Full wwPDB EM Validation Report ⓘ

Jun 23, 2026 – 02:39 AM EDT

PDB ID	:	4V6S / pdb_00004v6s
EMDB ID	:	EMD-5360
Title	:	Structural characterization of mRNA-tRNA translocation intermediates (class 3 of the six classes)
Authors	:	Agirrezabala, X.; Liao, H.; Schreiner, E.; Fu, J.; Ortiz-Meoz, R.F.; Schulten, K.; Green, R.; Frank, J.
Deposited on	:	2011-12-09
Resolution	:	13.10 Å(reported)
Based on initial model	:	2I2V

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:

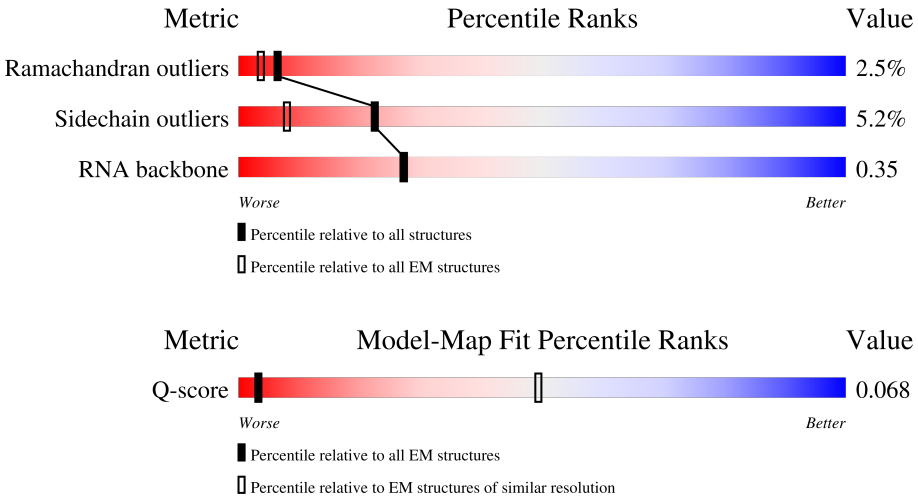
EMDB validation analysis	:	0.0.1.dev132
Mogul	:	2022.3.0, CSD as543be (2022)
MolProbity	:	4-5-2 with Phenix2.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

1 Overall quality at a glance

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

The reported resolution of this entry is 13.10 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))
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
RNA backbone	8273	3508	-
Q-score	-	25397	61 (12.60 - 13.60)

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

Mol	Chain	Length	Quality of chain
1	AA	120	7% 42% 37% 14%
2	AB	2904	8% 38% 43% 10%
3	AC	234	59% 39%
4	AD	272	47% 49%

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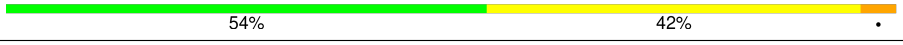
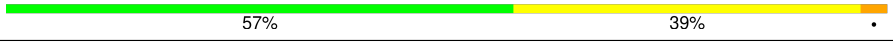
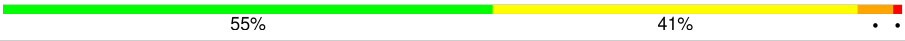
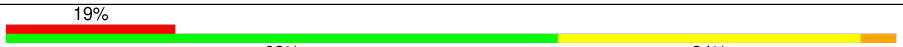
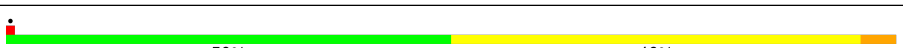
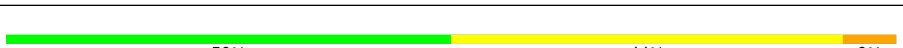
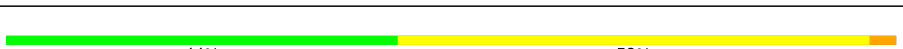
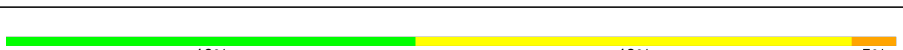
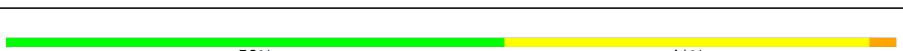
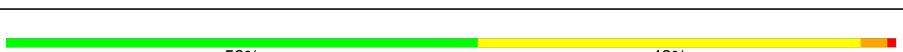
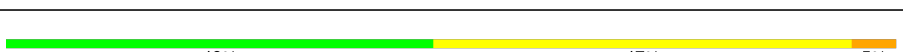
Mol	Chain	Length	Quality of chain
5	AE	209	
6	AF	201	
7	AG	178	
8	AH	176	
9	AI	149	
10	AJ	164	
11	AK	141	
12	AL	142	
13	AM	123	
14	AN	144	
15	AO	136	
16	AP	127	
17	AQ	117	
18	AR	114	
19	AS	117	
20	AT	103	
21	AU	110	
22	AV	100	
23	AW	103	
24	AX	94	
25	AY	84	
26	AZ	77	
27	A0	63	
28	A1	58	
29	A2	70	

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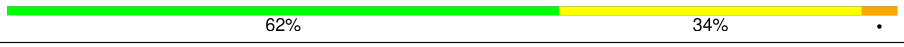
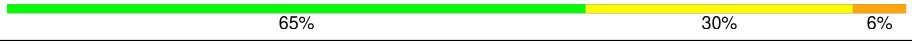
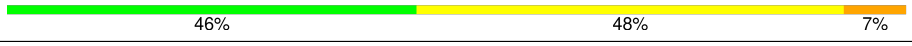
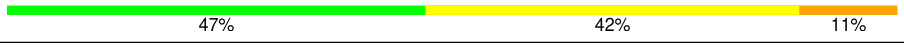
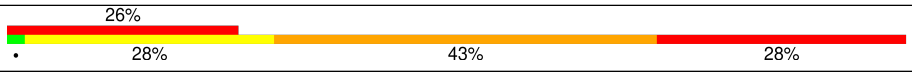
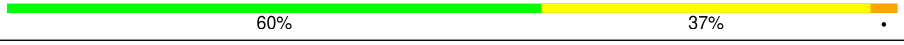
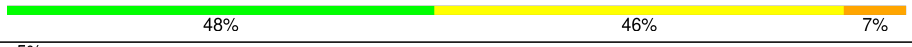
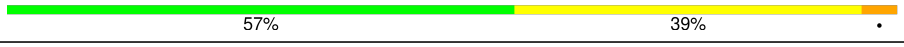
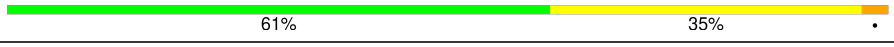
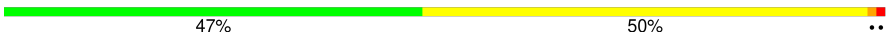
Mol	Chain	Length	Quality of chain
30	A3	56	
31	A4	54	
32	A5	46	
33	A6	64	
34	A7	38	
35	BA	1542	
36	BB	47	
37	BC	77	
38	BD	240	
39	BE	232	
40	BF	205	
41	BG	166	
42	BH	135	
43	BI	178	
44	BJ	129	
45	BK	129	
46	BL	103	
47	BM	128	
48	BN	123	
49	BO	117	
50	BP	100	
51	BQ	88	
52	BR	82	
53	BS	83	
54	BT	74	

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Mol	Chain	Length	Quality of chain
55	BU	91	
56	BV	86	
57	BW	70	

2 Entry composition

There are 57 unique types of molecules in this entry. The entry contains 150700 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
1	AA	120	2566	1144	468	835	119	0	0

- Molecule 2 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
2	AB	2904	62351	27824	11469	20155	2903	0	0

- Molecule 3 is a protein called 50S ribosomal protein L1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	AC	234	1733	1081	315	330	7	0	0

- Molecule 4 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	AD	272	2092	1294	425	366	7	0	0

- Molecule 5 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	AE	209	1565	979	288	294	4	0	0

- Molecule 6 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	AF	201	1552	974	283	290	5	0	0

- Molecule 7 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	AG	178	Total	C	N	O	S	0	0
			1420	905	251	258	6		

- Molecule 8 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	AH	176	Total	C	N	O	S	0	0
			1323	832	243	246	2		

- Molecule 9 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	AI	149	Total	C	N	O	S	0	0
			1111	699	197	214	1		

- Molecule 10 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	AJ	164	Total	C	N	O	S	0	0
			1233	776	220	231	6		

- Molecule 11 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	AK	141	Total	C	N	O	S	0	0
			1032	651	179	196	6		

- Molecule 12 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	AL	142	Total	C	N	O	S	0	0
			1129	714	212	199	4		

- Molecule 13 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AM	123	Total	C	N	O	S	0	0
			947	593	181	167	6		

- Molecule 14 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	AN	144	Total	C	N	O	S	0	0
			1053	654	207	190	2		

- Molecule 15 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AO	136	Total	C	N	O	S	0	0
			1074	686	205	177	6		

- Molecule 16 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	AP	127	Total	C	N	O	S	0	0
			1008	621	204	178	5		

- Molecule 17 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	AQ	117	Total	C	N	O	S	0	0
			900	557	179	163	1		

- Molecule 18 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	AR	114	Total	C	N	O	S	0	0
			917	574	179	163	1		

- Molecule 19 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms				AltConf	Trace
19	AS	117	Total	C	N	O	0	0
			947	604	192	151		

- Molecule 20 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	AT	103	Total	C	N	O	S	0	0
			816	516	153	145	2		

- Molecule 21 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	AU	110	Total	C	N	O	S	0	0
			857	532	166	156	3		

- Molecule 22 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	AV	100	Total	C	N	O	S	0	0
			787	496	146	143	2		

- Molecule 23 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms				AltConf	Trace
23	AW	103	Total	C	N	O	0	0
			789	498	148	143		

- Molecule 24 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	AX	94	Total	C	N	O	S	0	0
			753	479	137	134	3		

- Molecule 25 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	AY	84	Total	C	N	O	S	0	0
			634	391	129	113	1		

- Molecule 26 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	AZ	77	Total	C	N	O	S	0	0
			625	388	129	106	2		

- Molecule 27 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	A0	63	Total	C	N	O	S	0	0
			509	313	99	95	2		

- Molecule 28 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	A1	58	Total	C	N	O	S	0	0
			449	281	87	79	2		

- Molecule 29 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	A2	70	Total	C	N	O	S	0	0
			549	339	104	100	6		

- Molecule 30 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	A3	56	Total	C	N	O	S	0	0
			444	269	94	80	1		

- Molecule 31 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms				AltConf	Trace
31	A4	54	Total	C	N	O	0	0
			441	284	81	76		

- Molecule 32 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	A5	46	Total	C	N	O	S	0	0
			377	228	90	57	2		

- Molecule 33 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	A6	64	Total	C	N	O	S	0	0
			504	323	105	74	2		

- Molecule 34 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	A7	38	Total	C	N	O	S	0	0
			302	185	65	48	4		

- Molecule 35 is a RNA chain called 16S ribosomal RNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	BA	1542	Total	C	N	O	P	0	0
			33089	14767	6064	10717	1541		

- Molecule 36 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	BB	47	Total	C	N	O	P	0	0
			993	445	167	335	46		

- Molecule 37 is a RNA chain called P site tRNA.

Mol	Chain	Residues	Atoms						AltConf	Trace
37	BC	77	Total	C	N	O	P	S	0	0
			1641	734	297	533	76	1		

- Molecule 38 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	BD	240	Total	C	N	O	S	0	0
			1872	1180	332	352	8		

- Molecule 39 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	BE	232	Total	C	N	O	S	0	0
			1822	1149	346	323	4		

- Molecule 40 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	BF	205	Total	C	N	O	S	0	0
			1643	1026	315	298	4		

- Molecule 41 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	BG	166	Total	C	N	O	S	0	0
			1225	761	232	226	6		

- Molecule 42 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	BH	135	Total	C	N	O	S	0	0
			1101	677	198	219	7		

- Molecule 43 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	BI	178	Total	C	N	O	S	0	0
			1400	874	269	253	4		

- Molecule 44 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
44	BJ	129	Total	C	N	O	S	0	0
			979	616	173	184	6		

- Molecule 45 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	BK	129	Total	C	N	O	S	0	0
			1036	642	208	183	3		

- Molecule 46 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	BL	103	Total	C	N	O	S	0	0
			825	514	158	151	2		

- Molecule 47 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	BM	128	Total	C	N	O	S	0	0
			965	595	196	171	3		

- Molecule 48 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	BN	123	Total	C	N	O	S	0	0
			955	590	196	165	4		

- Molecule 49 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	BO	117	Total	C	N	O	S	0	0
			910	564	183	160	3		

- Molecule 50 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	BP	100	Total	C	N	O	S	0	0
			805	499	164	139	3		

- Molecule 51 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	BQ	88	Total	C	N	O	S	0	0
			716	440	146	129	1		

- Molecule 52 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	BR	82	Total	C	N	O	S	0	0
			649	406	128	114	1		

- Molecule 53 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	BS	83	Total	C	N	O	S	0	0
			672	425	124	120	3		

- Molecule 54 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	BT	74	Total	C	N	O	S	0	0
			626	395	123	107	1		

- Molecule 55 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	BU	91	Total	C	N	O	S	0	0
			727	464	139	122	2		

- Molecule 56 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
56	BV	86	Total	C	N	O	S	0	0
			670	414	138	115	3		

- Molecule 57 is a protein called 30S ribosomal protein S21.

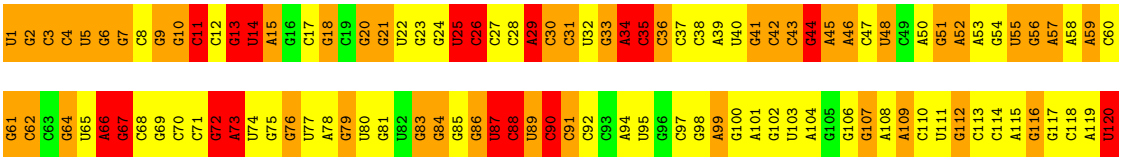
Mol	Chain	Residues	Atoms					AltConf	Trace
57	BW	70	Total	C	N	O	S	0	0
			590	366	125	98	1		

3 Residue-property plots (i)

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

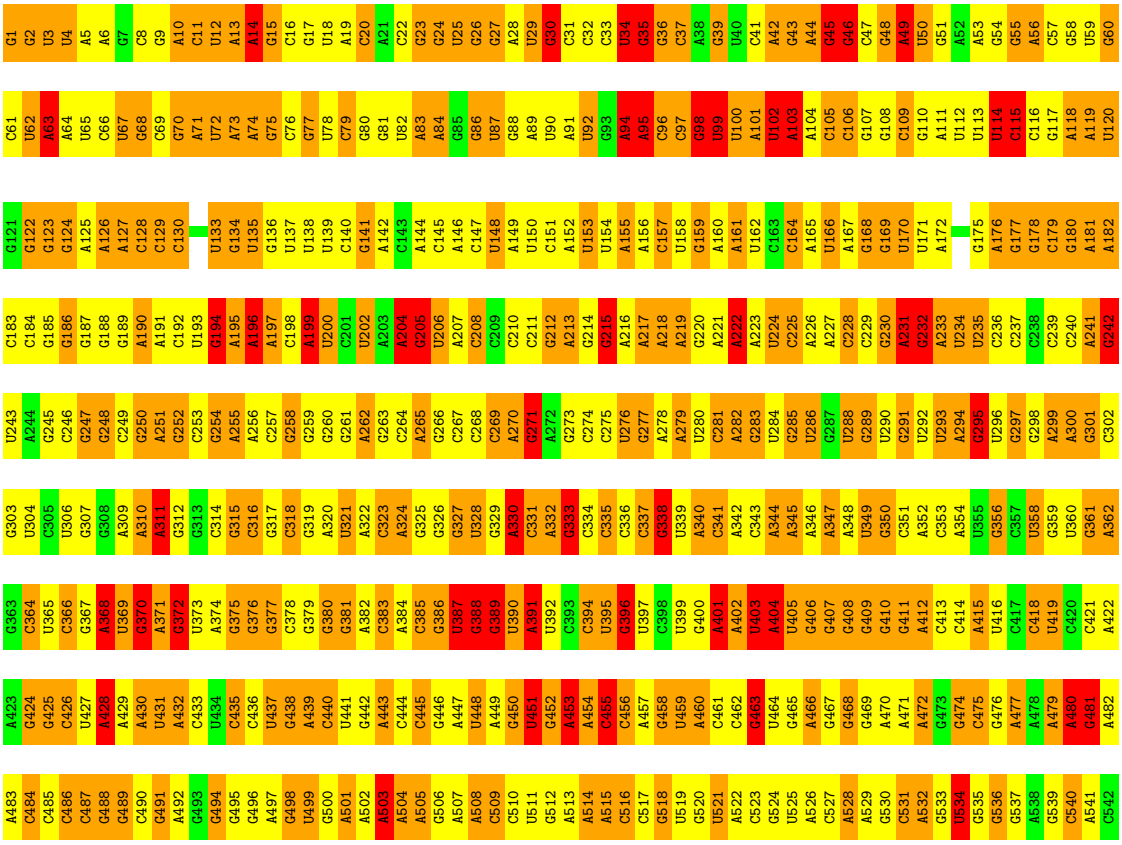
- Molecule 1: 5S ribosomal RNA

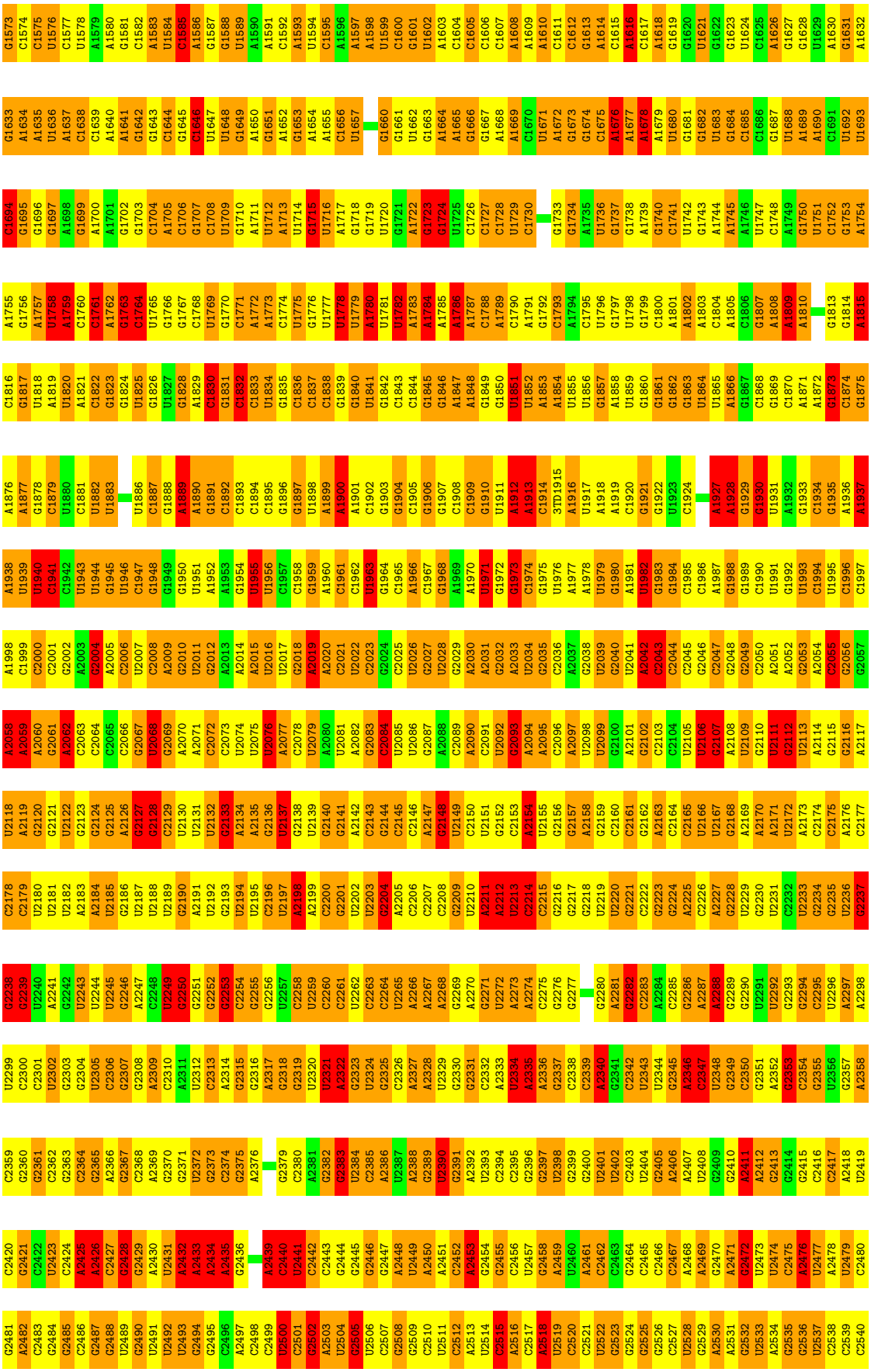
Chain AA: 7% 42% 37% 14%

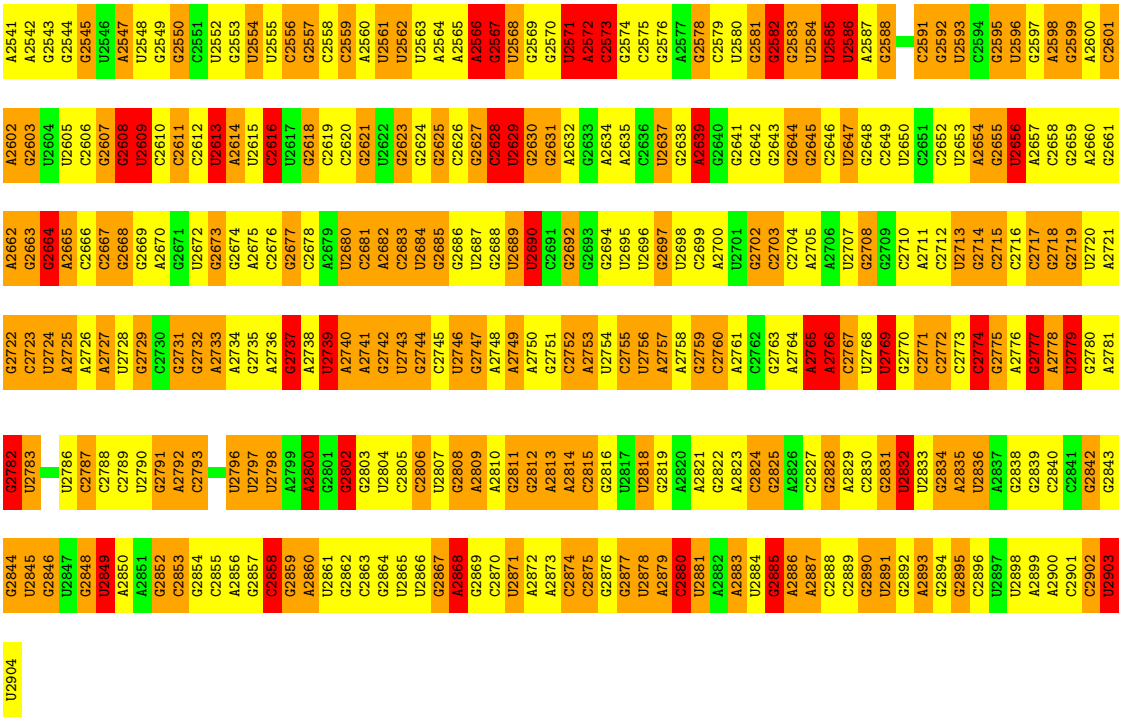


- Molecule 2: 23S ribosomal RNA

Chain AB: 8% 38% 43% 10%

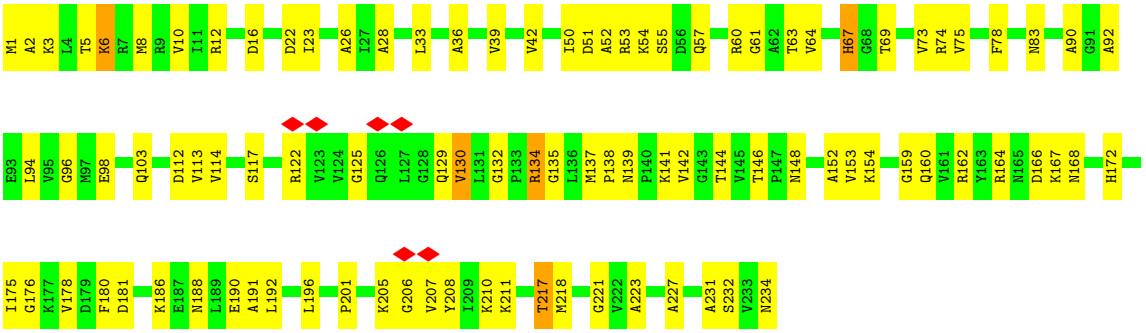






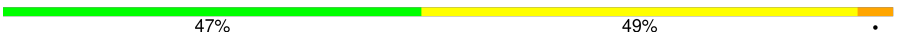
• Molecule 3: 50S ribosomal protein L1

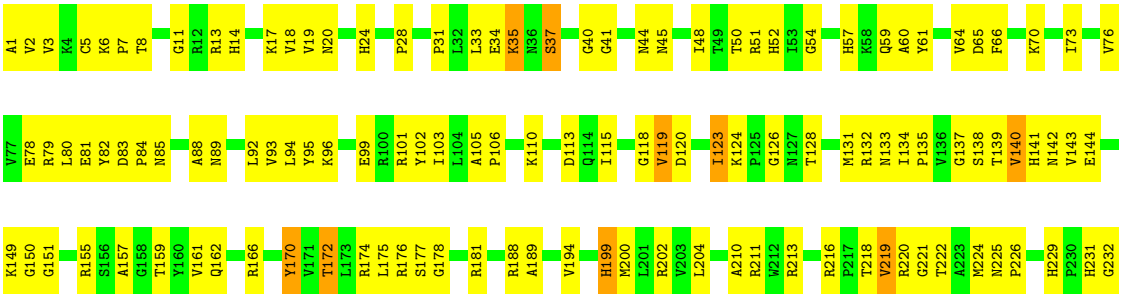
Chain AC:

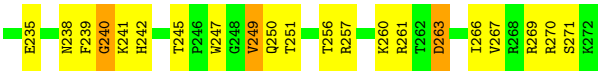


• Molecule 4: 50S ribosomal protein L2

Chain AD:

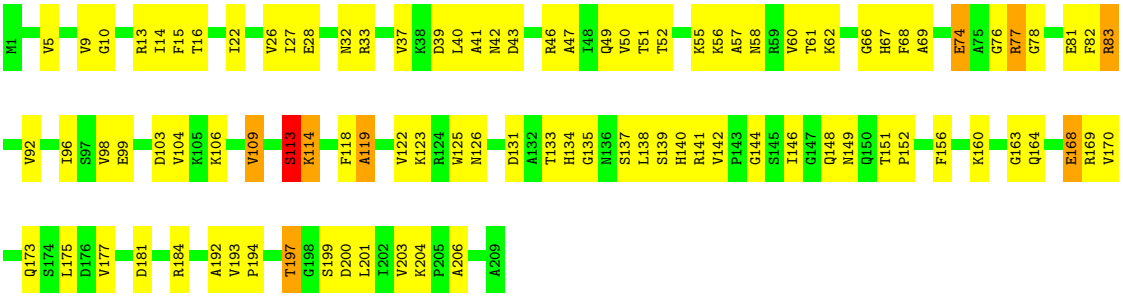






• Molecule 5: 50S ribosomal protein L3

Chain AE:

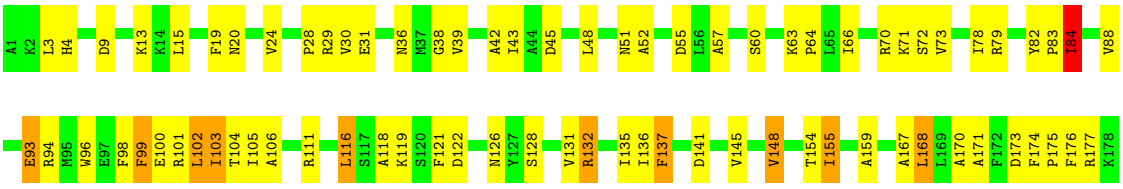


• Molecule 6: 50S ribosomal protein L4

Chain AF:

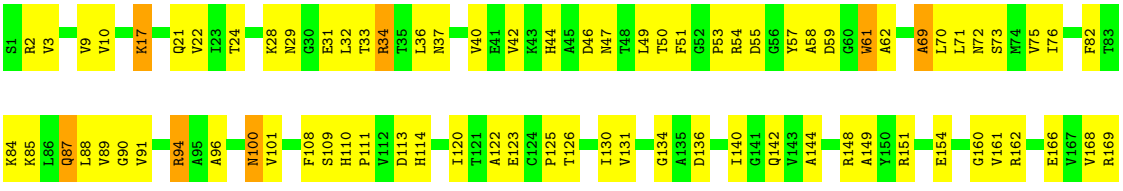
• Molecule 7: 50S ribosomal protein L5

Chain AG:



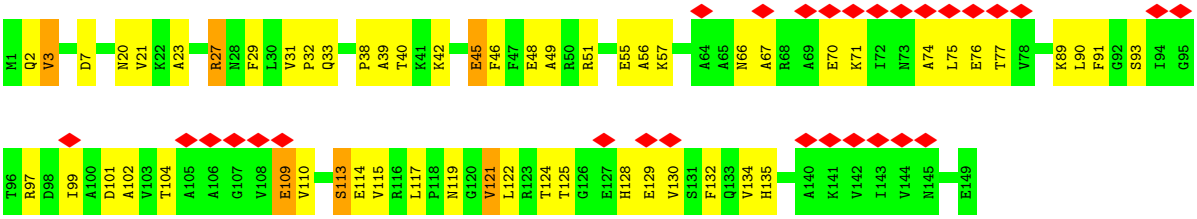
• Molecule 8: 50S ribosomal protein L6

Chain AH:



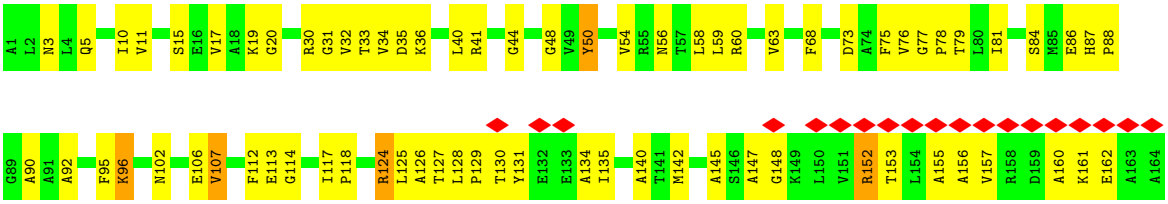
• Molecule 9: 50S ribosomal protein L9

Chain AI:



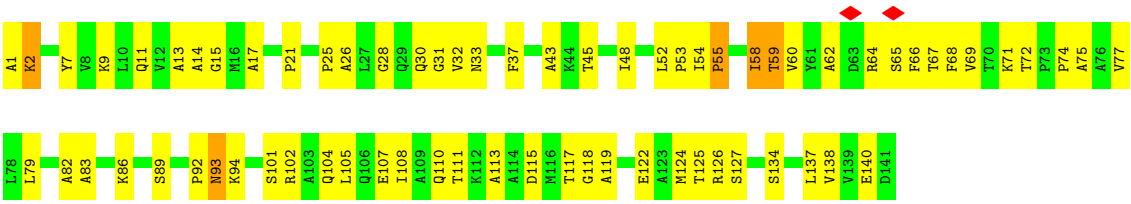
• Molecule 10: 50S ribosomal protein L10

Chain AJ:



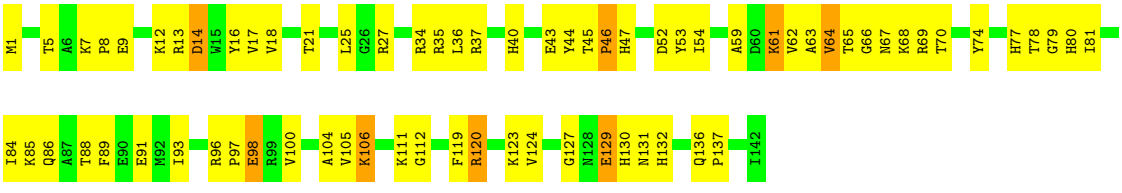
• Molecule 11: 50S ribosomal protein L11

Chain AK:



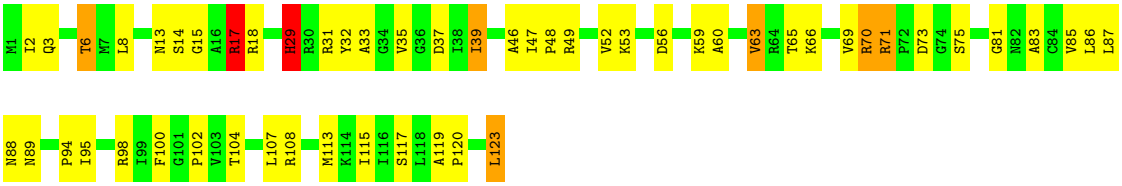
• Molecule 12: 50S ribosomal protein L13

Chain AL:



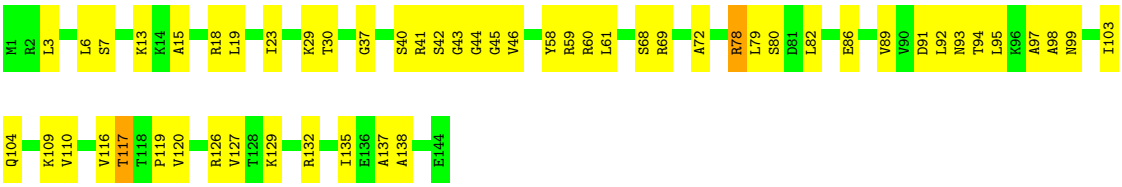
• Molecule 13: 50S ribosomal protein L14

Chain AM:



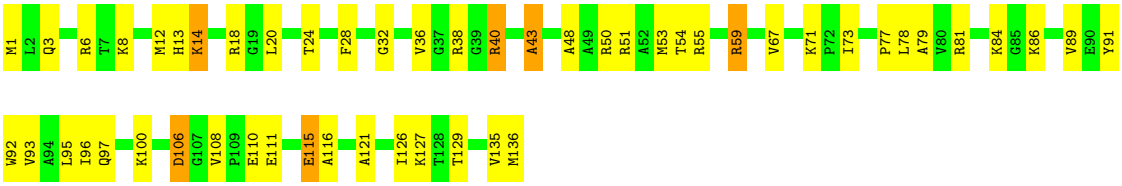
• Molecule 14: 50S ribosomal protein L15

Chain AN:



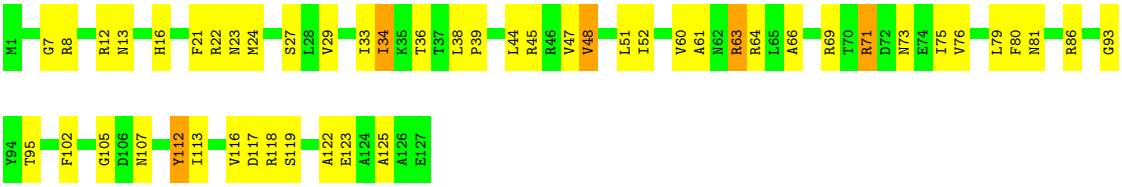
• Molecule 15: 50S ribosomal protein L16

Chain AO:



• Molecule 16: 50S ribosomal protein L17

Chain AP:

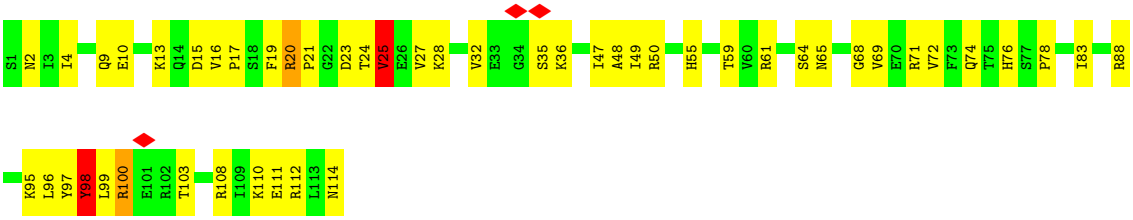


• Molecule 17: 50S ribosomal protein L18

Chain AQ:

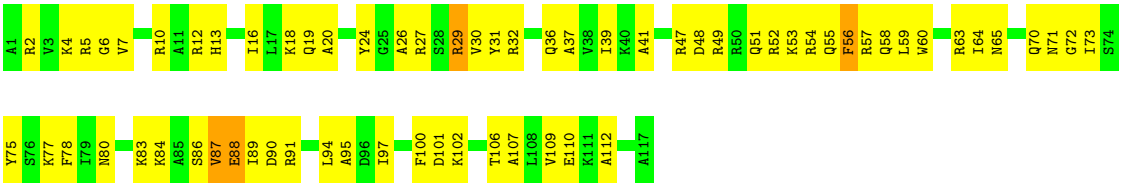
• Molecule 18: 50S ribosomal protein L19

Chain AR:



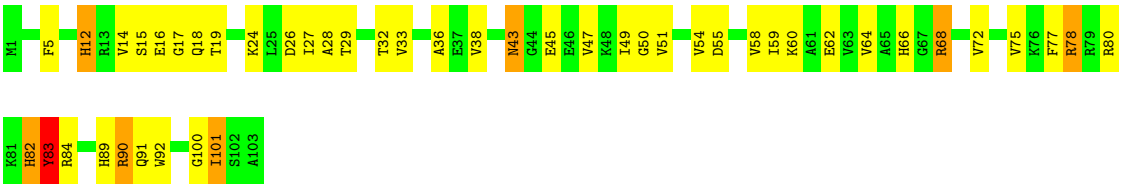
• Molecule 19: 50S ribosomal protein L20

Chain AS:



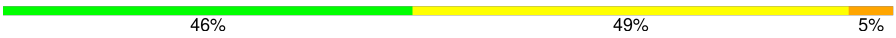
• Molecule 20: 50S ribosomal protein L21

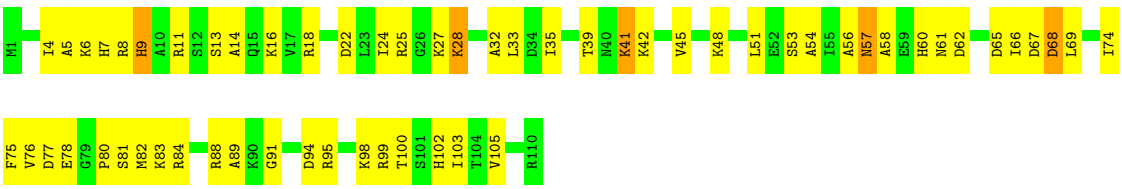
Chain AT:



• Molecule 21: 50S ribosomal protein L22

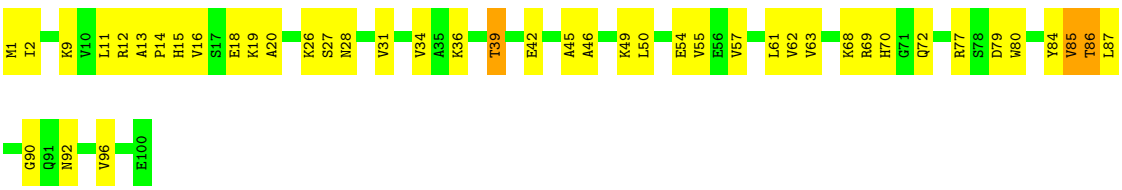
Chain AU:





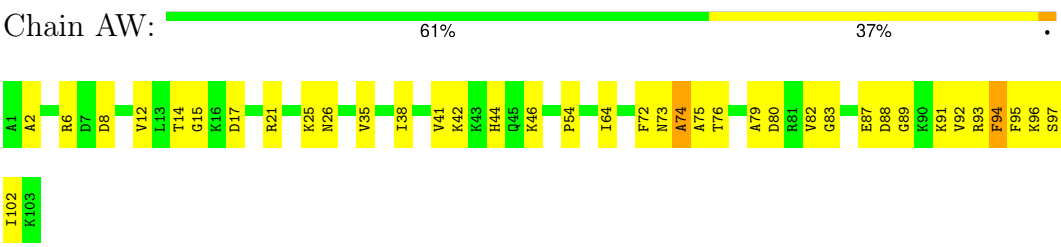
• Molecule 22: 50S ribosomal protein L23

Chain AV:



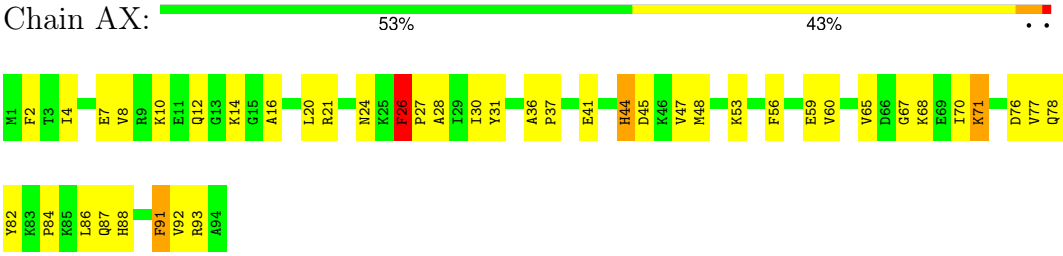
• Molecule 23: 50S ribosomal protein L24

Chain AW:



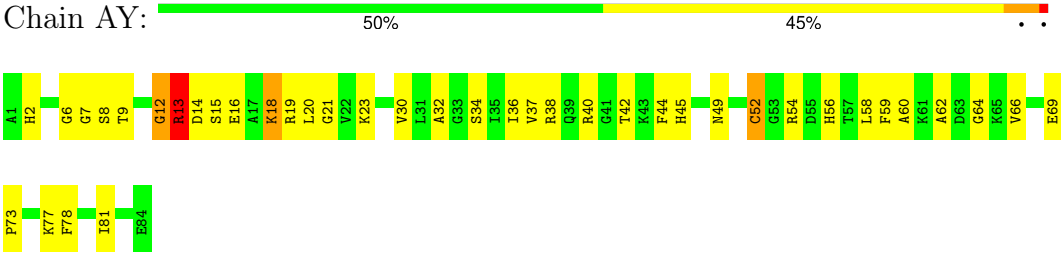
• Molecule 24: 50S ribosomal protein L25

Chain AX:



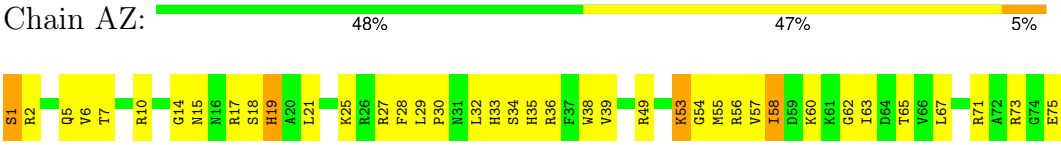
• Molecule 25: 50S ribosomal protein L27

Chain AY:



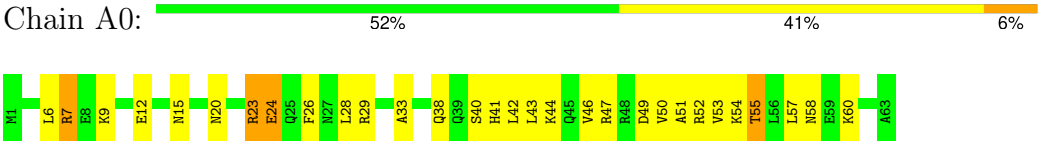
• Molecule 26: 50S ribosomal protein L28

Chain AZ:



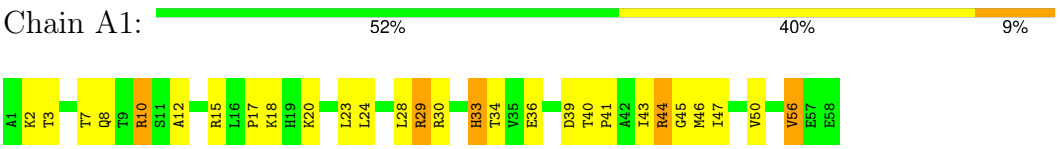
• Molecule 27: 50S ribosomal protein L29

Chain A0:



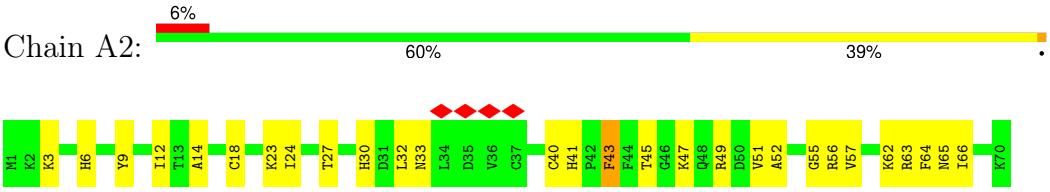
• Molecule 28: 50S ribosomal protein L30

Chain A1:



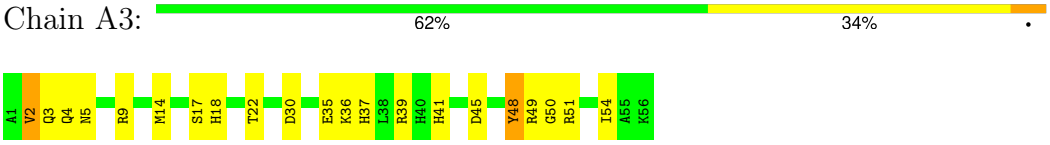
• Molecule 29: 50S ribosomal protein L31

Chain A2:



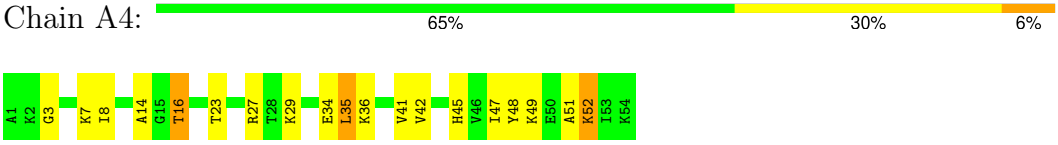
• Molecule 30: 50S ribosomal protein L32

Chain A3:



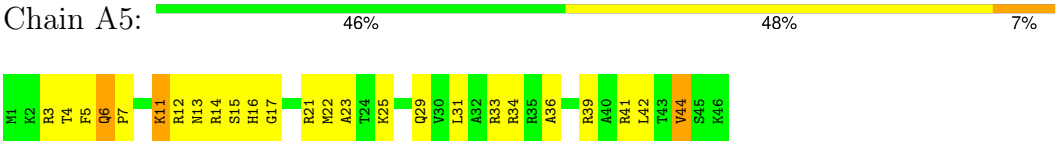
• Molecule 31: 50S ribosomal protein L33

Chain A4:



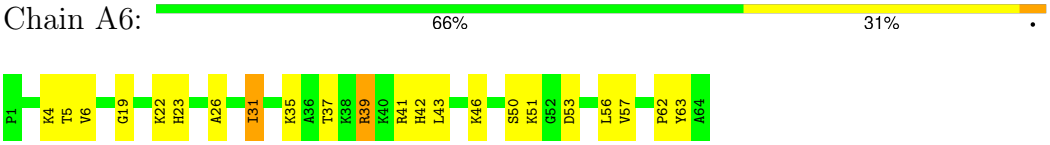
• Molecule 32: 50S ribosomal protein L34

Chain A5:



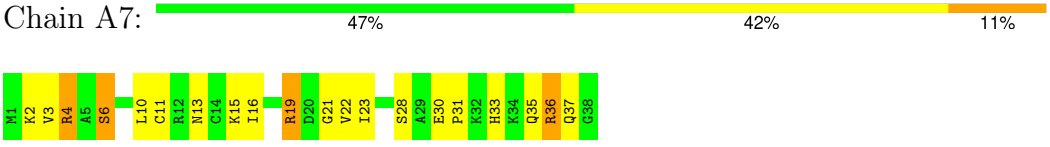
• Molecule 33: 50S ribosomal protein L35

Chain A6:



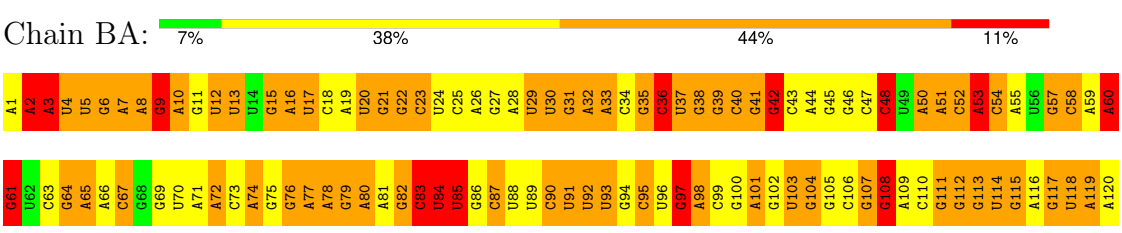
• Molecule 34: 50S ribosomal protein L36

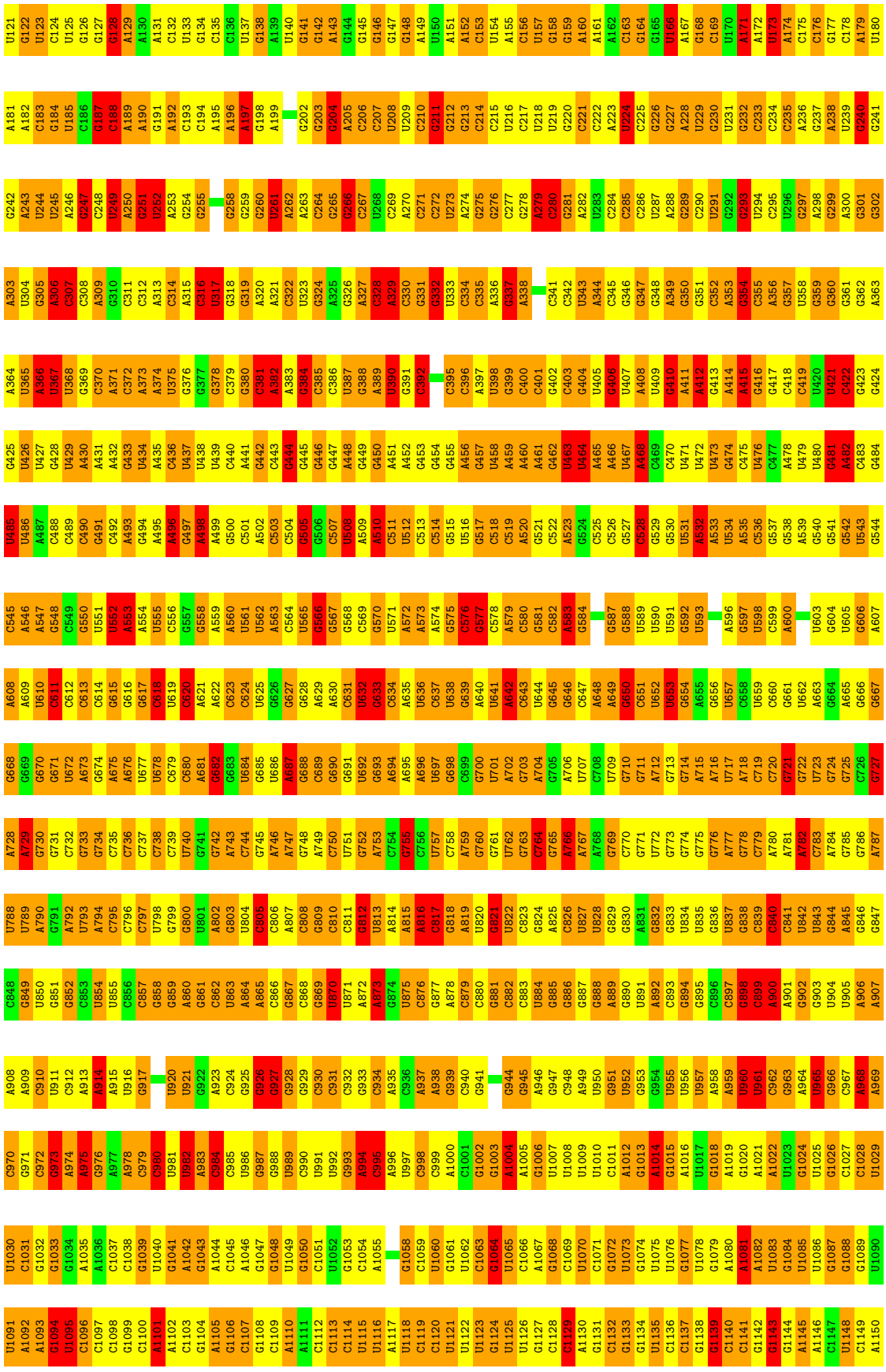
Chain A7:

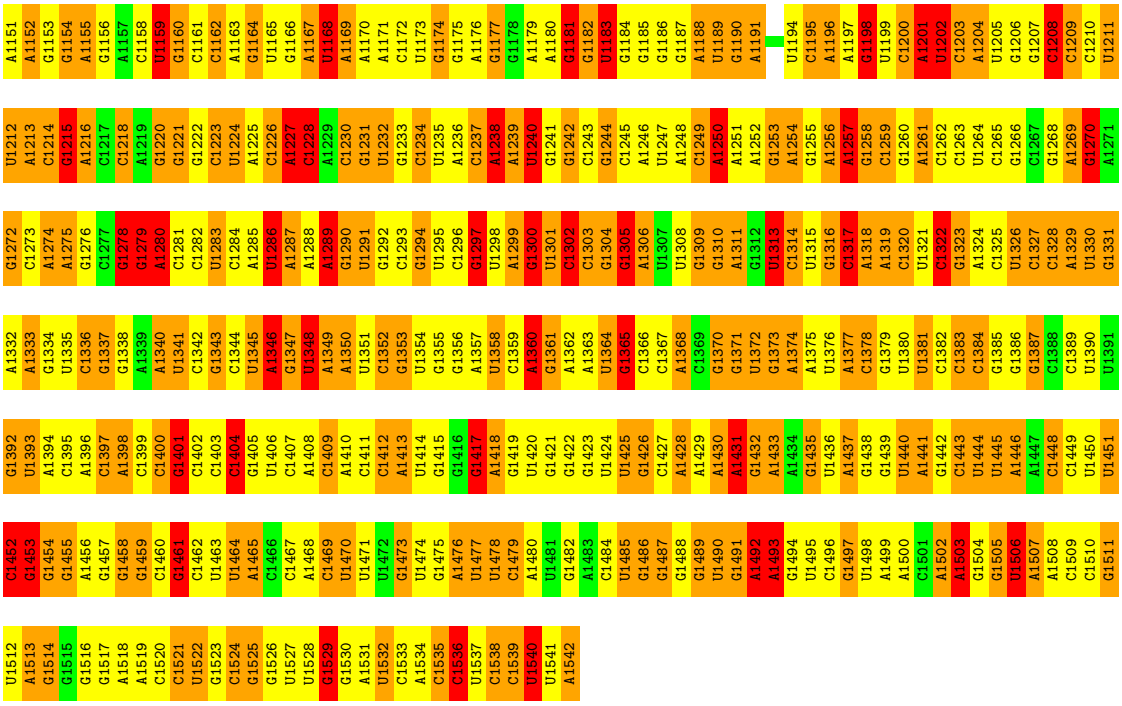


• Molecule 35: 16S ribosomal RNA

Chain BA:

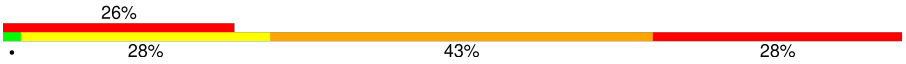


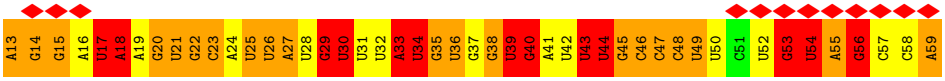




• Molecule 36: mRNA

Chain BB:



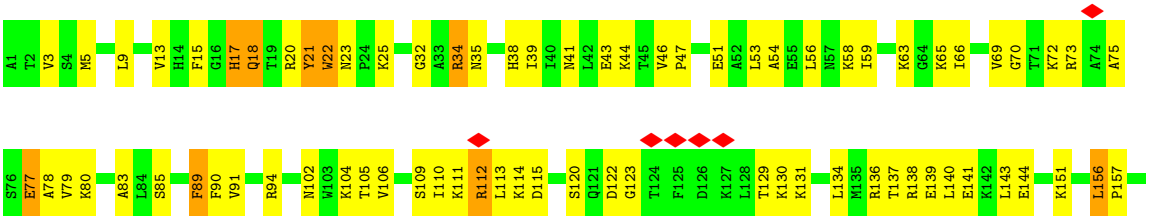


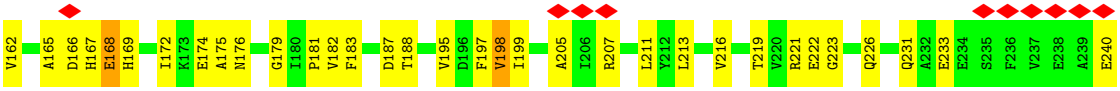
• Molecule 37: P site tRNA

Chain BC:

• Molecule 38: 30S ribosomal protein S2

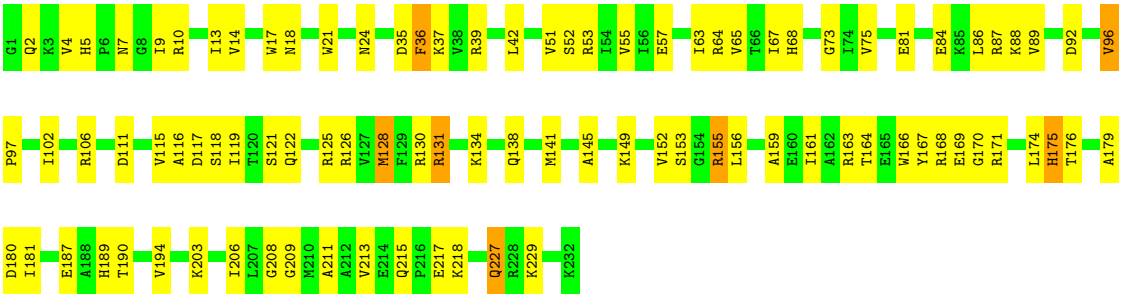
Chain BD:





• Molecule 39: 30S ribosomal protein S3

Chain BE:

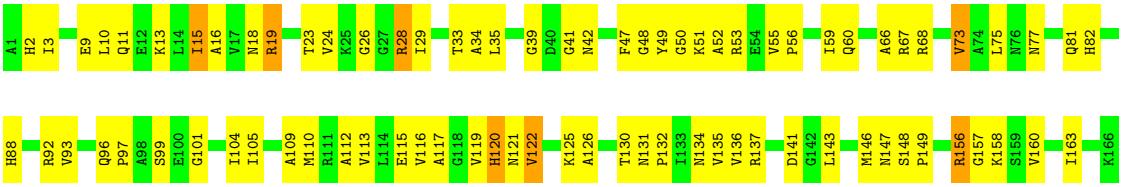


• Molecule 40: 30S ribosomal protein S4

Chain BF:

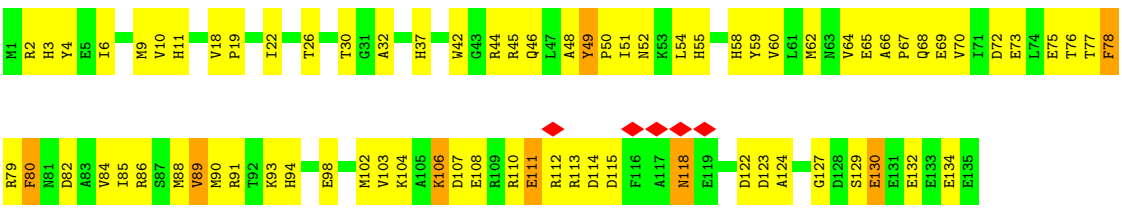
• Molecule 41: 30S ribosomal protein S5

Chain BG:



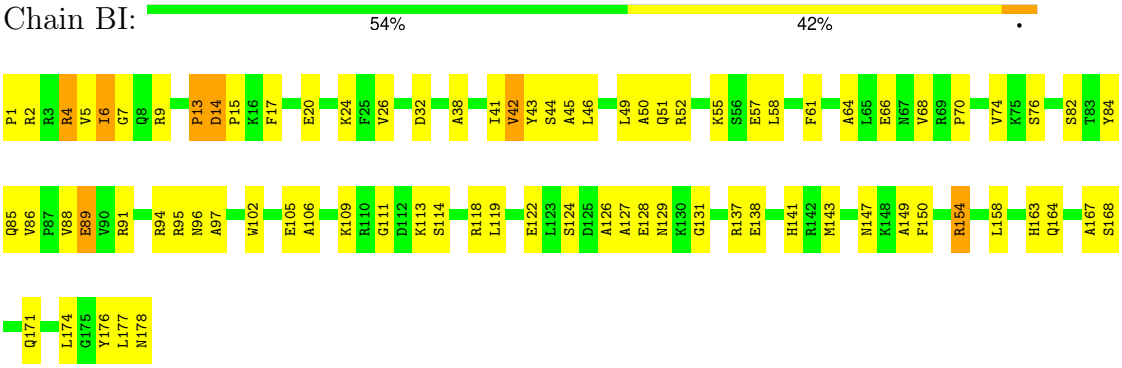
• Molecule 42: 30S ribosomal protein S6

Chain BH:



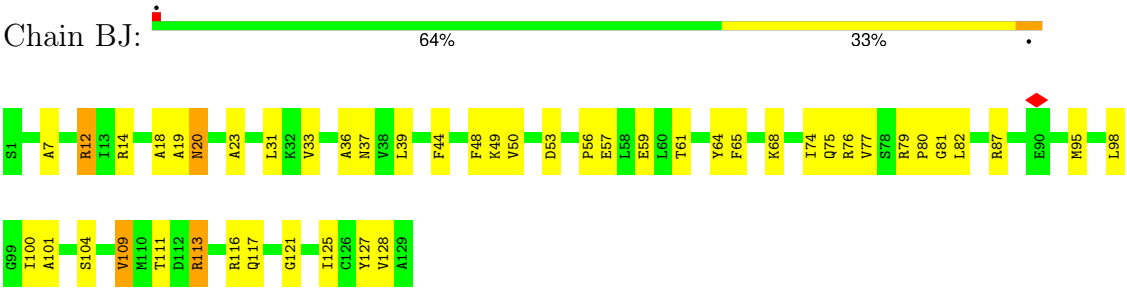
• Molecule 43: 30S ribosomal protein S7

Chain BI:



