1702	C	O4'-C1'-C2'	-5.64	101.96	107.60
67	B1	2108	U	O4'-C1'-C2'	-5.64	101.96	107.60
67	B1	2825	A	O4'-C1'-C2'	-5.64	101.96	107.60
21	A2	1399	G	C1'-O4'-C4'	-5.64	104.26	109.90
52	BB	114	ILE	N-CA-C	-5.64	96.71	108.88
62	BN	45	PHE	O-C-N	5.64	130.52	123.19
67	B1	251	C	C4'-C3'-O3'	-5.64	104.55	113.00
67	B1	709	A	C1'-O4'-C4'	-5.64	104.26	109.90
67	B1	2876	G	P-O5'-C5'	5.64	129.35	120.90
1	AQ	58	TYR	CB-CG-CD2	5.63	129.25	120.80
2	AK	56	ILE	CB-CA-C	5.63	119.75	112.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	666	G	C1'-O4'-C4'	-5.63	104.27	109.90
27	A0	47	U	C1'-C2'-O2'	5.63	116.85	108.40
43	Bk	44	LEU	CA-C-N	5.63	128.18	120.46
43	Bk	44	LEU	C-N-CA	5.63	128.18	120.46
59	BM	60	VAL	CA-C-N	5.63	130.77	122.94
59	BM	60	VAL	C-N-CA	5.63	130.77	122.94
67	B1	246	A	O5'-C5'-C4'	-5.63	103.05	111.50
67	B1	2558	U	P-O3'-C3'	-5.63	111.75	120.20
21	A2	183	A	C1'-C2'-O2'	5.63	116.85	108.40
21	A2	258	A	C1'-O4'-C4'	-5.63	104.27	109.90
21	A2	1251	C	O3'-P-O5'	-5.63	95.55	104.00
24	AA	111	THR	CA-C-N	5.63	128.39	120.28
24	AA	111	THR	C-N-CA	5.63	128.39	120.28
28	AV	60	PHE	CB-CG-CD1	5.63	130.28	120.70
52	BB	15	PRO	O-C-N	5.63	130.38	122.55
67	B1	3043	C	O4'-C4'-C3'	-5.63	98.37	104.00
6	AC	45	ILE	O-C-N	5.63	129.02	122.99
15	AE	159	PHE	CA-CB-CG	-5.63	108.17	113.80
17	AO	144	SER	O-C-N	-5.63	116.91	123.27
21	A2	1344	U	P-O5'-C5'	-5.63	112.45	120.90
32	BO	157	LYS	N-CA-CB	5.63	120.01	110.49
33	BC	28	ARG	CA-C-N	5.63	129.90	122.30
33	BC	28	ARG	C-N-CA	5.63	129.90	122.30
61	Bd	36	CYS	CA-C-N	5.63	132.29	121.54
61	Bd	36	CYS	C-N-CA	5.63	132.29	121.54
67	B1	1514	C	O3'-P-O5'	-5.63	95.55	104.00
67	B1	1530	A	C1'-C2'-O2'	5.63	120.25	111.80
67	B1	1751	G	C5'-C4'-C3'	5.63	124.45	116.00
67	B1	1946	G	O4'-C1'-C2'	-5.63	101.97	107.60
67	B1	2630	C	N1-C1'-C2'	5.63	120.45	112.00
67	B1	2871	A	O5'-C5'-C4'	5.63	119.95	111.50
11	A1	5	C	O4'-C1'-N1	5.63	116.94	108.50
21	A2	179	U	C4'-C3'-O3'	-5.63	104.56	113.00
20	BG	85	GLU	N-CA-C	-5.63	105.22	111.36
67	B1	916	A	C4'-C3'-O3'	-5.63	104.56	113.00
67	B1	983	G	C3'-C2'-C1'	5.63	106.93	101.30
67	B1	1876	G	C1'-O4'-C4'	5.63	115.53	109.90
68	B3	38	U	P-O3'-C3'	5.63	128.65	120.20
21	A2	308	G	C3'-C2'-C1'	5.63	106.93	101.30
21	A2	1156	A	N9-C1'-C2'	-5.63	105.56	114.00
21	A2	1454	A	O4'-C1'-C2'	-5.63	101.97	107.60
27	A0	11	C	C3'-C2'-C1'	5.63	106.93	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BC	130	ARG	O-C-N	-5.63	115.63	122.22
40	BE	94	LEU	N-CA-C	-5.63	104.77	111.69
59	BM	192	LYS	O-C-N	5.63	128.11	122.03
20	B4	14	GLU	O-C-N	-5.63	116.16	122.12
67	B1	42	G	C1'-C2'-O2'	5.63	116.84	108.40
67	B1	588	U	P-O3'-C3'	5.63	128.64	120.20
67	B1	2073	G	C4'-C3'-O3'	-5.63	104.56	113.00
8	AR	111	GLU	CA-C-O	5.63	127.46	120.54
15	AE	3	ARG	NE-CZ-NH1	5.63	127.13	121.50
21	A2	535	U	O4'-C1'-N1	5.63	116.94	108.50
33	BC	73	ILE	CB-CA-C	-5.63	102.11	110.33
40	BE	117	ILE	N-CA-C	5.63	116.67	109.30
67	B1	50	C	C4'-C3'-O3'	5.63	117.84	109.40
67	B1	1133	U	O4'-C1'-C2'	-5.63	101.97	107.60
67	B1	1666	G	C1'-O4'-C4'	-5.63	104.27	109.90
67	B1	2826	U	O4'-C4'-C3'	-5.63	100.47	106.10
21	A2	660	C	C5'-C4'-C3'	5.62	124.44	116.00
21	A2	1142	G	O4'-C1'-N9	-5.62	100.06	108.50
23	AT	51	ILE	N-CA-CB	5.62	118.19	110.54
49	BQ	124	TYR	CB-CA-C	-5.62	102.01	110.90
67	B1	2258	A	C4'-C3'-C2'	5.62	108.22	102.60
21	A2	117	C	O4'-C1'-C2'	-5.62	101.98	107.60
21	A2	790	G	N9-C1'-C2'	-5.62	103.56	112.00
21	A2	878	U	N1-C1'-C2'	5.62	120.44	112.00
21	A2	1471	G	C2'-C3'-O3'	5.62	122.13	113.70
42	BT	22	LYS	N-CA-C	-5.62	104.54	111.40
62	BN	138	ASN	CA-CB-CG	-5.62	106.98	112.60
67	B1	968	A	O4'-C1'-C2'	-5.62	101.98	107.60
67	B1	1096	A	O4'-C1'-N9	5.62	116.94	108.50
67	B1	2294	A	O4'-C1'-N9	5.62	116.64	108.20
21	A2	404	C	P-O5'-C5'	-5.62	112.47	120.90
28	AV	96	LYS	CB-CA-C	-5.62	103.69	112.12
47	BI	105	LYS	O-C-N	-5.62	116.61	122.96
49	BQ	89	MET	N-CA-CB	5.62	119.31	110.71
54	BF	164	ASP	CA-CB-CG	5.62	118.22	112.60
57	BZ	42	PRO	CA-C-N	5.62	127.75	120.44
57	BZ	42	PRO	C-N-CA	5.62	127.75	120.44
62	BN	132	ILE	CA-CB-CG1	5.62	119.95	110.40
67	B1	461	C	C1'-O4'-C4'	5.62	115.32	109.70
67	B1	1905	G	O4'-C1'-N9	5.62	116.93	108.50
67	B1	2724	A	C5'-C4'-O4'	5.62	117.53	109.10
67	B1	2752	U	C4'-C3'-C2'	5.62	108.22	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	3000	U	C1'-C2'-O2'	5.62	116.83	108.40
68	B3	46	G	C3'-C2'-C1'	-5.62	95.68	101.30
20	A3	8	LYS	N-CA-C	-5.62	107.67	114.75
67	B1	276	G	O4'-C1'-N9	5.62	116.93	108.50
67	B1	1565	G	O4'-C1'-N9	5.62	119.74	108.50
27	A0	1	G	N9-C1'-C2'	5.62	120.43	112.00
49	BQ	106	LEU	CA-C-N	5.62	128.27	120.29
49	BQ	106	LEU	C-N-CA	5.62	128.27	120.29
67	B1	991	U	C1'-O4'-C4'	-5.62	104.28	109.90
67	B1	1551	G	O3'-P-O5'	-5.62	95.57	104.00
67	B1	1691	U	C3'-C2'-C1'	5.62	106.92	101.30
21	A2	711	U	N1-C1'-C2'	5.62	120.43	112.00
21	A2	1370	U	O4'-C1'-C2'	-5.62	101.98	107.60
27	A0	48	C	O4'-C1'-C2'	-5.62	100.18	105.80
32	BO	129	LEU	CB-CA-C	-5.62	100.04	109.53
40	BE	142	THR	CA-C-N	5.62	131.07	122.93
40	BE	142	THR	C-N-CA	5.62	131.07	122.93
66	BI	45	HIS	CA-CB-CG	-5.62	108.18	113.80
67	B1	3020	G	O4'-C1'-N9	5.62	116.62	108.20
6	AC	87	ASN	CB-CA-C	-5.62	103.26	111.01
18	AF	129	GLY	N-CA-C	-5.62	99.87	113.18
21	A2	349	A	P-O5'-C5'	5.62	129.32	120.90
21	A2	396	C	N1-C1'-C2'	5.62	120.42	112.00
21	A2	419	G	N9-C1'-C2'	5.62	120.42	112.00
21	A2	865	A	P-O5'-C5'	5.62	129.32	120.90
21	A2	1108	U	C4'-C3'-C2'	-5.62	96.98	102.60
21	A2	1463	A	C3'-C2'-C1'	5.62	106.92	101.30
24	AA	21	ILE	N-CA-CB	5.62	116.65	110.53
32	BO	33	PRO	CA-C-O	-5.62	115.05	121.56
33	BC	26	ARG	N-CA-CB	5.62	119.47	111.05
35	BL	35	GLY	O-C-N	5.62	128.85	122.62
47	BI	39	THR	CA-C-N	5.62	131.56	122.69
47	BI	39	THR	C-N-CA	5.62	131.56	122.69
67	B1	178	G	N9-C1'-C2'	5.62	120.42	112.00
67	B1	307	C	P-O5'-C5'	5.62	129.32	120.90
67	B1	1052	G	O3'-P-O5'	-5.62	95.58	104.00
67	B1	1451	A	P-O5'-C5'	-5.62	112.48	120.90
67	B1	1746	C	P-O5'-C5'	5.62	129.32	120.90
67	B1	2307	C	C1'-O4'-C4'	5.62	115.52	109.90
67	B1	2608	U	O4'-C1'-N1	5.62	116.92	108.50
11	A1	29	C	O4'-C1'-C2'	-5.61	101.99	107.60
21	A2	279	U	O4'-C1'-C2'	-5.61	101.99	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	993	C	O3'-P-O5'	-5.61	95.58	104.00
35	BL	46	LYS	CA-C-N	5.61	132.26	121.54
35	BL	46	LYS	C-N-CA	5.61	132.26	121.54
41	Ba	81	ARG	CA-CB-CG	5.61	125.33	114.10
44	BW	45	ARG	N-CA-C	5.61	117.20	111.14
53	BD	58	THR	N-CA-CB	5.61	119.98	110.49
59	BM	118	TRP	CG-CD2-CE3	-5.61	128.29	133.90
67	B1	699	A	N9-C1'-C2'	5.61	120.42	112.00
67	B1	1592	U	P-O5'-C5'	5.61	129.32	120.90
67	B1	1750	C	O4'-C1'-C2'	-5.61	101.99	107.60
67	B1	1926	A	C4'-C3'-O3'	-5.61	104.58	113.00
67	B1	2949	G	O3'-P-O5'	-5.61	95.58	104.00
68	B3	76	U	O4'-C1'-C2'	-5.61	101.99	107.60
21	A2	1071	C	P-O5'-C5'	-5.61	112.48	120.90
62	BN	132	ILE	N-CA-C	-5.61	104.88	111.00
67	B1	109	G	O4'-C4'-C3'	5.61	109.61	104.00
67	B1	709	A	N9-C1'-C2'	5.61	120.42	112.00
67	B1	1126	C	O5'-C5'-C4'	5.61	119.92	111.50
21	A2	826	C	O4'-C1'-N1	5.61	116.92	108.50
28	AV	56	ILE	N-CA-C	-5.61	100.40	108.42
38	Bb	52	LEU	O-C-N	5.61	128.78	122.22
41	Ba	49	ILE	CA-C-N	5.61	130.49	123.14
41	Ba	49	ILE	C-N-CA	5.61	130.49	123.14
51	Bj	11	CYS	CA-C-O	-5.61	112.47	119.54
57	BZ	10	ALA	CA-C-N	5.61	128.36	120.28
57	BZ	10	ALA	C-N-CA	5.61	128.36	120.28
59	BM	27	MET	CA-C-O	-5.61	114.60	120.55
59	BM	152	LYS	CA-C-O	5.61	126.50	120.55
67	B1	2446	C	C3'-C2'-C1'	5.61	106.91	101.30
67	B1	2721	C	C4'-C3'-O3'	-5.61	104.58	113.00
3	AI	82	LYS	CB-CA-C	-5.61	98.18	109.68
59	BM	28	ILE	CA-CB-CG1	5.61	119.94	110.40
67	B1	215	A	C4'-C3'-C2'	5.61	108.21	102.60
67	B1	1530	A	C4'-C3'-C2'	-5.61	96.99	102.60
6	AC	50	ASN	OD1-CG-ND2	5.61	128.21	122.60
7	AB	123	ASP	CA-C-N	5.61	128.06	120.38
7	AB	123	ASP	C-N-CA	5.61	128.06	120.38
11	A1	19	G	C1'-C2'-O2'	5.61	116.81	108.40
21	A2	766	G	P-O3'-C3'	5.61	128.61	120.20
21	A2	1228	A	C3'-C2'-C1'	5.61	106.91	101.30
25	AH	56	PHE	CA-CB-CG	-5.61	108.19	113.80
33	BC	223	ALA	CA-C-N	5.61	129.38	122.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BC	223	ALA	C-N-CA	5.61	129.38	122.37
51	Bj	55	PRO	N-CA-CB	5.61	109.14	103.25
15	AE	51	ASP	CA-C-O	5.61	126.36	120.42
21	A2	505	U	O4'-C1'-N1	5.61	116.91	108.50
21	A2	1369	C	C3'-C2'-C1'	5.61	106.91	101.30
46	BA	165	ALA	CB-CA-C	-5.61	104.20	111.15
20	BG	22	ALA	CA-C-N	5.61	128.14	120.46
20	BG	22	ALA	C-N-CA	5.61	128.14	120.46
67	B1	1391	C	C4'-C3'-C2'	-5.61	96.99	102.60
67	B1	2419	U	O4'-C1'-N1	5.61	116.91	108.50
7	AB	162	LYS	CA-C-N	5.60	128.06	120.44
7	AB	162	LYS	C-N-CA	5.60	128.06	120.44
67	B1	1310	A	C1'-O4'-C4'	-5.60	104.30	109.90
14	AM	14	TRP	O-C-N	-5.60	116.43	123.27
38	Bb	17	LYS	CA-C-N	5.60	128.06	120.44
38	Bb	17	LYS	C-N-CA	5.60	128.06	120.44
67	B1	168	G	C3'-C2'-C1'	-5.60	95.70	101.30
67	B1	304	G	O4'-C1'-C2'	-5.60	102.00	107.60
67	B1	762	G	O3'-P-O5'	-5.60	95.60	104.00
67	B1	830	G	C3'-C2'-C1'	-5.60	95.70	101.30
67	B1	1340	G	C1'-O4'-C4'	-5.60	104.30	109.90
67	B1	2019	C	C3'-C2'-O2'	5.60	119.11	110.70
21	A2	341	C	O4'-C1'-C2'	-5.60	100.20	105.80
21	A2	1120	G	C3'-C2'-O2'	5.60	119.10	110.70
67	B1	158	C	O4'-C4'-C3'	5.60	109.60	104.00
67	B1	1495	A	N9-C1'-C2'	5.60	120.40	112.00
67	B1	1920	A	C2'-C3'-O3'	5.60	117.90	109.50
67	B1	2054	G	N9-C1'-C2'	5.60	122.40	114.00
67	B1	2073	G	C1'-O4'-C4'	-5.60	104.30	109.90
11	A1	70	C	O4'-C1'-N1	5.60	116.90	108.50
21	A2	1217	C	O4'-C1'-N1	-5.60	100.10	108.50
21	A2	1354	A	C1'-C2'-O2'	-5.60	103.40	111.80
25	AH	46	HIS	CA-CB-CG	5.60	119.40	113.80
38	Bb	104	HIS	CE1-NE2-CD2	-5.60	103.40	109.00
28	B6	66	LYS	O-C-N	-5.60	115.88	123.10
59	BM	23	LEU	N-CA-C	-5.60	105.08	111.07
67	B1	188	A	O5'-C5'-C4'	5.60	120.10	111.70
5	AW	58	ILE	N-CA-CB	5.60	120.63	111.45
11	A1	4	G	O4'-C1'-C2'	-5.60	102.00	107.60
13	AX	71	ARG	NE-CZ-NH2	-5.60	114.16	119.20
21	A2	389	G	O4'-C1'-N9	5.60	116.90	108.50
21	A2	1173	A	O4'-C1'-C2'	5.60	111.40	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	AU	137	LYS	CA-C-O	-5.60	114.49	120.42
31	BY	77	ASN	CA-C-N	5.60	128.83	120.83
31	BY	77	ASN	C-N-CA	5.60	128.83	120.83
32	BO	11	PHE	CA-C-N	5.60	128.05	120.44
32	BO	11	PHE	C-N-CA	5.60	128.05	120.44
32	BO	119	ALA	CA-C-N	5.60	128.37	120.42
32	BO	119	ALA	C-N-CA	5.60	128.37	120.42
67	B1	234	G	O4'-C1'-C2'	5.60	113.20	107.60
67	B1	506	G	P-O5'-C5'	5.60	129.30	120.90
67	B1	561	C	O4'-C1'-C2'	-5.60	102.00	107.60
67	B1	1859	A	O4'-C1'-C2'	-5.60	102.00	107.60
67	B1	2229	G	P-O3'-C3'	5.60	128.60	120.20
68	B3	93	G	C3'-C2'-C1'	-5.60	95.70	101.30
15	AE	25	ALA	N-CA-C	5.60	117.46	111.36
25	AH	157	ARG	N-CA-C	5.60	117.06	111.07
33	BC	355	GLN	OE1-CD-NE2	5.60	128.20	122.60
59	BM	99	ILE	CB-CA-C	5.60	119.69	112.14
21	A2	1432	U	P-O5'-C5'	5.59	129.29	120.90
40	BE	29	THR	CA-CB-OG1	5.59	117.99	109.60
49	BQ	10	ILE	CA-C-O	-5.59	114.84	121.05
50	BV	46	ASN	CA-C-O	-5.59	114.99	120.19
20	BG	34	LYS	N-CA-C	-5.59	100.28	109.40
66	Bl	57	ILE	CA-CB-CG2	-5.59	100.99	110.50
67	B1	151	G	O4'-C1'-C2'	-5.59	102.00	107.60
67	B1	575	G	O4'-C1'-C2'	-5.59	102.01	107.60
67	B1	715	G	C5'-C4'-C3'	-5.59	107.61	116.00
67	B1	866	G	C5'-C4'-C3'	-5.59	107.61	116.00
67	B1	2534	C	O4'-C1'-C2'	-5.59	102.00	107.60
67	B1	2723	G	C5'-C4'-C3'	5.59	124.39	116.00
67	B1	2766	C	O4'-C1'-C2'	5.59	113.19	107.60
62	BN	110	ASN	CA-CB-CG	-5.59	107.01	112.60
4	AG	82	ARG	CA-C-N	5.59	130.37	122.09
4	AG	82	ARG	C-N-CA	5.59	130.37	122.09
21	A2	958	G	N9-C1'-C2'	-5.59	103.61	112.00
59	BM	16	LYS	N-CA-CB	5.59	119.44	111.05
61	Bd	50	ARG	N-CA-C	-5.59	102.57	110.29
64	Bc	17	GLN	CA-C-O	-5.59	115.14	120.90
67	B1	260	A	C5'-C4'-C3'	5.59	124.39	116.00
67	B1	1894	A	C3'-C2'-O2'	5.59	119.09	110.70
14	AM	92	LYS	N-CA-CB	5.59	118.43	110.16
21	A2	804	U	N1-C1'-C2'	-5.59	103.61	112.00
21	A2	913	G	O4'-C1'-C2'	5.59	113.19	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1260	G	O4'-C1'-C2'	5.59	113.19	107.60
49	BQ	41	ILE	CA-C-N	5.59	128.33	120.28
49	BQ	41	ILE	C-N-CA	5.59	128.33	120.28
61	Bd	41	ARG	CA-C-N	5.59	125.52	119.76
61	Bd	41	ARG	C-N-CA	5.59	125.52	119.76
61	Bd	74	ARG	CB-CA-C	-5.59	101.35	110.85
67	B1	95	G	O4'-C1'-C2'	-5.59	102.01	107.60
67	B1	1557	G	C4'-C3'-O3'	-5.59	104.62	113.00
39	Be	19	ARG	CA-C-N	5.59	129.41	121.42
39	Be	19	ARG	C-N-CA	5.59	129.41	121.42
67	B1	58	G	C3'-C2'-C1'	-5.59	95.71	101.30
67	B1	1619	C	O4'-C1'-C2'	-5.59	102.01	107.60
12	AN	30	TYR	N-CA-CB	5.59	118.17	110.07
24	AA	37	ALA	O-C-N	-5.59	117.39	123.26
25	AH	164	ASN	CA-C-N	5.59	127.60	120.56
25	AH	164	ASN	C-N-CA	5.59	127.60	120.56
32	BO	184	HIS	CE1-NE2-CD2	-5.59	103.41	109.00
42	BT	7	ILE	CA-C-N	5.59	127.70	120.88
42	BT	7	ILE	C-N-CA	5.59	127.70	120.88
20	BG	24	GLU	CA-C-N	5.59	128.35	120.42
20	BG	24	GLU	C-N-CA	5.59	128.35	120.42
53	BD	46	GLN	OE1-CD-NE2	5.59	128.19	122.60
57	BZ	20	SER	N-CA-C	5.59	117.81	111.11
67	B1	204	G	C1'-O4'-C4'	5.59	115.29	109.70
67	B1	935	A	O4'-C4'-C3'	-5.59	100.51	106.10
67	B1	2344	G	O4'-C1'-C2'	-5.59	102.01	107.60
67	B1	2658	G	C1'-O4'-C4'	-5.59	104.31	109.90
67	B1	2788	U	N1-C1'-C2'	5.59	120.38	112.00
7	AB	124	HIS	ND1-CE1-NE2	5.58	113.98	108.40
21	A2	82	G	O4'-C1'-C2'	5.58	113.19	107.60
21	A2	347	G	O4'-C4'-C3'	-5.58	100.52	106.10
46	BA	7	LYS	O-C-N	-5.58	116.18	122.10
67	B1	756	C	O4'-C1'-C2'	-5.58	102.02	107.60
21	A2	950	C	C5'-C4'-C3'	5.58	124.38	116.00
24	AA	195	GLN	CB-CA-C	-5.58	100.41	111.91
32	BO	27	LEU	CA-C-N	5.58	130.04	120.72
32	BO	27	LEU	C-N-CA	5.58	130.04	120.72
41	Ba	84	GLU	N-CA-C	5.58	119.08	110.42
46	BA	20	LYS	CA-C-N	5.58	126.82	119.84
46	BA	20	LYS	C-N-CA	5.58	126.82	119.84
46	BA	61	LYS	CA-C-N	-5.58	116.27	123.19
46	BA	61	LYS	C-N-CA	-5.58	116.27	123.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
50	BV	28	ARG	CA-C-O	-5.58	115.05	121.47
54	BF	22	GLU	N-CA-CB	5.58	119.93	110.49
67	B1	66	C	C1'-O4'-C4'	-5.58	104.32	109.90
67	B1	1102	C	P-O3'-C3'	-5.58	111.82	120.20
67	B1	1825	G	N9-C1'-C2'	-5.58	103.62	112.00
67	B1	2158	G	C2'-C3'-O3'	5.58	117.87	109.50
20	A3	19	ALA	CA-C-O	-5.58	114.63	120.55
21	A2	330	U	C3'-C2'-C1'	5.58	106.88	101.30
21	A2	1262	U	P-O5'-C5'	5.58	129.27	120.90
24	AA	93	ARG	NE-CZ-NH1	5.58	127.08	121.50
27	A0	13	U	N1-C1'-C2'	5.58	120.37	112.00
49	BQ	39	GLU	N-CA-C	-5.58	105.28	111.36
60	BS	86	LYS	CA-C-N	5.58	128.11	120.46
60	BS	86	LYS	C-N-CA	5.58	128.11	120.46
67	B1	671	G	C1'-O4'-C4'	-5.58	104.32	109.90
67	B1	1755	C	O4'-C1'-N1	5.58	116.87	108.50
7	AB	2	ALA	CA-C-N	5.58	131.12	120.97
7	AB	2	ALA	C-N-CA	5.58	131.12	120.97
21	A2	1270	C	P-O5'-C5'	-5.58	112.53	120.90
33	BC	111	ALA	N-CA-CB	5.58	119.92	110.49
67	B1	2217	C	N1-C1'-C2'	5.58	120.37	112.00
67	B1	2462	U	O4'-C1'-N1	5.58	116.87	108.50
13	AX	47	GLY	O-C-N	-5.58	116.19	121.77
21	A2	248	U	O4'-C4'-C3'	-5.58	98.42	104.00
21	A2	1265	G	C1'-C2'-O2'	5.58	116.77	108.40
31	BY	118	ARG	NE-CZ-NH1	-5.58	115.92	121.50
48	BR	44	VAL	N-CA-C	-5.58	100.63	108.27
60	BS	70	GLN	CA-C-N	5.58	125.40	120.10
60	BS	70	GLN	C-N-CA	5.58	125.40	120.10
67	B1	684	G	C1'-C2'-O2'	5.58	116.77	108.40
67	B1	975	C	C4'-C3'-C2'	-5.58	97.02	102.60
67	B1	1227	A	C1'-O4'-C4'	5.58	115.28	109.70
67	B1	1339	C	O4'-C1'-N1	5.58	116.87	108.50
67	B1	1566	G	C3'-C2'-C1'	-5.58	95.72	101.30
68	B3	26	C	C4'-C3'-O3'	-5.58	104.63	113.00
6	AC	42	THR	N-CA-C	-5.58	100.09	108.96
7	AB	3	ASP	CA-C-O	5.58	128.34	121.87
21	A2	733	C	C4'-C3'-C2'	-5.58	97.02	102.60
25	AH	110	ILE	N-CA-C	5.58	116.35	110.72
53	BD	48	ARG	CA-C-N	5.58	128.41	120.49
53	BD	48	ARG	C-N-CA	5.58	128.41	120.49
59	BM	83	SER	O-C-N	5.58	128.03	122.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1200	A	C1'-C2'-O2'	5.58	116.77	108.40
67	B1	1377	G	N9-C1'-C2'	5.58	120.37	112.00
67	B1	1588	C	O4'-C1'-C2'	-5.58	100.22	105.80
23	AT	98	MET	N-CA-C	-5.58	106.25	113.16
27	A0	65	G	C4'-C3'-C2'	-5.58	97.02	102.60
31	BY	99	LYS	N-CA-CB	5.58	118.41	110.16
64	Bc	78	GLN	N-CA-C	-5.58	105.35	111.82
67	B1	2	G	O4'-C1'-N9	5.58	116.86	108.50
67	B1	679	U	C4'-C3'-C2'	-5.58	97.03	102.60
67	B1	1130	G	C4'-C3'-C2'	-5.58	97.03	102.60
67	B1	1615	G	C3'-C2'-C1'	-5.58	95.92	101.50
67	B1	2720	U	C1'-O4'-C4'	5.58	115.48	109.90
21	A2	101	G	O4'-C1'-C2'	5.57	113.17	107.60
30	AU	110	PHE	CB-CG-CD1	5.57	130.18	120.70
45	Bi	45	ALA	N-CA-C	5.57	120.14	113.23
50	BV	44	GLY	N-CA-C	-5.57	107.41	115.27
62	BN	120	ILE	N-CA-C	-5.57	105.41	110.82
67	B1	18	C	O4'-C1'-N1	5.57	116.86	108.50
67	B1	418	C	C1'-O4'-C4'	-5.57	104.33	109.90
67	B1	1343	C	C4'-C3'-C2'	-5.57	97.03	102.60
67	B1	1690	U	O4'-C1'-N1	5.57	116.86	108.50
11	A1	9	A	P-O3'-C3'	5.57	128.56	120.20
15	AE	187	VAL	CB-CA-C	5.57	118.61	110.98
60	BS	34	GLU	CA-C-O	5.57	126.33	120.42
67	B1	64	A	O4'-C1'-C2'	-5.57	102.03	107.60
67	B1	122	G	P-O5'-C5'	-5.57	112.54	120.90
67	B1	2523	C	O4'-C1'-C2'	-5.57	100.23	105.80
21	A2	78	G	P-O3'-C3'	-5.57	111.84	120.20
21	A2	619	A	C5'-C4'-C3'	5.57	124.36	116.00
21	A2	645	G	N9-C1'-C2'	-5.57	103.64	112.00
21	A2	1435	G	O4'-C1'-C2'	-5.57	102.03	107.60
31	BY	74	LEU	CA-C-N	5.57	128.35	122.11
31	BY	74	LEU	C-N-CA	5.57	128.35	122.11
53	BD	30	LEU	CA-C-N	5.57	128.09	120.46
53	BD	30	LEU	C-N-CA	5.57	128.09	120.46
28	B6	2	GLU	CB-CG-CD	-5.57	103.13	112.60
62	BN	88	VAL	N-CA-C	5.57	118.58	109.78
67	B1	1156	G	C3'-C2'-C1'	5.57	107.07	101.50
67	B1	1975	C	O4'-C1'-C2'	-5.57	102.03	107.60
67	B1	2800	U	O4'-C4'-C3'	5.57	109.57	104.00
67	B1	2978	G	C3'-C2'-C1'	5.57	106.87	101.30
67	B1	3029	A	O4'-C1'-N9	5.57	116.86	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	613	C	P-O3'-C3'	-5.57	111.85	120.20
25	AH	85	PHE	CA-C-N	5.57	132.36	122.45
25	AH	85	PHE	C-N-CA	5.57	132.36	122.45
44	BW	40	ASN	OD1-CG-ND2	5.57	128.17	122.60
67	B1	1602	C	N1-C1'-C2'	5.57	120.35	112.00
10	AD	101	LEU	CA-C-O	-5.57	114.65	120.55
21	A2	1120	G	O3'-P-O5'	-5.57	95.65	104.00
27	A0	7	G	P-O5'-C5'	5.57	129.25	120.90
29	AL	42	THR	N-CA-C	-5.57	101.41	109.59
38	Bb	60	SER	CA-C-O	-5.57	114.90	120.63
28	B6	54	GLN	CA-C-N	5.57	132.17	121.54
28	B6	54	GLN	C-N-CA	5.57	132.17	121.54
67	B1	235	G	O4'-C1'-C2'	5.57	113.17	107.60
67	B1	1182	C	O4'-C1'-C2'	-5.57	102.03	107.60
67	B1	2363	G	C3'-C2'-C1'	5.57	106.87	101.30
14	AM	121	ILE	CB-CA-C	5.57	115.78	110.16
21	A2	215	C	C4'-C3'-C2'	-5.57	97.03	102.60
51	Bj	51	PRO	CA-N-CD	-5.57	104.21	112.00
53	BD	166	ILE	CB-CA-C	-5.57	104.78	111.85
67	B1	104	C	C3'-C2'-C1'	5.57	106.86	101.30
67	B1	822	A	C4'-C3'-C2'	-5.57	97.03	102.60
67	B1	1466	U	N1-C1'-C2'	5.57	120.35	112.00
67	B1	2465	A	C3'-C2'-C1'	5.57	106.86	101.30
67	B1	2517	U	O4'-C1'-C2'	-5.57	102.03	107.60
4	AG	99	LYS	CB-CA-C	5.56	118.96	109.72
52	BB	152	ASN	O-C-N	-5.56	115.57	121.30
67	B1	2526	G	N9-C1'-C2'	-5.56	103.65	112.00
1	AQ	30	VAL	CA-C-N	5.56	127.67	120.44
1	AQ	30	VAL	C-N-CA	5.56	127.67	120.44
16	AJ	117	ASP	N-CA-C	-5.56	108.28	114.62
21	A2	869	U	O4'-C1'-N1	5.56	116.84	108.50
21	A2	1065	C	N1-C1'-C2'	5.56	120.34	112.00
39	Be	45	ARG	CB-CA-C	-5.56	98.69	109.76
20	B4	67	PRO	CA-C-O	-5.56	112.49	120.56
67	B1	1459	A	C5'-C4'-C3'	5.56	124.34	116.00
67	B1	1855	G	C3'-C2'-C1'	5.56	106.86	101.30
68	B3	121	A	O3'-P-O5'	-5.56	95.66	104.00
12	AN	91	ASP	CA-CB-CG	-5.56	107.04	112.60
21	A2	661	C	O4'-C1'-C2'	-5.56	102.04	107.60
21	A2	678	G	O4'-C1'-N9	5.56	116.84	108.50
67	B1	964	C	P-O3'-C3'	5.56	128.54	120.20
67	B1	1222	U	C5'-C4'-C3'	-5.56	107.66	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1321	U	C4'-C3'-O3'	-5.56	104.66	113.00
21	A2	1326	G	C3'-C2'-C1'	-5.56	95.74	101.30
25	AH	34	LYS	CA-C-O	-5.56	113.52	118.63
25	AH	46	HIS	N-CA-C	5.56	122.64	110.80
54	BF	95	SER	N-CA-C	-5.56	106.66	113.50
67	B1	249	G	P-O3'-C3'	-5.56	111.86	120.20
67	B1	534	G	O4'-C1'-C2'	5.56	113.16	107.60
67	B1	1769	G	C4'-C3'-O3'	-5.56	104.66	113.00
67	B1	1805	U	O4'-C1'-N1	5.56	116.84	108.50
67	B1	1926	A	C3'-C2'-C1'	-5.56	95.74	101.30
4	AG	77	ASP	CB-CG-OD2	-5.56	105.62	118.40
21	A2	286	G	C4'-C3'-C2'	-5.56	97.04	102.60
21	A2	811	G	N9-C1'-C2'	-5.56	103.67	112.00
62	BN	4	ARG	NE-CZ-NH2	-5.56	114.20	119.20
67	B1	115	C	C1'-O4'-C4'	-5.56	104.34	109.90
67	B1	1133	U	C3'-C2'-C1'	5.56	106.86	101.30
67	B1	1330	G	N9-C1'-C2'	5.56	120.33	112.00
67	B1	1614	U	C5'-C4'-O4'	5.56	118.14	109.80
67	B1	2287	C	N1-C1'-C2'	-5.56	103.66	112.00
21	A2	592	G	N9-C1'-C2'	-5.56	103.67	112.00
21	A2	1118	C	C1'-C2'-O2'	5.56	116.73	108.40
21	A2	1303	C	C3'-C2'-C1'	5.56	106.86	101.30
59	BM	176	GLY	CA-C-N	5.56	128.76	120.87
59	BM	176	GLY	C-N-CA	5.56	128.76	120.87
67	B1	1459	A	O4'-C1'-N9	5.56	116.83	108.50
21	A2	160	C	O5'-C5'-C4'	-5.55	103.17	111.50
21	A2	827	G	P-O3'-C3'	-5.55	111.87	120.20
21	A2	1132	C	N1-C1'-C2'	5.55	120.33	112.00
21	A2	1320	A	C3'-C2'-C1'	-5.55	95.75	101.30
21	A2	1468	A	C3'-C2'-C1'	5.55	106.86	101.30
43	Bk	10	LYS	N-CA-C	-5.55	104.04	112.04
48	BR	75	VAL	O-C-N	-5.55	117.18	123.18
52	BB	237	ARG	CD-NE-CZ	-5.55	116.62	124.40
55	Bh	16	GLN	N-CA-C	5.55	117.33	111.28
64	Bc	23	ILE	CA-C-N	5.55	130.66	122.94
64	Bc	23	ILE	C-N-CA	5.55	130.66	122.94
67	B1	319	A	C3'-C2'-C1'	-5.55	95.75	101.30
67	B1	1360	G	O4'-C1'-C2'	5.55	113.15	107.60
67	B1	1709	C	C5'-C4'-C3'	5.55	124.33	116.00
67	B1	1801	C	C3'-C2'-C1'	5.55	106.86	101.30
67	B1	1950	G	C5'-C4'-C3'	-5.55	107.67	116.00
67	B1	2068	U	C3'-C2'-C1'	5.55	107.06	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2577	U	O4'-C1'-C2'	-5.55	102.05	107.60
67	B1	2712	G	O4'-C1'-C2'	-5.55	102.05	107.60
12	AN	70	ARG	N-CA-C	-5.55	101.49	110.32
21	A2	614	G	C4'-C3'-O3'	-5.55	104.67	113.00
54	BF	163	TRP	CA-C-N	5.55	129.13	120.75
54	BF	163	TRP	C-N-CA	5.55	129.13	120.75
60	BS	93	LYS	N-CA-C	5.55	117.33	111.28
67	B1	2163	G	O4'-C1'-N9	5.55	116.83	108.50
17	AO	99	ASP	CA-C-O	5.55	126.84	120.90
18	AF	42	TYR	CA-CB-CG	-5.55	103.91	113.90
21	A2	44	C	N1-C1'-C2'	5.55	120.33	112.00
30	AU	54	ARG	NE-CZ-NH2	5.55	124.20	119.20
33	BC	102	PRO	CA-C-N	5.55	128.59	120.71
33	BC	102	PRO	C-N-CA	5.55	128.59	120.71
58	BP	93	ILE	CA-C-O	5.55	126.30	119.58
67	B1	873	G	C1'-C2'-O2'	-5.55	103.47	111.80
67	B1	1222	U	O3'-P-O5'	5.55	112.33	104.00
67	B1	1942	G	O4'-C1'-C2'	5.55	113.15	107.60
67	B1	1960	U	C1'-C2'-O2'	5.55	116.73	108.40
67	B1	2713	A	C2'-C3'-O3'	-5.55	105.37	113.70
67	B1	2816	C	O4'-C1'-C2'	-5.55	102.05	107.60
68	B3	124	A	P-O5'-C5'	-5.55	112.57	120.90
17	AO	141	VAL	O-C-N	5.55	127.55	121.83
21	A2	176	U	C5'-C4'-C3'	5.55	124.32	116.00
21	A2	1383	A	O4'-C4'-C3'	-5.55	98.45	104.00
33	BC	224	VAL	CB-CA-C	5.55	117.67	110.96
44	BW	1	MET	CG-SD-CE	-5.55	88.69	100.90
56	BH	36	VAL	CB-CA-C	-5.55	104.87	111.97
67	B1	1132	U	P-O5'-C5'	5.55	129.22	120.90
67	B1	2119	C	C3'-C2'-C1'	5.55	106.85	101.30
68	B3	92	G	N9-C1'-C2'	5.55	120.33	112.00
1	AQ	76	LEU	N-CA-C	-5.55	98.71	108.20
21	A2	264	C	C3'-C2'-C1'	5.55	106.85	101.30
21	A2	548	A	O4'-C4'-C3'	-5.55	100.55	106.10
67	B1	2537	G	P-O5'-C5'	5.55	129.22	120.90
8	AR	38	VAL	CB-CA-C	-5.55	104.03	110.91
16	AJ	109	LYS	N-CA-C	5.55	117.47	108.26
17	AO	16	ASP	N-CA-C	-5.55	100.36	109.40
25	AH	73	ARG	CB-CG-CD	5.55	124.06	111.30
54	BF	116	GLU	CA-C-O	-5.55	114.95	121.16
57	BZ	8	ARG	NE-CZ-NH1	-5.55	115.95	121.50
62	BN	103	ARG	CA-CB-CG	5.55	125.19	114.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	282	G	O4'-C1'-N9	5.55	116.82	108.50
67	B1	1032	C	C3'-C2'-C1'	5.55	106.85	101.30
67	B1	1534	G	O4'-C1'-N9	5.55	116.82	108.50
67	B1	1949	A	P-O3'-C3'	-5.55	111.88	120.20
67	B1	2332	G	P-O3'-C3'	5.55	128.52	120.20
1	AQ	131	ARG	N-CA-CB	5.54	118.37	110.16
21	A2	197	A	N9-C1'-C2'	5.54	120.32	112.00
21	A2	486	A	C2'-C3'-O3'	5.54	117.82	109.50
21	A2	1133	C	C4'-C3'-O3'	-5.54	104.68	113.00
46	BA	72	GLU	N-CA-CB	5.54	118.37	110.16
53	BD	135	ASP	N-CA-C	-5.54	105.20	112.41
63	Bg	31	CYS	CA-C-N	5.54	132.13	121.54
63	Bg	31	CYS	C-N-CA	5.54	132.13	121.54
67	B1	1014	U	C2'-C3'-O3'	5.54	117.82	109.50
7	AB	54	VAL	CA-C-N	5.54	128.02	120.54
7	AB	54	VAL	C-N-CA	5.54	128.02	120.54
21	A2	1156	A	C2'-C3'-O3'	5.54	117.82	109.50
21	A2	1357	C	C1'-O4'-C4'	5.54	115.44	109.90
33	BC	32	LYS	CA-C-O	5.54	127.19	120.81
37	BU	109	ASP	CA-C-N	5.54	128.16	120.29
37	BU	109	ASP	C-N-CA	5.54	128.16	120.29
43	Bk	38	LEU	CA-C-N	5.54	127.71	120.28
43	Bk	38	LEU	C-N-CA	5.54	127.71	120.28
58	BP	7	THR	N-CA-C	-5.54	106.36	113.23
65	BJ	120	GLY	O-C-N	-5.54	116.23	121.77
67	B1	325	G	O4'-C4'-C3'	5.54	109.54	104.00
67	B1	1398	C	C3'-C2'-C1'	5.54	106.84	101.30
67	B1	2007	C	C1'-C2'-O2'	5.54	116.72	108.40
67	B1	2137	A	P-O5'-C5'	5.54	129.22	120.90
68	B3	80	G	N9-C1'-C2'	5.54	120.31	112.00
6	AC	2	ALA	CA-C-N	5.54	127.54	120.56
6	AC	2	ALA	C-N-CA	5.54	127.54	120.56
16	AJ	117	ASP	CA-CB-CG	-5.54	107.06	112.60
17	AO	48	PHE	N-CA-CB	5.54	118.92	110.44
21	A2	847	A	N9-C1'-C2'	5.54	122.31	114.00
24	AA	125	ALA	N-CA-CB	5.54	118.15	110.17
27	A0	35	U	P-O3'-C3'	-5.54	111.89	120.20
43	Bk	135	PRO	CA-C-N	5.54	128.05	120.46
43	Bk	135	PRO	C-N-CA	5.54	128.05	120.46
54	BF	63	LYS	N-CA-CB	5.54	118.27	110.12
65	BJ	31	ASP	CA-C-O	5.54	127.37	121.05
67	B1	203	G	O4'-C1'-C2'	-5.54	102.06	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	548	U	O4'-C1'-C2'	-5.54	102.06	107.60
67	B1	575	G	C5'-C4'-C3'	-5.54	107.69	116.00
67	B1	1892	G	O3'-P-O5'	-5.54	95.69	104.00
67	B1	2743	U	O4'-C1'-C2'	-5.54	102.06	107.60
1	AQ	158	ARG	N-CA-CB	5.54	119.92	110.50
21	A2	816	G	O4'-C1'-C2'	5.54	113.14	107.60
47	BI	54	GLU	CA-C-N	5.54	128.58	120.71
47	BI	54	GLU	C-N-CA	5.54	128.58	120.71
60	BS	38	GLU	O-C-N	5.54	128.47	122.15
67	B1	491	G	C1'-C2'-O2'	-5.54	100.09	108.40
67	B1	1596	G	C1'-C2'-O2'	-5.54	100.09	108.40
67	B1	2013	A	O4'-C1'-C2'	-5.54	102.06	107.60
10	AD	177	GLY	O-C-N	-5.54	115.50	122.70
21	A2	91	G	P-O3'-C3'	-5.54	111.89	120.20
21	A2	1096	G	C4'-C3'-C2'	-5.54	97.06	102.60
21	A2	1368	A	O4'-C1'-C2'	-5.54	102.06	107.60
46	BA	87	LEU	CA-C-O	5.54	126.42	120.55
53	BD	188	GLY	O-C-N	-5.54	117.14	123.23
60	BS	91	ILE	CA-C-O	5.54	126.45	120.47
62	BN	66	ARG	N-CA-C	-5.54	105.24	111.28
67	B1	85	G	C4'-C3'-C2'	-5.54	97.06	102.60
67	B1	579	C	O4'-C1'-C2'	-5.54	100.26	105.80
67	B1	1082	A	C2'-C3'-O3'	5.54	117.81	109.50
67	B1	1117	C	C2'-C3'-O3'	5.54	117.81	109.50
67	B1	1746	C	P-O3'-C3'	5.54	128.51	120.20
67	B1	2586	A	P-O5'-C5'	5.54	129.21	120.90
4	AG	114	PRO	CA-C-N	5.54	129.97	120.72
4	AG	114	PRO	C-N-CA	5.54	129.97	120.72
25	AH	101	TYR	CA-C-O	-5.54	114.65	120.63
41	Ba	25	TRP	CA-C-N	-5.54	113.76	122.95
41	Ba	25	TRP	C-N-CA	-5.54	113.76	122.95
47	BI	28	VAL	CA-C-O	-5.54	114.01	121.32
67	B1	228	U	C4'-C3'-C2'	-5.54	97.06	102.60
10	AD	131	GLU	O-C-N	-5.54	116.18	123.21
11	A1	77	A	P-O5'-C5'	5.54	129.20	120.90
21	A2	75	C	P-O3'-C3'	5.54	128.50	120.20
21	A2	628	G	C1'-O4'-C4'	-5.54	104.36	109.90
30	AU	51	TRP	CA-C-N	5.54	128.15	120.29
30	AU	51	TRP	C-N-CA	5.54	128.15	120.29
52	BB	62	LYS	N-CA-C	-5.54	98.33	108.02
67	B1	1036	C	C3'-C2'-C1'	5.54	106.83	101.30
67	B1	2362	U	O4'-C1'-C2'	-5.54	100.26	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
68	B3	47	G	C1'-O4'-C4'	-5.54	104.36	109.90
17	AO	53	TYR	CA-C-N	5.53	131.63	122.33
17	AO	53	TYR	C-N-CA	5.53	131.63	122.33
20	A3	6	TYR	CA-C-O	-5.53	114.86	120.84
21	A2	482	G	C4'-C3'-O3'	-5.53	104.70	113.00
21	A2	528	G	C5'-C4'-C3'	-5.53	106.90	115.20
25	AH	55	HIS	N-CA-C	5.53	116.99	111.07
33	BC	161	VAL	CB-CA-C	5.53	120.36	111.29
67	B1	1566	G	O4'-C1'-C2'	5.53	113.13	107.60
67	B1	2135	C	C4'-C3'-C2'	5.53	108.13	102.60
67	B1	2329	A	P-O5'-C5'	-5.53	112.60	120.90
67	B1	2874	C	C1'-C2'-O2'	5.53	116.70	108.40
67	B1	2937	U	O4'-C1'-N1	5.53	116.80	108.50
21	A2	370	A	C4'-C3'-O3'	-5.53	104.70	113.00
33	BC	336	ILE	CB-CA-C	5.53	119.34	110.82
45	Bi	27	ALA	CA-C-N	5.53	127.53	120.56
45	Bi	27	ALA	C-N-CA	5.53	127.53	120.56
62	BN	87	ARG	N-CA-C	5.53	117.31	111.28
67	B1	701	G	P-O5'-C5'	5.53	129.20	120.90
67	B1	1106	C	N1-C1'-C2'	5.53	120.30	112.00
21	A2	283	U	C1'-O4'-C4'	-5.53	104.37	109.90
21	A2	618	G	P-O3'-C3'	-5.53	111.90	120.20
21	A2	1320	A	C5'-C4'-C3'	5.53	124.30	116.00
25	AH	83	GLY	N-CA-C	5.53	126.29	113.18
64	Bc	71	PHE	N-CA-C	-5.53	101.00	109.41
67	B1	626	C	O4'-C1'-N1	5.53	116.80	108.50
67	B1	746	C	N1-C1'-C2'	5.53	120.30	112.00
67	B1	829	G	C5'-C4'-C3'	5.53	124.30	116.00
67	B1	1807	G	C1'-C2'-O2'	-5.53	100.10	108.40
67	B1	2162	G	P-O5'-C5'	-5.53	112.60	120.90
67	B1	2543	A	O3'-P-O5'	-5.53	95.70	104.00
13	AX	68	LYS	CA-C-N	5.53	131.65	121.70
13	AX	68	LYS	C-N-CA	5.53	131.65	121.70
21	A2	1001	A	P-O3'-C3'	5.53	128.49	120.20
21	A2	1480	G	N9-C1'-C2'	-5.53	103.71	112.00
67	B1	1037	C	C2'-C3'-O3'	5.53	117.79	109.50
67	B1	2674	C	C5'-C4'-C3'	5.53	124.29	116.00
67	B1	2712	G	C3'-C2'-C1'	5.53	106.83	101.30
67	B1	2779	G	C4'-C3'-C2'	-5.53	97.07	102.60
68	B3	78	C	C4'-C3'-C2'	-5.53	97.07	102.60
6	AC	19	GLU	CB-CA-C	-5.53	101.45	110.85
21	A2	1060	G	C5'-C4'-O4'	5.53	118.09	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1086	C	C1'-O4'-C4'	-5.53	104.37	109.90
21	A2	1099	A	O4'-C1'-C2'	-5.53	102.07	107.60
46	BA	69	ALA	CA-C-O	5.53	126.35	120.10
67	B1	705	G	O4'-C1'-C2'	-5.53	102.07	107.60
67	B1	1972	C	C1'-C2'-O2'	5.53	116.69	108.40
67	B1	2128	G	O5'-C5'-C4'	-5.53	103.21	111.50
67	B1	2727	C	P-O3'-C3'	5.53	128.49	120.20
68	B3	32	C	P-O3'-C3'	-5.53	111.91	120.20
17	AO	135	PHE	CA-C-O	5.53	128.12	121.65
21	A2	100	A	C1'-O4'-C4'	-5.53	104.38	109.90
33	BC	83	ILE	N-CA-C	-5.53	100.37	108.11
46	BA	202	VAL	N-CA-CB	5.53	120.51	111.45
64	Bc	72	GLU	O-C-N	5.53	127.78	122.03
67	B1	28	A	P-O3'-C3'	-5.53	111.91	120.20
67	B1	102	A	O3'-P-O5'	-5.53	95.71	104.00
67	B1	2258	A	C1'-O4'-C4'	5.53	115.43	109.90
67	B1	2625	C	C3'-C2'-C1'	5.53	106.83	101.30
21	A2	239	A	C5'-C4'-C3'	5.52	123.49	115.20
24	AA	185	ILE	CA-C-N	5.52	127.62	120.44
24	AA	185	ILE	C-N-CA	5.52	127.62	120.44
33	BC	15	SER	N-CA-CB	5.52	116.71	110.03
53	BD	78	ARG	CA-C-N	5.52	132.09	121.54
53	BD	78	ARG	C-N-CA	5.52	132.09	121.54
67	B1	326	C	C4'-C3'-O3'	-5.52	104.71	113.00
67	B1	2504	U	O4'-C1'-C2'	-5.52	102.08	107.60
11	A1	30	G	C1'-O4'-C4'	-5.52	104.38	109.90
21	A2	56	A	C3'-C2'-C1'	5.52	107.02	101.50
21	A2	1184	U	C2'-C3'-O3'	5.52	117.78	109.50
33	BC	37	ARG	N-CA-C	-5.52	100.12	108.52
35	BL	3	ARG	CB-CA-C	5.52	118.54	110.26
63	Bg	28	ALA	O-C-N	-5.52	116.05	123.23
68	B3	44	C	P-O5'-C5'	5.52	129.18	120.90
3	AI	29	PRO	CA-C-O	-5.52	114.51	120.97
7	AB	2	ALA	N-CA-CB	5.52	118.16	110.04
21	A2	244	G	C4'-C3'-C2'	-5.52	97.08	102.60
21	A2	570	G	C1'-C2'-O2'	5.52	116.68	108.40
21	A2	1465	C	C1'-O4'-C4'	-5.52	104.38	109.90
43	Bk	140	MET	CA-C-N	5.52	127.68	120.28
43	Bk	140	MET	C-N-CA	5.52	127.68	120.28
44	BW	69	LYS	CA-C-O	-5.52	115.02	120.82
67	B1	312	G	O4'-C4'-C3'	-5.52	98.48	104.00
1	AQ	120	ARG	CA-CB-CG	5.52	125.14	114.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
15	AE	68	GLU	N-CA-CB	5.52	118.07	110.07
21	A2	427	G	O4'-C1'-N9	5.52	116.78	108.50
23	AT	40	LEU	CA-C-N	5.52	135.27	121.80
23	AT	40	LEU	C-N-CA	5.52	135.27	121.80
25	AH	71	ILE	CB-CA-C	5.52	119.59	112.14
33	BC	148	LEU	O-C-N	5.52	127.97	122.12
37	BU	37	GLU	CA-C-N	5.52	127.95	120.44
37	BU	37	GLU	C-N-CA	5.52	127.95	120.44
46	BA	7	LYS	N-CA-C	-5.52	107.55	114.56
47	BI	85	TRP	CE2-CD2-CE3	5.52	124.32	118.80
67	B1	731	C	C1'-O4'-C4'	-5.52	104.38	109.90
67	B1	1149	C	C5'-C4'-C3'	5.52	124.28	116.00
67	B1	1180	G	O3'-P-O5'	5.52	112.28	104.00
67	B1	1373	C	O4'-C1'-N1	5.52	116.78	108.50
67	B1	1454	G	O4'-C1'-C2'	5.52	111.32	105.80
67	B1	2175	G	N9-C1'-C2'	-5.52	103.72	112.00
15	AE	149	ILE	O-C-N	-5.52	116.92	123.04
18	AF	33	ASP	CA-CB-CG	-5.52	107.08	112.60
20	A3	16	ALA	CA-C-N	5.52	128.13	120.29
20	A3	16	ALA	C-N-CA	5.52	128.13	120.29
21	A2	1026	A	C1'-O4'-C4'	-5.52	104.38	109.90
21	A2	1219	C	C1'-C2'-O2'	5.52	116.68	108.40
32	BO	150	ALA	CA-C-N	5.52	128.12	120.29
32	BO	150	ALA	C-N-CA	5.52	128.12	120.29
67	B1	362	A	C3'-C2'-O2'	5.52	118.97	110.70
21	A2	1103	G	C1'-C2'-O2'	5.52	116.67	108.40
25	AH	137	THR	N-CA-CB	5.52	119.21	110.55
46	BA	20	LYS	CA-C-O	-5.52	114.43	120.17
20	BG	13	LYS	N-CA-CB	5.52	118.23	110.12
62	BN	164	ILE	N-CA-CB	5.52	117.29	111.00
67	B1	889	C	N1-C1'-C2'	5.52	120.27	112.00
67	B1	1863	G	O4'-C1'-N9	5.52	116.77	108.50
18	AF	11	ARG	NE-CZ-NH1	-5.51	115.98	121.50
21	A2	1395	G	O4'-C1'-N9	5.51	116.77	108.50
31	BY	93	ILE	N-CA-CB	5.51	118.85	110.58
33	BC	179	LYS	CA-C-N	5.51	126.73	119.84
33	BC	179	LYS	C-N-CA	5.51	126.73	119.84
49	BQ	26	PRO	N-CA-CB	5.51	108.99	103.48
67	B1	1223	A	C1'-O4'-C4'	5.51	115.41	109.90
6	AC	139	GLU	N-CA-CB	5.51	118.41	111.79
20	A3	95	ALA	O-C-N	5.51	129.92	122.59
21	A2	41	C	O4'-C1'-N1	5.51	116.77	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	230	C	C4'-C3'-C2'	-5.51	97.09	102.60
34	B5	25	VAL	N-CA-C	-5.51	107.45	112.96
49	BQ	48	GLY	CA-C-O	5.51	125.14	119.02
67	B1	955	A	N9-C1'-C2'	-5.51	103.73	112.00
67	B1	1526	G	N9-C1'-C2'	5.51	120.27	112.00
5	AW	41	GLY	N-CA-C	-5.51	107.71	115.32
15	AE	158	TYR	CA-C-O	-5.51	115.55	121.45
17	AO	31	ILE	N-CA-C	-5.51	98.52	107.28
21	A2	354	G	C1'-C2'-O2'	5.51	116.67	108.40
21	A2	961	U	P-O3'-C3'	5.51	128.47	120.20
31	BY	13	VAL	CA-C-N	5.51	131.90	123.47
31	BY	13	VAL	C-N-CA	5.51	131.90	123.47
41	Ba	52	PRO	CA-C-N	5.51	127.67	120.28
41	Ba	52	PRO	C-N-CA	5.51	127.67	120.28
48	BR	25	LEU	N-CA-CB	5.51	119.77	109.68
65	BJ	70	ARG	CA-C-N	5.51	125.13	119.56
65	BJ	70	ARG	C-N-CA	5.51	125.13	119.56
67	B1	1305	C	C3'-C2'-C1'	5.51	106.81	101.30
67	B1	1401	G	C5'-C4'-C3'	-5.51	107.73	116.00
67	B1	2416	G	O4'-C1'-C2'	-5.51	102.09	107.60
6	AC	57	ARG	NE-CZ-NH2	-5.51	114.24	119.20
11	A1	75	C	O4'-C1'-N1	5.51	116.76	108.50
21	A2	248	U	C3'-C2'-C1'	5.51	106.81	101.30
21	A2	442	C	C3'-C2'-C1'	5.51	106.81	101.30
21	A2	1410	G	C4'-C3'-C2'	-5.51	97.09	102.60
27	A0	6	C	C1'-C2'-O2'	5.51	116.66	108.40
51	Bj	38	ARG	CA-C-N	5.51	128.21	120.28
51	Bj	38	ARG	C-N-CA	5.51	128.21	120.28
62	BN	50	HIS	CE1-NE2-CD2	-5.51	103.49	109.00
67	B1	123	A	N9-C1'-C2'	5.51	120.26	112.00
67	B1	405	G	C1'-O4'-C4'	-5.51	104.39	109.90
67	B1	614	G	O4'-C4'-C3'	5.51	109.51	104.00
67	B1	1362	G	P-O3'-C3'	-5.51	111.94	120.20
67	B1	1691	U	N1-C1'-C2'	5.51	120.26	112.00
67	B1	2224	G	O4'-C1'-N9	5.51	116.76	108.50
11	A1	71	C	C1'-O4'-C4'	-5.51	104.39	109.90
21	A2	629	U	C1'-C2'-O2'	5.51	116.66	108.40
21	A2	1125	C	C3'-C2'-C1'	5.51	106.81	101.30
33	BC	299	GLU	CA-CB-CG	5.51	125.12	114.10
67	B1	1947	A	N9-C1'-C2'	5.51	120.26	112.00
67	B1	2235	G	C1'-O4'-C4'	-5.51	104.39	109.90
2	AK	121	ARG	CA-C-N	5.51	129.99	122.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AK	121	ARG	C-N-CA	5.51	129.99	122.34
21	A2	350	G	N9-C1'-C2'	5.51	120.26	112.00
21	A2	456	U	C4'-C3'-C2'	-5.51	97.09	102.60
25	AH	115	THR	CA-C-O	5.51	126.29	119.79
33	BC	298	ASP	N-CA-C	-5.51	101.60	110.14
53	BD	208	VAL	N-CA-C	-5.51	100.54	108.53
54	BF	10	GLU	CA-C-N	5.51	130.28	123.12
54	BF	10	GLU	C-N-CA	5.51	130.28	123.12
67	B1	817	G	O4'-C1'-N9	-5.51	100.24	108.50
67	B1	1621	G	P-O5'-C5'	5.51	129.16	120.90
21	A2	547	U	C4'-C3'-O3'	-5.50	104.74	113.00
30	AU	92	LYS	CB-CA-C	-5.50	98.50	109.79
32	BO	51	TYR	CA-C-N	5.50	130.00	122.07
32	BO	51	TYR	C-N-CA	5.50	130.00	122.07
67	B1	859	G	O4'-C1'-N9	5.50	116.76	108.50
67	B1	1022	G	O4'-C1'-C2'	5.50	113.11	107.60
67	B1	2482	G	C3'-C2'-C1'	5.50	106.81	101.30
21	A2	1220	G	O4'-C1'-C2'	-5.50	102.10	107.60
23	AT	7	ARG	NE-CZ-NH2	-5.50	114.25	119.20
25	AH	80	LYS	N-CA-CB	5.50	118.32	111.00
33	BC	124	PHE	CA-CB-CG	-5.50	108.30	113.80
33	BC	235	LYS	CG-CD-CE	5.50	123.96	111.30
52	BB	20	PRO	N-CA-CB	5.50	108.14	103.35
53	BD	235	HIS	CE1-NE2-CD2	-5.50	103.50	109.00
67	B1	1924	A	C1'-C2'-O2'	5.50	116.65	108.40
67	B1	2480	G	C4'-C3'-C2'	-5.50	97.10	102.60
67	B1	2515	U	O3'-P-O5'	-5.50	95.75	104.00
5	AW	30	HIS	CE1-NE2-CD2	-5.50	103.50	109.00
10	AD	26	GLU	N-CA-CB	5.50	117.99	110.01
21	A2	237	C	O4'-C1'-C2'	-5.50	102.10	107.60
21	A2	1413	G	O4'-C1'-N9	5.50	116.75	108.50
39	Be	44	ARG	CA-C-O	5.50	126.30	119.97
46	BA	40	LYS	N-CA-C	-5.50	105.83	112.54
46	BA	118	GLY	O-C-N	5.50	127.46	122.18
53	BD	28	PRO	CA-N-CD	-5.50	104.30	112.00
67	B1	84	A	C5'-C4'-C3'	5.50	123.45	115.20
67	B1	936	G	C4'-C3'-C2'	5.50	108.10	102.60
67	B1	1919	A	O4'-C1'-N9	5.50	116.45	108.20
67	B1	2688	C	O4'-C1'-C2'	-5.50	102.10	107.60
67	B1	2743	U	C4'-C3'-C2'	-5.50	97.10	102.60
8	AR	88	ILE	CA-CB-CG2	5.50	119.85	110.50
53	BD	9	ASN	N-CA-C	-5.50	106.34	113.16

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	AR	59	LYS	CB-CA-C	-5.50	102.21	110.90
11	A1	21	G	O4'-C1'-C2'	-5.50	102.10	107.60
21	A2	267	C	C3'-C2'-O2'	5.50	118.95	110.70
21	A2	471	G	C4'-C3'-C2'	5.50	108.10	102.60
21	A2	1080	C	O5'-C5'-C4'	-5.50	103.25	111.50
21	A2	1264	G	P-O3'-C3'	5.50	128.45	120.20
34	BK	48	MET	CA-C-O	-5.50	115.35	121.51
60	BS	44	LEU	O-C-N	5.50	127.95	122.12
65	BJ	116	THR	CA-C-O	5.50	125.62	119.41
67	B1	695	G	O5'-C5'-C4'	-5.50	103.25	111.50
68	B3	10	U	O3'-P-O5'	-5.50	95.75	104.00
11	A1	8	U	O3'-P-O5'	-5.50	95.75	104.00
18	AF	130	SER	CB-CA-C	-5.50	108.65	116.34
21	A2	889	G	O4'-C1'-N9	5.50	116.75	108.50
21	A2	1180	G	C3'-C2'-C1'	5.50	106.80	101.30
28	AV	49	GLU	CA-C-N	5.50	130.76	121.14
28	AV	49	GLU	C-N-CA	5.50	130.76	121.14
47	BI	4	ILE	CA-C-O	5.50	126.98	120.72
28	B6	56	ILE	N-CA-C	-5.50	99.91	108.81
67	B1	2259	G	C5'-C4'-O4'	5.50	118.05	109.80
21	A2	783	G	O4'-C1'-N9	5.50	116.74	108.50
53	BD	53	GLY	CA-C-O	-5.50	113.03	118.96
54	BF	109	ILE	CA-CB-CG1	-5.50	101.06	110.40
62	BN	84	PHE	CA-CB-CG	5.50	119.30	113.80
67	B1	1226	G	C5'-C4'-C3'	5.50	124.24	116.00
11	A1	5	C	O4'-C1'-C2'	-5.49	102.11	107.60
17	AO	22	ARG	N-CA-C	5.49	117.27	111.28
21	A2	730	G	O4'-C1'-N9	5.49	116.74	108.50
21	A2	976	A	C5'-C4'-C3'	-5.49	107.76	116.00
32	BO	177	ASP	CA-CB-CG	-5.49	107.11	112.60
33	BC	155	ILE	N-CA-C	5.49	116.13	110.36
56	BH	3	LYS	N-CA-C	-5.49	99.72	109.06
67	B1	70	G	C1'-C2'-O2'	5.49	120.04	111.80
67	B1	190	C	C4'-C3'-O3'	-5.49	104.76	113.00
67	B1	420	U	N1-C1'-C2'	-5.49	103.76	112.00
67	B1	438	G	O4'-C1'-C2'	5.49	113.09	107.60
67	B1	1025	A	O4'-C4'-C3'	-5.49	100.61	106.10
67	B1	1562	U	N1-C1'-C2'	5.49	120.24	112.00
67	B1	2667	U	O4'-C1'-C2'	-5.49	102.11	107.60
11	A1	68	C	C4'-C3'-C2'	-5.49	97.11	102.60
21	A2	1352	G	C1'-C2'-O2'	5.49	116.64	108.40
21	A2	1412	A	P-O5'-C5'	-5.49	112.66	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	823	G	P-O3'-C3'	-5.49	111.96	120.20
67	B1	1761	C	C4'-C3'-O3'	-5.49	104.76	113.00
4	AG	78	ILE	CA-C-O	-5.49	115.88	121.70
10	AD	40	GLU	CA-C-N	5.49	128.09	120.29
10	AD	40	GLU	C-N-CA	5.49	128.09	120.29
21	A2	98	U	N1-C1'-C2'	5.49	120.24	112.00
21	A2	426	C	C4'-C3'-C2'	-5.49	97.11	102.60
21	A2	462	A	O4'-C4'-C3'	-5.49	98.51	104.00
21	A2	1353	C	O3'-P-O5'	-5.49	95.77	104.00
34	BK	54	GLU	CA-C-N	5.49	125.39	119.85
34	BK	54	GLU	C-N-CA	5.49	125.39	119.85
60	BS	13	ASP	CA-C-N	5.49	125.58	119.32
60	BS	13	ASP	C-N-CA	5.49	125.58	119.32
67	B1	582	A	P-O3'-C3'	5.49	128.44	120.20
67	B1	813	G	C3'-C2'-C1'	-5.49	95.81	101.30
67	B1	1709	C	P-O5'-C5'	5.49	129.14	120.90
67	B1	1831	C	P-O5'-C5'	-5.49	112.66	120.90
67	B1	2364	G	C5'-C4'-C3'	5.49	124.23	116.00
67	B1	2644	G	N9-C1'-C2'	5.49	120.23	112.00
67	B1	2797	C	C2'-C3'-O3'	5.49	117.73	109.50
67	B1	3041	U	C2'-C3'-O3'	5.49	117.73	109.50
21	A2	441	U	C3'-C2'-C1'	5.49	106.79	101.30
21	A2	803	C	C3'-C2'-C1'	5.49	106.79	101.30
21	A2	1048	G	C4'-C3'-C2'	-5.49	97.11	102.60
21	A2	1097	G	O4'-C1'-N9	5.49	116.73	108.50
33	BC	143	MET	O-C-N	5.49	128.02	122.09
39	Be	30	VAL	CB-CA-C	-5.49	104.73	112.14
40	BE	80	VAL	N-CA-C	-5.49	100.33	108.45
58	BP	19	ARG	N-CA-CB	5.49	118.19	110.12
67	B1	977	C	N1-C1'-C2'	5.49	120.23	112.00
67	B1	1566	G	O4'-C4'-C3'	-5.49	98.51	104.00
67	B1	2432	G	N9-C1'-C2'	-5.49	103.77	112.00
67	B1	2917	G	P-O5'-C5'	-5.49	112.67	120.90
1	AQ	149	ASP	O-C-N	-5.49	116.13	121.56
6	AC	129	GLU	CA-C-N	5.49	130.57	122.94
6	AC	129	GLU	C-N-CA	5.49	130.57	122.94
24	AA	93	ARG	NE-CZ-NH2	-5.49	114.26	119.20
60	BS	28	SER	CA-C-O	-5.49	114.31	119.80
1	AQ	149	ASP	CA-C-O	-5.49	115.57	120.56
21	A2	509	C	O4'-C4'-C3'	-5.49	98.51	104.00
24	AA	111	THR	N-CA-C	-5.49	101.64	110.14
24	AA	190	VAL	CA-C-N	5.49	127.57	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	AA	190	VAL	C-N-CA	5.49	127.57	120.44
44	BW	24	GLN	OE1-CD-NE2	5.49	128.09	122.60
54	BF	104	GLN	N-CA-C	-5.49	99.47	108.41
67	B1	2008	G	P-O3'-C3'	-5.49	111.97	120.20
67	B1	2666	G	C3'-C2'-C1'	-5.49	95.81	101.30
67	B1	2968	G	P-O5'-C5'	-5.49	112.67	120.90
68	B3	89	G	N9-C1'-C2'	5.49	120.23	112.00
12	AN	34	VAL	O-C-N	5.48	127.19	121.87
25	AH	88	ARG	CB-CG-CD	5.48	123.91	111.30
67	B1	922	C	C1'-O4'-C4'	-5.48	104.42	109.90
67	B1	1899	C	O4'-C1'-N1	5.48	116.73	108.50
67	B1	2338	A	C3'-C2'-C1'	5.48	106.98	101.50
12	AN	69	MET	N-CA-C	-5.48	98.82	108.20
19	AS	31	ASN	CA-C-N	5.48	127.63	120.28
19	AS	31	ASN	C-N-CA	5.48	127.63	120.28
21	A2	200	G	C3'-C2'-C1'	5.48	106.78	101.30
34	BK	25	VAL	N-CA-C	-5.48	107.48	112.96
51	Bj	20	HIS	CG-CD2-NE2	5.48	112.68	107.20
59	BM	130	VAL	CA-CB-CG1	5.48	119.72	110.40
67	B1	32	C	C4'-C3'-C2'	-5.48	97.12	102.60
11	A1	58	A	C3'-C2'-C1'	5.48	106.78	101.30
21	A2	35	G	C1'-O4'-C4'	-5.48	104.42	109.90
21	A2	67	C	N1-C1'-C2'	5.48	120.22	112.00
21	A2	747	U	O4'-C1'-N1	5.48	116.42	108.20
40	BE	110	HIS	CB-CG-ND1	5.48	130.92	122.70
58	BP	1	MET	CA-C-N	5.48	127.62	120.28
58	BP	1	MET	C-N-CA	5.48	127.62	120.28
59	BM	105	ALA	CA-C-O	-5.48	114.74	120.55
66	B1	72	ARG	CA-C-N	5.48	127.62	120.28
66	B1	72	ARG	C-N-CA	5.48	127.62	120.28
67	B1	224	G	O4'-C1'-C2'	-5.48	102.12	107.60
67	B1	2314	U	C3'-C2'-C1'	5.48	106.78	101.30
67	B1	2487	G	O4'-C1'-C2'	5.48	113.08	107.60
25	AH	86	MET	CA-CB-CG	5.48	125.06	114.10
26	AP	12	ARG	CD-NE-CZ	-5.48	116.73	124.40
38	Bb	105	THR	CA-C-O	5.48	126.36	120.55
46	BA	135	VAL	CA-C-N	5.48	126.02	120.38
46	BA	135	VAL	C-N-CA	5.48	126.02	120.38
67	B1	2991	C	O4'-C1'-N1	5.48	116.72	108.50
7	AB	62	PHE	CB-CA-C	-5.48	103.90	112.12
7	AB	126	ALA	O-C-N	5.48	127.71	122.07
15	AE	36	PRO	CB-CA-C	-5.48	103.94	113.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	38	G	C1'-C2'-O2'	5.48	116.62	108.40
21	A2	207	G	O4'-C1'-N9	5.48	116.72	108.50
21	A2	275	A	O4'-C1'-C2'	5.48	111.28	105.80
21	A2	871	A	C4'-C3'-C2'	5.48	108.08	102.60
21	A2	958	G	C1'-O4'-C4'	5.48	115.38	109.90
21	A2	1152	C	C4'-C3'-C2'	-5.48	97.12	102.60
40	BE	37	SER	N-CA-C	-5.48	103.18	111.56
43	Bk	48	ASN	CA-CB-CG	-5.48	107.12	112.60
44	BW	48	ARG	N-CA-CB	5.48	118.17	110.12
49	BQ	5	LYS	N-CA-C	5.48	117.25	111.28
67	B1	186	A	C3'-C2'-C1'	5.48	106.78	101.30
67	B1	2231	G	O4'-C4'-C3'	5.48	109.48	104.00
68	B3	90	A	C1'-O4'-C4'	-5.48	104.42	109.90
10	AD	162	ASN	CB-CA-C	-5.48	104.08	110.76
21	A2	463	G	C1'-O4'-C4'	-5.48	104.42	109.90
28	B6	90	ASP	CA-CB-CG	-5.48	107.12	112.60
67	B1	78	C	C1'-O4'-C4'	-5.48	104.42	109.90
67	B1	212	A	P-O3'-C3'	5.48	128.41	120.20
67	B1	2460	A	C3'-C2'-C1'	5.48	106.98	101.50
11	A1	9	A	C2'-C3'-O3'	5.47	117.71	109.50
15	AE	228	GLU	N-CA-C	5.47	117.25	111.28
21	A2	402	G	N9-C1'-C2'	5.47	120.21	112.00
21	A2	1039	C	P-O5'-C5'	-5.47	112.69	120.90
21	A2	1051	G	C1'-O4'-C4'	5.47	115.37	109.90
21	A2	1394	G	O4'-C4'-C3'	-5.47	98.53	104.00
52	BB	94	GLY	N-CA-C	-5.47	108.09	115.21
59	BM	75	ARG	N-CA-C	5.47	117.80	110.35
67	B1	1674	G	O4'-C1'-N9	5.47	116.71	108.50
67	B1	2066	C	C3'-C2'-C1'	5.47	106.78	101.30
67	B1	3021	C	C3'-C2'-C1'	5.47	106.77	101.30
1	AQ	108	HIS	ND1-CE1-NE2	5.47	113.87	108.40
8	AR	61	GLU	N-CA-CB	5.47	119.74	110.49
14	AM	73	GLU	CB-CG-CD	-5.47	103.30	112.60
15	AE	210	PRO	O-C-N	5.47	129.96	123.06
51	Bj	7	ILE	O-C-N	-5.47	117.94	123.19
67	B1	2641	C	C3'-C2'-C1'	5.47	106.77	101.30
68	B3	17	G	C4'-C3'-C2'	-5.47	97.13	102.60
4	AG	24	ALA	CA-C-N	5.47	127.61	120.28
4	AG	24	ALA	C-N-CA	5.47	127.61	120.28
30	AU	94	GLY	CA-C-N	5.47	127.17	120.22
30	AU	94	GLY	C-N-CA	5.47	127.17	120.22
43	Bk	39	SER	CB-CA-C	5.47	119.87	110.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1129	G	O4'-C1'-N9	5.47	116.71	108.50
67	B1	2962	A	C3'-C2'-C1'	-5.47	95.83	101.30
68	B3	43	C	C4'-C3'-C2'	-5.47	97.13	102.60
17	AO	120	HIS	CB-CA-C	-5.47	101.71	110.79
21	A2	573	C	P-O5'-C5'	-5.47	112.70	120.90
21	A2	951	G	P-O3'-C3'	5.47	128.40	120.20
21	A2	978	G	C1'-O4'-C4'	-5.47	104.43	109.90
32	BO	106	ILE	CA-CB-CG1	5.47	119.70	110.40
40	BE	92	LYS	CA-C-O	5.47	126.35	120.55
67	B1	1699	U	C1'-C2'-O2'	5.47	116.61	108.40
67	B1	2380	A	C1'-O4'-C4'	-5.47	104.23	109.70
68	B3	119	C	C1'-C2'-O2'	-5.47	100.20	108.40
21	A2	369	A	O4'-C4'-C3'	-5.47	100.63	106.10
30	AU	2	ALA	CA-C-O	-5.47	115.43	121.28
44	BW	70	VAL	CA-CB-CG2	-5.47	101.11	110.40
48	BR	6	HIS	N-CA-CB	5.47	120.44	110.60
52	BB	88	ASP	CA-C-O	5.47	125.96	119.56
67	B1	2085	C	C1'-C2'-O2'	5.47	116.60	108.40
67	B1	2264	G	C3'-C2'-O2'	5.47	118.90	110.70
8	AR	3	ARG	CA-C-N	5.47	128.63	120.87
8	AR	3	ARG	C-N-CA	5.47	128.63	120.87
13	AX	1	MET	CA-C-N	5.47	129.52	120.94
13	AX	1	MET	C-N-CA	5.47	129.52	120.94
21	A2	260	C	C3'-C2'-C1'	5.47	106.77	101.30
21	A2	410	U	N1-C1'-C2'	5.47	120.20	112.00
21	A2	468	G	C1'-O4'-C4'	-5.47	104.43	109.90
21	A2	620	G	O4'-C1'-C2'	-5.47	102.13	107.60
21	A2	1175	C	C4'-C3'-C2'	-5.47	97.13	102.60
30	AU	105	LEU	CB-CA-C	-5.47	101.72	110.79
43	Bk	21	SER	N-CA-CB	5.47	118.75	110.28
45	Bi	18	GLY	CA-C-O	-5.47	117.86	122.29
53	BD	123	ASN	CA-CB-CG	5.47	118.07	112.60
67	B1	543	G	C5'-C4'-C3'	5.47	123.40	115.20
67	B1	995	G	O4'-C1'-C2'	-5.47	100.33	105.80
67	B1	2039	U	O4'-C1'-C2'	-5.47	102.13	107.60
67	B1	2160	C	O4'-C4'-C3'	-5.47	98.53	104.00
67	B1	2434	A	O4'-C1'-N9	-5.47	100.00	108.20
67	B1	2540	A	P-O3'-C3'	5.47	128.40	120.20
67	B1	2542	G	O4'-C1'-N9	5.47	116.40	108.20
67	B1	2919	C	O4'-C1'-N1	5.47	116.70	108.50
68	B3	118	G	N9-C1'-C2'	-5.47	103.80	112.00
10	AD	28	VAL	CA-C-N	5.46	128.05	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	AD	28	VAL	C-N-CA	5.46	128.05	120.29
22	AY	5	TRP	CA-C-N	5.46	130.13	121.99
22	AY	5	TRP	C-N-CA	5.46	130.13	121.99
33	BC	272	GLY	N-CA-C	-5.46	102.82	110.63
49	BQ	66	ARG	N-CA-CB	5.46	117.94	110.01
49	BQ	124	TYR	N-CA-C	-5.46	105.24	111.14
67	B1	1061	G	C4'-C3'-C2'	-5.46	97.14	102.60
67	B1	1418	A	O4'-C1'-C2'	-5.46	100.34	105.80
21	A2	406	U	O4'-C1'-N1	5.46	116.69	108.50
20	BG	61	GLU	CA-C-N	5.46	127.94	120.46
20	BG	61	GLU	C-N-CA	5.46	127.94	120.46
67	B1	616	C	O4'-C1'-C2'	-5.46	102.14	107.60
67	B1	1640	G	P-O3'-C3'	5.46	128.40	120.20
67	B1	1743	G	C1'-O4'-C4'	5.46	115.36	109.90
7	AB	175	ILE	O-C-N	5.46	127.17	121.87
21	A2	629	U	N1-C1'-C2'	5.46	120.19	112.00
21	A2	687	G	O4'-C1'-C2'	5.46	111.26	105.80
21	A2	848	G	C2'-C3'-O3'	5.46	117.69	109.50
21	A2	1170	C	O4'-C1'-C2'	-5.46	102.14	107.60
21	A2	1303	C	O4'-C1'-C2'	-5.46	102.14	107.60
21	A2	1326	G	O4'-C1'-N9	5.46	116.69	108.50
23	AT	105	GLU	N-CA-CB	5.46	118.15	110.12
30	AU	85	HIS	ND1-CE1-NE2	5.46	113.86	108.40
32	BO	97	ALA	N-CA-C	-5.46	106.98	113.97
44	BW	29	ARG	CA-C-N	5.46	126.04	119.98
44	BW	29	ARG	C-N-CA	5.46	126.04	119.98
45	Bi	30	ALA	CA-C-O	5.46	126.21	120.42
49	BQ	86	THR	CA-CB-OG1	5.46	117.79	109.60
51	Bj	42	ARG	N-CA-C	5.46	122.43	110.80
54	BF	53	VAL	CA-C-N	5.46	130.29	123.14
54	BF	53	VAL	C-N-CA	5.46	130.29	123.14
57	BZ	68	VAL	O-C-N	-5.46	115.74	122.57
67	B1	616	C	O4'-C4'-C3'	-5.46	98.54	104.00
67	B1	2343	G	C1'-C2'-O2'	5.46	116.59	108.40
67	B1	2361	C	N1-C1'-C2'	5.46	120.19	112.00
68	B3	16	G	C4'-C3'-C2'	-5.46	97.14	102.60
68	B3	60	C	O4'-C1'-N1	5.46	116.69	108.50
20	A3	29	THR	N-CA-C	-5.46	104.20	111.24
40	BE	176	MET	CA-C-N	5.46	128.14	120.28
40	BE	176	MET	C-N-CA	5.46	128.14	120.28
46	BA	168	GLY	CA-C-N	5.46	131.38	122.81
46	BA	168	GLY	C-N-CA	5.46	131.38	122.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
62	BN	19	ARG	NE-CZ-NH2	5.46	124.11	119.20
67	B1	1407	A	C5'-C4'-C3'	-5.46	107.01	115.20
67	B1	2031	G	C1'-O4'-C4'	5.46	115.36	109.90
20	A3	60	GLU	CB-CA-C	-5.46	101.16	109.89
21	A2	105	C	P-O5'-C5'	5.46	129.09	120.90
21	A2	723	G	C1'-O4'-C4'	-5.46	104.44	109.90
27	A0	10	G	N9-C1'-C2'	5.46	120.19	112.00
40	BE	88	TYR	CB-CG-CD1	5.46	128.99	120.80
46	BA	49	GLU	N-CA-C	-5.46	101.06	109.52
67	B1	1877	C	O4'-C1'-C2'	-5.46	102.14	107.60
67	B1	2120	C	O4'-C1'-C2'	-5.46	100.34	105.80
67	B1	2276	G	C1'-O4'-C4'	5.46	115.36	109.90
67	B1	2768	C	O4'-C1'-C2'	-5.46	102.14	107.60
67	B1	3010	C	C3'-C2'-C1'	5.46	106.76	101.30
68	B3	90	A	O4'-C1'-C2'	-5.46	102.14	107.60
11	A1	37	A	N9-C1'-C2'	5.46	120.18	112.00
21	A2	993	C	O4'-C1'-C2'	-5.46	102.14	107.60
27	A0	67	G	C3'-C2'-C1'	-5.46	95.84	101.30
64	Bc	35	ALA	CA-C-N	5.46	128.14	120.28
64	Bc	35	ALA	C-N-CA	5.46	128.14	120.28
67	B1	94	A	C1'-O4'-C4'	5.46	115.36	109.90
67	B1	1037	C	P-O5'-C5'	-5.46	112.71	120.90
67	B1	1138	C	N1-C1'-C2'	5.46	120.19	112.00
67	B1	1203	C	C3'-C2'-C1'	5.46	106.76	101.30
67	B1	1752	C	C1'-O4'-C4'	-5.46	104.44	109.90
67	B1	1965	C	C1'-C2'-O2'	5.46	116.58	108.40
67	B1	2011	U	C1'-O4'-C4'	5.46	115.36	109.90
67	B1	2505	A	O4'-C1'-C2'	-5.46	102.14	107.60
1	AQ	108	HIS	CE1-NE2-CD2	-5.46	103.55	109.00
21	A2	254	G	P-O5'-C5'	-5.46	112.72	120.90
34	B5	54	GLU	CA-C-N	5.46	125.36	119.85
34	B5	54	GLU	C-N-CA	5.46	125.36	119.85
46	BA	204	VAL	N-CA-CB	5.46	119.48	111.52
59	BM	147	ALA	CA-C-O	-5.46	114.09	120.20
65	BJ	105	VAL	CA-CB-CG1	5.46	119.67	110.40
67	B1	87	C	O4'-C1'-C2'	-5.46	102.14	107.60
67	B1	1732	C	O5'-C5'-C4'	5.46	119.68	111.50
67	B1	2495	A	C3'-C2'-C1'	-5.46	95.84	101.30
67	B1	2760	A	C5'-C4'-C3'	-5.46	107.02	115.20
67	B1	2783	C	P-O3'-C3'	5.46	128.38	120.20
19	AS	62	MET	N-CA-CB	5.45	118.14	110.12
21	A2	308	G	C5'-C4'-C3'	5.45	124.18	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	515	U	C5'-C4'-O4'	5.45	117.28	109.10
21	A2	540	G	C3'-C2'-O2'	5.45	118.88	110.70
21	A2	1204	C	O5'-C5'-C4'	-5.45	103.32	111.50
21	A2	1265	G	N9-C1'-C2'	5.45	120.18	112.00
21	A2	1311	C	C5'-C4'-C3'	-5.45	107.82	116.00
21	A2	1353	C	O4'-C1'-C2'	-5.45	102.15	107.60
21	A2	1362	C	C1'-O4'-C4'	5.45	115.35	109.90
33	BC	13	GLY	CA-C-N	5.45	130.12	121.18
33	BC	13	GLY	C-N-CA	5.45	130.12	121.18
33	BC	242	ARG	O-C-N	-5.45	118.05	122.03
62	BN	67	GLN	CA-C-N	5.45	128.13	120.28
62	BN	67	GLN	C-N-CA	5.45	128.13	120.28
67	B1	20	C	O4'-C1'-C2'	-5.45	102.15	107.60
67	B1	372	A	C4'-C3'-C2'	-5.45	97.15	102.60
67	B1	393	C	C5'-C4'-O4'	-5.45	101.62	109.80
67	B1	1603	G	C4'-C3'-C2'	-5.45	97.15	102.60
2	AK	108	VAL	CA-CB-CG2	5.45	119.67	110.40
21	A2	1017	U	C2'-C3'-O3'	5.45	117.68	109.50
31	BY	101	VAL	CA-C-N	5.45	128.60	120.31
31	BY	101	VAL	C-N-CA	5.45	128.60	120.31
43	Bk	42	ARG	CA-C-N	5.45	127.58	120.28
43	Bk	42	ARG	C-N-CA	5.45	127.58	120.28
28	B6	63	TYR	CB-CG-CD2	-5.45	112.62	120.80
59	BM	2	GLY	CA-C-O	-5.45	116.92	122.59
67	B1	394	A	O4'-C1'-N9	5.45	116.68	108.50
4	AG	38	ILE	N-CA-C	-5.45	101.62	108.05
6	AC	35	ILE	CA-C-N	5.45	130.85	123.11
6	AC	35	ILE	C-N-CA	5.45	130.85	123.11
21	A2	465	C	N1-C1'-C2'	5.45	120.18	112.00
36	Bf	35	VAL	CA-C-O	5.45	127.06	120.85
20	BG	62	ILE	CA-C-N	5.45	129.27	120.82
20	BG	62	ILE	C-N-CA	5.45	129.27	120.82
67	B1	347	G	P-O5'-C5'	-5.45	112.73	120.90
67	B1	498	U	C4'-C3'-O3'	-5.45	104.83	113.00
67	B1	936	G	C4'-C3'-O3'	5.45	117.58	109.40
67	B1	1188	C	N1-C1'-C2'	5.45	120.18	112.00
67	B1	2016	C	C1'-O4'-C4'	5.45	115.35	109.90
67	B1	2171	G	C1'-C2'-O2'	-5.45	100.22	108.40
4	AG	3	THR	N-CA-C	-5.45	101.00	109.72
10	AD	49	LYS	N-CA-C	5.45	117.22	111.28
20	A3	66	LEU	N-CA-C	5.45	120.90	113.16
21	A2	329	G	O4'-C1'-C2'	-5.45	102.15	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	377	A	C3'-C2'-C1'	5.45	106.75	101.30
32	BO	29	LYS	CB-CA-C	-5.45	100.55	110.63
32	BO	96	GLN	N-CA-CB	5.45	119.72	111.06
50	BV	42	PHE	N-CA-CB	5.45	118.13	110.12
67	B1	356	C	C5'-C4'-C3'	5.45	124.17	116.00
67	B1	459	C	C3'-C2'-C1'	5.45	106.75	101.30
67	B1	671	G	C3'-C2'-C1'	-5.45	95.85	101.30
68	B3	8	C	C4'-C3'-O3'	5.45	117.57	109.40
67	B1	246	A	C4'-C3'-O3'	-5.45	104.83	113.00
67	B1	845	U	N1-C1'-C2'	5.45	120.17	112.00
67	B1	1800	G	C1'-O4'-C4'	-5.45	104.45	109.90
67	B1	2912	G	C2'-C3'-O3'	5.45	121.87	113.70
10	AD	26	GLU	N-CA-C	5.45	116.90	111.07
10	AD	109	VAL	CA-CB-CG1	5.45	119.66	110.40
12	AN	29	ARG	CA-C-N	5.45	127.85	120.44
12	AN	29	ARG	C-N-CA	5.45	127.85	120.44
21	A2	653	C	C1'-C2'-O2'	5.45	116.57	108.40
21	A2	702	G	C1'-O4'-C4'	-5.45	104.45	109.90
21	A2	809	C	O4'-C1'-C2'	-5.45	102.16	107.60
58	BP	70	GLY	CA-C-N	5.45	131.94	121.54
58	BP	70	GLY	C-N-CA	5.45	131.94	121.54
67	B1	503	U	N1-C1'-C2'	5.45	120.17	112.00
67	B1	811	C	C1'-O4'-C4'	-5.45	104.45	109.90
67	B1	989	G	C3'-C2'-C1'	5.45	106.75	101.30
67	B1	1824	G	N9-C1'-C2'	5.45	120.17	112.00
67	B1	2392	A	N9-C1'-C2'	5.45	120.17	112.00
67	B1	2449	A	C1'-C2'-O2'	-5.45	103.63	111.80
67	B1	2950	G	C4'-C3'-O3'	-5.45	104.83	113.00
6	AC	92	ALA	CA-C-N	5.44	127.57	120.28
6	AC	92	ALA	C-N-CA	5.44	127.57	120.28
21	A2	33	U	C5'-C4'-C3'	5.44	124.17	116.00
31	BY	134	PHE	CB-CA-C	-5.44	101.75	110.79
20	B4	107	ALA	CA-C-N	5.44	127.84	120.38
20	B4	107	ALA	C-N-CA	5.44	127.84	120.38
67	B1	177	G	O4'-C1'-C2'	5.44	113.04	107.60
67	B1	1177	C	N1-C1'-C2'	5.44	120.17	112.00
67	B1	2268	C	O4'-C1'-N1	5.44	116.67	108.50
21	A2	1177	C	O4'-C1'-C2'	5.44	113.04	107.60
56	BH	60	VAL	CA-CB-CG2	5.44	119.65	110.40
60	BS	117	ILE	N-CA-C	-5.44	100.81	108.27
64	Bc	6	VAL	N-CA-CB	5.44	121.21	111.63
67	B1	101	G	O4'-C1'-C2'	-5.44	100.36	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	466	C	C1'-O4'-C4'	-5.44	104.46	109.90
67	B1	1296	A	C1'-O4'-C4'	-5.44	104.46	109.90
67	B1	1763	A	C5'-C4'-C3'	-5.44	107.84	116.00
67	B1	2048	C	C4'-C3'-C2'	5.44	108.04	102.60
67	B1	2267	U	C1'-C2'-O2'	5.44	116.56	108.40
67	B1	2683	G	C3'-C2'-C1'	-5.44	95.86	101.30
7	AB	18	HIS	ND1-CE1-NE2	5.44	113.84	108.40
21	A2	206	C	O4'-C1'-C2'	-5.44	102.16	107.60
21	A2	800	G	O4'-C1'-N9	5.44	116.66	108.50
29	AL	13	VAL	CA-C-N	5.44	127.51	120.44
29	AL	13	VAL	C-N-CA	5.44	127.51	120.44
33	BC	100	ILE	CA-CB-CG2	-5.44	101.25	110.50
41	Ba	23	PRO	N-CA-C	5.44	119.77	111.34
54	BF	90	LEU	N-CA-C	-5.44	100.80	109.23
28	B6	89	ARG	CA-C-N	5.44	127.57	120.28
28	B6	89	ARG	C-N-CA	5.44	127.57	120.28
59	BM	65	ARG	NE-CZ-NH2	-5.44	114.30	119.20
61	Bd	65	GLU	CB-CG-CD	-5.44	103.35	112.60
63	Bg	14	LYS	N-CA-C	-5.44	100.66	108.60
67	B1	409	C	P-O5'-C5'	5.44	129.06	120.90
67	B1	825	C	P-O5'-C5'	-5.44	112.74	120.90
67	B1	1120	C	C1'-O4'-C4'	-5.44	104.46	109.90
67	B1	1548	A	C1'-O4'-C4'	5.44	115.34	109.90
67	B1	2974	U	O4'-C1'-C2'	-5.44	102.16	107.60
21	A2	1360	C	C3'-C2'-C1'	5.44	106.94	101.50
30	AU	23	ILE	O-C-N	-5.44	114.90	121.10
33	BC	303	ILE	CA-C-N	5.44	131.93	121.54
33	BC	303	ILE	C-N-CA	5.44	131.93	121.54
41	Ba	54	VAL	N-CA-CB	5.44	118.74	110.58
28	B6	71	ALA	O-C-N	-5.44	116.83	123.30
65	BJ	137	ALA	N-CA-C	5.44	117.91	110.24
67	B1	85	G	O3'-P-O5'	5.44	112.16	104.00
67	B1	210	A	C4'-C3'-C2'	5.44	108.04	102.60
68	B3	49	A	O4'-C4'-C3'	-5.44	98.56	104.00
4	AG	119	VAL	N-CA-C	-5.44	100.50	108.11
21	A2	194	C	O3'-P-O5'	5.44	112.16	104.00
21	A2	279	U	C3'-C2'-O2'	5.44	118.86	110.70
21	A2	1239	A	P-O3'-C3'	-5.44	112.04	120.20
21	A2	1364	C	C3'-C2'-C1'	5.44	106.74	101.30
21	A2	1472	G	C5'-C4'-C3'	5.44	124.16	116.00
25	AH	65	GLU	N-CA-CB	5.44	118.11	110.12
40	BE	35	GLY	CA-C-N	5.44	128.48	119.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BE	35	GLY	C-N-CA	5.44	128.48	119.35
54	BF	8	ARG	CD-NE-CZ	5.44	132.01	124.40
61	Bd	16	ARG	CD-NE-CZ	-5.44	116.79	124.40
67	B1	60	G	O4'-C4'-C3'	-5.44	100.66	106.10
67	B1	888	U	O4'-C1'-N1	5.44	116.66	108.50
67	B1	1801	C	O4'-C1'-C2'	-5.44	102.16	107.60
67	B1	2556	C	C3'-C2'-C1'	5.44	106.74	101.30
21	A2	304	C	C1'-C2'-O2'	5.44	116.55	108.40
21	A2	1361	G	C4'-C3'-C2'	-5.44	97.16	102.60
40	BE	97	ALA	N-CA-C	5.44	117.21	111.28
52	BB	154	MET	N-CA-C	-5.44	106.52	112.72
20	B4	31	LYS	CA-C-O	-5.44	114.97	121.11
64	Bc	71	PHE	CA-CB-CG	-5.44	108.36	113.80
67	B1	1811	G	O4'-C1'-C2'	5.44	113.04	107.60
67	B1	2755	G	C4'-C3'-O3'	-5.44	104.85	113.00
3	AI	113	HIS	CE1-NE2-CD2	-5.43	103.56	109.00
10	AD	170	MET	CA-C-N	5.43	127.91	120.46
10	AD	170	MET	C-N-CA	5.43	127.91	120.46
18	AF	209	ASN	CA-CB-CG	-5.43	107.17	112.60
20	A3	59	PRO	N-CD-CG	5.43	110.32	103.80
21	A2	332	C	C5'-C4'-C3'	5.43	124.15	116.00
21	A2	1175	C	C1'-C2'-O2'	5.43	116.55	108.40
33	BC	54	ILE	CA-C-N	5.43	129.06	121.02
33	BC	54	ILE	C-N-CA	5.43	129.06	121.02
49	BQ	64	LYS	N-CA-CB	5.43	118.11	110.12
67	B1	515	G	N9-C1'-C2'	-5.43	103.85	112.00
67	B1	1218	C	C5'-C4'-C3'	-5.43	107.85	116.00
67	B1	2156	A	C4'-C3'-O3'	5.43	117.55	109.40
21	A2	511	C	C3'-C2'-C1'	5.43	106.73	101.30
21	A2	733	C	C1'-O4'-C4'	-5.43	104.47	109.90
21	A2	1133	C	P-O3'-C3'	-5.43	112.05	120.20
23	AT	73	LEU	CA-C-N	5.43	125.51	119.32
23	AT	73	LEU	C-N-CA	5.43	125.51	119.32
58	BP	80	VAL	N-CA-C	-5.43	100.56	108.17
67	B1	1654	G	C1'-O4'-C4'	5.43	115.33	109.90
67	B1	2398	C	C1'-O4'-C4'	-5.43	104.47	109.90
67	B1	2411	C	C1'-O4'-C4'	5.43	115.33	109.90
68	B3	101	A	O5'-C5'-C4'	-5.43	103.35	111.50
1	AQ	11	LYS	CA-C-N	5.43	128.42	120.71
1	AQ	11	LYS	C-N-CA	5.43	128.42	120.71
40	BE	119	GLU	CA-C-O	5.43	128.28	120.51
20	BG	82	SER	CA-C-N	5.43	128.00	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	BG	82	SER	C-N-CA	5.43	128.00	120.29
67	B1	65	G	C1'-C2'-O2'	5.43	116.55	108.40
67	B1	1041	U	O4'-C1'-N1	5.43	116.65	108.50
67	B1	1437	C	O4'-C1'-C2'	-5.43	102.17	107.60
1	AQ	62	SER	N-CA-CB	5.43	119.67	110.49
21	A2	87	C	C4'-C3'-C2'	-5.43	97.17	102.60
21	A2	670	C	P-O5'-C5'	5.43	129.04	120.90
21	A2	963	A	C2'-C3'-O3'	5.43	117.64	109.50
47	BI	112	LEU	CA-C-N	5.43	127.56	120.28
47	BI	112	LEU	C-N-CA	5.43	127.56	120.28
56	BH	2	PRO	CA-N-CD	-5.43	104.40	112.00
56	BH	46	PHE	CA-CB-CG	-5.43	108.37	113.80
59	BM	110	ASN	N-CA-C	-5.43	106.24	112.92
60	BS	24	ASP	CA-CB-CG	5.43	118.03	112.60
67	B1	413	A	C1'-O4'-C4'	5.43	115.13	109.70
67	B1	889	C	C4'-C3'-O3'	-5.43	104.86	113.00
67	B1	1601	G	C5'-C4'-C3'	5.43	124.14	116.00
67	B1	1804	G	C4'-C3'-C2'	5.43	108.03	102.60
67	B1	2567	C	N1-C1'-C2'	5.43	120.15	112.00
8	AR	70	ILE	O-C-N	-5.43	117.34	123.20
21	A2	10	G	C1'-C2'-O2'	5.43	116.54	108.40
21	A2	151	G	C1'-O4'-C4'	5.43	115.33	109.90
67	B1	419	G	C5'-C4'-C3'	-5.43	107.86	116.00
67	B1	520	G	O3'-P-O5'	-5.43	95.86	104.00
67	B1	624	U	N1-C1'-C2'	5.43	120.14	112.00
3	AI	9	ASN	CA-CB-CG	-5.43	107.17	112.60
16	AJ	66	PHE	O-C-N	-5.43	118.53	123.41
21	A2	85	A	C4'-C3'-C2'	-5.43	97.17	102.60
21	A2	749	C	C3'-C2'-C1'	5.43	106.73	101.30
21	A2	1250	C	C5'-C4'-C3'	-5.43	107.86	116.00
21	A2	1455	A	C1'-O4'-C4'	-5.43	104.47	109.90
24	AA	170	ILE	O-C-N	5.43	127.13	121.87
41	Ba	10	ILE	N-CA-C	-5.43	100.57	108.17
60	BS	44	LEU	CA-C-N	5.43	127.55	120.28
60	BS	44	LEU	C-N-CA	5.43	127.55	120.28
67	B1	570	G	N9-C1'-C2'	5.43	120.14	112.00
67	B1	1088	G	C4'-C3'-O3'	-5.43	104.86	113.00
68	B3	66	A	P-O5'-C5'	5.43	129.04	120.90
11	A1	67	C	C3'-C2'-C1'	5.42	106.72	101.30
21	A2	219	C	C5'-C4'-C3'	5.42	124.14	116.00
21	A2	453	G	C4'-C3'-C2'	-5.42	97.18	102.60
21	A2	1130	A	N9-C1'-C2'	-5.42	103.86	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1139	A	N9-C1'-C2'	5.42	120.14	112.00
21	A2	1393	A	C1'-O4'-C4'	5.42	115.33	109.90
29	AL	72	LEU	CB-CA-C	5.42	119.52	109.70
30	AU	8	PRO	CA-C-O	-5.42	115.41	121.32
32	BO	97	ALA	CB-CA-C	-5.42	99.96	109.07
32	BO	116	SER	CA-C-N	5.42	128.12	120.42
32	BO	116	SER	C-N-CA	5.42	128.12	120.42
33	BC	350	PRO	N-CA-CB	5.42	108.38	103.34
51	Bj	64	LYS	CB-CA-C	5.42	120.80	109.68
57	BZ	40	ASN	N-CA-C	-5.42	105.36	112.41
67	B1	259	A	O4'-C1'-N9	5.42	116.64	108.50
67	B1	277	A	O4'-C1'-N9	-5.42	100.36	108.50
67	B1	710	G	O4'-C1'-C2'	-5.42	102.17	107.60
67	B1	782	G	C1'-C2'-O2'	5.42	116.54	108.40
67	B1	810	A	C4'-C3'-C2'	-5.42	97.17	102.60
67	B1	1583	G	O3'-P-O5'	-5.42	95.86	104.00
67	B1	1855	G	C4'-C3'-C2'	-5.42	97.18	102.60
67	B1	2312	U	N1-C1'-C2'	-5.42	103.86	112.00
67	B1	2528	U	O4'-C1'-N1	5.42	116.64	108.50
67	B1	2862	A	P-O5'-C5'	-5.42	112.76	120.90
8	AR	99	HIS	CG-CD2-NE2	5.42	112.62	107.20
21	A2	679	G	C1'-O4'-C4'	5.42	115.32	109.90
37	BU	46	VAL	CA-CB-CG2	-5.42	101.18	110.40
39	Be	2	GLY	N-CA-C	-5.42	100.33	113.18
44	BW	20	GLU	CA-C-O	5.42	126.17	120.42
67	B1	671	G	C5'-C4'-C3'	-5.42	107.86	116.00
2	AK	117	HIS	N-CA-C	-5.42	100.27	108.67
59	BM	83	SER	CA-C-O	-5.42	114.80	120.55
67	B1	500	C	C1'-C2'-O2'	5.42	116.53	108.40
67	B1	802	G	P-O5'-C5'	5.42	129.03	120.90
67	B1	888	U	P-O5'-C5'	5.42	129.03	120.90
67	B1	1224	A	C5'-C4'-C3'	5.42	124.13	116.00
67	B1	1431	U	O3'-P-O5'	-5.42	95.87	104.00
67	B1	2073	G	N9-C1'-C2'	5.42	120.13	112.00
67	B1	2447	A	O4'-C1'-C2'	-5.42	100.38	105.80
67	B1	2627	C	P-O5'-C5'	-5.42	112.77	120.90
8	AR	98	LYS	CA-CB-CG	-5.42	103.26	114.10
21	A2	1133	C	C3'-C2'-C1'	5.42	106.72	101.30
67	B1	1347	U	C4'-C3'-O3'	-5.42	104.87	113.00
67	B1	2435	G	P-O3'-C3'	5.42	128.33	120.20
11	A1	51	G	O4'-C1'-C2'	5.42	113.02	107.60
21	A2	152	G	C4'-C3'-C2'	-5.42	97.18	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1292	A	O5'-C5'-C4'	-5.42	103.37	111.50
21	A2	1297	G	C1'-O4'-C4'	5.42	115.32	109.90
25	AH	98	VAL	CA-C-N	5.42	127.54	120.28
25	AH	98	VAL	C-N-CA	5.42	127.54	120.28
34	B5	12	VAL	N-CA-C	-5.42	100.48	108.23
43	Bk	56	ARG	O-C-N	-5.42	115.38	122.59
46	BA	66	ALA	N-CA-CB	5.42	119.86	111.24
60	BS	71	GLY	CA-C-O	5.42	127.89	121.71
67	B1	48	G	O4'-C1'-N9	5.42	116.63	108.50
67	B1	126	U	C1'-C2'-O2'	5.42	116.53	108.40
67	B1	855	G	P-O5'-C5'	-5.42	112.77	120.90
68	B3	33	U	O4'-C1'-C2'	-5.42	102.18	107.60
17	AO	29	LYS	CA-CB-CG	-5.42	103.27	114.10
21	A2	175	G	N9-C1'-C2'	-5.42	103.88	112.00
21	A2	424	U	O3'-P-O5'	5.42	112.12	104.00
21	A2	682	A	C5'-C4'-C3'	5.42	124.12	116.00
21	A2	969	A	C4'-C3'-C2'	-5.42	97.18	102.60
31	BY	153	ARG	N-CA-C	-5.42	105.45	111.36
41	Ba	25	TRP	CG-CD2-CE3	-5.42	128.48	133.90
60	BS	27	ILE	O-C-N	5.42	128.72	122.82
67	B1	456	G	C1'-O4'-C4'	-5.42	104.48	109.90
67	B1	1244	C	C5'-C4'-C3'	5.42	124.13	116.00
67	B1	1311	C	P-O3'-C3'	5.42	128.32	120.20
67	B1	1392	G	O3'-P-O5'	-5.42	95.88	104.00
67	B1	1820	C	O4'-C4'-C3'	-5.42	98.58	104.00
67	B1	1938	G	C4'-C3'-O3'	5.42	117.52	109.40
67	B1	2816	C	N1-C1'-C2'	-5.42	103.88	112.00
67	B1	2912	G	C5'-C4'-O4'	-5.42	101.67	109.80
67	B1	2951	G	C1'-O4'-C4'	-5.42	104.48	109.90
17	AO	58	GLN	CA-C-N	5.42	127.88	120.46
17	AO	58	GLN	C-N-CA	5.42	127.88	120.46
20	A3	92	ILE	CB-CA-C	5.42	118.83	110.82
21	A2	1120	G	C4'-C3'-C2'	-5.42	97.19	102.60
21	A2	1321	U	C1'-O4'-C4'	5.42	115.31	109.90
33	BC	246	ASP	N-CA-C	-5.42	99.46	108.34
20	B4	6	TYR	N-CA-CB	5.42	119.23	110.40
67	B1	598	C	C5'-C4'-C3'	5.42	124.12	116.00
67	B1	614	G	O4'-C1'-C2'	-5.42	102.19	107.60
67	B1	2585	G	C1'-O4'-C4'	-5.42	104.48	109.90
67	B1	2890	A	C5'-C4'-O4'	5.42	117.22	109.10
21	A2	729	G	C5'-C4'-C3'	5.41	124.12	116.00
27	A0	63	G	C1'-O4'-C4'	-5.41	104.49	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
36	Bf	48	LYS	N-CA-C	-5.41	99.27	110.80
46	BA	48	LEU	N-CA-C	-5.41	100.25	107.88
47	BI	119	HIS	N-CA-C	-5.41	99.86	109.06
58	BP	6	PRO	N-CA-CB	-5.41	97.57	103.25
67	B1	307	C	N1-C1'-C2'	5.41	120.12	112.00
67	B1	1002	A	O4'-C1'-C2'	-5.41	102.19	107.60
67	B1	1540	A	C5'-C4'-C3'	5.41	124.12	116.00
67	B1	1749	C	O4'-C1'-C2'	-5.41	102.19	107.60
67	B1	2054	G	P-O5'-C5'	-5.41	112.78	120.90
21	A2	1078	U	O4'-C1'-N1	5.41	116.62	108.50
33	BC	241	LEU	CA-C-N	-5.41	114.16	121.84
33	BC	241	LEU	C-N-CA	-5.41	114.16	121.84
67	B1	25	U	O4'-C1'-N1	5.41	116.62	108.50
67	B1	2878	A	N9-C1'-C2'	5.41	120.12	112.00
3	AI	10	ALA	CA-C-N	5.41	127.53	120.28
3	AI	10	ALA	C-N-CA	5.41	127.53	120.28
17	AO	6	HIS	N-CA-C	-5.41	106.81	113.41
21	A2	73	U	P-O5'-C5'	5.41	129.01	120.90
21	A2	1071	C	C3'-C2'-C1'	5.41	106.71	101.30
67	B1	187	C	C1'-O4'-C4'	-5.41	104.49	109.90
67	B1	371	U	N1-C1'-C2'	5.41	122.12	114.00
67	B1	442	G	O3'-P-O5'	-5.41	95.89	104.00
67	B1	675	G	N9-C1'-C2'	5.41	120.12	112.00
67	B1	1141	C	C4'-C3'-C2'	-5.41	97.19	102.60
67	B1	1575	G	N9-C1'-C2'	-5.41	103.89	112.00
67	B1	1592	U	C1'-C2'-O2'	5.41	116.51	108.40
67	B1	2206	G	P-O3'-C3'	-5.41	112.08	120.20
67	B1	2310	G	O4'-C1'-N9	5.41	116.62	108.50
6	AC	131	ARG	CA-C-O	-5.41	114.44	120.66
6	AC	136	LEU	CA-C-N	5.41	132.89	123.91
6	AC	136	LEU	C-N-CA	5.41	132.89	123.91
10	AD	151	THR	CA-CB-CG2	5.41	119.70	110.50
21	A2	113	U	O4'-C1'-C2'	-5.41	102.19	107.60
25	AH	12	PRO	N-CA-CB	5.41	109.28	103.33
38	Bb	47	ASP	O-C-N	5.41	128.92	122.27
40	BE	172	MET	N-CA-CB	5.41	117.85	110.01
67	B1	120	G	C1'-O4'-C4'	-5.41	104.49	109.90
67	B1	2238	G	O4'-C4'-C3'	-5.41	98.59	104.00
67	B1	2493	A	C4'-C3'-C2'	-5.41	97.19	102.60
67	B1	2629	U	N1-C1'-C2'	5.41	120.11	112.00
67	B1	2635	C	C3'-C2'-C1'	5.41	106.71	101.30
68	B3	3	G	O4'-C4'-C3'	-5.41	98.59	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	657	A	O4'-C1'-N9	5.41	116.31	108.20
20	BG	38	GLU	O-C-N	5.41	128.31	122.15
53	BD	106	ASN	OD1-CG-ND2	5.41	128.01	122.60
58	BP	57	ASN	N-CA-C	5.41	117.31	110.33
60	BS	22	ALA	N-CA-C	-5.41	101.07	109.72
67	B1	2366	G	C4'-C3'-O3'	-5.41	104.89	113.00
68	B3	40	G	C4'-C3'-C2'	5.41	108.01	102.60
21	A2	121	C	C1'-C2'-O2'	5.41	116.51	108.40
21	A2	223	G	O4'-C1'-C2'	5.41	113.00	107.60
21	A2	1278	A	C4'-C3'-C2'	5.41	108.01	102.60
21	A2	1297	G	C3'-C2'-C1'	5.41	106.70	101.30
22	AY	3	GLN	CG-CD-NE2	-5.41	108.29	116.40
29	AL	72	LEU	CA-C-O	5.41	126.32	120.32
38	Bb	36	ASN	N-CA-CB	5.41	119.63	110.49
41	Ba	27	ARG	N-CA-C	-5.41	105.30	111.14
51	Bj	79	THR	N-CA-C	-5.41	101.36	109.95
66	Bl	48	LYS	CA-C-O	5.41	127.82	121.87
67	B1	584	G	P-O5'-C5'	-5.41	112.79	120.90
67	B1	1227	A	O4'-C4'-C3'	-5.41	100.69	106.10
67	B1	1231	C	C3'-C2'-C1'	5.41	106.70	101.30
67	B1	1406	G	C5'-C4'-C3'	-5.41	107.89	116.00
67	B1	1540	A	O4'-C1'-C2'	-5.41	102.19	107.60
67	B1	2216	G	C5'-C4'-C3'	-5.41	107.89	116.00
67	B1	3020	G	C1'-C2'-O2'	5.41	119.91	111.80
68	B3	17	G	O4'-C1'-C2'	-5.41	102.19	107.60
59	BM	10	ALA	CA-C-N	5.40	129.25	120.60
59	BM	10	ALA	C-N-CA	5.40	129.25	120.60
67	B1	441	A	C1'-O4'-C4'	-5.40	104.50	109.90
67	B1	738	C	C1'-O4'-C4'	-5.40	104.50	109.90
67	B1	782	G	C5'-C4'-C3'	-5.40	107.89	116.00
67	B1	1245	C	C4'-C3'-O3'	5.40	121.11	113.00
67	B1	2366	G	O4'-C4'-C3'	-5.40	98.60	104.00
67	B1	2389	C	C3'-C2'-C1'	5.40	106.90	101.50
6	AC	107	ILE	CA-C-N	5.40	131.86	121.54
6	AC	107	ILE	C-N-CA	5.40	131.86	121.54
21	A2	361	A	C3'-C2'-C1'	5.40	106.70	101.30
21	A2	842	U	N1-C1'-C2'	-5.40	105.90	114.00
24	AA	178	TYR	CA-CB-CG	5.40	123.62	113.90
27	A0	46	G	O4'-C1'-C2'	-5.40	100.40	105.80
64	Bc	16	ASN	CA-C-N	5.40	127.98	120.63
64	Bc	16	ASN	C-N-CA	5.40	127.98	120.63
67	B1	956	U	N1-C1'-C2'	-5.40	103.90	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1100	G	C3'-C2'-C1'	-5.40	95.90	101.30
67	B1	1181	C	O4'-C1'-N1	5.40	116.61	108.50
67	B1	1317	G	O5'-C5'-C4'	-5.40	103.39	111.50
67	B1	1462	G	C3'-C2'-C1'	-5.40	95.90	101.30
67	B1	1928	A	N9-C1'-C2'	5.40	120.10	112.00
67	B1	1962	G	O4'-C1'-C2'	5.40	113.00	107.60
2	AK	31	LYS	CA-C-N	5.40	125.40	119.89
2	AK	31	LYS	C-N-CA	5.40	125.40	119.89
20	A3	96	ALA	N-CA-C	-5.40	99.30	110.80
21	A2	159	C	O5'-C5'-C4'	-5.40	103.40	111.50
24	AA	159	LEU	CA-C-O	5.40	126.28	120.55
38	Bb	18	ARG	CB-CA-C	-5.40	102.37	110.90
47	BI	49	TYR	CA-C-N	5.40	127.52	120.28
47	BI	49	TYR	C-N-CA	5.40	127.52	120.28
61	Bd	16	ARG	CB-CA-C	5.40	119.59	109.71
67	B1	483	C	O4'-C1'-C2'	-5.40	102.20	107.60
67	B1	936	G	C3'-C2'-C1'	5.40	106.90	101.50
67	B1	2036	A	N9-C1'-C2'	-5.40	103.90	112.00
67	B1	2037	A	O4'-C1'-C2'	-5.40	102.20	107.60
67	B1	2541	U	N1-C1'-C2'	5.40	120.10	112.00
67	B1	2892	A	O4'-C1'-N9	-5.40	100.10	108.20
1	AQ	5	HIS	CE1-NE2-CD2	-5.40	103.60	109.00
21	A2	70	C	C2'-C3'-O3'	5.40	121.80	113.70
67	B1	1037	C	O4'-C1'-N1	5.40	116.30	108.20
67	B1	1996	C	O4'-C4'-C3'	-5.40	98.60	104.00
21	A2	246	A	O5'-C5'-C4'	-5.40	103.40	111.50
21	A2	380	C	C3'-C2'-C1'	5.40	106.70	101.30
21	A2	680	C	O4'-C1'-N1	5.40	116.60	108.50
21	A2	1288	C	C4'-C3'-C2'	-5.40	97.20	102.60
30	AU	42	GLU	CB-CA-C	-5.40	102.41	110.88
34	BK	12	VAL	N-CA-C	-5.40	100.51	108.23
52	BB	202	HIS	CA-CB-CG	5.40	119.20	113.80
62	BN	139	ARG	CA-C-N	5.40	127.96	120.29
62	BN	139	ARG	C-N-CA	5.40	127.96	120.29
67	B1	18	C	P-O3'-C3'	-5.40	112.11	120.20
67	B1	38	U	O4'-C1'-N1	5.40	116.60	108.50
67	B1	357	G	O4'-C1'-N9	5.40	116.60	108.50
21	A2	97	C	N1-C1'-C2'	5.40	120.09	112.00
21	A2	293	G	C4'-C3'-O3'	-5.40	104.91	113.00
21	A2	1272	G	C1'-C2'-O2'	5.40	116.49	108.40
40	BE	164	HIS	CE1-NE2-CD2	-5.40	103.60	109.00
67	B1	2199	U	P-O3'-C3'	-5.40	112.11	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2328	G	P-O3'-C3'	-5.40	112.11	120.20
68	B3	26	C	C2'-C3'-O3'	5.40	121.79	113.70
21	A2	300	G	C3'-C2'-C1'	-5.39	95.91	101.30
21	A2	840	C	P-O3'-C3'	-5.39	112.11	120.20
21	A2	848	G	O4'-C1'-N9	5.39	116.29	108.20
21	A2	1100	G	O3'-P-O5'	-5.39	95.91	104.00
21	A2	1393	A	O3'-P-O5'	-5.39	95.91	104.00
37	BU	32	SER	CA-C-N	5.39	127.51	120.28
37	BU	32	SER	C-N-CA	5.39	127.51	120.28
20	BG	41	LYS	CB-CA-C	-5.39	101.68	110.85
59	BM	113	VAL	N-CA-C	-5.39	100.56	108.54
62	BN	146	ILE	N-CA-C	5.39	116.12	110.62
67	B1	74	A	O4'-C1'-C2'	-5.39	100.41	105.80
67	B1	411	U	C1'-O4'-C4'	5.39	115.29	109.90
67	B1	1144	A	O4'-C1'-C2'	-5.39	102.21	107.60
67	B1	1156	G	O5'-C5'-C4'	-5.39	103.61	111.70
67	B1	2852	U	C4'-C3'-C2'	-5.39	97.20	102.60
12	AN	112	LYS	CA-C-N	5.39	129.12	123.08
12	AN	112	LYS	C-N-CA	5.39	129.12	123.08
21	A2	142	G	C4'-C3'-O3'	-5.39	104.91	113.00
32	BO	114	GLY	CA-C-O	-5.39	113.22	119.10
38	Bb	51	ARG	CA-C-N	5.39	128.04	120.28
38	Bb	51	ARG	C-N-CA	5.39	128.04	120.28
49	BQ	125	ILE	CA-C-N	5.39	127.51	120.28
49	BQ	125	ILE	C-N-CA	5.39	127.51	120.28
60	BS	38	GLU	N-CA-C	5.39	117.24	111.36
67	B1	286	G	C1'-O4'-C4'	5.39	115.29	109.90
67	B1	855	G	N9-C1'-C2'	-5.39	103.91	112.00
67	B1	1098	C	C4'-C3'-O3'	-5.39	104.91	113.00
67	B1	1479	U	C4'-C3'-O3'	-5.39	104.91	113.00
67	B1	2160	C	N1-C1'-C2'	5.39	120.09	112.00
67	B1	2962	A	N9-C1'-C2'	5.39	120.09	112.00
21	A2	240	U	N1-C1'-C2'	-5.39	105.91	114.00
21	A2	1175	C	O4'-C1'-N1	5.39	116.59	108.50
21	A2	1383	A	O4'-C1'-C2'	-5.39	102.21	107.60
67	B1	1392	G	N9-C1'-C2'	5.39	122.09	114.00
67	B1	2953	U	C5'-C4'-C3'	-5.39	107.91	116.00
67	B1	3000	U	O4'-C4'-C3'	-5.39	98.61	104.00
1	AQ	11	LYS	N-CA-C	-5.39	102.07	110.42
7	AB	96	PHE	CA-CB-CG	5.39	119.19	113.80
13	AX	52	GLY	O-C-N	-5.39	116.14	122.50
15	AE	22	GLU	N-CA-CB	5.39	117.94	109.69