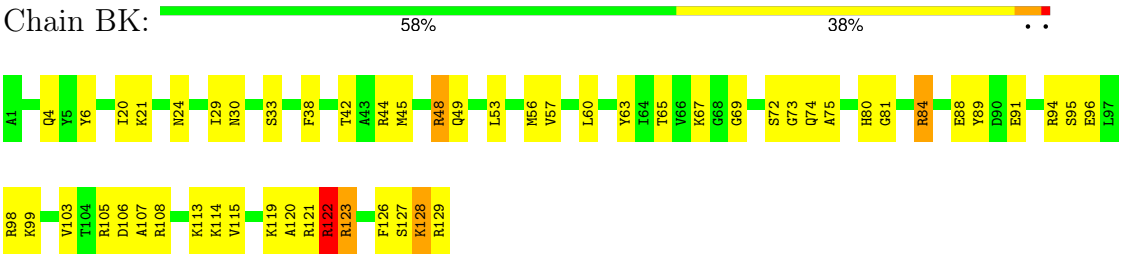
• Molecule 44: 30S ribosomal protein S8

Chain BJ:



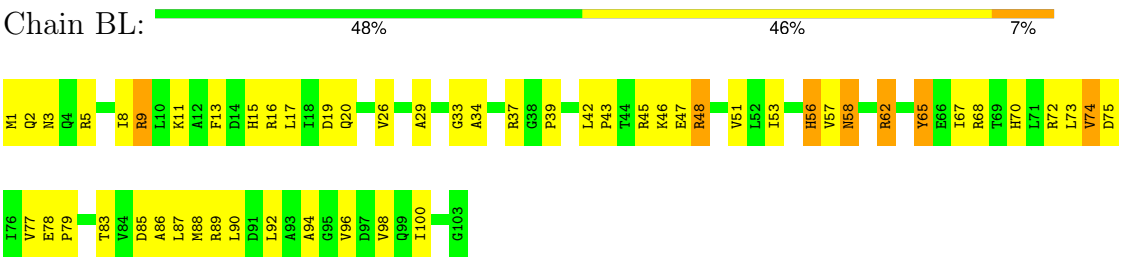
• Molecule 45: 30S ribosomal protein S9

Chain BK:



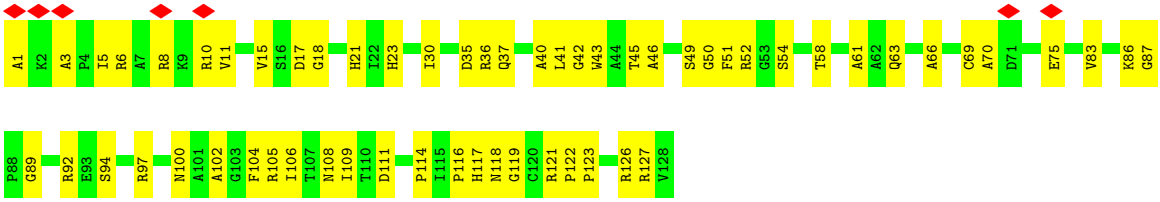
• Molecule 46: 30S ribosomal protein S10

Chain BL:



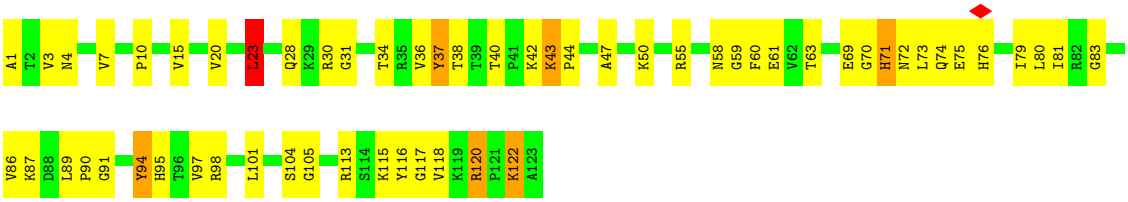
• Molecule 47: 30S ribosomal protein S11

Chain BM:



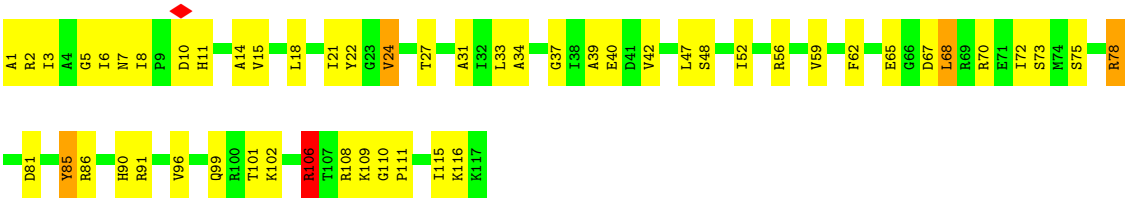
• Molecule 48: 30S ribosomal protein S12

Chain BN:



• Molecule 49: 30S ribosomal protein S13

Chain BO:

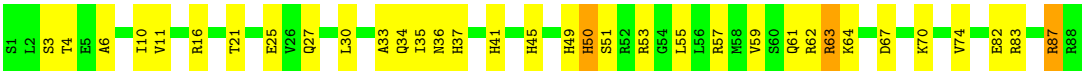


• Molecule 50: 30S ribosomal protein S14

Chain BP:

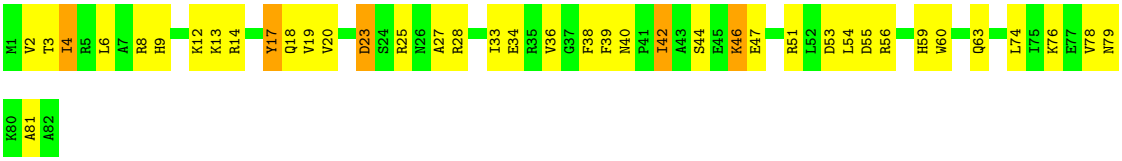
• Molecule 51: 30S ribosomal protein S15

Chain BQ:

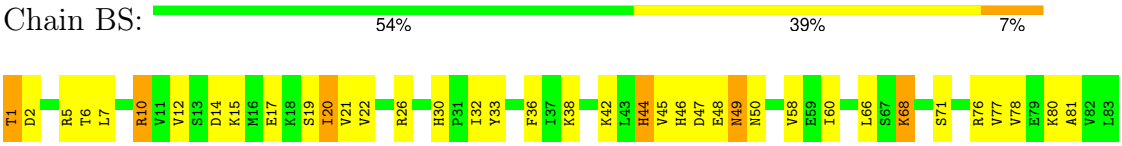


• Molecule 52: 30S ribosomal protein S16

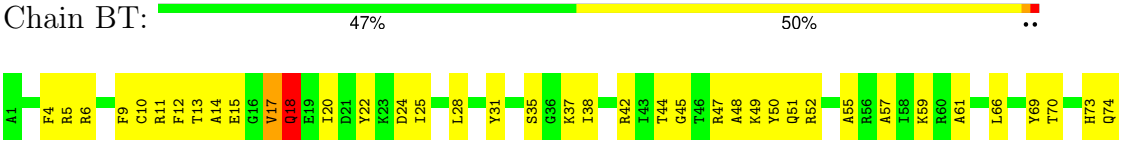
Chain BR:



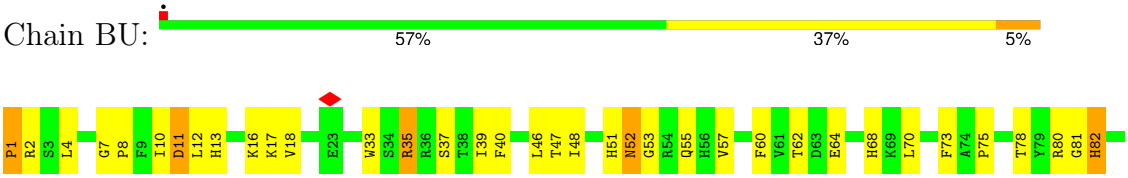
• Molecule 53: 30S ribosomal protein S17



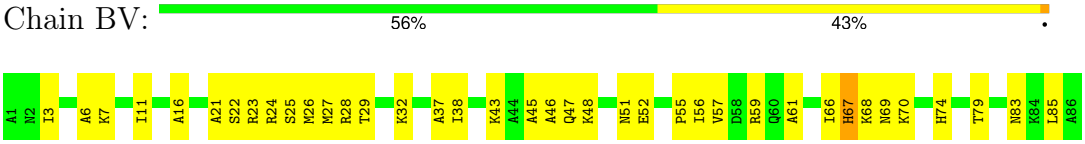
• Molecule 54: 30S ribosomal protein S18



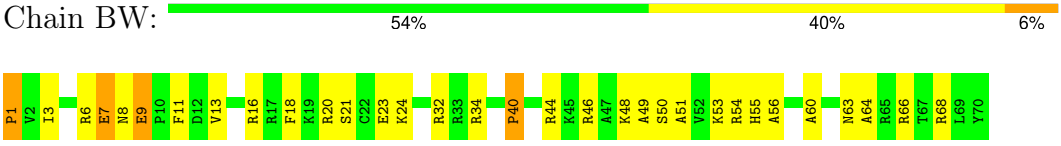
• Molecule 55: 30S ribosomal protein S19



• Molecule 56: 30S ribosomal protein S20



• Molecule 57: 30S ribosomal protein S21



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	21000	Depositor
Resolution determination method	FSC 0.5 CUT-OFF	Depositor
CTF correction method	Volumes were CTF-corrected in defocus groups	Depositor
Microscope	FEI TECNAI F30	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	25	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	58269	Depositor
Image detector	TVIPS TEMCAM-F415 (4k x 4k)	Depositor
Maximum map value	1.443	Depositor
Minimum map value	-0.456	Depositor
Average map value	0.028	Depositor
Map value standard deviation	0.182	Depositor
Recommended contour level	0.1	Depositor
Map size (Å)	375.0, 375.0, 375.0	wwPDB
Map dimensions	250, 250, 250	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.5, 1.5, 1.5	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: 3TD, 1MG, 5MU, 5MC, 4SU, CH, H2U, 4OC, OMC, 7MG, MA6, OMU, OMG, 2MG, 2MA, PSU, UR3, 6MZ

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	AA	1.88	46/2869 (1.6%)	1.99	159/4474 (3.6%)
2	AB	1.90	1082/69257 (1.6%)	1.98	3457/108040 (3.2%)
3	AC	1.96	33/1748 (1.9%)	2.39	106/2355 (4.5%)
4	AD	2.07	55/2131 (2.6%)	2.47	143/2863 (5.0%)
5	AE	2.00	32/1586 (2.0%)	2.41	101/2134 (4.7%)
6	AF	2.01	29/1571 (1.8%)	2.37	94/2113 (4.4%)
7	AG	1.99	24/1444 (1.7%)	2.36	73/1937 (3.8%)
8	AH	2.05	32/1343 (2.4%)	2.38	75/1816 (4.1%)
9	AI	1.96	18/1122 (1.6%)	2.42	68/1515 (4.5%)
10	AJ	2.01	23/1247 (1.8%)	2.49	84/1679 (5.0%)
11	AK	1.95	19/1046 (1.8%)	2.54	90/1410 (6.4%)
12	AL	2.03	25/1152 (2.2%)	2.51	78/1551 (5.0%)
13	AM	2.01	21/956 (2.2%)	2.41	65/1279 (5.1%)
14	AN	2.06	26/1062 (2.4%)	2.38	51/1413 (3.6%)
15	AO	1.96	14/1093 (1.3%)	2.42	66/1460 (4.5%)
16	AP	1.97	19/1021 (1.9%)	2.42	58/1364 (4.3%)
17	AQ	2.07	21/910 (2.3%)	2.41	52/1219 (4.3%)
18	AR	2.01	18/929 (1.9%)	2.32	49/1242 (3.9%)
19	AS	1.95	20/960 (2.1%)	2.59	88/1278 (6.9%)
20	AT	2.08	23/829 (2.8%)	2.38	53/1107 (4.8%)
21	AU	2.15	26/864 (3.0%)	2.39	55/1156 (4.8%)
22	AV	2.05	14/794 (1.8%)	2.44	45/1060 (4.2%)
23	AW	1.91	8/797 (1.0%)	2.35	38/1062 (3.6%)
24	AX	2.01	17/766 (2.2%)	2.35	45/1025 (4.4%)
25	AY	1.97	12/642 (1.9%)	2.44	38/848 (4.5%)
26	AZ	1.95	9/635 (1.4%)	2.58	54/848 (6.4%)
27	A0	1.93	10/510 (2.0%)	2.38	24/677 (3.5%)
28	A1	2.02	11/453 (2.4%)	2.50	28/605 (4.6%)
29	A2	2.01	8/559 (1.4%)	2.53	33/745 (4.4%)
30	A3	1.97	7/450 (1.6%)	2.39	22/599 (3.7%)
31	A4	1.91	8/448 (1.8%)	2.26	10/594 (1.7%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
32	A5	2.09	8/380 (2.1%)	2.51	23/498 (4.6%)
33	A6	2.10	11/513 (2.1%)	2.28	24/676 (3.6%)
34	A7	2.20	11/303 (3.6%)	2.31	16/397 (4.0%)
35	BA	1.89	580/36769 (1.6%)	2.01	1988/57354 (3.5%)
36	BB	1.99	24/1108 (2.2%)	2.23	81/1724 (4.7%)
37	BC	1.86	27/1721 (1.6%)	2.00	93/2683 (3.5%)
38	BD	1.94	36/1904 (1.9%)	2.39	122/2565 (4.8%)
39	BE	2.04	39/1852 (2.1%)	2.36	73/2490 (2.9%)
40	BF	1.96	29/1665 (1.7%)	2.32	80/2227 (3.6%)
41	BG	2.11	27/1239 (2.2%)	2.42	79/1664 (4.7%)
42	BH	2.01	26/1121 (2.3%)	2.47	84/1509 (5.6%)
43	BI	2.01	33/1422 (2.3%)	2.42	84/1908 (4.4%)
44	BJ	1.99	13/989 (1.3%)	2.33	54/1326 (4.1%)
45	BK	1.98	20/1048 (1.9%)	2.42	58/1394 (4.2%)
46	BL	2.05	20/835 (2.4%)	2.41	52/1127 (4.6%)
47	BM	2.05	18/982 (1.8%)	2.49	64/1323 (4.8%)
48	BN	2.03	21/969 (2.2%)	2.36	57/1300 (4.4%)
49	BO	2.03	20/919 (2.2%)	2.52	61/1226 (5.0%)
50	BP	2.01	20/817 (2.4%)	2.33	36/1088 (3.3%)
51	BQ	1.99	12/724 (1.7%)	2.44	46/966 (4.8%)
52	BR	2.05	14/659 (2.1%)	2.37	39/884 (4.4%)
53	BS	2.03	14/681 (2.1%)	2.38	43/913 (4.7%)
54	BT	1.90	9/637 (1.4%)	2.37	43/851 (5.1%)
55	BU	2.06	17/744 (2.3%)	2.36	37/995 (3.7%)
56	BV	1.96	12/676 (1.8%)	2.56	42/895 (4.7%)
57	BW	1.88	9/598 (1.5%)	2.42	35/792 (4.4%)
All	All	1.93	2780/162469 (1.7%)	2.12	8816/242243 (3.6%)

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	AA	0	69
2	AB	0	1654
3	AC	0	3
4	AD	0	11
5	AE	0	7
6	AF	0	2
7	AG	0	1
8	AH	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
9	AI	0	3
10	AJ	0	8
11	AK	0	1
12	AL	0	3
13	AM	0	3
14	AN	0	2
15	AO	0	3
16	AP	0	5
17	AQ	0	4
18	AR	0	6
19	AS	0	3
20	AT	0	5
21	AU	0	5
22	AV	0	1
24	AX	0	5
25	AY	0	4
26	AZ	0	2
27	A0	0	4
28	A1	0	4
29	A2	0	3
30	A3	0	1
31	A4	0	2
32	A5	0	2
33	A6	0	2
34	A7	0	2
35	BA	0	882
36	BB	0	30
37	BC	0	41
38	BD	0	4
39	BE	0	9
40	BF	0	3
41	BG	0	3
42	BH	0	9
43	BI	0	3
44	BJ	0	7
45	BK	0	5
46	BL	0	2
47	BM	0	1
48	BN	0	6
49	BO	0	4
50	BP	0	1
51	BQ	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
52	BR	0	2
53	BS	0	1
54	BT	0	2
55	BU	0	4
57	BW	0	4
All	All	0	2857