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
16	AJ	48	THR	O-C-N	5.39	129.00	122.85
21	A2	33	U	C4'-C3'-O3'	-5.39	104.92	113.00
21	A2	73	U	O4'-C4'-C3'	-5.39	98.61	104.00
21	A2	530	G	P-O3'-C3'	5.39	128.28	120.20
43	Bk	16	ALA	N-CA-CB	5.39	117.83	110.01
54	BF	102	LYS	N-CA-C	-5.39	100.88	109.23
60	BS	78	PHE	CA-C-N	5.39	130.33	121.87
60	BS	78	PHE	C-N-CA	5.39	130.33	121.87
67	B1	451	C	C3'-C2'-C1'	5.39	106.69	101.30
67	B1	885	A	C3'-C2'-C1'	5.39	106.69	101.30
67	B1	938	U	C5'-C4'-C3'	5.39	124.08	116.00
67	B1	2108	U	P-O5'-C5'	-5.39	112.82	120.90
68	B3	78	C	O4'-C1'-C2'	-5.39	102.21	107.60
21	A2	805	C	P-O5'-C5'	5.39	128.98	120.90
29	AL	32	VAL	CA-CB-CG1	5.39	119.56	110.40
58	BP	12	ARG	NE-CZ-NH2	-5.39	114.35	119.20
67	B1	1050	C	O4'-C1'-C2'	-5.39	102.21	107.60
21	A2	131	G	C3'-C2'-O2'	5.39	118.78	110.70
21	A2	278	A	C3'-C2'-C1'	5.39	106.69	101.30
21	A2	462	A	O4'-C1'-N9	5.39	116.58	108.50
27	A0	54	U	O4'-C1'-N1	5.39	116.58	108.50
33	BC	148	LEU	CA-C-O	-5.39	114.84	120.55
47	BI	61	PRO	CB-CA-C	-5.39	102.03	110.49
67	B1	642	G	O4'-C1'-C2'	5.39	112.99	107.60
67	B1	897	U	C4'-C3'-C2'	5.39	107.99	102.60
67	B1	1536	U	O4'-C1'-C2'	-5.39	102.21	107.60
67	B1	1813	A	P-O5'-C5'	5.39	128.98	120.90
67	B1	2779	G	C4'-C3'-O3'	-5.39	104.92	113.00
67	B1	2968	G	C3'-C2'-C1'	-5.39	95.91	101.30
2	AK	5	GLN	N-CA-CB	5.38	119.22	110.77
10	AD	76	ARG	NE-CZ-NH2	5.38	124.05	119.20
10	AD	115	ALA	CA-C-N	5.38	127.94	120.29
10	AD	115	ALA	C-N-CA	5.38	127.94	120.29
21	A2	89	G	C4'-C3'-C2'	-5.38	97.22	102.60
21	A2	814	C	C1'-O4'-C4'	-5.38	104.52	109.90
21	A2	973	U	O4'-C1'-C2'	-5.38	102.22	107.60
21	A2	1004	U	C3'-C2'-C1'	5.38	106.69	101.30
21	A2	1198	A	P-O5'-C5'	5.38	128.98	120.90
49	BQ	59	SER	N-CA-CB	5.38	117.89	109.97
54	BF	3	VAL	O-C-N	5.38	128.78	123.18
57	BZ	36	ILE	CB-CA-C	-5.38	102.81	110.83
67	B1	803	A	C3'-C2'-C1'	5.38	106.88	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1391	C	C3'-C2'-C1'	5.38	106.69	101.30
67	B1	2153	C	O4'-C1'-C2'	-5.38	102.22	107.60
67	B1	2458	U	C5'-C4'-O4'	5.38	117.18	109.10
67	B1	2718	G	O4'-C1'-N9	5.38	116.58	108.50
67	B1	2734	C	C4'-C3'-O3'	-5.38	104.92	113.00
11	A1	65	C	O5'-C5'-C4'	-5.38	103.42	111.50
67	B1	1091	G	N9-C1'-C2'	-5.38	103.93	112.00
67	B1	1491	U	C4'-C3'-C2'	-5.38	97.22	102.60
67	B1	1754	A	O5'-C5'-C4'	5.38	119.57	111.50
10	AD	149	GLU	CB-CA-C	-5.38	99.24	109.95
12	AN	31	LYS	CA-C-N	5.38	127.44	120.44
12	AN	31	LYS	C-N-CA	5.38	127.44	120.44
21	A2	341	C	P-O5'-C5'	-5.38	112.83	120.90
38	Bb	105	THR	N-CA-CB	-5.38	102.21	110.12
48	BR	54	PRO	N-CA-C	-5.38	101.38	112.47
62	BN	17	TYR	N-CA-C	-5.38	99.34	110.80
67	B1	441	A	P-O3'-C3'	-5.38	112.13	120.20
67	B1	565	A	O5'-C5'-C4'	-5.38	103.43	111.50
67	B1	1034	G	C1'-O4'-C4'	-5.38	104.52	109.90
67	B1	1973	U	O4'-C1'-N1	5.38	116.57	108.50
67	B1	2255	C	C4'-C3'-O3'	-5.38	104.93	113.00
67	B1	2607	U	C3'-C2'-C1'	-5.38	95.92	101.30
4	AG	1	MET	CA-CB-CG	5.38	124.86	114.10
21	A2	126	G	O4'-C1'-N9	5.38	116.57	108.50
21	A2	1289	G	O4'-C1'-N9	5.38	116.57	108.50
59	BM	44	ARG	CA-C-N	5.38	127.49	120.28
59	BM	44	ARG	C-N-CA	5.38	127.49	120.28
67	B1	2253	G	C4'-C3'-C2'	-5.38	97.22	102.60
67	B1	2842	C	N1-C1'-C2'	5.38	120.07	112.00
8	AR	99	HIS	CE1-NE2-CD2	-5.38	103.62	109.00
21	A2	557	G	N9-C1'-C2'	-5.38	103.93	112.00
21	A2	575	A	N9-C1'-C2'	-5.38	103.93	112.00
21	A2	716	G	O4'-C4'-C3'	-5.38	98.62	104.00
21	A2	725	C	N1-C1'-C2'	5.38	120.07	112.00
61	Bd	18	PRO	N-CD-CG	5.38	111.27	103.20
67	B1	1414	G	C1'-C2'-O2'	-5.38	103.73	111.80
67	B1	1453	G	C4'-C3'-C2'	-5.38	97.22	102.60
67	B1	2557	C	O4'-C1'-C2'	-5.38	102.22	107.60
1	AQ	129	ILE	CA-C-O	-5.38	115.36	120.95
3	AI	19	ARG	N-CA-C	-5.38	105.42	111.28
15	AE	231	PHE	CA-C-O	5.38	126.29	120.32
21	A2	359	A	N9-C1'-C2'	5.38	120.06	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	1382	G	O4'-C1'-N9	5.38	116.56	108.50
22	AY	34	HIS	N-CA-C	-5.38	106.40	113.17
64	Bc	35	ALA	N-CA-C	5.38	117.89	111.71
67	B1	305	G	O5'-C5'-C4'	5.38	119.56	111.50
67	B1	1346	G	C3'-C2'-C1'	-5.38	95.92	101.30
67	B1	1937	A	C4'-C3'-O3'	-5.38	104.94	113.00
67	B1	2184	G	O4'-C1'-N9	5.38	116.26	108.20
67	B1	2858	C	C4'-C3'-C2'	5.38	107.98	102.60
67	B1	2875	C	C1'-C2'-O2'	5.38	116.46	108.40
10	AD	18	TRP	CA-C-N	5.38	131.65	121.97
10	AD	18	TRP	C-N-CA	5.38	131.65	121.97
21	A2	777	G	C4'-C3'-O3'	-5.38	104.94	113.00
42	BT	50	LYS	CA-C-N	5.38	129.09	122.37
42	BT	50	LYS	C-N-CA	5.38	129.09	122.37
28	B6	25	HIS	CB-CG-CD2	-5.38	124.21	131.20
67	B1	1388	U	O4'-C1'-C2'	-5.38	102.22	107.60
7	AB	88	GLY	N-CA-C	-5.37	107.62	115.63
21	A2	339	U	P-O3'-C3'	5.37	128.26	120.20
25	AH	199	TYR	CA-C-N	5.37	127.42	120.44
25	AH	199	TYR	C-N-CA	5.37	127.42	120.44
67	B1	1326	U	C5'-C4'-O4'	-5.37	101.74	109.80
67	B1	2192	G	C1'-O4'-C4'	-5.37	104.53	109.90
67	B1	2310	G	C3'-C2'-C1'	-5.37	95.93	101.30
67	B1	2695	U	C1'-O4'-C4'	-5.37	104.53	109.90
67	B1	2864	G	O4'-C1'-N9	5.37	116.26	108.20
1	AQ	35	ASN	CA-CB-CG	5.37	117.97	112.60
11	A1	41	C	C1'-C2'-O2'	5.37	116.46	108.40
17	AO	129	GLN	N-CA-CB	5.37	119.57	110.49
21	A2	153	G	P-O3'-C3'	-5.37	112.14	120.20
21	A2	514	U	C4'-C3'-O3'	-5.37	104.94	113.00
21	A2	669	A	C4'-C3'-C2'	-5.37	97.23	102.60
21	A2	895	C	O4'-C1'-C2'	-5.37	102.23	107.60
21	A2	1051	G	C5'-C4'-C3'	5.37	124.06	116.00
21	A2	1495	U	O4'-C1'-C2'	-5.37	102.23	107.60
23	AT	12	THR	CA-C-O	-5.37	115.19	121.10
25	AH	41	PRO	CA-C-N	5.37	130.64	121.29
25	AH	41	PRO	C-N-CA	5.37	130.64	121.29
32	BO	79	ASN	OD1-CG-ND2	-5.37	117.23	122.60
43	Bk	46	ARG	N-CA-CB	5.37	118.11	110.16
20	BG	63	VAL	N-CA-CB	-5.37	100.28	111.24
54	BF	181	PRO	N-CA-CB	5.37	108.92	102.85
60	BS	120	HIS	CA-CB-CG	-5.37	108.43	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
61	Bd	29	LYS	N-CA-CB	5.37	118.04	110.36
67	B1	237	G	N9-C1'-C2'	-5.37	105.94	114.00
67	B1	1779	C	C4'-C3'-O3'	-5.37	104.94	113.00
67	B1	2492	G	O5'-C5'-C4'	-5.37	103.44	111.50
67	B1	2888	G	O4'-C1'-C2'	-5.37	102.23	107.60
21	A2	718	G	O3'-P-O5'	5.37	112.06	104.00
21	A2	871	A	O4'-C4'-C3'	-5.37	100.73	106.10
26	AP	34	GLN	OE1-CD-NE2	5.37	127.97	122.60
32	BO	145	ARG	CA-C-N	5.37	131.94	121.41
32	BO	145	ARG	C-N-CA	5.37	131.94	121.41
32	BO	173	VAL	CA-C-N	5.37	131.80	121.54
32	BO	173	VAL	C-N-CA	5.37	131.80	121.54
45	Bi	25	VAL	N-CA-CB	5.37	117.84	110.54
67	B1	1972	C	C4'-C3'-C2'	-5.37	97.23	102.60
16	AJ	109	LYS	CB-CA-C	-5.37	101.87	110.14
21	A2	35	G	C1'-C2'-O2'	5.37	116.45	108.40
31	BY	8	ARG	CA-C-N	5.37	129.52	120.29
31	BY	8	ARG	C-N-CA	5.37	129.52	120.29
67	B1	108	G	C1'-O4'-C4'	-5.37	104.53	109.90
67	B1	365	G	O3'-P-O5'	5.37	112.05	104.00
67	B1	751	U	P-O5'-C5'	-5.37	112.85	120.90
67	B1	920	G	N9-C1'-C2'	5.37	120.05	112.00
67	B1	1137	G	C1'-C2'-O2'	5.37	116.45	108.40
67	B1	1638	C	C3'-C2'-C1'	5.37	106.67	101.30
67	B1	1854	G	C5'-C4'-C3'	-5.37	107.95	116.00
21	A2	77	G	O4'-C1'-N9	5.37	116.55	108.50
67	B1	1273	C	O4'-C1'-C2'	-5.37	102.23	107.60
67	B1	1636	C	C1'-C2'-O2'	5.37	116.45	108.40
68	B3	62	A	C3'-C2'-C1'	5.37	106.67	101.30
8	AR	23	TRP	N-CA-C	-5.37	99.37	110.80
11	A1	9	A	O4'-C1'-C2'	-5.37	100.43	105.80
17	AO	50	LYS	CA-C-O	-5.37	115.86	121.55
21	A2	1456	C	O4'-C1'-C2'	-5.37	102.23	107.60
27	A0	50	C	C3'-C2'-C1'	5.37	106.67	101.30
31	BY	49	LYS	CB-CA-C	-5.37	101.73	110.85
31	BY	120	HIS	CA-C-O	-5.37	113.57	121.46
35	BL	39	THR	CB-CA-C	-5.37	102.46	110.88
67	B1	415	U	P-O5'-C5'	5.37	128.95	120.90
67	B1	1435	G	C1'-O4'-C4'	-5.37	104.53	109.90
67	B1	1621	G	O4'-C1'-N9	5.37	116.55	108.50
67	B1	2423	G	P-O5'-C5'	5.37	128.95	120.90
67	B1	2549	A	C1'-C2'-O2'	-5.37	103.75	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2919	C	C4'-C3'-O3'	-5.37	104.95	113.00
1	AQ	79	THR	O-C-N	-5.36	115.42	122.39
2	AK	26	VAL	CA-CB-CG1	-5.36	101.28	110.40
3	AI	66	LEU	CA-C-N	5.36	130.83	122.30
3	AI	66	LEU	C-N-CA	5.36	130.83	122.30
6	AC	54	VAL	CB-CA-C	-5.36	104.82	112.22
10	AD	162	ASN	OD1-CG-ND2	-5.36	117.24	122.60
21	A2	394	C	O4'-C1'-N1	5.36	116.55	108.50
21	A2	438	A	O3'-P-O5'	-5.36	95.95	104.00
21	A2	700	G	C1'-O4'-C4'	-5.36	104.54	109.90
48	BR	42	HIS	ND1-CE1-NE2	5.36	113.76	108.40
62	BN	166	ASP	CA-C-N	5.36	127.91	120.29
62	BN	166	ASP	C-N-CA	5.36	127.91	120.29
20	B4	38	GLU	N-CA-CB	5.36	118.10	110.16
67	B1	319	A	O4'-C4'-C3'	-5.36	98.64	104.00
67	B1	643	G	N9-C1'-C2'	5.36	120.05	112.00
67	B1	765	G	C4'-C3'-C2'	-5.36	97.24	102.60
67	B1	779	A	C4'-C3'-O3'	-5.36	104.95	113.00
67	B1	2026	C	C1'-O4'-C4'	-5.36	104.54	109.90
67	B1	2260	C	C4'-C3'-O3'	-5.36	104.95	113.00
67	B1	2278	U	C1'-O4'-C4'	5.36	115.26	109.90
67	B1	2489	C	O4'-C1'-C2'	-5.36	102.24	107.60
42	BT	78	GLU	CB-CA-C	-5.36	101.89	110.79
45	Bi	81	ILE	N-CA-C	-5.36	102.15	109.55
53	BD	33	ARG	N-CA-CB	5.36	118.10	110.16
60	BS	154	ARG	NE-CZ-NH2	-5.36	114.37	119.20
67	B1	231	G	C1'-O4'-C4'	5.36	115.06	109.70
67	B1	1822	G	O4'-C1'-N9	5.36	116.54	108.50
11	A1	63	C	O4'-C1'-C2'	-5.36	102.24	107.60
17	AO	23	TRP	CE3-CZ3-CH2	-5.36	114.13	121.10
21	A2	625	G	C5'-C4'-C3'	-5.36	107.96	116.00
27	A0	41	C	C1'-C2'-O2'	5.36	116.44	108.40
28	AV	78	MET	N-CA-CB	5.36	118.09	110.16
46	BA	5	ARG	NE-CZ-NH2	5.36	124.02	119.20
52	BB	88	ASP	N-CA-CB	5.36	118.39	110.56
67	B1	729	A	P-O3'-C3'	5.36	128.24	120.20
67	B1	1456	U	N1-C1'-C2'	5.36	120.04	112.00
67	B1	1989	G	C1'-C2'-O2'	5.36	116.44	108.40
67	B1	2079	U	P-O3'-C3'	-5.36	112.16	120.20
67	B1	2115	U	O4'-C1'-N1	5.36	116.54	108.50
67	B1	2291	G	O4'-C1'-C2'	-5.36	102.24	107.60
21	A2	253	G	C1'-O4'-C4'	5.36	115.26	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	BO	35	LEU	CA-C-O	-5.36	115.35	120.92
67	B1	1562	U	C1'-C2'-O2'	5.36	116.44	108.40
14	AM	131	GLY	O-C-N	5.36	129.66	123.44
21	A2	816	G	C5'-C4'-O4'	5.36	117.84	109.80
21	A2	1469	G	C3'-C2'-C1'	-5.36	95.94	101.30
33	BC	318	ARG	N-CA-C	-5.36	98.28	107.23
43	Bk	29	ASP	CA-C-N	5.36	129.82	121.35
43	Bk	29	ASP	C-N-CA	5.36	129.82	121.35
49	BQ	43	ARG	CB-CA-C	-5.36	101.74	110.85
53	BD	122	ALA	CA-C-N	5.36	128.45	120.95
53	BD	122	ALA	C-N-CA	5.36	128.45	120.95
60	BS	78	PHE	N-CA-CB	5.36	117.88	110.17
62	BN	23	ILE	CA-CB-CG2	-5.36	101.39	110.50
62	BN	143	LYS	CB-CA-C	-5.36	100.39	110.67
67	B1	699	A	C5'-C4'-C3'	5.36	124.04	116.00
67	B1	1391	C	N1-C1'-C2'	5.36	120.04	112.00
67	B1	1931	G	C1'-C2'-O2'	5.36	116.44	108.40
67	B1	2889	A	C1'-C2'-O2'	-5.36	103.76	111.80
67	B1	3008	C	P-O5'-C5'	5.36	128.94	120.90
19	AS	50	ILE	CA-C-O	5.36	126.52	120.95
21	A2	122	C	O5'-C5'-C4'	-5.36	103.47	111.50
21	A2	173	G	O4'-C1'-N9	5.36	116.53	108.50
21	A2	1190	C	O4'-C1'-C2'	-5.36	102.25	107.60
33	BC	182	VAL	O-C-N	-5.36	117.68	123.14
38	Bb	29	TRP	CA-C-O	-5.36	114.87	120.55
38	Bb	117	ARG	NE-CZ-NH2	-5.36	114.38	119.20
67	B1	513	C	C4'-C3'-C2'	5.36	107.95	102.60
67	B1	669	G	N9-C1'-C2'	5.36	120.03	112.00
67	B1	1316	U	O4'-C1'-N1	5.36	116.53	108.50
67	B1	1344	C	C3'-C2'-C1'	5.36	106.66	101.30
67	B1	2829	C	C3'-C2'-C1'	5.36	106.66	101.30
67	B1	2957	G	O4'-C1'-C2'	-5.36	102.24	107.60
21	A2	1365	G	O4'-C1'-C2'	5.35	112.95	107.60
67	B1	275	C	O4'-C1'-N1	5.35	116.53	108.50
67	B1	654	C	C3'-C2'-C1'	5.35	106.65	101.30
67	B1	1441	C	C4'-C3'-O3'	-5.35	104.97	113.00
7	AB	184	SER	N-CA-C	-5.35	106.52	113.16
8	AR	24	HIS	ND1-CE1-NE2	5.35	113.75	108.40
15	AE	228	GLU	CA-C-N	5.35	129.66	120.72
15	AE	228	GLU	C-N-CA	5.35	129.66	120.72
19	AS	35	VAL	CA-CB-CG1	5.35	119.50	110.40
21	A2	193	G	C1'-C2'-O2'	5.35	116.43	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	422	U	C2'-C3'-O3'	5.35	117.53	109.50
24	AA	98	ARG	CA-C-N	5.35	129.78	122.34
24	AA	98	ARG	C-N-CA	5.35	129.78	122.34
27	A0	73	G	C1'-O4'-C4'	-5.35	104.55	109.90
37	BU	15	LEU	CB-CA-C	-5.35	102.44	110.90
65	BJ	107	VAL	N-CA-C	-5.35	101.28	108.35
67	B1	1035	G	O4'-C1'-N9	5.35	116.53	108.50
67	B1	1123	A	O4'-C1'-C2'	-5.35	102.25	107.60
67	B1	2336	G	C1'-O4'-C4'	-5.35	104.55	109.90
67	B1	2475	G	C4'-C3'-O3'	-5.35	104.97	113.00
67	B1	2526	G	C1'-O4'-C4'	5.35	115.25	109.90
52	BB	12	LYS	N-CA-C	5.35	117.86	111.71
52	BB	164	GLY	CA-C-N	5.35	126.58	120.53
52	BB	164	GLY	C-N-CA	5.35	126.58	120.53
20	BG	92	ILE	CG1-CB-CG2	5.35	126.75	110.70
67	B1	1843	C	O4'-C4'-C3'	5.35	109.35	104.00
10	AD	36	LYS	N-CA-C	-5.35	106.88	113.41
15	AE	64	LYS	CA-C-N	5.35	127.79	120.46
15	AE	64	LYS	C-N-CA	5.35	127.79	120.46
25	AH	16	LYS	N-CA-C	5.35	118.30	109.85
67	B1	1487	U	O4'-C1'-N1	5.35	116.22	108.20
67	B1	1826	G	O4'-C1'-N9	5.35	116.22	108.20
67	B1	2320	U	P-O3'-C3'	5.35	128.22	120.20
67	B1	2944	G	C5'-C4'-C3'	5.35	124.02	116.00
67	B1	3012	C	C4'-C3'-O3'	-5.35	104.97	113.00
1	AQ	41	ARG	CB-CG-CD	5.35	123.60	111.30
6	AC	134	GLY	CA-C-N	5.35	127.45	120.28
6	AC	134	GLY	C-N-CA	5.35	127.45	120.28
15	AE	215	ILE	CA-CB-CG1	5.35	119.49	110.40
21	A2	162	C	N1-C1'-C2'	5.35	120.02	112.00
21	A2	619	A	C4'-C3'-O3'	-5.35	104.98	113.00
21	A2	1234	A	C1'-C2'-O2'	5.35	116.42	108.40
31	BY	126	PHE	CB-CG-CD2	5.35	129.79	120.70
33	BC	7	PRO	CA-C-O	-5.35	115.34	121.86
64	Bc	86	ILE	O-C-N	-5.35	115.88	122.57
67	B1	56	G	N9-C1'-C2'	-5.35	103.98	112.00
67	B1	405	G	N9-C1'-C2'	5.35	120.02	112.00
67	B1	458	U	C1'-O4'-C4'	-5.35	104.55	109.90
67	B1	1162	C	C1'-C2'-O2'	-5.35	103.78	111.80
67	B1	1186	G	O4'-C1'-N9	-5.35	100.48	108.50
16	AJ	100	ILE	N-CA-C	-5.35	100.54	108.45
21	A2	874	G	P-O3'-C3'	-5.35	112.18	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
31	BY	25	MET	CA-C-O	5.35	126.12	119.97
67	B1	1645	U	C1'-O4'-C4'	5.35	115.25	109.90
67	B1	2298	C	N1-C1'-C2'	5.35	120.02	112.00
21	A2	600	C	C3'-C2'-C1'	5.34	106.64	101.30
21	A2	951	G	O4'-C1'-N9	5.34	116.52	108.50
35	BL	58	LEU	CA-C-N	5.34	131.89	121.41
35	BL	58	LEU	C-N-CA	5.34	131.89	121.41
43	Bk	41	MET	CB-CA-C	-5.34	102.49	110.88
48	BR	12	THR	CB-CA-C	5.34	119.72	111.28
56	BH	18	GLY	CA-C-N	5.34	125.88	120.38
56	BH	18	GLY	C-N-CA	5.34	125.88	120.38
67	B1	1436	A	P-O3'-C3'	5.34	128.22	120.20
67	B1	1550	C	O4'-C1'-C2'	-5.34	102.26	107.60
67	B1	2246	G	C1'-O4'-C4'	-5.34	104.56	109.90
67	B1	2427	C	C2'-C3'-O3'	5.34	121.72	113.70
67	B1	2719	G	C4'-C3'-C2'	-5.34	97.25	102.60
67	B1	2750	C	C4'-C3'-C2'	5.34	107.94	102.60
25	AH	102	GLU	CB-CA-C	-5.34	102.49	110.88
37	BU	68	GLU	N-CA-C	-5.34	100.60	108.99
38	Bb	96	LYS	O-C-N	-5.34	116.32	122.09
28	B6	29	PRO	CA-C-N	5.34	127.83	120.67
28	B6	29	PRO	C-N-CA	5.34	127.83	120.67
60	BS	100	ASN	CA-C-N	5.34	127.44	120.28
60	BS	100	ASN	C-N-CA	5.34	127.44	120.28
67	B1	1903	G	C1'-O4'-C4'	5.34	115.24	109.90
8	AR	58	ASN	CA-CB-CG	-5.34	107.26	112.60
21	A2	205	C	C4'-C3'-O3'	-5.34	104.99	113.00
21	A2	1115	G	N9-C1'-C2'	5.34	120.01	112.00
21	A2	1186	C	P-O5'-C5'	-5.34	112.89	120.90
22	AY	11	LYS	N-CA-C	-5.34	102.84	110.59
25	AH	175	ARG	CD-NE-CZ	-5.34	116.92	124.40
30	AU	85	HIS	CB-CG-CD2	-5.34	124.26	131.20
36	Bf	2	ALA	CB-CA-C	5.34	120.51	110.63
54	BF	32	LYS	CA-C-N	5.34	131.88	121.41
54	BF	32	LYS	C-N-CA	5.34	131.88	121.41
59	BM	188	ALA	N-CA-C	-5.34	106.27	112.89
67	B1	2477	G	P-O3'-C3'	-5.34	112.19	120.20
1	AQ	118	SER	CA-C-O	-5.34	114.76	120.42
7	AB	75	TYR	N-CA-C	-5.34	105.36	111.07
21	A2	579	U	O4'-C4'-C3'	-5.34	98.66	104.00
21	A2	880	G	C1'-O4'-C4'	-5.34	104.56	109.90
21	A2	1314	C	C3'-C2'-C1'	5.34	106.64	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	AH	98	VAL	N-CA-CB	-5.34	104.30	110.55
43	Bk	213	TYR	CB-CA-C	-5.34	101.93	110.79
43	Bk	213	TYR	N-CA-CB	5.34	117.97	110.12
53	BD	105	ILE	CA-C-O	5.34	127.45	120.78
54	BF	165	ARG	CA-C-O	5.34	125.89	119.59
65	BJ	111	GLY	O-C-N	-5.34	115.76	122.70
67	B1	471	U	C2'-C3'-O3'	5.34	121.71	113.70
67	B1	1248	C	P-O3'-C3'	-5.34	112.19	120.20
67	B1	1884	C	C3'-C2'-C1'	5.34	106.64	101.30
67	B1	2061	A	C1'-C2'-O2'	-5.34	103.79	111.80
67	B1	2191	U	O4'-C1'-C2'	5.34	112.94	107.60
67	B1	2513	C	P-O5'-C5'	5.34	128.91	120.90
67	B1	3013	U	O4'-C1'-C2'	-5.34	100.46	105.80
68	B3	14	G	C3'-C2'-C1'	-5.34	95.96	101.30
68	B3	125	U	O4'-C1'-C2'	-5.34	102.26	107.60
4	AG	46	ASN	CA-CB-CG	-5.34	107.26	112.60
21	A2	34	G	P-O3'-C3'	-5.34	112.19	120.20
67	B1	648	C	O4'-C1'-N1	5.34	116.51	108.50
67	B1	917	A	N9-C1'-C2'	-5.34	105.99	114.00
67	B1	1417	U	C1'-C2'-O2'	5.34	119.81	111.80
67	B1	2262	C	P-O5'-C5'	5.34	128.91	120.90
2	AK	35	ILE	CA-C-N	5.34	128.48	120.69
2	AK	35	ILE	C-N-CA	5.34	128.48	120.69
21	A2	142	G	O4'-C4'-C3'	-5.34	98.66	104.00
21	A2	290	C	C1'-O4'-C4'	5.34	115.24	109.90
21	A2	662	C	C1'-O4'-C4'	5.34	115.24	109.90
21	A2	926	C	C3'-C2'-C1'	5.34	106.64	101.30
25	AH	87	ARG	CB-CG-CD	5.34	123.57	111.30
32	BO	90	ILE	CA-C-O	5.34	127.45	120.78
37	BU	21	HIS	CB-CG-CD2	-5.34	124.26	131.20
46	BA	170	GLU	CA-C-O	5.34	126.77	120.58
49	BQ	39	GLU	N-CA-CB	5.34	118.06	110.16
51	Bj	87	LYS	N-CA-CB	5.34	117.75	110.01
52	BB	232	ALA	N-CA-C	5.34	117.44	109.59
56	BH	19	PRO	CA-C-O	-5.34	112.82	120.56
59	BM	82	PRO	N-CA-C	5.34	123.46	112.47
67	B1	122	G	C5'-C4'-C3'	5.34	124.00	116.00
67	B1	402	G	C4'-C3'-O3'	5.34	121.00	113.00
67	B1	423	G	O4'-C1'-C2'	5.34	112.94	107.60
67	B1	1534	G	O4'-C1'-C2'	5.34	112.94	107.60
67	B1	1602	C	C1'-C2'-O2'	5.34	116.41	108.40
67	B1	2177	A	O4'-C4'-C3'	5.34	109.34	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2250	G	N9-C1'-C2'	5.34	120.00	112.00
67	B1	2670	U	P-O5'-C5'	-5.34	112.90	120.90
67	B1	2776	A	C5'-C4'-C3'	-5.34	107.99	116.00
15	AE	28	TRP	CE2-CD2-CE3	5.33	124.14	118.80
21	A2	951	G	O3'-P-O5'	5.33	112.00	104.00
29	AL	66	LEU	CB-CA-C	5.33	118.67	110.14
50	BV	55	ALA	CA-C-N	5.33	127.43	120.28
50	BV	55	ALA	C-N-CA	5.33	127.43	120.28
54	BF	18	GLU	N-CA-C	-5.33	100.70	109.40
67	B1	652	G	C2'-C3'-O3'	5.33	121.70	113.70
67	B1	2154	G	C3'-C2'-C1'	5.33	106.83	101.50
67	B1	2840	C	O4'-C1'-C2'	-5.33	100.47	105.80
67	B1	3018	C	C2'-C3'-O3'	5.33	121.70	113.70
2	AK	43	PHE	CA-CB-CG	5.33	119.13	113.80
11	A1	10	G	P-O3'-C3'	-5.33	112.20	120.20
21	A2	739	G	P-O3'-C3'	-5.33	112.20	120.20
21	A2	744	A	C1'-O4'-C4'	5.33	115.23	109.90
21	A2	796	C	P-O3'-C3'	5.33	128.20	120.20
21	A2	1286	C	N1-C1'-C2'	5.33	120.00	112.00
30	AU	138	LYS	CA-C-N	5.33	127.43	120.28
30	AU	138	LYS	C-N-CA	5.33	127.43	120.28
65	BJ	71	PRO	CA-C-N	5.33	130.47	121.14
65	BJ	71	PRO	C-N-CA	5.33	130.47	121.14
67	B1	483	C	C4'-C3'-C2'	-5.33	97.27	102.60
67	B1	1565	G	O4'-C4'-C3'	-5.33	93.53	104.20
67	B1	2144	U	O3'-P-O5'	5.33	112.00	104.00
67	B1	2284	C	P-O5'-C5'	-5.33	112.90	120.90
67	B1	3012	C	C3'-C2'-C1'	5.33	106.63	101.30
21	A2	264	C	N1-C1'-C2'	5.33	120.00	112.00
21	A2	265	C	C4'-C3'-O3'	-5.33	105.00	113.00
21	A2	1179	C	N1-C1'-C2'	5.33	120.00	112.00
21	A2	1461	U	O5'-C5'-C4'	-5.33	103.70	111.70
23	AT	41	THR	CA-CB-OG1	5.33	117.60	109.60
26	AP	34	GLN	N-CA-C	-5.33	105.83	114.09
29	AL	93	ASP	CA-CB-CG	-5.33	107.27	112.60
37	BU	102	ILE	CA-CB-CG2	5.33	119.56	110.50
43	Bk	128	PRO	N-CA-CB	5.33	108.30	103.34
46	BA	11	ALA	CA-C-N	5.33	127.28	120.56
46	BA	11	ALA	C-N-CA	5.33	127.28	120.56
67	B1	479	G	O3'-P-O5'	5.33	112.00	104.00
67	B1	521	C	C4'-C3'-C2'	5.33	107.93	102.60
67	B1	1173	G	C1'-O4'-C4'	-5.33	104.57	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1433	C	C4'-C3'-O3'	-5.33	105.00	113.00
67	B1	1465	A	C1'-C2'-O2'	5.33	116.40	108.40
67	B1	1542	U	C2'-C3'-O3'	5.33	117.50	109.50
67	B1	1567	C	C3'-C2'-C1'	-5.33	95.97	101.30
67	B1	2514	C	C4'-C3'-C2'	-5.33	97.27	102.60
21	A2	1133	C	N1-C1'-C2'	5.33	120.00	112.00
24	AA	147	LYS	CA-C-N	5.33	127.37	120.44
24	AA	147	LYS	C-N-CA	5.33	127.37	120.44
49	BQ	9	ARG	N-CA-CB	5.33	118.05	110.16
67	B1	2278	U	P-O3'-C3'	-5.33	112.20	120.20
67	B1	2498	G	N9-C1'-C2'	5.33	120.00	112.00
67	B1	2664	G	P-O3'-C3'	-5.33	112.20	120.20
67	B1	2761	G	N9-C1'-C2'	-5.33	104.01	112.00
1	AQ	37	VAL	CB-CA-C	-5.33	104.95	112.14
21	A2	392	G	C2'-C3'-O3'	-5.33	105.71	113.70
21	A2	875	G	N9-C1'-C2'	5.33	119.99	112.00
21	A2	939	C	N1-C1'-C2'	5.33	119.99	112.00
32	BO	58	THR	N-CA-C	-5.33	99.83	108.52
32	BO	133	HIS	CA-C-O	-5.33	115.73	121.38
32	BO	164	PHE	CA-CB-CG	-5.33	108.47	113.80
35	BL	17	HIS	CA-C-O	5.33	127.42	120.81
43	Bk	105	GLN	CA-C-N	5.33	130.35	123.00
43	Bk	105	GLN	C-N-CA	5.33	130.35	123.00
43	Bk	185	LEU	N-CA-CB	5.33	118.72	110.46
50	BV	28	ARG	N-CA-CB	5.33	118.39	110.29
54	BF	130	VAL	N-CA-C	-5.33	100.65	108.11
67	B1	311	C	C5'-C4'-C3'	5.33	123.99	116.00
67	B1	650	C	O4'-C1'-C2'	-5.33	102.27	107.60
67	B1	1611	C	C4'-C3'-C2'	-5.33	97.27	102.60
67	B1	1700	U	O4'-C1'-N1	5.33	116.49	108.50
67	B1	1967	G	O4'-C1'-C2'	5.33	111.13	105.80
67	B1	2177	A	O3'-P-O5'	-5.33	96.01	104.00
67	B1	2939	C	O4'-C1'-C2'	-5.33	102.27	107.60
17	AO	10	VAL	CA-CB-CG2	5.33	119.46	110.40
21	A2	857	C	N1-C1'-C2'	5.33	119.99	112.00
25	AH	198	SER	N-CA-C	-5.33	99.45	110.80
48	BR	55	ASP	CA-C-O	-5.33	114.50	120.25
52	BB	9	ARG	O-C-N	5.33	128.45	122.22
54	BF	45	GLN	N-CA-CB	5.33	118.93	110.57
62	BN	18	THR	CA-C-N	5.33	131.72	121.54
62	BN	18	THR	C-N-CA	5.33	131.72	121.54
67	B1	1787	U	C3'-C2'-C1'	5.33	106.63	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2226	G	O3'-P-O5'	5.33	111.99	104.00
11	A1	9	A	C4'-C3'-O3'	5.33	117.39	109.40
21	A2	940	U	O4'-C1'-C2'	-5.33	102.28	107.60
21	A2	1205	G	C3'-C2'-C1'	-5.33	95.97	101.30
36	Bf	50	LYS	O-C-N	5.33	129.67	122.59
67	B1	380	A	C3'-C2'-C1'	-5.33	95.97	101.30
67	B1	578	C	N1-C1'-C2'	5.33	119.99	112.00
67	B1	1460	C	O5'-C5'-C4'	-5.33	103.51	111.50
67	B1	2043	A	C1'-O4'-C4'	5.33	115.23	109.90
67	B1	2378	C	P-O3'-C3'	5.33	128.19	120.20
67	B1	2909	G	P-O5'-C5'	-5.33	112.91	120.90
14	AM	135	ARG	CA-C-O	5.32	126.67	120.49
21	A2	671	C	P-O3'-C3'	-5.32	112.22	120.20
21	A2	1472	G	P-O5'-C5'	-5.32	112.91	120.90
27	A0	69	C	C5'-C4'-O4'	-5.32	101.81	109.80
33	BC	47	GLY	N-CA-C	-5.32	103.53	110.45
53	BD	209	LEU	N-CA-C	-5.32	106.37	112.92
67	B1	412	G	O4'-C1'-N9	-5.32	100.21	108.20
67	B1	487	U	O4'-C1'-N1	5.32	116.19	108.20
67	B1	1085	G	P-O3'-C3'	5.32	128.19	120.20
67	B1	1249	G	O5'-C5'-C4'	5.32	119.69	111.70
67	B1	1397	U	O4'-C4'-C3'	-5.32	98.68	104.00
67	B1	1619	C	C1'-C2'-O2'	5.32	116.39	108.40
67	B1	1864	G	C4'-C3'-C2'	5.32	107.92	102.60
1	AQ	145	ASN	O-C-N	5.32	129.71	122.37
6	AC	139	GLU	N-CA-C	-5.32	104.13	110.41
20	A3	58	ASP	N-CA-C	-5.32	98.05	109.81
21	A2	474	G	O5'-C5'-C4'	-5.32	103.52	111.50
67	B1	155	U	N1-C1'-C2'	-5.32	106.02	114.00
67	B1	355	G	O5'-C5'-C4'	-5.32	103.52	111.50
67	B1	648	C	O4'-C1'-C2'	-5.32	102.28	107.60
67	B1	1962	G	C1'-O4'-C4'	-5.32	104.58	109.90
67	B1	2109	C	C1'-O4'-C4'	5.32	115.22	109.90
1	AQ	8	LYS	CA-C-O	5.32	125.76	119.48
3	AI	34	ILE	CA-C-O	-5.32	115.21	120.85
8	AR	40	SER	N-CA-C	5.32	117.91	109.50
16	AJ	16	ARG	CA-C-N	5.32	129.02	122.37
16	AJ	16	ARG	C-N-CA	5.32	129.02	122.37
20	A3	71	GLU	CA-CB-CG	-5.32	103.46	114.10
21	A2	325	A	C4'-C3'-O3'	5.32	117.38	109.40
21	A2	666	G	C3'-C2'-C1'	-5.32	95.98	101.30
21	A2	956	C	O4'-C4'-C3'	-5.32	98.68	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
44	BW	12	GLU	CA-C-N	5.32	127.94	120.28
44	BW	12	GLU	C-N-CA	5.32	127.94	120.28
44	BW	59	LYS	O-C-N	5.32	127.55	122.07
53	BD	168	ASP	CA-C-N	5.32	127.85	120.29
53	BD	168	ASP	C-N-CA	5.32	127.85	120.29
56	BH	133	MET	N-CA-CB	5.32	115.50	108.96
67	B1	65	G	C4'-C3'-O3'	-5.32	105.02	113.00
67	B1	2751	C	N1-C1'-C2'	5.32	119.98	112.00
67	B1	2884	C	O4'-C1'-C2'	-5.32	102.28	107.60
21	A2	721	A	O4'-C1'-N9	5.32	116.48	108.50
20	BG	16	ALA	N-CA-CB	5.32	117.94	110.12
53	BD	37	ALA	N-CA-CB	5.32	117.72	110.01
62	BN	11	TYR	CB-CG-CD2	-5.32	112.82	120.80
67	B1	1068	U	P-O5'-C5'	-5.32	112.92	120.90
12	AN	69	MET	CA-C-O	-5.32	115.01	120.54
21	A2	710	G	O4'-C4'-C3'	-5.32	98.68	104.00
21	A2	1089	C	O3'-P-O5'	-5.32	96.02	104.00
21	A2	1197	C	C3'-C2'-C1'	5.32	106.62	101.30
32	BO	183	GLU	CA-C-N	5.32	127.41	120.28
32	BO	183	GLU	C-N-CA	5.32	127.41	120.28
20	B4	7	VAL	CB-CA-C	-5.32	104.50	111.25
65	BJ	65	THR	N-CA-C	-5.32	101.45	109.85
67	B1	214	C	C3'-C2'-C1'	5.32	106.62	101.30
67	B1	411	U	C1'-C2'-O2'	5.32	116.38	108.40
67	B1	1542	U	O4'-C1'-C2'	-5.32	100.48	105.80
67	B1	2213	G	O4'-C1'-C2'	5.32	112.92	107.60
68	B3	68	C	N1-C1'-C2'	5.32	119.98	112.00
21	A2	251	G	C3'-C2'-C1'	-5.32	95.98	101.30
21	A2	1328	G	C4'-C3'-C2'	-5.32	97.28	102.60
21	A2	1476	C	O5'-C5'-C4'	-5.32	103.53	111.50
27	A0	19	G	O4'-C1'-N9	5.32	116.17	108.20
35	BL	5	ARG	N-CA-CB	5.32	117.94	110.12
44	BW	71	LYS	CA-C-O	-5.32	115.24	120.82
51	Bj	54	LYS	CB-CG-CD	5.32	123.52	111.30
53	BD	156	GLU	N-CA-C	5.32	117.15	111.36
60	BS	112	LEU	N-CA-C	-5.32	102.18	110.10
60	BS	151	GLU	CA-C-N	5.32	128.78	120.75
60	BS	151	GLU	C-N-CA	5.32	128.78	120.75
64	Bc	18	HIS	CA-C-N	5.32	129.59	120.72
64	Bc	18	HIS	C-N-CA	5.32	129.59	120.72
64	Bc	58	VAL	O-C-N	-5.32	115.93	122.57
67	B1	1248	C	O4'-C1'-C2'	5.32	112.92	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2075	U	O4'-C1'-C2'	-5.32	102.28	107.60
67	B1	2285	G	P-O5'-C5'	-5.32	112.92	120.90
67	B1	2333	G	C4'-C3'-C2'	-5.32	97.28	102.60
6	AC	3	ILE	CA-C-O	5.31	126.80	121.17
33	BC	164	ARG	N-CA-C	-5.31	101.22	109.14
39	Be	5	THR	N-CA-C	5.31	117.07	111.28
47	BI	14	LEU	N-CA-C	-5.31	105.38	111.07
63	Bg	3	ARG	CA-C-N	5.31	134.77	121.80
63	Bg	3	ARG	C-N-CA	5.31	134.77	121.80
67	B1	420	U	O4'-C1'-N1	5.31	116.47	108.50
67	B1	2229	G	C5'-C4'-C3'	5.31	123.97	116.00
4	AG	102	ARG	CA-CB-CG	-5.31	103.47	114.10
7	AB	113	ASP	N-CA-C	-5.31	107.45	114.04
13	AX	40	VAL	N-CA-C	-5.31	100.83	108.53
21	A2	108	G	N9-C1'-C2'	5.31	119.97	112.00
21	A2	415	C	O4'-C4'-C3'	-5.31	98.69	104.00
21	A2	791	G	O4'-C1'-C2'	-5.31	102.29	107.60
21	A2	1343	C	C5'-C4'-O4'	5.31	117.77	109.80
21	A2	1419	G	C4'-C3'-O3'	-5.31	105.03	113.00
21	A2	1483	U	C1'-O4'-C4'	5.31	115.01	109.70
67	B1	717	A	C4'-C3'-C2'	-5.31	97.29	102.60
67	B1	1219	C	C3'-C2'-C1'	5.31	106.61	101.30
67	B1	1280	C	C3'-C2'-C1'	5.31	106.61	101.30
67	B1	1771	C	C4'-C3'-O3'	5.31	117.37	109.40
67	B1	2306	C	C1'-O4'-C4'	-5.31	104.59	109.90
67	B1	2812	U	N1-C1'-C2'	5.31	119.97	112.00
10	AD	43	LYS	N-CA-C	-5.31	105.49	111.28
13	AX	37	LYS	CG-CD-CE	5.31	123.52	111.30
16	AJ	25	LYS	N-CA-C	-5.31	106.30	112.89
20	A3	24	GLU	CA-C-N	5.31	127.96	120.42
20	A3	24	GLU	C-N-CA	5.31	127.96	120.42
21	A2	382	G	C1'-O4'-C4'	5.31	115.21	109.90
21	A2	705	C	O4'-C1'-C2'	-5.31	102.29	107.60
25	AH	201	TYR	CA-C-N	5.31	127.34	120.44
25	AH	201	TYR	C-N-CA	5.31	127.34	120.44
58	BP	109	ARG	CD-NE-CZ	-5.31	116.96	124.40
59	BM	42	PRO	CA-C-N	5.31	131.68	121.54
59	BM	42	PRO	C-N-CA	5.31	131.68	121.54
67	B1	614	G	C1'-O4'-C4'	-5.31	104.59	109.90
67	B1	857	U	C5'-C4'-C3'	-5.31	108.03	116.00
67	B1	1327	C	N1-C1'-C2'	5.31	119.97	112.00
67	B1	2998	G	O4'-C1'-C2'	5.31	112.91	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	3035	C	C1'-O4'-C4'	5.31	115.21	109.90
17	AO	46	ASP	CB-CA-C	5.31	118.01	109.41
53	BD	218	ASP	N-CA-C	-5.31	100.75	109.40
65	BJ	97	VAL	N-CA-C	-5.31	100.83	108.48
65	BJ	141	VAL	N-CA-CB	5.31	120.53	111.50
67	B1	1294	A	C1'-C2'-O2'	5.31	116.37	108.40
11	A1	7	G	C1'-O4'-C4'	5.31	115.21	109.90
21	A2	291	G	C4'-C3'-O3'	-5.31	105.04	113.00
27	A0	2	C	C3'-C2'-C1'	5.31	106.61	101.30
35	BL	84	HIS	CA-C-N	5.31	127.71	120.54
35	BL	84	HIS	C-N-CA	5.31	127.71	120.54
39	Be	53	LYS	CA-C-O	5.31	125.24	119.40
49	BQ	5	LYS	CA-C-N	5.31	127.39	120.28
49	BQ	5	LYS	C-N-CA	5.31	127.39	120.28
67	B1	203	G	C5'-C4'-C3'	5.31	123.96	116.00
67	B1	313	U	O4'-C1'-C2'	-5.31	102.29	107.60
67	B1	2891	A	N9-C1'-C2'	5.31	121.96	114.00
12	AN	38	LYS	CB-CG-CD	5.31	123.50	111.30
21	A2	377	A	C1'-O4'-C4'	5.31	115.21	109.90
21	A2	521	G	P-O3'-C3'	-5.31	112.24	120.20
31	BY	123	ARG	N-CA-C	-5.31	101.32	109.76
54	BF	145	GLU	O-C-N	5.31	127.82	122.09
67	B1	2846	A	C5'-C4'-C3'	5.31	123.96	116.00
68	B3	70	C	O4'-C1'-C2'	-5.31	102.29	107.60
21	A2	885	G	O4'-C1'-N9	5.30	116.46	108.50
21	A2	1307	G	O5'-C5'-C4'	-5.30	103.54	111.50
30	AU	98	ILE	N-CA-C	5.30	115.52	110.53
35	BL	11	LEU	CA-C-O	5.30	128.09	120.51
42	BT	29	ILE	N-CA-C	-5.30	100.24	107.99
50	BV	55	ALA	CB-CA-C	-5.30	101.98	110.79
67	B1	571	G	N9-C1'-C2'	5.30	119.96	112.00
67	B1	855	G	C3'-C2'-C1'	-5.30	96.00	101.30
67	B1	1462	G	P-O5'-C5'	5.30	128.86	120.90
67	B1	2468	C	N1-C1'-C2'	5.30	119.95	112.00
67	B1	2529	G	C1'-C2'-O2'	5.30	116.36	108.40
67	B1	2665	G	O4'-C4'-C3'	-5.30	98.69	104.00
1	AQ	5	HIS	CG-CD2-NE2	5.30	112.50	107.20
7	AB	119	ASP	CA-C-O	-5.30	115.06	120.63
19	AS	22	ASN	OD1-CG-ND2	-5.30	117.30	122.60
21	A2	300	G	N9-C1'-C2'	-5.30	104.05	112.00
21	A2	745	G	O4'-C1'-N9	5.30	116.45	108.50
21	A2	1329	C	O4'-C1'-C2'	-5.30	102.30	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BE	162	THR	N-CA-C	-5.30	106.81	113.28
28	B6	88	ILE	O-C-N	-5.30	116.73	121.87
65	BJ	80	ALA	N-CA-C	-5.30	101.06	108.96
67	B1	1319	U	O3'-P-O5'	5.30	111.95	104.00
67	B1	2230	G	P-O3'-C3'	5.30	128.16	120.20
67	B1	2727	C	C3'-C2'-C1'	5.30	106.60	101.30
12	AN	41	SER	N-CA-CB	5.30	117.76	110.07
21	A2	144	G	N9-C1'-C2'	5.30	119.95	112.00
21	A2	1239	A	C2'-C3'-O3'	5.30	117.45	109.50
43	Bk	113	LYS	CA-C-O	-5.30	115.17	120.63
49	BQ	96	ILE	CA-C-O	-5.30	115.44	120.95
56	BH	11	GLU	O-C-N	5.30	129.12	122.86
67	B1	1579	G	C4'-C3'-O3'	-5.30	105.05	113.00
67	B1	1757	G	O4'-C1'-C2'	5.30	112.90	107.60
67	B1	2321	A	O4'-C1'-C2'	5.30	111.10	105.80
67	B1	2481	G	C4'-C3'-C2'	-5.30	97.30	102.60
1	AQ	91	ILE	CA-C-O	-5.30	112.85	119.95
21	A2	1119	U	O3'-P-O5'	-5.30	96.05	104.00
34	B5	3	ALA	CA-C-N	5.30	131.51	121.97
34	B5	3	ALA	C-N-CA	5.30	131.51	121.97
40	BE	101	ARG	CB-CA-C	5.30	120.97	110.42
49	BQ	122	MET	CA-C-N	5.30	127.65	120.44
49	BQ	122	MET	C-N-CA	5.30	127.65	120.44
60	BS	103	VAL	N-CA-CB	5.30	117.75	110.54
60	BS	129	TYR	CB-CG-CD2	5.30	128.75	120.80
61	Bd	55	ARG	CB-CA-C	-5.30	101.99	110.79
67	B1	25	U	N1-C1'-C2'	5.30	119.95	112.00
67	B1	2579	G	C4'-C3'-C2'	-5.30	97.30	102.60
67	B1	2593	A	C4'-C3'-O3'	-5.30	105.05	113.00
67	B1	2870	A	O4'-C1'-C2'	-5.30	102.30	107.60
68	B3	1	C	P-O3'-C3'	-5.30	112.25	120.20
48	BR	89	HIS	ND1-CE1-NE2	5.30	113.70	108.40
54	BF	155	GLU	CA-C-O	5.30	126.04	120.42
67	B1	1317	G	N9-C1'-C2'	5.30	119.95	112.00
67	B1	2844	G	N9-C1'-C2'	5.30	119.95	112.00
67	B1	2862	A	C4'-C3'-O3'	-5.30	105.05	113.00
21	A2	73	U	C4'-C3'-C2'	5.30	107.90	102.60
21	A2	74	U	C3'-C2'-C1'	-5.30	96.00	101.30
21	A2	1018	C	O4'-C1'-C2'	-5.30	102.30	107.60
47	BI	80	ARG	CG-CD-NE	-5.30	100.35	112.00
53	BD	219	VAL	N-CA-C	-5.30	100.69	108.85
58	BP	84	LYS	CB-CA-C	-5.30	100.77	110.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1233	U	O4'-C1'-N1	5.30	116.45	108.50
67	B1	1257	G	O4'-C1'-C2'	5.30	112.90	107.60
15	AE	148	HIS	CE1-NE2-CD2	-5.29	103.70	109.00
21	A2	1468	A	C1'-O4'-C4'	5.29	115.19	109.90
29	AL	41	PRO	CA-C-N	5.29	128.87	121.24
29	AL	41	PRO	C-N-CA	5.29	128.87	121.24
2	AK	5	GLN	OE1-CD-NE2	-5.29	117.31	122.60
15	AE	196	LYS	CG-CD-CE	5.29	123.48	111.30
18	AF	192	ARG	N-CA-C	-5.29	105.51	111.28
30	AU	37	THR	CB-CA-C	5.29	119.61	110.45
33	BC	75	THR	CB-CA-C	5.29	116.97	109.08
48	BR	92	HIS	CE1-NE2-CD2	-5.29	103.71	109.00
34	BK	3	ALA	CA-C-N	5.29	131.50	121.97
34	BK	3	ALA	C-N-CA	5.29	131.50	121.97
67	B1	697	U	O4'-C1'-N1	5.29	116.44	108.50
67	B1	1569	A	O3'-P-O5'	5.29	111.94	104.00
67	B1	1574	A	C5'-C4'-O4'	5.29	117.04	109.10
67	B1	1708	U	N1-C1'-C2'	5.29	119.94	112.00
67	B1	1836	A	C3'-C2'-O2'	5.29	118.64	110.70
67	B1	1979	G	C1'-O4'-C4'	-5.29	104.61	109.90
67	B1	2695	U	C5'-C4'-C3'	-5.29	108.06	116.00
11	A1	34	U	O4'-C1'-C2'	-5.29	102.31	107.60
21	A2	734	G	O4'-C1'-N9	5.29	116.44	108.50
25	AH	88	ARG	CA-C-O	-5.29	112.94	120.51
25	AH	131	ALA	CB-CA-C	-5.29	101.04	109.51
28	AV	35	ASP	N-CA-CB	5.29	118.37	110.22
28	AV	54	GLN	N-CA-C	-5.29	101.40	108.86
33	BC	251	ARG	N-CA-C	-5.29	97.05	107.69
35	BL	41	LYS	CA-C-N	5.29	127.64	120.44
35	BL	41	LYS	C-N-CA	5.29	127.64	120.44
59	BM	127	TRP	CG-CD2-CE3	-5.29	128.61	133.90
59	BM	166	GLY	CA-C-N	5.29	127.32	120.44
59	BM	166	GLY	C-N-CA	5.29	127.32	120.44
67	B1	70	G	C5'-C4'-C3'	5.29	123.14	115.20
67	B1	550	A	C1'-O4'-C4'	5.29	115.19	109.90
67	B1	599	G	P-O5'-C5'	-5.29	112.96	120.90
67	B1	2696	G	C4'-C3'-C2'	5.29	107.89	102.60
68	B3	28	C	N1-C1'-C2'	5.29	119.94	112.00
1	AQ	60	ILE	CB-CA-C	-5.29	105.10	111.18
6	AC	137	THR	CB-CA-C	5.29	119.85	111.23
21	A2	785	U	O4'-C1'-N1	5.29	116.43	108.50
21	A2	1098	G	P-O3'-C3'	-5.29	112.26	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BC	114	ARG	CA-C-N	5.29	131.22	121.70
33	BC	114	ARG	C-N-CA	5.29	131.22	121.70
67	B1	133	G	O4'-C1'-N9	5.29	116.43	108.50
6	AC	128	VAL	O-C-N	5.29	128.58	122.82
7	AB	161	ARG	NE-CZ-NH2	5.29	123.96	119.20
21	A2	196	G	O3'-P-O5'	5.29	111.93	104.00
25	AH	55	HIS	O-C-N	5.29	127.52	122.07
44	BW	45	ARG	CB-CA-C	-5.29	102.55	110.90
47	BI	132	GLY	N-CA-C	5.29	119.08	112.73
51	Bj	49	GLY	N-CA-C	-5.29	100.65	113.18
62	BN	69	VAL	N-CA-C	5.29	115.39	110.42
67	B1	610	C	C3'-C2'-C1'	5.29	106.59	101.30
67	B1	697	U	P-O3'-C3'	5.29	128.13	120.20
68	B3	22	C	C1'-O4'-C4'	5.29	115.19	109.90
68	B3	83	C	P-O3'-C3'	5.29	128.13	120.20
20	A3	6	TYR	CB-CA-C	-5.29	102.43	111.31
21	A2	248	U	N1-C1'-C2'	5.29	119.93	112.00
21	A2	526	A	C3'-C2'-C1'	5.29	106.59	101.30
32	BO	125	VAL	N-CA-CB	5.29	117.73	110.54
67	B1	55	G	C3'-C2'-C1'	-5.29	96.01	101.30
67	B1	675	G	C4'-C3'-C2'	-5.29	97.31	102.60
67	B1	801	A	C3'-C2'-O2'	5.29	118.63	110.70
67	B1	2037	A	O4'-C4'-C3'	-5.29	98.71	104.00
21	A2	408	C	C1'-O4'-C4'	5.29	115.19	109.90
21	A2	1041	C	C3'-C2'-C1'	-5.29	96.02	101.30
21	A2	1219	C	P-O3'-C3'	-5.29	112.27	120.20
32	BO	121	LEU	N-CA-CB	5.29	117.67	110.01
40	BE	99	ASP	O-C-N	5.29	129.52	123.02
46	BA	35	LYS	CB-CA-C	-5.29	100.52	110.51
54	BF	59	PHE	CA-C-N	5.29	126.45	119.84
54	BF	59	PHE	C-N-CA	5.29	126.45	119.84
67	B1	239	G	N9-C1'-C2'	5.29	119.93	112.00
67	B1	549	G	C3'-C2'-C1'	5.29	106.78	101.50
67	B1	1100	G	O4'-C1'-C2'	5.29	112.89	107.60
67	B1	2623	G	C1'-C2'-O2'	-5.29	100.47	108.40
2	AK	75	ALA	CA-C-O	-5.28	114.95	120.55
4	AG	14	GLY	N-CA-C	-5.28	104.89	114.46
21	A2	116	C	C5'-C4'-O4'	5.28	117.72	109.80
21	A2	132	G	O4'-C1'-N9	5.28	116.42	108.50
21	A2	811	G	P-O5'-C5'	-5.28	112.98	120.90
24	AA	136	ALA	CA-C-N	5.28	127.92	120.42
24	AA	136	ALA	C-N-CA	5.28	127.92	120.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	AU	86	ALA	CB-CA-C	-5.28	101.33	109.62
38	Bb	85	HIS	CG-CD2-NE2	5.28	112.48	107.20
43	Bk	91	VAL	O-C-N	-5.28	117.75	123.14
43	Bk	165	ALA	CB-CA-C	-5.28	100.61	109.65
59	BM	46	ASP	O-C-N	5.28	127.72	122.12
20	B4	108	ARG	CA-C-N	5.28	127.31	120.44
20	B4	108	ARG	C-N-CA	5.28	127.31	120.44
67	B1	176	G	O4'-C1'-N9	5.28	116.42	108.50
19	AS	26	THR	CA-CB-OG1	5.28	117.52	109.60
27	A0	43	G	C1'-O4'-C4'	-5.28	104.62	109.90
20	BG	80	VAL	CA-C-N	5.28	124.61	118.85
20	BG	80	VAL	C-N-CA	5.28	124.61	118.85
65	BJ	91	ARG	CA-C-O	-5.28	115.87	121.94
21	A2	261	G	O4'-C1'-N9	5.28	116.42	108.50
33	BC	192	VAL	N-CA-C	5.28	116.01	110.62
37	BU	106	ASN	N-CA-C	-5.28	99.56	110.80
65	BJ	130	TRP	CA-C-N	5.28	127.21	120.56
65	BJ	130	TRP	C-N-CA	5.28	127.21	120.56
67	B1	30	G	N9-C1'-C2'	5.28	119.92	112.00
67	B1	71	A	P-O3'-C3'	-5.28	112.28	120.20
67	B1	475	U	C1'-O4'-C4'	5.28	115.18	109.90
67	B1	1343	C	C4'-C3'-O3'	-5.28	105.08	113.00
67	B1	1786	G	C4'-C3'-C2'	-5.28	97.32	102.60
67	B1	2299	G	C5'-C4'-O4'	5.28	117.72	109.80
67	B1	2400	U	P-O5'-C5'	-5.28	112.98	120.90
10	AD	153	THR	CA-C-N	5.28	130.87	122.74
10	AD	153	THR	C-N-CA	5.28	130.87	122.74
32	BO	83	ALA	N-CA-C	-5.28	105.70	111.82
33	BC	5	HIS	ND1-CE1-NE2	5.28	113.68	108.40
35	BL	35	GLY	CA-C-N	5.28	129.54	120.72
35	BL	35	GLY	C-N-CA	5.28	129.54	120.72
40	BE	108	ASP	N-CA-C	-5.28	103.72	110.53
50	BV	61	LEU	CA-C-O	-5.28	115.28	120.82
28	B6	82	GLU	CA-C-O	5.28	124.58	119.62
18	AF	14	ASP	O-C-N	-5.28	115.57	122.59
21	A2	421	U	O4'-C1'-C2'	5.28	112.88	107.60
21	A2	520	G	N9-C1'-C2'	-5.28	104.08	112.00
21	A2	828	U	C3'-C2'-C1'	5.28	106.78	101.50
21	A2	1198	A	C5'-C4'-O4'	5.28	117.72	109.80
25	AH	173	CYS	N-CA-CB	5.28	118.35	110.22
27	A0	33	U	O4'-C1'-N1	5.28	116.42	108.50
32	BO	60	VAL	CA-C-O	-5.28	115.75	121.19

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BC	76	PRO	N-CA-CB	5.28	108.20	103.08
40	BE	101	ARG	N-CA-CB	5.28	119.41	110.49
49	BQ	37	THR	O-C-N	5.28	128.96	122.84
67	B1	494	C	O4'-C1'-C2'	-5.28	100.52	105.80
67	B1	536	G	C5'-C4'-C3'	5.28	123.92	116.00
67	B1	1216	A	P-O3'-C3'	5.28	128.12	120.20
67	B1	1832	G	P-O3'-C3'	5.28	128.12	120.20
67	B1	1858	G	C1'-O4'-C4'	-5.28	104.42	109.70
67	B1	1966	C	N1-C1'-C2'	5.28	119.92	112.00
67	B1	2190	A	O4'-C1'-N9	5.28	116.12	108.20
67	B1	2349	U	O4'-C1'-N1	5.28	116.42	108.50
67	B1	2510	A	P-O5'-C5'	-5.28	112.98	120.90
6	AC	21	LEU	CA-C-N	5.28	127.35	120.28
6	AC	21	LEU	C-N-CA	5.28	127.35	120.28
12	AN	6	ALA	CA-C-N	5.28	125.27	119.89
12	AN	6	ALA	C-N-CA	5.28	125.27	119.89
15	AE	51	ASP	N-CA-C	5.28	117.11	111.36
21	A2	189	C	O5'-C5'-C4'	-5.28	103.58	111.50
21	A2	792	C	O4'-C4'-C3'	5.28	109.28	104.00
27	A0	58	A	P-O3'-C3'	-5.28	112.29	120.20
36	Bf	31	THR	CA-CB-OG1	-5.28	101.69	109.60
62	BN	60	ASN	CA-CB-CG	-5.28	107.32	112.60
20	B4	14	GLU	CA-C-N	5.28	127.78	120.29
20	B4	14	GLU	C-N-CA	5.28	127.78	120.29
67	B1	372	A	C4'-C3'-O3'	5.28	117.31	109.40
67	B1	495	U	O4'-C1'-N1	5.28	116.41	108.50
67	B1	544	A	N9-C1'-C2'	5.28	121.91	114.00
67	B1	1342	G	C4'-C3'-O3'	-5.28	105.09	113.00
67	B1	2131	C	N1-C1'-C2'	5.28	119.91	112.00
67	B1	2802	G	O4'-C1'-N9	5.28	116.41	108.50
68	B3	63	G	C1'-C2'-O2'	5.28	116.31	108.40
10	AD	67	GLU	CA-C-N	5.27	127.97	120.53
10	AD	67	GLU	C-N-CA	5.27	127.97	120.53
21	A2	151	G	O4'-C1'-C2'	-5.27	102.33	107.60
21	A2	364	U	O4'-C1'-C2'	-5.27	102.33	107.60
30	AU	90	PHE	CA-CB-CG	5.27	119.07	113.80
67	B1	1306	A	C4'-C3'-C2'	-5.27	97.33	102.60
67	B1	2278	U	O4'-C1'-C2'	-5.27	102.33	107.60
68	B3	38	U	O3'-P-O5'	-5.27	96.09	104.00
2	AK	21	GLU	N-CA-CB	5.27	117.72	109.97
21	A2	480	G	P-O5'-C5'	5.27	128.81	120.90
21	A2	1113	G	C1'-C2'-O2'	5.27	116.31	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
60	BS	44	LEU	CA-C-O	-5.27	114.96	120.55
62	BN	24	ARG	N-CA-C	-5.27	100.13	108.73
66	Bl	37	VAL	CA-C-N	5.27	127.34	120.28
66	Bl	37	VAL	C-N-CA	5.27	127.34	120.28
67	B1	2886	C	N1-C1'-C2'	5.27	119.91	112.00
15	AE	117	GLU	CA-C-N	5.27	127.29	120.44
15	AE	117	GLU	C-N-CA	5.27	127.29	120.44
21	A2	211	G	C1'-C2'-O2'	5.27	116.31	108.40
21	A2	1421	C	O4'-C1'-N1	5.27	116.41	108.50
59	BM	124	MET	O-C-N	-5.27	114.88	122.36
67	B1	1199	U	O3'-P-O5'	5.27	111.91	104.00
67	B1	1859	A	N9-C1'-C2'	5.27	119.91	112.00
1	AQ	12	SER	N-CA-CB	5.27	117.79	109.83
1	AQ	97	PHE	CB-CA-C	-5.27	102.04	110.79
7	AB	116	ILE	N-CA-C	-5.27	100.73	108.11
15	AE	67	ASN	CA-CB-CG	5.27	117.87	112.60
21	A2	136	A	C3'-C2'-C1'	-5.27	96.03	101.30
21	A2	1362	C	C4'-C3'-C2'	-5.27	97.33	102.60
21	A2	1490	C	O4'-C4'-C3'	-5.27	98.73	104.00
25	AH	195	ASP	CA-C-O	-5.27	115.07	120.87
41	Ba	89	ILE	N-CA-CB	5.27	118.10	111.46
61	Bd	25	HIS	CB-CG-ND1	5.27	130.60	122.70
67	B1	1225	A	O4'-C1'-C2'	5.27	112.87	107.60
67	B1	2991	C	C1'-O4'-C4'	-5.27	104.63	109.90
4	AG	42	GLU	CB-CG-CD	-5.27	103.64	112.60
6	AC	106	GLY	N-CA-C	-5.27	107.78	115.63
7	AB	169	TRP	CA-C-O	5.27	126.35	120.82
16	AJ	105	ILE	N-CA-CB	5.27	119.92	111.23
17	AO	31	ILE	N-CA-CB	5.27	118.54	111.90
21	A2	490	C	N1-C1'-C2'	5.27	119.90	112.00
21	A2	882	C	C3'-C2'-C1'	5.27	106.57	101.30
23	AT	30	ALA	CA-C-N	5.27	127.60	120.65
23	AT	30	ALA	C-N-CA	5.27	127.60	120.65
63	Bg	44	LYS	N-CA-C	5.27	122.02	110.80
67	B1	55	G	O4'-C1'-C2'	-5.27	102.33	107.60
67	B1	160	C	C3'-C2'-C1'	5.27	106.57	101.30
67	B1	1571	G	O3'-P-O5'	-5.27	96.10	104.00
67	B1	2250	G	O4'-C4'-C3'	-5.27	98.73	104.00
67	B1	2717	A	O3'-P-O5'	-5.27	96.10	104.00
67	B1	2903	U	N1-C1'-C2'	5.27	119.90	112.00
32	BO	166	ARG	N-CA-C	-5.27	99.58	110.80
67	B1	230	A	O3'-P-O5'	-5.27	96.10	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2363	G	C5'-C4'-C3'	-5.27	108.10	116.00
10	AD	70	ARG	CB-CA-C	-5.26	101.90	110.85
15	AE	152	ILE	CB-CA-C	5.26	119.92	111.29
17	AO	28	ILE	N-CA-C	-5.26	100.75	108.54
21	A2	138	C	C4'-C3'-C2'	-5.26	97.34	102.60
24	AA	19	TYR	CB-CG-CD1	5.26	128.70	120.80
27	A0	65	G	C3'-C2'-C1'	5.26	106.56	101.30
35	BL	120	ARG	CB-CA-C	-5.26	101.61	109.56
46	BA	134	VAL	O-C-N	5.26	127.25	121.83
65	BJ	83	ILE	CA-C-O	-5.26	115.08	120.71
67	B1	748	G	O4'-C1'-N9	5.26	116.40	108.50
67	B1	1370	G	O4'-C4'-C3'	-5.26	98.73	104.00
67	B1	1402	C	C1'-C2'-O2'	5.26	116.30	108.40
67	B1	2283	C	C5'-C4'-O4'	5.26	117.70	109.80
67	B1	2455	G	O4'-C1'-N9	5.26	116.40	108.50
67	B1	2484	C	P-O3'-C3'	-5.26	112.30	120.20
68	B3	7	C	O5'-C5'-C4'	-5.26	103.60	111.50
3	AI	42	GLN	CA-C-O	5.26	126.00	120.42
17	AO	59	VAL	CA-C-N	5.26	127.33	120.28
17	AO	59	VAL	C-N-CA	5.26	127.33	120.28
21	A2	64	G	O4'-C1'-C2'	-5.26	102.34	107.60
21	A2	777	G	C1'-O4'-C4'	5.26	115.16	109.90
32	BO	177	ASP	N-CA-C	-5.26	98.18	109.81
53	BD	4	LYS	CB-CA-C	-5.26	101.69	109.90
60	BS	143	THR	CB-CA-C	5.26	119.23	109.70
20	B4	65	HIS	CE1-NE2-CD2	-5.26	103.74	109.00
67	B1	2035	U	N1-C1'-C2'	5.26	119.89	112.00
67	B1	2174	G	O3'-P-O5'	-5.26	96.11	104.00
68	B3	53	A	C5'-C4'-C3'	5.26	123.89	116.00
21	A2	29	G	P-O5'-C5'	-5.26	113.01	120.90
21	A2	141	C	C3'-C2'-C1'	5.26	106.56	101.30
21	A2	400	G	O3'-P-O5'	5.26	111.89	104.00
21	A2	1309	A	C1'-O4'-C4'	5.26	115.16	109.90
25	AH	176	ASN	N-CA-CB	5.26	120.45	111.66
38	Bb	7	LYS	N-CA-CB	5.26	117.86	110.12
38	Bb	31	TYR	CA-C-N	5.26	124.93	119.56
38	Bb	31	TYR	C-N-CA	5.26	124.93	119.56
60	BS	27	ILE	CA-C-N	5.26	127.72	120.67
60	BS	27	ILE	C-N-CA	5.26	127.72	120.67
67	B1	114	C	O4'-C4'-C3'	-5.26	98.74	104.00
67	B1	684	G	C1'-O4'-C4'	-5.26	104.64	109.90
67	B1	843	C	N1-C1'-C2'	5.26	119.89	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1262	C	C3'-C2'-C1'	5.26	106.56	101.30
67	B1	2597	A	C4'-C3'-C2'	-5.26	97.34	102.60
2	AK	61	ASP	N-CA-C	-5.26	99.95	108.52
18	AF	2	SER	CB-CA-C	-5.26	110.53	116.63
21	A2	185	G	C4'-C3'-C2'	-5.26	97.34	102.60
21	A2	967	C	C1'-O4'-C4'	-5.26	104.64	109.90
21	A2	1086	C	C5'-C4'-C3'	5.26	123.89	116.00
21	A2	1241	U	C1'-O4'-C4'	5.26	115.16	109.90
53	BD	151	VAL	O-C-N	5.26	127.89	122.79
60	BS	25	LEU	N-CA-CB	5.26	117.69	109.85
67	B1	1698	G	C4'-C3'-O3'	-5.26	105.11	113.00
67	B1	1988	U	C1'-C2'-O2'	5.26	116.29	108.40
67	B1	2110	C	O4'-C1'-C2'	-5.26	102.34	107.60
67	B1	2919	C	C4'-C3'-C2'	-5.26	97.34	102.60
67	B1	3011	G	C4'-C3'-C2'	-5.26	97.34	102.60
5	AW	6	ILE	N-CA-CB	5.26	118.57	111.21
62	BN	81	ASN	N-CA-CB	5.26	119.87	111.56
67	B1	827	G	C3'-C2'-C1'	-5.26	96.04	101.30
67	B1	851	G	C1'-O4'-C4'	-5.26	104.64	109.90
67	B1	873	G	C5'-C4'-C3'	-5.26	107.31	115.20
67	B1	1049	U	C1'-O4'-C4'	5.26	114.96	109.70
67	B1	1469	U	O4'-C1'-N1	5.26	116.38	108.50
67	B1	1512	G	C3'-C2'-C1'	-5.26	96.04	101.30
67	B1	1652	A	O4'-C1'-C2'	-5.26	102.34	107.60
67	B1	1907	G	C1'-O4'-C4'	-5.26	104.64	109.90
67	B1	1961	G	C4'-C3'-C2'	-5.26	97.34	102.60
67	B1	2334	G	N9-C1'-C2'	5.26	119.89	112.00
1	AQ	100	ARG	CA-C-O	5.25	126.12	120.55
46	BA	145	ILE	CA-C-O	5.25	126.74	121.17
20	BG	106	LYS	CA-C-N	5.25	130.91	121.66
20	BG	106	LYS	C-N-CA	5.25	130.91	121.66
67	B1	2142	U	C3'-C2'-C1'	-5.25	96.05	101.30
67	B1	2212	C	C4'-C3'-C2'	-5.25	97.34	102.60
17	AO	97	LYS	CA-C-N	5.25	127.27	120.44
17	AO	97	LYS	C-N-CA	5.25	127.27	120.44
21	A2	392	G	O4'-C4'-C3'	-5.25	98.75	104.00
39	Be	57	LYS	CB-CA-C	-5.25	102.63	110.88
52	BB	210	HIS	ND1-CE1-NE2	5.25	113.65	108.40
56	BH	126	VAL	CA-C-O	-5.25	115.49	120.95
60	BS	74	PRO	CB-CA-C	-5.25	103.29	111.22
67	B1	340	G	O4'-C4'-C3'	-5.25	100.85	106.10
67	B1	799	C	O4'-C1'-N1	5.25	116.38	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	847	A	P-O5'-C5'	-5.25	113.02	120.90
67	B1	2076	A	N9-C1'-C2'	5.25	119.88	112.00
15	AE	72	LEU	N-CA-C	-5.25	100.47	109.24
21	A2	88	G	O4'-C1'-C2'	-5.25	102.35	107.60
21	A2	1337	A	C5'-C4'-C3'	5.25	123.88	116.00
25	AH	89	GLU	CA-CB-CG	5.25	124.60	114.10
52	BB	167	ARG	CB-CG-CD	5.25	123.38	111.30
20	BG	79	TYR	CB-CG-CD1	5.25	128.68	120.80
61	Bd	33	ILE	CB-CA-C	5.25	116.90	111.23
63	Bg	3	ARG	CA-CB-CG	5.25	124.60	114.10
67	B1	218	A	P-O5'-C5'	5.25	128.78	120.90
67	B1	997	A	C3'-C2'-C1'	5.25	106.55	101.30
67	B1	1474	A	C4'-C3'-O3'	-5.25	105.12	113.00
67	B1	1602	C	C2'-C3'-O3'	5.25	121.58	113.70
67	B1	2347	G	O4'-C1'-N9	5.25	116.38	108.50
67	B1	2456	C	O4'-C1'-C2'	-5.25	102.35	107.60
67	B1	2834	C	C3'-C2'-C1'	-5.25	96.05	101.30
68	B3	29	G	O4'-C1'-C2'	5.25	112.85	107.60
68	B3	86	C	C1'-C2'-O2'	5.25	116.28	108.40
21	A2	346	C	N1-C1'-C2'	5.25	119.88	112.00
21	A2	1253	G	N9-C1'-C2'	5.25	119.88	112.00
67	B1	2914	U	C1'-O4'-C4'	5.25	115.15	109.90
2	AK	58	ASN	CA-CB-CG	5.25	117.85	112.60
6	AC	108	HIS	CE1-NE2-CD2	-5.25	103.75	109.00
8	AR	10	GLN	N-CA-C	5.25	116.44	109.93
21	A2	548	A	C3'-C2'-C1'	5.25	106.75	101.50
38	Bb	126	LEU	CB-CA-C	-5.25	99.97	110.42
46	BA	118	GLY	CA-C-O	-5.25	115.33	121.00
47	BI	124	SER	CA-C-N	5.25	128.55	121.20
47	BI	124	SER	C-N-CA	5.25	128.55	121.20
20	BG	53	ILE	CB-CA-C	5.25	117.26	110.12
67	B1	218	A	C1'-O4'-C4'	5.25	115.15	109.90
67	B1	2637	U	O3'-P-O5'	-5.25	96.13	104.00
67	B1	2773	A	O4'-C1'-C2'	-5.25	102.35	107.60
68	B3	30	G	O5'-C5'-C4'	-5.25	103.63	111.50
21	A2	358	G	C5'-C4'-C3'	5.25	123.87	116.00
21	A2	1161	A	C4'-C3'-C2'	5.25	107.85	102.60
21	A2	1165	U	O4'-C1'-N1	5.25	116.37	108.50
32	BO	44	HIS	ND1-CE1-NE2	5.25	113.65	108.40
45	Bi	57	GLN	OE1-CD-NE2	5.25	127.85	122.60
48	BR	31	PHE	O-C-N	5.25	127.68	122.12
54	BF	182	ILE	CA-CB-CG2	5.25	119.42	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	810	A	O5'-C5'-C4'	-5.25	103.63	111.50
67	B1	1586	G	C1'-C2'-O2'	5.25	116.27	108.40
67	B1	2927	A	O5'-C5'-C4'	5.25	119.37	111.50
21	A2	437	A	P-O3'-C3'	5.25	128.07	120.20
21	A2	1227	A	P-O5'-C5'	-5.25	113.03	120.90
21	A2	1228	A	N9-C1'-C2'	5.25	119.87	112.00
21	A2	1416	C	C1'-O4'-C4'	5.25	115.14	109.90
31	BY	127	ARG	CA-C-O	-5.25	116.06	122.41
67	B1	1565	G	N9-C1'-C2'	5.25	122.89	112.40
67	B1	2605	G	C2'-C3'-O3'	5.25	117.37	109.50
21	A2	808	C	C1'-O4'-C4'	5.24	115.14	109.90
33	BC	224	VAL	CA-C-O	5.24	126.79	120.65
33	BC	283	ASN	CA-CB-CG	-5.24	107.36	112.60
45	Bi	20	LYS	CB-CG-CD	-5.24	99.24	111.30
46	BA	117	ILE	CA-C-N	5.24	125.76	119.94
46	BA	117	ILE	C-N-CA	5.24	125.76	119.94
62	BN	31	ILE	N-CA-CB	5.24	117.44	110.26
67	B1	36	G	N9-C1'-C2'	5.24	119.86	112.00
67	B1	1048	C	C1'-C2'-O2'	5.24	116.26	108.40
68	B3	32	C	C3'-C2'-C1'	-5.24	96.06	101.30
21	A2	474	G	C3'-C2'-O2'	5.24	118.56	110.70
25	AH	183	ALA	CA-C-N	5.24	127.25	120.44
25	AH	183	ALA	C-N-CA	5.24	127.25	120.44
30	AU	63	TYR	CA-C-N	5.24	129.47	120.71
30	AU	63	TYR	C-N-CA	5.24	129.47	120.71
67	B1	109	G	O4'-C1'-C2'	-5.24	102.36	107.60
67	B1	938	U	O4'-C1'-N1	5.24	116.36	108.50
67	B1	2484	C	C4'-C3'-C2'	-5.24	97.36	102.60
68	B3	62	A	C4'-C3'-C2'	-5.24	97.36	102.60
5	AW	42	ALA	N-CA-CB	5.24	117.86	110.36
21	A2	202	G	N9-C1'-C2'	-5.24	104.14	112.00
21	A2	363	C	O4'-C1'-C2'	-5.24	100.56	105.80
21	A2	1055	C	C4'-C3'-O3'	-5.24	105.14	113.00
21	A2	1388	G	C3'-C2'-C1'	5.24	106.54	101.30
32	BO	37	VAL	CB-CA-C	5.24	118.16	110.98
37	BU	54	ILE	CB-CA-C	5.24	117.30	110.96
28	B6	33	ARG	N-CA-CB	5.24	117.83	110.12
66	B1	6	PHE	CA-C-N	5.24	130.11	122.41
66	B1	6	PHE	C-N-CA	5.24	130.11	122.41
67	B1	38	U	C4'-C3'-C2'	-5.24	97.36	102.60
67	B1	2704	A	P-O3'-C3'	-5.24	112.34	120.20
4	AG	111	THR	CA-C-O	-5.24	115.08	121.05

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	63	G	C3'-C2'-O2'	5.24	118.56	110.70
21	A2	491	G	P-O5'-C5'	5.24	128.76	120.90
25	AH	48	HIS	ND1-CE1-NE2	5.24	113.64	108.40
46	BA	99	LYS	N-CA-C	5.24	117.68	110.35
67	B1	387	A	P-O5'-C5'	5.24	128.76	120.90
67	B1	497	G	C4'-C3'-C2'	-5.24	97.36	102.60
67	B1	762	G	C1'-O4'-C4'	5.24	115.14	109.90
67	B1	1636	C	C1'-O4'-C4'	-5.24	104.66	109.90
67	B1	2010	G	N9-C1'-C2'	5.24	119.86	112.00
67	B1	2142	U	C5'-C4'-O4'	5.24	117.66	109.80
67	B1	2335	G	O4'-C1'-C2'	5.24	112.84	107.60
68	B3	104	C	C5'-C4'-C3'	5.24	123.86	116.00
1	AQ	70	ASP	N-CA-CB	5.24	119.34	110.49
15	AE	38	ASN	CA-C-N	5.24	127.56	120.44
15	AE	38	ASN	C-N-CA	5.24	127.56	120.44
16	AJ	16	ARG	NE-CZ-NH1	5.24	126.74	121.50
33	BC	95	THR	CB-CA-C	5.24	118.88	110.29
20	B4	100	ALA	N-CA-CB	5.24	119.61	110.81
67	B1	149	G	N9-C1'-C2'	-5.24	104.14	112.00
67	B1	566	G	O3'-P-O5'	-5.24	96.14	104.00
67	B1	775	C	C1'-O4'-C4'	-5.24	104.66	109.90
67	B1	839	A	C3'-C2'-C1'	5.24	106.54	101.30
67	B1	2730	U	P-O5'-C5'	-5.24	113.05	120.90
18	AF	83	PHE	CA-CB-CG	-5.24	108.56	113.80
21	A2	815	C	C3'-C2'-O2'	5.24	118.55	110.70
21	A2	1061	A	O4'-C1'-C2'	-5.24	102.36	107.60
21	A2	1151	A	C3'-C2'-C1'	5.24	106.54	101.30
21	A2	1229	A	O4'-C1'-N9	5.24	116.35	108.50
24	AA	36	PRO	O-C-N	-5.24	116.88	123.21
26	AP	47	ALA	CA-C-O	-5.24	113.26	118.34
40	BE	8	LYS	CA-C-N	5.24	127.30	120.28
40	BE	8	LYS	C-N-CA	5.24	127.30	120.28
53	BD	56	ARG	CA-C-O	-5.24	114.70	120.30
60	BS	98	VAL	CB-CA-C	-5.24	105.07	112.14
67	B1	351	C	C5'-C4'-C3'	5.24	123.05	115.20
67	B1	487	U	C1'-O4'-C4'	5.24	114.94	109.70
67	B1	688	G	O4'-C1'-C2'	-5.24	102.36	107.60
67	B1	702	G	C3'-C2'-C1'	-5.24	96.06	101.30
67	B1	1300	C	P-O3'-C3'	-5.24	112.35	120.20
67	B1	1483	U	P-O3'-C3'	-5.24	112.35	120.20
67	B1	1803	U	C4'-C3'-C2'	5.24	107.83	102.60
67	B1	2895	G	C5'-C4'-C3'	5.24	123.85	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	AW	60	GLU	CA-C-O	5.23	126.88	120.60
25	AH	88	ARG	CB-CA-C	5.23	120.84	110.42
33	BC	201	GLU	CA-C-O	5.23	126.10	120.55
59	BM	154	HIS	CG-CD2-NE2	5.23	112.43	107.20
67	B1	862	G	P-O3'-C3'	5.23	128.05	120.20
67	B1	947	C	C3'-C2'-O2'	5.23	118.55	110.70
67	B1	2265	C	C4'-C3'-O3'	-5.23	105.15	113.00
67	B1	2932	C	C4'-C3'-C2'	-5.23	97.37	102.60
40	BE	18	HIS	N-CA-CB	5.23	119.68	110.37
44	BW	49	ARG	CA-C-N	5.23	127.29	120.28
44	BW	49	ARG	C-N-CA	5.23	127.29	120.28
46	BA	157	LEU	CB-CA-C	5.23	118.84	110.16
59	BM	69	GLY	CA-C-N	5.23	130.79	121.48
59	BM	69	GLY	C-N-CA	5.23	130.79	121.48
63	Bg	14	LYS	CA-C-N	-5.23	113.66	123.03
63	Bg	14	LYS	C-N-CA	-5.23	113.66	123.03
67	B1	423	G	C3'-C2'-C1'	-5.23	96.07	101.30
67	B1	1949	A	N9-C1'-C2'	5.23	119.85	112.00
67	B1	2122	G	C4'-C3'-O3'	-5.23	105.15	113.00
67	B1	2182	A	P-O3'-C3'	-5.23	112.35	120.20
67	B1	2586	A	C1'-O4'-C4'	5.23	115.13	109.90
2	AK	114	THR	O-C-N	5.23	128.75	123.26
21	A2	1017	U	C1'-O4'-C4'	-5.23	104.47	109.70
21	A2	1123	G	C5'-C4'-C3'	5.23	123.84	116.00
40	BE	74	GLU	CA-C-N	5.23	125.23	119.90
40	BE	74	GLU	C-N-CA	5.23	125.23	119.90
59	BM	86	GLY	N-CA-C	5.23	118.65	111.54
67	B1	694	A	C4'-C3'-O3'	5.23	117.25	109.40
67	B1	1079	A	O5'-C5'-C4'	5.23	119.35	111.50
67	B1	1476	C	C4'-C3'-C2'	5.23	107.83	102.60
67	B1	1511	C	O4'-C1'-C2'	-5.23	102.37	107.60
21	A2	114	A	C5'-C4'-C3'	5.23	123.04	115.20
21	A2	527	A	C4'-C3'-C2'	5.23	107.83	102.60
21	A2	1295	C	N1-C1'-C2'	5.23	119.84	112.00
30	AU	36	LYS	O-C-N	-5.23	115.47	122.68
32	BO	20	ASN	CA-C-N	5.23	127.54	120.38
32	BO	20	ASN	C-N-CA	5.23	127.54	120.38
67	B1	446	G	C5'-C4'-C3'	5.23	123.84	116.00
67	B1	1245	C	O3'-P-O5'	5.23	111.84	104.00
67	B1	1774	A	C5'-C4'-C3'	-5.23	107.36	115.20
67	B1	2092	G	C4'-C3'-O3'	-5.23	105.16	113.00
1	AQ	73	ASN	N-CA-CB	5.23	117.65	110.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	AG	103	ARG	O-C-N	-5.23	117.42	123.33
21	A2	35	G	P-O3'-C3'	-5.23	112.36	120.20
21	A2	617	A	C1'-O4'-C4'	5.23	115.13	109.90
37	BU	75	ARG	NE-CZ-NH2	-5.23	114.50	119.20
53	BD	65	HIS	ND1-CE1-NE2	5.23	113.63	108.40
67	B1	2673	C	C5'-C4'-C3'	-5.23	108.16	116.00
1	AQ	49	MET	CA-C-N	5.23	127.25	120.56
1	AQ	49	MET	C-N-CA	5.23	127.25	120.56
1	AQ	112	HIS	CA-CB-CG	-5.23	108.57	113.80
15	AE	174	LEU	N-CA-C	-5.23	100.80	108.79
20	A3	96	ALA	CA-C-O	5.23	127.98	120.51
21	A2	689	C	N1-C1'-C2'	5.23	119.84	112.00
21	A2	1439	G	O4'-C1'-N9	5.23	116.34	108.50
23	AT	84	HIS	CB-CG-ND1	5.23	130.54	122.70
46	BA	148	LYS	N-CA-C	-5.23	105.66	111.36
56	BH	116	ALA	N-CA-CB	5.23	119.92	110.83
67	B1	1669	A	P-O3'-C3'	-5.23	112.36	120.20
7	AB	124	HIS	CA-CB-CG	5.22	119.03	113.80
21	A2	90	C	O3'-P-O5'	5.22	111.84	104.00
21	A2	894	A	N9-C1'-C2'	5.22	119.84	112.00
30	AU	132	ILE	CA-C-N	5.22	127.28	120.28
30	AU	132	ILE	C-N-CA	5.22	127.28	120.28
39	Be	25	ARG	CD-NE-CZ	-5.22	117.09	124.40
50	BV	42	PHE	CA-C-N	5.22	127.80	120.28
50	BV	42	PHE	C-N-CA	5.22	127.80	120.28
52	BB	189	TRP	O-C-N	5.22	126.47	121.71
54	BF	31	PRO	CA-C-O	5.22	126.07	118.86
59	BM	137	HIS	CA-C-N	5.22	124.89	119.56
59	BM	137	HIS	C-N-CA	5.22	124.89	119.56
67	B1	603	G	P-O3'-C3'	-5.22	112.36	120.20
67	B1	1165	C	O5'-C5'-C4'	-5.22	103.66	111.50
67	B1	1283	G	P-O5'-C5'	-5.22	113.06	120.90
67	B1	2922	G	C4'-C3'-C2'	-5.22	97.38	102.60
11	A1	40	U	O4'-C4'-C3'	-5.22	98.78	104.00
17	AO	115	TYR	N-CA-CB	5.22	117.80	110.12
21	A2	239	A	O4'-C4'-C3'	-5.22	100.88	106.10
21	A2	321	A	C1'-O4'-C4'	-5.22	104.68	109.90
21	A2	325	A	C1'-C2'-O2'	-5.22	103.97	111.80
21	A2	1172	A	O4'-C1'-N9	5.22	116.33	108.50
22	AY	19	ASN	N-CA-CB	5.22	118.36	110.42
24	AA	17	GLN	CG-CD-NE2	5.22	124.23	116.40
30	AU	88	GLU	N-CA-C	5.22	117.45	110.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BL	76	VAL	N-CA-C	-5.22	101.46	108.35
47	BI	39	THR	CA-C-O	-5.22	115.56	121.72
53	BD	9	ASN	CA-CB-CG	-5.22	107.38	112.60
53	BD	127	VAL	CA-CB-CG1	5.22	119.28	110.40
67	B1	154	U	C4'-C3'-C2'	5.22	107.82	102.60
67	B1	464	C	N1-C1'-C2'	-5.22	104.17	112.00
67	B1	526	C	C4'-C3'-C2'	-5.22	97.38	102.60
67	B1	978	C	O3'-P-O5'	-5.22	96.17	104.00
67	B1	1904	G	P-O3'-C3'	-5.22	112.37	120.20
67	B1	2326	C	C1'-O4'-C4'	-5.22	104.68	109.90
67	B1	2616	C	C1'-O4'-C4'	5.22	115.12	109.90
67	B1	2832	G	O4'-C4'-C3'	-5.22	98.78	104.00
21	A2	27	C	N1-C1'-C2'	5.22	119.83	112.00
21	A2	500	A	C3'-C2'-C1'	-5.22	96.28	101.50
25	AH	73	ARG	N-CA-C	5.22	119.98	111.37
67	B1	385	U	C1'-O4'-C4'	5.22	115.12	109.90
67	B1	697	U	N1-C1'-C2'	-5.22	104.17	112.00
67	B1	914	U	P-O5'-C5'	-5.22	113.07	120.90
21	A2	1187	A	C4'-C3'-C2'	-5.22	97.38	102.60
28	AV	14	ILE	CA-CB-CG1	5.22	119.27	110.40
29	AL	41	PRO	N-CA-C	5.22	119.43	111.34
30	AU	115	PRO	CA-C-N	5.22	126.66	120.14
30	AU	115	PRO	C-N-CA	5.22	126.66	120.14
30	AU	117	LYS	N-CA-CB	5.22	119.31	110.49
33	BC	156	LYS	CA-C-N	5.22	131.09	121.70
33	BC	156	LYS	C-N-CA	5.22	131.09	121.70
41	Ba	81	ARG	CA-C-N	-5.22	113.14	122.07
41	Ba	81	ARG	C-N-CA	-5.22	113.14	122.07
67	B1	1604	G	C1'-C2'-O2'	5.22	116.23	108.40
67	B1	1888	G	C3'-C2'-C1'	5.22	106.52	101.30
67	B1	2032	G	P-O5'-C5'	-5.22	113.07	120.90
67	B1	2279	G	O5'-C5'-C4'	5.22	119.33	111.50
10	AD	9	LYS	CB-CA-C	5.22	120.02	110.10
12	AN	43	PRO	N-CA-CB	5.22	108.73	103.25
21	A2	1296	U	C1'-C2'-O2'	-5.22	103.97	111.80
44	BW	15	ASP	CB-CA-C	-5.22	102.69	110.88
67	B1	686	C	C5'-C4'-C3'	-5.22	108.17	116.00
6	AC	95	GLN	CB-CG-CD	-5.22	103.73	112.60
21	A2	537	G	C4'-C3'-C2'	-5.22	97.38	102.60
21	A2	554	C	C1'-O4'-C4'	-5.22	104.68	109.90
21	A2	741	A	O5'-C5'-C4'	-5.22	103.68	111.50
30	AU	5	TYR	O-C-N	5.22	127.65	122.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
33	BC	352	GLN	CB-CG-CD	-5.22	103.73	112.60
38	Bb	66	SER	CA-C-N	5.22	133.46	123.65
38	Bb	66	SER	C-N-CA	5.22	133.46	123.65
67	B1	70	G	C3'-C2'-C1'	-5.22	96.28	101.50
67	B1	174	C	C1'-C2'-O2'	5.22	116.22	108.40
67	B1	1207	G	C4'-C3'-C2'	-5.22	97.38	102.60
67	B1	1740	U	O4'-C4'-C3'	-5.22	98.78	104.00
67	B1	2477	G	P-O5'-C5'	5.22	128.72	120.90
20	A3	110	LEU	CA-C-N	5.21	127.23	120.56
20	A3	110	LEU	C-N-CA	5.21	127.23	120.56
21	A2	1040	A	C1'-O4'-C4'	-5.21	104.69	109.90
21	A2	1471	G	C5'-C4'-O4'	5.21	117.62	109.80
52	BB	51	ASP	N-CA-C	-5.21	101.11	109.04
57	BZ	29	THR	O-C-N	-5.21	115.86	122.27
67	B1	82	C	C1'-O4'-C4'	-5.21	104.69	109.90
67	B1	737	G	C4'-C3'-C2'	-5.21	97.39	102.60
67	B1	1384	C	O4'-C1'-C2'	-5.21	102.39	107.60
67	B1	1572	C	C4'-C3'-C2'	-5.21	97.39	102.60
67	B1	1863	G	O4'-C4'-C3'	5.21	109.22	104.00
67	B1	2181	G	C1'-O4'-C4'	-5.21	104.69	109.90
67	B1	2284	C	C1'-O4'-C4'	-5.21	104.69	109.90
6	AC	86	LYS	N-CA-CB	5.21	118.90	110.40
21	A2	973	U	P-O3'-C3'	5.21	128.02	120.20
21	A2	1335	A	C3'-C2'-O2'	-5.21	102.88	110.70
67	B1	1916	U	O4'-C1'-N1	5.21	116.32	108.50
18	AF	196	ASN	CA-CB-CG	-5.21	107.39	112.60
21	A2	55	G	O3'-P-O5'	-5.21	96.18	104.00
21	A2	146	A	P-O5'-C5'	5.21	128.72	120.90
21	A2	1237	G	C3'-C2'-C1'	-5.21	96.09	101.30
30	AU	49	ASP	CA-CB-CG	-5.21	107.39	112.60
32	BO	151	GLU	CA-C-N	5.21	127.26	120.28
32	BO	151	GLU	C-N-CA	5.21	127.26	120.28
40	BE	135	PHE	CA-C-N	5.21	131.62	121.41
40	BE	135	PHE	C-N-CA	5.21	131.62	121.41
67	B1	554	C	C1'-C2'-O2'	5.21	116.22	108.40
67	B1	981	A	O4'-C4'-C3'	-5.21	100.89	106.10
67	B1	1429	A	P-O5'-C5'	-5.21	113.08	120.90
67	B1	1905	G	C1'-O4'-C4'	5.21	115.11	109.90
67	B1	2593	A	O4'-C1'-N9	5.21	116.32	108.50
7	AB	178	ASN	N-CA-CB	5.21	117.87	110.16
21	A2	712	G	C4'-C3'-C2'	5.21	107.81	102.60
21	A2	1484	C	P-O5'-C5'	-5.21	113.08	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BL	91	MET	N-CA-CB	5.21	117.93	110.06
63	Bg	4	PHE	N-CA-C	5.21	121.33	109.81
67	B1	1123	A	O4'-C4'-C3'	5.21	109.21	104.00
67	B1	2503	C	N1-C1'-C2'	5.21	119.81	112.00
4	AG	123	LEU	CA-C-N	5.21	127.23	120.56
4	AG	123	LEU	C-N-CA	5.21	127.23	120.56
10	AD	78	LYS	N-CA-CB	5.21	117.87	110.16
17	AO	79	VAL	CA-C-O	-5.21	115.39	121.80
21	A2	560	A	C3'-C2'-C1'	5.21	106.51	101.30
46	BA	127	PRO	CA-C-N	5.21	130.95	122.67
46	BA	127	PRO	C-N-CA	5.21	130.95	122.67
34	BK	69	GLU	CA-C-N	5.21	131.49	121.54
34	BK	69	GLU	C-N-CA	5.21	131.49	121.54
52	BB	88	ASP	CA-C-N	5.21	127.63	120.39
52	BB	88	ASP	C-N-CA	5.21	127.63	120.39
58	BP	102	THR	N-CA-CB	5.21	117.89	110.44
67	B1	982	G	C4'-C3'-O3'	-5.21	105.19	113.00
67	B1	1082	A	N9-C1'-C2'	5.21	121.81	114.00
67	B1	1279	U	O4'-C1'-C2'	-5.21	100.59	105.80
67	B1	1288	C	C3'-C2'-C1'	5.21	106.51	101.30
67	B1	1524	A	C2'-C3'-O3'	5.21	117.31	109.50
67	B1	1555	G	C4'-C3'-O3'	-5.21	105.19	113.00
67	B1	2791	C	C1'-O4'-C4'	5.21	115.11	109.90
67	B1	2905	C	C1'-C2'-O2'	5.21	116.21	108.40
67	B1	3020	G	C4'-C3'-C2'	5.21	107.81	102.60
10	AD	173	LYS	CA-C-O	-5.21	114.90	120.42
12	AN	45	GLU	CB-CG-CD	-5.21	103.75	112.60
20	A3	58	ASP	CA-C-O	-5.21	113.03	120.16
21	A2	440	C	C4'-C3'-O3'	-5.21	105.19	113.00
21	A2	904	G	C3'-C2'-C1'	5.21	106.51	101.30
21	A2	1307	G	C3'-C2'-C1'	5.21	106.51	101.30
21	A2	1322	C	N1-C1'-C2'	5.21	119.81	112.00
26	AP	40	ARG	NE-CZ-NH1	-5.21	116.29	121.50
33	BC	263	ARG	NE-CZ-NH2	-5.21	114.51	119.20
34	B5	69	GLU	CA-C-N	5.21	131.49	121.54
34	B5	69	GLU	C-N-CA	5.21	131.49	121.54
36	Bf	7	LEU	CA-C-N	5.21	127.26	120.28
36	Bf	7	LEU	C-N-CA	5.21	127.26	120.28
37	BU	110	GLU	CB-CG-CD	-5.21	103.75	112.60
20	BG	88	ALA	CA-C-N	5.21	127.26	120.28
20	BG	88	ALA	C-N-CA	5.21	127.26	120.28
67	B1	48	G	C1'-O4'-C4'	5.21	115.11	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	538	G	C1'-C2'-O2'	5.21	116.21	108.40
67	B1	1134	A	O4'-C1'-N9	-5.21	100.69	108.50
67	B1	1444	A	C3'-C2'-C1'	5.21	106.71	101.50
67	B1	2130	C	C1'-C2'-O2'	5.21	116.21	108.40
67	B1	2388	U	O4'-C1'-C2'	-5.21	102.39	107.60
67	B1	2390	G	O4'-C1'-N9	5.21	116.31	108.50
20	A3	25	ILE	CA-C-N	5.21	127.68	120.29
20	A3	25	ILE	C-N-CA	5.21	127.68	120.29
21	A2	166	A	O4'-C1'-C2'	5.21	112.81	107.60
21	A2	933	G	C3'-C2'-C1'	5.21	106.70	101.50
21	A2	1016	G	O4'-C1'-N9	5.21	116.01	108.20
46	BA	65	ILE	O-C-N	-5.21	117.71	123.18
53	BD	90	ARG	CB-CA-C	-5.21	99.96	109.54
67	B1	2785	G	C1'-O4'-C4'	-5.21	104.69	109.90
7	AB	12	TYR	O-C-N	-5.20	116.71	122.07
12	AN	34	VAL	N-CA-C	5.20	115.93	110.62
21	A2	128	A	C1'-O4'-C4'	-5.20	104.70	109.90
21	A2	429	A	C5'-C4'-C3'	-5.20	108.19	116.00
21	A2	1173	A	C4'-C3'-C2'	5.20	107.80	102.60
21	A2	1369	C	O3'-P-O5'	-5.20	96.19	104.00
22	AY	24	ARG	N-CA-C	-5.20	105.50	111.07
33	BC	149	GLY	O-C-N	-5.20	117.19	122.19
48	BR	3	GLN	N-CA-CB	-5.20	101.65	110.50
52	BB	162	VAL	CA-CB-CG2	-5.20	101.55	110.40
67	B1	562	G	C3'-C2'-C1'	-5.20	96.10	101.30
67	B1	737	G	C3'-C2'-O2'	5.20	118.50	110.70
1	AQ	130	ARG	CA-C-O	-5.20	115.04	120.55
12	AN	111	PRO	CB-CA-C	-5.20	102.31	111.21
21	A2	142	G	P-O5'-C5'	5.20	128.70	120.90
36	Bf	12	ARG	CB-CA-C	-5.20	102.16	110.79
38	Bb	18	ARG	CA-C-O	-5.20	115.34	120.70
52	BB	50	HIS	ND1-CE1-NE2	5.20	113.60	108.40
67	B1	701	G	C3'-C2'-C1'	-5.20	96.10	101.30
67	B1	2488	C	C4'-C3'-C2'	5.20	107.80	102.60
67	B1	2566	A	N9-C1'-C2'	-5.20	104.20	112.00
68	B3	124	A	P-O3'-C3'	5.20	128.00	120.20
10	AD	141	SER	N-CA-CB	5.20	118.19	110.49
21	A2	20	G	O4'-C1'-N9	5.20	116.30	108.50
21	A2	825	C	O4'-C1'-C2'	-5.20	102.40	107.60
21	A2	1050	G	C4'-C3'-O3'	-5.20	105.20	113.00
51	Bj	78	HIS	N-CA-CB	5.20	120.74	111.69
52	BB	227	VAL	CB-CA-C	5.20	118.45	110.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
56	BH	5	VAL	N-CA-CB	5.20	119.81	111.23
59	BM	8	ARG	NE-CZ-NH2	-5.20	114.52	119.20
67	B1	264	G	O4'-C1'-C2'	-5.20	100.60	105.80
67	B1	361	G	O4'-C1'-C2'	-5.20	100.60	105.80
67	B1	507	G	O4'-C4'-C3'	5.20	109.20	104.00
67	B1	2055	U	C3'-C2'-C1'	5.20	106.50	101.30
67	B1	2695	U	O4'-C1'-C2'	5.20	112.80	107.60
67	B1	2955	G	C4'-C3'-C2'	-5.20	97.40	102.60
11	A1	19	G	N9-C1'-C2'	5.20	119.80	112.00
11	A1	59	A	C2'-C3'-O3'	5.20	121.50	113.70
21	A2	108	G	C3'-C2'-C1'	-5.20	96.10	101.30
21	A2	183	A	O4'-C4'-C3'	-5.20	98.80	104.00
21	A2	525	A	C1'-O4'-C4'	5.20	115.10	109.90
21	A2	855	C	N1-C1'-C2'	5.20	119.80	112.00
25	AH	13	HIS	CG-CD2-NE2	5.20	112.40	107.20
26	AP	38	LEU	N-CA-C	-5.20	101.17	109.07
33	BC	172	TRP	CB-CG-CD1	5.20	134.70	126.90
43	Bk	55	SER	N-CA-CB	5.20	120.47	111.69
54	BF	125	LEU	O-C-N	-5.20	115.71	121.53
67	B1	273	G	C1'-O4'-C4'	-5.20	104.70	109.90
67	B1	966	G	N9-C1'-C2'	5.20	119.80	112.00
67	B1	1371	U	P-O5'-C5'	5.20	128.70	120.90
67	B1	1688	C	N1-C1'-C2'	5.20	119.80	112.00
67	B1	1896	U	C1'-O4'-C4'	5.20	115.10	109.90
67	B1	2042	A	O4'-C1'-N9	5.20	116.00	108.20
67	B1	2775	G	O4'-C4'-C3'	-5.20	98.80	104.00
68	B3	82	C	C4'-C3'-C2'	-5.20	97.40	102.60
21	A2	924	U	C3'-C2'-C1'	5.20	106.70	101.50
30	AU	135	GLU	CA-C-N	5.20	127.51	120.44
30	AU	135	GLU	C-N-CA	5.20	127.51	120.44
34	B5	47	ARG	N-CA-CB	-5.20	101.94	110.52
67	B1	386	A	O5'-C5'-C4'	-5.20	103.70	111.50
67	B1	759	G	O4'-C4'-C3'	-5.20	98.80	104.00
67	B1	1116	A	P-O5'-C5'	-5.20	113.11	120.90
2	AK	125	GLY	N-CA-C	-5.20	101.74	112.34
11	A1	9	A	C4'-C3'-C2'	5.20	107.80	102.60
16	AJ	83	ASN	CA-C-O	-5.20	114.23	120.41
21	A2	792	C	C5'-C4'-C3'	-5.20	108.21	116.00
67	B1	634	G	C4'-C3'-O3'	-5.20	105.21	113.00
67	B1	642	G	C3'-C2'-C1'	-5.20	96.11	101.30
67	B1	1146	U	O4'-C1'-C2'	-5.20	100.60	105.80
67	B1	1329	G	N9-C1'-C2'	5.20	119.79	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1784	G	C5'-C4'-C3'	-5.20	108.21	116.00
67	B1	1810	G	N9-C1'-C2'	5.20	119.79	112.00
67	B1	2124	C	O3'-P-O5'	-5.20	96.21	104.00
67	B1	2339	C	O5'-C5'-C4'	-5.20	103.71	111.50
67	B1	2657	A	C1'-O4'-C4'	5.20	114.90	109.70
68	B3	15	G	O4'-C1'-N9	5.20	116.29	108.50
16	AJ	24	ARG	N-CA-C	-5.19	101.23	109.59
21	A2	1494	C	N1-C1'-C2'	5.19	119.79	112.00
23	AT	90	VAL	CA-CB-CG2	5.19	119.23	110.40
38	Bb	43	PRO	CA-C-N	5.19	129.51	120.68
38	Bb	43	PRO	C-N-CA	5.19	129.51	120.68
46	BA	62	ILE	CB-CA-C	5.19	118.57	110.83
20	BG	112	GLU	N-CA-CB	5.19	117.75	110.12
67	B1	885	A	P-O3'-C3'	5.19	127.99	120.20
67	B1	1124	G	N9-C1'-C2'	5.19	121.79	114.00
6	AC	111	ARG	N-CA-CB	5.19	117.85	110.16
7	AB	33	TYR	N-CA-CB	-5.19	102.44	110.07
12	AN	40	LYS	CB-CA-C	-5.19	102.70	110.90
12	AN	77	LEU	N-CA-CB	5.19	117.60	109.97
15	AE	113	HIS	CA-CB-CG	5.19	118.99	113.80
15	AE	198	ARG	NH1-CZ-NH2	-5.19	112.55	119.30
21	A2	13	C	N1-C1'-C2'	5.19	119.79	112.00
21	A2	1099	A	O4'-C1'-N9	5.19	116.29	108.50
21	A2	1171	G	P-O3'-C3'	5.19	127.99	120.20
24	AA	195	GLN	OE1-CD-NE2	5.19	127.79	122.60
26	AP	7	ASN	CB-CG-ND2	5.19	124.19	116.40
29	AL	28	GLU	N-CA-CB	-5.19	102.27	110.06
38	Bb	37	ASP	CA-C-O	-5.19	113.05	120.16
52	BB	113	GLY	CA-C-N	5.19	131.74	122.13
52	BB	113	GLY	C-N-CA	5.19	131.74	122.13
67	B1	412	G	N9-C1'-C2'	5.19	121.79	114.00
67	B1	421	C	P-O5'-C5'	-5.19	113.11	120.90
67	B1	904	G	C4'-C3'-O3'	-5.19	105.21	113.00
67	B1	1102	C	N1-C1'-C2'	5.19	119.79	112.00
67	B1	1584	G	C1'-O4'-C4'	-5.19	104.71	109.90
67	B1	1874	G	O3'-P-O5'	5.19	111.79	104.00
67	B1	2001	U	C4'-C3'-O3'	-5.19	105.21	113.00
67	B1	2696	G	C1'-O4'-C4'	5.19	114.89	109.70
11	A1	76	C	P-O3'-C3'	-5.19	112.42	120.20
21	A2	874	G	C4'-C3'-O3'	-5.19	105.22	113.00
21	A2	1091	C	C4'-C3'-C2'	-5.19	97.41	102.60
22	AY	32	ALA	N-CA-C	-5.19	101.51	109.76

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	BO	166	ARG	O-C-N	5.19	129.49	122.59
32	BO	188	VAL	N-CA-C	5.19	115.96	110.72
58	BP	36	ARG	CD-NE-CZ	-5.19	117.13	124.40
61	Bd	84	ILE	N-CA-C	5.19	115.91	110.62
62	BN	59	GLN	N-CA-CB	5.19	117.75	110.12
62	BN	140	GLN	N-CA-C	-5.19	105.70	111.36
67	B1	1858	G	O4'-C1'-C2'	5.19	110.99	105.80
67	B1	1901	A	P-O5'-C5'	5.19	128.69	120.90
67	B1	2684	G	N9-C1'-C2'	5.19	119.79	112.00
67	B1	2858	C	C4'-C3'-O3'	-5.19	105.21	113.00
17	AO	31	ILE	CB-CA-C	-5.19	104.25	110.99
21	A2	482	G	N9-C1'-C2'	-5.19	104.22	112.00
21	A2	857	C	O4'-C1'-C2'	-5.19	102.41	107.60
28	B6	37	LYS	CA-C-O	-5.19	115.05	120.55
60	BS	138	PRO	CA-C-N	5.19	130.42	122.95
60	BS	138	PRO	C-N-CA	5.19	130.42	122.95
67	B1	285	C	N1-C1'-C2'	5.19	119.78	112.00
67	B1	686	C	C3'-C2'-C1'	5.19	106.49	101.30
67	B1	719	C	C3'-C2'-C1'	5.19	106.49	101.30
67	B1	1547	U	C3'-C2'-C1'	5.19	106.49	101.30
67	B1	2801	G	C4'-C3'-C2'	-5.19	97.41	102.60
68	B3	94	G	O4'-C1'-C2'	-5.19	102.41	107.60
2	AK	90	THR	CA-CB-OG1	5.19	117.38	109.60
4	AG	56	PRO	N-CA-CB	5.19	108.31	102.60
19	AS	36	GLN	OE1-CD-NE2	5.19	127.79	122.60
21	A2	223	G	C3'-C2'-C1'	-5.19	96.11	101.30
21	A2	946	G	O4'-C1'-N9	5.19	116.28	108.50
21	A2	1412	A	C3'-C2'-C1'	5.19	106.49	101.30
33	BC	313	HIS	ND1-CE1-NE2	5.19	113.59	108.40
41	Ba	55	ASN	OD1-CG-ND2	5.19	127.79	122.60
45	Bi	79	ARG	CA-C-N	5.19	127.23	120.28
45	Bi	79	ARG	C-N-CA	5.19	127.23	120.28
47	BI	130	THR	N-CA-C	-5.19	101.25	109.96
67	B1	583	A	O4'-C1'-C2'	-5.19	102.41	107.60
67	B1	664	A	C1'-C2'-O2'	-5.19	104.02	111.80
67	B1	1061	G	N9-C1'-C2'	5.19	119.78	112.00
67	B1	1550	C	C5'-C4'-C3'	5.19	123.78	116.00
67	B1	1586	G	N9-C1'-C2'	5.19	119.78	112.00
67	B1	2674	C	C4'-C3'-C2'	-5.19	97.41	102.60
67	B1	2785	G	N9-C1'-C2'	5.19	119.78	112.00
38	Bb	104	HIS	CA-CB-CG	5.19	118.99	113.80
40	BE	135	PHE	CA-CB-CG	5.19	118.99	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	B4	114	ILE	N-CA-CB	5.19	116.62	110.55
67	B1	737	G	N9-C1'-C2'	5.19	119.78	112.00
67	B1	1280	C	C1'-O4'-C4'	5.19	115.09	109.90
67	B1	2341	G	C4'-C3'-O3'	-5.19	105.22	113.00
67	B1	2947	G	C1'-C2'-O2'	5.19	119.58	111.80
11	A1	47	G	C4'-C3'-C2'	-5.18	97.42	102.60
21	A2	782	A	C4'-C3'-C2'	-5.18	97.42	102.60
24	AA	130	GLN	O-C-N	5.18	129.41	123.29
29	AL	72	LEU	O-C-N	-5.18	117.24	123.31
39	Be	42	ARG	N-CA-CB	5.18	117.59	110.07
49	BQ	74	ARG	CD-NE-CZ	-5.18	117.14	124.40
60	BS	56	ALA	CA-C-N	5.18	131.44	121.54
60	BS	56	ALA	C-N-CA	5.18	131.44	121.54
67	B1	609	G	P-O5'-C5'	-5.18	113.12	120.90
67	B1	1095	A	O4'-C4'-C3'	-5.18	98.81	104.00
67	B1	1938	G	C2'-C3'-O3'	5.18	117.28	109.50
21	A2	678	G	P-O3'-C3'	-5.18	112.42	120.20
21	A2	1012	C	C3'-C2'-C1'	5.18	106.48	101.30
37	BU	75	ARG	CA-C-O	5.18	127.25	121.40
42	BT	32	ARG	NE-CZ-NH1	5.18	126.68	121.50
59	BM	124	MET	CA-C-O	5.18	125.27	119.41
59	BM	183	ARG	CA-C-O	5.18	125.01	120.19
64	Bc	62	GLY	CA-C-N	5.18	131.03	121.70
64	Bc	62	GLY	C-N-CA	5.18	131.03	121.70
67	B1	556	G	O4'-C1'-N9	5.18	116.27	108.50
67	B1	754	U	C1'-C2'-O2'	5.18	116.17	108.40
67	B1	1094	U	C5'-C4'-O4'	5.18	117.57	109.80
67	B1	2186	C	O4'-C1'-N1	5.18	116.27	108.50
4	AG	63	ILE	O-C-N	-5.18	117.03	122.68
21	A2	930	G	C1'-O4'-C4'	-5.18	104.52	109.70
53	BD	129	ALA	CB-CA-C	-5.18	102.19	110.79
67	B1	1225	A	C1'-O4'-C4'	-5.18	104.72	109.90
67	B1	1927	C	C1'-C2'-O2'	5.18	116.17	108.40
67	B1	1946	G	N9-C1'-C2'	-5.18	104.23	112.00
4	AG	44	ASN	CA-C-N	5.18	131.29	121.97
4	AG	44	ASN	C-N-CA	5.18	131.29	121.97
4	AG	84	VAL	CA-CB-CG1	5.18	119.20	110.40
21	A2	874	G	C4'-C3'-C2'	-5.18	97.42	102.60
21	A2	1475	C	O4'-C1'-C2'	-5.18	102.42	107.60
30	AU	16	VAL	O-C-N	5.18	127.16	121.83
33	BC	146	GLN	CA-C-N	5.18	127.22	120.28
33	BC	146	GLN	C-N-CA	5.18	127.22	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
40	BE	9	GLU	O-C-N	5.18	127.61	122.12
67	B1	307	C	C5'-C4'-C3'	5.18	123.77	116.00
67	B1	1057	C	O4'-C1'-C2'	-5.18	102.42	107.60
67	B1	1153	U	P-O5'-C5'	5.18	128.67	120.90
67	B1	1483	U	O4'-C1'-C2'	-5.18	100.62	105.80
67	B1	1595	G	N9-C1'-C2'	-5.18	104.23	112.00
67	B1	2446	C	C5'-C4'-C3'	5.18	123.77	116.00
67	B1	2699	U	C3'-C2'-C1'	5.18	106.48	101.30
67	B1	2932	C	N1-C1'-C2'	-5.18	104.23	112.00
21	A2	525	A	C4'-C3'-O3'	-5.18	105.23	113.00
21	A2	551	U	C1'-C2'-O2'	5.18	116.17	108.40
21	A2	1090	C	C3'-C2'-C1'	5.18	106.48	101.30
21	A2	1137	G	C1'-O4'-C4'	5.18	115.08	109.90
65	BJ	81	VAL	CA-C-O	5.18	125.85	120.36
67	B1	2915	U	P-O3'-C3'	-5.18	112.43	120.20
6	AC	117	LEU	N-CA-C	5.18	117.00	111.36
12	AN	65	PRO	CA-C-N	-5.18	114.53	122.87
12	AN	65	PRO	C-N-CA	-5.18	114.53	122.87
21	A2	194	C	C4'-C3'-C2'	-5.18	97.42	102.60
21	A2	360	A	C3'-C2'-C1'	5.18	106.48	101.30
21	A2	1103	G	C4'-C3'-C2'	-5.18	97.42	102.60
26	AP	14	PHE	N-CA-CB	5.18	119.58	111.56
40	BE	134	ILE	O-C-N	-5.18	117.03	122.67
54	BF	76	ARG	CD-NE-CZ	-5.18	117.15	124.40
67	B1	1326	U	O4'-C1'-N1	5.18	116.27	108.50
67	B1	1803	U	O4'-C1'-N1	5.18	115.96	108.20
67	B1	2194	A	C1'-O4'-C4'	5.18	115.08	109.90
67	B1	2389	C	P-O3'-C3'	-5.18	112.44	120.20
67	B1	2939	C	C1'-O4'-C4'	5.18	115.08	109.90
1	AQ	63	VAL	O-C-N	5.17	127.10	121.87
15	AE	170	GLU	CA-C-N	5.17	129.91	122.35
15	AE	170	GLU	C-N-CA	5.17	129.91	122.35
21	A2	672	G	C1'-O4'-C4'	-5.17	104.72	109.90
29	AL	75	ILE	CA-C-O	-5.17	115.79	121.28
33	BC	91	LEU	N-CA-C	-5.17	106.89	114.39
33	BC	278	HIS	CB-CG-ND1	5.17	130.46	122.70
38	Bb	93	LEU	N-CA-C	-5.17	100.74	109.07
67	B1	635	G	N9-C1'-C2'	5.17	119.76	112.00
67	B1	2219	A	N9-C1'-C2'	5.17	119.76	112.00
67	B1	2566	A	C1'-O4'-C4'	5.17	115.08	109.90
67	B1	2780	G	C4'-C3'-O3'	-5.17	105.24	113.00
21	A2	68	G	P-O3'-C3'	-5.17	112.44	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	AA	146	TYR	CB-CG-CD2	5.17	128.56	120.80
67	B1	266	A	C1'-O4'-C4'	-5.17	104.73	109.90
67	B1	694	A	C5'-C4'-O4'	5.17	116.86	109.10
4	AG	107	VAL	CA-C-N	5.17	128.82	121.42
4	AG	107	VAL	C-N-CA	5.17	128.82	121.42
8	AR	61	GLU	CB-CG-CD	-5.17	103.81	112.60
33	BC	48	MET	CA-C-N	5.17	130.68	122.10
33	BC	48	MET	C-N-CA	5.17	130.68	122.10
52	BB	136	PRO	N-CD-CG	5.17	110.96	103.20
67	B1	241	C	O4'-C1'-C2'	5.17	112.77	107.60
67	B1	878	G	C5'-C4'-C3'	-5.17	108.24	116.00
67	B1	882	U	O5'-C5'-C4'	-5.17	103.74	111.50
67	B1	1689	G	C5'-C4'-C3'	5.17	122.96	115.20
67	B1	2259	G	N9-C1'-C2'	5.17	119.76	112.00
67	B1	2581	G	O4'-C1'-N9	5.17	116.26	108.50
67	B1	2831	G	P-O5'-C5'	-5.17	113.14	120.90
67	B1	2882	G	C3'-C2'-C1'	-5.17	96.13	101.30
67	B1	2973	A	C1'-C2'-O2'	5.17	119.56	111.80
68	B3	107	G	O3'-P-O5'	-5.17	96.24	104.00
68	B3	125	U	C3'-C2'-O2'	5.17	118.46	110.70
33	BC	41	PHE	CA-CB-CG	-5.17	108.63	113.80
51	Bj	86	VAL	CA-C-O	-5.17	115.07	120.76
52	BB	16	THR	CA-C-N	5.17	131.22	122.79
52	BB	16	THR	C-N-CA	5.17	131.22	122.79
54	BF	141	GLY	CA-C-N	5.17	129.12	120.64
54	BF	141	GLY	C-N-CA	5.17	129.12	120.64
20	B4	61	GLU	CA-C-N	5.17	127.07	120.56
20	B4	61	GLU	C-N-CA	5.17	127.07	120.56
66	B1	67	ASP	CA-CB-CG	-5.17	107.43	112.60
67	B1	162	G	C3'-C2'-O2'	5.17	118.45	110.70
67	B1	1036	C	C4'-C3'-O3'	-5.17	105.25	113.00
67	B1	1626	A	C4'-C3'-C2'	-5.17	97.43	102.60
6	AC	61	ARG	O-C-N	-5.17	116.64	122.12
7	AB	158	ASN	N-CA-C	-5.17	104.73	112.54
15	AE	15	ALA	CA-C-N	5.17	125.15	120.03
15	AE	15	ALA	C-N-CA	5.17	125.15	120.03
15	AE	132	MET	N-CA-C	-5.17	102.83	110.48
21	A2	369	A	C5'-C4'-C3'	5.17	122.95	115.20
35	BL	51	ILE	CA-C-N	5.17	127.63	120.29
35	BL	51	ILE	C-N-CA	5.17	127.63	120.29
35	BL	63	PHE	CA-C-O	5.17	126.06	120.32
41	Ba	31	ALA	O-C-N	5.17	127.60	122.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	BA	70	VAL	CB-CA-C	5.17	120.17	112.16
34	BK	82	LEU	CA-C-O	5.17	124.97	119.34
52	BB	218	SER	N-CA-CB	5.17	117.32	110.29
67	B1	239	G	C3'-C2'-C1'	-5.17	96.13	101.30
67	B1	736	U	C1'-C2'-O2'	-5.17	104.05	111.80
67	B1	1555	G	C2'-C3'-O3'	5.17	121.45	113.70
67	B1	1624	U	C3'-C2'-O2'	-5.17	106.85	114.60
67	B1	1795	C	C3'-C2'-C1'	5.17	106.47	101.30
67	B1	1867	C	C3'-C2'-C1'	5.17	106.47	101.30
67	B1	2774	C	C3'-C2'-C1'	5.17	106.47	101.30
67	B1	2815	C	N1-C1'-C2'	5.17	119.75	112.00
15	AE	48	ILE	CA-C-O	5.17	126.32	120.95
21	A2	200	G	P-O5'-C5'	5.17	128.65	120.90
21	A2	359	A	C1'-O4'-C4'	-5.17	104.73	109.90
21	A2	1216	A	C5'-C4'-O4'	5.17	116.85	109.10
21	A2	1225	C	N1-C1'-C2'	5.17	119.75	112.00
23	AT	66	HIS	CG-CD2-NE2	5.17	112.37	107.20
46	BA	8	ILE	O-C-N	5.17	128.30	122.67
67	B1	344	G	O4'-C4'-C3'	5.17	109.17	104.00
67	B1	654	C	O4'-C4'-C3'	5.17	109.17	104.00
67	B1	1123	A	C4'-C3'-C2'	-5.17	97.43	102.60
67	B1	1934	C	N1-C1'-C2'	5.17	119.75	112.00
67	B1	2292	A	C1'-C2'-O2'	5.17	116.15	108.40
67	B1	2312	U	P-O3'-C3'	-5.17	112.45	120.20
67	B1	2388	U	C1'-O4'-C4'	5.17	115.07	109.90
67	B1	2425	A	C3'-C2'-C1'	5.17	106.47	101.30
3	AI	28	LYS	N-CA-C	5.17	119.27	112.35
6	AC	91	ASN	CA-C-N	5.17	127.62	120.29
6	AC	91	ASN	C-N-CA	5.17	127.62	120.29
17	AO	38	MET	N-CA-C	5.17	116.91	111.28
20	A3	121	LEU	N-CA-C	5.17	116.91	111.28
21	A2	114	A	C4'-C3'-O3'	5.17	117.15	109.40
25	AH	54	LYS	CA-C-N	5.17	127.16	120.44
25	AH	54	LYS	C-N-CA	5.17	127.16	120.44
43	Bk	103	LEU	CA-C-N	5.17	127.72	120.28
43	Bk	103	LEU	C-N-CA	5.17	127.72	120.28
67	B1	2218	C	C4'-C3'-C2'	-5.17	97.44	102.60
67	B1	3033	G	P-O5'-C5'	5.17	128.65	120.90
11	A1	36	A	C4'-C3'-C2'	-5.16	97.44	102.60
15	AE	78	ARG	N-CA-C	-5.16	101.58	108.86
21	A2	340	A	O4'-C4'-C3'	-5.16	98.84	104.00
65	BJ	23	VAL	CA-CB-CG2	-5.16	101.62	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	321	C	O4'-C1'-C2'	-5.16	102.44	107.60
67	B1	518	A	P-O5'-C5'	5.16	128.64	120.90
67	B1	927	G	C1'-C2'-O2'	-5.16	104.06	111.80
67	B1	1298	C	C3'-C2'-C1'	5.16	106.46	101.30
67	B1	2819	C	C3'-C2'-C1'	5.16	106.46	101.30
67	B1	2877	A	P-O5'-C5'	-5.16	113.16	120.90
29	AL	92	GLU	CA-C-O	-5.16	113.13	120.51
37	BU	22	VAL	CA-C-N	5.16	129.34	120.72
37	BU	22	VAL	C-N-CA	5.16	129.34	120.72
40	BE	173	VAL	CG1-CB-CG2	5.16	122.16	110.80
67	B1	260	A	N9-C1'-C2'	5.16	119.74	112.00
8	AR	58	ASN	O-C-N	5.16	129.25	122.33
15	AE	98	GLU	N-CA-C	5.16	118.12	110.48
20	A3	88	ALA	CA-C-O	5.16	126.02	120.55
21	A2	216	G	C5'-C4'-C3'	5.16	123.74	116.00
21	A2	465	C	O4'-C1'-C2'	-5.16	102.44	107.60
34	B5	82	LEU	CA-C-O	5.16	124.97	119.34
44	BW	50	ASP	CA-C-N	5.16	127.53	120.46
44	BW	50	ASP	C-N-CA	5.16	127.53	120.46
58	BP	72	GLY	N-CA-C	-5.16	100.95	113.18
67	B1	342	C	C1'-C2'-O2'	5.16	116.14	108.40
67	B1	1023	C	C1'-C2'-O2'	5.16	116.14	108.40
67	B1	1470	C	C4'-C3'-O3'	-5.16	105.26	113.00
67	B1	2111	C	N1-C1'-C2'	5.16	119.74	112.00
67	B1	2404	G	O4'-C4'-C3'	-5.16	98.84	104.00
67	B1	2627	C	O4'-C4'-C3'	-5.16	98.84	104.00
67	B1	2957	G	C3'-C2'-C1'	5.16	106.46	101.30
14	AM	57	PRO	CA-N-CD	-5.16	104.78	112.00
21	A2	573	C	C4'-C3'-O3'	-5.16	105.26	113.00
21	A2	801	A	O4'-C1'-C2'	5.16	110.96	105.80
21	A2	1101	G	C5'-C4'-C3'	5.16	123.74	116.00
21	A2	1166	G	O4'-C1'-C2'	5.16	112.76	107.60
23	AT	24	LEU	CA-C-N	5.16	127.19	120.28
23	AT	24	LEU	C-N-CA	5.16	127.19	120.28
25	AH	2	ALA	O-C-N	-5.16	116.76	122.07
60	BS	108	ASP	CA-CB-CG	5.16	117.76	112.60
67	B1	1583	G	P-O5'-C5'	5.16	128.64	120.90
67	B1	1789	A	O4'-C1'-C2'	-5.16	102.44	107.60
67	B1	2112	C	C4'-C3'-O3'	-5.16	105.26	113.00
67	B1	2170	C	C1'-C2'-O2'	5.16	116.14	108.40
67	B1	2755	G	C1'-O4'-C4'	-5.16	104.74	109.90
21	A2	77	G	P-O5'-C5'	5.16	128.63	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	AP	8	LYS	N-CA-CB	5.16	119.20	110.49
62	BN	32	THR	N-CA-C	-5.16	108.01	114.56
67	B1	270	C	O4'-C1'-C2'	-5.16	102.44	107.60
67	B1	1293	G	C3'-C2'-O2'	5.16	118.44	110.70
67	B1	1316	U	C5'-C4'-O4'	-5.16	102.06	109.80
3	AI	86	PHE	CB-CG-CD2	-5.16	111.94	120.70
20	A3	27	ARG	NE-CZ-NH2	-5.16	114.56	119.20
21	A2	390	G	C3'-C2'-C1'	-5.16	96.14	101.30
21	A2	975	A	C2'-C3'-O3'	5.16	121.43	113.70
32	BO	126	ASP	CB-CA-C	-5.16	100.77	110.67
36	Bf	38	HIS	N-CA-C	5.16	121.20	109.81
59	BM	175	LYS	N-CA-C	-5.16	104.76	112.54
20	B4	1	MET	CG-SD-CE	-5.16	89.56	100.90
67	B1	124	C	C4'-C3'-C2'	-5.16	97.44	102.60
67	B1	404	G	C2'-C3'-O3'	5.16	117.23	109.50
67	B1	531	G	C5'-C4'-C3'	-5.16	108.27	116.00
67	B1	755	G	P-O3'-C3'	5.16	127.93	120.20
67	B1	778	A	C4'-C3'-O3'	-5.16	105.27	113.00
67	B1	831	C	P-O3'-C3'	-5.16	112.47	120.20
67	B1	1638	C	O5'-C5'-C4'	-5.16	103.77	111.50
67	B1	1868	C	C4'-C3'-O3'	-5.16	105.27	113.00
67	B1	2031	G	O4'-C1'-C2'	-5.16	102.44	107.60
67	B1	2159	C	O4'-C1'-C2'	-5.16	102.44	107.60
67	B1	2569	G	O4'-C1'-C2'	-5.16	102.44	107.60
2	AK	102	TYR	O-C-N	5.15	127.66	122.09
21	A2	460	C	O5'-C5'-C4'	5.15	119.23	111.50
27	A0	56	C	C1'-C2'-O2'	5.15	116.13	108.40
28	B6	37	LYS	N-CA-C	5.15	116.90	111.28
67	B1	50	C	N1-C1'-C2'	-5.15	106.27	114.00
67	B1	730	C	N1-C1'-C2'	5.15	119.73	112.00
67	B1	922	C	O4'-C4'-C3'	5.15	109.15	104.00
67	B1	1844	C	C1'-C2'-O2'	5.15	116.13	108.40
67	B1	2074	U	O4'-C1'-C2'	-5.15	102.45	107.60
67	B1	2309	C	C1'-O4'-C4'	-5.15	104.75	109.90
67	B1	2311	C	C1'-O4'-C4'	-5.15	104.75	109.90
21	A2	176	U	O4'-C1'-C2'	-5.15	102.45	107.60
21	A2	733	C	N1-C1'-C2'	5.15	119.73	112.00
21	A2	920	U	O4'-C1'-C2'	-5.15	102.45	107.60
21	A2	1330	G	C1'-O4'-C4'	5.15	115.05	109.90
59	BM	70	GLY	O-C-N	5.15	126.73	122.71
67	B1	1097	G	C5'-C4'-O4'	-5.15	102.07	109.80
67	B1	1739	U	C1'-O4'-C4'	-5.15	104.55	109.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2783	C	C1'-C2'-O2'	5.15	116.13	108.40
7	AB	93	PRO	N-CA-C	5.15	123.08	112.47
10	AD	65	GLN	CA-C-N	5.15	129.60	121.56
10	AD	65	GLN	C-N-CA	5.15	129.60	121.56
11	A1	45	G	P-O5'-C5'	5.15	128.62	120.90
11	A1	69	G	C4'-C3'-C2'	-5.15	97.45	102.60
15	AE	124	PRO	N-CA-C	-5.15	102.51	111.32
21	A2	546	G	C3'-C2'-O2'	5.15	118.43	110.70
21	A2	748	A	O4'-C4'-C3'	-5.15	98.85	104.00
24	AA	86	LYS	N-CA-C	-5.15	101.24	109.07
27	A0	62	C	C1'-C2'-O2'	5.15	116.13	108.40
30	AU	100	LYS	CA-C-N	5.15	127.18	120.28
30	AU	100	LYS	C-N-CA	5.15	127.18	120.28
38	Bb	7	LYS	CA-C-N	5.15	127.18	120.28
38	Bb	7	LYS	C-N-CA	5.15	127.18	120.28
67	B1	829	G	P-O3'-C3'	-5.15	112.47	120.20
67	B1	1290	G	P-O5'-C5'	-5.15	113.17	120.90
67	B1	1534	G	C3'-C2'-C1'	-5.15	96.15	101.30
67	B1	2492	G	N9-C1'-C2'	-5.15	104.27	112.00
67	B1	2537	G	O5'-C5'-C4'	-5.15	103.77	111.50
67	B1	2793	C	C4'-C3'-O3'	-5.15	105.27	113.00
67	B1	3003	A	C3'-C2'-C1'	5.15	106.45	101.30
21	A2	320	G	C3'-C2'-O2'	5.15	118.42	110.70
40	BE	73	GLY	CA-C-N	5.15	127.55	120.39
40	BE	73	GLY	C-N-CA	5.15	127.55	120.39
60	BS	65	ARG	NE-CZ-NH2	-5.15	114.57	119.20
67	B1	1558	U	O4'-C1'-C2'	-5.15	102.45	107.60
67	B1	1602	C	O4'-C1'-N1	5.15	116.22	108.50
10	AD	47	GLN	N-CA-CB	5.15	117.47	110.01
21	A2	280	C	C1'-O4'-C4'	-5.15	104.75	109.90
41	Ba	50	ILE	CB-CA-C	5.15	118.25	110.63
54	BF	108	VAL	CA-CB-CG2	5.15	119.15	110.40
20	B4	66	LEU	CA-C-N	5.15	125.68	120.38
20	B4	66	LEU	C-N-CA	5.15	125.68	120.38
67	B1	173	G	P-O5'-C5'	-5.15	113.18	120.90
67	B1	1080	G	O4'-C1'-N9	5.15	116.22	108.50
67	B1	1752	C	N1-C1'-C2'	5.15	119.72	112.00
67	B1	2674	C	P-O5'-C5'	-5.15	113.18	120.90
68	B3	84	U	O4'-C1'-C2'	-5.15	102.45	107.60
21	A2	24	C	C3'-C2'-C1'	5.15	106.45	101.30
21	A2	971	G	P-O3'-C3'	-5.15	112.48	120.20
21	A2	1422	G	N9-C1'-C2'	-5.15	104.28	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
28	AV	23	ILE	N-CA-C	-5.15	101.07	108.53
39	Be	44	ARG	NE-CZ-NH2	5.15	123.83	119.20
50	BV	39	ARG	CD-NE-CZ	-5.15	117.20	124.40
61	Bd	59	LYS	CB-CA-C	5.15	120.55	110.67
63	Bg	40	ARG	CB-CA-C	-5.15	101.97	109.48
67	B1	813	G	C4'-C3'-C2'	5.15	107.75	102.60
67	B1	1895	G	O4'-C1'-N9	5.15	116.22	108.50
67	B1	2384	G	O5'-C5'-C4'	-5.15	103.78	111.50
1	AQ	52	THR	N-CA-C	-5.14	105.67	111.28
14	AM	82	ARG	CA-C-N	-5.14	116.45	122.93
14	AM	82	ARG	C-N-CA	-5.14	116.45	122.93
17	AO	110	ARG	NH1-CZ-NH2	5.14	125.99	119.30
21	A2	1003	G	N9-C1'-C2'	5.14	119.72	112.00
33	BC	87	ARG	NE-CZ-NH1	5.14	126.64	121.50
33	BC	261	PRO	N-CD-CG	5.14	109.97	103.80
67	B1	1271	G	C5'-C4'-O4'	5.14	117.52	109.80
67	B1	3007	A	C1'-O4'-C4'	5.14	115.04	109.90
67	B1	3022	C	N1-C1'-C2'	5.14	119.72	112.00
68	B3	7	C	P-O5'-C5'	-5.14	113.18	120.90
11	A1	40	U	O4'-C1'-N1	5.14	116.21	108.50
15	AE	210	PRO	N-CA-CB	5.14	108.08	103.19
21	A2	1123	G	O5'-C5'-C4'	-5.14	103.79	111.50
21	A2	1203	G	C1'-O4'-C4'	-5.14	104.76	109.90
37	BU	104	GLU	N-CA-C	-5.14	101.48	109.24
46	BA	116	LYS	CA-C-N	5.14	127.50	120.46
46	BA	116	LYS	C-N-CA	5.14	127.50	120.46
67	B1	306	G	O3'-P-O5'	5.14	111.71	104.00
67	B1	1296	A	C3'-C2'-C1'	5.14	106.44	101.30
67	B1	2638	G	N9-C1'-C2'	5.14	119.71	112.00
47	BI	134	VAL	N-CA-C	-5.14	105.53	110.72
67	B1	256	G	O4'-C1'-N9	5.14	116.21	108.50
67	B1	1115	A	N9-C1'-C2'	5.14	119.71	112.00
67	B1	2314	U	C1'-O4'-C4'	5.14	115.04	109.90
6	AC	96	ALA	O-C-N	5.14	127.36	122.07
19	AS	34	LYS	CA-C-N	5.14	127.50	120.46
19	AS	34	LYS	C-N-CA	5.14	127.50	120.46
21	A2	181	G	C1'-C2'-O2'	5.14	116.11	108.40
21	A2	914	U	N1-C1'-C2'	5.14	119.71	112.00
29	AL	42	THR	O-C-N	-5.14	116.48	122.96
32	BO	184	HIS	CB-CG-ND1	5.14	130.41	122.70
33	BC	239	ILE	N-CA-C	-5.14	100.84	108.45
53	BD	232	PRO	CB-CA-C	5.14	118.10	110.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	297	G	O4'-C1'-N9	-5.14	100.79	108.50
67	B1	558	C	N1-C1'-C2'	5.14	119.71	112.00
67	B1	734	C	C3'-C2'-C1'	5.14	106.44	101.30
67	B1	819	U	C5'-C4'-O4'	5.14	116.81	109.10
67	B1	1094	U	C4'-C3'-O3'	-5.14	105.29	113.00
67	B1	2801	G	N9-C1'-C2'	5.14	119.71	112.00
67	B1	2830	C	O4'-C1'-N1	5.14	116.21	108.50
67	B1	3023	G	C4'-C3'-C2'	-5.14	97.46	102.60
8	AR	33	VAL	CA-CB-CG1	5.14	119.14	110.40
19	AS	22	ASN	N-CA-C	-5.14	106.60	112.92
19	AS	35	VAL	O-C-N	5.14	126.85	121.87
21	A2	417	C	O4'-C1'-C2'	-5.14	102.46	107.60
64	Bc	17	GLN	CB-CG-CD	5.14	121.33	112.60
67	B1	1359	C	N1-C1'-C2'	5.14	119.71	112.00
67	B1	1415	C	P-O5'-C5'	5.14	128.61	120.90
67	B1	1587	A	C5'-C4'-C3'	-5.14	107.49	115.20
67	B1	1668	G	P-O5'-C5'	-5.14	113.19	120.90
67	B1	2110	C	N1-C1'-C2'	5.14	119.71	112.00
6	AC	85	ILE	N-CA-C	-5.14	102.88	109.30
21	A2	336	C	N1-C1'-C2'	5.14	119.70	112.00
21	A2	602	G	C3'-C2'-C1'	-5.14	96.16	101.30
21	A2	616	G	N9-C1'-C2'	5.14	119.70	112.00
21	A2	622	C	O5'-C5'-C4'	-5.14	103.80	111.50
42	BT	80	ALA	CA-C-O	5.14	125.86	120.42
57	BZ	70	LEU	CB-CG-CD1	5.14	126.11	110.70
20	B4	72	GLU	N-CA-CB	5.14	117.67	110.12
67	B1	417	C	O4'-C1'-N1	5.14	116.20	108.50
67	B1	830	G	N9-C1'-C2'	5.14	119.71	112.00
67	B1	961	C	P-O3'-C3'	5.14	127.90	120.20
67	B1	1185	A	C3'-C2'-O2'	5.14	118.41	110.70
67	B1	2957	G	P-O5'-C5'	5.14	128.61	120.90
68	B3	97	G	N9-C1'-C2'	-5.14	104.30	112.00
6	AC	53	TYR	CA-C-N	5.13	127.71	120.42
6	AC	53	TYR	C-N-CA	5.13	127.71	120.42
21	A2	1016	G	C5'-C4'-C3'	5.13	122.90	115.20
21	A2	1058	G	O4'-C4'-C3'	-5.13	98.87	104.00
46	BA	146	VAL	N-CA-CB	5.13	116.56	110.55
67	B1	1171	G	O4'-C4'-C3'	-5.13	98.87	104.00
67	B1	1518	G	O4'-C1'-C2'	-5.13	102.47	107.60
67	B1	1744	A	P-O5'-C5'	5.13	128.60	120.90
67	B1	1959	C	O4'-C1'-C2'	-5.13	100.67	105.80
67	B1	2925	C	C1'-O4'-C4'	-5.13	104.77	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	AX	2	ALA	N-CA-CB	5.13	117.56	110.17
50	BV	34	SER	CA-C-N	5.13	127.16	120.28
50	BV	34	SER	C-N-CA	5.13	127.16	120.28
67	B1	1925	A	C2'-C3'-O3'	5.13	117.20	109.50
11	A1	57	C	C3'-C2'-C1'	5.13	106.43	101.30
21	A2	412	U	O4'-C4'-C3'	-5.13	98.87	104.00
21	A2	514	U	C4'-C3'-C2'	5.13	107.73	102.60
33	BC	196	PHE	N-CA-CB	5.13	117.51	110.07
52	BB	56	ALA	CA-C-N	5.13	125.58	120.14
52	BB	56	ALA	C-N-CA	5.13	125.58	120.14
53	BD	245	SER	CA-C-O	-5.13	114.98	120.42
60	BS	28	SER	CA-C-N	5.13	124.63	119.19
60	BS	28	SER	C-N-CA	5.13	124.63	119.19
67	B1	342	C	N1-C1'-C2'	5.13	119.70	112.00
67	B1	981	A	N9-C1'-C2'	-5.13	106.30	114.00
67	B1	1523	A	N9-C1'-C2'	-5.13	106.30	114.00
67	B1	2814	U	C4'-C3'-O3'	-5.13	105.30	113.00
68	B3	90	A	C3'-C2'-C1'	5.13	106.43	101.30
6	AC	142	LYS	N-CA-C	-5.13	100.94	108.99
18	AF	5	TRP	CA-C-N	5.13	127.15	120.28
18	AF	5	TRP	C-N-CA	5.13	127.15	120.28
21	A2	117	C	O4'-C4'-C3'	-5.13	98.87	104.00
21	A2	1107	C	O4'-C1'-C2'	-5.13	102.47	107.60
21	A2	1299	A	C4'-C3'-O3'	-5.13	105.31	113.00
25	AH	73	ARG	CD-NE-CZ	-5.13	117.22	124.40
67	B1	1791	A	O4'-C1'-C2'	-5.13	100.67	105.80
67	B1	1872	G	O4'-C1'-N9	5.13	116.19	108.50
67	B1	2090	A	C3'-C2'-C1'	5.13	106.63	101.50
67	B1	2370	C	C3'-C2'-C1'	5.13	106.43	101.30
21	A2	915	U	O4'-C1'-N1	5.13	116.19	108.50
21	A2	1303	C	O4'-C4'-C3'	-5.13	98.87	104.00
24	AA	166	ILE	N-CA-C	5.13	115.90	110.72
33	BC	95	THR	CA-C-N	5.13	127.42	120.65
33	BC	95	THR	C-N-CA	5.13	127.42	120.65
53	BD	132	HIS	ND1-CE1-NE2	5.13	113.53	108.40
66	Bl	41	ILE	N-CA-C	-5.13	105.50	110.42
67	B1	366	G	C1'-C2'-O2'	5.13	116.09	108.40
67	B1	1797	A	O4'-C1'-C2'	-5.13	102.47	107.60
67	B1	1956	G	C1'-O4'-C4'	-5.13	104.77	109.90
67	B1	2657	A	O4'-C1'-N9	5.13	115.89	108.20
67	B1	2860	G	O5'-C5'-C4'	-5.13	103.81	111.50
1	AQ	128	LYS	CA-C-N	5.13	127.48	120.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AQ	128	LYS	C-N-CA	5.13	127.48	120.46
13	AX	51	ILE	CB-CA-C	5.13	117.27	110.91
21	A2	618	G	C4'-C3'-C2'	-5.13	97.47	102.60
21	A2	802	G	C1'-C2'-O2'	5.13	116.09	108.40
37	BU	50	ASP	CA-CB-CG	-5.13	107.47	112.60
67	B1	1573	A	O4'-C1'-N9	5.13	115.89	108.20
67	B1	2782	A	C3'-C2'-C1'	5.13	106.43	101.30
2	AK	74	GLN	OE1-CD-NE2	5.12	127.72	122.60
7	AB	105	ALA	N-CA-CB	5.12	119.12	110.92
21	A2	262	G	C5'-C4'-C3'	-5.12	108.31	116.00
21	A2	332	C	O5'-C5'-C4'	-5.12	103.81	111.50
33	BC	263	ARG	NE-CZ-NH1	5.12	126.62	121.50
52	BB	211	PRO	CA-C-N	5.12	131.46	121.41
52	BB	211	PRO	C-N-CA	5.12	131.46	121.41
60	BS	18	ALA	N-CA-C	-5.12	100.35	109.06
67	B1	693	G	P-O5'-C5'	5.12	128.59	120.90
67	B1	1551	G	C5'-C4'-C3'	5.12	123.69	116.00
1	AQ	130	ARG	O-C-N	5.12	127.55	122.12
21	A2	701	G	C4'-C3'-C2'	-5.12	97.48	102.60
30	AU	123	PRO	CA-C-N	5.12	127.56	120.29
30	AU	123	PRO	C-N-CA	5.12	127.56	120.29
33	BC	307	PRO	CB-CA-C	-5.12	104.67	111.23
46	BA	120	TYR	O-C-N	5.12	127.62	122.09
54	BF	1	MET	CA-C-O	-5.12	112.09	120.80
60	BS	61	VAL	N-CA-CB	5.12	117.53	111.23
67	B1	1834	C	C5'-C4'-C3'	-5.12	108.31	116.00
67	B1	2114	C	N1-C1'-C2'	5.12	119.68	112.00
68	B3	5	G	C1'-C2'-O2'	5.12	116.08	108.40
68	B3	57	C	C3'-C2'-C1'	5.12	106.42	101.30
68	B3	73	U	C1'-O4'-C4'	-5.12	104.78	109.90
19	AS	60	MET	O-C-N	5.12	128.57	122.27
21	A2	708	C	O3'-P-O5'	-5.12	96.32	104.00
21	A2	1140	A	P-O3'-C3'	5.12	127.88	120.20
27	A0	75	C	C3'-C2'-C1'	5.12	106.42	101.30
29	AL	38	ILE	N-CA-C	5.12	115.80	107.71
30	AU	36	LYS	CA-C-N	5.12	131.53	122.67
30	AU	36	LYS	C-N-CA	5.12	131.53	122.67
40	BE	110	HIS	CB-CG-CD2	-5.12	124.54	131.20
43	Bk	129	THR	O-C-N	5.12	129.53	122.46
52	BB	187	LYS	N-CA-C	-5.12	99.89	110.80
20	BG	33	ARG	CB-CA-C	-5.12	100.16	109.38
60	BS	33	VAL	N-CA-C	5.12	115.84	110.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	956	U	C4'-C3'-O3'	-5.12	105.32	113.00
67	B1	1748	C	C1'-O4'-C4'	5.12	115.02	109.90
67	B1	2288	C	C1'-C2'-O2'	5.12	116.08	108.40
67	B1	2935	A	P-O5'-C5'	-5.12	113.22	120.90
67	B1	3026	C	C1'-C2'-O2'	5.12	119.48	111.80
21	A2	589	U	C1'-O4'-C4'	5.12	115.02	109.90
54	BF	88	TYR	CB-CG-CD1	5.12	128.48	120.80
67	B1	2618	C	O3'-P-O5'	-5.12	96.32	104.00
4	AG	98	GLU	CA-C-N	5.12	127.98	120.71
4	AG	98	GLU	C-N-CA	5.12	127.98	120.71
11	A1	14	A	C4'-C3'-C2'	-5.12	97.48	102.60
16	AJ	12	PRO	N-CA-CB	-5.12	96.61	102.60
21	A2	1472	G	O4'-C1'-N9	5.12	116.18	108.50
31	BY	33	HIS	ND1-CE1-NE2	5.12	113.52	108.40
31	BY	49	LYS	CA-C-N	5.12	129.27	120.72
31	BY	49	LYS	C-N-CA	5.12	129.27	120.72
32	BO	8	ARG	NE-CZ-NH2	-5.12	114.59	119.20
33	BC	321	PHE	CA-C-N	5.12	131.18	122.37
33	BC	321	PHE	C-N-CA	5.12	131.18	122.37
38	Bb	17	LYS	O-C-N	5.12	127.62	122.09
52	BB	42	ARG	CD-NE-CZ	-5.12	117.23	124.40
28	B6	89	ARG	CB-CA-C	-5.12	102.29	110.79
62	BN	68	GLN	CA-C-N	5.12	126.97	120.72
62	BN	68	GLN	C-N-CA	5.12	126.97	120.72
67	B1	529	G	O4'-C4'-C3'	-5.12	100.98	106.10
67	B1	879	A	O4'-C1'-N9	5.12	116.18	108.50
67	B1	1388	U	C1'-C2'-O2'	5.12	116.08	108.40
67	B1	1412	C	C4'-C3'-C2'	-5.12	97.48	102.60
67	B1	1557	G	O4'-C1'-N9	5.12	116.18	108.50
67	B1	1779	C	O4'-C1'-C2'	-5.12	102.48	107.60
67	B1	1943	C	C1'-O4'-C4'	5.12	115.02	109.90
68	B3	46	G	O4'-C1'-N9	5.12	116.18	108.50
21	A2	114	A	C1'-O4'-C4'	-5.12	104.58	109.70
25	AH	184	LEU	CA-C-N	5.12	127.09	120.44
25	AH	184	LEU	C-N-CA	5.12	127.09	120.44
27	A0	73	G	C4'-C3'-C2'	-5.12	97.48	102.60
59	BM	131	ILE	N-CA-C	-5.12	100.52	107.99
67	B1	327	G	O4'-C1'-N9	5.12	116.17	108.50
67	B1	921	C	C4'-C3'-C2'	-5.12	97.48	102.60
67	B1	2144	U	P-O3'-C3'	5.12	127.88	120.20
3	AI	37	VAL	CA-C-N	5.12	127.13	120.28
3	AI	37	VAL	C-N-CA	5.12	127.13	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	AB	16	GLY	CA-C-N	5.12	127.47	120.46
7	AB	16	GLY	C-N-CA	5.12	127.47	120.46
20	A3	92	ILE	N-CA-CB	-5.12	105.36	112.52
21	A2	111	G	O4'-C1'-N9	5.12	116.17	108.50
21	A2	480	G	N9-C1'-C2'	5.12	119.67	112.00
21	A2	653	C	N1-C1'-C2'	5.12	119.67	112.00
21	A2	1077	U	C3'-C2'-C1'	5.12	106.42	101.30
38	Bb	31	TYR	CA-CB-CG	-5.12	104.69	113.90
40	BE	58	ARG	CB-CG-CD	5.12	123.06	111.30
49	BQ	95	TRP	CA-C-O	5.12	125.84	120.42
67	B1	1288	C	C4'-C3'-O3'	-5.12	105.33	113.00
67	B1	1724	A	N9-C1'-C2'	5.12	119.67	112.00
67	B1	2652	G	C1'-C2'-O2'	5.12	116.07	108.40
68	B3	74	U	P-O5'-C5'	5.12	128.57	120.90
12	AN	104	ILE	N-CA-CB	5.11	118.47	111.41
14	AM	72	LEU	CB-CA-C	-5.11	102.30	110.79
16	AJ	50	GLY	N-CA-C	-5.11	109.04	114.67
16	AJ	52	ASN	N-CA-C	-5.11	100.12	108.76
21	A2	33	U	O4'-C1'-C2'	5.11	112.71	107.60
21	A2	59	C	C3'-C2'-C1'	5.11	106.41	101.30
21	A2	400	G	O4'-C1'-N9	5.11	116.17	108.50
21	A2	409	C	P-O3'-C3'	-5.11	112.53	120.20
21	A2	666	G	C1'-C2'-O2'	5.11	116.07	108.40
21	A2	1251	C	C4'-C3'-C2'	-5.11	97.49	102.60
32	BO	40	SER	N-CA-C	-5.11	101.34	108.96
40	BE	88	TYR	CB-CG-CD2	-5.11	113.13	120.80
53	BD	134	ILE	CA-CB-CG2	5.11	119.19	110.50
54	BF	74	HIS	CE1-NE2-CD2	-5.11	103.89	109.00
20	B4	97	ALA	N-CA-CB	5.11	117.73	110.16
67	B1	700	A	C3'-C2'-C1'	5.11	106.41	101.30
67	B1	1400	U	O4'-C1'-N1	5.11	116.17	108.50
67	B1	2154	G	P-O3'-C3'	5.11	127.87	120.20
67	B1	2669	U	C5'-C4'-O4'	5.11	117.47	109.80
67	B1	2775	G	O4'-C1'-C2'	-5.11	102.49	107.60
67	B1	2923	G	O4'-C1'-C2'	-5.11	102.49	107.60
15	AE	55	TYR	CB-CG-CD1	5.11	128.47	120.80
21	A2	57	G	P-O3'-C3'	5.11	127.87	120.20
21	A2	1262	U	C3'-C2'-C1'	-5.11	96.19	101.30
24	AA	25	ASP	CA-CB-CG	-5.11	107.49	112.60
40	BE	111	GLY	N-CA-C	-5.11	106.70	115.08
45	Bi	20	LYS	N-CA-C	5.11	116.85	111.28
67	B1	1899	C	C4'-C3'-C2'	-5.11	97.49	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1936	C	C2'-C3'-O3'	5.11	121.37	113.70
67	B1	2832	G	O4'-C1'-C2'	-5.11	102.49	107.60
15	AE	198	ARG	CA-C-N	5.11	128.84	121.18
15	AE	198	ARG	C-N-CA	5.11	128.84	121.18
17	AO	127	ARG	N-CA-C	-5.11	105.35	112.30
21	A2	62	G	O4'-C1'-C2'	-5.11	102.49	107.60
21	A2	218	C	O4'-C1'-N1	-5.11	100.83	108.50
21	A2	240	U	O4'-C1'-C2'	-5.11	100.69	105.80
21	A2	859	A	O4'-C1'-C2'	-5.11	102.49	107.60
21	A2	862	C	O4'-C1'-C2'	-5.11	102.49	107.60
21	A2	1123	G	P-O5'-C5'	-5.11	113.23	120.90
21	A2	1141	G	C3'-C2'-C1'	-5.11	96.19	101.30
25	AH	202	SER	CA-C-N	5.11	127.13	120.28
25	AH	202	SER	C-N-CA	5.11	127.13	120.28
67	B1	170	A	C3'-C2'-C1'	5.11	106.41	101.30
67	B1	769	G	O4'-C1'-C2'	5.11	112.71	107.60
67	B1	2423	G	P-O3'-C3'	-5.11	112.53	120.20
21	A2	169	C	P-O3'-C3'	-5.11	112.54	120.20
21	A2	178	C	O5'-C5'-C4'	5.11	119.16	111.50
21	A2	797	U	O4'-C4'-C3'	-5.11	98.89	104.00
21	A2	942	A	O4'-C1'-N9	5.11	116.16	108.50
21	A2	1003	G	O3'-P-O5'	5.11	111.66	104.00
62	BN	51	THR	CA-CB-OG1	5.11	117.26	109.60
67	B1	1410	A	C1'-O4'-C4'	-5.11	104.79	109.90
67	B1	2959	A	C1'-O4'-C4'	-5.11	104.79	109.90
68	B3	92	G	C1'-O4'-C4'	-5.11	104.79	109.90
10	AD	164	GLN	N-CA-CB	5.11	119.12	110.49
12	AN	124	TYR	CA-C-O	-5.11	115.66	121.58
21	A2	154	C	C1'-C2'-O2'	-5.11	100.74	108.40
21	A2	303	G	C4'-C3'-O3'	-5.11	105.34	113.00
21	A2	1091	C	P-O3'-C3'	-5.11	112.54	120.20
27	A0	52	G	O4'-C4'-C3'	-5.11	98.89	104.00
47	BI	83	LEU	CA-C-O	-5.11	115.61	120.97
54	BF	74	HIS	ND1-CE1-NE2	5.11	113.51	108.40
67	B1	802	G	C3'-C2'-C1'	5.11	106.61	101.50
67	B1	884	C	C1'-O4'-C4'	-5.11	104.79	109.90
67	B1	998	G	C1'-O4'-C4'	5.11	115.01	109.90
67	B1	1342	G	O4'-C1'-N9	5.11	116.16	108.50
67	B1	1859	A	P-O3'-C3'	5.11	127.86	120.20
67	B1	2674	C	O4'-C1'-C2'	-5.11	102.49	107.60
7	AB	33	TYR	CB-CG-CD1	5.11	128.46	120.80
10	AD	121	ALA	CB-CA-C	-5.11	101.18	110.63

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	97	C	O4'-C1'-C2'	-5.11	102.49	107.60
21	A2	594	A	O4'-C1'-C2'	-5.11	102.49	107.60
60	BS	141	GLU	N-CA-CB	5.11	119.26	110.68
67	B1	1068	U	O4'-C4'-C3'	-5.11	100.99	106.10
67	B1	1869	U	O4'-C1'-N1	5.11	116.16	108.50
67	B1	2778	A	O4'-C1'-C2'	-5.11	102.50	107.60
68	B3	83	C	O3'-P-O5'	-5.11	96.34	104.00
12	AN	13	GLY	N-CA-C	5.10	120.06	113.27
14	AM	38	THR	CA-CB-OG1	5.10	117.26	109.60
15	AE	19	TRP	CG-CD2-CE3	-5.10	128.80	133.90
21	A2	292	U	O4'-C1'-C2'	-5.10	102.50	107.60
21	A2	598	U	O4'-C1'-N1	5.10	116.16	108.50
46	BA	143	THR	N-CA-CB	5.10	119.45	110.37
59	BM	97	GLN	CA-C-N	5.10	127.12	120.28
59	BM	97	GLN	C-N-CA	5.10	127.12	120.28
59	BM	137	HIS	N-CA-C	-5.10	103.60	109.93
67	B1	1846	G	C1'-O4'-C4'	-5.10	104.80	109.90
67	B1	2766	C	C1'-C2'-O2'	5.10	116.06	108.40
8	AR	42	LYS	N-CA-C	5.10	119.69	112.75
17	AO	130	ARG	CA-C-N	5.10	128.75	120.23
17	AO	130	ARG	C-N-CA	5.10	128.75	120.23
21	A2	201	G	O3'-P-O5'	-5.10	96.35	104.00
21	A2	1265	G	C1'-O4'-C4'	-5.10	104.80	109.90
52	BB	65	ASN	CA-C-O	5.10	125.25	119.18
59	BM	156	GLY	CA-C-N	5.10	127.63	120.28
59	BM	156	GLY	C-N-CA	5.10	127.63	120.28
61	Bd	1	MET	CG-SD-CE	-5.10	89.67	100.90
67	B1	43	G	C4'-C3'-C2'	-5.10	97.50	102.60
67	B1	229	G	O3'-P-O5'	-5.10	96.35	104.00
67	B1	914	U	C3'-C2'-C1'	5.10	106.40	101.30
67	B1	990	G	P-O3'-C3'	-5.10	112.55	120.20
67	B1	1032	C	N1-C1'-C2'	5.10	119.65	112.00
67	B1	1118	A	C1'-C2'-O2'	5.10	116.05	108.40
67	B1	1443	G	P-O5'-C5'	5.10	128.56	120.90
67	B1	1632	U	O4'-C1'-N1	5.10	116.15	108.50
67	B1	2177	A	C1'-O4'-C4'	-5.10	104.80	109.90
67	B1	2552	C	P-O5'-C5'	5.10	128.55	120.90
67	B1	2626	U	C4'-C3'-O3'	-5.10	105.35	113.00
67	B1	2655	C	C1'-O4'-C4'	-5.10	104.80	109.90
68	B3	15	G	N9-C1'-C2'	5.10	119.66	112.00
4	AG	110	ASN	N-CA-C	-5.10	105.63	111.14
21	A2	520	G	C3'-C2'-O2'	5.10	118.35	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
59	BM	127	TRP	CE2-CD2-CE3	5.10	123.90	118.80
67	B1	1220	U	O4'-C1'-N1	5.10	116.15	108.50
67	B1	1429	A	C5'-C4'-C3'	5.10	122.85	115.20
67	B1	2035	U	P-O5'-C5'	-5.10	113.25	120.90
67	B1	2136	G	C5'-C4'-C3'	-5.10	108.35	116.00
67	B1	2243	G	C3'-C2'-C1'	-5.10	96.20	101.30
67	B1	2663	G	O4'-C1'-C2'	-5.10	102.50	107.60
4	AG	96	PRO	N-CA-C	5.10	119.06	111.41
11	A1	52	G	C1'-C2'-O2'	5.10	116.05	108.40
21	A2	270	A	O4'-C1'-N9	5.10	115.85	108.20
21	A2	341	C	O4'-C4'-C3'	-5.10	101.00	106.10
37	BU	21	HIS	CB-CG-ND1	5.10	130.35	122.70
67	B1	626	C	C4'-C3'-O3'	-5.10	105.35	113.00
67	B1	789	G	C4'-C3'-C2'	5.10	107.70	102.60
67	B1	1338	G	C1'-O4'-C4'	-5.10	104.80	109.90
67	B1	2154	G	O4'-C1'-C2'	-5.10	100.70	105.80
67	B1	2658	G	C3'-C2'-C1'	5.10	106.40	101.30
68	B3	8	C	C1'-O4'-C4'	5.10	114.80	109.70
3	AI	90	GLU	N-CA-C	-5.10	105.61	111.07
5	AW	30	HIS	CB-CG-CD2	5.10	137.83	131.20
13	AX	18	THR	N-CA-C	-5.10	101.67	108.86
21	A2	518	U	C3'-C2'-C1'	5.10	106.40	101.30
21	A2	815	C	P-O3'-C3'	5.10	127.84	120.20
33	BC	52	LEU	CA-C-O	-5.10	114.82	120.38
47	BI	135	ALA	CA-C-O	-5.10	115.15	120.55
53	BD	144	VAL	CA-C-N	5.10	128.18	120.13
53	BD	144	VAL	C-N-CA	5.10	128.18	120.13
53	BD	229	HIS	N-CA-CB	-5.10	102.61	110.16
67	B1	66	C	O4'-C1'-C2'	-5.10	102.50	107.60
67	B1	93	C	N1-C1'-C2'	5.10	119.65	112.00
67	B1	618	C	C2'-C3'-O3'	5.10	121.35	113.70
67	B1	776	G	C1'-O4'-C4'	5.10	115.00	109.90
67	B1	1118	A	C4'-C3'-C2'	-5.10	97.50	102.60
67	B1	1155	A	C1'-O4'-C4'	5.10	115.00	109.90
67	B1	1565	G	C3'-C2'-C1'	5.10	111.50	101.30
67	B1	2155	C	P-O3'-C3'	-5.10	112.55	120.20
67	B1	2307	C	C4'-C3'-C2'	5.10	107.70	102.60
67	B1	2432	G	O4'-C1'-C2'	-5.10	102.50	107.60
11	A1	33	C	C1'-O4'-C4'	5.10	115.00	109.90
67	B1	2292	A	O4'-C1'-C2'	-5.10	102.50	107.60
67	B1	2460	A	C2'-C3'-O3'	5.10	117.14	109.50
67	B1	2804	C	O4'-C1'-C2'	-5.10	102.50	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2838	U	C1'-O4'-C4'	-5.10	104.80	109.90
8	AR	101	VAL	CA-C-N	5.09	128.74	122.37
8	AR	101	VAL	C-N-CA	5.09	128.74	122.37
21	A2	154	C	N1-C1'-C2'	-5.09	104.36	112.00
21	A2	965	G	O4'-C4'-C3'	-5.09	98.91	104.00
37	BU	5	SER	N-CA-CB	5.09	118.55	110.55
48	BR	82	LYS	CB-CA-C	-5.09	100.92	109.53
53	BD	56	ARG	CA-C-N	5.09	126.94	120.72
53	BD	56	ARG	C-N-CA	5.09	126.94	120.72
54	BF	52	ASN	CB-CA-C	5.09	119.10	109.37
67	B1	305	G	P-O5'-C5'	5.09	128.54	120.90
67	B1	347	G	O4'-C1'-C2'	5.09	112.69	107.60
67	B1	2567	C	O4'-C1'-C2'	-5.09	102.51	107.60
67	B1	2854	A	O4'-C1'-C2'	5.09	112.69	107.60
68	B3	106	G	C3'-C2'-C1'	-5.09	96.20	101.30
1	AQ	117	HIS	CE1-NE2-CD2	-5.09	103.91	109.00
8	AR	91	THR	CA-CB-OG1	5.09	117.24	109.60
10	AD	16	HIS	CE1-NE2-CD2	-5.09	103.91	109.00
41	Ba	59	TRP	CB-CG-CD2	-5.09	119.67	126.80
49	BQ	137	GLN	OE1-CD-NE2	5.09	127.69	122.60
52	BB	88	ASP	N-CA-C	-5.09	106.66	112.92
59	BM	146	ILE	CA-C-N	5.09	127.82	120.38
59	BM	146	ILE	C-N-CA	5.09	127.82	120.38
67	B1	696	G	O4'-C1'-N9	5.09	116.14	108.50
67	B1	1502	C	C3'-C2'-C1'	5.09	106.39	101.30
67	B1	2069	G	C1'-C2'-O2'	5.09	116.04	108.40
11	A1	53	G	O4'-C1'-N9	5.09	116.14	108.50
16	AJ	11	LYS	N-CA-C	-5.09	102.75	110.39
19	AS	40	ASN	CA-C-N	5.09	130.23	123.10
19	AS	40	ASN	C-N-CA	5.09	130.23	123.10
21	A2	1056	G	N9-C1'-C2'	-5.09	104.36	112.00
35	BL	118	LEU	N-CA-CB	5.09	118.69	110.65
43	Bk	113	LYS	N-CA-C	-5.09	103.77	110.39
44	BW	26	ALA	CB-CA-C	-5.09	102.34	110.79
67	B1	244	A	C4'-C3'-C2'	5.09	107.69	102.60
67	B1	722	C	C4'-C3'-O3'	-5.09	105.36	113.00
67	B1	1346	G	O4'-C1'-N9	5.09	116.14	108.50
67	B1	2064	U	O4'-C4'-C3'	-5.09	101.01	106.10
67	B1	2879	G	C3'-C2'-C1'	5.09	106.39	101.30
7	AB	56	GLY	O-C-N	5.09	127.07	122.18
11	A1	21	G	O4'-C1'-N9	5.09	116.13	108.50
11	A1	49	C	C3'-C2'-C1'	-5.09	96.21	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	554	C	N1-C1'-C2'	5.09	119.63	112.00
21	A2	1025	U	C3'-C2'-C1'	5.09	106.39	101.30
21	A2	1105	C	P-O3'-C3'	5.09	127.83	120.20
21	A2	1478	A	O4'-C4'-C3'	-5.09	98.91	104.00
43	Bk	73	LYS	O-C-N	-5.09	115.47	121.32
60	BS	131	ARG	NE-CZ-NH2	-5.09	114.62	119.20
67	B1	404	G	C4'-C3'-C2'	-5.09	97.51	102.60
67	B1	893	C	O4'-C1'-C2'	-5.09	102.51	107.60
67	B1	915	G	N9-C1'-C2'	5.09	119.63	112.00
67	B1	1300	C	N1-C1'-C2'	5.09	119.63	112.00
67	B1	1345	G	C1'-C2'-O2'	5.09	116.03	108.40
67	B1	1385	C	O4'-C1'-N1	5.09	116.14	108.50
67	B1	3004	C	O4'-C1'-C2'	5.09	112.69	107.60
15	AE	81	TYR	CA-C-N	5.09	128.73	120.23
15	AE	81	TYR	C-N-CA	5.09	128.73	120.23
21	A2	942	A	C1'-C2'-O2'	5.09	116.03	108.40
34	B5	28	ILE	N-CA-CB	5.09	116.75	110.64
48	BR	96	GLN	N-CA-CB	5.09	117.50	110.17
34	BK	71	VAL	N-CA-C	-5.09	105.18	112.35
67	B1	336	C	C4'-C3'-C2'	-5.09	97.51	102.60
8	AR	51	ARG	CA-C-N	5.09	129.36	122.19
8	AR	51	ARG	C-N-CA	5.09	129.36	122.19
21	A2	74	U	C4'-C3'-C2'	5.09	107.69	102.60
21	A2	335	G	C1'-C2'-O2'	5.09	116.03	108.40
21	A2	758	U	C3'-C2'-C1'	5.09	106.39	101.30
21	A2	1042	U	O4'-C1'-N1	5.09	116.13	108.50
31	BY	21	ASP	CA-C-O	-5.09	115.16	120.55
40	BE	52	THR	CA-CB-OG1	5.09	117.23	109.60
42	BT	67	TYR	CB-CA-C	-5.09	102.50	110.79
53	BD	28	PRO	N-CA-CB	5.09	108.91	103.52
67	B1	850	C	O4'-C1'-C2'	-5.09	102.51	107.60
67	B1	1408	G	O4'-C1'-C2'	-5.09	100.71	105.80
67	B1	1569	A	O4'-C4'-C3'	-5.09	98.91	104.00
67	B1	1773	C	C3'-C2'-O2'	-5.09	106.97	114.60
67	B1	2346	A	N9-C1'-C2'	-5.09	104.37	112.00
67	B1	2711	U	C1'-C2'-O2'	5.09	116.03	108.40
67	B1	2771	G	C5'-C4'-C3'	-5.09	107.57	115.20
21	A2	946	G	C3'-C2'-C1'	-5.08	96.22	101.30
25	AH	49	GLY	N-CA-C	5.08	125.23	113.18
54	BF	74	HIS	CB-CG-CD2	-5.08	124.59	131.20
67	B1	255	G	C1'-C2'-O2'	5.08	116.03	108.40
67	B1	1000	G	P-O3'-C3'	5.08	127.83	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1064	G	C3'-C2'-C1'	-5.08	96.22	101.30
67	B1	1066	C	N1-C1'-C2'	-5.08	104.37	112.00
67	B1	1431	U	P-O5'-C5'	-5.08	113.27	120.90
67	B1	1806	C	O4'-C1'-N1	5.08	116.13	108.50
67	B1	2233	G	P-O3'-C3'	5.08	127.83	120.20
7	AB	66	SER	CA-C-O	5.08	128.97	122.31
24	AA	40	PRO	CA-C-N	5.08	129.95	122.63
24	AA	40	PRO	C-N-CA	5.08	129.95	122.63
38	Bb	82	VAL	CA-CB-CG1	-5.08	101.76	110.40
46	BA	98	ARG	NH1-CZ-NH2	-5.08	112.69	119.30
67	B1	191	U	P-O3'-C3'	5.08	127.82	120.20
67	B1	380	A	C4'-C3'-O3'	-5.08	105.37	113.00
67	B1	1386	G	N9-C1'-C2'	5.08	119.62	112.00
67	B1	1471	G	C1'-O4'-C4'	-5.08	104.82	109.90
67	B1	1614	U	C1'-O4'-C4'	-5.08	104.82	109.90
67	B1	1729	C	P-O5'-C5'	5.08	128.53	120.90
67	B1	2679	A	C1'-C2'-O2'	5.08	116.02	108.40
4	AG	84	VAL	CA-C-O	-5.08	115.39	121.28
21	A2	600	C	P-O3'-C3'	-5.08	112.58	120.20
21	A2	1405	C	C5'-C4'-C3'	5.08	123.62	116.00
25	AH	42	ARG	O-C-N	5.08	129.17	122.36
46	BA	116	LYS	O-C-N	-5.08	116.36	122.15
67	B1	305	G	C4'-C3'-O3'	-5.08	105.38	113.00
67	B1	1027	A	O3'-P-O5'	-5.08	96.38	104.00
67	B1	1068	U	C5'-C4'-C3'	5.08	122.82	115.20
67	B1	1211	C	C4'-C3'-C2'	5.08	107.68	102.60
67	B1	1728	C	P-O5'-C5'	5.08	128.52	120.90
67	B1	2160	C	O4'-C1'-C2'	-5.08	102.52	107.60
67	B1	2297	C	P-O3'-C3'	-5.08	112.58	120.20
67	B1	2417	G	O4'-C1'-N9	5.08	116.12	108.50
67	B1	2428	C	O4'-C1'-N1	5.08	116.12	108.50
67	B1	2668	G	O4'-C4'-C3'	-5.08	98.92	104.00
4	AG	60	LYS	N-CA-C	-5.08	99.98	110.80
11	A1	13	C	C1'-C2'-O2'	5.08	116.02	108.40
21	A2	1064	C	O4'-C1'-C2'	5.08	112.68	107.60
21	A2	1199	A	O4'-C1'-N9	5.08	115.82	108.20
21	A2	1321	U	O4'-C1'-C2'	-5.08	102.52	107.60
67	B1	705	G	C4'-C3'-C2'	-5.08	97.52	102.60
67	B1	946	U	P-O3'-C3'	5.08	127.82	120.20
67	B1	1221	U	O4'-C1'-C2'	-5.08	102.52	107.60
67	B1	1274	G	C1'-O4'-C4'	-5.08	104.82	109.90
67	B1	1596	G	N9-C1'-C2'	-5.08	104.38	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2535	C	C3'-C2'-C1'	5.08	106.38	101.30
67	B1	2780	G	C1'-C2'-O2'	5.08	116.02	108.40
67	B1	2974	U	C3'-C2'-C1'	5.08	106.38	101.30
4	AG	63	ILE	CA-C-N	5.08	127.35	120.44
4	AG	63	ILE	C-N-CA	5.08	127.35	120.44
12	AN	132	VAL	CB-CA-C	5.08	117.03	110.12
15	AE	67	ASN	OD1-CG-ND2	5.08	127.68	122.60
15	AE	77	VAL	N-CA-C	5.08	116.55	109.80
21	A2	358	G	O4'-C1'-C2'	5.08	112.68	107.60
21	A2	559	G	C4'-C3'-C2'	-5.08	97.52	102.60
21	A2	584	C	P-O5'-C5'	5.08	128.52	120.90
21	A2	728	G	O4'-C1'-N9	5.08	116.12	108.50
21	A2	1264	G	N9-C1'-C2'	5.08	119.62	112.00
21	A2	1329	C	C4'-C3'-C2'	5.08	107.68	102.60
54	BF	129	THR	CA-CB-OG1	5.08	117.22	109.60
58	BP	18	LEU	N-CA-CB	5.08	117.58	110.12
66	B1	8	VAL	N-CA-C	-5.08	101.15	108.87
67	B1	173	G	N9-C1'-C2'	5.08	119.62	112.00
67	B1	1598	U	O4'-C1'-C2'	-5.08	102.52	107.60
68	B3	2	G	C1'-O4'-C4'	5.08	114.98	109.90
33	BC	55	ASP	CB-CA-C	-5.08	102.85	110.16
33	BC	357	THR	CA-C-N	-5.08	112.33	121.62
33	BC	357	THR	C-N-CA	-5.08	112.33	121.62
52	BB	60	ARG	CB-CA-C	-5.08	101.47	109.80
58	BP	23	ASN	CA-C-O	-5.08	115.47	120.70
67	B1	721	G	C3'-C2'-C1'	5.08	106.38	101.30
67	B1	2221	A	O4'-C1'-C2'	-5.08	102.52	107.60
3	AI	129	VAL	N-CA-C	-5.08	101.65	108.35
5	AW	43	THR	N-CA-CB	5.08	118.69	110.42
7	AB	65	GLN	O-C-N	5.08	129.03	122.43
16	AJ	100	ILE	CA-C-N	5.08	131.11	121.97
16	AJ	100	ILE	C-N-CA	5.08	131.11	121.97
21	A2	686	C	O4'-C1'-C2'	-5.08	102.52	107.60
21	A2	1091	C	P-O5'-C5'	-5.08	113.29	120.90
29	AL	45	ILE	N-CA-CB	5.08	118.15	111.25
31	BY	93	ILE	CB-CA-C	-5.08	105.22	112.22
33	BC	50	HIS	CE1-NE2-CD2	-5.08	103.92	109.00
38	Bb	87	VAL	CA-CB-CG1	5.08	119.03	110.40
67	B1	205	A	N9-C1'-C2'	5.08	119.61	112.00
67	B1	614	G	C1'-C2'-O2'	-5.08	100.78	108.40
68	B3	53	A	C4'-C3'-O3'	-5.08	105.39	113.00
21	A2	163	C	C5'-C4'-C3'	-5.07	108.39	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
27	A0	42	G	P-O3'-C3'	5.07	127.81	120.20
34	B5	71	VAL	N-CA-C	-5.07	105.20	112.35
40	BE	112	ASN	OD1-CG-ND2	5.07	127.67	122.60
42	BT	81	ALA	CA-C-N	5.07	127.08	120.28
42	BT	81	ALA	C-N-CA	5.07	127.08	120.28
62	BN	144	PHE	N-CA-C	5.07	116.89	111.36
67	B1	422	G	C3'-C2'-C1'	5.07	106.37	101.30
67	B1	719	C	O4'-C1'-C2'	-5.07	102.53	107.60
67	B1	1174	U	C1'-C2'-O2'	5.07	116.01	108.40
67	B1	1698	G	C1'-C2'-O2'	5.07	116.01	108.40
67	B1	2040	A	C3'-C2'-C1'	5.07	106.37	101.30
67	B1	2351	G	C3'-C2'-C1'	-5.07	96.43	101.50
67	B1	2752	U	O4'-C1'-N1	5.07	116.11	108.50
2	AK	47	GLU	CA-C-N	5.07	124.86	119.28
2	AK	47	GLU	C-N-CA	5.07	124.86	119.28
21	A2	1066	C	C1'-O4'-C4'	-5.07	104.83	109.90
33	BC	104	PHE	CB-CG-CD2	-5.07	112.08	120.70
47	BI	75	VAL	N-CA-C	5.07	115.79	110.62
52	BB	59	ALA	N-CA-CB	5.07	119.66	110.83
52	BB	127	THR	CA-CB-CG2	5.07	119.12	110.50
53	BD	35	VAL	O-C-N	5.07	127.05	121.83
67	B1	3029	A	N9-C1'-C2'	-5.07	104.39	112.00
1	AQ	89	PRO	N-CA-CB	5.07	108.06	103.34
20	A3	27	ARG	CD-NE-CZ	-5.07	117.30	124.40
20	A3	99	VAL	N-CA-C	-5.07	100.48	108.90
21	A2	42	G	C4'-C3'-O3'	5.07	117.00	109.40
21	A2	985	C	C2'-C3'-O3'	5.07	121.31	113.70
21	A2	1020	G	P-O5'-C5'	-5.07	113.29	120.90
21	A2	1354	A	O5'-C5'-C4'	5.07	119.30	111.70
21	A2	1485	G	O4'-C1'-N9	5.07	116.11	108.50
29	AL	67	ARG	N-CA-CB	-5.07	102.59	110.55
45	Bi	23	ARG	CA-C-N	5.07	127.03	120.44
45	Bi	23	ARG	C-N-CA	5.07	127.03	120.44
48	BR	4	LYS	N-CA-CB	5.07	117.33	109.98
52	BB	238	ARG	N-CA-CB	5.07	119.83	111.62
28	B6	6	LYS	CA-C-O	-5.07	115.48	120.80
28	B6	26	PRO	CA-C-N	5.07	130.15	121.07
28	B6	26	PRO	C-N-CA	5.07	130.15	121.07
58	BP	25	TYR	CA-CB-CG	-5.07	104.77	113.90
59	BM	16	LYS	N-CA-C	-5.07	102.05	109.81
67	B1	431	U	O4'-C1'-C2'	-5.07	102.53	107.60
67	B1	2256	G	O4'-C4'-C3'	-5.07	98.93	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2396	G	C4'-C3'-O3'	-5.07	105.39	113.00
67	B1	3033	G	O4'-C4'-C3'	5.07	109.07	104.00
31	BY	75	ILE	CA-C-O	5.07	125.25	121.09
54	BF	139	VAL	N-CA-C	-5.07	101.07	108.17
60	BS	45	ASN	CA-C-N	5.07	127.49	120.29
60	BS	45	ASN	C-N-CA	5.07	127.49	120.29
67	B1	641	G	P-O3'-C3'	5.07	127.80	120.20
67	B1	2682	G	P-O3'-C3'	-5.07	112.60	120.20
67	B1	2795	G	C3'-C2'-C1'	5.07	106.37	101.30
21	A2	959	G	C2'-C3'-O3'	5.07	117.10	109.50
21	A2	1241	U	P-O3'-C3'	5.07	127.80	120.20
21	A2	1396	C	N1-C1'-C2'	5.07	119.60	112.00
32	BO	100	GLU	CB-CG-CD	-5.07	103.99	112.60
33	BC	142	GLU	N-CA-CB	5.07	117.57	110.12
53	BD	69	ARG	N-CA-C	-5.07	106.94	112.72
66	Bl	56	GLU	CB-CA-C	-5.07	101.19	110.62
67	B1	68	G	C4'-C3'-O3'	-5.07	105.40	113.00
67	B1	112	U	C1'-O4'-C4'	-5.07	104.83	109.90
67	B1	150	G	C3'-C2'-C1'	-5.07	96.23	101.30
67	B1	342	C	C5'-C4'-C3'	-5.07	108.40	116.00
67	B1	1054	A	O4'-C4'-C3'	-5.07	98.93	104.00
67	B1	1254	C	C1'-O4'-C4'	5.07	114.97	109.90
67	B1	1454	G	C1'-C2'-O2'	5.07	119.40	111.80
67	B1	1819	G	C4'-C3'-C2'	-5.07	97.53	102.60
67	B1	1842	C	C3'-C2'-C1'	5.07	106.37	101.30
67	B1	2257	A	O3'-P-O5'	-5.07	96.40	104.00
67	B1	2382	A	O3'-P-O5'	-5.07	96.40	104.00
67	B1	2479	C	C4'-C3'-O3'	-5.07	105.40	113.00
3	AI	27	ILE	CA-C-O	5.07	126.11	120.59
21	A2	94	C	C1'-O4'-C4'	-5.07	104.83	109.90
21	A2	735	A	C4'-C3'-O3'	-5.07	105.40	113.00
21	A2	788	C	N1-C1'-C2'	5.07	119.60	112.00
32	BO	73	TRP	CD2-CE2-CZ2	-5.07	117.33	122.40
48	BR	22	ARG	CA-C-N	5.07	131.22	121.54
48	BR	22	ARG	C-N-CA	5.07	131.22	121.54
54	BF	13	ILE	CA-C-N	5.07	126.17	119.84
54	BF	13	ILE	C-N-CA	5.07	126.17	119.84
54	BF	154	ILE	CB-CA-C	-5.07	105.30	112.14
59	BM	130	VAL	CB-CA-C	-5.07	103.11	110.81
62	BN	18	THR	CB-CA-C	5.07	118.69	109.62
67	B1	875	G	O5'-C5'-C4'	-5.07	103.90	111.50
67	B1	1126	C	C5'-C4'-C3'	-5.07	108.40	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2257	A	O4'-C1'-C2'	5.07	112.67	107.60
67	B1	2440	C	O4'-C1'-N1	5.07	116.10	108.50
67	B1	2703	G	O4'-C1'-C2'	-5.07	102.53	107.60
8	AR	17	ASP	CA-C-N	5.06	128.96	120.86
8	AR	17	ASP	C-N-CA	5.06	128.96	120.86
67	B1	91	G	C1'-C2'-O2'	-5.06	104.20	111.80
67	B1	381	G	C4'-C3'-O3'	-5.06	105.40	113.00
17	AO	120	HIS	N-CA-C	5.06	116.80	111.28
21	A2	47	A	N9-C1'-C2'	5.06	121.59	114.00
21	A2	669	A	N9-C1'-C2'	-5.06	104.41	112.00
21	A2	774	U	O4'-C1'-C2'	-5.06	100.74	105.80
29	AL	42	THR	CA-CB-OG1	5.06	117.19	109.60
31	BY	27	ARG	NE-CZ-NH1	5.06	126.56	121.50
38	Bb	25	ARG	NE-CZ-NH2	-5.06	114.64	119.20
65	BJ	131	VAL	CA-C-N	5.06	128.00	120.31
65	BJ	131	VAL	C-N-CA	5.06	128.00	120.31
67	B1	341	U	N1-C1'-C2'	5.06	119.59	112.00
67	B1	1261	C	C5'-C4'-C3'	5.06	123.59	116.00
67	B1	1473	C	O4'-C1'-C2'	-5.06	102.54	107.60
67	B1	1524	A	P-O3'-C3'	-5.06	112.61	120.20
67	B1	2555	C	C3'-C2'-C1'	5.06	106.36	101.30
47	BI	22	LEU	CB-CA-C	-5.06	102.25	110.85
28	B6	52	VAL	CA-CB-CG2	-5.06	101.80	110.40
20	B4	63	VAL	CA-C-N	5.06	127.31	120.38
20	B4	63	VAL	C-N-CA	5.06	127.31	120.38
67	B1	2145	G	O4'-C1'-C2'	-5.06	102.54	107.60
68	B3	44	C	O4'-C1'-N1	5.06	116.09	108.50
15	AE	214	THR	N-CA-C	-5.06	101.68	109.52
17	AO	88	GLY	N-CA-C	-5.06	102.19	111.25
17	AO	129	GLN	CA-C-N	5.06	128.88	120.94
17	AO	129	GLN	C-N-CA	5.06	128.88	120.94
21	A2	894	A	C4'-C3'-O3'	-5.06	105.41	113.00
33	BC	244	HIS	CA-C-N	5.06	131.20	121.54
33	BC	244	HIS	C-N-CA	5.06	131.20	121.54
52	BB	232	ALA	CA-C-O	5.06	126.45	120.58
67	B1	16	G	O4'-C1'-N9	5.06	116.09	108.50
67	B1	381	G	C1'-C2'-O2'	5.06	115.99	108.40
67	B1	1665	G	P-O3'-C3'	5.06	127.79	120.20
67	B1	1671	A	P-O5'-C5'	-5.06	113.31	120.90
67	B1	2134	G	O4'-C4'-C3'	5.06	109.06	104.00
67	B1	2214	U	C4'-C3'-O3'	-5.06	105.41	113.00
67	B1	2374	C	O4'-C1'-N1	5.06	116.09	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AQ	8	LYS	CB-CA-C	-5.06	101.94	110.64
21	A2	187	C	P-O5'-C5'	-5.06	113.31	120.90
21	A2	740	G	C3'-C2'-C1'	5.06	106.36	101.30
21	A2	1206	G	O4'-C1'-N9	5.06	116.09	108.50
23	AT	41	THR	CA-C-O	-5.06	113.23	120.16
36	Bf	41	ARG	CB-CA-C	-5.06	100.36	110.42
40	BE	110	HIS	CG-CD2-NE2	5.06	112.26	107.20
47	BI	99	VAL	CB-CA-C	5.06	118.50	110.81
49	BQ	37	THR	CA-C-N	5.06	128.00	120.31
49	BQ	37	THR	C-N-CA	5.06	128.00	120.31
49	BQ	81	ARG	NE-CZ-NH2	-5.06	114.65	119.20
67	B1	923	A	C4'-C3'-O3'	5.06	116.99	109.40
67	B1	1029	C	C4'-C3'-O3'	-5.06	105.42	113.00
67	B1	1295	G	C1'-C2'-O2'	-5.06	104.21	111.80
67	B1	1654	G	O4'-C1'-N9	5.06	116.08	108.50
67	B1	2366	G	P-O5'-C5'	5.06	128.49	120.90
67	B1	2453	C	C3'-C2'-C1'	5.06	106.36	101.30
67	B1	2567	C	C4'-C3'-O3'	-5.06	105.41	113.00
3	AI	23	ARG	CD-NE-CZ	-5.06	117.32	124.40
21	A2	210	A	O3'-P-O5'	5.06	111.58	104.00
21	A2	334	G	N9-C1'-C2'	-5.06	104.42	112.00
21	A2	1103	G	N9-C1'-C2'	5.06	119.58	112.00
33	BC	327	SER	CA-C-O	-5.06	115.63	121.19
35	BL	4	ARG	N-CA-C	-5.06	105.77	111.28
67	B1	915	G	C1'-O4'-C4'	-5.06	104.84	109.90
67	B1	1121	C	N1-C1'-C2'	5.06	119.58	112.00
67	B1	2162	G	C1'-C2'-O2'	5.06	115.98	108.40
67	B1	2476	A	C5'-C4'-C3'	-5.06	108.42	116.00
1	AQ	43	GLU	CA-C-N	5.05	130.59	122.40
1	AQ	43	GLU	C-N-CA	5.05	130.59	122.40
8	AR	3	ARG	N-CA-C	-5.05	101.39	109.23
13	AX	43	ARG	NE-CZ-NH2	5.05	123.75	119.20
21	A2	354	G	C1'-O4'-C4'	-5.05	104.85	109.90
21	A2	1020	G	P-O3'-C3'	-5.05	112.62	120.20
21	A2	1462	A	O4'-C4'-C3'	5.05	109.05	104.00
24	AA	53	LYS	CA-C-N	5.05	127.05	120.28
24	AA	53	LYS	C-N-CA	5.05	127.05	120.28
27	A0	50	C	C4'-C3'-O3'	-5.05	105.42	113.00
27	A0	73	G	O4'-C1'-N9	5.05	116.08	108.50
47	BI	119	HIS	CA-CB-CG	5.05	118.85	113.80
52	BB	98	PRO	CA-C-N	5.05	127.05	120.28
52	BB	98	PRO	C-N-CA	5.05	127.05	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	BF	166	ARG	N-CA-C	-5.05	107.09	114.12
67	B1	367	G	C5'-C4'-C3'	5.05	123.58	116.00
67	B1	1074	G	O4'-C1'-C2'	5.05	112.65	107.60
67	B1	1580	G	C1'-O4'-C4'	-5.05	104.84	109.90
67	B1	2110	C	O4'-C4'-C3'	-5.05	98.94	104.00
67	B1	2697	G	C1'-O4'-C4'	5.05	114.95	109.90
67	B1	3000	U	C3'-C2'-C1'	-5.05	96.25	101.30
7	AB	101	MET	CA-C-O	-5.05	113.49	119.05
24	AA	115	TYR	CB-CG-CD2	-5.05	113.22	120.80
43	Bk	116	ALA	O-C-N	-5.05	117.40	123.06
67	B1	1312	C	N1-C1'-C2'	5.05	119.58	112.00
67	B1	1539	U	O4'-C1'-C2'	-5.05	102.55	107.60
67	B1	2271	G	O4'-C1'-N9	5.05	116.08	108.50
67	B1	2331	A	C2'-C3'-O3'	-5.05	106.12	113.70
67	B1	2643	U	C4'-C3'-O3'	-5.05	105.42	113.00
8	AR	66	ARG	CD-NE-CZ	-5.05	117.33	124.40
14	AM	62	LEU	CA-C-N	5.05	127.05	120.28
14	AM	62	LEU	C-N-CA	5.05	127.05	120.28
20	A3	19	ALA	CA-C-N	-5.05	113.51	120.28
20	A3	19	ALA	C-N-CA	-5.05	113.51	120.28
21	A2	254	G	N9-C1'-C2'	-5.05	104.42	112.00
21	A2	414	G	P-O3'-C3'	-5.05	112.62	120.20
38	Bb	66	SER	CA-C-O	5.05	127.73	120.51
53	BD	36	ILE	N-CA-C	-5.05	105.57	110.42
53	BD	180	ARG	CG-CD-NE	-5.05	100.89	112.00
67	B1	172	C	C1'-O4'-C4'	-5.05	104.85	109.90
67	B1	308	C	O4'-C4'-C3'	-5.05	98.95	104.00
67	B1	612	G	C3'-C2'-C1'	-5.05	96.25	101.30
67	B1	815	U	C1'-O4'-C4'	5.05	114.95	109.90
67	B1	1132	U	C2'-C3'-O3'	5.05	121.28	113.70
67	B1	1540	A	P-O5'-C5'	-5.05	113.32	120.90
67	B1	1678	A	O4'-C4'-C3'	-5.05	98.95	104.00
67	B1	2344	G	C3'-C2'-O2'	5.05	118.28	110.70
67	B1	2581	G	N9-C1'-C2'	5.05	119.58	112.00
67	B1	2669	U	P-O5'-C5'	-5.05	113.32	120.90
67	B1	2683	G	C1'-O4'-C4'	-5.05	104.85	109.90
67	B1	2735	C	C1'-C2'-O2'	5.05	115.98	108.40
67	B1	2908	U	O5'-C5'-C4'	-5.05	103.92	111.50
1	AQ	81	ILE	O-C-N	5.05	126.86	121.91
8	AR	7	LEU	CA-C-N	5.05	129.36	122.34
8	AR	7	LEU	C-N-CA	5.05	129.36	122.34
10	AD	55	ALA	O-C-N	-5.05	116.77	122.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	A1	17	C	C3'-C2'-C1'	5.05	106.35	101.30
21	A2	295	G	C3'-C2'-O2'	5.05	118.27	110.70
21	A2	378	A	O4'-C1'-N9	5.05	116.08	108.50
24	AA	103	ILE	N-CA-C	-5.05	100.94	108.46
27	A0	13	U	O5'-C5'-C4'	-5.05	103.93	111.50
33	BC	129	GLU	CA-C-N	5.05	127.55	120.28
33	BC	129	GLU	C-N-CA	5.05	127.55	120.28
47	BI	134	VAL	CA-C-N	5.05	127.05	120.28
47	BI	134	VAL	C-N-CA	5.05	127.05	120.28
48	BR	87	PHE	CA-CB-CG	-5.05	108.75	113.80
59	BM	152	LYS	CB-CA-C	5.05	119.17	110.79
64	Bc	59	ARG	N-CA-CB	-5.05	102.55	111.39
67	B1	1145	G	O5'-C5'-C4'	-5.05	104.12	111.70
67	B1	1691	U	C5'-C4'-O4'	5.05	117.37	109.80
20	A3	52	ILE	CA-C-O	-5.05	114.76	120.67
21	A2	611	A	O4'-C1'-N9	5.05	116.07	108.50
51	Bj	72	THR	CB-CA-C	5.05	119.17	110.79
54	BF	146	ALA	CA-C-N	5.05	127.59	120.42
54	BF	146	ALA	C-N-CA	5.05	127.59	120.42
65	BJ	128	GLU	CB-CG-CD	-5.05	104.02	112.60
67	B1	459	C	C1'-O4'-C4'	5.05	114.95	109.90
67	B1	2155	C	O5'-C5'-C4'	5.05	119.27	111.70
67	B1	2535	C	C1'-C2'-O2'	5.05	115.97	108.40
11	A1	3	G	C1'-O4'-C4'	5.05	114.95	109.90
15	AE	216	GLU	CA-C-N	-5.05	114.11	122.39
15	AE	216	GLU	C-N-CA	-5.05	114.11	122.39
24	AA	46	ARG	NE-CZ-NH1	5.05	126.55	121.50
24	AA	161	SER	CA-C-N	5.05	127.59	120.42
24	AA	161	SER	C-N-CA	5.05	127.59	120.42
28	AV	76	GLU	O-C-N	5.05	127.27	122.07
31	BY	111	PRO	N-CA-C	5.05	122.86	112.47
40	BE	101	ARG	CA-C-N	5.05	128.51	121.24
40	BE	101	ARG	C-N-CA	5.05	128.51	121.24
43	Bk	22	TYR	CA-C-N	5.05	124.54	119.19
43	Bk	22	TYR	C-N-CA	5.05	124.54	119.19
46	BA	186	ASN	N-CA-CB	5.05	117.99	110.22
54	BF	169	GLN	N-CA-C	-5.05	104.92	112.54
67	B1	65	G	C3'-C2'-C1'	-5.05	96.25	101.30
67	B1	190	C	C1'-O4'-C4'	-5.05	104.85	109.90
67	B1	286	G	O4'-C1'-N9	5.05	116.07	108.50
67	B1	517	A	O3'-P-O5'	-5.05	96.43	104.00
67	B1	2182	A	C3'-C2'-C1'	-5.05	96.25	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2280	G	C5'-C4'-C3'	5.05	123.57	116.00
67	B1	2780	G	C4'-C3'-C2'	-5.05	97.55	102.60
68	B3	26	C	P-O3'-C3'	5.05	127.77	120.20
21	A2	1213	G	O4'-C1'-C2'	5.04	112.64	107.60
52	BB	209	HIS	CB-CG-CD2	-5.04	124.64	131.20
20	BG	65	HIS	ND1-CE1-NE2	5.04	113.44	108.40
54	BF	82	VAL	CA-C-N	5.04	127.30	120.44
54	BF	82	VAL	C-N-CA	5.04	127.30	120.44
61	Bd	52	VAL	CA-C-N	5.04	127.98	120.31
61	Bd	52	VAL	C-N-CA	5.04	127.98	120.31
65	BJ	102	ASN	OD1-CG-ND2	-5.04	117.56	122.60
67	B1	560	G	C5'-C4'-C3'	5.04	123.57	116.00
67	B1	2377	C	C3'-C2'-C1'	5.04	106.34	101.30
14	AM	124	ASP	CA-C-O	-5.04	115.70	121.40
21	A2	90	C	O5'-C5'-C4'	-5.04	103.94	111.50
27	A0	14	A	P-O3'-C3'	-5.04	112.63	120.20
31	BY	116	VAL	N-CA-CB	5.04	120.17	111.39
37	BU	46	VAL	N-CA-C	5.04	117.75	109.78
47	BI	108	GLN	CA-C-O	-5.04	116.06	121.56
55	Bh	3	TRP	N-CA-CB	5.04	117.38	110.07
67	B1	1911	G	N9-C1'-C2'	-5.04	104.44	112.00
67	B1	2486	A	C1'-O4'-C4'	5.04	114.94	109.90
67	B1	2649	A	C1'-O4'-C4'	-5.04	104.86	109.90
67	B1	2812	U	C4'-C3'-C2'	-5.04	97.56	102.60
67	B1	2975	A	C5'-C4'-C3'	-5.04	108.43	116.00
67	B1	2976	G	P-O5'-C5'	5.04	128.46	120.90
6	AC	167	ALA	CA-C-O	-5.04	115.70	121.40
10	AD	176	GLN	OE1-CD-NE2	-5.04	117.56	122.60
20	A3	69	LEU	CA-C-N	5.04	127.45	120.29
20	A3	69	LEU	C-N-CA	5.04	127.45	120.29
21	A2	95	G	C1'-O4'-C4'	5.04	114.94	109.90
21	A2	441	U	C5'-C4'-C3'	-5.04	108.44	116.00
21	A2	1289	G	P-O5'-C5'	-5.04	113.34	120.90
21	A2	1494	C	O4'-C1'-C2'	-5.04	102.56	107.60
29	AL	3	LYS	N-CA-CB	5.04	117.77	109.95
32	BO	40	SER	CA-C-O	-5.04	116.06	121.45
35	BL	1	MET	N-CA-CB	5.04	119.07	110.50
45	Bi	40	VAL	N-CA-CB	5.04	117.02	110.57
51	Bj	59	GLU	N-CA-CB	5.04	119.44	111.17
52	BB	220	ARG	CG-CD-NE	-5.04	100.91	112.00
65	BJ	138	SER	N-CA-C	-5.04	105.69	111.14
67	B1	152	G	C4'-C3'-C2'	-5.04	97.56	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1494	U	C1'-C2'-O2'	-5.04	100.84	108.40
67	B1	1912	A	O5'-C5'-C4'	-5.04	103.94	111.50
67	B1	2380	A	N9-C1'-C2'	5.04	121.56	114.00
67	B1	2442	A	N9-C1'-C2'	5.04	119.56	112.00
67	B1	2452	C	C4'-C3'-O3'	-5.04	105.44	113.00
67	B1	2867	U	P-O5'-C5'	5.04	128.46	120.90
15	AE	224	ASP	N-CA-CB	5.04	119.28	110.81
21	A2	611	A	C4'-C3'-O3'	-5.04	105.44	113.00
29	AL	71	ARG	O-C-N	-5.04	116.68	123.23
32	BO	192	ILE	N-CA-C	5.04	119.82	109.34
67	B1	925	U	N1-C1'-C2'	5.04	119.56	112.00
67	B1	991	U	C4'-C3'-O3'	-5.04	105.44	113.00
6	AC	102	ALA	N-CA-C	5.04	116.85	111.36
11	A1	68	C	O4'-C1'-N1	5.04	116.06	108.50
17	AO	34	ASN	O-C-N	-5.04	116.41	122.15
20	A3	62	ILE	CA-C-O	5.04	123.39	119.46
21	A2	667	G	O5'-C5'-C4'	-5.04	103.94	111.50
40	BE	163	ARG	NE-CZ-NH1	-5.04	116.46	121.50
67	B1	979	G	C5'-C4'-C3'	5.04	123.56	116.00
67	B1	1830	U	P-O3'-C3'	-5.04	112.64	120.20
67	B1	2174	G	P-O3'-C3'	5.04	127.76	120.20
67	B1	2907	C	C4'-C3'-C2'	-5.04	97.56	102.60
67	B1	3035	C	C3'-C2'-C1'	5.04	106.34	101.30
6	AC	108	HIS	ND1-CE1-NE2	5.04	113.44	108.40
21	A2	623	C	O4'-C4'-C3'	-5.04	98.96	104.00
21	A2	627	G	C2'-C3'-O3'	-5.04	106.14	113.70
21	A2	972	C	O4'-C1'-C2'	-5.04	102.56	107.60
29	AL	41	PRO	CA-CB-CG	-5.04	94.93	104.50
58	BP	65	PRO	CB-CA-C	-5.04	103.25	111.56
67	B1	67	U	O4'-C1'-N1	5.04	116.06	108.50
67	B1	1420	U	C1'-O4'-C4'	5.04	114.94	109.90
10	AD	100	ILE	CA-CB-CG1	5.04	118.96	110.40
10	AD	120	GLN	CA-C-N	5.04	127.53	120.28
10	AD	120	GLN	C-N-CA	5.04	127.53	120.28
11	A1	71	C	N1-C1'-C2'	5.04	119.55	112.00
21	A2	353	G	N9-C1'-C2'	-5.04	104.45	112.00
21	A2	392	G	O3'-P-O5'	-5.04	96.45	104.00
21	A2	1081	C	C3'-C2'-O2'	-5.04	107.05	114.60
24	AA	43	VAL	CA-CB-CG2	5.04	118.96	110.40
25	AH	88	ARG	CA-C-N	5.04	131.16	121.54
25	AH	88	ARG	C-N-CA	5.04	131.16	121.54
34	B5	64	ARG	N-CA-C	-5.04	99.13	107.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
58	BP	105	GLU	CA-C-O	5.04	125.24	119.35
66	Bl	62	PRO	CB-CA-C	-5.04	104.38	109.92
67	B1	1779	C	O4'-C4'-C3'	-5.04	98.96	104.00
67	B1	2043	A	O4'-C4'-C3'	-5.04	98.97	104.00
67	B1	2316	U	C4'-C3'-C2'	-5.04	97.56	102.60
67	B1	2430	C	N1-C1'-C2'	5.04	119.55	112.00
67	B1	2796	C	O5'-C5'-C4'	-5.04	103.95	111.50
67	B1	2881	G	P-O5'-C5'	-5.04	113.34	120.90
1	AQ	154	LYS	CA-C-N	5.03	127.02	120.28
1	AQ	154	LYS	C-N-CA	5.03	127.02	120.28
3	AI	8	ALA	O-C-N	5.03	127.25	122.07
21	A2	913	G	C1'-O4'-C4'	-5.03	104.87	109.90
21	A2	1079	G	C3'-C2'-C1'	5.03	106.33	101.30
23	AT	31	ARG	CA-C-N	5.03	127.02	120.28
23	AT	31	ARG	C-N-CA	5.03	127.02	120.28
53	BD	110	LYS	CA-C-O	5.03	125.75	120.42
53	BD	204	ASN	CA-C-N	5.03	131.16	121.54
53	BD	204	ASN	C-N-CA	5.03	131.16	121.54
67	B1	171	A	O4'-C1'-C2'	-5.03	102.57	107.60
67	B1	332	A	C2'-C3'-O3'	5.03	117.05	109.50
67	B1	381	G	C4'-C3'-C2'	-5.03	97.57	102.60
67	B1	823	G	C5'-C4'-C3'	5.03	123.55	116.00
67	B1	1294	A	P-O3'-C3'	5.03	127.75	120.20
67	B1	1334	G	O4'-C1'-C2'	-5.03	102.57	107.60
67	B1	1721	U	C1'-O4'-C4'	-5.03	104.67	109.70
67	B1	2124	C	C3'-C2'-C1'	5.03	106.33	101.30
67	B1	2332	G	O4'-C4'-C3'	-5.03	98.97	104.00
67	B1	2647	G	C1'-O4'-C4'	-5.03	104.87	109.90
16	AJ	16	ARG	CG-CD-NE	-5.03	100.93	112.00
21	A2	1	A	C1'-O4'-C4'	5.03	114.93	109.90
21	A2	166	A	C4'-C3'-C2'	-5.03	97.57	102.60
21	A2	868	C	C1'-O4'-C4'	5.03	114.93	109.90
21	A2	1345	G	C4'-C3'-C2'	-5.03	97.57	102.60
42	BT	32	ARG	N-CA-C	-5.03	106.73	112.92
45	Bi	65	GLY	N-CA-C	-5.03	102.87	111.27
67	B1	621	G	P-O3'-C3'	5.03	127.75	120.20
67	B1	1487	U	C4'-C3'-O3'	5.03	116.95	109.40
67	B1	1687	C	O4'-C1'-C2'	-5.03	102.57	107.60
67	B1	2280	G	O4'-C1'-N9	5.03	116.05	108.50
67	B1	2329	A	P-O3'-C3'	5.03	127.75	120.20
67	B1	2913	C	O4'-C1'-C2'	-5.03	102.57	107.60
4	AG	37	GLN	OE1-CD-NE2	-5.03	117.57	122.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
21	A2	405	G	N9-C1'-C2'	5.03	119.55	112.00
21	A2	497	C	O4'-C1'-C2'	-5.03	102.57	107.60
21	A2	975	A	C1'-O4'-C4'	5.03	114.93	109.90
21	A2	1239	A	C3'-C2'-C1'	5.03	106.53	101.50
25	AH	76	GLY	CA-C-N	5.03	131.15	121.54
25	AH	76	GLY	C-N-CA	5.03	131.15	121.54
33	BC	256	ILE	N-CA-C	-5.03	106.25	111.58
44	BW	31	LEU	CB-CA-C	-5.03	102.44	110.79
58	BP	33	VAL	O-C-N	-5.03	116.99	121.87
67	B1	461	C	C5'-C4'-C3'	-5.03	107.65	115.20
67	B1	484	C	C3'-C2'-C1'	5.03	106.33	101.30
67	B1	502	G	C3'-C2'-C1'	-5.03	96.27	101.30
67	B1	1979	G	N9-C1'-C2'	5.03	119.55	112.00
67	B1	1979	G	O4'-C1'-N9	5.03	116.05	108.50
67	B1	2229	G	C1'-O4'-C4'	5.03	114.93	109.90
67	B1	2645	C	O3'-P-O5'	-5.03	96.45	104.00
67	B1	2970	U	C2'-C3'-O3'	5.03	121.25	113.70
68	B3	80	G	C4'-C3'-O3'	-5.03	105.45	113.00
21	A2	77	G	C2'-C3'-O3'	-5.03	106.16	113.70
21	A2	303	G	C1'-C2'-O2'	5.03	115.94	108.40
31	BY	123	ARG	NE-CZ-NH2	5.03	123.73	119.20
43	Bk	183	GLN	CA-C-N	5.03	125.47	120.04
43	Bk	183	GLN	C-N-CA	5.03	125.47	120.04
51	Bj	63	LYS	N-CA-C	-5.03	101.72	109.52
28	B6	6	LYS	O-C-N	5.03	127.94	122.11
67	B1	1405	G	O4'-C1'-C2'	5.03	112.63	107.60
67	B1	2206	G	O4'-C1'-N9	-5.03	100.96	108.50
21	A2	228	G	C3'-C2'-C1'	5.03	106.33	101.30
21	A2	862	C	N1-C1'-C2'	5.03	119.54	112.00
21	A2	1301	U	N1-C1'-C2'	5.03	119.54	112.00
24	AA	181	ARG	CA-C-N	5.03	129.96	122.82
24	AA	181	ARG	C-N-CA	5.03	129.96	122.82
25	AH	211	ALA	N-CA-CB	5.03	117.51	110.12
38	Bb	91	GLU	CA-C-N	5.03	129.69	122.40
38	Bb	91	GLU	C-N-CA	5.03	129.69	122.40
51	Bj	47	TYR	CA-C-N	5.03	125.52	119.94
51	Bj	47	TYR	C-N-CA	5.03	125.52	119.94
60	BS	103	VAL	CA-C-O	-5.03	115.72	120.95
67	B1	261	A	C3'-C2'-C1'	5.03	106.33	101.30
67	B1	789	G	C3'-C2'-O2'	5.03	118.24	110.70
67	B1	1572	C	O4'-C1'-N1	5.03	115.74	108.20
67	B1	2199	U	O4'-C4'-C3'	-5.03	98.97	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	2215	U	C4'-C3'-O3'	5.03	116.94	109.40
68	B3	39	C	C3'-C2'-C1'	5.03	106.33	101.30
7	AB	169	TRP	O-C-N	-5.03	116.89	122.07
21	A2	105	C	C4'-C3'-O3'	5.03	116.94	109.40
21	A2	212	G	C4'-C3'-C2'	-5.03	97.57	102.60
21	A2	474	G	C4'-C3'-C2'	-5.03	97.58	102.60
21	A2	659	U	O4'-C1'-N1	5.03	116.04	108.50
21	A2	666	G	O4'-C1'-C2'	5.03	112.62	107.60
21	A2	754	G	C4'-C3'-O3'	-5.03	105.46	113.00
21	A2	867	A	O3'-P-O5'	5.03	111.54	104.00
21	A2	1492	U	O5'-C5'-C4'	-5.03	103.96	111.50
28	AV	83	PRO	CA-C-N	5.03	127.72	120.38
28	AV	83	PRO	C-N-CA	5.03	127.72	120.38
32	BO	79	ASN	CA-C-N	5.03	126.37	120.09
32	BO	79	ASN	C-N-CA	5.03	126.37	120.09
43	Bk	71	LEU	N-CA-C	5.03	121.50	110.80
47	BI	80	ARG	N-CA-C	5.03	116.76	111.28
54	BF	6	TRP	O-C-N	-5.03	116.42	122.15
67	B1	341	U	O4'-C1'-C2'	-5.03	102.57	107.60
67	B1	2327	C	O3'-P-O5'	-5.03	96.46	104.00
67	B1	2468	C	C3'-C2'-O2'	-5.03	103.16	110.70
67	B1	2938	G	O4'-C1'-C2'	5.03	112.63	107.60
17	AO	8	VAL	O-C-N	-5.02	117.53	122.76
21	A2	1022	U	C3'-C2'-C1'	5.02	106.32	101.30
21	A2	1166	G	C1'-O4'-C4'	-5.02	104.88	109.90
21	A2	1438	A	C4'-C3'-C2'	-5.02	97.58	102.60
38	Bb	35	LYS	N-CA-C	5.02	117.01	110.53
46	BA	59	ASP	N-CA-CB	5.02	117.38	109.69
34	BK	64	ARG	N-CA-C	-5.02	99.15	107.99
52	BB	36	THR	CA-CB-OG1	5.02	117.14	109.60
54	BF	62	ARG	N-CA-C	5.02	116.76	111.28
67	B1	3	G	O4'-C4'-C3'	-5.02	98.98	104.00
67	B1	1818	G	C1'-C2'-O2'	5.02	115.94	108.40
67	B1	2020	G	C4'-C3'-C2'	-5.02	97.58	102.60
67	B1	2801	G	P-O3'-C3'	-5.02	112.66	120.20
5	AW	36	ARG	NE-CZ-NH2	5.02	123.72	119.20
15	AE	105	ASN	N-CA-C	-5.02	102.59	110.17
21	A2	198	A	C3'-C2'-C1'	-5.02	96.28	101.30
21	A2	1024	G	O4'-C1'-C2'	5.02	112.62	107.60
21	A2	1128	U	C1'-O4'-C4'	5.02	114.72	109.70
21	A2	1470	G	C3'-C2'-O2'	5.02	118.23	110.70
24	AA	47	VAL	CA-CB-CG2	-5.02	101.86	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	BO	169	GLY	N-CA-C	-5.02	105.27	111.70
33	BC	141	GLN	CA-C-N	5.02	127.01	120.28
33	BC	141	GLN	C-N-CA	5.02	127.01	120.28
47	BI	122	ARG	NE-CZ-NH2	5.02	123.72	119.20
67	B1	81	G	C1'-O4'-C4'	-5.02	104.88	109.90
67	B1	941	C	N1-C1'-C2'	5.02	119.53	112.00
67	B1	1449	C	O4'-C1'-C2'	-5.02	102.58	107.60
67	B1	1494	U	C4'-C3'-O3'	-5.02	105.47	113.00
10	AD	165	HIS	CA-C-O	-5.02	115.29	119.76
16	AJ	103	THR	CA-C-O	-5.02	115.73	121.40
21	A2	717	C	O4'-C1'-C2'	-5.02	102.58	107.60
21	A2	1137	G	C3'-C2'-C1'	5.02	106.32	101.30
24	AA	30	VAL	CB-CA-C	5.02	117.68	111.15
34	BK	8	ARG	N-CA-C	-5.02	101.12	109.46
67	B1	101	G	O3'-P-O5'	-5.02	96.47	104.00
67	B1	781	C	O4'-C1'-N1	5.02	116.03	108.50
67	B1	861	G	C1'-O4'-C4'	5.02	114.72	109.70
67	B1	1478	G	P-O3'-C3'	-5.02	112.67	120.20
67	B1	1738	A	C4'-C3'-C2'	-5.02	97.58	102.60
67	B1	2108	U	O4'-C1'-N1	5.02	116.03	108.50
67	B1	2920	C	C1'-C2'-O2'	5.02	115.93	108.40
2	AK	5	GLN	CB-CA-C	5.02	118.17	110.14
17	AO	90	ASP	CA-C-O	-5.02	115.91	121.33
21	A2	601	G	C1'-O4'-C4'	5.02	114.92	109.90
21	A2	1121	C	C5'-C4'-C3'	5.02	123.53	116.00
21	A2	1270	C	C2'-C3'-O3'	5.02	121.23	113.70
26	AP	1	MET	N-CA-CB	-5.02	101.97	110.50
29	AL	28	GLU	N-CA-C	5.02	117.41	111.33
30	AU	12	LEU	O-C-N	5.02	127.44	122.12
32	BO	184	HIS	CG-CD2-NE2	5.02	112.22	107.20
43	Bk	125	PRO	CA-C-O	-5.02	115.87	122.19
52	BB	25	ARG	NE-CZ-NH1	-5.02	116.48	121.50
56	BH	84	GLU	N-CA-C	5.02	116.60	111.03
28	B6	37	LYS	CB-CA-C	-5.02	102.46	110.79
67	B1	785	C	O4'-C1'-C2'	-5.02	102.58	107.60
67	B1	979	G	C3'-C2'-C1'	-5.02	96.28	101.30
67	B1	1056	C	C5'-C4'-C3'	5.02	123.53	116.00
67	B1	1316	U	C5'-C4'-C3'	5.02	123.53	116.00
67	B1	1407	A	C1'-O4'-C4'	5.02	114.72	109.70
67	B1	2198	U	C4'-C3'-C2'	-5.02	97.58	102.60
68	B3	8	C	O4'-C4'-C3'	5.02	111.12	106.10
68	B3	59	C	C1'-O4'-C4'	-5.02	104.88	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
68	B3	86	C	C4'-C3'-O3'	-5.02	105.47	113.00
68	B3	126	C	C2'-C3'-O3'	-5.02	106.17	113.70
20	A3	79	TYR	N-CA-C	-5.02	101.97	109.95
21	A2	1104	G	N9-C1'-C2'	-5.02	104.47	112.00
43	Bk	202	THR	CB-CA-C	5.02	117.35	109.37
49	BQ	28	ARG	CA-C-N	5.02	127.33	120.46
49	BQ	28	ARG	C-N-CA	5.02	127.33	120.46
67	B1	526	C	O4'-C1'-N1	5.02	116.03	108.50
67	B1	1031	C	O4'-C1'-C2'	-5.02	102.58	107.60
67	B1	1181	C	O4'-C1'-C2'	-5.02	102.58	107.60
67	B1	2074	U	O4'-C4'-C3'	-5.02	98.98	104.00
67	B1	2864	G	O4'-C1'-C2'	-5.02	100.78	105.80
21	A2	146	A	N9-C1'-C2'	5.02	119.52	112.00
21	A2	195	C	O3'-P-O5'	5.02	111.52	104.00
21	A2	674	C	C1'-C2'-O2'	5.02	115.92	108.40
30	AU	136	LEU	CA-C-N	5.02	127.41	120.29
30	AU	136	LEU	C-N-CA	5.02	127.41	120.29
49	BQ	131	GLN	OE1-CD-NE2	5.02	127.62	122.60
65	BJ	74	ARG	N-CA-CB	5.02	117.72	109.95
67	B1	700	A	P-O5'-C5'	5.02	128.42	120.90
67	B1	1213	G	O4'-C4'-C3'	-5.02	98.98	104.00
67	B1	1379	A	N9-C1'-C2'	-5.02	106.48	114.00
67	B1	1769	G	C1'-O4'-C4'	-5.02	104.88	109.90
67	B1	1868	C	C5'-C4'-C3'	5.02	123.52	116.00
67	B1	2481	G	C1'-O4'-C4'	5.02	114.92	109.90
67	B1	2957	G	N9-C1'-C2'	5.02	119.53	112.00
7	AB	9	LEU	CA-C-N	5.01	127.00	120.28
7	AB	9	LEU	C-N-CA	5.01	127.00	120.28
10	AD	114	LEU	N-CA-C	-5.01	106.58	113.30
21	A2	232	G	C3'-C2'-O2'	5.01	118.22	110.70
21	A2	595	U	O4'-C1'-C2'	-5.01	100.78	105.80
21	A2	1032	A	C5'-C4'-O4'	-5.01	102.28	109.80
21	A2	1494	C	C3'-C2'-C1'	5.01	106.31	101.30
23	AT	90	VAL	CA-C-N	5.01	125.41	119.99
23	AT	90	VAL	C-N-CA	5.01	125.41	119.99
29	AL	67	ARG	O-C-N	-5.01	117.35	123.27
32	BO	62	ALA	O-C-N	-5.01	117.86	123.48
53	BD	35	VAL	CA-CB-CG1	5.01	118.93	110.40
54	BF	8	ARG	NE-CZ-NH1	-5.01	116.49	121.50
67	B1	1154	A	O4'-C1'-C2'	5.01	110.81	105.80
67	B1	1467	G	N9-C1'-C2'	-5.01	106.48	114.00
67	B1	1603	G	N9-C1'-C2'	5.01	119.52	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	1647	C	C4'-C3'-O3'	-5.01	105.48	113.00
67	B1	1800	G	C1'-C2'-O2'	-5.01	100.88	108.40
67	B1	1972	C	C5'-C4'-C3'	-5.01	108.48	116.00
67	B1	2147	C	O4'-C1'-C2'	-5.01	102.59	107.60
67	B1	2837	C	O4'-C4'-C3'	-5.01	98.98	104.00
67	B1	2943	G	P-O5'-C5'	-5.01	113.38	120.90
21	A2	365	C	O4'-C1'-C2'	-5.01	102.59	107.60
21	A2	409	C	O4'-C4'-C3'	5.01	109.01	104.00
35	BL	105	VAL	O-C-N	5.01	126.73	121.87
67	B1	1923	A	O4'-C4'-C3'	5.01	111.11	106.10
2	AK	47	GLU	N-CA-C	5.01	120.28	113.16
10	AD	120	GLN	CG-CD-NE2	5.01	123.92	116.40
14	AM	6	VAL	N-CA-C	-5.01	101.16	108.17
18	AF	92	ARG	CA-C-N	5.01	129.09	120.72
18	AF	92	ARG	C-N-CA	5.01	129.09	120.72
21	A2	231	G	O3'-P-O5'	-5.01	96.48	104.00
21	A2	557	G	O4'-C1'-N9	5.01	116.02	108.50
34	B5	46	ARG	CB-CG-CD	5.01	122.83	111.30
39	Be	60	ASN	CB-CA-C	5.01	119.11	110.79
40	BE	103	LYS	CA-C-O	-5.01	115.21	120.92
50	BV	16	PRO	CA-C-O	-5.01	115.56	121.67
51	Bj	20	HIS	CE1-NE2-CD2	-5.01	103.99	109.00
67	B1	1748	C	C3'-C2'-C1'	5.01	106.31	101.30
67	B1	1838	C	C5'-C4'-C3'	5.01	123.52	116.00
67	B1	1966	C	C4'-C3'-C2'	-5.01	97.59	102.60
67	B1	2655	C	O4'-C1'-N1	5.01	116.02	108.50
21	A2	403	C	O4'-C1'-N1	5.01	116.02	108.50
33	BC	99	VAL	N-CA-CB	5.01	117.00	110.99
33	BC	163	VAL	CA-C-N	5.01	130.38	122.36
33	BC	163	VAL	C-N-CA	5.01	130.38	122.36
33	BC	358	TYR	CA-C-N	5.01	129.97	123.06
33	BC	358	TYR	C-N-CA	5.01	129.97	123.06
44	BW	29	ARG	NE-CZ-NH2	-5.01	114.69	119.20
45	Bi	14	GLY	N-CA-C	-5.01	103.50	112.22
53	BD	215	PRO	N-CA-C	5.01	119.07	110.95
67	B1	532	G	N9-C1'-C2'	-5.01	104.49	112.00
67	B1	1182	C	P-O3'-C3'	5.01	127.71	120.20
67	B1	1748	C	C1'-C2'-O2'	-5.01	100.89	108.40
67	B1	2307	C	O4'-C1'-C2'	-5.01	102.59	107.60
67	B1	2536	A	O4'-C1'-C2'	-5.01	102.59	107.60
67	B1	2769	U	O4'-C1'-C2'	-5.01	102.59	107.60
67	B1	2856	G	O4'-C1'-C2'	5.01	112.61	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
67	B1	3017	U	C1'-O4'-C4'	-5.01	104.89	109.90
25	AH	77	SER	CA-C-N	5.01	131.10	121.54
25	AH	77	SER	C-N-CA	5.01	131.10	121.54
49	BQ	9	ARG	NE-CZ-NH2	-5.01	114.69	119.20
67	B1	325	G	C5'-C4'-C3'	5.01	123.51	116.00
67	B1	1166	A	C4'-C3'-O3'	-5.01	105.49	113.00
21	A2	156	A	O4'-C1'-N9	-5.01	100.99	108.50
21	A2	260	C	O5'-C5'-C4'	-5.01	103.99	111.50
21	A2	744	A	O4'-C1'-C2'	-5.01	102.59	107.60
21	A2	815	C	C1'-C2'-O2'	5.01	115.91	108.40
21	A2	895	C	P-O5'-C5'	-5.01	113.39	120.90
24	AA	53	LYS	N-CA-C	-5.01	106.10	113.61
44	BW	3	PRO	CB-CA-C	-5.01	104.37	111.68
34	BK	20	GLN	CB-CA-C	-5.01	100.59	110.10
67	B1	1868	C	C3'-C2'-C1'	5.01	106.31	101.30
67	B1	2192	G	C5'-C4'-O4'	5.01	117.31	109.80
67	B1	2438	U	N1-C1'-C2'	5.01	119.51	112.00
67	B1	2495	A	C4'-C3'-O3'	-5.01	105.49	113.00
7	AB	71	SER	CA-C-O	-5.00	115.38	120.99
8	AR	31	GLY	CA-C-N	5.00	132.34	122.73
8	AR	31	GLY	C-N-CA	5.00	132.34	122.73
10	AD	83	LEU	CA-C-N	5.00	126.10	119.84
10	AD	83	LEU	C-N-CA	5.00	126.10	119.84
13	AX	17	ARG	N-CA-CB	5.00	119.64	111.08
13	AX	21	THR	N-CA-C	-5.00	105.72	111.07
14	AM	136	ARG	N-CA-C	-5.00	103.07	110.48
46	BA	123	ARG	CA-C-O	-5.00	115.55	120.70
53	BD	153	LYS	CA-C-N	5.00	127.40	120.29
53	BD	153	LYS	C-N-CA	5.00	127.40	120.29
67	B1	209	G	O5'-C5'-C4'	-5.00	103.99	111.50
67	B1	955	A	C2'-C3'-O3'	5.00	121.21	113.70
67	B1	1321	C	P-O3'-C3'	-5.00	112.69	120.20
67	B1	2531	G	O5'-C5'-C4'	-5.00	103.99	111.50
67	B1	3037	G	C4'-C3'-O3'	-5.00	105.49	113.00
6	AC	60	ARG	CA-CB-CG	-5.00	104.09	114.10
21	A2	394	C	C5'-C4'-C3'	5.00	123.51	116.00
21	A2	492	G	P-O5'-C5'	-5.00	113.40	120.90
25	AH	179	SER	CA-C-O	-5.00	113.35	120.51
34	B5	50	ILE	N-CA-C	-5.00	98.93	109.34
40	BE	7	ASN	N-CA-C	5.00	116.73	111.28
49	BQ	109	LEU	CA-C-N	5.00	129.14	120.58
49	BQ	109	LEU	C-N-CA	5.00	129.14	120.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
54	BF	153	ASN	OD1-CG-ND2	-5.00	117.60	122.60
67	B1	628	A	O4'-C1'-C2'	-5.00	102.60	107.60
67	B1	701	G	O3'-P-O5'	-5.00	96.49	104.00
67	B1	798	G	C3'-C2'-C1'	5.00	106.30	101.30
67	B1	1542	U	P-O5'-C5'	-5.00	113.39	120.90
67	B1	2142	U	O4'-C1'-C2'	-5.00	102.60	107.60
68	B3	72	G	O3'-P-O5'	5.00	111.50	104.00
16	AJ	22	LYS	N-CA-C	-5.00	102.49	109.69
20	A3	99	VAL	CA-CB-CG1	5.00	118.90	110.40
21	A2	44	C	C1'-C2'-O2'	-5.00	100.90	108.40
21	A2	816	G	C5'-C4'-C3'	-5.00	108.50	116.00
21	A2	881	G	O4'-C1'-C2'	-5.00	102.60	107.60
21	A2	1176	C	C1'-C2'-O2'	5.00	115.90	108.40
25	AH	174	TYR	CA-C-N	5.00	131.09	121.54
25	AH	174	TYR	C-N-CA	5.00	131.09	121.54
32	BO	21	TYR	CA-C-N	5.00	127.29	120.54
32	BO	21	TYR	C-N-CA	5.00	127.29	120.54
34	B5	20	GLN	CB-CA-C	-5.00	100.59	110.10
40	BE	109	GLU	CB-CG-CD	-5.00	104.10	112.60
34	BK	50	ILE	N-CA-C	-5.00	98.94	109.34
20	B4	91	GLY	CA-C-N	5.00	130.18	122.68
20	B4	91	GLY	C-N-CA	5.00	130.18	122.68
66	Bl	6	PHE	N-CA-CB	5.00	118.40	110.55
67	B1	370	A	C4'-C3'-C2'	5.00	107.60	102.60
67	B1	1655	G	C1'-C2'-O2'	5.00	115.90	108.40
67	B1	2610	C	N1-C1'-C2'	5.00	119.50	112.00
67	B1	2839	A	C1'-O4'-C4'	5.00	114.70	109.70