All (2780) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	AH	134	GLY	CA-C	10.99	1.63	1.51
34	A7	30	GLU	CA-C	10.96	1.62	1.52
55	BU	57	VAL	CA-C	10.93	1.60	1.52
41	BG	55	VAL	CA-CB	10.68	1.61	1.53
2	AB	2829	A	P-O5'	10.64	1.75	1.59
2	AB	2096	C	P-O5'	10.27	1.75	1.59
2	AB	2831	G	O3'-P	10.19	1.76	1.61
40	BF	154	VAL	CA-CB	10.15	1.66	1.54
6	AF	180	LEU	CA-C	10.07	1.66	1.52
35	BA	562	U	P-O5'	9.73	1.74	1.59
17	AQ	49	VAL	CA-CB	9.51	1.66	1.55
35	BA	107	G	C4'-C3'	9.49	1.66	1.52
2	AB	2308	G	P-O5'	9.46	1.74	1.59
48	BN	20	VAL	CA-C	9.34	1.61	1.53
4	AD	123	ILE	CA-C	9.30	1.64	1.52
35	BA	437	U	P-O5'	9.27	1.73	1.59
42	BH	118	ASN	C-O	-9.25	1.12	1.24
2	AB	2099	U	O3'-P	9.15	1.74	1.61
55	BU	57	VAL	CA-CB	9.01	1.61	1.54
2	AB	1199	U	O3'-P	8.99	1.74	1.61
10	AJ	11	VAL	CA-CB	-8.97	1.44	1.54
47	BM	42	GLY	CA-C	8.94	1.60	1.51
2	AB	2161	C	C4'-C3'	8.93	1.66	1.52
3	AC	33	LEU	CA-C	8.86	1.65	1.52
35	BA	545	C	O3'-P	8.85	1.74	1.61
2	AB	461	C	O3'-P	8.82	1.74	1.61
2	AB	463	G	C5'-C4'	8.82	1.64	1.51
36	BB	14	G	C5'-C4'	8.73	1.64	1.51
43	BI	85	GLN	C-N	8.73	1.43	1.33
7	AG	4	HIS	ND1-CE1	8.64	1.41	1.32
2	AB	1489	C	C4'-O4'	-8.62	1.32	1.45
2	AB	460	A	P-O5'	8.60	1.72	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	AD	37	SER	N-CA	8.59	1.57	1.46
35	BA	1234	C	C4'-O4'	-8.57	1.32	1.45
4	AD	48	ILE	CA-C	8.56	1.63	1.52
55	BU	40	PHE	N-CA	8.55	1.53	1.45
3	AC	207	VAL	CA-CB	8.54	1.64	1.54
2	AB	1188	U	P-O5'	8.48	1.72	1.59
2	AB	206	U	O3'-P	8.47	1.73	1.61
35	BA	1370	G	C3'-C2'	8.40	1.65	1.52
2	AB	2543	G	P-O5'	8.38	1.72	1.59
2	AB	2812	G	P-O5'	8.38	1.72	1.59
35	BA	758	C	P-O5'	8.37	1.72	1.59
11	AK	28	GLY	CA-C	8.35	1.61	1.52
35	BA	763	G	C4'-O4'	-8.33	1.33	1.45
20	AT	14	VAL	CA-CB	8.33	1.67	1.55
2	AB	1499	C	P-O5'	8.30	1.72	1.59
7	AG	60	SER	N-CA	8.29	1.56	1.46
19	AS	60	TRP	N-CA	8.29	1.56	1.46
36	BB	38	G	P-O5'	8.27	1.72	1.59
11	AK	17	ALA	CA-C	8.24	1.64	1.52
10	AJ	113	GLU	CA-C	8.24	1.63	1.53
12	AL	45	THR	CA-C	8.19	1.60	1.52
43	BI	122	GLU	CA-C	-8.19	1.41	1.52
8	AH	111	PRO	N-CA	-8.17	1.37	1.47
11	AK	15	GLY	CA-C	8.16	1.63	1.51
8	AH	91	VAL	N-CA	8.15	1.56	1.46
18	AR	35	SER	CA-C	8.14	1.63	1.52
2	AB	383	C	O3'-P	8.13	1.73	1.61
2	AB	965	C	P-O5'	8.12	1.72	1.59
8	AH	57	TYR	CA-C	8.10	1.62	1.52
19	AS	36	GLN	N-CA	8.08	1.56	1.46
2	AB	976	G	P-O5'	8.07	1.71	1.59
35	BA	1012	A	C4'-O4'	-8.06	1.33	1.45
5	AE	26	VAL	CA-C	8.05	1.63	1.52
35	BA	1273	C	C4'-C3'	8.05	1.64	1.52
35	BA	675	A	P-O5'	8.04	1.71	1.59
52	BR	33	ILE	CA-C	8.03	1.61	1.52
14	AN	110	VAL	N-CA	8.03	1.56	1.46
2	AB	1396	U	P-O5'	8.01	1.71	1.59
35	BA	1310	G	O3'-P	8.01	1.73	1.61
33	A6	23	HIS	CB-CG	8.01	1.61	1.50
32	A5	6	GLN	CA-C	8.00	1.60	1.52
2	AB	2181	U	P-O5'	7.97	1.71	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	886	G	C4'-O4'	-7.94	1.33	1.45
35	BA	447	G	O4'-C1'	7.93	1.53	1.41
51	BQ	49	HIS	CG-ND1	7.93	1.47	1.38
2	AB	805	G	P-O5'	7.92	1.71	1.59
7	AG	51	ASN	N-CA	-7.92	1.36	1.46
2	AB	68	G	P-O5'	7.92	1.71	1.59
2	AB	1273	U	C4'-O4'	-7.91	1.33	1.45
35	BA	1332	A	C5'-C4'	7.91	1.63	1.51
57	BW	21	SER	CA-C	7.91	1.62	1.52
41	BG	50	GLY	CA-C	7.89	1.59	1.52
42	BH	49	TYR	CA-C	7.89	1.62	1.52
6	AF	29	HIS	ND1-CE1	7.87	1.40	1.32
2	AB	2835	A	C4'-O4'	-7.86	1.34	1.45
39	BE	175	HIS	CD2-NE2	7.86	1.46	1.37
49	BO	14	ALA	C-O	-7.86	1.14	1.24
17	AQ	111	ARG	CD-NE	7.86	1.57	1.46
1	AA	3	C	C5'-C4'	7.84	1.63	1.51
35	BA	566	G	P-O5'	7.82	1.71	1.59
18	AR	36	LYS	CA-C	7.81	1.62	1.52
2	AB	1388	G	P-O5'	7.81	1.71	1.59
2	AB	1575	C	P-O5'	7.80	1.71	1.59
14	AN	80	SER	CA-C	7.80	1.63	1.52
2	AB	1644	C	P-O5'	7.79	1.71	1.59
43	BI	141	HIS	CB-CG	7.79	1.61	1.50
2	AB	1666	G	P-O5'	7.78	1.71	1.59
35	BA	1184	G	C4'-O4'	-7.78	1.33	1.45
2	AB	1813	G	P-O5'	7.77	1.71	1.59
35	BA	475	C	P-O5'	7.77	1.71	1.59
2	AB	2095	A	O5'-C5'	7.76	1.54	1.42
2	AB	1052	C	C1'-N1	7.75	1.60	1.48
2	AB	2053	G	P-O5'	7.75	1.71	1.59
2	AB	921	C	P-O5'	7.75	1.71	1.59
17	AQ	34	HIS	CE1-NE2	7.74	1.40	1.32
2	AB	2365	G	O3'-P	7.71	1.72	1.61
35	BA	316	C	P-O5'	7.70	1.71	1.59
2	AB	1135	C	P-O5'	7.69	1.71	1.59
35	BA	630	A	P-O5'	7.69	1.71	1.59
35	BA	215	C	P-O5'	7.68	1.71	1.59
2	AB	695	G	O3'-P	7.68	1.72	1.61
49	BO	8	ILE	CA-C	7.68	1.60	1.52
5	AE	92	VAL	N-CA	7.68	1.55	1.46
2	AB	2823	A	C4'-O4'	-7.67	1.34	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
28	A1	50	VAL	N-CA	7.67	1.55	1.46
2	AB	1842	G	C5'-C4'	7.66	1.62	1.51
35	BA	1172	C	C3'-C2'	-7.66	1.41	1.52
28	A1	45	GLY	CA-C	7.65	1.60	1.52
41	BG	156	ARG	NE-CZ	7.65	1.41	1.33
12	AL	62	VAL	CA-CB	7.64	1.62	1.53
2	AB	2880	C	C4'-C3'	7.63	1.64	1.52
35	BA	238	A	C5'-C4'	7.63	1.62	1.51
2	AB	1638	C	O3'-P	7.62	1.72	1.61
24	AX	91	PHE	CA-C	7.62	1.61	1.52
32	A5	11	LYS	CA-C	7.62	1.63	1.52
3	AC	141	LYS	CA-C	7.62	1.62	1.52
2	AB	343	C	C4'-O4'	-7.61	1.34	1.45
35	BA	908	A	C5'-C4'	7.59	1.62	1.51
35	BA	496	A	P-O5'	7.59	1.71	1.59
37	BC	10	G	C5'-C4'	7.59	1.62	1.51
2	AB	2076	U	P-O5'	7.58	1.71	1.59
2	AB	61	C	O3'-P	7.58	1.72	1.61
2	AB	1237	A	C4'-O4'	-7.58	1.34	1.45
2	AB	195	A	C5'-C4'	7.56	1.62	1.51
40	BF	46	ARG	CD-NE	7.56	1.56	1.46
4	AD	24	HIS	CE1-NE2	7.56	1.40	1.32
2	AB	2347	C	P-O5'	7.56	1.71	1.59
47	BM	92	ARG	N-CA	-7.56	1.37	1.46
1	AA	31	C	P-O5'	7.55	1.71	1.59
42	BH	4	TYR	CA-C	7.54	1.61	1.52
35	BA	255	G	C4'-O4'	-7.53	1.34	1.45
2	AB	1690	A	O3'-P	7.53	1.72	1.61
22	AV	96	VAL	CA-C	7.53	1.62	1.52
2	AB	1856	U	C4'-O4'	-7.52	1.34	1.45
5	AE	50	VAL	C-O	-7.52	1.16	1.24
2	AB	972	A	C4'-O4'	-7.52	1.34	1.45
52	BR	9	HIS	CE1-NE2	7.52	1.40	1.32
2	AB	155	A	C4'-O4'	-7.51	1.34	1.45
5	AE	27	ILE	N-CA	-7.51	1.36	1.46
33	A6	19	GLY	CA-C	7.51	1.61	1.51
2	AB	2883	A	O3'-P	7.50	1.72	1.61
2	AB	27	G	C3'-C2'	7.48	1.64	1.52
2	AB	1548	A	C5'-C4'	7.48	1.62	1.51
2	AB	2380	C	P-O5'	7.47	1.71	1.59
35	BA	39	G	C4'-O4'	-7.47	1.34	1.45
2	AB	1106	G	C5'-C4'	-7.45	1.40	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	869	G	P-O5'	7.45	1.71	1.59
43	BI	5	VAL	N-CA	7.45	1.55	1.46
38	BD	90	PHE	C-N	7.45	1.43	1.33
25	AY	40	ARG	NE-CZ	7.44	1.41	1.33
2	AB	1108	U	C4'-O4'	-7.44	1.34	1.45
8	AH	71	LEU	N-CA	7.43	1.55	1.46
39	BE	206	ILE	CA-C	7.43	1.61	1.52
2	AB	1122	G	P-O5'	7.41	1.70	1.59
2	AB	1914	C	C4'-O4'	-7.41	1.34	1.45
35	BA	1496	C	O5'-C5'	-7.41	1.31	1.42
21	AU	84	ARG	CA-C	7.40	1.61	1.52
2	AB	1744	A	C4'-O4'	-7.40	1.34	1.45
2	AB	2105	U	P-O5'	7.39	1.70	1.59
2	AB	1894	C	P-O5'	7.39	1.70	1.59
14	AN	46	VAL	CA-CB	7.39	1.61	1.54
41	BG	82	HIS	CG-CD2	7.39	1.44	1.35
2	AB	2753	A	C4'-O4'	-7.38	1.34	1.45
43	BI	20	GLU	CA-C	7.38	1.62	1.52
2	AB	550	C	P-O5'	7.37	1.70	1.59
4	AD	141	HIS	CE1-NE2	7.37	1.40	1.32
22	AV	15	HIS	CB-CG	7.36	1.60	1.50
2	AB	1813	G	C4'-O4'	-7.35	1.34	1.45
3	AC	232	SER	CA-C	7.35	1.61	1.52
2	AB	906	U	O3'-P	7.35	1.72	1.61
3	AC	135	GLY	CA-C	7.34	1.60	1.51
35	BA	138	G	C4'-O4'	-7.33	1.34	1.45
2	AB	380	G	C1'-N9	7.33	1.58	1.48
14	AN	129	LYS	C-O	7.33	1.32	1.24
41	BG	2	HIS	CE1-NE2	7.33	1.39	1.32
57	BW	34	ARG	N-CA	7.32	1.55	1.46
2	AB	1302	A	C4'-O4'	-7.31	1.34	1.45
20	AT	33	VAL	CA-CB	7.30	1.63	1.54
2	AB	804	A	O3'-P	-7.30	1.50	1.61
35	BA	649	A	C4'-O4'	-7.30	1.34	1.45
2	AB	1422	G	C4'-O4'	-7.30	1.34	1.45
2	AB	2631	G	C4'-O4'	-7.29	1.34	1.45
34	A7	33	HIS	ND1-CE1	7.29	1.39	1.32
26	AZ	35	HIS	ND1-CE1	7.29	1.39	1.32
2	AB	1365	A	C5'-C4'	7.28	1.62	1.51
38	BD	211	LEU	CA-C	7.28	1.62	1.52
41	BG	35	LEU	CA-C	7.28	1.61	1.52
2	AB	2648	G	C4'-O4'	-7.27	1.34	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	753	A	P-O5'	7.27	1.70	1.59
27	A0	23	ARG	CD-NE	7.26	1.56	1.46
2	AB	2141	G	C4'-C3'	7.25	1.63	1.52
2	AB	2790	U	P-O5'	7.25	1.70	1.59
22	AV	27	SER	CA-C	-7.25	1.43	1.52
35	BA	243	A	C4'-O4'	-7.25	1.34	1.45
8	AH	168	VAL	CA-CB	7.25	1.62	1.54
2	AB	1775	U	P-O5'	7.24	1.70	1.59
35	BA	1144	G	O3'-P	7.24	1.72	1.61
39	BE	89	VAL	C-N	7.24	1.43	1.33
1	AA	20	G	C4'-O4'	-7.24	1.34	1.45
35	BA	1529	G	C5'-C4'	7.23	1.62	1.51
4	AD	174	ARG	NE-CZ	7.22	1.41	1.33
35	BA	108	G	C4'-O4'	-7.22	1.34	1.45
35	BA	808	C	C5'-C4'	7.22	1.62	1.51
2	AB	2062	A	C4'-C3'	7.21	1.64	1.53
2	AB	903	C	P-O5'	7.21	1.70	1.59
2	AB	1475	G	O4'-C1'	-7.21	1.31	1.42
35	BA	229	U	O3'-P	7.21	1.72	1.61
2	AB	1572	A	P-O5'	7.21	1.70	1.59
49	BO	56	ARG	CD-NE	7.21	1.56	1.46
2	AB	124	G	C4'-O4'	-7.20	1.34	1.45
39	BE	36	PHE	CA-C	7.20	1.61	1.52
55	BU	75	PRO	N-CD	-7.20	1.37	1.47
6	AF	160	ALA	CA-C	7.20	1.62	1.53
2	AB	356	G	P-O5'	7.19	1.70	1.59
2	AB	875	G	C4'-O4'	-7.19	1.34	1.45
32	A5	22	MET	N-CA	7.19	1.55	1.46
35	BA	1024	G	O3'-P	7.19	1.72	1.61
35	BA	561	U	O3'-P	-7.18	1.50	1.61
35	BA	1460	C	C5'-C4'	7.17	1.62	1.51
2	AB	333	G	P-O5'	7.17	1.70	1.59
35	BA	8	A	C4'-O4'	-7.17	1.35	1.45
2	AB	2697	G	C4'-O4'	-7.17	1.34	1.45
2	AB	2358	A	C4'-O4'	-7.17	1.34	1.45
18	AR	9	GLN	CA-C	7.17	1.62	1.52
4	AD	199	HIS	ND1-CE1	7.16	1.39	1.32
2	AB	387	U	C2'-O2'	7.16	1.52	1.41
55	BU	2	ARG	CA-C	7.16	1.61	1.52
39	BE	170	GLY	CA-C	7.16	1.61	1.52
33	A6	56	LEU	CA-C	7.15	1.62	1.52
35	BA	348	G	O3'-P	7.13	1.71	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	AD	241	LYS	N-CA	7.12	1.55	1.45
35	BA	712	A	O3'-P	7.12	1.71	1.61
12	AL	77	HIS	CD2-NE2	7.12	1.45	1.37
2	AB	2690	U	C5'-C4'	7.12	1.62	1.51
52	BR	46	LYS	CA-C	7.12	1.61	1.52
16	AP	38	LEU	CA-CB	7.11	1.62	1.53
57	BW	9	GLU	CA-C	7.10	1.61	1.52
2	AB	30	G	C5'-C4'	7.10	1.61	1.51
9	AI	102	ALA	N-CA	7.09	1.55	1.45
8	AH	51	PHE	N-CA	7.08	1.54	1.46
35	BA	1159	U	C4'-O4'	-7.08	1.35	1.45
35	BA	1154	G	C5'-C4'	7.08	1.61	1.51
2	AB	304	U	C5'-C4'	7.08	1.61	1.51
46	BL	8	ILE	CA-CB	7.08	1.62	1.54
2	AB	2752	C	C1'-N1	7.07	1.59	1.48
35	BA	1333	A	C5'-C4'	7.07	1.61	1.51
2	AB	1526	C	C2'-C1'	7.06	1.64	1.53
35	BA	957	U	O4'-C1'	7.06	1.52	1.41
23	AW	26	ASN	N-CA	7.06	1.54	1.46
36	BB	29	G	C5'-C4'	7.05	1.61	1.51
35	BA	20	U	O3'-P	-7.04	1.50	1.61
2	AB	1209	U	C5'-C4'	7.03	1.61	1.51
21	AU	48	LYS	CA-C	-7.03	1.43	1.52
35	BA	488	C	O3'-P	7.03	1.71	1.61
47	BM	30	ILE	CA-CB	7.02	1.62	1.54
1	AA	109	A	C4'-O4'	-7.01	1.35	1.45
35	BA	744	C	P-O5'	7.01	1.70	1.59
2	AB	2267	A	O3'-P	-7.01	1.50	1.61
24	AX	27	PRO	CA-C	7.01	1.62	1.52
39	BE	153	SER	CA-C	7.01	1.61	1.52
35	BA	1366	C	P-O5'	7.00	1.70	1.59
57	BW	54	ARG	CA-C	7.00	1.61	1.52
2	AB	2138	G	C4'-O4'	-7.00	1.35	1.45
35	BA	685	G	C2'-O2'	7.00	1.52	1.42
35	BA	1048	G	C4'-O4'	-7.00	1.35	1.45
4	AD	138	SER	C-O	-7.00	1.15	1.23
31	A4	52	LYS	CA-C	7.00	1.62	1.52
46	BL	3	ASN	N-CA	7.00	1.54	1.46
2	AB	790	U	P-O5'	6.97	1.70	1.59
2	AB	1589	U	O3'-P	6.97	1.71	1.61
35	BA	1215	G	C5'-C4'	6.96	1.61	1.51
2	AB	151	C	C4'-O4'	-6.96	1.35	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	66	A	P-O5'	6.96	1.70	1.59
2	AB	902	C	O4'-C1'	6.96	1.52	1.41
35	BA	875	U	C4'-C3'	-6.95	1.42	1.52
35	BA	804	U	P-O5'	6.95	1.70	1.59
2	AB	1405	U	C3'-C2'	6.95	1.63	1.52
20	AT	92	TRP	N-CA	6.95	1.54	1.45
36	BB	54	U	O3'-P	6.95	1.71	1.61
9	AI	125	THR	N-CA	6.95	1.54	1.46
35	BA	1527	U	C4'-O4'	-6.94	1.35	1.45
2	AB	482	A	C4'-O4'	-6.94	1.35	1.45
35	BA	290	C	P-O5'	6.94	1.70	1.59
53	BS	76	ARG	NE-CZ	6.94	1.40	1.33
18	AR	111	GLU	C-O	-6.93	1.15	1.23
2	AB	242	G	O5'-C5'	-6.93	1.32	1.42
35	BA	794	A	O4'-C1'	6.93	1.52	1.41
43	BI	6	ILE	CA-CB	6.93	1.64	1.54
35	BA	90	C	C2'-C1'	6.92	1.63	1.53
10	AJ	142	MET	CA-C	6.92	1.61	1.52
14	AN	29	LYS	C-O	-6.92	1.15	1.23
22	AV	62	VAL	CA-CB	6.92	1.62	1.54
35	BA	343	U	C5'-C4'	6.92	1.61	1.51
35	BA	1008	U	O3'-P	6.91	1.71	1.61
34	A7	31	PRO	N-CD	-6.91	1.38	1.47
2	AB	2836	U	C5'-C4'	6.90	1.61	1.51
2	AB	2375	G	O3'-P	6.90	1.71	1.61
35	BA	134	G	C4'-O4'	-6.90	1.35	1.45
7	AG	55	ASP	N-CA	6.89	1.54	1.46
18	AR	13	LYS	N-CA	6.89	1.54	1.45
35	BA	1127	G	C3'-C2'	6.89	1.63	1.52
41	BG	88	HIS	CG-ND1	6.89	1.45	1.38
2	AB	1128	G	P-O5'	6.87	1.70	1.59
2	AB	2147	A	C5'-C4'	6.86	1.61	1.51
10	AJ	95	PHE	CA-C	6.86	1.61	1.52
13	AM	32	TYR	C-N	6.86	1.43	1.33
41	BG	88	HIS	CD2-NE2	-6.86	1.30	1.37
2	AB	815	C	C1'-N1	6.85	1.58	1.48
35	BA	370	C	C4'-O4'	-6.85	1.35	1.45
2	AB	1235	G	C4'-O4'	-6.85	1.35	1.45
35	BA	1187	G	C5'-C4'	6.85	1.61	1.51
4	AD	79	ARG	CD-NE	6.85	1.55	1.46
2	AB	664	G	O3'-P	6.84	1.71	1.61
35	BA	1158	C	C2'-O2'	-6.84	1.32	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	1027	A	C5'-C4'	6.83	1.61	1.51
2	AB	1586	A	C5'-C4'	6.83	1.61	1.51
37	BC	18	U	C4'-O4'	-6.83	1.35	1.45
2	AB	1711	A	P-O5'	6.83	1.70	1.59
2	AB	2568	U	C5'-C4'	6.83	1.61	1.51
2	AB	1216	G	C3'-C2'	6.83	1.62	1.52
2	AB	599	A	C5'-C4'	6.82	1.61	1.51
35	BA	1540	U	C5'-C4'	6.82	1.61	1.51
53	BS	26	ARG	CD-NE	6.81	1.55	1.46
35	BA	15	G	P-O5'	6.81	1.70	1.59
35	BA	463	U	C4'-O4'	-6.81	1.35	1.45
35	BA	1269	A	C4'-O4'	-6.81	1.35	1.45
2	AB	1718	G	C4'-O4'	-6.80	1.35	1.45
35	BA	634	C	C4'-O4'	-6.80	1.35	1.45
2	AB	284	U	C5'-C4'	6.80	1.61	1.51
2	AB	2189	U	O3'-P	6.80	1.71	1.61
2	AB	617	G	P-O5'	6.80	1.70	1.59
2	AB	646	U	C5'-C4'	6.79	1.61	1.51
2	AB	2098	U	C5'-C4'	6.79	1.61	1.51
13	AM	73	ASP	CA-C	6.79	1.61	1.52
35	BA	1060	U	C5'-C4'	6.79	1.61	1.51
2	AB	1224	U	C4'-C3'	6.78	1.62	1.52
35	BA	1139	G	O5'-C5'	-6.78	1.32	1.42
46	BL	88	MET	CA-C	6.78	1.61	1.52
54	BT	44	THR	N-CA	6.78	1.55	1.46
2	AB	926	G	C5'-C4'	6.78	1.61	1.51
12	AL	61	LYS	N-CA	6.78	1.54	1.46
2	AB	2297	A	C4'-O4'	-6.77	1.35	1.45
2	AB	2458	G	C5'-C4'	6.77	1.61	1.51
2	AB	1616	A	O5'-C5'	-6.76	1.32	1.42
2	AB	2157	G	C5'-C4'	6.76	1.61	1.51
2	AB	360	U	C5'-C4'	6.75	1.61	1.51
2	AB	1084	A	C5'-C4'	6.75	1.61	1.51
2	AB	170	U	P-O5'	6.75	1.69	1.59
10	AJ	87	HIS	CE1-NE2	6.74	1.39	1.32
42	BH	123	ASP	C-N	6.74	1.43	1.34
4	AD	218	THR	CA-C	6.74	1.60	1.52
13	AM	100	PHE	CA-CB	6.74	1.63	1.53
15	AO	13	HIS	CE1-NE2	6.74	1.39	1.32
53	BS	80	LYS	CA-C	6.74	1.60	1.52
22	AV	63	VAL	CA-CB	6.73	1.61	1.53
2	AB	2609	U	P-O5'	6.73	1.69	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	BI	96	ASN	CA-C	6.73	1.61	1.52
2	AB	286	U	O3'-P	6.72	1.71	1.61
2	AB	2586	U	O3'-P	6.72	1.71	1.61
21	AU	88	ARG	NE-CZ	6.72	1.40	1.33
2	AB	484	C	O3'-P	6.72	1.71	1.61
20	AT	49	ILE	CA-CB	6.71	1.63	1.54
22	AV	70	HIS	ND1-CE1	6.71	1.39	1.32
24	AX	48	MET	C-O	-6.71	1.16	1.24
35	BA	1327	C	C3'-C2'	6.71	1.62	1.52
2	AB	2253	G	C4'-O4'	-6.71	1.35	1.45
41	BG	110	MET	N-CA	6.71	1.54	1.46
22	AV	55	VAL	CA-C	6.71	1.60	1.52
2	AB	1704	C	C2'-O2'	-6.71	1.32	1.42
2	AB	1325	U	O3'-P	6.71	1.71	1.61
15	AO	6	ARG	CA-C	6.71	1.60	1.52
2	AB	2644	G	P-O5'	6.71	1.69	1.59
35	BA	1280	A	P-O5'	6.71	1.69	1.59
35	BA	329	A	C5'-C4'	6.70	1.61	1.51
49	BO	68	LEU	N-CA	6.70	1.54	1.46
2	AB	792	A	O3'-P	6.70	1.71	1.61
28	A1	28	LEU	N-CA	-6.70	1.37	1.46
35	BA	286	C	C2'-C1'	6.70	1.63	1.53
35	BA	1533	C	O4'-C1'	6.70	1.51	1.41
2	AB	1780	A	P-O5'	6.70	1.69	1.59
4	AD	73	ILE	CA-CB	6.69	1.62	1.54
2	AB	47	C	C4'-O4'	-6.69	1.35	1.45
35	BA	382	A	C5'-C4'	6.69	1.61	1.51
55	BU	52	ASN	N-CA	6.69	1.54	1.46
46	BL	67	ILE	CA-C	6.68	1.60	1.52
2	AB	558	U	O3'-P	6.68	1.71	1.61
35	BA	53	A	P-O5'	6.68	1.69	1.59
2	AB	789	A	C5'-C4'	6.68	1.61	1.51
2	AB	1336	A	C4'-C3'	6.68	1.62	1.52
2	AB	1507	C	P-O5'	6.67	1.69	1.59
2	AB	1511	G	C4'-O4'	-6.67	1.35	1.45
39	BE	119	ILE	CA-CB	6.67	1.62	1.54
20	AT	75	VAL	CA-CB	-6.67	1.46	1.54
2	AB	1203	U	C5'-C4'	6.67	1.61	1.51
2	AB	1274	A	P-O5'	6.67	1.69	1.59
5	AE	22	ILE	CA-C	-6.67	1.45	1.52
2	AB	583	G	O3'-P	-6.67	1.51	1.61
35	BA	441	A	P-O5'	6.67	1.69	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	606	U	P-O5'	6.66	1.69	1.59
2	AB	1709	U	C4'-O4'	-6.66	1.35	1.45
35	BA	215	C	C4'-O4'	-6.66	1.35	1.45
2	AB	39	G	O3'-P	6.66	1.71	1.61
2	AB	2402	U	C3'-O3'	6.65	1.53	1.43
2	AB	802	A	C2'-C1'	6.65	1.63	1.53
35	BA	535	A	C2'-C1'	-6.65	1.43	1.53
1	AA	84	G	P-O5'	6.65	1.69	1.59
19	AS	84	LYS	CA-C	6.64	1.61	1.52
4	AD	189	ALA	CA-C	6.64	1.60	1.52
46	BL	33	GLY	CA-C	6.64	1.59	1.51
2	AB	2538	C	C4'-O4'	-6.64	1.35	1.45
39	BE	122	GLN	CA-C	-6.64	1.44	1.52
2	AB	1046	A	O3'-P	6.64	1.71	1.61
2	AB	1668	A	C5'-C4'	6.64	1.61	1.51
2	AB	2376	A	P-O5'	6.64	1.69	1.59
35	BA	1059	C	C4'-O4'	-6.64	1.35	1.45
15	AO	78	LEU	N-CA	6.63	1.54	1.46
24	AX	82	TYR	N-CA	6.63	1.54	1.46
2	AB	2343	U	C3'-C2'	6.63	1.62	1.52
53	BS	21	VAL	CA-CB	6.63	1.61	1.53
2	AB	1252	G	C4'-O4'	-6.63	1.35	1.45
2	AB	1639	C	O3'-P	6.63	1.71	1.61
4	AD	52	HIS	CG-CD2	6.63	1.43	1.35
8	AH	160	GLY	CA-C	6.63	1.58	1.51
39	BE	159	ALA	N-CA	6.63	1.54	1.46
44	BJ	56	PRO	N-CA	-6.63	1.39	1.47
3	AC	122	ARG	CD-NE	6.63	1.55	1.46
2	AB	984	A	O3'-P	6.62	1.71	1.61
18	AR	59	THR	CA-CB	6.62	1.61	1.52
40	BF	129	VAL	N-CA	-6.62	1.38	1.46
35	BA	216	U	P-O5'	6.62	1.69	1.59
35	BA	461	A	C4'-O4'	-6.62	1.35	1.45
2	AB	324	A	P-O5'	6.62	1.69	1.59
2	AB	968	C	C1'-N1	6.61	1.58	1.48
2	AB	2722	G	O3'-P	6.61	1.71	1.61
2	AB	2758	A	C5'-C4'	6.61	1.61	1.51
35	BA	1069	C	P-O5'	6.61	1.69	1.59
35	BA	187	G	C5'-C4'	6.61	1.61	1.51
35	BA	1097	C	C4'-O4'	-6.61	1.35	1.45
16	AP	52	ILE	N-CA	6.61	1.54	1.46
40	BF	97	LEU	CA-C	6.61	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
51	BQ	3	SER	CA-C	6.61	1.60	1.52
35	BA	270	A	C5'-C4'	6.60	1.61	1.51
2	AB	539	G	C3'-C2'	6.60	1.62	1.52
2	AB	740	C	C4'-O4'	-6.60	1.35	1.45
2	AB	2778	A	C5'-C4'	6.60	1.61	1.51
2	AB	170	U	O3'-P	6.60	1.71	1.61
35	BA	228	A	C4'-O4'	-6.59	1.35	1.45
2	AB	110	G	P-O5'	6.59	1.69	1.59
2	AB	2334	U	C2'-C1'	-6.59	1.43	1.53
35	BA	711	G	C4'-O4'	-6.59	1.35	1.45
2	AB	1107	G	C5'-C4'	6.59	1.61	1.51
18	AR	76	HIS	ND1-CE1	6.59	1.39	1.32
35	BA	1514	G	P-O5'	6.59	1.69	1.59
39	BE	67	ILE	CA-CB	6.59	1.64	1.54
49	BO	85	TYR	CA-C	6.59	1.61	1.52
36	BB	40	G	C1'-N9	6.59	1.57	1.48
38	BD	18	GLN	CA-CB	6.58	1.63	1.53
41	BG	82	HIS	CE1-NE2	6.58	1.39	1.32
40	BF	24	VAL	CA-C	-6.58	1.46	1.52
3	AC	188	ASN	CA-C	6.58	1.61	1.52
46	BL	34	ALA	CA-C	6.58	1.61	1.52
2	AB	2566	A	C1'-N9	6.57	1.56	1.47
39	BE	68	HIS	CA-C	6.57	1.60	1.52
2	AB	536	G	C5'-C4'	6.57	1.61	1.51
2	AB	2259	U	O4'-C1'	6.57	1.51	1.41
39	BE	209	GLY	CA-C	6.57	1.62	1.51
2	AB	570	G	C4'-O4'	-6.57	1.35	1.45
6	AF	140	ASP	CA-C	6.57	1.61	1.52
25	AY	37	VAL	CA-CB	-6.57	1.47	1.54
1	AA	47	C	P-O5'	6.57	1.69	1.59
2	AB	2025	C	C5'-C4'	6.56	1.61	1.51
2	AB	873	C	O3'-P	6.56	1.71	1.61
30	A3	49	ARG	CZ-NH2	6.56	1.42	1.33
35	BA	800	G	C5'-C4'	6.56	1.61	1.51
2	AB	118	A	P-O5'	6.56	1.69	1.59
2	AB	1078	U	C5'-C4'	6.56	1.61	1.51
2	AB	2120	G	O3'-P	6.56	1.71	1.61
2	AB	2868	A	C4'-C3'	6.56	1.62	1.52
35	BA	104	G	C5'-C4'	6.56	1.61	1.51
35	BA	722	G	C5'-C4'	6.56	1.61	1.51
24	AX	59	GLU	CA-C	6.55	1.60	1.52
35	BA	1177	G	P-O5'	6.55	1.69	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	AL	66	GLY	CA-C	6.55	1.60	1.52
35	BA	395	C	C3'-C2'	6.55	1.62	1.52
2	AB	2047	C	P-O5'	6.55	1.69	1.59
40	BF	166	LYS	CA-C	6.55	1.58	1.52
2	AB	2711	A	P-O5'	6.54	1.69	1.59
6	AF	200	LEU	CA-C	6.54	1.61	1.52
30	A3	37	HIS	CE1-NE2	6.54	1.39	1.32
35	BA	1136	C	C4'-O4'	-6.54	1.35	1.45
2	AB	141	G	C4'-O4'	-6.54	1.35	1.45
2	AB	2804	U	O4'-C1'	6.54	1.51	1.41
42	BH	113	ARG	NE-CZ	6.54	1.40	1.33
38	BD	39	ILE	CA-C	6.54	1.61	1.52
2	AB	623	C	C2'-C1'	6.54	1.63	1.53
35	BA	1139	G	C5'-C4'	6.54	1.61	1.51
2	AB	1786	A	P-O5'	6.53	1.69	1.59
5	AE	98	VAL	N-CA	6.53	1.54	1.46
35	BA	1039	G	P-O5'	6.53	1.69	1.59
38	BD	69	VAL	N-CA	6.53	1.53	1.46
35	BA	11	G	C3'-C2'	6.53	1.62	1.52
2	AB	1254	A	C3'-O3'	6.53	1.51	1.42
4	AD	155	ARG	CA-C	6.53	1.60	1.52
35	BA	1361	G	O3'-P	6.52	1.71	1.61
26	AZ	54	GLY	CA-C	6.52	1.59	1.51
4	AD	194	VAL	CA-C	6.52	1.60	1.52
7	AG	71	LYS	CA-C	6.51	1.60	1.52
35	BA	415	A	O3'-P	6.51	1.71	1.61
9	AI	29	PHE	CA-C	6.51	1.61	1.52
25	AY	62	ALA	N-CA	-6.51	1.37	1.45
35	BA	126	G	C5'-C4'	6.51	1.61	1.51
35	BA	242	G	O3'-P	-6.51	1.51	1.61
2	AB	63	A	C5'-C4'	6.51	1.61	1.51
35	BA	303	A	P-O5'	6.51	1.69	1.59
2	AB	2494	G	C4'-O4'	-6.51	1.35	1.45
2	AB	2677	G	C1'-N9	-6.51	1.38	1.48
35	BA	898	G	C2'-C1'	6.51	1.63	1.53
37	BC	1	C	C4'-C3'	-6.50	1.42	1.52
52	BR	8	ARG	NE-CZ	6.50	1.40	1.33
35	BA	746	A	C2'-O2'	-6.50	1.32	1.42
35	BA	1159	U	C4'-C3'	6.50	1.62	1.53
43	BI	114	SER	N-CA	6.50	1.53	1.46
2	AB	2673	G	O4'-C1'	6.50	1.51	1.41
35	BA	419	C	P-O5'	6.50	1.69	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	1115	G	C4'-O4'	-6.50	1.35	1.45
1	AA	41	G	O3'-P	6.49	1.70	1.61
2	AB	1128	G	O4'-C1'	-6.49	1.32	1.42
35	BA	299	G	C3'-C2'	-6.49	1.43	1.52
43	BI	105	GLU	CA-CB	6.49	1.63	1.53
2	AB	1034	G	O5'-C5'	6.49	1.52	1.42
2	AB	2890	G	C5'-C4'	6.49	1.60	1.51
47	BM	121	ARG	NE-CZ	6.48	1.40	1.33
2	AB	284	U	P-O5'	6.48	1.69	1.59
35	BA	328	C	O3'-P	6.47	1.70	1.61
26	AZ	57	VAL	CA-C	6.47	1.60	1.52
2	AB	2530	A	C4'-O4'	-6.46	1.35	1.45
55	BU	68	HIS	CB-CG	6.46	1.59	1.50
2	AB	1769	U	O3'-P	6.46	1.70	1.61
2	AB	1772	A	O3'-P	6.46	1.70	1.61
1	AA	5	U	P-O5'	6.46	1.69	1.59
2	AB	987	C	C5'-C4'	6.46	1.60	1.51
35	BA	1300	G	C3'-C2'	6.46	1.62	1.52
46	BL	53	ILE	CA-C	6.46	1.59	1.52
54	BT	12	PHE	CA-C	6.46	1.61	1.52
2	AB	1564	C	C4'-O4'	-6.46	1.35	1.45
2	AB	979	A	P-O5'	6.46	1.69	1.59
2	AB	1724	G	P-O5'	6.45	1.69	1.59
2	AB	2789	C	P-O5'	6.45	1.69	1.59
35	BA	30	U	C4'-O4'	-6.45	1.36	1.45
35	BA	505	G	O5'-C5'	-6.45	1.32	1.42
35	BA	227	G	C4'-O4'	-6.45	1.35	1.45
2	AB	1654	A	C4'-O4'	-6.45	1.35	1.45
2	AB	2061	G	C3'-O3'	-6.45	1.33	1.43
35	BA	1201	A	P-O5'	-6.45	1.50	1.59
38	BD	105	THR	CA-C	6.45	1.61	1.52
2	AB	1951	U	O4'-C1'	6.44	1.51	1.41
9	AI	93	SER	N-CA	6.44	1.54	1.46
2	AB	2364	C	C4'-O4'	-6.43	1.35	1.45
43	BI	57	GLU	CA-C	6.43	1.61	1.52
8	AH	162	ARG	CD-NE	6.43	1.55	1.46
35	BA	19	A	C4'-O4'	-6.43	1.35	1.45
10	AJ	156	ALA	N-CA	6.42	1.54	1.46
2	AB	2823	A	O4'-C1'	6.42	1.51	1.41
2	AB	2608	G	P-O5'	6.42	1.69	1.59
2	AB	170	U	C5'-C4'	6.42	1.60	1.51
2	AB	278	A	C5'-C4'	6.42	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	2468	A	P-O5'	6.42	1.69	1.59
35	BA	978	A	P-O5'	6.42	1.69	1.59
35	BA	1054	C	C4'-O4'	-6.42	1.35	1.45
44	BJ	39	LEU	N-CA	-6.42	1.38	1.46
50	BP	86	ALA	C-N	6.42	1.42	1.33
56	BV	66	ILE	N-CA	6.42	1.51	1.46
3	AC	125	GLY	N-CA	6.42	1.53	1.45
11	AK	15	GLY	C-O	-6.42	1.15	1.23
43	BI	109	LYS	CA-C	6.42	1.61	1.52
35	BA	254	G	O3'-P	6.41	1.70	1.61
13	AM	18	ARG	NE-CZ	6.41	1.40	1.33
35	BA	993	G	C4'-O4'	-6.41	1.36	1.45
35	BA	1286	U	C5'-C4'	6.41	1.60	1.51
14	AN	132	ARG	CA-CB	6.41	1.63	1.53
35	BA	698	G	C5'-C4'	6.41	1.60	1.51
47	BM	41	LEU	C-N	6.41	1.40	1.32
2	AB	475	C	C4'-O4'	-6.40	1.35	1.45
2	AB	995	C	P-O5'	6.40	1.69	1.59
21	AU	80	PRO	CA-CB	-6.40	1.45	1.53
30	A3	50	GLY	C-N	6.39	1.40	1.33
35	BA	509	A	P-O5'	6.39	1.69	1.59
56	BV	26	MET	N-CA	-6.39	1.38	1.46
3	AC	22	ASP	N-CA	6.39	1.53	1.46
2	AB	2464	G	C4'-O4'	-6.39	1.35	1.45
2	AB	1657	U	O3'-P	6.39	1.70	1.61
2	AB	1045	C	C1'-N1	6.39	1.57	1.47
13	AM	102	PRO	CA-C	6.39	1.59	1.52
2	AB	1163	G	O3'-P	6.38	1.70	1.61
2	AB	797	G	P-O5'	6.38	1.69	1.59
35	BA	582	C	C1'-N1	6.38	1.58	1.48
35	BA	912	C	P-O5'	6.38	1.69	1.59
2	AB	276	U	C5'-C4'	6.37	1.60	1.51
16	AP	123	GLU	CA-C	6.37	1.61	1.52
21	AU	45	VAL	C-N	6.37	1.42	1.33
35	BA	1300	G	O3'-P	6.37	1.70	1.61
38	BD	169	HIS	CE1-NE2	6.37	1.39	1.32
2	AB	1311	G	C1'-N9	6.36	1.56	1.47
16	AP	38	LEU	N-CA	6.36	1.52	1.46
2	AB	1033	U	C4'-O4'	-6.35	1.36	1.45
52	BR	74	LEU	C-N	-6.35	1.26	1.33
2	AB	1886	U	C3'-C2'	6.35	1.62	1.52
2	AB	236	C	C5'-C4'	6.35	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	1653	G	C2'-O2'	6.35	1.51	1.41
28	A1	33	HIS	CB-CG	6.35	1.59	1.50
2	AB	1815	A	P-O5'	6.34	1.69	1.59
2	AB	2429	G	O5'-C5'	-6.34	1.32	1.42
2	AB	2850	A	P-O5'	6.34	1.69	1.59
43	BI	64	ALA	N-CA	6.34	1.53	1.46
45	BK	74	GLN	CA-C	-6.33	1.44	1.52
2	AB	1200	C	C5'-C4'	6.33	1.60	1.51
20	AT	82	HIS	CG-CD2	6.33	1.42	1.35
2	AB	152	A	P-O5'	6.33	1.69	1.59
35	BA	371	A	O3'-P	6.33	1.70	1.61
39	BE	87	ARG	NE-CZ	6.32	1.40	1.33
2	AB	963	U	C4'-C3'	6.32	1.62	1.52
2	AB	100	U	O3'-P	6.32	1.70	1.61
11	AK	137	LEU	CA-CB	6.32	1.62	1.53
38	BD	54	ALA	N-CA	6.32	1.54	1.46
40	BF	164	ARG	NE-CZ	6.32	1.40	1.33
2	AB	1291	C	C5'-C4'	6.32	1.60	1.51
48	BN	23	LEU	CA-C	6.32	1.61	1.52
37	BC	58	A	C4'-C3'	6.32	1.62	1.52
2	AB	227	A	C5'-C4'	6.31	1.60	1.51
18	AR	4	ILE	C-O	-6.31	1.17	1.24
2	AB	1928	A	C5'-C4'	6.31	1.60	1.51
35	BA	838	G	O3'-P	6.31	1.70	1.61
2	AB	39	G	C5'-C4'	6.31	1.60	1.51
19	AS	6	GLY	CA-C	-6.31	1.43	1.51
35	BA	403	C	O3'-P	6.31	1.70	1.61
50	BP	6	LYS	N-CA	-6.31	1.38	1.46
4	AD	7	PRO	CA-C	6.31	1.59	1.53
2	AB	1547	C	O3'-P	6.30	1.70	1.61
2	AB	2116	G	P-O5'	6.30	1.69	1.59
42	BH	132	GLU	CA-C	6.30	1.60	1.52
2	AB	2630	G	C5'-C4'	-6.30	1.41	1.51
33	A6	50	SER	CA-C	6.30	1.61	1.52
4	AD	134	ILE	N-CA	-6.30	1.40	1.46
34	A7	15	LYS	CA-C	6.30	1.60	1.52
36	BB	25	U	O3'-P	6.29	1.70	1.61
5	AE	131	ASP	CA-C	6.29	1.60	1.52
2	AB	1961	C	C4'-O4'	-6.29	1.36	1.45
2	AB	744	U	C2-N3	6.29	1.50	1.37
2	AB	1016	G	C5'-C4'	6.29	1.60	1.51
2	AB	1025	G	C4'-O4'	-6.29	1.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
16	AP	122	ALA	CA-C	6.29	1.60	1.52
35	BA	677	U	P-O5'	6.29	1.69	1.59
35	BA	75	G	C4'-O4'	-6.29	1.36	1.45
36	BB	59	A	C5'-C4'	6.29	1.60	1.51
45	BK	63	TYR	C-O	-6.29	1.16	1.24
2	AB	2581	G	C4'-C3'	6.29	1.61	1.52
28	A1	40	THR	CA-C	6.28	1.61	1.53
18	AR	108	ARG	NE-CZ	6.28	1.40	1.33
35	BA	895	G	O3'-P	6.28	1.70	1.61
2	AB	1556	C	C1'-N1	6.28	1.57	1.48
1	AA	25	U	C3'-C2'	-6.27	1.43	1.52
2	AB	2352	A	C5'-C4'	6.27	1.60	1.51
35	BA	473	U	C5'-C4'	6.27	1.60	1.51
35	BA	962	C	O5'-C5'	6.27	1.51	1.42
2	AB	795	C	O4'-C1'	6.27	1.51	1.41
2	AB	1351	C	O3'-P	6.27	1.70	1.61
31	A4	29	LYS	C-N	6.27	1.41	1.34
45	BK	128	LYS	C-N	6.27	1.42	1.33
53	BS	7	LEU	N-CA	6.27	1.53	1.45
8	AH	170	THR	CA-CB	6.27	1.64	1.53
2	AB	2095	A	P-O5'	6.26	1.69	1.59
2	AB	2548	U	C3'-O3'	6.26	1.51	1.42
53	BS	42	LYS	CA-CB	6.26	1.65	1.53
35	BA	750	C	C5'-C4'	6.26	1.60	1.51
2	AB	29	U	C3'-O3'	6.26	1.51	1.42
2	AB	1521	G	C4'-O4'	-6.26	1.36	1.45
35	BA	262	A	C5'-C4'	6.26	1.60	1.51
2	AB	2472	G	P-O5'	6.26	1.69	1.59
2	AB	572	A	C5'-C4'	6.26	1.60	1.51
35	BA	662	U	C4'-O4'	-6.26	1.36	1.45
43	BI	137	ARG	CA-C	6.25	1.60	1.52
2	AB	1428	C	P-O5'	6.25	1.69	1.59
2	AB	2194	U	O3'-P	6.25	1.70	1.61
2	AB	692	C	C4'-O4'	-6.25	1.36	1.45
2	AB	1119	U	P-O5'	6.25	1.69	1.59
12	AL	105	VAL	CA-C	6.25	1.60	1.52
2	AB	286	U	C4'-O4'	-6.25	1.36	1.45
2	AB	716	A	C4'-O4'	-6.25	1.36	1.45
2	AB	2464	G	P-O5'	6.25	1.69	1.59
2	AB	1927	A	P-O5'	6.24	1.69	1.59
7	AG	39	VAL	CA-C	6.24	1.60	1.52
14	AN	30	THR	CA-C	6.24	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	BU	78	THR	CA-C	-6.24	1.45	1.52
35	BA	1488	G	C3'-C2'	6.23	1.62	1.52
36	BB	17	U	O3'-P	-6.23	1.51	1.61
2	AB	1349	C	O3'-P	6.23	1.70	1.61
23	AW	79	ALA	CA-C	6.23	1.60	1.52
2	AB	693	A	C2'-C1'	-6.22	1.44	1.53
2	AB	2424	C	C2'-C1'	6.22	1.62	1.53
2	AB	1726	C	P-O5'	6.22	1.69	1.59
35	BA	1107	C	C2'-O2'	-6.22	1.33	1.42
2	AB	1508	A	C2'-O2'	6.22	1.51	1.42
2	AB	1771	C	C5'-C4'	6.22	1.60	1.51
35	BA	1068	G	O3'-P	-6.22	1.51	1.61
42	BH	48	ALA	CA-C	6.22	1.60	1.52
51	BQ	62	ARG	N-CA	6.22	1.53	1.46
2	AB	771	G	C4'-O4'	-6.22	1.36	1.45
14	AN	61	LEU	N-CA	6.22	1.53	1.45
42	BH	62	MET	CA-C	6.22	1.60	1.52
51	BQ	59	VAL	CA-CB	6.22	1.61	1.54
45	BK	121	ARG	NE-CZ	6.21	1.39	1.33
35	BA	370	C	C4'-C3'	6.21	1.61	1.52
2	AB	2724	U	C5'-C4'	6.21	1.60	1.51
13	AM	70	ARG	NE-CZ	6.21	1.39	1.33
35	BA	730	G	O4'-C1'	6.21	1.50	1.41
35	BA	1087	G	P-O5'	6.21	1.69	1.59
2	AB	705	A	C4'-O4'	-6.21	1.36	1.45
35	BA	184	G	O3'-P	6.21	1.70	1.61
35	BA	693	G	P-O5'	6.21	1.69	1.59
35	BA	1300	G	C4'-O4'	-6.21	1.36	1.45
2	AB	1133	A	C4'-O4'	-6.21	1.36	1.45
35	BA	172	A	O3'-P	6.20	1.70	1.61
35	BA	204	G	C5'-C4'	6.20	1.60	1.51
2	AB	22	C	C5'-C4'	6.20	1.60	1.51
2	AB	2370	G	O3'-P	6.20	1.70	1.61
2	AB	2382	G	O3'-P	6.20	1.70	1.61
51	BQ	33	ALA	N-CA	6.20	1.54	1.46
2	AB	2400	G	O3'-P	6.20	1.70	1.61
2	AB	107	G	P-O5'	6.20	1.69	1.59
11	AK	2	LYS	CA-C	6.19	1.61	1.52
35	BA	48	C	C4'-O4'	-6.19	1.36	1.45
2	AB	155	A	P-O5'	6.19	1.69	1.59
2	AB	2162	G	O5'-C5'	-6.19	1.33	1.42
2	AB	1988	G	O5'-C5'	-6.19	1.33	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	176	A	O4'-C1'	6.19	1.50	1.41
2	AB	1361	G	P-O5'	6.19	1.69	1.59
46	BL	43	PRO	N-CD	-6.19	1.39	1.47
3	AC	54	LYS	CA-C	6.19	1.61	1.52
3	AC	64	VAL	C-O	6.19	1.30	1.24
35	BA	1086	U	O3'-P	-6.18	1.51	1.61
2	AB	463	G	C4'-O4'	-6.18	1.36	1.45
39	BE	215	GLN	C-N	6.18	1.41	1.33
35	BA	1382	C	C5'-C4'	6.18	1.60	1.51
2	AB	1631	G	O3'-P	6.18	1.70	1.61
6	AF	152	GLU	N-CA	6.18	1.54	1.45
7	AG	39	VAL	N-CA	-6.18	1.39	1.46
2	AB	2425	A	C4'-O4'	-6.17	1.36	1.45
35	BA	519	C	O3'-P	6.17	1.70	1.61
2	AB	1643	G	P-O5'	6.17	1.69	1.59
35	BA	622	A	P-O5'	6.17	1.69	1.59
52	BR	55	ASP	C-N	6.17	1.42	1.33
53	BS	77	VAL	N-CA	6.17	1.53	1.46
2	AB	295	G	C4'-C3'	6.17	1.61	1.52
2	AB	676	A	C4'-O4'	-6.17	1.36	1.45
2	AB	2535	G	C4'-C3'	6.17	1.61	1.52
35	BA	31	G	C5'-C4'	6.17	1.60	1.51
40	BF	177	MET	CA-C	6.17	1.60	1.53
2	AB	327	G	C1'-N9	6.16	1.57	1.48
19	AS	52	ARG	NE-CZ	6.16	1.39	1.33
2	AB	1192	G	O3'-P	6.16	1.70	1.61
35	BA	73	C	C1'-N1	6.16	1.57	1.48
2	AB	156	A	C4'-O4'	-6.16	1.36	1.45
2	AB	2439	A	C5'-C4'	6.16	1.60	1.51
12	AL	36	LEU	CA-C	6.16	1.61	1.52
2	AB	2627	G	P-O5'	6.16	1.69	1.59
2	AB	819	A	P-O5'	6.15	1.69	1.59
2	AB	2343	U	C4'-C3'	-6.15	1.43	1.52
2	AB	1244	A	P-O5'	6.15	1.69	1.59
2	AB	2596	U	C2'-O2'	-6.15	1.33	1.42
3	AC	52	ALA	CA-CB	6.15	1.62	1.53
8	AH	114	HIS	CE1-NE2	6.15	1.38	1.32
18	AR	83	ILE	CA-CB	-6.15	1.46	1.54
21	AU	83	LYS	N-CA	-6.15	1.38	1.46
2	AB	752	A	C4'-O4'	-6.15	1.36	1.45
52	BR	76	LYS	CA-C	6.15	1.61	1.52
2	AB	631	A	O3'-P	6.14	1.70	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	70	U	C3'-O3'	6.14	1.52	1.43
35	BA	1504	G	C4'-O4'	-6.14	1.36	1.45
37	BC	57	C	C3'-C2'	6.14	1.61	1.52
2	AB	1941	C	C4'-O4'	-6.14	1.36	1.45
2	AB	2845	U	C4'-C3'	6.14	1.61	1.52
22	AV	68	LYS	CA-C	-6.14	1.46	1.53
35	BA	253	A	P-O5'	6.14	1.69	1.59
18	AR	72	VAL	N-CA	6.13	1.54	1.46
45	BK	75	ALA	N-CA	6.13	1.53	1.46
46	BL	56	HIS	CE1-NE2	6.13	1.38	1.32
2	AB	328	U	C4'-O4'	-6.13	1.36	1.45
2	AB	1065	U	P-O5'	6.13	1.69	1.59
2	AB	592	A	C2'-C1'	6.13	1.62	1.53
3	AC	8	MET	N-CA	6.13	1.54	1.46
4	AD	134	ILE	CA-C	6.13	1.58	1.52
2	AB	5	A	P-O5'	6.13	1.69	1.59
48	BN	101	LEU	CA-C	6.13	1.59	1.53
3	AC	50	ILE	CA-C	6.13	1.60	1.53
14	AN	104	GLN	N-CA	6.13	1.54	1.46
2	AB	1536	C	P-O5'	6.12	1.69	1.59
10	AJ	78	PRO	N-CD	-6.12	1.39	1.47
2	AB	2328	A	O4'-C1'	6.12	1.50	1.41
12	AL	34	ARG	CD-NE	6.12	1.54	1.46
14	AN	41	ARG	NE-CZ	6.12	1.39	1.33
35	BA	703	G	C5'-C4'	6.12	1.60	1.51
35	BA	1370	G	C5'-C4'	6.12	1.60	1.51
2	AB	286	U	C2'-C1'	6.12	1.62	1.53
2	AB	306	U	C4'-O4'	-6.12	1.36	1.45
11	AK	58	ILE	CA-C	-6.12	1.45	1.52
21	AU	82	MET	CA-C	6.12	1.60	1.52
45	BK	84	ARG	NE-CZ	6.11	1.39	1.33
1	AA	36	C	C4'-C3'	6.11	1.61	1.52
2	AB	128	C	O3'-P	6.11	1.70	1.61
2	AB	1427	A	C4'-O4'	-6.11	1.36	1.45
2	AB	1810	A	P-O5'	6.11	1.69	1.59
2	AB	2684	U	C4'-O4'	-6.11	1.36	1.45
2	AB	1453	A	C4'-O4'	-6.11	1.36	1.45
2	AB	2678	C	C5'-C4'	6.11	1.60	1.51
14	AN	119	PRO	N-CA	-6.10	1.39	1.47
27	A0	24	GLU	N-CA	6.10	1.53	1.46
2	AB	1741	C	P-O5'	6.10	1.69	1.59
35	BA	315	A	C1'-N9	6.09	1.56	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
16	AP	61	ALA	N-CA	-6.09	1.38	1.46
21	AU	100	THR	CA-C	6.09	1.60	1.52
35	BA	1351	U	P-O5'	6.09	1.68	1.59
49	BO	106	ARG	N-CA	6.09	1.53	1.46
35	BA	1064	G	C4'-O4'	-6.09	1.36	1.45
39	BE	218	LYS	CA-C	6.09	1.59	1.52
2	AB	197	A	C3'-C2'	6.09	1.61	1.52
21	AU	94	ASP	CA-C	6.08	1.61	1.53
41	BG	52	ALA	C-O	-6.08	1.17	1.23
46	BL	79	PRO	CA-CB	-6.08	1.46	1.53
40	BF	127	ARG	NE-CZ	6.08	1.39	1.33
2	AB	2192	U	O5'-C5'	-6.08	1.33	1.42
2	AB	435	C	C4'-O4'	-6.08	1.36	1.45
2	AB	2462	C	C3'-C2'	6.08	1.61	1.52
35	BA	723	U	C4'-O4'	-6.08	1.36	1.45
35	BA	893	C	C4'-O4'	-6.08	1.36	1.45
2	AB	2569	G	C4'-O4'	-6.07	1.36	1.45
2	AB	447	A	O4'-C1'	6.07	1.51	1.42
35	BA	157	U	C4'-C3'	6.07	1.61	1.52
35	BA	1186	G	C4'-O4'	-6.07	1.36	1.45
36	BB	21	U	P-O5'	6.07	1.68	1.59
2	AB	350	G	C1'-N9	6.07	1.57	1.48
2	AB	1664	A	C4'-O4'	-6.07	1.36	1.45
20	AT	72	VAL	N-CA	-6.07	1.39	1.46
35	BA	1353	G	P-O5'	6.07	1.68	1.59
35	BA	947	G	P-O5'	6.06	1.68	1.59
8	AH	142	GLN	N-CA	6.06	1.53	1.46
45	BK	48	ARG	CZ-NH1	6.06	1.41	1.32
49	BO	108	ARG	CA-C	6.06	1.59	1.52
2	AB	849	A	C2'-C1'	-6.06	1.44	1.53
2	AB	891	G	O3'-P	6.06	1.70	1.61
19	AS	83	LYS	N-CA	-6.06	1.39	1.46
35	BA	174	A	O3'-P	6.06	1.70	1.61
5	AE	142	VAL	C-N	6.06	1.41	1.34
20	AT	17	GLY	CA-C	6.06	1.60	1.51
35	BA	784	A	P-O5'	6.06	1.68	1.59
2	AB	200	U	O3'-P	6.05	1.70	1.61
8	AH	36	LEU	N-CA	6.05	1.53	1.46
35	BA	790	A	C5'-C4'	6.05	1.60	1.51
2	AB	2264	C	O4'-C1'	-6.05	1.32	1.41
35	BA	279	A	C2'-O2'	-6.05	1.33	1.42
2	AB	1524	G	C5'-C4'	6.05	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	AF	92	HIS	C-N	6.05	1.42	1.33
2	AB	1743	G	C4'-O4'	-6.05	1.36	1.45
12	AL	27	ARG	NE-CZ	6.05	1.39	1.33
35	BA	1172	C	C5'-C4'	6.05	1.60	1.51
35	BA	1535	C	C5'-C4'	6.04	1.60	1.51
2	AB	161	A	C4'-O4'	-6.04	1.36	1.45
2	AB	1105	U	O5'-C5'	6.04	1.51	1.42
2	AB	2031	A	C4'-O4'	-6.04	1.36	1.45
7	AG	94	ARG	CA-CB	6.04	1.62	1.53
36	BB	13	A	O4'-C1'	6.04	1.50	1.41
2	AB	728	G	C5'-C4'	6.04	1.60	1.51
26	AZ	33	HIS	CA-C	6.04	1.60	1.52
35	BA	720	C	P-O5'	6.04	1.68	1.59
35	BA	1030	U	O3'-P	6.04	1.70	1.61
3	AC	201	PRO	CA-C	6.04	1.59	1.52
19	AS	57	ARG	CD-NE	6.04	1.54	1.46
2	AB	794	A	C1'-N9	6.04	1.57	1.48
40	BF	152	SER	CA-C	6.04	1.60	1.52
1	AA	94	A	C4'-C3'	6.04	1.61	1.52
5	AE	74	GLU	N-CA	6.04	1.54	1.46
19	AS	47	ARG	CZ-NH1	6.04	1.41	1.32
1	AA	120	U	C2'-O2'	6.03	1.50	1.41
2	AB	1509	A	C1'-N9	6.03	1.55	1.47
2	AB	2018	G	O4'-C1'	6.03	1.50	1.41
2	AB	2195	U	O3'-P	6.03	1.70	1.61
27	A0	60	LYS	C-N	6.03	1.41	1.33
2	AB	718	A	C4'-O4'	-6.03	1.36	1.45
2	AB	1994	C	O3'-P	6.03	1.70	1.61
8	AH	89	VAL	N-CA	6.03	1.53	1.46
2	AB	616	A	P-O5'	6.03	1.68	1.59
39	BE	169	GLU	CA-C	6.03	1.60	1.52
2	AB	1857	G	P-O5'	6.03	1.68	1.59
14	AN	91	ASP	CA-CB	6.02	1.62	1.53
35	BA	118	U	P-O5'	6.02	1.68	1.59
2	AB	779	U	C4'-O4'	-6.02	1.36	1.45
35	BA	1293	C	C5'-C4'	6.02	1.60	1.51
1	AA	38	C	C5'-C4'	6.02	1.60	1.51
35	BA	921	U	O5'-C5'	6.02	1.51	1.42
2	AB	1895	C	P-O5'	6.02	1.68	1.59
2	AB	2136	G	C3'-O3'	-6.02	1.33	1.42
35	BA	1338	G	C3'-C2'	-6.02	1.43	1.52
49	BO	47	LEU	N-CA	6.02	1.53	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	1602	U	O3'-P	6.02	1.70	1.61
38	BD	73	ARG	CZ-NH2	6.02	1.41	1.33
2	AB	2165	C	P-O5'	6.01	1.68	1.59
35	BA	503	C	C4'-O4'	-6.01	1.36	1.45
20	AT	47	VAL	CA-CB	6.01	1.62	1.54
41	BG	47	PHE	N-CA	6.01	1.53	1.46
5	AE	177	VAL	N-CA	6.01	1.54	1.46
35	BA	1134	G	P-O5'	6.00	1.68	1.59
3	AC	153	VAL	CA-CB	6.00	1.61	1.54
7	AG	24	VAL	CA-C	6.00	1.60	1.52
2	AB	1856	U	O4'-C1'	6.00	1.50	1.41
5	AE	10	GLY	CA-C	6.00	1.56	1.51