All (22) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
4	AG	53	LYS	CA
21	A2	1317	G	C1'
25	AH	85	PHE	CA
25	AH	86	MET	CA
25	AH	87	ARG	CA
25	AH	96	LYS	CA
29	AL	59	ALA	CA
34	B5	17	ARG	CA
35	BL	11	LEU	CA
35	BL	17	HIS	CA
35	BL	44	LYS	CA

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Mol	Chain	Res	Type	Atom
39	Be	14	THR	CB
34	BK	17	ARG	CA
49	BQ	6	MET	CA
49	BQ	88	ARG	CA
49	BQ	101	ALA	CA
50	BV	56	TYR	CA
51	Bj	31	SER	CA
56	BH	91	LYS	CA
61	Bd	80	MET	CA
63	Bg	13	LYS	CA
64	Bc	63	THR	CA

All (442) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
21	A2	430	G	Sidechain
21	A2	431	U	Sidechain
21	A2	458	G	Sidechain
21	A2	459	G	Sidechain
21	A2	587	G	Sidechain
21	A2	962	G	Sidechain
21	A2	986	G	Sidechain
9	A9	26	UNK	Peptide
24	AA	27	PHE	Sidechain
24	AA	91	TYR	Sidechain
7	AB	121	ARG	Sidechain
7	AB	168	TYR	Sidechain
7	AB	202	ARG	Sidechain
7	AB	34	ARG	Sidechain
7	AB	41	TYR	Sidechain
7	AB	75	TYR	Sidechain
6	AC	109	PHE	Sidechain
6	AC	110	ARG	Sidechain
6	AC	145	ARG	Sidechain
6	AC	27	ARG	Sidechain
6	AC	47	PHE	Sidechain
6	AC	57	ARG	Sidechain
6	AC	6	TYR	Sidechain
6	AC	60	ARG	Sidechain
6	AC	63	ARG	Sidechain
6	AC	67	ARG	Sidechain
6	AC	98	ARG	Sidechain

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Mol	Chain	Res	Type	Group
10	AD	142	TYR	Sidechain
10	AD	154	TYR	Sidechain
10	AD	22	ARG	Sidechain
10	AD	33	TYR	Sidechain
10	AD	52	ARG	Sidechain
10	AD	53	ARG	Sidechain
15	AE	121	PHE	Sidechain
15	AE	125	LEU	Peptide
15	AE	126	ARG	Sidechain
15	AE	137	ARG	Sidechain
15	AE	198	ARG	Sidechain
15	AE	20	TYR	Sidechain
15	AE	205	PHE	Peptide
15	AE	26	TYR	Sidechain
15	AE	31	ARG	Sidechain
15	AE	52	TYR	Sidechain
15	AE	55	TYR	Sidechain
18	AF	8	TYR	Sidechain
4	AG	101	GLU	Peptide
4	AG	43	LEU	Peptide
4	AG	49	GLU	Peptide
4	AG	52	GLY	Peptide
4	AG	56	PRO	Peptide
4	AG	64	ARG	Sidechain
4	AG	76	PRO	Peptide
4	AG	85	ARG	Sidechain
4	AG	99	LYS	Peptide
25	AH	101	TYR	Sidechain
25	AH	13	HIS	Mainchain
25	AH	137	THR	Peptide
25	AH	14	GLU	Peptide
25	AH	146	TYR	Sidechain
25	AH	174	TYR	Sidechain
25	AH	175	ARG	Sidechain
25	AH	178	MET	Peptide
25	AH	199	TYR	Sidechain
25	AH	42	ARG	Sidechain
25	AH	47	THR	Peptide
25	AH	49	GLY	Peptide
25	AH	66	ARG	Sidechain
25	AH	72	MET	Peptide
25	AH	83	GLY	Peptide

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Mol	Chain	Res	Type	Group
25	AH	84	HIS	Peptide
25	AH	86	MET	Peptide
25	AH	87	ARG	Sidechain,Peptide
25	AH	90	HIS	Sidechain,Peptide
3	AI	130	TYR	Sidechain
3	AI	3	LEU	Peptide
3	AI	46	TYR	Sidechain
3	AI	61	TYR	Sidechain
3	AI	79	PHE	Sidechain
16	AJ	36	ARG	Sidechain
16	AJ	62	TYR	Sidechain
16	AJ	64	ASN	Peptide
16	AJ	91	ARG	Sidechain
2	AK	12	THR	Peptide
2	AK	130	ARG	Sidechain
2	AK	16	ARG	Sidechain
2	AK	27	ARG	Sidechain
29	AL	41	PRO	Peptide
29	AL	61	PHE	Sidechain
29	AL	63	ARG	Sidechain
29	AL	83	ARG	Sidechain
29	AL	90	VAL	Peptide
14	AM	103	ARG	Sidechain
14	AM	58	TYR	Sidechain
12	AN	124	TYR	Sidechain
12	AN	144	LYS	Peptide
12	AN	20	ARG	Sidechain
12	AN	29	ARG	Sidechain
12	AN	30	TYR	Sidechain
12	AN	32	ARG	Mainchain
12	AN	36	ARG	Sidechain
12	AN	5	LYS	Peptide
12	AN	65	PRO	Peptide
12	AN	70	ARG	Sidechain
17	AO	115	TYR	Sidechain
17	AO	119	ARG	Sidechain
17	AO	124	LEU	Peptide
17	AO	127	ARG	Sidechain
17	AO	137	ARG	Sidechain
17	AO	4	PHE	Sidechain
17	AO	5	ARG	Sidechain
17	AO	6	HIS	Sidechain

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Mol	Chain	Res	Type	Group
17	AO	76	ARG	Sidechain
17	AO	85	TYR	Sidechain
17	AO	9	ARG	Sidechain
26	AP	23	ARG	Sidechain
26	AP	27	TYR	Sidechain
26	AP	32	ARG	Sidechain
26	AP	44	ARG	Sidechain
26	AP	53	ARG	Sidechain
26	AP	55	TYR	Sidechain
1	AQ	117	HIS	Sidechain
1	AQ	131	ARG	Sidechain
1	AQ	28	TYR	Sidechain
1	AQ	3	ARG	Sidechain
1	AQ	58	TYR	Sidechain
1	AQ	68	ASP	Peptide
1	AQ	74	ARG	Sidechain
8	AR	112	ARG	Sidechain
8	AR	113	ARG	Sidechain
8	AR	55	PHE	Sidechain
19	AS	20	TYR	Sidechain
23	AT	11	TYR	Sidechain
23	AT	19	MET	Peptide
23	AT	38	ARG	Sidechain
23	AT	52	ARG	Sidechain
23	AT	7	ARG	Sidechain
30	AU	126	ARG	Sidechain
30	AU	15	ARG	Sidechain
30	AU	53	TYR	Sidechain
30	AU	76	TYR	Sidechain
30	AU	80	ARG	Sidechain
30	AU	91	TYR	Sidechain
28	AV	21	PHE	Peptide
28	AV	55	TYR	Sidechain,Peptide
28	AV	59	TYR	Sidechain
28	AV	60	PHE	Sidechain
28	AV	77	ARG	Sidechain
28	AV	85	TYR	Sidechain
28	AV	89	ARG	Sidechain
28	AV	94	GLU	Peptide
28	AV	96	LYS	Peptide
5	AW	12	ARG	Sidechain
5	AW	28	PHE	Sidechain

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Mol	Chain	Res	Type	Group
13	AX	22	GLY	Peptide
13	AX	4	ASP	Peptide
13	AX	46	ARG	Sidechain
13	AX	62	ARG	Sidechain
13	AX	66	GLU	Peptide
13	AX	7	TYR	Sidechain
13	AX	70	ARG	Sidechain
22	AY	21	PHE	Sidechain
22	AY	24	ARG	Sidechain
22	AY	37	ARG	Sidechain
22	AY	45	TYR	Sidechain
67	B1	1008	U	Sidechain
67	B1	1009	G	Sidechain
67	B1	1659	G	Sidechain
67	B1	1775	G	Sidechain
67	B1	1777	U	Sidechain
67	B1	1881	A	Sidechain
67	B1	1917	U	Sidechain
67	B1	1919	A	Sidechain
67	B1	2165	A	Sidechain
67	B1	331	G	Sidechain
67	B1	45	G	Sidechain
67	B1	8	G	Sidechain
20	B4	6	TYR	Sidechain
34	B5	46	ARG	Sidechain,Peptide
34	B5	47	ARG	Mainchain
28	B6	72	TYR	Sidechain
28	B6	85	TYR	Sidechain
46	BA	123	ARG	Sidechain
46	BA	203	TYR	Sidechain
46	BA	40	LYS	Peptide
46	BA	98	ARG	Sidechain
52	BB	117	ASP	Peptide
52	BB	121	TYR	Sidechain
52	BB	123	ARG	Sidechain
52	BB	128	TYR	Sidechain
52	BB	14	SER	Peptide
52	BB	167	ARG	Sidechain
52	BB	180	TYR	Sidechain
52	BB	185	ARG	Sidechain
52	BB	204	PHE	Sidechain
52	BB	210	HIS	Sidechain

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Mol	Chain	Res	Type	Group
52	BB	237	ARG	Sidechain
52	BB	25	ARG	Sidechain
52	BB	30	TYR	Sidechain
52	BB	40	THR	Peptide
52	BB	54	ARG	Sidechain
52	BB	84	TYR	Sidechain
33	BC	104	PHE	Sidechain
33	BC	111	ALA	Peptide
33	BC	119	LYS	Peptide
33	BC	122	MET	Peptide
33	BC	125	TYR	Sidechain,Peptide
33	BC	17	ARG	Sidechain
33	BC	236	ARG	Sidechain
33	BC	242	ARG	Sidechain
33	BC	28	ARG	Sidechain
33	BC	285	ARG	Sidechain
33	BC	292	ASN	Peptide
33	BC	304	GLU	Peptide
33	BC	318	ARG	Sidechain
33	BC	343	ARG	Sidechain
33	BC	353	ARG	Sidechain
33	BC	6	ARG	Sidechain
33	BC	90	TYR	Sidechain
53	BD	140	LEU	Peptide
53	BD	187	ARG	Sidechain
53	BD	254	TYR	Sidechain
53	BD	42	ARG	Sidechain
53	BD	56	ARG	Sidechain
53	BD	79	TYR	Sidechain
53	BD	85	PHE	Sidechain
53	BD	90	ARG	Sidechain
40	BE	128	TYR	Peptide
40	BE	157	ARG	Sidechain
40	BE	22	ARG	Sidechain
40	BE	59	ARG	Sidechain
40	BE	71	ARG	Sidechain
40	BE	88	TYR	Sidechain
54	BF	159	ARG	Sidechain
54	BF	181	PRO	Peptide
54	BF	24	TYR	Sidechain
54	BF	40	PHE	Sidechain
54	BF	6	TRP	Peptide

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Mol	Chain	Res	Type	Group
54	BF	61	ARG	Sidechain
54	BF	76	ARG	Sidechain
54	BF	97	PHE	Sidechain
20	BG	33	ARG	Sidechain
20	BG	45	ARG	Sidechain
20	BG	6	TYR	Sidechain
56	BH	1	MET	Peptide
56	BH	114	MET	Peptide
56	BH	116	ALA	Mainchain,Peptide
56	BH	16	THR	Peptide
56	BH	2	PRO	Peptide
56	BH	59	PRO	Mainchain,Peptide
56	BH	70	VAL	Peptide
47	BI	125	ARG	Sidechain
47	BI	13	ARG	Sidechain
47	BI	52	ARG	Sidechain
65	BJ	114	ARG	Sidechain
65	BJ	124	ARG	Sidechain
65	BJ	86	ARG	Sidechain
34	BK	45	ARG	Sidechain
35	BL	10	LYS	Peptide
35	BL	17	HIS	Sidechain
35	BL	25	HIS	Sidechain
35	BL	34	ARG	Sidechain
35	BL	53	TYR	Peptide
35	BL	54	ALA	Mainchain,Peptide
35	BL	63	PHE	Peptide
35	BL	65	ARG	Sidechain
35	BL	8	VAL	Peptide
35	BL	9	ARG	Mainchain,Peptide
59	BM	106	ARG	Sidechain
59	BM	128	PHE	Sidechain
59	BM	173	ARG	Sidechain
59	BM	53	TYR	Sidechain
59	BM	59	TYR	Sidechain
59	BM	80	ARG	Sidechain
59	BM	90	TYR	Sidechain
62	BN	117	GLY	Peptide
62	BN	162	TYR	Sidechain
62	BN	22	TYR	Sidechain
62	BN	4	ARG	Sidechain
62	BN	58	ARG	Sidechain

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Mol	Chain	Res	Type	Group
62	BN	72	TYR	Sidechain
62	BN	79	ARG	Sidechain
62	BN	87	ARG	Sidechain
32	BO	113	ARG	Sidechain
32	BO	14	ARG	Sidechain
32	BO	142	TYR	Sidechain
32	BO	152	TYR	Sidechain
32	BO	171	TYR	Sidechain
32	BO	191	ARG	Sidechain
32	BO	34	ARG	Sidechain
32	BO	51	TYR	Sidechain
32	BO	7	TYR	Sidechain
32	BO	8	ARG	Sidechain
32	BO	84	TYR	Sidechain
58	BP	25	TYR	Sidechain
58	BP	3	ARG	Sidechain
49	BQ	100	ARG	Sidechain
49	BQ	115	ILE	Mainchain
49	BQ	117	ARG	Sidechain
49	BQ	133	LYS	Peptide
49	BQ	2	ASN	Peptide
49	BQ	3	THR	Peptide
49	BQ	61	TYR	Sidechain
49	BQ	66	ARG	Sidechain
49	BQ	76	ARG	Sidechain
49	BQ	8	ARG	Sidechain
48	BR	22	ARG	Sidechain
48	BR	3	GLN	Peptide
48	BR	40	ARG	Sidechain
48	BR	57	ARG	Sidechain
48	BR	8	PHE	Sidechain
48	BR	87	PHE	Sidechain
60	BS	131	ARG	Sidechain
60	BS	133	PHE	Sidechain
60	BS	16	ARG	Sidechain
60	BS	50	TYR	Sidechain
60	BS	72	HIS	Sidechain
60	BS	82	ARG	Sidechain
60	BS	9	PHE	Sidechain
42	BT	4	TYR	Sidechain
42	BT	74	TYR	Sidechain
42	BT	86	PHE	Sidechain

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Mol	Chain	Res	Type	Group
37	BU	14	PHE	Sidechain
37	BU	3	ILE	Peptide
37	BU	73	ARG	Sidechain
50	BV	14	PHE	Sidechain
50	BV	48	ARG	Sidechain
50	BV	56	TYR	Sidechain
50	BV	9	TYR	Sidechain
44	BW	48	ARG	Sidechain
44	BW	53	ARG	Sidechain
31	BY	110	LEU	Peptide
31	BY	120	HIS	Sidechain
31	BY	29	HIS	Sidechain,Peptide
31	BY	53	TYR	Sidechain
31	BY	71	ARG	Sidechain
31	BY	73	ARG	Sidechain
57	BZ	51	TYR	Sidechain
41	Ba	24	ARG	Sidechain,Peptide
41	Ba	34	PHE	Sidechain
41	Ba	7	GLU	Peptide
41	Ba	79	GLU	Peptide
41	Ba	84	GLU	Peptide
41	Ba	85	GLU	Peptide
38	Bb	111	ARG	Sidechain
38	Bb	117	ARG	Sidechain
38	Bb	126	LEU	Peptide
38	Bb	128	PRO	Peptide
38	Bb	31	TYR	Sidechain
38	Bb	34	PHE	Sidechain,Peptide
38	Bb	35	LYS	Peptide
38	Bb	38	PRO	Peptide
38	Bb	74	LEU	Peptide
64	Bc	10	TYR	Sidechain
64	Bc	15	GLU	Mainchain
64	Bc	18	HIS	Sidechain
64	Bc	32	ARG	Sidechain
64	Bc	50	GLY	Peptide
64	Bc	51	LYS	Peptide
64	Bc	68	ARG	Sidechain
61	Bd	30	LYS	Peptide
61	Bd	38	MET	Peptide
61	Bd	5	TYR	Sidechain
61	Bd	55	ARG	Sidechain

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Mol	Chain	Res	Type	Group
61	Bd	6	ARG	Sidechain
61	Bd	66	ARG	Sidechain
61	Bd	8	ARG	Sidechain
39	Be	1	MET	Peptide
39	Be	11	ARG	Sidechain
39	Be	25	ARG	Sidechain
39	Be	34	TYR	Sidechain
39	Be	42	ARG	Sidechain
39	Be	44	ARG	Sidechain
39	Be	47	ARG	Sidechain
39	Be	49	TYR	Sidechain
39	Be	50	ARG	Sidechain
39	Be	51	TRP	Peptide
39	Be	52	SER	Peptide
39	Be	8	PHE	Peptide
36	Bf	12	ARG	Sidechain
36	Bf	2	ALA	Peptide
36	Bf	22	ARG	Sidechain
36	Bf	3	ARG	Sidechain,Peptide
36	Bf	33	ARG	Sidechain,Peptide
36	Bf	34	ARG	Sidechain
36	Bf	37	THR	Peptide
36	Bf	38	HIS	Sidechain,Peptide
36	Bf	48	LYS	Peptide
36	Bf	49	LEU	Peptide
63	Bg	10	ARG	Sidechain
63	Bg	12	PHE	Sidechain
63	Bg	4	PHE	Peptide
63	Bg	41	PRO	Peptide
45	Bi	16	ARG	Sidechain
45	Bi	17	TYR	Sidechain
45	Bi	68	TYR	Sidechain
45	Bi	80	ARG	Sidechain
51	Bj	13	PHE	Sidechain
51	Bj	28	ARG	Sidechain
51	Bj	30	ARG	Sidechain,Peptide
51	Bj	38	ARG	Sidechain
51	Bj	39	ARG	Sidechain
51	Bj	42	ARG	Sidechain
51	Bj	47	TYR	Sidechain
51	Bj	50	PHE	Sidechain
51	Bj	52	ARG	Peptide

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Mol	Chain	Res	Type	Group
51	Bj	54	LYS	Peptide
51	Bj	55	PRO	Peptide
51	Bj	57	GLY	Peptide
51	Bj	58	ARG	Peptide
51	Bj	62	VAL	Peptide
51	Bj	63	LYS	Peptide
51	Bj	82	ARG	Sidechain
51	Bj	84	PHE	Sidechain
43	Bk	107	ARG	Sidechain,Peptide
43	Bk	109	PRO	Peptide
43	Bk	187	VAL	Peptide
43	Bk	213	TYR	Sidechain
43	Bk	33	MET	Peptide
43	Bk	36	TYR	Sidechain
43	Bk	42	ARG	Sidechain
43	Bk	54	VAL	Peptide
43	Bk	70	GLU	Peptide
66	Bl	25	TYR	Sidechain
66	Bl	38	TYR	Sidechain
66	Bl	71	ARG	Sidechain

5.2 Too-close contacts

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	AQ	1310	0	1392	9	0
2	AK	1072	0	1128	101	0
3	AI	1028	0	1065	121	0
4	AG	984	0	1043	184	0
5	AW	478	0	524	18	0
6	AC	1459	0	1549	18	0
7	AB	1623	0	1685	18	0
8	AR	934	0	959	25	0
9	A9	286	0	62	4	0
10	AD	1434	0	1498	44	0
11	A1	1649	0	838	23	0
12	AN	1140	0	1235	118	0
13	AX	568	0	600	40	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
14	AM	1004	0	1041	16	0
15	AE	1976	0	2046	29	0
16	AJ	1004	0	1088	6	0
17	AO	1189	0	1248	3	0
18	AF	1716	0	1768	368	0
19	AS	556	0	604	0	0
20	A3	939	0	994	3	0
20	B4	939	0	994	13	0
20	BG	939	0	994	71	0
21	A2	32135	0	16230	1056	0
22	AY	409	0	410	2	0
23	AT	923	0	986	1	0
24	AA	1559	0	1648	3	0
25	AH	1736	0	1787	363	0
26	AP	462	0	492	43	0
27	A0	1625	0	824	12	0
28	AV	823	0	847	78	0
28	B6	782	0	806	8	0
29	AL	822	0	870	74	0
30	AU	1175	0	1216	37	0
31	BY	1243	0	1326	111	0
32	BO	1597	0	1639	11	0
33	BC	2912	0	3073	37	0
34	B5	614	0	670	128	0
34	BK	614	0	670	2	0
35	BL	1154	0	1218	272	0
36	Bf	445	0	510	155	0
37	BU	1008	0	1077	8	0
38	Bb	1074	0	1167	157	0
39	Be	506	0	528	205	0
40	BE	1489	0	1550	9	0
41	Ba	746	0	808	86	0
42	BT	680	0	739	0	0
43	Bk	1632	0	1725	59	0
44	BW	594	0	665	1	0
45	Bi	590	0	631	107	0
46	BA	1677	0	1796	7	0
47	BI	1150	0	1240	19	0
48	BR	787	0	827	90	0
49	BQ	1256	0	1389	84	0
50	BV	555	0	548	66	0
51	Bj	787	0	837	194	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
52	BB	1838	0	1914	67	0
53	BD	2026	0	2134	48	0
54	BF	1476	0	1518	32	0
55	Bh	230	0	269	73	0
56	BH	988	0	1077	84	0
57	BZ	754	0	804	60	0
58	BP	966	0	1019	10	0
59	BM	1595	0	1695	72	0
60	BS	1200	0	1255	4	0
61	Bd	740	0	806	166	0
62	BN	1378	0	1405	4	0
63	Bg	371	0	395	76	0
64	Bc	685	0	743	84	0
65	BJ	1014	0	1073	36	0
66	Bl	659	0	699	5	0
67	B1	65577	0	33094	2123	0
68	B3	2694	0	1371	60	0
All	All	173979	0	126375	4935	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 17.

All (4935) 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)
36:Bf:30:LYS:HE2	67:B1:92:G:C6	1.28	1.68
64:Bc:14:LYS:HD3	67:B1:1142:A:C2	1.17	1.64
21:A2:340:A:C2'	21:A2:340:A:C1'	1.74	1.63
67:B1:404:G:C1'	67:B1:404:G:C2'	1.76	1.62
36:Bf:30:LYS:HG2	67:B1:92:G:C8	1.17	1.61
68:B3:35:A:C1'	68:B3:35:A:C2'	1.78	1.61
67:B1:2554:A:C1'	67:B1:2554:A:C2'	1.79	1.61
21:A2:1458:A:C2'	21:A2:1458:A:C1'	1.74	1.61
67:B1:1575:G:C1'	67:B1:1575:G:C2'	1.76	1.60
45:Bi:68:TYR:CE2	52:BB:170:LYS:HD3	1.28	1.59
33:BC:108:ASN:CB	33:BC:172:TRP:CH2	1.77	1.59
67:B1:2144:U:C1'	67:B1:2144:U:C2'	1.75	1.58
39:Be:53:LYS:CD	67:B1:506:G:H5'	1.31	1.58
36:Bf:30:LYS:CG	67:B1:92:G:C8	1.81	1.58
2:AK:50:ILE:HD11	25:AH:13:HIS:CE1	1.37	1.57
2:AK:46:LEU:HD21	25:AH:13:HIS:CG	1.32	1.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:1037:C:C1'	67:B1:1037:C:C2'	1.80	1.57
34:B5:13:ILE:CG1	61:Bd:80:MET:HG3	1.35	1.56
25:AH:3:LYS:HD2	30:AU:143:ILE:CG1	1.09	1.56
38:Bb:77:SER:HB3	67:B1:585:G:C5'	1.10	1.56
67:B1:2702:A:C1'	67:B1:2702:A:C2'	1.76	1.56
7:AB:104:PRO:CG	18:AF:19:LYS:HE2	1.18	1.56
25:AH:3:LYS:CD	30:AU:143:ILE:HG12	1.29	1.56
67:B1:2115:U:C2'	67:B1:2115:U:C1'	1.80	1.56
67:B1:1567:C:C4'	67:B1:1567:C:C5'	1.79	1.55
21:A2:1200:U:H5	25:AH:91:ARG:C	1.13	1.55
39:Be:28:TYR:CE2	67:B1:124:C:H5'	1.37	1.55
67:B1:1600:G:C2'	67:B1:1600:G:C1'	1.79	1.55
34:B5:57:PRO:HG2	61:Bd:88:LEU:CD2	1.33	1.55
67:B1:350:A:C1'	67:B1:350:A:C2'	1.77	1.55
21:A2:804:U:C2'	21:A2:804:U:C1'	1.75	1.54
34:B5:13:ILE:CD1	61:Bd:80:MET:HG3	1.35	1.54
67:B1:237:G:C1'	67:B1:237:G:C2'	1.78	1.54
67:B1:2507:C:C2'	67:B1:2507:C:C1'	1.82	1.54
2:AK:46:LEU:HD11	25:AH:13:HIS:CE1	1.37	1.54
38:Bb:77:SER:CB	67:B1:585:G:H5''	1.07	1.54
67:B1:956:U:C1'	67:B1:956:U:C2'	1.81	1.54
67:B1:1707:A:C1'	67:B1:1707:A:C2'	1.84	1.54
7:AB:104:PRO:HG2	18:AF:19:LYS:CE	1.37	1.53
21:A2:798:U:C1'	21:A2:798:U:C2'	1.78	1.53
21:A2:1475:C:P	55:Bh:4:LYS:HE2	1.49	1.53
39:Be:53:LYS:CG	67:B1:506:G:H5''	1.35	1.53
45:Bi:83:GLU:CD	52:BB:92:ALA:HB2	1.34	1.53
2:AK:102:TYR:CE1	25:AH:42:ARG:HG3	1.43	1.53
34:B5:57:PRO:CG	61:Bd:88:LEU:HD21	1.39	1.51
67:B1:2382:A:C1'	67:B1:2382:A:C2'	1.77	1.51
39:Be:53:LYS:CD	67:B1:506:G:C5'	1.85	1.50
4:AG:103:ARG:NH1	21:A2:329:G:C4'	1.70	1.50
21:A2:8:U:C2'	21:A2:8:U:C1'	1.79	1.50
21:A2:423:U:C2'	21:A2:423:U:C1'	1.75	1.50
67:B1:1678:A:C1'	67:B1:1678:A:C2'	1.76	1.49
39:Be:60:ASN:CB	67:B1:497:G:N7	1.76	1.49
4:AG:77:ASP:CG	21:A2:1403:U:C2	1.90	1.48
2:AK:46:LEU:CD2	25:AH:13:HIS:ND1	1.73	1.47
21:A2:1200:U:C5	25:AH:91:ARG:C	1.88	1.47
51:Bj:49:GLY:CA	67:B1:189:U:H1'	1.43	1.47
67:B1:1045:A:C2'	67:B1:1045:A:C1'	1.89	1.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:562:A:C1'	21:A2:562:A:C2'	1.81	1.46
3:AI:28:LYS:CD	5:AW:4:PRO:HB3	1.40	1.46
2:AK:46:LEU:CG	25:AH:13:HIS:ND1	1.77	1.45
15:AE:55:TYR:CD1	28:AV:9:LYS:NZ	1.82	1.45
21:A2:1200:U:C1'	21:A2:1200:U:C2'	1.82	1.45
47:BI:89:ARG:NH1	64:Bc:80:LEU:HD13	1.21	1.45
26:AP:56:GLU:HG2	29:AL:63:ARG:CB	1.45	1.45
26:AP:56:GLU:HB3	29:AL:63:ARG:CD	1.43	1.45
67:B1:565:A:C2'	67:B1:565:A:C1'	1.81	1.45
67:B1:1179:G:C2'	67:B1:1179:G:C1'	1.79	1.44
21:A2:85:A:C1'	21:A2:85:A:C2'	1.91	1.44
21:A2:382:G:C1'	21:A2:382:G:C2'	1.78	1.44
31:BY:155:LEU:CD1	67:B1:602:G:OP1	1.64	1.44
67:B1:1569:A:C5'	67:B1:1569:A:O5'	1.66	1.43
21:A2:966:G:C2'	21:A2:966:G:C1'	1.75	1.43
2:AK:50:ILE:HD11	25:AH:13:HIS:NE2	1.12	1.42
3:AI:97:PHE:HE1	18:AF:131:TRP:NE1	0.96	1.42
67:B1:1568:A:O5'	67:B1:1568:A:C5'	1.67	1.42
67:B1:1569:A:C2'	67:B1:1569:A:O2'	1.66	1.42
39:Be:60:ASN:HB3	67:B1:497:G:N7	1.31	1.42
45:Bi:83:GLU:OE2	52:BB:92:ALA:CB	1.64	1.42
51:Bj:87:LYS:HG3	67:B1:2398:C:P	1.58	1.42
21:A2:434:A:C1'	21:A2:434:A:C2'	1.90	1.42
21:A2:1360:C:C1'	21:A2:1360:C:O4'	1.64	1.42
67:B1:1642:G:C1'	67:B1:1642:G:C2'	1.91	1.42
38:Bb:109:LYS:NZ	67:B1:1353:A:C8	1.76	1.41
39:Be:53:LYS:NZ	67:B1:506:G:H4'	1.35	1.41
56:BH:128:GLY:HA3	67:B1:1198:G:N2	1.24	1.41
12:AN:135:LYS:NZ	21:A2:29:G:H1'	1.11	1.41
67:B1:1754:A:C1'	67:B1:1754:A:C2'	1.76	1.41
39:Be:28:TYR:HE2	67:B1:124:C:C5'	1.33	1.41
45:Bi:68:TYR:CE2	52:BB:170:LYS:CD	2.00	1.41
36:Bf:30:LYS:CG	67:B1:92:G:N7	1.79	1.40
21:A2:523:C:C1'	21:A2:523:C:O4'	1.63	1.40
21:A2:1465:C:OP1	55:Bh:2:ARG:CB	1.68	1.40
11:A1:1:G:OP2	11:A1:1:G:P	1.00	1.40
20:BG:36:THR:HG22	59:BM:3:MET:SD	1.60	1.40
67:B1:1:G:P	67:B1:1:G:OP2	1.00	1.40
67:B1:1:G:P	67:B1:1:G:OP1	1.00	1.39
68:B3:1:C:P	68:B3:1:C:OP2	1.00	1.39
27:A0:1:G:P	27:A0:1:G:OP2	1.00	1.39

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:A0:1:G:P	27:A0:1:G:OP1	1.00	1.39
67:B1:3024:C:C1'	67:B1:3024:C:O4'	1.65	1.39
8:AR:60:TYR:CE2	12:AN:16:LEU:HD12	1.53	1.39
11:A1:1:G:P	11:A1:1:G:OP1	1.00	1.39
43:Bk:42:ARG:NH2	67:B1:1224:A:N7	1.63	1.39
2:AK:102:TYR:HE1	25:AH:42:ARG:CG	1.34	1.39
21:A2:199:A:C1'	21:A2:199:A:O4'	1.65	1.39
21:A2:1:A:P	21:A2:1:A:OP2	1.00	1.39
68:B3:1:C:P	68:B3:1:C:OP1	1.00	1.39
10:AD:136:ILE:HB	28:AV:60:PHE:CE2	1.57	1.38
21:A2:1122:C:C1'	21:A2:1122:C:O4'	1.64	1.38
25:AH:3:LYS:HE2	30:AU:144:ILE:C	1.48	1.38
64:Bc:14:LYS:CD	67:B1:1142:A:C2	2.04	1.38
21:A2:1200:U:C5	25:AH:91:ARG:O	1.75	1.38
39:Be:14:THR:CG2	67:B1:819:U:O2	1.69	1.38
64:Bc:63:THR:CG2	67:B1:1145:G:OP1	1.70	1.38
4:AG:92:PRO:CG	21:A2:1412:A:O2'	1.72	1.38
64:Bc:14:LYS:HE2	67:B1:1143:A:N6	1.06	1.38
67:B1:186:A:C1'	67:B1:186:A:O4'	1.67	1.38
41:Ba:20:LYS:O	67:B1:1811:G:C1'	1.70	1.37
67:B1:1245:C:C1'	67:B1:1245:C:O4'	1.68	1.38
67:B1:1568:A:C2'	67:B1:1568:A:O2'	1.69	1.38
68:B3:110:C:C1'	68:B3:110:C:O4'	1.68	1.37
39:Be:53:LYS:HG2	67:B1:506:G:C5'	1.49	1.37
67:B1:665:C:C1'	67:B1:665:C:O4'	1.64	1.37
67:B1:874:U:C1'	67:B1:874:U:O4'	1.67	1.37
4:AG:120:ASN:ND2	21:A2:151:G:H1'	1.38	1.36
47:BI:89:ARG:HH11	64:Bc:80:LEU:CD1	1.36	1.36
34:B5:57:PRO:CG	61:Bd:88:LEU:CD2	1.93	1.36
35:BL:44:LYS:N	67:B1:961:C:O2'	1.58	1.36
39:Be:14:THR:HG23	67:B1:819:U:C2	1.60	1.36
67:B1:1273:C:C1'	67:B1:1273:C:O4'	1.63	1.36
25:AH:3:LYS:CE	30:AU:144:ILE:N	1.89	1.36
34:B5:50:ILE:CG1	57:BZ:28:LYS:NZ	1.88	1.36
67:B1:1161:A:C1'	67:B1:1161:A:O4'	1.63	1.36
67:B1:1363:C:C1'	67:B1:1363:C:O4'	1.63	1.36
67:B1:1688:C:O4'	67:B1:1688:C:C1'	1.65	1.35
67:B1:785:C:C1'	67:B1:785:C:O4'	1.63	1.35
67:B1:1234:A:O4'	67:B1:1234:A:C1'	1.67	1.35
2:AK:39:GLU:OE2	25:AH:5:LEU:HG	1.18	1.35
11:A1:25:G:C1'	11:A1:25:G:O4'	1.67	1.35

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:Bi:83:GLU:HG3	52:BB:91:ILE:O	1.21	1.34
67:B1:1988:U:C1'	67:B1:1988:U:O4'	1.64	1.34
33:BC:108:ASN:HB3	33:BC:172:TRP:CH2	0.83	1.34
36:Bf:5:LYS:NZ	67:B1:1454:G:C6	1.95	1.34
68:B3:115:C:C1'	68:B3:115:C:O4'	1.65	1.34
21:A2:1106:A:C1'	21:A2:1106:A:O4'	1.67	1.34
33:BC:108:ASN:CG	33:BC:172:TRP:CZ3	2.06	1.34
39:Be:60:ASN:HB3	67:B1:497:G:C8	1.63	1.34
21:A2:1200:U:C4	25:AH:91:ARG:O	1.81	1.34
67:B1:2265:C:C1'	67:B1:2265:C:O4'	1.64	1.34
67:B1:135:U:O4'	67:B1:135:U:C1'	1.66	1.33
21:A2:1334:A:O2'	25:AH:69:ASN:CG	1.68	1.33
26:AP:56:GLU:CG	29:AL:63:ARG:HB3	1.56	1.33
67:B1:2402:A:C1'	67:B1:2402:A:O4'	1.65	1.33
21:A2:1149:C:C1'	21:A2:1149:C:O4'	1.65	1.33
2:AK:46:LEU:HD21	25:AH:13:HIS:ND1	1.28	1.33
21:A2:146:A:C1'	21:A2:146:A:O4'	1.66	1.33
25:AH:3:LYS:HE3	30:AU:144:ILE:N	1.03	1.33
31:BY:30:ARG:NE	67:B1:1297:C:OP1	1.62	1.33
21:A2:1354:A:C1'	21:A2:1354:A:O4'	1.67	1.32
67:B1:2476:A:C1'	67:B1:2476:A:O4'	1.70	1.32
34:B5:13:ILE:CD1	61:Bd:80:MET:CG	2.07	1.32
50:BV:20:LYS:NZ	65:BJ:88:GLU:CB	1.91	1.32
67:B1:14:A:C1'	67:B1:14:A:O4'	1.67	1.32
67:B1:1568:A:C6	67:B1:1569:A:N6	1.97	1.32
67:B1:2047:U:C1'	67:B1:2047:U:O4'	1.66	1.32
13:AX:71:ARG:NH2	21:A2:1041:C:H5''	1.42	1.32
34:B5:13:ILE:HD11	61:Bd:80:MET:SD	1.67	1.32
38:Bb:33:LYS:CB	67:B1:672:C:OP1	1.78	1.32
43:Bk:42:ARG:NH1	67:B1:1223:A:H5''	1.40	1.32
51:Bj:47:TYR:CE1	59:BM:82:PRO:HG2	1.62	1.32
67:B1:1745:U:C1'	67:B1:1745:U:O4'	1.67	1.32
67:B1:1450:C:C1'	67:B1:1450:C:O4'	1.66	1.32
67:B1:2511:C:C1'	67:B1:2511:C:O4'	1.66	1.32
3:AI:4:LEU:CB	21:A2:540:G:H4'	1.58	1.31
39:Be:53:LYS:CE	67:B1:506:G:H5'	1.57	1.31
67:B1:1574:A:C1'	67:B1:1574:A:O4'	1.67	1.31
67:B1:883:G:C1'	67:B1:883:G:O4'	1.64	1.31
21:A2:1018:C:O4'	21:A2:1018:C:C1'	1.63	1.31
34:B5:52:HIS:NE2	61:Bd:81:LYS:HG3	1.41	1.31
3:AI:4:LEU:HB2	21:A2:540:G:C4'	1.61	1.31

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:1465:C:OP1	55:Bh:2:ARG:HB2	1.14	1.31
67:B1:2642:C:C1'	67:B1:2642:C:O4'	1.65	1.31
15:AE:55:TYR:HD1	28:AV:9:LYS:NZ	1.15	1.31
18:AF:73:ARG:NH1	21:A2:879:U:H5''	1.45	1.31
53:BD:85:PHE:CZ	67:B1:1398:C:O2'	1.82	1.31
67:B1:715:G:C1'	67:B1:715:G:O4'	1.77	1.31
12:AN:135:LYS:NZ	21:A2:29:G:C1'	1.94	1.30
21:A2:686:C:C1'	21:A2:686:C:O4'	1.66	1.30
67:B1:1036:C:C1'	67:B1:1036:C:O4'	1.71	1.30
67:B1:1214:C:C1'	67:B1:1214:C:O4'	1.64	1.30
67:B1:2706:C:C1'	67:B1:2706:C:O4'	1.64	1.30
21:A2:369:A:H4'	21:A2:434:A:N7	1.46	1.30
21:A2:415:C:C1'	21:A2:415:C:O4'	1.64	1.30
21:A2:1254:C:C1'	21:A2:1254:C:O4'	1.65	1.30
41:Ba:20:LYS:HB3	67:B1:1811:G:C8	1.66	1.30
41:Ba:30:ARG:NH1	67:B1:1809:G:OP2	1.65	1.30
67:B1:143:C:C1'	67:B1:143:C:O4'	1.65	1.30
34:B5:50:ILE:HG12	57:BZ:28:LYS:NZ	1.43	1.30
67:B1:2122:G:C1'	67:B1:2122:G:O4'	1.65	1.30
26:AP:56:GLU:CB	29:AL:63:ARG:HD2	1.60	1.30
15:AE:55:TYR:HD1	28:AV:9:LYS:CE	1.44	1.30
21:A2:573:C:C1'	21:A2:573:C:O4'	1.69	1.30
21:A2:1307:G:N2	25:AH:48:HIS:CE1	1.99	1.30
36:Bf:30:LYS:HE2	67:B1:92:G:C5	1.65	1.30
4:AG:97:LYS:CD	21:A2:87:C:OP1	1.80	1.29
67:B1:158:C:C1'	67:B1:158:C:O4'	1.68	1.29
67:B1:1982:C:C1'	67:B1:1982:C:O4'	1.70	1.29
67:B1:2313:G:C1'	67:B1:2313:G:O4'	1.64	1.29
21:A2:1125:C:C1'	21:A2:1125:C:O4'	1.64	1.29
21:A2:1332:C:O2'	25:AH:98:VAL:HG23	1.25	1.29
21:A2:1371:C:C1'	21:A2:1371:C:O4'	1.67	1.29
48:BR:14:LYS:HB2	67:B1:995:G:OP2	1.16	1.29
54:BF:173:TYR:HB3	63:Bg:6:GLU:OE1	1.24	1.29
67:B1:1934:C:C1'	67:B1:1934:C:O4'	1.64	1.29
67:B1:3042:C:C1'	67:B1:3042:C:O4'	1.64	1.29
21:A2:1353:C:C1'	21:A2:1353:C:O4'	1.67	1.29
36:Bf:51:GLU:OE2	67:B1:1454:G:N2	1.63	1.29
21:A2:1144:G:C1'	21:A2:1144:G:O4'	1.71	1.29
21:A2:1466:G:N7	55:Bh:3:TRP:CH2	2.00	1.29
36:Bf:5:LYS:NZ	67:B1:1454:G:C5	1.97	1.29
67:B1:2019:C:C1'	67:B1:2019:C:O4'	1.65	1.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:974:G:C1'	21:A2:974:G:O4'	1.66	1.29
21:A2:1322:C:C1'	21:A2:1322:C:O4'	1.73	1.29
67:B1:927:G:C1'	67:B1:927:G:O4'	1.64	1.29
21:A2:1185:A:C1'	21:A2:1185:A:O4'	1.64	1.28
67:B1:876:C:C1'	67:B1:876:C:O4'	1.68	1.28
67:B1:884:C:C1'	67:B1:884:C:O4'	1.69	1.28
21:A2:1167:C:C1'	21:A2:1167:C:O4'	1.64	1.28
67:B1:140:C:C1'	67:B1:140:C:O4'	1.63	1.28
68:B3:41:A:C1'	68:B3:41:A:O4'	1.65	1.28
50:BV:25:ASN:N	65:BJ:100:GLU:OE2	1.65	1.28
67:B1:1298:C:O4'	67:B1:1298:C:C1'	1.68	1.28
68:B3:119:C:C1'	68:B3:119:C:O4'	1.66	1.28
21:A2:30:C:O4'	21:A2:30:C:C1'	1.66	1.27
67:B1:2225:C:C1'	67:B1:2225:C:O4'	1.64	1.27
67:B1:2858:C:C1'	67:B1:2858:C:O4'	1.71	1.27
4:AG:86:VAL:CG1	21:A2:1414:G:OP1	1.79	1.27
21:A2:1259:A:C1'	21:A2:1259:A:O4'	1.67	1.27
48:BR:14:LYS:CB	67:B1:995:G:OP2	1.81	1.27
67:B1:1976:C:C1'	67:B1:1976:C:O4'	1.67	1.27
2:AK:50:ILE:CD1	25:AH:13:HIS:CE1	2.18	1.27
21:A2:326:C:C1'	21:A2:326:C:O4'	1.67	1.27
27:A0:62:C:C1'	27:A0:62:C:O4'	1.64	1.27
61:Bd:4:MET:SD	67:B1:1448:G:N2	2.04	1.27
67:B1:2544:C:C1'	67:B1:2544:C:O4'	1.73	1.27
21:A2:295:G:C1'	21:A2:295:G:O4'	1.63	1.27
51:Bj:84:PHE:HE1	67:B1:2500:G:O6	1.13	1.27
4:AG:77:ASP:CG	21:A2:1403:U:O2	1.70	1.27
36:Bf:30:LYS:HG2	67:B1:92:G:N7	1.40	1.27
12:AN:135:LYS:HZ1	21:A2:29:G:C1'	1.48	1.26
21:A2:161:C:C1'	21:A2:161:C:O4'	1.66	1.26
21:A2:1038:C:C1'	21:A2:1038:C:O4'	1.63	1.26
31:BY:75:ILE:HD13	67:B1:1324:G:OP2	1.32	1.26
49:BQ:76:ARG:NH1	67:B1:1884:C:H5	1.32	1.26
36:Bf:43:TYR:OH	67:B1:1476:C:C5'	1.82	1.26
67:B1:2807:C:C1'	67:B1:2807:C:O4'	1.65	1.26
67:B1:2897:C:C1'	67:B1:2897:C:O4'	1.74	1.26
36:Bf:49:LEU:CD1	67:B1:1454:G:OP2	1.83	1.26
67:B1:1920:A:C1'	67:B1:1920:A:O4'	1.68	1.26
64:Bc:14:LYS:CE	67:B1:1143:A:N6	1.97	1.26
67:B1:370:A:C1'	67:B1:370:A:O4'	1.70	1.26
21:A2:553:C:C1'	21:A2:553:C:O4'	1.73	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:2201:C:C1'	67:B1:2201:C:O4'	1.64	1.26
67:B1:2284:C:C1'	67:B1:2284:C:O4'	1.68	1.26
67:B1:2890:A:O4'	67:B1:2890:A:C1'	1.69	1.26
21:A2:633:C:C1'	21:A2:633:C:O4'	1.66	1.25
36:Bf:30:LYS:HE2	67:B1:92:G:O6	1.31	1.25
67:B1:610:C:C1'	67:B1:610:C:O4'	1.68	1.25
67:B1:2169:C:C1'	67:B1:2169:C:O4'	1.68	1.25
33:BC:108:ASN:OD1	33:BC:172:TRP:CZ3	1.88	1.25
45:Bi:68:TYR:CE2	52:BB:170:LYS:HB3	1.71	1.25
67:B1:1278:C:C1'	67:B1:1278:C:O4'	1.67	1.25
67:B1:2545:A:O4'	67:B1:2545:A:C1'	1.65	1.25
13:AX:23:ASP:HA	21:A2:1338:C:O2	1.14	1.25
45:Bi:68:TYR:OH	52:BB:170:LYS:HD2	1.27	1.25
25:AH:3:LYS:CD	30:AU:143:ILE:CG1	1.94	1.25
67:B1:44:C:C1'	67:B1:44:C:O4'	1.70	1.25
67:B1:248:C:C1'	67:B1:248:C:O4'	1.68	1.25
67:B1:392:G:C1'	67:B1:392:G:O4'	1.64	1.25
67:B1:849:C:C1'	67:B1:849:C:O4'	1.64	1.25
67:B1:976:C:C1'	67:B1:976:C:O4'	1.66	1.25
67:B1:1029:C:C1'	67:B1:1029:C:O4'	1.72	1.25
67:B1:2319:C:C1'	67:B1:2319:C:O4'	1.72	1.25
21:A2:1329:C:C1'	21:A2:1329:C:O4'	1.73	1.25
36:Bf:22:ARG:NH2	67:B1:1477:C:O3'	1.68	1.25
67:B1:2647:G:C1'	67:B1:2647:G:O4'	1.64	1.25
21:A2:1155:U:C1'	21:A2:1155:U:O4'	1.67	1.25
67:B1:1794:C:C1'	67:B1:1794:C:O4'	1.66	1.25
18:AF:73:ARG:NH1	21:A2:1034:G:OP1	1.70	1.24
21:A2:434:A:C4	28:AV:85:TYR:HD1	1.53	1.24
21:A2:1179:C:C1'	21:A2:1179:C:O4'	1.68	1.24
21:A2:1200:U:OP1	25:AH:179:SER:CA	1.83	1.24
67:B1:2433:U:C1'	67:B1:2433:U:O4'	1.64	1.24
51:Bj:87:LYS:HG3	67:B1:2398:C:OP1	1.31	1.24
67:B1:374:C:C1'	67:B1:374:C:O4'	1.66	1.24
21:A2:1080:C:C1'	21:A2:1080:C:O4'	1.65	1.24
36:Bf:30:LYS:CE	67:B1:92:G:C6	2.21	1.24
4:AG:120:ASN:OD1	21:A2:151:G:O4'	1.52	1.24
13:AX:71:ARG:CZ	21:A2:1041:C:H5''	1.67	1.24
21:A2:1217:C:C1'	21:A2:1217:C:O4'	1.67	1.24
51:Bj:87:LYS:CG	67:B1:2398:C:OP1	1.86	1.24
67:B1:898:G:C1'	67:B1:898:G:O4'	1.67	1.24
18:AF:73:ARG:NH1	21:A2:879:U:C5'	2.00	1.24

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:1253:G:OP1	25:AH:1:MET:HB3	1.38	1.24
7:AB:104:PRO:CG	18:AF:19:LYS:CE	2.01	1.23
33:BC:108:ASN:OD1	33:BC:172:TRP:CE3	1.90	1.23
64:Bc:14:LYS:CE	67:B1:1143:A:H61	1.50	1.23
21:A2:362:C:C1'	21:A2:362:C:O4'	1.64	1.23
54:BF:166:ARG:NH2	63:Bg:45:GLU:HG2	1.53	1.23
64:Bc:14:LYS:HD3	67:B1:1142:A:N1	1.49	1.23
2:AK:46:LEU:CD1	25:AH:13:HIS:CE1	2.21	1.23
2:AK:102:TYR:CE1	25:AH:42:ARG:CG	2.14	1.23
27:A0:41:C:C1'	27:A0:41:C:O4'	1.66	1.23
36:Bf:49:LEU:HD11	67:B1:1454:G:OP2	1.24	1.23
51:Bj:84:PHE:CE1	67:B1:2500:G:O6	1.91	1.23
67:B1:2819:C:C1'	67:B1:2819:C:O4'	1.66	1.23
2:AK:46:LEU:CD2	25:AH:13:HIS:CG	2.14	1.23
4:AG:103:ARG:NH1	21:A2:329:G:H4'	0.91	1.23
21:A2:218:C:C1'	21:A2:218:C:O4'	1.66	1.23
34:B5:3:ALA:N	57:BZ:27:ALA:O	1.72	1.23
34:B5:54:GLU:OE2	61:Bd:84:ILE:HG21	1.33	1.23
35:BL:131:PRO:HD2	67:B1:732:G:OP1	1.39	1.23
38:Bb:76:PRO:HG2	67:B1:584:G:O2'	1.31	1.23
21:A2:1082:A:C1'	21:A2:1082:A:O4'	1.67	1.23
39:Be:23:CYS:O	67:B1:55:G:C4'	1.87	1.23
51:Bj:33:LEU:CD1	67:B1:2514:C:OP1	1.86	1.23
63:Bg:44:LYS:NZ	67:B1:2644:G:OP1	1.70	1.23
67:B1:688:G:O4'	67:B1:688:G:C1'	1.64	1.23
67:B1:1559:A:C1'	67:B1:1559:A:O4'	1.63	1.23
11:A1:57:C:C1'	11:A1:57:C:O4'	1.63	1.22
12:AN:111:PRO:CG	21:A2:507:G:OP1	1.86	1.22
21:A2:357:C:C1'	21:A2:357:C:O4'	1.70	1.22
34:B5:13:ILE:CD1	61:Bd:80:MET:HE2	1.69	1.22
63:Bg:44:LYS:CE	67:B1:2644:G:OP1	1.87	1.22
67:B1:2671:C:C1'	67:B1:2671:C:O4'	1.71	1.22
67:B1:817:G:C1'	67:B1:817:G:O4'	1.68	1.22
67:B1:1039:C:C1'	67:B1:1039:C:O4'	1.68	1.22
68:B3:57:C:C1'	68:B3:57:C:O4'	1.66	1.22
15:AE:64:LYS:NZ	28:AV:81:ILE:HB	1.51	1.22
67:B1:92:G:C1'	67:B1:92:G:O4'	1.64	1.22
21:A2:1072:C:C1'	21:A2:1072:C:O4'	1.65	1.22
36:Bf:30:LYS:CE	67:B1:92:G:C5	2.23	1.22
67:B1:2146:C:C1'	67:B1:2146:C:O4'	1.66	1.22
4:AG:86:VAL:HG11	21:A2:1414:G:P	1.80	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AF:82:ARG:NH2	21:A2:1023:C:OP1	1.73	1.22
21:A2:475:C:C1'	21:A2:475:C:O4'	1.65	1.22
38:Bb:11:ARG:CZ	67:B1:1302:G:H5''	1.70	1.22
64:Bc:14:LYS:HG2	67:B1:1142:A:C4	1.74	1.22
67:B1:1619:C:C1'	67:B1:1619:C:O4'	1.65	1.22
67:B1:2231:G:O4'	67:B1:2231:G:C1'	1.66	1.22
21:A2:64:G:C1'	21:A2:64:G:O4'	1.69	1.21
21:A2:205:C:C1'	21:A2:205:C:O4'	1.66	1.21
21:A2:788:C:C1'	21:A2:788:C:O4'	1.64	1.21
21:A2:803:C:C1'	21:A2:803:C:O4'	1.66	1.21
67:B1:318:G:C1'	67:B1:318:G:O4'	1.63	1.21
67:B1:1566:G:C1'	67:B1:1566:G:O4'	1.84	1.21
39:Be:53:LYS:HZ2	67:B1:506:G:C4'	1.52	1.21
67:B1:1243:C:C1'	67:B1:1243:C:O4'	1.69	1.21
67:B1:1568:A:C2	67:B1:1569:A:N1	2.08	1.21
47:BI:89:ARG:NH1	64:Bc:80:LEU:CD1	1.96	1.21
48:BR:82:LYS:CE	67:B1:2473:C:OP1	1.87	1.21
67:B1:1162:C:C1'	67:B1:1162:C:O4'	1.65	1.21
67:B1:1406:G:C1'	67:B1:1406:G:O4'	1.63	1.21
67:B1:1504:C:C1'	67:B1:1504:C:O4'	1.69	1.21
12:AN:111:PRO:HG3	21:A2:507:G:P	1.80	1.21
21:A2:138:C:O4'	21:A2:138:C:C1'	1.64	1.21
21:A2:409:C:C1'	21:A2:409:C:O4'	1.63	1.21
38:Bb:109:LYS:HG3	67:B1:1353:A:O2'	1.34	1.21
48:BR:50:HIS:CD2	67:B1:2450:A:N1	2.07	1.21
61:Bd:59:LYS:CD	67:B1:1575:G:H1	1.54	1.21
67:B1:274:C:C1'	67:B1:274:C:O4'	1.66	1.21
67:B1:1186:G:C1'	67:B1:1186:G:O4'	1.63	1.21
67:B1:412:G:C1'	67:B1:412:G:O4'	1.74	1.21
67:B1:2427:C:C1'	67:B1:2427:C:O4'	1.66	1.21
21:A2:797:U:C1'	21:A2:797:U:O4'	1.65	1.20
35:BL:15:HIS:HB3	67:B1:946:U:OP1	1.37	1.20
35:BL:26:ARG:HD3	67:B1:941:C:C5	1.76	1.20
54:BF:166:ARG:NH1	63:Bg:45:GLU:HB2	1.53	1.20
63:Bg:18:LEU:HD11	67:B1:2592:U:C2	1.74	1.20
2:AK:50:ILE:CD1	25:AH:13:HIS:NE2	2.03	1.20
21:A2:1465:C:OP1	55:Bh:2:ARG:CG	1.88	1.20
67:B1:719:C:C1'	67:B1:719:C:O4'	1.71	1.20
67:B1:2489:C:C1'	67:B1:2489:C:O4'	1.70	1.20
67:B1:2617:G:C1'	67:B1:2617:G:O4'	1.63	1.20
20:BG:3:LYS:CG	20:BG:55:GLU:O	1.90	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:2088:G:O4'	67:B1:2088:G:C1'	1.78	1.20
67:B1:2598:C:O4'	67:B1:2598:C:C1'	1.66	1.20
34:B5:57:PRO:CD	61:Bd:88:LEU:HD21	1.70	1.20
31:BY:130:LYS:CE	67:B1:1122:C:H5''	1.72	1.20
41:Ba:41:ARG:NH2	67:B1:3029:A:H1'	1.54	1.20
63:Bg:18:LEU:HD11	67:B1:2592:U:N3	1.54	1.20
67:B1:1909:C:C1'	67:B1:1909:C:O4'	1.64	1.20
67:B1:2098:C:C1'	67:B1:2098:C:O4'	1.65	1.20
68:B3:27:C:C1'	68:B3:27:C:O4'	1.65	1.20
51:Bj:1:MET:SD	67:B1:2399:C:O5'	1.98	1.19
67:B1:2507:C:C1'	67:B1:2507:C:O4'	1.91	1.19
10:AD:93:LEU:HB3	18:AF:161:ARG:O	1.43	1.19
13:AX:20:THR:O	21:A2:1341:C:C6	1.96	1.19
21:A2:1200:U:OP1	25:AH:179:SER:HA	1.04	1.19
67:B1:685:G:C1'	67:B1:685:G:O4'	1.68	1.19
67:B1:2920:C:C1'	67:B1:2920:C:O4'	1.73	1.19
26:AP:56:GLU:CB	29:AL:63:ARG:CD	2.18	1.19
36:Bf:1:MET:N	67:B1:1450:C:H5''	1.55	1.19
36:Bf:43:TYR:OH	67:B1:1476:C:H5''	1.01	1.19
67:B1:1787:U:C1'	67:B1:1787:U:O4'	1.65	1.19
2:AK:50:ILE:HD11	25:AH:13:HIS:CD2	1.75	1.19
3:AI:96:ALA:HB3	18:AF:143:PHE:CZ	1.77	1.19
11:A1:26:C:C1'	11:A1:26:C:O4'	1.64	1.19
35:BL:58:LEU:O	67:B1:2510:A:O2'	1.59	1.19
67:B1:1610:C:C1'	67:B1:1610:C:O4'	1.67	1.19
12:AN:3:GLY:N	21:A2:836:G:N7	1.90	1.19
21:A2:369:A:H4'	21:A2:434:A:C5	1.78	1.19
21:A2:689:C:C1'	21:A2:689:C:O4'	1.74	1.19
38:Bb:77:SER:CA	67:B1:585:G:H5''	1.73	1.19
67:B1:2636:C:C1'	67:B1:2636:C:O4'	1.72	1.19
68:B3:120:C:C1'	68:B3:120:C:O4'	1.65	1.19
12:AN:51:ARG:N	21:A2:359:A:OP1	1.76	1.18
67:B1:297:G:O4'	67:B1:297:G:C1'	1.70	1.18
67:B1:2869:U:C1'	67:B1:2869:U:O4'	1.66	1.18
39:Be:59:LYS:CE	53:BD:55:ARG:NH2	2.06	1.18
20:BG:5:SER:OG	59:BM:22:LEU:HD21	1.43	1.18
54:BF:166:ARG:CZ	63:Bg:45:GLU:HB3	1.74	1.18
67:B1:1567:C:C1'	67:B1:1567:C:O4'	1.84	1.18
21:A2:260:C:C1'	21:A2:260:C:O4'	1.70	1.18
21:A2:1200:U:C5	25:AH:91:ARG:CA	2.26	1.18
56:BH:124:LYS:HB3	67:B1:1219:C:O2'	1.44	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:Bc:14:LYS:CD	67:B1:1142:A:N1	2.02	1.18
21:A2:751:C:C1'	21:A2:751:C:O4'	1.65	1.18
21:A2:857:C:C1'	21:A2:857:C:O4'	1.72	1.18
51:Bj:7:ILE:CD1	67:B1:2458:U:O2'	1.90	1.18
21:A2:72:C:C1'	21:A2:72:C:O4'	1.69	1.18
25:AH:3:LYS:CE	30:AU:144:ILE:C	2.17	1.18
35:BL:113:LEU:HD11	67:B1:732:G:C4	1.79	1.18
39:Be:53:LYS:CG	67:B1:506:G:C5'	1.99	1.18
43:Bk:42:ARG:HH11	67:B1:1223:A:C5'	1.57	1.18
48:BR:50:HIS:NE2	67:B1:2450:A:C2	2.12	1.18
67:B1:1152:C:C1'	67:B1:1152:C:O4'	1.68	1.18
67:B1:1673:C:C1'	67:B1:1673:C:O4'	1.76	1.18
3:Al:96:ALA:CB	18:AF:143:PHE:CE2	2.27	1.17
21:A2:17:C:C1'	21:A2:17:C:O4'	1.66	1.17
21:A2:1307:G:N1	25:AH:48:HIS:CD2	2.10	1.17
34:B5:50:ILE:CD1	57:BZ:28:LYS:HZ1	1.57	1.17
48:BR:59:HIS:HE1	67:B1:993:G:O3'	1.21	1.17
50:BV:22:TYR:OH	65:BJ:100:GLU:CG	1.90	1.17
67:B1:957:C:C1'	67:B1:957:C:O4'	1.63	1.17
67:B1:2337:G:C1'	67:B1:2337:G:O4'	1.67	1.17
35:BL:34:ARG:NH2	67:B1:939:A:OP1	1.78	1.17
36:Bf:30:LYS:CE	67:B1:92:G:N7	2.07	1.17
45:Bi:68:TYR:CZ	52:BB:170:LYS:CD	2.27	1.17
67:B1:2189:C:C1'	67:B1:2189:C:O4'	1.68	1.17
4:AG:77:ASP:OD2	21:A2:1403:U:C2	1.98	1.17
21:A2:807:C:O4'	21:A2:807:C:C1'	1.68	1.17
34:B5:13:ILE:HG12	61:Bd:80:MET:CG	1.72	1.17
45:Bi:67:ALA:HB1	52:BB:170:LYS:NZ	1.59	1.17
67:B1:325:G:C1'	67:B1:325:G:O4'	1.73	1.17
68:B3:43:C:C1'	68:B3:43:C:O4'	1.70	1.17
61:Bd:4:MET:HG2	67:B1:1779:C:O2	1.43	1.17
67:B1:2884:C:C1'	67:B1:2884:C:O4'	1.70	1.17
21:A2:1307:G:H1	25:AH:48:HIS:CD2	1.62	1.17
26:AP:56:GLU:CA	29:AL:63:ARG:HD3	1.75	1.17
38:Bb:33:LYS:HB2	67:B1:672:C:P	1.85	1.17
20:BG:36:THR:CG2	59:BM:3:MET:SD	2.32	1.17
67:B1:775:C:C1'	67:B1:775:C:O4'	1.69	1.17
67:B1:1586:G:C1'	67:B1:1586:G:O4'	1.65	1.17
41:Ba:19:LYS:NZ	67:B1:2806:A:H4'	1.60	1.16
48:BR:48:SER:OG	67:B1:2446:C:OP1	1.58	1.16
51:Bj:7:ILE:HD11	67:B1:2458:U:O2'	1.00	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:614:G:C1'	67:B1:614:G:O4'	1.71	1.16
3:AI:57:ARG:HE	21:A2:607:U:H4'	1.08	1.16
21:A2:1200:U:N3	25:AH:180:PHE:HB2	1.58	1.16
41:Ba:21:ILE:HG13	67:B1:1811:G:N2	1.60	1.16
54:BF:166:ARG:CZ	63:Bg:45:GLU:CB	2.21	1.16
67:B1:2260:C:C1'	67:B1:2260:C:O4'	1.66	1.16
67:B1:2590:C:C1'	67:B1:2590:C:O4'	1.64	1.16
4:AG:77:ASP:OD2	21:A2:1403:U:N3	1.75	1.16
12:AN:5:LYS:CE	21:A2:838:C:C5	2.27	1.16
3:AI:96:ALA:HB2	18:AF:143:PHE:CE2	1.80	1.16
4:AG:102:ARG:CZ	21:A2:317:A:O2'	1.94	1.16
18:AF:84:ARG:CZ	21:A2:1032:A:OP1	1.87	1.16
18:AF:86:LEU:HG	18:AF:100:ILE:HG22	1.28	1.16
36:Bf:18:LYS:NZ	67:B1:64:A:OP2	1.78	1.16
36:Bf:26:TRP:CZ2	67:B1:62:C:C2	2.33	1.16
51:Bj:33:LEU:HD12	67:B1:2514:C:OP1	1.44	1.16
21:A2:1053:A:C1'	21:A2:1053:A:O4'	1.71	1.16
31:BY:130:LYS:NZ	67:B1:1122:C:OP1	1.79	1.16
33:BC:108:ASN:HB3	33:BC:172:TRP:CZ2	1.79	1.16
67:B1:2134:G:C1'	67:B1:2134:G:O4'	1.63	1.16
21:A2:806:G:C1'	21:A2:806:G:O4'	1.74	1.15
21:A2:1307:G:C2	25:AH:48:HIS:CE1	2.34	1.15
21:A2:1313:G:H5'	25:AH:81:VAL:HG21	1.25	1.15
39:Be:60:ASN:CG	67:B1:497:G:N7	2.03	1.15
51:Bj:28:ARG:HH11	67:B1:2515:U:P	1.70	1.15
51:Bj:84:PHE:CZ	67:B1:2399:C:N4	2.15	1.15
67:B1:1395:G:C1'	67:B1:1395:G:O4'	1.66	1.15
67:B1:1570:C:C1'	67:B1:1570:C:O4'	1.90	1.15
2:AK:46:LEU:HG	25:AH:13:HIS:ND1	1.58	1.15
21:A2:455:C:C1'	21:A2:455:C:O4'	1.64	1.15
34:B5:50:ILE:CG1	57:BZ:28:LYS:HZ2	1.51	1.15
20:BG:3:LYS:HG3	20:BG:55:GLU:O	1.01	1.15
3:AI:96:ALA:CB	18:AF:143:PHE:CZ	2.29	1.15
18:AF:84:ARG:NH1	21:A2:1031:G:O3'	1.79	1.15
49:BQ:85:LYS:HE2	67:B1:1844:C:OP1	1.46	1.15
67:B1:745:C:C1'	67:B1:745:C:O4'	1.66	1.15
67:B1:1098:C:C1'	67:B1:1098:C:O4'	1.65	1.15
2:AK:102:TYR:OH	25:AH:42:ARG:HB2	1.42	1.15
3:AI:28:LYS:CE	5:AW:4:PRO:HB3	1.76	1.15
11:A1:61:U:C1'	11:A1:61:U:O4'	1.65	1.15
12:AN:111:PRO:HD3	21:A2:507:G:OP2	1.46	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:434:A:C2	28:AV:84:GLU:HB2	1.81	1.15
34:B5:8:ARG:NH2	57:BZ:55:LEU:CD2	2.10	1.15
34:B5:51:LYS:NZ	67:B1:1568:A:O2'	1.78	1.15
36:Bf:4:ASN:ND2	67:B1:1451:A:OP1	1.78	1.15
36:Bf:30:LYS:CE	67:B1:92:G:O6	1.95	1.15
36:Bf:49:LEU:HD21	67:B1:1454:G:P	1.86	1.15
45:Bi:19:LEU:CD2	67:B1:1853:C:OP2	1.95	1.15
48:BR:14:LYS:HE2	67:B1:995:G:OP1	1.45	1.15
49:BQ:79:GLY:HA3	67:B1:1865:U:O3'	1.47	1.15
2:AK:39:GLU:OE2	25:AH:5:LEU:CG	1.95	1.15
4:AG:92:PRO:HG3	21:A2:1412:A:O2'	0.97	1.15
39:Be:59:LYS:CE	53:BD:55:ARG:HH21	1.57	1.15
56:BH:124:LYS:HE3	67:B1:1220:U:C5'	1.75	1.15
67:B1:1592:U:C1'	67:B1:1592:U:O4'	1.63	1.15
21:A2:1333:G:N7	25:AH:48:HIS:CE1	2.15	1.14
21:A2:1372:C:C1'	21:A2:1372:C:O4'	1.63	1.14
45:Bi:67:ALA:CB	52:BB:170:LYS:NZ	2.09	1.14
21:A2:1190:C:C1'	21:A2:1190:C:O4'	1.64	1.14
50:BV:22:TYR:OH	65:BJ:100:GLU:HG2	0.98	1.14
67:B1:2520:C:C1'	67:B1:2520:C:O4'	1.63	1.14
4:AG:94:PHE:CE1	21:A2:149:U:H5'	1.83	1.14
18:AF:73:ARG:CZ	21:A2:879:U:H4'	1.77	1.14
21:A2:605:C:C1'	21:A2:605:C:O4'	1.67	1.14
21:A2:941:C:C1'	21:A2:941:C:O4'	1.67	1.14
35:BL:132:LYS:NZ	67:B1:733:A:O3'	1.78	1.14
36:Bf:26:TRP:CH2	67:B1:62:C:N3	2.16	1.14
12:AN:111:PRO:HG3	21:A2:507:G:OP1	0.97	1.14
50:BV:20:LYS:NZ	65:BJ:88:GLU:HB3	1.55	1.14
21:A2:1200:U:H5	25:AH:91:ARG:CA	1.58	1.14
27:A0:11:C:O4'	27:A0:11:C:C1'	1.73	1.14
34:B5:52:HIS:HE1	61:Bd:81:LYS:CD	1.61	1.14
4:AG:77:ASP:OD1	21:A2:1403:U:C2	1.98	1.13
8:AR:60:TYR:CE2	12:AN:16:LEU:CD1	2.29	1.13
18:AF:50:ILE:HD12	18:AF:118:LYS:HB3	1.29	1.13
50:BV:20:LYS:HZ1	65:BJ:88:GLU:CB	1.56	1.13
67:B1:1411:G:C1'	67:B1:1411:G:O4'	1.65	1.13
21:A2:965:G:C1'	21:A2:965:G:O4'	1.71	1.13
21:A2:1255:C:C1'	21:A2:1255:C:O4'	1.65	1.13
36:Bf:22:ARG:HH21	67:B1:1478:G:C5'	1.59	1.13
36:Bf:30:LYS:NZ	67:B1:92:G:N7	1.96	1.13
39:Be:60:ASN:ND2	67:B1:497:G:N7	1.96	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:Ba:19:LYS:CE	67:B1:2806:A:H4'	1.77	1.13
51:Bj:87:LYS:CD	67:B1:2398:C:OP1	1.97	1.13
54:BF:173:TYR:CB	63:Bg:6:GLU:OE1	1.96	1.13
55:Bh:20:GLU:O	55:Bh:24:ILE:HG13	1.44	1.13
11:A1:51:G:C1'	11:A1:51:G:O4'	1.63	1.13
35:BL:6:LYS:NZ	67:B1:1339:C:C5	2.17	1.13
35:BL:132:LYS:HD3	67:B1:733:A:H5''	1.28	1.13
21:A2:1200:U:H3	25:AH:180:PHE:HB2	0.96	1.12
33:BC:108:ASN:HB3	33:BC:172:TRP:CZ3	1.83	1.12
36:Bf:32:ASN:ND2	67:B1:520:G:N7	1.97	1.12
45:Bi:43:ARG:HD2	57:BZ:79:VAL:CG1	1.78	1.13
36:Bf:22:ARG:HH21	67:B1:1478:G:H5'	0.97	1.12
43:Bk:42:ARG:NH1	67:B1:1223:A:C5'	2.09	1.12
45:Bi:68:TYR:CZ	52:BB:170:LYS:HD2	1.83	1.12
21:A2:1490:C:C1'	21:A2:1490:C:O4'	1.70	1.12
35:BL:132:LYS:CD	67:B1:733:A:H5''	1.79	1.12
39:Be:23:CYS:O	67:B1:55:G:H4'	0.97	1.12
67:B1:366:G:C1'	67:B1:366:G:O4'	1.71	1.12
67:B1:1229:U:C1'	67:B1:1229:U:O4'	1.63	1.12
4:AG:5:LYS:HG2	21:A2:142:G:H4'	1.17	1.12
21:A2:1282:C:C1'	21:A2:1282:C:O4'	1.70	1.12
31:BY:135:LYS:CE	68:B3:95:G:H5''	1.78	1.12
34:B5:52:HIS:CE1	61:Bd:81:LYS:CG	2.31	1.12
38:Bb:33:LYS:HB2	67:B1:672:C:OP1	0.96	1.12
4:AG:120:ASN:CG	21:A2:151:G:C1'	2.23	1.12
21:A2:440:C:C1'	21:A2:440:C:O4'	1.84	1.12
31:BY:130:LYS:HE2	67:B1:1122:C:C5'	1.79	1.12
35:BL:6:LYS:HA	67:B1:947:C:H41	1.06	1.12
21:A2:705:C:C1'	21:A2:705:C:O4'	1.64	1.11
38:Bb:63:ILE:HD12	67:B1:950:G:H5'	1.30	1.11
48:BR:81:SER:HB3	67:B1:2474:A:OP2	1.48	1.11
54:BF:166:ARG:HD2	63:Bg:46:PRO:HD2	1.12	1.11
67:B1:147:C:C1'	67:B1:147:C:O4'	1.73	1.11
67:B1:1394:G:C1'	67:B1:1394:G:O4'	1.69	1.11
34:B5:13:ILE:HD11	61:Bd:80:MET:CE	1.80	1.11
35:BL:44:LYS:HG2	67:B1:961:C:O4'	1.47	1.11
51:Bj:47:TYR:CE1	59:BM:82:PRO:CG	2.32	1.11
67:B1:1440:C:C1'	67:B1:1440:C:O4'	1.65	1.11
67:B1:2587:G:C1'	67:B1:2587:G:O4'	1.73	1.11
67:B1:1473:C:C1'	67:B1:1473:C:O4'	1.72	1.11
21:A2:434:A:N3	28:AV:84:GLU:HB2	1.64	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:1475:C:OP1	55:Bh:4:LYS:HE2	1.47	1.11
48:BR:4:LYS:HG2	67:B1:2390:G:O6	1.50	1.11
50:BV:20:LYS:HZ3	65:BJ:88:GLU:CB	1.58	1.11
4:AG:65:GLY:HA3	21:A2:151:G:C5'	1.81	1.10
13:AX:70:ARG:NH2	21:A2:1042:U:OP1	1.83	1.10
2:AK:40:ILE:HG22	25:AH:44:LEU:HD11	1.32	1.10
21:A2:1251:C:OP2	25:AH:99:LYS:HD3	1.48	1.10
34:B5:50:ILE:CD1	57:BZ:28:LYS:NZ	2.12	1.10
35:BL:36:MET:HE3	67:B1:241:C:OP2	1.48	1.10
38:Bb:11:ARG:NE	67:B1:1302:G:H5''	1.64	1.10
21:A2:1332:C:O2'	25:AH:98:VAL:CG2	2.00	1.10
34:B5:52:HIS:CE1	61:Bd:81:LYS:HG3	1.85	1.10
35:BL:113:LEU:HD11	67:B1:732:G:C5	1.87	1.10
48:BR:71:GLU:N	67:B1:2484:C:OP1	1.84	1.10
2:AK:46:LEU:CD2	25:AH:13:HIS:HB2	1.80	1.10
35:BL:15:HIS:CB	67:B1:946:U:OP1	1.98	1.10
39:Be:14:THR:HG23	67:B1:819:U:O2	0.92	1.10
41:Ba:19:LYS:HZ1	67:B1:2806:A:H4'	1.13	1.10
51:Bj:52:ARG:HG2	67:B1:2548:A:C2	1.87	1.10
18:AF:213:ILE:HG12	18:AF:215:PRO:HD2	1.22	1.10
21:A2:439:G:C1'	21:A2:439:G:O4'	1.68	1.10
41:Ba:24:ARG:HH21	67:B1:2805:U:C1'	1.62	1.10
41:Ba:24:ARG:HH21	67:B1:2805:U:H1'	1.11	1.10
48:BR:59:HIS:CE1	67:B1:993:G:O3'	2.04	1.10
51:Bj:84:PHE:CD1	67:B1:2460:A:C2	2.40	1.10
21:A2:367:G:C1'	21:A2:367:G:O4'	1.75	1.09
39:Be:17:HIS:CE1	67:B1:504:G:H4'	1.85	1.09
67:B1:2735:C:C1'	67:B1:2735:C:O4'	1.70	1.09
2:AK:46:LEU:CD2	25:AH:13:HIS:CB	2.30	1.09
21:A2:1475:C:OP1	55:Bh:4:LYS:CE	1.99	1.09
36:Bf:30:LYS:HG3	67:B1:92:G:C8	1.75	1.09
18:AF:73:ARG:CZ	21:A2:879:U:C4'	2.29	1.09
34:B5:13:ILE:CD1	61:Bd:80:MET:CE	2.29	1.09
35:BL:26:ARG:NH1	67:B1:941:C:H3'	1.66	1.09
39:Be:53:LYS:NZ	67:B1:506:G:C4'	2.10	1.09
39:Be:59:LYS:NZ	53:BD:55:ARG:NH2	1.99	1.09
45:Bi:22:ARG:NH2	67:B1:1852:U:O3'	1.84	1.09
67:B1:409:C:C1'	67:B1:409:C:O4'	1.69	1.09
13:AX:20:THR:HG23	21:A2:1341:C:H1'	1.15	1.09
3:AI:28:LYS:HD3	5:AW:4:PRO:HB3	1.30	1.09
13:AX:20:THR:HG23	21:A2:1341:C:C1'	1.81	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:1569:A:O2'	67:B1:1638:C:H1'	1.51	1.09
68:B3:1:C:P	68:B3:2:G:C8	2.46	1.09
31:BY:155:LEU:HD12	67:B1:602:G:OP1	0.93	1.08
34:B5:57:PRO:HG2	61:Bd:88:LEU:HD23	1.29	1.08
35:BL:44:LYS:HA	67:B1:961:C:H1'	1.31	1.08
38:Bb:126:LEU:HD22	67:B1:583:A:H5''	1.09	1.08
50:BV:20:LYS:NZ	65:BJ:88:GLU:HB2	1.53	1.08
34:B5:50:ILE:HD13	57:BZ:28:LYS:HZ1	1.12	1.08
48:BR:82:LYS:HE3	67:B1:2473:C:OP1	1.45	1.08
61:Bd:58:PRO:HB2	67:B1:1574:A:N6	1.67	1.08
39:Be:53:LYS:CE	67:B1:506:G:C5'	2.23	1.08
41:Ba:20:LYS:O	67:B1:1811:G:H1'	0.92	1.08
56:BH:128:GLY:CA	67:B1:1198:G:H21	1.65	1.08
61:Bd:13:LYS:HZ1	67:B1:1626:A:H5''	1.16	1.08
4:AG:86:VAL:HG13	21:A2:1414:G:OP1	1.39	1.08
15:AE:64:LYS:HZ2	28:AV:81:ILE:HB	0.95	1.08
49:BQ:82:LYS:HD2	67:B1:1788:G:H4'	1.36	1.08
51:Bj:32:GLU:OE2	67:B1:2005:A:O2'	1.71	1.08
67:B1:3027:C:O4'	67:B1:3027:C:C1'	1.65	1.08
3:AI:28:LYS:CE	21:A2:780:C:OP1	2.01	1.07
4:AG:102:ARG:NH1	21:A2:317:A:O2'	1.87	1.07
67:B1:1568:A:N1	67:B1:1569:A:N1	2.02	1.07
67:B1:2304:C:C1'	67:B1:2304:C:O4'	1.79	1.07
4:AG:120:ASN:CG	21:A2:151:G:O4'	1.95	1.07
51:Bj:44:LEU:HD22	67:B1:423:G:OP2	1.52	1.07
10:AD:136:ILE:CB	28:AV:60:PHE:CE2	2.37	1.07
4:AG:97:LYS:HD2	21:A2:87:C:OP1	0.90	1.07
12:AN:79:LYS:HB2	21:A2:358:G:C5'	1.85	1.07
21:A2:1475:C:OP2	55:Bh:4:LYS:HE2	1.55	1.07
38:Bb:77:SER:CA	67:B1:585:G:C5'	2.32	1.07
61:Bd:58:PRO:HB2	67:B1:1574:A:H61	1.12	1.07
21:A2:1333:G:C8	25:AH:48:HIS:CE1	2.43	1.07
26:AP:56:GLU:CG	29:AL:63:ARG:CB	2.22	1.07
34:B5:8:ARG:NH2	57:BZ:55:LEU:HD23	1.69	1.07
36:Bf:22:ARG:NH2	67:B1:1478:G:H5'	1.68	1.07
38:Bb:72:ARG:HG3	67:B1:1365:G:H5''	1.34	1.07
51:Bj:87:LYS:CE	67:B1:2398:C:OP1	2.02	1.07
4:AG:65:GLY:HA3	21:A2:151:G:H5''	1.23	1.06
34:B5:13:ILE:HG12	61:Bd:80:MET:HG3	1.13	1.06
34:B5:52:HIS:CE1	61:Bd:81:LYS:CD	2.37	1.06
56:BH:128:GLY:CA	67:B1:1198:G:N2	2.17	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AN:51:ARG:H	21:A2:359:A:P	1.78	1.06
34:B5:51:LYS:HE3	67:B1:1568:A:H4'	1.37	1.06
36:Bf:30:LYS:CD	67:B1:92:G:N7	2.18	1.06
43:Bk:42:ARG:NH2	67:B1:1224:A:C5	2.23	1.06
45:Bi:19:LEU:HD21	67:B1:1852:U:H4'	1.12	1.06
50:BV:14:PHE:HZ	65:BJ:95:MET:HE1	1.17	1.06
50:BV:20:LYS:HZ3	65:BJ:88:GLU:HB2	0.92	1.06
39:Be:60:ASN:ND2	67:B1:497:G:C5	2.23	1.06
51:Bj:82:ARG:C	67:B1:2538:G:OP1	1.98	1.06
11:A1:1:G:OP2	11:A1:1:G:OP1	1.73	1.06
27:A0:1:G:OP2	27:A0:1:G:OP1	1.73	1.06
34:B5:4:ILE:HG12	57:BZ:28:LYS:HG2	1.37	1.06
35:BL:113:LEU:CD1	67:B1:732:G:C4	2.39	1.06
45:Bi:43:ARG:HD2	57:BZ:79:VAL:HG11	1.13	1.06
21:A2:434:A:C4	28:AV:85:TYR:CD1	2.42	1.06
39:Be:60:ASN:CB	67:B1:497:G:C8	2.29	1.06
45:Bi:19:LEU:HD21	67:B1:1853:C:OP2	1.55	1.06
45:Bi:83:GLU:CD	52:BB:92:ALA:CB	2.18	1.06
51:Bj:84:PHE:CG	67:B1:2460:A:H2	1.72	1.06
21:A2:1475:C:P	55:Bh:4:LYS:CE	2.44	1.05
31:BY:123:ARG:HD2	67:B1:1132:U:H4'	1.36	1.05
56:BH:124:LYS:HE3	67:B1:1220:U:H5'	1.36	1.05
18:AF:128:CYS:HB2	18:AF:138:PRO:HG3	1.34	1.05
31:BY:130:LYS:HE2	67:B1:1122:C:H5''	1.13	1.05
38:Bb:109:LYS:HG2	67:B1:1353:A:C4	1.91	1.05
39:Be:53:LYS:HD3	67:B1:506:G:H5'	1.08	1.05
49:BQ:23:TRP:CZ2	67:B1:1436:A:OP1	2.10	1.05
50:BV:25:ASN:CA	65:BJ:100:GLU:OE2	2.04	1.05
3:AI:57:ARG:NE	21:A2:607:U:H4'	1.71	1.05
45:Bi:24:ARG:NH2	52:BB:171:PRO:HD3	1.71	1.05
25:AH:3:LYS:HE3	30:AU:143:ILE:C	1.80	1.05
45:Bi:68:TYR:CE2	52:BB:170:LYS:CB	2.39	1.05
20:BG:44:GLU:OE2	59:BM:6:TYR:CE1	2.09	1.05
68:B3:1:C:OP2	68:B3:1:C:OP1	1.73	1.05
25:AH:3:LYS:HD2	30:AU:143:ILE:CD1	1.86	1.05
51:Bj:49:GLY:N	67:B1:189:U:H1'	1.69	1.05
3:AI:28:LYS:CD	5:AW:4:PRO:CB	2.35	1.04
3:AI:28:LYS:HG2	5:AW:4:PRO:HA	1.39	1.04
51:Bj:49:GLY:HA3	67:B1:189:U:O2	1.56	1.04
61:Bd:13:LYS:NZ	67:B1:1626:A:H5''	1.72	1.04
2:AK:46:LEU:CD1	25:AH:13:HIS:ND1	2.19	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:B5:13:ILE:CG1	61:Bd:80:MET:CG	2.25	1.04
35:BL:26:ARG:HH12	67:B1:941:C:H3'	1.14	1.04
36:Bf:1:MET:H1	67:B1:1450:C:C5'	1.68	1.04
63:Bg:44:LYS:HE2	67:B1:2644:G:OP1	1.53	1.04
4:AG:5:LYS:HG2	21:A2:142:G:C4'	1.86	1.04
35:BL:63:PHE:CE1	67:B1:2533:G:H1'	1.93	1.04
39:Be:15:PRO:HA	67:B1:819:U:O4	1.57	1.04
39:Be:53:LYS:HD3	67:B1:506:G:C5'	1.68	1.04
45:Bi:67:ALA:HB1	52:BB:170:LYS:HZ2	0.94	1.04
49:BQ:84:LYS:HA	67:B1:1843:C:OP1	1.56	1.04
67:B1:1:G:OP2	67:B1:1:G:OP1	1.73	1.04
2:AK:46:LEU:HD21	25:AH:13:HIS:CB	1.86	1.04
4:AG:64:ARG:HD2	21:A2:152:G:C4'	1.86	1.04
18:AF:54:LEU:HD13	18:AF:61:GLU:HB3	1.40	1.04
38:Bb:124:LYS:NZ	67:B1:585:G:OP2	1.91	1.04
39:Be:53:LYS:NZ	67:B1:506:G:C5'	2.20	1.04
4:AG:103:ARG:NH1	21:A2:329:G:C3'	2.20	1.04
4:AG:120:ASN:CG	21:A2:151:G:H1'	1.82	1.04
15:AE:55:TYR:CD1	28:AV:9:LYS:CE	2.36	1.04
18:AF:129:GLY:HA2	18:AF:134:ARG:HB3	1.34	1.04
21:A2:1334:A:HO2'	25:AH:69:ASN:CG	1.53	1.04
39:Be:17:HIS:CD2	67:B1:503:U:O2'	2.09	1.04
25:AH:3:LYS:HE3	30:AU:144:ILE:CA	1.86	1.03
39:Be:53:LYS:HB2	67:B1:506:G:OP1	1.57	1.03
50:BV:20:LYS:HZ1	65:BJ:88:GLU:HB3	0.89	1.03
63:Bg:44:LYS:NZ	67:B1:2644:G:P	2.30	1.03
2:AK:102:TYR:CZ	25:AH:42:ARG:NE	2.25	1.03
41:Ba:19:LYS:NZ	67:B1:2806:A:O2'	1.91	1.03
54:BF:166:ARG:NH1	63:Bg:45:GLU:CB	2.19	1.03
3:AI:79:PHE:CE2	8:AR:61:GLU:O	2.11	1.03
38:Bb:109:LYS:NZ	67:B1:1353:A:N7	2.04	1.03
51:Bj:49:GLY:CA	67:B1:189:U:C1'	2.36	1.03
54:BF:169:GLN:NE2	63:Bg:8:GLU:OE2	1.90	1.03
39:Be:59:LYS:HE2	53:BD:55:ARG:NH2	1.68	1.03
4:AG:94:PHE:CE1	21:A2:149:U:C5'	2.41	1.03
35:BL:44:LYS:CA	67:B1:961:C:O2'	2.07	1.03
35:BL:47:TRP:CH2	67:B1:968:A:N3	2.27	1.03
41:Ba:30:ARG:NH1	67:B1:1809:G:P	2.30	1.03
50:BV:25:ASN:HB2	65:BJ:100:GLU:OE2	1.59	1.03
67:B1:1568:A:C2	67:B1:1569:A:C2	2.47	1.03
2:AK:39:GLU:CD	25:AH:5:LEU:CD1	2.32	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AK:102:TYR:OH	25:AH:42:ARG:CB	2.07	1.02
21:A2:1196:A:OP1	25:AH:88:ARG:CZ	2.07	1.02
61:Bd:59:LYS:HD2	67:B1:1575:G:H1	1.21	1.02
10:AD:136:ILE:O	28:AV:60:PHE:CZ	2.12	1.02
21:A2:88:G:C1'	21:A2:88:G:O4'	1.79	1.02
34:B5:13:ILE:HD13	61:Bd:80:MET:HG3	1.38	1.02
34:B5:52:HIS:NE2	61:Bd:81:LYS:CG	2.21	1.02
35:BL:24:LYS:NZ	67:B1:1080:G:H5''	1.73	1.02
39:Be:51:TRP:CG	67:B1:932:C:HO2'	1.77	1.02
55:Bh:19:LYS:O	55:Bh:23:LEU:HG	1.59	1.02
10:AD:136:ILE:O	28:AV:60:PHE:CE2	2.13	1.02
21:A2:370:A:P	21:A2:434:A:H62	1.83	1.02
21:A2:434:A:H2	28:AV:84:GLU:N	1.56	1.02
41:Ba:21:ILE:CG1	67:B1:1811:G:N2	2.21	1.02
3:AI:28:LYS:NZ	21:A2:780:C:OP1	1.92	1.02
18:AF:34:ILE:HG12	18:AF:38:PHE:HE2	1.22	1.02
18:AF:71:THR:HG21	21:A2:1032:A:H5''	1.42	1.02
45:Bi:7:VAL:CG1	67:B1:1854:G:O5'	2.08	1.02
18:AF:84:ARG:NE	21:A2:1032:A:OP1	1.92	1.02
36:Bf:49:LEU:CG	67:B1:1454:G:OP2	2.06	1.02
41:Ba:19:LYS:HZ1	67:B1:2806:A:C4'	1.71	1.02
51:Bj:1:MET:CB	67:B1:2400:U:OP2	2.07	1.02
7:AB:104:PRO:HG3	18:AF:19:LYS:HE2	1.04	1.01
12:AN:24:ARG:HH22	21:A2:298:C:H4'	1.23	1.01
21:A2:434:A:H2	28:AV:84:GLU:H	1.02	1.01
45:Bi:68:TYR:OH	52:BB:170:LYS:CD	2.07	1.01
64:Bc:63:THR:HG23	67:B1:1145:G:P	1.99	1.01
26:AP:56:GLU:C	29:AL:63:ARG:HD3	1.85	1.01
51:Bj:87:LYS:NZ	67:B1:2398:C:OP1	1.93	1.01
3:AI:28:LYS:CG	5:AW:4:PRO:HB3	1.91	1.01
21:A2:1307:G:N2	25:AH:48:HIS:ND1	2.06	1.01
21:A2:1465:C:P	55:Bh:2:ARG:HB2	2.00	1.01
45:Bi:67:ALA:CB	52:BB:170:LYS:HZ2	1.68	1.01
13:AX:71:ARG:NH1	21:A2:1041:C:OP1	1.93	1.01
35:BL:6:LYS:CE	67:B1:1338:G:O6	2.08	1.01
50:BV:14:PHE:CZ	65:BJ:95:MET:HE1	1.96	1.01
3:AI:4:LEU:HD13	21:A2:540:G:H5'	1.01	1.01
15:AE:55:TYR:HA	28:AV:9:LYS:HE2	1.01	1.01
39:Be:19:ARG:HG2	67:B1:125:C:H42	1.23	1.01
39:Be:60:ASN:ND2	67:B1:497:G:C6	2.29	1.01
3:AI:57:ARG:HE	21:A2:607:U:C4'	1.72	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:100:GLY:HA2	21:A2:318:C:O2	1.60	1.00
49:BQ:76:ARG:NH1	67:B1:1884:C:C5	2.24	1.00
51:Bj:47:TYR:HE2	67:B1:2203:G:C4'	1.73	1.00
13:AX:23:ASP:CA	21:A2:1338:C:O2	2.08	1.00
21:A2:1:A:OP2	21:A2:1:A:OP1	1.73	1.00
38:Bb:63:ILE:HD12	67:B1:950:G:C5'	1.92	1.00
45:Bi:7:VAL:HG13	67:B1:1854:G:O5'	1.61	1.00
51:Bj:49:GLY:HA2	67:B1:189:U:H1'	1.41	1.00
4:AG:99:LYS:CG	21:A2:319:U:O2'	2.09	1.00
67:B1:1568:A:N1	67:B1:1569:A:C6	2.29	1.00
68:B3:1:C:P	68:B3:117:G:H1	1.84	1.00
2:AK:42:ARG:NE	25:AH:9:PHE:CD1	2.29	1.00
36:Bf:30:LYS:CG	67:B1:92:G:C5	2.44	1.00
38:Bb:64:GLY:HA3	67:B1:1126:C:O2'	1.62	1.00
64:Bc:68:ARG:HH22	67:B1:1292:C:H5''	1.20	1.00
39:Be:19:ARG:HG2	67:B1:125:C:N4	1.75	1.00
45:Bi:19:LEU:CD2	67:B1:1853:C:P	2.50	1.00
61:Bd:8:ARG:NH2	67:B1:1587:A:OP2	1.94	1.00
4:AG:64:ARG:HD2	21:A2:152:G:C5'	1.91	1.00
35:BL:64:SER:HB3	67:B1:234:G:OP1	1.61	1.00
4:AG:77:ASP:OD1	21:A2:1403:U:H1'	1.62	1.00
13:AX:20:THR:CG2	21:A2:1341:C:H1'	1.91	1.00
4:AG:120:ASN:ND2	21:A2:151:G:C1'	2.22	0.99
21:A2:442:C:OP1	28:AV:60:PHE:HA	1.62	0.99
35:BL:6:LYS:CD	67:B1:1338:G:O6	2.09	0.99
48:BR:81:SER:HB3	67:B1:2474:A:P	2.02	0.99
18:AF:74:MET:O	21:A2:879:U:O2'	1.77	0.99
2:AK:39:GLU:CD	25:AH:5:LEU:HD11	1.87	0.99
3:AI:4:LEU:CB	21:A2:540:G:C4'	2.29	0.99
3:AI:4:LEU:CD1	21:A2:540:G:H5'	1.91	0.99
15:AE:64:LYS:HZ2	28:AV:81:ILE:CB	1.75	0.99
64:Bc:14:LYS:HG2	67:B1:1142:A:C5	1.97	0.99
4:AG:100:GLY:H	21:A2:319:U:C1'	1.76	0.99
55:Bh:19:LYS:O	55:Bh:23:LEU:CG	2.09	0.99
12:AN:111:PRO:CG	21:A2:507:G:P	2.50	0.99
41:Ba:61:ARG:O	67:B1:2823:G:H4'	1.63	0.99
3:AI:9:ASN:ND2	21:A2:778:G:H21	1.60	0.99
2:AK:102:TYR:CE1	25:AH:42:ARG:CD	2.45	0.99
4:AG:77:ASP:CB	21:A2:1403:U:O2	2.09	0.99
41:Ba:61:ARG:O	67:B1:2823:G:C5'	2.11	0.99
49:BQ:23:TRP:CH2	67:B1:1436:A:OP1	2.14	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AN:135:LYS:HE2	21:A2:29:G:O2'	1.62	0.99
21:A2:1440:G:O2'	55:Bh:19:LYS:NZ	1.96	0.99
35:BL:132:LYS:HD3	67:B1:733:A:OP1	1.62	0.99
36:Bf:5:LYS:NZ	67:B1:1454:G:N7	2.02	0.99
61:Bd:44:ASN:ND2	67:B1:1666:G:H21	1.60	0.99
64:Bc:12:ARG:NH1	67:B1:1142:A:H5'	1.78	0.99
3:AI:4:LEU:HD13	21:A2:540:G:C5'	1.93	0.98
3:AI:28:LYS:HE2	21:A2:780:C:OP1	1.61	0.98
61:Bd:42:PRO:HG2	67:B1:1636:C:H4'	1.45	0.98
36:Bf:30:LYS:HG3	67:B1:92:G:C5	1.98	0.98
35:BL:47:TRP:HH2	67:B1:968:A:N3	1.58	0.98
41:Ba:24:ARG:NH2	67:B1:2805:U:H1'	1.76	0.98
21:A2:1466:G:N7	55:Bh:3:TRP:CZ2	2.30	0.98
34:B5:13:ILE:CD1	61:Bd:80:MET:SD	2.48	0.98
36:Bf:43:TYR:CZ	67:B1:1476:C:H5''	1.97	0.98
39:Be:19:ARG:CB	67:B1:125:C:H41	1.76	0.98
51:Bj:28:ARG:NH1	67:B1:2515:U:OP1	1.96	0.98
21:A2:1296:U:C5	25:AH:175:ARG:CZ	2.46	0.98
34:B5:52:HIS:ND1	61:Bd:77:ARG:HD3	1.78	0.98
2:AK:43:PHE:HB3	25:AH:43:LEU:HD11	1.42	0.98
61:Bd:44:ASN:CG	67:B1:1666:G:H21	1.72	0.98
3:AI:80:PRO:HG3	8:AR:63:TYR:OH	1.63	0.98
20:BG:44:GLU:OE2	59:BM:6:TYR:HE1	1.47	0.98
21:A2:369:A:C4'	21:A2:434:A:N7	2.26	0.98
36:Bf:22:ARG:HE	67:B1:1478:G:H5''	1.28	0.98
12:AN:79:LYS:HB2	21:A2:358:G:H5''	1.43	0.97
13:AX:61:GLU:HG3	14:AM:107:ARG:HD3	1.45	0.97
21:A2:1334:A:OP1	25:AH:65:GLU:OE2	1.81	0.97
50:BV:25:ASN:CB	65:BJ:100:GLU:OE2	2.11	0.97
53:BD:85:PHE:CE2	67:B1:1398:C:O2'	2.16	0.97
33:BC:108:ASN:CB	33:BC:172:TRP:CZ3	2.31	0.97
12:AN:135:LYS:CE	21:A2:29:G:O2'	2.11	0.97
39:Be:21:ARG:NH1	67:B1:123:A:C2	2.32	0.97
49:BQ:82:LYS:HB2	67:B1:1788:G:O3'	1.64	0.97
4:AG:103:ARG:CZ	21:A2:329:G:H4'	1.95	0.97
67:B1:1568:A:C6	67:B1:1569:A:C6	2.52	0.97
45:Bi:19:LEU:HD23	67:B1:1853:C:P	2.05	0.97
2:AK:40:ILE:O	25:AH:44:LEU:CD1	2.12	0.97
51:Bj:33:LEU:HD11	67:B1:2514:C:OP1	1.61	0.97
51:Bj:87:LYS:CG	67:B1:2398:C:P	2.51	0.97
51:Bj:15:LYS:O	67:B1:2488:C:H4'	1.63	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AE:55:TYR:CA	28:AV:9:LYS:HE2	1.95	0.97
25:AH:3:LYS:NZ	30:AU:143:ILE:HG13	1.79	0.97
45:Bi:68:TYR:HE2	52:BB:170:LYS:CD	1.50	0.97
63:Bg:44:LYS:HZ3	67:B1:2644:G:P	1.87	0.97
21:A2:1475:C:OP2	55:Bh:4:LYS:HG2	1.63	0.96
36:Bf:26:TRP:CE3	67:B1:92:G:C2	2.52	0.96
18:AF:73:ARG:NE	21:A2:879:U:H4'	1.80	0.96
64:Bc:63:THR:HG23	67:B1:1145:G:OP1	0.79	0.96
67:B1:1109:G:H1'	67:B1:1125:A:H61	1.31	0.96
67:B1:1568:A:C2	67:B1:1569:A:C6	2.53	0.96
10:AD:136:ILE:HB	28:AV:60:PHE:HE2	1.30	0.96
31:BY:123:ARG:CD	67:B1:1132:U:H4'	1.94	0.96
51:Bj:52:ARG:HG2	67:B1:2548:A:H2	1.19	0.96
8:AR:60:TYR:CZ	12:AN:16:LEU:HD12	2.01	0.96
18:AF:165:LEU:HD23	18:AF:183:VAL:HG12	1.48	0.96
21:A2:1248:A:O3'	25:AH:81:VAL:HG13	1.65	0.96
25:AH:3:LYS:CE	30:AU:144:ILE:CA	2.44	0.96
10:AD:93:LEU:HD13	18:AF:160:PRO:CB	1.95	0.96
38:Bb:33:LYS:HD3	67:B1:672:C:OP2	1.65	0.96
38:Bb:77:SER:HB3	67:B1:585:G:O5'	1.65	0.96
39:Be:53:LYS:HD3	67:B1:506:G:P	2.05	0.96
54:BF:174:ILE:O	63:Bg:6:GLU:OE2	1.83	0.96
67:B1:1823:A:H61	67:B1:2120:C:H42	1.13	0.96
34:B5:52:HIS:HE2	61:Bd:81:LYS:HG3	1.14	0.96
35:BL:6:LYS:NZ	67:B1:1338:G:C6	2.33	0.96
18:AF:73:ARG:HH12	21:A2:879:U:H5''	1.20	0.95
38:Bb:69:LYS:HD2	67:B1:1304:G:OP1	1.66	0.95
10:AD:136:ILE:HB	28:AV:60:PHE:CD2	2.00	0.95
35:BL:63:PHE:HD1	67:B1:2533:G:C4'	1.79	0.95
67:B1:1179:G:O6	67:B1:1254:C:N4	1.99	0.95
67:B1:1565:G:C1'	67:B1:1565:G:O4'	2.08	0.95
38:Bb:107:GLY:HA2	67:B1:1354:G:OP1	1.66	0.95
48:BR:50:HIS:HD2	67:B1:2450:A:N1	1.64	0.95
64:Bc:14:LYS:HD3	67:B1:1142:A:H2	1.31	0.95
4:AG:100:GLY:H	21:A2:319:U:H1'	1.27	0.95
41:Ba:64:GLU:OE1	67:B1:2824:C:OP1	1.82	0.95
50:BV:45:ARG:CZ	67:B1:1893:C:OP1	2.14	0.95
49:BQ:74:ARG:NH1	67:B1:1869:U:OP2	1.99	0.95
4:AG:64:ARG:HD2	21:A2:152:G:H4'	1.48	0.95
4:AG:78:ILE:HB	4:AG:109:GLY:HA2	1.49	0.95
25:AH:3:LYS:CD	30:AU:143:ILE:HG13	1.96	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AH:3:LYS:CE	30:AU:144:ILE:H	1.62	0.95
35:BL:24:LYS:HZ2	67:B1:1080:G:H5''	1.24	0.95
35:BL:9:ARG:HB2	35:BL:11:LEU:HA	1.48	0.95
41:Ba:20:LYS:O	67:B1:1811:G:N9	2.00	0.95
45:Bi:19:LEU:CD2	67:B1:1852:U:H4'	1.95	0.95
49:BQ:60:ARG:CZ	67:B1:1602:C:H4'	1.96	0.95
51:Bj:47:TYR:HE2	67:B1:2203:G:H4'	1.30	0.95
36:Bf:30:LYS:HG3	67:B1:92:G:C4	2.02	0.94
45:Bi:43:ARG:CD	57:BZ:79:VAL:HG11	1.97	0.94
21:A2:1466:G:N7	55:Bh:3:TRP:HH2	1.51	0.94
54:BF:166:ARG:NE	63:Bg:45:GLU:HB3	1.81	0.94
61:Bd:58:PRO:CB	67:B1:1574:A:H61	1.80	0.94
31:BY:126:PHE:CG	67:B1:1134:A:H5''	2.01	0.94
38:Bb:126:LEU:HD22	67:B1:583:A:C5'	1.96	0.94
41:Ba:21:ILE:CD1	67:B1:1811:G:N2	2.29	0.94
43:Bk:42:ARG:HH21	67:B1:1224:A:H62	1.08	0.94
4:AG:5:LYS:CG	21:A2:142:G:H4'	1.97	0.94
10:AD:93:LEU:CD1	18:AF:160:PRO:HB3	1.97	0.94
38:Bb:76:PRO:HG2	67:B1:584:G:HO2'	1.26	0.94
39:Be:5:THR:HB	67:B1:924:A:C2	2.03	0.94
45:Bi:83:GLU:CG	52:BB:91:ILE:O	2.14	0.94
48:BR:70:GLY:HA3	67:B1:2484:C:C5'	1.98	0.94
2:AK:46:LEU:HD23	25:AH:13:HIS:HB2	1.48	0.94
61:Bd:59:LYS:HD3	67:B1:1575:G:N1	1.83	0.94
4:AG:94:PHE:CD1	21:A2:149:U:C5'	2.51	0.94
12:AN:111:PRO:CD	21:A2:507:G:OP2	2.15	0.94
3:AI:28:LYS:HE3	5:AW:4:PRO:CB	1.97	0.94
21:A2:1476:C:N4	55:Bh:7:LYS:NZ	2.15	0.94
35:BL:113:LEU:CD1	67:B1:732:G:C2	2.51	0.94
61:Bd:58:PRO:CB	67:B1:1574:A:N6	2.30	0.94
67:B1:309:C:N4	67:B1:403:G:O6	2.01	0.94
35:BL:6:LYS:CA	67:B1:947:C:H41	1.80	0.94
35:BL:119:THR:HG21	58:BP:73:LYS:CE	1.98	0.94
50:BV:45:ARG:NH2	67:B1:1893:C:OP1	2.01	0.94
7:AB:104:PRO:HG2	18:AF:19:LYS:NZ	1.82	0.93
15:AE:55:TYR:HA	28:AV:9:LYS:CE	1.95	0.93
31:BY:30:ARG:CZ	67:B1:1297:C:OP1	2.15	0.93
38:Bb:69:LYS:HE3	67:B1:1304:G:OP2	1.68	0.93
18:AF:73:ARG:CZ	21:A2:879:U:H5''	1.98	0.93
39:Be:51:TRP:HB3	67:B1:932:C:O2'	1.68	0.93
49:BQ:84:LYS:HG2	67:B1:1843:C:OP2	1.67	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:BV:22:TYR:CZ	65:BJ:100:GLU:HG2	2.03	0.93
21:A2:1334:A:O2'	25:AH:69:ASN:CB	2.17	0.93
39:Be:17:HIS:CE1	67:B1:504:G:C4'	2.52	0.93
18:AF:124:ILE:HD12	18:AF:205:LEU:HD23	1.50	0.93
64:Bc:14:LYS:HE2	67:B1:1143:A:H62	1.33	0.93
4:AG:94:PHE:CD1	21:A2:149:U:H4'	2.04	0.93
34:B5:50:ILE:HD13	57:BZ:28:LYS:NZ	1.78	0.93
39:Be:5:THR:HB	67:B1:924:A:H2	1.31	0.93
39:Be:19:ARG:HB3	67:B1:125:C:H41	1.33	0.93
18:AF:70:LEU:HG	18:AF:70:LEU:O	1.67	0.93
25:AH:3:LYS:HD2	30:AU:143:ILE:HG13	1.51	0.93
34:B5:8:ARG:NH2	57:BZ:55:LEU:HD21	1.81	0.93
34:B5:50:ILE:HG12	57:BZ:28:LYS:HZ2	0.77	0.93
36:Bf:1:MET:HE3	67:B1:1450:C:H5''	1.51	0.93
47:BI:24:GLU:HG2	64:Bc:8:LEU:HD11	1.49	0.93
4:AG:65:GLY:HA3	21:A2:151:G:H4'	1.49	0.93
18:AF:166:VAL:CG1	21:A2:1:A:OP2	2.16	0.93
34:B5:13:ILE:HD13	61:Bd:80:MET:CG	1.92	0.93
35:BL:6:LYS:HA	67:B1:947:C:N4	1.84	0.93
35:BL:26:ARG:CD	67:B1:941:C:C5	2.51	0.93
41:Ba:21:ILE:HG13	67:B1:1811:G:H21	1.28	0.93
61:Bd:59:LYS:HD3	67:B1:1575:G:H1	1.29	0.93
3:AI:4:LEU:CD1	21:A2:539:C:O2'	2.17	0.93
35:BL:132:LYS:HD3	67:B1:733:A:C5'	1.97	0.93
63:Bg:18:LEU:HD21	67:B1:2592:U:O2	1.68	0.93
2:AK:43:PHE:HE2	25:AH:9:PHE:HA	1.33	0.92
35:BL:132:LYS:HB3	67:B1:733:A:OP1	1.69	0.92
39:Be:5:THR:HG21	67:B1:924:A:N3	1.85	0.92
51:Bj:52:ARG:NH2	67:B1:188:A:N3	2.17	0.92
18:AF:54:LEU:CD1	18:AF:61:GLU:HB3	1.99	0.92
35:BL:44:LYS:HA	67:B1:961:C:C1'	1.98	0.92
61:Bd:59:LYS:CD	67:B1:1575:G:N1	2.33	0.92
21:A2:59:C:N4	21:A2:88:G:O6	2.01	0.92
47:BI:24:GLU:CG	64:Bc:8:LEU:HD11	1.98	0.92
39:Be:5:THR:HG21	67:B1:924:A:C2	2.04	0.92
48:BR:69:ARG:NH1	67:B1:2483:U:O2	2.02	0.92
21:A2:1307:G:H1	25:AH:48:HIS:CG	1.88	0.92
38:Bb:77:SER:CB	67:B1:585:G:C5'	1.89	0.92
61:Bd:32:LYS:HB2	67:B1:1586:G:OP1	1.69	0.92
64:Bc:14:LYS:HD2	67:B1:1142:A:N1	1.85	0.92
2:AK:50:ILE:CD1	25:AH:13:HIS:CD2	2.50	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AX:23:ASP:HA	21:A2:1338:C:C2	2.04	0.92
3:AI:79:PHE:CD2	8:AR:61:GLU:O	2.23	0.92
3:AI:97:PHE:CE1	18:AF:131:TRP:NE1	1.84	0.92
36:Bf:5:LYS:NZ	67:B1:1454:G:O6	1.89	0.92
36:Bf:10:LYS:NZ	67:B1:1758:U:OP1	2.03	0.92
51:Bj:47:TYR:O	67:B1:189:U:H4'	1.69	0.92
18:AF:188:PHE:CE1	21:A2:513:A:H2'	2.04	0.92
21:A2:369:A:H4'	21:A2:434:A:C8	2.04	0.92
34:B5:16:ARG:HD2	67:B1:1566:G:N7	1.83	0.92
20:BG:60:GLU:CG	59:BM:26:ARG:NH2	2.33	0.92
4:AG:102:ARG:HD3	21:A2:318:C:C4'	2.00	0.92
48:BR:59:HIS:HE1	67:B1:994:G:P	1.93	0.92
10:AD:136:ILE:N	28:AV:60:PHE:CZ	2.38	0.91
25:AH:3:LYS:HZ2	30:AU:143:ILE:HG13	1.29	0.91
34:B5:52:HIS:HE2	61:Bd:81:LYS:CG	1.82	0.91
3:AI:9:ASN:HD21	21:A2:778:G:N2	1.68	0.91
35:BL:63:PHE:CD1	67:B1:2533:G:O4'	2.21	0.91
21:A2:1465:C:C5	55:Bh:3:TRP:NE1	2.37	0.91
41:Ba:20:LYS:CB	67:B1:1811:G:C8	2.52	0.91
10:AD:93:LEU:CB	18:AF:161:ARG:O	2.17	0.91
21:A2:60:A:N1	21:A2:64:G:O6	2.03	0.91
35:BL:64:SER:CB	67:B1:234:G:OP1	2.18	0.91
48:BR:14:LYS:HB2	67:B1:995:G:P	2.09	0.91
67:B1:1568:A:N6	67:B1:1569:A:H61	1.69	0.91
12:AN:63:LYS:NZ	21:A2:870:U:OP1	2.02	0.91
35:BL:113:LEU:CD1	67:B1:732:G:N3	2.33	0.91
43:Bk:42:ARG:HH21	67:B1:1224:A:N6	1.67	0.91
2:AK:46:LEU:HD23	25:AH:13:HIS:CB	1.98	0.91
26:AP:52:PHE:HB3	29:AL:64:TRP:CZ3	2.04	0.91
2:AK:42:ARG:HE	25:AH:9:PHE:HD1	1.13	0.91
18:AF:191:THR:HG23	18:AF:197:PHE:CD1	2.06	0.91
67:B1:1566:G:N2	67:B1:1570:C:C2	2.39	0.91
35:BL:36:MET:CE	67:B1:241:C:OP2	2.18	0.91
51:Bj:46:GLY:HA3	59:BM:83:SER:HA	1.51	0.91
13:AX:71:ARG:CZ	21:A2:1041:C:OP1	2.18	0.91
21:A2:434:A:C2	28:AV:84:GLU:N	2.39	0.91
35:BL:132:LYS:HZ3	67:B1:733:A:C3'	1.83	0.91
55:Bh:14:LYS:O	55:Bh:18:LYS:HG3	1.70	0.91
41:Ba:41:ARG:CZ	67:B1:3029:A:H1'	2.00	0.91
48:BR:50:HIS:NE2	67:B1:2450:A:H2	1.54	0.91
4:AG:88:LEU:C	21:A2:1413:G:OP1	2.14	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:1200:U:C5	25:AH:91:ARG:HA	2.06	0.90
21:A2:1200:U:O4	25:AH:91:ARG:O	1.88	0.90
21:A2:1307:G:N1	25:AH:48:HIS:NE2	2.20	0.90
34:B5:50:ILE:HG23	57:BZ:28:LYS:HZ3	1.36	0.90
34:B5:52:HIS:HE1	61:Bd:81:LYS:HD2	1.35	0.90
38:Bb:76:PRO:CG	67:B1:584:G:O2'	2.19	0.90
51:Bj:49:GLY:HA3	67:B1:189:U:H1'	1.51	0.90
13:AX:61:GLU:HG3	14:AM:107:ARG:CD	1.99	0.90
21:A2:1471:G:O6	55:Bh:11:ARG:NH2	2.04	0.90
34:B5:50:ILE:CG1	57:BZ:28:LYS:HZ1	1.66	0.90
64:Bc:22:MET:HE3	64:Bc:24:ILE:HD11	1.53	0.90
3:AI:28:LYS:HE3	5:AW:4:PRO:HB3	1.52	0.90
4:AG:65:GLY:HA3	21:A2:151:G:C4'	2.01	0.90
38:Bb:68:PRO:HA	67:B1:1303:C:C5'	2.01	0.90
39:Be:14:THR:O	67:B1:819:U:N3	2.05	0.90
34:B5:57:PRO:CD	61:Bd:88:LEU:CD2	2.36	0.90
36:Bf:43:TYR:OH	67:B1:1476:C:OP1	1.88	0.90
21:A2:848:G:OP1	55:Bh:9:ARG:NE	1.99	0.90
48:BR:69:ARG:NH2	67:B1:2482:G:N2	2.18	0.90
21:A2:239:A:H4'	21:A2:240:U:H5'	1.54	0.90
25:AH:3:LYS:CE	30:AU:143:ILE:CG1	2.49	0.90
26:AP:52:PHE:CB	29:AL:64:TRP:CZ3	2.55	0.90
35:BL:34:ARG:NH2	67:B1:939:A:P	2.44	0.90
18:AF:45:LYS:HZ2	18:AF:45:LYS:HB2	1.35	0.90
45:Bi:83:GLU:OE2	52:BB:92:ALA:HB2	0.72	0.90
21:A2:1465:C:OP1	55:Bh:2:ARG:HG3	1.72	0.90
48:BR:69:ARG:NH2	67:B1:2482:G:H21	1.70	0.90
49:BQ:84:LYS:HG2	67:B1:1843:C:P	2.12	0.90
13:AX:71:ARG:NH2	21:A2:1041:C:C5'	2.33	0.89
56:BH:124:LYS:HE3	67:B1:1220:U:H5''	1.51	0.89
48:BR:82:LYS:HG3	67:B1:2473:C:H5''	1.52	0.89
26:AP:52:PHE:HB3	29:AL:64:TRP:CE3	2.07	0.89
51:Bj:84:PHE:CD1	67:B1:2460:A:H2	1.84	0.89
56:BH:125:GLU:OE2	67:B1:1197:G:O2'	1.91	0.89
13:AX:71:ARG:HD3	21:A2:1041:C:OP1	1.73	0.89
25:AH:3:LYS:HE3	30:AU:144:ILE:H	1.16	0.89
48:BR:50:HIS:CD2	67:B1:2450:A:C2	2.58	0.89
2:AK:102:TYR:OH	25:AH:42:ARG:NE	2.03	0.89
21:A2:166:A:H61	21:A2:196:G:H1'	1.34	0.89
38:Bb:45:GLY:HA3	67:B1:656:G:P	2.12	0.89
48:BR:14:LYS:CE	67:B1:995:G:OP1	2.21	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:65:GLY:CA	21:A2:151:G:H5''	2.02	0.89
4:AG:120:ASN:OD1	21:A2:151:G:C4'	2.20	0.89
36:Bf:30:LYS:HG3	67:B1:92:G:N9	1.88	0.89
10:AD:136:ILE:C	28:AV:60:PHE:HE2	1.81	0.89
15:AE:55:TYR:CE1	28:AV:9:LYS:NZ	2.40	0.89
21:A2:1313:G:H5'	25:AH:81:VAL:CG2	2.01	0.89
36:Bf:1:MET:HE3	67:B1:1450:C:C5'	2.02	0.89
36:Bf:22:ARG:NE	67:B1:1478:G:H5''	1.87	0.89
49:BQ:81:ARG:NH2	67:B1:1885:G:OP2	2.05	0.89
3:AI:28:LYS:CG	5:AW:4:PRO:CB	2.51	0.89
4:AG:100:GLY:N	21:A2:319:U:H1'	1.87	0.89
35:BL:25:HIS:HB3	67:B1:804:C:H41	1.36	0.89
36:Bf:30:LYS:HG2	67:B1:92:G:H8	1.28	0.89
67:B1:1600:G:H1'	67:B1:1707:A:N6	1.87	0.89
41:Ba:19:LYS:NZ	67:B1:2806:A:C4'	2.31	0.88
61:Bd:60:THR:HG23	67:B1:1574:A:C2	2.07	0.88
67:B1:1568:A:N6	67:B1:1569:A:N6	2.20	0.88
2:AK:46:LEU:HD11	25:AH:13:HIS:ND1	1.84	0.88
21:A2:434:A:C2	28:AV:84:GLU:CB	2.57	0.88
21:A2:1196:A:OP1	25:AH:88:ARG:NH2	2.06	0.88
45:Bi:67:ALA:HB2	52:BB:170:LYS:HZ3	1.38	0.88
47:BI:89:ARG:HD3	64:Bc:80:LEU:HD12	1.55	0.88
67:B1:815:U:H3	67:B1:930:G:H1	1.21	0.88
25:AH:86:MET:HA	25:AH:88:ARG:NE	1.88	0.88
34:B5:50:ILE:CG2	57:BZ:28:LYS:NZ	2.36	0.88
36:Bf:1:MET:O	67:B1:1450:C:OP2	1.91	0.88
3:AI:57:ARG:HG2	21:A2:607:U:P	2.12	0.88
35:BL:6:LYS:NZ	67:B1:1339:C:C4	2.41	0.88
35:BL:23:LYS:NZ	67:B1:2563:A:H61	1.70	0.88
51:Bj:1:MET:SD	67:B1:2399:C:H3'	2.14	0.88
18:AF:188:PHE:HE1	21:A2:513:A:H2'	1.39	0.88
31:BY:131:LYS:NZ	67:B1:1136:G:P	2.47	0.88
38:Bb:8:ARG:NH2	28:B6:63:TYR:CD2	2.41	0.88
39:Be:28:TYR:OH	67:B1:124:C:OP2	1.89	0.88
53:BD:85:PHE:HB2	67:B1:675:G:N2	1.89	0.88
39:Be:60:ASN:ND2	67:B1:497:G:O6	2.06	0.88
51:Bj:45:LYS:NZ	59:BM:88:VAL:HG12	1.89	0.88
4:AG:64:ARG:HB3	21:A2:151:G:HO2'	1.39	0.88
15:AE:64:LYS:NZ	28:AV:81:ILE:CB	2.34	0.88
21:A2:434:A:C5	28:AV:85:TYR:CD1	2.62	0.88
21:A2:1253:G:OP1	25:AH:1:MET:CB	2.22	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:Be:17:HIS:HD2	67:B1:503:U:O2'	1.52	0.88
67:B1:1132:U:H3	67:B1:1296:A:H61	1.20	0.88
67:B1:1567:C:C5'	67:B1:1567:C:H4'	2.04	0.88
3:AI:97:PHE:HE1	18:AF:131:TRP:CD1	1.92	0.88
4:AG:103:ARG:NH1	21:A2:329:G:O2'	2.06	0.88
35:BL:131:PRO:CD	67:B1:732:G:OP1	2.22	0.88
51:Bj:47:TYR:CE2	67:B1:2203:G:O4'	2.27	0.88
20:BG:60:GLU:HG2	59:BM:26:ARG:NH2	1.89	0.88
53:BD:85:PHE:HZ	67:B1:1398:C:O2'	1.54	0.88
2:AK:39:GLU:CD	25:AH:5:LEU:HG	1.98	0.87
18:AF:59:ALA:HB1	18:AF:91:ASN:HB2	1.55	0.87
48:BR:4:LYS:CG	67:B1:2390:G:O6	2.22	0.87
49:BQ:84:LYS:CA	67:B1:1843:C:OP1	2.21	0.87
10:AD:59:LEU:HD11	18:AF:132:GLU:CD	1.99	0.87
18:AF:71:THR:HG21	21:A2:1032:A:C5'	2.04	0.87
26:AP:56:GLU:CA	29:AL:63:ARG:CD	2.51	0.87
53:BD:91:ARG:HH22	67:B1:488:A:C5'	1.87	0.87
64:Bc:14:LYS:CG	67:B1:1142:A:C2	2.57	0.87
12:AN:108:ILE:HD12	21:A2:505:U:C5'	2.04	0.87
18:AF:129:GLY:HA2	18:AF:134:ARG:CB	2.04	0.87
36:Bf:3:ARG:HG3	36:Bf:4:ASN:N	1.89	0.87
45:Bi:19:LEU:HD21	67:B1:1852:U:C4'	2.03	0.87
45:Bi:67:ALA:CB	52:BB:170:LYS:HZ3	1.84	0.87
51:Bj:7:ILE:HD11	67:B1:2458:U:HO2'	1.08	0.87
34:B5:16:ARG:NE	67:B1:1566:G:O6	2.07	0.87
2:AK:46:LEU:HD11	25:AH:13:HIS:HE1	1.16	0.87
10:AD:136:ILE:C	28:AV:60:PHE:CE2	2.53	0.87
21:A2:409:C:N4	21:A2:413:G:O6	2.07	0.87
45:Bi:43:ARG:CZ	57:BZ:79:VAL:HG21	2.05	0.87
4:AG:100:GLY:CA	21:A2:318:C:O2	2.22	0.87
45:Bi:8:GLY:O	67:B1:839:A:H5'	1.74	0.87
51:Bj:49:GLY:CA	67:B1:189:U:O2	2.21	0.87
61:Bd:11:ARG:HG2	67:B1:1710:C:H5''	1.56	0.87
12:AN:135:LYS:HZ3	21:A2:29:G:C1'	1.73	0.87
38:Bb:68:PRO:HA	67:B1:1303:C:H5''	1.57	0.87
49:BQ:84:LYS:CG	67:B1:1843:C:P	2.63	0.87
41:Ba:41:ARG:NH2	67:B1:3029:A:C1'	2.38	0.87
61:Bd:11:ARG:HD2	67:B1:1710:C:O3'	1.75	0.87
38:Bb:109:LYS:HZ3	67:B1:1353:A:H8	1.16	0.87
47:BI:89:ARG:HH12	64:Bc:80:LEU:HD13	1.38	0.87
51:Bj:47:TYR:CE2	67:B1:2203:G:C4'	2.57	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AH:90:HIS:HB3	25:AH:92:SER:H	1.39	0.86
51:Bj:28:ARG:NH1	67:B1:2515:U:P	2.48	0.86
18:AF:125:LYS:HB3	18:AF:208:THR:HG22	1.55	0.86
18:AF:128:CYS:CB	18:AF:138:PRO:HG3	2.05	0.86
21:A2:1311:C:H4'	25:AH:94:ASN:C	2.01	0.86
39:Be:31:LYS:HE3	67:B1:906:G:OP2	1.75	0.86
18:AF:73:ARG:NE	21:A2:879:U:O3'	1.97	0.86
45:Bi:68:TYR:HE2	52:BB:170:LYS:CG	1.88	0.86
55:Bh:17:ARG:O	55:Bh:21:ARG:HG3	1.74	0.86
64:Bc:61:HIS:HE2	67:B1:1144:A:H5'	1.38	0.86
20:BG:59:PRO:HG3	59:BM:43:THR:HA	1.57	0.86
39:Be:53:LYS:HZ2	67:B1:506:G:H4'	0.70	0.86
54:BF:166:ARG:NH2	63:Bg:45:GLU:CG	2.37	0.86
63:Bg:10:ARG:NH2	67:B1:2858:C:OP1	2.08	0.86
35:BL:113:LEU:HD11	67:B1:732:G:C6	2.10	0.86
36:Bf:22:ARG:NH2	67:B1:1478:G:P	2.49	0.86
39:Be:59:LYS:HZ1	53:BD:55:ARG:NH2	1.72	0.86
41:Ba:19:LYS:HE3	67:B1:2806:A:H4'	1.58	0.86
61:Bd:11:ARG:CG	67:B1:1710:C:H5''	2.06	0.86
61:Bd:48:ARG:HB2	67:B1:1668:G:O3'	1.74	0.86
2:AK:39:GLU:OE2	25:AH:5:LEU:CD1	2.23	0.86
3:Al:9:ASN:HD21	21:A2:778:G:H21	0.88	0.86
21:A2:1476:C:H42	55:Bh:7:LYS:NZ	1.73	0.86
67:B1:1179:G:C2'	67:B1:1179:G:N9	2.39	0.86
35:BL:9:ARG:CB	35:BL:11:LEU:HA	2.05	0.86
4:AG:102:ARG:HD3	21:A2:318:C:H4'	1.56	0.85
21:A2:555:U:H3	21:A2:590:G:H1	1.24	0.85
21:A2:1316:U:H3	21:A2:1326:G:H1	1.17	0.85
41:Ba:21:ILE:HG13	67:B1:1811:G:C2	2.09	0.85
48:BR:7:SER:HB3	67:B1:2376:U:OP1	1.75	0.85
61:Bd:11:ARG:CD	67:B1:1710:C:O3'	2.24	0.85
31:BY:135:LYS:HD3	68:B3:95:G:H4'	1.58	0.85
35:BL:113:LEU:HD11	67:B1:732:G:C2	2.11	0.85
36:Bf:1:MET:N	67:B1:1450:C:C5'	2.32	0.85
13:AX:71:ARG:CZ	21:A2:1041:C:C5'	2.53	0.85
39:Be:4:GLY:HA2	67:B1:887:U:O5'	1.75	0.85
4:AG:64:ARG:HD2	21:A2:152:G:H5'	1.56	0.85
12:AN:135:LYS:HZ3	21:A2:29:G:H1'	1.28	0.85
18:AF:125:LYS:HE2	18:AF:142:PRO:HG3	1.58	0.85
39:Be:14:THR:C	67:B1:819:U:N3	2.34	0.85
67:B1:1037:C:C2'	67:B1:1037:C:N1	2.38	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:1754:A:C2'	67:B1:1754:A:N9	2.38	0.85
21:A2:1296:U:C5	25:AH:175:ARG:NE	2.44	0.85
25:AH:81:VAL:HG11	30:AU:80:ARG:HE	1.41	0.85
36:Bf:51:GLU:OE2	67:B1:1454:G:C2	2.29	0.85
41:Ba:20:LYS:HB3	67:B1:1811:G:H8	1.40	0.85
55:Bh:20:GLU:O	55:Bh:24:ILE:CG1	2.24	0.85
35:BL:4:ARG:NE	67:B1:678:G:O2'	2.09	0.85
18:AF:91:ASN:ND2	18:AF:93:ASP:HB2	1.92	0.85
21:A2:442:C:OP1	28:AV:60:PHE:CA	2.23	0.85
38:Bb:8:ARG:NH2	28:B6:62:SER:O	2.08	0.85
39:Be:53:LYS:CB	67:B1:506:G:OP1	2.24	0.85
51:Bj:66:ASP:OD1	67:B1:2538:G:O2'	1.94	0.85
7:AB:104:PRO:HG2	18:AF:19:LYS:HE3	1.59	0.85
12:AN:50:ALA:CA	21:A2:359:A:OP1	2.23	0.85
25:AH:86:MET:C	25:AH:88:ARG:HB2	2.02	0.85
35:BL:6:LYS:NZ	67:B1:1338:G:C5	2.44	0.85
35:BL:6:LYS:HD2	67:B1:1338:G:O6	1.75	0.85
67:B1:85:G:O6	67:B1:97:C:N4	2.09	0.85
4:AG:92:PRO:HG2	21:A2:1413:G:H5'	1.59	0.85
39:Be:50:ARG:HD3	67:B1:198:C:OP2	1.76	0.85
4:AG:77:ASP:OD1	21:A2:1403:U:N1	2.10	0.84
50:BV:35:ARG:HH21	67:B1:2801:G:H5''	1.40	0.84
51:Bj:50:PHE:CZ	67:B1:237:G:OP1	2.29	0.84
56:BH:124:LYS:CE	67:B1:1220:U:H5'	2.06	0.84
4:AG:64:ARG:NE	21:A2:151:G:O2'	2.10	0.84
18:AF:34:ILE:HG12	18:AF:38:PHE:CE2	2.10	0.84
21:A2:1334:A:O4'	25:AH:69:ASN:ND2	2.11	0.84
4:AG:92:PRO:CD	21:A2:1412:A:O2'	2.25	0.84
18:AF:46:GLU:HB2	18:AF:49:ILE:HG13	1.57	0.84
41:Ba:61:ARG:O	67:B1:2823:G:C4'	2.25	0.84
21:A2:1466:G:C5	55:Bh:3:TRP:HH2	1.94	0.84
36:Bf:49:LEU:CD2	67:B1:1454:G:OP2	2.24	0.84
61:Bd:62:LYS:HG3	67:B1:1729:C:H4'	1.57	0.84
35:BL:34:ARG:HH22	67:B1:939:A:P	2.01	0.84
68:B3:1:C:P	68:B3:117:G:N1	2.51	0.84
3:AI:79:PHE:HE2	8:AR:61:GLU:O	1.61	0.84
31:BY:135:LYS:CD	68:B3:95:G:H5''	2.07	0.84
39:Be:5:THR:CG2	67:B1:924:A:C2	2.60	0.84
48:BR:50:HIS:HE2	67:B1:2450:A:H2	0.87	0.84
45:Bi:43:ARG:NH1	57:BZ:79:VAL:HG21	1.93	0.84
18:AF:213:ILE:CG1	18:AF:215:PRO:HD2	2.06	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BY:114:LYS:HE2	67:B1:1325:A:N6	1.92	0.84
34:B5:56:LEU:HD23	61:Bd:84:ILE:HD11	1.60	0.84
36:Bf:26:TRP:CH2	67:B1:62:C:C4	2.66	0.84
38:Bb:104:HIS:HA	67:B1:1373:C:OP2	1.77	0.84
4:AG:88:LEU:O	21:A2:1413:G:OP1	1.95	0.84
4:AG:99:LYS:HG3	21:A2:319:U:O2'	1.77	0.84
25:AH:75:GLY:HA3	25:AH:94:ASN:HA	1.60	0.84
39:Be:34:TYR:OH	67:B1:816:C:OP1	1.94	0.84
45:Bi:68:TYR:CZ	52:BB:170:LYS:CB	2.60	0.84
21:A2:1296:U:C6	25:AH:175:ARG:CZ	2.60	0.83
31:BY:51:LYS:NZ	68:B3:96:C:H4'	1.94	0.83
45:Bi:68:TYR:CE2	52:BB:170:LYS:CG	2.61	0.83
35:BL:23:LYS:HZ1	67:B1:2563:A:H61	1.22	0.83
35:BL:132:LYS:CE	67:B1:733:A:H5''	2.08	0.83
39:Be:59:LYS:CD	53:BD:55:ARG:HH21	1.91	0.83
49:BQ:82:LYS:O	67:B1:1842:C:H5'	1.77	0.83
4:AG:64:ARG:CD	21:A2:152:G:H5'	2.07	0.83
12:AN:108:ILE:HD12	21:A2:505:U:H5''	1.60	0.83
38:Bb:109:LYS:HG3	67:B1:1353:A:C2'	2.08	0.83
20:BG:37:ASN:HB2	59:BM:3:MET:HE2	1.59	0.83
6:AC:140:ARG:CZ	21:A2:1156:A:C8	2.61	0.83
10:AD:93:LEU:HD13	18:AF:160:PRO:HB3	1.58	0.83
18:AF:86:LEU:HG	18:AF:100:ILE:CG2	2.07	0.83
67:B1:1465:A:C2	67:B1:1476:C:O2'	2.30	0.83
21:A2:434:A:C5	28:AV:85:TYR:CE1	2.66	0.83
25:AH:3:LYS:CE	30:AU:143:ILE:HG13	2.07	0.83
36:Bf:49:LEU:HD21	67:B1:1454:G:OP2	1.77	0.83
51:Bj:47:TYR:OH	67:B1:2203:G:H1'	1.79	0.83
64:Bc:12:ARG:HH11	67:B1:1142:A:H5'	1.40	0.83
39:Be:47:ARG:NH2	67:B1:505:A:O3'	2.11	0.83
18:AF:130:SER:HB3	18:AF:139:HIS:CE1	2.13	0.83
35:BL:6:LYS:HZ3	67:B1:1339:C:H5	1.25	0.83
51:Bj:84:PHE:CG	67:B1:2460:A:C2	2.62	0.83
67:B1:2568:A:H61	67:B1:2614:C:H42	1.24	0.83
4:AG:85:ARG:NH2	21:A2:331:C:OP1	2.11	0.83
25:AH:87:ARG:HG3	25:AH:90:HIS:HA	1.61	0.83
26:AP:52:PHE:CB	29:AL:64:TRP:HZ3	1.92	0.83
4:AG:88:LEU:CA	21:A2:1413:G:OP1	2.27	0.83
18:AF:73:ARG:CZ	21:A2:879:U:C5'	2.49	0.83
34:B5:4:ILE:CG1	57:BZ:28:LYS:HG2	2.07	0.83
38:Bb:69:LYS:HE3	67:B1:1304:G:P	2.19	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:BD:91:ARG:HH22	67:B1:488:A:H5'	1.43	0.83
21:A2:434:A:C2	28:AV:84:GLU:OE2	2.32	0.82
34:B5:4:ILE:HG12	57:BZ:28:LYS:CG	2.07	0.82
35:BL:25:HIS:NE2	67:B1:678:G:O6	2.12	0.82
47:BI:89:ARG:CD	64:Bc:80:LEU:HD12	2.08	0.82
49:BQ:61:TYR:CE2	67:B1:1618:G:H5''	2.13	0.82
18:AF:73:ARG:CD	21:A2:879:U:H4'	2.09	0.82
21:A2:1458:A:C2'	21:A2:1458:A:N9	2.42	0.82
51:Bj:1:MET:HB2	67:B1:2400:U:OP2	1.77	0.82
51:Bj:1:MET:HE1	67:B1:2398:C:H3'	1.59	0.82
33:BC:108:ASN:O	33:BC:172:TRP:CE2	2.32	0.82
36:Bf:1:MET:H1	67:B1:1450:C:H5''	1.15	0.82
38:Bb:11:ARG:CD	67:B1:1302:G:H4'	2.09	0.82
39:Be:5:THR:CB	67:B1:924:A:C2	2.63	0.82
18:AF:166:VAL:CG2	18:AF:184:TRP:HA	2.08	0.82
25:AH:3:LYS:CE	30:AU:143:ILE:HG12	2.09	0.82
34:B5:13:ILE:HD11	61:Bd:80:MET:CG	1.95	0.82
35:BL:63:PHE:HD1	67:B1:2533:G:H4'	1.42	0.82
38:Bb:77:SER:N	67:B1:585:G:H5'	1.94	0.82
20:BG:37:ASN:HB2	59:BM:3:MET:CE	2.10	0.82
54:BF:173:TYR:HB3	63:Bg:6:GLU:CD	2.04	0.82
12:AN:5:LYS:CE	21:A2:838:C:H5	1.92	0.82
36:Bf:26:TRP:CE3	67:B1:92:G:N1	2.46	0.82
51:Bj:7:ILE:HD11	67:B1:2458:U:C2'	2.09	0.82
51:Bj:47:TYR:CZ	59:BM:82:PRO:CG	2.62	0.82
3:AI:6:PRO:CG	21:A2:541:G:H5''	2.09	0.82
18:AF:152:VAL:O	18:AF:153:ARG:HD2	1.80	0.82
31:BY:135:LYS:HD3	68:B3:95:G:C4'	2.08	0.82
35:BL:132:LYS:CD	67:B1:733:A:C5'	2.56	0.82
41:Ba:64:GLU:OE1	67:B1:2824:C:P	2.38	0.82
48:BR:4:LYS:HD3	67:B1:2390:G:O6	1.80	0.82
67:B1:1707:A:C2'	67:B1:1707:A:N9	2.43	0.82
4:AG:94:PHE:CE1	21:A2:149:U:H4'	2.14	0.82
21:A2:179:U:H3	21:A2:184:G:H1	1.27	0.82
38:Bb:11:ARG:NE	67:B1:1302:G:C5'	2.43	0.82
39:Be:15:PRO:CA	67:B1:819:U:H3	1.92	0.82
51:Bj:46:GLY:HA2	59:BM:82:PRO:O	1.80	0.82
38:Bb:107:GLY:CA	67:B1:1354:G:OP1	2.27	0.82
4:AG:87:LEU:O	21:A2:1413:G:OP1	1.97	0.82
39:Be:19:ARG:CG	67:B1:125:C:N4	2.43	0.82
50:BV:25:ASN:H	65:BJ:100:GLU:CD	1.87	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:Bd:30:LYS:HG3	67:B1:1669:A:O2'	1.79	0.82
18:AF:73:ARG:NH1	21:A2:879:U:H4'	1.95	0.81
21:A2:1307:G:C2	25:AH:48:HIS:NE2	2.47	0.81
21:A2:1333:G:N7	25:AH:48:HIS:HE1	1.77	0.81
39:Be:53:LYS:CG	67:B1:506:G:O5'	2.27	0.81
31:BY:51:LYS:HZ3	68:B3:96:C:H4'	1.45	0.81
45:Bi:22:ARG:HH21	67:B1:1853:C:P	2.03	0.81
4:AG:86:VAL:HG11	21:A2:1414:G:OP1	1.60	0.81
25:AH:174:TYR:HD2	25:AH:175:ARG:HD2	1.46	0.81
48:BR:69:ARG:NH2	67:B1:2483:U:H1'	1.95	0.81
12:AN:33:ARG:HD3	21:A2:508:C:OP1	1.81	0.81
48:BR:70:GLY:N	67:B1:2484:C:H4'	1.95	0.81
61:Bd:30:LYS:HB3	67:B1:1712:U:P	2.20	0.81
31:BY:30:ARG:HH21	67:B1:1297:C:P	2.03	0.81
45:Bi:24:ARG:NH2	52:BB:171:PRO:CD	2.44	0.81
10:AD:136:ILE:O	28:AV:60:PHE:HZ	1.63	0.81
21:A2:456:U:H3	21:A2:494:G:H1	1.27	0.81
34:B5:3:ALA:N	57:BZ:28:LYS:C	2.39	0.81
35:BL:58:LEU:C	67:B1:2510:A:HO2'	1.83	0.81
36:Bf:26:TRP:CH2	67:B1:62:C:C2	2.65	0.81
51:Bj:49:GLY:HA2	67:B1:189:U:C2	2.16	0.81
51:Bj:82:ARG:O	67:B1:2538:G:OP1	1.99	0.81
21:A2:1253:G:H5''	25:AH:1:MET:HB2	1.63	0.81
31:BY:123:ARG:NE	67:B1:1132:U:H4'	1.96	0.81
63:Bg:36:TYR:HB2	67:B1:1171:G:C5'	2.11	0.81
4:AG:86:VAL:HG21	21:A2:1413:G:O3'	1.81	0.81
38:Bb:108:LYS:N	67:B1:1354:G:OP1	2.14	0.81
2:AK:40:ILE:O	25:AH:44:LEU:HD12	1.80	0.81
3:AI:4:LEU:HB2	21:A2:540:G:H4'	0.81	0.81
21:A2:85:A:C2'	21:A2:85:A:N9	2.43	0.81
35:BL:132:LYS:CD	67:B1:733:A:OP1	2.29	0.81
63:Bg:18:LEU:CD1	67:B1:2592:U:C2	2.63	0.81
21:A2:1370:U:H3	21:A2:1445:A:H61	1.27	0.81
48:BR:82:LYS:NZ	67:B1:2473:C:OP1	2.14	0.81
50:BV:39:ARG:CZ	67:B1:2833:G:OP2	2.29	0.81
63:Bg:44:LYS:HZ1	67:B1:2644:G:P	2.03	0.81
4:AG:94:PHE:CE1	21:A2:149:U:C4'	2.64	0.80
21:A2:1475:C:OP2	55:Bh:4:LYS:CE	2.28	0.80
18:AF:105:GLU:O	18:AF:108:ILE:HG22	1.81	0.80
31:BY:131:LYS:HZ1	67:B1:1136:G:P	2.03	0.80
31:BY:135:LYS:HE2	68:B3:95:G:H5''	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:Bj:47:TYR:CE2	67:B1:2203:G:H4'	2.15	0.80
51:Bj:82:ARG:CA	67:B1:2538:G:OP1	2.29	0.80
63:Bg:43:ALA:HA	67:B1:2643:U:OP1	1.82	0.80
3:AI:57:ARG:HG2	21:A2:607:U:OP1	1.81	0.80
15:AE:95:GLU:OE1	28:AV:12:LYS:CE	2.29	0.80
20:BG:44:GLU:CD	59:BM:6:TYR:OH	2.25	0.80
12:AN:24:ARG:HH12	21:A2:298:C:H5''	1.44	0.80
18:AF:33:ASP:HB3	18:AF:36:GLU:HG3	1.62	0.80
25:AH:93:LEU:C	25:AH:95:SER:H	1.88	0.80
41:Ba:63:ILE:HG21	67:B1:1418:A:N6	1.95	0.80
45:Bi:81:ILE:HG12	52:BB:106:THR:HG22	1.63	0.80
50:BV:27:GLY:HA2	65:BJ:121:PRO:HG3	1.63	0.80
18:AF:125:LYS:O	18:AF:208:THR:HG21	1.81	0.80
21:A2:1333:G:C8	25:AH:48:HIS:HE1	1.98	0.80
38:Bb:126:LEU:HD13	67:B1:583:A:H4'	1.62	0.80
39:Be:51:TRP:CZ2	67:B1:814:G:N2	2.49	0.80
64:Bc:14:LYS:CG	67:B1:1142:A:C4	2.60	0.80
4:AG:103:ARG:HH11	21:A2:329:G:H4'	1.41	0.80
18:AF:99:GLY:HA2	18:AF:116:TYR:HD2	1.46	0.80
35:BL:47:TRP:CZ3	67:B1:967:G:N2	2.50	0.80
53:BD:87:ARG:NH2	67:B1:487:U:C2	2.49	0.80
4:AG:9:SER:HB2	4:AG:64:ARG:NH1	1.97	0.80
39:Be:19:ARG:C	67:B1:125:C:N4	2.40	0.80
53:BD:91:ARG:O	53:BD:94:PRO:HD3	1.82	0.80
68:B3:52:U:H4'	68:B3:53:A:H5'	1.64	0.80
4:AG:99:LYS:CD	21:A2:319:U:O2'	2.30	0.80
12:AN:49:GLN:HB2	21:A2:359:A:O4'	1.81	0.80
18:AF:166:VAL:HB	21:A2:1:A:OP2	1.81	0.80
21:A2:434:A:C6	28:AV:85:TYR:HE1	1.99	0.80
26:AP:56:GLU:CG	29:AL:63:ARG:HB2	2.11	0.80
31:BY:135:LYS:NZ	68:B3:95:G:H5''	1.95	0.80
35:BL:6:LYS:CD	67:B1:1339:C:N4	2.44	0.80
35:BL:47:TRP:HH2	67:B1:968:A:C2	1.99	0.80
35:BL:132:LYS:NZ	67:B1:733:A:H5''	1.96	0.80
38:Bb:11:ARG:HD2	67:B1:1302:G:H4'	1.62	0.80
43:Bk:42:ARG:HH12	67:B1:1223:A:H5''	1.41	0.80
3:AI:28:LYS:HD3	5:AW:4:PRO:CB	2.06	0.80
25:AH:3:LYS:NZ	30:AU:144:ILE:H	1.80	0.80
67:B1:2382:A:C2'	67:B1:2382:A:N9	2.45	0.80
15:AE:95:GLU:OE1	28:AV:12:LYS:HE2	1.81	0.80
21:A2:428:G:H1	21:A2:442:C:N4	1.80	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:B5:13:ILE:HG12	61:Bd:80:MET:HG2	1.64	0.80
34:B5:57:PRO:HD2	61:Bd:88:LEU:HD21	1.64	0.80
63:Bg:43:ALA:CA	67:B1:2643:U:OP1	2.30	0.80
3:AI:4:LEU:HD13	21:A2:539:C:O2'	1.82	0.79
3:AI:13:HIS:CD2	21:A2:780:C:H4'	2.17	0.79
12:AN:3:GLY:N	21:A2:836:G:C8	2.51	0.79
21:A2:619:A:N6	21:A2:678:G:O6	2.15	0.79
31:BY:123:ARG:HD3	67:B1:1132:U:O2'	1.82	0.79
38:Bb:126:LEU:CD2	67:B1:583:A:H5''	2.04	0.79
20:BG:37:ASN:N	59:BM:3:MET:SD	2.55	0.79
4:AG:5:LYS:HG2	21:A2:142:G:C5'	2.11	0.79
39:Be:53:LYS:HD3	67:B1:505:A:O3'	1.83	0.79
35:BL:26:ARG:HD3	67:B1:941:C:C4	2.16	0.79
56:BH:128:GLY:HA3	67:B1:1198:G:H22	1.44	0.79
18:AF:163:LEU:HD11	18:AF:184:TRP:CZ2	2.18	0.79
35:BL:24:LYS:NZ	67:B1:1080:G:C5'	2.44	0.79
38:Bb:13:ARG:NH1	67:B1:630:G:OP1	2.16	0.79
45:Bi:7:VAL:HG11	67:B1:1854:G:O5'	1.82	0.79
21:A2:1311:C:H4'	25:AH:95:SER:N	1.97	0.79
50:BV:35:ARG:HG3	50:BV:39:ARG:HE	1.47	0.79
53:BD:87:ARG:NE	67:B1:487:U:O2	2.13	0.79
36:Bf:3:ARG:CG	36:Bf:4:ASN:HB2	2.13	0.79
4:AG:99:LYS:HG3	21:A2:319:U:C2'	2.13	0.79
10:AD:136:ILE:CA	28:AV:60:PHE:CE2	2.65	0.79
39:Be:32:LYS:NZ	67:B1:817:G:OP2	2.12	0.79
43:Bk:42:ARG:HH11	67:B1:1223:A:H5''	1.10	0.79
45:Bi:78:VAL:CG2	52:BB:161:VAL:HG13	2.12	0.79
3:AI:99:PHE:CE1	18:AF:143:PHE:CZ	2.71	0.79
34:B5:57:PRO:HG2	61:Bd:88:LEU:HD21	0.91	0.79
35:BL:132:LYS:CB	67:B1:733:A:OP1	2.31	0.79
61:Bd:42:PRO:CG	67:B1:1636:C:H4'	2.13	0.79
21:A2:340:A:C2'	21:A2:340:A:N9	2.46	0.79
21:A2:1334:A:C4'	25:AH:69:ASN:ND2	2.45	0.79
34:B5:31:ASN:ND2	57:BZ:25:ARG:NH1	2.31	0.79
47:BI:89:ARG:HH11	64:Bc:80:LEU:HD12	1.44	0.79
4:AG:120:ASN:HB3	21:A2:151:G:O2'	1.81	0.79
12:AN:135:LYS:NZ	21:A2:29:G:O2'	2.16	0.79
39:Be:36:ALA:HB1	67:B1:505:A:H5'	1.63	0.79
51:Bj:3:TYR:HE1	67:B1:2400:U:C4	2.01	0.79
4:AG:87:LEU:HD13	21:A2:1396:C:P	2.22	0.78
4:AG:94:PHE:CD1	21:A2:149:U:H5''	2.17	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:Bj:38:ARG:HD2	67:B1:429:U:OP2	1.82	0.78
67:B1:2976:G:O6	67:B1:3027:C:N4	2.15	0.78
3:AI:97:PHE:CE1	18:AF:131:TRP:CD1	2.69	0.78
12:AN:79:LYS:HB2	21:A2:358:G:H5'	1.64	0.78
45:Bi:81:ILE:CG1	52:BB:106:THR:HG22	2.11	0.78
4:AG:64:ARG:CG	21:A2:152:G:H5'	2.13	0.78
18:AF:125:LYS:HB3	18:AF:208:THR:CG2	2.12	0.78
26:AP:56:GLU:O	29:AL:63:ARG:HD3	1.82	0.78
49:BQ:64:LYS:HE2	67:B1:1603:G:H5''	1.63	0.78
4:AG:92:PRO:CG	21:A2:1412:A:HO2'	1.73	0.78
21:A2:296:A:C2	21:A2:519:G:O6	2.36	0.78
21:A2:1377:G:H4'	55:Bh:23:LEU:HD22	1.64	0.78
64:Bc:22:MET:HE3	64:Bc:24:ILE:CD1	2.14	0.78
4:AG:79:HIS:O	21:A2:1414:G:O2'	2.00	0.78
15:AE:65:ILE:HG12	28:AV:13:LEU:HD12	1.64	0.78
51:Bj:47:TYR:CE2	59:BM:82:PRO:HB3	2.19	0.78
56:BH:29:GLY:HA2	56:BH:62:LYS:HB2	1.66	0.78
67:B1:1465:A:N6	67:B1:1476:C:O2	2.17	0.78
3:AI:96:ALA:HB3	18:AF:143:PHE:CE2	2.05	0.78
21:A2:434:A:C6	28:AV:85:TYR:CE1	2.72	0.78
38:Bb:77:SER:CA	67:B1:585:G:H5'	2.12	0.78
39:Be:19:ARG:C	67:B1:125:C:H41	1.91	0.78
51:Bj:1:MET:CE	67:B1:2398:C:H3'	2.14	0.78
51:Bj:47:TYR:CZ	59:BM:82:PRO:HB3	2.18	0.78
55:Bh:10:ILE:HG23	55:Bh:14:LYS:HE3	1.65	0.78
67:B1:2702:A:C2'	67:B1:2702:A:N9	2.47	0.78
35:BL:43:ASN:HA	67:B1:961:C:O3'	1.83	0.78
39:Be:19:ARG:CB	67:B1:125:C:N4	2.46	0.78
45:Bi:43:ARG:CD	57:BZ:79:VAL:CG1	2.57	0.78
34:B5:50:ILE:CG2	57:BZ:28:LYS:HZ3	1.95	0.78
48:BR:10:ARG:NH1	67:B1:2378:C:H5	1.80	0.78
67:B1:83:G:N2	67:B1:102:A:C8	2.52	0.78
67:B1:2217:C:N4	67:B1:2318:G:O6	2.16	0.78
21:A2:1200:U:N3	25:AH:180:PHE:CB	2.45	0.78
51:Bj:52:ARG:CG	67:B1:2548:A:C2	2.66	0.78
64:Bc:68:ARG:NH2	67:B1:1292:C:H5''	1.97	0.78
13:AX:71:ARG:CD	21:A2:1041:C:OP1	2.30	0.78
31:BY:135:LYS:HD3	68:B3:95:G:H5''	1.65	0.78
48:BR:69:ARG:CZ	67:B1:2483:U:H1'	2.14	0.78
53:BD:87:ARG:NE	67:B1:487:U:H1'	1.99	0.78
15:AE:55:TYR:HD1	28:AV:9:LYS:HE3	1.48	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:Be:47:ARG:NH2	67:B1:505:A:O2'	2.17	0.77
4:AG:9:SER:HB2	4:AG:64:ARG:HH11	1.49	0.77
2:AK:50:ILE:CG1	25:AH:13:HIS:CE1	2.67	0.77
3:AI:96:ALA:HB2	18:AF:143:PHE:CZ	2.06	0.77
10:AD:93:LEU:HD11	18:AF:160:PRO:HB3	1.66	0.77
31:BY:155:LEU:HD11	67:B1:602:G:OP1	1.79	0.77
38:Bb:104:HIS:HB2	67:B1:1373:C:OP2	1.84	0.77
51:Bj:87:LYS:HG3	67:B1:2398:C:OP2	1.84	0.77
35:BL:25:HIS:HE2	67:B1:678:G:H1	1.32	0.77
35:BL:63:PHE:CD1	67:B1:2533:G:C1'	2.67	0.77
3:AI:28:LYS:HG2	5:AW:4:PRO:CA	2.14	0.77
18:AF:73:ARG:NH1	21:A2:1034:G:P	2.57	0.77
35:BL:27:GLY:N	67:B1:940:G:OP2	2.18	0.77
36:Bf:49:LEU:CD2	67:B1:1454:G:P	2.69	0.77
51:Bj:52:ARG:CG	67:B1:2548:A:H2	1.95	0.77
63:Bg:44:LYS:NZ	67:B1:2643:U:O3'	2.18	0.77
67:B1:2507:C:H3'	67:B1:2507:C:C6	2.19	0.77
8:AR:60:TYR:CD2	12:AN:16:LEU:HD12	2.19	0.77
12:AN:30:TYR:OH	21:A2:299:G:OP1	2.02	0.77
18:AF:44:ILE:O	18:AF:119:LEU:HD12	1.84	0.77
35:BL:47:TRP:CH2	67:B1:968:A:C2	2.73	0.77
38:Bb:77:SER:HA	67:B1:585:G:C5'	2.13	0.77
21:A2:1296:U:C6	25:AH:175:ARG:NH1	2.53	0.77
35:BL:58:LEU:HB3	67:B1:239:G:OP2	1.85	0.77
12:AN:50:ALA:C	21:A2:359:A:OP1	2.27	0.77
35:BL:25:HIS:CB	67:B1:804:C:H41	1.98	0.77
39:Be:45:ARG:HG3	67:B1:1510:U:C2	2.20	0.77
49:BQ:84:LYS:HA	67:B1:1843:C:P	2.25	0.77
4:AG:77:ASP:HB2	21:A2:1403:U:O2	1.86	0.76
45:Bi:40:VAL:HG22	52:BB:78:LEU:CD1	2.15	0.76
35:BL:4:ARG:CD	67:B1:678:G:O2'	2.33	0.76
51:Bj:49:GLY:HA2	67:B1:189:U:C1'	2.06	0.76
31:BY:123:ARG:HD2	67:B1:1132:U:C4'	2.15	0.76
56:BH:60:VAL:H	56:BH:62:LYS:HG3	1.50	0.76
3:AI:9:ASN:ND2	21:A2:778:G:N2	2.28	0.76
13:AX:20:THR:O	21:A2:1341:C:C5	2.38	0.76
21:A2:1476:C:N4	55:Bh:7:LYS:HZ2	1.80	0.76
43:Bk:42:ARG:NH1	67:B1:1222:U:O2'	2.18	0.76
61:Bd:30:LYS:CG	67:B1:1669:A:O2'	2.33	0.76
67:B1:1669:A:C8	67:B1:1712:U:H5'	2.21	0.76
68:B3:35:A:C2'	68:B3:35:A:N9	2.49	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:17:LYS:NZ	21:A2:141:C:OP1	2.17	0.76
15:AE:65:ILE:CG1	28:AV:13:LEU:HD12	2.15	0.76
35:BL:63:PHE:HE1	67:B1:2533:G:H1'	1.50	0.76
43:Bk:38:LEU:O	43:Bk:42:ARG:HG3	1.85	0.76
18:AF:84:ARG:NH1	21:A2:1032:A:P	2.43	0.76
35:BL:5:ARG:HB2	35:BL:10:LYS:HD3	1.68	0.76
51:Bj:9:THR:OG1	67:B1:2459:G:OP2	2.02	0.76
20:BG:40:THR:HG21	59:BM:3:MET:HA	1.66	0.76
67:B1:2507:C:C2'	67:B1:2507:C:C6	2.68	0.76
51:Bj:49:GLY:CA	67:B1:189:U:C2	2.68	0.76
36:Bf:30:LYS:CD	67:B1:92:G:C5	2.64	0.76
21:A2:60:A:C2	21:A2:64:G:O6	2.38	0.76
2:AK:40:ILE:CG2	25:AH:44:LEU:HD11	2.12	0.76
21:A2:63:G:H2'	21:A2:64:G:N7	2.00	0.76
21:A2:375:G:N2	21:A2:381:C:O2	2.18	0.76
31:BY:30:ARG:NH2	67:B1:1297:C:P	2.59	0.76
36:Bf:1:MET:N	36:Bf:1:MET:HE3	2.00	0.76
26:AP:52:PHE:CD2	29:AL:64:TRP:CE3	2.74	0.75
35:BL:10:LYS:HB2	67:B1:947:C:H6	1.49	0.75
41:Ba:21:ILE:HD12	67:B1:1811:G:N2	2.00	0.75
18:AF:157:ILE:O	18:AF:183:VAL:HG23	1.85	0.75
38:Bb:77:SER:HB2	67:B1:585:G:H5''	1.57	0.75
51:Bj:1:MET:HB3	67:B1:2400:U:OP2	1.85	0.75
12:AN:51:ARG:HA	12:AN:103:VAL:O	1.87	0.75
39:Be:60:ASN:HB2	67:B1:497:G:C8	2.19	0.75
48:BR:70:GLY:HA3	67:B1:2484:C:H5'	1.68	0.75
34:B5:8:ARG:HH22	57:BZ:55:LEU:HD23	1.50	0.75
36:Bf:1:MET:H1	36:Bf:1:MET:HE3	1.51	0.75
36:Bf:22:ARG:NH2	67:B1:1478:G:C5'	2.35	0.75
51:Bj:1:MET:HG2	67:B1:2399:C:P	2.24	0.75
39:Be:8:PHE:HZ	67:B1:1920:A:C5	2.01	0.75
45:Bi:7:VAL:HG13	67:B1:1854:G:P	2.25	0.75
21:A2:133:G:O6	21:A2:159:C:N4	2.18	0.75
21:A2:369:A:O3'	21:A2:434:A:N7	2.19	0.75
39:Be:15:PRO:HA	67:B1:819:U:C4	2.21	0.75
21:A2:898:G:H2'	21:A2:899:G:C8	2.21	0.75
4:AG:85:ARG:NH1	21:A2:331:C:OP1	2.18	0.75
12:AN:51:ARG:HB2	21:A2:359:A:OP2	1.87	0.75
21:A2:1200:U:H3	25:AH:180:PHE:CB	1.90	0.75
21:A2:1251:C:P	25:AH:99:LYS:HD3	2.26	0.75
34:B5:56:LEU:CD2	61:Bd:84:ILE:HD11	2.16	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AI:57:ARG:HA	21:A2:607:U:P	2.27	0.75
21:A2:152:G:H2'	21:A2:153:G:C8	2.22	0.75
35:BL:6:LYS:HE3	67:B1:1338:G:O6	1.84	0.75
39:Be:53:LYS:HG2	67:B1:506:G:H5''	0.76	0.75
49:BQ:81:ARG:CZ	67:B1:1885:G:OP2	2.33	0.75
49:BQ:84:LYS:CG	67:B1:1843:C:OP2	2.34	0.75
4:AG:92:PRO:CG	21:A2:1413:G:H5'	2.16	0.74
18:AF:73:ARG:NH1	21:A2:879:U:C4'	2.47	0.74
18:AF:84:ARG:NH1	21:A2:1031:G:C3'	2.49	0.74
21:A2:562:A:C2'	21:A2:562:A:N9	2.49	0.74
51:Bj:47:TYR:CZ	59:BM:82:PRO:CB	2.70	0.74
51:Bj:52:ARG:HE	67:B1:2202:U:H4'	1.50	0.74
21:A2:1462:A:N6	21:A2:1483:U:O4	2.16	0.74
21:A2:1475:C:OP2	55:Bh:4:LYS:CG	2.35	0.74
39:Be:60:ASN:HB2	67:B1:497:G:N7	1.98	0.74
61:Bd:13:LYS:NZ	67:B1:1626:A:C5'	2.51	0.74
10:AD:56:ARG:HG3	18:AF:160:PRO:HG3	1.68	0.74
38:Bb:72:ARG:HG3	67:B1:1365:G:C5'	2.14	0.74
51:Bj:47:TYR:CZ	67:B1:2202:U:O2'	2.40	0.74
20:BG:3:LYS:NZ	20:BG:55:GLU:O	2.19	0.74
18:AF:175:LEU:CD2	18:AF:205:LEU:HD11	2.16	0.74
35:BL:113:LEU:HD13	67:B1:732:G:C4	2.21	0.74
63:Bg:45:GLU:OE1	67:B1:2644:G:H5'	1.88	0.74
18:AF:166:VAL:CB	21:A2:1:A:OP2	2.36	0.74
21:A2:1249:A:H5'	25:AH:81:VAL:HA	1.67	0.74
34:B5:52:HIS:CE1	61:Bd:81:LYS:HD3	2.21	0.74
39:Be:53:LYS:CD	67:B1:506:G:H5''	1.84	0.74
51:Bj:3:TYR:CE1	67:B1:2400:U:C4	2.75	0.74
61:Bd:44:ASN:ND2	67:B1:1667:U:H1'	2.01	0.74
3:AI:76:LYS:HG3	21:A2:836:G:OP2	1.86	0.74
21:A2:186:U:H2'	21:A2:187:C:H5'	1.69	0.74
21:A2:423:U:C2'	21:A2:423:U:N1	2.50	0.74
35:BL:63:PHE:CZ	67:B1:2532:G:N2	2.54	0.74
39:Be:4:GLY:N	67:B1:887:U:H2'	2.03	0.74
46:BA:39:LEU:HD23	46:BA:39:LEU:H	1.50	0.74
20:BG:60:GLU:HG2	59:BM:26:ARG:HH21	1.49	0.74
54:BF:166:ARG:CZ	63:Bg:45:GLU:CG	2.65	0.74
4:AG:103:ARG:NH1	21:A2:329:G:O3'	2.19	0.74
14:AM:31:THR:HG22	14:AM:38:THR:HA	1.69	0.74
21:A2:1200:U:C2'	21:A2:1200:U:N1	2.50	0.74
34:B5:13:ILE:HD11	61:Bd:80:MET:HE2	1.48	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:B5:13:ILE:HD12	61:Bd:80:MET:HE2	1.69	0.74
45:Bi:43:ARG:CZ	57:BZ:79:VAL:CG2	2.66	0.74
48:BR:61:ARG:NH1	67:B1:1058:A:H4'	2.03	0.74
54:BF:166:ARG:HD2	63:Bg:46:PRO:CD	2.06	0.74
56:BH:110:LYS:HG3	56:BH:114:MET:HE3	1.70	0.74
67:B1:2227:G:O6	67:B1:2308:C:N4	2.19	0.74
13:AX:20:THR:CG2	21:A2:1341:C:C1'	2.59	0.74
18:AF:92:ARG:HH12	18:AF:176:ARG:HH11	1.33	0.74
18:AF:122:ILE:HG12	18:AF:206:TYR:CD2	2.23	0.74
49:BQ:79:GLY:CA	67:B1:1865:U:O3'	2.33	0.74
18:AF:131:TRP:HZ3	18:AF:160:PRO:HD3	1.51	0.74
35:BL:6:LYS:CE	67:B1:1338:G:C6	2.70	0.74
38:Bb:77:SER:HA	67:B1:585:G:H5''	1.67	0.74
4:AG:64:ARG:HG2	21:A2:152:G:C5'	2.18	0.74
35:BL:113:LEU:HD13	67:B1:732:G:N3	2.02	0.74
48:BR:70:GLY:HA3	67:B1:2484:C:O5'	1.88	0.74
26:AP:56:GLU:HA	29:AL:63:ARG:HD3	1.66	0.73
20:BG:44:GLU:OE2	59:BM:6:TYR:CZ	2.40	0.73
35:BL:7:LYS:NZ	67:B1:1335:C:OP2	2.21	0.73
64:Bc:78:GLN:HA	67:B1:648:C:O2'	1.87	0.73
54:BF:166:ARG:CD	63:Bg:45:GLU:HB3	2.18	0.73
35:BL:63:PHE:CE1	67:B1:2533:G:C1'	2.70	0.73
36:Bf:3:ARG:HB2	67:B1:1451:A:OP1	1.88	0.73
2:AK:102:TYR:HH	25:AH:42:ARG:HE	1.34	0.73
18:AF:99:GLY:HA2	18:AF:116:TYR:CD2	2.22	0.73
35:BL:63:PHE:CD1	67:B1:2533:G:C4'	2.66	0.73
48:BR:14:LYS:HB3	67:B1:995:G:OP2	1.85	0.73
48:BR:69:ARG:HH22	67:B1:2482:G:N2	1.85	0.73
53:BD:85:PHE:CE2	67:B1:1398:C:C2'	2.71	0.73
2:AK:42:ARG:NE	25:AH:9:PHE:CE1	2.54	0.73
34:B5:52:HIS:ND1	61:Bd:77:ARG:CD	2.51	0.73
35:BL:119:THR:HG21	58:BP:73:LYS:HE3	1.69	0.73
61:Bd:44:ASN:OD1	67:B1:1666:G:N2	2.21	0.73
49:BQ:85:LYS:CE	67:B1:1844:C:OP1	2.31	0.73
50:BV:25:ASN:N	65:BJ:100:GLU:CD	2.46	0.73
2:AK:43:PHE:CE2	25:AH:9:PHE:HA	2.22	0.73
8:AR:62:ARG:NH1	12:AN:8:ASN:ND2	2.36	0.73
21:A2:1336:U:OP1	25:AH:159:ASP:CG	2.32	0.73
64:Bc:14:LYS:CD	67:B1:1142:A:C6	2.72	0.73
3:AI:6:PRO:HG3	21:A2:541:G:H5''	1.71	0.73
25:AH:87:ARG:HB2	25:AH:90:HIS:HA	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BL:44:LYS:N	67:B1:961:C:C2'	2.51	0.73
61:Bd:1:MET:HE2	61:Bd:3:PRO:HD2	1.70	0.73
3:AI:57:ARG:NH2	21:A2:608:G:OP2	2.22	0.73
49:BQ:64:LYS:CE	67:B1:1603:G:H5''	2.18	0.73
20:BG:11:VAL:HG13	20:BG:15:LEU:HD23	1.71	0.73
56:BH:114:MET:HG2	56:BH:116:ALA:HB2	1.69	0.73
8:AR:60:TYR:CD2	12:AN:16:LEU:CD1	2.72	0.72
10:AD:59:LEU:HD11	18:AF:132:GLU:OE2	1.88	0.72
18:AF:124:ILE:HD13	18:AF:178:ALA:HB1	1.71	0.72
31:BY:131:LYS:NZ	67:B1:1136:G:OP1	2.22	0.72
35:BL:10:LYS:CA	67:B1:947:C:H5'	2.18	0.72
35:BL:66:PRO:HG3	67:B1:2523:C:C5	2.24	0.72
2:AK:39:GLU:CD	25:AH:5:LEU:CG	2.56	0.72
31:BY:75:ILE:HD13	67:B1:1324:G:P	2.29	0.72
48:BR:71:GLU:OE2	67:B1:2497:G:OP1	2.06	0.72
67:B1:1827:A:H61	67:B1:1835:A:H61	1.34	0.72
2:AK:102:TYR:CZ	25:AH:42:ARG:CG	2.71	0.72
3:AI:13:HIS:CG	21:A2:780:C:H4'	2.24	0.72
4:AG:65:GLY:CA	21:A2:151:G:H4'	2.20	0.72
21:A2:442:C:H5''	28:AV:61:GLY:H	1.55	0.72
21:A2:1334:A:C1'	25:AH:69:ASN:ND2	2.52	0.72
21:A2:1370:U:H3	21:A2:1445:A:N6	1.86	0.72
49:BQ:84:LYS:CB	67:B1:1843:C:OP1	2.37	0.72
56:BH:19:PRO:HB2	56:BH:20:PRO:CD	2.19	0.72
3:AI:57:ARG:CZ	21:A2:607:U:H4'	2.19	0.72
21:A2:1312:C:H5'	25:AH:80:LYS:HE3	1.71	0.72
35:BL:9:ARG:HG3	35:BL:11:LEU:HA	1.71	0.72
38:Bb:64:GLY:O	67:B1:1127:C:O4'	2.07	0.72
67:B1:1045:A:C2'	67:B1:1045:A:N9	2.51	0.72
67:B1:2554:A:C2'	67:B1:2554:A:N9	2.52	0.72
67:B1:2890:A:C2	67:B1:2892:A:N6	2.58	0.72
18:AF:124:ILE:HD12	18:AF:205:LEU:CD2	2.19	0.72
21:A2:428:G:H1	21:A2:442:C:H42	1.37	0.72
38:Bb:45:GLY:HA3	67:B1:656:G:OP1	1.89	0.72
38:Bb:72:ARG:NE	67:B1:1366:U:P	2.49	0.72
26:AP:56:GLU:CD	29:AL:63:ARG:HB2	2.15	0.72
67:B1:2507:C:C2'	67:B1:2507:C:N1	2.52	0.72
18:AF:166:VAL:HG22	18:AF:184:TRP:HA	1.71	0.72
39:Be:59:LYS:HE2	53:BD:55:ARG:HH21	1.29	0.72
48:BR:4:LYS:CD	67:B1:2390:G:O6	2.37	0.72
18:AF:84:ARG:HH12	21:A2:1031:G:C3'	2.02	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:1333:G:N7	25:AH:48:HIS:NE2	2.37	0.72
51:Bj:58:ARG:O	67:B1:2541:U:OP1	2.07	0.72
56:BH:32:VAL:HG23	56:BH:35:VAL:HB	1.70	0.72
67:B1:1506:U:HO2'	67:B1:1947:A:H2	1.38	0.72
18:AF:130:SER:HB3	18:AF:139:HIS:HE1	1.54	0.71
21:A2:804:U:C2'	21:A2:804:U:N1	2.53	0.71
31:BY:123:ARG:HE	67:B1:1132:U:H4'	1.54	0.71
31:BY:131:LYS:NZ	67:B1:1136:G:OP2	2.20	0.71
39:Be:3:SER:C	67:B1:1920:A:N7	2.47	0.71
41:Ba:21:ILE:CG1	67:B1:1811:G:C2	2.69	0.71
54:BF:166:ARG:CD	63:Bg:46:PRO:HD2	2.07	0.71
64:Bc:14:LYS:CG	67:B1:1142:A:N3	2.52	0.71
67:B1:404:G:C2'	67:B1:404:G:N9	2.53	0.71
4:AG:64:ARG:CZ	21:A2:151:G:O2'	2.38	0.71
21:A2:1248:A:O2'	25:AH:81:VAL:HG22	1.91	0.71
21:A2:1332:C:H4'	25:AH:98:VAL:CG2	2.20	0.71
38:Bb:68:PRO:HA	67:B1:1303:C:H5'	1.70	0.71
39:Be:53:LYS:CD	67:B1:506:G:P	2.77	0.71
4:AG:92:PRO:HG3	21:A2:1412:A:C2'	2.19	0.71
34:B5:8:ARG:HH21	57:BZ:55:LEU:CD2	2.02	0.71
34:B5:31:ASN:HD21	57:BZ:25:ARG:NH1	1.88	0.71
38:Bb:97:ARG:HH12	28:B6:62:SER:HB2	1.54	0.71
49:BQ:76:ARG:HD2	67:B1:1884:C:OP2	1.90	0.71
51:Bj:52:ARG:HB3	67:B1:2548:A:C2	2.25	0.71
2:AK:43:PHE:CE2	25:AH:12:PRO:HG3	2.24	0.71
39:Be:28:TYR:CE2	67:B1:124:C:C5'	2.25	0.71
39:Be:47:ARG:NH1	67:B1:506:G:OP1	2.19	0.71
55:Bh:9:ARG:O	55:Bh:13:LEU:HG	1.90	0.71
61:Bd:5:TYR:CE2	67:B1:1524:A:C5	2.79	0.71
4:AG:64:ARG:CD	21:A2:152:G:C5'	2.68	0.71
18:AF:13:LEU:HA	18:AF:27:LYS:NZ	2.05	0.71
18:AF:149:GLU:HG2	18:AF:196:ASN:HA	1.72	0.71
35:BL:6:LYS:NZ	67:B1:1339:C:N4	2.39	0.71
51:Bj:1:MET:SD	67:B1:2399:C:C6	2.83	0.71
67:B1:1566:G:C2	67:B1:1570:C:N3	2.57	0.71
3:AI:57:ARG:HE	21:A2:607:U:C5'	2.03	0.71
4:AG:73:PRO:HB3	21:A2:150:G:H5'	1.71	0.71
4:AG:102:ARG:NH2	21:A2:317:A:O2'	2.22	0.71
12:AN:5:LYS:CE	21:A2:838:C:C6	2.73	0.71
15:AE:55:TYR:CD1	28:AV:9:LYS:HE3	2.23	0.71
18:AF:163:LEU:HD21	18:AF:166:VAL:CG1	2.21	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BY:135:LYS:HD3	68:B3:95:G:C5'	2.19	0.71
39:Be:14:THR:C	67:B1:819:U:H3	1.96	0.71
67:B1:1566:G:C2	67:B1:1570:C:C2	2.78	0.71
21:A2:1334:A:O2'	25:AH:69:ASN:HB3	1.90	0.71
35:BL:44:LYS:HE3	35:BL:47:TRP:CG	2.26	0.71
35:BL:132:LYS:NZ	67:B1:733:A:C5'	2.54	0.71
36:Bf:42:ARG:HH12	67:B1:1455:U:P	2.13	0.71
39:Be:21:ARG:HD2	67:B1:124:C:H5''	1.71	0.71
12:AN:51:ARG:CB	21:A2:359:A:OP2	2.39	0.71
53:BD:91:ARG:NH2	67:B1:488:A:H5''	2.05	0.71
4:AG:110:ASN:ND2	21:A2:1403:U:O2'	2.23	0.71
26:AP:52:PHE:HB2	29:AL:64:TRP:HZ3	1.56	0.71
31:BY:130:LYS:CE	67:B1:1122:C:OP1	2.38	0.71
34:B5:8:ARG:CZ	57:BZ:55:LEU:HD21	2.20	0.71
34:B5:13:ILE:HD13	61:Bd:80:MET:CE	2.19	0.71
35:BL:9:ARG:HG3	35:BL:11:LEU:CA	2.20	0.71
36:Bf:29:VAL:HG12	67:B1:92:G:H4'	1.72	0.71
39:Be:51:TRP:CB	67:B1:932:C:O2'	2.39	0.71
51:Bj:47:TYR:CE1	59:BM:82:PRO:CB	2.74	0.71
20:BG:5:SER:HG	59:BM:22:LEU:HD21	1.54	0.71
3:AI:57:ARG:HA	21:A2:607:U:OP1	1.90	0.70
12:AN:20:ARG:NH1	21:A2:516:A:C2	2.59	0.70
36:Bf:26:TRP:CZ3	67:B1:62:C:N3	2.59	0.70
36:Bf:28:ILE:HG23	36:Bf:34:ARG:CZ	2.21	0.70
48:BR:82:LYS:HE3	67:B1:2473:C:P	2.31	0.70
18:AF:163:LEU:HD21	18:AF:166:VAL:HG13	1.72	0.70
21:A2:1332:C:H4'	25:AH:98:VAL:HG21	1.73	0.70
21:A2:1476:C:H41	55:Bh:7:LYS:HZ2	1.39	0.70
51:Bj:47:TYR:OH	67:B1:2203:G:C1'	2.38	0.70
67:B1:1600:G:C2'	67:B1:1600:G:N9	2.54	0.70
3:AI:4:LEU:HD11	21:A2:539:C:O2'	1.90	0.70
4:AG:94:PHE:HE1	21:A2:149:U:C4'	2.05	0.70
26:AP:47:ALA:HB2	29:AL:64:TRP:HH2	1.54	0.70
33:BC:108:ASN:HB3	33:BC:172:TRP:HH2	0.88	0.70
35:BL:10:LYS:HB3	67:B1:946:U:O2'	1.91	0.70
35:BL:47:TRP:HZ3	67:B1:967:G:N2	1.88	0.70
35:BL:78:LEU:HB3	35:BL:118:LEU:HD21	1.73	0.70
55:Bh:19:LYS:O	55:Bh:23:LEU:CD1	2.40	0.70
67:B1:1575:G:C2'	67:B1:1575:G:N9	2.54	0.70
4:AG:87:LEU:HD12	21:A2:1395:G:H5''	1.73	0.70
21:A2:1200:U:C4	25:AH:91:ARG:C	2.52	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BR:10:ARG:NH1	67:B1:2378:C:C5	2.59	0.70
48:BR:82:LYS:CD	67:B1:2473:C:OP1	2.38	0.70
18:AF:67:ASP:O	18:AF:85:VAL:HG13	1.92	0.70
21:A2:859:A:OP1	55:Bh:21:ARG:NH1	2.23	0.70
31:BY:130:LYS:NZ	67:B1:1122:C:H5''	2.06	0.70
35:BL:17:HIS:NE2	67:B1:945:U:H2'	2.06	0.70
67:B1:5:U:H3	67:B1:3045:G:H1	1.37	0.70
67:B1:1096:A:H2'	67:B1:1097:G:C5'	2.21	0.70
6:AC:4:GLU:OE1	29:AL:45:ILE:CG2	2.40	0.70
21:A2:370:A:OP1	21:A2:434:A:N6	2.25	0.70
36:Bf:1:MET:H3	67:B1:1450:C:H5''	1.52	0.70
36:Bf:22:ARG:HH21	67:B1:1478:G:P	2.11	0.70
50:BV:39:ARG:NH2	67:B1:2833:G:OP2	2.25	0.70
61:Bd:44:ASN:CG	67:B1:1666:G:N2	2.47	0.70
64:Bc:61:HIS:NE2	67:B1:1144:A:H5'	2.07	0.70
67:B1:565:A:C2'	67:B1:565:A:N9	2.54	0.70
21:A2:166:A:N6	21:A2:196:G:H1'	2.06	0.70
21:A2:1307:G:C6	25:AH:48:HIS:CD2	2.80	0.70
25:AH:93:LEU:HD12	25:AH:95:SER:HB2	1.73	0.70
33:BC:358:TYR:CE2	50:BV:16:PRO:HG2	2.26	0.70
36:Bf:32:ASN:CG	67:B1:520:G:N7	2.48	0.70
38:Bb:33:LYS:CA	67:B1:672:C:OP1	2.39	0.70
49:BQ:60:ARG:CZ	67:B1:1602:C:C4'	2.69	0.70
3:AI:4:LEU:HB2	21:A2:540:G:C5'	2.20	0.70
39:Be:5:THR:CG2	67:B1:924:A:N3	2.55	0.70
49:BQ:73:GLY:HA2	67:B1:1884:C:H41	1.57	0.70
64:Bc:14:LYS:CD	67:B1:1143:A:H62	2.05	0.70
31:BY:75:ILE:HG12	67:B1:1323:U:H5''	1.72	0.70
35:BL:6:LYS:O	35:BL:9:ARG:HD3	1.91	0.70
39:Be:53:LYS:HD3	67:B1:506:G:O5'	1.91	0.70
45:Bi:68:TYR:CZ	52:BB:170:LYS:HB3	2.22	0.70
61:Bd:42:PRO:HG2	67:B1:1636:C:C4'	2.20	0.70
21:A2:460:C:C5'	21:A2:461:A:H5''	2.21	0.69
21:A2:702:G:H22	21:A2:706:G:H1	1.39	0.69
31:BY:75:ILE:CD1	67:B1:1324:G:OP2	2.26	0.69
20:BG:44:GLU:OE2	59:BM:6:TYR:OH	2.10	0.69
12:AN:108:ILE:HD12	21:A2:505:U:H5'	1.73	0.69
25:AH:49:GLY:HA3	25:AH:51:HIS:CE1	2.26	0.69
56:BH:87:SER:HB2	56:BH:133:MET:HE2	1.72	0.69
3:AI:4:LEU:HB3	21:A2:540:G:C4'	2.19	0.69
34:B5:50:ILE:CB	57:BZ:28:LYS:NZ	2.55	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BL:24:LYS:HZ2	67:B1:1080:G:C5'	2.03	0.69
36:Bf:26:TRP:HE3	67:B1:92:G:C2	2.07	0.69
39:Be:36:ALA:CB	67:B1:505:A:H5'	2.22	0.69
43:Bk:42:ARG:NH2	67:B1:1224:A:H62	1.87	0.69
48:BR:47:PRO:O	67:B1:2445:G:H4'	1.92	0.69
18:AF:40:ARG:HB3	18:AF:42:TYR:CD1	2.27	0.69
18:AF:47:PRO:HG3	18:AF:115:ASN:HD21	1.57	0.69
31:BY:130:LYS:NZ	67:B1:1122:C:P	2.65	0.69
38:Bb:30:ARG:HB2	38:Bb:31:TYR:CD1	2.28	0.69
38:Bb:77:SER:OG	67:B1:585:G:OP1	2.09	0.69
39:Be:4:GLY:CA	67:B1:887:U:H2'	2.22	0.69
41:Ba:61:ARG:O	67:B1:2823:G:H5'	1.92	0.69
67:B1:2144:U:C2'	67:B1:2144:U:N1	2.55	0.69
12:AN:50:ALA:HA	21:A2:359:A:OP1	1.92	0.69
21:A2:400:G:O2'	21:A2:423:U:O2	2.08	0.69
26:AP:47:ALA:CB	29:AL:64:TRP:HH2	2.05	0.69
39:Be:21:ARG:NH1	67:B1:123:A:N3	2.33	0.69
50:BV:51:LYS:H	50:BV:51:LYS:HE2	1.57	0.69
51:Bj:39:ARG:HG2	51:Bj:50:PHE:CE1	2.27	0.69
67:B1:2260:C:H42	67:B1:2277:G:H1	1.41	0.69
25:AH:174:TYR:CD2	25:AH:175:ARG:HD2	2.27	0.69
36:Bf:5:LYS:CE	67:B1:1454:G:N7	2.55	0.69
43:Bk:42:ARG:NH2	67:B1:1224:A:C6	2.61	0.69
20:BG:61:GLU:CG	59:BM:11:TRP:HE1	2.05	0.69
54:BF:166:ARG:CZ	63:Bg:45:GLU:HG2	2.22	0.69
67:B1:272:G:H1	67:B1:284:U:H3	1.39	0.69
2:AK:10:ARG:HH22	25:AH:48:HIS:HB3	1.58	0.69
4:AG:103:ARG:NH1	21:A2:329:G:C2'	2.56	0.69
38:Bb:11:ARG:CZ	67:B1:1302:G:C5'	2.62	0.69
51:Bj:84:PHE:HZ	67:B1:2399:C:H41	1.39	0.69
67:B1:1642:G:C2'	67:B1:1642:G:N9	2.54	0.69
11:A1:76:C:C4	51:Bj:56:GLU:HG3	2.28	0.69
12:AN:26:SER:HB2	21:A2:515:U:O4	1.92	0.69
21:A2:133:G:N1	21:A2:159:C:N3	2.41	0.69
21:A2:428:G:N2	21:A2:442:C:N3	2.38	0.69
21:A2:1195:U:OP1	25:AH:79:TYR:HB2	1.93	0.69
33:BC:108:ASN:O	33:BC:172:TRP:CD2	2.45	0.69
35:BL:10:LYS:C	67:B1:947:C:H5'	2.18	0.69
35:BL:26:ARG:HH12	67:B1:941:C:C3'	2.01	0.69
38:Bb:104:HIS:CA	67:B1:1373:C:OP2	2.40	0.69
48:BR:69:ARG:HH22	67:B1:2483:U:H1'	1.58	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:BB:28:VAL:HG11	52:BB:110:ASN:HD21	1.58	0.69
20:B4:57:VAL:HG11	20:B4:63:VAL:CG2	2.22	0.69
67:B1:30:G:H2'	67:B1:31:G:C8	2.28	0.69
67:B1:1570:C:C5'	67:B1:1666:G:O2'	2.41	0.69
3:AI:57:ARG:HH21	21:A2:607:U:C4'	2.06	0.69
4:AG:77:ASP:OD1	21:A2:1403:U:C1'	2.41	0.69
11:A1:52:G:H1	11:A1:64:C:H42	1.38	0.69
21:A2:1423:A:H2'	21:A2:1424:G:C8	2.26	0.69
39:Be:22:ARG:HA	67:B1:54:G:H21	1.58	0.69
4:AG:94:PHE:HD1	21:A2:149:U:H4'	1.54	0.69
18:AF:132:GLU:HG2	18:AF:133:CYS:H	1.56	0.69
18:AF:214:SER:O	18:AF:217:MET:HB2	1.92	0.69
31:BY:130:LYS:CE	67:B1:1122:C:C5'	2.55	0.69
35:BL:131:PRO:HD2	67:B1:732:G:P	2.33	0.69
51:Bj:3:TYR:HE1	67:B1:2400:U:N3	1.90	0.69
67:B1:1096:A:H2'	67:B1:1097:G:H5''	1.74	0.69
3:AI:99:PHE:HE1	18:AF:143:PHE:CZ	2.11	0.68
4:AG:94:PHE:CD1	21:A2:149:U:C4'	2.76	0.68
21:A2:369:A:H2'	21:A2:370:A:C8	2.29	0.68
36:Bf:12:ARG:NH1	39:Be:18:ILE:HD11	2.08	0.68
51:Bj:47:TYR:HE1	59:BM:82:PRO:HG2	1.47	0.68
56:BH:70:VAL:HG13	56:BH:71:PRO:CD	2.24	0.68
18:AF:45:LYS:HB2	18:AF:45:LYS:NZ	2.08	0.68
31:BY:11:GLY:HA3	67:B1:1124:G:OP2	1.91	0.68
35:BL:9:ARG:CG	35:BL:11:LEU:HA	2.22	0.68
67:B1:43:G:C6	67:B1:474:G:N2	2.61	0.68
18:AF:99:GLY:CA	18:AF:116:TYR:HD2	2.06	0.68
26:AP:56:GLU:CB	29:AL:63:ARG:HB3	2.22	0.68
35:BL:9:ARG:CD	67:B1:948:C:H41	2.07	0.68
35:BL:9:ARG:HD2	67:B1:948:C:H41	1.59	0.68
39:Be:53:LYS:HZ3	67:B1:506:G:C4'	2.03	0.68
64:Bc:14:LYS:HG2	67:B1:1142:A:N3	2.08	0.68
21:A2:442:C:P	28:AV:60:PHE:HA	2.34	0.68
34:B5:50:ILE:CG2	57:BZ:28:LYS:HZ1	2.03	0.68
56:BH:51:VAL:HG13	56:BH:70:VAL:HG12	1.75	0.68
61:Bd:16:ARG:HG2	61:Bd:22:VAL:HG22	1.75	0.68
18:AF:82:ARG:NH2	21:A2:1023:C:P	2.66	0.68
38:Bb:109:LYS:NZ	67:B1:1353:A:H8	1.74	0.68
39:Be:5:THR:N	67:B1:887:U:OP2	2.25	0.68
45:Bi:8:GLY:C	67:B1:839:A:H4'	2.19	0.68
51:Bj:46:GLY:CA	59:BM:82:PRO:O	2.42	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BG:61:GLU:OE1	59:BM:11:TRP:NE1	2.26	0.68
56:BH:124:LYS:HB3	67:B1:1219:C:HO2'	1.57	0.68
2:AK:40:ILE:O	25:AH:44:LEU:HD11	1.93	0.68
4:AG:85:ARG:HH22	21:A2:331:C:P	2.17	0.68
4:AG:87:LEU:CD1	21:A2:1395:G:H5''	2.24	0.68
18:AF:70:LEU:O	18:AF:70:LEU:CG	2.41	0.68
18:AF:166:VAL:HG11	21:A2:1:A:OP2	1.91	0.68
36:Bf:43:TYR:HH	67:B1:1476:C:P	2.16	0.68
38:Bb:104:HIS:CB	67:B1:1373:C:OP2	2.42	0.68
39:Be:4:GLY:H	67:B1:887:U:H2'	1.59	0.68
67:B1:831:C:H5''	67:B1:1791:A:H61	1.59	0.68
67:B1:2869:U:O4'	67:B1:2869:U:N1	2.27	0.68
18:AF:73:ARG:HH11	21:A2:1034:G:P	2.15	0.68
36:Bf:43:TYR:HB3	36:Bf:46:ARG:HB2	1.76	0.68
39:Be:53:LYS:HG2	67:B1:506:G:O5'	1.93	0.68
34:B5:57:PRO:CG	61:Bd:88:LEU:HD23	1.99	0.68
61:Bd:44:ASN:HD21	67:B1:1667:U:H1'	1.57	0.68
67:B1:1177:C:H42	67:B1:1256:G:H1	1.42	0.68
67:B1:2190:A:H61	67:B1:2558:U:H3	1.42	0.68
18:AF:165:LEU:HD23	18:AF:183:VAL:CG1	2.23	0.68
33:BC:362:GLU:HB2	50:BV:15:GLU:OE2	1.94	0.68
34:B5:50:ILE:HD13	57:BZ:28:LYS:CE	2.24	0.68
51:Bj:84:PHE:HZ	67:B1:2399:C:N4	1.84	0.68
63:Bg:12:PHE:C	63:Bg:13:LYS:HG3	2.19	0.68
2:AK:119:PRO:HB3	29:AL:61:PHE:HB2	1.75	0.68
6:AC:4:GLU:OE1	29:AL:45:ILE:HG22	1.93	0.68
25:AH:46:HIS:CE1	25:AH:98:VAL:HA	2.29	0.68
39:Be:60:ASN:HA	67:B1:491:G:C6	2.29	0.68
41:Ba:21:ILE:HD12	67:B1:1811:G:H22	1.58	0.68
13:AX:20:THR:OG1	21:A2:1341:C:O4'	2.11	0.67
21:A2:369:A:H2'	21:A2:370:A:H8	1.57	0.67
21:A2:1296:U:H2'	25:AH:175:ARG:HH12	1.59	0.67
34:B5:16:ARG:HD2	67:B1:1566:G:C5	2.29	0.67
36:Bf:26:TRP:CE2	67:B1:62:C:O2	2.47	0.67
63:Bg:36:TYR:HB2	67:B1:1171:G:H5'	1.75	0.67
2:AK:42:ARG:CD	25:AH:9:PHE:CE1	2.76	0.67
8:AR:63:TYR:CD1	12:AN:10:GLU:HB3	2.29	0.67
21:A2:631:C:H42	21:A2:667:G:H1	1.42	0.67
36:Bf:32:ASN:OD1	67:B1:520:G:C8	2.47	0.67
20:BG:61:GLU:HG3	59:BM:11:TRP:HE1	1.59	0.67
67:B1:3035:C:H2'	67:B1:3036:C:C6	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:1311:C:H4'	25:AH:95:SER:CA	2.24	0.67
35:BL:17:HIS:HE2	67:B1:945:U:C2'	2.08	0.67
67:B1:1431:U:H3	67:B1:1469:U:H3	1.42	0.67
67:B1:1569:A:H5''	67:B1:1570:C:OP2	1.94	0.67
21:A2:369:A:C3'	21:A2:434:A:N7	2.56	0.67
35:BL:119:THR:CB	58:BP:73:LYS:HE3	2.23	0.67
39:Be:8:PHE:CZ	67:B1:1920:A:C5	2.82	0.67
41:Ba:24:ARG:NE	67:B1:2805:U:O2'	2.27	0.67
41:Ba:65:LYS:NZ	67:B1:2824:C:OP2	2.28	0.67
56:BH:18:GLY:O	56:BH:23:PRO:HD2	1.95	0.67
56:BH:114:MET:HG2	56:BH:116:ALA:CB	2.23	0.67
67:B1:1760:C:O2'	67:B1:1766:A:N6	2.28	0.67
67:B1:2902:G:H1	67:B1:3041:U:H3	1.40	0.67
10:AD:137:ILE:HD13	10:AD:137:ILE:H	1.59	0.67
21:A2:1198:A:OP1	25:AH:175:ARG:HG2	1.94	0.67
25:AH:75:GLY:CA	25:AH:94:ASN:HA	2.25	0.67
38:Bb:72:ARG:HA	67:B1:1365:G:OP1	1.94	0.67
4:AG:99:LYS:CB	21:A2:319:U:O2'	2.43	0.67
8:AR:63:TYR:N	12:AN:10:GLU:O	2.27	0.67
18:AF:165:LEU:HD22	18:AF:175:LEU:CD1	2.24	0.67
39:Be:51:TRP:CB	67:B1:932:C:HO2'	2.07	0.67
45:Bi:8:GLY:O	67:B1:839:A:C5'	2.42	0.67
56:BH:90:PRO:HD3	56:BH:134:GLY:O	1.93	0.67
20:BG:36:THR:CB	59:BM:3:MET:SD	2.82	0.67
20:BG:37:ASN:HA	59:BM:3:MET:HB2	1.77	0.67
67:B1:1566:G:N1	67:B1:1570:C:C4	2.62	0.67
67:B1:2568:A:N6	67:B1:2614:C:H42	1.91	0.67
34:B5:16:ARG:CD	67:B1:1566:G:O6	2.42	0.67
53:BD:85:PHE:CE2	67:B1:1398:C:H2'	2.29	0.67
56:BH:124:LYS:CG	67:B1:1220:U:H5'	2.25	0.67
2:AK:50:ILE:HD11	25:AH:13:HIS:CG	2.28	0.67
4:AG:88:LEU:HA	21:A2:1413:G:OP1	1.94	0.67
12:AN:48:PRO:CG	21:A2:44:C:H42	2.07	0.67
18:AF:82:ARG:HH21	21:A2:1023:C:P	2.18	0.67
21:A2:975:A:H2'	21:A2:976:A:H5''	1.76	0.67
38:Bb:48:SER:HA	67:B1:655:C:OP1	1.95	0.67
21:A2:370:A:P	21:A2:434:A:N6	2.64	0.67
45:Bi:68:TYR:HE2	52:BB:170:LYS:HD3	0.89	0.67
49:BQ:60:ARG:NH2	67:B1:1602:C:H4'	2.10	0.67
61:Bd:44:ASN:ND2	67:B1:1666:G:N2	2.40	0.67
67:B1:1969:C:N4	67:B1:2099:G:H22	1.93	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AN:48:PRO:HG3	21:A2:44:C:H42	1.60	0.66
18:AF:59:ALA:HB1	18:AF:91:ASN:CB	2.24	0.66
21:A2:1336:U:OP1	25:AH:159:ASP:OD1	2.12	0.66
34:B5:51:LYS:HE3	67:B1:1568:A:C4'	2.20	0.66
36:Bf:3:ARG:HG2	67:B1:1452:G:OP2	1.96	0.66
51:Bj:34:SER:OG	67:B1:2513:C:H5''	1.95	0.66
2:AK:102:TYR:CE1	25:AH:42:ARG:NE	2.63	0.66
25:AH:87:ARG:HA	25:AH:88:ARG:HD3	1.77	0.66
38:Bb:126:LEU:HD21	67:B1:584:G:P	2.36	0.66
39:Be:49:TYR:OH	67:B1:815:U:H4'	1.94	0.66
63:Bg:18:LEU:CD1	67:B1:2592:U:N3	2.48	0.66
64:Bc:14:LYS:HD2	67:B1:1142:A:C6	2.30	0.66
35:BL:44:LYS:CA	67:B1:961:C:C1'	2.74	0.66
45:Bi:19:LEU:HD21	67:B1:1853:C:P	2.28	0.66
67:B1:956:U:C5	67:B1:1107:G:N2	2.63	0.66
7:AB:111:GLU:HB3	18:AF:21:LYS:HZ2	1.61	0.66
12:AN:79:LYS:CB	21:A2:358:G:H5''	2.22	0.66
18:AF:73:ARG:CZ	21:A2:1034:G:OP1	2.42	0.66
21:A2:1327:C:O2'	29:AL:48:THR:HB	1.96	0.66
21:A2:1463:A:H61	21:A2:1482:C:H42	1.43	0.66
33:BC:263:ARG:HE	47:BI:58:LEU:HD22	1.61	0.66
35:BL:62:GLY:HA2	67:B1:2533:G:H4'	1.77	0.66
21:A2:898:G:H2'	21:A2:899:G:H8	1.60	0.66
45:Bi:78:VAL:HG22	52:BB:161:VAL:HG13	1.75	0.66
49:BQ:82:LYS:HB2	67:B1:1789:A:P	2.36	0.66
61:Bd:30:LYS:HB3	67:B1:1711:C:O3'	1.96	0.66
18:AF:124:ILE:CD1	18:AF:205:LEU:HD23	2.25	0.66
21:A2:369:A:C4'	21:A2:434:A:C5	2.69	0.66
26:AP:56:GLU:C	29:AL:63:ARG:CD	2.66	0.66
48:BR:81:SER:CB	67:B1:2474:A:OP2	2.38	0.66
61:Bd:42:PRO:HB2	67:B1:1668:G:O6	1.96	0.66
3:AI:96:ALA:HB2	18:AF:143:PHE:CD2	2.29	0.66
4:AG:92:PRO:HG3	21:A2:1412:A:HO2'	0.78	0.66
10:AD:136:ILE:CB	28:AV:60:PHE:HE2	1.94	0.66
12:AN:135:LYS:NZ	21:A2:29:G:C2'	2.58	0.66
18:AF:174:ILE:HD12	18:AF:201:VAL:HG11	1.77	0.66
35:BL:6:LYS:HD3	67:B1:1339:C:N4	2.11	0.66
38:Bb:103:ALA:HA	67:B1:1372:C:H5''	1.76	0.66
51:Bj:49:GLY:HA2	67:B1:189:U:N1	2.11	0.66
3:AI:102:LEU:H	3:AI:113:HIS:HB2	1.61	0.66
18:AF:145:VAL:HG12	18:AF:156:LEU:HB2	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:1334:A:C2'	25:AH:69:ASN:CG	2.67	0.66
21:A2:434:A:C5	28:AV:85:TYR:HE1	2.12	0.66
34:B5:57:PRO:HG3	61:Bd:88:LEU:CD2	2.21	0.66
35:BL:24:LYS:HZ3	67:B1:1080:G:H5''	1.61	0.66
67:B1:181:U:O2'	67:B1:810:A:N1	2.27	0.66
67:B1:407:A:H3'	67:B1:408:C:H5''	1.77	0.66
7:AB:104:PRO:HG2	18:AF:19:LYS:HZ1	1.61	0.65
12:AN:50:ALA:HA	21:A2:359:A:P	2.36	0.65
18:AF:97:GLY:HA2	18:AF:202:PHE:HE2	1.60	0.65
21:A2:921:G:C6	21:A2:933:G:O6	2.48	0.65
21:A2:966:G:C2'	21:A2:966:G:N9	2.58	0.65
29:AL:50:ARG:HG2	29:AL:61:PHE:CE1	2.31	0.65
18:AF:163:LEU:CD2	18:AF:166:VAL:HG13	2.26	0.65
36:Bf:42:ARG:NH1	67:B1:1455:U:OP1	2.28	0.65
38:Bb:101:ARG:NH1	67:B1:584:G:OP1	2.30	0.65
39:Be:15:PRO:C	67:B1:819:U:H3	2.04	0.65
49:BQ:60:ARG:HD3	67:B1:1602:C:H4'	1.78	0.65
49:BQ:60:ARG:NE	67:B1:1602:C:H4'	2.12	0.65
26:AP:56:GLU:HG2	29:AL:63:ARG:HB3	0.71	0.65
31:BY:75:ILE:HD12	31:BY:76:GLY:H	1.60	0.65
35:BL:17:HIS:HE2	67:B1:945:U:H2'	1.62	0.65
48:BR:59:HIS:CE1	67:B1:994:G:P	2.82	0.65
36:Bf:26:TRP:CE2	67:B1:62:C:C2	2.84	0.65
21:A2:369:A:O3'	21:A2:434:A:N6	2.29	0.65
21:A2:1307:G:H22	25:AH:48:HIS:CG	2.12	0.65
35:BL:11:LEU:CA	67:B1:948:C:OP2	2.44	0.65
38:Bb:69:LYS:CD	67:B1:1304:G:OP1	2.42	0.65
38:Bb:77:SER:CB	67:B1:585:G:H5'	2.18	0.65
61:Bd:11:ARG:HD3	67:B1:1710:C:O3'	1.95	0.65
35:BL:26:ARG:NH1	67:B1:942:U:OP2	2.30	0.65
63:Bg:12:PHE:CE2	63:Bg:46:PRO:HG2	2.31	0.65
67:B1:537:U:H3	67:B1:540:A:H5'	1.59	0.65
4:AG:102:ARG:HG3	21:A2:318:C:O2'	1.95	0.65
8:AR:54:TYR:CE1	12:AN:11:PHE:CE1	2.78	0.65
12:AN:24:ARG:NH2	21:A2:298:C:H4'	2.03	0.65
18:AF:40:ARG:HB3	18:AF:42:TYR:CE1	2.32	0.65
25:AH:89:GLU:N	25:AH:94:ASN:HB3	2.12	0.65
48:BR:69:ARG:NH1	67:B1:2483:U:H1'	2.11	0.65
67:B1:1568:A:C5	67:B1:1569:A:N6	2.64	0.65
4:AG:64:ARG:HG2	21:A2:152:G:H5'	1.78	0.65
18:AF:47:PRO:HB3	18:AF:115:ASN:OD1	1.96	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BL:63:PHE:CD1	67:B1:2533:G:H1'	2.32	0.65
51:Bj:52:ARG:NH2	67:B1:2202:U:O2'	2.30	0.65
56:BH:3:LYS:HB3	56:BH:5:VAL:HG23	1.77	0.65
15:AE:68:GLU:HG3	28:AV:13:LEU:HD21	1.79	0.65
18:AF:50:ILE:CD1	18:AF:118:LYS:HB3	2.17	0.65
21:A2:1312:C:H5'	25:AH:80:LYS:CE	2.26	0.65
27:A0:71:G:H2'	27:A0:72:C:H5''	1.78	0.65
41:Ba:19:LYS:CE	67:B1:2806:A:C4'	2.66	0.65
68:B3:1:C:OP1	68:B3:117:G:N2	2.30	0.65
3:AI:76:LYS:HG3	21:A2:836:G:P	2.37	0.65
12:AN:110:GLY:C	21:A2:506:G:OP1	2.40	0.65
18:AF:122:ILE:HD13	18:AF:206:TYR:CE2	2.32	0.65
18:AF:156:LEU:HD11	18:AF:205:LEU:HD12	1.78	0.65
49:BQ:61:TYR:CZ	67:B1:1618:G:H5''	2.32	0.65
55:Bh:19:LYS:O	55:Bh:23:LEU:CB	2.45	0.65
61:Bd:44:ASN:HD21	67:B1:1666:G:H21	1.43	0.65
20:B4:2:ALA:HB1	20:B4:55:GLU:HG2	1.79	0.65
4:AG:64:ARG:HG2	21:A2:152:G:H5''	1.79	0.64
18:AF:53:LEU:HD13	18:AF:53:LEU:O	1.97	0.64
21:A2:1401:U:H4'	50:BV:66:GLU:HA	1.79	0.64
25:AH:3:LYS:CG	30:AU:143:ILE:HG12	2.21	0.64
36:Bf:51:GLU:CD	67:B1:1454:G:H22	2.02	0.64
56:BH:124:LYS:CD	67:B1:1220:U:H5'	2.25	0.64
3:AI:96:ALA:HB3	18:AF:143:PHE:HZ	1.55	0.64
21:A2:1465:C:C5'	55:Bh:2:ARG:HD2	2.27	0.64
35:BL:113:LEU:HD11	67:B1:732:G:N1	2.13	0.64
39:Be:5:THR:CB	67:B1:924:A:N3	2.61	0.64
67:B1:1557:G:O6	67:B1:1746:C:N4	2.30	0.64
68:B3:26:C:H1'	68:B3:53:A:H61	1.62	0.64
18:AF:69:ALA:O	18:AF:83:PHE:HD1	1.81	0.64
21:A2:798:U:C2'	21:A2:798:U:N1	2.58	0.64
38:Bb:18:ARG:NE	67:B1:1127:C:O2'	2.30	0.64
45:Bi:7:VAL:HG13	67:B1:1854:G:OP1	1.95	0.64
47:BI:24:GLU:HG3	64:Bc:8:LEU:HD11	1.78	0.64
49:BQ:82:LYS:CD	67:B1:1788:G:H4'	2.21	0.64
64:Bc:63:THR:CG2	67:B1:1145:G:P	2.72	0.64
8:AR:62:ARG:NH1	12:AN:8:ASN:HD21	1.94	0.64
38:Bb:64:GLY:CA	67:B1:1126:C:O2'	2.43	0.64
39:Be:14:THR:CB	67:B1:819:U:O2	2.45	0.64
49:BQ:8:ARG:NH2	67:B1:1433:C:O3'	2.30	0.64
51:Bj:49:GLY:N	67:B1:189:U:C1'	2.53	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BH:32:VAL:HG22	56:BH:36:VAL:HG23	1.77	0.64
13:AX:61:GLU:CD	14:AM:107:ARG:HB3	2.23	0.64
25:AH:81:VAL:CG1	30:AU:80:ARG:HE	2.10	0.64
34:B5:46:ARG:HD2	67:B1:1567:C:H4'	1.79	0.64
53:BD:91:ARG:NH2	67:B1:488:A:C5'	2.57	0.64
67:B1:1506:U:H4'	67:B1:1947:A:C2	2.32	0.64
18:AF:145:VAL:CG1	18:AF:156:LEU:HD12	2.28	0.64
18:AF:170:VAL:HG13	18:AF:171:GLY:N	2.13	0.64
51:Bj:32:GLU:HB2	67:B1:2006:C:H4'	1.79	0.64
61:Bd:4:MET:CG	67:B1:1779:C:O2	2.34	0.64
7:AB:104:PRO:HG3	18:AF:19:LYS:CE	1.95	0.64
31:BY:126:PHE:CZ	67:B1:1134:A:C1'	2.77	0.64
45:Bi:8:GLY:O	67:B1:839:A:C4'	2.45	0.64
55:Bh:21:ARG:HA	55:Bh:24:ILE:HB	1.79	0.64
61:Bd:5:TYR:CD2	67:B1:1524:A:C4	2.85	0.64
2:AK:102:TYR:CZ	25:AH:42:ARG:HB2	2.32	0.64
31:BY:130:LYS:HE2	67:B1:1122:C:H5'	1.79	0.64
39:Be:2:GLY:HA3	67:B1:1920:A:C2	2.31	0.64
1:AQ:15:LYS:CB	3:AI:57:ARG:HH11	2.11	0.64
18:AF:192:ARG:NH2	21:A2:7:G:O6	2.31	0.64
38:Bb:69:LYS:HD2	67:B1:1304:G:P	2.38	0.64
45:Bi:40:VAL:HG22	52:BB:78:LEU:HD13	1.78	0.64
48:BR:87:PHE:CE1	67:B1:2482:G:O2'	2.51	0.64
55:Bh:1:MET:HA	55:Bh:4:LYS:HD2	1.80	0.64
67:B1:2232:U:O2	67:B1:2303:A:C2	2.51	0.64
2:AK:39:GLU:OE1	25:AH:105:LYS:NZ	2.25	0.64
6:AC:126:ARG:HD3	6:AC:183:MET:HE2	1.80	0.64
34:B5:47:ARG:O	67:B1:1567:C:H1'	1.98	0.64
35:BL:38:GLY:HA3	35:BL:45:SER:HB3	1.80	0.64
20:BG:59:PRO:HG3	59:BM:43:THR:CA	2.27	0.64
2:AK:40:ILE:CG2	25:AH:44:LEU:HD21	2.29	0.63
3:AI:57:ARG:CA	21:A2:607:U:OP1	2.46	0.63
10:AD:93:LEU:HD13	18:AF:160:PRO:HB2	1.79	0.63
21:A2:1333:G:H5''	25:AH:97:LYS:HG2	1.80	0.63
25:AH:90:HIS:CG	25:AH:91:ARG:H	2.15	0.63
34:B5:3:ALA:N	57:BZ:28:LYS:CA	2.61	0.63
36:Bf:1:MET:HE3	67:B1:1450:C:H5'	1.80	0.63
38:Bb:46:ILE:HD13	67:B1:659:U:O4	1.99	0.63
39:Be:21:ARG:NH2	67:B1:123:A:C6	2.65	0.63
40:BE:163:ARG:HA	40:BE:163:ARG:HE	1.63	0.63
47:BI:89:ARG:HH11	64:Bc:80:LEU:HD13	0.82	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:Bj:52:ARG:NE	67:B1:2202:U:H4'	2.12	0.63
55:Bh:19:LYS:O	55:Bh:23:LEU:HD12	1.98	0.63
63:Bg:32:ARG:NH1	67:B1:2869:U:OP2	2.31	0.63
10:AD:59:LEU:HD11	18:AF:132:GLU:CG	2.27	0.63
18:AF:83:PHE:CD2	18:AF:106:VAL:HG22	2.34	0.63
21:A2:438:A:H3'	21:A2:439:G:H5''	1.79	0.63
25:AH:88:ARG:H	25:AH:94:ASN:CG	2.07	0.63
38:Bb:97:ARG:NH1	28:B6:62:SER:HB2	2.13	0.63
45:Bi:78:VAL:HG21	52:BB:161:VAL:HG13	1.79	0.63
49:BQ:76:ARG:HH12	67:B1:1884:C:H5	0.69	0.63
3:AI:6:PRO:HG2	21:A2:541:G:H5''	1.80	0.63
7:AB:61:LYS:HZ3	9:A9:25:UNK:H	1.45	0.63
13:AX:20:THR:HG23	21:A2:1341:C:N1	2.14	0.63
18:AF:84:ARG:NH1	21:A2:1031:G:H5''	2.13	0.63
25:AH:80:LYS:HD3	25:AH:89:GLU:CD	2.24	0.63
25:AH:93:LEU:C	25:AH:95:SER:N	2.53	0.63
26:AP:47:ALA:CB	29:AL:64:TRP:CH2	2.80	0.63
35:BL:17:HIS:CD2	67:B1:945:U:H2'	2.33	0.63
35:BL:44:LYS:HA	67:B1:961:C:O2'	1.96	0.63
41:Ba:30:ARG:CZ	67:B1:1809:G:P	2.86	0.63
51:Bj:46:GLY:HA3	59:BM:83:SER:CA	2.27	0.63
61:Bd:71:LEU:HD21	61:Bd:76:MET:HB2	1.79	0.63
64:Bc:11:ARG:NE	67:B1:1293:G:OP1	2.31	0.63
3:AI:57:ARG:NH2	21:A2:607:U:H4'	2.13	0.63
18:AF:145:VAL:HG22	18:AF:146:GLU:N	2.14	0.63
18:AF:166:VAL:HG21	18:AF:184:TRP:CE3	2.34	0.63
21:A2:1200:U:C4	25:AH:91:ARG:CA	2.80	0.63
31:BY:126:PHE:CZ	67:B1:1134:A:O2'	2.51	0.63
35:BL:24:LYS:NZ	67:B1:1080:G:C4'	2.62	0.63
35:BL:25:HIS:NE2	67:B1:678:G:C6	2.65	0.63
51:Bj:45:LYS:O	59:BM:83:SER:HA	1.98	0.63
64:Bc:22:MET:CE	64:Bc:24:ILE:HD11	2.27	0.63
18:AF:110:ILE:O	18:AF:114:ILE:HG13	1.98	0.63
31:BY:123:ARG:HD2	67:B1:1132:U:O3'	1.97	0.63
41:Ba:19:LYS:HE3	67:B1:2806:A:C4'	2.26	0.63
45:Bi:19:LEU:HD23	67:B1:1852:U:O3'	1.98	0.63
49:BQ:82:LYS:O	67:B1:1842:C:C5'	2.46	0.63
39:Be:15:PRO:N	67:B1:819:U:H3	1.95	0.63
45:Bi:19:LEU:HD22	67:B1:1853:C:OP2	1.96	0.63
45:Bi:50:SER:HA	67:B1:1721:U:O4	1.98	0.63
51:Bj:30:ARG:HH22	51:Bj:36:GLY:HA3	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:1476:C:H42	55:Bh:7:LYS:HZ1	1.47	0.63
26:AP:40:ARG:HH11	29:AL:53:PRO:HA	1.64	0.63
53:BD:87:ARG:NE	67:B1:487:U:C2	2.65	0.63
68:B3:12:G:H2'	68:B3:13:C:H5'	1.81	0.63
21:A2:186:U:C2'	21:A2:187:C:H5'	2.28	0.63
39:Be:8:PHE:CZ	67:B1:1920:A:N7	2.66	0.63
67:B1:1570:C:H5''	67:B1:1666:G:O2'	1.99	0.63
4:AG:34:ILE:HG22	4:AG:110:ASN:ND2	2.13	0.63
25:AH:87:ARG:HG3	25:AH:90:HIS:CA	2.28	0.63
45:Bi:63:PHE:HB3	52:BB:77:LEU:O	1.99	0.63
48:BR:70:GLY:CA	67:B1:2484:C:H4'	2.28	0.63
18:AF:86:LEU:HD21	18:AF:195:VAL:HA	1.81	0.62
21:A2:561:A:C2	21:A2:562:A:H1'	2.33	0.62
21:A2:1465:C:H5''	55:Bh:2:ARG:HD2	1.81	0.62
43:Bk:42:ARG:NH2	67:B1:1224:A:N6	2.43	0.62
55:Bh:10:ILE:CG2	55:Bh:14:LYS:HE3	2.28	0.62
56:BH:70:VAL:HG13	56:BH:71:PRO:HD2	1.79	0.62
67:B1:956:U:C2'	67:B1:956:U:N1	2.58	0.62
67:B1:1395:G:O4'	67:B1:1395:G:N9	2.30	0.62
67:B1:1443:G:H5'	67:B1:1444:A:C8	2.34	0.62
4:AG:16:ALA:O	21:A2:140:C:O2'	2.16	0.62
39:Be:19:ARG:HB3	67:B1:125:C:N4	2.10	0.62
43:Bk:34:PRO:HB2	43:Bk:36:TYR:H	1.61	0.62
67:B1:1949:A:C5	67:B1:1950:G:H1'	2.33	0.62
25:AH:3:LYS:HZ1	30:AU:144:ILE:H	1.47	0.62
25:AH:86:MET:HA	25:AH:88:ARG:CD	2.29	0.62
31:BY:131:LYS:HZ3	67:B1:1136:G:P	2.19	0.62
39:Be:18:ILE:HG22	39:Be:28:TYR:O	1.98	0.62
3:AI:2:THR:HG21	21:A2:709:G:N3	2.14	0.62
18:AF:170:VAL:HG13	18:AF:197:PHE:CE2	2.34	0.62
21:A2:1209:C:H41	21:A2:1247:A:H3'	1.65	0.62
25:AH:87:ARG:CG	25:AH:90:HIS:HA	2.29	0.62
39:Be:14:THR:O	67:B1:819:U:C4	2.52	0.62
41:Ba:23:PRO:HD2	67:B1:1812:A:N6	2.15	0.62
41:Ba:61:ARG:O	67:B1:2823:G:H5''	1.97	0.62
67:B1:1827:A:N6	67:B1:1835:A:H61	1.97	0.62
21:A2:1490:C:C4	21:A2:1491:C:C5	2.87	0.62
41:Ba:41:ARG:HH21	67:B1:3029:A:C1'	2.13	0.62
51:Bj:47:TYR:HB2	67:B1:189:U:H5'	1.82	0.62
20:BG:59:PRO:HG3	59:BM:43:THR:O	2.00	0.62
2:AK:40:ILE:HG22	25:AH:44:LEU:CD1	2.21	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AF:73:ARG:NE	21:A2:879:U:C4'	2.54	0.62
35:BL:15:HIS:CA	67:B1:946:U:OP1	2.47	0.62
67:B1:1678:A:C2'	67:B1:1678:A:N9	2.57	0.62
18:AF:75:THR:HG22	18:AF:76:ASP:N	2.14	0.62
18:AF:201:VAL:HG22	18:AF:205:LEU:HD13	1.80	0.62
25:AH:169:ALA:O	25:AH:173:CYS:HB2	1.99	0.62
36:Bf:3:ARG:HG3	36:Bf:4:ASN:H	1.64	0.62
39:Be:5:THR:HB	67:B1:887:U:OP2	2.00	0.62
39:Be:53:LYS:HZ3	67:B1:506:G:C5'	2.09	0.62
43:Bk:87:ALA:O	67:B1:1245:C:O2'	2.16	0.62
51:Bj:1:MET:CG	67:B1:2399:C:P	2.85	0.62
67:B1:1245:C:H3'	67:B1:1245:C:H6	1.64	0.62
2:AK:40:ILE:HD13	25:AH:101:TYR:CD2	2.35	0.62
6:AC:4:GLU:OE1	29:AL:45:ILE:HB	2.00	0.62
18:AF:80:ARG:NH1	21:A2:1022:U:H5'	2.15	0.62
21:A2:440:C:C4	21:A2:441:U:C4	2.88	0.62
21:A2:971:G:H1	21:A2:979:U:H3	1.47	0.62
39:Be:22:ARG:O	67:B1:54:G:N2	2.32	0.62
48:BR:82:LYS:CG	67:B1:2473:C:H5''	2.27	0.62
51:Bj:52:ARG:HH22	67:B1:188:A:H1'	1.65	0.62
61:Bd:5:TYR:CE2	67:B1:1524:A:C4	2.88	0.62
4:AG:120:ASN:CB	21:A2:151:G:O2'	2.47	0.62
39:Be:59:LYS:HZ1	53:BD:55:ARG:HH22	1.48	0.62
41:Ba:21:ILE:CD1	67:B1:1811:G:H22	2.09	0.62
56:BH:134:GLY:HA2	67:B1:1202:G:N3	2.15	0.62
67:B1:1907:G:H1	67:B1:2108:U:H3	1.46	0.62
67:B1:2507:C:C6	67:B1:2507:C:C3'	2.83	0.62
31:BY:126:PHE:N	67:B1:1134:A:OP1	2.33	0.62
39:Be:24:GLY:CA	67:B1:55:G:O2'	2.48	0.62
41:Ba:19:LYS:HZ2	67:B1:2806:A:C2'	2.10	0.62
2:AK:102:TYR:HE1	25:AH:42:ARG:HG3	0.52	0.61
3:AI:57:ARG:HH21	21:A2:607:U:C3'	2.13	0.61
35:BL:44:LYS:HE2	67:B1:960:C:O2'	2.00	0.61
49:BQ:82:LYS:HD2	67:B1:1788:G:C4'	2.23	0.61
67:B1:350:A:C2'	67:B1:350:A:N9	2.57	0.61
67:B1:1574:A:O4'	67:B1:1574:A:N9	2.32	0.61
16:AJ:101:ILE:HG12	16:AJ:102:GLU:H	1.64	0.61
21:A2:1341:C:H2'	21:A2:1342:C:C6	2.35	0.61
38:Bb:27:GLU:HB2	38:Bb:30:ARG:HD2	1.82	0.61
41:Ba:41:ARG:HH21	67:B1:3029:A:H1'	1.59	0.61
45:Bi:63:PHE:CB	52:BB:77:LEU:O	2.48	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BQ:64:LYS:HE2	67:B1:1603:G:C5'	2.29	0.61
67:B1:1568:A:H2	67:B1:1569:A:C2	2.10	0.61
8:AR:63:TYR:O	12:AN:10:GLU:O	2.18	0.61
21:A2:411:C:H4'	21:A2:413:G:C4	2.36	0.61
21:A2:1259:A:O4'	21:A2:1259:A:N9	2.29	0.61
21:A2:1467:U:C5	55:Bh:3:TRP:CH2	2.65	0.61
25:AH:16:LYS:HB3	25:AH:21:TRP:H	1.65	0.61
39:Be:22:ARG:HA	67:B1:54:G:N2	2.16	0.61
51:Bj:45:LYS:HG3	67:B1:2204:C:OP1	2.00	0.61
53:BD:85:PHE:HB2	67:B1:675:G:H22	1.65	0.61
67:B1:1012:G:H1	67:B1:1038:U:H3	1.48	0.61
67:B1:1394:G:O4'	67:B1:1394:G:N9	2.33	0.61
67:B1:1418:A:H2	67:B1:1438:C:O2	1.83	0.61
67:B1:1762:G:H4'	67:B1:1763:A:C8	2.36	0.61
68:B3:1:C:P	68:B3:2:G:N9	2.73	0.61
2:AK:40:ILE:C	25:AH:44:LEU:HD11	2.26	0.61
21:A2:434:A:H1'	28:AV:85:TYR:HB3	1.81	0.61
38:Bb:33:LYS:N	67:B1:672:C:OP1	2.33	0.61
39:Be:53:LYS:HZ3	67:B1:506:G:H4'	1.51	0.61
51:Bj:28:ARG:HD3	67:B1:2514:C:O3'	1.99	0.61
21:A2:42:G:C8	21:A2:361:A:C2	2.88	0.61
35:BL:63:PHE:CD1	67:B1:2533:G:H4'	2.32	0.61
67:B1:1569:A:C5'	67:B1:1569:A:P	2.88	0.61
3:AI:28:LYS:CE	5:AW:4:PRO:CB	2.54	0.61
10:AD:56:ARG:HG3	18:AF:160:PRO:CG	2.29	0.61
15:AE:64:LYS:HD3	28:AV:81:ILE:HD13	1.83	0.61
25:AH:44:LEU:HD22	25:AH:46:HIS:HB2	1.81	0.61
35:BL:119:THR:CG2	58:BP:73:LYS:HE3	2.29	0.61
36:Bf:40:LYS:HD2	67:B1:65:G:H4'	1.83	0.61
38:Bb:109:LYS:HG2	67:B1:1353:A:N3	2.16	0.61
45:Bi:78:VAL:CG2	52:BB:161:VAL:CG1	2.79	0.61
20:BG:5:SER:OG	59:BM:22:LEU:CD2	2.34	0.61
64:Bc:76:PRO:HA	67:B1:573:G:H21	1.64	0.61
18:AF:141:VAL:HG23	18:AF:142:PRO:HD2	1.82	0.61
41:Ba:21:ILE:HB	67:B1:1811:G:C2	2.36	0.61
56:BH:94:ILE:HD11	56:BH:97:ASN:HB2	1.82	0.61
21:A2:434:A:H2	28:AV:84:GLU:CA	2.13	0.61
36:Bf:1:MET:CE	67:B1:1450:C:C5'	2.78	0.61
4:AG:102:ARG:CD	21:A2:318:C:C4'	2.77	0.61
18:AF:50:ILE:HD11	18:AF:118:LYS:O	2.01	0.61
18:AF:53:LEU:HD13	18:AF:54:LEU:HD23	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:843:G:H1	21:A2:870:U:H3	1.46	0.61
49:BQ:57:GLY:HA3	67:B1:1620:C:P	2.41	0.61
67:B1:1354:G:H1'	67:B1:1378:G:N2	2.15	0.61
4:AG:6:LEU:HD13	4:AG:21:ILE:HD12	1.81	0.61
4:AG:102:ARG:HG3	21:A2:318:C:H4'	1.83	0.61
18:AF:198:ALA:O	18:AF:201:VAL:HG12	2.00	0.61
35:BL:15:HIS:HB2	67:B1:945:U:H3'	1.83	0.61
35:BL:25:HIS:CE1	67:B1:678:G:O6	2.54	0.61
36:Bf:30:LYS:NZ	67:B1:92:G:C5	2.62	0.61
4:AG:29:LEU:HD11	4:AG:63:ILE:HD11	1.82	0.60
31:BY:30:ARG:NH2	67:B1:1297:C:OP1	2.34	0.60
31:BY:75:ILE:HD12	31:BY:76:GLY:N	2.16	0.60
45:Bi:19:LEU:CD2	67:B1:1852:U:O3'	2.49	0.60
51:Bj:1:MET:SD	67:B1:2400:U:OP2	2.58	0.60
51:Bj:8:ARG:O	67:B1:2458:U:H3'	2.01	0.60
54:BF:184:PHE:HB2	63:Bg:13:LYS:HD2	1.82	0.60
56:BH:124:LYS:CB	67:B1:1219:C:O2'	2.35	0.60
64:Bc:12:ARG:HH11	67:B1:1142:A:C5'	2.14	0.60
8:AR:86:VAL:CG1	8:AR:102:VAL:HG13	2.31	0.60
21:A2:60:A:C6	21:A2:65:G:O6	2.53	0.60
34:B5:57:PRO:CG	61:Bd:88:LEU:HD22	2.21	0.60
38:Bb:73:GLY:HA2	67:B1:1364:C:O2'	2.01	0.60
49:BQ:60:ARG:CD	67:B1:1602:C:H4'	2.30	0.60
49:BQ:118:LYS:HA	49:BQ:121:ARG:CZ	2.31	0.60
63:Bg:12:PHE:CG	63:Bg:13:LYS:HE2	2.35	0.60
67:B1:2260:C:N4	67:B1:2277:G:H1	1.98	0.60
21:A2:1401:U:H3	21:A2:1414:G:H1	1.47	0.60
31:BY:129:SER:HB2	67:B1:1135:A:OP1	2.01	0.60
36:Bf:1:MET:CE	67:B1:1450:C:H5'	2.31	0.60
39:Be:22:ARG:O	67:B1:55:G:H1'	2.01	0.60
41:Ba:21:ILE:HA	67:B1:1811:G:N3	2.16	0.60
47:BI:89:ARG:NH1	64:Bc:80:LEU:HD12	2.09	0.60
50:BV:45:ARG:HH12	50:BV:50:LEU:HD21	1.66	0.60
55:Bh:8:LYS:O	55:Bh:12:ARG:HG3	2.00	0.60
63:Bg:43:ALA:HB2	67:B1:2643:U:OP1	2.01	0.60
4:AG:88:LEU:O	21:A2:1413:G:P	2.59	0.60
7:AB:111:GLU:HB3	18:AF:21:LYS:NZ	2.17	0.60
18:AF:20:THR:CG2	18:AF:45:LYS:HD2	2.32	0.60
36:Bf:3:ARG:HB2	67:B1:1451:A:P	2.41	0.60
45:Bi:68:TYR:CZ	52:BB:170:LYS:HB2	2.37	0.60
67:B1:1955:U:H3'	67:B1:1956:G:H5'	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AR:60:TYR:CE2	12:AN:16:LEU:HD11	2.33	0.60
21:A2:334:G:H22	21:A2:347:G:H22	1.48	0.60
21:A2:1032:A:N7	21:A2:1033:G:H1'	2.16	0.60
35:BL:5:ARG:HD2	67:B1:1392:G:N7	2.17	0.60
48:BR:70:GLY:CA	67:B1:2484:C:C5'	2.78	0.60
56:BH:124:LYS:HG3	67:B1:1220:U:H5'	1.82	0.60
63:Bg:12:PHE:HB3	63:Bg:13:LYS:HE2	1.84	0.60
67:B1:82:C:N3	67:B1:103:A:N6	2.49	0.60
4:AG:99:LYS:HE2	21:A2:319:U:O2'	2.02	0.60
4:AG:102:ARG:CD	21:A2:318:C:H4'	2.29	0.60
21:A2:936:A:H2'	21:A2:937:A:H5''	1.83	0.60
51:Bj:32:GLU:OE1	67:B1:2005:A:H2'	2.02	0.60
51:Bj:45:LYS:HZ2	59:BM:88:VAL:HG12	1.66	0.60
61:Bd:3:PRO:HB2	61:Bd:10:TRP:CE3	2.36	0.60
61:Bd:59:LYS:HD2	67:B1:1575:G:N1	2.05	0.60
2:AK:42:ARG:CD	25:AH:9:PHE:HE1	2.14	0.60
18:AF:53:LEU:HD13	18:AF:53:LEU:C	2.26	0.60
18:AF:131:TRP:CZ3	18:AF:160:PRO:HD3	2.34	0.60
21:A2:59:C:N3	21:A2:88:G:N1	2.48	0.60
31:BY:120:HIS:CE1	67:B1:1298:C:O2'	2.55	0.60
35:BL:44:LYS:HG3	35:BL:47:TRP:CE3	2.36	0.60
35:BL:132:LYS:NZ	67:B1:734:C:P	2.75	0.60
36:Bf:16:ALA:C	36:Bf:42:ARG:HH21	2.09	0.60
49:BQ:23:TRP:CH2	67:B1:1436:A:P	2.95	0.60
50:BV:43:MET:CE	67:B1:1893:C:O4'	2.50	0.60
67:B1:1600:G:H1'	67:B1:1707:A:H61	1.67	0.60
4:AG:86:VAL:CG1	21:A2:1414:G:P	2.57	0.60
4:AG:103:ARG:NH2	21:A2:329:G:O3'	2.35	0.60
64:Bc:76:PRO:O	67:B1:649:A:H1'	2.02	0.60
21:A2:439:G:O4'	21:A2:439:G:N9	2.32	0.60
21:A2:1311:C:H4'	25:AH:94:ASN:O	2.02	0.60
21:A2:1465:C:OP1	55:Bh:2:ARG:CD	2.49	0.60
34:B5:31:ASN:ND2	57:BZ:25:ARG:HH11	2.00	0.60
35:BL:132:LYS:HZ3	67:B1:733:A:C4'	2.14	0.60
39:Be:45:ARG:HG3	67:B1:1510:U:N3	2.16	0.60
61:Bd:11:ARG:HG2	67:B1:1710:C:C5'	2.31	0.60
12:AN:135:LYS:HZ3	21:A2:29:G:C2'	2.15	0.60
18:AF:145:VAL:HG21	18:AF:207:ASN:HB2	1.84	0.60
21:A2:1251:C:OP2	25:AH:99:LYS:CD	2.38	0.60
21:A2:1311:C:C4'	25:AH:94:ASN:C	2.74	0.60
26:AP:56:GLU:CB	29:AL:63:ARG:CB	2.79	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:Be:53:LYS:CB	67:B1:506:G:P	2.90	0.60
45:Bi:21:ILE:HD11	52:BB:173:VAL:HA	1.84	0.60
49:BQ:95:TRP:HB2	67:B1:857:U:OP1	2.01	0.60
61:Bd:11:ARG:NH1	67:B1:1711:C:OP1	2.34	0.60
61:Bd:48:ARG:H	67:B1:1668:G:H4'	1.67	0.60
67:B1:1179:G:C2'	67:B1:1179:G:C8	2.84	0.60
67:B1:2987:U:H4'	67:B1:2988:A:H5'	1.84	0.60
4:AG:103:ARG:CZ	21:A2:329:G:O3'	2.49	0.59
4:AG:120:ASN:CG	21:A2:151:G:C4'	2.72	0.59
21:A2:7:G:N2	21:A2:18:C:C2	2.70	0.59
36:Bf:3:ARG:CD	36:Bf:4:ASN:HB2	2.31	0.59
20:BG:3:LYS:HB2	20:BG:55:GLU:HB3	1.83	0.59
20:BG:36:THR:C	59:BM:3:MET:SD	2.84	0.59
67:B1:1632:U:O2	67:B1:1670:A:C2	2.55	0.59
3:Al:31:SER:CB	21:A2:542:G:OP1	2.50	0.59
10:AD:136:ILE:O	28:AV:60:PHE:HE2	1.73	0.59
12:AN:21:LYS:CE	21:A2:237:C:OP1	2.50	0.59
25:AH:87:ARG:CB	25:AH:90:HIS:HA	2.32	0.59
33:BC:108:ASN:CA	33:BC:172:TRP:CH2	2.80	0.59
35:BL:10:LYS:CB	67:B1:947:C:H5'	2.31	0.59
35:BL:132:LYS:CG	67:B1:733:A:OP1	2.50	0.59
51:Bj:1:MET:SD	67:B1:2399:C:H6	2.23	0.59
61:Bd:4:MET:HE3	67:B1:1779:C:O2	2.02	0.59
4:AG:76:PRO:HB2	21:A2:1404:C:C4'	2.32	0.59
4:AG:84:VAL:HG11	21:A2:1414:G:H5''	1.83	0.59
15:AE:64:LYS:CD	28:AV:81:ILE:HD13	2.32	0.59
18:AF:214:SER:HB3	18:AF:215:PRO:HD3	1.84	0.59
21:A2:434:A:N1	28:AV:84:GLU:OE2	2.35	0.59
21:A2:1220:G:H21	21:A2:1235:A:H62	1.50	0.59
38:Bb:29:TRP:CZ2	67:B1:570:G:H4'	2.37	0.59
39:Be:15:PRO:CA	67:B1:819:U:N3	2.64	0.59
43:Bk:46:ARG:NH2	67:B1:1222:U:OP1	2.35	0.59
20:BG:3:LYS:CD	20:BG:55:GLU:O	2.49	0.59
55:Bh:1:MET:O	55:Bh:4:LYS:HB2	2.02	0.59
2:AK:50:ILE:CG1	25:AH:13:HIS:ND1	2.65	0.59
3:Al:57:ARG:HH21	21:A2:607:U:H4'	1.67	0.59
18:AF:86:LEU:HD12	18:AF:86:LEU:N	2.17	0.59
21:A2:540:G:C6	21:A2:709:G:C6	2.89	0.59
21:A2:991:C:C5	21:A2:992:G:N7	2.70	0.59
39:Be:31:LYS:CE	67:B1:906:G:OP2	2.50	0.59
41:Ba:23:PRO:CD	67:B1:1812:A:N6	2.66	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BQ:84:LYS:HG3	67:B1:1843:C:P	2.41	0.59
67:B1:1092:U:H3	67:B1:1097:G:H1	1.50	0.59
67:B1:2225:C:H42	67:B1:2310:G:H1	1.50	0.59
21:A2:677:U:O2	21:A2:1493:C:H5'	2.02	0.59
35:BL:132:LYS:NZ	67:B1:733:A:C4'	2.65	0.59
51:Bj:44:LEU:CD2	67:B1:423:G:OP2	2.40	0.59
67:B1:237:G:C2'	67:B1:237:G:N9	2.59	0.59
67:B1:1179:G:C8	67:B1:1179:G:H2'	2.37	0.59
10:AD:123:GLN:HE21	21:A2:402:G:H21	1.50	0.59
34:B5:52:HIS:ND1	61:Bd:77:ARG:CZ	2.65	0.59
38:Bb:77:SER:OG	67:B1:585:G:P	2.60	0.59
48:BR:59:HIS:CE1	67:B1:994:G:OP1	2.55	0.59
67:B1:1253:U:H3'	67:B1:1254:C:H5''	1.85	0.59
34:B5:57:PRO:CD	61:Bd:88:LEU:HD22	2.27	0.59
51:Bj:62:VAL:HG23	67:B1:2397:C:C5'	2.32	0.59
18:AF:5:TRP:CD1	18:AF:6:LYS:H	2.20	0.59
41:Ba:20:LYS:C	67:B1:1811:G:N9	2.60	0.59
49:BQ:83:GLY:N	67:B1:1789:A:OP1	2.35	0.59
67:B1:1569:A:HO2'	67:B1:1638:C:H1'	1.61	0.59
67:B1:2800:U:H3	67:B1:2839:A:H61	1.51	0.59
18:AF:73:ARG:CZ	21:A2:879:U:C3'	2.55	0.59
21:A2:439:G:H1'	21:A2:440:C:C5	2.38	0.59
21:A2:516:A:H61	21:A2:842:U:H3	1.51	0.59
31:BY:123:ARG:HG2	31:BY:123:ARG:HH11	1.67	0.59
33:BC:108:ASN:CB	33:BC:172:TRP:HH2	1.62	0.59
35:BL:7:LYS:HZ3	67:B1:1335:C:P	2.25	0.59
39:Be:14:THR:C	67:B1:819:U:C2	2.80	0.59
39:Be:47:ARG:HH12	67:B1:506:G:P	2.26	0.59
40:BE:120:HIS:CG	40:BE:121:ILE:H	2.20	0.59
49:BQ:94:LEU:O	49:BQ:98:THR:HG23	2.02	0.59
55:Bh:13:LEU:O	55:Bh:17:ARG:HG3	2.02	0.59
67:B1:1313:G:N2	67:B1:1316:U:C4	2.71	0.59
67:B1:1313:G:N2	67:B1:1316:U:C5	2.71	0.59
10:AD:44:HIS:HE1	10:AD:104:ARG:HD2	1.67	0.59
10:AD:136:ILE:N	28:AV:60:PHE:CE2	2.69	0.59
12:AN:20:ARG:NH1	21:A2:516:A:N3	2.50	0.59
18:AF:152:VAL:C	18:AF:153:ARG:HD2	2.27	0.59
21:A2:786:G:H1	21:A2:812:U:H3	1.50	0.59
21:A2:934:G:H1	29:AL:49:THR:HA	1.68	0.59
36:Bf:3:ARG:CB	36:Bf:4:ASN:HB2	2.33	0.59
38:Bb:12:VAL:HG13	38:Bb:15:ARG:HH21	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:614:G:O4'	67:B1:614:G:N9	2.35	0.59
31:BY:126:PHE:H	67:B1:1134:A:C5'	2.16	0.58
34:B5:52:HIS:ND1	61:Bd:77:ARG:NH1	2.51	0.58
53:BD:87:ARG:NE	67:B1:487:U:C1'	2.66	0.58
61:Bd:44:ASN:HD21	67:B1:1666:G:N2	2.00	0.58
2:AK:39:GLU:CG	25:AH:5:LEU:HD21	2.33	0.58
3:Al:31:SER:HA	21:A2:542:G:H5''	1.85	0.58
21:A2:1311:C:H5''	25:AH:94:ASN:O	2.02	0.58
25:AH:26:VAL:HG21	25:AH:120:ILE:HG23	1.83	0.58
49:BQ:84:LYS:CG	67:B1:1843:C:OP1	2.52	0.58
61:Bd:13:LYS:HZ2	67:B1:1626:A:C5'	2.15	0.58
63:Bg:43:ALA:CB	67:B1:2643:U:OP1	2.51	0.58
20:B4:57:VAL:HG11	20:B4:63:VAL:HG21	1.84	0.58
2:AK:40:ILE:CD1	25:AH:101:TYR:CE2	2.86	0.58
36:Bf:18:LYS:O	67:B1:64:A:H5'	2.03	0.58
38:Bb:77:SER:HB3	67:B1:585:G:P	2.43	0.58
51:Bj:52:ARG:HG2	67:B1:2548:A:N1	2.18	0.58
56:BH:90:PRO:C	56:BH:92:HIS:H	2.11	0.58
18:AF:201:VAL:O	18:AF:205:LEU:HD13	2.03	0.58
21:A2:472:C:H2'	21:A2:473:A:C8	2.39	0.58
21:A2:616:G:N1	21:A2:697:A:C2	2.70	0.58
25:AH:39:LEU:HD12	25:AH:124:VAL:HG21	1.85	0.58
35:BL:12:ARG:C	35:BL:14:SER:N	2.60	0.58
36:Bf:28:ILE:HA	36:Bf:34:ARG:HD2	1.83	0.58
36:Bf:51:GLU:OXT	39:Be:18:ILE:HD12	2.03	0.58
38:Bb:49:LYS:N	67:B1:655:C:OP1	2.29	0.58
56:BH:128:GLY:HA3	67:B1:1198:G:H21	0.78	0.58
67:B1:407:A:H3'	67:B1:408:C:C5'	2.33	0.58
67:B1:2629:U:H3	67:B1:2685:G:H1	1.50	0.58
4:AG:85:ARG:CZ	21:A2:331:C:OP1	2.52	0.58
18:AF:46:GLU:HB2	18:AF:49:ILE:CG1	2.32	0.58
21:A2:1240:A:H8	29:AL:40:LEU:HD22	1.67	0.58
38:Bb:30:ARG:HE	38:Bb:31:TYR:HE1	1.51	0.58
38:Bb:45:GLY:HA3	67:B1:656:G:O5'	2.02	0.58
39:Be:18:ILE:CG1	39:Be:19:ARG:N	2.66	0.58
20:BG:60:GLU:HG3	59:BM:26:ARG:NH2	2.17	0.58
67:B1:1465:A:H2	67:B1:1476:C:O2'	1.86	0.58
67:B1:1955:U:H3'	67:B1:1956:G:C5'	2.32	0.58
10:AD:44:HIS:CE1	10:AD:104:ARG:HD2	2.39	0.58
18:AF:124:ILE:HG23	18:AF:124:ILE:O	2.04	0.58
18:AF:141:VAL:CG2	18:AF:142:PRO:HD2	2.34	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:Bf:30:LYS:HA	67:B1:92:G:O4'	2.02	0.58
38:Bb:33:LYS:HD3	67:B1:672:C:P	2.44	0.58
51:Bj:54:LYS:O	67:B1:2548:A:H4'	2.03	0.58
55:Bh:24:ILE:OXT	55:Bh:24:ILE:HG22	2.02	0.58
56:BH:60:VAL:H	56:BH:62:LYS:CG	2.15	0.58
56:BH:60:VAL:HG12	56:BH:61:THR:H	1.68	0.58
67:B1:1568:A:N1	67:B1:1569:A:N6	2.35	0.58
4:AG:77:ASP:OD2	21:A2:1413:G:C2	2.57	0.58
21:A2:1013:G:H1	21:A2:1155:U:H3	1.52	0.58
21:A2:1395:G:H1	21:A2:1420:U:H3	1.51	0.58
39:Be:59:LYS:HE2	53:BD:55:ARG:HH22	1.62	0.58
40:BE:20:MET:HE3	68:B3:50:G:H21	1.69	0.58
12:AN:50:ALA:HA	21:A2:359:A:O5'	2.03	0.58
18:AF:68:ILE:HA	18:AF:85:VAL:HG22	1.85	0.58
34:B5:13:ILE:HD13	61:Bd:80:MET:HE2	1.78	0.58
41:Ba:20:LYS:O	67:B1:1811:G:O4'	2.16	0.58
41:Ba:24:ARG:HH21	67:B1:2805:U:C2'	2.14	0.58
47:BI:24:GLU:HG2	64:Bc:8:LEU:HD21	1.86	0.58
56:BH:3:LYS:HB3	56:BH:5:VAL:CG2	2.33	0.58
67:B1:1465:A:N1	67:B1:1476:C:O2'	2.32	0.58
21:A2:860:G:OP2	55:Bh:14:LYS:HG2	2.03	0.58
21:A2:1334:A:C1'	25:AH:69:ASN:CG	2.77	0.58
26:AP:56:GLU:HB3	29:AL:63:ARG:HD2	0.65	0.58
34:B5:54:GLU:OE2	61:Bd:84:ILE:HD13	2.03	0.58
38:Bb:63:ILE:CD1	67:B1:950:G:C5'	2.77	0.58
45:Bi:16:ARG:NH1	67:B1:862:G:N2	2.52	0.58
49:BQ:8:ARG:NE	67:B1:1434:C:OP1	2.37	0.58
56:BH:89:GLU:HA	56:BH:134:GLY:O	2.04	0.58
67:B1:1642:G:C2'	67:B1:1642:G:C8	2.86	0.58
4:AG:92:PRO:HD3	21:A2:1412:A:O2'	2.01	0.58
21:A2:263:C:H2'	21:A2:264:C:C6	2.39	0.58
35:BL:5:ARG:HA	35:BL:8:VAL:HB	1.85	0.58
38:Bb:33:LYS:CD	67:B1:672:C:P	2.92	0.58
41:Ba:20:LYS:HB3	67:B1:1811:G:N7	2.14	0.58
20:BG:5:SER:CB	59:BM:22:LEU:HD21	2.34	0.58
67:B1:831:C:H5''	67:B1:1791:A:N1	2.19	0.58
25:AH:51:HIS:CG	25:AH:61:VAL:HG22	2.39	0.57
34:B5:16:ARG:CZ	67:B1:1565:G:O6	2.52	0.57
35:BL:38:GLY:CA	35:BL:45:SER:HB3	2.34	0.57
38:Bb:73:GLY:H	67:B1:1365:G:P	2.27	0.57
48:BR:74:ILE:HG13	48:BR:85:THR:HG23	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:BQ:61:TYR:CE1	67:B1:1618:G:OP1	2.57	0.57
51:Bj:60:LYS:NZ	67:B1:2542:G:N7	2.51	0.57
20:BG:60:GLU:CD	59:BM:22:LEU:HD22	2.29	0.57
54:BF:41:TRP:HB3	54:BF:44:ILE:HD12	1.85	0.57
56:BH:129:THR:HA	67:B1:1199:U:O4	2.04	0.57
1:AQ:46:SER:H	1:AQ:49:MET:HE3	1.69	0.57
39:Be:14:THR:O	67:B1:819:U:C2	2.57	0.57
51:Bj:30:ARG:NH2	51:Bj:36:GLY:HA3	2.18	0.57
51:Bj:52:ARG:CB	67:B1:2548:A:C2	2.86	0.57
20:B4:57:VAL:HG11	20:B4:63:VAL:HG23	1.85	0.57
67:B1:237:G:C2'	67:B1:237:G:C8	2.86	0.57
67:B1:1440:C:O2'	67:B1:1445:G:O6	2.22	0.57
67:B1:1626:A:H2'	67:B1:1627:G:H5'	1.85	0.57
2:AK:39:GLU:HG2	25:AH:5:LEU:HD21	1.84	0.57
10:AD:59:LEU:HD11	18:AF:132:GLU:HG3	1.84	0.57
21:A2:440:C:O4'	21:A2:440:C:C6	2.57	0.57
21:A2:1475:C:OP2	55:Bh:4:LYS:CD	2.52	0.57
22:AY:22:CYS:HB2	22:AY:31:MET:HE3	1.85	0.57
31:BY:120:HIS:HB3	31:BY:121:PRO:HD2	1.86	0.57
31:BY:126:PHE:CZ	67:B1:1134:A:C2'	2.83	0.57
36:Bf:12:ARG:HH12	39:Be:18:ILE:HD11	1.69	0.57
45:Bi:16:ARG:HH12	67:B1:862:G:N2	2.02	0.57
51:Bj:84:PHE:CD2	67:B1:2460:A:H2	2.22	0.57
52:BB:97:LEU:HD21	52:BB:159:ILE:HD12	1.86	0.57
20:BG:61:GLU:CD	59:BM:11:TRP:HE1	2.11	0.57
67:B1:1567:C:O4'	67:B1:1567:C:C6	2.58	0.57
2:AK:40:ILE:HG22	25:AH:44:LEU:HD21	1.86	0.57
21:A2:334:G:H1	21:A2:347:G:H1	1.49	0.57
21:A2:434:A:C2	28:AV:84:GLU:CA	2.86	0.57
21:A2:1334:A:H1'	25:AH:69:ASN:OD1	2.04	0.57
26:AP:40:ARG:NH1	29:AL:53:PRO:HA	2.19	0.57
33:BC:50:HIS:CD2	33:BC:67:PHE:CE2	2.92	0.57
38:Bb:30:ARG:HB2	38:Bb:31:TYR:CE1	2.39	0.57
67:B1:117:A:N7	67:B1:118:A:C8	2.72	0.57
3:AI:99:PHE:CD1	18:AF:143:PHE:CZ	2.91	0.57
21:A2:382:G:C1'	21:A2:382:G:O2'	2.48	0.57
21:A2:1334:A:H4'	25:AH:69:ASN:ND2	2.19	0.57
26:AP:47:ALA:HB2	29:AL:64:TRP:CH2	2.38	0.57
39:Be:24:GLY:N	67:B1:55:G:O2'	2.38	0.57
50:BV:21:MET:CE	65:BJ:97:VAL:HG13	2.34	0.57
51:Bj:52:ARG:HE	67:B1:2202:U:C4'	2.16	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BG:37:ASN:OD1	59:BM:3:MET:HB3	2.05	0.57
3:AI:57:ARG:CG	21:A2:607:U:OP1	2.52	0.57
21:A2:1112:G:H5'	29:AL:71:ARG:HH21	1.70	0.57
21:A2:1200:U:O4	25:AH:91:ARG:HB3	2.03	0.57
34:B5:16:ARG:NE	67:B1:1565:G:O6	2.38	0.57
35:BL:6:LYS:HD2	67:B1:1339:C:N4	2.20	0.57
35:BL:11:LEU:HB3	67:B1:948:C:C5	2.40	0.57
39:Be:28:TYR:CD2	67:B1:124:C:H5'	2.24	0.57
39:Be:51:TRP:CG	67:B1:932:C:O2'	2.51	0.57
67:B1:1594:G:H1	67:B1:1712:U:H3	1.52	0.57
68:B3:35:A:C1'	68:B3:35:A:O2'	2.48	0.57
12:AN:5:LYS:CD	21:A2:838:C:H5	2.18	0.57
18:AF:96:VAL:HG22	18:AF:97:GLY:N	2.20	0.57
18:AF:166:VAL:HG23	18:AF:166:VAL:O	2.05	0.57
31:BY:75:ILE:HB	67:B1:1324:G:OP1	2.05	0.57
39:Be:51:TRP:HZ2	67:B1:814:G:N3	2.03	0.57
48:BR:7:SER:CB	67:B1:2376:U:OP1	2.51	0.57
48:BR:82:LYS:HD2	67:B1:2473:C:OP1	2.05	0.57
20:BG:52:ILE:HD11	20:BG:80:VAL:CG2	2.35	0.57
64:Bc:11:ARG:HH21	67:B1:1293:G:P	2.28	0.57
67:B1:1643:A:H4'	67:B1:1644:G:OP2	2.04	0.57
67:B1:2217:C:N3	67:B1:2318:G:N1	2.51	0.57
68:B3:1:C:P	68:B3:2:G:C1'	2.92	0.57
7:AB:104:PRO:CB	18:AF:19:LYS:HE2	2.22	0.57
15:AE:64:LYS:HZ2	28:AV:81:ILE:CG1	2.18	0.57
18:AF:73:ARG:HG2	21:A2:879:U:O2'	2.04	0.57
34:B5:50:ILE:CB	57:BZ:28:LYS:HZ1	2.15	0.57
51:Bj:47:TYR:C	67:B1:189:U:H4'	2.30	0.57
55:Bh:1:MET:O	55:Bh:5:TRP:HD1	1.87	0.57
63:Bg:12:PHE:CD2	63:Bg:13:LYS:HE2	2.40	0.57
67:B1:1600:G:H2'	67:B1:1601:G:H8	1.70	0.57