56	BV	6	ALA	CA-C	6.00	1.59	1.52
2	AB	340	A	C3'-O3'	6.00	1.51	1.42
35	BA	1068	G	P-O5'	6.00	1.68	1.59
2	AB	1739	A	C3'-O3'	6.00	1.51	1.42
21	AU	16	LYS	C-O	-6.00	1.16	1.24
35	BA	4	U	P-O5'	6.00	1.68	1.59
2	AB	2058	A	C3'-C2'	-6.00	1.44	1.52
15	AO	32	GLY	N-CA	5.99	1.51	1.45
21	AU	94	ASP	N-CA	5.99	1.53	1.45
39	BE	5	HIS	CA-CB	5.99	1.63	1.53
2	AB	183	C	O4'-C1'	5.99	1.50	1.41
2	AB	810	U	O3'-P	5.99	1.70	1.61
21	AU	81	SER	CA-C	5.99	1.60	1.52
2	AB	1492	G	O3'-P	5.99	1.70	1.61
2	AB	1759	A	C3'-C2'	5.99	1.61	1.52
37	BC	7	G	C4'-C3'	5.99	1.61	1.52
2	AB	385	C	C4'-O4'	-5.99	1.36	1.45
45	BK	119	LYS	CA-C	5.99	1.60	1.52
1	AA	53	A	C5'-C4'	5.99	1.60	1.51
2	AB	24	G	C1'-N9	5.98	1.56	1.48
1	AA	43	C	O3'-P	5.98	1.70	1.61
2	AB	1451	C	P-O5'	5.98	1.68	1.59
4	AD	267	VAL	CA-C	5.98	1.61	1.52
35	BA	1341	U	C4'-O4'	-5.98	1.36	1.45
2	AB	2582	G	O3'-P	5.98	1.70	1.61
2	AB	960	A	C2'-O2'	-5.98	1.33	1.42
34	A7	19	ARG	CA-C	-5.98	1.45	1.52
38	BD	77	GLU	C-O	5.98	1.31	1.24
1	AA	12	C	O3'-P	5.97	1.70	1.61
2	AB	992	C	C2'-C1'	5.97	1.62	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	1443	U	O4'-C1'	5.97	1.50	1.41
35	BA	600	A	O4'-C1'	5.97	1.50	1.41
35	BA	605	U	O3'-P	5.97	1.70	1.61
35	BA	265	G	P-O5'	-5.97	1.50	1.59
2	AB	183	C	P-O5'	5.97	1.68	1.59
2	AB	2267	A	C4'-O4'	-5.97	1.36	1.45
2	AB	2567	G	P-O5'	5.97	1.68	1.59
2	AB	2060	A	C1'-N9	5.96	1.55	1.47
35	BA	276	G	C2'-O2'	-5.96	1.33	1.42
1	AA	7	G	P-O5'	5.96	1.68	1.59
6	AF	197	GLU	N-CA	-5.96	1.39	1.46
8	AH	50	THR	CA-C	5.96	1.60	1.52
24	AX	77	VAL	C-O	-5.96	1.18	1.24
37	BC	43	G	C4'-O4'	-5.96	1.36	1.45
2	AB	480	A	C3'-O3'	-5.96	1.33	1.42
24	AX	41	GLU	CA-CB	5.96	1.62	1.53
14	AN	41	ARG	N-CA	5.95	1.54	1.45
2	AB	1983	G	C2'-C1'	5.95	1.62	1.53
4	AD	95	TYR	N-CA	5.95	1.53	1.45
45	BK	115	VAL	CA-CB	5.95	1.61	1.54
2	AB	340	A	C5'-C4'	5.95	1.60	1.51
2	AB	1856	U	C2'-O2'	5.95	1.51	1.42
2	AB	2688	G	C2'-O2'	-5.95	1.33	1.42
36	BB	22	G	C5'-C4'	5.95	1.60	1.51
2	AB	1363	C	C4'-O4'	-5.95	1.36	1.45
39	BE	86	LEU	CA-CB	5.95	1.62	1.53
35	BA	1526	G	O4'-C1'	5.95	1.50	1.41
35	BA	510	A	C5'-C4'	5.94	1.60	1.51
35	BA	1293	C	C4'-O4'	-5.94	1.36	1.45
40	BF	68	GLU	C-N	5.94	1.41	1.33
4	AD	245	THR	N-CA	5.94	1.56	1.45
16	AP	36	THR	N-CA	5.94	1.53	1.46
35	BA	1525	G	P-O5'	5.94	1.68	1.59
2	AB	2121	G	O5'-C5'	5.94	1.51	1.42
2	AB	2150	C	P-O5'	5.94	1.68	1.59
2	AB	2081	U	O3'-P	5.94	1.70	1.61
17	AQ	40	ILE	CA-C	5.93	1.59	1.52
35	BA	1105	A	P-O5'	5.93	1.68	1.59
47	BM	43	TRP	CA-C	-5.93	1.45	1.52
48	BN	80	LEU	CA-CB	5.93	1.62	1.53
2	AB	1589	U	C4'-O4'	-5.93	1.36	1.45
2	AB	2656	U	C4'-O4'	-5.93	1.36	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	176	A	O3'-P	5.93	1.70	1.61
2	AB	1402	U	O4'-C1'	5.93	1.50	1.41
35	BA	99	C	O3'-P	5.93	1.70	1.61
2	AB	98	G	O4'-C1'	5.93	1.50	1.41
2	AB	752	A	C5'-C4'	5.93	1.60	1.51
2	AB	1982	U	O3'-P	5.93	1.70	1.61
14	AN	60	ARG	CA-C	5.93	1.60	1.52
35	BA	428	G	C5'-C4'	5.93	1.60	1.51
2	AB	74	A	O3'-P	-5.92	1.52	1.61
2	AB	1299	G	C5'-C4'	5.92	1.60	1.51
35	BA	1358	U	C2'-O2'	-5.92	1.33	1.42
42	BH	37	HIS	CG-ND1	5.92	1.44	1.38
35	BA	194	C	C4'-O4'	-5.92	1.36	1.45
35	BA	881	G	C4'-O4'	-5.92	1.36	1.45
2	AB	714	U	C1'-N1	5.92	1.57	1.48
3	AC	69	THR	CA-C	5.92	1.61	1.53
55	BU	64	GLU	N-CA	5.92	1.53	1.46
2	AB	889	C	C3'-O3'	-5.92	1.33	1.42
35	BA	113	G	C3'-C2'	5.92	1.61	1.52
35	BA	838	G	C1'-N9	5.92	1.56	1.48
2	AB	2745	C	C4'-O4'	-5.91	1.36	1.45
43	BI	66	GLU	CA-C	5.91	1.60	1.52
2	AB	177	G	C5'-C4'	5.91	1.60	1.51
2	AB	690	G	C4'-O4'	-5.91	1.36	1.45
24	AX	36	ALA	CA-C	5.91	1.60	1.52
35	BA	1140	C	P-O5'	5.91	1.68	1.59
2	AB	1585	C	C3'-O3'	5.91	1.51	1.42
2	AB	2049	G	C4'-O4'	-5.91	1.36	1.45
35	BA	672	U	C4'-O4'	-5.91	1.36	1.45
2	AB	1592	C	C4'-C3'	5.91	1.61	1.52
2	AB	2840	C	O3'-P	5.91	1.70	1.61
5	AE	67	HIS	CG-ND1	5.91	1.44	1.38
11	AK	77	VAL	CA-C	5.91	1.60	1.52
53	BS	47	ASP	CA-C	5.91	1.59	1.52
56	BV	23	ARG	NE-CZ	5.91	1.39	1.33
41	BG	99	SER	CA-C	5.90	1.60	1.52
48	BN	70	GLY	CA-C	5.90	1.60	1.51
2	AB	1179	G	C3'-O3'	5.90	1.51	1.42
1	AA	36	C	C4'-O4'	-5.90	1.36	1.45
2	AB	561	G	C2'-O2'	-5.90	1.33	1.42
2	AB	1693	U	C4'-O4'	-5.90	1.36	1.45
2	AB	2707	U	P-O5'	5.90	1.68	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	374	A	C4'-C3'	-5.90	1.43	1.52
2	AB	202	U	C3'-O3'	5.90	1.50	1.42
43	BI	171	GLN	CA-C	5.90	1.59	1.52
2	AB	405	U	C4'-O4'	-5.90	1.36	1.45
2	AB	887	U	O4'-C1'	5.90	1.50	1.41
2	AB	1672	A	P-O5'	5.90	1.68	1.59
19	AS	71	ASN	C-N	5.90	1.41	1.33
16	AP	71	ARG	CA-C	5.90	1.59	1.53
35	BA	985	C	P-O5'	5.89	1.68	1.59
2	AB	2528	U	P-O5'	5.89	1.68	1.59
2	AB	445	C	O3'-P	5.89	1.70	1.61
2	AB	1092	C	C4'-O4'	-5.89	1.36	1.45
36	BB	38	G	C5'-C4'	5.89	1.60	1.51
38	BD	157	PRO	N-CA	5.89	1.53	1.47
33	A6	23	HIS	CD2-NE2	5.89	1.44	1.37
35	BA	439	U	P-O5'	5.89	1.68	1.59
49	BO	33	LEU	CA-C	5.89	1.60	1.52
52	BR	36	VAL	CA-CB	5.89	1.60	1.54
2	AB	481	G	C1'-N9	5.89	1.55	1.47
2	AB	1872	A	O5'-C5'	5.89	1.51	1.42
2	AB	1912	A	P-O5'	-5.89	1.50	1.59
35	BA	1535	C	C2'-O2'	-5.89	1.33	1.42
2	AB	2583	G	O3'-P	-5.88	1.52	1.61
5	AE	163	GLY	N-CA	5.88	1.53	1.45
16	AP	116	VAL	CA-C	5.88	1.60	1.52
35	BA	889	A	C4'-O4'	-5.88	1.37	1.45
2	AB	1390	U	C5'-C4'	5.88	1.60	1.51
10	AJ	35	ASP	C-N	5.88	1.41	1.33
49	BO	11	HIS	CE1-NE2	5.88	1.38	1.32
51	BQ	25	GLU	C-O	-5.88	1.17	1.24
2	AB	1142	A	C3'-O3'	5.88	1.51	1.43
43	BI	129	ASN	CA-CB	5.88	1.62	1.53
2	AB	1582	C	C4'-C3'	5.88	1.61	1.52
3	AC	186	LYS	CA-CB	5.88	1.62	1.53
2	AB	2286	G	C4'-O4'	-5.87	1.37	1.45
2	AB	55	G	P-O5'	5.87	1.68	1.59
2	AB	1952	A	C2'-C1'	-5.87	1.44	1.53
22	AV	27	SER	C-N	5.87	1.40	1.33
35	BA	6	G	C1'-N9	5.87	1.55	1.47
35	BA	747	A	P-O5'	-5.87	1.50	1.59
2	AB	1705	A	C4'-O4'	-5.87	1.36	1.45
2	AB	1358	G	C2'-O2'	-5.87	1.33	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	273	U	P-O5'	5.87	1.68	1.59
35	BA	1098	C	C4'-O4'	-5.87	1.36	1.45
35	BA	1527	U	C5'-C4'	5.87	1.60	1.51
2	AB	329	G	O3'-P	-5.87	1.52	1.61
33	A6	57	VAL	CA-C	5.87	1.61	1.52
2	AB	882	G	O3'-P	5.86	1.70	1.61
50	BP	30	ILE	N-CA	5.86	1.53	1.46
35	BA	927	G	C5'-C4'	5.86	1.60	1.51
44	BJ	7	ALA	N-CA	-5.86	1.39	1.46
2	AB	654	A	C4'-O4'	-5.86	1.36	1.45
17	AQ	110	ALA	CA-C	5.86	1.60	1.52
21	AU	67	ASP	C-N	5.86	1.41	1.33
35	BA	464	U	C5'-C4'	5.86	1.60	1.51
39	BE	194	VAL	CA-CB	5.86	1.61	1.54
2	AB	1044	C	C5'-C4'	5.86	1.60	1.51
8	AH	24	THR	CA-C	5.86	1.59	1.52
25	AY	78	PHE	N-CA	-5.86	1.39	1.46
2	AB	218	A	C4'-O4'	-5.86	1.36	1.45
2	AB	2213	U	C5'-C4'	5.86	1.60	1.51
20	AT	47	VAL	CA-C	5.86	1.60	1.52
35	BA	285	C	O3'-P	5.86	1.70	1.61
2	AB	1121	C	O3'-P	5.86	1.70	1.61
29	A2	45	THR	N-CA	5.86	1.53	1.46
35	BA	322	C	C5'-C4'	5.85	1.60	1.51
2	AB	1464	G	C5'-C4'	5.85	1.60	1.51
13	AM	85	VAL	CA-C	5.85	1.60	1.52
2	AB	1155	A	C2'-O2'	-5.85	1.33	1.42
35	BA	946	A	C4'-O4'	-5.85	1.36	1.45
39	BE	39	ARG	NE-CZ	5.85	1.39	1.33
2	AB	196	A	C4'-O4'	-5.85	1.37	1.45
4	AD	33	LEU	CA-CB	5.85	1.61	1.53
35	BA	508	U	C5'-C4'	5.85	1.60	1.51
35	BA	1473	G	O3'-P	5.85	1.70	1.61
2	AB	490	C	C2'-O2'	5.85	1.51	1.42
9	AI	21	VAL	C-N	5.85	1.41	1.33
35	BA	1088	G	C4'-O4'	-5.85	1.36	1.45
29	A2	32	LEU	C-N	5.84	1.42	1.33
35	BA	812	G	C5'-C4'	5.84	1.60	1.51
2	AB	2692	G	C5'-C4'	5.84	1.60	1.51
6	AF	199	MET	CA-C	5.84	1.60	1.52
2	AB	1142	A	C4'-O4'	-5.84	1.37	1.45
2	AB	1328	A	O4'-C1'	-5.84	1.32	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	1477	A	C5'-C4'	5.84	1.60	1.51
2	AB	391	A	O5'-C5'	5.84	1.51	1.42
38	BD	34	ARG	NE-CZ	5.84	1.39	1.33
14	AN	68	SER	CA-C	-5.84	1.44	1.52
49	BO	81	ASP	CA-C	5.84	1.60	1.52
2	AB	1613	G	O3'-P	5.83	1.70	1.61
5	AE	126	ASN	N-CA	5.83	1.55	1.46
2	AB	824	U	C2'-C1'	5.83	1.62	1.53
2	AB	1541	C	P-O5'	5.83	1.68	1.59
17	AQ	7	ARG	CD-NE	5.83	1.54	1.46
7	AG	148	VAL	CA-CB	5.83	1.62	1.54
32	A5	31	LEU	C-O	-5.83	1.17	1.24
32	A5	39	ARG	CD-NE	5.83	1.54	1.46
35	BA	54	C	C4'-O4'	-5.83	1.36	1.45
35	BA	1457	G	C4'-O4'	-5.83	1.36	1.45
1	AA	1	U	C3'-C2'	5.82	1.61	1.52
12	AL	96	ARG	C-O	5.82	1.26	1.23
35	BA	1155	A	C4'-O4'	-5.82	1.36	1.45
35	BA	324	G	C4'-O4'	-5.82	1.36	1.45
35	BA	993	G	C5'-C4'	5.82	1.60	1.51
2	AB	380	G	C5'-C4'	5.82	1.59	1.51
15	AO	110	GLU	N-CA	5.82	1.53	1.46
22	AV	16	VAL	N-CA	-5.82	1.38	1.46
35	BA	1218	C	P-O5'	5.82	1.68	1.59
35	BA	1349	A	P-O5'	5.82	1.68	1.59
2	AB	529	A	C4'-O4'	-5.82	1.37	1.45
2	AB	2664	G	C4'-O4'	-5.82	1.36	1.45
35	BA	1471	U	O5'-C5'	-5.82	1.33	1.42
2	AB	651	G	O3'-P	-5.82	1.52	1.61
35	BA	277	C	C5'-C4'	5.82	1.59	1.51
35	BA	953	G	O4'-C1'	5.82	1.50	1.41
38	BD	79	VAL	CA-C	5.82	1.60	1.52
46	BL	62	ARG	CA-C	5.82	1.60	1.52
4	AD	124	LYS	CA-C	5.81	1.60	1.52
44	BJ	87	ARG	CA-C	5.81	1.61	1.53
2	AB	49	A	P-O5'	5.81	1.68	1.59
40	BF	166	LYS	C-N	5.81	1.41	1.33
42	BH	129	SER	CA-C	5.81	1.60	1.52
43	BI	177	LEU	CA-C	5.81	1.60	1.52
35	BA	1075	U	C4'-O4'	-5.81	1.36	1.45
2	AB	2247	A	C4'-O4'	-5.81	1.36	1.45
35	BA	302	G	P-O5'	5.80	1.68	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	509	A	C5'-C4'	5.80	1.59	1.51
2	AB	876	C	C3'-C2'	-5.80	1.44	1.52
3	AC	175	ILE	C-N	5.80	1.40	1.33
11	AK	89	SER	C-N	5.80	1.41	1.33
35	BA	1086	U	C2'-O2'	-5.80	1.33	1.42
2	AB	631	A	C4'-O4'	-5.80	1.36	1.45
2	AB	2093	G	P-O5'	-5.80	1.51	1.59
2	AB	2520	C	C5'-C4'	5.80	1.59	1.51
16	AP	76	VAL	CA-CB	5.80	1.61	1.54
32	A5	34	ARG	CZ-NH1	5.80	1.40	1.32
37	BC	66	C	P-O5'	5.80	1.68	1.59
35	BA	376	G	C5'-C4'	-5.80	1.42	1.51
44	BJ	81	GLY	CA-C	5.80	1.59	1.51
2	AB	1055	G	O3'-P	5.80	1.69	1.61
2	AB	172	A	C4'-O4'	-5.79	1.36	1.45
2	AB	204	A	P-O5'	5.79	1.68	1.59
43	BI	131	GLY	N-CA	5.79	1.52	1.45
2	AB	289	G	C5'-C4'	5.79	1.59	1.51
42	BH	66	ALA	CA-C	5.79	1.59	1.52
18	AR	49	ILE	CA-C	5.79	1.60	1.52
29	A2	52	ALA	C-N	5.79	1.41	1.33
35	BA	65	A	C5'-C4'	5.79	1.60	1.51
48	BN	91	GLY	C-N	5.79	1.40	1.33
2	AB	531	C	O5'-C5'	5.79	1.51	1.42
35	BA	376	G	C4'-O4'	-5.79	1.36	1.45
50	BP	87	ALA	N-CA	-5.79	1.39	1.46
4	AD	202	ARG	NE-CZ	5.79	1.39	1.33
6	AF	44	ARG	CZ-NH1	5.79	1.40	1.32
35	BA	158	G	P-O5'	5.79	1.68	1.59
39	BE	24	ASN	N-CA	5.79	1.55	1.46
44	BJ	121	GLY	C-N	5.79	1.39	1.33
2	AB	149	A	C4'-O4'	-5.78	1.36	1.45
2	AB	1819	A	C5'-C4'	5.78	1.60	1.51
16	AP	116	VAL	N-CA	5.78	1.53	1.46
18	AR	112	ARG	CD-NE	5.78	1.54	1.46
52	BR	23	ASP	CA-C	5.78	1.60	1.52
2	AB	2646	C	C4'-O4'	-5.78	1.36	1.45
5	AE	46	ARG	NE-CZ	5.78	1.39	1.33
27	A0	9	LYS	CA-C	5.78	1.60	1.52
14	AN	15	ALA	CA-C	5.78	1.60	1.52
35	BA	337	G	P-O5'	5.78	1.68	1.59
16	AP	86	ARG	N-CA	5.78	1.53	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
52	BR	59	HIS	ND1-CE1	5.78	1.38	1.32
2	AB	2727	A	C4'-O4'	-5.78	1.36	1.45
12	AL	66	GLY	N-CA	-5.78	1.35	1.45
2	AB	508	A	P-O5'	5.77	1.68	1.59
2	AB	517	C	C2'-O2'	-5.77	1.33	1.42
3	AC	53	ARG	CA-C	-5.77	1.45	1.53
35	BA	642	A	C1'-N9	5.77	1.56	1.48
2	AB	384	A	C4'-O4'	-5.77	1.36	1.45
2	AB	662	G	O3'-P	5.77	1.69	1.61
34	A7	4	ARG	NE-CZ	5.77	1.39	1.33
35	BA	474	G	C3'-O3'	5.77	1.50	1.42
38	BD	151	LYS	N-CA	-5.77	1.39	1.46
50	BP	14	ALA	CA-C	5.77	1.60	1.52
1	AA	50	A	O3'-P	5.77	1.69	1.61
2	AB	69	C	P-O5'	5.77	1.68	1.59
2	AB	1692	U	C4'-O4'	-5.77	1.36	1.45
13	AM	71	ARG	CA-C	5.77	1.60	1.52
27	A0	51	ALA	N-CA	-5.77	1.39	1.46
41	BG	143	LEU	N-CA	5.77	1.52	1.46
36	BB	17	U	C5'-C4'	5.77	1.59	1.51
2	AB	1958	C	P-O5'	5.76	1.68	1.59
35	BA	83	C	C4'-O4'	-5.76	1.36	1.45
46	BL	16	ARG	NE-CZ	5.76	1.39	1.33
54	BT	69	TYR	CA-CB	5.76	1.63	1.53
2	AB	772	C	C2'-O2'	-5.76	1.33	1.42
13	AM	87	LEU	CA-C	5.76	1.61	1.53
2	AB	2402	U	C4'-O4'	-5.76	1.37	1.45
35	BA	163	C	P-O5'	5.76	1.68	1.59
35	BA	979	C	C3'-O3'	-5.76	1.34	1.43
2	AB	1085	A	P-O5'	5.76	1.68	1.59
10	AJ	155	ALA	C-O	-5.76	1.17	1.24
2	AB	1338	G	C5'-C4'	5.75	1.59	1.51
8	AH	33	THR	N-CA	5.75	1.54	1.46
2	AB	2347	C	C2'-C1'	-5.75	1.44	1.53
2	AB	2372	U	O5'-C5'	-5.75	1.33	1.42
4	AD	11	GLY	N-CA	5.75	1.53	1.45
12	AL	69	ARG	CA-C	5.75	1.60	1.52
2	AB	50	U	C1'-N1	5.74	1.56	1.47
4	AD	6	LYS	CA-C	5.74	1.59	1.53
7	AG	103	ILE	CA-C	5.74	1.60	1.52
54	BT	38	ILE	C-N	5.74	1.39	1.33
1	AA	12	C	C4'-O4'	-5.74	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	2411	A	C1'-N9	5.74	1.56	1.48
35	BA	100	G	P-O5'	5.74	1.68	1.59
2	AB	880	G	C5'-C4'	5.74	1.59	1.51
2	AB	1399	C	O5'-C5'	-5.74	1.33	1.42
10	AJ	76	VAL	CA-CB	5.74	1.61	1.54
2	AB	1634	A	C4'-O4'	-5.74	1.37	1.45
2	AB	1838	C	C2'-C1'	-5.74	1.44	1.53
21	AU	68	ASP	C-N	5.73	1.41	1.33
2	AB	75	G	O3'-P	5.73	1.69	1.61
5	AE	197	THR	C-N	5.73	1.41	1.33
41	BG	67	ARG	C-N	5.73	1.41	1.33
42	BH	2	ARG	NE-CZ	5.73	1.39	1.33
2	AB	1235	G	O4'-C1'	5.73	1.50	1.41
48	BN	43	LYS	CA-C	5.73	1.60	1.52
51	BQ	82	GLU	CA-C	5.73	1.60	1.52
2	AB	11	C	C5'-C4'	5.73	1.59	1.51
2	AB	2074	U	C2'-C1'	5.73	1.61	1.53
35	BA	1496	C	C4'-O4'	-5.73	1.36	1.45
2	AB	237	C	C2'-C1'	-5.73	1.44	1.53
48	BN	90	PRO	N-CA	-5.73	1.40	1.47
2	AB	246	C	C4'-O4'	-5.72	1.36	1.45
2	AB	979	A	C4'-C3'	5.72	1.61	1.53
35	BA	697	U	P-O5'	5.72	1.68	1.59
11	AK	31	GLY	C-N	5.72	1.39	1.33
38	BD	140	LEU	C-N	5.72	1.41	1.33
35	BA	96	U	C4'-O4'	-5.72	1.36	1.45
35	BA	1535	C	C4'-O4'	-5.72	1.36	1.45
35	BA	297	G	C4'-C3'	5.72	1.61	1.52
55	BU	16	LYS	CA-C	5.72	1.60	1.52
2	AB	2400	G	C4'-O4'	-5.72	1.36	1.45
35	BA	473	U	P-O5'	5.72	1.68	1.59
49	BO	116	LYS	CA-C	5.72	1.60	1.52
2	AB	1802	A	O3'-P	5.71	1.69	1.61
47	BM	75	GLU	CA-C	5.71	1.60	1.52
21	AU	95	ARG	CA-C	-5.71	1.45	1.52
2	AB	1082	U	P-O5'	5.71	1.68	1.59
2	AB	1097	U	P-O5'	5.71	1.68	1.59
2	AB	2519	U	C4'-C3'	5.71	1.61	1.53
2	AB	2525	G	C4'-O4'	-5.71	1.36	1.45
39	BE	175	HIS	CG-ND1	5.71	1.44	1.38
56	BV	43	LYS	CA-CB	5.71	1.62	1.53
56	BV	45	ALA	N-CA	5.71	1.53	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	2505	G	O4'-C1'	5.71	1.50	1.42
35	BA	264	C	O3'-P	5.71	1.69	1.61
41	BG	93	VAL	CA-C	5.71	1.59	1.52
2	AB	217	A	C2'-O2'	-5.71	1.33	1.42
2	AB	1444	G	C3'-C2'	5.71	1.61	1.52
2	AB	1545	A	P-O5'	5.71	1.68	1.59
35	BA	358	U	O4'-C1'	5.71	1.50	1.41
37	BC	30	G	C4'-O4'	-5.71	1.36	1.45
4	AD	176	ARG	CA-C	5.71	1.60	1.52
35	BA	1143	G	C1'-N9	5.71	1.56	1.48
54	BT	17	VAL	CA-CB	5.71	1.61	1.54
35	BA	205	A	P-O5'	5.70	1.68	1.59
48	BN	71	HIS	CD2-NE2	5.70	1.44	1.37
35	BA	1210	C	P-O5'	5.70	1.68	1.59
35	BA	1513	A	O5'-C5'	-5.70	1.33	1.42
36	BB	17	U	C4-C5	5.70	1.54	1.43
38	BD	162	VAL	CA-C	5.70	1.59	1.52
2	AB	1143	A	O3'-P	-5.70	1.52	1.61
2	AB	2440	C	C1'-N1	5.70	1.56	1.48
35	BA	1164	G	C5'-C4'	5.70	1.59	1.51
2	AB	483	A	C5'-C4'	5.70	1.59	1.51
2	AB	698	C	C5'-C4'	5.70	1.59	1.51
2	AB	1872	A	O3'-P	5.70	1.69	1.61
19	AS	102	LYS	CA-C	5.70	1.60	1.52
38	BD	137	THR	C-O	5.70	1.30	1.24
35	BA	638	U	O5'-C5'	5.69	1.50	1.42
35	BA	1208	C	C5'-C4'	5.69	1.59	1.51
3	AC	114	VAL	CA-CB	5.69	1.61	1.54
35	BA	472	U	C5'-C4'	5.69	1.59	1.51
6	AF	150	THR	CA-CB	5.69	1.61	1.53
32	A5	31	LEU	CA-C	5.69	1.60	1.52
35	BA	1203	C	C4'-O4'	-5.69	1.37	1.45
39	BE	156	LEU	N-CA	5.69	1.53	1.46
39	BE	68	HIS	N-CA	-5.69	1.39	1.46
2	AB	2082	A	P-O5'	5.68	1.68	1.59
11	AK	52	LEU	C-N	5.68	1.39	1.33
12	AL	40	HIS	ND1-CE1	5.68	1.38	1.32
35	BA	614	C	P-O5'	5.68	1.68	1.59
2	AB	841	G	C5'-C4'	5.68	1.59	1.51
2	AB	1459	G	C5'-C4'	5.68	1.59	1.51
8	AH	84	LYS	CA-C	5.68	1.60	1.52
35	BA	781	A	C4'-O4'	-5.68	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
39	BE	35	ASP	N-CA	5.68	1.53	1.46
1	AA	34	A	C3'-C2'	5.68	1.61	1.52
21	AU	74	ILE	N-CA	-5.68	1.39	1.46
23	AW	92	VAL	CA-CB	-5.68	1.46	1.54
36	BB	27	A	O3'-P	5.68	1.69	1.61
2	AB	934	U	P-O5'	5.68	1.68	1.59
2	AB	1208	C	C1'-N1	5.68	1.56	1.48
2	AB	395	U	P-O5'	5.68	1.68	1.59
19	AS	100	PHE	CA-C	5.68	1.59	1.52
35	BA	759	A	C5'-C4'	5.68	1.59	1.51
35	BA	824	G	C3'-C2'	5.68	1.61	1.52
49	BO	2	ARG	CZ-NH1	5.67	1.40	1.32
2	AB	1676	A	P-O5'	5.67	1.68	1.59
2	AB	1955	U	O5'-C5'	-5.67	1.34	1.42
2	AB	1959	G	C5'-C4'	5.67	1.59	1.51
35	BA	1092	A	C5'-C4'	5.67	1.59	1.51
2	AB	1400	U	C4'-C3'	5.67	1.61	1.52
13	AM	85	VAL	CA-CB	5.67	1.60	1.54
57	BW	55	HIS	CD2-NE2	-5.67	1.31	1.37
2	AB	842	U	C4'-O4'	-5.67	1.37	1.45
2	AB	1855	U	C4'-O4'	-5.67	1.37	1.45
6	AF	12	LEU	CA-C	5.67	1.59	1.52
2	AB	2243	U	O5'-C5'	5.67	1.50	1.42
35	BA	1075	U	C5'-C4'	5.67	1.59	1.51
8	AH	161	VAL	CA-CB	5.67	1.60	1.54
2	AB	644	A	P-O5'	5.66	1.68	1.59
2	AB	1251	C	C4'-O4'	-5.66	1.37	1.45
2	AB	2314	A	C3'-C2'	5.66	1.61	1.52
35	BA	598	U	O4'-C1'	5.66	1.50	1.41
38	BD	59	ILE	CA-CB	-5.66	1.46	1.54
43	BI	167	ALA	N-CA	-5.66	1.38	1.45
2	AB	1216	G	C2'-C1'	-5.66	1.44	1.53
26	AZ	25	LYS	N-CA	5.66	1.53	1.46
2	AB	497	A	O3'-P	-5.66	1.52	1.61
35	BA	1091	U	C4'-O4'	-5.66	1.37	1.45
35	BA	1309	G	P-O5'	5.66	1.68	1.59
35	BA	1336	C	C5'-C4'	5.66	1.59	1.51
40	BF	177	MET	C-N	5.66	1.40	1.33
46	BL	15	HIS	CG-ND1	5.66	1.44	1.38
2	AB	674	G	C4'-O4'	-5.66	1.37	1.45
33	A6	43	LEU	CA-CB	-5.66	1.44	1.53
35	BA	497	G	C2'-O2'	-5.66	1.33	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	627	G	O4'-C1'	5.66	1.50	1.41
50	BP	27	LYS	C-N	5.66	1.41	1.33
7	AG	28	PRO	N-CA	-5.66	1.40	1.47
2	AB	31	C	C4'-O4'	-5.66	1.37	1.45
2	AB	1281	G	P-O5'	5.66	1.68	1.59
6	AF	60	TRP	NE1-CE2	5.66	1.43	1.37
25	AY	45	HIS	ND1-CE1	5.65	1.38	1.32
6	AF	129	PRO	N-CD	-5.65	1.39	1.47
17	AQ	111	ARG	CA-C	5.65	1.60	1.52
2	AB	54	G	O5'-C5'	-5.65	1.33	1.42
2	AB	2193	G	P-O5'	5.65	1.68	1.59
8	AH	22	VAL	N-CA	5.65	1.53	1.46
8	AH	76	ILE	CA-C	5.65	1.60	1.52
1	AA	41	G	C4'-O4'	-5.65	1.37	1.45
8	AH	54	ARG	CA-C	5.65	1.59	1.52
14	AN	44	GLY	C-O	5.65	1.27	1.23
1	AA	61	G	P-O5'	5.64	1.68	1.59
2	AB	592	A	C3'-C2'	-5.64	1.44	1.52
28	A1	44	ARG	NE-CZ	5.64	1.39	1.33
35	BA	648	A	C1'-N9	-5.64	1.39	1.48
45	BK	53	LEU	N-CA	5.64	1.53	1.46
35	BA	318	G	O4'-C1'	5.64	1.50	1.41
16	AP	95	THR	CA-C	5.64	1.59	1.52
35	BA	724	G	O4'-C1'	-5.64	1.33	1.41
35	BA	1083	U	C4'-O4'	-5.64	1.37	1.45
2	AB	559	G	O3'-P	5.64	1.69	1.61
2	AB	1490	A	P-O5'	5.64	1.68	1.59
35	BA	3	A	C5'-C4'	5.63	1.59	1.51
38	BD	219	THR	N-CA	5.63	1.53	1.46
21	AU	78	GLU	CA-CB	5.63	1.60	1.53
1	AA	34	A	C5'-C4'	5.63	1.59	1.51
4	AD	143	VAL	CA-C	5.63	1.59	1.52
10	AJ	44	GLY	CA-C	5.63	1.58	1.52
35	BA	1200	C	C5'-C4'	5.63	1.59	1.51
2	AB	1967	C	P-O5'	5.63	1.68	1.59
2	AB	2063	C	C2'-C1'	5.63	1.61	1.53
35	BA	461	A	C2'-C1'	5.63	1.61	1.53
2	AB	936	A	P-O5'	5.63	1.68	1.59
2	AB	2448	A	P-O5'	5.63	1.68	1.59
7	AG	106	ALA	N-CA	-5.63	1.39	1.46
35	BA	610	U	C4'-O4'	-5.63	1.37	1.45
35	BA	743	A	C5'-C4'	5.63	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	573	U	C1'-N1	5.63	1.55	1.47
2	AB	981	A	P-O5'	5.63	1.68	1.59
2	AB	2554	U	C4'-O4'	-5.63	1.37	1.45
35	BA	1127	G	C1'-N9	5.63	1.56	1.48
24	AX	44	HIS	CE1-NE2	5.62	1.38	1.32
35	BA	1101	A	C5'-C4'	5.62	1.59	1.51
2	AB	213	A	O3'-P	5.62	1.69	1.61
2	AB	369	U	C5'-C4'	5.62	1.59	1.51
2	AB	1074	G	C4'-O4'	-5.62	1.37	1.45
2	AB	1446	C	C1'-N1	5.62	1.56	1.48
2	AB	2571	U	O3'-P	5.62	1.69	1.61
2	AB	2688	G	P-O5'	5.62	1.68	1.59
26	AZ	55	MET	N-CA	5.62	1.53	1.46
35	BA	645	G	O3'-P	5.62	1.69	1.61
35	BA	1100	C	C5'-C4'	5.62	1.59	1.51
35	BA	1161	C	C2'-O2'	-5.62	1.34	1.42
31	A4	49	LYS	CA-C	5.62	1.59	1.52
47	BM	3	ALA	CA-C	5.62	1.60	1.52
56	BV	74	HIS	ND1-CE1	5.62	1.38	1.32
2	AB	587	C	O3'-P	5.62	1.69	1.61
2	AB	1764	C	C3'-O3'	5.62	1.50	1.42
2	AB	2051	A	P-O5'	5.62	1.68	1.59
2	AB	2400	G	P-O5'	5.62	1.68	1.59
9	AI	40	THR	N-CA	5.62	1.53	1.46
2	AB	2127	G	C5'-C4'	5.62	1.59	1.51
2	AB	2312	U	P-O5'	5.62	1.68	1.59
2	AB	2639	A	C4'-C3'	5.62	1.60	1.52
35	BA	169	C	P-O5'	-5.62	1.51	1.59
11	AK	72	THR	CB-OG1	-5.62	1.34	1.43
57	BW	64	ALA	C-N	5.62	1.41	1.33
2	AB	1790	C	C5'-C4'	5.61	1.59	1.51
2	AB	2488	G	C5'-C4'	5.61	1.59	1.51
12	AL	77	HIS	CE1-NE2	5.61	1.38	1.32
35	BA	450	G	C4'-O4'	-5.61	1.37	1.45
40	BF	111	ALA	C-O	-5.61	1.17	1.24
2	AB	2	G	O4'-C1'	5.61	1.50	1.41
2	AB	1988	G	C2'-C1'	5.61	1.61	1.53
7	AG	100	GLU	CA-C	5.61	1.60	1.52
12	AL	129	GLU	N-CA	5.61	1.51	1.46
26	AZ	21	LEU	N-CA	5.61	1.53	1.46
35	BA	713	G	P-O5'	5.61	1.68	1.59
12	AL	21	THR	CA-C	5.61	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	164	G	P-O5'	5.61	1.68	1.59
21	AU	53	SER	N-CA	5.61	1.53	1.46
35	BA	219	U	C4'-C3'	5.61	1.60	1.52
38	BD	166	ASP	CA-C	5.61	1.60	1.52
2	AB	2223	G	C3'-C2'	5.60	1.61	1.52
10	AJ	81	ILE	CA-C	5.60	1.60	1.52
49	BO	106	ARG	CZ-NH2	5.60	1.40	1.33
1	AA	17	C	O4'-C1'	5.60	1.50	1.41
2	AB	935	C	C1'-N1	5.60	1.56	1.48
4	AD	131	MET	N-CA	5.60	1.53	1.46
2	AB	112	U	C2'-C1'	-5.60	1.45	1.53
2	AB	499	U	C4'-O4'	-5.60	1.37	1.45
35	BA	172	A	C4'-O4'	-5.60	1.37	1.45
47	BM	45	THR	CB-OG1	-5.60	1.34	1.43
1	AA	40	U	O5'-C5'	5.60	1.51	1.42
2	AB	612	G	C4'-O4'	-5.60	1.37	1.45
2	AB	1552	A	C5'-C4'	5.60	1.59	1.51
10	AJ	54	VAL	C-O	-5.60	1.17	1.23
35	BA	372	C	C1'-N1	5.60	1.55	1.47
35	BA	631	C	C4'-C3'	-5.60	1.44	1.53
2	AB	925	A	C5'-C4'	5.59	1.59	1.51
10	AJ	32	VAL	C-O	-5.59	1.16	1.24
2	AB	932	U	C2'-C1'	5.59	1.61	1.53
2	AB	1396	U	C4'-O4'	-5.59	1.37	1.45
2	AB	2053	G	C4'-C3'	-5.59	1.44	1.52
2	AB	2654	A	P-O5'	5.59	1.68	1.59
35	BA	1373	G	C2'-C1'	-5.59	1.45	1.53
35	BA	1485	U	P-O5'	5.59	1.68	1.59
37	BC	27	G	C5'-C4'	5.59	1.59	1.51
2	AB	376	G	C4'-O4'	-5.59	1.37	1.45
45	BK	127	SER	CA-C	5.59	1.60	1.52
2	AB	1381	G	P-O5'	5.59	1.68	1.59
2	AB	2086	U	C2'-O2'	-5.59	1.34	1.42
7	AG	173	ASP	CA-CB	5.59	1.59	1.52
43	BI	154	ARG	N-CA	5.59	1.53	1.46
35	BA	777	A	P-O5'	5.58	1.68	1.59
38	BD	46	VAL	C-N	5.58	1.40	1.34
2	AB	2158	A	C5'-C4'	5.58	1.59	1.51
10	AJ	90	ALA	CA-C	5.58	1.60	1.52
41	BG	53	ARG	CA-C	5.58	1.60	1.52
1	AA	114	C	O3'-P	5.58	1.69	1.61
2	AB	847	U	O5'-C5'	5.58	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	1423	G	O3'-P	5.58	1.69	1.61
5	AE	204	LYS	CA-C	5.58	1.60	1.52
35	BA	253	A	C4'-O4'	-5.58	1.37	1.45
25	AY	81	ILE	N-CA	5.58	1.52	1.46
35	BA	671	G	P-O5'	5.58	1.68	1.59
38	BD	69	VAL	CA-C	5.58	1.61	1.53
51	BQ	57	ARG	CA-C	5.58	1.59	1.52
2	AB	555	G	O3'-P	5.58	1.69	1.61
2	AB	2017	U	C2'-C1'	5.58	1.61	1.53
2	AB	2339	C	C4'-O4'	-5.58	1.37	1.45
35	BA	40	C	P-O5'	-5.58	1.51	1.59
35	BA	305	G	C5'-C4'	5.58	1.59	1.51
35	BA	651	C	P-O5'	5.58	1.68	1.59
35	BA	1480	A	O3'-P	5.58	1.69	1.61
43	BI	124	SER	N-CA	5.58	1.53	1.46
2	AB	406	G	C5'-C4'	5.58	1.59	1.51
2	AB	945	A	C5'-C4'	5.58	1.59	1.51
35	BA	1496	C	P-O5'	5.58	1.68	1.59
2	AB	513	A	P-O5'	5.58	1.68	1.59
20	AT	50	GLY	N-CA	5.58	1.53	1.45
37	BC	10	G	C4'-O4'	-5.58	1.37	1.45
1	AA	38	C	C4'-O4'	-5.57	1.37	1.45
6	AF	165	HIS	N-CA	5.57	1.53	1.46
34	A7	6	SER	CA-C	5.57	1.60	1.52
35	BA	900	A	P-O5'	5.57	1.68	1.59
35	BA	1031	C	C3'-O3'	-5.57	1.34	1.43
2	AB	62	U	C4'-O4'	-5.57	1.37	1.45
2	AB	546	U	C4'-O4'	-5.57	1.37	1.45
2	AB	901	C	C4'-C3'	5.57	1.60	1.52
2	AB	1114	C	O4'-C1'	-5.57	1.33	1.41
17	AQ	8	ILE	CA-C	5.57	1.61	1.52
35	BA	10	A	C4'-O4'	-5.57	1.37	1.45
35	BA	241	G	O3'-P	5.57	1.69	1.61
35	BA	1201	A	C4'-O4'	-5.57	1.37	1.45
4	AD	175	LEU	CA-C	5.57	1.59	1.52
2	AB	1151	A	C4'-O4'	-5.57	1.37	1.45
2	AB	1268	A	O4'-C1'	5.57	1.50	1.41
6	AF	32	VAL	N-CA	-5.57	1.39	1.46
2	AB	2800	A	C1'-N9	5.57	1.56	1.48
40	BF	127	ARG	C-O	-5.57	1.17	1.24
2	AB	119	A	P-O5'	5.56	1.68	1.59
2	AB	2259	U	O3'-P	-5.56	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	2528	U	O4'-C1'	5.56	1.50	1.41
2	AB	1304	A	O3'-P	5.56	1.69	1.61
5	AE	193	VAL	C-N	5.56	1.40	1.33
14	AN	41	ARG	CZ-NH1	5.56	1.40	1.32
35	BA	1261	A	P-O5'	5.56	1.68	1.59
35	BA	1465	A	C4'-C3'	5.56	1.60	1.52
50	BP	35	ALA	CA-C	5.56	1.61	1.52
3	AC	90	ALA	C-N	5.56	1.40	1.33
43	BI	52	ARG	C-O	-5.56	1.17	1.24
22	AV	61	LEU	CA-C	5.56	1.59	1.52
47	BM	63	GLN	C-N	5.56	1.40	1.33
35	BA	509	A	C4'-O4'	-5.56	1.37	1.45
2	AB	1777	U	C1'-N1	5.55	1.56	1.48
2	AB	700	G	P-O5'	5.55	1.68	1.59
31	A4	35	LEU	CA-C	5.55	1.60	1.52
31	A4	42	VAL	N-CA	5.55	1.53	1.46
35	BA	304	U	O3'-P	5.55	1.69	1.61
35	BA	1485	U	C3'-C2'	5.55	1.61	1.52
47	BM	46	ALA	C-N	5.55	1.41	1.33
2	AB	339	U	C2'-C1'	5.55	1.61	1.53
2	AB	388	G	O3'-P	5.55	1.69	1.61
2	AB	795	C	C2'-C1'	5.55	1.61	1.53
14	AN	37	GLY	C-N	5.55	1.41	1.34
38	BD	167	HIS	ND1-CE1	5.55	1.38	1.32
45	BK	80	HIS	ND1-CE1	5.55	1.38	1.32
54	BT	20	ILE	CA-C	5.55	1.59	1.52
10	AJ	145	ALA	C-O	-5.55	1.17	1.24
35	BA	448	A	C5'-C4'	5.55	1.59	1.51
2	AB	1211	C	O3'-P	5.55	1.69	1.61
35	BA	761	G	C4'-O4'	-5.54	1.37	1.45
35	BA	1055	A	C2'-O2'	5.54	1.50	1.42
8	AH	2	ARG	CA-CB	5.54	1.62	1.53
35	BA	421	U	C4'-O4'	-5.54	1.37	1.45
1	AA	80	U	O5'-C5'	-5.54	1.34	1.42
2	AB	1318	U	P-O5'	5.54	1.68	1.59
2	AB	1952	A	C5'-C4'	5.54	1.59	1.51
2	AB	2299	U	P-O5'	5.54	1.68	1.59
2	AB	2543	G	C4'-O4'	-5.54	1.37	1.45
16	AP	63	ARG	CZ-NH1	5.54	1.40	1.32
2	AB	1490	A	C4'-C3'	5.54	1.60	1.52
56	BV	46	ALA	C-N	5.54	1.41	1.33
2	AB	762	U	C4'-O4'	-5.53	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	AJ	140	ALA	C-N	5.53	1.41	1.33
16	AP	60	VAL	CA-CB	5.53	1.61	1.54
37	BC	72	C	C5'-C4'	5.53	1.59	1.51
45	BK	89	TYR	CA-C	5.53	1.60	1.52
2	AB	727	A	P-O5'	5.53	1.68	1.59
38	BD	187	ASP	N-CA	5.53	1.52	1.45
1	AA	89	U	P-O5'	5.53	1.68	1.59
8	AH	90	GLY	N-CA	5.53	1.53	1.45
12	AL	52	ASP	CA-CB	5.53	1.62	1.53
35	BA	149	A	C4'-C3'	5.53	1.60	1.52
35	BA	1087	G	O3'-P	5.53	1.69	1.61
2	AB	2354	C	C4'-O4'	-5.53	1.37	1.45
2	AB	2470	G	O4'-C1'	5.53	1.50	1.41
3	AC	154	LYS	CA-C	5.53	1.59	1.52
7	AG	119	LYS	N-CA	-5.53	1.39	1.46
48	BN	86	VAL	C-O	-5.53	1.18	1.24
49	BO	37	GLY	N-CA	5.53	1.53	1.45
2	AB	67	U	P-O5'	5.53	1.68	1.59
35	BA	350	G	C2-N3	5.53	1.43	1.32
35	BA	1398	A	C2'-O2'	-5.53	1.34	1.42
2	AB	1805	A	O4'-C1'	5.52	1.50	1.41
2	AB	911	A	C4'-O4'	-5.52	1.37	1.45
35	BA	1076	U	C3'-O3'	-5.52	1.33	1.42
2	AB	1516	G	C4'-O4'	-5.52	1.37	1.45
2	AB	2028	U	C2'-O2'	-5.52	1.34	1.42
2	AB	2619	C	C3'-O3'	5.52	1.50	1.42
17	AQ	102	ARG	N-CA	-5.52	1.39	1.46
22	AV	77	ARG	CA-C	5.52	1.60	1.52
2	AB	1434	A	C1'-N9	5.52	1.56	1.48
37	BC	5	G	C2'-C1'	-5.52	1.45	1.53
10	AJ	20	GLY	CA-C	5.52	1.58	1.51
2	AB	2877	G	P-O5'	5.51	1.68	1.59
2	AB	1393	A	C4'-C3'	5.51	1.60	1.52
2	AB	1952	A	C1'-N9	5.51	1.55	1.47
2	AB	2667	C	O3'-P	5.51	1.69	1.61
20	AT	15	SER	CA-C	5.51	1.60	1.53
2	AB	16	C	C4'-O4'	-5.51	1.37	1.45
8	AH	125	PRO	C-N	5.51	1.40	1.33
39	BE	81	GLU	CA-C	5.51	1.59	1.52
2	AB	1090	A	C4'-C3'	5.51	1.60	1.52
2	AB	1215	G	C5'-C4'	5.51	1.59	1.51
2	AB	2900	A	C5'-C4'	5.51	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	AM	49	ARG	NE-CZ	5.51	1.39	1.33
27	A0	41	HIS	CE1-NE2	-5.51	1.27	1.32
35	BA	761	G	C3'-O3'	5.51	1.50	1.42
53	BS	76	ARG	CA-C	5.51	1.59	1.52
1	AA	74	U	O3'-P	5.51	1.69	1.61
2	AB	647	G	C2'-O2'	-5.51	1.34	1.42
2	AB	829	A	C2'-C1'	5.51	1.61	1.53
2	AB	946	C	O4'-C1'	-5.51	1.33	1.41
2	AB	2225	A	C5'-C4'	5.51	1.59	1.51
27	A0	44	LYS	N-CA	5.51	1.53	1.46
35	BA	107	G	C4'-O4'	-5.51	1.37	1.45
35	BA	1164	G	C4'-C3'	5.51	1.60	1.52
6	AF	171	ASP	CA-C	5.50	1.60	1.52
50	BP	41	TRP	CZ2-CH2	5.50	1.47	1.37
2	AB	915	C	P-O5'	5.50	1.68	1.59
2	AB	1784	A	P-O5'	5.50	1.68	1.59
35	BA	1288	A	O5'-C5'	5.50	1.50	1.42
36	BB	41	A	C3'-C2'	5.50	1.61	1.52
47	BM	105	ARG	CA-C	5.50	1.59	1.52
2	AB	828	U	C4'-O4'	-5.50	1.37	1.45
9	AI	57	LYS	CA-CB	5.50	1.62	1.53
2	AB	1963	U	P-O5'	5.50	1.68	1.59
35	BA	203	G	C4'-O4'	-5.50	1.37	1.45
48	BN	71	HIS	CE1-NE2	5.50	1.38	1.32
2	AB	1821	A	C5'-C4'	5.50	1.59	1.51
2	AB	1928	A	C4'-O4'	-5.50	1.37	1.45
2	AB	2139	U	P-O5'	5.50	1.68	1.59
5	AE	61	THR	CA-C	5.50	1.60	1.52
9	AI	117	LEU	C-N	5.50	1.40	1.34
35	BA	181	A	C3'-O3'	-5.50	1.34	1.43
35	BA	788	U	C5'-C4'	5.50	1.59	1.51
15	AO	135	VAL	N-CA	5.50	1.52	1.46
2	AB	2252	G	C4'-O4'	-5.49	1.37	1.45
2	AB	2502	G	C1'-N9	5.49	1.55	1.47
36	BB	17	U	C4'-C3'	5.49	1.60	1.52
2	AB	79	C	C4'-O4'	-5.49	1.37	1.45
2	AB	2818	U	P-O5'	5.49	1.68	1.59
35	BA	1508	A	C4'-O4'	-5.49	1.37	1.45
39	BE	126	ARG	CZ-NH1	5.49	1.40	1.32
2	AB	265	A	P-O5'	5.49	1.68	1.59
2	AB	1968	G	O3'-P	5.49	1.69	1.61
35	BA	1047	G	C2-N3	5.49	1.43	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
41	BG	93	VAL	CA-CB	5.49	1.64	1.55
35	BA	71	A	P-O5'	5.49	1.68	1.59
2	AB	1343	G	C2'-O2'	5.49	1.50	1.42
4	AD	133	ASN	C-N	5.49	1.37	1.32
50	BP	89	ARG	N-CA	5.49	1.53	1.46
2	AB	680	C	P-O5'	5.48	1.68	1.59
2	AB	771	G	C5'-C4'	5.48	1.59	1.51
2	AB	658	U	P-O5'	5.48	1.68	1.59
35	BA	641	U	C3'-C2'	5.48	1.61	1.52
2	AB	2308	G	C4'-O4'	-5.48	1.37	1.45
42	BH	73	GLU	CA-CB	5.48	1.62	1.53
2	AB	2000	C	P-O5'	5.48	1.68	1.59
53	BS	36	PHE	CA-C	5.48	1.60	1.52
2	AB	294	A	O3'-P	5.48	1.69	1.61
2	AB	1262	A	P-O5'	5.48	1.68	1.59
15	AO	79	ALA	C-N	5.48	1.40	1.33
35	BA	1152	A	C1'-N9	5.48	1.56	1.48
44	BJ	101	ALA	N-CA	5.48	1.52	1.46
19	AS	73	ILE	CA-C	5.48	1.59	1.52
2	AB	1762	A	C1'-N9	5.47	1.55	1.47
35	BA	306	A	P-O5'	5.47	1.68	1.59
35	BA	439	U	C4'-O4'	-5.47	1.37	1.45
2	AB	1931	U	P-O5'	5.47	1.68	1.59
12	AL	70	THR	CA-C	5.47	1.60	1.52
35	BA	932	C	C5'-C4'	5.47	1.59	1.51
56	BV	21	ALA	C-N	-5.47	1.26	1.33
2	AB	1012	U	C1'-N1	5.47	1.55	1.47
2	AB	2584	U	C1'-N1	5.47	1.56	1.48
35	BA	1019	A	C4'-C3'	5.47	1.60	1.52
35	BA	1085	U	C4-C5	5.47	1.54	1.43
4	AD	99	GLU	CA-CB	5.47	1.61	1.53
35	BA	280	C	P-O5'	5.47	1.68	1.59
56	BV	27	MET	N-CA	5.47	1.52	1.46
2	AB	2227	A	C4'-O4'	-5.47	1.37	1.45
12	AL	68	LYS	CA-C	5.47	1.60	1.52
17	AQ	70	ALA	N-CA	5.47	1.53	1.46
37	BC	64	G	C4'-O4'	-5.47	1.37	1.45
2	AB	504	A	N3-C4	5.47	1.45	1.34
19	AS	78	PHE	N-CA	5.47	1.53	1.46
2	AB	269	C	O4'-C1'	5.46	1.49	1.41
2	AB	1653	G	C4'-O4'	-5.46	1.37	1.45
35	BA	345	C	P-O5'	5.46	1.68	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
42	BH	134	GLU	N-CA	5.46	1.53	1.46
2	AB	2682	A	N3-C4	5.46	1.45	1.34
2	AB	634	C	C5'-C4'	5.46	1.59	1.51
2	AB	1259	G	P-O5'	5.46	1.68	1.59
26	AZ	5	GLN	N-CA	5.46	1.53	1.46
35	BA	54	C	C5'-C4'	5.46	1.59	1.51
35	BA	336	A	O3'-P	5.46	1.69	1.61
2	AB	1372	U	O5'-C5'	-5.46	1.34	1.42
2	AB	1607	C	C4'-O4'	-5.46	1.37	1.45
2	AB	554	U	O5'-C5'	-5.46	1.34	1.42
2	AB	1610	A	C5'-C4'	5.46	1.59	1.51
2	AB	2732	G	C4'-O4'	-5.46	1.37	1.45
38	BD	20	ARG	CA-C	5.46	1.60	1.52
4	AD	242	HIS	CE1-NE2	5.46	1.38	1.32
29	A2	63	ARG	CZ-NH1	5.46	1.40	1.32
38	BD	166	ASP	CA-CB	5.46	1.61	1.53
2	AB	2418	A	C5'-C4'	5.46	1.59	1.51
4	AD	96	LYS	CA-C	5.46	1.60	1.52
39	BE	4	VAL	CA-CB	-5.46	1.48	1.54
2	AB	1293	C	C1'-N1	5.45	1.56	1.48
2	AB	2868	A	O3'-P	5.45	1.69	1.61
7	AG	155	ILE	CA-C	5.45	1.58	1.52
28	A1	47	ILE	C-N	5.45	1.41	1.33
35	BA	366	A	C5'-C4'	5.45	1.59	1.51
35	BA	188	C	C4'-O4'	-5.45	1.37	1.45
35	BA	1460	C	P-O5'	5.45	1.68	1.59
2	AB	1549	A	P-O5'	5.45	1.68	1.59
14	AN	42	SER	CA-C	5.45	1.60	1.53
35	BA	1211	U	C4'-C3'	5.45	1.60	1.52
40	BF	69	ARG	CD-NE	5.45	1.53	1.46
2	AB	1793	C	C1'-N1	5.45	1.56	1.48
4	AD	124	LYS	N-CA	5.44	1.53	1.45
5	AE	66	GLY	CA-C	5.44	1.58	1.51
8	AH	55	ASP	CA-CB	5.44	1.62	1.53
9	AI	32	PRO	N-CD	-5.44	1.40	1.47
25	AY	52	CYS	CA-C	-5.44	1.45	1.52
35	BA	249	U	P-O5'	5.44	1.68	1.59
48	BN	71	HIS	CA-C	5.44	1.59	1.52
2	AB	825	A	C4'-C3'	5.44	1.60	1.52
2	AB	1815	A	O3'-P	5.44	1.69	1.61
2	AB	2718	G	C4'-O4'	-5.44	1.37	1.45
35	BA	981	U	C4'-O4'	-5.44	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	BC	75	C	C4'-O4'	-5.44	1.37	1.45
54	BT	48	ALA	C-N	5.44	1.40	1.33
2	AB	13	A	C4'-O4'	-5.44	1.37	1.45
35	BA	1027	C	P-O5'	5.44	1.68	1.59
2	AB	1439	A	C1'-N9	5.44	1.56	1.48
2	AB	1697	G	C3'-C2'	5.44	1.60	1.52
2	AB	1793	C	C5'-C4'	5.44	1.59	1.51
2	AB	2138	G	O4'-C1'	-5.44	1.33	1.41
40	BF	142	VAL	CA-C	5.44	1.59	1.52
2	AB	2886	A	C3'-C2'	-5.44	1.44	1.52
50	BP	88	MET	CA-CB	-5.44	1.44	1.53
2	AB	156	A	C4'-C3'	5.43	1.60	1.52
2	AB	803	U	P-O5'	5.43	1.68	1.59
2	AB	1940	U	P-O5'	5.43	1.68	1.59
35	BA	797	C	C4'-O4'	-5.43	1.37	1.45
38	BD	73	ARG	CA-C	5.43	1.60	1.52
52	BR	20	VAL	N-CA	-5.43	1.39	1.46
2	AB	979	A	C3'-C2'	5.43	1.61	1.52
17	AQ	41	ALA	CA-CB	5.43	1.60	1.53
35	BA	822	U	C1'-N1	5.43	1.56	1.48
38	BD	51	GLU	N-CA	-5.43	1.40	1.46
48	BN	94	TYR	N-CA	5.43	1.52	1.45
35	BA	565	U	O3'-P	5.43	1.69	1.61
47	BM	108	ASN	CA-CB	5.43	1.61	1.53
24	AX	26	PHE	CA-C	5.43	1.57	1.52
30	A3	39	ARG	NE-CZ	5.43	1.39	1.33
2	AB	1896	G	C1'-N9	5.43	1.56	1.48
2	AB	1397	U	C4'-O4'	-5.43	1.37	1.45
2	AB	2681	C	P-O5'	5.43	1.67	1.59
5	AE	133	THR	CA-C	5.43	1.60	1.52
17	AQ	31	THR	CA-C	5.43	1.59	1.52
1	AA	97	C	C4'-O4'	-5.42	1.37	1.45
2	AB	2312	U	C4'-O4'	-5.42	1.37	1.45
12	AL	27	ARG	CA-C	5.42	1.60	1.52
39	BE	138	GLN	CA-C	5.42	1.59	1.52
43	BI	111	GLY	CA-C	5.42	1.59	1.51
4	AD	232	GLY	CA-C	5.42	1.56	1.52
6	AF	131	THR	C-O	-5.42	1.17	1.24
2	AB	1554	U	C4'-O4'	-5.42	1.37	1.45
6	AF	103	GLY	N-CA	5.42	1.52	1.45
21	AU	35	ILE	CA-C	5.42	1.59	1.52
35	BA	415	A	C4'-O4'	-5.42	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1038	C	P-O5'	5.42	1.67	1.59
48	BN	20	VAL	CA-CB	-5.42	1.48	1.53
2	AB	2595	G	C2'-C1'	5.42	1.61	1.53
25	AY	69	GLU	C-N	5.42	1.40	1.33
35	BA	1253	G	C3'-O3'	5.42	1.50	1.42
2	AB	2133	G	P-O5'	5.42	1.67	1.59
7	AG	73	VAL	CA-CB	5.42	1.61	1.54
39	BE	7	ASN	CA-C	5.42	1.60	1.52
48	BN	36	VAL	CA-C	5.42	1.58	1.52
35	BA	606	G	O3'-P	5.42	1.69	1.61
35	BA	1316	G	C1'-N9	5.42	1.56	1.48
2	AB	2184	A	C4'-O4'	-5.42	1.37	1.45
17	AQ	58	ILE	CA-C	5.42	1.60	1.52
2	AB	1143	A	C4'-O4'	-5.41	1.37	1.45
2	AB	2406	A	O5'-C5'	5.41	1.50	1.42
35	BA	1349	A	O3'-P	5.41	1.69	1.61
2	AB	2515	C	C2'-O2'	-5.41	1.34	1.42
35	BA	674	G	C4'-C3'	5.41	1.60	1.52
40	BF	104	MET	C-O	-5.41	1.17	1.24
2	AB	387	U	O3'-P	5.41	1.69	1.61
2	AB	1518	C	O3'-P	5.41	1.69	1.61
2	AB	8	C	C2'-O2'	5.41	1.50	1.42
2	AB	167	A	C5'-C4'	5.41	1.59	1.51
2	AB	397	U	O5'-C5'	-5.41	1.34	1.42
2	AB	1083	U	C4'-O4'	-5.41	1.37	1.45
2	AB	1351	C	C4'-O4'	-5.41	1.37	1.45
35	BA	1033	G	C2'-O2'	-5.41	1.34	1.42
35	BA	319	G	O4'-C1'	5.41	1.49	1.41
46	BL	73	LEU	C-O	-5.41	1.17	1.23
2	AB	1693	U	C3'-C2'	-5.41	1.44	1.52
13	AM	83	ALA	CA-C	-5.41	1.45	1.52
50	BP	27	LYS	N-CA	-5.41	1.39	1.46
35	BA	350	G	C2'-O2'	-5.40	1.34	1.42
1	AA	88	C	P-O5'	5.40	1.67	1.59
2	AB	2036	C	O4'-C1'	5.40	1.49	1.41
2	AB	2397	G	O4'-C1'	5.40	1.49	1.41
2	AB	2487	G	O3'-P	5.40	1.69	1.61
2	AB	2536	G	C5'-C4'	5.40	1.59	1.51
3	AC	23	ILE	N-CA	-5.40	1.40	1.46
9	AI	110	VAL	CA-C	5.40	1.59	1.52
35	BA	148	G	P-O5'	5.40	1.67	1.59
35	BA	322	C	O4'-C1'	5.40	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
39	BE	84	GLU	CA-C	5.40	1.59	1.52
2	AB	668	A	C1'-N9	5.40	1.56	1.48
2	AB	811	U	O5'-C5'	-5.40	1.34	1.42
4	AD	159	THR	CA-C	5.40	1.60	1.53
35	BA	86	G	C4'-O4'	-5.40	1.37	1.45
35	BA	513	C	C4'-O4'	-5.40	1.37	1.45
2	AB	2298	A	C2'-C1'	5.40	1.61	1.53
20	AT	51	VAL	CA-CB	5.40	1.59	1.53
42	BH	110	ARG	NE-CZ	5.40	1.39	1.33
35	BA	446	G	P-O5'	5.40	1.67	1.59
35	BA	982	U	P-O5'	5.40	1.67	1.59
10	AJ	102	ASN	CA-C	5.39	1.59	1.52
2	AB	1980	G	C4'-O4'	-5.39	1.37	1.45
2	AB	2852	G	C1'-N9	5.39	1.56	1.48
4	AD	239	PHE	C-N	-5.39	1.25	1.33
5	AE	138	LEU	C-O	5.39	1.30	1.23
36	BB	50	U	P-O5'	5.39	1.67	1.59
46	BL	65	TYR	N-CA	-5.39	1.39	1.45
49	BO	24	VAL	N-CA	5.39	1.53	1.46
56	BV	38	ILE	CA-CB	5.39	1.61	1.54
2	AB	2702	G	O5'-C5'	-5.39	1.34	1.42
5	AE	42	ASN	CA-C	5.39	1.59	1.52
35	BA	1020	G	C4'-O4'	-5.39	1.37	1.45
35	BA	1325	C	C5'-C4'	5.39	1.59	1.51
35	BA	1395	C	P-O5'	5.39	1.67	1.59
11	AK	79	LEU	CA-CB	-5.39	1.44	1.53
21	AU	102	HIS	CG-ND1	5.39	1.44	1.38
2	AB	83	A	P-O5'	5.39	1.67	1.59
2	AB	351	C	C4'-C3'	5.39	1.60	1.52
2	AB	611	C	O3'-P	5.39	1.69	1.61
35	BA	909	A	C5'-C4'	5.39	1.59	1.51
53	BS	60	ILE	CA-C	-5.39	1.46	1.52
2	AB	548	G	C5'-C4'	5.38	1.59	1.51
6	AF	29	HIS	C-O	-5.38	1.17	1.24
32	A5	41	ARG	NE-CZ	5.38	1.39	1.33
35	BA	314	C	O4'-C1'	5.38	1.49	1.41
35	BA	1468	A	O3'-P	5.38	1.69	1.61
51	BQ	16	ARG	NE-CZ	5.38	1.39	1.33
2	AB	1270	C	P-O5'	5.38	1.67	1.59
35	BA	9	G	P-O5'	5.38	1.67	1.59
35	BA	330	C	C1'-N1	5.38	1.56	1.48
35	BA	779	C	C3'-O3'	5.38	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	832	G	O3'-P	5.38	1.69	1.61
42	BH	67	PRO	CA-C	5.38	1.59	1.52
2	AB	27	G	P-O5'	5.38	1.67	1.59
2	AB	741	U	C5'-C4'	5.38	1.59	1.51
4	AD	52	HIS	CD2-NE2	5.38	1.43	1.37
24	AX	80	HIS	CG-CD2	5.38	1.41	1.35
37	BC	27	G	C3'-C2'	5.38	1.60	1.52
54	BT	13	THR	N-CA	5.38	1.53	1.46
2	AB	1607	C	P-O5'	5.38	1.67	1.59
2	AB	2525	G	O3'-P	5.38	1.69	1.61
11	AK	117	THR	C-N	5.38	1.40	1.33
15	AO	1	MET	C-N	5.38	1.40	1.33
27	A0	43	LEU	CA-C	5.38	1.60	1.52
35	BA	299	G	O3'-P	-5.38	1.53	1.61
35	BA	729	A	C5'-C4'	5.38	1.59	1.51
35	BA	757	U	C4'-O4'	-5.38	1.37	1.45
40	BF	72	ARG	CA-C	5.38	1.59	1.52
35	BA	1285	A	C3'-O3'	-5.38	1.35	1.43
35	BA	1366	C	C3'-O3'	-5.38	1.34	1.42
2	AB	1279	G	O3'-P	5.37	1.69	1.61
5	AE	140	HIS	CA-C	5.37	1.59	1.52
9	AI	128	HIS	CD2-NE2	5.37	1.43	1.37
20	AT	78	ARG	CD-NE	5.37	1.53	1.46
35	BA	593	U	C1'-N1	5.37	1.56	1.48
35	BA	1049	U	O5'-C5'	-5.37	1.34	1.42
48	BN	73	LEU	CA-C	5.37	1.59	1.52
2	AB	1525	A	C1'-N9	5.37	1.56	1.48
35	BA	357	G	C3'-O3'	5.37	1.50	1.42
35	BA	792	A	C1'-N9	5.37	1.56	1.48
52	BR	42	ILE	CA-C	5.37	1.59	1.53
2	AB	2353	G	O3'-P	5.37	1.69	1.61
2	AB	2447	G	P-O5'	5.37	1.67	1.59
13	AM	18	ARG	C-O	-5.37	1.17	1.23
35	BA	1510	C	O4'-C1'	5.37	1.49	1.41
35	BA	610	U	C5'-C4'	5.37	1.59	1.51
2	AB	893	C	C4'-O4'	-5.36	1.37	1.45
2	AB	1381	G	C5'-C4'	5.36	1.59	1.51
17	AQ	65	THR	CA-C	5.36	1.59	1.52
34	A7	2	LYS	N-CA	5.36	1.52	1.46
35	BA	949	A	O4'-C1'	5.36	1.49	1.41
40	BF	133	SER	CA-C	5.36	1.60	1.52
35	BA	927	G	P-O5'	5.36	1.67	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	1318	A	C5'-C4'	5.36	1.59	1.51
30	A3	41	HIS	CD2-NE2	5.36	1.43	1.37
2	AB	1236	G	C1'-N9	5.36	1.54	1.47
35	BA	465	A	C1'-N9	5.36	1.54	1.47
2	AB	754	U	C4'-O4'	-5.36	1.37	1.45
20	AT	100	GLY	N-CA	-5.36	1.37	1.45
35	BA	343	U	O3'-P	5.36	1.69	1.61
55	BU	13	HIS	ND1-CE1	5.36	1.38	1.32
34	A7	28	SER	C-N	5.36	1.41	1.33
35	BA	1096	C	C4'-C3'	-5.36	1.44	1.52
35	BA	1237	C	O3'-P	5.36	1.69	1.61
36	BB	49	U	P-O5'	5.36	1.67	1.59
15	AO	86	LYS	CA-C	5.35	1.59	1.52
35	BA	1322	C	C2'-O2'	5.35	1.49	1.41
36	BB	59	A	C4'-O4'	-5.35	1.37	1.45
2	AB	102	U	C1'-N1	5.35	1.55	1.47
2	AB	2334	U	O3'-P	5.35	1.69	1.61
2	AB	2647	U	C1'-N1	5.35	1.56	1.48
21	AU	11	ARG	CA-C	5.35	1.59	1.52
57	BW	51	ALA	CA-C	5.35	1.59	1.52
16	AP	8	ARG	N-CA	-5.35	1.39	1.45
2	AB	455	C	P-O5'	5.35	1.67	1.59
35	BA	439	U	C2'-C1'	5.35	1.61	1.53
35	BA	788	U	C1'-N1	5.35	1.56	1.48
2	AB	177	G	O4'-C1'	-5.35	1.33	1.42
2	AB	338	G	C4'-O4'	-5.35	1.37	1.45
2	AB	1641	A	P-O5'	5.35	1.67	1.59
2	AB	1783	A	O5'-C5'	-5.35	1.34	1.42
35	BA	327	A	C3'-O3'	-5.35	1.35	1.43
35	BA	1427	C	C4'-O4'	-5.35	1.37	1.45
2	AB	1445	G	C4'-O4'	-5.35	1.37	1.45
35	BA	1011	C	C4'-O4'	-5.35	1.37	1.45
2	AB	1295	C	C4'-O4'	-5.34	1.37	1.45
2	AB	2109	U	C4'-O4'	-5.34	1.37	1.45
2	AB	2148	G	C5'-C4'	5.34	1.59	1.51
3	AC	63	THR	N-CA	5.34	1.52	1.45
24	AX	88	HIS	CA-C	5.34	1.59	1.52
2	AB	1262	A	C5'-C4'	5.34	1.59	1.51
2	AB	1977	A	P-O5'	5.34	1.67	1.59
7	AG	105	ILE	C-O	5.34	1.31	1.24
2	AB	2168	G	C5'-C4'	5.34	1.59	1.51
2	AB	2499	C	O4'-C1'	5.34	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	AM	29	HIS	CE1-NE2	5.34	1.37	1.32
35	BA	744	C	C4'-O4'	-5.34	1.37	1.45
35	BA	1258	G	C1'-N9	5.34	1.55	1.48
2	AB	426	C	C4'-O4'	-5.34	1.37	1.45
2	AB	986	C	O3'-P	5.34	1.69	1.61
2	AB	1747	U	C5'-C4'	5.34	1.59	1.51
49	BO	91	ARG	CA-C	5.34	1.59	1.52
35	BA	111	G	O3'-P	5.34	1.69	1.61
35	BA	199	A	C2'-O2'	-5.34	1.34	1.42
2	AB	145	C	C5'-C4'	-5.34	1.43	1.51
35	BA	236	A	C5'-C4'	5.34	1.59	1.51
2	AB	386	G	C4'-O4'	-5.33	1.37	1.45
2	AB	972	A	C2'-C1'	5.33	1.61	1.53
2	AB	168	G	O5'-C5'	5.33	1.50	1.42
4	AD	65	ASP	CA-C	-5.33	1.46	1.52
41	BG	15	ILE	C-O	5.33	1.29	1.23
53	BS	46	HIS	ND1-CE1	5.33	1.37	1.32
1	AA	80	U	C3'-C2'	5.33	1.60	1.52
11	AK	102	ARG	NE-CZ	5.33	1.39	1.33
39	BE	156	LEU	CA-C	5.33	1.59	1.52
50	BP	68	ARG	NE-CZ	5.33	1.39	1.33
21	AU	9	HIS	CE1-NE2	5.33	1.37	1.32
2	AB	105	C	C4'-C3'	5.33	1.60	1.52
2	AB	1092	C	O3'-P	5.33	1.69	1.61
2	AB	1634	A	O3'-P	5.33	1.69	1.61
2	AB	382	A	C3'-O3'	5.33	1.50	1.42
7	AG	63	LYS	C-N	5.33	1.40	1.33
9	AI	31	VAL	CA-CB	5.33	1.61	1.54
37	BC	72	C	C3'-C2'	5.33	1.60	1.52
5	AE	192	ALA	N-CA	-5.32	1.39	1.45
5	AE	193	VAL	CA-C	5.32	1.58	1.52
6	AF	120	VAL	CA-CB	5.32	1.61	1.54
35	BA	309	A	O3'-P	5.32	1.69	1.61
35	BA	1240	U	C3'-O3'	5.32	1.51	1.43
2	AB	1329	U	C5'-C4'	5.32	1.59	1.51
19	AS	109	VAL	CA-CB	5.32	1.60	1.54
2	AB	2522	U	P-O5'	5.32	1.67	1.59
35	BA	107	G	O5'-C5'	-5.32	1.34	1.42
35	BA	379	C	C5'-C4'	5.32	1.59	1.51
35	BA	425	G	O3'-P	-5.32	1.53	1.61
35	BA	825	A	C4'-C3'	5.32	1.60	1.52
40	BF	53	GLN	CA-C	5.32	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	2294	G	O5'-C5'	-5.32	1.34	1.42
21	AU	57	ASN	CA-C	5.32	1.60	1.52
43	BI	137	ARG	N-CA	-5.32	1.40	1.46
2	AB	2286	G	O3'-P	5.31	1.69	1.61
39	BE	164	THR	N-CA	5.31	1.52	1.45
1	AA	99	A	C3'-C2'	5.31	1.60	1.52
35	BA	8	A	P-O5'	5.31	1.67	1.59
35	BA	383	A	C3'-O3'	5.31	1.50	1.42
35	BA	668	G	C1'-N9	-5.31	1.40	1.48
2	AB	1391	U	C4'-O4'	-5.31	1.37	1.45
2	AB	110	G	C4'-O4'	-5.31	1.37	1.45
2	AB	1062	G	C1'-N9	5.31	1.55	1.48
2	AB	1338	G	C4'-O4'	-5.31	1.37	1.45
2	AB	1750	G	C4'-O4'	-5.31	1.37	1.45
24	AX	68	LYS	CA-C	-5.31	1.46	1.52
2	AB	1164	C	P-O5'	5.31	1.67	1.59
2	AB	1191	G	P-O5'	5.31	1.67	1.59
43	BI	164	GLN	N-CA	5.31	1.52	1.46
49	BO	34	ALA	N-CA	5.31	1.52	1.46
2	AB	1628	G	O5'-C5'	-5.31	1.34	1.42
2	AB	2270	A	C5'-C4'	5.31	1.59	1.51
2	AB	2831	G	C4'-C3'	-5.31	1.44	1.52
14	AN	82	LEU	CA-C	5.31	1.59	1.52
35	BA	1336	C	C2'-C1'	-5.31	1.45	1.53
2	AB	460	A	C4'-C3'	-5.30	1.44	1.52
2	AB	653	U	C1'-N1	5.30	1.56	1.48
2	AB	1025	G	C3'-C2'	5.30	1.60	1.52
2	AB	1910	G	C1'-N9	5.30	1.55	1.48
35	BA	990	C	O3'-P	5.30	1.69	1.61
2	AB	2588	G	P-O5'	5.30	1.67	1.59
2	AB	668	A	C4'-O4'	-5.30	1.37	1.45
2	AB	947	A	C4'-O4'	-5.30	1.37	1.45
2	AB	2862	G	P-O5'	5.30	1.67	1.59
8	AH	33	THR	C-O	-5.30	1.17	1.23
16	AP	27	SER	N-CA	5.30	1.52	1.46
24	AX	37	PRO	CA-C	5.30	1.58	1.52
2	AB	245	G	C1'-N9	5.30	1.55	1.48
2	AB	453	A	C3'-O3'	5.30	1.50	1.42
6	AF	111	GLU	CA-C	5.30	1.59	1.52
34	A7	10	LEU	CA-CB	-5.30	1.44	1.53
37	BC	38	A	C2'-C1'	5.30	1.61	1.53
55	BU	48	ILE	CA-CB	5.30	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	264	C	C2'-O2'	-5.30	1.34	1.42
2	AB	1362	C	C2'-O2'	-5.30	1.34	1.42
38	BD	134	LEU	CA-C	5.30	1.59	1.52
49	BO	7	ASN	C-N	-5.30	1.27	1.33
53	BS	10	ARG	CA-C	5.30	1.59	1.52
2	AB	822	G	P-O5'	5.30	1.67	1.59
2	AB	1763	G	C5'-C4'	5.30	1.59	1.51
35	BA	347	G	C4'-O4'	-5.30	1.37	1.45
2	AB	1045	C	C4'-O4'	-5.29	1.38	1.45
2	AB	2804	U	C1'-N1	5.29	1.56	1.48
29	A2	12	ILE	C-O	-5.29	1.17	1.24
2	AB	19	A	C4'-O4'	-5.29	1.37	1.45
2	AB	135	U	C2'-C1'	5.29	1.61	1.53
2	AB	190	A	P-O5'	5.29	1.67	1.59
2	AB	646	U	C4'-O4'	-5.29	1.37	1.45
2	AB	1250	G	C4'-C3'	5.29	1.61	1.53
2	AB	2776	A	C4'-O4'	-5.29	1.38	1.45
37	BC	16	C	C4'-C3'	5.29	1.61	1.53
44	BJ	61	THR	CA-C	5.29	1.59	1.52
4	AD	102	TYR	C-O	-5.29	1.17	1.23
6	AF	178	VAL	N-CA	5.29	1.52	1.46
37	BC	6	G	C5'-C4'	5.29	1.59	1.51
2	AB	2272	U	C2'-C1'	5.29	1.61	1.53
35	BA	580	C	C4'-O4'	-5.29	1.37	1.45
35	BA	1198	G	C5'-C4'	5.29	1.59	1.51
2	AB	161	A	O5'-C5'	-5.29	1.34	1.42
17	AQ	7	ARG	NE-CZ	5.29	1.38	1.33
35	BA	46	G	C1'-N9	5.28	1.55	1.48
35	BA	1467	C	C4'-O4'	-5.28	1.37	1.45
11	AK	118	GLY	CA-C	5.28	1.57	1.52
55	BU	37	SER	C-N	5.28	1.40	1.33
2	AB	1408	G	O3'-P	5.28	1.69	1.61
8	AH	34	ARG	NE-CZ	5.28	1.38	1.33
10	AJ	56	ASN	CA-C	5.28	1.60	1.52
33	A6	23	HIS	C-N	5.28	1.41	1.33
35	BA	1063	C	C1'-N1	5.28	1.56	1.48
2	AB	2052	A	C2'-O2'	-5.28	1.34	1.42
2	AB	2312	U	C5'-C4'	5.28	1.59	1.51
2	AB	2818	U	O4'-C1'	5.28	1.49	1.41
6	AF	197	GLU	CA-C	5.28	1.59	1.52
10	AJ	31	GLY	C-O	-5.28	1.16	1.23
21	AU	58	ALA	N-CA	5.28	1.52	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	523	A	C4'-C3'	5.28	1.60	1.52
35	BA	1093	A	O3'-P	5.28	1.69	1.61
48	BN	20	VAL	N-CA	-5.28	1.42	1.46
50	BP	81	ILE	N-CA	-5.28	1.40	1.46
2	AB	1693	U	O3'-P	5.28	1.69	1.61
2	AB	2901	C	O3'-P	5.28	1.69	1.61
19	AS	18	LYS	CA-CB	5.28	1.61	1.53
35	BA	974	A	C3'-O3'	-5.28	1.35	1.43
2	AB	968	C	C4'-C3'	5.27	1.60	1.52
2	AB	2441	U	C4'-C3'	5.27	1.60	1.52
35	BA	239	U	C4'-O4'	-5.27	1.37	1.45
35	BA	803	G	P-O5'	5.27	1.67	1.59
43	BI	105	GLU	N-CA	5.27	1.52	1.46
2	AB	156	A	C2'-O2'	-5.27	1.34	1.42
25	AY	8	SER	CA-CB	5.27	1.62	1.53
35	BA	1355	G	O5'-C5'	5.27	1.50	1.42
42	BH	3	HIS	CB-CG	5.27	1.57	1.50
47	BM	122	PRO	CA-C	5.27	1.57	1.52
35	BA	280	C	C5'-C4'	5.27	1.59	1.51
2	AB	661	A	O3'-P	5.27	1.69	1.61
2	AB	2011	U	C5'-C4'	5.27	1.59	1.51
2	AB	2336	A	C4'-O4'	-5.27	1.38	1.45
2	AB	2388	A	O4'-C1'	5.27	1.49	1.41
40	BF	168	THR	CB-OG1	-5.27	1.35	1.43
1	AA	62	C	C5'-C4'	5.27	1.59	1.51
2	AB	744	U	P-O5'	5.27	1.67	1.59
2	AB	1518	C	C5'-C4'	5.27	1.59	1.51
3	AC	221	GLY	C-N	5.27	1.40	1.33
23	AW	14	THR	CA-C	5.27	1.59	1.52
35	BA	719	C	O5'-C5'	5.27	1.50	1.42
41	BG	2	HIS	CG-CD2	5.27	1.41	1.35
43	BI	55	LYS	N-CA	5.27	1.53	1.46
4	AD	19	VAL	C-O	-5.27	1.18	1.24
14	AN	120	VAL	N-CA	5.27	1.52	1.46
35	BA	760	G	P-O5'	5.27	1.67	1.59
2	AB	1881	C	C5'-C4'	5.26	1.59	1.51
2	AB	2063	C	P-O5'	5.26	1.67	1.59
4	AD	61	TYR	N-CA	-5.26	1.39	1.46
4	AD	151	GLY	CA-C	5.26	1.59	1.51
18	AR	99	LEU	N-CA	5.26	1.52	1.46
35	BA	457	G	C3'-C2'	5.26	1.60	1.52
35	BA	944	G	C2'-C1'	5.26	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	AZ	17	ARG	CA-CB	-5.26	1.45	1.53
2	AB	1114	C	C4'-O4'	-5.26	1.37	1.45
7	AG	43	ILE	CA-C	5.26	1.59	1.52
13	AM	86	LEU	CA-C	5.26	1.59	1.52
20	AT	92	TRP	C-N	5.26	1.40	1.33
35	BA	562	U	O3'-P	5.26	1.69	1.61
35	BA	1010	U	O3'-P	5.26	1.69	1.61
2	AB	198	C	C3'-C2'	5.26	1.60	1.52
2	AB	245	G	P-O5'	5.26	1.67	1.59
2	AB	1440	U	P-O5'	5.26	1.67	1.59
6	AF	178	VAL	CA-CB	5.26	1.61	1.54
13	AM	108	ARG	CA-CB	5.26	1.59	1.52
37	BC	51	U	C5'-C4'	5.26	1.59	1.51
43	BI	32	ASP	CA-CB	5.26	1.61	1.53
2	AB	1999	C	C4'-C3'	5.26	1.60	1.52
2	AB	2008	C	O4'-C1'	5.26	1.49	1.41
2	AB	2330	G	P-O5'	5.26	1.67	1.59
12	AL	124	VAL	CA-C	5.26	1.57	1.52
18	AR	23	ASP	N-CA	5.26	1.52	1.46
43	BI	143	MET	CA-C	5.25	1.59	1.52
2	AB	310	A	C4'-O4'	-5.25	1.38	1.45
2	AB	1966	A	C3'-O3'	-5.25	1.35	1.43
2	AB	2107	G	C4'-C3'	5.25	1.60	1.52
2	AB	2143	C	C3'-O3'	5.25	1.50	1.42
2	AB	2606	C	C1'-N1	5.25	1.56	1.48
3	AC	201	PRO	N-CA	5.25	1.53	1.47
35	BA	324	G	O5'-C5'	-5.25	1.34	1.42
35	BA	899	C	C2'-C1'	5.25	1.61	1.53
35	BA	1169	A	O4'-C1'	-5.25	1.33	1.41
2	AB	2625	G	O5'-C5'	5.25	1.50	1.42
2	AB	227	A	C4'-O4'	-5.25	1.38	1.45
2	AB	561	G	O3'-P	5.25	1.69	1.61
2	AB	998	C	P-O5'	5.25	1.67	1.59
2	AB	1871	A	O5'-C5'	5.25	1.50	1.42
2	AB	2220	U	C5-C6	5.25	1.44	1.34
1	AA	61	G	O3'-P	5.25	1.69	1.61
2	AB	54	G	O4'-C1'	5.25	1.49	1.41
2	AB	2175	C	C1'-N1	5.25	1.56	1.48
12	AL	96	ARG	CA-C	5.25	1.57	1.53
35	BA	120	A	C4'-O4'	-5.25	1.37	1.45
2	AB	408	G	C5'-C4'	5.25	1.59	1.51
2	AB	115	C	O3'-P	5.24	1.69	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	1114	C	P-O5'	5.24	1.67	1.59
2	AB	1665	A	O4'-C1'	5.24	1.49	1.41
35	BA	1220	G	C2'-O2'	-5.24	1.34	1.42
2	AB	1129	A	C5'-C4'	5.24	1.59	1.51
4	AD	257	ARG	C-N	5.24	1.39	1.33
35	BA	1522	U	C2'-O2'	5.24	1.50	1.42
2	AB	138	U	C4-C5	5.24	1.54	1.43
2	AB	2260	C	C5'-C4'	5.24	1.59	1.51
2	AB	2280	G	C4'-C3'	5.24	1.60	1.52
11	AK	66	PHE	C-O	-5.24	1.17	1.23
35	BA	73	C	O3'-P	5.24	1.69	1.61
2	AB	1157	G	C4'-O4'	-5.24	1.37	1.45
2	AB	1531	C	P-O5'	5.24	1.67	1.59
2	AB	2509	G	C2'-C1'	5.24	1.61	1.53
9	AI	113	SER	C-O	-5.24	1.17	1.24
35	BA	1155	A	O4'-C1'	5.24	1.49	1.41
37	BC	33	OMC	O3'-P	-5.24	1.53	1.61
9	AI	55	GLU	N-CA	-5.24	1.40	1.46
17	AQ	100	HIS	CG-ND1	5.24	1.44	1.38
28	A1	7	THR	CA-C	5.24	1.59	1.52
33	A6	22	LYS	C-N	5.24	1.40	1.33
2	AB	86	G	C3'-C2'	5.24	1.60	1.52
28	A1	3	THR	CA-C	5.24	1.60	1.53
35	BA	1196	A	P-O5'	5.24	1.67	1.59
47	BM	104	PHE	CA-CB	5.24	1.61	1.53
54	BT	24	ASP	CA-CB	5.24	1.61	1.53
55	BU	39	ILE	CA-C	-5.24	1.46	1.52
35	BA	975	A	C2'-O2'	-5.23	1.34	1.42
42	BH	111	GLU	CA-C	5.23	1.59	1.52
2	AB	1158	C	C4'-O4'	-5.23	1.37	1.45
2	AB	1403	A	C5'-C4'	5.23	1.59	1.51
2	AB	1845	G	C2'-O2'	-5.23	1.34	1.42
9	AI	129	GLU	C-N	5.23	1.40	1.33
45	BK	29	ILE	N-CA	5.23	1.53	1.46
2	AB	2072	C	C4'-C3'	5.23	1.60	1.52
2	AB	2163	A	C5'-C4'	5.23	1.59	1.51
15	AO	116	ALA	N-CA	5.23	1.52	1.46
1	AA	87	U	C4'-O4'	-5.23	1.37	1.45
2	AB	380	G	C3'-O3'	-5.23	1.34	1.42
15	AO	100	LYS	N-CA	5.23	1.52	1.46
19	AS	86	SER	CA-C	5.23	1.59	1.52
20	AT	18	GLN	CA-CB	5.23	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	32	A	O3'-P	5.23	1.69	1.61
35	BA	227	G	C3'-C2'	5.23	1.60	1.52
2	AB	2051	A	C4'-O4'	-5.23	1.38	1.45
20	AT	51	VAL	C-N	5.23	1.40	1.33
2	AB	1454	C	C3'-C2'	5.22	1.60	1.52
35	BA	1003	G	C2'-C1'	5.22	1.61	1.53
31	A4	35	LEU	N-CA	5.22	1.52	1.46
42	BH	127	GLY	N-CA	5.22	1.52	1.45
48	BN	117	GLY	C-N	5.22	1.40	1.33
2	AB	304	U	C1'-N1	5.22	1.56	1.48
2	AB	2116	G	C2'-C1'	-5.22	1.45	1.53
35	BA	839	C	P-O5'	5.22	1.67	1.59
2	AB	156	A	O3'-P	5.22	1.69	1.61
35	BA	839	C	C2'-O2'	-5.22	1.34	1.42
35	BA	923	A	C4'-O4'	-5.22	1.37	1.45
35	BA	968	A	C4'-O4'	-5.22	1.38	1.45
35	BA	1204	A	C4'-C3'	5.22	1.60	1.52
2	AB	647	G	C4'-C3'	-5.22	1.44	1.52
39	BE	9	ILE	CA-C	5.22	1.59	1.52
2	AB	980	A	C5'-C4'	5.21	1.59	1.51
2	AB	2442	C	C4'-O4'	-5.21	1.37	1.45
35	BA	934	C	C5'-C4'	5.21	1.59	1.51
35	BA	1195	C	C4'-O4'	-5.21	1.37	1.45
50	BP	70	HIS	ND1-CE1	-5.21	1.27	1.32
2	AB	1335	C	C1'-N1	5.21	1.56	1.48
35	BA	1000	A	C4'-O4'	-5.21	1.37	1.45
2	AB	1809	A	C3'-C2'	5.21	1.60	1.52
16	AP	119	SER	CA-CB	5.21	1.62	1.53
35	BA	1198	G	C4'-O4'	-5.21	1.37	1.45
35	BA	565	U	P-O5'	5.21	1.67	1.59
38	BD	240	GLU	CA-CB	5.21	1.63	1.53
35	BA	1142	G	C2'-O2'	-5.21	1.34	1.42
45	BK	84	ARG	N-CA	5.21	1.52	1.46
2	AB	609	A	P-O5'	5.21	1.67	1.59
2	AB	1416	G	O3'-P	5.21	1.69	1.61
4	AD	135	PRO	CA-CB	-5.21	1.46	1.53
13	AM	6	THR	CA-CB	5.21	1.62	1.53
13	AM	60	ALA	CA-CB	5.21	1.62	1.53
35	BA	842	U	C5'-C4'	5.21	1.59	1.51
35	BA	1343	G	P-O5'	5.21	1.67	1.59
50	BP	23	ARG	CA-CB	5.21	1.62	1.53
2	AB	2170	A	C4'-O4'	-5.21	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	44	A	P-O5'	5.20	1.67	1.59
2	AB	2124	G	C4'-O4'	-5.20	1.37	1.45
14	AN	97	ALA	CA-C	5.20	1.59	1.52
35	BA	1087	G	C5'-C4'	5.20	1.59	1.51
35	BA	1390	U	O3'-P	5.20	1.69	1.61
42	BH	88	MET	C-O	5.20	1.30	1.23
39	BE	141	MET	CA-C	5.20	1.59	1.52
44	BJ	12	ARG	C-O	5.20	1.30	1.24
2	AB	300	A	C1'-N9	5.20	1.55	1.48
2	AB	485	C	C5'-C4'	5.20	1.59	1.51
2	AB	1131	G	O4'-C1'	5.20	1.49	1.42
4	AD	132	ARG	C-N	5.20	1.40	1.33
35	BA	1400	C	C5'-C4'	5.20	1.59	1.51
2	AB	2608	G	C4'-O4'	-5.20	1.38	1.45
2	AB	31	C	C2'-O2'	5.20	1.50	1.42
2	AB	87	U	C3'-O3'	-5.20	1.34	1.42
33	A6	37	THR	CA-CB	5.20	1.61	1.53
35	BA	1234	C	O4'-C1'	5.20	1.49	1.41
35	BA	1326	U	O3'-P	5.20	1.69	1.61
40	BF	196	GLU	CA-C	5.20	1.59	1.52
2	AB	964	C	P-O5'	5.20	1.67	1.59
2	AB	802	A	C5'-C4'	5.19	1.59	1.51
2	AB	1155	A	O3'-P	5.19	1.69	1.61
2	AB	13	A	C3'-C2'	5.19	1.60	1.52
2	AB	212	G	C3'-O3'	5.19	1.50	1.42
2	AB	2243	U	O3'-P	5.19	1.69	1.61
2	AB	2770	G	C3'-C2'	5.19	1.60	1.52
3	AC	2	ALA	CA-C	5.19	1.59	1.53
7	AG	84	ILE	N-CA	-5.19	1.39	1.46
13	AM	98	ARG	CA-C	5.19	1.58	1.52
35	BA	1477	U	C1'-N1	5.19	1.56	1.48
2	AB	1189	A	C4'-O4'	-5.19	1.37	1.45
2	AB	2390	U	C5'-C4'	5.19	1.59	1.51
35	BA	52	C	P-O5'	5.19	1.67	1.59
42	BH	52	ASN	CA-C	5.19	1.59	1.53
35	BA	389	A	P-O5'	5.19	1.67	1.59
1	AA	83	G	C1'-N9	5.19	1.55	1.48
8	AH	96	ALA	C-O	-5.19	1.18	1.24
31	A4	41	VAL	C-N	5.19	1.40	1.33
35	BA	402	G	C4'-O4'	-5.19	1.37	1.45
37	BC	11	A	C4'-O4'	-5.19	1.37	1.45
45	BK	120	ALA	C-O	-5.19	1.18	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
50	BP	17	ASP	CA-CB	5.19	1.61	1.53
55	BU	17	LYS	CA-C	5.19	1.59	1.52
6	AF	130	LYS	CA-C	5.19	1.58	1.52
35	BA	412	A	C4'-C3'	5.19	1.60	1.52
2	AB	2016	U	P-O5'	5.18	1.67	1.59
2	AB	2183	A	C4'-O4'	-5.18	1.37	1.45
6	AF	105	LEU	CA-C	-5.18	1.45	1.52
35	BA	570	G	C4'-O4'	-5.18	1.37	1.45
35	BA	840	C	C3'-O3'	5.18	1.50	1.42
2	AB	982	C	O4'-C1'	5.18	1.49	1.42
35	BA	1180	A	C2'-C1'	5.18	1.61	1.53
39	BE	65	VAL	CA-CB	5.18	1.60	1.54
3	AC	113	VAL	C-O	-5.18	1.18	1.24
19	AS	52	ARG	CZ-NH1	5.18	1.40	1.32
35	BA	451	A	C4'-O4'	-5.18	1.38	1.45
2	AB	30	G	C4'-O4'	-5.18	1.37	1.45
2	AB	1177	G	C4'-O4'	-5.18	1.37	1.45
2	AB	1755	A	C4'-O4'	-5.18	1.37	1.45
35	BA	1469	C	C4'-O4'	-5.18	1.37	1.45
2	AB	1426	G	C5'-C4'	5.18	1.59	1.51
35	BA	367	U	C5'-C4'	5.18	1.59	1.51
2	AB	283	G	C2'-O2'	-5.18	1.34	1.42
2	AB	1033	U	O4'-C1'	-5.18	1.34	1.42
2	AB	1678	A	O3'-P	-5.18	1.53	1.61
18	AR	4	ILE	CA-C	5.18	1.58	1.52
35	BA	828	U	O3'-P	5.18	1.69	1.61
48	BN	59	GLY	C-O	-5.18	1.16	1.24
56	BV	7	LYS	CA-C	5.18	1.59	1.53
2	AB	1192	G	C4'-O4'	-5.17	1.37	1.45
2	AB	2803	G	P-O5'	5.17	1.67	1.59
5	AE	28	GLU	CA-C	5.17	1.59	1.52
5	AE	52	THR	C-O	-5.17	1.17	1.24
10	AJ	81	ILE	N-CA	-5.17	1.39	1.46
35	BA	775	G	C5'-C4'	5.17	1.59	1.51
35	BA	790	A	O3'-P	5.17	1.69	1.61
36	BB	48	C	O3'-P	5.17	1.69	1.61
2	AB	2112	G	P-O5'	5.17	1.67	1.59
2	AB	2405	G	P-O5'	5.17	1.67	1.59
2	AB	606	U	C4'-O4'	-5.17	1.37	1.45
2	AB	1158	C	C4'-C3'	5.17	1.60	1.52
35	BA	217	C	P-O5'	5.17	1.67	1.59
35	BA	460	A	C3'-C2'	5.17	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	444	G	C3'-C2'	5.17	1.60	1.52
35	BA	877	G	C4'-C3'	-5.17	1.44	1.52
42	BH	60	VAL	C-N	5.17	1.42	1.33
2	AB	182	A	C1'-N9	5.17	1.55	1.48
2	AB	1338	G	C1'-N9	5.17	1.55	1.48
25	AY	60	ALA	N-CA	-5.17	1.39	1.46
35	BA	72	A	P-O5'	5.17	1.67	1.59
35	BA	1162	C	C3'-O3'	5.17	1.50	1.42
35	BA	1322	C	C1'-N1	5.17	1.55	1.47
41	BG	105	ILE	N-CA	5.17	1.52	1.46
42	BH	86	ARG	C-N	5.17	1.40	1.33
43	BI	38	ALA	C-N	5.17	1.40	1.33
1	AA	102	G	O4'-C1'	5.17	1.49	1.41
2	AB	2729	G	C5'-C4'	5.17	1.58	1.51
27	A0	58	ASN	N-CA	5.17	1.52	1.45
35	BA	760	G	C2'-C1'	5.17	1.61	1.53
35	BA	1317	C	O3'-P	-5.17	1.53	1.61
2	AB	1525	A	P-O5'	5.17	1.67	1.59
24	AX	44	HIS	ND1-CE1	-5.17	1.27	1.32
35	BA	1110	A	C2'-O2'	-5.17	1.34	1.42
15	AO	40	ARG	N-CA	5.16	1.52	1.46
2	AB	72	U	C5'-C4'	5.16	1.59	1.51
35	BA	1285	A	C1'-N9	5.16	1.54	1.47
2	AB	2225	A	C1'-N9	5.16	1.54	1.47
2	AB	1083	U	C1'-N1	5.16	1.56	1.48
2	AB	2107	G	O3'-P	5.16	1.68	1.61
2	AB	2537	U	C5'-C4'	5.16	1.58	1.51
17	AQ	98	GLN	CA-C	5.16	1.59	1.52
19	AS	54	ARG	CD-NE	5.16	1.53	1.46
24	AX	67	GLY	CA-C	5.16	1.58	1.51
34	A7	22	VAL	C-N	5.16	1.39	1.33
38	BD	39	ILE	CB-CG1	5.16	1.63	1.53
50	BP	90	GLY	CA-C	5.16	1.58	1.51
2	AB	323	C	C5'-C4'	5.16	1.59	1.51
2	AB	1268	A	O5'-C5'	-5.16	1.34	1.42
2	AB	2711	A	C5'-C4'	5.16	1.58	1.51
22	AV	57	VAL	N-CA	-5.16	1.40	1.46
27	A0	55	THR	CA-CB	5.16	1.61	1.53
35	BA	678	U	O3'-P	5.16	1.68	1.61
35	BA	920	U	C3'-O3'	5.16	1.49	1.42
35	BA	1214	C	C5'-C4'	5.16	1.59	1.51
35	BA	1303	C	C1'-N1	5.16	1.56	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	BF	55	ARG	CZ-NH2	5.16	1.40	1.33
46	BL	78	GLU	CA-CB	5.16	1.61	1.53
2	AB	1438	U	O3'-P	5.15	1.68	1.61
3	AC	232	SER	C-N	5.15	1.40	1.34
35	BA	634	C	O3'-P	5.15	1.68	1.61
41	BG	39	GLY	N-CA	-5.15	1.37	1.45
57	BW	40	PRO	N-CD	-5.15	1.40	1.47
2	AB	1599	U	O5'-C5'	5.15	1.50	1.42
2	AB	2382	G	C1'-N9	5.15	1.54	1.47
2	AB	2813	A	C1'-N9	5.15	1.55	1.48
29	A2	40	CYS	CA-C	5.15	1.59	1.52
35	BA	1006	G	O5'-C5'	-5.15	1.34	1.42
2	AB	2872	A	O3'-P	5.15	1.68	1.61
35	BA	1333	A	P-O5'	5.15	1.67	1.59
2	AB	1877	A	C5'-C4'	5.15	1.58	1.51
28	A1	3	THR	N-CA	5.14	1.51	1.45
35	BA	86	G	C1'-N9	5.14	1.54	1.47
2	AB	854	C	C5'-C4'	5.14	1.58	1.51
2	AB	2041	U	O3'-P	5.14	1.68	1.61
2	AB	2712	C	C2'-O2'	-5.14	1.33	1.41
35	BA	342	C	C3'-C2'	5.14	1.60	1.52
2	AB	492	A	P-O5'	5.14	1.67	1.59
2	AB	1495	A	O3'-P	-5.14	1.53	1.61
2	AB	1831	G	C3'-C2'	5.14	1.60	1.52
41	BG	33	THR	CB-OG1	-5.14	1.35	1.43
40	BF	37	PRO	CA-CB	5.14	1.61	1.53
1	AA	90	C	C4'-O4'	-5.14	1.37	1.45
2	AB	599	A	C3'-O3'	5.14	1.49	1.42
2	AB	1311	G	P-O5'	5.14	1.67	1.59
20	AT	58	VAL	CA-C	-5.14	1.46	1.52
2	AB	458	G	O3'-P	5.13	1.68	1.61
2	AB	2338	C	C4'-O4'	-5.13	1.37	1.45
35	BA	414	A	C5'-C4'	5.13	1.58	1.51
35	BA	884	U	C4'-O4'	-5.13	1.38	1.45
35	BA	1128	C	C5'-C4'	5.13	1.58	1.51
42	BH	70	VAL	CA-CB	5.13	1.60	1.54
2	AB	1044	C	C4'-O4'	-5.13	1.37	1.45
2	AB	2395	C	O5'-C5'	5.13	1.50	1.42
6	AF	96	VAL	CA-CB	-5.13	1.47	1.54
2	AB	927	A	O3'-P	-5.13	1.53	1.61
35	BA	1278	G	C3'-O3'	-5.13	1.35	1.43
38	BD	174	GLU	CA-C	5.13	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
46	BL	72	ARG	CA-CB	5.13	1.62	1.53
1	AA	22	U	O4'-C1'	5.13	1.49	1.41
2	AB	2533	U	C3'-C2'	-5.13	1.45	1.52
2	AB	187	G	C2'-C1'	5.13	1.61	1.53
2	AB	758	C	O3'-P	-5.13	1.53	1.61
4	AD	270	ARG	C-O	5.13	1.29	1.23
10	AJ	126	ALA	CA-C	5.13	1.59	1.52
50	BP	88	MET	CA-C	5.13	1.59	1.52
2	AB	1456	G	C2'-O2'	5.13	1.50	1.42
2	AB	2202	U	C3'-C2'	5.13	1.60	1.52
35	BA	21	G	P-O5'	5.13	1.67	1.59
35	BA	141	G	C4'-O4'	-5.13	1.37	1.45
35	BA	456	A	C5'-C4'	5.13	1.58	1.51
52	BR	27	ALA	C-N	5.13	1.40	1.33
31	A4	16	THR	CA-C	5.12	1.58	1.52
35	BA	624	C	C5'-C4'	5.12	1.58	1.51
2	AB	649	G	C4'-C3'	5.12	1.60	1.52
2	AB	855	G	C3'-C2'	-5.12	1.45	1.52
2	AB	1893	C	P-O5'	5.12	1.67	1.59
5	AE	146	ILE	CA-CB	5.12	1.60	1.54
9	AI	90	LEU	CA-CB	5.12	1.59	1.52
35	BA	515	G	C4'-O4'	-5.12	1.37	1.45
55	BU	10	ILE	N-CA	5.12	1.50	1.46
2	AB	1729	U	C4'-O4'	-5.12	1.37	1.45
2	AB	2725	A	C4'-O4'	-5.12	1.38	1.45
2	AB	356	G	O4'-C1'	5.12	1.49	1.41
2	AB	231	A	P-O5'	5.12	1.67	1.59
2	AB	1362	C	O3'-P	5.12	1.68	1.61
2	AB	1798	U	C3'-O3'	-5.12	1.34	1.42
2	AB	1857	G	C4'-C3'	5.12	1.60	1.53
2	AB	2469	A	O3'-P	5.12	1.68	1.61
35	BA	43	C	C2'-C1'	5.12	1.61	1.53
35	BA	266	G	O3'-P	5.12	1.68	1.61
42	BH	132	GLU	N-CA	5.12	1.52	1.45
2	AB	371	A	O5'-C5'	-5.12	1.35	1.42
2	AB	1793	C	C4'-O4'	-5.12	1.37	1.45
9	AI	124	THR	C-N	5.12	1.40	1.33
17	AQ	37	ALA	N-CA	5.12	1.52	1.46
41	BG	75	LEU	N-CA	5.12	1.52	1.45
2	AB	68	G	C3'-O3'	-5.11	1.34	1.42
2	AB	105	C	C4'-O4'	-5.11	1.37	1.45
2	AB	239	C	P-O5'	5.11	1.67	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	2401	U	O4'-C1'	5.11	1.49	1.41
2	AB	2602	A	C4'-O4'	-5.11	1.38	1.45
5	AE	139	SER	CA-C	5.11	1.58	1.53
17	AQ	109	ALA	N-CA	-5.11	1.40	1.46
37	BC	40	C	P-O5'	5.11	1.67	1.59
18	AR	47	ILE	CB-CG1	5.11	1.63	1.53
2	AB	1543	G	C2'-O2'	-5.11	1.34	1.42
4	AD	247	TRP	CA-CB	-5.11	1.45	1.53
45	BK	121	ARG	CA-C	5.11	1.59	1.52
51	BQ	51	SER	CA-CB	5.11	1.61	1.53
53	BS	38	LYS	N-CA	5.11	1.52	1.46
2	AB	1301	A	O3'-P	5.11	1.68	1.61
1	AA	62	C	C1'-N1	5.11	1.56	1.48
2	AB	64	A	C2'-C1'	5.11	1.61	1.53
2	AB	1018	U	O5'-C5'	5.11	1.50	1.42
2	AB	1038	G	C4'-O4'	-5.11	1.37	1.45
5	AE	104	VAL	CA-C	5.11	1.58	1.53
7	AG	98	PHE	CA-C	5.11	1.59	1.52
12	AL	132	HIS	CG-CD2	5.11	1.41	1.35
20	AT	82	HIS	ND1-CE1	5.11	1.37	1.32
24	AX	7	GLU	N-CA	5.11	1.52	1.45
38	BD	23	ASN	CA-CB	5.11	1.60	1.53
57	BW	1	PRO	N-CD	5.11	1.54	1.47
2	AB	294	A	C4'-O4'	-5.11	1.37	1.45
2	AB	949	G	O3'-P	5.11	1.68	1.61
2	AB	2611	C	C4'-C3'	5.11	1.60	1.52
35	BA	558	G	C4'-O4'	-5.11	1.37	1.45
2	AB	1354	A	C4'-O4'	-5.10	1.37	1.45
15	AO	28	PHE	N-CA	5.10	1.52	1.46
2	AB	294	A	C2'-C1'	5.10	1.61	1.53
2	AB	2068	U	C4'-O4'	-5.10	1.37	1.45
2	AB	2293	G	O5'-C5'	5.10	1.50	1.42
2	AB	2734	A	C2'-C1'	5.10	1.61	1.53
4	AD	161	VAL	CA-CB	5.10	1.61	1.54
47	BM	49	SER	N-CA	5.10	1.52	1.46
2	AB	1554	U	C2'-C1'	5.10	1.60	1.53
14	AN	109	LYS	N-CA	5.10	1.52	1.46
35	BA	956	U	C2'-O2'	-5.10	1.34	1.42
37	BC	35	C	C1'-N1	5.10	1.56	1.48
40	BF	204	SER	C-O	-5.10	1.17	1.24
42	BH	55	HIS	N-CA	-5.10	1.39	1.46
2	AB	12	U	O4'-C1'	5.10	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	1873	G	C1'-N9	5.10	1.55	1.48
35	BA	598	U	C2'-C1'	-5.10	1.45	1.53
2	AB	259	G	O3'-P	5.10	1.68	1.61
2	AB	1200	C	C1'-N1	5.10	1.56	1.48
2	AB	2883	A	C4'-O4'	-5.10	1.38	1.45
35	BA	252	U	O3'-P	5.10	1.68	1.61
35	BA	449	G	C4'-C3'	5.10	1.60	1.52
2	AB	1214	A	C5'-C4'	5.10	1.58	1.51
2	AB	2450	A	O4'-C1'	5.10	1.49	1.41
35	BA	72	A	O4'-C1'	5.10	1.49	1.41
2	AB	397	U	C5'-C4'	5.09	1.58	1.51
2	AB	463	G	P-O5'	5.09	1.67	1.59
2	AB	924	G	P-O5'	5.09	1.67	1.59
2	AB	1446	C	C2'-C1'	-5.09	1.45	1.53
17	AQ	98	GLN	N-CA	5.09	1.52	1.46
44	BJ	18	ALA	N-CA	5.09	1.52	1.46
35	BA	99	C	C5'-C4'	5.09	1.58	1.51
35	BA	902	G	P-O5'	5.09	1.67	1.59
29	A2	55	GLY	CA-C	5.09	1.58	1.51
4	AD	226	PRO	CA-C	5.09	1.59	1.52
35	BA	836	G	C5'-C4'	5.09	1.58	1.51
2	AB	2368	C	C4'-C3'	5.09	1.60	1.52
19	AS	94	LEU	CA-C	5.09	1.59	1.52
35	BA	1182	G	O4'-C1'	5.09	1.49	1.42
2	AB	1631	G	C2'-O2'	-5.09	1.34	1.42
2	AB	2474	U	C2-N3	5.09	1.48	1.37
2	AB	2736	A	O3'-P	5.09	1.68	1.61
13	AM	102	PRO	N-CA	-5.09	1.41	1.47
35	BA	171	A	C4'-O4'	-5.09	1.38	1.45
35	BA	219	U	O3'-P	5.08	1.68	1.61
43	BI	50	ALA	CA-C	5.08	1.59	1.52
2	AB	1928	A	C4'-C3'	5.08	1.60	1.52
2	AB	2140	G	C5'-C4'	5.08	1.58	1.51
2	AB	2306	C	C4'-O4'	-5.08	1.38	1.45
2	AB	2386	A	P-O5'	5.08	1.67	1.59
35	BA	623	C	P-O5'	5.08	1.67	1.59
35	BA	1127	G	C4'-O4'	-5.08	1.38	1.45
35	BA	1174	G	P-O5'	5.08	1.67	1.59
35	BA	1521	C	C1'-N1	5.08	1.56	1.48
40	BF	13	ARG	NE-CZ	5.08	1.38	1.33
41	BG	51	LYS	CA-C	5.08	1.58	1.52
1	AA	4	C	O5'-C5'	5.08	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	347	A	C4'-O4'	-5.08	1.38	1.45
2	AB	1761	C	C4'-O4'	-5.08	1.38	1.45
35	BA	227	G	P-O5'	5.08	1.67	1.59
35	BA	587	G	O4'-C1'	-5.08	1.34	1.42
35	BA	1137	C	C3'-O3'	5.08	1.50	1.43
45	BK	44	ARG	NE-CZ	5.08	1.38	1.33
45	BK	122	ARG	NE-CZ	5.08	1.38	1.33
35	BA	513	C	P-O5'	5.08	1.67	1.59
2	AB	715	A	C1'-N9	5.08	1.55	1.48
2	AB	739	A	O3'-P	5.08	1.68	1.61
2	AB	2448	A	O4'-C1'	5.08	1.49	1.42
37	BC	7	G	P-O5'	5.08	1.67	1.59
51	BQ	67	ASP	CA-C	5.08	1.59	1.52
2	AB	1069	A	O3'-P	-5.08	1.53	1.61
11	AK	93	ASN	N-CA	5.08	1.52	1.46
43	BI	97	ALA	C-O	-5.08	1.18	1.24
2	AB	182	A	O3'-P	5.08	1.68	1.61
2	AB	349	U	P-O5'	5.08	1.67	1.59
2	AB	396	G	O3'-P	-5.08	1.53	1.61
2	AB	1768	C	O3'-P	-5.08	1.53	1.61
2	AB	2769	U	O3'-P	5.08	1.68	1.61
2	AB	124	G	P-O5'	-5.07	1.52	1.59
2	AB	897	C	O3'-P	5.07	1.68	1.61
2	AB	2348	U	C4'-C3'	5.07	1.60	1.52
2	AB	2646	C	P-O5'	5.07	1.67	1.59
35	BA	183	C	P-O5'	5.07	1.67	1.59
35	BA	1478	U	C4'-O4'	-5.07	1.38	1.45
38	BD	182	VAL	CA-C	5.07	1.58	1.52
2	AB	2525	G	C6-N1	5.07	1.49	1.39
35	BA	1440	U	C4'-O4'	-5.07	1.38	1.45
2	AB	146	A	C5'-C4'	5.07	1.58	1.51
2	AB	1162	G	C4'-O4'	-5.07	1.38	1.45
2	AB	1343	G	O5'-C5'	5.07	1.50	1.42
2	AB	1552	A	C2'-C1'	-5.07	1.45	1.53
2	AB	1830	C	C4'-O4'	-5.07	1.38	1.45
2	AB	2023	C	C3'-O3'	5.07	1.49	1.42
2	AB	2312	U	C2'-O2'	-5.07	1.34	1.42
25	AY	15	SER	N-CA	5.07	1.52	1.46
35	BA	1367	C	P-O5'	5.07	1.67	1.59
41	BG	119	VAL	N-CA	5.07	1.53	1.46
2	AB	624	C	C3'-O3'	5.07	1.49	1.42
2	AB	989	G	P-O5'	5.07	1.67	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	435	C	O3'-P	5.07	1.68	1.61
2	AB	743	A	P-O5'	5.07	1.67	1.59
2	AB	2258	C	C4'-O4'	-5.07	1.38	1.45
2	AB	2318	G	C2'-C1'	5.07	1.60	1.53
2	AB	2582	G	P-O5'	-5.07	1.52	1.59
35	BA	676	A	C4'-O4'	-5.07	1.38	1.45
35	BA	993	G	C2'-C1'	-5.07	1.45	1.53
2	AB	1975	G	P-O5'	5.07	1.67	1.59
36	BB	58	C	C4'-O4'	-5.07	1.38	1.45
39	BE	53	ARG	CD-NE	5.07	1.53	1.46
2	AB	88	G	C5'-C4'	5.06	1.58	1.51
2	AB	825	A	C5'-C4'	5.06	1.58	1.51
38	BD	138	ARG	NE-CZ	5.06	1.38	1.33
1	AA	75	G	C1'-N9	5.06	1.55	1.48
2	AB	2521	C	C5'-C4'	5.06	1.58	1.51
5	AE	123	LYS	N-CA	-5.06	1.40	1.46
35	BA	65	A	C3'-O3'	5.06	1.50	1.43
35	BA	385	C	P-O5'	5.06	1.67	1.59
43	BI	44	SER	N-CA	-5.06	1.39	1.46
2	AB	727	A	C4'-O4'	-5.06	1.38	1.45
8	AH	44	HIS	CB-CG	5.06	1.57	1.50
2	AB	267	C	P-O5'	5.06	1.67	1.59
2	AB	2302	U	C4'-O4'	-5.06	1.38	1.45
35	BA	1	A	C2'-C1'	5.06	1.60	1.53
35	BA	914	A	P-O5'	5.06	1.67	1.59
35	BA	1113	C	P-O5'	5.06	1.67	1.59
2	AB	118	A	C2'-C1'	5.06	1.60	1.53
2	AB	1576	U	C2-N3	5.06	1.47	1.37
2	AB	1846	G	C5'-C4'	5.06	1.58	1.51
2	AB	2614	A	P-O5'	5.06	1.67	1.59
2	AB	2699	C	P-O5'	5.06	1.67	1.59
12	AL	111	LYS	N-CA	5.06	1.52	1.46
17	AQ	63	LYS	CA-C	5.06	1.59	1.52
46	BL	51	VAL	C-N	5.06	1.40	1.33
2	AB	1176	U	O5'-C5'	-5.06	1.35	1.42
2	AB	1303	G	C2'-O2'	-5.06	1.34	1.42
2	AB	1314	C	C5'-C4'	5.06	1.58	1.51
2	AB	1898	U	C4'-O4'	-5.06	1.38	1.45
2	AB	280	U	P-O5'	5.05	1.67	1.59
12	AL	13	ARG	NE-CZ	5.05	1.38	1.33
25	AY	38	ARG	CD-NE	5.05	1.53	1.46
29	A2	62	LYS	CA-C	5.05	1.58	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BA	844	G	C3'-C2'	5.05	1.60	1.52
44	BJ	113	ARG	C-N	5.05	1.41	1.33
47	BM	15	VAL	CA-CB	5.05	1.61	1.54
50	BP	65	GLN	N-CA	-5.05	1.40	1.46
2	AB	2271	G	C5'-C4'	-5.05	1.43	1.51
55	BU	7	GLY	N-CA	-5.05	1.37	1.44
2	AB	136	G	C2'-O2'	-5.05	1.34	1.42
4	AD	176	ARG	CZ-NH1	5.05	1.39	1.32
19	AS	7	VAL	CA-CB	5.05	1.60	1.54
44	BJ	36	ALA	N-CA	5.05	1.52	1.46
50	BP	92	ILE	CA-C	5.05	1.57	1.53
2	AB	1663	G	C3'-C2'	5.05	1.60	1.52
2	AB	2618	G	C5'-C4'	5.05	1.58	1.51
35	BA	1457	G	C3'-C2'	5.05	1.60	1.52
37	BC	30	G	C2'-C1'	-5.05	1.45	1.53
2	AB	165	A	C4'-O4'	-5.05	1.38	1.45
2	AB	956	G	C5'-C4'	5.05	1.58	1.51
2	AB	1493	C	C2'-O2'	-5.05	1.34	1.42
14	AN	59	ARG	CZ-NH1	5.05	1.39	1.32
21	AU	25	ARG	CA-C	-5.05	1.46	1.52
35	BA	860	A	P-O5'	5.05	1.67	1.59
35	BA	1114	C	P-O5'	5.05	1.67	1.59
48	BN	55	ARG	CZ-NH2	5.05	1.40	1.33
2	AB	485	C	P-O5'	5.04	1.67	1.59
2	AB	1524	G	O4'-C1'	5.04	1.49	1.41
35	BA	910	C	C4'-O4'	-5.04	1.38	1.45
51	BQ	55	LEU	C-O	5.04	1.29	1.24
23	AW	72	PHE	N-CA	5.04	1.52	1.46
35	BA	459	A	C5'-C4'	5.04	1.58	1.51
35	BA	1305	G	O4'-C1'	5.04	1.49	1.41
2	AB	1708	C	O5'-C5'	-5.04	1.34	1.42
2	AB	2145	C	C4'-O4'	-5.04	1.38	1.45
35	BA	583	A	C4'-O4'	-5.04	1.38	1.45
35	BA	1031	C	C5'-C4'	5.04	1.58	1.51
2	AB	419	U	C5'-C4'	5.04	1.58	1.51
35	BA	1235	U	C2'-C1'	5.04	1.60	1.53
2	AB	2875	C	C4'-O4'	-5.04	1.38	1.45
4	AD	83	ASP	N-CA	5.04	1.52	1.46
20	AT	66	HIS	ND1-CE1	5.04	1.37	1.32
20	AT	83	TYR	N-CA	5.04	1.52	1.46
22	AV	34	VAL	CA-CB	-5.04	1.48	1.54
30	A3	22	THR	CA-CB	5.04	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	1523	U	P-O5'	5.04	1.67	1.59
23	AW	83	GLY	CA-C	5.04	1.58	1.52
28	A1	8	GLN	CA-C	5.04	1.59	1.52
35	BA	1496	C	C2'-O2'	-5.04	1.34	1.42
41	BG	29	ILE	N-CA	5.04	1.52	1.46
44	BJ	49	LYS	CA-C	-5.04	1.46	1.52
2	AB	1889	A	O5'-C5'	-5.04	1.34	1.42
2	AB	2328	A	C5'-C4'	5.04	1.58	1.51
7	AG	131	VAL	C-O	5.04	1.30	1.24
21	AU	28	LYS	N-CA	5.04	1.52	1.46
36	BB	15	G	C3'-C2'	5.04	1.60	1.52
2	AB	623	C	C5'-C4'	5.03	1.58	1.51
2	AB	1035	U	O5'-C5'	-5.03	1.34	1.42
2	AB	2219	U	N1-C2	5.03	1.48	1.38
2	AB	2502	G	O5'-C5'	-5.03	1.35	1.42
3	AC	227	ALA	C-O	-5.03	1.18	1.24
35	BA	852	G	C1'-N9	-5.03	1.40	1.48
2	AB	2421	G	C1'-N9	5.03	1.55	1.48
3	AC	28	ALA	N-CA	5.03	1.52	1.46
23	AW	35	VAL	C-O	-5.03	1.18	1.24
40	BF	40	HIS	C-N	5.03	1.40	1.33
49	BO	27	THR	C-O	-5.03	1.18	1.24
2	AB	2473	U	C4'-O4'	-5.03	1.38	1.45
13	AM	47	ILE	CA-CB	5.03	1.60	1.54
35	BA	80	A	O3'-P	5.03	1.68	1.61
35	BA	739	C	P-O5'	5.03	1.67	1.59
35	BA	1189	U	C4'-O4'	-5.03	1.38	1.45
35	BA	1336	C	C4'-O4'	-5.03	1.38	1.45
2	AB	360	U	P-O5'	5.03	1.67	1.59
2	AB	883	G	C4'-O4'	-5.03	1.38	1.45
2	AB	1582	C	C1'-N1	5.03	1.55	1.48
18	AR	55	HIS	CA-C	5.03	1.59	1.52
30	A3	14	MET	C-O	-5.03	1.18	1.24
33	A6	26	ALA	C-N	5.03	1.40	1.33
35	BA	1222	G	C1'-N9	-5.03	1.40	1.48
35	BA	1239	A	C1'-N9	5.03	1.54	1.47
2	AB	1557	C	P-O5'	5.03	1.67	1.59
2	AB	1571	A	C5'-C4'	5.03	1.58	1.51
2	AB	2452	C	P-O5'	5.03	1.67	1.59
2	AB	2595	G	C1'-N9	5.03	1.55	1.48
2	AB	2226	C	P-O5'	5.02	1.67	1.59
6	AF	40	ARG	NE-CZ	5.02	1.38	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	BF	89	LEU	C-O	-5.02	1.18	1.24
2	AB	1228	G	C4'-O4'	-5.02	1.38	1.45
2	AB	1456	G	O5'-C5'	5.02	1.50	1.42
2	AB	503	A	C2'-C1'	5.02	1.60	1.53
2	AB	1406	U	C3'-O3'	5.02	1.49	1.42
16	AP	64	ARG	CZ-NH1	5.02	1.39	1.32
20	AT	89	HIS	ND1-CE1	5.02	1.37	1.32
2	AB	650	C	C2'-O2'	5.02	1.50	1.42
2	AB	1089	A	C1'-N9	5.02	1.54	1.47
2	AB	2373	G	C4'-O4'	-5.02	1.38	1.45
8	AH	3	VAL	N-CA	5.02	1.53	1.46
11	AK	32	VAL	N-CA	5.02	1.51	1.46
14	AN	89	VAL	C-O	5.02	1.29	1.24
35	BA	1083	U	C5'-C4'	5.02	1.58	1.51
39	BE	52	SER	N-CA	5.02	1.52	1.46
45	BK	63	TYR	CA-C	5.02	1.58	1.52
47	BM	105	ARG	CZ-NH2	5.02	1.40	1.33
2	AB	1559	U	C4'-C3'	5.02	1.60	1.53
2	AB	1747	U	C1'-N1	5.02	1.55	1.48
35	BA	207	C	O3'-P	5.02	1.68	1.61
2	AB	1310	G	P-O5'	5.02	1.67	1.59
2	AB	522	A	O3'-P	5.01	1.68	1.61
3	AC	117	SER	CA-C	5.01	1.59	1.52
8	AH	17	LYS	CA-C	-5.01	1.46	1.52
9	AI	89	LYS	CA-C	5.01	1.59	1.52
46	BL	37	ARG	NE-CZ	5.01	1.38	1.33
2	AB	905	A	O3'-P	5.01	1.68	1.61
2	AB	1937	A	C2'-O2'	-5.01	1.34	1.41
2	AB	2428	G	P-O5'	5.01	1.67	1.59
35	BA	212	G	C4'-O4'	-5.01	1.38	1.45
2	AB	426	C	O3'-P	-5.01	1.53	1.61
2	AB	531	C	C3'-O3'	-5.01	1.35	1.43
2	AB	1079	C	O3'-P	5.01	1.68	1.61
2	AB	1289	C	O3'-P	5.01	1.68	1.61
2	AB	2215	C	O5'-C5'	5.01	1.50	1.42
23	AW	91	LYS	CA-CB	5.01	1.59	1.53
35	BA	951	G	O4'-C1'	5.01	1.49	1.41
36	BB	28	U	C4'-O4'	-5.01	1.38	1.45
38	BD	20	ARG	N-CA	5.01	1.52	1.46
39	BE	168	ARG	NE-CZ	5.01	1.38	1.33
2	AB	450	G	C3'-C2'	5.01	1.60	1.52
2	AB	525	U	O3'-P	-5.01	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	725	G	O3'-P	5.01	1.68	1.61
2	AB	1205	A	C4'-O4'	-5.01	1.38	1.45
2	AB	2001	C	C3'-C2'	-5.01	1.45	1.52
15	AO	89	VAL	CA-C	5.01	1.58	1.52
48	BN	113	ARG	CA-C	5.01	1.58	1.53
2	AB	684	G	C2'-C1'	-5.01	1.45	1.53
35	BA	1015	G	C5-C6	5.01	1.52	1.42
2	AB	633	A	O3'-P	5.00	1.68	1.61
2	AB	210	C	O3'-P	5.00	1.68	1.61
2	AB	1411	U	O4'-C1'	5.00	1.49	1.41
2	AB	1823	G	C4'-C3'	5.00	1.60	1.52
2	AB	2224	G	C5'-C4'	5.00	1.58	1.51
4	AD	177	SER	CA-CB	5.00	1.62	1.53
35	BA	396	C	C2'-O2'	5.00	1.50	1.42
46	BL	39	PRO	C-N	5.00	1.38	1.33
2	AB	1212	G	C1'-N9	5.00	1.54	1.47
2	AB	2289	G	P-OP1	5.00	1.58	1.49
52	BR	34	GLU	N-CA	-5.00	1.40	1.46