18:AF:44:ILE:HD12	18:AF:44:ILE:N	2.20	0.57
18:AF:124:ILE:HD12	18:AF:205:LEU:CG	2.35	0.57
26:AP:52:PHE:CB	29:AL:64:TRP:CE3	2.82	0.57
35:BL:132:LYS:HZ2	67:B1:733:A:C5'	2.18	0.57
20:BG:43:VAL:HG23	20:BG:75:ILE:HG21	1.87	0.57
67:B1:117:A:C8	67:B1:118:A:C8	2.92	0.57
15:AE:65:ILE:HG13	28:AV:13:LEU:HD12	1.86	0.57
17:AO:94:ILE:HG12	17:AO:95:THR:H	1.70	0.57
18:AF:75:THR:HG22	18:AF:76:ASP:H	1.69	0.57
21:A2:1313:G:OP1	25:AH:81:VAL:HG23	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BL:4:ARG:HD3	67:B1:678:G:O2'	2.05	0.57
38:Bb:27:GLU:HB2	38:Bb:30:ARG:CD	2.35	0.57
67:B1:646:U:H2'	67:B1:647:G:C8	2.40	0.57
67:B1:1968:A:C6	67:B1:2101:A:N6	2.73	0.57
18:AF:33:ASP:HB3	18:AF:36:GLU:CG	2.32	0.56
18:AF:123:GLU:HB3	18:AF:209:ASN:HD21	1.68	0.56
21:A2:434:A:N3	28:AV:84:GLU:CB	2.54	0.56
21:A2:1351:U:H2'	21:A2:1352:G:C8	2.40	0.56
26:AP:56:GLU:C	29:AL:63:ARG:HH11	2.13	0.56
35:BL:34:ARG:NH2	67:B1:938:U:O3'	2.37	0.56
39:Be:53:LYS:NZ	67:B1:506:G:H5''	2.15	0.56
45:Bi:68:TYR:OH	52:BB:170:LYS:HB2	2.04	0.56
50:BV:39:ARG:HD2	67:B1:2832:G:OP1	2.05	0.56
51:Bj:46:GLY:HA2	59:BM:82:PRO:C	2.29	0.56
67:B1:486:A:C2	67:B1:512:G:C8	2.93	0.56
67:B1:1823:A:H61	67:B1:2120:C:N4	1.93	0.56
2:AK:42:ARG:NE	25:AH:9:PHE:HD1	1.85	0.56
11:A1:76:C:N3	51:Bj:56:GLU:HG3	2.19	0.56
18:AF:122:ILE:HG13	18:AF:123:GLU:N	2.20	0.56
18:AF:175:LEU:HD13	18:AF:183:VAL:HG11	1.87	0.56
21:A2:1312:C:H5''	25:AH:80:LYS:HB3	1.87	0.56
31:BY:123:ARG:HE	67:B1:1132:U:C4'	2.16	0.56
34:B5:57:PRO:HD3	61:Bd:88:LEU:HD22	1.86	0.56
39:Be:17:HIS:ND1	67:B1:504:G:H4'	2.20	0.56
56:BH:58:ASP:C	56:BH:60:VAL:HG23	2.30	0.56
56:BH:134:GLY:HA3	67:B1:1203:C:O4'	2.05	0.56
64:Bc:14:LYS:HG2	67:B1:1142:A:C6	2.40	0.56
6:AC:140:ARG:NH1	21:A2:1156:A:C8	2.73	0.56
12:AN:21:LYS:NZ	21:A2:237:C:OP1	2.37	0.56
12:AN:49:GLN:HG2	12:AN:106:GLU:HG2	1.86	0.56
18:AF:164:GLY:HA2	18:AF:182:ASP:HA	1.86	0.56
18:AF:175:LEU:HD23	18:AF:205:LEU:HD11	1.86	0.56
18:AF:201:VAL:HG13	18:AF:202:PHE:N	2.20	0.56
21:A2:45:U:O4	21:A2:361:A:N1	2.38	0.56
21:A2:825:C:O2	21:A2:831:A:C2	2.59	0.56
34:B5:13:ILE:HD13	61:Bd:80:MET:CB	2.34	0.56
36:Bf:1:MET:HE2	61:Bd:2:LYS:HB3	1.87	0.56
38:Bb:109:LYS:CG	67:B1:1353:A:O2'	2.30	0.56
41:Ba:24:ARG:NH2	67:B1:2805:U:O2'	2.38	0.56
67:B1:379:U:H2'	67:B1:380:A:C8	2.39	0.56
67:B1:956:U:H5	67:B1:1107:G:N2	2.03	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:1968:A:N6	67:B1:2101:A:N6	2.54	0.56
4:AG:77:ASP:H	4:AG:110:ASN:HD22	1.52	0.56
18:AF:73:ARG:NH1	21:A2:879:U:H5'	2.10	0.56
21:A2:114:A:H2	21:A2:184:G:O2'	1.89	0.56
21:A2:1327:C:O2'	29:AL:48:THR:CB	2.53	0.56
21:A2:1333:G:C5	25:AH:48:HIS:HE1	2.22	0.56
21:A2:1475:C:OP1	55:Bh:4:LYS:HE3	2.01	0.56
25:AH:80:LYS:HB2	25:AH:86:MET:O	2.06	0.56
39:Be:3:SER:O	67:B1:1920:A:N7	2.38	0.56
51:Bj:45:LYS:NZ	59:BM:88:VAL:CG1	2.65	0.56
20:BG:3:LYS:NZ	20:BG:57:VAL:N	2.53	0.56
56:BH:27:PRO:HG2	56:BH:57:VAL:HG11	1.86	0.56
67:B1:646:U:H2'	67:B1:647:G:H8	1.71	0.56
67:B1:1039:C:H2'	67:B1:1040:C:C6	2.39	0.56
3:AI:57:ARG:NH2	21:A2:608:G:P	2.79	0.56
18:AF:32:THR:HG23	18:AF:32:THR:O	2.04	0.56
18:AF:149:GLU:CD	18:AF:199:LYS:HD3	2.30	0.56
21:A2:87:C:H2'	21:A2:88:G:H5'	1.86	0.56
35:BL:58:LEU:C	67:B1:2510:A:O2'	2.39	0.56
36:Bf:43:TYR:OH	67:B1:1476:C:P	2.61	0.56
11:A1:77:A:H8	67:B1:2511:C:H42	1.53	0.56
21:A2:1377:G:H5'	55:Bh:23:LEU:HD13	1.88	0.56
36:Bf:10:LYS:NZ	67:B1:1758:U:P	2.79	0.56
38:Bb:97:ARG:NH1	28:B6:62:SER:O	2.37	0.56
64:Bc:71:PHE:HB2	64:Bc:74:GLY:H	1.69	0.56
2:AK:10:ARG:NH2	25:AH:48:HIS:HB3	2.21	0.56
18:AF:128:CYS:CA	18:AF:138:PRO:HG3	2.35	0.56
18:AF:131:TRP:HZ3	18:AF:160:PRO:CD	2.16	0.56
18:AF:165:LEU:HD22	18:AF:175:LEU:HD13	1.86	0.56
18:AF:167:ILE:HG23	18:AF:172:LYS:HB2	1.88	0.56
21:A2:1334:A:C1'	25:AH:69:ASN:HD21	2.16	0.56
33:BC:108:ASN:CG	33:BC:172:TRP:HZ3	2.02	0.56
33:BC:108:ASN:N	33:BC:172:TRP:CZ2	2.74	0.56
35:BL:14:SER:C	35:BL:16:THR:H	2.14	0.56
38:Bb:48:SER:HB2	38:Bb:51:ARG:H	1.70	0.56
20:BG:33:ARG:HE	20:BG:102:ILE:HD12	1.71	0.56
2:AK:43:PHE:CB	25:AH:43:LEU:HD11	2.25	0.56
2:AK:102:TYR:CE1	25:AH:42:ARG:HD3	2.36	0.56
18:AF:143:PHE:HE1	18:AF:213:ILE:HD11	1.71	0.56
18:AF:191:THR:HG22	18:AF:191:THR:O	2.06	0.56
21:A2:798:U:C2'	21:A2:798:U:C6	2.89	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:905:A:H2'	21:A2:906:G:C8	2.41	0.56
21:A2:1063:A:C8	21:A2:1064:C:C5	2.94	0.56
51:Bj:32:GLU:H	51:Bj:33:LEU:HB2	1.69	0.56
61:Bd:30:LYS:HG2	67:B1:1669:A:O2'	2.06	0.56
67:B1:1569:A:C2'	67:B1:1569:A:HO2'	2.10	0.56
4:AG:85:ARG:NH2	21:A2:331:C:P	2.79	0.56
4:AG:120:ASN:CB	21:A2:151:G:HO2'	2.17	0.56
21:A2:1334:A:O2'	25:AH:69:ASN:ND2	2.34	0.56
61:Bd:60:THR:CG2	67:B1:1574:A:C2	2.87	0.56
67:B1:1199:U:H1'	67:B1:1201:G:H5'	1.87	0.56
18:AF:86:LEU:HD21	18:AF:195:VAL:HG13	1.88	0.56
18:AF:145:VAL:HG22	18:AF:146:GLU:H	1.71	0.56
21:A2:1311:C:H1'	25:AH:96:LYS:HG2	1.88	0.56
25:AH:47:THR:HG22	25:AH:47:THR:O	2.06	0.56
35:BL:26:ARG:HH12	67:B1:942:U:P	2.29	0.56
38:Bb:25:ARG:HD3	38:Bb:34:PHE:CZ	2.40	0.56
38:Bb:29:TRP:CE2	67:B1:570:G:H4'	2.40	0.56
31:BY:33:HIS:NE2	67:B1:1298:C:OP1	2.39	0.55
31:BY:155:LEU:CD1	67:B1:602:G:P	2.87	0.55
35:BL:41:LYS:CG	67:B1:185:A:OP2	2.54	0.55
51:Bj:45:LYS:HZ3	59:BM:88:VAL:HG12	1.69	0.55
51:Bj:52:ARG:HB3	67:B1:2548:A:N1	2.20	0.55
61:Bd:4:MET:CE	67:B1:1448:G:N2	2.68	0.55
67:B1:991:U:H3	67:B1:1058:A:H61	1.53	0.55
2:AK:40:ILE:HD13	25:AH:101:TYR:CE2	2.42	0.55
18:AF:50:ILE:HD12	18:AF:118:LYS:CB	2.21	0.55
21:A2:1186:C:H4'	21:A2:1187:A:OP1	2.05	0.55
21:A2:1312:C:C5'	25:AH:80:LYS:HE3	2.36	0.55
26:AP:52:PHE:HB2	29:AL:64:TRP:CZ3	2.35	0.55
31:BY:130:LYS:HZ3	67:B1:1122:C:H5''	1.71	0.55
45:Bi:68:TYR:OH	52:BB:170:LYS:CB	2.55	0.55
61:Bd:5:TYR:HA	67:B1:1779:C:O2'	2.06	0.55
67:B1:473:C:H2'	67:B1:474:G:C8	2.41	0.55
67:B1:899:A:N6	67:B1:1914:U:C4	2.74	0.55
67:B1:2507:C:C1'	67:B1:2507:C:C3'	2.77	0.55
68:B3:1:C:P	68:B3:2:G:O4'	2.65	0.55
21:A2:1467:U:H3	21:A2:1478:A:H61	1.53	0.55
34:B5:16:ARG:HD2	67:B1:1566:G:C6	2.41	0.55
36:Bf:10:LYS:HE2	67:B1:1757:G:H5''	1.88	0.55
38:Bb:101:ARG:NH1	67:B1:584:G:P	2.80	0.55
49:BQ:8:ARG:HH22	67:B1:1433:C:H4'	1.69	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AF:178:ALA:HB2	18:AF:205:LEU:HD23	1.88	0.55
21:A2:367:G:O4'	21:A2:367:G:N9	2.37	0.55
21:A2:439:G:H4'	21:A2:440:C:O5'	2.06	0.55
21:A2:471:G:H5''	21:A2:472:C:C6	2.41	0.55
21:A2:1311:C:C4'	25:AH:94:ASN:O	2.55	0.55
25:AH:69:ASN:HD22	25:AH:97:LYS:HZ1	1.53	0.55
39:Be:59:LYS:CE	53:BD:55:ARG:HH22	2.14	0.55
41:Ba:21:ILE:CB	67:B1:1811:G:C2	2.89	0.55
41:Ba:63:ILE:CG2	67:B1:1418:A:N6	2.67	0.55
20:BG:37:ASN:CA	59:BM:3:MET:SD	2.94	0.55
61:Bd:1:MET:HG2	61:Bd:2:LYS:H	1.71	0.55
61:Bd:47:PRO:HA	67:B1:1668:G:C4'	2.37	0.55
67:B1:122:G:H1	67:B1:126:U:H3	1.55	0.55
13:AX:71:ARG:NE	21:A2:1041:C:OP1	2.38	0.55
18:AF:34:ILE:HG23	18:AF:35:HIS:N	2.21	0.55
21:A2:152:G:H2'	21:A2:153:G:H8	1.69	0.55
36:Bf:26:TRP:CZ3	67:B1:92:G:N1	2.75	0.55
39:Be:17:HIS:CG	67:B1:504:G:H5'	2.41	0.55
41:Ba:19:LYS:NZ	67:B1:2806:A:C2'	2.67	0.55
41:Ba:20:LYS:O	67:B1:1811:G:C8	2.59	0.55
51:Bj:62:VAL:CG2	67:B1:2397:C:H5''	2.36	0.55
67:B1:1009:G:H1	67:B1:1041:U:H3	1.54	0.55
4:AG:102:ARG:NH1	21:A2:318:C:H5'	2.22	0.55
31:BY:130:LYS:HZ3	67:B1:1122:C:C5'	2.20	0.55
34:B5:50:ILE:HG21	57:BZ:28:LYS:HZ1	1.71	0.55
37:BU:69:VAL:HA	37:BU:76:ILE:HG22	1.89	0.55
67:B1:1506:U:C4'	67:B1:1947:A:H2	2.19	0.55
67:B1:2275:G:H2'	67:B1:2276:G:H5'	1.88	0.55
2:AK:102:TYR:OH	25:AH:42:ARG:CG	2.54	0.55
21:A2:957:A:C2	21:A2:991:C:N4	2.75	0.55
25:AH:89:GLU:HB3	25:AH:95:SER:OG	2.05	0.55
26:AP:56:GLU:O	29:AL:65:GLU:OE2	2.25	0.55
35:BL:11:LEU:CB	67:B1:948:C:C5	2.89	0.55
36:Bf:10:LYS:CE	67:B1:1757:G:H5''	2.37	0.55
39:Be:4:GLY:CA	67:B1:887:U:O5'	2.53	0.55
50:BV:49:LYS:HE2	67:B1:1892:G:OP1	2.07	0.55
61:Bd:70:HIS:CE1	67:B1:1583:G:H21	2.24	0.55
63:Bg:36:TYR:CD2	67:B1:1172:U:OP1	2.60	0.55
67:B1:1203:C:H2'	67:B1:1204:U:C6	2.42	0.55
18:AF:73:ARG:NE	21:A2:879:U:C3'	2.69	0.55
18:AF:80:ARG:HH11	21:A2:1022:U:H5'	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AF:134:ARG:HG3	18:AF:134:ARG:O	2.06	0.55
18:AF:175:LEU:HD21	18:AF:205:LEU:HD11	1.88	0.55
21:A2:873:A:H2'	21:A2:874:G:H5'	1.89	0.55
31:BY:51:LYS:CE	68:B3:96:C:H4'	2.35	0.55
33:BC:60:LEU:HD22	65:BJ:14:ALA:HA	1.88	0.55
50:BV:29:VAL:HG11	65:BJ:141:VAL:HG11	1.89	0.55
68:B3:66:A:N6	68:B3:109:A:C2	2.73	0.55
18:AF:53:LEU:CD1	18:AF:54:LEU:HD23	2.36	0.55
21:A2:434:A:H2	28:AV:84:GLU:CB	2.08	0.55
29:AL:59:ALA:HB3	29:AL:61:PHE:CZ	2.42	0.55
51:Bj:52:ARG:HE	67:B1:2202:U:C3'	2.20	0.55
63:Bg:18:LEU:CD2	67:B1:2592:U:O2	2.50	0.55
67:B1:2173:U:H2'	67:B1:2174:G:O4'	2.06	0.55
68:B3:21:C:H4'	68:B3:22:C:OP1	2.07	0.55
10:AD:93:LEU:CD1	18:AF:160:PRO:CB	2.66	0.55
21:A2:369:A:C4'	21:A2:434:A:C8	2.81	0.55
21:A2:516:A:N6	21:A2:842:U:H3	2.05	0.55
21:A2:1307:G:N1	25:AH:48:HIS:CG	2.61	0.55
31:BY:85:VAL:HG11	31:BY:93:ILE:HA	1.89	0.55
39:Be:4:GLY:H	67:B1:887:U:H6	1.53	0.55
39:Be:25:ARG:HH21	39:Be:57:LYS:HD2	1.72	0.55
63:Bg:12:PHE:CE1	63:Bg:44:LYS:HA	2.42	0.55
67:B1:2115:U:C2'	67:B1:2115:U:N1	2.63	0.55
67:B1:2396:G:N3	67:B1:2507:C:N4	2.54	0.55
18:AF:183:VAL:HG22	18:AF:184:TRP:O	2.07	0.54
21:A2:8:U:C2'	21:A2:8:U:N1	2.63	0.54
20:BG:51:VAL:HG21	20:BG:66:LEU:HD21	1.89	0.54
56:BH:1:MET:HB2	56:BH:2:PRO:O	2.07	0.54
61:Bd:25:HIS:HE1	67:B1:1531:C:OP1	1.89	0.54
64:Bc:22:MET:SD	64:Bc:75:LEU:HD12	2.47	0.54
64:Bc:73:LYS:HB3	67:B1:574:C:H5''	1.88	0.54
67:B1:115:C:N4	67:B1:116:G:C6	2.75	0.54
4:AG:76:PRO:HB2	21:A2:1404:C:H4'	1.89	0.54
12:AN:135:LYS:HE2	21:A2:29:G:C2'	2.37	0.54
21:A2:616:G:N2	21:A2:697:A:C2	2.75	0.54
21:A2:898:G:C2	21:A2:899:G:C6	2.95	0.54
35:BL:9:ARG:HE	35:BL:12:ARG:HE	1.54	0.54
67:B1:579:C:O2'	67:B1:580:G:C8	2.55	0.54
67:B1:1132:U:H3	67:B1:1296:A:N6	1.99	0.54
67:B1:1568:A:C5	67:B1:1569:A:C6	2.95	0.54
1:AQ:15:LYS:HB3	3:AI:57:ARG:HH11	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AN:135:LYS:HZ1	21:A2:29:G:H1'	0.58	0.54
21:A2:1200:U:C2	25:AH:180:PHE:HB2	2.39	0.54
21:A2:1311:C:C5'	25:AH:94:ASN:C	2.80	0.54
36:Bf:3:ARG:HA	36:Bf:4:ASN:CG	2.32	0.54
41:Ba:20:LYS:C	67:B1:1811:G:C8	2.86	0.54
20:BG:4:PRO:HG2	59:BM:25:GLN:HE22	1.73	0.54
64:Bc:59:ARG:HD2	64:Bc:68:ARG:HH11	1.72	0.54
4:AG:120:ASN:HB3	21:A2:151:G:HO2'	1.73	0.54
11:A1:42:C:O2'	25:AH:206:GLU:HG3	2.07	0.54
18:AF:132:GLU:CG	18:AF:133:CYS:H	2.14	0.54
21:A2:1200:U:OP1	25:AH:179:SER:CB	2.53	0.54
21:A2:1312:C:H4'	25:AH:80:LYS:HG2	1.89	0.54
26:AP:41:HIS:CD2	29:AL:53:PRO:HB3	2.42	0.54
33:BC:153:ASP:HB3	33:BC:160:ILE:HD13	1.87	0.54
39:Be:59:LYS:HD3	53:BD:55:ARG:HH21	1.70	0.54
41:Ba:24:ARG:CZ	67:B1:2805:U:O2'	2.55	0.54
12:AN:21:LYS:HE2	21:A2:237:C:OP1	2.07	0.54
25:AH:148:VAL:HG12	25:AH:149:ALA:N	2.22	0.54
26:AP:52:PHE:CD2	29:AL:64:TRP:HE3	2.22	0.54
31:BY:123:ARG:CD	67:B1:1132:U:O2'	2.54	0.54
39:Be:53:LYS:CE	67:B1:506:G:H5''	2.19	0.54
53:BD:85:PHE:HB2	67:B1:675:G:H21	1.70	0.54
61:Bd:32:LYS:NZ	67:B1:1588:C:OP2	2.39	0.54
63:Bg:12:PHE:HE1	63:Bg:44:LYS:HA	1.71	0.54
67:B1:1745:U:H3'	67:B1:1745:U:C6	2.43	0.54
67:B1:1968:A:N7	67:B1:1969:C:C5	2.75	0.54
68:B3:73:U:H3'	68:B3:74:U:H5''	1.88	0.54
3:AI:28:LYS:CG	5:AW:4:PRO:CA	2.82	0.54
12:AN:24:ARG:HH12	21:A2:298:C:C5'	2.16	0.54
12:AN:110:GLY:N	21:A2:506:G:OP1	2.41	0.54
29:AL:59:ALA:HB1	29:AL:61:PHE:CE1	2.43	0.54
34:B5:11:VAL:HG11	61:Bd:84:ILE:HD12	1.89	0.54
41:Ba:20:LYS:CB	67:B1:1811:G:H8	2.08	0.54
49:BQ:76:ARG:CD	67:B1:1884:C:OP2	2.55	0.54
67:B1:206:A:H3'	67:B1:207:A:C8	2.43	0.54
67:B1:890:G:H2'	67:B1:891:C:C6	2.42	0.54
67:B1:2257:A:H62	67:B1:2280:G:H1'	1.72	0.54
67:B1:2806:A:C2	67:B1:3020:G:N2	2.76	0.54
3:AI:95:PRO:HG2	18:AF:143:PHE:HE2	1.73	0.54
18:AF:85:VAL:HG12	18:AF:86:LEU:N	2.23	0.54
21:A2:60:A:N6	21:A2:65:G:C6	2.76	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:265:C:H2'	21:A2:266:A:C8	2.43	0.54
21:A2:1248:A:H4'	30:AU:80:ARG:HH21	1.73	0.54
31:BY:131:LYS:HG2	68:B3:85:C:OP1	2.07	0.54
34:B5:4:ILE:CG1	57:BZ:28:LYS:CG	2.75	0.54
34:B5:51:LYS:CE	67:B1:1568:A:O2'	2.56	0.54
35:BL:7:LYS:C	35:BL:9:ARG:H	2.13	0.54
35:BL:113:LEU:HD12	67:B1:732:G:C2	2.39	0.54
43:Bk:76:LEU:H	43:Bk:76:LEU:HD22	1.72	0.54
51:Bj:10:TYR:HB3	67:B1:2461:C:O2'	2.07	0.54
51:Bj:36:GLY:HA2	51:Bj:39:ARG:CD	2.37	0.54
56:BH:110:LYS:HG3	56:BH:114:MET:CE	2.37	0.54
18:AF:31:ILE:O	18:AF:31:ILE:HG13	2.07	0.54
21:A2:430:G:H21	28:AV:33:ARG:HH12	1.56	0.54
36:Bf:7:LEU:HD12	67:B1:1756:C:H5''	1.90	0.54
45:Bi:9:SER:HG	67:B1:839:A:HO2'	1.56	0.54
54:BF:184:PHE:HB2	63:Bg:13:LYS:HB2	1.89	0.54
67:B1:3021:C:H2'	67:B1:3022:C:H6	1.73	0.54
24:AA:120:MET:HG3	24:AA:186:ARG:HH21	1.73	0.54
38:Bb:25:ARG:HA	38:Bb:40:TRP:CE3	2.43	0.54
50:BV:22:TYR:CZ	65:BJ:100:GLU:CG	2.76	0.54
56:BH:21:LEU:HD23	56:BH:32:VAL:HG21	1.90	0.54
61:Bd:31:PRO:CG	67:B1:1669:A:H4'	2.38	0.54
64:Bc:11:ARG:NH2	67:B1:1293:G:P	2.81	0.54
21:A2:375:G:N2	21:A2:381:C:C2	2.76	0.54
21:A2:1248:A:O3'	25:AH:81:VAL:CG1	2.48	0.54
35:BL:23:LYS:NZ	67:B1:2563:A:N6	2.50	0.54
51:Bj:60:LYS:HZ1	67:B1:2396:G:H21	1.55	0.54
20:BG:4:PRO:O	20:BG:5:SER:CB	2.56	0.54
67:B1:1035:G:H2'	67:B1:1036:C:C6	2.43	0.54
67:B1:1273:C:N4	67:B1:1277:G:C6	2.76	0.54
3:AI:31:SER:CB	21:A2:542:G:H5''	2.37	0.53
15:AE:64:LYS:HZ1	28:AV:81:ILE:HB	1.64	0.53
21:A2:164:A:H2'	21:A2:165:U:C6	2.42	0.53
25:AH:81:VAL:HG11	30:AU:80:ARG:NE	2.18	0.53
38:Bb:126:LEU:HD21	67:B1:583:A:O3'	2.08	0.53
39:Be:17:HIS:CE1	67:B1:504:G:O4'	2.60	0.53
61:Bd:59:LYS:HB2	67:B1:1575:G:H22	1.73	0.53
18:AF:73:ARG:CG	21:A2:879:U:O2'	2.57	0.53
18:AF:145:VAL:HG11	18:AF:156:LEU:HD12	1.90	0.53
21:A2:976:A:H2'	21:A2:978:G:C8	2.44	0.53
25:AH:149:ALA:HB2	25:AH:215:ARG:CB	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BL:64:SER:HB2	67:B1:234:G:OP1	2.05	0.53
38:Bb:109:LYS:HG2	67:B1:1353:A:N9	2.20	0.53
38:Bb:126:LEU:HD21	67:B1:584:G:OP2	2.09	0.53
39:Be:51:TRP:HZ2	67:B1:814:G:H21	1.43	0.53
49:BQ:7:GLN:HA	49:BQ:10:ILE:HD12	1.90	0.53
67:B1:1570:C:H5'	67:B1:1666:G:O2'	2.08	0.53
67:B1:2586:A:HO2'	67:B1:2587:G:H8	1.48	0.53
18:AF:71:THR:OG1	21:A2:1032:A:O3'	2.26	0.53
18:AF:167:ILE:HG12	18:AF:168:GLY:H	1.74	0.53
18:AF:174:ILE:CD1	18:AF:201:VAL:HG11	2.38	0.53
18:AF:203:ASN:O	18:AF:206:TYR:HB3	2.08	0.53
21:A2:60:A:N6	21:A2:85:A:N6	2.56	0.53
21:A2:382:G:C2'	21:A2:382:G:N9	2.62	0.53
21:A2:618:G:H22	21:A2:695:G:H1	1.56	0.53
21:A2:1251:C:OP1	25:AH:99:LYS:HD2	2.08	0.53
38:Bb:107:GLY:C	67:B1:1354:G:OP1	2.50	0.53
39:Be:22:ARG:CA	67:B1:54:G:H21	2.21	0.53
45:Bi:40:VAL:HG22	52:BB:78:LEU:HD11	1.88	0.53
35:BL:77:ASN:OD1	67:B1:723:A:N7	2.42	0.53
36:Bf:49:LEU:CG	67:B1:1454:G:P	2.97	0.53
39:Be:51:TRP:CD1	67:B1:932:C:HO2'	2.23	0.53
63:Bg:36:TYR:HB2	67:B1:1171:G:H5''	1.89	0.53
67:B1:237:G:H3'	67:B1:238:C:H5''	1.88	0.53
67:B1:1096:A:H2'	67:B1:1097:G:H5'	1.88	0.53
67:B1:1234:A:O4'	67:B1:1234:A:N9	2.39	0.53
67:B1:1933:U:H3	67:B1:1964:G:H1	1.56	0.53
67:B1:2088:G:O4'	67:B1:2088:G:N9	2.39	0.53
67:B1:2586:A:O2'	67:B1:2587:G:C8	2.61	0.53
3:AI:28:LYS:HE3	5:AW:4:PRO:CG	2.38	0.53
4:AG:9:SER:CB	4:AG:64:ARG:HH11	2.21	0.53
10:AD:90:ASP:OD2	18:AF:161:ARG:HG3	2.07	0.53
18:AF:59:ALA:O	18:AF:60:ARG:HB2	2.08	0.53
18:AF:67:ASP:HB3	18:AF:86:LEU:HD13	1.91	0.53
18:AF:170:VAL:HG13	18:AF:171:GLY:H	1.73	0.53
21:A2:218:C:O4'	21:A2:218:C:C6	2.62	0.53
21:A2:1333:G:H4'	25:AH:97:LYS:HB3	1.90	0.53
35:BL:116:GLY:HA2	67:B1:735:A:OP2	2.08	0.53
43:Bk:42:ARG:CZ	67:B1:1224:A:N7	2.61	0.53
51:Bj:47:TYR:CZ	67:B1:2203:G:O4'	2.61	0.53
55:Bh:19:LYS:O	55:Bh:23:LEU:HB2	2.08	0.53
67:B1:2260:C:N4	67:B1:2277:G:H22	2.06	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:2388:U:C5	67:B1:2390:G:C8	2.97	0.53
4:AG:64:ARG:CG	21:A2:152:G:C5'	2.79	0.53
18:AF:143:PHE:CE1	18:AF:213:ILE:HD11	2.44	0.53
21:A2:919:U:C4	21:A2:1185:A:H1'	2.44	0.53
28:AV:33:ARG:O	28:AV:53:ILE:HG21	2.09	0.53
34:B5:56:LEU:CD2	61:Bd:84:ILE:CD1	2.85	0.53
38:Bb:77:SER:CB	67:B1:585:G:P	2.96	0.53
45:Bi:43:ARG:CD	57:BZ:79:VAL:HG13	2.38	0.53
56:BH:72:PRO:HB2	67:B1:1199:U:OP2	2.09	0.53
61:Bd:48:ARG:HB3	67:B1:1669:A:H5''	1.91	0.53
18:AF:169:ASP:O	18:AF:173:LYS:HG2	2.08	0.53
18:AF:213:ILE:HG12	18:AF:215:PRO:CD	2.16	0.53
21:A2:1024:G:H2'	21:A2:1025:U:C6	2.44	0.53
21:A2:1465:C:C6	55:Bh:3:TRP:NE1	2.71	0.53
25:AH:67:LEU:HG	25:AH:71:ILE:HG13	1.90	0.53
61:Bd:11:ARG:HD2	67:B1:1711:C:P	2.49	0.53
67:B1:2952:C:H2'	67:B1:2953:U:H5'	1.90	0.53
18:AF:148:LYS:N	18:AF:148:LYS:HD2	2.23	0.53
21:A2:530:G:C4	21:A2:770:A:C2	2.97	0.53
21:A2:1327:C:O2'	29:AL:48:THR:CG2	2.57	0.53
35:BL:47:TRP:CD2	35:BL:47:TRP:O	2.61	0.53
39:Be:8:PHE:HZ	67:B1:1920:A:N7	2.05	0.53
67:B1:407:A:C3'	67:B1:408:C:H5''	2.37	0.53
68:B3:1:C:P	68:B3:2:G:H8	2.20	0.53
4:AG:35:GLY:H	4:AG:63:ILE:HB	1.74	0.53
12:AN:47:ALA:HB1	21:A2:359:A:N7	2.23	0.53
21:A2:562:A:C1'	21:A2:562:A:O2'	2.49	0.53
51:Bj:50:PHE:CE1	67:B1:237:G:OP1	2.62	0.53
51:Bj:62:VAL:HG23	67:B1:2397:C:H5''	1.89	0.53
56:BH:57:VAL:HG13	56:BH:62:LYS:HA	1.90	0.53
67:B1:1245:C:H2'	67:B1:1246:G:O5'	2.08	0.53
67:B1:2586:A:O2'	67:B1:2587:G:H8	1.92	0.53
31:BY:123:ARG:CD	67:B1:1132:U:C4'	2.79	0.53
32:BO:28:LEU:HD21	32:BO:34:ARG:HE	1.74	0.53
36:Bf:1:MET:O	67:B1:1450:C:P	2.66	0.53
39:Be:5:THR:CB	67:B1:887:U:OP2	2.57	0.53
43:Bk:30:VAL:HG23	43:Bk:86:GLY:O	2.09	0.53
45:Bi:40:VAL:CG2	52:BB:78:LEU:HD22	2.39	0.53
55:Bh:24:ILE:OXT	55:Bh:24:ILE:CG2	2.56	0.53
65:BJ:21:LEU:HD11	65:BJ:27:LEU:HD21	1.90	0.53
4:AG:99:LYS:CE	21:A2:319:U:O2'	2.56	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:788:C:H2'	21:A2:789:G:C8	2.44	0.52
38:Bb:18:ARG:NH2	67:B1:1127:C:H1'	2.24	0.52
67:B1:228:U:H3	67:B1:247:A:H61	1.57	0.52
1:AQ:15:LYS:HB3	3:AI:57:ARG:NH1	2.24	0.52
4:AG:67:THR:HG21	21:A2:150:G:H1'	1.91	0.52
18:AF:85:VAL:O	18:AF:100:ILE:HA	2.08	0.52
18:AF:163:LEU:HD11	18:AF:184:TRP:CE2	2.43	0.52
21:A2:1006:C:O2	21:A2:1006:C:O4'	2.25	0.52
21:A2:1053:A:O4'	21:A2:1053:A:N9	2.40	0.52
34:B5:3:ALA:O	57:BZ:29:THR:CA	2.57	0.52
40:BE:166:LEU:HD11	40:BE:170:GLU:HB2	1.92	0.52
55:Bh:7:LYS:O	55:Bh:11:ARG:HG3	2.10	0.52
67:B1:1167:A:H2'	67:B1:1168:A:C8	2.44	0.52
67:B1:1348:G:H1	67:B1:1382:C:N4	2.08	0.52
2:AK:42:ARG:HD2	25:AH:9:PHE:CE1	2.44	0.52
4:AG:102:ARG:HG3	21:A2:318:C:C4'	2.40	0.52
35:BL:12:ARG:C	35:BL:14:SER:H	2.16	0.52
35:BL:44:LYS:N	67:B1:961:C:C4'	2.73	0.52
39:Be:51:TRP:HE1	67:B1:813:G:N2	2.07	0.52
54:BF:70:THR:HG21	67:B1:2871:A:C6	2.43	0.52
61:Bd:60:THR:HG23	67:B1:1574:A:H2	1.72	0.52
67:B1:956:U:C4	67:B1:1107:G:N2	2.75	0.52
67:B1:1023:C:H3'	67:B1:1024:G:H4'	1.91	0.52
67:B1:2912:G:H1	67:B1:2937:U:H3	1.57	0.52
68:B3:1:C:OP1	68:B3:117:G:N1	2.41	0.52
2:AK:42:ARG:HD2	25:AH:9:PHE:HE1	1.73	0.52
12:AN:91:ASP:OD2	21:A2:474:G:H4'	2.08	0.52
18:AF:146:GLU:HG3	18:AF:154:VAL:O	2.09	0.52
21:A2:460:C:H5''	21:A2:461:A:H5''	1.91	0.52
21:A2:478:C:H2'	21:A2:479:C:C6	2.44	0.52
21:A2:991:C:C5	21:A2:992:G:C5	2.98	0.52
48:BR:69:ARG:NH2	67:B1:2483:U:C1'	2.71	0.52
56:BH:51:VAL:CG1	56:BH:70:VAL:HG12	2.40	0.52
67:B1:2733:A:H2'	67:B1:2734:C:C6	2.45	0.52
3:AI:57:ARG:HH21	21:A2:608:G:P	2.32	0.52
18:AF:135:CYS:HB3	18:AF:161:ARG:HH12	1.73	0.52
21:A2:828:U:H5'	21:A2:830:A:C2	2.45	0.52
35:BL:11:LEU:N	67:B1:947:C:H3'	2.24	0.52
41:Ba:64:GLU:CD	67:B1:2824:C:OP1	2.52	0.52
48:BR:24:GLY:HA2	67:B1:2447:A:OP2	2.08	0.52
51:Bj:48:GLY:C	67:B1:189:U:H1'	2.31	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:1418:A:C2	67:B1:1438:C:O2	2.63	0.52
67:B1:1943:C:H2'	67:B1:1944:C:C6	2.44	0.52
3:AI:2:THR:HB	21:A2:709:G:O2'	2.10	0.52
18:AF:5:TRP:CA	18:AF:55:PRO:HB2	2.39	0.52
28:AV:23:ILE:HG21	28:AV:31:PRO:HG3	1.91	0.52
38:Bb:33:LYS:CD	67:B1:672:C:OP2	2.49	0.52
49:BQ:8:ARG:NH2	67:B1:1433:C:H4'	2.25	0.52
51:Bj:30:ARG:HD3	67:B1:2513:C:O3'	2.10	0.52
67:B1:366:G:H2'	67:B1:367:G:H5'	1.91	0.52
8:AR:43:PRO:HB2	8:AR:46:THR:HB	1.92	0.52
18:AF:186:GLN:OE1	18:AF:186:GLN:HA	2.10	0.52
34:B5:25:VAL:HG13	34:B5:34:LEU:HD23	1.91	0.52
39:Be:17:HIS:NE2	67:B1:504:G:O4'	2.42	0.52
51:Bj:47:TYR:CZ	59:BM:82:PRO:HG3	2.45	0.52
61:Bd:58:PRO:HB3	67:B1:1574:A:N6	2.22	0.52
67:B1:1559:A:O4'	67:B1:1559:A:N9	2.37	0.52
3:AI:121:ILE:HG13	3:AI:122:GLY:H	1.73	0.52
10:AD:59:LEU:CD1	18:AF:132:GLU:CD	2.79	0.52
18:AF:119:LEU:H	18:AF:119:LEU:HD22	1.74	0.52
25:AH:89:GLU:H	25:AH:94:ASN:HB3	1.74	0.52
31:BY:15:VAL:CG1	31:BY:19:VAL:HG13	2.40	0.52
31:BY:135:LYS:NZ	68:B3:95:G:C5'	2.71	0.52
39:Be:51:TRP:CD1	67:B1:933:G:O4'	2.62	0.52
43:Bk:38:LEU:C	43:Bk:42:ARG:HG3	2.35	0.52
61:Bd:48:ARG:HD3	67:B1:1669:A:H5'	1.90	0.52
67:B1:1245:C:H3'	67:B1:1245:C:C6	2.43	0.52
67:B1:2111:C:H2'	67:B1:2112:C:C6	2.44	0.52
4:AG:100:GLY:HA3	21:A2:318:C:O2	2.06	0.52
12:AN:111:PRO:CB	21:A2:507:G:OP1	2.55	0.52
15:AE:64:LYS:NZ	28:AV:81:ILE:CG1	2.73	0.52
21:A2:423:U:C2'	21:A2:423:U:C6	2.92	0.52
21:A2:1371:C:H2'	21:A2:1372:C:C6	2.44	0.52
29:AL:59:ALA:CB	29:AL:61:PHE:CE1	2.93	0.52
35:BL:25:HIS:CD2	67:B1:678:G:H1	2.28	0.52
36:Bf:22:ARG:NH2	67:B1:1477:C:C3'	2.71	0.52
36:Bf:38:HIS:CE1	67:B1:64:A:N3	2.78	0.52
36:Bf:38:HIS:CE1	36:Bf:39:PRO:HD2	2.45	0.52
51:Bj:47:TYR:CD1	59:BM:82:PRO:HG2	2.33	0.52
64:Bc:45:TRP:CE2	64:Bc:79:ALA:HB2	2.45	0.52
18:AF:71:THR:OG1	21:A2:1033:G:P	2.68	0.52
18:AF:132:GLU:HG2	18:AF:133:CYS:N	2.23	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:806:G:O4'	21:A2:806:G:N9	2.39	0.52
21:A2:973:U:H3'	21:A2:974:G:H5''	1.92	0.52
21:A2:1332:C:O3'	25:AH:98:VAL:HG22	2.10	0.52
31:BY:123:ARG:HD2	67:B1:1132:U:C3'	2.41	0.52
34:B5:56:LEU:HD23	61:Bd:84:ILE:CD1	2.37	0.52
36:Bf:22:ARG:NE	67:B1:1478:G:OP1	2.43	0.52
38:Bb:72:ARG:HE	67:B1:1366:U:P	2.10	0.52
67:B1:1189:A:H61	67:B1:1248:C:H5	1.57	0.52
67:B1:2946:C:N3	67:B1:3038:A:N6	2.57	0.52
12:AN:48:PRO:HD2	21:A2:359:A:C6	2.44	0.51
25:AH:137:THR:HB	25:AH:139:VAL:HG13	1.91	0.51
36:Bf:40:LYS:HD2	67:B1:65:G:C5'	2.40	0.51
38:Bb:33:LYS:HA	67:B1:672:C:H5''	1.92	0.51
38:Bb:56:GLY:CA	67:B1:570:G:H21	2.22	0.51
39:Be:45:ARG:HB3	67:B1:168:G:OP1	2.11	0.51
51:Bj:82:ARG:HB2	67:B1:2538:G:H5''	1.91	0.51
67:B1:583:A:H3'	67:B1:584:G:C5'	2.40	0.51
67:B1:1754:A:C2'	67:B1:1754:A:C8	2.92	0.51
4:AG:84:VAL:CG1	21:A2:1414:G:H5''	2.40	0.51
21:A2:556:G:N2	21:A2:590:G:C5	2.78	0.51
21:A2:1251:C:P	25:AH:99:LYS:CD	2.97	0.51
21:A2:1311:C:C5'	25:AH:94:ASN:O	2.58	0.51
31:BY:121:PRO:HG2	67:B1:1132:U:O2'	2.11	0.51
35:BL:44:LYS:CA	67:B1:961:C:C2'	2.88	0.51
38:Bb:72:ARG:CZ	67:B1:1365:G:O3'	2.56	0.51
50:BV:43:MET:HE2	67:B1:1893:C:O4'	2.09	0.51
52:BB:111:ILE:HG23	52:BB:121:TYR:HB2	1.92	0.51
20:BG:93:GLU:HG3	20:BG:94:VAL:HG23	1.91	0.51
56:BH:89:GLU:HB3	56:BH:92:HIS:HB3	1.93	0.51
56:BH:124:LYS:HG3	67:B1:1220:U:C5'	2.40	0.51
56:BH:124:LYS:HA	56:BH:127:ILE:HG22	1.92	0.51
61:Bd:42:PRO:HB2	67:B1:1668:G:C6	2.45	0.51
64:Bc:36:SER:O	64:Bc:39:ILE:HG22	2.10	0.51
13:AX:62:ARG:NH2	14:AM:58:TYR:CD1	2.79	0.51
35:BL:6:LYS:O	35:BL:9:ARG:HB3	2.09	0.51
35:BL:77:ASN:HD21	67:B1:723:A:H8	1.53	0.51
36:Bf:3:ARG:CB	36:Bf:4:ASN:CB	2.88	0.51
39:Be:53:LYS:CG	67:B1:506:G:P	2.99	0.51
49:BQ:85:LYS:N	67:B1:1843:C:OP1	2.44	0.51
67:B1:353:C:H2'	67:B1:354:G:C8	2.45	0.51
67:B1:808:A:C2	67:B1:809:A:C2	2.98	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AK:102:TYR:CZ	25:AH:42:ARG:CD	2.82	0.51
3:AI:4:LEU:HB3	21:A2:540:G:O4'	2.10	0.51
3:AI:76:LYS:HG2	21:A2:836:G:OP1	2.10	0.51
4:AG:99:LYS:HG3	21:A2:319:U:C1'	2.39	0.51
12:AN:8:ASN:O	21:A2:837:C:OP1	2.28	0.51
21:A2:1178:C:H2'	21:A2:1179:C:C6	2.45	0.51
21:A2:1313:G:C5'	25:AH:81:VAL:HG21	2.17	0.51
25:AH:28:VAL:HG11	25:AH:34:LYS:HA	1.93	0.51
41:Ba:63:ILE:HG21	67:B1:1418:A:C6	2.45	0.51
45:Bi:7:VAL:HG11	67:B1:1854:G:C4'	2.41	0.51
67:B1:1354:G:H1'	67:B1:1378:G:H22	1.75	0.51
67:B1:1708:U:C5	67:B1:1709:C:C2	2.99	0.51
67:B1:2585:G:O6	67:B1:2591:A:H1'	2.11	0.51
68:B3:12:G:C2'	68:B3:13:C:H5'	2.40	0.51
7:AB:167:ILE:HA	7:AB:170:ILE:HG22	1.91	0.51
13:AX:20:THR:HG1	21:A2:1341:C:C4'	2.23	0.51
31:BY:129:SER:CB	67:B1:1135:A:OP1	2.58	0.51
39:Be:51:TRP:HE1	67:B1:813:G:H22	1.56	0.51
20:BG:7:VAL:HG22	20:BG:79:TYR:CD2	2.45	0.51
67:B1:43:G:O6	67:B1:474:G:C2	2.64	0.51
67:B1:2382:A:C1'	67:B1:2382:A:O2'	2.51	0.51
18:AF:149:GLU:OE2	18:AF:199:LYS:HD3	2.10	0.51
35:BL:44:LYS:HG2	67:B1:961:C:C4'	2.38	0.51
35:BL:132:LYS:HD3	67:B1:733:A:P	2.49	0.51
38:Bb:33:LYS:HD2	67:B1:672:C:O5'	2.11	0.51
38:Bb:69:LYS:CE	67:B1:1304:G:P	2.96	0.51
50:BV:45:ARG:NH1	50:BV:50:LEU:HD21	2.24	0.51
64:Bc:76:PRO:O	67:B1:649:A:C1'	2.59	0.51
68:B3:1:C:OP2	68:B3:117:G:N1	2.43	0.51
2:AK:39:GLU:OE1	25:AH:5:LEU:HD11	2.11	0.51
4:AG:88:LEU:O	21:A2:1412:A:O3'	2.28	0.51
12:AN:111:PRO:CB	21:A2:507:G:P	2.99	0.51
18:AF:97:GLY:HA2	18:AF:202:PHE:CE2	2.43	0.51
18:AF:122:ILE:CG1	18:AF:206:TYR:CD2	2.94	0.51
18:AF:167:ILE:HG12	18:AF:168:GLY:N	2.26	0.51
21:A2:434:A:N3	28:AV:85:TYR:CD1	2.76	0.51
21:A2:1311:C:H2'	21:A2:1312:C:H6	1.76	0.51
34:B5:3:ALA:N	57:BZ:28:LYS:HA	2.25	0.51
38:Bb:109:LYS:CG	67:B1:1353:A:C2'	2.86	0.51
39:Be:23:CYS:C	67:B1:55:G:O2'	2.53	0.51
45:Bi:16:ARG:HH11	45:Bi:16:ARG:HB2	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:Bj:80:ARG:O	67:B1:2537:G:H4'	2.11	0.51
20:BG:59:PRO:CG	59:BM:43:THR:HA	2.36	0.51
67:B1:366:G:O4'	67:B1:366:G:N9	2.41	0.51
18:AF:5:TRP:HB2	18:AF:55:PRO:HB2	1.93	0.51
18:AF:178:ALA:HB2	18:AF:205:LEU:CD2	2.41	0.51
21:A2:296:A:H2	21:A2:519:G:O6	1.90	0.51
21:A2:1194:C:OP2	25:AH:77:SER:HB3	2.11	0.51
25:AH:3:LYS:HD2	30:AU:143:ILE:HG12	0.51	0.51
31:BY:130:LYS:HZ3	67:B1:1122:C:P	2.33	0.51
35:BL:7:LYS:HA	35:BL:9:ARG:CZ	2.41	0.51
34:BK:38:ALA:HA	34:BK:72:ARG:HH21	1.76	0.51
52:BB:111:ILE:HG23	52:BB:121:TYR:CB	2.41	0.51
67:B1:82:C:C6	67:B1:83:G:C8	2.98	0.51
67:B1:1506:U:H4'	67:B1:1947:A:H2	1.75	0.51
67:B1:1902:G:H2'	67:B1:1903:G:H4'	1.93	0.51
26:AP:52:PHE:HB3	29:AL:64:TRP:HE3	1.69	0.51
35:BL:48:THR:CG2	67:B1:968:A:O2'	2.59	0.51
36:Bf:29:VAL:CG1	67:B1:92:G:H4'	2.38	0.51
65:BJ:92:LEU:HD23	65:BJ:92:LEU:H	1.76	0.51
67:B1:565:A:C2'	67:B1:565:A:C8	2.94	0.51
67:B1:1566:G:H1	67:B1:1570:C:N4	2.09	0.51
67:B1:1600:G:H2'	67:B1:1601:G:C8	2.46	0.51
68:B3:52:U:C4'	68:B3:53:A:H5'	2.39	0.51
12:AN:51:ARG:HB3	21:A2:359:A:OP2	2.09	0.51
18:AF:129:GLY:CA	18:AF:134:ARG:HB3	2.24	0.51
35:BL:44:LYS:HB2	67:B1:967:G:N2	2.26	0.51
39:Be:2:GLY:CA	67:B1:1920:A:C2	2.93	0.51
48:BR:37:VAL:HG12	48:BR:38:GLY:H	1.76	0.51
50:BV:40:TYR:OH	67:B1:2986:G:OP2	2.29	0.51
63:Bg:18:LEU:HD11	67:B1:2592:U:C4	2.40	0.51
18:AF:187:THR:HG21	21:A2:4:C:OP1	2.11	0.50
20:A3:20:LEU:HD22	20:A3:89:ALA:HB2	1.93	0.50
21:A2:895:C:H1'	21:A2:1342:C:H42	1.76	0.50
21:A2:1032:A:C8	21:A2:1033:G:H1'	2.45	0.50
21:A2:1311:C:H4'	25:AH:95:SER:HA	1.91	0.50
25:AH:78:HIS:CE1	25:AH:94:ASN:HD21	2.29	0.50
31:BY:130:LYS:NZ	67:B1:1122:C:C5'	2.74	0.50
35:BL:6:LYS:HD2	67:B1:947:C:H42	1.76	0.50
35:BL:113:LEU:HD21	67:B1:732:G:N7	2.26	0.50
35:BL:132:LYS:HZ3	67:B1:734:C:P	2.20	0.50
36:Bf:26:TRP:CG	67:B1:92:G:N2	2.79	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:Bk:124:ILE:HD13	43:Bk:145:ILE:HD13	1.92	0.50
50:BV:35:ARG:CG	50:BV:39:ARG:HE	2.22	0.50
50:BV:43:MET:HE3	67:B1:1893:C:O4'	2.12	0.50
63:Bg:44:LYS:HD3	63:Bg:44:LYS:H	1.76	0.50
64:Bc:57:ILE:HG13	64:Bc:58:VAL:H	1.75	0.50
67:B1:658:C:H42	67:B1:662:A:H8	1.58	0.50
67:B1:2764:G:H1	67:B1:2788:U:H3	1.58	0.50
6:AC:8:ILE:HG23	29:AL:66:LEU:CD1	2.41	0.50
7:AB:61:LYS:NZ	9:A9:25:UNK:H	2.08	0.50
12:AN:50:ALA:CB	21:A2:359:A:OP1	2.58	0.50
12:AN:111:PRO:CD	21:A2:507:G:P	2.93	0.50
21:A2:458:G:H3'	21:A2:459:G:C5'	2.41	0.50
21:A2:615:G:O6	21:A2:698:A:C6	2.64	0.50
21:A2:1332:C:C4'	25:AH:98:VAL:CG2	2.87	0.50
34:B5:38:ALA:HA	34:B5:72:ARG:HH21	1.76	0.50
35:BL:44:LYS:HA	67:B1:961:C:C2'	2.39	0.50
35:BL:47:TRP:O	35:BL:48:THR:HG22	2.12	0.50
36:Bf:3:ARG:HA	36:Bf:4:ASN:CB	2.40	0.50
64:Bc:16:ASN:HD22	64:Bc:17:GLN:H	1.57	0.50
67:B1:1486:G:H2'	67:B1:1486:G:N3	2.25	0.50
16:AJ:75:VAL:HG22	16:AJ:76:ARG:H	1.76	0.50
18:AF:121:ILE:HG23	18:AF:121:ILE:O	2.11	0.50
18:AF:143:PHE:CE1	18:AF:213:ILE:CD1	2.94	0.50
18:AF:190:GLU:OE2	18:AF:192:ARG:HD2	2.11	0.50
21:A2:1490:C:N3	21:A2:1491:C:C5	2.79	0.50
25:AH:87:ARG:CA	25:AH:88:ARG:HD3	2.40	0.50
33:BC:264:VAL:HG12	33:BC:265:MET:O	2.11	0.50
35:BL:24:LYS:HZ3	67:B1:1080:G:C5'	2.19	0.50
39:Be:13:SER:O	67:B1:1452:G:H4'	2.11	0.50
47:BI:77:ARG:HD3	47:BI:80:ARG:HH21	1.76	0.50
49:BQ:8:ARG:CZ	67:B1:1433:C:O3'	2.58	0.50
50:BV:35:ARG:NH2	67:B1:2801:G:H5''	2.19	0.50
61:Bd:31:PRO:CG	67:B1:1669:A:H5''	2.41	0.50
67:B1:1102:C:C4	67:B1:1103:C:C4	2.98	0.50
3:AI:4:LEU:CD2	21:A2:539:C:O2'	2.59	0.50
4:AG:69:LYS:HE3	21:A2:144:G:H5''	1.94	0.50
4:AG:73:PRO:HB3	21:A2:150:G:C5'	2.41	0.50
4:AG:86:VAL:HG11	21:A2:1413:G:O3'	2.12	0.50
12:AN:128:LYS:HE2	12:AN:131:ARG:HA	1.92	0.50
18:AF:100:ILE:HG13	18:AF:100:ILE:O	2.11	0.50
21:A2:1444:G:H2'	21:A2:1445:A:H5''	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BR:3:GLN:HB3	67:B1:2380:A:N1	2.26	0.50
67:B1:181:U:O2'	67:B1:810:A:C2	2.63	0.50
67:B1:2194:A:H2'	67:B1:2195:G:C8	2.47	0.50
21:A2:1379:G:C6	21:A2:1437:G:C6	3.00	0.50
21:A2:1400:A:H2'	21:A2:1401:U:C6	2.47	0.50
35:BL:27:GLY:CA	67:B1:940:G:OP2	2.59	0.50
35:BL:62:GLY:HA2	67:B1:2533:G:O3'	2.10	0.50
38:Bb:45:GLY:CA	67:B1:656:G:OP1	2.59	0.50
41:Ba:20:LYS:CD	67:B1:1811:G:H8	2.23	0.50
64:Bc:59:ARG:HD2	64:Bc:68:ARG:HD2	1.93	0.50
67:B1:1845:C:H2'	67:B1:1846:G:O4'	2.11	0.50
67:B1:2260:C:H42	67:B1:2277:G:H22	1.59	0.50
2:AK:50:ILE:HG12	25:AH:13:HIS:CE1	2.45	0.50
10:AD:137:ILE:H	10:AD:137:ILE:CD1	2.24	0.50
12:AN:50:ALA:HA	21:A2:359:A:C5'	2.42	0.50
18:AF:149:GLU:HG2	18:AF:196:ASN:CA	2.42	0.50
18:AF:170:VAL:HG13	18:AF:197:PHE:CD2	2.46	0.50
21:A2:138:C:H2'	21:A2:139:C:C6	2.47	0.50
21:A2:1332:C:HO2'	25:AH:98:VAL:HG23	1.66	0.50
35:BL:47:TRP:CZ2	67:B1:968:A:C2	2.99	0.50
49:BQ:118:LYS:HA	49:BQ:121:ARG:NE	2.27	0.50
67:B1:1431:U:C4	67:B1:1470:C:C2	2.99	0.50
67:B1:1689:G:N2	67:B1:1692:A:N7	2.59	0.50
12:AN:20:ARG:NH1	21:A2:516:A:H2	2.04	0.50
12:AN:50:ALA:HB1	21:A2:359:A:OP1	2.12	0.50
18:AF:157:ILE:HG23	18:AF:158:PRO:HD2	1.93	0.50
21:A2:813:G:H8	21:A2:829:U:O4	1.95	0.50
21:A2:975:A:H2'	21:A2:976:A:C5'	2.41	0.50
21:A2:1195:U:OP2	25:AH:78:HIS:HA	2.12	0.50
32:BO:14:ARG:HA	67:B1:2448:A:N6	2.27	0.50
34:B5:16:ARG:HD2	67:B1:1566:G:O6	2.10	0.50
35:BL:4:ARG:CD	67:B1:678:G:HO2'	2.22	0.50
43:Bk:32:SER:O	43:Bk:187:VAL:HG23	2.12	0.50
45:Bi:68:TYR:OH	52:BB:170:LYS:CG	2.59	0.50
51:Bj:3:TYR:HE1	67:B1:2400:U:C2	2.28	0.50
61:Bd:11:ARG:HG3	67:B1:1710:C:H5''	1.93	0.50
3:AI:31:SER:HB3	21:A2:542:G:OP1	2.11	0.50
12:AN:33:ARG:CZ	21:A2:509:C:OP2	2.60	0.50
18:AF:40:ARG:HB3	18:AF:42:TYR:HD1	1.74	0.50
21:A2:901:G:H5''	25:AH:76:GLY:HA3	1.94	0.50
21:A2:1332:C:C2'	25:AH:98:VAL:CG2	2.89	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:AH:3:LYS:CD	30:AU:143:ILE:CD1	2.67	0.50
36:Bf:49:LEU:HG	67:B1:1454:G:OP2	2.07	0.50
39:Be:19:ARG:CA	67:B1:125:C:H41	2.22	0.50
48:BR:70:GLY:CA	67:B1:2484:C:H5'	2.40	0.50
67:B1:1037:C:C2'	67:B1:1037:C:C6	2.94	0.50
67:B1:1632:U:O2	67:B1:1670:A:H2	1.94	0.50
67:B1:2265:C:H2'	67:B1:2266:C:C6	2.47	0.50
4:AG:97:LYS:CE	21:A2:87:C:OP1	2.58	0.50
10:AD:136:ILE:CA	28:AV:60:PHE:HE2	2.16	0.50
11:A1:76:C:N4	51:Bj:56:GLU:HG3	2.26	0.50
18:AF:54:LEU:HD12	18:AF:61:GLU:HB3	1.91	0.50
18:AF:83:PHE:CE2	18:AF:106:VAL:CG2	2.95	0.50
21:A2:17:C:H4'	21:A2:843:G:C8	2.47	0.50
21:A2:1200:U:C2	25:AH:180:PHE:CB	2.95	0.50
25:AH:90:HIS:ND1	25:AH:91:ARG:HB2	2.27	0.50
31:BY:16:LYS:H	31:BY:16:LYS:HD2	1.77	0.50
36:Bf:22:ARG:CZ	67:B1:1478:G:OP1	2.60	0.50
36:Bf:26:TRP:HB2	67:B1:92:G:N3	2.27	0.50
36:Bf:38:HIS:CE1	67:B1:64:A:C2	3.00	0.50
41:Ba:20:LYS:CG	67:B1:1811:G:H8	2.25	0.50
51:Bj:85:ARG:NH1	67:B1:2507:C:P	2.85	0.50
65:BJ:41:ILE:HG23	67:B1:2076:A:C2	2.46	0.50
67:B1:1506:U:C4'	67:B1:1947:A:C2	2.93	0.50
2:AK:39:GLU:HG2	25:AH:5:LEU:CD2	2.41	0.49
4:AG:76:PRO:CB	21:A2:1404:C:H4'	2.42	0.49
12:AN:107:GLY:O	21:A2:505:U:H4'	2.12	0.49
21:A2:331:C:H2'	21:A2:332:C:C6	2.47	0.49
25:AH:85:PHE:C	25:AH:88:ARG:NH2	2.70	0.49
36:Bf:26:TRP:CD2	67:B1:92:G:N2	2.80	0.49
39:Be:51:TRP:HZ2	67:B1:814:G:N2	2.03	0.49
52:BB:198:ASN:H	52:BB:201:ASN:HD22	1.60	0.49
67:B1:410:C:H42	67:B1:443:C:H3'	1.76	0.49
25:AH:149:ALA:HB2	25:AH:215:ARG:HB3	1.93	0.49
28:AV:60:PHE:CG	28:AV:60:PHE:O	2.65	0.49
31:BY:13:VAL:HA	67:B1:1105:C:OP1	2.11	0.49
31:BY:122:PRO:O	67:B1:1133:U:H4'	2.12	0.49
45:Bi:24:ARG:HH22	52:BB:171:PRO:CD	2.23	0.49
50:BV:14:PHE:CZ	65:BJ:95:MET:CE	2.84	0.49
51:Bj:1:MET:CG	67:B1:2400:U:OP2	2.60	0.49
51:Bj:46:GLY:CA	59:BM:82:PRO:C	2.85	0.49
51:Bj:81:GLY:HA2	67:B1:2537:G:H5''	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
61:Bd:25:HIS:CE1	67:B1:1531:C:OP1	2.65	0.49
67:B1:1793:G:H22	67:B1:1898:A:H2	1.58	0.49
67:B1:2305:U:H2'	67:B1:2306:C:C6	2.46	0.49
67:B1:2464:G:H1	67:B1:2484:C:H42	1.60	0.49
67:B1:2617:G:O4'	67:B1:2617:G:N9	2.40	0.49
6:AC:140:ARG:NH1	21:A2:1156:A:H8	2.09	0.49
17:AO:112:ILE:HG23	23:AT:98:MET:HE2	1.94	0.49
18:AF:16:TRP:CD2	18:AF:48:GLU:HG3	2.47	0.49
21:A2:932:C:H5'	29:AL:55:GLY:HA3	1.93	0.49
21:A2:1016:G:O6	21:A2:1153:G:C6	2.64	0.49
21:A2:1312:C:OP1	25:AH:79:TYR:CA	2.60	0.49
21:A2:1440:G:HO2'	55:Bh:19:LYS:NZ	2.09	0.49
35:BL:6:LYS:NZ	67:B1:1339:C:H41	2.11	0.49
37:BU:105:LEU:HB3	37:BU:112:ARG:HH12	1.76	0.49
39:Be:19:ARG:O	67:B1:125:C:C5	2.65	0.49
39:Be:21:ARG:HA	67:B1:125:C:C2	2.48	0.49
48:BR:37:VAL:C	48:BR:39:GLN:H	2.19	0.49
53:BD:84:PRO:HD2	67:B1:806:C:H5'	1.93	0.49
67:B1:1233:U:H3	67:B1:1235:A:H3'	1.76	0.49
67:B1:2570:A:H61	67:B1:2611:U:H3	1.59	0.49
3:AI:28:LYS:CG	5:AW:4:PRO:HA	2.26	0.49
12:AN:111:PRO:HG2	12:AN:112:LYS:N	2.27	0.49
18:AF:86:LEU:CD2	18:AF:195:VAL:HA	2.41	0.49
21:A2:460:C:H5'	21:A2:461:A:H5''	1.93	0.49
21:A2:1046:G:H5''	21:A2:1047:U:H5	1.76	0.49
21:A2:1296:U:C4	25:AH:175:ARG:NE	2.81	0.49
25:AH:90:HIS:HB2	25:AH:94:ASN:HB2	1.93	0.49
31:BY:7:ILE:HD13	31:BY:154:MET:SD	2.53	0.49
38:Bb:63:ILE:HB	67:B1:950:G:OP1	2.13	0.49
48:BR:69:ARG:CZ	67:B1:2482:G:N2	2.75	0.49
61:Bd:31:PRO:HG3	67:B1:1669:A:H5''	1.92	0.49
67:B1:353:C:H2'	67:B1:354:G:H8	1.77	0.49
67:B1:1464:A:H61	67:B1:1477:C:H1'	1.76	0.49
4:AG:64:ARG:NH1	21:A2:152:G:O4'	2.46	0.49
4:AG:75:ARG:NH2	21:A2:1412:A:H1'	2.27	0.49
18:AF:170:VAL:CG1	18:AF:197:PHE:CD2	2.94	0.49
21:A2:1197:C:O2'	21:A2:1260:G:N2	2.45	0.49
21:A2:1296:U:C4	25:AH:175:ARG:CZ	2.95	0.49
27:A0:21:G:H2'	27:A0:22:G:H5''	1.95	0.49
32:BO:152:TYR:CZ	32:BO:156:LEU:HD11	2.47	0.49
35:BL:25:HIS:NE2	67:B1:678:G:N1	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:Bf:50:LYS:HE2	39:Be:19:ARG:CB	2.43	0.49
67:B1:263:U:H3	67:B1:295:G:H1	1.58	0.49
67:B1:1234:A:O4'	67:B1:1234:A:C8	2.65	0.49
67:B1:1745:U:H6	67:B1:1746:C:H5'	1.78	0.49
68:B3:62:A:C2	68:B3:65:G:O6	2.65	0.49
2:AK:39:GLU:CG	25:AH:5:LEU:HG	2.43	0.49
4:AG:102:ARG:CG	21:A2:318:C:H4'	2.42	0.49
21:A2:459:G:H8	21:A2:477:G:H22	1.59	0.49
32:BO:25:LEU:CA	48:BR:28:LEU:HD12	2.42	0.49
35:BL:15:HIS:HB2	67:B1:946:U:OP1	2.05	0.49
38:Bb:101:ARG:CZ	67:B1:584:G:OP1	2.61	0.49
50:BV:60:ARG:NH1	67:B1:3011:G:OP1	2.33	0.49
51:Bj:18:THR:HG21	51:Bj:71:CYS:SG	2.52	0.49
51:Bj:62:VAL:CG2	67:B1:2397:C:C5'	2.91	0.49
12:AN:79:LYS:N	21:A2:358:G:OP1	2.46	0.49
12:AN:108:ILE:HD13	12:AN:125:LYS:HD2	1.94	0.49
12:AN:111:PRO:HB3	21:A2:506:G:O3'	2.12	0.49
12:AN:122:ILE:HG22	12:AN:124:TYR:H	1.78	0.49
18:AF:5:TRP:CB	18:AF:55:PRO:HB2	2.43	0.49
18:AF:72:VAL:HG12	18:AF:73:ARG:N	2.28	0.49
18:AF:187:THR:CG2	21:A2:4:C:OP1	2.61	0.49
21:A2:900:G:H5''	25:AH:74:SER:HA	1.95	0.49
21:A2:1148:G:H2'	21:A2:1149:C:H5'	1.94	0.49
25:AH:93:LEU:HB3	25:AH:95:SER:C	2.36	0.49
36:Bf:3:ARG:CA	36:Bf:4:ASN:CB	2.88	0.49
36:Bf:22:ARG:CZ	67:B1:1478:G:C5'	2.91	0.49
39:Be:18:ILE:HG12	39:Be:19:ARG:N	2.27	0.49
45:Bi:22:ARG:NH2	67:B1:1852:U:O2'	2.38	0.49
45:Bi:62:THR:CG2	52:BB:79:VAL:HG21	2.42	0.49
51:Bj:87:LYS:NZ	67:B1:2398:C:H5''	2.28	0.49
54:BF:41:TRP:CD2	54:BF:42:PRO:HD2	2.47	0.49
65:BJ:44:VAL:HG12	65:BJ:45:GLU:HG3	1.93	0.49
67:B1:1821:C:C2	67:B1:2123:G:N2	2.81	0.49
67:B1:1934:C:O4'	67:B1:1934:C:C6	2.66	0.49
67:B1:2301:C:H2'	67:B1:2302:C:C6	2.46	0.49
67:B1:2491:C:H2'	67:B1:2492:G:C8	2.48	0.49
67:B1:2507:C:C2'	67:B1:2507:C:H6	2.26	0.49
67:B1:2568:A:H61	67:B1:2614:C:N4	2.02	0.49
3:AI:79:PHE:HE2	8:AR:62:ARG:HD3	1.78	0.49
4:AG:64:ARG:CG	4:AG:122:LYS:HG2	2.42	0.49
4:AG:64:ARG:NH2	21:A2:151:G:N3	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:28:U:H3	21:A2:503:G:H22	1.61	0.49
21:A2:428:G:C2	21:A2:442:C:N3	2.80	0.49
35:BL:73:VAL:HG12	35:BL:74:ARG:H	1.77	0.49
43:Bk:39:SER:HA	43:Bk:42:ARG:HD2	1.94	0.49
48:BR:4:LYS:HD3	67:B1:2390:G:C6	2.45	0.49
56:BH:2:PRO:HA	67:B1:1236:C:C6	2.48	0.49
67:B1:160:C:H2'	67:B1:161:C:C6	2.47	0.49
67:B1:564:U:C6	67:B1:2890:A:H2	2.30	0.49
2:AK:102:TYR:OH	25:AH:42:ARG:HE	1.32	0.49
3:AI:57:ARG:HA	21:A2:607:U:O5'	2.12	0.49
4:AG:102:ARG:CD	21:A2:318:C:O4'	2.61	0.49
21:A2:6:G:C6	21:A2:7:G:C6	3.01	0.49
21:A2:1452:G:H1'	21:A2:1473:A:H2	1.77	0.49
39:Be:22:ARG:C	67:B1:54:G:H21	2.21	0.49
40:BE:66:ARG:HH11	40:BE:66:ARG:H	1.59	0.49
64:Bc:52:ILE:HD11	64:Bc:54:LYS:HE3	1.93	0.49
67:B1:1186:G:O4'	67:B1:1186:G:N9	2.38	0.49
2:AK:46:LEU:HD23	25:AH:13:HIS:CA	2.42	0.49
6:AC:154:VAL:HG22	21:A2:1061:A:OP2	2.13	0.49
21:A2:1333:G:C5'	25:AH:97:LYS:HG2	2.41	0.49
35:BL:6:LYS:CD	67:B1:1339:C:H41	2.21	0.49
38:Bb:8:ARG:NH2	28:B6:63:TYR:HD2	2.08	0.49
49:BQ:115:ILE:HB	49:BQ:120:TYR:CE1	2.48	0.49
61:Bd:1:MET:HE2	61:Bd:3:PRO:CD	2.41	0.49
67:B1:685:G:C6	67:B1:686:C:C5	3.01	0.49
67:B1:1118:A:C6	67:B1:1119:A:N1	2.80	0.49
2:AK:50:ILE:CD1	25:AH:13:HIS:CG	2.92	0.48
18:AF:53:LEU:O	18:AF:55:PRO:HD3	2.13	0.48
18:AF:127:GLY:C	18:AF:138:PRO:HB3	2.38	0.48
21:A2:88:G:O4'	21:A2:88:G:C8	2.65	0.48
34:B5:31:ASN:HD21	57:BZ:25:ARG:HH12	1.58	0.48
39:Be:53:LYS:HZ3	67:B1:506:G:H5''	1.73	0.48
45:Bi:19:LEU:CD2	67:B1:1852:U:C4'	2.79	0.48
48:BR:70:GLY:HA3	67:B1:2484:C:P	2.53	0.48
50:BV:1:MET:HG2	50:BV:2:ALA:H	1.77	0.48
50:BV:48:ARG:HA	50:BV:56:TYR:HB3	1.95	0.48
20:BG:36:THR:HB	59:BM:3:MET:SD	2.53	0.48
67:B1:817:G:O4'	67:B1:817:G:C8	2.65	0.48
68:B3:25:A:N6	68:B3:51:U:H3	2.10	0.48
18:AF:83:PHE:CE2	18:AF:106:VAL:HG22	2.48	0.48
18:AF:84:ARG:NH1	21:A2:1031:G:C5'	2.76	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AF:157:ILE:HG22	18:AF:158:PRO:O	2.13	0.48
32:BO:1:MET:HE1	48:BR:21:ARG:HA	1.95	0.48
35:BL:41:LYS:HG2	67:B1:185:A:OP2	2.12	0.48
39:Be:15:PRO:CA	67:B1:819:U:C4	2.96	0.48
43:Bk:145:ILE:HD11	43:Bk:162:VAL:HG11	1.95	0.48
48:BR:69:ARG:HH12	67:B1:2483:U:H1'	1.77	0.48
64:Bc:51:LYS:HD3	67:B1:576:G:OP2	2.13	0.48
65:BJ:41:ILE:HD11	65:BJ:65:THR:OG1	2.13	0.48
67:B1:159:C:O2	67:B1:160:C:C6	2.65	0.48
7:AB:111:GLU:HB3	18:AF:21:LYS:HE3	1.95	0.48
13:AX:61:GLU:HB3	14:AM:61:MET:CE	2.42	0.48
14:AM:79:VAL:HG12	14:AM:80:HIS:O	2.14	0.48
18:AF:73:ARG:HD2	21:A2:879:U:H4'	1.93	0.48
18:AF:119:LEU:HD22	18:AF:119:LEU:N	2.28	0.48
21:A2:21:A:N6	21:A2:511:C:H1'	2.28	0.48
21:A2:29:G:H1	21:A2:502:U:H3	1.61	0.48
21:A2:367:G:O4'	21:A2:367:G:C8	2.66	0.48
21:A2:1332:C:H4'	25:AH:98:VAL:HG22	1.93	0.48
25:AH:12:PRO:HB2	25:AH:43:LEU:HD21	1.95	0.48
29:AL:59:ALA:CB	29:AL:61:PHE:CZ	2.96	0.48
41:Ba:42:HIS:O	67:B1:3029:A:H5'	2.13	0.48
43:Bk:18:LEU:HD11	43:Bk:51:LEU:HD21	1.96	0.48
43:Bk:35:ALA:H	43:Bk:38:LEU:HB3	1.78	0.48
44:BW:42:MET:HB2	67:B1:96:C:H4'	1.95	0.48
51:Bj:32:GLU:CD	67:B1:2005:A:H2'	2.38	0.48
53:BD:87:ARG:CZ	67:B1:487:U:C2	2.96	0.48
56:BH:124:LYS:HD2	67:B1:1219:C:O2'	2.13	0.48
63:Bg:43:ALA:HB2	67:B1:2643:U:P	2.53	0.48
67:B1:2465:A:H61	67:B1:2483:U:H3	1.59	0.48
67:B1:2798:U:C5	67:B1:2799:C:C5	3.01	0.48
4:AG:40:ALA:HB3	4:AG:59:VAL:HG13	1.94	0.48
7:AB:104:PRO:CG	18:AF:19:LYS:NZ	2.57	0.48
18:AF:85:VAL:C	18:AF:86:LEU:HD12	2.38	0.48
21:A2:453:G:N2	21:A2:498:C:O2	2.47	0.48
21:A2:898:G:C2	21:A2:899:G:C5	3.01	0.48
21:A2:1333:G:C5	25:AH:48:HIS:CE1	2.94	0.48
21:A2:1341:C:H2'	21:A2:1342:C:H6	1.78	0.48
31:BY:29:HIS:ND1	31:BY:29:HIS:N	2.60	0.48
34:B5:3:ALA:O	57:BZ:29:THR:C	2.56	0.48
34:B5:47:ARG:O	67:B1:1567:C:O2	2.31	0.48
45:Bi:81:ILE:HG13	52:BB:106:THR:HG22	1.92	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:Bj:32:GLU:CD	67:B1:2005:A:O2'	2.51	0.48
51:Bj:32:GLU:N	51:Bj:33:LEU:HB2	2.28	0.48
20:BG:37:ASN:OD1	59:BM:4:TYR:CE1	2.66	0.48
20:BG:52:ILE:HD11	20:BG:80:VAL:HG23	1.94	0.48
67:B1:1348:G:H1	67:B1:1382:C:H42	1.60	0.48
18:AF:47:PRO:HB3	18:AF:115:ASN:CG	2.39	0.48
18:AF:174:ILE:HD11	18:AF:198:ALA:HB1	1.96	0.48
18:AF:201:VAL:HG22	18:AF:205:LEU:CD1	2.43	0.48
21:A2:900:G:OP1	25:AH:73:ARG:HG2	2.13	0.48
26:AP:47:ALA:HB1	29:AL:64:TRP:CZ3	2.48	0.48
34:B5:50:ILE:HD13	57:BZ:28:LYS:HE3	1.93	0.48
35:BL:44:LYS:N	67:B1:961:C:H4'	2.29	0.48
39:Be:51:TRP:HD1	67:B1:933:G:O4'	1.96	0.48
43:Bk:33:MET:HA	43:Bk:187:VAL:HG22	1.96	0.48
43:Bk:34:PRO:CA	67:B1:1195:G:OP1	2.62	0.48
56:BH:90:PRO:HA	56:BH:133:MET:HG2	1.95	0.48
61:Bd:4:MET:HB2	61:Bd:4:MET:HE2	1.56	0.48
64:Bc:12:ARG:HH12	67:B1:1142:A:H5'	1.71	0.48
64:Bc:78:GLN:HA	67:B1:648:C:HO2'	1.79	0.48
67:B1:2837:C:C4	67:B1:2838:U:C4	3.02	0.48
68:B3:25:A:C2	68:B3:53:A:N6	2.81	0.48
11:A1:42:C:H2'	11:A1:43:G:H5''	1.96	0.48
18:AF:33:ASP:OD1	18:AF:35:HIS:HD2	1.96	0.48
21:A2:28:U:H3	21:A2:503:G:H1	1.61	0.48
41:Ba:13:VAL:HG23	41:Ba:38:PHE:CD1	2.49	0.48
45:Bi:78:VAL:HG21	52:BB:161:VAL:CG1	2.42	0.48
47:BI:30:ILE:CG2	47:BI:99:VAL:HG22	2.43	0.48
51:Bj:82:ARG:HG2	67:B1:2538:G:H5'	1.96	0.48
56:BH:19:PRO:HB2	56:BH:20:PRO:HD2	1.94	0.48
61:Bd:11:ARG:CD	67:B1:1711:C:P	3.01	0.48
67:B1:1713:G:C3'	67:B1:1714:G:H5''	2.42	0.48
18:AF:187:THR:HG21	21:A2:4:C:P	2.54	0.48
21:A2:442:C:OP1	28:AV:60:PHE:C	2.56	0.48
21:A2:898:G:N1	21:A2:899:G:C6	2.81	0.48
21:A2:1249:A:H2'	21:A2:1250:C:H5'	1.96	0.48
21:A2:1334:A:H4'	25:AH:69:ASN:HD22	1.76	0.48
25:AH:97:LYS:HA	25:AH:100:ALA:HB3	1.96	0.48
35:BL:11:LEU:HB3	67:B1:948:C:H5	1.77	0.48
35:BL:113:LEU:HD21	67:B1:732:G:C8	2.49	0.48
51:Bj:60:LYS:NZ	67:B1:2396:G:N2	2.61	0.48
51:Bj:62:VAL:HG23	67:B1:2397:C:H5'	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:BG:52:ILE:HD12	20:BG:78:ILE:HG23	1.95	0.48
61:Bd:5:TYR:CZ	67:B1:1524:A:C5	3.02	0.48
64:Bc:14:LYS:CG	67:B1:1142:A:C6	2.97	0.48
67:B1:85:G:H2'	67:B1:86:G:C8	2.48	0.48
67:B1:409:C:O2	67:B1:409:C:H2'	2.14	0.48
67:B1:1036:C:O4'	67:B1:1036:C:C6	2.67	0.48
67:B1:1842:C:H2'	67:B1:1843:C:C6	2.48	0.48
67:B1:2823:G:H2'	67:B1:2824:C:C6	2.49	0.48
1:AQ:15:LYS:CB	3:AI:57:ARG:NH1	2.76	0.48
18:AF:165:LEU:HD22	18:AF:175:LEU:HD12	1.95	0.48
21:A2:114:A:H2	21:A2:184:G:HO2'	1.61	0.48
21:A2:690:C:H2'	21:A2:691:G:C8	2.49	0.48
25:AH:101:TYR:CD2	25:AH:101:TYR:C	2.91	0.48
31:BY:15:VAL:HG13	31:BY:19:VAL:HG13	1.94	0.48
36:Bf:22:ARG:NE	67:B1:1478:G:C5'	2.68	0.48
36:Bf:26:TRP:HB2	67:B1:92:G:C2	2.49	0.48
38:Bb:63:ILE:HD12	67:B1:950:G:C4'	2.43	0.48
43:Bk:59:LEU:HD22	43:Bk:83:ILE:CD1	2.44	0.48
53:BD:154:THR:HG23	53:BD:214:HIS:CE1	2.49	0.48
67:B1:1111:G:O6	67:B1:1123:A:C2	2.67	0.48
68:B3:87:G:H1'	68:B3:90:A:N6	2.29	0.48
21:A2:460:C:H3'	21:A2:461:A:C5'	2.44	0.48
21:A2:1115:G:C6	21:A2:1116:G:C6	3.02	0.48
35:BL:24:LYS:HZ1	67:B1:1080:G:C3'	2.25	0.48
36:Bf:28:ILE:CA	36:Bf:34:ARG:HD2	2.44	0.48
49:BQ:57:GLY:CA	67:B1:1620:C:OP1	2.62	0.48
58:BP:64:VAL:HG12	58:BP:66:GLY:H	1.79	0.48
67:B1:537:U:C2	67:B1:540:A:C8	3.01	0.48
67:B1:1035:G:H2'	67:B1:1036:C:C5	2.49	0.48
67:B1:1752:C:H2'	67:B1:1753:G:C8	2.49	0.48
12:AN:50:ALA:CA	21:A2:359:A:H5'	2.44	0.48
12:AN:135:LYS:CE	21:A2:29:G:C2'	2.92	0.48
13:AX:7:TYR:CE2	13:AX:31:ILE:HG12	2.49	0.48
17:AO:23:TRP:CH2	21:A2:1262:U:C4	3.02	0.48
18:AF:166:VAL:HG12	21:A2:1:A:OP2	2.09	0.48
21:A2:898:G:N1	21:A2:899:G:O6	2.47	0.48
21:A2:1248:A:O2'	25:AH:81:VAL:CG2	2.62	0.48
31:BY:14:ASN:HA	67:B1:1104:A:O3'	2.14	0.48
38:Bb:72:ARG:NE	67:B1:1365:G:O3'	2.46	0.48
40:BE:66:ARG:H	40:BE:66:ARG:HD3	1.78	0.48
56:BH:1:MET:HA	67:B1:1233:U:O2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:BH:27:PRO:HD2	56:BH:57:VAL:HG21	1.95	0.48
67:B1:831:C:H5''	67:B1:1791:A:N6	2.25	0.48
67:B1:1977:C:N4	67:B1:2022:U:H2'	2.29	0.48
4:AG:102:ARG:NH2	21:A2:317:A:H1'	2.29	0.47
12:AN:24:ARG:NH1	21:A2:298:C:H5''	2.22	0.47
18:AF:64:GLU:OE2	18:AF:66:LEU:HD23	2.14	0.47
21:A2:458:G:C2	21:A2:479:C:O2	2.67	0.47
21:A2:1112:G:H5'	29:AL:71:ARG:NH2	2.28	0.47
21:A2:1311:C:H1'	25:AH:96:LYS:CG	2.43	0.47
21:A2:1441:G:H2'	21:A2:1442:G:O4'	2.14	0.47
25:AH:76:GLY:H	25:AH:94:ASN:CG	2.22	0.47
35:BL:75:VAL:HG21	67:B1:732:G:O6	2.13	0.47
36:Bf:26:TRP:HH2	67:B1:62:C:C4	2.30	0.47
39:Be:14:THR:CG2	67:B1:819:U:C2	2.55	0.47
51:Bj:41:ARG:NH2	67:B1:236:G:OP1	2.47	0.47
67:B1:1143:A:H5'	67:B1:1143:A:H8	1.79	0.47
1:AQ:63:VAL:HG21	1:AQ:78:ILE:HG12	1.95	0.47
18:AF:13:LEU:HA	18:AF:27:LYS:HZ3	1.78	0.47
21:A2:664:G:C6	21:A2:665:G:C5	3.02	0.47
21:A2:734:G:C2	21:A2:755:U:C5	3.02	0.47
21:A2:914:U:H3	21:A2:1185:A:N6	2.12	0.47
21:A2:1332:C:C4'	25:AH:98:VAL:HG21	2.44	0.47
33:BC:108:ASN:CA	33:BC:172:TRP:CZ2	2.97	0.47
43:Bk:54:VAL:HG22	67:B1:1223:A:OP2	2.14	0.47
50:BV:14:PHE:HE2	65:BJ:95:MET:SD	2.37	0.47
51:Bj:36:GLY:HA2	51:Bj:39:ARG:HD2	1.95	0.47
63:Bg:44:LYS:HG2	63:Bg:45:GLU:H	1.78	0.47
21:A2:457:G:H2'	21:A2:458:G:H8	1.78	0.47
21:A2:1115:G:C6	21:A2:1116:G:C5	3.03	0.47
21:A2:1220:G:N2	21:A2:1235:A:H62	2.12	0.47
38:Bb:103:ALA:HA	67:B1:1372:C:OP1	2.15	0.47
38:Bb:109:LYS:HE2	67:B1:1353:A:H2'	1.96	0.47
51:Bj:3:TYR:CE1	67:B1:2400:U:C5	3.02	0.47
54:BF:130:VAL:HG22	54:BF:139:VAL:HG22	1.96	0.47
67:B1:1177:C:N4	67:B1:1256:G:H1	2.09	0.47
3:AI:28:LYS:HG3	5:AW:4:PRO:CB	2.40	0.47
3:AI:31:SER:CA	21:A2:542:G:H5''	2.44	0.47
3:AI:57:ARG:NE	21:A2:607:U:C5'	2.73	0.47
7:AB:111:GLU:HB3	18:AF:21:LYS:CE	2.44	0.47
18:AF:5:TRP:CD1	18:AF:6:LYS:N	2.81	0.47
18:AF:174:ILE:HD12	18:AF:201:VAL:CG1	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BY:55:THR:HG23	31:BY:139:ALA:O	2.14	0.47
35:BL:7:LYS:HG3	35:BL:9:ARG:NH2	2.30	0.47
35:BL:9:ARG:HG3	35:BL:12:ARG:N	2.29	0.47
38:Bb:76:PRO:HG3	67:B1:1363:C:H4'	1.96	0.47
39:Be:1:MET:CG	67:B1:1920:A:H61	2.26	0.47
39:Be:51:TRP:HZ2	67:B1:814:G:C2	2.32	0.47
43:Bk:143:MET:SD	43:Bk:145:ILE:HD12	2.54	0.47
67:B1:2445:G:N2	67:B1:2450:A:C8	2.82	0.47
67:B1:2897:C:H2'	67:B1:2898:G:C8	2.49	0.47
68:B3:18:G:H21	68:B3:20:G:H22	1.61	0.47
4:AG:120:ASN:HB2	21:A2:151:G:H4'	1.95	0.47
7:AB:151:ASP:O	9:A9:44:UNK:HA	2.15	0.47
21:A2:289:C:H42	21:A2:300:G:H1	1.62	0.47
31:BY:122:PRO:HG2	31:BY:126:PHE:HA	1.95	0.47
31:BY:125:GLY:HA2	67:B1:1133:U:H4'	1.61	0.47
35:BL:10:LYS:CB	67:B1:947:C:C5'	2.93	0.47
45:Bi:8:GLY:O	67:B1:839:A:H4'	2.14	0.47
51:Bj:87:LYS:HZ3	67:B1:2398:C:H5''	1.79	0.47
67:B1:1347:U:H3	67:B1:1383:G:H1	1.62	0.47
67:B1:1569:A:O2'	67:B1:1638:C:C1'	2.43	0.47
67:B1:2507:C:C1'	67:B1:2507:C:O2'	2.55	0.47
4:AG:102:ARG:HH12	21:A2:317:A:HO2'	1.61	0.47
21:A2:166:A:H61	21:A2:196:G:C1'	2.16	0.47
21:A2:458:G:H3'	21:A2:459:G:H5''	1.95	0.47
31:BY:21:ASP:O	31:BY:25:MET:HG3	2.15	0.47
31:BY:123:ARG:HA	67:B1:1133:U:O5'	2.15	0.47
33:BC:108:ASN:CB	33:BC:172:TRP:CZ2	2.63	0.47
34:B5:51:LYS:NZ	67:B1:1568:A:HO2'	2.06	0.47
34:B5:57:PRO:HD3	61:Bd:88:LEU:CD2	2.34	0.47
35:BL:11:LEU:O	67:B1:948:C:OP2	2.31	0.47
35:BL:48:THR:HG21	67:B1:969:U:O4'	2.14	0.47
41:Ba:20:LYS:HD3	67:B1:1811:G:H8	1.79	0.47
45:Bi:24:ARG:HH22	52:BB:171:PRO:HB3	1.80	0.47
50:BV:43:MET:CE	50:BV:45:ARG:HE	2.28	0.47
51:Bj:82:ARG:N	67:B1:2538:G:OP1	2.46	0.47
57:BZ:28:LYS:HB2	57:BZ:52:TYR:CE1	2.49	0.47
67:B1:2796:C:H2'	67:B1:2797:C:H5''	1.96	0.47
4:AG:99:LYS:HG3	21:A2:319:U:H1'	1.97	0.47
11:A1:51:G:O4'	11:A1:51:G:N9	2.41	0.47
18:AF:157:ILE:HG22	18:AF:158:PRO:N	2.28	0.47
18:AF:163:LEU:HD21	18:AF:166:VAL:HG11	1.93	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:A3:94:VAL:HG13	21:A2:959:G:H21	1.79	0.47
21:A2:428:G:N2	21:A2:442:C:C2	2.66	0.47
21:A2:434:A:C2	28:AV:84:GLU:CD	2.93	0.47
26:AP:52:PHE:HD2	29:AL:64:TRP:HE3	1.59	0.47
29:AL:42:THR:HA	29:AL:68:VAL:O	2.14	0.47
35:BL:9:ARG:HD3	67:B1:948:C:H41	1.79	0.47
35:BL:23:LYS:HZ1	67:B1:2563:A:N6	2.01	0.47
38:Bb:40:TRP:CZ2	38:Bb:61:PRO:HD3	2.50	0.47
45:Bi:17:TYR:OH	52:BB:174:LYS:HB3	2.14	0.47
49:BQ:39:GLU:O	49:BQ:43:ARG:HG3	2.15	0.47
51:Bj:15:LYS:NZ	67:B1:777:A:C2	2.83	0.47
53:BD:174:LYS:HE3	67:B1:363:G:H22	1.80	0.47
55:Bh:5:TRP:O	55:Bh:9:ARG:HG3	2.14	0.47
56:BH:50:GLN:NE2	67:B1:1207:G:OP1	2.47	0.47
56:BH:50:GLN:CD	56:BH:50:GLN:H	2.22	0.47
57:BZ:35:ILE:HD11	57:BZ:53:ALA:HB2	1.96	0.47
64:Bc:45:TRP:CZ2	64:Bc:79:ALA:HB2	2.50	0.47
67:B1:273:G:H1	67:B1:283:U:H3	1.62	0.47
67:B1:393:C:H2'	67:B1:394:A:OP1	2.13	0.47
67:B1:1870:G:H4'	67:B1:2998:G:H5'	1.97	0.47
67:B1:2225:C:O4'	67:B1:2225:C:C6	2.67	0.47
67:B1:2376:U:H2'	67:B1:2377:C:C6	2.50	0.47
18:AF:1:MET:C	18:AF:57:VAL:HG22	2.40	0.47
18:AF:86:LEU:CG	18:AF:100:ILE:HG22	2.21	0.47
21:A2:75:C:O2	21:A2:75:C:O4'	2.29	0.47
21:A2:202:G:H2'	21:A2:203:A:C8	2.50	0.47
21:A2:716:G:C5	21:A2:717:C:C5	3.02	0.47
21:A2:901:G:H5'	25:AH:76:GLY:CA	2.44	0.47
21:A2:1195:U:OP1	25:AH:79:TYR:CB	2.62	0.47
21:A2:1387:C:H2'	21:A2:1388:G:C8	2.49	0.47
25:AH:69:ASN:O	25:AH:72:MET:HG2	2.15	0.47
25:AH:118:ASN:OD1	25:AH:120:ILE:HG22	2.15	0.47
35:BL:119:THR:HG21	58:BP:73:LYS:NZ	2.28	0.47
36:Bf:49:LEU:HD21	67:B1:1454:G:O5'	2.14	0.47
36:Bf:49:LEU:HB3	36:Bf:50:LYS:H	1.38	0.47
20:BG:57:VAL:HG21	20:BG:97:ALA:HB1	1.97	0.47
64:Bc:59:ARG:CD	64:Bc:68:ARG:HH11	2.27	0.47
67:B1:453:U:H3	67:B1:2527:G:H1	1.63	0.47
67:B1:2920:C:O4'	67:B1:2920:C:C6	2.68	0.47
18:AF:122:ILE:CD1	18:AF:206:TYR:CE2	2.98	0.47
21:A2:917:A:C6	21:A2:918:A:N1	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:1111:G:H5''	29:AL:42:THR:H	1.79	0.47
21:A2:1131:G:H2'	21:A2:1132:C:C6	2.49	0.47
21:A2:1194:C:OP2	25:AH:77:SER:CB	2.62	0.47
34:B5:52:HIS:ND1	61:Bd:77:ARG:NE	2.63	0.47
35:BL:15:HIS:O	67:B1:945:U:C2	2.68	0.47
45:Bi:17:TYR:OH	67:B1:862:G:C6	2.67	0.47
50:BV:4:TRP:CD1	50:BV:5:ASN:H	2.32	0.47
50:BV:49:LYS:NZ	67:B1:1892:G:OP2	2.47	0.47
60:BS:72:HIS:HE1	67:B1:2738:G:N3	2.12	0.47
64:Bc:35:ALA:HB1	64:Bc:67:VAL:HG23	1.97	0.47
67:B1:787:G:H21	67:B1:788:A:H62	1.62	0.47
67:B1:789:G:H2'	67:B1:790:U:C6	2.50	0.47
67:B1:1083:G:C6	67:B1:1084:G:C5	3.03	0.47
67:B1:1229:U:H2'	67:B1:1230:G:C8	2.49	0.47
67:B1:1506:U:O2'	67:B1:1947:A:H2	1.97	0.47
67:B1:1702:C:O2	67:B1:1702:C:H2'	2.15	0.47
21:A2:68:G:C6	21:A2:69:U:C4	3.03	0.47
21:A2:1333:G:H5''	25:AH:97:LYS:CG	2.45	0.47
21:A2:1475:C:OP1	55:Bh:4:LYS:NZ	2.48	0.47
25:AH:76:GLY:H	25:AH:94:ASN:ND2	2.12	0.47
25:AH:87:ARG:C	25:AH:88:ARG:CG	2.88	0.47
30:AU:45:PRO:HB2	30:AU:47:GLN:HE21	1.79	0.47
34:B5:50:ILE:CD1	57:BZ:28:LYS:HZ2	2.05	0.47
51:Bj:33:LEU:HD12	51:Bj:33:LEU:O	2.15	0.47
56:BH:2:PRO:HD3	67:B1:1236:C:O5'	2.15	0.47
61:Bd:5:TYR:CD1	67:B1:1779:C:H4'	2.50	0.47
64:Bc:29:VAL:HG22	64:Bc:65:GLY:HA3	1.96	0.47
67:B1:116:G:C6	67:B1:118:A:N6	2.83	0.47
3:AI:57:ARG:HG2	21:A2:607:U:O5'	2.15	0.46
6:AC:92:ALA:HA	6:AC:182:ILE:HD12	1.96	0.46
13:AX:61:GLU:CG	14:AM:107:ARG:HB3	2.45	0.46
18:AF:193:THR:HG22	18:AF:196:ASN:H	1.79	0.46
21:A2:45:U:O4	21:A2:358:G:N2	2.48	0.46
21:A2:516:A:H5'	21:A2:519:G:N2	2.30	0.46
25:AH:111:ILE:HG23	25:AH:119:PRO:HB3	1.97	0.46
32:BO:8:ARG:H	48:BR:23:ARG:HB3	1.80	0.46
35:BL:11:LEU:HD22	67:B1:949:C:H41	1.79	0.46
35:BL:66:PRO:HG3	67:B1:2523:C:C6	2.50	0.46
46:BA:154:ARG:HE	67:B1:2246:G:H5'	1.79	0.46
57:BZ:37:VAL:HG13	57:BZ:62:GLU:HA	1.97	0.46
59:BM:118:TRP:CZ2	59:BM:120:GLY:HA2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
63:Bg:23:THR:HG22	67:B1:2856:G:OP1	2.14	0.46
67:B1:409:C:H3'	67:B1:410:C:C6	2.50	0.46
67:B1:719:C:O4'	67:B1:719:C:C6	2.68	0.46
67:B1:1318:G:C6	67:B1:1319:U:C4	3.03	0.46
67:B1:1409:U:C5	67:B1:2136:G:N2	2.84	0.46
67:B1:1708:U:H3'	67:B1:1709:C:C6	2.50	0.46
67:B1:2861:A:C2	67:B1:2870:A:C4	3.03	0.46
3:AI:31:SER:HB2	21:A2:542:G:OP1	2.15	0.46
18:AF:183:VAL:O	18:AF:183:VAL:HG13	2.15	0.46
21:A2:50:C:H2'	21:A2:348:C:H41	1.80	0.46
25:AH:68:ILE:HG21	25:AH:97:LYS:HG3	1.97	0.46
31:BY:121:PRO:CG	67:B1:1132:U:O2'	2.64	0.46
38:Bb:75:HIS:CG	38:Bb:76:PRO:HD2	2.51	0.46
39:Be:25:ARG:HH11	39:Be:37:ALA:HB1	1.80	0.46
41:Ba:41:ARG:CZ	67:B1:3029:A:C1'	2.85	0.46
45:Bi:16:ARG:HH12	67:B1:862:G:H21	1.62	0.46
56:BH:59:PRO:HA	56:BH:62:LYS:HG2	1.97	0.46
67:B1:422:G:C6	67:B1:423:G:C5	3.02	0.46
67:B1:864:C:H2'	67:B1:865:C:H6	1.79	0.46
67:B1:1029:C:C3'	67:B1:1030:C:H5'	2.45	0.46
67:B1:1643:A:H2'	67:B1:1657:G:C2	2.49	0.46
67:B1:1745:U:C6	67:B1:1746:C:H5'	2.50	0.46
12:AN:118:ASP:HB3	21:A2:476:C:H42	1.80	0.46
13:AX:61:GLU:HB3	14:AM:61:MET:HE1	1.97	0.46
21:A2:677:U:C2	21:A2:1493:C:H5'	2.50	0.46
33:BC:95:THR:HG21	67:B1:2896:G:H21	1.80	0.46
33:BC:136:PRO:HA	33:BC:137:LYS:HB2	1.97	0.46
35:BL:25:HIS:CB	67:B1:804:C:N4	2.74	0.46
38:Bb:8:ARG:HH22	28:B6:63:TYR:HB2	1.79	0.46
47:BI:24:GLU:HG2	64:Bc:8:LEU:CD1	2.35	0.46
49:BQ:84:LYS:HG2	67:B1:1843:C:OP1	2.14	0.46
56:BH:120:LYS:HE3	56:BH:124:LYS:HE2	1.98	0.46
67:B1:324:C:H2'	67:B1:325:G:C8	2.51	0.46
21:A2:199:A:O4'	21:A2:199:A:N9	2.41	0.46
21:A2:200:G:N2	21:A2:201:G:H1'	2.30	0.46
21:A2:797:U:H1'	21:A2:800:G:O6	2.16	0.46
21:A2:901:G:C5'	25:AH:76:GLY:HA3	2.45	0.46
21:A2:1240:A:C8	29:AL:40:LEU:HD22	2.49	0.46
21:A2:1334:A:C2'	25:AH:69:ASN:ND2	2.79	0.46
21:A2:1492:U:C4	21:A2:1493:C:C5	3.04	0.46
26:AP:52:PHE:CG	29:AL:64:TRP:CE3	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:A0:32:C:C5	27:A0:33:U:C5	3.02	0.46
33:BC:85:ALA:HB1	33:BC:160:ILE:HD11	1.97	0.46
33:BC:128:LEU:HD11	33:BC:135:LEU:HD13	1.96	0.46
35:BL:11:LEU:O	35:BL:12:ARG:C	2.58	0.46
38:Bb:56:GLY:HA3	67:B1:570:G:H21	1.80	0.46
56:BH:16:THR:H	56:BH:21:LEU:HD22	1.80	0.46
67:B1:479:G:H2'	67:B1:480:A:H5'	1.96	0.46
67:B1:715:G:O4'	67:B1:715:G:C8	2.68	0.46
67:B1:1029:C:H3'	67:B1:1030:C:H5'	1.96	0.46
67:B1:2517:U:H2'	67:B1:2518:G:C8	2.51	0.46
67:B1:2789:G:H2'	67:B1:2790:C:C6	2.51	0.46
3:AI:76:LYS:HB3	3:AI:77:PRO:HD3	1.97	0.46
3:AI:95:PRO:HB2	18:AF:143:PHE:CD2	2.51	0.46
21:A2:74:U:O2	21:A2:74:U:H2'	2.16	0.46
21:A2:651:U:H2'	21:A2:652:C:H5'	1.97	0.46
33:BC:107:ASP:HB2	33:BC:123:THR:HB	1.98	0.46
35:BL:9:ARG:HB2	35:BL:11:LEU:N	2.29	0.46
36:Bf:33:ARG:HA	36:Bf:34:ARG:HB2	1.98	0.46
20:BG:3:LYS:CB	20:BG:55:GLU:HB3	2.45	0.46
61:Bd:4:MET:HE1	67:B1:1449:C:H1'	1.97	0.46
67:B1:836:U:H2'	67:B1:837:G:O4'	2.16	0.46
67:B1:1260:C:H2'	67:B1:1261:C:C6	2.50	0.46
67:B1:1924:A:H2'	67:B1:1925:A:H2'	1.97	0.46
67:B1:2312:U:H2'	67:B1:2313:G:H8	1.81	0.46
67:B1:2768:C:C5	67:B1:2769:U:C5	3.04	0.46
3:AI:57:ARG:N	21:A2:607:U:OP1	2.49	0.46
18:AF:48:GLU:HA	18:AF:48:GLU:OE1	2.15	0.46
21:A2:1118:C:N3	21:A2:1141:G:N2	2.63	0.46
21:A2:1283:G:H2'	21:A2:1284:C:C6	2.50	0.46
21:A2:1311:C:C4'	25:AH:95:SER:HA	2.45	0.46
25:AH:58:LYS:O	25:AH:61:VAL:HG23	2.16	0.46
25:AH:90:HIS:CG	25:AH:91:ARG:N	2.83	0.46
31:BY:8:ARG:HB3	31:BY:28:LEU:HD22	1.97	0.46
41:Ba:30:ARG:NH2	67:B1:1810:G:OP2	2.48	0.46
67:B1:1628:C:H2'	67:B1:1629:G:C8	2.50	0.46
3:AI:95:PRO:HG2	18:AF:143:PHE:CE2	2.51	0.46
18:AF:65:VAL:HG13	18:AF:85:VAL:CG1	2.45	0.46
18:AF:124:ILE:HD12	18:AF:205:LEU:HB3	1.98	0.46
21:A2:1072:C:O4'	21:A2:1072:C:C6	2.69	0.46
31:BY:126:PHE:CE1	67:B1:1134:A:O3'	2.69	0.46
35:BL:11:LEU:CB	67:B1:948:C:H5	2.28	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BL:119:THR:OG1	58:BP:73:LYS:HE3	2.14	0.46
49:BQ:64:LYS:NZ	67:B1:1603:G:H5''	2.29	0.46
63:Bg:17:CYS:HA	63:Bg:39:LEU:HD13	1.98	0.46
67:B1:2225:C:N4	67:B1:2310:G:H1	2.14	0.46
67:B1:2796:C:C2'	67:B1:2797:C:H5''	2.45	0.46
2:AK:47:GLU:HB3	25:AH:42:ARG:HH21	1.79	0.46
10:AD:135:GLN:HB3	28:AV:60:PHE:CE1	2.51	0.46
18:AF:19:LYS:HB2	18:AF:46:GLU:OE2	2.16	0.46
21:A2:218:C:O4'	21:A2:218:C:N1	2.41	0.46
21:A2:434:A:N3	28:AV:85:TYR:HD1	1.99	0.46
21:A2:985:C:H3'	21:A2:986:G:C2	2.51	0.46
30:AU:39:ARG:HA	30:AU:39:ARG:HE	1.81	0.46
34:B5:46:ARG:HA	67:B1:1567:C:C4'	2.46	0.46
35:BL:7:LYS:NZ	67:B1:1335:C:P	2.88	0.46
36:Bf:28:ILE:HG23	36:Bf:34:ARG:NH1	2.29	0.46
38:Bb:63:ILE:HA	67:B1:1366:U:O2	2.16	0.46
39:Be:59:LYS:NZ	53:BD:55:ARG:HH22	2.03	0.46
48:BR:69:ARG:HB2	67:B1:2483:U:O2'	2.16	0.46
49:BQ:73:GLY:HA2	67:B1:1884:C:N4	2.25	0.46
49:BQ:110:LYS:HA	49:BQ:120:TYR:CZ	2.50	0.46
57:BZ:53:ALA:HA	57:BZ:58:ILE:HD12	1.98	0.46
61:Bd:4:MET:HE1	67:B1:1449:C:O2	2.16	0.46
20:B4:52:ILE:HD12	20:B4:78:ILE:HG23	1.97	0.46
20:B4:57:VAL:CG1	20:B4:63:VAL:HG21	2.45	0.46
67:B1:43:G:O6	67:B1:474:G:N2	2.49	0.46
67:B1:259:A:C2	67:B1:412:G:C4	3.03	0.46
67:B1:2476:A:O4'	67:B1:2476:A:N9	2.42	0.46
67:B1:2587:G:O4'	67:B1:2587:G:N9	2.44	0.46
68:B3:57:C:O4'	68:B3:57:C:C6	2.68	0.46
4:AG:64:ARG:HD3	4:AG:122:LYS:HG2	1.97	0.46
18:AF:164:GLY:HA2	18:AF:182:ASP:OD1	2.15	0.46
21:A2:806:G:H2'	21:A2:807:C:C6	2.51	0.46
21:A2:859:A:C5	21:A2:860:G:H1'	2.51	0.46
35:BL:66:PRO:HB3	67:B1:2523:C:C2	2.50	0.46
49:BQ:8:ARG:CZ	67:B1:1434:C:OP1	2.64	0.46
51:Bj:47:TYR:CD1	59:BM:82:PRO:CB	2.99	0.46
67:B1:1600:G:C8	67:B1:1600:G:H3'	2.51	0.46
67:B1:2489:C:O4'	67:B1:2489:C:C6	2.68	0.46
8:AR:63:TYR:CA	12:AN:10:GLU:O	2.63	0.46
8:AR:63:TYR:HB2	12:AN:10:GLU:O	2.16	0.46
21:A2:8:U:C2'	21:A2:8:U:C6	2.99	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:134:A:H2'	21:A2:135:U:C6	2.50	0.46
35:BL:7:LYS:O	35:BL:9:ARG:HG2	2.16	0.46
36:Bf:51:GLU:OE2	67:B1:1454:G:N1	2.48	0.46
39:Be:1:MET:O	67:B1:1920:A:C2	2.58	0.46
45:Bi:19:LEU:CG	67:B1:1852:U:H4'	2.46	0.46
56:BH:1:MET:HA	67:B1:1233:U:C2	2.51	0.46
67:B1:978:C:H2'	67:B1:979:G:C8	2.51	0.46
67:B1:1559:A:H2'	67:B1:1560:G:C8	2.51	0.46
67:B1:2227:G:H1	67:B1:2308:C:H42	1.63	0.46
2:AK:39:GLU:CG	25:AH:5:LEU:CG	2.94	0.45
4:AG:40:ALA:HB3	4:AG:59:VAL:CG1	2.47	0.45
6:AC:4:GLU:OE1	29:AL:45:ILE:CB	2.64	0.45
13:AX:18:THR:HG22	13:AX:19:GLY:H	1.80	0.45
13:AX:71:ARG:CZ	21:A2:1041:C:P	3.04	0.45
18:AF:40:ARG:CB	18:AF:42:TYR:HD1	2.28	0.45
21:A2:203:A:H2'	21:A2:204:G:C8	2.52	0.45
21:A2:1196:A:P	25:AH:88:ARG:CZ	3.03	0.45
21:A2:1450:U:H2'	21:A2:1451:C:C6	2.52	0.45
25:AH:87:ARG:HG3	25:AH:90:HIS:CB	2.46	0.45
27:A0:12:U:H4'	67:B1:2032:G:H21	1.81	0.45
45:Bi:78:VAL:HG21	52:BB:161:VAL:HG22	1.97	0.45
48:BR:69:ARG:HH22	67:B1:2483:U:C1'	2.28	0.45
51:Bj:18:THR:HG23	51:Bj:20:HIS:CE1	2.51	0.45
54:BF:173:TYR:HB2	63:Bg:6:GLU:OE1	2.06	0.45
67:B1:956:U:O4	67:B1:1107:G:N3	2.49	0.45
67:B1:1407:A:C8	67:B1:1409:U:C2	3.04	0.45
67:B1:1570:C:O4'	67:B1:1570:C:C6	2.69	0.45
67:B1:1616:A:H2	67:B1:2817:U:H3	1.63	0.45
12:AN:23:PHE:O	21:A2:515:U:N3	2.49	0.45
12:AN:49:GLN:O	21:A2:359:A:C8	2.69	0.45
12:AN:135:LYS:CG	21:A2:29:G:O2'	2.64	0.45
13:AX:9:ALA:HB1	13:AX:29:VAL:HG12	1.97	0.45
18:AF:206:TYR:CD1	18:AF:206:TYR:C	2.94	0.45
21:A2:988:A:H2'	21:A2:989:C:H5'	1.97	0.45
21:A2:1072:C:O4'	21:A2:1072:C:N1	2.42	0.45
25:AH:7:GLU:HB2	30:AU:144:ILE:O	2.16	0.45
35:BL:77:ASN:ND2	67:B1:723:A:C8	2.81	0.45
38:Bb:40:TRP:HB3	67:B1:1368:A:OP1	2.16	0.45
39:Be:49:TYR:CD2	39:Be:51:TRP:CZ3	3.05	0.45
51:Bj:31:SER:H	51:Bj:33:LEU:HD23	1.81	0.45
67:B1:45:G:C8	67:B1:204:G:O2'	2.69	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:51:G:H1'	67:B1:117:A:N6	2.32	0.45
3:AI:57:ARG:NH2	21:A2:607:U:C4'	2.74	0.45
4:AG:94:PHE:CZ	21:A2:148:C:O2'	2.69	0.45
16:AJ:48:THR:HB	21:A2:258:A:H5'	1.99	0.45
18:AF:67:ASP:O	18:AF:85:VAL:HA	2.17	0.45
21:A2:742:U:C4	21:A2:743:U:C4	3.05	0.45
21:A2:825:C:O2	21:A2:831:A:H2	1.98	0.45
35:BL:44:LYS:CE	67:B1:960:C:O2'	2.63	0.45
43:Bk:85:GLY:HA2	67:B1:1246:G:C4'	2.46	0.45
48:BR:87:PHE:HE1	67:B1:2482:G:O2'	1.96	0.45
51:Bj:70:ARG:HA	51:Bj:77:ALA:HA	1.98	0.45
54:BF:94:TYR:CD2	54:BF:99:ILE:HG22	2.51	0.45
56:BH:116:ALA:HB1	56:BH:122:ALA:HB2	1.98	0.45
67:B1:1568:A:O2'	67:B1:1568:A:H2'	1.96	0.45
18:AF:174:ILE:CD1	18:AF:201:VAL:CG1	2.94	0.45
21:A2:423:U:C6	21:A2:423:U:H2'	2.51	0.45
21:A2:616:G:C2	21:A2:698:A:C6	3.05	0.45
31:BY:14:ASN:N	67:B1:1105:C:OP1	2.37	0.45
31:BY:123:ARG:H	31:BY:153:ARG:HB3	1.80	0.45
35:BL:63:PHE:CE1	67:B1:2532:G:N2	2.83	0.45
35:BL:119:THR:HG21	58:BP:73:LYS:HE2	1.89	0.45
50:BV:10:CYS:HA	50:BV:53:THR:HG23	1.99	0.45
50:BV:45:ARG:NE	67:B1:1893:C:OP1	2.49	0.45
67:B1:2507:C:H6	67:B1:2507:C:H2'	1.82	0.45
4:AG:19:VAL:HG13	4:AG:50:LEU:H	1.82	0.45
11:A1:34:U:H5'	25:AH:138:SER:HB3	1.97	0.45
18:AF:167:ILE:HG21	18:AF:172:LYS:HA	1.98	0.45
21:A2:842:U:H4'	21:A2:843:G:H5''	1.99	0.45
36:Bf:22:ARG:HE	67:B1:1478:G:C5'	2.14	0.45
48:BR:49:TYR:CE2	48:BR:91:VAL:HG21	2.52	0.45
49:BQ:55:ILE:O	67:B1:1620:C:H5'	2.17	0.45
50:BV:4:TRP:CE2	50:BV:6:VAL:HG22	2.52	0.45
50:BV:14:PHE:CZ	50:BV:19:GLY:HA3	2.52	0.45
20:BG:42:ALA:HB1	20:BG:48:ALA:HB2	1.99	0.45
53:BD:83:VAL:O	53:BD:90:ARG:N	2.50	0.45
67:B1:539:A:H2'	67:B1:540:A:H5''	1.99	0.45
67:B1:864:C:H2'	67:B1:865:C:C6	2.51	0.45
67:B1:1610:C:H2'	67:B1:1611:C:C6	2.52	0.45
12:AN:61:GLU:H	12:AN:61:GLU:CD	2.24	0.45
18:AF:34:ILE:HD11	18:AF:121:ILE:HD13	1.99	0.45
18:AF:108:ILE:HG23	18:AF:109:ALA:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:156:A:C2	21:A2:157:A:C2	3.04	0.45
34:B5:46:ARG:CB	67:B1:1567:C:H4'	2.46	0.45
34:B5:50:ILE:CD1	57:BZ:28:LYS:CE	2.86	0.45
35:BL:9:ARG:O	35:BL:10:LYS:C	2.55	0.45
39:Be:34:TYR:CD1	39:Be:42:ARG:HB2	2.52	0.45
43:Bk:85:GLY:HA2	67:B1:1246:G:H4'	1.99	0.45
20:BG:33:ARG:O	20:BG:99:VAL:HG13	2.17	0.45
53:BD:63:LYS:HD3	53:BD:69:ARG:HH11	1.82	0.45
53:BD:83:VAL:HG21	53:BD:86:ALA:HB3	1.98	0.45
63:Bg:15:TYR:HE1	63:Bg:39:LEU:HD12	1.82	0.45
67:B1:2483:U:C5	67:B1:2499:U:C4	3.04	0.45
18:AF:45:LYS:HZ2	18:AF:45:LYS:CB	2.19	0.45
18:AF:167:ILE:CG1	18:AF:168:GLY:H	2.30	0.45
21:A2:1196:A:OP1	25:AH:88:ARG:NH1	2.48	0.45
25:AH:81:VAL:HG23	25:AH:81:VAL:H	1.23	0.45
34:B5:35:VAL:HG22	34:B5:46:ARG:HB2	1.99	0.45
35:BL:41:LYS:HG3	67:B1:185:A:OP2	2.16	0.45
58:BP:47:VAL:HG21	58:BP:64:VAL:HG13	1.98	0.45
67:B1:1765:A:C2	67:B1:1772:A:C6	3.05	0.45
21:A2:375:G:C2	21:A2:381:C:O2	2.70	0.45
28:AV:7:GLU:HB3	28:AV:20:TYR:HB2	1.98	0.45
31:BY:24:ALA:HA	31:BY:29:HIS:NE2	2.32	0.45
38:Bb:11:ARG:NE	67:B1:1302:G:C4'	2.80	0.45
38:Bb:69:LYS:CE	67:B1:1304:G:OP1	2.65	0.45
39:Be:14:THR:HB	67:B1:819:U:O2	2.17	0.45
39:Be:37:ALA:HB2	67:B1:505:A:OP1	2.17	0.45
43:Bk:42:ARG:CZ	67:B1:1222:U:O2'	2.64	0.45
43:Bk:59:LEU:HD13	43:Bk:83:ILE:HD11	1.98	0.45
49:BQ:82:LYS:CB	67:B1:1788:G:O3'	2.52	0.45
63:Bg:36:TYR:CD2	67:B1:1171:G:H5''	2.51	0.45
64:Bc:45:TRP:HE3	64:Bc:53:LEU:HD12	1.82	0.45
65:BJ:123:ALA:HB1	65:BJ:125:GLU:OE1	2.16	0.45
67:B1:1125:A:H4'	67:B1:1126:C:OP1	2.16	0.45
67:B1:1155:A:N3	67:B1:1157:U:H1'	2.32	0.45
67:B1:1313:G:C2	67:B1:1316:U:C5	3.04	0.45
67:B1:2507:C:O4'	67:B1:2507:C:N1	2.46	0.45
67:B1:2584:A:H61	67:B1:2596:G:H1'	1.82	0.45
67:B1:2797:C:N3	67:B1:2838:U:C4	2.85	0.45
18:AF:116:TYR:CZ	18:AF:120:ASN:ND2	2.85	0.45
21:A2:676:G:C8	21:A2:678:G:H1'	2.52	0.45
21:A2:1179:C:O4'	21:A2:1179:C:C6	2.69	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:1209:C:N4	21:A2:1247:A:H3'	2.30	0.45
25:AH:3:LYS:CD	30:AU:143:ILE:HD11	2.46	0.45
31:BY:27:ARG:O	31:BY:116:VAL:HG21	2.17	0.45
31:BY:37:VAL:HG23	31:BY:43:TYR:CD2	2.52	0.45
34:B5:34:LEU:HD12	34:B5:46:ARG:O	2.17	0.45
35:BL:3:ARG:HB2	35:BL:6:LYS:HB2	1.99	0.45
38:Bb:33:LYS:CB	67:B1:672:C:P	2.77	0.45
48:BR:28:LEU:HD23	48:BR:29:THR:N	2.31	0.45
52:BB:225:ARG:HG3	67:B1:2352:G:OP1	2.17	0.45
55:Bh:6:ILE:O	55:Bh:10:ILE:HG13	2.17	0.45
61:Bd:4:MET:HE1	67:B1:1449:C:O2'	2.17	0.45
61:Bd:56:LYS:HD3	61:Bd:56:LYS:HA	1.78	0.45
63:Bg:12:PHE:CB	63:Bg:13:LYS:HE2	2.46	0.45
67:B1:82:C:C5	67:B1:83:G:C5	3.04	0.45
67:B1:1278:C:O4'	67:B1:1278:C:C6	2.70	0.45
67:B1:1969:C:N4	67:B1:2099:G:N2	2.62	0.45
67:B1:1981:G:H2'	67:B1:1982:C:C6	2.52	0.45
67:B1:2304:C:H2'	67:B1:2305:U:H5'	1.98	0.45
4:AG:64:ARG:HB3	21:A2:151:G:O3'	2.16	0.45
21:A2:1311:C:H2'	21:A2:1312:C:C6	2.52	0.45
25:AH:71:ILE:HG23	25:AH:180:PHE:CE1	2.52	0.45
35:BL:5:ARG:CD	67:B1:1392:G:N7	2.79	0.45
35:BL:6:LYS:HE3	67:B1:1338:G:C6	2.46	0.45
35:BL:27:GLY:HA3	67:B1:940:G:OP2	2.17	0.45
35:BL:126:ALA:HB3	35:BL:129:PHE:CZ	2.52	0.45
46:BA:39:LEU:H	46:BA:39:LEU:CD2	2.25	0.45
49:BQ:103:ARG:HH21	49:BQ:128:LYS:HG2	1.82	0.45
53:BD:85:PHE:HB3	67:B1:1396:A:N1	2.32	0.45
61:Bd:5:TYR:CG	67:B1:1524:A:C2	3.04	0.45
61:Bd:55:ARG:HE	67:B1:1728:C:H4'	1.81	0.45
20:B4:66:LEU:HG	20:B4:70:CYS:SG	2.56	0.45
67:B1:31:G:H1	67:B1:513:C:N4	2.15	0.45
67:B1:1592:U:O4'	67:B1:1592:U:C6	2.70	0.45
67:B1:1753:G:H4'	67:B1:1754:A:H5'	1.98	0.45
67:B1:3021:C:H2'	67:B1:3022:C:C6	2.52	0.45
4:AG:18:GLN:HG2	21:A2:141:C:H4'	1.98	0.44
4:AG:99:LYS:HD3	21:A2:320:G:O4'	2.16	0.44
21:A2:333:A:C6	21:A2:334:G:C5	3.05	0.44
21:A2:439:G:H1'	21:A2:440:C:H5	1.79	0.44
21:A2:768:A:N7	21:A2:770:A:C4	2.85	0.44
21:A2:1196:A:H5''	25:AH:88:ARG:NH1	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:1351:U:H2'	21:A2:1352:G:H8	1.82	0.44
25:AH:15:ILE:HG23	25:AH:15:ILE:O	2.17	0.44
25:AH:50:ARG:H	25:AH:50:ARG:HG3	1.45	0.44
25:AH:87:ARG:HB2	25:AH:90:HIS:N	2.32	0.44
26:AP:52:PHE:HD2	29:AL:64:TRP:CE3	2.28	0.44
28:AV:60:PHE:N	28:AV:60:PHE:CD1	2.83	0.44
34:B5:52:HIS:CE1	61:Bd:77:ARG:NH1	2.85	0.44
35:BL:6:LYS:CG	67:B1:1338:G:O6	2.63	0.44
36:Bf:33:ARG:H	36:Bf:34:ARG:HD3	1.82	0.44
48:BR:4:LYS:HA	48:BR:4:LYS:HD2	1.60	0.44
49:BQ:73:GLY:HA2	49:BQ:76:ARG:HH22	1.83	0.44
51:Bj:84:PHE:CE1	67:B1:2460:A:C2	3.03	0.44
56:BH:12:GLY:H	56:BH:49:MET:H	1.65	0.44
57:BZ:53:ALA:HB1	57:BZ:60:VAL:HG22	1.99	0.44
67:B1:51:G:H1'	67:B1:117:A:H61	1.82	0.44
67:B1:119:U:H5'	67:B1:121:G:OP2	2.17	0.44
67:B1:1109:G:H1'	67:B1:1125:A:N6	2.14	0.44
67:B1:2506:G:H5''	67:B1:2507:C:C2	2.52	0.44
4:AG:64:ARG:HG3	4:AG:122:LYS:HG2	1.99	0.44
18:AF:192:ARG:NH2	21:A2:6:G:O6	2.51	0.44
21:A2:968:C:C5	21:A2:969:A:C5	3.05	0.44
31:BY:124:GLY:H	67:B1:1133:U:C5'	2.31	0.44
32:BO:171:TYR:O	32:BO:172:LEU:HB2	2.18	0.44
32:BO:193:ILE:HG23	32:BO:195:LYS:H	1.82	0.44
35:BL:11:LEU:HB2	67:B1:948:C:C5	2.51	0.44
38:Bb:63:ILE:HB	67:B1:950:G:H5''	1.98	0.44
41:Ba:50:ILE:HG12	41:Ba:54:VAL:HG21	1.98	0.44
49:BQ:57:GLY:HA3	67:B1:1620:C:OP1	2.17	0.44
51:Bj:65:LEU:HD23	51:Bj:82:ARG:HG3	1.99	0.44
61:Bd:55:ARG:CZ	67:B1:1728:C:OP1	2.65	0.44
67:B1:147:C:O4'	67:B1:147:C:C6	2.71	0.44
67:B1:700:A:H2'	67:B1:701:G:H5'	1.99	0.44
2:AK:46:LEU:CD1	25:AH:13:HIS:HE1	1.92	0.44
4:AG:18:GLN:CD	21:A2:141:C:O3'	2.60	0.44
4:AG:64:ARG:CB	21:A2:151:G:HO2'	2.18	0.44
18:AF:33:ASP:CB	18:AF:36:GLU:HG3	2.42	0.44
18:AF:163:LEU:HD23	18:AF:163:LEU:C	2.42	0.44
18:AF:167:ILE:CG2	18:AF:172:LYS:CA	2.95	0.44
21:A2:616:G:C2	21:A2:697:A:C2	3.05	0.44
21:A2:1228:A:H2'	21:A2:1229:A:C8	2.52	0.44
21:A2:1327:C:O2'	29:AL:48:THR:HG21	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BO:193:ILE:HG13	32:BO:194:GLU:H	1.82	0.44
37:BU:44:LEU:HD22	37:BU:116:ILE:HD12	1.99	0.44
38:Bb:69:LYS:NZ	67:B1:1303:C:OP1	2.48	0.44
41:Ba:15:ILE:O	41:Ba:18:ILE:HG22	2.17	0.44
41:Ba:19:LYS:NZ	67:B1:2806:A:C3'	2.80	0.44
45:Bi:19:LEU:HD21	67:B1:1852:U:C3'	2.47	0.44
45:Bi:21:ILE:O	45:Bi:25:VAL:HG23	2.16	0.44
49:BQ:78:PRO:HG2	67:B1:1865:U:H4'	1.99	0.44
20:BG:4:PRO:O	20:BG:5:SER:HB3	2.17	0.44
61:Bd:65:GLU:OE1	67:B1:1570:C:N4	2.50	0.44
67:B1:1605:A:H61	67:B1:1701:C:H42	1.65	0.44
3:AI:28:LYS:HE3	5:AW:4:PRO:HG3	2.00	0.44
4:AG:97:LYS:CG	21:A2:87:C:OP1	2.58	0.44
21:A2:227:C:H2'	21:A2:228:G:C8	2.52	0.44
21:A2:1224:U:H3	21:A2:1231:G:H1	1.63	0.44
35:BL:11:LEU:CB	67:B1:948:C:OP2	2.65	0.44
36:Bf:30:LYS:NZ	67:B1:92:G:C6	2.84	0.44
39:Be:47:ARG:NH2	67:B1:505:A:C3'	2.80	0.44
43:Bk:9:LYS:H	43:Bk:12:VAL:HG13	1.82	0.44
48:BR:10:ARG:HH22	67:B1:2377:C:H5	1.66	0.44
48:BR:14:LYS:CA	67:B1:995:G:OP2	2.62	0.44
48:BR:49:TYR:CD2	48:BR:91:VAL:HG21	2.53	0.44
48:BR:70:GLY:CA	67:B1:2484:C:C4'	2.95	0.44
51:Bj:47:TYR:OH	59:BM:82:PRO:HG3	2.18	0.44
52:BB:189:TRP:CG	52:BB:190:PRO:HA	2.53	0.44
53:BD:87:ARG:CD	67:B1:487:U:H1'	2.48	0.44
61:Bd:5:TYR:N	67:B1:1524:A:H2	2.16	0.44
67:B1:36:G:H4'	67:B1:490:C:C2	2.52	0.44
67:B1:553:C:H2'	67:B1:554:C:C6	2.51	0.44
67:B1:776:G:O2'	67:B1:779:A:N6	2.51	0.44
67:B1:2590:C:O4'	67:B1:2590:C:C6	2.71	0.44
2:AK:102:TYR:CE1	25:AH:42:ARG:CB	2.98	0.44
8:AR:63:TYR:C	12:AN:10:GLU:O	2.59	0.44
12:AN:50:ALA:HA	21:A2:359:A:H5'	2.00	0.44
12:AN:51:ARG:N	21:A2:359:A:P	2.63	0.44
25:AH:16:LYS:O	25:AH:43:LEU:HD22	2.17	0.44
25:AH:78:HIS:CD2	25:AH:78:HIS:H	2.36	0.44
25:AH:89:GLU:HB3	25:AH:95:SER:CB	2.47	0.44
29:AL:5:ARG:HD3	29:AL:72:LEU:HD11	1.98	0.44
32:BO:25:LEU:HA	48:BR:28:LEU:HD12	2.00	0.44
36:Bf:26:TRP:CE3	67:B1:92:G:N2	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:Bf:26:TRP:HB2	67:B1:92:G:N2	2.32	0.44
36:Bf:32:ASN:CG	67:B1:520:G:C8	2.95	0.44
38:Bb:12:VAL:HG13	38:Bb:15:ARG:NH2	2.32	0.44
39:Be:24:GLY:HA3	67:B1:55:G:O2'	2.16	0.44
49:BQ:85:LYS:HE2	67:B1:1844:C:P	2.52	0.44
54:BF:173:TYR:CB	63:Bg:6:GLU:CD	2.79	0.44
55:Bh:17:ARG:O	55:Bh:21:ARG:CG	2.56	0.44
61:Bd:32:LYS:CB	67:B1:1586:G:OP1	2.55	0.44
63:Bg:12:PHE:CD1	63:Bg:13:LYS:HG3	2.52	0.44
67:B1:1642:G:C8	67:B1:1642:G:H2'	2.52	0.44
67:B1:1687:C:H3'	67:B1:1688:C:H5''	1.99	0.44
67:B1:1708:U:C5	67:B1:1709:C:O2	2.71	0.44
67:B1:2011:U:H3'	67:B1:2011:U:C6	2.53	0.44
6:AC:172:LYS:H	6:AC:172:LYS:HD2	1.83	0.44
12:AN:50:ALA:C	21:A2:359:A:H5'	2.42	0.44
12:AN:133:SER:O	12:AN:136:GLU:HG3	2.17	0.44
18:AF:44:ILE:HD12	18:AF:44:ILE:H	1.81	0.44
18:AF:84:ARG:NH1	21:A2:1031:G:C4'	2.81	0.44
21:A2:167:G:O2'	21:A2:168:G:H5'	2.18	0.44
21:A2:434:A:C1'	21:A2:434:A:O2'	2.57	0.44
21:A2:1310:C:O3'	25:AH:75:GLY:O	2.36	0.44
25:AH:3:LYS:CG	30:AU:144:ILE:C	2.91	0.44
31:BY:27:ARG:C	31:BY:29:HIS:CE1	2.96	0.44
32:BO:25:LEU:HB2	48:BR:28:LEU:HB2	2.00	0.44
35:BL:9:ARG:HG3	35:BL:12:ARG:H	1.83	0.44
20:BG:68:PRO:HG3	59:BM:18:TYR:CE2	2.53	0.44
61:Bd:25:HIS:CE1	67:B1:1531:C:P	3.11	0.44
63:Bg:18:LEU:HD13	63:Bg:37:LYS:HE3	2.00	0.44
66:Bl:6:PHE:CE1	66:Bl:59:GLU:HB3	2.52	0.44
67:B1:84:A:C8	67:B1:101:G:N2	2.82	0.44
67:B1:303:A:C5	67:B1:305:G:H5''	2.53	0.44
67:B1:1707:A:C2	67:B1:1783:U:C6	3.05	0.44
67:B1:2163:G:H2'	67:B1:2164:G:C8	2.53	0.44
3:AI:77:PRO:HG2	3:AI:79:PHE:CZ	2.52	0.44
8:AR:62:ARG:HH12	12:AN:8:ASN:HD21	1.65	0.44
18:AF:126:ARG:C	18:AF:142:PRO:HD3	2.43	0.44
21:A2:367:G:N3	21:A2:369:A:N6	2.66	0.44
21:A2:457:G:H2'	21:A2:458:G:C8	2.53	0.44
25:AH:89:GLU:CB	25:AH:95:SER:HB2	2.48	0.44
33:BC:80:VAL:HB	33:BC:203:LEU:HA	1.99	0.44
38:Bb:34:PHE:CD2	67:B1:1394:G:C6	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:Be:45:ARG:H	39:Be:45:ARG:HG2	1.55	0.44
39:Be:53:LYS:CB	67:B1:506:G:O5'	2.66	0.44
43:Bk:42:ARG:NH1	67:B1:1224:A:N7	2.66	0.44
46:BA:79:LEU:HD13	46:BA:79:LEU:HA	1.85	0.44
51:Bj:39:ARG:NH2	51:Bj:50:PHE:CD2	2.85	0.44
54:BF:65:VAL:O	54:BF:65:VAL:HG12	2.17	0.44
60:BS:23:ARG:HD3	60:BS:145:HIS:CG	2.53	0.44
64:Bc:14:LYS:HG3	67:B1:1143:A:H62	1.82	0.44
67:B1:575:G:H2'	67:B1:576:G:H5''	1.99	0.44
67:B1:958:A:H2'	67:B1:959:U:C6	2.52	0.44
67:B1:2079:U:C5	67:B1:2672:A:C2	3.06	0.44
3:AI:79:PHE:HD2	8:AR:61:GLU:O	1.91	0.44
18:AF:91:ASN:C	18:AF:93:ASP:H	2.26	0.44
21:A2:1378:A:H2'	21:A2:1379:G:H5'	2.00	0.44
35:BL:63:PHE:HB3	67:B1:2533:G:H5'	1.99	0.44
39:Be:3:SER:C	67:B1:1920:A:C8	2.96	0.44
41:Ba:24:ARG:HB3	41:Ba:24:ARG:HH11	1.83	0.44
49:BQ:84:LYS:HA	67:B1:1842:C:O3'	2.17	0.44
56:BH:75:GLN:O	56:BH:78:LYS:HB2	2.18	0.44
67:B1:715:G:O4'	67:B1:715:G:N9	2.45	0.44
67:B1:1591:C:O2'	67:B1:1592:U:H5''	2.18	0.44
2:AK:43:PHE:CE2	25:AH:12:PRO:CG	2.98	0.44
18:AF:68:ILE:HG23	18:AF:85:VAL:HG22	2.00	0.44
21:A2:369:A:O3'	21:A2:434:A:C5	2.70	0.44
36:Bf:26:TRP:CZ2	67:B1:62:C:N1	2.81	0.44
39:Be:2:GLY:N	67:B1:1920:A:C6	2.83	0.44
43:Bk:132:ALA:HB2	56:BH:60:VAL:HG22	1.99	0.44
45:Bi:6:LYS:HB3	67:B1:1854:G:OP1	2.18	0.44
49:BQ:4:LEU:HB2	49:BQ:8:ARG:HH21	1.83	0.44
53:BD:85:PHE:CB	67:B1:1396:A:N6	2.80	0.44
64:Bc:14:LYS:CG	67:B1:1143:A:H62	2.31	0.44
67:B1:744:G:H1	67:B1:761:U:H3	1.66	0.44
67:B1:1180:G:H1	67:B1:1253:U:H3	1.66	0.44
67:B1:1786:G:N7	67:B1:1787:U:C5	2.86	0.44
68:B3:119:C:C5	68:B3:120:C:C2	3.06	0.44
3:AI:92:ARG:HH21	21:A2:518:U:H4'	1.82	0.43
12:AN:79:LYS:CB	21:A2:358:G:C5'	2.75	0.43
18:AF:5:TRP:HD1	18:AF:6:LYS:H	1.64	0.43
18:AF:92:ARG:O	18:AF:179:GLY:HA3	2.18	0.43
18:AF:202:PHE:CD1	18:AF:202:PHE:C	2.95	0.43
21:A2:388:G:H2'	21:A2:389:G:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:641:A:C2	21:A2:654:U:O2	2.71	0.43
33:BC:108:ASN:O	33:BC:172:TRP:CZ2	2.70	0.43
49:BQ:60:ARG:CD	67:B1:1602:C:C5'	2.96	0.43
49:BQ:123:LEU:HD21	49:BQ:142:LEU:HD13	2.00	0.43
53:BD:85:PHE:C	67:B1:675:G:H21	2.25	0.43
20:B4:3:LYS:HG2	20:B4:4:PRO:HD2	1.99	0.43
67:B1:404:G:C2'	67:B1:404:G:C8	3.01	0.43
67:B1:2451:G:C5	67:B1:2452:C:C5	3.06	0.43
67:B1:2507:C:C6	67:B1:2507:C:H2'	2.52	0.43
67:B1:2957:G:C6	67:B1:2959:A:C2	3.06	0.43
2:AK:43:PHE:CD2	25:AH:12:PRO:CG	3.01	0.43
2:AK:50:ILE:HG13	25:AH:13:HIS:CG	2.53	0.43
4:AG:102:ARG:NH1	21:A2:317:A:HO2'	2.07	0.43
8:AR:30:HIS:CD2	21:A2:182:A:N1	2.86	0.43
12:AN:77:LEU:HD23	12:AN:77:LEU:HA	1.82	0.43
18:AF:128:CYS:C	18:AF:130:SER:H	2.26	0.43
18:AF:190:GLU:HG2	18:AF:192:ARG:H	1.83	0.43
21:A2:12:U:H2'	21:A2:13:C:C6	2.53	0.43
21:A2:31:U:H2'	21:A2:32:A:O4'	2.17	0.43
21:A2:1311:C:O2'	25:AH:95:SER:CB	2.67	0.43
21:A2:1491:C:C5	21:A2:1492:U:C5	3.06	0.43
31:BY:8:ARG:CB	31:BY:28:LEU:HD22	2.49	0.43
31:BY:52:ASP:O	31:BY:140:LEU:HD13	2.17	0.43
31:BY:123:ARG:NE	67:B1:1132:U:C4'	2.74	0.43
31:BY:135:LYS:HE2	66:BI:50:ASN:HD21	1.83	0.43
33:BC:334:ARG:HH11	33:BC:334:ARG:HD3	1.69	0.43
50:BV:40:TYR:HD2	50:BV:45:ARG:HD3	1.84	0.43
51:Bj:58:ARG:HB3	51:Bj:59:GLU:HB2	1.99	0.43
52:BB:97:LEU:HD21	52:BB:159:ILE:CD1	2.48	0.43
53:BD:140:LEU:HD12	28:B6:81:ILE:HD11	1.99	0.43
56:BH:1:MET:CG	67:B1:1233:U:H1'	2.48	0.43
56:BH:1:MET:HG2	67:B1:1233:U:H1'	2.00	0.43
67:B1:85:G:H2'	67:B1:86:G:H8	1.82	0.43
67:B1:1203:C:C4	67:B1:1204:U:N3	2.86	0.43
68:B3:74:U:H1'	68:B3:76:U:C6	2.53	0.43
2:AK:39:GLU:OE2	25:AH:5:LEU:HD12	2.11	0.43
13:AX:61:GLU:HG3	14:AM:107:ARG:CB	2.48	0.43
18:AF:71:THR:HB	21:A2:1032:A:H4'	1.99	0.43
21:A2:340:A:C2'	21:A2:340:A:C8	3.01	0.43
35:BL:47:TRP:CZ2	67:B1:968:A:N3	2.84	0.43
36:Bf:22:ARG:CZ	67:B1:1478:G:H5''	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:Bb:69:LYS:CD	67:B1:1304:G:P	3.05	0.43
49:BQ:6:MET:SD	49:BQ:9:ARG:HB2	2.58	0.43
67:B1:1233:U:O2	67:B1:1235:A:C8	2.72	0.43
4:AG:64:ARG:CD	4:AG:122:LYS:HG2	2.48	0.43
15:AE:209:TRP:CD2	15:AE:210:PRO:HD3	2.53	0.43
18:AF:36:GLU:HA	18:AF:39:ARG:HE	1.83	0.43
18:AF:163:LEU:CD1	18:AF:184:TRP:CE2	3.01	0.43
21:A2:348:C:H4'	21:A2:350:G:OP1	2.18	0.43
21:A2:431:U:H3'	21:A2:432:G:C8	2.53	0.43
21:A2:804:U:H2'	21:A2:805:C:H6	1.83	0.43
21:A2:823:A:H2'	21:A2:824:G:C8	2.53	0.43
25:AH:3:LYS:HE2	30:AU:144:ILE:CA	2.19	0.43
35:BL:6:LYS:CA	67:B1:947:C:N4	2.60	0.43
35:BL:26:ARG:HD2	67:B1:941:C:C5	2.47	0.43
39:Be:20:CYS:O	67:B1:125:C:C4	2.71	0.43
46:BA:121:LEU:HB3	46:BA:125:LEU:HD12	2.01	0.43
51:Bj:1:MET:SD	67:B1:2399:C:C3'	2.97	0.43
53:BD:143:ILE:HD11	53:BD:244:VAL:HA	2.00	0.43
55:Bh:1:MET:HE3	55:Bh:5:TRP:HE1	1.82	0.43
56:BH:88:GLY:HA2	67:B1:1203:C:H4'	2.01	0.43
61:Bd:42:PRO:O	67:B1:1636:C:O2'	2.36	0.43
64:Bc:76:PRO:HB2	64:Bc:78:GLN:H	1.83	0.43
67:B1:2417:G:C5	67:B1:2418:G:C8	3.07	0.43
4:AG:102:ARG:HD3	21:A2:318:C:O4'	2.17	0.43
6:AC:4:GLU:CG	29:AL:45:ILE:HG21	2.49	0.43
10:AD:16:HIS:HE1	21:A2:460:C:H2'	1.84	0.43
18:AF:71:THR:CB	21:A2:1032:A:O3'	2.67	0.43
18:AF:163:LEU:CD1	18:AF:184:TRP:CZ2	2.95	0.43
21:A2:787:U:H2'	21:A2:788:C:C6	2.53	0.43
21:A2:901:G:H5'	25:AH:76:GLY:HA2	2.00	0.43
21:A2:1217:C:O4'	21:A2:1217:C:N1	2.41	0.43
25:AH:85:PHE:CE2	30:AU:88:GLU:HG3	2.54	0.43
34:B5:11:VAL:HG22	34:B5:12:VAL:H	1.83	0.43
38:Bb:49:LYS:HD2	38:Bb:54:LEU:HD12	2.00	0.43
48:BR:10:ARG:NH2	67:B1:2377:C:H5	2.16	0.43
51:Bj:30:ARG:HH21	51:Bj:34:SER:HB3	1.83	0.43
56:BH:107:ALA:HB1	56:BH:122:ALA:CB	2.48	0.43
63:Bg:4:PHE:O	63:Bg:8:GLU:HB2	2.18	0.43
67:B1:160:C:H2'	67:B1:161:C:H6	1.84	0.43
3:AI:76:LYS:CG	21:A2:836:G:OP1	2.67	0.43
4:AG:78:ILE:HG23	21:A2:1414:G:H4'	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AN:48:PRO:HD2	21:A2:359:A:N6	2.33	0.43
15:AE:78:ARG:HD2	15:AE:83:PHE:CZ	2.54	0.43
21:A2:424:U:C4	21:A2:425:C:C2	3.06	0.43
21:A2:615:G:C6	21:A2:698:A:N1	2.87	0.43
21:A2:976:A:H5'	21:A2:976:A:H8	1.84	0.43
25:AH:80:LYS:HZ1	25:AH:95:SER:HB3	1.83	0.43
25:AH:90:HIS:CB	25:AH:92:SER:H	2.19	0.43
31:BY:7:ILE:HD12	31:BY:34:CYS:HB2	2.00	0.43
33:BC:52:LEU:HD11	50:BV:16:PRO:HB2	2.00	0.43
35:BL:28:GLY:N	67:B1:939:A:OP1	2.41	0.43
38:Bb:27:GLU:CB	38:Bb:30:ARG:HD2	2.48	0.43
43:Bk:78:LYS:HG2	43:Bk:79:LEU:H	1.83	0.43
45:Bi:43:ARG:CZ	57:BZ:79:VAL:HG22	2.47	0.43
20:BG:37:ASN:HA	59:BM:3:MET:CB	2.47	0.43
55:Bh:21:ARG:CA	55:Bh:24:ILE:HB	2.48	0.43
65:BJ:38:ILE:HG23	65:BJ:64:ALA:HB1	2.00	0.43
66:Bl:49:ARG:HE	67:B1:1287:G:H4'	1.83	0.43
67:B1:237:G:H3'	67:B1:238:C:C5'	2.49	0.43
67:B1:421:C:C2	67:B1:435:G:N2	2.86	0.43
67:B1:523:C:H42	67:B1:535:G:H1	1.65	0.43
67:B1:585:G:C6	67:B1:586:A:C5	3.06	0.43
67:B1:729:A:H2'	67:B1:730:C:H5'	2.00	0.43
67:B1:931:C:H2'	67:B1:932:C:C6	2.54	0.43
4:AG:18:GLN:OE1	21:A2:141:C:O3'	2.36	0.43
18:AF:201:VAL:CG1	18:AF:202:PHE:N	2.82	0.43
21:A2:1228:A:C6	21:A2:1229:A:C6	3.07	0.43
21:A2:1255:C:O4'	21:A2:1255:C:C6	2.71	0.43
21:A2:1279:A:H5'	21:A2:1280:C:OP1	2.19	0.43
25:AH:55:HIS:CD2	25:AH:55:HIS:H	2.36	0.43
34:B5:31:ASN:HD22	57:BZ:25:ARG:HH11	1.65	0.43
34:B5:52:HIS:CE1	61:Bd:77:ARG:HD3	2.49	0.43
35:BL:44:LYS:HD3	67:B1:961:C:H4'	2.01	0.43
35:BL:132:LYS:HZ3	67:B1:733:A:H5''	1.82	0.43
41:Ba:19:LYS:HE2	67:B1:2806:A:OP2	2.18	0.43
43:Bk:66:LYS:HE2	43:Bk:74:PRO:HG3	2.00	0.43
43:Bk:124:ILE:CD1	43:Bk:145:ILE:HD13	2.49	0.43
50:BV:27:GLY:HA2	65:BJ:121:PRO:CG	2.42	0.43
61:Bd:16:ARG:HH12	67:B1:1624:U:H5''	1.83	0.43
61:Bd:48:ARG:HB2	67:B1:1669:A:P	2.59	0.43
67:B1:2036:A:C2	67:B1:2043:A:C6	3.07	0.43
18:AF:53:LEU:CD1	18:AF:54:LEU:CD2	2.95	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AF:83:PHE:O	18:AF:102:HIS:HA	2.19	0.43
18:AF:167:ILE:CG2	18:AF:172:LYS:HA	2.49	0.43
21:A2:1196:A:OP2	25:AH:88:ARG:HG2	2.18	0.43
21:A2:1265:G:H22	21:A2:1291:G:H2'	1.84	0.43
26:AP:41:HIS:CD2	26:AP:41:HIS:N	2.85	0.43
34:B5:52:HIS:CG	61:Bd:77:ARG:HD3	2.52	0.43
35:BL:131:PRO:CG	67:B1:732:G:OP1	2.66	0.43
38:Bb:64:GLY:C	67:B1:1127:C:O4'	2.61	0.43
39:Be:5:THR:OG1	67:B1:924:A:N3	2.50	0.43
45:Bi:74:ALA:HB1	52:BB:128:TYR:HE1	1.82	0.43
56:BH:128:GLY:O	67:B1:1227:A:N6	2.52	0.43
67:B1:955:A:H1'	67:B1:1080:G:N2	2.34	0.43
67:B1:1568:A:C2'	67:B1:1568:A:HO2'	2.12	0.43
67:B1:1929:C:H2'	67:B1:1930:A:C4	2.54	0.43
4:AG:87:LEU:HD13	21:A2:1395:G:O3'	2.19	0.43
6:AC:8:ILE:HG23	29:AL:66:LEU:HD11	2.01	0.43
13:AX:61:GLU:CG	14:AM:107:ARG:HD3	2.32	0.43
15:AE:242:LEU:HD22	15:AE:242:LEU:HA	1.95	0.43
18:AF:167:ILE:CG1	18:AF:168:GLY:N	2.82	0.43
21:A2:133:G:N2	21:A2:159:C:O2	2.52	0.43
21:A2:406:U:H2'	21:A2:407:G:N7	2.34	0.43
21:A2:1200:U:C4	25:AH:91:ARG:HA	2.50	0.43
34:B5:50:ILE:HG21	57:BZ:28:LYS:NZ	2.26	0.43
49:BQ:1:MET:HG2	49:BQ:2:ASN:H	1.84	0.43
49:BQ:95:TRP:HA	49:BQ:98:THR:OG1	2.19	0.43
51:Bj:47:TYR:CE1	51:Bj:52:ARG:NH2	2.86	0.43
56:BH:107:ALA:HB1	56:BH:122:ALA:HB1	2.01	0.43
67:B1:745:C:O4'	67:B1:745:C:C6	2.71	0.43
67:B1:1898:A:H2'	67:B1:1899:C:C6	2.54	0.43
6:AC:66:THR:HG23	6:AC:78:PRO:HG2	2.01	0.43
18:AF:75:THR:CG2	18:AF:76:ASP:N	2.82	0.43
21:A2:459:G:C5	21:A2:460:C:C6	3.06	0.43
21:A2:556:G:N2	21:A2:590:G:C4	2.87	0.43
21:A2:1465:C:OP1	55:Bh:2:ARG:HD2	2.18	0.43
39:Be:5:THR:HG21	67:B1:924:A:C4	2.50	0.43
39:Be:14:THR:HG23	67:B1:819:U:C1'	2.49	0.43
34:BK:11:VAL:HG22	34:BK:12:VAL:H	1.83	0.43
20:BG:60:GLU:OE2	59:BM:22:LEU:HD22	2.19	0.43
61:Bd:30:LYS:HA	61:Bd:31:PRO:HD3	1.91	0.43
62:BN:59:GLN:HA	62:BN:62:LEU:HD12	2.01	0.43
67:B1:1271:G:C6	67:B1:1272:A:C2	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:1428:G:C6	67:B1:1472:U:C5	3.06	0.43
67:B1:1592:U:O4'	67:B1:1592:U:N1	2.41	0.43
67:B1:2212:C:H2'	67:B1:2213:G:H8	1.84	0.43
3:AI:44:TYR:CG	3:AI:101:ILE:HD11	2.54	0.42
13:AX:71:ARG:NH1	21:A2:1041:C:P	2.89	0.42
21:A2:362:C:C6	21:A2:391:G:N2	2.87	0.42
21:A2:407:G:C8	21:A2:407:G:H3'	2.54	0.42
21:A2:1070:C:H2'	21:A2:1071:C:C6	2.53	0.42
35:BL:114:GLY:HA3	67:B1:733:A:OP1	2.19	0.42
43:Bk:143:MET:CE	43:Bk:145:ILE:HD12	2.48	0.42
50:BV:55:ALA:O	50:BV:58:GLU:HB3	2.19	0.42
20:BG:105:GLY:C	20:BG:107:ALA:H	2.26	0.42
61:Bd:11:ARG:HG2	67:B1:1710:C:H4'	2.01	0.42
20:B4:43:VAL:HG23	20:B4:75:ILE:HG21	2.01	0.42
67:B1:366:G:C2'	67:B1:367:G:H5'	2.49	0.42
67:B1:954:A:C4	67:B1:1332:A:C2	3.07	0.42
67:B1:2129:G:C8	67:B1:2130:C:C5	3.07	0.42
67:B1:2145:G:H4'	67:B1:2732:U:H5''	2.00	0.42
67:B1:2209:U:H2'	67:B1:2210:G:C8	2.53	0.42
67:B1:2630:C:H2'	67:B1:2631:C:C6	2.54	0.42
1:AQ:47:THR:HA	1:AQ:50:ILE:HD12	2.01	0.42
3:AI:53:ILE:HG21	5:AW:6:ILE:HD13	2.01	0.42
12:AN:123:ARG:NH1	21:A2:868:C:OP1	2.51	0.42
21:A2:998:A:H61	21:A2:1173:A:H61	1.67	0.42
25:AH:21:TRP:HE1	25:AH:112:GLU:CD	2.26	0.42
25:AH:51:HIS:CE1	25:AH:61:VAL:HG22	2.54	0.42
31:BY:126:PHE:CD1	67:B1:1134:A:C4'	2.85	0.42
35:BL:6:LYS:CG	67:B1:947:C:N4	2.82	0.42
35:BL:24:LYS:NZ	67:B1:1080:G:C3'	2.82	0.42
36:Bf:25:VAL:O	36:Bf:28:ILE:HB	2.18	0.42
37:BU:73:ARG:O	37:BU:74:TYR:HB2	2.19	0.42
20:BG:59:PRO:HD3	59:BM:42:PRO:O	2.18	0.42
56:BH:19:PRO:HB2	56:BH:20:PRO:HD3	2.00	0.42
56:BH:60:VAL:CG1	56:BH:61:THR:H	2.29	0.42
59:BM:194:LYS:HE2	67:B1:423:G:H21	1.84	0.42
63:Bg:18:LEU:HD13	63:Bg:37:LYS:CE	2.49	0.42
67:B1:686:C:H42	67:B1:795:G:H1	1.66	0.42
67:B1:832:A:H5'	67:B1:1791:A:C6	2.53	0.42
67:B1:833:G:O6	67:B1:866:G:C2	2.72	0.42
67:B1:1465:A:C8	67:B1:1466:U:C5	3.07	0.42
67:B1:1569:A:C5'	67:B1:1570:C:OP2	2.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:1782:C:H1'	67:B1:1791:A:C8	2.54	0.42
67:B1:2443:G:C6	67:B1:2444:G:C5	3.07	0.42
67:B1:2630:C:H2'	67:B1:2631:C:H6	1.84	0.42
21:A2:617:A:C6	21:A2:697:A:C2	3.07	0.42
29:AL:86:MET:HE2	29:AL:96:ILE:HG21	2.02	0.42
31:BY:24:ALA:HA	31:BY:29:HIS:CD2	2.54	0.42
35:BL:44:LYS:CG	35:BL:47:TRP:CE3	3.02	0.42
38:Bb:11:ARG:CD	67:B1:1302:G:C5'	2.97	0.42
40:BE:37:SER:HA	40:BE:42:THR:HB	2.01	0.42
50:BV:22:TYR:HA	65:BJ:98:LYS:HB3	2.01	0.42
51:Bj:60:LYS:NZ	67:B1:2396:G:H21	2.17	0.42
51:Bj:67:LEU:HD11	51:Bj:89:PHE:CZ	2.54	0.42
51:Bj:84:PHE:CE2	67:B1:2399:C:N4	2.82	0.42
20:BG:43:VAL:HG22	20:BG:73:LYS:HG3	2.02	0.42
56:BH:58:ASP:O	56:BH:60:VAL:HG23	2.18	0.42
64:Bc:23:ILE:HG13	64:Bc:61:HIS:CE1	2.54	0.42
67:B1:25:U:C4	67:B1:26:G:C6	3.08	0.42
67:B1:870:G:O6	67:B1:896:G:C2	2.71	0.42
68:B3:54:A:C2	68:B3:55:G:N7	2.87	0.42
2:AK:56:ILE:HD12	2:AK:56:ILE:HA	2.00	0.42
4:AG:78:ILE:HG23	21:A2:1414:G:C4'	2.49	0.42
18:AF:84:ARG:HH12	21:A2:1031:G:C5'	2.33	0.42
18:AF:132:GLU:CG	18:AF:133:CYS:N	2.81	0.42
20:A3:15:LEU:HD12	20:A3:15:LEU:HA	1.87	0.42
21:A2:23:G:C5	21:A2:24:C:C5	3.08	0.42
21:A2:375:G:N1	21:A2:381:C:N3	2.68	0.42
21:A2:409:C:O4'	21:A2:409:C:C6	2.72	0.42
21:A2:534:G:O6	21:A2:712:G:C8	2.72	0.42
21:A2:1465:C:H5''	55:Bh:2:ARG:CD	2.48	0.42
21:A2:1465:C:H5	55:Bh:3:TRP:HE1	1.48	0.42
25:AH:149:ALA:HB2	25:AH:215:ARG:HB2	2.00	0.42
30:AU:136:LEU:O	30:AU:140:LEU:HG	2.19	0.42
31:BY:151:ILE:HA	31:BY:154:MET:HB2	2.00	0.42
35:BL:118:LEU:HD12	35:BL:137:ILE:HA	2.01	0.42
41:Ba:19:LYS:CE	67:B1:2806:A:OP2	2.67	0.42
48:BR:45:ILE:HD11	48:BR:56:PRO:HA	2.02	0.42
51:Bj:47:TYR:CD1	51:Bj:52:ARG:NH2	2.87	0.42
55:Bh:13:LEU:O	55:Bh:17:ARG:CG	2.65	0.42
56:BH:1:MET:CB	67:B1:1233:U:H1'	2.49	0.42
67:B1:78:C:H2'	67:B1:79:C:C6	2.54	0.42
67:B1:121:G:H2'	67:B1:122:G:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:537:U:N3	67:B1:540:A:C8	2.88	0.42
67:B1:790:U:H2'	67:B1:791:C:C6	2.55	0.42
67:B1:1198:G:H2'	67:B1:1199:U:C5	2.55	0.42
67:B1:2232:U:O2	67:B1:2303:A:H2	2.02	0.42
2:AK:13:ALA:HA	2:AK:68:GLY:HA3	2.01	0.42
13:AX:61:GLU:HG3	14:AM:107:ARG:HB3	2.01	0.42
16:AJ:34:ASN:HD22	16:AJ:34:ASN:C	2.28	0.42
18:AF:72:VAL:CG1	18:AF:73:ARG:N	2.83	0.42
21:A2:366:C:O2'	21:A2:435:A:N1	2.53	0.42
21:A2:1073:C:H42	21:A2:1112:G:H1	1.68	0.42
31:BY:84:TYR:O	31:BY:88:LYS:HG2	2.19	0.42
31:BY:126:PHE:HZ	67:B1:1134:A:C1'	2.28	0.42
35:BL:6:LYS:CE	67:B1:1339:C:N4	2.82	0.42
35:BL:58:LEU:O	67:B1:2510:A:C2'	2.62	0.42
50:BV:51:LYS:O	50:BV:57:GLN:CG	2.68	0.42
62:BN:86:ILE:HG23	62:BN:86:ILE:O	2.20	0.42
67:B1:688:G:O4'	67:B1:688:G:C8	2.73	0.42
67:B1:706:U:O2	67:B1:709:A:C8	2.72	0.42
67:B1:1617:G:C6	67:B1:1618:G:C5	3.07	0.42
67:B1:1665:G:C6	67:B1:1666:G:C5	3.08	0.42
67:B1:1943:C:H2'	67:B1:1944:C:H6	1.82	0.42
6:AC:3:ILE:HD11	29:AL:97:GLU:OE2	2.19	0.42
18:AF:193:THR:HG21	18:AF:196:ASN:OD1	2.19	0.42
21:A2:900:G:OP1	25:AH:73:ARG:C	2.63	0.42
21:A2:1487:U:H2'	21:A2:1488:C:C5	2.54	0.42
22:AY:16:ILE:HD12	22:AY:16:ILE:HA	1.99	0.42
24:AA:43:VAL:HG22	24:AA:70:VAL:HG21	2.00	0.42
33:BC:51:ILE:HD11	33:BC:359:VAL:HG22	2.02	0.42
34:B5:46:ARG:HA	67:B1:1567:C:H4'	2.01	0.42
35:BL:6:LYS:CG	67:B1:947:C:H42	2.33	0.42
38:Bb:33:LYS:CA	67:B1:672:C:H5''	2.49	0.42
38:Bb:70:LEU:HD23	38:Bb:70:LEU:H	1.84	0.42
51:Bj:47:TYR:CD2	67:B1:2202:U:O2'	2.73	0.42
54:BF:184:PHE:CB	63:Bg:13:LYS:HB2	2.50	0.42
61:Bd:30:LYS:HB2	67:B1:1711:C:H3'	2.02	0.42
63:Bg:36:TYR:CG	63:Bg:36:TYR:O	2.73	0.42
20:B4:39:THR:HG23	20:B4:51:VAL:HG11	2.01	0.42
65:BJ:130:TRP:HA	65:BJ:130:TRP:CE3	2.55	0.42
67:B1:53:A:H61	67:B1:116:G:H1'	1.84	0.42
67:B1:412:G:O4'	67:B1:412:G:N9	2.46	0.42
67:B1:1203:C:C5	67:B1:1204:U:C4	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:1673:C:H2'	67:B1:1674:G:C8	2.55	0.42
67:B1:1948:A:C6	67:B1:1949:A:C6	3.08	0.42
67:B1:2122:G:C6	67:B1:2123:G:C6	3.07	0.42
67:B1:2420:C:O2	67:B1:2423:G:N7	2.52	0.42
67:B1:2921:U:H2'	67:B1:2922:G:C8	2.55	0.42
67:B1:3031:U:H2'	67:B1:3032:C:O4'	2.19	0.42
2:AK:39:GLU:CG	25:AH:5:LEU:HD11	2.48	0.42
4:AG:5:LYS:C	4:AG:6:LEU:HD12	2.45	0.42
10:AD:79:ARG:HE	10:AD:145:LEU:HD13	1.84	0.42
21:A2:1312:C:H5'	25:AH:80:LYS:HE2	2.01	0.42
21:A2:1379:G:C6	21:A2:1437:G:C5	3.08	0.42
29:AL:50:ARG:HA	29:AL:61:PHE:CD1	2.55	0.42
35:BL:24:LYS:NZ	67:B1:1080:G:O3'	2.40	0.42
43:Bk:69:GLN:HB2	43:Bk:70:GLU:H	1.76	0.42
20:BG:39:THR:HG23	20:BG:100:ALA:HB2	2.01	0.42
55:Bh:14:LYS:O	55:Bh:18:LYS:CG	2.56	0.42
63:Bg:16:VAL:HG11	67:B1:2642:C:H4'	2.02	0.42
67:B1:149:G:C6	67:B1:150:G:C5	3.07	0.42
67:B1:1348:G:N2	67:B1:1382:C:N3	2.65	0.42
67:B1:1577:C:C5	67:B1:1734:G:C6	3.08	0.42
67:B1:1977:C:C5	67:B1:2023:A:C5	3.07	0.42
67:B1:2304:C:H2'	67:B1:2305:U:C5'	2.50	0.42
67:B1:2574:G:C5	67:B1:2575:U:C5	3.08	0.42
13:AX:61:GLU:CB	14:AM:61:MET:HE1	2.50	0.42
14:AM:14:TRP:HE1	14:AM:80:HIS:CG	2.37	0.42
18:AF:40:ARG:CB	18:AF:42:TYR:CD1	3.00	0.42
18:AF:70:LEU:HA	18:AF:82:ARG:O	2.20	0.42
21:A2:1042:U:H1'	21:A2:1048:G:N2	2.35	0.42
21:A2:1287:G:H2'	21:A2:1288:C:C6	2.54	0.42
21:A2:1334:A:C1'	25:AH:69:ASN:OD1	2.68	0.42
21:A2:1465:C:H5'	55:Bh:2:ARG:HD2	2.01	0.42
29:AL:45:ILE:HD12	29:AL:66:LEU:HB3	2.02	0.42
31:BY:125:GLY:N	67:B1:1133:U:H5'	2.35	0.42
36:Bf:38:HIS:HA	36:Bf:39:PRO:HD3	1.87	0.42
43:Bk:136:ILE:HD13	43:Bk:136:ILE:O	2.17	0.42
46:BA:116:LYS:HA	46:BA:119:ARG:HH21	1.85	0.42
50:BV:48:ARG:HA	50:BV:56:TYR:CG	2.55	0.42
20:BG:37:ASN:HA	59:BM:3:MET:SD	2.59	0.42
53:BD:162:LYS:HA	53:BD:167:TRP:HB2	2.02	0.42
54:BF:165:ARG:HB3	63:Bg:11:ILE:CG2	2.50	0.42
56:BH:1:MET:HB3	67:B1:1233:U:H1'	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
64:Bc:14:LYS:CE	67:B1:1143:A:H62	1.94	0.42
67:B1:2263:G:H2'	67:B1:2263:G:N3	2.35	0.42
11:A1:15:G:H5''	11:A1:16:C:OP2	2.19	0.42
18:AF:139:HIS:CD2	18:AF:161:ARG:HG2	2.55	0.42
18:AF:149:GLU:OE1	18:AF:149:GLU:HA	2.19	0.42
21:A2:104:A:N7	21:A2:235:G:N2	2.68	0.42
21:A2:1117:A:H4'	21:A2:1118:C:O5'	2.20	0.42
21:A2:1312:C:OP1	25:AH:79:TYR:HA	2.20	0.42
34:B5:44:LYS:H	34:B5:46:ARG:NH1	2.17	0.42
35:BL:11:LEU:HB2	67:B1:948:C:OP2	2.19	0.42
35:BL:113:LEU:HD21	67:B1:732:G:C5	2.54	0.42
36:Bf:22:ARG:CZ	67:B1:1478:G:P	3.07	0.42
43:Bk:54:VAL:HG12	43:Bk:55:SER:HA	2.00	0.42
45:Bi:62:THR:CG2	52:BB:79:VAL:CG2	2.97	0.42
47:BI:125:ARG:NE	67:B1:1280:C:H41	2.18	0.42
50:BV:43:MET:CE	67:B1:1893:C:C6	3.03	0.42
64:Bc:53:LEU:HD13	64:Bc:75:LEU:HD23	2.01	0.42
67:B1:407:A:H2'	67:B1:408:C:H5''	2.02	0.42
67:B1:1463:C:N4	67:B1:1473:C:C5	2.88	0.42
3:AI:53:ILE:HD12	3:AI:53:ILE:N	2.35	0.42
18:AF:13:LEU:O	18:AF:27:LYS:NZ	2.50	0.42
21:A2:1311:C:H4'	25:AH:95:SER:OG	2.20	0.42
25:AH:21:TRP:CH2	25:AH:108:PHE:HB3	2.54	0.42
37:BU:62:HIS:NE2	37:BU:80:GLY:HA3	2.35	0.42
38:Bb:11:ARG:HB2	38:Bb:71:VAL:HG21	2.02	0.42
41:Ba:64:GLU:OE1	67:B1:2824:C:OP2	2.38	0.42
45:Bi:62:THR:HG23	52:BB:79:VAL:CG2	2.50	0.42
64:Bc:22:MET:HE2	64:Bc:69:ALA:HB3	2.01	0.42
67:B1:31:G:O6	67:B1:513:C:N4	2.53	0.42
67:B1:1155:A:C2	67:B1:1261:C:H4'	2.54	0.42
67:B1:1894:A:H2'	67:B1:1895:G:H5'	2.01	0.42
67:B1:2963:G:H2'	67:B1:2964:A:H5'	2.01	0.42
1:AQ:63:VAL:H	1:AQ:63:VAL:HG23	1.58	0.41
18:AF:34:ILE:CG2	18:AF:35:HIS:N	2.82	0.41
18:AF:71:THR:HG21	21:A2:1032:A:C4'	2.50	0.41
18:AF:145:VAL:CG2	18:AF:146:GLU:N	2.83	0.41
18:AF:194:THR:HG23	18:AF:195:VAL:N	2.33	0.41
21:A2:22:G:C6	21:A2:23:G:C5	3.08	0.41
21:A2:528:G:H21	21:A2:529:C:H5	1.67	0.41
21:A2:1312:C:H5''	25:AH:80:LYS:CB	2.50	0.41
21:A2:1458:A:C1'	21:A2:1458:A:O2'	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BC:87:ARG:HH11	33:BC:96:ALA:HA	1.84	0.41
35:BL:11:LEU:N	67:B1:948:C:OP2	2.52	0.41
35:BL:11:LEU:C	67:B1:948:C:OP2	2.63	0.41
35:BL:44:LYS:HB2	67:B1:967:G:H21	1.83	0.41
38:Bb:56:GLY:HA3	67:B1:570:G:N2	2.35	0.41
40:BE:120:HIS:CG	40:BE:121:ILE:N	2.83	0.41
41:Ba:21:ILE:HG13	67:B1:1811:G:N3	2.32	0.41
45:Bi:24:ARG:HH22	52:BB:171:PRO:CB	2.33	0.41
49:BQ:81:ARG:NH2	67:B1:1885:G:P	2.90	0.41
50:BV:36:LYS:HE2	50:BV:52:TRP:CZ2	2.54	0.41
50:BV:50:LEU:HA	50:BV:51:LYS:HE2	2.01	0.41
51:Bj:68:ARG:HH11	51:Bj:70:ARG:HH22	1.68	0.41
56:BH:17:PRO:O	56:BH:21:LEU:HB2	2.20	0.41
58:BP:47:VAL:HG21	58:BP:64:VAL:CG1	2.50	0.41
62:BN:18:THR:HB	62:BN:92:GLN:HA	2.02	0.41
63:Bg:13:LYS:CD	63:Bg:42:LYS:HZ1	2.33	0.41
67:B1:1457:C:H42	67:B1:1481:G:H1	1.67	0.41
67:B1:1991:G:N7	67:B1:2012:G:C5	2.88	0.41
10:AD:56:ARG:CD	18:AF:160:PRO:HG2	2.49	0.41
18:AF:85:VAL:CG1	18:AF:86:LEU:N	2.83	0.41
18:AF:126:ARG:HB3	18:AF:138:PRO:HB2	2.02	0.41
21:A2:1311:C:O2'	25:AH:95:SER:HB3	2.20	0.41
25:AH:87:ARG:NE	25:AH:90:HIS:CD2	2.88	0.41
35:BL:62:GLY:N	67:B1:2533:G:O3'	2.53	0.41
38:Bb:34:PHE:HD2	67:B1:1394:G:C6	2.38	0.41
38:Bb:34:PHE:HE2	67:B1:1394:G:N7	2.17	0.41
38:Bb:49:LYS:HG3	67:B1:654:C:OP2	2.20	0.41
43:Bk:56:ARG:HA	67:B1:1245:C:H5''	2.02	0.41
51:Bj:85:ARG:NH1	67:B1:2507:C:OP2	2.54	0.41
66:Bl:7:ARG:HE	66:Bl:22:THR:HG21	1.85	0.41
67:B1:934:G:C6	67:B1:935:A:C6	3.07	0.41
67:B1:1128:G:H1	67:B1:1300:C:H42	1.68	0.41
67:B1:1506:U:O2'	67:B1:1947:A:C2	2.66	0.41
67:B1:2190:A:N6	67:B1:2558:U:H3	2.14	0.41
67:B1:2962:A:C6	67:B1:2963:G:C8	3.09	0.41
2:AK:37:GLU:HB2	2:AK:38:PRO:HD3	2.02	0.41
15:AE:12:ARG:HH21	15:AE:26:TYR:HB2	1.85	0.41
21:A2:537:G:C6	21:A2:538:C:C4	3.08	0.41
21:A2:976:A:C8	21:A2:976:A:H3'	2.55	0.41
21:A2:1379:G:O6	21:A2:1437:G:C6	2.73	0.41
25:AH:8:ARG:O	25:AH:12:PRO:HD3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:AL:51:LYS:HB2	29:AL:60:THR:O	2.21	0.41
31:BY:27:ARG:C	31:BY:29:HIS:HE1	2.27	0.41
35:BL:6:LYS:HG3	67:B1:947:C:H42	1.85	0.41
41:Ba:30:ARG:HD2	41:Ba:30:ARG:HA	1.94	0.41
43:Bk:30:VAL:HG12	43:Bk:189:LEU:HD21	2.01	0.41
43:Bk:59:LEU:O	43:Bk:59:LEU:HD23	2.21	0.41
48:BR:55:ASP:HA	48:BR:56:PRO:HD2	1.90	0.41
51:Bj:33:LEU:CD1	51:Bj:33:LEU:O	2.67	0.41
20:BG:37:ASN:CB	59:BM:3:MET:HE2	2.41	0.41
20:B4:3:LYS:H	20:B4:7:VAL:HG23	1.85	0.41
67:B1:30:G:H2'	67:B1:31:G:H8	1.82	0.41
67:B1:173:G:H2'	67:B1:174:C:C6	2.55	0.41
67:B1:858:G:C6	67:B1:859:G:N1	2.88	0.41
67:B1:1575:G:C2'	67:B1:1575:G:C8	3.02	0.41
67:B1:1929:C:H2'	67:B1:1930:A:C5	2.54	0.41
67:B1:2107:G:C6	67:B1:2108:U:C4	3.08	0.41
4:AG:34:ILE:HG21	4:AG:76:PRO:HB3	2.02	0.41
4:AG:103:ARG:HH11	21:A2:329:G:C4'	2.06	0.41
18:AF:5:TRP:HB3	18:AF:57:VAL:CG2	2.51	0.41
18:AF:187:THR:O	18:AF:187:THR:HG23	2.20	0.41
21:A2:1490:C:C2	21:A2:1491:C:C6	3.09	0.41
36:Bf:7:LEU:HD23	36:Bf:7:LEU:C	2.45	0.41
38:Bb:29:TRP:HD1	67:B1:569:G:O2'	2.03	0.41
41:Ba:41:ARG:O	67:B1:3029:A:H4'	2.21	0.41
46:BA:135:VAL:HB	46:BA:136:PRO:CD	2.50	0.41
48:BR:85:THR:CG2	67:B1:2467:C:H4'	2.50	0.41
61:Bd:45:GLY:HA2	67:B1:1667:U:H4'	2.03	0.41
63:Bg:8:GLU:HB3	63:Bg:12:PHE:HB2	2.01	0.41
67:B1:12:C:H4'	67:B1:13:U:OP2	2.20	0.41
67:B1:817:G:O4'	67:B1:817:G:N9	2.41	0.41
67:B1:822:A:C6	67:B1:823:G:C6	3.08	0.41
67:B1:1215:C:H2'	67:B1:1216:A:H8	1.85	0.41
67:B1:1592:U:O4	67:B1:1714:G:O6	2.38	0.41
67:B1:1969:C:N4	67:B1:2099:G:H1	2.17	0.41
67:B1:2056:A:C2	67:B1:2093:A:C2	3.09	0.41
2:AK:50:ILE:HD11	25:AH:13:HIS:ND1	2.12	0.41
10:AD:136:ILE:C	28:AV:60:PHE:CZ	2.87	0.41
12:AN:111:PRO:HD3	21:A2:507:G:P	2.52	0.41
18:AF:84:ARG:HH12	21:A2:1031:G:H3'	1.83	0.41
18:AF:163:LEU:CD2	18:AF:163:LEU:C	2.94	0.41
21:A2:147:A:C5	21:A2:148:C:H1'	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:A2:788:C:H2'	21:A2:789:G:H8	1.85	0.41
21:A2:1251:C:OP1	25:AH:99:LYS:CD	2.68	0.41
21:A2:1444:G:C2'	21:A2:1445:A:H5''	2.49	0.41
21:A2:1489:A:C5	21:A2:1490:C:C6	3.08	0.41
25:AH:89:GLU:C	25:AH:94:ASN:H	2.29	0.41
35:BL:41:LYS:HB3	35:BL:43:ASN:O	2.21	0.41
35:BL:44:LYS:CB	35:BL:47:TRP:CE3	3.04	0.41
36:Bf:29:VAL:HG12	67:B1:92:G:C4'	2.45	0.41
36:Bf:50:LYS:HE2	39:Be:19:ARG:HG3	2.02	0.41
37:BU:44:LEU:HD12	37:BU:45:PRO:CD	2.51	0.41
49:BQ:123:LEU:CD1	49:BQ:142:LEU:HD22	2.50	0.41
50:BV:20:LYS:HD3	65:BJ:96:ARG:HB2	2.02	0.41
51:Bj:50:PHE:HE2	67:B1:238:C:OP2	2.02	0.41
51:Bj:82:ARG:HB2	67:B1:2538:G:C5'	2.49	0.41
61:Bd:30:LYS:HB3	67:B1:1712:U:OP1	2.20	0.41
67:B1:366:G:O4'	67:B1:366:G:C8	2.73	0.41
3:AI:4:LEU:CD1	21:A2:540:G:C5'	2.75	0.41
3:AI:99:PHE:CZ	18:AF:213:ILE:HG13	2.55	0.41
18:AF:96:VAL:CG2	18:AF:97:GLY:N	2.83	0.41
21:A2:1190:C:O4'	21:A2:1190:C:C6	2.74	0.41
21:A2:1196:A:OP1	25:AH:88:ARG:NE	2.52	0.41
21:A2:1228:A:C2	21:A2:1229:A:C2	3.08	0.41
21:A2:1276:G:C8	21:A2:1278:A:OP2	2.73	0.41
34:B5:34:LEU:HA	34:B5:47:ARG:HA	2.01	0.41
35:BL:24:LYS:NZ	67:B1:1080:G:H4'	2.34	0.41
35:BL:25:HIS:CG	67:B1:804:C:N4	2.89	0.41
36:Bf:26:TRP:CZ3	67:B1:92:G:C6	3.09	0.41
38:Bb:101:ARG:NH2	67:B1:1363:C:H1'	2.35	0.41
39:Be:59:LYS:HZ3	53:BD:55:ARG:NH2	2.08	0.41
43:Bk:31:SER:C	43:Bk:33:MET:H	2.27	0.41
51:Bj:1:MET:HE1	67:B1:2398:C:C3'	2.41	0.41
51:Bj:47:TYR:CD1	59:BM:82:PRO:HB2	2.56	0.41
51:Bj:52:ARG:NH1	67:B1:2548:A:N1	2.68	0.41
51:Bj:65:LEU:HB3	51:Bj:82:ARG:HB3	2.03	0.41
52:BB:9:ARG:HH22	67:B1:917:A:H61	1.68	0.41
20:BG:38:GLU:HA	20:BG:41:LYS:HD2	2.01	0.41
67:B1:1229:U:O4'	67:B1:1229:U:N1	2.43	0.41
68:B3:45:C:C2'	68:B3:46:G:H5'	2.50	0.41
68:B3:118:G:N2	68:B3:126:C:H42	2.18	0.41
1:AQ:15:LYS:HB2	3:AI:57:ARG:HH11	1.82	0.41
3:AI:76:LYS:CG	21:A2:836:G:P	3.07	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AG:78:ILE:HG12	21:A2:1413:G:O2'	2.21	0.41
9:A9:15:UNK:CB	18:AF:122:ILE:HD12	2.51	0.41
12:AN:63:LYS:HG3	12:AN:64:GLN:H	1.85	0.41
12:AN:108:ILE:HA	21:A2:505:U:H4'	2.02	0.41
13:AX:61:GLU:HG3	14:AM:107:ARG:CG	2.50	0.41
18:AF:161:ARG:HH11	18:AF:161:ARG:HD3	1.73	0.41
21:A2:72:C:O2	21:A2:72:C:H2'	2.21	0.41
21:A2:530:G:H1'	21:A2:770:A:H2'	2.03	0.41
21:A2:779:G:H2'	21:A2:780:C:C6	2.56	0.41
21:A2:1307:G:N1	25:AH:48:HIS:CE1	2.64	0.41
21:A2:1329:C:H2'	21:A2:1330:G:C8	2.56	0.41
25:AH:15:ILE:HD13	25:AH:42:ARG:NH1	2.36	0.41
25:AH:80:LYS:CA	25:AH:86:MET:H	2.34	0.41
28:AV:33:ARG:HD3	28:AV:56:ILE:HB	2.01	0.41
31:BY:114:LYS:CE	67:B1:1325:A:N6	2.74	0.41
35:BL:48:THR:HG23	67:B1:968:A:O2'	2.21	0.41
41:Ba:24:ARG:HB3	41:Ba:24:ARG:NH1	2.35	0.41
43:Bk:24:VAL:HG21	43:Bk:94:MET:O	2.21	0.41
43:Bk:59:LEU:HD22	43:Bk:83:ILE:HD12	2.02	0.41
45:Bi:62:THR:HG23	52:BB:48:ILE:HD11	2.03	0.41
20:BG:40:THR:HG21	59:BM:3:MET:CA	2.43	0.41
56:BH:70:VAL:HA	56:BH:72:PRO:HD3	2.02	0.41
60:BS:116:HIS:HB3	60:BS:149:VAL:HG13	2.03	0.41
61:Bd:54:MET:HG3	67:B1:1728:C:O2'	2.20	0.41
63:Bg:36:TYR:CE2	67:B1:1172:U:OP1	2.74	0.41
67:B1:979:G:H1	67:B1:1072:U:H3	1.68	0.41
67:B1:2811:U:H2'	67:B1:2812:U:H6	1.85	0.41
3:AI:28:LYS:HZ1	21:A2:780:C:H5''	1.86	0.41
11:A1:7:G:O6	11:A1:50:G:C6	2.73	0.41
16:AJ:19:LEU:HD12	16:AJ:19:LEU:HA	1.98	0.41
18:AF:81:VAL:O	18:AF:81:VAL:HG13	2.20	0.41
26:AP:56:GLU:OXT	29:AL:63:ARG:NH1	2.54	0.41
31:BY:30:ARG:NH2	67:B1:1297:C:OP2	2.54	0.41
35:BL:7:LYS:HA	35:BL:9:ARG:NH1	2.36	0.41
36:Bf:44:TRP:CG	36:Bf:45:ARG:N	2.88	0.41
38:Bb:126:LEU:CD2	67:B1:583:A:O3'	2.69	0.41
39:Be:50:ARG:CD	67:B1:198:C:OP2	2.57	0.41
48:BR:59:HIS:ND1	67:B1:993:G:O2'	2.53	0.41
57:BZ:79:VAL:HG12	57:BZ:80:VAL:H	1.85	0.41
61:Bd:46:ILE:HG23	61:Bd:47:PRO:HD2	2.03	0.41
63:Bg:8:GLU:HB3	63:Bg:12:PHE:CB	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:43:G:C6	67:B1:44:C:C2	3.09	0.41
67:B1:688:G:O4'	67:B1:688:G:N9	2.43	0.41
67:B1:1029:C:C5	67:B1:1030:C:C5	3.09	0.41
67:B1:1273:C:O4'	67:B1:1273:C:C6	2.74	0.41
67:B1:1639:G:O6	67:B1:1663:C:N3	2.54	0.41
67:B1:1707:A:C6	67:B1:1783:U:C4	3.09	0.41
67:B1:2471:A:C6	67:B1:2476:A:H2'	2.56	0.41
3:AI:97:PHE:CD1	18:AF:131:TRP:CD1	3.09	0.41
10:AD:93:LEU:O	18:AF:162:GLY:HA3	2.21	0.41
10:AD:116:ARG:HE	10:AD:170:MET:HB3	1.86	0.41
14:AM:123:HIS:HA	21:A2:672:G:C8	2.55	0.41
16:AJ:4:TRP:HE1	16:AJ:29:GLY:HA3	1.86	0.41
18:AF:46:GLU:HB2	18:AF:49:ILE:CD1	2.51	0.41
18:AF:140:SER:HB3	18:AF:141:VAL:H	1.60	0.41
21:A2:6:G:C6	21:A2:19:G:C6	3.09	0.41
21:A2:1493:C:H3'	21:A2:1494:C:C6	2.56	0.41
24:AA:24:PRO:HA	24:AA:27:PHE:O	2.20	0.41
27:A0:41:C:O4'	27:A0:41:C:C6	2.73	0.41
35:BL:42:ARG:HG2	67:B1:2546:G:C8	2.56	0.41
35:BL:47:TRP:HZ3	67:B1:967:G:H21	1.68	0.41
36:Bf:50:LYS:HE2	39:Be:19:ARG:CG	2.51	0.41
38:Bb:34:PHE:CD2	67:B1:1394:G:C5	3.09	0.41
38:Bb:40:TRP:CZ2	38:Bb:42:ARG:HA	2.56	0.41
41:Ba:46:GLN:H	41:Ba:86:THR:HB	1.85	0.41
43:Bk:38:LEU:HG	43:Bk:42:ARG:HE	1.86	0.41
43:Bk:119:PRO:HD2	43:Bk:185:LEU:HD22	2.02	0.41
43:Bk:143:MET:HE3	43:Bk:173:LEU:HD12	2.03	0.41
49:BQ:115:ILE:HB	49:BQ:120:TYR:CZ	2.56	0.41
51:Bj:47:TYR:OH	67:B1:2203:G:O4'	2.39	0.41
51:Bj:84:PHE:CD2	51:Bj:84:PHE:C	2.99	0.41
20:BG:6:TYR:CZ	20:BG:63:VAL:HG12	2.55	0.41
56:BH:18:GLY:HA3	56:BH:19:PRO:HD2	1.64	0.41
60:BS:91:ILE:HD12	60:BS:91:ILE:HA	1.99	0.41
61:Bd:5:TYR:CZ	67:B1:1524:A:C6	3.09	0.41
64:Bc:10:TYR:HA	64:Bc:22:MET:HA	2.03	0.41
67:B1:257:G:C6	67:B1:258:C:C5	3.09	0.41
67:B1:522:A:H61	67:B1:536:G:H1'	1.85	0.41
67:B1:680:U:H2'	67:B1:681:C:C6	2.56	0.41
67:B1:691:G:H1	67:B1:790:U:H3	1.69	0.41
67:B1:1025:A:H4'	67:B1:1026:A:C8	2.56	0.41
67:B1:1277:G:H21	67:B1:1282:A:H2	1.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
67:B1:1473:C:O4'	67:B1:1473:C:C6	2.74	0.41
67:B1:1712:U:H2'	67:B1:1713:G:OP2	2.20	0.41
67:B1:2194:A:H2'	67:B1:2195:G:H8	1.85	0.41
67:B1:2463:G:C6	67:B1:2464:G:C6	3.09	0.41
67:B1:2846:A:H2'	67:B1:2847:G:O4'	2.21	0.41
4:AG:34:ILE:HD13	4:AG:76:PRO:HB3	2.03	0.41
21:A2:42:G:H4'	21:A2:43:A:OP2	2.21	0.41
21:A2:1466:G:C5	55:Bh:3:TRP:CH2	2.79	0.41
25:AH:45:PRO:HG2	25:AH:101:TYR:CD1	2.56	0.41
25:AH:64:VAL:HG13	25:AH:104:VAL:HG11	2.02	0.41
27:A0:11:C:O4'	27:A0:11:C:C6	2.74	0.41
36:Bf:49:LEU:HA	36:Bf:49:LEU:HD23	1.84	0.41
39:Be:4:GLY:HA2	67:B1:887:U:C3'	2.51	0.41
39:Be:56:LYS:HE3	53:BD:55:ARG:HA	2.03	0.41
43:Bk:55:SER:OG	43:Bk:58:THR:HG23	2.21	0.41
43:Bk:107:ARG:HH12	43:Bk:186:GLU:HB3	1.85	0.41
49:BQ:88:ARG:HD3	67:B1:1789:A:H5'	2.03	0.41
20:BG:2:ALA:O	20:BG:3:LYS:O	2.39	0.41
59:BM:41:ARG:HB3	67:B1:292:U:O2	2.21	0.41
61:Bd:5:TYR:H	67:B1:1524:A:H2	1.66	0.41
62:BN:19:ARG:NH1	67:B1:1045:A:C2	2.89	0.41
67:B1:1202:G:H1	67:B1:1214:C:H42	1.69	0.41
67:B1:1222:U:O2	67:B1:1225:A:C6	2.74	0.41
67:B1:1608:G:C5	67:B1:1609:G:N7	2.89	0.41
67:B1:1827:A:H61	67:B1:1835:A:N6	2.10	0.41
67:B1:1887:A:H2'	67:B1:1888:G:H8	1.86	0.41
67:B1:2036:A:C2	67:B1:2043:A:C5	3.09	0.41
67:B1:2953:U:H3	67:B1:2969:G:H1	1.67	0.41
2:AK:46:LEU:HD21	25:AH:13:HIS:CE1	2.33	0.40
3:AI:2:THR:CG2	21:A2:709:G:N3	2.82	0.40
12:AN:33:ARG:NH1	21:A2:509:C:OP2	2.55	0.40
12:AN:110:GLY:H	21:A2:506:G:P	2.44	0.40
18:AF:16:TRP:O	18:AF:27:LYS:HE2	2.21	0.40
18:AF:91:ASN:C	18:AF:93:ASP:N	2.79	0.40
21:A2:896:A:H2'	21:A2:897:A:O4'	2.21	0.40
21:A2:1179:C:O4'	21:A2:1179:C:N1	2.44	0.40
21:A2:1299:A:H2'	21:A2:1300:A:O4'	2.22	0.40
21:A2:1332:C:C3'	25:AH:98:VAL:HG22	2.52	0.40
25:AH:65:GLU:HG2	25:AH:97:LYS:NZ	2.36	0.40
25:AH:179:SER:O	25:AH:182:GLU:HB2	2.22	0.40
29:AL:77:ALA:HB1	29:AL:81:ALA:HB3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BC:41:PHE:CG	33:BC:212:VAL:HG11	2.56	0.40
35:BL:6:LYS:HZ3	67:B1:1339:C:N4	2.16	0.40
35:BL:10:LYS:CE	67:B1:946:U:C2	3.05	0.40
35:BL:62:GLY:CA	67:B1:2533:G:H4'	2.46	0.40
39:Be:15:PRO:C	67:B1:819:U:N3	2.75	0.40
40:BE:134:ILE:HD13	40:BE:134:ILE:HG21	1.86	0.40
43:Bk:39:SER:CA	43:Bk:42:ARG:HD2	2.51	0.40
48:BR:11:LYS:HE2	48:BR:11:LYS:O	2.21	0.40
66:Bl:49:ARG:HA	66:Bl:52:ILE:HG22	2.02	0.40
67:B1:474:G:N3	67:B1:475:U:O4	2.54	0.40
67:B1:907:C:H2'	67:B1:908:U:C6	2.56	0.40
67:B1:1037:C:C6	67:B1:1037:C:H2'	2.56	0.40
67:B1:2887:C:N4	67:B1:2888:G:C6	2.90	0.40
68:B3:1:C:OP1	68:B3:117:G:C2	2.74	0.40
6:AC:32:GLY:H	6:AC:47:PHE:HB2	1.84	0.40
12:AN:87:PHE:CD1	12:AN:116:MET:HE1	2.55	0.40
13:AX:62:ARG:HD3	13:AX:62:ARG:HA	1.91	0.40
18:AF:213:ILE:HG12	18:AF:214:SER:N	2.36	0.40
21:A2:263:C:H2'	21:A2:264:C:H6	1.83	0.40
21:A2:948:G:N2	21:A2:1177:C:C2	2.89	0.40
35:BL:6:LYS:HD3	67:B1:1339:C:H41	1.78	0.40
36:Bf:18:LYS:O	67:B1:64:A:C5'	2.70	0.40
37:BU:44:LEU:HD12	37:BU:45:PRO:HD2	2.03	0.40
39:Be:21:ARG:HB3	67:B1:115:C:O2'	2.21	0.40
41:Ba:30:ARG:NH1	67:B1:1809:G:O5'	2.53	0.40
43:Bk:76:LEU:HD22	43:Bk:76:LEU:N	2.36	0.40
45:Bi:43:ARG:NE	57:BZ:79:VAL:CG1	2.83	0.40
51:Bj:82:ARG:CG	67:B1:2538:G:H5'	2.51	0.40
56:BH:114:MET:O	56:BH:115:LEU:HD12	2.20	0.40
57:BZ:70:LEU:HD22	57:BZ:81:ALA:HB3	2.03	0.40
61:Bd:11:ARG:HG2	67:B1:1710:C:C4'	2.51	0.40
20:B4:1:MET:HE1	20:B4:36:THR:HG23	2.03	0.40
67:B1:31:G:H1	67:B1:513:C:H42	1.68	0.40
67:B1:874:U:O4'	67:B1:874:U:C6	2.74	0.40
67:B1:1065:C:H2'	67:B1:1066:C:C6	2.55	0.40
67:B1:1569:A:O2'	67:B1:1569:A:C3'	2.54	0.40
67:B1:1653:U:O2	67:B1:1715:G:H4'	2.21	0.40
67:B1:1909:C:O4'	67:B1:1909:C:C6	2.74	0.40
67:B1:2902:G:C8	67:B1:2903:U:C5	3.09	0.40
4:AG:99:LYS:HD3	21:A2:319:U:H2'	2.03	0.40
10:AD:162:ASN:HB2	10:AD:165:HIS:CE1	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:A1:60:A:C6	11:A1:61:U:O2	2.74	0.40
11:A1:76:C:N4	51:Bj:56:GLU:CG	2.85	0.40
11:A1:76:C:H2'	51:Bj:54:LYS:HD2	2.04	0.40
18:AF:22:LEU:O	18:AF:26:VAL:HG23	2.22	0.40
18:AF:170:VAL:CG1	18:AF:171:GLY:N	2.83	0.40
21:A2:950:C:H3'	21:A2:951:G:H5''	2.03	0.40
25:AH:111:ILE:HD11	25:AH:122:VAL:HG11	2.03	0.40
33:BC:114:ARG:HH21	33:BC:117:LYS:H	1.70	0.40
35:BL:47:TRP:CD2	35:BL:47:TRP:C	2.99	0.40
37:BU:46:VAL:H	37:BU:46:VAL:HG23	1.67	0.40
38:Bb:25:ARG:HB2	38:Bb:41:ARG:H	1.86	0.40
38:Bb:79:TYR:HB3	38:Bb:80:GLU:H	1.73	0.40
45:Bi:16:ARG:HH22	67:B1:863:C:H5'	1.85	0.40
45:Bi:45:ALA:HB3	45:Bi:56:CYS:SG	2.61	0.40
47:BI:123:LEU:HD11	54:BF:41:TRP:O	2.21	0.40
48:BR:69:ARG:HH21	48:BR:87:PHE:CB	2.33	0.40
51:Bj:46:GLY:HA3	59:BM:83:SER:N	2.36	0.40
53:BD:85:PHE:HB3	67:B1:1396:A:N6	2.35	0.40
54:BF:166:ARG:HH22	63:Bg:45:GLU:HG2	1.66	0.40
67:B1:362:A:H1'	67:B1:379:U:O2	2.21	0.40
67:B1:697:U:H3	67:B1:718:G:H1	1.70	0.40
67:B1:1148:C:H2'	67:B1:1149:C:C6	2.57	0.40
67:B1:1242:A:H3'	67:B1:1243:C:C5'	2.51	0.40
67:B1:1260:C:H2'	67:B1:1261:C:H6	1.87	0.40
67:B1:1954:U:C5	67:B1:1956:G:C4	3.09	0.40
67:B1:2520:C:O4'	67:B1:2520:C:C6	2.74	0.40
67:B1:2642:C:O4'	67:B1:2642:C:C6	2.74	0.40
68:B3:87:G:H1'	68:B3:90:A:H61	1.86	0.40
11:A1:16:C:H4'	11:A1:61:U:H1'	2.03	0.40
21:A2:29:G:H2'	21:A2:30:C:C6	2.57	0.40
21:A2:194:C:O2'	21:A2:195:C:H5'	2.20	0.40
21:A2:428:G:N1	21:A2:442:C:N4	2.49	0.40
21:A2:438:A:H2'	21:A2:439:G:OP1	2.21	0.40
21:A2:530:G:O6	21:A2:719:G:C2	2.74	0.40
21:A2:537:G:H2'	21:A2:538:C:C6	2.56	0.40
21:A2:547:U:C4	21:A2:548:A:C6	3.09	0.40
21:A2:1252:C:H2'	21:A2:1253:G:C8	2.56	0.40
28:AV:81:ILE:O	28:AV:81:ILE:HD12	2.21	0.40
35:BL:44:LYS:CE	35:BL:47:TRP:CG	3.02	0.40
38:Bb:102:ILE:HD13	38:Bb:102:ILE:HG21	1.90	0.40
39:Be:4:GLY:CA	67:B1:887:U:C2'	2.98	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:BR:29:THR:HG21	68:B3:7:C:OP1	2.22	0.40
50:BV:48:ARG:HB3	50:BV:56:TYR:CZ	2.56	0.40
51:Bj:52:ARG:CB	67:B1:2548:A:N1	2.85	0.40
20:BG:59:PRO:HG3	59:BM:43:THR:C	2.46	0.40
61:Bd:33:ILE:HG13	67:B1:1668:G:C2	2.57	0.40
63:Bg:44:LYS:CG	63:Bg:45:GLU:H	2.33	0.40
67:B1:773:U:H2'	67:B1:774:G:C8	2.57	0.40
67:B1:1215:C:H2'	67:B1:1216:A:C8	2.56	0.40
67:B1:1703:G:C6	67:B1:1704:C:C4	3.10	0.40
2:AK:43:PHE:CD2	25:AH:12:PRO:HG3	2.56	0.40
4:AG:87:LEU:HD21	4:AG:102:ARG:NE	2.37	0.40
6:AC:69:LEU:CD2	6:AC:73:PHE:CE1	3.04	0.40
18:AF:5:TRP:CG	18:AF:6:LYS:N	2.90	0.40
18:AF:71:THR:HB	21:A2:1032:A:O3'	2.21	0.40
21:A2:182:A:H2'	21:A2:183:A:C8	2.56	0.40
21:A2:541:G:C4	21:A2:707:A:C6	3.10	0.40
21:A2:910:G:C6	21:A2:911:C:C4	3.10	0.40
25:AH:16:LYS:HB3	25:AH:21:TRP:N	2.34	0.40
34:B5:3:ALA:N	57:BZ:27:ALA:C	2.66	0.40
35:BL:6:LYS:CE	67:B1:1339:C:H41	2.34	0.40
35:BL:44:LYS:CG	67:B1:961:C:O4'	2.40	0.40
35:BL:65:ARG:HD3	35:BL:70:GLN:HG2	2.03	0.40
39:Be:4:GLY:HA2	67:B1:887:U:H3'	2.04	0.40
41:Ba:19:LYS:HE2	41:Ba:19:LYS:HB3	1.97	0.40
41:Ba:20:LYS:CG	67:B1:1811:G:C8	3.02	0.40
45:Bi:68:TYR:HE2	52:BB:170:LYS:CB	2.06	0.40
53:BD:85:PHE:HB2	67:B1:1396:A:N6	2.37	0.40
56:BH:39:ILE:O	56:BH:43:THR:HG22	2.22	0.40
20:B4:52:ILE:HD11	20:B4:80:VAL:CG2	2.52	0.40
64:Bc:22:MET:SD	64:Bc:24:ILE:HD11	2.62	0.40
64:Bc:58:VAL:HG12	64:Bc:58:VAL:O	2.21	0.40
67:B1:84:A:C2	67:B1:102:A:C2	3.10	0.40
67:B1:499:A:C2	67:B1:509:A:C4	3.10	0.40
67:B1:610:C:O4'	67:B1:610:C:C6	2.75	0.40
67:B1:1087:G:N2	67:B1:1103:C:H1'	2.37	0.40
67:B1:1198:G:H2'	67:B1:1199:U:C6	2.57	0.40
67:B1:1281:A:N1	67:B1:1283:G:H1'	2.37	0.40
67:B1:1306:A:C2	67:B1:1324:G:C2	3.09	0.40
67:B1:1754:A:C8	67:B1:1754:A:H2'	2.56	0.40
67:B1:2671:C:O4'	67:B1:2671:C:C6	2.74	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	AQ	156/158 (99%)	139 (89%)	8 (5%)	9 (6%)	1	13
2	AK	133/135 (98%)	119 (90%)	12 (9%)	2 (2%)	8	40
3	AI	127/130 (98%)	121 (95%)	4 (3%)	2 (2%)	7	38
4	AG	123/125 (98%)	103 (84%)	11 (9%)	9 (7%)	1	10
5	AW	61/63 (97%)	55 (90%)	4 (7%)	2 (3%)	3	21
6	AC	184/210 (88%)	175 (95%)	6 (3%)	3 (2%)	7	38
7	AB	200/202 (99%)	177 (88%)	19 (10%)	4 (2%)	6	31
8	AR	111/113 (98%)	100 (90%)	9 (8%)	2 (2%)	6	34
10	AD	170/180 (94%)	151 (89%)	14 (8%)	5 (3%)	3	23
12	AN	143/147 (97%)	129 (90%)	8 (6%)	6 (4%)	2	17
13	AX	69/71 (97%)	59 (86%)	4 (6%)	6 (9%)	0	9
14	AM	131/137 (96%)	118 (90%)	8 (6%)	5 (4%)	2	19
15	AE	239/243 (98%)	210 (88%)	23 (10%)	6 (2%)	4	26
16	AJ	125/127 (98%)	101 (81%)	18 (14%)	6 (5%)	2	16
17	AO	146/148 (99%)	122 (84%)	15 (10%)	9 (6%)	1	12
18	AF	215/236 (91%)	191 (89%)	22 (10%)	2 (1%)	14	51
19	AS	65/67 (97%)	64 (98%)	0	1 (2%)	8	40
20	A3	121/123 (98%)	105 (87%)	8 (7%)	8 (7%)	1	12
20	B4	121/123 (98%)	113 (93%)	6 (5%)	2 (2%)	7	36
20	BG	121/123 (98%)	109 (90%)	8 (7%)	4 (3%)	3	21
22	AY	48/50 (96%)	43 (90%)	3 (6%)	2 (4%)	2	17
23	AT	109/132 (83%)	98 (90%)	9 (8%)	2 (2%)	6	34
24	AA	188/198 (95%)	170 (90%)	12 (6%)	6 (3%)	3	21
25	AH	213/215 (99%)	181 (85%)	14 (7%)	18 (8%)	0	9
26	AP	54/56 (96%)	43 (80%)	8 (15%)	3 (6%)	1	14

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
28	AV	97/99 (98%)	86 (89%)	6 (6%)	5 (5%)	1	15
28	B6	92/99 (93%)	84 (91%)	4 (4%)	4 (4%)	2	17
29	AL	100/102 (98%)	92 (92%)	1 (1%)	7 (7%)	1	11
30	AU	142/150 (95%)	134 (94%)	5 (4%)	3 (2%)	5	30
31	BY	153/155 (99%)	143 (94%)	5 (3%)	5 (3%)	3	21
32	BO	195/203 (96%)	164 (84%)	17 (9%)	14 (7%)	1	11
33	BC	363/365 (100%)	303 (84%)	34 (9%)	26 (7%)	1	11
34	B5	79/83 (95%)	69 (87%)	5 (6%)	5 (6%)	1	12
34	BK	79/83 (95%)	68 (86%)	6 (8%)	5 (6%)	1	12
35	BL	145/147 (99%)	128 (88%)	8 (6%)	9 (6%)	1	12
36	Bf	49/51 (96%)	37 (76%)	8 (16%)	4 (8%)	0	9
37	BU	119/121 (98%)	113 (95%)	3 (2%)	3 (2%)	4	26
38	Bb	125/130 (96%)	102 (82%)	13 (10%)	10 (8%)	1	9
39	Be	60/62 (97%)	45 (75%)	11 (18%)	4 (7%)	1	12
40	BE	184/186 (99%)	170 (92%)	8 (4%)	6 (3%)	3	21
41	Ba	88/95 (93%)	74 (84%)	7 (8%)	7 (8%)	1	9
42	BT	82/86 (95%)	78 (95%)	3 (4%)	1 (1%)	10	44
43	Bk	210/339 (62%)	187 (89%)	12 (6%)	11 (5%)	1	15
44	BW	70/72 (97%)	70 (100%)	0	0	100	100
45	Bi	76/83 (92%)	70 (92%)	6 (8%)	0	100	100
46	BA	214/216 (99%)	190 (89%)	12 (6%)	12 (6%)	1	14
47	BI	140/142 (99%)	129 (92%)	7 (5%)	4 (3%)	3	23
48	BR	93/97 (96%)	85 (91%)	6 (6%)	2 (2%)	5	29
49	BQ	148/150 (99%)	141 (95%)	4 (3%)	3 (2%)	6	31
50	BV	64/66 (97%)	63 (98%)	1 (2%)	0	100	100
51	Bj	92/94 (98%)	71 (77%)	8 (9%)	13 (14%)	0	3
52	BB	237/239 (99%)	213 (90%)	17 (7%)	7 (3%)	3	22
53	BD	253/255 (99%)	218 (86%)	21 (8%)	14 (6%)	1	14
54	BF	182/184 (99%)	169 (93%)	13 (7%)	0	100	100
55	Bh	22/24 (92%)	21 (96%)	1 (4%)	0	100	100
56	BH	132/164 (80%)	108 (82%)	14 (11%)	10 (8%)	1	10