All (8816) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	AL	120	ARG	NE-CZ-NH2	14.84	132.55	119.20
29	A2	65	ASN	CA-C-N	13.98	131.52	120.33
29	A2	65	ASN	C-N-CA	13.98	131.52	120.33
40	BF	17	ASP	CA-CB-CG	12.60	125.20	112.60
47	BM	114	PRO	N-CA-CB	12.50	114.36	103.36
35	BA	867	G	C4'-C3'-C2'	-12.34	90.26	102.60
2	AB	932	U	C4'-C3'-C2'	-12.08	90.52	102.60
20	AT	50	GLY	CA-C-N	12.07	131.28	122.59
20	AT	50	GLY	C-N-CA	12.07	131.28	122.59
2	AB	1437	C	O4'-C1'-C2'	-11.87	95.73	107.60
35	BA	258	G	C4'-C3'-C2'	-11.85	90.75	102.60
35	BA	1169	A	C4'-C3'-C2'	-11.71	90.89	102.60
2	AB	2773	C	C4'-C3'-C2'	-11.69	90.91	102.60
36	BB	22	G	C2'-C3'-O3'	11.54	126.82	109.50
4	AD	119	VAL	N-CA-C	11.49	121.45	110.42
2	AB	1437	C	C3'-C2'-C1'	11.43	112.72	101.30
47	BM	51	PHE	CA-CB-CG	11.29	125.09	113.80
39	BE	229	LYS	CA-C-N	11.23	134.20	122.63
39	BE	229	LYS	C-N-CA	11.23	134.20	122.63
2	AB	431	U	C4'-C3'-C2'	-11.17	91.43	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2351	G	C3'-C2'-C1'	11.09	112.39	101.30
1	AA	44	G	C1'-O4'-C4'	-10.98	98.72	109.70
35	BA	384	G	C3'-C2'-O2'	10.96	127.14	110.70
35	BA	809	G	C4'-C3'-C2'	-10.90	91.70	102.60
44	BJ	116	ARG	NE-CZ-NH2	-10.86	109.43	119.20
1	AA	59	A	O4'-C1'-C2'	-10.80	96.80	107.60
41	BG	19	ARG	NE-CZ-NH2	-10.79	109.49	119.20
2	AB	528	A	C3'-C2'-C1'	-10.74	90.56	101.30
35	BA	502	A	C4'-C3'-C2'	-10.73	91.87	102.60
49	BO	75	SER	CA-C-O	-10.66	109.25	120.55
2	AB	2574	G	C4'-C3'-O3'	-10.65	97.02	113.00
35	BA	161	A	O4'-C1'-C2'	-10.63	96.97	107.60
45	BK	69	GLY	CA-C-N	10.62	132.70	121.45
45	BK	69	GLY	C-N-CA	10.62	132.70	121.45
2	AB	2586	U	O4'-C4'-C3'	10.52	114.52	104.00
40	BF	166	LYS	CA-C-N	10.49	130.59	119.89
40	BF	166	LYS	C-N-CA	10.49	130.59	119.89
4	AD	188	ARG	NE-CZ-NH2	10.48	128.63	119.20
2	AB	556	A	O4'-C4'-C3'	10.46	114.46	104.00
2	AB	1665	A	O4'-C1'-C2'	-10.46	97.14	107.60
26	AZ	19	HIS	CA-CB-CG	10.45	124.25	113.80
2	AB	603	A	C4'-C3'-O3'	10.38	124.97	109.40
2	AB	2113	U	C4'-C3'-C2'	-10.29	92.31	102.60
17	AQ	117	PHE	CA-CB-CG	10.28	124.08	113.80
48	BN	104	SER	CA-C-N	10.28	129.87	120.10
48	BN	104	SER	C-N-CA	10.28	129.87	120.10
2	AB	1523	U	O4'-C1'-C2'	-10.28	97.32	107.60
1	AA	29	A	C5'-C4'-C3'	-10.26	100.61	116.00
35	BA	812	G	O4'-C1'-C2'	-10.26	97.34	107.60
35	BA	1352	C	C4'-C3'-C2'	-10.26	92.34	102.60
2	AB	1025	G	C1'-O4'-C4'	10.24	119.94	109.70
2	AB	116	C	O4'-C1'-N1	10.23	123.85	108.50
2	AB	1294	U	O4'-C1'-N1	10.22	123.83	108.50
36	BB	43	U	C2'-C3'-O3'	10.15	124.73	109.50
39	BE	161	ILE	CA-C-N	10.15	133.88	120.28
39	BE	161	ILE	C-N-CA	10.15	133.88	120.28
5	AE	206	ALA	CA-C-N	10.14	137.72	120.29
5	AE	206	ALA	C-N-CA	10.14	137.72	120.29
2	AB	1728	C	O4'-C1'-C2'	-10.13	97.47	107.60
35	BA	534	U	O4'-C4'-C3'	-10.13	93.87	104.00
12	AL	7	LYS	CA-C-N	10.09	130.38	119.28
12	AL	7	LYS	C-N-CA	10.09	130.38	119.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	675	A	C4'-C3'-C2'	-10.08	92.52	102.60
10	AJ	3	ASN	OD1-CG-ND2	-10.08	112.52	122.60
12	AL	86	GLN	OE1-CD-NE2	-10.08	112.52	122.60
35	BA	758	C	C4'-C3'-C2'	-10.07	92.53	102.60
2	AB	2237	G	C4'-C3'-C2'	-10.06	92.54	102.60
36	BB	34	U	O4'-C4'-C3'	10.06	114.06	104.00
2	AB	2756	U	C2'-C3'-O3'	10.05	124.58	109.50
2	AB	2741	A	O4'-C1'-C2'	-10.05	97.55	107.60
2	AB	1262	A	O4'-C4'-C3'	10.04	114.03	104.00
2	AB	1574	C	O4'-C1'-C2'	-10.02	97.58	107.60
2	AB	1789	A	C5'-C4'-C3'	-10.00	101.00	116.00
2	AB	1349	C	C5'-C4'-O4'	9.98	124.77	109.80
2	AB	1529	G	C3'-C2'-C1'	9.97	111.27	101.30
2	AB	2280	G	C4'-C3'-C2'	-9.97	92.63	102.60
2	AB	559	G	C2'-C3'-O3'	-9.97	98.74	113.70
5	AE	9	VAL	CA-C-N	9.96	134.41	121.27
5	AE	9	VAL	C-N-CA	9.96	134.41	121.27
35	BA	455	G	C1'-O4'-C4'	-9.96	99.94	109.90
2	AB	599	A	C4'-C3'-C2'	-9.95	92.65	102.60
22	AV	13	ALA	O-C-N	-9.95	114.39	121.65
2	AB	1262	A	C4'-C3'-C2'	-9.91	92.69	102.60
2	AB	2391	G	C1'-O4'-C4'	9.91	119.61	109.70
2	AB	1508	A	C2'-C3'-O3'	-9.89	98.86	113.70
9	AI	130	VAL	CA-C-N	9.88	135.57	122.42
9	AI	130	VAL	C-N-CA	9.88	135.57	122.42
2	AB	1210	G	O4'-C1'-C2'	9.88	115.68	105.80
35	BA	168	G	C5'-C4'-C3'	-9.87	101.19	116.00
42	BH	11	HIS	CA-C-N	9.87	132.18	119.84
42	BH	11	HIS	C-N-CA	9.87	132.18	119.84
2	AB	2471	A	C2'-C3'-O3'	9.86	124.29	109.50
10	AJ	10	ILE	CA-C-N	9.85	132.97	120.56
10	AJ	10	ILE	C-N-CA	9.85	132.97	120.56
2	AB	838	C	C3'-C2'-O2'	9.85	125.47	110.70
35	BA	106	C	C1'-O4'-C4'	9.84	119.74	109.90
2	AB	1595	C	O4'-C1'-N1	9.81	123.21	108.50
2	AB	32	C	C3'-C2'-C1'	9.80	111.10	101.30
1	AA	52	A	C1'-O4'-C4'	-9.78	100.12	109.90
2	AB	1346	G	C4'-C3'-C2'	-9.77	92.83	102.60
2	AB	1529	G	C4'-C3'-C2'	-9.76	92.84	102.60
35	BA	441	A	C4'-C3'-C2'	-9.74	92.86	102.60
19	AS	18	LYS	CA-C-O	-9.74	110.09	120.42
48	BN	90	PRO	N-CA-CB	9.71	111.90	103.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	751	A	O4'-C1'-C2'	-9.71	97.89	107.60
2	AB	1376	C	C5'-C4'-C3'	9.69	130.54	116.00
2	AB	816	C	C4'-C3'-C2'	-9.69	92.91	102.60
47	BM	104	PHE	CA-CB-CG	9.68	123.48	113.80
46	BL	45	ARG	NE-CZ-NH1	9.68	131.18	121.50
56	BV	79	THR	CA-C-O	-9.68	110.16	120.42
2	AB	2402	U	O4'-C4'-C3'	-9.68	96.42	106.10
16	AP	45	ARG	NE-CZ-NH2	-9.67	110.50	119.20
2	AB	35	G	C3'-C2'-O2'	9.66	125.19	110.70
35	BA	505	G	O4'-C4'-C3'	9.64	113.64	104.00
2	AB	1566	A	C4'-C3'-C2'	-9.64	92.96	102.60
56	BV	32	LYS	CA-C-N	9.64	134.16	120.28
56	BV	32	LYS	C-N-CA	9.64	134.16	120.28
35	BA	570	G	C5'-C4'-C3'	-9.63	101.56	116.00
36	BB	32	U	C4'-C3'-C2'	-9.63	92.97	102.60
16	AP	21	PHE	CA-C-O	-9.62	109.23	120.10
2	AB	2472	G	C4'-C3'-C2'	-9.62	92.98	102.60
35	BA	232	G	C4'-C3'-C2'	-9.61	92.99	102.60
35	BA	691	G	C3'-C2'-C1'	-9.61	91.69	101.30
35	BA	1344	C	C3'-C2'-O2'	9.60	125.10	110.70
46	BL	89	ARG	NE-CZ-NH1	9.59	131.09	121.50
35	BA	662	U	C4'-C3'-C2'	-9.59	93.01	102.60
45	BK	33	SER	CA-C-N	9.56	133.10	120.28
45	BK	33	SER	C-N-CA	9.56	133.10	120.28
35	BA	1302	C	C3'-C2'-O2'	9.54	125.01	110.70
35	BA	463	U	C4'-C3'-C2'	-9.53	93.07	102.60
35	BA	691	G	C4'-C3'-C2'	9.53	112.12	102.60
37	BC	4	G	O4'-C1'-C2'	-9.52	98.08	107.60
9	AI	27	ARG	NE-CZ-NH2	9.52	127.77	119.20
35	BA	1536	C	O4'-C4'-C3'	9.51	113.51	104.00
2	AB	1292	G	O4'-C4'-C3'	9.51	113.50	104.00
36	BB	30	U	C4'-C3'-C2'	-9.51	93.09	102.60
27	A0	12	GLU	CA-C-N	9.49	133.35	120.54
27	A0	12	GLU	C-N-CA	9.49	133.35	120.54
35	BA	293	G	C4'-C3'-C2'	-9.48	93.12	102.60
35	BA	1324	A	C4'-C3'-C2'	-9.48	93.12	102.60
35	BA	193	C	O4'-C1'-N1	9.47	122.71	108.50
2	AB	2448	A	O4'-C1'-N9	9.46	122.39	108.20
2	AB	2588	G	C5'-C4'-C3'	9.46	130.19	116.00
24	AX	76	ASP	CA-CB-CG	9.46	122.06	112.60
27	A0	54	LYS	CA-C-O	-9.44	110.42	120.42
2	AB	1040	A	O4'-C1'-C2'	9.43	117.03	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1980	G	C1'-O4'-C4'	9.42	119.12	109.70
8	AH	108	PHE	CA-CB-CG	9.40	123.20	113.80
2	AB	1315	C	O4'-C1'-N1	9.40	122.59	108.50
9	AI	110	VAL	CA-C-O	-9.38	110.53	120.48
35	BA	1397	C	C3'-C2'-C1'	9.36	110.86	101.50
2	AB	2871	U	C1'-O4'-C4'	-9.34	100.56	109.90
35	BA	1069	C	C3'-C2'-C1'	9.33	110.63	101.30
2	AB	2644	G	O4'-C4'-C3'	-9.32	94.67	104.00
37	BC	29	C	O4'-C1'-C2'	-9.32	98.28	107.60
2	AB	937	C	C4'-C3'-C2'	-9.31	93.29	102.60
2	AB	2086	U	C4'-C3'-C2'	-9.31	93.29	102.60
17	AQ	73	ALA	CA-C-N	9.31	133.64	120.42
17	AQ	73	ALA	C-N-CA	9.31	133.64	120.42
1	AA	66	A	C4'-C3'-O3'	9.30	126.95	113.00
2	AB	134	G	C1'-O4'-C4'	-9.30	100.60	109.90
1	AA	34	A	C4'-C3'-O3'	9.30	126.95	113.00
35	BA	611	C	C4'-C3'-C2'	-9.29	93.31	102.60
4	AD	261	ARG	NE-CZ-NH2	-9.29	110.84	119.20
2	AB	2205	A	C4'-C3'-C2'	-9.28	93.32	102.60
2	AB	335	C	O4'-C1'-N1	9.27	122.40	108.50
2	AB	1460	U	O4'-C1'-C2'	-9.27	98.33	107.60
2	AB	27	G	C3'-C2'-C1'	9.25	110.55	101.30
2	AB	1665	A	C4'-C3'-C2'	-9.23	93.37	102.60
35	BA	727	G	O5'-C5'-C4'	9.22	125.34	111.50
35	BA	1118	U	O4'-C4'-C3'	9.22	113.22	104.00
35	BA	508	U	C5'-C4'-O4'	9.22	122.93	109.10
35	BA	19	A	C3'-C2'-C1'	-9.21	92.09	101.30
36	BB	28	U	C5'-C4'-C3'	-9.21	102.19	116.00
2	AB	1566	A	C3'-C2'-C1'	9.20	110.70	101.50
2	AB	504	A	O4'-C1'-C2'	-9.20	98.40	107.60
1	AA	56	G	C3'-C2'-C1'	9.17	110.67	101.50
2	AB	2766	A	C4'-C3'-C2'	-9.17	93.43	102.60
35	BA	272	C	C1'-O4'-C4'	-9.17	100.73	109.90
35	BA	1159	U	C4'-C3'-C2'	-9.17	93.43	102.60
2	AB	1864	U	C3'-C2'-C1'	9.17	110.47	101.30
2	AB	1055	G	C1'-O4'-C4'	-9.16	100.74	109.90
2	AB	1149	G	O4'-C1'-N9	9.16	122.24	108.50
2	AB	1114	C	C4'-C3'-C2'	-9.15	93.45	102.60
26	AZ	2	ARG	NE-CZ-NH2	9.14	127.43	119.20
2	AB	1914	C	C4'-C3'-C2'	-9.14	93.46	102.60
35	BA	1272	G	C4'-C3'-C2'	-9.13	93.47	102.60
2	AB	872	U	C3'-C2'-C1'	9.13	110.43	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2440	C	C3'-C2'-O2'	9.12	124.37	110.70
2	AB	810	U	C4'-C3'-O3'	-9.11	99.34	113.00
35	BA	1069	C	O4'-C1'-C2'	-9.10	98.50	107.60
2	AB	1315	C	O4'-C1'-C2'	-9.09	98.51	107.60
2	AB	1507	C	O4'-C4'-C3'	9.09	113.09	104.00
21	AU	35	ILE	CB-CA-C	9.09	123.94	112.04
2	AB	297	G	O5'-C5'-C4'	9.06	125.10	111.50
55	BU	52	ASN	CA-CB-CG	9.06	121.66	112.60
10	AJ	128	LEU	CA-C-N	9.06	131.16	119.84
10	AJ	128	LEU	C-N-CA	9.06	131.16	119.84
2	AB	1190	G	C5'-C4'-C3'	-9.05	102.42	116.00
35	BA	993	G	C2'-C3'-O3'	9.05	123.08	109.50
51	BQ	49	HIS	CA-CB-CG	9.05	122.85	113.80
2	AB	621	A	N9-C1'-C2'	-9.05	98.43	112.00
35	BA	1025	U	O3'-P-O5'	9.05	117.57	104.00
35	BA	1532	U	C4'-C3'-C2'	-9.04	93.56	102.60
19	AS	112	ALA	CA-C-N	9.04	132.39	120.28
19	AS	112	ALA	C-N-CA	9.04	132.39	120.28
2	AB	563	A	C4'-C3'-C2'	-9.03	93.57	102.60
3	AC	172	HIS	CA-CB-CG	9.03	122.83	113.80
2	AB	68	G	C4'-C3'-C2'	-9.03	93.57	102.60
35	BA	337	G	C4'-C3'-C2'	-9.03	93.57	102.60
39	BE	42	LEU	O-C-N	9.03	131.84	122.09
27	A0	53	VAL	CA-C-O	-9.02	111.57	120.95
2	AB	73	A	C1'-O4'-C4'	-9.02	100.88	109.90
2	AB	556	A	C1'-O4'-C4'	-9.01	100.89	109.90
2	AB	904	G	C4'-C3'-C2'	-9.00	93.60	102.60
35	BA	154	U	O4'-C1'-N1	8.99	121.98	108.50
4	AD	7	PRO	N-CA-CB	8.97	108.53	102.25
5	AE	60	VAL	O-C-N	8.97	131.78	122.54
9	AI	66	ASN	CA-CB-CG	8.96	121.56	112.60
50	BP	60	ARG	CA-C-N	8.96	138.65	121.54
50	BP	60	ARG	C-N-CA	8.96	138.65	121.54
47	BM	97	ARG	NE-CZ-NH2	8.95	127.26	119.20
42	BH	70	VAL	N-CA-C	-8.95	102.01	110.42
2	AB	386	G	O4'-C4'-C3'	-8.94	97.16	106.10
2	AB	233	A	C4'-C3'-C2'	-8.94	93.66	102.60
2	AB	846	U	C1'-O4'-C4'	-8.94	100.96	109.90
49	BO	110	GLY	CA-C-N	8.94	129.48	119.92
49	BO	110	GLY	C-N-CA	8.94	129.48	119.92
2	AB	531	C	C4'-C3'-C2'	-8.94	93.67	102.60
2	AB	1274	A	C3'-C2'-C1'	-8.93	92.37	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	713	G	C2'-C3'-O3'	-8.93	100.31	113.70
2	AB	2094	A	O4'-C1'-N9	8.91	121.56	108.20
2	AB	540	C	O4'-C4'-C3'	8.91	112.91	104.00
2	AB	1040	A	C3'-C2'-C1'	-8.91	92.39	101.30
35	BA	110	C	C1'-O4'-C4'	-8.90	101.00	109.90
2	AB	1665	A	O4'-C4'-C3'	8.90	112.90	104.00
35	BA	1121	U	C5'-C4'-C3'	-8.90	102.65	116.00
2	AB	949	G	O4'-C4'-C3'	8.89	112.89	104.00
35	BA	272	C	C4'-C3'-C2'	-8.87	93.73	102.60
39	BE	175	HIS	CB-CG-CD2	-8.87	119.67	131.20
2	AB	2748	A	C5'-C4'-C3'	-8.87	102.69	116.00
35	BA	904	U	O4'-C4'-C3'	8.86	112.86	104.00
35	BA	235	C	C4'-C3'-C2'	-8.85	93.75	102.60
2	AB	321	U	O4'-C1'-N1	8.85	121.77	108.50
57	BW	53	LYS	CA-C-O	-8.85	111.17	120.55
19	AS	2	ARG	NE-CZ-NH2	8.84	127.16	119.20
35	BA	1005	A	O4'-C4'-C3'	8.84	112.84	104.00
35	BA	567	G	C4'-C3'-C2'	-8.83	93.77	102.60
35	BA	1414	U	C4'-C3'-C2'	-8.83	93.77	102.60
2	AB	1280	G	C4'-C3'-C2'	-8.82	93.78	102.60
7	AG	137	PHE	CA-CB-CG	8.82	122.62	113.80
36	BB	28	U	C1'-O4'-C4'	-8.82	101.08	109.90
35	BA	17	U	O4'-C1'-N1	8.81	121.72	108.50
42	BH	93	LYS	CA-C-N	8.81	134.59	122.34
42	BH	93	LYS	C-N-CA	8.81	134.59	122.34
2	AB	2237	G	C1'-O4'-C4'	-8.81	101.09	109.90
35	BA	993	G	O4'-C1'-C2'	-8.81	96.99	105.80
21	AU	9	HIS	CA-CB-CG	8.81	122.61	113.80
4	AD	263	ASP	CA-CB-CG	8.80	121.40	112.60
4	AD	119	VAL	O-C-N	8.80	130.53	121.91
2	AB	8	C	C1'-O4'-C4'	8.80	118.70	109.90
49	BO	67	ASP	CA-CB-CG	8.79	121.39	112.60
2	AB	1213	A	C4'-C3'-C2'	-8.79	93.81	102.60
2	AB	2597	G	C3'-C2'-C1'	8.78	110.08	101.30
35	BA	563	A	C4'-C3'-O3'	-8.78	99.83	113.00
2	AB	96	C	C4'-C3'-C2'	-8.77	93.83	102.60
35	BA	251	G	O4'-C1'-C2'	-8.77	97.03	105.80
2	AB	1301	A	O4'-C1'-C2'	-8.76	97.04	105.80
35	BA	1385	G	O4'-C4'-C3'	-8.76	95.24	104.00
35	BA	149	A	C4'-C3'-C2'	-8.76	93.84	102.60
2	AB	875	G	C4'-C3'-C2'	-8.76	93.84	102.60
35	BA	18	C	C3'-C2'-C1'	-8.76	92.54	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2113	U	C3'-C2'-C1'	8.75	110.05	101.30
16	AP	116	VAL	CA-C-O	-8.75	111.95	121.05
2	AB	366	C	C3'-C2'-C1'	8.74	110.04	101.30
2	AB	2318	G	O4'-C4'-C3'	8.74	112.74	104.00
35	BA	1062	U	C4'-C3'-C2'	-8.74	93.86	102.60
56	BV	52	GLU	CA-C-N	8.74	132.71	120.29
56	BV	52	GLU	C-N-CA	8.74	132.71	120.29
44	BJ	75	GLN	CA-C-N	8.74	133.92	121.42
44	BJ	75	GLN	C-N-CA	8.74	133.92	121.42
2	AB	721	A	O4'-C1'-C2'	-8.74	98.86	107.60
35	BA	282	A	O4'-C1'-C2'	-8.74	98.86	107.60
35	BA	979	C	O4'-C1'-C2'	-8.74	97.06	105.80
35	BA	1489	G	O4'-C4'-C3'	8.73	112.73	104.00
1	AA	52	A	O4'-C1'-C2'	8.73	116.33	107.60
17	AQ	100	HIS	CB-CG-CD2	-8.73	119.85	131.20
2	AB	1905	C	C1'-O4'-C4'	-8.72	101.18	109.90
2	AB	2146	C	O4'-C4'-C3'	-8.72	97.38	106.10
47	BM	58	THR	CA-C-N	8.72	129.26	119.32
47	BM	58	THR	C-N-CA	8.72	129.26	119.32
35	BA	863	U	C4'-C3'-C2'	-8.70	93.90	102.60
38	BD	15	PHE	CA-CB-CG	8.69	122.49	113.80
35	BA	317	U	O4'-C1'-N1	8.69	121.53	108.50
35	BA	593	U	C3'-C2'-C1'	8.69	109.99	101.30
2	AB	1325	U	C4'-C3'-C2'	-8.68	93.92	102.60
2	AB	1704	C	O4'-C4'-C3'	8.67	112.67	104.00
35	BA	1440	U	O3'-P-O5'	-8.67	90.99	104.00
35	BA	1497	G	O4'-C4'-C3'	8.67	112.67	104.00
36	BB	14	G	O3'-P-O5'	-8.67	91.00	104.00
2	AB	1900	A	O5'-C5'-C4'	-8.67	98.70	111.70
2	AB	644	A	C4'-C3'-C2'	-8.67	93.93	102.60
35	BA	232	G	C3'-C2'-C1'	8.66	109.97	101.30
35	BA	1395	C	O4'-C1'-C2'	8.66	116.26	107.60
37	BC	29	C	O4'-C1'-N1	8.65	121.48	108.50
2	AB	2758	A	C4'-C3'-C2'	-8.65	93.95	102.60
26	AZ	29	LEU	CA-C-N	8.64	128.66	119.76
26	AZ	29	LEU	C-N-CA	8.64	128.66	119.76
35	BA	260	G	C3'-C2'-O2'	8.64	123.67	110.70
51	BQ	35	ILE	CA-C-N	8.64	132.20	120.44
51	BQ	35	ILE	C-N-CA	8.64	132.20	120.44
35	BA	1370	G	C4'-C3'-C2'	-8.64	93.96	102.60
23	AW	38	ILE	CA-C-O	-8.63	110.88	120.46
38	BD	102	ASN	CA-C-N	8.62	132.19	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
38	BD	102	ASN	C-N-CA	8.62	132.19	120.38
2	AB	2814	A	O4'-C4'-C3'	8.62	112.62	104.00
2	AB	2091	C	O4'-C4'-C3'	8.60	112.60	104.00
2	AB	2792	A	O4'-C1'-N9	8.59	121.39	108.50
2	AB	2483	C	O3'-P-O5'	-8.59	91.11	104.00
35	BA	1397	C	O4'-C1'-N1	8.59	121.09	108.20
9	AI	31	VAL	CA-C-N	8.59	128.24	119.82
9	AI	31	VAL	C-N-CA	8.59	128.24	119.82
2	AB	649	G	C4'-C3'-C2'	-8.59	94.02	102.60
48	BN	83	GLY	N-CA-C	8.58	121.40	111.36
35	BA	287	U	C4'-C3'-C2'	-8.58	94.02	102.60
10	AJ	160	ALA	CA-C-O	-8.58	111.46	120.55
2	AB	2084	C	C4'-C3'-C2'	-8.57	94.03	102.60
18	AR	10	GLU	CA-C-N	8.57	131.76	120.28
18	AR	10	GLU	C-N-CA	8.57	131.76	120.28
35	BA	727	G	O3'-P-O5'	-8.57	91.15	104.00
35	BA	84	U	O4'-C1'-C2'	-8.57	97.23	105.80
13	AM	47	ILE	CA-C-N	8.56	128.70	119.28
13	AM	47	ILE	C-N-CA	8.56	128.70	119.28
4	AD	52	HIS	CB-CG-CD2	-8.56	120.08	131.20
3	AC	2	ALA	CA-C-N	8.55	133.28	121.05
3	AC	2	ALA	C-N-CA	8.55	133.28	121.05
28	A1	10	ARG	NE-CZ-NH1	-8.55	112.95	121.50
35	BA	411	A	C1'-O4'-C4'	8.55	118.25	109.70
2	AB	1507	C	C4'-C3'-C2'	-8.54	94.06	102.60
2	AB	690	G	O5'-C5'-C4'	-8.54	98.69	111.50
2	AB	1928	A	C4'-C3'-C2'	-8.54	94.06	102.60
18	AR	103	THR	CA-CB-CG2	8.53	125.01	110.50
38	BD	172	ILE	CA-C-N	8.53	132.06	120.54
38	BD	172	ILE	C-N-CA	8.53	132.06	120.54
2	AB	2384	U	C1'-O4'-C4'	8.53	118.23	109.70
35	BA	258	G	O4'-C4'-C3'	8.53	112.53	104.00
2	AB	2777	G	O4'-C4'-C3'	8.52	112.52	104.00
2	AB	1115	G	C4'-C3'-C2'	-8.51	94.09	102.60
23	AW	21	ARG	NE-CZ-NH2	8.51	126.86	119.20
35	BA	793	U	C4'-C3'-O3'	8.51	125.76	113.00
35	BA	1222	G	C3'-C2'-C1'	8.51	109.81	101.30
35	BA	899	C	O4'-C4'-C3'	8.50	112.50	104.00
2	AB	267	C	C5'-C4'-C3'	-8.50	103.25	116.00
2	AB	1210	G	C2'-C3'-O3'	8.50	122.25	109.50
36	BB	32	U	C5'-C4'-C3'	-8.50	103.25	116.00
51	BQ	41	HIS	CB-CG-CD2	-8.50	120.15	131.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	727	A	O4'-C1'-C2'	-8.49	99.11	107.60
33	A6	53	ASP	CA-C-N	8.49	132.00	120.54
33	A6	53	ASP	C-N-CA	8.49	132.00	120.54
35	BA	334	C	C4'-C3'-C2'	-8.48	94.12	102.60
35	BA	728	A	C4'-C3'-C2'	-8.48	94.12	102.60
35	BA	817	C	C3'-C2'-C1'	-8.48	93.02	101.50
35	BA	1462	C	O5'-C5'-C4'	8.48	124.22	111.50
2	AB	782	A	C1'-O4'-C4'	-8.47	101.23	109.70
35	BA	132	C	C3'-C2'-C1'	8.47	109.77	101.30
2	AB	2102	G	O4'-C4'-C3'	8.47	112.47	104.00
2	AB	658	U	C4'-C3'-C2'	-8.47	94.13	102.60
2	AB	1757	A	C4'-C3'-C2'	-8.46	94.14	102.60
30	A3	37	HIS	CB-CG-CD2	-8.46	120.20	131.20
35	BA	468	A	C5'-C4'-O4'	8.46	122.50	109.80
35	BA	548	G	C4'-C3'-O3'	-8.46	100.31	113.00
1	AA	41	G	O4'-C1'-N9	8.46	120.89	108.20
2	AB	2287	A	C4'-C3'-C2'	8.46	111.06	102.60
35	BA	716	A	O4'-C4'-C3'	8.46	112.46	104.00
22	AV	69	ARG	NE-CZ-NH2	8.45	126.80	119.20
37	BC	50	G	O4'-C1'-N9	8.45	121.17	108.50
2	AB	42	A	O4'-C1'-C2'	-8.44	99.16	107.60
2	AB	63	A	C1'-O4'-C4'	-8.44	101.46	109.90
2	AB	1439	A	C2'-C3'-O3'	-8.44	101.04	113.70
2	AB	748	G	C2'-C3'-O3'	8.44	122.16	109.50
2	AB	2766	A	C5'-C4'-C3'	-8.44	103.34	116.00
35	BA	787	A	C1'-O4'-C4'	-8.44	101.46	109.90
35	BA	1065	U	C1'-O4'-C4'	-8.44	101.27	109.70
2	AB	756	A	C4'-C3'-C2'	-8.43	94.17	102.60
43	BI	17	PHE	CA-CB-CG	8.43	122.23	113.80
35	BA	1028	C	C4'-C3'-C2'	-8.42	94.18	102.60
35	BA	1139	G	O4'-C1'-C2'	8.42	114.22	105.80
35	BA	809	G	O4'-C4'-C3'	8.42	112.42	104.00
35	BA	1101	A	O5'-C5'-C4'	8.42	124.33	111.70
2	AB	1000	A	C5'-C4'-O4'	8.41	122.42	109.80
1	AA	59	A	O4'-C1'-N9	8.41	121.11	108.50
12	AL	12	LYS	N-CA-C	8.41	122.03	111.69
35	BA	824	G	C4'-C3'-C2'	-8.40	94.20	102.60
18	AR	50	ARG	O-C-N	8.40	127.77	121.47
35	BA	1510	C	O3'-P-O5'	-8.40	91.40	104.00
2	AB	2451	A	C5'-C4'-C3'	-8.40	103.40	116.00
35	BA	335	C	C3'-C2'-O2'	8.40	123.30	110.70
9	AI	128	HIS	CE1-NE2-CD2	-8.40	100.60	109.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	264	C	O4'-C4'-C3'	-8.39	95.61	104.00
35	BA	9	G	O4'-C4'-C3'	8.39	112.39	104.00
2	AB	1744	A	C4'-C3'-C2'	-8.39	94.21	102.60
2	AB	2070	A	O4'-C1'-C2'	-8.38	99.22	107.60
2	AB	267	C	C3'-C2'-C1'	8.38	109.68	101.30
23	AW	26	ASN	OD1-CG-ND2	-8.38	114.22	122.60
2	AB	1108	U	C4'-C3'-C2'	-8.37	94.23	102.60
11	AK	54	ILE	CA-C-N	8.37	128.87	119.83
11	AK	54	ILE	C-N-CA	8.37	128.87	119.83
2	AB	1235	G	O4'-C4'-C3'	8.37	112.37	104.00
16	AP	75	ILE	CA-C-O	-8.37	111.98	120.85
39	BE	51	VAL	CA-CB-CG1	8.37	124.62	110.40
38	BD	176	ASN	CA-C-O	-8.37	111.55	120.42
35	BA	208	U	O4'-C4'-C3'	8.36	112.36	104.00
2	AB	405	U	C4'-C3'-C2'	-8.36	94.24	102.60
2	AB	2814	A	C4'-C3'-C2'	-8.36	94.24	102.60
2	AB	212	G	N9-C1'-C2'	-8.35	99.48	112.00
2	AB	614	A	O3'-P-O5'	-8.35	91.48	104.00
24	AX	16	ALA	CA-C-O	-8.35	111.97	120.90
2	AB	2152	G	C5'-C4'-C3'	-8.35	103.48	116.00
2	AB	2670	A	C5'-C4'-O4'	8.35	122.32	109.80
8	AH	154	GLU	CB-CA-C	8.35	122.71	109.27
2	AB	1254	A	O3'-P-O5'	8.34	116.51	104.00
2	AB	1950	G	C5'-C4'-C3'	-8.34	103.49	116.00
7	AG	176	PHE	CA-CB-CG	8.33	122.13	113.80
48	BN	113	ARG	CA-C-O	-8.33	112.14	120.89
2	AB	2165	C	O4'-C1'-N1	8.33	120.99	108.50
35	BA	346	G	O3'-P-O5'	8.32	116.48	104.00
2	AB	1280	G	O4'-C4'-C3'	8.32	112.32	104.00
22	AV	11	LEU	O-C-N	-8.32	112.82	122.97
35	BA	587	G	O4'-C1'-C2'	8.32	114.12	105.80
2	AB	2597	G	O4'-C1'-C2'	-8.32	99.28	107.60
4	AD	141	HIS	CE1-NE2-CD2	-8.32	100.68	109.00
2	AB	2695	U	C4'-C3'-C2'	-8.31	94.29	102.60
11	AK	55	PRO	CA-C-N	8.31	134.81	122.75
11	AK	55	PRO	C-N-CA	8.31	134.81	122.75
12	AL	100	VAL	CA-C-O	-8.31	112.31	120.95
2	AB	2136	G	P-O5'-C5'	8.31	133.37	120.90
2	AB	2888	C	C4'-C3'-C2'	-8.31	94.29	102.60
46	BL	89	ARG	NE-CZ-NH2	-8.31	111.72	119.20
2	AB	748	G	C3'-C2'-C1'	8.31	109.81	101.50
2	AB	499	U	O5'-C5'-C4'	8.30	123.95	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	AZ	71	ARG	NE-CZ-NH2	8.30	126.67	119.20
35	BA	109	A	O4'-C1'-N9	8.30	120.65	108.20
35	BA	657	U	O4'-C1'-N1	8.30	120.94	108.50
35	BA	612	C	C3'-C2'-C1'	8.30	109.60	101.30
12	AL	34	ARG	CA-C-N	8.29	131.39	120.28
12	AL	34	ARG	C-N-CA	8.29	131.39	120.28
9	AI	57	LYS	CA-C-N	8.29	132.91	120.31
9	AI	57	LYS	C-N-CA	8.29	132.91	120.31
35	BA	1082	A	C3'-C2'-C1'	8.29	109.59	101.30
35	BA	74	A	O5'-C5'-C4'	-8.29	99.07	111.50
35	BA	1465	A	C4'-C3'-C2'	-8.29	94.31	102.60
35	BA	1395	C	C1'-O4'-C4'	-8.28	101.62	109.90
35	BA	1496	C	O4'-C4'-C3'	-8.28	95.72	104.00
36	BB	53	G	O4'-C1'-N9	8.27	120.61	108.20
2	AB	1947	C	C4'-C3'-C2'	-8.27	94.33	102.60
37	BC	70	C	O4'-C1'-C2'	-8.27	99.33	107.60
2	AB	31	C	C5'-C4'-O4'	8.27	122.20	109.80
2	AB	1406	U	O4'-C1'-N1	8.27	120.90	108.50
6	AF	197	GLU	O-C-N	8.27	130.88	122.12
35	BA	975	A	O4'-C4'-C3'	8.26	112.26	104.00
39	BE	190	THR	CA-C-N	8.26	131.70	120.38
39	BE	190	THR	C-N-CA	8.26	131.70	120.38
2	AB	778	G	O4'-C4'-C3'	8.26	112.26	104.00
2	AB	2885	G	O4'-C1'-C2'	-8.26	99.34	107.60
35	BA	1227	A	C4'-C3'-C2'	-8.26	94.34	102.60
51	BQ	50	HIS	CB-CG-CD2	-8.26	120.47	131.20
43	BI	76	SER	CA-C-N	8.25	132.88	121.33
43	BI	76	SER	C-N-CA	8.25	132.88	121.33
2	AB	811	U	O4'-C4'-C3'	8.25	114.35	106.10
2	AB	1164	C	O4'-C1'-N1	8.25	120.87	108.50
35	BA	381	C	C3'-C2'-C1'	8.25	109.55	101.30
53	BS	30	HIS	ND1-CE1-NE2	8.24	116.64	108.40
35	BA	1252	A	O4'-C4'-C3'	8.24	112.24	104.00
2	AB	720	U	O4'-C1'-N1	8.24	120.86	108.50
2	AB	1256	G	O4'-C4'-C3'	8.24	112.24	104.00
35	BA	1201	A	C2'-C3'-O3'	8.24	121.85	109.50
39	BE	217	GLU	CA-C-O	-8.24	111.82	120.55
10	AJ	34	VAL	CA-C-N	8.23	132.23	120.79
10	AJ	34	VAL	C-N-CA	8.23	132.23	120.79
2	AB	1449	G	O4'-C1'-N9	8.23	120.84	108.50
2	AB	2059	A	O4'-C4'-C3'	8.23	112.23	104.00
35	BA	455	G	O4'-C4'-C3'	8.23	112.23	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1444	G	C4'-C3'-C2'	-8.22	94.38	102.60
35	BA	823	C	O4'-C1'-C2'	-8.22	99.38	107.60
22	AV	14	PRO	N-CA-CB	8.22	111.00	103.19
17	AQ	101	GLY	CA-C-N	8.21	131.95	120.29
17	AQ	101	GLY	C-N-CA	8.21	131.95	120.29
22	AV	68	LYS	CB-CA-C	8.21	122.18	111.42
2	AB	1798	U	N1-C1'-C2'	-8.21	99.69	112.00
2	AB	2190	G	O4'-C1'-C2'	-8.21	99.39	107.60
35	BA	558	G	C5'-C4'-O4'	8.21	122.11	109.80
35	BA	448	A	C5'-C4'-C3'	-8.20	103.69	116.00
2	AB	2049	G	C4'-C3'-C2'	-8.20	94.40	102.60
2	AB	1256	G	C4'-C3'-C2'	-8.20	94.40	102.60
2	AB	1820	U	O4'-C1'-N1	8.20	120.50	108.20
2	AB	2638	G	O4'-C1'-N9	8.19	120.49	108.20
8	AH	170	THR	CA-C-N	8.20	135.49	122.21
8	AH	170	THR	C-N-CA	8.20	135.49	122.21
2	AB	1323	C	C5'-C4'-C3'	-8.19	102.91	115.20
11	AK	115	ASP	CA-CB-CG	-8.19	104.41	112.60
35	BA	707	U	C4'-C3'-C2'	-8.19	94.41	102.60
41	BG	96	GLN	CA-C-O	-8.19	111.84	120.28
57	BW	1	PRO	CA-N-CD	-8.19	100.53	112.00
2	AB	2573	C	C4'-C3'-C2'	8.19	110.79	102.60
35	BA	1408	A	C1'-O4'-C4'	-8.18	101.72	109.90
2	AB	211	C	C1'-O4'-C4'	8.18	118.08	109.90
2	AB	2528	U	O4'-C1'-N1	8.18	120.77	108.50
2	AB	2725	A	C2'-C3'-O3'	8.18	121.77	109.50
35	BA	363	A	O4'-C4'-C3'	8.18	112.18	104.00
2	AB	1678	A	O4'-C4'-C3'	-8.17	95.83	104.00
35	BA	972	C	C4'-C3'-C2'	-8.17	94.43	102.60
3	AC	39	VAL	CB-CA-C	8.17	120.25	111.35
2	AB	932	U	O4'-C1'-C2'	-8.16	99.44	107.60
35	BA	877	G	N9-C1'-C2'	-8.16	99.76	112.00
7	AG	78	ILE	CB-CA-C	8.16	122.88	110.96
2	AB	1356	G	O4'-C1'-N9	8.16	120.74	108.50
35	BA	1160	G	C1'-C2'-O2'	8.16	120.64	108.40
57	BW	8	ASN	O-C-N	8.16	133.07	122.95
35	BA	1400	C	O4'-C1'-N1	8.16	120.44	108.20
7	AG	174	PHE	CA-CB-CG	8.16	121.96	113.80
2	AB	2252	G	O3'-P-O5'	-8.15	91.77	104.00
2	AB	2336	A	C2'-C3'-O3'	8.15	121.73	109.50
35	BA	862	C	C4'-C3'-C2'	-8.15	94.44	102.60
19	AS	97	ILE	CA-C-N	8.15	131.87	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
19	AS	97	ILE	C-N-CA	8.15	131.87	120.29
2	AB	149	A	C4'-C3'-C2'	-8.15	94.45	102.60
2	AB	1761	C	O4'-C1'-N1	8.15	120.43	108.20
2	AB	2699	C	C4'-C3'-C2'	-8.15	94.45	102.60
8	AH	114	HIS	CE1-NE2-CD2	-8.15	100.85	109.00
2	AB	2466	C	O4'-C1'-N1	8.14	120.72	108.50
2	AB	945	A	O4'-C1'-C2'	-8.14	97.66	105.80
35	BA	605	U	C4'-C3'-C2'	-8.14	94.46	102.60
1	AA	88	C	C5'-C4'-C3'	-8.13	103.80	116.00
1	AA	48	U	C4'-C3'-C2'	-8.13	94.47	102.60
2	AB	2870	C	O3'-P-O5'	8.13	116.19	104.00
35	BA	307	C	O4'-C1'-N1	8.13	120.39	108.20
2	AB	1603	A	O4'-C4'-C3'	8.13	112.13	104.00
2	AB	2402	U	O4'-C1'-N1	8.13	120.39	108.20
35	BA	809	G	C1'-O4'-C4'	-8.13	101.77	109.90
35	BA	815	A	C1'-O4'-C4'	-8.13	101.57	109.70
2	AB	2190	G	O4'-C1'-N9	8.12	120.69	108.50
35	BA	221	C	C4'-C3'-C2'	-8.12	94.47	102.60
2	AB	1825	U	C2'-C3'-O3'	-8.12	101.52	113.70
35	BA	114	U	C5'-C4'-C3'	-8.12	103.82	116.00
35	BA	211	G	C4'-C3'-C2'	-8.11	94.49	102.60
15	AO	28	PHE	N-CA-CB	-8.11	99.80	110.59
2	AB	2845	U	O4'-C1'-N1	8.11	120.66	108.50
35	BA	1183	U	C4'-C3'-C2'	-8.11	94.50	102.60
6	AF	138	LEU	CA-C-O	-8.10	111.83	120.42
2	AB	811	U	C4'-C3'-C2'	-8.10	94.50	102.60
46	BL	85	ASP	CA-C-N	8.10	131.79	120.29
46	BL	85	ASP	C-N-CA	8.10	131.79	120.29
2	AB	1134	A	O4'-C4'-C3'	8.09	114.19	106.10
2	AB	861	A	O4'-C1'-N9	8.09	120.63	108.50
2	AB	1265	A	C1'-C2'-O2'	8.09	123.93	111.80
35	BA	216	U	C3'-C2'-O2'	8.08	122.82	110.70
35	BA	380	G	C4'-C3'-O3'	-8.08	100.88	113.00
2	AB	789	A	C3'-C2'-C1'	8.07	109.38	101.30
14	AN	78	ARG	CA-C-N	8.07	130.93	120.44
2	AB	1639	C	C3'-C2'-C1'	8.07	109.37	101.30
2	AB	2852	G	C5'-C4'-C3'	-8.07	103.89	116.00
14	AN	78	ARG	C-N-CA	8.07	130.93	120.44
2	AB	1828	G	C3'-C2'-C1'	-8.07	93.43	101.50
55	BU	35	ARG	CD-NE-CZ	8.07	135.69	124.40
2	AB	241	A	O3'-P-O5'	-8.06	91.91	104.00
44	BJ	109	VAL	O-C-N	8.06	131.76	122.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
40	BF	154	VAL	N-CA-CB	8.06	120.89	110.57
2	AB	148	U	C5'-C4'-C3'	-8.06	103.91	116.00
13	AM	37	ASP	CA-CB-CG	8.05	120.65	112.60
14	AN	119	PRO	N-CA-CB	8.05	110.83	103.34
2	AB	1188	U	C4'-C3'-C2'	-8.05	94.55	102.60
35	BA	618	C	C1'-O4'-C4'	-8.05	101.85	109.90
35	BA	765	G	O4'-C1'-C2'	-8.05	97.75	105.80
35	BA	1184	G	O3'-P-O5'	8.04	116.06	104.00
39	BE	18	ASN	CA-CB-CG	-8.04	104.56	112.60
2	AB	1282	U	C1'-O4'-C4'	-8.04	101.86	109.90
35	BA	110	C	C4'-C3'-C2'	-8.04	94.56	102.60
2	AB	940	G	C4'-C3'-C2'	-8.04	94.56	102.60
2	AB	1444	G	O4'-C1'-N9	8.04	120.56	108.50
2	AB	1446	C	O4'-C4'-C3'	-8.04	95.96	104.00
11	AK	113	ALA	N-CA-C	8.04	121.05	111.33
17	AQ	109	ALA	CA-C-N	8.04	131.37	120.44
17	AQ	109	ALA	C-N-CA	8.04	131.37	120.44
35	BA	434	U	O4'-C4'-C3'	8.04	112.03	104.00
2	AB	2273	A	C1'-O4'-C4'	8.03	117.93	109.90
9	AI	51	ARG	CD-NE-CZ	8.03	135.64	124.40
1	AA	90	C	O4'-C4'-C3'	8.02	112.02	104.00
2	AB	2049	G	C1'-O4'-C4'	-8.02	101.88	109.90
2	AB	1257	C	O5'-C5'-C4'	-8.02	99.47	111.50
37	BC	10	G	O4'-C4'-C3'	8.02	112.02	104.00
2	AB	1971	U	C5'-C4'-O4'	8.02	121.82	109.80
35	BA	558	G	N9-C1'-C2'	-8.02	99.97	112.00
27	A0	50	VAL	O-C-N	8.01	130.08	121.83
35	BA	1492	A	C2'-C3'-O3'	8.01	121.52	109.50
8	AH	10	VAL	CA-C-N	8.01	129.08	120.11
8	AH	10	VAL	C-N-CA	8.01	129.08	120.11
35	BA	973	G	C4'-C3'-O3'	-8.01	100.98	113.00
2	AB	32	C	C4'-C3'-C2'	-8.01	94.59	102.60
15	AO	106	ASP	CA-C-N	8.01	128.67	119.94
15	AO	106	ASP	C-N-CA	8.01	128.67	119.94
2	AB	1057	A	O4'-C1'-N9	8.01	120.51	108.50
2	AB	1660	G	C3'-C2'-O2'	8.01	122.71	110.70
35	BA	1330	U	C4'-C3'-C2'	-8.01	94.59	102.60
14	AN	7	SER	CA-C-N	8.00	128.02	119.78
14	AN	7	SER	C-N-CA	8.00	128.02	119.78
37	BC	76	C	O4'-C4'-C3'	-8.00	96.00	104.00
10	AJ	147	ALA	CA-C-N	8.00	128.80	120.00
10	AJ	147	ALA	C-N-CA	8.00	128.80	120.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	106	C	O4'-C4'-C3'	-8.00	96.00	104.00
35	BA	930	C	C2'-C3'-O3'	-8.00	101.71	113.70
39	BE	37	LYS	CA-C-O	-8.00	112.08	120.55
35	BA	1105	A	C4'-C3'-C2'	-7.99	94.61	102.60
2	AB	2870	C	C2'-C3'-O3'	-7.99	101.72	113.70
2	AB	1574	C	C3'-C2'-C1'	7.99	109.29	101.30
35	BA	542	G	C4'-C3'-C2'	-7.99	94.61	102.60
39	BE	211	ALA	N-CA-C	7.99	121.30	109.24
2	AB	631	A	C4'-C3'-O3'	7.98	124.97	113.00
7	AG	20	ASN	OD1-CG-ND2	-7.98	114.62	122.60
2	AB	2039	U	O4'-C1'-N1	7.98	120.47	108.50
21	AU	95	ARG	NE-CZ-NH1	7.98	129.48	121.50
14	AN	137	ALA	CA-C-O	-7.97	112.45	120.82
35	BA	777	A	O4'-C4'-C3'	7.97	111.97	104.00
2	AB	159	G	O4'-C4'-C3'	7.97	111.97	104.00
35	BA	476	U	O4'-C1'-N1	7.97	120.45	108.50
35	BA	127	G	O4'-C1'-C2'	-7.97	99.63	107.60
2	AB	949	G	C4'-C3'-C2'	-7.96	94.64	102.60
35	BA	810	C	C1'-O4'-C4'	7.96	117.86	109.90
45	BK	107	ALA	N-CA-C	7.96	122.10	112.38
2	AB	2741	A	C1'-O4'-C4'	7.96	117.86	109.90
4	AD	225	ASN	CA-C-N	7.96	128.40	119.32
4	AD	225	ASN	C-N-CA	7.96	128.40	119.32
2	AB	1061	U	C3'-C2'-C1'	7.96	109.46	101.50
2	AB	1081	U	P-O5'-C5'	7.96	132.84	120.90
35	BA	1304	G	C4'-C3'-O3'	7.96	124.94	113.00
2	AB	101	A	O4'-C4'-C3'	-7.96	98.14	106.10
10	AJ	19	LYS	CA-C-N	7.96	130.33	120.22
10	AJ	19	LYS	C-N-CA	7.96	130.33	120.22
52	BR	39	PHE	CA-CB-CG	7.96	121.76	113.80
2	AB	1505	A	C4'-C3'-C2'	-7.96	94.64	102.60
35	BA	84	U	C3'-C2'-C1'	7.96	109.46	101.50
35	BA	1049	U	C3'-C2'-C1'	7.96	109.46	101.50
2	AB	1565	C	O3'-P-O5'	-7.95	92.07	104.00
55	BU	86	LYS	N-CA-C	7.95	121.89	109.96
2	AB	279	A	C4'-C3'-C2'	-7.95	94.65	102.60
37	BC	32	G	C4'-C3'-C2'	-7.95	94.65	102.60
35	BA	1015	G	P-O3'-C3'	7.95	132.12	120.20
2	AB	961	C	C1'-C2'-O2'	7.95	123.72	111.80
2	AB	182	A	C4'-C3'-C2'	-7.94	94.66	102.60
2	AB	789	A	O4'-C1'-C2'	-7.94	99.66	107.60
2	AB	1293	C	O5'-C5'-C4'	-7.94	99.58	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	159	G	C3'-C2'-C1'	-7.94	93.36	101.30
2	AB	162	U	O3'-P-O5'	-7.94	92.09	104.00
2	AB	2402	U	O4'-C1'-C2'	-7.94	97.86	105.80
2	AB	1404	C	O4'-C1'-N1	7.94	120.41	108.50
37	BC	72	C	C2'-C3'-O3'	-7.94	101.79	113.70
2	AB	811	U	C3'-C2'-C1'	7.93	109.43	101.50
2	AB	80	G	C4'-C3'-C2'	-7.93	94.67	102.60
2	AB	2375	G	O4'-C4'-C3'	7.93	111.93	104.00
12	AL	40	HIS	ND1-CE1-NE2	7.93	116.33	108.40
2	AB	2008	C	O4'-C1'-C2'	-7.92	99.67	107.60
35	BA	1406	U	O4'-C4'-C3'	7.92	111.92	104.00
2	AB	1210	G	P-O3'-C3'	7.92	132.08	120.20
2	AB	1560	G	C5'-C4'-C3'	-7.91	104.13	116.00
2	AB	2346	A	C1'-O4'-C4'	-7.91	101.79	109.70
35	BA	588	G	O4'-C4'-C3'	7.91	111.91	104.00
2	AB	2260	C	O4'-C1'-N1	7.91	120.36	108.50
35	BA	305	G	O4'-C1'-N9	7.91	120.06	108.20
5	AE	41	ALA	CA-C-O	-7.91	112.44	120.90
2	AB	2713	U	O4'-C1'-N1	7.91	120.06	108.20
2	AB	70	G	O4'-C1'-C2'	-7.90	97.90	105.80
12	AL	97	PRO	CA-C-N	7.90	131.92	120.38
12	AL	97	PRO	C-N-CA	7.90	131.92	120.38
2	AB	1326	U	C5'-C4'-C3'	-7.90	104.15	116.00
35	BA	36	C	C1'-O4'-C4'	-7.90	102.00	109.90
35	BA	173	U	C2'-C3'-O3'	7.90	121.35	109.50
8	AH	140	ILE	CB-CA-C	7.90	122.80	112.14
2	AB	193	U	C4'-C3'-C2'	-7.89	94.70	102.60
2	AB	2472	G	C3'-C2'-C1'	7.89	109.19	101.30
31	A4	34	GLU	CA-C-O	-7.89	112.57	120.70
35	BA	110	C	O5'-C5'-C4'	-7.89	99.66	111.50
45	BK	21	LYS	CA-C-N	7.89	127.66	119.76
45	BK	21	LYS	C-N-CA	7.89	127.66	119.76
2	AB	1524	G	C5'-C4'-C3'	-7.89	104.16	116.00
47	BM	109	ILE	CA-CB-CG1	7.89	123.81	110.40
2	AB	2286	G	O4'-C4'-C3'	7.89	113.99	106.10
2	AB	2324	U	C4'-C3'-C2'	7.88	110.48	102.60
22	AV	70	HIS	CA-C-N	7.88	130.06	120.13
22	AV	70	HIS	C-N-CA	7.88	130.06	120.13
2	AB	1173	U	O3'-P-O5'	-7.88	92.19	104.00
39	BE	155	ARG	O-C-N	-7.88	113.41	122.86
48	BN	71	HIS	CE1-NE2-CD2	-7.88	101.12	109.00
35	BA	717	U	C2'-C3'-O3'	7.88	125.51	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2642	G	O4'-C1'-C2'	-7.87	99.73	107.60
35	BA	833	G	C4'-C3'-C2'	-7.87	94.73	102.60
5	AE	149	ASN	CA-CB-CG	7.86	120.46	112.60
54	BT	15	GLU	CA-C-N	7.86	128.06	120.98
54	BT	15	GLU	C-N-CA	7.86	128.06	120.98
2	AB	368	A	O4'-C1'-C2'	-7.86	99.74	107.60
2	AB	980	A	C3'-C2'-C1'	7.86	109.16	101.30
16	AP	8	ARG	NE-CZ-NH2	7.86	126.27	119.20
2	AB	1761	C	C3'-C2'-C1'	7.86	109.36	101.50
55	BU	82	HIS	CA-CB-CG	7.85	121.65	113.80
2	AB	2628	C	C2'-C3'-O3'	7.85	121.28	109.50
2	AB	2757	A	C5'-C4'-C3'	-7.85	104.23	116.00
2	AB	499	U	C5'-C4'-C3'	-7.85	104.23	116.00
35	BA	9	G	C4'-C3'-C2'	-7.85	94.75	102.60
10	AJ	36	LYS	CA-C-N	7.84	131.43	120.29
10	AJ	36	LYS	C-N-CA	7.84	131.43	120.29
35	BA	128	G	C3'-C2'-C1'	-7.84	93.46	101.30
53	BS	49	ASN	O-C-N	7.84	131.97	122.48
2	AB	2723	C	O4'-C1'-C2'	-7.84	99.76	107.60
2	AB	1469	A	C5'-C4'-C3'	7.83	127.75	116.00
41	BG	81	GLN	CB-CG-CD	7.83	125.92	112.60
2	AB	819	A	C5'-C4'-C3'	-7.83	104.25	116.00
2	AB	2247	A	C4'-C3'-C2'	-7.83	94.77	102.60
56	BV	37	ALA	N-CA-C	-7.83	102.36	112.23
2	AB	1621	U	C4'-C3'-C2'	-7.83	94.77	102.60
45	BK	60	LEU	O-C-N	-7.83	114.30	123.22
2	AB	1566	A	O4'-C1'-N9	7.83	119.94	108.20
35	BA	304	U	C5'-C4'-C3'	-7.83	104.26	116.00
35	BA	739	C	O3'-P-O5'	7.83	115.74	104.00
2	AB	1544	A	C5'-C4'-O4'	7.82	121.53	109.80
2	AB	2653	U	N1-C1'-C2'	7.82	123.74	112.00
30	A3	9	ARG	NE-CZ-NH1	-7.82	113.68	121.50
2	AB	1988	G	C3'-C2'-O2'	7.82	122.43	110.70
35	BA	777	A	C3'-C2'-C1'	7.82	109.12	101.30
46	BL	96	VAL	CA-C-O	7.82	129.63	120.72
2	AB	347	A	P-O5'-C5'	7.81	132.62	120.90
2	AB	1427	A	C3'-C2'-C1'	-7.81	93.69	101.50
2	AB	459	U	C1'-C2'-O2'	7.81	120.11	108.40
2	AB	963	U	C4'-C3'-C2'	-7.81	94.79	102.60
2	AB	2028	U	C3'-C2'-O2'	7.81	122.41	110.70
2	AB	2412	A	C5'-C4'-C3'	-7.81	104.29	116.00
2	AB	19	A	O4'-C1'-C2'	-7.80	99.80	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	134	G	O4'-C1'-C2'	7.80	115.41	107.60
2	AB	323	C	O4'-C1'-N1	7.80	119.91	108.20
2	AB	1083	U	C3'-C2'-C1'	7.80	109.10	101.30
2	AB	2180	U	C3'-C2'-C1'	7.80	109.10	101.30
35	BA	405	U	C5'-C4'-O4'	7.80	121.51	109.80
2	AB	321	U	O4'-C1'-C2'	-7.80	99.80	107.60
2	AB	1844	C	C3'-C2'-O2'	7.80	122.40	110.70
2	AB	1877	A	C4'-C3'-C2'	-7.80	94.80	102.60
2	AB	148	U	C4'-C3'-C2'	-7.80	94.80	102.60
35	BA	1318	A	O4'-C4'-C3'	7.80	111.80	104.00
2	AB	361	G	O4'-C4'-C3'	7.80	111.80	104.00
52	BR	20	VAL	CA-CB-CG2	7.80	123.65	110.40
2	AB	427	U	O4'-C4'-C3'	7.79	111.79	104.00
11	AK	75	ALA	CA-C-O	-7.79	112.29	120.55
37	BC	76	C	C5'-C4'-O4'	7.79	121.49	109.80
39	BE	63	ILE	O-C-N	7.79	131.46	123.20
2	AB	214	G	C1'-O4'-C4'	7.79	117.69	109.90
35	BA	1373	G	C4'-C3'-C2'	-7.79	94.81	102.60
5	AE	151	THR	CA-CB-CG2	7.79	123.74	110.50
20	AT	26	ASP	CA-C-N	7.79	130.99	120.63
20	AT	26	ASP	C-N-CA	7.79	130.99	120.63
35	BA	1201	A	C1'-C2'-O2'	-7.79	100.12	111.80
44	BJ	113	ARG	NE-CZ-NH2	7.79	126.21	119.20
35	BA	567	G	C3'-C2'-C1'	7.78	109.08	101.30
2	AB	1586	A	C1'-O4'-C4'	-7.78	102.12	109.90
41	BG	116	VAL	CA-C-N	7.78	134.75	121.14
41	BG	116	VAL	C-N-CA	7.78	134.75	121.14
2	AB	152	A	C5'-C4'-C3'	-7.78	104.33	116.00
13	AM	95	ILE	CA-C-N	7.78	127.73	120.34
13	AM	95	ILE	C-N-CA	7.78	127.73	120.34
35	BA	196	A	O4'-C4'-C3'	7.78	111.78	104.00
2	AB	444	C	C4'-C3'-C2'	-7.77	94.83	102.60
35	BA	1118	U	P-O5'-C5'	7.77	132.55	120.90
2	AB	153	U	C4'-C3'-C2'	-7.76	94.83	102.60
2	AB	553	G	C1'-O4'-C4'	-7.76	102.14	109.90
2	AB	1159	U	C3'-C2'-C1'	7.76	109.06	101.30
35	BA	1542	A	O4'-C4'-C3'	7.76	111.76	104.00
2	AB	179	C	O4'-C1'-C2'	-7.76	99.84	107.60
2	AB	217	A	O4'-C4'-C3'	-7.76	96.24	104.00
2	AB	2507	C	O4'-C1'-N1	7.76	120.14	108.50
35	BA	1325	C	C4'-C3'-C2'	-7.76	94.84	102.60
2	AB	2584	U	C3'-C2'-C1'	7.76	109.06	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
39	BE	39	ARG	CA-C-N	7.76	131.31	120.29
39	BE	39	ARG	C-N-CA	7.76	131.31	120.29
2	AB	1436	G	C4'-C3'-O3'	-7.75	101.37	113.00
35	BA	1169	A	O4'-C4'-C3'	7.75	111.75	104.00
40	BF	103	ARG	N-CA-C	7.75	119.73	111.28
5	AE	193	VAL	CA-C-N	7.75	128.21	119.92
5	AE	193	VAL	C-N-CA	7.75	128.21	119.92
23	AW	73	ASN	CA-C-N	7.75	136.34	121.54
23	AW	73	ASN	C-N-CA	7.75	136.34	121.54
35	BA	51	A	O3'-P-O5'	-7.75	92.38	104.00
2	AB	1265	A	O4'-C1'-C2'	7.75	113.55	105.80
2	AB	2564	A	C3'-C2'-O2'	7.74	122.31	110.70
35	BA	751	U	O3'-P-O5'	-7.74	92.39	104.00
2	AB	57	C	O3'-P-O5'	-7.74	92.39	104.00
2	AB	930	G	C4'-C3'-C2'	-7.74	94.86	102.60
50	BP	55	SER	CA-C-N	7.74	128.44	119.47
50	BP	55	SER	C-N-CA	7.74	128.44	119.47
35	BA	643	C	C4'-C3'-C2'	-7.74	94.86	102.60
35	BA	852	G	O4'-C1'-C2'	-7.74	99.86	107.60
45	BK	6	TYR	N-CA-C	7.74	122.38	108.69
15	AO	59	ARG	NE-CZ-NH1	-7.73	113.77	121.50
2	AB	1866	A	O4'-C1'-N9	7.73	120.09	108.50
2	AB	2763	G	C4'-C3'-C2'	-7.73	94.87	102.60
35	BA	451	A	O3'-P-O5'	7.73	115.59	104.00
35	BA	374	A	C3'-C2'-O2'	7.72	122.29	110.70
2	AB	1728	C	C1'-O4'-C4'	7.72	117.62	109.90
2	AB	2295	C	O4'-C4'-C3'	7.72	111.72	104.00
35	BA	1374	A	C4'-C3'-C2'	-7.72	94.88	102.60
37	BC	10	G	C5'-C4'-C3'	-7.72	104.43	116.00
2	AB	2565	A	O4'-C1'-N9	7.71	120.07	108.50
23	AW	74	ALA	CA-C-N	7.71	130.93	120.44
23	AW	74	ALA	C-N-CA	7.71	130.93	120.44
2	AB	480	A	P-O3'-C3'	7.71	131.76	120.20
2	AB	2209	G	C4'-C3'-C2'	7.71	110.31	102.60
40	BF	30	LYS	CA-C-O	-7.71	112.43	122.45
2	AB	2534	A	C4'-C3'-C2'	-7.71	94.89	102.60
35	BA	1214	C	C2'-C3'-O3'	7.71	121.06	109.50
2	AB	1405	U	O4'-C4'-C3'	7.70	111.70	104.00
2	AB	2165	C	C3'-C2'-O2'	7.70	122.25	110.70
4	AD	57	HIS	CA-C-N	7.70	131.22	120.29
4	AD	57	HIS	C-N-CA	7.70	131.22	120.29
4	AD	218	THR	CA-C-N	7.70	131.96	120.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	AD	218	THR	C-N-CA	7.70	131.96	120.95
2	AB	1312	U	C4'-C3'-C2'	-7.70	94.90	102.60
5	AE	57	ALA	CA-C-O	-7.70	113.34	122.27
2	AB	1998	A	O4'-C1'-N9	7.69	120.03	108.50
2	AB	2834	G	C5'-C4'-C3'	7.69	127.54	116.00
35	BA	1202	U	C1'-O4'-C4'	7.69	117.59	109.90
5	AE	203	VAL	CB-CA-C	7.69	120.62	111.32
35	BA	1487	G	C1'-O4'-C4'	7.69	117.59	109.90
35	BA	857	C	O4'-C1'-C2'	-7.68	99.92	107.60
2	AB	2396	G	O4'-C1'-C2'	-7.68	99.92	107.60
35	BA	97	G	C4'-C3'-C2'	-7.68	94.92	102.60
2	AB	1675	C	O4'-C1'-C2'	-7.68	99.92	107.60
35	BA	724	G	O4'-C4'-C3'	7.68	111.68	104.00
2	AB	526	A	O3'-P-O5'	-7.67	92.49	104.00
2	AB	1183	U	C4'-C3'-C2'	-7.67	94.93	102.60
36	BB	48	C	C4'-C3'-C2'	-7.67	94.93	102.60
43	BI	137	ARG	CD-NE-CZ	7.67	135.14	124.40
35	BA	1244	G	C4'-C3'-O3'	7.67	124.50	113.00
4	AD	66	PHE	CB-CA-C	7.67	123.37	111.02
19	AS	13	HIS	CA-C-O	-7.67	112.64	121.07
24	AX	12	GLN	O-C-N	-7.67	114.38	123.27
24	AX	21	ARG	CA-C-N	7.67	131.32	120.28
24	AX	21	ARG	C-N-CA	7.67	131.32	120.28
2	AB	1839	G	O3'-P-O5'	-7.67	92.50	104.00
2	AB	1902	C	P-O5'-C5'	7.67	132.40	120.90
35	BA	1216	A	O4'-C1'-N9	7.67	120.00	108.50
35	BA	96	U	O4'-C1'-N1	7.67	120.00	108.50
2	AB	1413	A	O4'-C1'-N9	7.66	119.99	108.50
6	AF	92	HIS	CB-CG-CD2	-7.66	121.24	131.20
35	BA	53	A	C4'-C3'-O3'	-7.66	101.51	113.00
35	BA	537	G	O4'-C1'-N9	7.66	119.99	108.50
35	BA	782	A	O4'-C1'-C2'	-7.66	99.94	107.60
2	AB	592	A	O4'-C4'-C3'	7.66	111.66	104.00
2	AB	2475	C	P-O5'-C5'	7.66	132.38	120.90
26	AZ	30	PRO	N-CA-CB	7.66	110.12	103.31
2	AB	466	A	C4'-C3'-C2'	-7.66	94.94	102.60
2	AB	1190	G	C4'-C3'-C2'	-7.66	94.94	102.60
53	BS	2	ASP	CA-CB-CG	7.66	120.25	112.60
54	BT	52	ARG	NE-CZ-NH2	-7.66	112.31	119.20
2	AB	2078	C	C5'-C4'-O4'	7.65	121.28	109.80
2	AB	633	A	O4'-C1'-N9	7.65	119.98	108.50
46	BL	70	HIS	ND1-CE1-NE2	7.64	116.05	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	BO	65	GLU	CA-C-N	7.64	129.70	120.14
49	BO	65	GLU	C-N-CA	7.64	129.70	120.14
2	AB	1393	A	C5'-C4'-C3'	-7.64	104.54	116.00
35	BA	864	A	O4'-C4'-C3'	7.64	111.64	104.00
2	AB	1675	C	O4'-C1'-N1	7.64	119.96	108.50
39	BE	121	SER	CA-C-N	7.64	130.37	120.44
39	BE	121	SER	C-N-CA	7.64	130.37	120.44
2	AB	231	A	O4'-C4'-C3'	-7.64	96.36	104.00
37	BC	67	C	C3'-C2'-O2'	7.64	122.15	110.70
2	AB	470	A	O4'-C1'-C2'	-7.63	99.97	107.60
35	BA	1414	U	O4'-C1'-C2'	-7.63	99.97	107.60
2	AB	605	G	O4'-C1'-N9	7.63	119.95	108.50
2	AB	1435	G	C4'-C3'-C2'	-7.63	94.97	102.60
2	AB	2660	A	C4'-C3'-C2'	-7.63	94.97	102.60
19	AS	65	ASN	OD1-CG-ND2	-7.63	114.97	122.60
45	BK	123	ARG	NE-CZ-NH1	-7.63	113.87	121.50
55	BU	1	PRO	CA-N-CD	-7.63	101.32	112.00
7	AG	93	GLU	N-CA-CB	-7.63	98.91	110.12
36	BB	34	U	C5'-C4'-C3'	-7.63	104.56	116.00
47	BM	15	VAL	N-CA-C	7.63	120.62	111.09
19	AS	97	ILE	CA-CB-CG1	7.62	123.36	110.40
2	AB	2805	C	C3'-C2'-O2'	7.62	122.13	110.70
35	BA	356	A	C4'-C3'-C2'	-7.62	94.98	102.60
2	AB	1405	U	C4'-C3'-C2'	-7.62	94.98	102.60
2	AB	2535	G	P-O3'-C3'	7.62	131.63	120.20
2	AB	2515	C	C4'-C3'-C2'	-7.62	94.98	102.60
35	BA	221	C	O5'-C5'-C4'	7.62	122.93	111.50
35	BA	1461	G	O4'-C1'-C2'	-7.62	99.98	107.60
21	AU	9	HIS	CB-CG-CD2	-7.62	121.30	131.20
2	AB	413	C	N1-C1'-C2'	-7.61	100.58	112.00
2	AB	1143	A	O3'-P-O5'	-7.61	92.58	104.00
2	AB	2474	U	O4'-C1'-N1	7.61	119.92	108.50
35	BA	204	G	C3'-C2'-O2'	7.61	122.12	110.70
35	BA	376	G	N9-C1'-C2'	-7.61	100.58	112.00
2	AB	2449	H2U	P-O3'-C3'	7.61	131.62	120.20
7	AG	94	ARG	NE-CZ-NH2	7.61	126.05	119.20
35	BA	1448	C	O4'-C4'-C3'	7.61	111.61	104.00
35	BA	743	A	C4'-C3'-C2'	-7.61	94.99	102.60
2	AB	2468	A	O3'-P-O5'	-7.61	92.59	104.00
2	AB	42	A	C4'-C3'-C2'	-7.60	95.00	102.60
2	AB	1692	U	C4'-C3'-C2'	-7.60	95.00	102.60
2	AB	2281	A	O4'-C4'-C3'	-7.59	96.41	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	AL	131	ASN	CA-CB-CG	7.59	120.19	112.60
35	BA	743	A	O4'-C4'-C3'	7.59	111.59	104.00
2	AB	314	C	O3'-P-O5'	-7.58	92.62	104.00
2	AB	740	C	O4'-C1'-C2'	-7.58	100.02	107.60
2	AB	2845	U	C4'-C3'-C2'	-7.58	95.02	102.60
36	BB	44	U	C5'-C4'-O4'	7.58	121.17	109.80
35	BA	1032	G	C4'-C3'-C2'	-7.58	95.02	102.60
35	BA	1541	U	C4'-C3'-C2'	7.58	110.18	102.60
2	AB	2346	A	O4'-C4'-C3'	7.57	113.67	106.10
35	BA	301	G	C4'-C3'-C2'	-7.57	95.03	102.60
36	BB	33	A	O4'-C1'-C2'	-7.57	100.03	107.60
1	AA	48	U	O4'-C4'-C3'	7.57	111.57	104.00
26	AZ	19	HIS	CB-CG-CD2	-7.57	121.36	131.20
35	BA	1489	G	C4'-C3'-C2'	-7.57	95.03	102.60
2	AB	1139	G	C3'-C2'-O2'	7.57	122.05	110.70
15	AO	111	GLU	N-CA-C	7.57	120.41	111.71
19	AS	60	TRP	CE2-CD2-CE3	-7.57	111.23	118.80
36	BB	53	G	O4'-C1'-C2'	-7.57	98.23	105.80
2	AB	1902	C	C2'-C3'-O3'	-7.56	102.35	113.70
2	AB	2342	C	O4'-C4'-C3'	7.56	111.56	104.00
2	AB	748	G	O4'-C1'-C2'	-7.56	98.24	105.80
35	BA	876	C	C5'-C4'-C3'	-7.56	104.66	116.00
35	BA	639	G	O4'-C1'-N9	7.56	119.84	108.50
2	AB	385	C	O4'-C4'-C3'	7.56	111.56	104.00
35	BA	70	U	C5'-C4'-C3'	-7.56	103.86	115.20
55	BU	46	LEU	CA-C-O	-7.56	113.05	121.89
25	AY	44	PHE	CA-CB-CG	7.56	121.36	113.80
35	BA	1174	G	C4'-C3'-C2'	-7.56	95.04	102.60
2	AB	1476	U	C4'-C3'-C2'	-7.55	95.05	102.60
2	AB	1025	G	O4'-C4'-C3'	-7.55	98.55	106.10
15	AO	6	ARG	CA-C-N	7.55	134.40	122.62
15	AO	6	ARG	C-N-CA	7.55	134.40	122.62
2	AB	1544	A	C4'-C3'-O3'	7.55	124.33	113.00
21	AU	62	ASP	CA-C-N	7.55	129.06	120.53
21	AU	62	ASP	C-N-CA	7.55	129.06	120.53
2	AB	1019	U	O3'-P-O5'	-7.55	92.68	104.00
2	AB	2047	C	O4'-C1'-N1	7.55	119.82	108.50
2	AB	2297	A	C5'-C4'-C3'	-7.55	104.68	116.00
20	AT	59	ILE	N-CA-C	-7.55	96.20	107.37
55	BU	57	VAL	CB-CA-C	7.55	117.45	110.13
2	AB	1560	G	O4'-C1'-C2'	-7.54	100.06	107.60
35	BA	345	C	C4'-C3'-C2'	-7.54	95.06	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2231	U	O5'-C5'-C4'	7.54	122.81	111.50
2	AB	2745	C	C3'-C2'-O2'	7.54	122.01	110.70
35	BA	1168	U	C5'-C4'-O4'	7.54	121.11	109.80
2	AB	2175	C	O3'-P-O5'	-7.54	92.69	104.00
2	AB	2614	A	O4'-C1'-N9	7.54	119.51	108.20
16	AP	105	GLY	CA-C-O	-7.54	112.26	120.40
35	BA	711	G	C3'-C2'-C1'	-7.54	93.77	101.30
38	BD	41	ASN	CA-CB-CG	7.53	120.13	112.60
2	AB	10	A	C4'-C3'-C2'	-7.53	95.07	102.60
2	AB	1245	G	C4'-C3'-C2'	-7.53	95.07	102.60
18	AR	61	ARG	CB-CA-C	7.53	122.17	109.75
1	AA	39	A	O4'-C4'-C3'	7.53	111.53	104.00
35	BA	894	G	C4'-C3'-C2'	-7.53	95.07	102.60
35	BA	442	G	O4'-C4'-C3'	7.52	111.52	104.00
2	AB	1582	C	C4'-C3'-C2'	-7.52	95.08	102.60
2	AB	1191	G	C3'-C2'-C1'	7.52	108.82	101.30
38	BD	168	GLU	CA-C-N	7.52	130.68	120.38
38	BD	168	GLU	C-N-CA	7.52	130.68	120.38
2	AB	1574	C	C4'-C3'-C2'	-7.52	95.08	102.60
2	AB	2745	C	N1-C1'-C2'	-7.51	100.73	112.00
35	BA	1025	U	C3'-C2'-O2'	-7.51	103.33	114.60
36	BB	25	U	C1'-O4'-C4'	-7.51	102.39	109.90
2	AB	511	U	C5'-C4'-C3'	-7.51	104.73	116.00
2	AB	762	U	O4'-C1'-C2'	-7.51	100.09	107.60
16	AP	34	ILE	CA-CB-CG1	7.51	123.17	110.40
1	AA	39	A	C4'-C3'-C2'	-7.51	95.09	102.60
2	AB	453	A	C2'-C3'-O3'	-7.51	102.43	113.70
2	AB	495	G	O4'-C1'-C2'	-7.51	100.09	107.60
2	AB	1664	A	C5'-C4'-C3'	-7.51	104.73	116.00
2	AB	1868	C	C4'-C3'-C2'	-7.51	95.09	102.60
13	AM	56	ASP	CA-CB-CG	-7.50	105.09	112.60
35	BA	205	A	C2'-C3'-O3'	7.50	124.96	113.70
35	BA	1461	G	C4'-C3'-C2'	-7.50	95.09	102.60
2	AB	1654	A	C5'-C4'-C3'	-7.50	104.75	116.00
14	AN	103	ILE	N-CA-C	7.50	117.62	110.42
2	AB	219	A	O4'-C4'-C3'	7.50	111.50	104.00
2	AB	1415	U	O4'-C1'-C2'	-7.50	100.10	107.60
35	BA	635	A	C2'-C3'-O3'	-7.50	102.45	113.70
35	BA	228	A	C5'-C4'-C3'	-7.50	104.75	116.00
35	BA	430	A	C5'-C4'-C3'	-7.49	104.76	116.00
35	BA	173	U	O3'-P-O5'	-7.49	92.76	104.00
2	AB	1934	C	O4'-C1'-N1	7.49	119.73	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2207	C	C4'-C3'-C2'	-7.49	95.11	102.60
2	AB	2783	U	O4'-C1'-N1	7.49	119.74	108.50
35	BA	960	U	P-O3'-C3'	7.49	131.44	120.20
36	BB	43	U	O5'-C5'-C4'	-7.49	100.46	111.70
41	BG	48	GLY	O-C-N	7.49	132.44	122.70
25	AY	52	CYS	CA-C-N	7.49	130.08	120.64
25	AY	52	CYS	C-N-CA	7.49	130.08	120.64
2	AB	1072	C	O4'-C4'-C3'	-7.49	96.51	104.00
2	AB	572	A	C4'-C3'-O3'	7.49	124.23	113.00
2	AB	1076	C	O4'-C1'-C2'	-7.49	100.11	107.60
2	AB	166	U	C1'-O4'-C4'	-7.48	102.42	109.90
2	AB	543	G	C4'-C3'-C2'	-7.48	95.12	102.60
2	AB	546	U	O4'-C1'-N1	7.48	119.72	108.50
2	AB	1135	C	O4'-C1'-N1	7.48	119.72	108.50
2	AB	2505	G	C2'-C3'-O3'	7.48	120.72	109.50
35	BA	1251	A	C4'-C3'-O3'	-7.48	101.78	113.00
2	AB	27	G	O4'-C1'-C2'	-7.48	100.12	107.60
2	AB	762	U	N1-C1'-C2'	7.48	123.22	112.00
2	AB	2339	C	O4'-C4'-C3'	7.48	111.48	104.00
2	AB	2351	G	C4'-C3'-C2'	-7.48	95.12	102.60
5	AE	49	GLN	CG-CD-NE2	7.48	127.62	116.40
16	AP	64	ARG	CA-C-O	-7.48	112.62	120.55
35	BA	1390	U	C4'-C3'-C2'	-7.48	95.12	102.60
35	BA	1390	U	C5'-C4'-C3'	-7.48	104.78	116.00
51	BQ	45	HIS	CB-CG-CD2	-7.48	121.48	131.20
2	AB	916	G	N9-C1'-C2'	7.48	123.21	112.00
2	AB	2637	U	O4'-C4'-C3'	7.48	111.48	104.00
14	AN	23	ILE	CB-CA-C	7.47	117.97	110.65
35	BA	199	A	O4'-C4'-C3'	7.47	111.47	104.00
2	AB	2224	G	O3'-P-O5'	7.47	115.21	104.00
2	AB	2366	A	C4'-C3'-C2'	-7.47	95.13	102.60
35	BA	606	G	O5'-C5'-C4'	-7.47	100.29	111.50
35	BA	1493	A	C5'-C4'-C3'	-7.47	104.79	116.00
45	BK	91	GLU	N-CA-C	7.47	120.30	111.71
46	BL	96	VAL	CA-CB-CG1	7.47	123.10	110.40
35	BA	99	C	O4'-C1'-N1	7.47	119.71	108.50
35	BA	1510	C	C4'-C3'-C2'	-7.47	95.13	102.60
2	AB	8	C	O4'-C1'-C2'	-7.47	100.13	107.60
2	AB	872	U	C4'-C3'-C2'	-7.47	95.13	102.60
2	AB	1847	A	O4'-C1'-N9	7.46	119.70	108.50
35	BA	319	G	O4'-C1'-C2'	-7.46	100.14	107.60
2	AB	2676	C	O4'-C1'-C2'	-7.46	100.14	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2848	G	O4'-C1'-N9	7.46	119.39	108.20
2	AB	603	A	C5'-C4'-C3'	-7.46	104.01	115.20
19	AS	31	TYR	CA-C-O	-7.46	112.64	120.55
36	BB	26	U	C4'-C3'-O3'	-7.46	101.81	113.00
2	AB	2106	U	C2'-C3'-O3'	7.46	124.89	113.70
43	BI	91	ARG	NE-CZ-NH2	7.46	125.91	119.20
2	AB	106	C	C1'-O4'-C4'	-7.46	102.44	109.90
2	AB	1186	G	O5'-C5'-C4'	-7.46	100.32	111.50
23	AW	6	ARG	NE-CZ-NH2	7.46	125.91	119.20
37	BC	68	C	O4'-C1'-C2'	-7.46	100.14	107.60
52	BR	78	VAL	CA-C-N	7.46	132.95	122.36
52	BR	78	VAL	C-N-CA	7.46	132.95	122.36
2	AB	366	C	C4'-C3'-C2'	-7.46	95.14	102.60
2	AB	1870	C	O4'-C4'-C3'	7.45	111.45	104.00
26	AZ	30	PRO	CA-C-N	7.45	131.01	120.28
26	AZ	30	PRO	C-N-CA	7.45	131.01	120.28
2	AB	561	G	C3'-C2'-O2'	7.45	121.88	110.70
2	AB	579	G	C4'-C3'-C2'	-7.45	95.15	102.60
2	AB	1963	U	O4'-C1'-N1	7.45	119.67	108.50
6	AF	140	ASP	CA-CB-CG	7.45	120.05	112.60
2	AB	1322	A	C2'-C3'-O3'	7.45	124.87	113.70
2	AB	1507	C	O3'-P-O5'	7.45	115.17	104.00
2	AB	540	C	C4'-C3'-C2'	-7.44	95.16	102.60
35	BA	277	C	O4'-C1'-N1	7.44	119.65	108.50
2	AB	2849	U	C3'-C2'-C1'	-7.43	94.06	101.50
51	BQ	37	HIS	CB-CG-CD2	-7.43	121.53	131.20
44	BJ	65	PHE	CA-CB-CG	7.43	121.23	113.80
52	BR	38	PHE	CA-CB-CG	7.43	121.23	113.80
2	AB	1560	G	C5'-C4'-O4'	7.43	120.94	109.80
2	AB	88	G	C5'-C4'-C3'	-7.43	104.86	116.00
35	BA	300	A	C3'-C2'-C1'	7.42	108.72	101.30
35	BA	1420	U	C4'-C3'-C2'	-7.42	95.18	102.60
35	BA	970	C	C1'-O4'-C4'	-7.42	102.48	109.90
37	BC	70	C	O4'-C1'-N1	7.42	119.63	108.50
4	AD	113	ASP	CA-CB-CG	7.42	120.02	112.60
35	BA	416	G	O5'-C5'-C4'	-7.42	100.37	111.50
35	BA	519	C	C4'-C3'-O3'	-7.42	101.88	113.00
2	AB	1706	C	O4'-C1'-N1	7.41	119.32	108.20
12	AL	130	HIS	CB-CG-CD2	-7.41	121.56	131.20
2	AB	970	U	C4'-C3'-C2'	-7.41	95.19	102.60
36	BB	39	U	P-O3'-C3'	7.41	131.31	120.20
2	AB	773	U	C3'-C2'-C1'	7.41	108.71	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	389	G	O3'-P-O5'	-7.41	92.89	104.00
6	AF	84	THR	CA-C-O	-7.41	111.05	119.79
29	A2	6	HIS	CB-CG-CD2	-7.41	121.57	131.20
2	AB	332	A	O4'-C1'-C2'	-7.40	98.40	105.80
2	AB	900	A	P-O3'-C3'	7.40	131.30	120.20
2	AB	2220	U	N1-C1'-C2'	-7.40	100.90	112.00
2	AB	2262	U	O4'-C4'-C3'	7.40	111.40	104.00
35	BA	1291	U	O4'-C4'-C3'	-7.40	96.60	104.00
41	BG	13	LYS	CA-C-N	7.40	132.45	121.72
41	BG	13	LYS	C-N-CA	7.40	132.45	121.72
48	BN	76	HIS	CB-CG-CD2	-7.40	121.58	131.20
2	AB	2802	G	O3'-P-O5'	-7.40	92.90	104.00
2	AB	1388	G	C4'-C3'-C2'	-7.40	95.20	102.60
2	AB	2403	C	O4'-C4'-C3'	7.40	111.40	104.00
35	BA	72	A	O3'-P-O5'	7.40	115.10	104.00
35	BA	452	A	O4'-C1'-N9	7.40	119.59	108.50
2	AB	1110	G	C5'-C4'-C3'	-7.39	104.11	115.20
2	AB	8	C	O4'-C4'-C3'	-7.39	96.61	104.00
2	AB	835	C	O5'-C5'-C4'	7.39	122.59	111.50
2	AB	2009	A	N9-C1'-C2'	-7.39	100.91	112.00
35	BA	528	C	C5'-C4'-O4'	7.39	120.89	109.80
35	BA	718	A	C4'-C3'-O3'	-7.39	101.91	113.00
2	AB	664	G	O4'-C4'-C3'	7.39	111.39	104.00
2	AB	1702	G	C4'-C3'-C2'	-7.39	95.21	102.60
2	AB	2070	A	C3'-C2'-C1'	7.39	108.69	101.30
4	AD	245	THR	CA-C-N	7.39	127.06	119.82
4	AD	245	THR	C-N-CA	7.39	127.06	119.82
2	AB	399	U	C5'-C4'-O4'	7.39	120.88	109.80
1	AA	27	C	O4'-C1'-N1	7.39	119.58	108.50
2	AB	1388	G	O4'-C4'-C3'	7.39	111.39	104.00
35	BA	82	G	C3'-C2'-C1'	-7.39	93.91	101.30
2	AB	2766	A	O4'-C4'-C3'	7.38	111.38	104.00
2	AB	2657	A	N9-C1'-C2'	7.38	123.07	112.00
14	AN	99	ASN	CA-C-N	7.38	132.40	120.30
14	AN	99	ASN	C-N-CA	7.38	132.40	120.30
2	AB	940	G	O4'-C4'-C3'	7.38	111.38	104.00
35	BA	454	G	C3'-C2'-C1'	7.38	108.68	101.30
36	BB	19	A	O4'-C1'-C2'	-7.38	100.22	107.60
2	AB	2560	A	C5'-C4'-O4'	7.37	120.86	109.80
6	AF	22	ASP	CA-C-O	-7.37	112.58	121.28
35	BA	1155	A	C5'-C4'-C3'	-7.37	104.94	116.00
2	AB	285	G	O4'-C1'-N9	7.37	119.56	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	BO	10	ASP	CA-CB-CG	7.37	119.97	112.60
35	BA	1370	G	C3'-C2'-O2'	7.37	121.75	110.70
2	AB	1512	C	C4'-C3'-C2'	-7.37	95.23	102.60
35	BA	427	U	C4'-C3'-C2'	7.37	109.97	102.60
2	AB	1654	A	O5'-C5'-C4'	-7.37	100.45	111.50
2	AB	1734	G	C4'-C3'-C2'	-7.37	95.23	102.60
35	BA	457	G	C4'-C3'-C2'	-7.37	95.23	102.60
2	AB	2471	A	C3'-C2'-C1'	-7.36	94.14	101.50
10	AJ	54	VAL	CA-C-N	7.36	132.50	120.94
10	AJ	54	VAL	C-N-CA	7.36	132.50	120.94
35	BA	827	U	O4'-C4'-C3'	7.36	111.36	104.00
2	AB	82	U	C4'-C3'-C2'	7.36	109.96	102.60
35	BA	1473	G	C5'-C4'-C3'	-7.36	104.96	116.00
2	AB	321	U	C3'-C2'-C1'	7.36	108.66	101.30
35	BA	1365	G	C3'-C2'-C1'	7.36	108.66	101.30
2	AB	1602	U	O4'-C1'-N1	7.36	119.24	108.20
2	AB	2520	C	O4'-C1'-N1	7.36	119.54	108.50
41	BG	23	THR	CA-CB-CG2	7.36	123.00	110.50
41	BG	55	VAL	CB-CA-C	-7.36	106.55	114.35
35	BA	181	A	O4'-C1'-C2'	-7.35	98.45	105.80
2	AB	1747	U	O4'-C1'-N1	7.35	119.53	108.50
2	AB	114	U	C2'-C3'-O3'	7.35	124.72	113.70
2	AB	432	A	C3'-C2'-C1'	7.35	108.65	101.30
2	AB	1196	C	C4'-C3'-O3'	7.35	124.02	113.00
35	BA	889	A	O4'-C1'-C2'	-7.35	98.45	105.80
2	AB	1825	U	C3'-C2'-O2'	7.34	121.72	110.70
35	BA	612	C	C4'-C3'-C2'	-7.34	95.25	102.60
2	AB	2822	G	C5'-C4'-C3'	-7.34	104.99	116.00
2	AB	821	A	C5'-C4'-C3'	-7.34	104.99	116.00
2	AB	2467	C	C2'-C3'-O3'	-7.34	102.69	113.70
7	AG	105	ILE	CB-CA-C	7.34	118.55	110.62
2	AB	1412	U	C4'-C3'-C2'	-7.34	95.26	102.60
56	BV	3	ILE	N-CA-C	-7.34	100.12	109.30
2	AB	2703	C	C3'-C2'-O2'	7.34	121.71	110.70
11	AK	58	ILE	CA-CB-CG1	7.34	122.87	110.40
35	BA	177	G	C4'-C3'-C2'	-7.34	95.26	102.60
2	AB	1496	A	C1'-C2'-O2'	7.33	119.40	108.40
2	AB	1190	G	C1'-O4'-C4'	-7.33	102.57	109.90
2	AB	1665	A	C3'-C2'-C1'	7.33	108.63	101.30
2	AB	1993	U	O4'-C4'-C3'	7.33	111.33	104.00
6	AF	152	GLU	O-C-N	7.33	130.21	122.23
35	BA	935	A	C3'-C2'-C1'	7.33	108.62	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	1065	U	O4'-C4'-C3'	7.33	113.42	106.10
35	BA	1195	C	C3'-C2'-C1'	7.33	108.63	101.30
35	BA	1318	A	O3'-P-O5'	-7.33	93.01	104.00
2	AB	1519	G	C5'-C4'-C3'	-7.32	105.01	116.00
2	AB	554	U	O4'-C1'-N1	7.32	119.48	108.50
11	AK	122	GLU	N-CA-CB	-7.32	99.45	110.07
35	BA	789	U	O4'-C1'-C2'	7.32	113.12	105.80
2	AB	2225	A	C5'-C4'-C3'	-7.32	104.22	115.20
12	AL	130	HIS	ND1-CG-CD2	7.32	113.42	106.10
35	BA	650	G	C1'-O4'-C4'	-7.32	102.58	109.90
35	BA	1031	C	O4'-C1'-N1	7.32	119.18	108.20
2	AB	2644	G	C3'-C2'-C1'	-7.32	93.98	101.30
23	AW	101	THR	CA-C-N	7.32	133.16	122.99
23	AW	101	THR	C-N-CA	7.32	133.16	122.99
2	AB	1859	U	C4'-C3'-C2'	-7.32	95.28	102.60
35	BA	1222	G	O5'-C5'-C4'	7.32	122.47	111.50
35	BA	1273	C	C4'-C3'-C2'	-7.31	95.29	102.60
2	AB	709	U	C1'-O4'-C4'	7.31	117.21	109.90
31	A4	36	LYS	CA-C-O	-7.31	112.68	120.80
4	AD	83	ASP	CA-C-N	7.31	127.94	120.04
4	AD	83	ASP	C-N-CA	7.31	127.94	120.04
35	BA	177	G	O4'-C1'-C2'	-7.31	100.29	107.60
35	BA	489	C	O4'-C1'-N1	7.31	119.46	108.50
43	BI	126	ALA	CA-C-N	7.30	130.80	120.28
43	BI	126	ALA	C-N-CA	7.30	130.80	120.28
35	BA	660	C	C3'-C2'-O2'	7.30	121.66	110.70
11	AK	62	ALA	CA-C-O	-7.30	112.81	120.55
2	AB	2270	A	C4'-C3'-C2'	-7.30	95.30	102.60
6	AF	165	HIS	CA-CB-CG	7.30	121.10	113.80
20	AT	51	VAL	CB-CA-C	7.30	118.52	110.71
16	AP	13	ASN	CA-C-N	7.30	130.06	120.28
16	AP	13	ASN	C-N-CA	7.30	130.06	120.28
2	AB	136	G	P-O5'-C5'	-7.29	109.96	120.90
2	AB	625	G	C4'-C3'-C2'	-7.29	95.31	102.60
2	AB	841	G	C2'-C3'-O3'	-7.29	102.76	113.70
13	AM	73	ASP	CA-CB-CG	-7.29	105.31	112.60
35	BA	1222	G	P-O3'-C3'	7.29	131.14	120.20
35	BA	1411	C	N1-C1'-C2'	-7.29	101.06	112.00
49	BO	75	SER	O-C-N	7.29	129.85	122.12
2	AB	110	G	C3'-C2'-C1'	-7.29	94.01	101.30
9	AI	40	THR	CA-C-N	7.29	132.71	122.36
9	AI	40	THR	C-N-CA	7.29	132.71	122.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	AE	68	PHE	CA-C-O	-7.29	111.59	119.97
35	BA	700	G	C5'-C4'-O4'	7.29	120.73	109.80
21	AU	24	ILE	N-CA-C	7.29	119.14	112.29
35	BA	867	G	O4'-C4'-C3'	7.29	111.29	104.00
43	BI	174	LEU	N-CA-C	7.29	120.80	110.23
38	BD	114	LYS	CA-C-O	7.29	128.34	119.38
44	BJ	74	ILE	CB-CA-C	7.29	120.25	110.42
41	BG	136	VAL	N-CA-C	-7.28	105.44	112.29
2	AB	28	A	O3'-P-O5'	-7.28	93.08	104.00
2	AB	1773	A	C3'-C2'-O2'	7.28	121.62	110.70
2	AB	1234	U	O4'-C1'-N1	7.28	119.42	108.50
2	AB	2434	A	C1'-O4'-C4'	-7.28	102.42	109.70
1	AA	9	G	C5'-C4'-C3'	-7.28	105.08	116.00
2	AB	1986	C	C5'-C4'-O4'	7.28	120.72	109.80
2	AB	2157	G	O4'-C4'-C3'	7.28	113.38	106.10
2	AB	2835	A	O4'-C1'-N9	7.28	119.12	108.20
2	AB	1697	G	C2'-C3'-O3'	7.28	124.61	113.70
2	AB	783	A	O4'-C1'-C2'	-7.27	100.33	107.60
18	AR	48	ALA	CA-C-N	7.27	130.25	120.50
18	AR	48	ALA	C-N-CA	7.27	130.25	120.50
13	AM	115	ILE	CA-CB-CG1	7.27	122.76	110.40
35	BA	19	A	C1'-C2'-O2'	7.27	119.31	108.40
2	AB	428	A	C1'-O4'-C4'	-7.27	102.43	109.70
18	AR	16	VAL	CB-CA-C	7.27	117.70	110.94
35	BA	947	G	C4'-C3'-C2'	-7.27	95.33	102.60
32	A5	12	ARG	CA-C-O	-7.27	113.42	120.90
35	BA	876	C	C5'-C4'-O4'	7.27	120.70	109.80
2	AB	75	G	O4'-C1'-N9	7.27	119.40	108.50
9	AI	119	ASN	OD1-CG-ND2	-7.27	115.33	122.60
20	AT	60	LYS	CG-CD-CE	-7.27	94.59	111.30
35	BA	1520	C	O4'-C1'-C2'	-7.27	100.33	107.60
2	AB	242	G	C2'-C3'-O3'	7.26	120.40	109.50
4	AD	31	PRO	N-CD-CG	7.26	114.10	103.20
2	AB	1852	U	O4'-C4'-C3'	7.26	111.26	104.00
52	BR	28	ARG	NE-CZ-NH2	7.26	125.74	119.20
37	BC	22	A	C3'-C2'-C1'	7.26	108.56	101.30
2	AB	199	A	C5'-C4'-O4'	7.26	119.99	109.10
2	AB	573	U	C5'-C4'-C3'	-7.26	104.31	115.20
2	AB	2352	A	O4'-C4'-C3'	7.26	111.26	104.00
2	AB	2741	A	C3'-C2'-C1'	7.26	108.56	101.30
2	AB	1258	U	C4'-C3'-C2'	-7.26	95.34	102.60
2	AB	1881	C	C3'-C2'-C1'	7.26	108.56	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	30	C	C4'-C3'-C2'	-7.25	95.35	102.60
2	AB	278	A	N9-C1'-C2'	7.25	122.88	112.00
2	AB	2221	G	C5'-C4'-O4'	7.25	120.68	109.80
35	BA	251	G	C1'-O4'-C4'	-7.25	102.45	109.70
35	BA	758	C	O4'-C4'-C3'	7.25	111.25	104.00
2	AB	2105	U	O3'-P-O5'	-7.25	93.12	104.00
46	BL	5	ARG	CA-CB-CG	7.25	128.60	114.10
2	AB	599	A	O4'-C1'-C2'	-7.25	100.35	107.60
2	AB	321	U	C4'-C3'-C2'	-7.25	95.35	102.60
35	BA	767	A	O3'-P-O5'	7.25	114.87	104.00
35	BA	817	C	O3'-P-O5'	-7.25	93.13	104.00
35	BA	1085	U	O4'-C1'-N1	7.25	119.07	108.20
10	AJ	77	GLY	CA-C-N	7.25	127.66	119.83
10	AJ	77	GLY	C-N-CA	7.25	127.66	119.83
35	BA	243	A	C4'-C3'-O3'	7.25	120.27	109.40
3	AC	186	LYS	CA-C-N	7.25	130.58	120.29
3	AC	186	LYS	C-N-CA	7.25	130.58	120.29
35	BA	702	A	C5'-C4'-C3'	-7.25	104.33	115.20
2	AB	1846	G	C5'-C4'-C3'	-7.24	105.14	116.00
5	AE	184	ARG	NE-CZ-NH2	7.24	125.72	119.20
2	AB	2077	A	O5'-C5'-C4'	7.24	122.36	111.50
35	BA	867	G	O4'-C1'-C2'	-7.24	100.36	107.60
35	BA	1346	A	O3'-P-O5'	-7.24	93.14	104.00
2	AB	480	A	C5'-C4'-O4'	7.24	120.66	109.80
35	BA	661	G	C4'-C3'-C2'	-7.24	95.36	102.60
35	BA	920	U	C5'-C4'-C3'	-7.24	105.14	116.00
37	BC	65	G	C4'-C3'-C2'	-7.24	95.36	102.60
50	BP	61	ASN	CA-CB-CG	7.24	119.84	112.60
2	AB	1555	G	C5'-C4'-O4'	7.24	120.66	109.80
2	AB	2249	U	C3'-C2'-C1'	7.24	108.54	101.30
3	AC	23	ILE	N-CA-C	7.24	118.87	110.62
21	AU	18	ARG	CA-C-N	7.24	130.31	120.54
21	AU	18	ARG	C-N-CA	7.24	130.31	120.54
2	AB	2073	C	O4'-C4'-C3'	7.24	111.23	104.00
54	BT	48	ALA	N-CA-C	7.24	120.08	111.33
24	AX	12	GLN	CA-C-N	7.23	132.32	122.63
24	AX	12	GLN	C-N-CA	7.23	132.32	122.63
9	AI	91	PHE	CA-CB-CG	7.23	121.03	113.80
42	BH	102	MET	CA-C-N	7.23	129.67	120.56
42	BH	102	MET	C-N-CA	7.23	129.67	120.56
2	AB	1246	A	C4'-C3'-C2'	-7.23	95.37	102.60
35	BA	1389	C	O4'-C4'-C3'	7.23	111.23	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	707	U	O4'-C4'-C3'	7.23	111.23	104.00
2	AB	1339	G	C2'-C3'-O3'	-7.23	102.86	113.70
35	BA	635	A	O5'-C5'-C4'	7.23	122.34	111.50
3	AC	218	MET	CA-C-N	7.23	132.00	121.67
3	AC	218	MET	C-N-CA	7.23	132.00	121.67
36	BB	22	G	O4'-C1'-N9	7.23	119.04	108.20
52	BR	53	ASP	CA-C-O	-7.23	113.20	121.66
2	AB	103	A	O4'-C1'-N9	7.22	119.34	108.50
2	AB	1069	A	C3'-C2'-C1'	7.22	108.72	101.50
2	AB	1973	G	C3'-C2'-O2'	7.22	121.54	110.70
2	AB	2091	C	C4'-C3'-C2'	-7.22	95.38	102.60
35	BA	183	C	C4'-C3'-C2'	-7.22	95.38	102.60
35	BA	434	U	O4'-C1'-N1	7.22	119.34	108.50
35	BA	965	U	C3'-C2'-O2'	7.22	121.54	110.70
35	BA	1386	G	C1'-O4'-C4'	7.22	117.12	109.90
51	BQ	30	LEU	N-CA-C	7.22	119.23	111.36
2	AB	2699	C	C5'-C4'-C3'	7.22	126.83	116.00
2	AB	377	G	C4'-C3'-C2'	-7.22	95.38	102.60
6	AF	105	LEU	CA-C-O	7.22	128.26	120.10
35	BA	1051	C	C3'-C2'-C1'	7.22	108.52	101.30
51	BQ	37	HIS	ND1-CG-CD2	7.22	113.32	106.10
52	BR	55	ASP	N-CA-C	7.22	120.01	111.71
2	AB	1025	G	C4'-C3'-C2'	7.21	109.81	102.60
2	AB	1246	A	O4'-C4'-C3'	7.21	111.21	104.00
2	AB	2113	U	O4'-C1'-N1	7.21	119.32	108.50
35	BA	1115	U	O4'-C1'-N1	7.21	119.32	108.50
35	BA	1159	U	O4'-C4'-C3'	7.21	113.31	106.10
11	AK	94	LYS	CA-C-O	-7.21	111.67	119.97
4	AD	85	ASN	CA-C-O	-7.21	111.25	118.97
2	AB	1328	A	O4'-C4'-C3'	7.21	111.21	104.00
19	AS	10	ARG	NH1-CZ-NH2	-7.21	109.93	119.30
35	BA	1087	G	C5'-C4'-C3'	-7.21	105.19	116.00
35	BA	1302	C	C5'-C4'-C3'	-7.21	105.19	116.00
2	AB	379	G	O4'-C1'-N9	7.21	119.31	108.50
35	BA	54	C	C4'-C3'-C2'	-7.21	95.39	102.60
36	BB	34	U	C4'-C3'-C2'	-7.21	95.39	102.60
48	BN	55	ARG	O-C-N	7.21	131.83	122.68
2	AB	1824	G	P-O3'-C3'	7.21	131.01	120.20
35	BA	514	C	C4'-C3'-C2'	-7.21	95.39	102.60
7	AG	30	VAL	CA-CB-CG1	7.20	122.65	110.40
35	BA	71	A	C5'-C4'-C3'	-7.20	105.19	116.00
36	BB	44	U	C2'-C3'-O3'	-7.20	102.89	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	717	C	C4'-C3'-C2'	-7.20	95.40	102.60
35	BA	50	A	C2'-C3'-O3'	7.20	120.30	109.50
2	AB	1998	A	C3'-C2'-C1'	-7.20	94.10	101.30
13	AM	88	ASN	CA-CB-CG	-7.20	105.40	112.60
13	AM	88	ASN	CA-C-O	-7.20	113.10	121.16
39	BE	218	LYS	CA-C-O	-7.20	111.67	118.73
2	AB	1600	C	C5'-C4'-C3'	-7.20	105.20	116.00
5	AE	140	HIS	CB-CG-CD2	-7.20	121.84	131.20
35	BA	1392	G	C4'-C3'-O3'	7.20	123.80	113.00
35	BA	1074	G	O4'-C1'-C2'	-7.20	100.40	107.60
35	BA	1194	U	C4'-C3'-C2'	-7.20	95.40	102.60
35	BA	219	U	O4'-C4'-C3'	-7.20	96.81	104.00
35	BA	895	G	C5'-C4'-O4'	7.20	120.59	109.80
53	BS	78	VAL	N-CA-C	-7.20	103.66	110.42
35	BA	1210	C	C2'-C3'-O3'	-7.19	102.91	113.70
2	AB	1150	C	C2'-C3'-O3'	-7.19	102.91	113.70
2	AB	1387	A	C4'-C3'-C2'	-7.19	95.41	102.60
46	BL	26	VAL	CB-CA-C	7.19	121.85	112.14
48	BN	60	PHE	CA-CB-CG	7.19	120.99	113.80
35	BA	463	U	O4'-C4'-C3'	7.19	111.19	104.00
35	BA	800	G	O5'-C5'-C4'	-7.19	100.72	111.50
2	AB	529	A	O4'-C1'-C2'	-7.19	98.61	105.80
2	AB	1882	U	O4'-C1'-N1	7.19	119.28	108.50
2	AB	2500	U	C3'-C2'-C1'	7.19	108.69	101.50
2	AB	2880	C	C5'-C4'-O4'	7.18	120.58	109.80
25	AY	19	ARG	CA-C-O	-7.18	113.09	120.71
2	AB	768	G	O4'-C1'-C2'	-7.18	100.42	107.60
35	BA	792	A	O4'-C4'-C3'	7.18	111.18	104.00
57	BW	53	LYS	O-C-N	7.18	129.73	122.12
35	BA	1304	G	C4'-C3'-C2'	-7.18	95.42	102.60
43	BI	58	LEU	CA-C-N	7.18	132.61	121.19
43	BI	58	LEU	C-N-CA	7.18	132.61	121.19
2	AB	2043	C	C4'-C3'-C2'	-7.18	95.42	102.60
36	BB	33	A	C4'-C3'-C2'	-7.17	95.42	102.60
35	BA	1186	G	C3'-C2'-C1'	-7.17	94.13	101.30
2	AB	1263	U	O4'-C4'-C3'	7.17	111.17	104.00
35	BA	1227	A	O4'-C1'-C2'	-7.17	98.63	105.80
2	AB	2412	A	C5'-C4'-O4'	7.17	120.55	109.80
2	AB	2615	U	O4'-C1'-N1	7.17	119.25	108.50
6	AF	16	GLU	N-CA-C	-7.17	103.40	111.07
31	A4	45	HIS	CB-CG-CD2	-7.17	121.88	131.20
35	BA	650	G	O4'-C4'-C3'	7.17	111.17	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
42	BH	66	ALA	N-CA-C	7.17	117.36	108.11
2	AB	71	A	C5'-C4'-O4'	-7.17	98.35	109.10
2	AB	935	C	C4'-C3'-C2'	-7.17	95.44	102.60
2	AB	1904	G	N9-C1'-C2'	-7.17	101.25	112.00
43	BI	94	ARG	NE-CZ-NH2	-7.17	112.75	119.20
2	AB	795	C	O4'-C1'-N1	7.16	119.24	108.50
19	AS	55	GLN	N-CA-C	-7.16	103.40	111.14
35	BA	777	A	C4'-C3'-C2'	-7.16	95.44	102.60
43	BI	102	TRP	CA-C-N	7.16	130.27	120.46
43	BI	102	TRP	C-N-CA	7.16	130.27	120.46
35	BA	960	U	C2'-C3'-O3'	7.16	120.24	109.50
35	BA	38	G	C3'-C2'-C1'	-7.16	94.14	101.30
2	AB	1076	C	O4'-C4'-C3'	-7.16	96.84	104.00
35	BA	212	G	P-O5'-C5'	7.16	131.64	120.90
35	BA	727	G	C4'-C3'-C2'	-7.16	95.44	102.60
2	AB	364	C	C4'-C3'-O3'	7.16	123.73	113.00
2	AB	609	A	C3'-C2'-C1'	7.16	108.46	101.30
2	AB	1154	G	C2'-C3'-O3'	-7.16	102.97	113.70
2	AB	2747	G	N9-C1'-C2'	-7.16	101.27	112.00
2	AB	1895	C	C5'-C4'-O4'	-7.15	99.07	109.80
35	BA	1002	G	C4'-C3'-C2'	-7.15	95.45	102.60
2	AB	2208	C	C4'-C3'-C2'	-7.15	95.45	102.60
2	AB	2451	A	C5'-C4'-O4'	7.15	120.53	109.80
47	BM	106	ILE	CB-CA-C	7.15	123.02	111.29
3	AC	67	HIS	CB-CG-CD2	-7.15	121.90	131.20
12	AL	132	HIS	CA-CB-CG	7.15	120.95	113.80
40	BF	45	PRO	N-CA-CB	7.15	109.57	103.35
2	AB	2488	G	C1'-O4'-C4'	-7.15	102.75	109.90
55	BU	7	GLY	CA-C-N	7.15	128.77	119.84
55	BU	7	GLY	C-N-CA	7.15	128.77	119.84
2	AB	96	C	C3'-C2'-C1'	7.15	108.45	101.30
2	AB	1663	G	C4'-C3'-C2'	-7.15	95.45	102.60
2	AB	1011	G	O4'-C1'-N9	7.14	118.92	108.20
2	AB	1605	C	C3'-C2'-C1'	7.14	108.44	101.30
55	BU	51	HIS	ND1-CE1-NE2	7.14	115.55	108.40
2	AB	1003	G	C5'-C4'-O4'	7.14	120.52	109.80
35	BA	745	G	O3'-P-O5'	-7.14	93.29	104.00
42	BH	122	ASP	N-CA-C	7.14	120.89	111.75
29	A2	6	HIS	ND1-CE1-NE2	7.14	115.54	108.40
40	BF	144	ILE	CA-C-N	7.14	131.53	120.75
40	BF	144	ILE	C-N-CA	7.14	131.53	120.75
42	BH	94	HIS	CA-C-O	-7.14	113.30	121.65