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
57	BZ	97/99 (98%)	84 (87%)	7 (7%)	6 (6%)	1	12
58	BP	118/120 (98%)	102 (86%)	13 (11%)	3 (2%)	4	26
59	BM	192/194 (99%)	173 (90%)	17 (9%)	2 (1%)	12	48
60	BS	148/155 (96%)	137 (93%)	8 (5%)	3 (2%)	6	31
61	Bd	87/89 (98%)	78 (90%)	6 (7%)	3 (3%)	3	21
62	BN	166/181 (92%)	137 (82%)	20 (12%)	9 (5%)	1	14
63	Bg	43/51 (84%)	31 (72%)	3 (7%)	9 (21%)	0	2
64	Bc	85/87 (98%)	74 (87%)	7 (8%)	4 (5%)	2	16
65	BJ	130/141 (92%)	124 (95%)	4 (3%)	2 (2%)	8	40
66	Bl	75/77 (97%)	69 (92%)	4 (5%)	2 (3%)	4	25
All	All	8599/9048 (95%)	7630 (89%)	608 (7%)	361 (4%)	3	17

All (361) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	AQ	78	ILE
2	AK	133	SER
3	AI	121	ILE
4	AG	48	ASN
4	AG	50	LEU
4	AG	56	PRO
5	AW	2	ALA
7	AB	7	VAL
8	AR	16	CYS
10	AD	163	PRO
10	AD	174	ALA
12	AN	36	ARG
12	AN	43	PRO
12	AN	44	LEU
12	AN	120	PRO
13	AX	4	ASP
14	AM	132	ARG
17	AO	20	GLN
17	AO	113	ARG
17	AO	129	GLN
18	AF	132	GLU
19	AS	6	GLN
20	A3	122	MET

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Mol	Chain	Res	Type
24	AA	193	GLU
24	AA	194	PRO
25	AH	46	HIS
25	AH	47	THR
25	AH	48	HIS
25	AH	49	GLY
25	AH	50	ARG
25	AH	78	HIS
25	AH	89	GLU
25	AH	175	ARG
28	AV	55	TYR
28	AV	95	LYS
28	AV	98	GLY
29	AL	30	THR
29	AL	91	PRO
29	AL	92	GLU
30	AU	35	VAL
30	AU	93	ALA
31	BY	110	LEU
31	BY	112	ASN
31	BY	129	SER
32	BO	56	ASP
32	BO	109	HIS
32	BO	157	LYS
32	BO	193	ILE
33	BC	110	PRO
33	BC	112	LYS
33	BC	125	TYR
33	BC	126	LYS
33	BC	138	ASN
33	BC	292	ASN
34	B5	17	ARG
34	B5	50	ILE
35	BL	9	ARG
35	BL	11	LEU
35	BL	47	TRP
35	BL	64	SER
36	Bf	37	THR
38	Bb	21	PRO
38	Bb	26	GLN
38	Bb	36	ASN
38	Bb	39	LYS

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Mol	Chain	Res	Type
38	Bb	58	PRO
38	Bb	75	HIS
38	Bb	126	LEU
38	Bb	128	PRO
39	Be	52	SER
40	BE	18	HIS
41	Ba	48	VAL
41	Ba	80	LYS
43	Bk	61	GLU
43	Bk	107	ARG
43	Bk	109	PRO
43	Bk	110	ALA
46	BA	160	ASN
47	BI	60	ASN
34	BK	17	ARG
34	BK	50	ILE
49	BQ	2	ASN
51	Bj	25	VAL
51	Bj	31	SER
51	Bj	33	LEU
51	Bj	52	ARG
51	Bj	53	PRO
51	Bj	54	LYS
51	Bj	55	PRO
51	Bj	61	PRO
52	BB	39	LYS
53	BD	75	THR
53	BD	92	THR
53	BD	101	ILE
56	BH	2	PRO
56	BH	12	GLY
56	BH	47	ALA
56	BH	60	VAL
56	BH	71	PRO
57	BZ	79	VAL
28	B6	55	TYR
62	BN	10	ARG
62	BN	19	ARG
63	Bg	34	CYS
63	Bg	36	TYR
63	Bg	44	LYS
63	Bg	45	GLU

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Mol	Chain	Res	Type
64	Bc	58	VAL
1	AQ	114	LYS
4	AG	43	LEU
4	AG	54	GLU
4	AG	102	ARG
6	AC	152	ALA
8	AR	22	PRO
10	AD	175	LYS
12	AN	90	GLY
14	AM	55	PRO
15	AE	150	VAL
15	AE	160	THR
15	AE	193	VAL
20	A3	95	ALA
20	A3	96	ALA
22	AY	5	TRP
23	AT	56	LYS
24	AA	45	ASN
25	AH	77	SER
25	AH	82	ALA
25	AH	90	HIS
25	AH	138	SER
25	AH	178	MET
25	AH	179	SER
26	AP	12	ARG
29	AL	51	LYS
29	AL	88	ILE
31	BY	73	ARG
32	BO	5	PRO
32	BO	136	GLU
32	BO	172	LEU
32	BO	179	GLU
33	BC	56	ASP
33	BC	108	ASN
33	BC	111	ALA
33	BC	173	VAL
33	BC	245	LYS
33	BC	250	ARG
33	BC	304	GLU
34	B5	69	GLU
35	BL	55	PRO
36	Bf	34	ARG

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Mol	Chain	Res	Type
39	Be	3	SER
41	Ba	81	ARG
41	Ba	86	THR
43	Bk	71	LEU
43	Bk	80	ILE
46	BA	127	PRO
47	BI	117	GLU
48	BR	38	GLY
34	BK	69	GLU
51	Bj	42	ARG
51	Bj	58	ARG
52	BB	35	TYR
20	BG	3	LYS
20	BG	4	PRO
20	BG	5	SER
53	BD	189	ARG
56	BH	5	VAL
56	BH	25	ILE
56	BH	33	LYS
57	BZ	57	ASP
57	BZ	90	GLU
28	B6	63	TYR
59	BM	82	PRO
61	Bd	57	LEU
63	Bg	5	PRO
63	Bg	9	ALA
63	Bg	42	LYS
65	BJ	33	SER
1	AQ	7	ARG
1	AQ	71	ASN
1	AQ	72	PRO
3	AI	112	SER
6	AC	31	GLY
6	AC	58	GLY
7	AB	23	GLN
10	AD	84	PRO
13	AX	19	GLY
13	AX	35	ARG
13	AX	62	ARG
16	AJ	4	TRP
16	AJ	82	GLU
16	AJ	105	ILE

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Mol	Chain	Res	Type
17	AO	83	LYS
17	AO	137	ARG
18	AF	165	LEU
20	A3	106	LYS
23	AT	20	SER
26	AP	7	ASN
28	AV	97	GLU
30	AU	117	LYS
33	BC	63	GLY
33	BC	122	MET
33	BC	319	SER
37	BU	74	TYR
37	BU	88	GLY
37	BU	106	ASN
40	BE	123	ILE
40	BE	128	TYR
41	Ba	79	GLU
41	Ba	85	GLU
42	BT	48	ASN
43	Bk	72	GLY
46	BA	19	ALA
46	BA	97	ALA
46	BA	159	ASN
47	BI	84	PRO
49	BQ	4	LEU
51	Bj	34	SER
52	BB	173	VAL
20	BG	103	GLU
53	BD	45	PRO
53	BD	65	HIS
53	BD	68	ALA
53	BD	84	PRO
53	BD	193	LYS
53	BD	205	GLU
56	BH	70	VAL
56	BH	72	PRO
57	BZ	78	PHE
28	B6	26	PRO
59	BM	135	PRO
60	BS	84	PRO
61	Bd	58	PRO
62	BN	163	ARG

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Mol	Chain	Res	Type
62	BN	169	GLY
20	B4	3	LYS
20	B4	103	GLU
64	Bc	65	GLY
1	AQ	150	PRO
4	AG	46	ASN
4	AG	60	LYS
7	AB	38	ASP
10	AD	164	GLN
15	AE	236	ASP
15	AE	237	LYS
17	AO	143	VAL
20	A3	74	GLU
22	AY	23	PRO
24	AA	129	ILE
26	AP	8	LYS
28	AV	73	ASP
32	BO	160	ASP
33	BC	114	ARG
33	BC	116	GLY
33	BC	190	THR
33	BC	306	THR
35	BL	45	SER
35	BL	97	GLU
36	Bf	50	LYS
38	Bb	66	SER
46	BA	45	ARG
46	BA	140	THR
46	BA	151	LYS
51	Bj	62	VAL
52	BB	31	ILE
52	BB	187	LYS
53	BD	58	THR
57	BZ	42	PRO
58	BP	56	ALA
58	BP	71	ALA
60	BS	69	SER
62	BN	82	TYR
62	BN	102	GLY
62	BN	103	ARG
64	Bc	75	LEU
66	Bl	4	LYS

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Mol	Chain	Res	Type
1	AQ	62	SER
1	AQ	112	HIS
2	AK	23	LYS
5	AW	6	ILE
13	AX	69	SER
14	AM	25	ASN
14	AM	85	ALA
15	AE	79	LYS
16	AJ	114	PRO
20	A3	56	ASP
20	A3	103	GLU
24	AA	52	LEU
25	AH	85	PHE
25	AH	93	LEU
29	AL	90	VAL
31	BY	89	LEU
33	BC	34	THR
33	BC	119	LYS
33	BC	162	ASP
34	B5	4	ILE
38	Bb	125	VAL
40	BE	120	HIS
40	BE	121	ILE
41	Ba	46	GLN
43	Bk	36	TYR
43	Bk	74	PRO
46	BA	81	VAL
34	BK	4	ILE
49	BQ	134	ASN
51	Bj	60	LYS
53	BD	77	PRO
60	BS	57	LEU
61	Bd	22	VAL
62	BN	107	ARG
64	Bc	9	SER
66	Bl	28	ILE
12	AN	145	PRO
13	AX	3	GLU
17	AO	74	ILE
17	AO	125	PRO
20	A3	58	ASP
25	AH	88	ARG

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Mol	Chain	Res	Type
32	BO	147	GLU
32	BO	174	LYS
32	BO	180	LYS
32	BO	192	ILE
33	BC	57	GLU
33	BC	137	LYS
34	B5	80	ILE
35	BL	26	ARG
35	BL	88	LEU
36	Bf	23	VAL
39	Be	15	PRO
40	BE	3	VAL
34	BK	80	ILE
53	BD	50	PRO
63	Bg	32	ARG
4	AG	55	PHE
14	AM	128	PRO
16	AJ	65	VAL
24	AA	24	PRO
32	BO	139	PRO
47	BI	104	PRO
48	BR	54	PRO
52	BB	212	GLY
28	B6	83	PRO
62	BN	114	ARG
65	BJ	22	PRO
1	AQ	61	PRO
43	Bk	187	VAL
43	Bk	188	GLY
57	BZ	86	VAL
63	Bg	4	PHE
7	AB	104	PRO
17	AO	82	PRO
29	AL	52	SER
39	Be	4	GLY
46	BA	21	PRO
52	BB	122	VAL
16	AJ	3	ILE
25	AH	83	GLY
46	BA	55	GLY
53	BD	105	ILE
58	BP	65	PRO

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Mol	Chain	Res	Type
33	BC	344	PRO
46	BA	161	PRO

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	AQ	143/143 (100%)	137 (96%)	6 (4%)	26	48
2	AK	111/111 (100%)	106 (96%)	5 (4%)	24	46
3	AI	107/108 (99%)	100 (94%)	7 (6%)	15	37
4	AG	108/108 (100%)	91 (84%)	17 (16%)	2	12
5	AW	54/54 (100%)	52 (96%)	2 (4%)	30	51
6	AC	145/167 (87%)	142 (98%)	3 (2%)	47	65
7	AB	173/173 (100%)	164 (95%)	9 (5%)	21	42
8	AR	102/102 (100%)	100 (98%)	2 (2%)	48	66
10	AD	153/160 (96%)	146 (95%)	7 (5%)	24	45
12	AN	118/121 (98%)	105 (89%)	13 (11%)	6	20
13	AX	60/60 (100%)	53 (88%)	7 (12%)	5	18
14	AM	100/104 (96%)	94 (94%)	6 (6%)	17	39
15	AE	212/213 (100%)	199 (94%)	13 (6%)	17	38
16	AJ	103/103 (100%)	97 (94%)	6 (6%)	18	40
17	AO	122/122 (100%)	119 (98%)	3 (2%)	42	63
18	AF	181/197 (92%)	174 (96%)	7 (4%)	28	49
19	AS	61/61 (100%)	60 (98%)	1 (2%)	55	70
20	A3	99/99 (100%)	95 (96%)	4 (4%)	28	49
20	B4	99/99 (100%)	94 (95%)	5 (5%)	21	42
20	BG	99/99 (100%)	90 (91%)	9 (9%)	9	27
22	AY	41/41 (100%)	38 (93%)	3 (7%)	13	34
23	AT	99/114 (87%)	99 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
24	AA	166/171 (97%)	161 (97%)	5 (3%)	36	57
25	AH	184/184 (100%)	164 (89%)	20 (11%)	6	21
26	AP	46/46 (100%)	41 (89%)	5 (11%)	6	21
28	AV	89/89 (100%)	82 (92%)	7 (8%)	11	32
28	B6	85/89 (96%)	78 (92%)	7 (8%)	10	31
29	AL	91/91 (100%)	80 (88%)	11 (12%)	5	17
30	AU	121/127 (95%)	116 (96%)	5 (4%)	27	49
31	BY	133/133 (100%)	112 (84%)	21 (16%)	2	12
32	BO	166/169 (98%)	157 (95%)	9 (5%)	20	41
33	BC	312/312 (100%)	295 (95%)	17 (5%)	20	41
34	B5	64/66 (97%)	58 (91%)	6 (9%)	8	26
34	BK	64/66 (97%)	60 (94%)	4 (6%)	16	37
35	BL	117/117 (100%)	102 (87%)	15 (13%)	4	15
36	Bf	47/47 (100%)	37 (79%)	10 (21%)	1	6
37	BU	110/110 (100%)	106 (96%)	4 (4%)	31	52
38	Bb	114/117 (97%)	103 (90%)	11 (10%)	8	25
39	Be	51/51 (100%)	44 (86%)	7 (14%)	3	14
40	BE	158/158 (100%)	154 (98%)	4 (2%)	42	63
41	Ba	80/83 (96%)	70 (88%)	10 (12%)	4	16
42	BT	75/77 (97%)	71 (95%)	4 (5%)	20	41
43	Bk	179/280 (64%)	157 (88%)	22 (12%)	4	17
44	BW	66/66 (100%)	64 (97%)	2 (3%)	36	57
45	Bi	57/61 (93%)	56 (98%)	1 (2%)	51	68
46	BA	182/182 (100%)	175 (96%)	7 (4%)	29	50
47	BI	122/122 (100%)	118 (97%)	4 (3%)	33	55
48	BR	85/87 (98%)	73 (86%)	12 (14%)	3	13
49	BQ	130/130 (100%)	120 (92%)	10 (8%)	12	32
50	BV	56/56 (100%)	52 (93%)	4 (7%)	13	35
51	Bj	82/83 (99%)	67 (82%)	15 (18%)	2	9
52	BB	189/189 (100%)	178 (94%)	11 (6%)	18	40
53	BD	213/213 (100%)	198 (93%)	15 (7%)	14	35

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
54	BF	156/156 (100%)	149 (96%)	7 (4%)	24	46
55	Bh	23/23 (100%)	23 (100%)	0	100	100
56	BH	110/137 (80%)	91 (83%)	19 (17%)	2	9
57	BZ	80/80 (100%)	72 (90%)	8 (10%)	7	24
58	BP	101/101 (100%)	98 (97%)	3 (3%)	36	57
59	BM	162/162 (100%)	156 (96%)	6 (4%)	30	51
60	BS	126/130 (97%)	121 (96%)	5 (4%)	28	49
61	Bd	81/81 (100%)	69 (85%)	12 (15%)	3	13
62	BN	140/152 (92%)	138 (99%)	2 (1%)	59	72
63	Bg	37/39 (95%)	33 (89%)	4 (11%)	6	21
64	Bc	74/74 (100%)	60 (81%)	14 (19%)	1	8
65	BJ	104/108 (96%)	96 (92%)	8 (8%)	12	32
66	Bl	72/72 (100%)	69 (96%)	3 (4%)	26	48
All	All	7390/7646 (97%)	6879 (93%)	511 (7%)	16	36

All (511) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	AQ	4	MET
1	AQ	9	ARG
1	AQ	15	LYS
1	AQ	63	VAL
1	AQ	78	ILE
1	AQ	152	THR
2	AK	3	ILE
2	AK	31	LYS
2	AK	38	PRO
2	AK	82	ILE
2	AK	112	ARG
3	AI	4	LEU
3	AI	22	LYS
3	AI	27	ILE
3	AI	28	LYS
3	AI	75	ILE
3	AI	110	VAL
3	AI	125	LEU
4	AG	8	ILE

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Mol	Chain	Res	Type
4	AG	15	ILE
4	AG	18	GLN
4	AG	34	ILE
4	AG	64	ARG
4	AG	77	ASP
4	AG	78	ILE
4	AG	79	HIS
4	AG	81	PRO
4	AG	84	VAL
4	AG	86	VAL
4	AG	87	LEU
4	AG	99	LYS
4	AG	102	ARG
4	AG	118	GLN
4	AG	121	VAL
4	AG	122	LYS
5	AW	14	LEU
5	AW	45	VAL
6	AC	68	ILE
6	AC	75	LEU
6	AC	172	LYS
7	AB	7	VAL
7	AB	13	LEU
7	AB	38	ASP
7	AB	52	LEU
7	AB	57	LYS
7	AB	59	LEU
7	AB	67	ILE
7	AB	114	VAL
7	AB	141	VAL
8	AR	30	HIS
8	AR	62	ARG
10	AD	29	LEU
10	AD	34	GLU
10	AD	59	LEU
10	AD	88	VAL
10	AD	118	MET
10	AD	125	ILE
10	AD	137	ILE
12	AN	16	LEU
12	AN	17	LYS
12	AN	20	ARG

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Mol	Chain	Res	Type
12	AN	64	GLN
12	AN	69	MET
12	AN	80	ASN
12	AN	97	ILE
12	AN	105	ILE
12	AN	111	PRO
12	AN	119	ILE
12	AN	127	VAL
12	AN	132	VAL
12	AN	136	GLU
13	AX	17	ARG
13	AX	20	THR
13	AX	24	VAL
13	AX	29	VAL
13	AX	35	ARG
13	AX	46	ARG
13	AX	65	ARG
14	AM	20	TYR
14	AM	84	ARG
14	AM	92	LYS
14	AM	93	THR
14	AM	105	LEU
14	AM	137	VAL
15	AE	36	PRO
15	AE	41	THR
15	AE	81	TYR
15	AE	122	ILE
15	AE	133	ILE
15	AE	155	LYS
15	AE	173	ILE
15	AE	179	PHE
15	AE	185	VAL
15	AE	212	VAL
15	AE	215	ILE
15	AE	237	LYS
15	AE	242	LEU
16	AJ	18	VAL
16	AJ	34	ASN
16	AJ	45	ILE
16	AJ	49	TYR
16	AJ	83	ASN
16	AJ	105	ILE

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Mol	Chain	Res	Type
17	AO	7	ILE
17	AO	139	GLN
17	AO	143	VAL
18	AF	5	TRP
18	AF	13	LEU
18	AF	21	LYS
18	AF	45	LYS
18	AF	56	GLU
18	AF	70	LEU
18	AF	112	LYS
19	AS	16	LEU
20	A3	1	MET
20	A3	51	VAL
20	A3	62	ILE
20	A3	66	LEU
22	AY	5	TRP
22	AY	15	VAL
22	AY	29	VAL
24	AA	43	VAL
24	AA	50	VAL
24	AA	101	THR
24	AA	140	ILE
24	AA	144	ILE
25	AH	4	PRO
25	AH	5	LEU
25	AH	9	PHE
25	AH	43	LEU
25	AH	44	LEU
25	AH	47	THR
25	AH	48	HIS
25	AH	50	ARG
25	AH	73	ARG
25	AH	84	HIS
25	AH	85	PHE
25	AH	86	MET
25	AH	87	ARG
25	AH	88	ARG
25	AH	96	LYS
25	AH	97	LYS
25	AH	119	PRO
25	AH	174	TYR
25	AH	175	ARG

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Mol	Chain	Res	Type
25	AH	212	GLU
26	AP	3	LYS
26	AP	11	PRO
26	AP	14	PHE
26	AP	36	LEU
26	AP	41	HIS
28	AV	14	ILE
28	AV	41	VAL
28	AV	50	THR
28	AV	56	ILE
28	AV	60	PHE
28	AV	81	ILE
28	AV	88	ILE
29	AL	13	VAL
29	AL	34	MET
29	AL	41	PRO
29	AL	45	ILE
29	AL	48	THR
29	AL	51	LYS
29	AL	52	SER
29	AL	60	THR
29	AL	68	VAL
29	AL	69	HIS
29	AL	70	LYS
30	AU	61	ARG
30	AU	67	PRO
30	AU	81	LYS
30	AU	103	GLN
30	AU	121	ILE
31	BY	13	VAL
31	BY	14	ASN
31	BY	18	PRO
31	BY	26	LEU
31	BY	28	LEU
31	BY	37	VAL
31	BY	41	PRO
31	BY	43	TYR
31	BY	67	LEU
31	BY	74	LEU
31	BY	75	ILE
31	BY	88	LYS
31	BY	89	LEU

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Mol	Chain	Res	Type
31	BY	114	LYS
31	BY	116	VAL
31	BY	118	ARG
31	BY	126	PHE
31	BY	127	ARG
31	BY	131	LYS
31	BY	149	GLU
31	BY	151	ILE
32	BO	9	VAL
32	BO	81	PRO
32	BO	86	LEU
32	BO	88	LEU
32	BO	99	ILE
32	BO	103	ILE
32	BO	116	SER
32	BO	168	PHE
32	BO	176	LEU
33	BC	51	ILE
33	BC	72	ILE
33	BC	83	ILE
33	BC	95	THR
33	BC	112	LYS
33	BC	115	LYS
33	BC	123	THR
33	BC	125	TYR
33	BC	138	ASN
33	BC	176	LEU
33	BC	209	VAL
33	BC	222	ILE
33	BC	247	SER
33	BC	252	LYS
33	BC	263	ARG
33	BC	286	LEU
33	BC	363	SER
34	B5	9	ILE
34	B5	12	VAL
34	B5	25	VAL
34	B5	28	ILE
34	B5	44	LYS
34	B5	45	ARG
35	BL	3	ARG
35	BL	8	VAL

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Mol	Chain	Res	Type
35	BL	10	LYS
35	BL	11	LEU
35	BL	22	LYS
35	BL	34	ARG
35	BL	43	ASN
35	BL	44	LYS
35	BL	45	SER
35	BL	47	TRP
35	BL	48	THR
35	BL	52	LYS
35	BL	102	ILE
35	BL	106	THR
35	BL	110	ASP
36	Bf	1	MET
36	Bf	3	ARG
36	Bf	5	LYS
36	Bf	17	LEU
36	Bf	22	ARG
36	Bf	28	ILE
36	Bf	34	ARG
36	Bf	37	THR
36	Bf	38	HIS
36	Bf	46	ARG
37	BU	8	PRO
37	BU	52	VAL
37	BU	60	LYS
37	BU	105	LEU
38	Bb	5	GLU
38	Bb	12	VAL
38	Bb	18	ARG
38	Bb	19	LYS
38	Bb	41	ARG
38	Bb	46	ILE
38	Bb	48	SER
38	Bb	52	LEU
38	Bb	63	ILE
38	Bb	69	LYS
38	Bb	70	LEU
39	Be	10	LYS
39	Be	31	LYS
39	Be	43	SER
39	Be	45	ARG

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Mol	Chain	Res	Type
39	Be	48	LYS
39	Be	55	TRP
39	Be	62	HIS
40	BE	66	ARG
40	BE	128	TYR
40	BE	140	CYS
40	BE	150	VAL
41	Ba	13	VAL
41	Ba	18	ILE
41	Ba	22	VAL
41	Ba	46	GLN
41	Ba	49	ILE
41	Ba	53	LYS
41	Ba	55	ASN
41	Ba	61	ARG
41	Ba	77	GLU
41	Ba	86	THR
42	BT	11	VAL
42	BT	12	VAL
42	BT	18	SER
42	BT	83	LEU
43	Bk	8	LYS
43	Bk	12	VAL
43	Bk	20	LYS
43	Bk	30	VAL
43	Bk	36	TYR
43	Bk	42	ARG
43	Bk	51	LEU
43	Bk	55	SER
43	Bk	56	ARG
43	Bk	58	THR
43	Bk	59	LEU
43	Bk	61	GLU
43	Bk	74	PRO
43	Bk	83	ILE
43	Bk	98	LYS
43	Bk	117	LYS
43	Bk	136	ILE
43	Bk	143	MET
43	Bk	151	ARG
43	Bk	158	LYS
43	Bk	183	GLN

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Mol	Chain	Res	Type
43	Bk	192	LEU
44	BW	33	THR
44	BW	38	LEU
45	Bi	16	ARG
46	BA	39	LEU
46	BA	48	LEU
46	BA	82	ILE
46	BA	94	PRO
46	BA	138	THR
46	BA	143	THR
46	BA	206	THR
47	BI	37	VAL
47	BI	87	THR
47	BI	106	GLU
47	BI	129	VAL
48	BR	4	LYS
48	BR	11	LYS
48	BR	13	ARG
48	BR	14	LYS
48	BR	23	ARG
48	BR	28	LEU
48	BR	29	THR
48	BR	31	PHE
48	BR	43	ILE
48	BR	47	PRO
48	BR	77	ILE
48	BR	85	THR
34	BK	9	ILE
34	BK	12	VAL
34	BK	25	VAL
34	BK	45	ARG
49	BQ	3	THR
49	BQ	6	MET
49	BQ	17	CYS
49	BQ	23	TRP
49	BQ	40	ASP
49	BQ	58	GLN
49	BQ	86	THR
49	BQ	119	THR
49	BQ	121	ARG
49	BQ	125	ILE
50	BV	3	ARG

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Mol	Chain	Res	Type
50	BV	18	THR
50	BV	45	ARG
50	BV	51	LYS
51	Bj	2	LYS
51	Bj	7	ILE
51	Bj	17	HIS
51	Bj	33	LEU
51	Bj	34	SER
51	Bj	39	ARG
51	Bj	50	PHE
51	Bj	51	PRO
51	Bj	52	ARG
51	Bj	63	LYS
51	Bj	72	THR
51	Bj	82	ARG
51	Bj	86	VAL
51	Bj	88	LYS
51	Bj	92	VAL
52	BB	23	ARG
52	BB	31	ILE
52	BB	36	THR
52	BB	39	LYS
52	BB	48	ILE
52	BB	55	THR
52	BB	83	ILE
52	BB	136	PRO
52	BB	168	LEU
52	BB	196	LYS
52	BB	222	PRO
20	BG	3	LYS
20	BG	6	TYR
20	BG	49	LYS
20	BG	63	VAL
20	BG	78	ILE
20	BG	92	ILE
20	BG	101	ILE
20	BG	106	LYS
20	BG	117	LYS
53	BD	25	PRO
53	BD	35	VAL
53	BD	58	THR
53	BD	60	ASN

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Mol	Chain	Res	Type
53	BD	83	VAL
53	BD	90	ARG
53	BD	101	ILE
53	BD	114	LEU
53	BD	123	ASN
53	BD	133	ILE
53	BD	134	ILE
53	BD	155	ARG
53	BD	199	ILE
53	BD	209	LEU
53	BD	250	LEU
54	BF	11	VAL
54	BF	24	TYR
54	BF	29	LYS
54	BF	34	GLU
54	BF	137	ILE
54	BF	167	ILE
54	BF	172	ILE
56	BH	1	MET
56	BH	3	LYS
56	BH	5	VAL
56	BH	25	ILE
56	BH	50	GLN
56	BH	68	VAL
56	BH	74	SER
56	BH	79	LYS
56	BH	81	LEU
56	BH	84	GLU
56	BH	87	SER
56	BH	91	LYS
56	BH	94	ILE
56	BH	95	VAL
56	BH	114	MET
56	BH	115	LEU
56	BH	117	LEU
56	BH	129	THR
56	BH	133	MET
57	BZ	16	VAL
57	BZ	34	LEU
57	BZ	37	VAL
57	BZ	51	TYR
57	BZ	55	LEU

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Mol	Chain	Res	Type
57	BZ	60	VAL
57	BZ	74	LEU
57	BZ	79	VAL
28	B6	5	ILE
28	B6	14	ILE
28	B6	17	LYS
28	B6	33	ARG
28	B6	50	THR
28	B6	66	LYS
28	B6	81	ILE
58	BP	6	PRO
58	BP	79	ILE
58	BP	85	PHE
59	BM	45	LEU
59	BM	59	TYR
59	BM	67	ARG
59	BM	115	ASN
59	BM	140	ILE
59	BM	172	LEU
60	BS	27	ILE
60	BS	57	LEU
60	BS	117	ILE
60	BS	129	TYR
60	BS	149	VAL
61	Bd	4	MET
61	Bd	7	SER
61	Bd	25	HIS
61	Bd	29	LYS
61	Bd	30	LYS
61	Bd	44	ASN
61	Bd	47	PRO
61	Bd	58	PRO
61	Bd	60	THR
61	Bd	71	LEU
61	Bd	80	MET
61	Bd	88	LEU
62	BN	31	ILE
62	BN	150	ARG
63	Bg	13	LYS
63	Bg	15	TYR
63	Bg	37	LYS
63	Bg	44	LYS

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Mol	Chain	Res	Type
20	B4	6	TYR
20	B4	63	VAL
20	B4	75	ILE
20	B4	92	ILE
20	B4	94	VAL
64	Bc	3	ILE
64	Bc	6	VAL
64	Bc	16	ASN
64	Bc	17	GLN
64	Bc	19	ASN
64	Bc	23	ILE
64	Bc	25	LYS
64	Bc	33	GLU
64	Bc	38	LEU
64	Bc	43	VAL
64	Bc	51	LYS
64	Bc	53	LEU
64	Bc	67	VAL
64	Bc	73	LYS
65	BJ	21	LEU
65	BJ	32	ASN
65	BJ	38	ILE
65	BJ	74	ARG
65	BJ	101	ASP
65	BJ	107	VAL
65	BJ	109	PRO
65	BJ	131	VAL
66	Bl	4	LYS
66	Bl	41	ILE
66	Bl	77	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (134) such sidechains are listed below:

Mol	Chain	Res	Type
1	AQ	5	HIS
1	AQ	123	GLN
2	AK	29	ASN
2	AK	117	HIS
2	AK	120	ASN
3	AI	9	ASN
3	AI	13	HIS
3	AI	16	ASN

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Mol	Chain	Res	Type
3	AI	113	HIS
4	AG	44	ASN
4	AG	110	ASN
6	AC	87	ASN
6	AC	91	ASN
6	AC	123	ASN
6	AC	148	GLN
7	AB	23	GLN
7	AB	65	GLN
7	AB	158	ASN
7	AB	178	ASN
8	AR	74	ASN
10	AD	44	HIS
10	AD	72	GLN
10	AD	127	HIS
10	AD	135	GLN
10	AD	165	HIS
12	AN	8	ASN
14	AM	18	HIS
14	AM	24	ASN
14	AM	29	HIS
15	AE	37	HIS
15	AE	38	ASN
15	AE	99	HIS
15	AE	139	GLN
15	AE	141	ASN
15	AE	147	ASN
15	AE	157	ASN
16	AJ	34	ASN
16	AJ	93	ASN
17	AO	18	ASN
17	AO	20	GLN
17	AO	72	HIS
17	AO	92	HIS
17	AO	120	HIS
18	AF	62	ASN
18	AF	196	ASN
19	AS	6	GLN
19	AS	48	ASN
24	AA	69	GLN
24	AA	133	GLN
25	AH	46	HIS

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Mol	Chain	Res	Type
25	AH	48	HIS
25	AH	69	ASN
25	AH	94	ASN
26	AP	41	HIS
28	AV	11	ASN
28	AV	54	GLN
29	AL	2	GLN
30	AU	47	GLN
31	BY	29	HIS
31	BY	32	ASN
31	BY	48	GLN
32	BO	148	HIS
32	BO	167	GLN
33	BC	50	HIS
33	BC	108	ASN
33	BC	170	GLN
33	BC	313	HIS
33	BC	365	GLN
34	B5	31	ASN
34	B5	58	GLN
35	BL	15	HIS
35	BL	77	ASN
36	Bf	19	GLN
36	Bf	38	HIS
37	BU	11	GLN
37	BU	24	GLN
37	BU	96	HIS
37	BU	99	ASN
38	Bb	26	GLN
39	Be	12	ASN
39	Be	17	HIS
39	Be	60	ASN
40	BE	18	HIS
40	BE	122	ASN
41	Ba	55	ASN
43	Bk	48	ASN
43	Bk	57	ASN
43	Bk	95	ASN
43	Bk	183	GLN
45	Bi	34	GLN
46	BA	23	ASN
46	BA	26	GLN

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Mol	Chain	Res	Type
46	BA	33	ASN
46	BA	186	ASN
46	BA	198	GLN
47	BI	5	ASN
47	BI	32	ASN
47	BI	119	HIS
48	BR	3	GLN
48	BR	19	HIS
34	BK	58	GLN
49	BQ	131	GLN
49	BQ	134	ASN
50	BV	62	GLN
51	Bj	17	HIS
52	BB	34	ASN
52	BB	152	ASN
52	BB	186	ASN
52	BB	198	ASN
52	BB	202	HIS
53	BD	123	ASN
53	BD	139	GLN
53	BD	152	GLN
53	BD	214	HIS
53	BD	224	ASN
54	BF	112	ASN
28	B6	25	HIS
28	B6	47	ASN
58	BP	53	ASN
58	BP	110	ASN
59	BM	25	GLN
59	BM	136	HIS
59	BM	189	ASN
60	BS	11	ASN
60	BS	67	ASN
60	BS	104	GLN
61	Bd	25	HIS
61	Bd	44	ASN
62	BN	38	ASN
62	BN	50	HIS
62	BN	56	GLN
64	Bc	16	ASN
64	Bc	20	ASN
66	Bl	9	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
11	A1	76/77 (98%)	15 (19%)	3 (3%)
21	A2	1494/1495 (99%)	261 (17%)	118 (7%)
27	A0	75/76 (98%)	18 (24%)	3 (4%)
67	B1	3047/3049 (99%)	614 (20%)	194 (6%)
68	B3	126/126 (100%)	35 (27%)	13 (10%)
All	All	4818/4823 (99%)	943 (19%)	331 (6%)

All (943) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
11	A1	8	U
11	A1	9	A
11	A1	10	G
11	A1	16	C
11	A1	21	G
11	A1	22	A
11	A1	23	G
11	A1	43	G
11	A1	47	G
11	A1	48	U
11	A1	50	G
11	A1	59	A
11	A1	60	A
11	A1	62	C
11	A1	77	A
21	A2	3	U
21	A2	4	C
21	A2	42	G
21	A2	43	A
21	A2	46	A
21	A2	47	A
21	A2	48	G
21	A2	57	G
21	A2	63	G
21	A2	64	G
21	A2	71	C
21	A2	72	C
21	A2	73	U
21	A2	74	U
21	A2	75	C
21	A2	80	A

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Mol	Chain	Res	Type
21	A2	100	A
21	A2	102	U
21	A2	104	A
21	A2	105	C
21	A2	106	A
21	A2	112	G
21	A2	114	A
21	A2	115	A
21	A2	116	C
21	A2	127	G
21	A2	151	G
21	A2	160	C
21	A2	166	A
21	A2	177	A
21	A2	184	G
21	A2	195	C
21	A2	196	G
21	A2	197	A
21	A2	199	A
21	A2	200	G
21	A2	202	G
21	A2	211	G
21	A2	240	U
21	A2	243	G
21	A2	247	G
21	A2	248	U
21	A2	249	U
21	A2	262	G
21	A2	263	C
21	A2	276	A
21	A2	278	A
21	A2	285	C
21	A2	317	A
21	A2	324	C
21	A2	325	A
21	A2	326	C
21	A2	328	G
21	A2	340	A
21	A2	341	C
21	A2	348	C
21	A2	349	A
21	A2	350	G

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Mol	Chain	Res	Type
21	A2	362	C
21	A2	363	C
21	A2	369	A
21	A2	393	A
21	A2	394	C
21	A2	407	G
21	A2	409	C
21	A2	410	U
21	A2	411	C
21	A2	412	U
21	A2	413	G
21	A2	423	U
21	A2	425	C
21	A2	431	U
21	A2	432	G
21	A2	433	U
21	A2	434	A
21	A2	435	A
21	A2	438	A
21	A2	439	G
21	A2	440	C
21	A2	449	U
21	A2	450	A
21	A2	459	G
21	A2	460	C
21	A2	461	A
21	A2	462	A
21	A2	463	G
21	A2	464	G
21	A2	471	G
21	A2	472	C
21	A2	480	G
21	A2	485	A
21	A2	486	A
21	A2	487	U
21	A2	500	A
21	A2	512	U
21	A2	513	A
21	A2	514	U
21	A2	515	U
21	A2	525	A
21	A2	526	A

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Mol	Chain	Res	Type
21	A2	528	G
21	A2	529	C
21	A2	530	G
21	A2	541	G
21	A2	574	A
21	A2	585	U
21	A2	586	C
21	A2	607	U
21	A2	619	A
21	A2	640	U
21	A2	642	G
21	A2	648	A
21	A2	655	A
21	A2	656	U
21	A2	657	A
21	A2	672	G
21	A2	673	C
21	A2	677	U
21	A2	678	G
21	A2	685	G
21	A2	702	G
21	A2	703	U
21	A2	709	G
21	A2	731	A
21	A2	735	A
21	A2	736	A
21	A2	747	U
21	A2	748	A
21	A2	767	U
21	A2	769	A
21	A2	771	G
21	A2	782	A
21	A2	801	A
21	A2	805	C
21	A2	806	G
21	A2	816	G
21	A2	843	G
21	A2	860	G
21	A2	872	A
21	A2	884	G
21	A2	885	G
21	A2	892	C

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Mol	Chain	Res	Type
21	A2	893	U
21	A2	904	G
21	A2	919	U
21	A2	920	U
21	A2	925	U
21	A2	928	A
21	A2	933	G
21	A2	934	G
21	A2	935	G
21	A2	936	A
21	A2	942	A
21	A2	950	C
21	A2	951	G
21	A2	952	A
21	A2	953	C
21	A2	960	A
21	A2	961	U
21	A2	962	G
21	A2	964	A
21	A2	965	G
21	A2	970	G
21	A2	972	C
21	A2	973	U
21	A2	974	G
21	A2	975	A
21	A2	976	A
21	A2	977	G
21	A2	978	G
21	A2	986	G
21	A2	988	A
21	A2	989	C
21	A2	993	C
21	A2	1002	G
21	A2	1005	G
21	A2	1006	C
21	A2	1017	U
21	A2	1018	C
21	A2	1019	A
21	A2	1020	G
21	A2	1037	U
21	A2	1038	C
21	A2	1046	G

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Mol	Chain	Res	Type
21	A2	1047	U
21	A2	1053	A
21	A2	1054	A
21	A2	1064	C
21	A2	1068	C
21	A2	1076	G
21	A2	1077	U
21	A2	1078	U
21	A2	1081	C
21	A2	1082	A
21	A2	1083	G
21	A2	1105	C
21	A2	1112	G
21	A2	1117	A
21	A2	1119	U
21	A2	1128	U
21	A2	1143	G
21	A2	1144	G
21	A2	1151	A
21	A2	1156	A
21	A2	1157	G
21	A2	1161	A
21	A2	1162	G
21	A2	1171	G
21	A2	1172	A
21	A2	1175	C
21	A2	1184	U
21	A2	1185	A
21	A2	1186	C
21	A2	1187	A
21	A2	1198	A
21	A2	1208	A
21	A2	1209	C
21	A2	1210	A
21	A2	1216	A
21	A2	1218	C
21	A2	1238	G
21	A2	1239	A
21	A2	1240	A
21	A2	1242	C
21	A2	1245	C
21	A2	1246	U

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Mol	Chain	Res	Type
21	A2	1247	A
21	A2	1258	C
21	A2	1260	G
21	A2	1261	U
21	A2	1262	U
21	A2	1263	C
21	A2	1265	G
21	A2	1280	C
21	A2	1292	A
21	A2	1306	A
21	A2	1307	G
21	A2	1308	U
21	A2	1323	A
21	A2	1324	U
21	A2	1325	C
21	A2	1332	C
21	A2	1341	C
21	A2	1354	A
21	A2	1358	A
21	A2	1379	G
21	A2	1424	G
21	A2	1437	G
21	A2	1445	A
21	A2	1448	A
21	A2	1454	A
21	A2	1457	A
21	A2	1458	A
21	A2	1459	G
21	A2	1460	G
21	A2	1461	U
21	A2	1475	C
21	A2	1484	C
21	A2	1485	G
21	A2	1486	A
21	A2	1487	U
27	A0	7	G
27	A0	9	A
27	A0	18	G
27	A0	19	G
27	A0	20	U
27	A0	22	G
27	A0	36	U

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Mol	Chain	Res	Type
27	A0	41	C
27	A0	42	G
27	A0	48	C
27	A0	61	C
27	A0	63	G
27	A0	69	C
27	A0	72	C
27	A0	73	G
27	A0	74	C
27	A0	75	C
27	A0	76	A
67	B1	9	A
67	B1	10	C
67	B1	12	C
67	B1	13	U
67	B1	34	C
67	B1	44	C
67	B1	45	G
67	B1	46	C
67	B1	50	C
67	B1	51	G
67	B1	64	A
67	B1	74	A
67	B1	75	G
67	B1	84	A
67	B1	85	G
67	B1	91	G
67	B1	98	G
67	B1	99	U
67	B1	100	C
67	B1	101	G
67	B1	118	A
67	B1	119	U
67	B1	120	G
67	B1	124	C
67	B1	130	G
67	B1	144	A
67	B1	145	C
67	B1	146	U
67	B1	152	G
67	B1	154	U
67	B1	155	U

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Mol	Chain	Res	Type
67	B1	157	U
67	B1	158	C
67	B1	159	C
67	B1	160	C
67	B1	170	A
67	B1	185	A
67	B1	188	A
67	B1	205	A
67	B1	211	A
67	B1	215	A
67	B1	216	A
67	B1	217	A
67	B1	219	G
67	B1	221	G
67	B1	222	A
67	B1	237	G
67	B1	238	C
67	B1	254	A
67	B1	255	G
67	B1	278	C
67	B1	286	G
67	B1	291	A
67	B1	292	U
67	B1	299	U
67	B1	300	U
67	B1	301	G
67	B1	302	U
67	B1	303	A
67	B1	304	G
67	B1	305	G
67	B1	306	G
67	B1	309	C
67	B1	315	U
67	B1	319	A
67	B1	325	G
67	B1	332	A
67	B1	333	A
67	B1	341	U
67	B1	342	C
67	B1	351	C
67	B1	361	G
67	B1	363	G

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Mol	Chain	Res	Type
67	B1	365	G
67	B1	369	G
67	B1	370	A
67	B1	379	U
67	B1	380	A
67	B1	385	U
67	B1	394	A
67	B1	399	C
67	B1	401	C
67	B1	403	G
67	B1	404	G
67	B1	405	G
67	B1	406	G
67	B1	407	A
67	B1	408	C
67	B1	409	C
67	B1	410	C
67	B1	411	U
67	B1	414	G
67	B1	428	A
67	B1	430	A
67	B1	440	A
67	B1	442	G
67	B1	444	U
67	B1	450	G
67	B1	472	A
67	B1	480	A
67	B1	481	G
67	B1	486	A
67	B1	488	A
67	B1	490	C
67	B1	495	U
67	B1	496	A
67	B1	514	U
67	B1	518	A
67	B1	519	A
67	B1	520	G
67	B1	528	G
67	B1	530	A
67	B1	531	G
67	B1	537	U
67	B1	542	A

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Mol	Chain	Res	Type
67	B1	543	G
67	B1	546	C
67	B1	568	A
67	B1	569	G
67	B1	570	G
67	B1	576	G
67	B1	579	C
67	B1	580	G
67	B1	581	A
67	B1	583	A
67	B1	584	G
67	B1	585	G
67	B1	588	U
67	B1	589	G
67	B1	599	G
67	B1	623	G
67	B1	640	C
67	B1	642	G
67	B1	654	C
67	B1	666	A
67	B1	694	A
67	B1	716	U
67	B1	717	A
67	B1	733	A
67	B1	734	C
67	B1	735	A
67	B1	736	U
67	B1	759	G
67	B1	788	A
67	B1	801	A
67	B1	819	U
67	B1	848	A
67	B1	851	G
67	B1	859	G
67	B1	860	A
67	B1	863	C
67	B1	877	U
67	B1	882	U
67	B1	898	G
67	B1	899	A
67	B1	900	C
67	B1	910	G

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Mol	Chain	Res	Type
67	B1	911	G
67	B1	917	A
67	B1	919	G
67	B1	920	G
67	B1	923	A
67	B1	924	A
67	B1	925	U
67	B1	927	G
67	B1	937	A
67	B1	940	G
67	B1	941	C
67	B1	947	C
67	B1	962	C
67	B1	963	G
67	B1	965	A
67	B1	982	G
67	B1	995	G
67	B1	1002	A
67	B1	1004	U
67	B1	1006	A
67	B1	1007	U
67	B1	1010	G
67	B1	1011	A
67	B1	1013	G
67	B1	1014	U
67	B1	1015	G
67	B1	1016	C
67	B1	1018	G
67	B1	1019	G
67	B1	1024	G
67	B1	1025	A
67	B1	1026	A
67	B1	1027	A
67	B1	1028	G
67	B1	1029	C
67	B1	1030	C
67	B1	1033	C
67	B1	1036	C
67	B1	1037	C
67	B1	1038	U
67	B1	1039	C
67	B1	1041	U

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Mol	Chain	Res	Type
67	B1	1042	G
67	B1	1043	U
67	B1	1046	A
67	B1	1048	C
67	B1	1069	A
67	B1	1070	G
67	B1	1072	U
67	B1	1081	U
67	B1	1083	G
67	B1	1085	G
67	B1	1097	G
67	B1	1109	G
67	B1	1110	A
67	B1	1118	A
67	B1	1126	C
67	B1	1143	A
67	B1	1144	A
67	B1	1145	G
67	B1	1146	U
67	B1	1147	G
67	B1	1156	G
67	B1	1161	A
67	B1	1162	C
67	B1	1163	U
67	B1	1178	G
67	B1	1180	G
67	B1	1181	C
67	B1	1185	A
67	B1	1186	G
67	B1	1188	C
67	B1	1194	G
67	B1	1199	U
67	B1	1206	A
67	B1	1217	U
67	B1	1223	A
67	B1	1226	G
67	B1	1227	A
67	B1	1233	U
67	B1	1237	A
67	B1	1241	C
67	B1	1242	A
67	B1	1245	C

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Mol	Chain	Res	Type
67	B1	1246	G
67	B1	1247	U
67	B1	1250	A
67	B1	1251	G
67	B1	1252	G
67	B1	1253	U
67	B1	1254	C
67	B1	1261	C
67	B1	1269	U
67	B1	1271	G
67	B1	1272	A
67	B1	1273	C
67	B1	1274	G
67	B1	1317	G
67	B1	1320	C
67	B1	1325	A
67	B1	1327	C
67	B1	1329	G
67	B1	1348	G
67	B1	1354	G
67	B1	1368	A
67	B1	1369	G
67	B1	1379	A
67	B1	1380	G
67	B1	1391	C
67	B1	1393	C
67	B1	1398	C
67	B1	1407	A
67	B1	1408	G
67	B1	1415	C
67	B1	1416	G
67	B1	1417	U
67	B1	1418	A
67	B1	1427	A
67	B1	1443	G
67	B1	1444	A
67	B1	1446	G
67	B1	1475	G
67	B1	1485	A
67	B1	1486	G
67	B1	1488	C
67	B1	1510	U

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Mol	Chain	Res	Type
67	B1	1511	C
67	B1	1522	A
67	B1	1523	A
67	B1	1524	A
67	B1	1525	G
67	B1	1541	U
67	B1	1542	U
67	B1	1543	C
67	B1	1554	G
67	B1	1556	G
67	B1	1561	G
67	B1	1562	U
67	B1	1563	G
67	B1	1564	C
67	B1	1573	A
67	B1	1574	A
67	B1	1575	G
67	B1	1576	C
67	B1	1577	C
67	B1	1578	C
67	B1	1583	G
67	B1	1584	G
67	B1	1585	U
67	B1	1586	G
67	B1	1587	A
67	B1	1588	C
67	B1	1592	U
67	B1	1598	U
67	B1	1602	C
67	B1	1609	G
67	B1	1612	G
67	B1	1613	A
67	B1	1614	U
67	B1	1615	G
67	B1	1616	A
67	B1	1621	G
67	B1	1623	C
67	B1	1627	G
67	B1	1628	C
67	B1	1632	U
67	B1	1633	A
67	B1	1634	A

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Mol	Chain	Res	Type
67	B1	1635	G
67	B1	1637	C
67	B1	1639	G
67	B1	1642	G
67	B1	1643	A
67	B1	1644	G
67	B1	1645	U
67	B1	1646	G
67	B1	1654	G
67	B1	1655	G
67	B1	1656	C
67	B1	1657	G
67	B1	1659	G
67	B1	1663	C
67	B1	1664	G
67	B1	1665	G
67	B1	1668	G
67	B1	1669	A
67	B1	1671	A
67	B1	1672	G
67	B1	1678	A
67	B1	1679	U
67	B1	1682	C
67	B1	1684	C
67	B1	1688	C
67	B1	1690	U
67	B1	1694	G
67	B1	1697	G
67	B1	1701	C
67	B1	1702	C
67	B1	1703	G
67	B1	1705	C
67	B1	1706	G
67	B1	1707	A
67	B1	1708	U
67	B1	1709	C
67	B1	1712	U
67	B1	1713	G
67	B1	1714	G
67	B1	1718	C
67	B1	1719	C
67	B1	1720	G

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Mol	Chain	Res	Type
67	B1	1721	U
67	B1	1722	G
67	B1	1723	A
67	B1	1728	C
67	B1	1729	C
67	B1	1732	C
67	B1	1733	C
67	B1	1734	G
67	B1	1735	G
67	B1	1736	G
67	B1	1738	A
67	B1	1740	U
67	B1	1741	C
67	B1	1744	A
67	B1	1746	C
67	B1	1753	G
67	B1	1754	A
67	B1	1763	A
67	B1	1764	G
67	B1	1765	A
67	B1	1771	C
67	B1	1772	A
67	B1	1773	C
67	B1	1777	U
67	B1	1780	C
67	B1	1781	C
67	B1	1782	C
67	B1	1783	U
67	B1	1791	A
67	B1	1803	U
67	B1	1804	G
67	B1	1806	C
67	B1	1812	A
67	B1	1833	G
67	B1	1853	C
67	B1	1855	G
67	B1	1859	A
67	B1	1876	G
67	B1	1878	G
67	B1	1880	A
67	B1	1897	G
67	B1	1902	G

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Mol	Chain	Res	Type
67	B1	1903	G
67	B1	1912	A
67	B1	1919	A
67	B1	1937	A
67	B1	1939	C
67	B1	1940	U
67	B1	1955	U
67	B1	1956	G
67	B1	1957	U
67	B1	1962	G
67	B1	1976	C
67	B1	1991	G
67	B1	2002	A
67	B1	2003	C
67	B1	2013	A
67	B1	2025	A
67	B1	2032	G
67	B1	2033	G
67	B1	2038	C
67	B1	2044	C
67	B1	2054	G
67	B1	2056	A
67	B1	2062	A
67	B1	2065	C
67	B1	2079	U
67	B1	2087	U
67	B1	2088	G
67	B1	2091	U
67	B1	2094	A
67	B1	2095	U
67	B1	2096	G
67	B1	2116	G
67	B1	2117	U
67	B1	2146	C
67	B1	2154	G
67	B1	2155	C
67	B1	2156	A
67	B1	2157	U
67	B1	2159	C
67	B1	2166	C
67	B1	2173	U
67	B1	2178	A

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Mol	Chain	Res	Type
67	B1	2183	A
67	B1	2184	G
67	B1	2192	G
67	B1	2219	A
67	B1	2220	C
67	B1	2224	G
67	B1	2225	C
67	B1	2227	G
67	B1	2230	G
67	B1	2231	G
67	B1	2232	U
67	B1	2233	G
67	B1	2234	C
67	B1	2235	G
67	B1	2236	C
67	B1	2237	A
67	B1	2238	G
67	B1	2239	C
67	B1	2240	G
67	B1	2242	A
67	B1	2243	G
67	B1	2245	C
67	B1	2246	G
67	B1	2249	A
67	B1	2251	G
67	B1	2252	C
67	B1	2254	U
67	B1	2255	C
67	B1	2256	G
67	B1	2258	A
67	B1	2259	G
67	B1	2268	C
67	B1	2269	C
67	B1	2270	G
67	B1	2275	G
67	B1	2276	G
67	B1	2278	U
67	B1	2280	G
67	B1	2281	A
67	B1	2283	C
67	B1	2285	G
67	B1	2286	U

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Mol	Chain	Res	Type
67	B1	2288	C
67	B1	2290	U
67	B1	2292	A
67	B1	2293	G
67	B1	2294	A
67	B1	2295	C
67	B1	2296	A
67	B1	2301	C
67	B1	2302	C
67	B1	2303	A
67	B1	2304	C
67	B1	2306	C
67	B1	2308	C
67	B1	2310	G
67	B1	2321	A
67	B1	2325	C
67	B1	2332	G
67	B1	2338	A
67	B1	2339	C
67	B1	2351	G
67	B1	2352	G
67	B1	2363	G
67	B1	2364	G
67	B1	2371	A
67	B1	2396	G
67	B1	2397	C
67	B1	2401	A
67	B1	2402	A
67	B1	2434	A
67	B1	2441	A
67	B1	2449	A
67	B1	2450	A
67	B1	2451	G
67	B1	2459	G
67	B1	2476	A
67	B1	2502	C
67	B1	2507	C
67	B1	2508	G
67	B1	2515	U
67	B1	2542	G
67	B1	2543	A
67	B1	2544	C

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Mol	Chain	Res	Type
67	B1	2545	A
67	B1	2546	G
67	B1	2547	A
67	B1	2549	A
67	B1	2556	C
67	B1	2562	G
67	B1	2563	A
67	B1	2587	G
67	B1	2588	C
67	B1	2591	A
67	B1	2606	C
67	B1	2607	U
67	B1	2613	C
67	B1	2617	G
67	B1	2618	C
67	B1	2619	U
67	B1	2620	G
67	B1	2621	U
67	B1	2633	A
67	B1	2644	G
67	B1	2669	U
67	B1	2681	A
67	B1	2682	G
67	B1	2688	C
67	B1	2693	G
67	B1	2697	G
67	B1	2718	G
67	B1	2725	U
67	B1	2729	A
67	B1	2744	U
67	B1	2748	C
67	B1	2760	A
67	B1	2761	G
67	B1	2794	G
67	B1	2798	U
67	B1	2826	U
67	B1	2827	C
67	B1	2840	C
67	B1	2841	G
67	B1	2846	A
67	B1	2861	A
67	B1	2864	G

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Mol	Chain	Res	Type
67	B1	2870	A
67	B1	2871	A
67	B1	2878	A
67	B1	2889	A
67	B1	2892	A
67	B1	2893	U
67	B1	2904	U
67	B1	2913	C
67	B1	2914	U
67	B1	2915	U
67	B1	2922	G
67	B1	2928	C
67	B1	2930	G
67	B1	2936	U
67	B1	2937	U
67	B1	2942	G
67	B1	2945	A
67	B1	2947	G
67	B1	2948	A
67	B1	2949	G
67	B1	2958	U
67	B1	2971	U
67	B1	2988	A
67	B1	2997	G
67	B1	2998	G
67	B1	3001	C
67	B1	3002	A
67	B1	3004	C
67	B1	3005	C
67	B1	3027	C
67	B1	3036	C
67	B1	3037	G
67	B1	3038	A
67	B1	3039	G
67	B1	3040	G
67	B1	3042	C
67	B1	3047	C
68	B3	2	G
68	B3	11	A
68	B3	20	G
68	B3	21	C
68	B3	22	C

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Mol	Chain	Res	Type
68	B3	23	A
68	B3	25	A
68	B3	26	C
68	B3	29	G
68	B3	31	U
68	B3	33	U
68	B3	35	A
68	B3	38	U
68	B3	41	A
68	B3	42	A
68	B3	44	C
68	B3	49	A
68	B3	53	A
68	B3	54	A
68	B3	55	G
68	B3	63	G
68	B3	70	C
68	B3	74	U
68	B3	75	G
68	B3	76	U
68	B3	83	C
68	B3	84	U
68	B3	85	C
68	B3	90	A
68	B3	100	A
68	B3	106	G
68	B3	111	G
68	B3	123	U
68	B3	124	A
68	B3	125	U

All (331) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
11	A1	8	U
11	A1	9	A
11	A1	59	A
21	A2	3	U
21	A2	42	G
21	A2	45	U
21	A2	47	A
21	A2	56	A

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Mol	Chain	Res	Type
21	A2	85	A
21	A2	99	C
21	A2	103	A
21	A2	105	C
21	A2	111	G
21	A2	114	A
21	A2	126	G
21	A2	176	U
21	A2	196	G
21	A2	199	A
21	A2	201	G
21	A2	239	A
21	A2	246	A
21	A2	247	G
21	A2	262	G
21	A2	275	A
21	A2	277	G
21	A2	324	C
21	A2	325	A
21	A2	347	G
21	A2	362	C
21	A2	368	C
21	A2	369	A
21	A2	408	C
21	A2	411	C
21	A2	422	U
21	A2	434	A
21	A2	439	G
21	A2	448	A
21	A2	461	A
21	A2	462	A
21	A2	471	G
21	A2	486	A
21	A2	512	U
21	A2	513	A
21	A2	515	U
21	A2	528	G
21	A2	540	G
21	A2	562	A
21	A2	575	A
21	A2	584	C
21	A2	641	A

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Mol	Chain	Res	Type
21	A2	655	A
21	A2	677	U
21	A2	687	G
21	A2	702	G
21	A2	746	A
21	A2	766	G
21	A2	774	U
21	A2	798	U
21	A2	804	U
21	A2	867	A
21	A2	871	A
21	A2	891	A
21	A2	892	C
21	A2	919	U
21	A2	924	U
21	A2	934	G
21	A2	935	G
21	A2	949	G
21	A2	951	G
21	A2	959	G
21	A2	960	A
21	A2	961	U
21	A2	963	A
21	A2	964	A
21	A2	966	G
21	A2	974	G
21	A2	975	A
21	A2	977	G
21	A2	985	C
21	A2	1001	A
21	A2	1017	U
21	A2	1019	A
21	A2	1029	G
21	A2	1037	U
21	A2	1053	A
21	A2	1079	G
21	A2	1081	C
21	A2	1142	G
21	A2	1150	G
21	A2	1156	A
21	A2	1161	A
21	A2	1172	A

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Mol	Chain	Res	Type
21	A2	1173	A
21	A2	1174	A
21	A2	1184	U
21	A2	1186	C
21	A2	1208	A
21	A2	1217	C
21	A2	1238	G
21	A2	1239	A
21	A2	1241	U
21	A2	1245	C
21	A2	1260	G
21	A2	1261	U
21	A2	1262	U
21	A2	1291	G
21	A2	1306	A
21	A2	1307	G
21	A2	1322	C
21	A2	1324	U
21	A2	1340	U
21	A2	1378	A
21	A2	1399	G
21	A2	1423	A
21	A2	1436	U
21	A2	1453	U
21	A2	1457	A
21	A2	1458	A
21	A2	1459	G
21	A2	1460	G
21	A2	1483	U
27	A0	14	A
27	A0	19	G
27	A0	36	U
67	B1	10	C
67	B1	12	C
67	B1	50	C
67	B1	84	A
67	B1	94	A
67	B1	99	U
67	B1	110	A
67	B1	119	U
67	B1	129	C
67	B1	181	U

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Mol	Chain	Res	Type
67	B1	210	A
67	B1	215	A
67	B1	285	C
67	B1	291	A
67	B1	299	U
67	B1	300	U
67	B1	301	G
67	B1	302	U
67	B1	310	C
67	B1	324	C
67	B1	332	A
67	B1	362	A
67	B1	364	A
67	B1	379	U
67	B1	393	C
67	B1	410	C
67	B1	427	G
67	B1	428	A
67	B1	443	C
67	B1	450	G
67	B1	471	U
67	B1	480	A
67	B1	485	G
67	B1	511	A
67	B1	513	C
67	B1	518	A
67	B1	529	G
67	B1	545	G
67	B1	565	A
67	B1	579	C
67	B1	584	G
67	B1	588	U
67	B1	598	C
67	B1	658	C
67	B1	700	A
67	B1	716	U
67	B1	734	C
67	B1	859	G
67	B1	897	U
67	B1	899	A
67	B1	919	G
67	B1	936	G

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Mol	Chain	Res	Type
67	B1	940	G
67	B1	956	U
67	B1	981	A
67	B1	994	G
67	B1	1003	C
67	B1	1013	G
67	B1	1014	U
67	B1	1035	G
67	B1	1037	C
67	B1	1038	U
67	B1	1045	A
67	B1	1046	A
67	B1	1068	U
67	B1	1082	A
67	B1	1109	G
67	B1	1117	C
67	B1	1125	A
67	B1	1143	A
67	B1	1145	G
67	B1	1157	U
67	B1	1162	C
67	B1	1165	C
67	B1	1179	G
67	B1	1180	G
67	B1	1208	A
67	B1	1209	A
67	B1	1233	U
67	B1	1245	C
67	B1	1246	G
67	B1	1253	U
67	B1	1260	C
67	B1	1267	A
67	B1	1271	G
67	B1	1319	U
67	B1	1367	A
67	B1	1390	U
67	B1	1407	A
67	B1	1417	U
67	B1	1443	G
67	B1	1445	G
67	B1	1485	A
67	B1	1487	U

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Mol	Chain	Res	Type
67	B1	1510	U
67	B1	1523	A
67	B1	1541	U
67	B1	1553	G
67	B1	1561	G
67	B1	1572	C
67	B1	1573	A
67	B1	1574	A
67	B1	1577	C
67	B1	1585	U
67	B1	1597	G
67	B1	1600	G
67	B1	1643	A
67	B1	1665	G
67	B1	1670	A
67	B1	1677	A
67	B1	1718	C
67	B1	1719	C
67	B1	1722	G
67	B1	1726	A
67	B1	1734	G
67	B1	1739	U
67	B1	1752	C
67	B1	1753	G
67	B1	1764	G
67	B1	1771	C
67	B1	1774	A
67	B1	1782	C
67	B1	1803	U
67	B1	1804	G
67	B1	1805	U
67	B1	1811	G
67	B1	1813	A
67	B1	1835	A
67	B1	1879	U
67	B1	1918	U
67	B1	1936	C
67	B1	1938	G
67	B1	1939	C
67	B1	1961	G
67	B1	2002	A
67	B1	2033	G

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Mol	Chain	Res	Type
67	B1	2043	A
67	B1	2061	A
67	B1	2062	A
67	B1	2064	U
67	B1	2068	U
67	B1	2094	A
67	B1	2145	G
67	B1	2156	A
67	B1	2158	G
67	B1	2165	A
67	B1	2172	G
67	B1	2250	G
67	B1	2280	G
67	B1	2301	C
67	B1	2314	U
67	B1	2324	C
67	B1	2338	A
67	B1	2362	U
67	B1	2363	G
67	B1	2370	C
67	B1	2382	A
67	B1	2396	G
67	B1	2400	U
67	B1	2401	A
67	B1	2450	A
67	B1	2501	G
67	B1	2507	C
67	B1	2543	A
67	B1	2545	A
67	B1	2546	G
67	B1	2548	A
67	B1	2562	G
67	B1	2586	A
67	B1	2606	C
67	B1	2619	U
67	B1	2644	G
67	B1	2696	G
67	B1	2702	A
67	B1	2747	C
67	B1	2793	C
67	B1	2805	U
67	B1	2826	U

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Mol	Chain	Res	Type
67	B1	2840	C
67	B1	2869	U
67	B1	2891	A
67	B1	2892	A
67	B1	2912	G
67	B1	2941	A
67	B1	2946	C
67	B1	2947	G
67	B1	2948	A
67	B1	2949	G
67	B1	2957	G
67	B1	2970	U
67	B1	2987	U
67	B1	3004	C
67	B1	3035	C
67	B1	3041	U
68	B3	1	C
68	B3	19	G
68	B3	21	C
68	B3	25	A
68	B3	35	A
68	B3	40	G
68	B3	48	A
68	B3	52	U
68	B3	62	A
68	B3	74	U
68	B3	75	G
68	B3	122	C
68	B3	123	U

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
67	B1	1
56	BH	1
53	BD	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	B1	2506:G	O3'	2507:C	P	1.83
1	BH	18:GLY	C	19:PRO	N	1.19
1	BD	91:ARG	C	92:THR	N	0.93

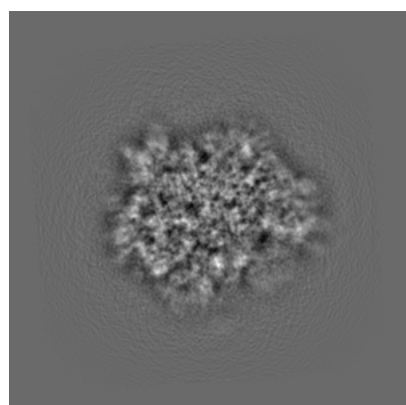
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-2009. These allow visual inspection of the internal detail of the map and identification of artifacts.

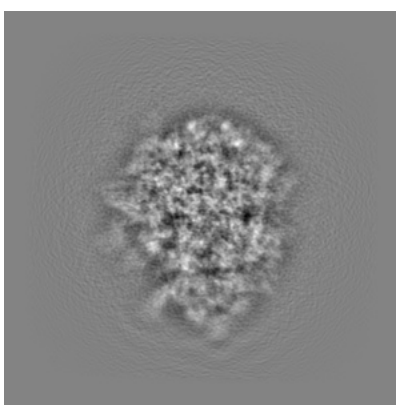
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

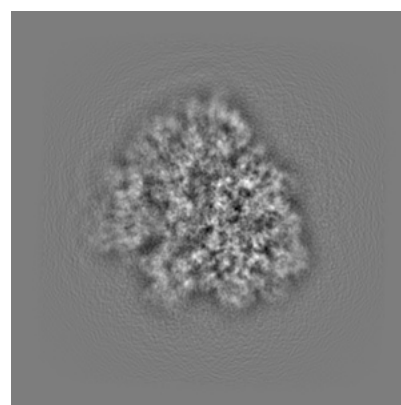
6.1.1 Primary map



X



Y

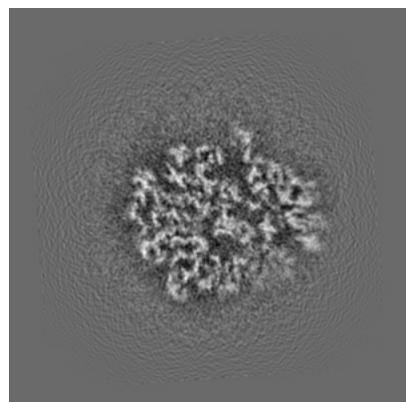


Z

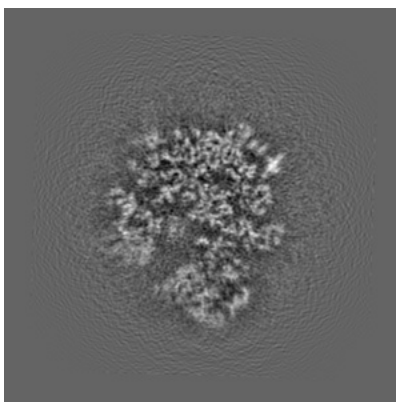
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

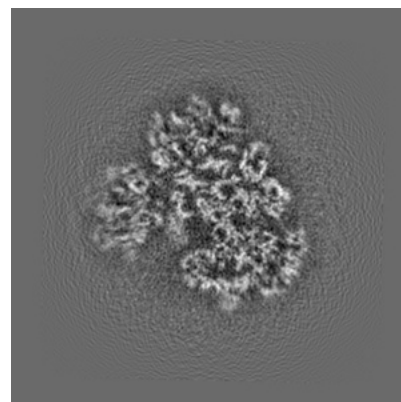
6.2.1 Primary map



X Index: 184



Y Index: 184

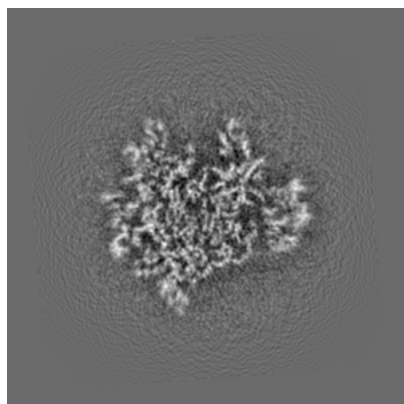


Z Index: 184

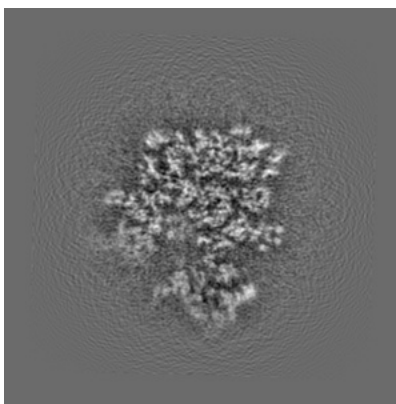
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

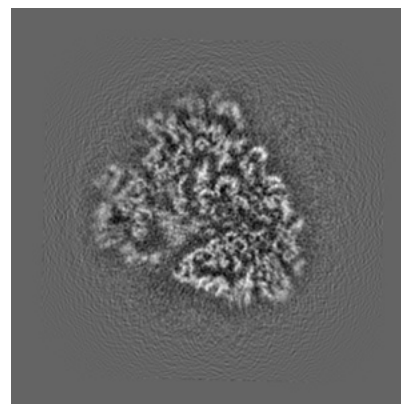
6.3.1 Primary map



X Index: 207



Y Index: 187

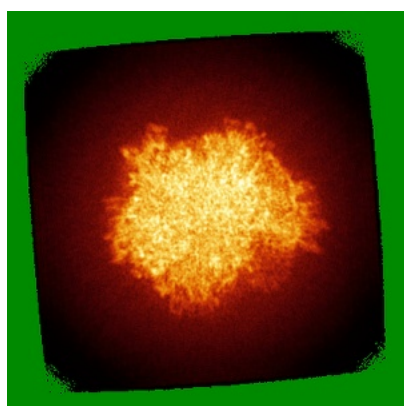


Z Index: 178

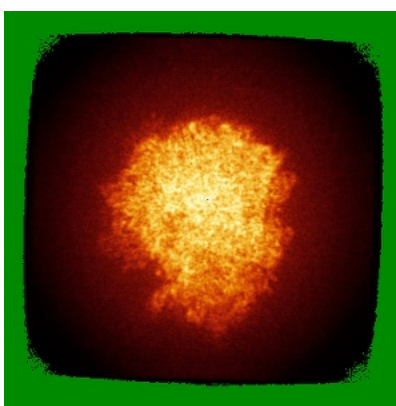
The images above show the largest variance slices of the map in three orthogonal directions.

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

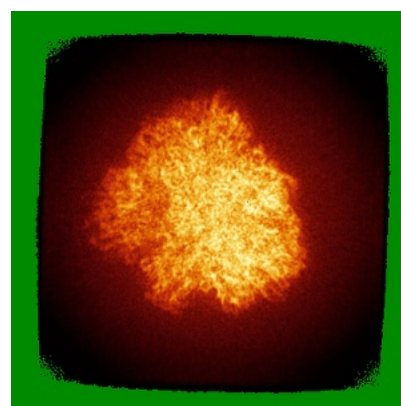
6.4.1 Primary map



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

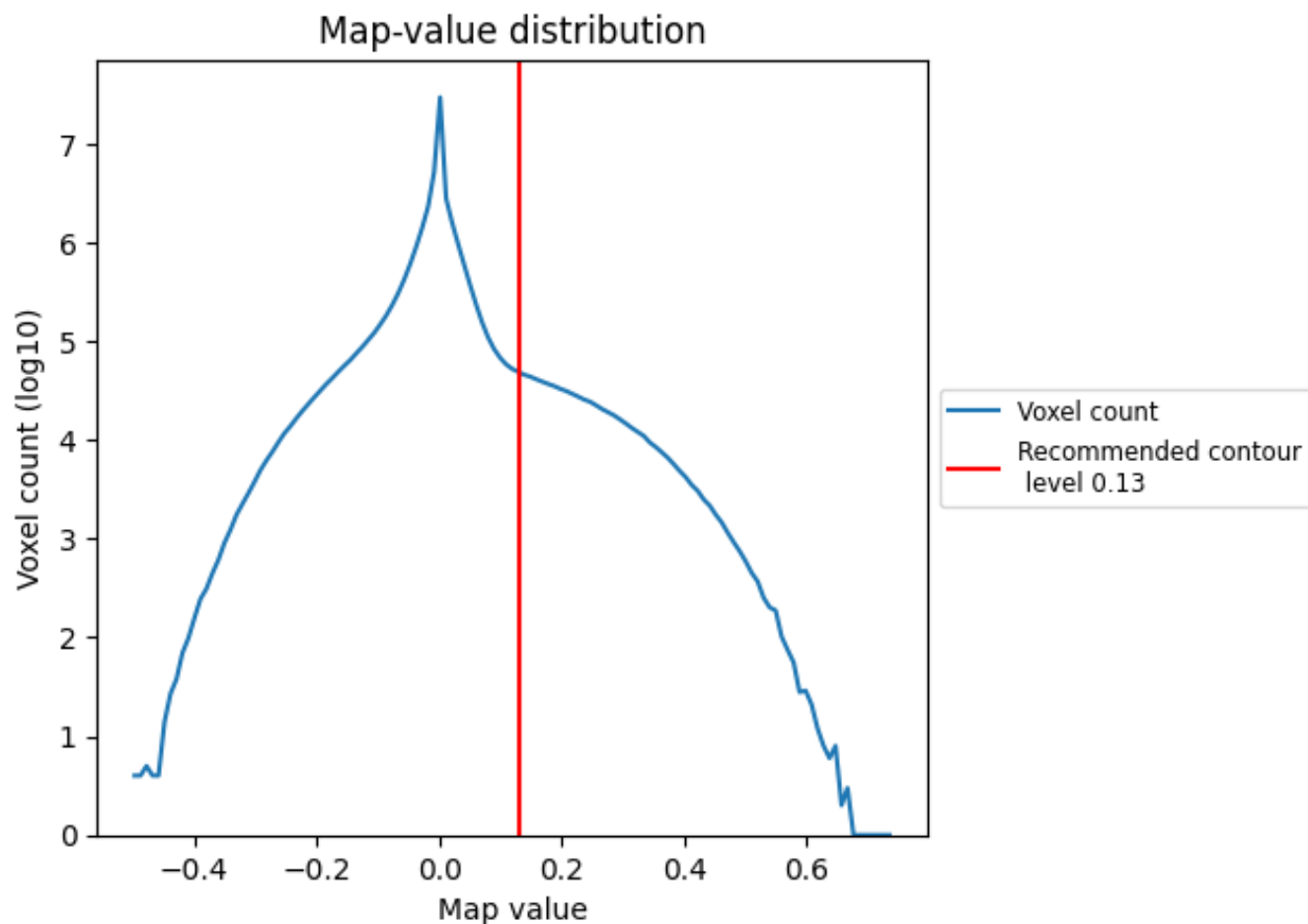
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

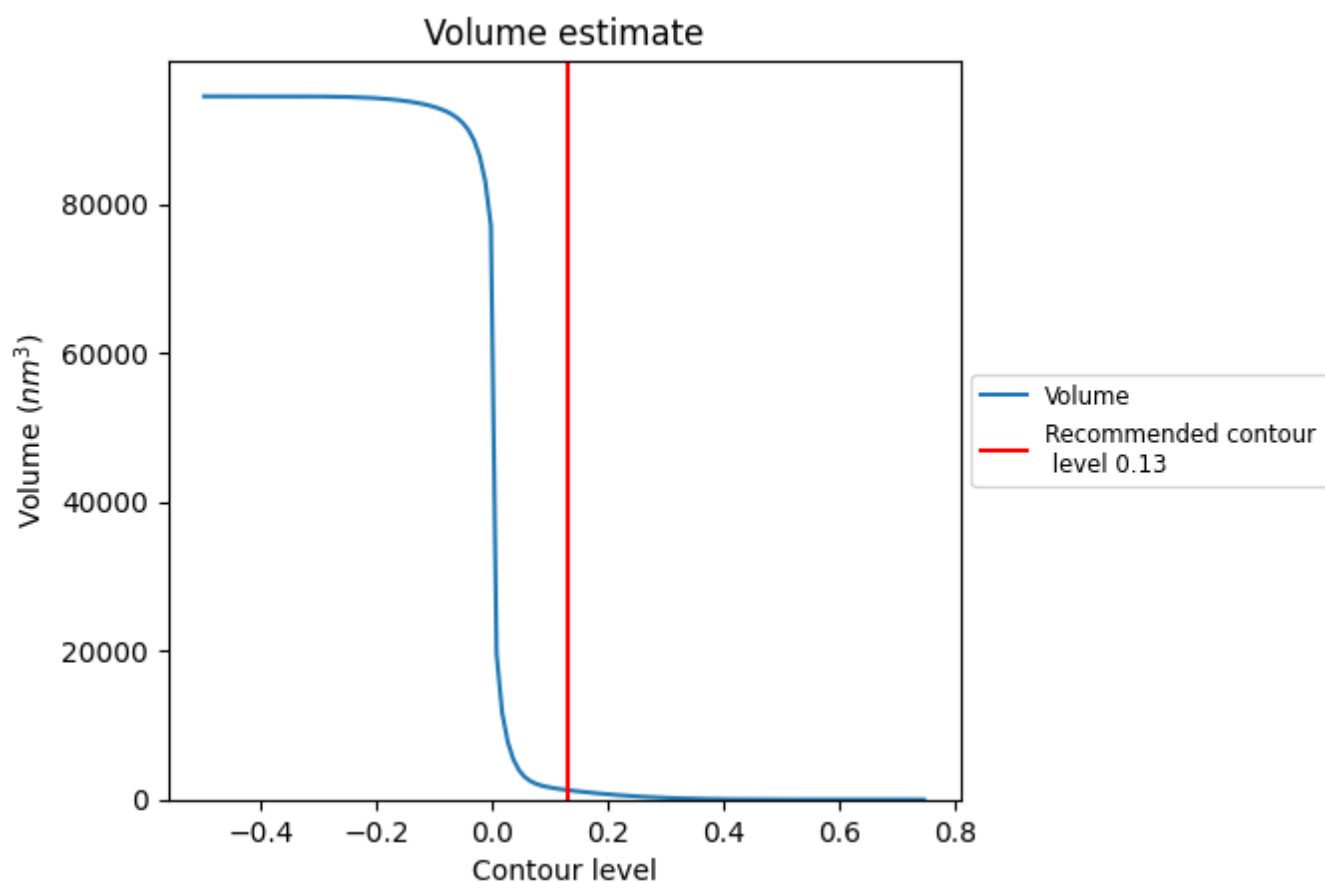
This section contains the results of statistical analysis of the map.

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.

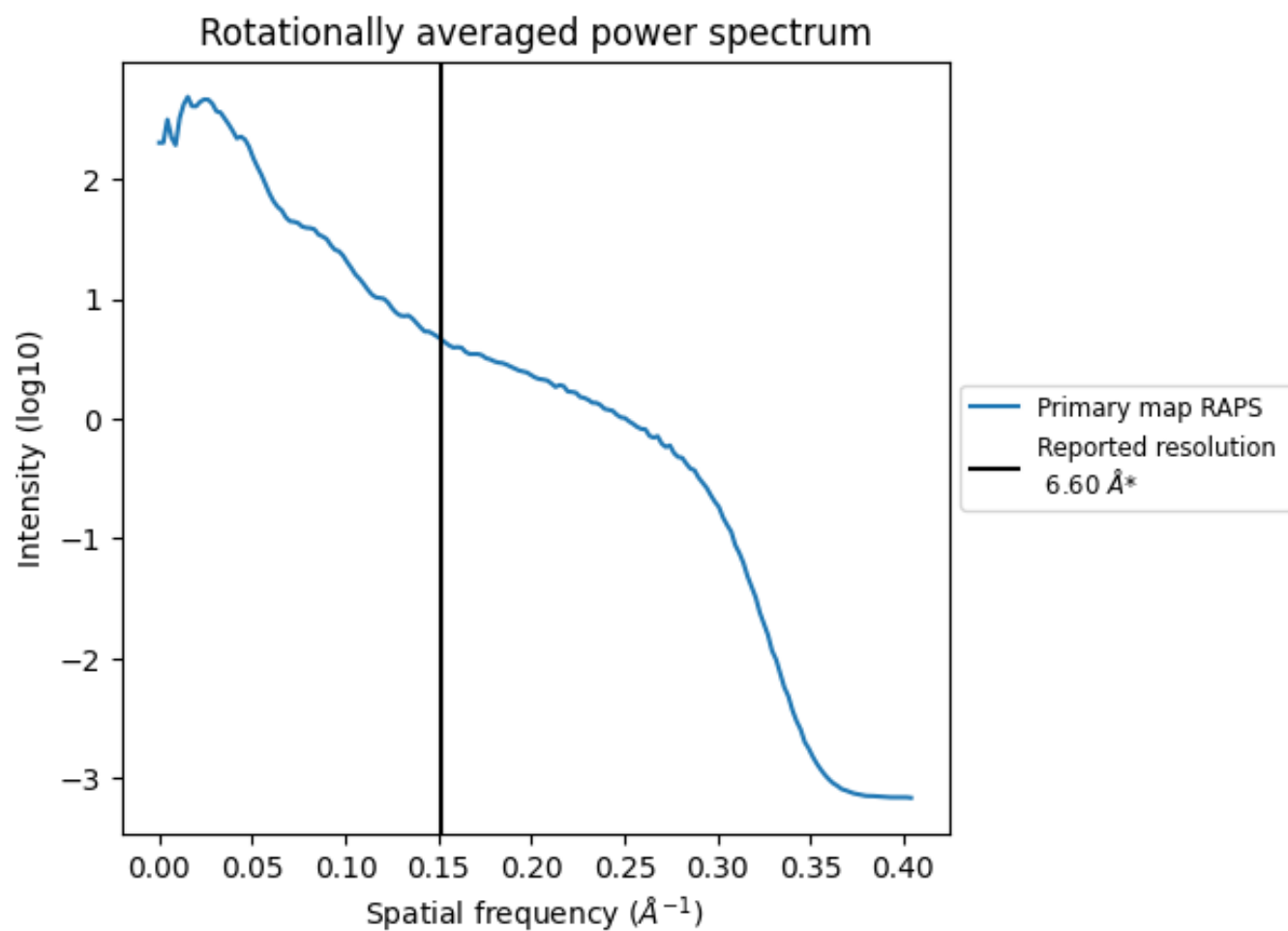
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1275 nm³; this corresponds to an approximate mass of 1152 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 0.152 Å⁻¹

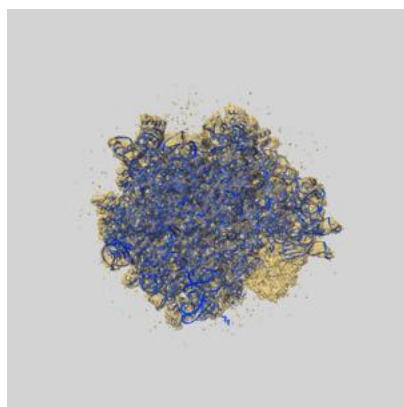
8 Fourier-Shell correlation

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

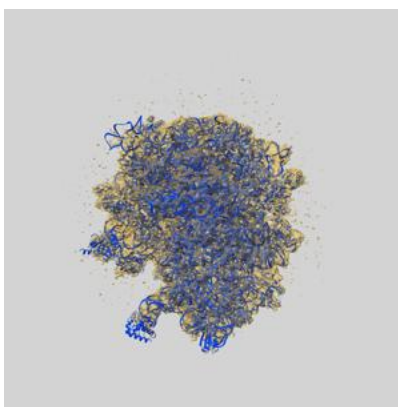
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-2009 and PDB model 4V6U. Per-residue inclusion information can be found in [section 3](#) on [page 16](#).

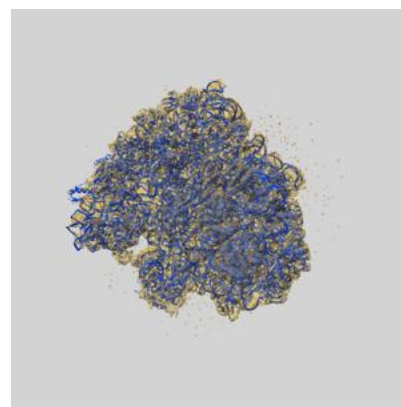
9.1 Map-model overlay [i](#)



X



Y



Z

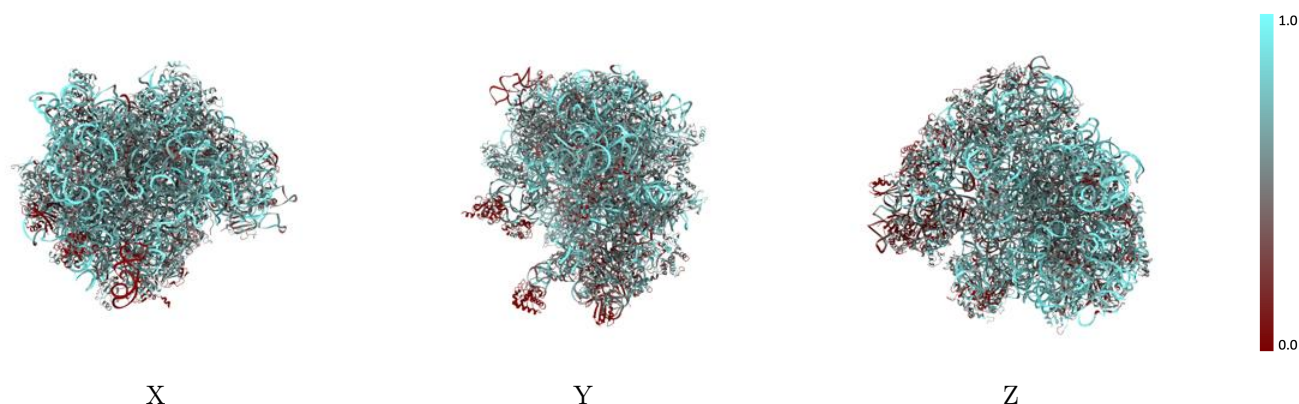
The images above show the 3D surface view of the map at the recommended contour level 0.13 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



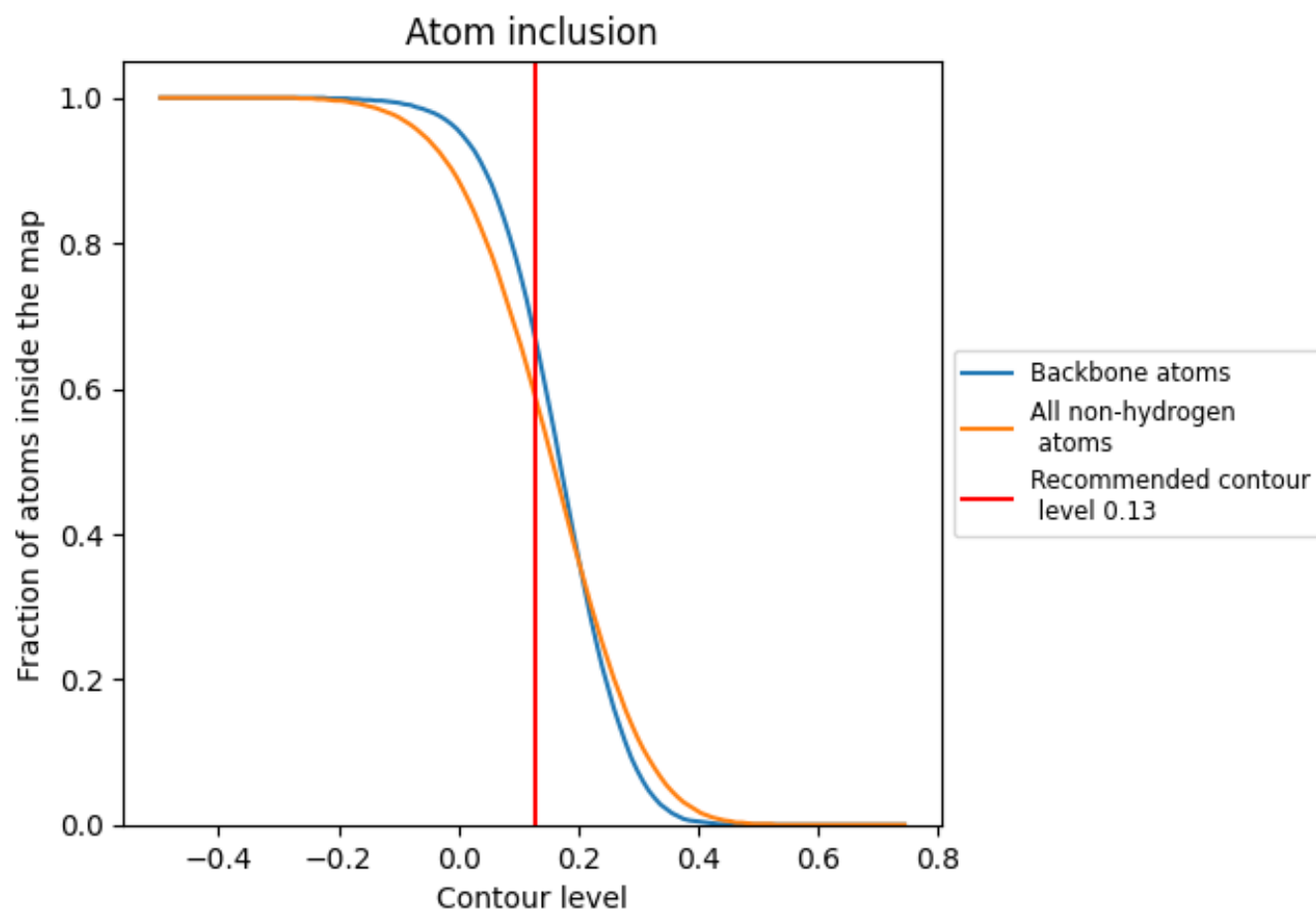
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.13).

9.4 Atom inclusion ⓘ



At the recommended contour level, 66% 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 (0.13) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.5850	 0.1970
A0	 0.5350	 0.1690
A1	 0.5730	 0.1410
A2	 0.6950	 0.2250
A3	 0.0390	 0.0200
A9	 0.6780	 0.2060
AA	 0.5370	 0.1380
AB	 0.4360	 0.1460
AC	 0.4010	 0.1390
AD	 0.4180	 0.1260
AE	 0.3490	 0.1190
AF	 0.3930	 0.1500
AG	 0.3920	 0.0820
AH	 0.2890	 0.0810
AI	 0.4310	 0.1390
AJ	 0.4060	 0.1520
AK	 0.1950	 0.1020
AL	 0.1400	 0.0710
AM	 0.4440	 0.1560
AN	 0.3730	 0.1420
AO	 0.3790	 0.1050
AP	 0.2360	 0.0950
AQ	 0.4920	 0.1430
AR	 0.4240	 0.1750
AS	 0.4260	 0.1170
AT	 0.3560	 0.0990
AU	 0.2280	 0.0850
AV	 0.3490	 0.1020
AW	 0.5250	 0.1240
AX	 0.3960	 0.1410
AY	 0.0980	 0.0320
B1	 0.7260	 0.2500
B3	 0.7980	 0.2180
B4	 0.1960	 0.1010
B5	 0.5640	 0.1560



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Chain	Atom inclusion	Q-score
B6	 0.0170	 0.0390
BA	 0.2180	 0.0480
BB	 0.4490	 0.2180
BC	 0.4300	 0.1680
BD	 0.4160	 0.1590
BE	 0.4770	 0.1130
BF	 0.5640	 0.1920
BG	 0.5600	 0.1520
BH	 0.2310	 0.0610
BI	 0.4290	 0.1670
BJ	 0.4340	 0.2070
BK	 0.5250	 0.1440
BL	 0.3960	 0.1390
BM	 0.3400	 0.1790
BN	 0.4500	 0.1800
BO	 0.4610	 0.1510
BP	 0.4880	 0.1710
BQ	 0.4510	 0.1440
BR	 0.3650	 0.1810
BS	 0.4530	 0.1740
BT	 0.4690	 0.1790
BU	 0.4500	 0.1560
BV	 0.4300	 0.1440
BW	 0.5400	 0.1570
BY	 0.4660	 0.1800
BZ	 0.5690	 0.1650
Ba	 0.4980	 0.1790
Bb	 0.3980	 0.1540
Bc	 0.3920	 0.1610
Bd	 0.3210	 0.1200
Be	 0.2930	 0.1250
Bf	 0.3290	 0.1430
Bg	 0.3670	 0.1280
Bh	 0.3320	 0.0850
Bi	 0.5060	 0.2030
Bj	 0.3950	 0.1330
Bk	 0.1440	 0.0340
Bl	 0.5090	 0.1590