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	62	U	O4'-C4'-C3'	7.14	111.14	104.00
2	AB	2237	G	O4'-C4'-C3'	7.13	111.14	104.00
2	AB	2757	A	O5'-C5'-C4'	7.13	122.20	111.50
35	BA	740	U	C1'-C2'-O2'	-7.13	97.70	108.40
12	AL	74	TYR	N-CA-C	7.13	121.08	111.24
2	AB	2572	A	C5'-C4'-C3'	-7.13	104.50	115.20
2	AB	416	U	C4'-C3'-C2'	-7.13	95.47	102.60
2	AB	906	U	C4'-C3'-O3'	7.13	123.69	113.00
35	BA	1244	G	C4'-C3'-C2'	-7.13	95.47	102.60
2	AB	332	A	C3'-C2'-O2'	-7.13	103.91	114.60
2	AB	1361	G	C5'-C4'-C3'	-7.13	105.31	116.00
40	BF	80	ARG	CA-C-O	-7.13	112.99	120.55
2	AB	81	G	C2'-C3'-O3'	-7.13	103.01	113.70
2	AB	2492	U	O4'-C1'-N1	7.13	118.89	108.20
6	AF	61	ARG	CA-C-N	7.13	135.15	121.54
6	AF	61	ARG	C-N-CA	7.13	135.15	121.54
25	AY	66	VAL	CA-C-N	7.13	132.80	120.68
25	AY	66	VAL	C-N-CA	7.13	132.80	120.68
2	AB	2090	A	C4'-C3'-C2'	-7.12	95.47	102.60
2	AB	1114	C	O4'-C4'-C3'	7.12	111.12	104.00
6	AF	49	ARG	NE-CZ-NH2	7.12	125.61	119.20
6	AF	107	SER	CA-C-O	-7.12	113.52	121.00
36	BB	21	U	P-O3'-C3'	7.12	130.88	120.20
2	AB	575	A	N9-C1'-C2'	-7.12	101.32	112.00
2	AB	1384	A	O4'-C4'-C3'	7.12	111.12	104.00
2	AB	2470	G	O4'-C1'-C2'	-7.12	100.48	107.60
5	AE	134	HIS	CA-CB-CG	7.12	120.92	113.80
36	BB	22	G	O4'-C1'-C2'	-7.12	98.68	105.80
2	AB	2116	G	C1'-O4'-C4'	-7.12	102.78	109.90
38	BD	198	VAL	CA-C-N	7.12	130.97	122.85
38	BD	198	VAL	C-N-CA	7.12	130.97	122.85
11	AK	74	PRO	CA-C-N	7.12	129.82	120.28
11	AK	74	PRO	C-N-CA	7.12	129.82	120.28
16	AP	73	ASN	CA-CB-CG	7.12	119.72	112.60
2	AB	1916	A	C4'-C3'-O3'	-7.12	102.33	113.00
9	AI	134	VAL	CA-CB-CG2	7.12	122.50	110.40
35	BA	354	G	O4'-C1'-C2'	-7.12	100.48	107.60
35	BA	1366	C	C5'-C4'-C3'	-7.12	105.33	116.00
45	BK	126	PHE	CA-CB-CG	7.11	120.91	113.80
4	AD	89	ASN	CA-C-O	-7.11	114.01	121.55
42	BH	94	HIS	CB-CA-C	7.11	121.39	111.86
2	AB	389	G	P-O3'-C3'	7.11	130.87	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2221	G	N9-C1'-C2'	-7.11	101.34	112.00
2	AB	997	G	C3'-C2'-C1'	-7.11	94.19	101.30
15	AO	97	GLN	CA-C-O	-7.11	113.96	120.50
35	BA	891	U	O4'-C1'-N1	7.11	119.16	108.50
35	BA	312	C	C5'-C4'-C3'	-7.11	105.34	116.00
35	BA	775	G	C1'-C2'-O2'	-7.11	97.74	108.40
2	AB	2025	C	C5'-C4'-O4'	7.10	120.45	109.80
3	AC	172	HIS	CB-CG-CD2	-7.10	121.97	131.20
34	A7	15	LYS	CA-C-O	-7.10	112.89	120.42
35	BA	1500	A	C5'-C4'-C3'	-7.10	105.35	116.00
2	AB	2307	G	C5'-C4'-C3'	-7.10	104.55	115.20
3	AC	146	THR	O-C-N	-7.10	116.88	121.85
19	AS	101	ASP	CB-CA-C	7.10	121.37	111.86
24	AX	24	ASN	CB-CA-C	7.10	121.81	111.73
2	AB	1135	C	C4'-C3'-O3'	-7.10	102.35	113.00
2	AB	2327	A	C1'-O4'-C4'	7.10	117.00	109.90
35	BA	1208	C	C5'-C4'-C3'	-7.10	105.35	116.00
50	BP	39	ASP	CA-CB-CG	-7.10	105.50	112.60
50	BP	51	PRO	N-CA-CB	7.10	110.90	102.60
19	AS	112	ALA	N-CA-C	-7.09	103.48	111.14
2	AB	2327	A	O4'-C1'-C2'	-7.09	100.51	107.60
35	BA	817	C	O5'-C5'-C4'	-7.09	101.06	111.70
45	BK	113	LYS	CB-CA-C	7.09	119.92	110.06
2	AB	1425	G	C2'-C3'-O3'	-7.09	103.06	113.70
2	AB	2174	C	C3'-C2'-O2'	7.09	121.34	110.70
35	BA	665	A	P-O3'-C3'	7.09	130.84	120.20
2	AB	1235	G	P-O3'-C3'	7.09	130.84	120.20
23	AW	102	ILE	CB-CA-C	7.09	120.68	110.33
35	BA	402	G	C5'-C4'-O4'	7.09	120.44	109.80
2	AB	1753	G	C4'-C3'-C2'	7.09	109.69	102.60
35	BA	472	U	P-O5'-C5'	7.09	131.53	120.90
35	BA	1417	G	C5'-C4'-O4'	7.09	120.43	109.80
35	BA	651	C	C5'-C4'-C3'	-7.09	105.37	116.00
48	BN	105	GLY	CA-C-N	7.09	130.05	120.63
48	BN	105	GLY	C-N-CA	7.09	130.05	120.63
2	AB	1830	C	O4'-C4'-C3'	7.08	111.08	104.00
49	BO	70	ARG	CA-C-O	-7.08	112.91	120.42
2	AB	2804	U	P-O5'-C5'	-7.08	110.28	120.90
35	BA	412	A	C4'-C3'-C2'	-7.08	95.52	102.60
3	AC	64	VAL	CA-C-O	7.08	128.93	120.65
2	AB	2637	U	C4'-C3'-C2'	-7.08	95.52	102.60
8	AH	136	ASP	CA-C-N	7.08	130.72	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
8	AH	136	ASP	C-N-CA	7.08	130.72	120.38
2	AB	281	C	O4'-C1'-N1	7.08	119.11	108.50
2	AB	633	A	O3'-P-O5'	-7.08	93.38	104.00
12	AL	78	THR	N-CA-C	7.08	118.99	111.28
35	BA	539	A	C4'-C3'-O3'	7.07	123.61	113.00
37	BC	48	U	O4'-C1'-C2'	7.07	112.87	105.80
2	AB	20	C	C3'-C2'-C1'	7.07	108.37	101.30
35	BA	920	U	C4'-C3'-C2'	-7.07	95.53	102.60
2	AB	48	G	C5'-C4'-O4'	7.07	120.41	109.80
2	AB	82	U	O4'-C4'-C3'	-7.07	96.93	104.00
2	AB	362	A	C3'-C2'-O2'	7.07	121.31	110.70
35	BA	465	A	C1'-O4'-C4'	-7.07	102.63	109.70
35	BA	1215	G	O4'-C1'-C2'	7.07	114.67	107.60
35	BA	1535	C	O4'-C4'-C3'	-7.07	96.93	104.00
28	A1	29	ARG	NE-CZ-NH2	7.07	125.56	119.20
35	BA	1	A	C5'-C4'-C3'	-7.07	105.40	116.00
35	BA	995	C	O4'-C1'-N1	7.07	119.10	108.50
35	BA	374	A	O4'-C4'-C3'	7.07	111.06	104.00
35	BA	1226	C	P-O5'-C5'	7.06	131.50	120.90
2	AB	627	A	N9-C1'-C2'	-7.06	103.41	114.00
19	AS	36	GLN	OE1-CD-NE2	-7.06	115.54	122.60
22	AV	12	ARG	CA-CB-CG	7.06	128.22	114.10
35	BA	187	G	P-O3'-C3'	7.06	130.79	120.20
2	AB	826	U	P-O3'-C3'	7.06	130.79	120.20
2	AB	1075	C	C3'-C2'-O2'	7.06	121.29	110.70
41	BG	68	ARG	CA-C-N	7.06	132.39	122.36
41	BG	68	ARG	C-N-CA	7.06	132.39	122.36
2	AB	1304	A	C1'-O4'-C4'	-7.06	102.84	109.90
11	AK	37	PHE	CA-CB-CG	7.06	120.86	113.80
35	BA	1444	U	O4'-C4'-C3'	7.06	111.06	104.00
2	AB	2026	U	C4'-C3'-C2'	-7.06	95.54	102.60
2	AB	751	A	C3'-C2'-C1'	7.05	108.36	101.30
2	AB	2361	G	O4'-C1'-N9	7.05	119.08	108.50
2	AB	2549	G	O4'-C1'-N9	7.05	119.08	108.50
27	A0	47	ARG	NE-CZ-NH2	7.05	125.55	119.20
1	AA	110	C	C1'-C2'-O2'	7.05	118.98	108.40
2	AB	1220	G	C3'-C2'-C1'	-7.05	94.25	101.30
2	AB	2060	A	P-O3'-C3'	7.05	130.78	120.20
2	AB	1860	G	C5'-C4'-C3'	-7.05	105.42	116.00
38	BD	3	VAL	CA-C-N	7.05	131.03	120.31
38	BD	3	VAL	C-N-CA	7.05	131.03	120.31
43	BI	105	GLU	CA-C-N	7.05	130.30	120.29

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
43	BI	105	GLU	C-N-CA	7.05	130.30	120.29
25	AY	30	VAL	O-C-N	7.05	131.38	122.57
35	BA	22	G	C1'-O4'-C4'	7.05	116.95	109.90
2	AB	1060	U	C4'-C3'-O3'	7.05	119.97	109.40
35	BA	1181	G	O4'-C1'-N9	7.05	118.77	108.20
38	BD	199	ILE	O-C-N	-7.05	116.93	121.37
1	AA	70	C	C4'-C3'-C2'	-7.04	95.56	102.60
35	BA	360	G	O4'-C1'-C2'	-7.04	100.56	107.60
35	BA	1148	U	C1'-O4'-C4'	7.04	116.94	109.90
35	BA	281	G	C1'-C2'-O2'	7.04	122.37	111.80
2	AB	732	C	O5'-C5'-C4'	7.04	122.06	111.50
35	BA	430	A	C4'-C3'-C2'	-7.04	95.56	102.60
35	BA	889	A	C5'-C4'-C3'	7.04	125.76	115.20
2	AB	1924	C	O4'-C1'-N1	7.04	119.06	108.50
8	AH	46	ASP	CA-C-O	-7.04	113.45	120.70
35	BA	1417	G	C2'-C3'-O3'	7.04	124.25	113.70
2	AB	2425	A	C4'-C3'-C2'	7.04	109.64	102.60
9	AI	48	GLU	CB-CG-CD	7.04	124.56	112.60
35	BA	860	A	O4'-C1'-C2'	-7.04	100.56	107.60
2	AB	1682	G	O4'-C4'-C3'	7.03	111.03	104.00
35	BA	1252	A	C4'-C3'-C2'	-7.03	95.57	102.60
39	BE	53	ARG	O-C-N	-7.03	115.89	123.42
2	AB	1784	A	C1'-O4'-C4'	-7.03	102.67	109.70
8	AH	149	ALA	CA-C-O	-7.03	113.10	120.55
2	AB	477	A	O4'-C4'-C3'	7.03	111.03	104.00
2	AB	2473	U	C1'-C2'-O2'	7.03	122.35	111.80
43	BI	97	ALA	CA-C-N	7.03	129.70	120.28
43	BI	97	ALA	C-N-CA	7.03	129.70	120.28
35	BA	637	C	P-O3'-C3'	7.03	130.74	120.20
35	BA	1366	C	C4'-C3'-C2'	-7.03	95.57	102.60
2	AB	1228	G	C3'-C2'-C1'	7.03	108.33	101.30
2	AB	1437	C	O4'-C1'-N1	7.03	119.04	108.50
12	AL	14	ASP	CA-CB-CG	7.03	119.62	112.60
19	AS	53	LYS	CA-C-N	7.03	129.69	120.28
19	AS	53	LYS	C-N-CA	7.03	129.69	120.28
35	BA	774	G	C3'-C2'-O2'	7.03	121.24	110.70
35	BA	861	G	C3'-C2'-C1'	7.03	108.33	101.30
2	AB	744	U	O4'-C1'-N1	7.02	119.04	108.50
2	AB	2146	C	C3'-C2'-O2'	-7.02	104.06	114.60
25	AY	58	LEU	CA-C-O	-7.02	112.17	120.10
35	BA	1019	A	N9-C1'-C2'	-7.02	101.47	112.00
2	AB	20	C	C1'-O4'-C4'	7.02	116.92	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2338	C	O4'-C4'-C3'	7.02	111.02	104.00
35	BA	290	C	C5'-C4'-O4'	7.02	120.33	109.80
43	BI	91	ARG	CA-C-N	7.02	127.32	119.32
43	BI	91	ARG	C-N-CA	7.02	127.32	119.32
55	BU	81	GLY	N-CA-C	-7.02	101.77	112.51
53	BS	49	ASN	CA-CB-CG	7.02	119.62	112.60
2	AB	1007	C	C4'-C3'-C2'	-7.02	95.58	102.60
19	AS	30	VAL	O-C-N	-7.02	115.76	123.20
35	BA	1070	U	O4'-C4'-C3'	7.01	111.02	104.00
35	BA	1422	G	C4'-C3'-C2'	-7.01	95.59	102.60
28	A1	56	VAL	CA-CB-CG1	-7.01	98.48	110.40
35	BA	606	G	C1'-O4'-C4'	-7.01	102.89	109.90
36	BB	56	G	O4'-C1'-N9	7.01	119.02	108.50
11	AK	55	PRO	CA-N-CD	-7.01	102.19	112.00
47	BM	35	ASP	CA-CB-CG	-7.01	105.59	112.60
1	AA	44	G	C2'-C3'-O3'	7.01	120.01	109.50
2	AB	2793	C	C3'-C2'-C1'	7.00	108.31	101.30
35	BA	1364	U	O4'-C1'-C2'	-7.00	100.59	107.60
2	AB	2842	G	C4'-C3'-O3'	7.00	123.50	113.00
15	AO	81	ARG	CA-C-O	-7.00	113.89	121.94
55	BU	46	LEU	O-C-N	7.00	130.87	122.68
2	AB	386	G	C1'-O4'-C4'	7.00	116.70	109.70
2	AB	1552	A	O4'-C1'-N9	7.00	119.00	108.50
35	BA	833	G	C3'-C2'-C1'	7.00	108.30	101.30
11	AK	110	GLN	OE1-CD-NE2	-7.00	115.60	122.60
2	AB	445	C	O4'-C4'-C3'	7.00	111.00	104.00
16	AP	66	ALA	O-C-N	-7.00	114.70	122.12
35	BA	849	G	C5'-C4'-C3'	-7.00	105.51	116.00
19	AS	63	ARG	NE-CZ-NH2	-6.99	112.91	119.20
1	AA	38	C	C3'-C2'-O2'	6.99	121.19	110.70
2	AB	2625	G	C1'-O4'-C4'	-6.99	102.91	109.90
35	BA	1044	A	C4'-C3'-C2'	-6.99	95.61	102.60
2	AB	479	A	C2'-C3'-O3'	6.99	119.99	109.50
35	BA	1381	U	C1'-O4'-C4'	6.99	116.89	109.90
6	AF	120	VAL	CB-CA-C	6.99	122.75	111.29
35	BA	442	G	C5'-C4'-C3'	-6.99	105.52	116.00
35	BA	892	A	C1'-O4'-C4'	-6.99	102.91	109.90
35	BA	910	C	C4'-C3'-C2'	-6.99	95.61	102.60
57	BW	60	ALA	N-CA-CB	-6.99	99.46	110.22
2	AB	1757	A	C3'-C2'-C1'	6.99	108.29	101.30
35	BA	1527	U	O4'-C1'-C2'	-6.99	100.61	107.60
35	BA	944	G	C3'-C2'-O2'	6.99	121.18	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2204	G	C3'-C2'-O2'	6.98	121.18	110.70
39	BE	64	ARG	CA-C-N	6.98	131.73	122.93
39	BE	64	ARG	C-N-CA	6.98	131.73	122.93
2	AB	1066	U	C3'-C2'-C1'	6.98	108.28	101.30
2	AB	1589	U	O4'-C1'-N1	6.98	118.97	108.50
2	AB	2064	C	O4'-C4'-C3'	6.98	110.98	104.00
4	AD	149	LYS	CA-C-N	6.98	130.51	121.85
4	AD	149	LYS	C-N-CA	6.98	130.51	121.85
6	AF	105	LEU	O-C-N	-6.98	114.05	122.22
35	BA	491	G	O4'-C4'-C3'	6.98	110.98	104.00
36	BB	29	G	C4'-C3'-C2'	6.98	109.58	102.60
43	BI	41	ILE	CA-C-O	-6.98	112.93	120.47
35	BA	218	U	C4'-C3'-O3'	6.98	123.47	113.00
35	BA	287	U	C3'-C2'-C1'	6.98	108.28	101.30
32	A5	3	ARG	NE-CZ-NH1	-6.98	114.52	121.50
2	AB	626	A	C3'-C2'-C1'	-6.98	94.32	101.30
26	AZ	2	ARG	NE-CZ-NH1	-6.98	114.52	121.50
2	AB	2137	U	O4'-C1'-N1	6.98	118.96	108.50
17	AQ	103	VAL	CA-C-N	6.98	129.51	120.44
17	AQ	103	VAL	C-N-CA	6.98	129.51	120.44
2	AB	401	A	C5'-C4'-O4'	6.97	120.26	109.80
2	AB	845	A	O3'-P-O5'	-6.97	93.54	104.00
35	BA	192	A	C1'-O4'-C4'	-6.97	102.93	109.90
2	AB	2867	G	C3'-C2'-C1'	6.97	108.47	101.50
11	AK	104	GLN	OE1-CD-NE2	-6.97	115.63	122.60
35	BA	644	U	C3'-C2'-C1'	6.97	108.27	101.30
2	AB	895	U	O3'-P-O5'	-6.97	93.55	104.00
27	A0	52	ARG	O-C-N	6.97	129.34	122.09
35	BA	481	G	C5'-C4'-C3'	-6.97	104.75	115.20
3	AC	172	HIS	ND1-CE1-NE2	6.97	115.37	108.40
2	AB	660	C	O4'-C4'-C3'	6.96	110.97	104.00
51	BQ	4	THR	N-CA-C	-6.96	102.90	111.33
2	AB	1829	A	C4'-C3'-C2'	-6.96	95.64	102.60
2	AB	2400	G	O4'-C4'-C3'	6.96	110.96	104.00
22	AV	86	THR	N-CA-C	6.96	125.63	110.80
35	BA	267	C	C3'-C2'-C1'	6.96	108.26	101.30
2	AB	1997	C	O4'-C1'-N1	6.96	118.94	108.50
15	AO	54	THR	CA-C-O	-6.96	111.97	119.97
2	AB	1762	A	P-O3'-C3'	6.96	130.64	120.20
2	AB	2297	A	C4'-C3'-C2'	-6.96	95.64	102.60
35	BA	177	G	C3'-C2'-C1'	6.96	108.26	101.30
55	BU	51	HIS	CB-CG-CD2	-6.96	122.16	131.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1681	G	C4'-C3'-C2'	6.95	109.55	102.60
35	BA	51	A	C2'-C3'-O3'	6.95	119.93	109.50
2	AB	2083	G	O4'-C1'-N9	6.95	118.93	108.50
2	AB	1628	G	O4'-C1'-N9	6.95	118.93	108.50
14	AN	127	VAL	CA-C-N	6.95	132.93	121.39
14	AN	127	VAL	C-N-CA	6.95	132.93	121.39
35	BA	1464	U	C3'-C2'-O2'	6.95	121.12	110.70
2	AB	2385	C	O4'-C4'-C3'	-6.95	97.05	104.00
19	AS	29	ARG	CB-CA-C	6.95	118.12	109.16
35	BA	996	A	O5'-C5'-C4'	-6.95	101.08	111.50
20	AT	36	ALA	N-CA-C	-6.95	104.62	113.23
2	AB	2451	A	O4'-C1'-C2'	-6.94	100.66	107.60
19	AS	56	PHE	CA-C-O	-6.94	113.19	120.55
33	A6	6	VAL	N-CA-C	-6.94	97.51	107.37
35	BA	42	G	O4'-C1'-N9	6.94	118.91	108.50
35	BA	1276	G	O4'-C1'-N9	6.94	118.91	108.50
36	BB	49	U	N1-C1'-C2'	-6.94	101.59	112.00
35	BA	496	A	C4'-C3'-O3'	-6.94	102.60	113.00
2	AB	211	C	O4'-C1'-C2'	-6.93	100.67	107.60
2	AB	663	G	C4'-C3'-C2'	-6.93	95.67	102.60
35	BA	1037	C	C3'-C2'-O2'	6.93	121.10	110.70
2	AB	2329	U	O4'-C1'-C2'	-6.93	100.67	107.60
2	AB	2631	G	O4'-C1'-C2'	-6.93	100.67	107.60
35	BA	1257	A	C1'-C2'-O2'	6.93	118.80	108.40
35	BA	1485	U	C4'-C3'-O3'	-6.93	102.60	113.00
2	AB	1327	A	C3'-C2'-C1'	6.93	108.23	101.30
2	AB	2453	A	O4'-C1'-C2'	6.93	114.53	107.60
35	BA	337	G	O4'-C1'-C2'	-6.93	100.67	107.60
2	AB	2842	G	C5'-C4'-O4'	6.93	120.19	109.80
26	AZ	56	ARG	CA-C-N	6.93	129.29	120.56
26	AZ	56	ARG	C-N-CA	6.93	129.29	120.56
35	BA	632	U	C5'-C4'-C3'	-6.93	105.61	116.00
2	AB	2051	A	O4'-C1'-N9	6.93	118.59	108.20
2	AB	2666	C	C3'-C2'-C1'	6.93	108.23	101.30
2	AB	481	G	O4'-C1'-N9	6.93	118.59	108.20
2	AB	1980	G	C3'-C2'-C1'	6.93	108.43	101.50
29	A2	47	LYS	CA-C-N	6.93	130.25	120.28
29	A2	47	LYS	C-N-CA	6.93	130.25	120.28
35	BA	674	G	O4'-C1'-N9	6.93	118.89	108.50
2	AB	2722	G	O4'-C4'-C3'	6.92	110.92	104.00
35	BA	1426	G	O4'-C4'-C3'	6.92	110.92	104.00
35	BA	510	A	P-O5'-C5'	6.92	131.28	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	991	U	O4'-C1'-N1	6.92	118.58	108.20
2	AB	2475	C	C3'-C2'-C1'	-6.92	94.38	101.30
12	AL	62	VAL	CB-CA-C	6.92	118.89	111.35
33	A6	46	LYS	CA-C-N	6.92	133.42	122.62
33	A6	46	LYS	C-N-CA	6.92	133.42	122.62
56	BV	22	SER	CA-C-O	-6.92	113.21	120.55
2	AB	60	G	O3'-P-O5'	-6.92	93.62	104.00
2	AB	294	A	N9-C1'-C2'	6.92	122.38	112.00
8	AH	113	ASP	CA-CB-CG	6.92	119.52	112.60
35	BA	825	A	C5'-C4'-C3'	-6.92	105.62	116.00
36	BB	43	U	O3'-P-O5'	-6.92	93.62	104.00
3	AC	196	LEU	CA-C-N	6.92	130.11	120.29
3	AC	196	LEU	C-N-CA	6.92	130.11	120.29
2	AB	1044	C	C4'-C3'-O3'	-6.91	102.63	113.00
2	AB	1348	C	O4'-C1'-N1	6.91	118.87	108.50
2	AB	2297	A	C5'-C4'-O4'	6.91	120.17	109.80
35	BA	800	G	C4'-C3'-C2'	-6.91	95.69	102.60
38	BD	63	LYS	N-CA-C	6.91	121.31	110.32
46	BL	48	ARG	CA-CB-CG	6.91	127.93	114.10
2	AB	100	U	O4'-C4'-C3'	6.91	110.91	104.00
2	AB	2144	G	O3'-P-O5'	-6.91	93.63	104.00
2	AB	714	U	C5'-C4'-O4'	6.91	120.17	109.80
2	AB	2856	A	C2'-C3'-O3'	-6.91	103.33	113.70
15	AO	14	LYS	CA-C-N	6.91	131.46	121.44
15	AO	14	LYS	C-N-CA	6.91	131.46	121.44
35	BA	644	U	O4'-C1'-C2'	-6.91	100.69	107.60
1	AA	35	C	C1'-O4'-C4'	-6.91	102.99	109.90
2	AB	1753	G	O4'-C1'-N9	6.91	118.86	108.50
2	AB	2185	U	C1'-O4'-C4'	-6.91	102.99	109.90
4	AD	34	GLU	N-CA-C	-6.91	103.43	112.41
35	BA	1243	C	C5'-C4'-C3'	6.91	126.36	116.00
2	AB	2461	A	O4'-C4'-C3'	6.91	110.91	104.00
46	BL	17	LEU	O-C-N	-6.90	114.80	122.12
57	BW	16	ARG	NE-CZ-NH2	-6.90	112.99	119.20
2	AB	2870	C	C3'-C2'-C1'	-6.90	94.40	101.30
35	BA	1005	A	C4'-C3'-C2'	-6.90	95.70	102.60
36	BB	31	U	C4'-C3'-O3'	6.90	123.35	113.00
2	AB	2236	U	P-O3'-C3'	6.90	130.55	120.20
35	BA	1338	G	O4'-C1'-N9	6.90	118.85	108.50
46	BL	83	THR	CA-C-N	6.90	131.62	120.30
46	BL	83	THR	C-N-CA	6.90	131.62	120.30
2	AB	1359	A	C4'-C3'-O3'	6.90	123.35	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1695	G	O4'-C1'-N9	6.90	118.85	108.50
37	BC	47	A	C3'-C2'-C1'	-6.90	94.40	101.30
2	AB	1176	U	C5'-C4'-O4'	6.90	119.44	109.10
4	AD	269	ARG	N-CA-CB	-6.90	99.55	111.55
35	BA	1411	C	C4'-C3'-C2'	-6.90	95.70	102.60
2	AB	2064	C	C1'-O4'-C4'	-6.89	103.01	109.90
26	AZ	5	GLN	CA-C-N	6.89	132.15	120.29
26	AZ	5	GLN	C-N-CA	6.89	132.15	120.29
37	BC	9	G	C3'-C2'-C1'	6.89	108.19	101.30
44	BJ	109	VAL	CA-C-N	6.89	133.07	122.11
44	BJ	109	VAL	C-N-CA	6.89	133.07	122.11
2	AB	1820	U	C3'-C2'-C1'	6.89	108.39	101.50
11	AK	52	LEU	CA-C-N	6.89	128.71	120.23
11	AK	52	LEU	C-N-CA	6.89	128.71	120.23
2	AB	427	U	C4'-C3'-C2'	-6.89	95.71	102.60
1	AA	72	G	O4'-C1'-C2'	-6.89	100.71	107.60
3	AC	10	VAL	CA-C-N	6.89	129.24	120.56
3	AC	10	VAL	C-N-CA	6.89	129.24	120.56
35	BA	863	U	C3'-C2'-C1'	6.89	108.19	101.30
2	AB	2268	A	C5'-C4'-O4'	6.89	120.13	109.80
35	BA	1427	C	C4'-C3'-C2'	-6.89	95.71	102.60
2	AB	63	A	C4'-C3'-C2'	-6.89	95.71	102.60
35	BA	399	G	O5'-C5'-C4'	-6.89	101.17	111.50
2	AB	800	A	C5'-C4'-O4'	6.88	119.43	109.10
6	AF	16	GLU	CA-C-N	6.88	129.51	120.28
6	AF	16	GLU	C-N-CA	6.88	129.51	120.28
23	AW	80	ASP	CA-CB-CG	6.88	119.48	112.60
35	BA	888	G	C3'-C2'-C1'	-6.88	94.42	101.30
35	BA	1198	G	O4'-C4'-C3'	6.88	110.88	104.00
35	BA	1451	U	N1-C1'-C2'	6.88	122.33	112.00
2	AB	1564	C	O4'-C4'-C3'	6.88	110.88	104.00
2	AB	422	A	C4'-C3'-C2'	-6.88	95.72	102.60
2	AB	717	C	C2'-C3'-O3'	-6.88	103.38	113.70
2	AB	2095	A	O4'-C4'-C3'	6.88	110.88	104.00
37	BC	49	C	C5'-C4'-C3'	-6.88	104.88	115.20
1	AA	20	G	O4'-C1'-N9	6.88	118.81	108.50
2	AB	1924	C	O4'-C1'-C2'	-6.88	100.72	107.60
2	AB	1950	G	P-O5'-C5'	6.88	131.21	120.90
4	AD	76	VAL	CA-C-N	6.88	134.35	121.97
4	AD	76	VAL	C-N-CA	6.88	134.35	121.97
2	AB	968	C	C4'-C3'-C2'	-6.88	95.72	102.60
8	AH	75	VAL	CA-C-O	-6.88	113.80	120.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	372	C	O3'-P-O5'	6.88	114.31	104.00
35	BA	439	U	O4'-C4'-C3'	6.88	110.88	104.00
2	AB	2355	G	O4'-C4'-C3'	6.87	110.87	104.00
4	AD	231	HIS	CA-C-N	6.87	126.63	120.10
4	AD	231	HIS	C-N-CA	6.87	126.63	120.10
35	BA	168	G	C5'-C4'-O4'	6.87	120.11	109.80
2	AB	1336	A	C4'-C3'-C2'	-6.87	95.73	102.60
42	BH	68	GLN	CA-C-N	6.87	129.79	120.38
42	BH	68	GLN	C-N-CA	6.87	129.79	120.38
2	AB	2427	C	C3'-C2'-O2'	6.87	121.00	110.70
35	BA	156	C	C3'-C2'-C1'	6.87	108.17	101.30
2	AB	2754	U	C4'-C3'-C2'	-6.87	95.73	102.60
7	AG	82	TYR	CA-C-N	6.87	126.63	119.76
7	AG	82	TYR	C-N-CA	6.87	126.63	119.76
35	BA	1033	G	O4'-C1'-N9	6.87	118.80	108.50
1	AA	41	G	C4'-C3'-C2'	-6.87	95.73	102.60
2	AB	264	C	O4'-C1'-N1	6.87	118.80	108.50
2	AB	1216	G	C4'-C3'-C2'	-6.87	95.73	102.60
2	AB	1461	C	O5'-C5'-C4'	6.87	121.80	111.50
2	AB	1466	U	C4'-C3'-O3'	-6.87	102.70	113.00
2	AB	2031	A	O4'-C1'-C2'	-6.87	98.94	105.80
8	AH	162	ARG	NE-CZ-NH1	-6.87	114.64	121.50
53	BS	45	VAL	N-CA-CB	-6.87	101.94	111.41
2	AB	9	G	O3'-P-O5'	-6.86	93.70	104.00
2	AB	1153	C	C1'-C2'-O2'	6.86	118.70	108.40
35	BA	855	U	O3'-P-O5'	6.86	114.30	104.00
2	AB	129	C	C5'-C4'-C3'	-6.86	105.71	116.00
2	AB	331	C	C2'-C3'-O3'	6.86	119.79	109.50
2	AB	16	C	O4'-C1'-N1	6.86	118.79	108.50
2	AB	2019	A	C2'-C3'-O3'	6.86	123.99	113.70
35	BA	921	U	O4'-C4'-C3'	6.86	110.86	104.00
54	BT	57	ALA	CA-C-N	6.86	130.16	120.42
54	BT	57	ALA	C-N-CA	6.86	130.16	120.42
2	AB	2435	A	O5'-C5'-C4'	-6.86	101.21	111.50
35	BA	1171	A	C3'-C2'-C1'	6.86	108.16	101.30
2	AB	931	U	O3'-P-O5'	-6.86	93.72	104.00
2	AB	1181	U	O4'-C1'-N1	6.86	118.78	108.50
2	AB	1650	A	C5'-C4'-C3'	-6.86	105.72	116.00
5	AE	123	LYS	CA-C-O	-6.86	113.64	120.70
35	BA	495	A	O3'-P-O5'	-6.86	93.72	104.00
35	BA	1532	U	O4'-C4'-C3'	6.86	110.86	104.00
1	AA	91	C	C5'-C4'-C3'	-6.85	105.72	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	63	A	O4'-C4'-C3'	6.85	110.85	104.00
2	AB	405	U	C2'-C3'-O3'	6.85	123.98	113.70
2	AB	1162	G	C1'-O4'-C4'	6.85	116.75	109.90
2	AB	2116	G	O4'-C4'-C3'	6.85	110.85	104.00
2	AB	2789	C	P-O3'-C3'	6.85	130.48	120.20
35	BA	286	C	O4'-C4'-C3'	6.85	110.85	104.00
35	BA	816	A	C3'-C2'-C1'	6.85	108.15	101.30
2	AB	1055	G	C5'-C4'-C3'	-6.85	105.73	116.00
7	AG	116	LEU	CA-C-N	6.85	130.54	120.95
7	AG	116	LEU	C-N-CA	6.85	130.54	120.95
26	AZ	29	LEU	CA-C-O	-6.85	112.97	119.55
35	BA	493	A	C1'-O4'-C4'	-6.85	103.05	109.90
2	AB	289	G	N9-C1'-C2'	-6.85	101.73	112.00
2	AB	1343	G	O4'-C4'-C3'	6.85	110.85	104.00
2	AB	2454	G	C4'-C3'-C2'	-6.85	95.75	102.60
10	AJ	145	ALA	CA-C-N	6.85	129.75	120.44
10	AJ	145	ALA	C-N-CA	6.85	129.75	120.44
2	AB	1111	A	C3'-C2'-O2'	-6.85	104.33	114.60
2	AB	2712	C	C1'-O4'-C4'	6.85	116.55	109.70
40	BF	64	TYR	CA-C-O	-6.85	111.34	119.15
53	BS	68	LYS	CA-C-N	6.85	132.08	122.36
53	BS	68	LYS	C-N-CA	6.85	132.08	122.36
2	AB	337	C	C5'-C4'-C3'	6.84	126.27	116.00
2	AB	1245	G	C5'-C4'-C3'	-6.84	105.73	116.00
2	AB	1902	C	C1'-C2'-O2'	-6.84	98.13	108.40
35	BA	1173	U	C4'-C3'-C2'	-6.84	95.75	102.60
2	AB	2625	G	O4'-C4'-C3'	6.84	110.84	104.00
37	BC	35	C	O4'-C1'-C2'	-6.84	100.76	107.60
1	AA	116	G	C4'-C3'-C2'	-6.84	95.76	102.60
2	AB	1361	G	C4'-C3'-C2'	-6.84	95.76	102.60
23	AW	96	LYS	CA-C-N	6.84	134.61	121.54
23	AW	96	LYS	C-N-CA	6.84	134.61	121.54
35	BA	234	C	C5'-C4'-C3'	6.84	126.26	116.00
2	AB	229	C	O4'-C1'-N1	6.84	118.76	108.50
2	AB	2545	G	P-O5'-C5'	6.84	131.16	120.90
35	BA	375	U	C4'-C3'-C2'	-6.84	95.76	102.60
2	AB	57	C	C4'-C3'-C2'	-6.84	95.76	102.60
2	AB	1831	G	C5'-C4'-O4'	6.84	120.06	109.80
2	AB	1872	A	C4'-C3'-C2'	-6.84	95.76	102.60
4	AD	70	LYS	O-C-N	6.84	131.74	123.26
35	BA	1358	U	P-O3'-C3'	6.84	130.46	120.20
45	BK	98	ARG	NH1-CZ-NH2	-6.84	110.41	119.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	BU	40	PHE	O-C-N	6.84	126.08	121.71
3	AC	117	SER	CA-C-N	6.83	127.11	119.32
3	AC	117	SER	C-N-CA	6.83	127.11	119.32
6	AF	94	GLN	CA-C-N	6.83	129.32	120.44
6	AF	94	GLN	C-N-CA	6.83	129.32	120.44
35	BA	499	A	C3'-C2'-C1'	-6.83	94.67	101.50
35	BA	1243	C	C1'-O4'-C4'	6.83	116.73	109.90
2	AB	227	A	O3'-P-O5'	-6.83	93.75	104.00
4	AD	229	HIS	CA-CB-CG	6.83	120.63	113.80
35	BA	682	G	C5'-C4'-O4'	6.83	120.05	109.80
35	BA	280	C	C3'-C2'-C1'	6.83	108.33	101.50
2	AB	1175	A	C1'-O4'-C4'	-6.83	103.07	109.90
2	AB	1190	G	O4'-C4'-C3'	6.83	110.83	104.00
2	AB	2814	A	C1'-O4'-C4'	-6.83	103.07	109.90
11	AK	77	VAL	O-C-N	6.83	128.60	121.91
12	AL	91	GLU	O-C-N	6.83	129.10	122.07
35	BA	976	G	P-O3'-C3'	6.83	130.44	120.20
2	AB	827	U	O4'-C1'-C2'	-6.83	98.97	105.80
8	AH	131	VAL	O-C-N	6.83	130.44	123.20
2	AB	16	C	C5'-C4'-C3'	-6.83	105.76	116.00
2	AB	264	C	C3'-C2'-C1'	6.83	108.13	101.30
2	AB	2120	G	O3'-P-O5'	-6.83	93.76	104.00
4	AD	269	ARG	NE-CZ-NH2	6.82	125.34	119.20
35	BA	462	G	O4'-C1'-C2'	-6.82	98.98	105.80
2	AB	508	A	C3'-C2'-O2'	6.82	120.93	110.70
2	AB	1089	A	C4'-C3'-O3'	6.82	119.63	109.40
1	AA	13	G	O4'-C4'-C3'	6.82	110.82	104.00
2	AB	1234	U	O3'-P-O5'	-6.82	93.78	104.00
2	AB	2413	G	C5'-C4'-O4'	6.82	120.03	109.80
4	AD	81	GLU	CA-C-N	6.82	130.43	120.82
4	AD	81	GLU	C-N-CA	6.82	130.43	120.82
38	BD	233	GLU	CA-C-N	6.82	129.42	120.28
38	BD	233	GLU	C-N-CA	6.82	129.42	120.28
2	AB	326	G	C5'-C4'-O4'	6.82	120.02	109.80
2	AB	889	C	C4'-C3'-O3'	6.82	123.22	113.00
11	AK	25	PRO	CA-C-N	6.82	129.41	120.28
11	AK	25	PRO	C-N-CA	6.82	129.41	120.28
2	AB	689	A	C5'-C4'-O4'	6.81	120.02	109.80
22	AV	54	GLU	CA-C-N	6.81	130.72	120.77
22	AV	54	GLU	C-N-CA	6.81	130.72	120.77
53	BS	46	HIS	ND1-CG-CD2	6.81	112.91	106.10
2	AB	164	C	C4'-C3'-C2'	-6.81	95.79	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2517	C	O3'-P-O5'	-6.81	93.79	104.00
35	BA	465	A	O5'-C5'-C4'	-6.81	101.48	111.70
2	AB	371	A	O5'-C5'-C4'	6.81	121.91	111.70
2	AB	1277	G	O4'-C4'-C3'	6.81	110.81	104.00
2	AB	1741	C	O4'-C1'-N1	6.81	118.71	108.50
2	AB	1879	C	C3'-C2'-C1'	6.81	108.11	101.30
2	AB	2547	A	O4'-C4'-C3'	6.81	110.81	104.00
20	AT	27	ILE	CA-CB-CG1	6.81	121.97	110.40
39	BE	213	VAL	CA-C-N	6.81	129.40	120.28
39	BE	213	VAL	C-N-CA	6.81	129.40	120.28
5	AE	177	VAL	N-CA-C	-6.80	99.74	108.93
26	AZ	53	LYS	CA-C-N	6.80	128.91	120.34
26	AZ	53	LYS	C-N-CA	6.80	128.91	120.34
35	BA	807	A	C4'-C3'-C2'	-6.80	95.80	102.60
2	AB	1367	A	O5'-C5'-C4'	-6.80	101.30	111.50
2	AB	1685	C	O4'-C1'-C2'	-6.80	100.80	107.60
3	AC	78	PHE	CA-CB-CG	6.80	120.60	113.80
2	AB	277	G	O4'-C4'-C3'	-6.80	97.20	104.00
24	AX	36	ALA	CA-C-N	6.80	127.04	119.90
24	AX	36	ALA	C-N-CA	6.80	127.04	119.90
35	BA	468	A	O5'-C5'-C4'	6.80	121.69	111.50
2	AB	1314	C	O4'-C1'-C2'	-6.79	100.81	107.60
2	AB	1413	A	O4'-C1'-C2'	-6.79	100.81	107.60
9	AI	113	SER	N-CA-C	6.79	125.27	110.80
35	BA	713	G	P-O5'-C5'	6.79	131.09	120.90
20	AT	68	ARG	NE-CZ-NH2	6.79	125.31	119.20
35	BA	392	C	O4'-C1'-C2'	-6.79	100.81	107.60
2	AB	912	C	C3'-C2'-C1'	-6.79	94.51	101.30
2	AB	1822	C	O4'-C1'-N1	6.79	118.68	108.50
22	AV	36	LYS	CA-C-N	6.79	129.38	120.28
22	AV	36	LYS	C-N-CA	6.79	129.38	120.28
35	BA	400	C	O3'-P-O5'	-6.79	93.82	104.00
2	AB	2167	U	C3'-C2'-C1'	6.79	108.09	101.30
2	AB	2180	U	O5'-C5'-C4'	-6.79	101.32	111.50
35	BA	289	G	P-O3'-C3'	6.79	130.38	120.20
35	BA	679	C	O4'-C1'-N1	6.79	118.68	108.50
35	BA	1062	U	C1'-C2'-O2'	6.79	118.58	108.40
56	BV	25	SER	CA-C-N	6.79	129.26	120.44
56	BV	25	SER	C-N-CA	6.79	129.26	120.44
35	BA	1004	A	C5'-C4'-C3'	-6.78	105.83	116.00
1	AA	45	A	C1'-O4'-C4'	6.78	116.68	109.90
1	AA	57	A	C2'-C3'-O3'	6.78	123.87	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	999	U	O3'-P-O5'	6.78	114.17	104.00
2	AB	2567	G	C5'-C4'-C3'	-6.78	105.83	116.00
2	AB	2761	A	C5'-C4'-C3'	-6.78	105.83	116.00
35	BA	646	G	C3'-C2'-O2'	6.78	120.87	110.70
2	AB	1054	A	N9-C1'-C2'	-6.78	101.83	112.00
35	BA	441	A	C5'-C4'-C3'	-6.78	105.83	116.00
35	BA	681	A	C5'-C4'-O4'	6.78	119.97	109.80
2	AB	1485	U	O4'-C1'-N1	6.78	118.66	108.50
2	AB	329	G	C2'-C3'-O3'	6.77	119.66	109.50
2	AB	2475	C	N1-C1'-C2'	6.77	122.16	112.00
35	BA	355	C	O5'-C5'-C4'	6.77	121.66	111.50
35	BA	1246	A	C4'-C3'-O3'	-6.77	102.84	113.00
43	BI	91	ARG	NH1-CZ-NH2	-6.77	110.49	119.30
2	AB	1231	U	C4'-C3'-C2'	-6.77	95.83	102.60
2	AB	2351	G	O4'-C4'-C3'	6.77	110.77	104.00
2	AB	2753	A	C4'-C3'-C2'	-6.77	95.83	102.60
2	AB	2796	U	O4'-C1'-N1	6.77	118.66	108.50
14	AN	117	THR	CA-CB-CG2	6.77	122.01	110.50
40	BF	107	GLY	O-C-N	-6.77	115.08	123.21
8	AH	37	ASN	CA-CB-CG	-6.77	105.83	112.60
26	AZ	33	HIS	CA-CB-CG	-6.77	107.03	113.80
35	BA	543	U	C5'-C4'-O4'	6.77	119.96	109.80
2	AB	1310	G	C1'-O4'-C4'	6.77	116.67	109.90
2	AB	2412	A	C1'-O4'-C4'	-6.77	103.13	109.90
9	AI	46	PHE	O-C-N	-6.77	114.94	122.12
28	A1	24	LEU	CA-C-N	6.77	127.49	119.98
28	A1	24	LEU	C-N-CA	6.77	127.49	119.98
35	BA	1437	A	O5'-C5'-C4'	6.77	121.65	111.50
2	AB	125	A	C3'-C2'-C1'	6.77	108.07	101.30
2	AB	2626	C	N1-C1'-C2'	-6.77	101.85	112.00
23	AW	64	ILE	N-CA-C	6.77	117.28	108.35
2	AB	2775	G	O4'-C4'-C3'	6.77	110.77	104.00
2	AB	1361	G	C3'-C2'-C1'	6.76	108.06	101.30
35	BA	1495	U	C4'-C3'-C2'	-6.76	95.84	102.60
52	BR	44	SER	O-C-N	6.76	133.24	122.96
2	AB	2297	A	O4'-C4'-C3'	6.76	110.76	104.00
5	AE	194	PRO	CA-C-N	6.76	130.24	121.85
5	AE	194	PRO	C-N-CA	6.76	130.24	121.85
10	AJ	81	ILE	CA-CB-CG2	6.76	122.00	110.50
35	BA	95	C	O4'-C4'-C3'	6.76	110.76	104.00
35	BA	724	G	C4'-C3'-C2'	-6.76	95.84	102.60
2	AB	2059	A	C1'-O4'-C4'	-6.76	103.14	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	843	U	O3'-P-O5'	-6.76	93.86	104.00
37	BC	61	U	O3'-P-O5'	-6.76	93.86	104.00
2	AB	153	U	O4'-C1'-C2'	-6.76	100.84	107.60
2	AB	1192	G	C4'-C3'-C2'	-6.76	95.84	102.60
4	AD	88	ALA	O-C-N	6.76	130.83	122.86
35	BA	239	U	O4'-C4'-C3'	6.76	110.76	104.00
35	BA	1289	A	C4'-C3'-C2'	-6.76	95.84	102.60
2	AB	2043	C	O4'-C4'-C3'	6.75	110.75	104.00
2	AB	877	A	O4'-C1'-N9	6.75	118.63	108.50
2	AB	914	G	N9-C1'-C2'	-6.75	101.87	112.00
2	AB	1450	G	C4'-C3'-C2'	-6.75	95.85	102.60
2	AB	1751	U	C1'-C2'-O2'	-6.75	98.27	108.40
2	AB	2198	A	C4'-C3'-C2'	-6.75	95.85	102.60
8	AH	44	HIS	CE1-NE2-CD2	-6.75	102.25	109.00
35	BA	398	U	O4'-C1'-C2'	-6.75	100.85	107.60
43	BI	154	ARG	CA-C-O	-6.75	113.26	120.42
2	AB	1098	A	C5'-C4'-O4'	6.75	119.93	109.80
2	AB	2090	A	O4'-C4'-C3'	6.75	110.75	104.00
6	AF	80	SER	CA-C-O	6.75	128.62	121.33
35	BA	380	G	O4'-C1'-N9	6.75	118.63	108.50
52	BR	3	THR	O-C-N	6.75	131.34	123.17
2	AB	1589	U	C4'-C3'-C2'	-6.75	95.85	102.60
2	AB	1816	C	P-O5'-C5'	6.75	131.02	120.90
4	AD	119	VAL	CA-C-O	-6.75	114.02	121.17
6	AF	85	PHE	CA-CB-CG	6.75	120.55	113.80
35	BA	1141	C	O4'-C4'-C3'	6.75	110.75	104.00
56	BV	83	ASN	CA-CB-CG	6.75	119.35	112.60
2	AB	1320	C	O3'-P-O5'	-6.75	93.88	104.00
2	AB	1464	G	C4'-C3'-C2'	-6.75	95.85	102.60
45	BK	29	ILE	CB-CA-C	6.75	120.35	110.77
2	AB	1876	A	C3'-C2'-C1'	6.75	108.05	101.30
14	AN	23	ILE	N-CA-CB	-6.75	103.02	112.12
15	AO	51	ARG	NE-CZ-NH1	6.74	128.24	121.50
16	AP	118	ARG	NE-CZ-NH2	-6.74	113.13	119.20
25	AY	72	GLY	CA-C-N	6.74	126.73	119.78
25	AY	72	GLY	C-N-CA	6.74	126.73	119.78
35	BA	482	A	C5'-C4'-O4'	6.74	119.92	109.80
37	BC	51	U	P-O5'-C5'	6.74	131.02	120.90
35	BA	751	U	O4'-C1'-N1	6.74	118.61	108.50
41	BG	126	ALA	N-CA-C	6.74	119.26	110.43
43	BI	57	GLU	N-CA-C	6.74	119.64	111.82
2	AB	598	U	C3'-C2'-O2'	6.74	120.81	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	1195	C	O4'-C1'-N1	6.74	118.61	108.50
2	AB	1503	A	C4'-C3'-C2'	-6.74	95.86	102.60
2	AB	2205	A	C5'-C4'-C3'	-6.74	105.90	116.00
2	AB	2031	A	C2'-C3'-O3'	6.73	119.60	109.50
2	AB	606	U	C4'-C3'-C2'	-6.73	95.87	102.60
2	AB	901	C	O4'-C1'-N1	6.73	118.60	108.50
2	AB	945	A	C1'-O4'-C4'	-6.73	102.97	109.70
2	AB	1155	A	C5'-C4'-O4'	6.73	119.90	109.80
2	AB	1783	A	C2'-C3'-O3'	6.73	119.60	109.50
2	AB	1837	C	O4'-C1'-N1	6.73	118.60	108.50
42	BH	90	MET	CA-C-N	6.73	130.91	120.75
42	BH	90	MET	C-N-CA	6.73	130.91	120.75
2	AB	1818	U	C5'-C4'-O4'	6.73	119.90	109.80
2	AB	2723	C	C4'-C3'-C2'	-6.73	95.87	102.60
2	AB	2166	U	C5'-C4'-C3'	-6.73	105.91	116.00
35	BA	522	C	O4'-C4'-C3'	6.73	110.73	104.00
35	BA	1444	U	C4'-C3'-O3'	6.73	123.09	113.00
1	AA	39	A	O5'-C5'-C4'	-6.73	101.41	111.50
2	AB	626	A	O4'-C4'-C3'	-6.73	97.27	104.00
2	AB	669	G	O4'-C1'-C2'	-6.73	100.87	107.60
2	AB	1002	G	C4'-C3'-O3'	6.73	123.09	113.00
35	BA	1305	G	O5'-C5'-C4'	-6.73	101.41	111.50
35	BA	689	C	O4'-C1'-C2'	-6.73	100.87	107.60
45	BK	123	ARG	NE-CZ-NH2	6.73	125.25	119.20
46	BL	86	ALA	O-C-N	6.73	129.82	122.15
2	AB	69	C	C3'-C2'-O2'	6.72	120.79	110.70
2	AB	1352	U	C4'-C3'-C2'	-6.72	95.88	102.60
2	AB	2424	C	O4'-C4'-C3'	6.72	110.72	104.00
35	BA	180	U	O3'-P-O5'	-6.72	93.91	104.00
35	BA	973	G	C4'-C3'-C2'	-6.72	95.88	102.60
2	AB	1210	G	O4'-C4'-C3'	6.72	112.82	106.10
7	AG	154	THR	CA-C-O	6.72	129.11	121.58
16	AP	45	ARG	NE-CZ-NH1	6.72	128.22	121.50
17	AQ	100	HIS	CB-CG-ND1	6.72	132.78	122.70
35	BA	161	A	O4'-C1'-N9	6.72	118.58	108.50
1	AA	41	G	O4'-C4'-C3'	6.72	112.82	106.10
2	AB	2132	U	C5'-C4'-O4'	6.72	119.88	109.80
2	AB	2405	G	O4'-C1'-N9	6.72	118.58	108.50
9	AI	119	ASN	CA-CB-CG	6.72	119.32	112.60
18	AR	4	ILE	CA-C-N	6.72	134.37	121.54
18	AR	4	ILE	C-N-CA	6.72	134.37	121.54
23	AW	44	HIS	CB-CG-CD2	-6.72	122.47	131.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	189	G	O4'-C1'-N9	6.71	118.57	108.50
9	AI	55	GLU	CA-C-O	-6.71	113.77	120.82
49	BO	72	ILE	CA-C-N	6.71	129.57	120.44
49	BO	72	ILE	C-N-CA	6.71	129.57	120.44
20	AT	64	VAL	CB-CA-C	6.71	116.94	110.63
3	AC	232	SER	CA-C-O	-6.71	113.45	120.70
6	AF	164	LEU	CA-C-N	6.71	129.16	120.44
6	AF	164	LEU	C-N-CA	6.71	129.16	120.44
17	AQ	2	ASP	CA-CB-CG	6.71	119.31	112.60
20	AT	5	PHE	CA-CB-CG	6.71	120.51	113.80
2	AB	2015	A	C5'-C4'-O4'	-6.71	99.73	109.80
12	AL	112	GLY	CA-C-N	6.71	125.95	118.97
12	AL	112	GLY	C-N-CA	6.71	125.95	118.97
49	BO	5	GLY	CA-C-N	6.71	134.05	121.97
49	BO	5	GLY	C-N-CA	6.71	134.05	121.97
2	AB	142	A	C4'-C3'-C2'	-6.71	95.89	102.60
35	BA	1184	G	C1'-O4'-C4'	6.71	116.61	109.90
35	BA	1404	C	C2'-C3'-O3'	6.71	123.76	113.70
48	BN	31	GLY	CA-C-N	6.71	130.92	121.66
48	BN	31	GLY	C-N-CA	6.71	130.92	121.66
1	AA	91	C	O4'-C1'-N1	6.71	118.56	108.50
6	AF	69	ARG	CA-C-N	6.71	131.65	122.19
6	AF	69	ARG	C-N-CA	6.71	131.65	122.19
16	AP	22	ARG	N-CA-C	6.71	118.67	111.36
35	BA	1283	U	C3'-C2'-C1'	6.71	108.01	101.30
2	AB	2797	U	C3'-C2'-O2'	6.71	120.76	110.70
2	AB	793	A	C4'-C3'-C2'	-6.70	95.90	102.60
2	AB	2205	A	C1'-O4'-C4'	-6.70	103.20	109.90
4	AD	220	ARG	CA-C-N	6.70	127.42	119.98
4	AD	220	ARG	C-N-CA	6.70	127.42	119.98
35	BA	8	A	O4'-C1'-C2'	-6.70	99.10	105.80
35	BA	858	G	C3'-C2'-C1'	6.70	108.00	101.30
35	BA	1279	G	C1'-C2'-O2'	-6.70	101.75	111.80
2	AB	599	A	C3'-C2'-C1'	6.70	108.00	101.30
35	BA	1362	A	C4'-C3'-C2'	-6.70	95.90	102.60
1	AA	29	A	C4'-C3'-C2'	-6.70	95.90	102.60
2	AB	424	G	C4'-C3'-C2'	-6.70	95.90	102.60
2	AB	2185	U	O4'-C1'-C2'	6.70	114.30	107.60
2	AB	2656	U	O4'-C1'-N1	6.70	118.55	108.50
13	AM	49	ARG	CA-C-N	6.70	131.12	121.54
13	AM	49	ARG	C-N-CA	6.70	131.12	121.54
2	AB	27	G	C1'-O4'-C4'	6.70	116.60	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	452	G	P-O5'-C5'	6.70	130.95	120.90
2	AB	2260	C	C4'-C3'-C2'	-6.70	95.90	102.60
4	AD	102	TYR	CA-C-O	-6.70	113.22	120.92
11	AK	48	ILE	CA-C-O	-6.70	112.51	121.02
11	AK	127	SER	CA-C-O	-6.70	112.27	119.97
17	AQ	12	THR	O-C-N	-6.70	114.03	122.27
35	BA	1132	C	O4'-C4'-C3'	6.70	110.70	104.00
2	AB	1322	A	C1'-O4'-C4'	6.70	116.60	109.90
2	AB	1704	C	C3'-C2'-C1'	6.70	108.00	101.30
35	BA	459	A	O4'-C1'-N9	6.70	118.54	108.50
35	BA	984	C	O4'-C4'-C3'	6.69	110.69	104.00
1	AA	30	C	C1'-C2'-O2'	6.69	118.44	108.40
2	AB	2109	U	C4'-C3'-O3'	-6.69	102.96	113.00
35	BA	210	C	C1'-O4'-C4'	6.69	116.39	109.70
37	BC	38	A	O4'-C1'-C2'	-6.69	100.91	107.60
44	BJ	48	PHE	N-CA-C	6.69	119.34	109.24
49	BO	1	ALA	CA-C-N	6.69	130.37	120.87
49	BO	1	ALA	C-N-CA	6.69	130.37	120.87
2	AB	1758	U	C3'-C2'-C1'	6.69	107.99	101.30
36	BB	32	U	C3'-C2'-C1'	6.69	107.99	101.30
1	AA	35	C	C5'-C4'-C3'	-6.69	105.97	116.00
2	AB	1844	C	O4'-C1'-C2'	-6.69	100.91	107.60
18	AR	55	HIS	CA-C-N	6.69	130.33	120.90
18	AR	55	HIS	C-N-CA	6.69	130.33	120.90
35	BA	869	G	C5'-C4'-C3'	-6.69	105.97	116.00
2	AB	1876	A	C4'-C3'-C2'	-6.69	95.91	102.60
6	AF	186	VAL	N-CA-CB	-6.69	103.24	111.67
35	BA	234	C	C1'-C2'-O2'	-6.69	98.37	108.40
2	AB	1074	G	O3'-P-O5'	-6.69	93.97	104.00
42	BH	91	ARG	CA-C-N	6.69	129.24	120.28
42	BH	91	ARG	C-N-CA	6.69	129.24	120.28
35	BA	1274	A	O3'-P-O5'	6.68	114.03	104.00
35	BA	1336	C	O5'-C5'-C4'	-6.68	101.67	111.70
2	AB	2320	U	C2'-C3'-O3'	6.68	123.72	113.70
8	AH	122	ALA	CA-C-O	-6.68	114.11	121.33
11	AK	69	VAL	CA-C-N	6.68	132.62	122.93
11	AK	69	VAL	C-N-CA	6.68	132.62	122.93
35	BA	955	U	O4'-C1'-C2'	-6.68	100.92	107.60
2	AB	2068	U	C5'-C4'-O4'	6.68	119.82	109.80
7	AG	31	GLU	N-CA-CB	-6.68	100.56	110.85
20	AT	82	HIS	CA-CB-CG	-6.68	107.12	113.80
29	A2	43	PHE	CA-CB-CG	6.68	120.48	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	859	G	C3'-C2'-C1'	6.68	107.98	101.30
35	BA	1215	G	C1'-O4'-C4'	-6.68	103.22	109.90
47	BM	10	ARG	NE-CZ-NH1	-6.68	114.82	121.50
23	AW	44	HIS	CB-CG-ND1	6.68	132.72	122.70
2	AB	2481	G	O4'-C1'-C2'	-6.68	100.92	107.60
35	BA	650	G	C5'-C4'-C3'	-6.68	105.98	116.00
35	BA	727	G	O4'-C1'-C2'	-6.68	100.92	107.60
2	AB	2439	A	P-O3'-C3'	6.67	130.21	120.20
35	BA	696	A	C1'-O4'-C4'	-6.67	103.22	109.90
2	AB	883	G	O4'-C4'-C3'	6.67	110.67	104.00
2	AB	896	A	O4'-C4'-C3'	6.67	112.77	106.10
2	AB	1080	A	O4'-C1'-C2'	-6.67	100.93	107.60
15	AO	51	ARG	O-C-N	6.67	129.03	122.09
35	BA	623	C	C4'-C3'-C2'	-6.67	95.93	102.60
35	BA	703	G	O4'-C1'-N9	6.67	118.21	108.20
2	AB	254	G	C2'-C3'-O3'	-6.67	103.69	113.70
15	AO	40	ARG	CA-C-O	-6.67	113.64	120.71
2	AB	2753	A	O4'-C4'-C3'	6.67	110.67	104.00
2	AB	1115	G	C4'-C3'-O3'	6.67	123.00	113.00
2	AB	1952	A	C3'-C2'-C1'	6.67	108.17	101.50
2	AB	88	G	C3'-C2'-O2'	6.67	120.70	110.70
2	AB	1264	A	C4'-C3'-O3'	6.67	123.00	113.00
20	AT	84	ARG	O-C-N	-6.67	115.24	123.44
35	BA	1112	C	O3'-P-O5'	-6.67	94.00	104.00
7	AG	83	PRO	N-CA-CB	6.66	109.54	103.34
35	BA	329	A	C3'-C2'-O2'	-6.66	104.60	114.60
35	BA	331	G	C5'-C4'-C3'	-6.66	106.01	116.00
2	AB	1437	C	C4'-C3'-C2'	-6.66	95.94	102.60
18	AR	50	ARG	NE-CZ-NH2	6.66	125.19	119.20
24	AX	84	PRO	CA-N-CD	-6.66	102.68	112.00
35	BA	842	U	O4'-C1'-N1	6.66	118.19	108.20
44	BJ	76	ARG	NE-CZ-NH2	-6.66	113.20	119.20
54	BT	61	ALA	CA-C-N	6.66	129.53	120.54
54	BT	61	ALA	C-N-CA	6.66	129.53	120.54
2	AB	1905	C	O4'-C4'-C3'	6.66	110.66	104.00
2	AB	2317	A	C5'-C4'-O4'	6.66	119.79	109.80
35	BA	1195	C	C4'-C3'-C2'	-6.66	95.94	102.60
40	BF	131	ILE	O-C-N	-6.66	116.14	123.20
2	AB	80	G	C1'-O4'-C4'	-6.66	103.24	109.90
15	AO	115	GLU	CA-C-O	-6.66	113.49	120.55
23	AW	95	PHE	CA-CB-CG	6.66	120.46	113.80
52	BR	3	THR	CA-CB-OG1	-6.66	99.61	109.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	AC	74	ARG	NE-CZ-NH2	-6.66	113.21	119.20
35	BA	865	A	C3'-C2'-C1'	6.66	107.96	101.30
2	AB	1772	A	C5'-C4'-C3'	-6.65	106.02	116.00
5	AE	181	ASP	CA-C-O	6.65	127.52	120.33
2	AB	269	C	C4'-C3'-O3'	6.65	122.98	113.00
35	BA	1007	U	C5'-C4'-O4'	6.65	119.78	109.80
35	BA	1365	G	O4'-C1'-C2'	-6.65	100.95	107.60
2	AB	589	U	C3'-C2'-O2'	6.65	120.67	110.70
27	A0	47	ARG	NE-CZ-NH1	-6.65	114.85	121.50
2	AB	2015	A	P-O5'-C5'	6.65	130.87	120.90
1	AA	117	G	O4'-C4'-C3'	6.65	110.65	104.00
2	AB	2315	G	C1'-O4'-C4'	-6.64	103.25	109.90
2	AB	2660	A	O4'-C4'-C3'	6.64	110.64	104.00
3	AC	166	ASP	CB-CA-C	6.64	123.64	110.42
37	BC	13	C	O4'-C1'-N1	6.64	118.47	108.50
49	BO	115	ILE	CB-CA-C	6.64	118.64	110.73
1	AA	120	U	N1-C1'-C2'	-6.64	104.03	114.00
2	AB	974	G	C4'-C3'-O3'	-6.64	99.44	109.40
2	AB	1456	G	C1'-C2'-O2'	-6.64	98.44	108.40
43	BI	5	VAL	CA-CB-CG1	6.64	121.69	110.40
2	AB	1454	C	O4'-C4'-C3'	6.64	110.64	104.00
2	AB	2300	C	C5'-C4'-O4'	6.64	119.76	109.80
2	AB	327	G	C3'-C2'-O2'	6.64	120.66	110.70
34	A7	36	ARG	N-CA-C	-6.64	103.52	111.69
35	BA	412	A	O3'-P-O5'	-6.64	94.04	104.00
2	AB	813	U	O4'-C1'-N1	6.64	118.46	108.50
2	AB	1309	G	C4'-C3'-C2'	-6.64	95.96	102.60
35	BA	1473	G	P-O5'-C5'	6.64	130.86	120.90
2	AB	139	U	O4'-C1'-C2'	-6.64	99.16	105.80
2	AB	1342	A	O4'-C1'-C2'	6.64	112.44	105.80
51	BQ	3	SER	CA-C-N	6.64	129.47	120.38
51	BQ	3	SER	C-N-CA	6.64	129.47	120.38
4	AD	57	HIS	O-C-N	-6.63	115.29	122.85
19	AS	10	ARG	NE-CZ-NH1	6.63	128.13	121.50
49	BO	34	ALA	CA-C-N	6.63	129.06	120.44
49	BO	34	ALA	C-N-CA	6.63	129.06	120.44
19	AS	57	ARG	NE-CZ-NH1	6.63	128.13	121.50
37	BC	32	G	O4'-C1'-N9	6.63	118.45	108.50
2	AB	1360	G	O4'-C1'-N9	6.63	118.45	108.50
2	AB	1729	U	O4'-C4'-C3'	6.63	110.63	104.00
35	BA	793	U	O4'-C1'-N1	6.63	118.45	108.50
2	AB	561	G	O4'-C1'-C2'	-6.63	100.97	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1066	U	O4'-C1'-C2'	-6.63	100.97	107.60
28	A1	39	ASP	CA-CB-CG	6.63	119.23	112.60
35	BA	1181	G	C5'-C4'-C3'	-6.63	105.26	115.20
2	AB	13	A	O4'-C1'-C2'	-6.63	99.17	105.80
2	AB	1470	A	C3'-C2'-C1'	6.63	107.93	101.30
2	AB	1888	G	O4'-C1'-N9	6.63	118.44	108.50
2	AB	1903	G	O5'-C5'-C4'	6.63	121.44	111.50
10	AJ	134	ALA	CA-C-O	-6.63	113.88	120.70
12	AL	59	ALA	N-CA-C	6.63	122.77	113.56
29	A2	62	LYS	CA-C-N	6.63	130.24	120.90
29	A2	62	LYS	C-N-CA	6.63	130.24	120.90
25	AY	21	GLY	CA-C-O	-6.62	115.42	122.05
2	AB	667	U	C1'-O4'-C4'	6.62	116.52	109.90
2	AB	987	C	C2'-C3'-O3'	6.62	123.64	113.70
2	AB	2141	G	O4'-C1'-N9	6.62	118.43	108.50
18	AR	74	GLN	CA-C-N	6.62	129.48	120.54
18	AR	74	GLN	C-N-CA	6.62	129.48	120.54
25	AY	2	HIS	CB-CG-ND1	6.62	132.64	122.70
35	BA	431	A	C1'-O4'-C4'	-6.62	103.28	109.90
2	AB	812	C	C4'-C3'-C2'	-6.62	95.98	102.60
35	BA	172	A	C5'-C4'-C3'	-6.62	106.07	116.00
38	BD	47	PRO	CA-C-N	6.62	129.05	120.44
38	BD	47	PRO	C-N-CA	6.62	129.05	120.44
53	BS	66	LEU	O-C-N	6.62	130.49	122.48
2	AB	579	G	O4'-C4'-C3'	6.62	110.62	104.00
35	BA	449	G	C2'-C3'-O3'	6.62	123.63	113.70
39	BE	187	GLU	CA-C-O	6.62	127.67	120.32
2	AB	364	C	O4'-C4'-C3'	6.62	110.62	104.00
2	AB	1872	A	C3'-C2'-C1'	6.62	107.92	101.30
2	AB	1879	C	C4'-C3'-C2'	-6.62	95.98	102.60
30	A3	54	ILE	CB-CA-C	6.62	122.14	111.29
1	AA	48	U	C5'-C4'-C3'	-6.62	106.07	116.00
2	AB	1127	A	C1'-O4'-C4'	-6.62	103.28	109.90
35	BA	737	C	C5'-C4'-C3'	-6.62	106.08	116.00
2	AB	1025	G	C3'-C2'-C1'	-6.62	94.88	101.50
2	AB	1699	G	O4'-C1'-C2'	6.62	112.42	105.80
2	AB	658	U	O4'-C1'-N1	6.61	118.42	108.50
2	AB	2835	A	O5'-C5'-C4'	-6.61	101.78	111.70
2	AB	2845	U	C5'-C4'-O4'	6.61	119.72	109.80
2	AB	2903	U	O3'-P-O5'	-6.61	94.08	104.00
19	AS	77	LYS	N-CA-C	-6.61	104.15	111.36
35	BA	857	C	C3'-C2'-C1'	6.61	107.91	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	1004	A	O4'-C1'-N9	-6.61	98.58	108.50
38	BD	72	LYS	CA-C-N	6.61	129.47	120.54
38	BD	72	LYS	C-N-CA	6.61	129.47	120.54
2	AB	219	A	C5'-C4'-C3'	-6.61	106.08	116.00
35	BA	561	U	P-O3'-C3'	6.61	130.12	120.20
2	AB	401	A	O4'-C4'-C3'	-6.61	97.39	104.00
2	AB	509	C	O4'-C4'-C3'	6.61	110.61	104.00
2	AB	1239	G	C4'-C3'-C2'	-6.61	95.99	102.60
16	AP	116	VAL	O-C-N	6.61	128.37	121.89
22	AV	69	ARG	NH1-CZ-NH2	-6.61	110.71	119.30
35	BA	1073	U	O4'-C1'-N1	6.61	118.41	108.50
35	BA	1350	A	C3'-C2'-O2'	6.61	120.61	110.70
10	AJ	152	ARG	O-C-N	6.61	129.12	122.12
35	BA	1043	G	C4'-C3'-C2'	-6.61	95.99	102.60
35	BA	1435	G	O5'-C5'-C4'	-6.61	101.59	111.50
2	AB	523	C	O4'-C1'-N1	6.61	118.41	108.50
2	AB	1864	U	O4'-C1'-N1	6.61	118.41	108.50
2	AB	2880	C	C5'-C4'-C3'	-6.61	106.09	116.00
44	BJ	81	GLY	CA-C-O	-6.61	112.40	119.27
50	BP	11	LYS	CA-C-O	-6.61	112.37	119.97
2	AB	550	C	C3'-C2'-O2'	6.61	120.61	110.70
2	AB	1178	C	O4'-C1'-N1	6.61	118.41	108.50
2	AB	2863	C	O4'-C1'-N1	6.61	118.41	108.50
23	AW	6	ARG	NE-CZ-NH1	-6.61	114.89	121.50
2	AB	281	C	O3'-P-O5'	-6.60	94.09	104.00
13	AM	15	GLY	CA-C-N	6.60	133.54	121.85
13	AM	15	GLY	C-N-CA	6.60	133.54	121.85
35	BA	808	C	C3'-C2'-O2'	6.60	120.61	110.70
2	AB	948	C	P-O3'-C3'	6.60	130.10	120.20
23	AW	98	ASN	N-CA-C	6.60	119.48	111.82
26	AZ	15	ASN	OD1-CG-ND2	6.60	129.20	122.60
36	BB	45	G	O4'-C1'-N9	6.60	118.10	108.20
2	AB	893	C	O4'-C1'-N1	6.60	118.40	108.50
2	AB	1998	A	C4'-C3'-O3'	-6.60	103.10	113.00
39	BE	117	ASP	CA-C-O	-6.60	113.50	120.63
1	AA	4	C	O4'-C1'-N1	6.60	118.40	108.50
2	AB	234	U	C3'-C2'-O2'	6.60	120.60	110.70
2	AB	1316	U	C3'-C2'-C1'	-6.60	94.70	101.30
16	AP	44	LEU	CA-C-N	6.60	129.02	120.44
16	AP	44	LEU	C-N-CA	6.60	129.02	120.44
27	A0	46	VAL	O-C-N	6.60	130.82	122.57
39	BE	75	VAL	CA-C-N	6.60	129.79	120.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
39	BE	75	VAL	C-N-CA	6.60	129.79	120.42
2	AB	2464	G	N9-C1'-C2'	-6.60	102.10	112.00
33	A6	35	LYS	O-C-N	6.60	130.81	123.16
35	BA	2	A	C3'-C2'-C1'	6.60	107.90	101.30
35	BA	396	C	O3'-P-O5'	-6.60	94.10	104.00
35	BA	724	G	C5'-C4'-C3'	-6.60	106.10	116.00
35	BA	780	A	C3'-C2'-O2'	6.60	120.59	110.70
35	BA	1190	G	O4'-C1'-C2'	6.60	112.40	105.80
2	AB	721	A	O4'-C1'-N9	6.60	118.39	108.50
36	BB	24	A	C3'-C2'-C1'	6.60	107.90	101.30
2	AB	1651	G	C5'-C4'-C3'	-6.59	106.11	116.00
2	AB	2793	C	O4'-C1'-C2'	-6.59	101.01	107.60
13	AM	53	LYS	CA-C-N	6.59	130.78	121.02
13	AM	53	LYS	C-N-CA	6.59	130.78	121.02
34	A7	15	LYS	O-C-N	6.59	129.67	122.15
2	AB	932	U	O4'-C4'-C3'	6.59	110.59	104.00
40	BF	187	ARG	CA-C-N	6.59	129.77	120.28
40	BF	187	ARG	C-N-CA	6.59	129.77	120.28
47	BM	100	ASN	OD1-CG-ND2	-6.59	116.01	122.60
2	AB	2527	C	C5'-C4'-O4'	6.59	119.69	109.80
3	AC	234	ASN	OD1-CG-ND2	-6.59	116.01	122.60
2	AB	1968	G	C5'-C4'-C3'	-6.59	106.12	116.00
2	AB	2524	G	C3'-C2'-C1'	6.59	107.89	101.30
41	BG	28	ARG	NE-CZ-NH1	6.59	128.09	121.50
51	BQ	53	ARG	NE-CZ-NH2	6.59	125.13	119.20
2	AB	1311	G	C5'-C4'-C3'	-6.59	105.32	115.20
35	BA	632	U	O4'-C1'-C2'	-6.59	101.01	107.60
2	AB	2047	C	O4'-C1'-C2'	-6.58	101.02	107.60
4	AD	65	ASP	CA-C-N	6.58	133.14	122.67
4	AD	65	ASP	C-N-CA	6.58	133.14	122.67
2	AB	213	A	C3'-C2'-O2'	6.58	120.57	110.70
2	AB	895	U	C4'-C3'-C2'	6.58	109.18	102.60
2	AB	2223	G	P-O3'-C3'	6.58	130.07	120.20
14	AN	91	ASP	CA-CB-CG	6.58	119.18	112.60
2	AB	323	C	C4'-C3'-O3'	6.58	119.27	109.40
16	AP	29	VAL	N-CA-C	6.58	119.28	111.05
54	BT	73	HIS	CG-CD2-NE2	-6.58	100.62	107.20
6	AF	4	VAL	CA-C-N	6.58	131.69	122.41
6	AF	4	VAL	C-N-CA	6.58	131.69	122.41
35	BA	156	C	O4'-C4'-C3'	6.58	110.58	104.00
35	BA	1329	A	C3'-C2'-O2'	6.58	120.57	110.70
43	BI	105	GLU	N-CA-C	-6.58	104.04	111.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	AD	181	ARG	CA-C-O	-6.58	113.77	121.46
35	BA	1037	C	O4'-C1'-N1	6.58	118.37	108.50
35	BA	1314	C	O4'-C1'-N1	6.58	118.36	108.50
2	AB	740	C	C1'-O4'-C4'	6.58	116.47	109.90
23	AW	89	GLY	CA-C-N	6.58	131.26	120.94
23	AW	89	GLY	C-N-CA	6.58	131.26	120.94
35	BA	266	G	O3'-P-O5'	6.58	113.86	104.00
35	BA	566	G	O4'-C4'-C3'	6.58	112.67	106.10
35	BA	611	C	O4'-C4'-C3'	6.58	110.58	104.00
47	BM	117	HIS	CB-CG-CD2	-6.58	122.65	131.20
52	BR	3	THR	N-CA-CB	-6.58	100.25	111.69
35	BA	36	C	O4'-C4'-C3'	6.57	110.57	104.00
35	BA	361	G	C4'-C3'-C2'	-6.57	96.03	102.60
38	BD	195	VAL	CA-CB-CG2	6.57	121.57	110.40
39	BE	97	PRO	N-CA-CB	6.57	110.28	103.38
2	AB	2815	C	C3'-C2'-C1'	6.57	107.87	101.30
35	BA	892	A	O5'-C5'-C4'	6.57	121.36	111.50
35	BA	1249	C	C1'-O4'-C4'	-6.57	103.33	109.90
2	AB	558	U	C3'-C2'-O2'	6.57	120.55	110.70
2	AB	1396	U	C4'-C3'-C2'	6.57	109.17	102.60
22	AV	87	LEU	CA-C-N	6.57	131.81	120.58
22	AV	87	LEU	C-N-CA	6.57	131.81	120.58
35	BA	234	C	C4'-C3'-C2'	6.57	109.17	102.60
2	AB	270	A	N9-C1'-C2'	-6.57	102.15	112.00
2	AB	758	C	O4'-C1'-C2'	-6.57	101.03	107.60
2	AB	2751	G	C3'-C2'-C1'	-6.57	94.94	101.50
10	AJ	124	ARG	NE-CZ-NH2	-6.57	113.29	119.20
29	A2	23	LYS	CA-C-N	6.57	130.71	120.34
29	A2	23	LYS	C-N-CA	6.57	130.71	120.34
35	BA	381	C	O4'-C1'-C2'	-6.57	101.03	107.60
35	BA	1133	G	O4'-C4'-C3'	6.57	110.56	104.00
42	BH	18	VAL	CA-C-N	6.57	126.26	119.56
42	BH	18	VAL	C-N-CA	6.57	126.26	119.56
2	AB	1979	U	C5'-C4'-C3'	-6.56	106.15	116.00
2	AB	2224	G	C4'-C3'-C2'	-6.56	96.04	102.60
35	BA	1359	C	C1'-O4'-C4'	-6.56	103.34	109.90
54	BT	55	ALA	CA-C-N	6.56	129.61	120.29
54	BT	55	ALA	C-N-CA	6.56	129.61	120.29
2	AB	102	U	O4'-C1'-C2'	-6.56	99.24	105.80
3	AC	6	LYS	N-CA-C	-6.56	104.05	111.07
1	AA	52	A	O4'-C4'-C3'	6.56	110.56	104.00
2	AB	1788	C	C5'-C4'-C3'	-6.56	106.16	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	A5	29	GLN	CA-C-N	6.56	128.96	120.56
32	A5	29	GLN	C-N-CA	6.56	128.96	120.56
35	BA	912	C	O3'-P-O5'	-6.56	94.16	104.00
2	AB	1322	A	O4'-C1'-C2'	-6.56	101.04	107.60
35	BA	406	G	C3'-C2'-C1'	-6.56	94.74	101.30
38	BD	183	PHE	CA-C-O	-6.56	113.51	120.40
2	AB	476	G	C5'-C4'-C3'	6.55	125.83	116.00
2	AB	826	U	O3'-P-O5'	-6.55	94.17	104.00
2	AB	852	U	C2'-C3'-O3'	-6.55	103.87	113.70
19	AS	30	VAL	CA-C-N	6.55	129.06	120.28
19	AS	30	VAL	C-N-CA	6.55	129.06	120.28
35	BA	460	A	O4'-C1'-N9	6.55	118.33	108.50
40	BF	119	HIS	N-CA-C	-6.55	106.02	112.97
32	A5	33	ARG	CD-NE-CZ	6.55	133.57	124.40
35	BA	1223	C	O3'-P-O5'	-6.55	94.17	104.00
2	AB	727	A	C1'-O4'-C4'	6.55	116.45	109.90
2	AB	1382	G	P-O3'-C3'	6.55	130.03	120.20
2	AB	1660	G	C4'-C3'-C2'	-6.55	96.05	102.60
2	AB	2182	U	O4'-C4'-C3'	6.55	110.55	104.00
2	AB	2374	C	C5'-C4'-O4'	6.55	119.63	109.80
20	AT	12	HIS	CB-CG-CD2	-6.55	122.68	131.20
35	BA	746	A	C4'-C3'-C2'	-6.55	96.05	102.60
35	BA	750	C	C5'-C4'-C3'	-6.55	106.17	116.00
2	AB	828	U	C4'-C3'-C2'	-6.55	96.05	102.60
2	AB	1649	G	C5'-C4'-O4'	6.55	119.62	109.80
35	BA	211	G	O3'-P-O5'	6.55	113.83	104.00
35	BA	280	C	C1'-C2'-O2'	6.55	121.62	111.80
35	BA	620	C	N1-C1'-C2'	-6.55	102.17	112.00
2	AB	1546	G	O3'-P-O5'	-6.55	94.18	104.00
4	AD	137	GLY	CA-C-N	6.55	130.00	120.71
4	AD	137	GLY	C-N-CA	6.55	130.00	120.71
35	BA	1374	A	O4'-C4'-C3'	6.55	110.55	104.00
35	BA	1480	A	C5'-C4'-C3'	6.55	125.82	116.00
2	AB	798	G	C5'-C4'-C3'	-6.54	106.18	116.00
2	AB	1834	U	C4'-C3'-O3'	6.54	122.82	113.00
19	AS	47	ARG	O-C-N	6.54	128.81	122.07
35	BA	1088	G	C4'-C3'-C2'	-6.54	96.06	102.60
53	BS	71	SER	O-C-N	6.54	130.18	121.67
2	AB	889	C	C2'-C3'-O3'	-6.54	103.89	113.70
47	BM	89	GLY	CA-C-N	6.54	126.50	120.03
47	BM	89	GLY	C-N-CA	6.54	126.50	120.03
2	AB	1843	C	C3'-C2'-C1'	6.54	107.84	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
48	BN	70	GLY	CA-C-N	6.54	130.16	120.87
48	BN	70	GLY	C-N-CA	6.54	130.16	120.87
35	BA	157	U	C4'-C3'-C2'	-6.54	96.06	102.60
2	AB	1664	A	O4'-C4'-C3'	6.54	110.53	104.00
2	AB	130	C	P-O3'-C3'	6.53	130.00	120.20
2	AB	875	G	O4'-C4'-C3'	6.53	110.53	104.00
2	AB	1095	A	O4'-C1'-N9	6.53	118.30	108.50
2	AB	1466	U	C3'-C2'-O2'	6.53	120.50	110.70
41	BG	130	THR	CA-CB-OG1	6.53	119.40	109.60
2	AB	612	G	C2'-C3'-O3'	-6.53	103.90	113.70
2	AB	982	C	C3'-C2'-O2'	-6.53	104.81	114.60
2	AB	2567	G	O4'-C1'-N9	6.53	118.30	108.50
35	BA	574	A	C4'-C3'-C2'	6.53	109.13	102.60
35	BA	969	A	O4'-C1'-C2'	-6.53	99.27	105.80
2	AB	1234	U	C3'-C2'-C1'	6.53	107.83	101.30
2	AB	1213	A	O5'-C5'-C4'	6.53	121.29	111.50
2	AB	1807	G	C2'-C3'-O3'	6.53	123.49	113.70
35	BA	690	G	P-O5'-C5'	6.53	130.69	120.90
35	BA	1220	G	C3'-C2'-C1'	6.53	107.83	101.30
37	BC	13	C	O4'-C4'-C3'	6.53	110.53	104.00
2	AB	251	A	O4'-C1'-C2'	-6.53	101.08	107.60
2	AB	582	A	C4'-C3'-C2'	-6.53	96.08	102.60
2	AB	2629	U	C1'-O4'-C4'	6.53	116.23	109.70
21	AU	54	ALA	CA-C-N	6.53	129.40	120.46
21	AU	54	ALA	C-N-CA	6.53	129.40	120.46
35	BA	636	U	C4'-C3'-C2'	-6.53	96.08	102.60
32	A5	4	THR	CA-CB-CG2	6.52	121.59	110.50
32	A5	6	GLN	CA-C-N	6.52	128.00	119.84
32	A5	6	GLN	C-N-CA	6.52	128.00	119.84
2	AB	1602	U	C5'-C4'-C3'	-6.52	105.42	115.20
2	AB	2340	A	C4'-C3'-C2'	-6.52	96.08	102.60
2	AB	2446	G	C3'-C2'-C1'	-6.52	94.78	101.30
4	AD	1	ALA	CA-C-N	6.52	132.01	122.94
4	AD	1	ALA	C-N-CA	6.52	132.01	122.94
5	AE	16	THR	CA-C-O	-6.52	113.81	121.44
53	BS	19	SER	CA-C-O	-6.52	114.25	121.23
35	BA	39	G	C4'-C3'-C2'	-6.52	96.08	102.60
35	BA	464	U	O3'-P-O5'	-6.52	94.22	104.00
35	BA	889	A	C3'-C2'-C1'	6.52	108.02	101.50
36	BB	15	G	O4'-C4'-C3'	6.52	110.52	104.00
2	AB	1210	G	C1'-O4'-C4'	-6.52	103.18	109.70
2	AB	1219	U	O4'-C4'-C3'	6.52	110.52	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1509	A	C1'-O4'-C4'	6.52	116.22	109.70
8	AH	49	LEU	CA-C-N	6.52	132.18	123.05
8	AH	49	LEU	C-N-CA	6.52	132.18	123.05
44	BJ	82	LEU	N-CA-C	-6.52	95.04	108.53
56	BV	23	ARG	CA-C-N	6.52	128.91	120.44
56	BV	23	ARG	C-N-CA	6.52	128.91	120.44
2	AB	1524	G	C5'-C4'-O4'	6.51	119.57	109.80
4	AD	3	VAL	N-CA-C	6.51	117.26	107.75
47	BM	23	HIS	CA-C-O	6.51	127.88	120.84
52	BR	25	ARG	CB-CA-C	6.51	120.50	109.55
2	AB	391	A	C4'-C3'-C2'	-6.51	96.09	102.60
2	AB	1905	C	C4'-C3'-C2'	-6.51	96.09	102.60
2	AB	2639	A	C4'-C3'-C2'	-6.51	96.09	102.60
38	BD	222	GLU	CA-C-N	6.51	127.21	119.98
38	BD	222	GLU	C-N-CA	6.51	127.21	119.98
51	BQ	61	GLN	O-C-N	-6.51	114.72	122.15
2	AB	486	C	C5'-C4'-O4'	6.51	119.57	109.80
2	AB	1943	U	O4'-C1'-N1	6.51	117.97	108.20
16	AP	13	ASN	CA-CB-CG	6.51	119.11	112.60
39	BE	227	GLN	CA-C-N	6.51	129.30	120.38
39	BE	227	GLN	C-N-CA	6.51	129.30	120.38
2	AB	233	A	C3'-C2'-C1'	6.51	107.81	101.30
2	AB	491	G	O3'-P-O5'	-6.51	94.23	104.00
13	AM	31	ARG	NE-CZ-NH2	6.51	125.06	119.20
22	AV	46	ALA	O-C-N	6.51	129.04	122.08
35	BA	210	C	C5'-C4'-C3'	-6.51	105.44	115.20
35	BA	454	G	C4'-C3'-C2'	-6.51	96.09	102.60
35	BA	1381	U	O4'-C1'-C2'	-6.51	101.09	107.60
21	AU	51	LEU	CA-C-N	6.51	129.00	120.28
21	AU	51	LEU	C-N-CA	6.51	129.00	120.28
35	BA	1024	G	C5'-C4'-O4'	6.51	119.56	109.80
49	BO	2	ARG	NE-CZ-NH2	6.51	125.06	119.20
2	AB	242	G	P-O3'-C3'	6.51	129.96	120.20
2	AB	2461	A	P-O5'-C5'	6.51	130.66	120.90
4	AD	141	HIS	ND1-CE1-NE2	6.51	114.91	108.40
35	BA	1092	A	C5'-C4'-C3'	-6.51	106.24	116.00
35	BA	1198	G	C4'-C3'-C2'	-6.51	96.09	102.60
30	A3	3	GLN	OE1-CD-NE2	6.50	129.10	122.60
35	BA	518	C	C5'-C4'-C3'	-6.50	105.44	115.20
1	AA	72	G	C4'-C3'-C2'	-6.50	96.10	102.60
2	AB	860	U	C4'-C3'-C2'	-6.50	96.10	102.60
2	AB	1122	G	C5'-C4'-C3'	6.50	125.75	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	AX	30	ILE	CA-CB-CG1	6.50	121.45	110.40
2	AB	418	C	O4'-C1'-C2'	-6.50	101.10	107.60
2	AB	2824	C	C1'-O4'-C4'	-6.50	103.40	109.90
46	BL	2	GLN	OE1-CD-NE2	-6.50	116.10	122.60
35	BA	80	A	N9-C1'-C2'	6.50	121.75	112.00
35	BA	837	U	C4'-C3'-C2'	-6.50	96.10	102.60
2	AB	2270	A	C2'-C3'-O3'	-6.50	103.96	113.70
50	BP	15	LEU	CA-C-N	6.50	129.31	120.54
50	BP	15	LEU	C-N-CA	6.50	129.31	120.54
20	AT	66	HIS	CA-CB-CG	6.50	120.30	113.80
35	BA	376	G	C4'-C3'-C2'	-6.49	96.11	102.60
35	BA	465	A	C2'-C3'-O3'	6.49	119.24	109.50
35	BA	1116	U	C2'-C3'-O3'	-6.49	103.96	113.70
38	BD	143	LEU	CA-C-N	6.49	129.27	120.44
38	BD	143	LEU	C-N-CA	6.49	129.27	120.44
56	BV	48	LYS	O-C-N	6.49	128.76	122.07
2	AB	215	G	O4'-C1'-N9	6.49	117.94	108.20
2	AB	321	U	O4'-C4'-C3'	6.49	110.49	104.00
2	AB	670	A	O5'-C5'-C4'	6.49	121.44	111.70
2	AB	1314	C	C4'-C3'-C2'	-6.49	96.11	102.60
35	BA	224	U	C3'-C2'-C1'	6.49	107.79	101.30
35	BA	356	A	C4'-C3'-O3'	6.49	122.74	113.00
39	BE	55	VAL	CB-CA-C	6.49	118.94	110.12
2	AB	750	A	O4'-C1'-C2'	-6.49	101.11	107.60
2	AB	2643	G	C1'-O4'-C4'	6.49	116.39	109.90
2	AB	2779	U	C3'-C2'-C1'	-6.49	95.01	101.50
4	AD	20	ASN	CA-C-N	6.49	126.18	119.56
4	AD	20	ASN	C-N-CA	6.49	126.18	119.56
37	BC	7	G	C2'-C3'-O3'	-6.49	103.97	113.70
2	AB	2295	C	C4'-C3'-C2'	-6.48	96.12	102.60
2	AB	1707	G	O5'-C5'-C4'	-6.48	101.78	111.50
2	AB	2177	C	O4'-C4'-C3'	6.48	110.48	104.00
2	AB	2261	C	O4'-C1'-N1	6.48	118.22	108.50
2	AB	2696	U	C5'-C4'-O4'	6.48	119.53	109.80
35	BA	1462	C	C1'-O4'-C4'	-6.48	103.42	109.90
6	AF	54	GLY	CA-C-O	-6.48	111.80	119.06
53	BS	49	ASN	CA-C-N	6.48	131.34	122.07
53	BS	49	ASN	C-N-CA	6.48	131.34	122.07
54	BT	37	LYS	CA-C-N	6.48	129.43	120.49
54	BT	37	LYS	C-N-CA	6.48	129.43	120.49
1	AA	101	A	O4'-C1'-C2'	-6.48	101.12	107.60
2	AB	1348	C	O4'-C1'-C2'	-6.48	101.12	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1493	C	O4'-C1'-N1	6.48	118.22	108.50
2	AB	1834	U	C2'-C3'-O3'	-6.48	103.98	113.70
15	AO	89	VAL	O-C-N	-6.48	115.62	122.81
35	BA	590	U	C5'-C4'-C3'	-6.48	106.28	116.00
2	AB	917	A	C5'-C4'-C3'	-6.48	106.28	116.00
2	AB	2618	G	C5'-C4'-O4'	6.48	119.51	109.80
35	BA	620	C	O4'-C1'-N1	6.48	118.21	108.50
2	AB	2174	C	C4'-C3'-C2'	-6.47	96.12	102.60
3	AC	148	ASN	CA-C-N	6.47	129.33	120.46
3	AC	148	ASN	C-N-CA	6.47	129.33	120.46
2	AB	371	A	C1'-O4'-C4'	6.47	116.17	109.70
35	BA	569	C	C5'-C4'-C3'	-6.47	106.29	116.00
35	BA	685	G	O5'-C5'-C4'	6.47	121.21	111.50
41	BG	92	ARG	NE-CZ-NH2	6.47	125.02	119.20
2	AB	1924	C	O3'-P-O5'	6.47	113.70	104.00
2	AB	2047	C	C4'-C3'-C2'	-6.47	96.13	102.60
35	BA	319	G	C5'-C4'-C3'	-6.47	106.30	116.00
35	BA	610	U	C3'-C2'-C1'	-6.47	94.83	101.30
35	BA	1259	C	C5'-C4'-C3'	-6.47	106.30	116.00
38	BD	22	TRP	CA-CB-CG	6.47	125.89	113.60
49	BO	101	THR	CA-CB-OG1	6.47	119.30	109.60
2	AB	2454	G	O4'-C4'-C3'	6.47	110.47	104.00
2	AB	2850	A	C4'-C3'-C2'	-6.47	96.13	102.60
35	BA	447	G	O4'-C4'-C3'	6.47	110.47	104.00
35	BA	1327	C	O4'-C4'-C3'	-6.47	97.53	104.00
44	BJ	57	GLU	CA-C-N	6.47	131.92	123.00
44	BJ	57	GLU	C-N-CA	6.47	131.92	123.00
2	AB	1009	A	P-O3'-C3'	6.46	129.90	120.20
2	AB	1144	A	C4'-C3'-C2'	-6.46	96.14	102.60
2	AB	1636	U	N1-C1'-C2'	-6.46	102.31	112.00
3	AC	168	ASN	CA-CB-CG	6.46	119.06	112.60
35	BA	114	U	O4'-C4'-C3'	6.46	110.47	104.00
35	BA	168	G	O3'-P-O5'	6.46	113.70	104.00
55	BU	80	ARG	CA-C-N	6.46	130.19	121.01
55	BU	80	ARG	C-N-CA	6.46	130.19	121.01
2	AB	2401	U	O4'-C1'-N1	6.46	118.19	108.50
6	AF	185	LYS	CA-C-O	6.46	128.70	121.40
35	BA	1394	A	C3'-C2'-O2'	-6.46	104.91	114.60
1	AA	97	C	O3'-P-O5'	-6.46	94.31	104.00
29	A2	66	ILE	O-C-N	-6.46	116.28	120.42
35	BA	1107	C	C4'-C3'-O3'	-6.46	103.31	113.00
16	AP	69	ARG	CA-C-O	-6.46	114.05	120.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
38	BD	9	LEU	CA-C-N	6.46	128.94	120.28
38	BD	9	LEU	C-N-CA	6.46	128.94	120.28
2	AB	932	U	N1-C1'-C2'	6.46	121.69	112.00
2	AB	1217	U	O4'-C1'-N1	6.46	118.19	108.50
2	AB	1834	U	C4'-C3'-C2'	-6.46	96.14	102.60
2	AB	2773	C	O4'-C4'-C3'	6.46	110.46	104.00
35	BA	960	U	O3'-P-O5'	6.46	113.69	104.00
2	AB	403	U	O4'-C1'-N1	6.46	117.89	108.20
35	BA	110	C	C4'-C3'-O3'	-6.46	103.32	113.00
35	BA	1205	U	O3'-P-O5'	6.46	113.68	104.00
35	BA	1211	U	C3'-C2'-O2'	6.46	120.39	110.70
2	AB	264	C	P-O3'-C3'	6.46	129.88	120.20
35	BA	1463	U	C5'-C4'-C3'	-6.46	106.32	116.00
35	BA	757	U	C1'-C2'-O2'	6.45	118.08	108.40
2	AB	1239	G	P-O3'-C3'	6.45	129.88	120.20
2	AB	1300	G	C5'-C4'-O4'	6.45	118.78	109.10
35	BA	498	A	O4'-C4'-C3'	6.45	110.45	104.00
35	BA	857	C	O3'-P-O5'	6.45	113.67	104.00
2	AB	645	C	N1-C1'-C2'	-6.45	104.33	114.00
2	AB	2488	G	C4'-C3'-C2'	-6.45	96.15	102.60
2	AB	2562	U	C5'-C4'-O4'	6.45	119.47	109.80
35	BA	467	U	O3'-P-O5'	-6.45	94.33	104.00
2	AB	178	G	O4'-C1'-N9	6.45	118.17	108.50
2	AB	581	C	C4'-C3'-C2'	-6.45	96.15	102.60
2	AB	1235	G	C4'-C3'-C2'	-6.45	96.15	102.60
28	A1	17	PRO	CA-C-N	6.45	128.82	120.44
28	A1	17	PRO	C-N-CA	6.45	128.82	120.44
10	AJ	117	ILE	CA-CB-CG1	6.45	121.36	110.40
21	AU	7	HIS	ND1-CG-CD2	6.45	112.55	106.10
35	BA	1293	C	C4'-C3'-C2'	-6.45	96.16	102.60
2	AB	758	C	C1'-O4'-C4'	6.44	116.34	109.90
2	AB	1924	C	C3'-C2'-C1'	6.44	107.74	101.30
35	BA	1138	G	O4'-C1'-N9	6.44	118.17	108.50
35	BA	1199	U	O4'-C4'-C3'	6.44	110.44	104.00
2	AB	1327	A	O4'-C4'-C3'	6.44	110.44	104.00
35	BA	392	C	C4'-C3'-C2'	-6.44	96.16	102.60
19	AS	60	TRP	CA-C-N	6.44	129.56	120.42
19	AS	60	TRP	C-N-CA	6.44	129.56	120.42
21	AU	60	HIS	CA-CB-CG	6.44	120.24	113.80
35	BA	403	C	C2'-C3'-O3'	-6.44	104.04	113.70
54	BT	66	LEU	CA-C-N	6.44	133.52	122.38
54	BT	66	LEU	C-N-CA	6.44	133.52	122.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	508	A	C4'-C3'-C2'	-6.44	96.16	102.60
2	AB	2508	G	O3'-P-O5'	-6.44	94.34	104.00
2	AB	1315	C	C3'-C2'-C1'	6.44	107.74	101.30
7	AG	64	PRO	N-CA-CB	6.44	109.04	103.31
35	BA	1256	A	C4'-C3'-O3'	6.44	119.05	109.40
43	BI	149	ALA	CA-C-N	6.44	133.58	122.64
43	BI	149	ALA	C-N-CA	6.44	133.58	122.64
2	AB	241	A	P-O3'-C3'	6.43	129.85	120.20
10	AJ	118	PRO	CA-C-N	6.43	129.78	120.38
10	AJ	118	PRO	C-N-CA	6.43	129.78	120.38
2	AB	949	G	C1'-O4'-C4'	-6.43	103.47	109.90
2	AB	1191	G	O4'-C4'-C3'	6.43	110.43	104.00
2	AB	1277	G	C4'-C3'-C2'	-6.43	96.17	102.60
2	AB	1429	G	C3'-C2'-O2'	6.43	120.35	110.70
2	AB	1595	C	C1'-C2'-O2'	-6.43	98.75	108.40
2	AB	1752	C	O4'-C1'-C2'	6.43	114.03	107.60
20	AT	47	VAL	O-C-N	6.43	130.65	122.61
35	BA	565	U	C4'-C3'-C2'	-6.43	96.17	102.60
2	AB	1979	U	O5'-C5'-C4'	6.43	121.15	111.50
2	AB	2870	C	O4'-C1'-N1	6.43	118.15	108.50
16	AP	38	LEU	CA-C-N	6.43	126.65	119.32
16	AP	38	LEU	C-N-CA	6.43	126.65	119.32
38	BD	70	GLY	N-CA-C	6.43	124.50	115.43
2	AB	693	A	C4'-C3'-C2'	-6.43	96.17	102.60
42	BH	67	PRO	CA-C-O	-6.43	114.10	121.56
1	AA	15	A	O4'-C1'-N9	6.43	117.84	108.20
6	AF	71	GLY	O-C-N	-6.43	116.02	122.19
35	BA	284	C	C5'-C4'-C3'	-6.43	106.36	116.00
2	AB	2106	U	P-O3'-C3'	6.42	129.84	120.20
35	BA	959	A	C3'-C2'-C1'	6.42	107.72	101.30
35	BA	1453	G	O4'-C1'-N9	6.42	118.14	108.50
38	BD	129	THR	N-CA-C	6.42	119.01	110.53
2	AB	1065	U	O3'-P-O5'	-6.42	94.37	104.00
2	AB	377	G	P-O5'-C5'	6.42	130.53	120.90
2	AB	767	U	C4'-C3'-C2'	-6.42	96.18	102.60
2	AB	1040	A	C1'-O4'-C4'	-6.42	103.48	109.90
2	AB	1164	C	P-O3'-C3'	6.42	129.83	120.20
35	BA	1475	G	O4'-C4'-C3'	6.42	110.42	104.00
35	BA	1484	C	O4'-C1'-N1	6.42	118.13	108.50
38	BD	58	LYS	CA-C-O	-6.42	113.74	120.55
54	BT	4	PHE	CA-CB-CG	6.42	120.22	113.80
2	AB	1042	G	N9-C1'-C2'	-6.42	102.37	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2481	G	O4'-C1'-N9	6.42	118.13	108.50
14	AN	135	ILE	N-CA-C	6.42	118.00	111.00
35	BA	195	A	N9-C1'-C2'	6.42	121.63	112.00
35	BA	1152	A	C1'-O4'-C4'	-6.42	103.48	109.90
51	BQ	37	HIS	ND1-CE1-NE2	6.42	114.82	108.40
11	AK	58	ILE	CA-C-O	-6.42	113.16	120.67
30	A3	49	ARG	CA-C-N	6.42	130.46	120.00
30	A3	49	ARG	C-N-CA	6.42	130.46	120.00
35	BA	1536	C	O3'-P-O5'	-6.42	94.37	104.00
42	BH	49	TYR	CA-C-O	-6.42	112.34	120.04
44	BJ	116	ARG	NE-CZ-NH1	6.42	127.92	121.50
2	AB	176	A	O4'-C4'-C3'	6.42	110.42	104.00
2	AB	526	A	P-O5'-C5'	6.42	130.53	120.90
2	AB	1276	A	O4'-C1'-C2'	-6.42	101.18	107.60
2	AB	2757	A	C5'-C4'-O4'	6.42	119.42	109.80
3	AC	141	LYS	CA-C-N	6.42	129.25	120.46
3	AC	141	LYS	C-N-CA	6.42	129.25	120.46
4	AD	266	ILE	CB-CA-C	6.42	118.16	111.23
15	AO	127	LYS	CA-C-N	6.42	133.60	122.82
15	AO	127	LYS	C-N-CA	6.42	133.60	122.82
35	BA	1138	G	C4'-C3'-C2'	-6.42	96.18	102.60
2	AB	952	G	C4'-C3'-C2'	-6.42	96.19	102.60
2	AB	1231	U	O4'-C4'-C3'	6.42	110.42	104.00
19	AS	37	ALA	N-CA-C	6.42	118.35	111.36
35	BA	1385	G	C3'-C2'-O2'	6.42	120.32	110.70
2	AB	311	A	C3'-C2'-C1'	6.41	107.91	101.50
35	BA	293	G	C5'-C4'-C3'	-6.41	106.38	116.00
35	BA	951	G	O4'-C1'-N9	6.41	118.12	108.50
2	AB	987	C	O4'-C4'-C3'	6.41	110.41	104.00
35	BA	364	A	C2'-C3'-O3'	-6.41	104.08	113.70
37	BC	75	C	O4'-C1'-C2'	-6.41	99.39	105.80
2	AB	100	U	C5'-C4'-C3'	-6.41	106.39	116.00
2	AB	849	A	C5'-C4'-C3'	-6.41	106.38	116.00
2	AB	1130	U	O4'-C4'-C3'	6.41	110.41	104.00
2	AB	2443	C	C5'-C4'-C3'	-6.41	106.38	116.00
35	BA	553	A	O3'-P-O5'	-6.41	94.38	104.00
38	BD	73	ARG	CA-C-N	6.41	132.36	121.14
38	BD	73	ARG	C-N-CA	6.41	132.36	121.14
2	AB	1428	C	O3'-P-O5'	-6.41	94.39	104.00
2	AB	2027	G	O4'-C4'-C3'	6.41	110.41	104.00
19	AS	89	ILE	N-CA-C	-6.41	104.25	110.72
2	AB	70	G	N9-C1'-C2'	-6.41	104.39	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1497	U	O4'-C4'-C3'	6.41	112.51	106.10
7	AG	31	GLU	CB-CA-C	6.41	121.24	109.71
22	AV	28	ASN	CA-C-N	6.41	133.78	121.54
22	AV	28	ASN	C-N-CA	6.41	133.78	121.54
35	BA	559	A	O4'-C1'-N9	6.41	117.81	108.20
2	AB	332	A	C1'-C2'-O2'	6.41	121.41	111.80
2	AB	2008	C	C3'-C2'-C1'	6.41	107.71	101.30
35	BA	22	G	O4'-C1'-C2'	-6.41	101.19	107.60
35	BA	405	U	C5'-C4'-C3'	-6.41	106.39	116.00
51	BQ	70	LYS	CA-C-N	6.41	130.85	120.60
51	BQ	70	LYS	C-N-CA	6.41	130.85	120.60
2	AB	1601	G	C2'-C3'-O3'	6.40	123.31	113.70
35	BA	132	C	O4'-C1'-C2'	-6.40	101.20	107.60
35	BA	679	C	C5'-C4'-O4'	6.40	119.41	109.80
35	BA	987	G	O4'-C1'-C2'	-6.40	101.20	107.60
2	AB	2514	U	C5'-C4'-C3'	-6.40	106.40	116.00
35	BA	128	G	C2'-C3'-O3'	6.40	123.30	113.70
35	BA	271	C	O4'-C4'-C3'	6.40	110.40	104.00
35	BA	765	G	O4'-C1'-N9	6.40	117.80	108.20
54	BT	38	ILE	N-CA-C	6.40	118.67	109.51
2	AB	791	C	O3'-P-O5'	-6.40	94.40	104.00
2	AB	1257	C	O4'-C1'-C2'	-6.40	101.20	107.60
16	AP	16	HIS	CA-C-O	-6.40	114.11	120.70
35	BA	1252	A	C1'-O4'-C4'	-6.40	103.50	109.90
8	AH	100	ASN	N-CA-C	6.40	120.92	113.18
2	AB	1898	U	O3'-P-O5'	-6.40	94.40	104.00
2	AB	2044	C	O3'-P-O5'	-6.40	94.40	104.00
8	AH	122	ALA	N-CA-C	6.40	118.79	109.07
30	A3	45	ASP	CA-C-O	6.40	126.93	119.32
35	BA	613	C	C4'-C3'-C2'	-6.40	96.20	102.60
2	AB	1689	A	O5'-C5'-C4'	6.40	121.09	111.50
2	AB	1490	A	C2'-C3'-O3'	-6.39	104.11	113.70
20	AT	66	HIS	N-CA-CB	6.39	120.59	110.55
35	BA	707	U	C1'-O4'-C4'	-6.39	103.51	109.90
2	AB	371	A	O4'-C1'-C2'	-6.39	99.41	105.80
2	AB	495	G	C4'-C3'-C2'	-6.39	96.21	102.60
2	AB	1072	C	O3'-P-O5'	-6.39	94.41	104.00
2	AB	1196	C	C5'-C4'-O4'	6.39	119.39	109.80
4	AD	8	THR	N-CA-C	6.39	120.93	113.20
2	AB	2725	A	C4'-C3'-O3'	-6.39	99.81	109.40
10	AJ	162	GLU	CA-C-O	6.39	127.70	120.80
2	AB	1152	C	C4'-C3'-O3'	-6.39	103.42	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
19	AS	13	HIS	O-C-N	6.39	128.92	122.08
27	A0	42	LEU	CD1-CG-CD2	-6.39	96.74	110.80
2	AB	1535	A	N9-C1'-C2'	-6.39	104.42	114.00
2	AB	2797	U	N1-C1'-C2'	6.39	121.58	112.00
12	AL	17	VAL	CB-CA-C	6.39	120.29	110.96
35	BA	1524	C	O3'-P-O5'	-6.39	94.42	104.00
37	BC	63	C	O4'-C1'-N1	6.39	118.08	108.50
35	BA	1502	A	O3'-P-O5'	-6.39	94.42	104.00
1	AA	11	C	O4'-C1'-C2'	6.38	112.19	105.80
2	AB	1262	A	O4'-C1'-N9	6.38	118.08	108.50
28	A1	44	ARG	CA-C-N	6.38	127.07	119.98
28	A1	44	ARG	C-N-CA	6.38	127.07	119.98
1	AA	35	C	O4'-C1'-N1	6.38	118.07	108.50
2	AB	784	G	O3'-P-O5'	-6.38	94.42	104.00
2	AB	2073	C	C4'-C3'-C2'	-6.38	96.22	102.60
2	AB	1211	C	C4'-C3'-C2'	-6.38	96.22	102.60
2	AB	1496	A	O3'-P-O5'	6.38	113.57	104.00
2	AB	1852	U	C1'-O4'-C4'	-6.38	103.52	109.90
12	AL	98	GLU	CA-CB-CG	6.38	126.86	114.10
2	AB	487	C	O4'-C1'-N1	6.38	118.07	108.50
2	AB	1212	G	O4'-C1'-N9	6.38	117.77	108.20
45	BK	75	ALA	CA-C-N	6.38	127.06	119.98
45	BK	75	ALA	C-N-CA	6.38	127.06	119.98
2	AB	578	G	C2'-C3'-O3'	-6.38	104.13	113.70
4	AD	40	GLY	CA-C-N	6.38	132.87	122.09
4	AD	40	GLY	C-N-CA	6.38	132.87	122.09
16	AP	24	MET	CA-C-O	-6.38	113.16	120.24
35	BA	644	U	O4'-C1'-N1	6.38	118.07	108.50
2	AB	1494	A	N9-C1'-C2'	-6.38	102.44	112.00
15	AO	59	ARG	N-CA-CB	-6.38	99.71	110.49
35	BA	322	C	C1'-O4'-C4'	-6.38	103.52	109.90
2	AB	1893	C	O4'-C1'-N1	6.38	118.06	108.50
2	AB	351	C	O5'-C5'-C4'	-6.37	101.94	111.50
2	AB	1223	G	O4'-C1'-C2'	-6.37	101.23	107.60
2	AB	1356	G	C1'-O4'-C4'	6.37	116.27	109.90
2	AB	1519	G	O4'-C1'-N9	6.37	118.06	108.50
2	AB	2759	G	C2'-C3'-O3'	-6.37	104.14	113.70
35	BA	318	G	C3'-C2'-C1'	6.37	107.67	101.30
2	AB	304	U	O4'-C1'-N1	6.37	118.06	108.50
35	BA	1233	G	C4'-C3'-C2'	-6.37	96.23	102.60
2	AB	1070	A	O4'-C4'-C3'	6.37	110.37	104.00
2	AB	1992	G	O4'-C1'-N9	6.37	117.75	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	166	U	P-O5'-C5'	6.37	130.46	120.90
35	BA	344	A	C3'-C2'-C1'	6.37	107.87	101.50
35	BA	860	A	C4'-C3'-C2'	-6.37	96.23	102.60
35	BA	904	U	C1'-O4'-C4'	-6.37	103.53	109.90
35	BA	1141	C	O4'-C1'-N1	6.37	118.06	108.50
35	BA	1412	C	O4'-C1'-N1	6.37	118.06	108.50
2	AB	170	U	C4'-C3'-C2'	-6.37	96.23	102.60
2	AB	1228	G	O5'-C5'-C4'	-6.37	101.95	111.50
2	AB	2561	U	C3'-C2'-C1'	6.37	107.67	101.30
29	A2	41	HIS	CA-C-N	6.37	126.33	120.03
29	A2	41	HIS	C-N-CA	6.37	126.33	120.03
6	AF	156	ASN	OD1-CG-ND2	-6.37	116.23	122.60
44	BJ	77	VAL	CB-CA-C	6.37	117.49	111.44
1	AA	86	G	C4'-C3'-C2'	-6.37	96.23	102.60
2	AB	292	U	C2'-C3'-O3'	-6.37	104.15	113.70
2	AB	1142	A	O3'-P-O5'	6.37	113.55	104.00
35	BA	533	A	N9-C1'-C2'	-6.37	104.45	114.00
35	BA	810	C	C5'-C4'-O4'	6.37	119.35	109.80
2	AB	654	A	O4'-C4'-C3'	6.36	110.36	104.00
2	AB	1190	G	C4'-C3'-O3'	6.36	122.55	113.00
2	AB	1318	U	O4'-C1'-N1	6.36	118.05	108.50
2	AB	2258	C	O4'-C4'-C3'	6.36	112.46	106.10
14	AN	59	ARG	N-CA-C	6.36	120.65	113.01
45	BK	67	LYS	CA-C-N	6.36	130.67	121.44
45	BK	67	LYS	C-N-CA	6.36	130.67	121.44
2	AB	412	A	C3'-C2'-O2'	6.36	120.24	110.70
49	BO	62	PHE	N-CA-C	6.36	118.93	110.53
2	AB	2400	G	C4'-C3'-C2'	-6.36	96.24	102.60
2	AB	2796	U	O3'-P-O5'	6.36	113.54	104.00
2	AB	1119	U	C4'-C3'-C2'	-6.36	96.24	102.60
1	AA	23	G	O4'-C4'-C3'	6.36	110.36	104.00
2	AB	928	A	O4'-C1'-N9	6.36	118.04	108.50
2	AB	2282	G	C4'-C3'-O3'	6.36	118.94	109.40
4	AD	267	VAL	CA-CB-CG2	6.36	121.21	110.40
13	AM	63	VAL	CB-CA-C	6.36	121.72	111.29
35	BA	1187	G	C1'-C2'-O2'	6.36	117.94	108.40
2	AB	310	A	C3'-C2'-C1'	-6.36	95.14	101.50
2	AB	1023	U	C3'-C2'-C1'	-6.36	94.94	101.30
35	BA	507	C	O4'-C4'-C3'	6.36	110.36	104.00
35	BA	1504	G	O4'-C1'-N9	6.36	117.73	108.20
2	AB	984	A	C2'-C3'-O3'	-6.35	104.17	113.70
15	AO	51	ARG	CA-C-O	-6.35	114.10	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
40	BF	191	SER	CA-C-O	6.35	126.97	120.24
1	AA	57	A	P-O3'-C3'	6.35	129.73	120.20
2	AB	270	A	O3'-P-O5'	6.35	113.53	104.00
2	AB	1470	A	O4'-C1'-C2'	-6.35	101.25	107.60
2	AB	1860	G	C4'-C3'-C2'	-6.35	96.25	102.60
3	AC	164	ARG	NE-CZ-NH2	-6.35	113.48	119.20
2	AB	2524	G	C4'-C3'-C2'	-6.35	96.25	102.60
3	AC	117	SER	CA-C-O	-6.35	113.77	120.88
15	AO	77	PRO	N-CA-CB	6.35	108.88	103.35
40	BF	53	GLN	OE1-CD-NE2	6.35	128.95	122.60
2	AB	1076	C	C2'-C3'-O3'	-6.35	104.18	113.70
2	AB	1782	U	O4'-C1'-N1	6.35	117.72	108.20
35	BA	541	G	P-O3'-C3'	6.35	129.72	120.20
35	BA	1324	A	C3'-C2'-C1'	6.35	107.65	101.30
43	BI	118	ARG	CA-C-N	6.35	129.31	120.29
43	BI	118	ARG	C-N-CA	6.35	129.31	120.29
50	BP	20	PHE	CA-C-O	-6.35	113.19	120.24
2	AB	349	U	O5'-C5'-C4'	6.35	121.02	111.50
2	AB	384	A	O3'-P-O5'	-6.35	94.48	104.00
2	AB	498	G	O4'-C1'-N9	6.35	118.02	108.50
2	AB	2382	G	O3'-P-O5'	-6.35	94.48	104.00
2	AB	2530	A	C4'-C3'-C2'	-6.35	96.25	102.60
32	A5	3	ARG	CA-C-O	-6.35	114.23	121.72
40	BF	68	GLU	CA-C-N	6.35	128.78	120.28
40	BF	68	GLU	C-N-CA	6.35	128.78	120.28
2	AB	328	U	O4'-C1'-N1	6.34	118.02	108.50
5	AE	204	LYS	CA-C-N	6.34	126.37	119.90
5	AE	204	LYS	C-N-CA	6.34	126.37	119.90
35	BA	41	G	C4'-C3'-C2'	-6.34	96.25	102.60
1	AA	55	U	O4'-C4'-C3'	6.34	110.34	104.00
2	AB	1292	G	C1'-O4'-C4'	-6.34	103.56	109.90
35	BA	475	C	O4'-C1'-N1	6.34	118.02	108.50
2	AB	2530	A	O4'-C1'-N9	6.34	118.01	108.50
11	AK	140	GLU	CB-CG-CD	6.34	123.38	112.60
36	BB	45	G	O3'-P-O5'	-6.34	94.49	104.00
37	BC	24	C	C4'-C3'-C2'	-6.34	96.26	102.60
2	AB	1893	C	O4'-C1'-C2'	-6.34	101.26	107.60
2	AB	2132	U	C3'-C2'-O2'	6.34	120.21	110.70
2	AB	2133	G	O4'-C1'-C2'	6.34	112.14	105.80
2	AB	2598	A	C3'-C2'-O2'	6.34	120.21	110.70
35	BA	427	U	C1'-C2'-O2'	6.34	117.91	108.40
35	BA	1341	U	C5'-C4'-C3'	-6.34	106.49	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	43	C	O4'-C1'-C2'	-6.34	99.46	105.80
3	AC	69	THR	CA-CB-CG2	6.34	121.28	110.50
35	BA	1150	A	C5'-C4'-C3'	-6.34	106.49	116.00
2	AB	871	U	C4'-C3'-C2'	-6.34	96.26	102.60
2	AB	1057	A	C3'-C2'-C1'	-6.34	94.96	101.30
2	AB	1843	C	P-O3'-C3'	6.34	129.70	120.20
2	AB	2234	G	O5'-C5'-C4'	6.34	121.00	111.50
2	AB	2558	C	P-O5'-C5'	6.34	130.40	120.90
35	BA	269	C	O4'-C1'-C2'	-6.34	101.26	107.60
49	BO	56	ARG	CA-C-N	6.34	128.77	120.28
49	BO	56	ARG	C-N-CA	6.34	128.77	120.28
39	BE	128	MET	CA-C-O	-6.33	112.94	120.10
2	AB	2131	U	O3'-P-O5'	6.33	113.50	104.00
35	BA	388	G	O4'-C1'-N9	6.33	117.70	108.20
35	BA	1373	G	C3'-C2'-C1'	6.33	107.63	101.30
2	AB	795	C	O4'-C4'-C3'	6.33	110.33	104.00
2	AB	1852	U	C3'-C2'-O2'	6.33	120.20	110.70
2	AB	1930	G	C4'-C3'-C2'	-6.33	96.27	102.60
2	AB	2388	A	C5'-C4'-O4'	6.33	119.30	109.80
28	A1	56	VAL	N-CA-CB	6.33	118.59	110.99
35	BA	836	G	C5'-C4'-C3'	-6.33	106.50	116.00
2	AB	1597	A	C5'-C4'-C3'	-6.33	106.50	116.00
10	AJ	87	HIS	CE1-NE2-CD2	-6.33	102.67	109.00
35	BA	231	U	O4'-C1'-N1	6.33	118.00	108.50
2	AB	644	A	P-O3'-C3'	6.33	129.69	120.20
2	AB	1706	C	O4'-C1'-C2'	-6.33	99.47	105.80
11	AK	33	ASN	OD1-CG-ND2	-6.33	116.27	122.60
14	AN	94	THR	CB-CA-C	6.33	121.51	111.51
29	A2	12	ILE	CA-C-N	6.33	129.93	120.31
29	A2	12	ILE	C-N-CA	6.33	129.93	120.31
2	AB	2842	G	C3'-C2'-O2'	6.33	120.19	110.70
35	BA	878	A	C2'-C3'-O3'	-6.33	104.21	113.70
2	AB	1088	A	C3'-C2'-C1'	6.33	107.63	101.30
2	AB	2076	U	C4'-C3'-O3'	6.33	122.49	113.00
15	AO	53	MET	O-C-N	6.33	128.92	122.09
2	AB	751	A	O5'-C5'-C4'	-6.32	102.02	111.50
2	AB	987	C	C1'-O4'-C4'	-6.32	103.58	109.90
15	AO	59	ARG	CB-CG-CD	6.32	125.84	111.30
1	AA	48	U	C1'-O4'-C4'	-6.32	103.58	109.90
2	AB	1651	G	P-O3'-C3'	6.32	129.68	120.20
2	AB	2173	A	O5'-C5'-C4'	-6.32	102.02	111.50
35	BA	120	A	O4'-C4'-C3'	6.32	110.32	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2263	C	C5'-C4'-O4'	6.32	119.28	109.80
35	BA	79	G	O5'-C5'-C4'	-6.32	102.02	111.50
37	BC	42	C	O4'-C1'-N1	6.32	117.98	108.50
2	AB	59	U	O4'-C1'-C2'	-6.32	101.28	107.60
2	AB	2791	G	O4'-C4'-C3'	6.32	110.32	104.00
35	BA	653	U	C1'-O4'-C4'	-6.32	103.38	109.70
35	BA	1394	A	C1'-O4'-C4'	6.32	116.02	109.70
2	AB	15	G	C4'-C3'-C2'	-6.32	96.28	102.60
2	AB	332	A	O3'-P-O5'	-6.32	94.53	104.00
2	AB	785	G	C3'-C2'-O2'	6.32	120.17	110.70
2	AB	1542	U	C3'-C2'-C1'	6.32	107.61	101.30
2	AB	1621	U	C3'-C2'-O2'	6.32	120.17	110.70
2	AB	1660	G	O4'-C1'-N9	6.32	117.97	108.50
2	AB	1981	A	N9-C1'-C2'	6.32	121.47	112.00
35	BA	1356	G	O4'-C4'-C3'	6.32	110.32	104.00
2	AB	358	U	O4'-C4'-C3'	6.31	110.31	104.00
41	BG	2	HIS	CB-CG-CD2	-6.31	122.99	131.20
2	AB	1899	A	O4'-C4'-C3'	6.31	110.31	104.00
2	AB	1993	U	C3'-C2'-O2'	6.31	120.17	110.70
3	AC	83	ASN	CA-CB-CG	-6.31	106.29	112.60
35	BA	149	A	C3'-C2'-C1'	6.31	107.61	101.30
35	BA	1377	A	C3'-C2'-O2'	6.31	120.17	110.70
35	BA	1479	C	P-O5'-C5'	6.31	130.37	120.90
49	BO	102	LYS	CA-C-O	6.31	127.23	120.10
2	AB	2550	G	C5'-C4'-O4'	6.31	119.27	109.80
35	BA	285	C	C4'-C3'-C2'	-6.31	96.29	102.60
2	AB	516	C	N1-C1'-C2'	-6.31	102.54	112.00
2	AB	617	G	C4'-C3'-O3'	-6.31	103.54	113.00
2	AB	2800	A	C4'-C3'-C2'	6.31	108.91	102.60
2	AB	388	G	O4'-C1'-N9	6.31	117.96	108.50
4	AD	41	GLY	N-CA-C	6.31	123.73	115.40
4	AD	105	ALA	N-CA-C	6.31	118.77	109.50
35	BA	552	U	N1-C1'-C2'	6.31	121.46	112.00
35	BA	912	C	C3'-C2'-C1'	6.31	107.61	101.30
41	BG	10	LEU	N-CA-C	6.31	119.38	110.23
54	BT	47	ARG	CA-C-N	6.31	129.02	120.38
54	BT	47	ARG	C-N-CA	6.31	129.02	120.38
2	AB	2813	A	C1'-C2'-O2'	-6.31	98.94	108.40
35	BA	1536	C	C1'-O4'-C4'	-6.31	103.59	109.90
2	AB	1636	U	C3'-C2'-O2'	-6.30	101.24	110.70
2	AB	2750	A	C1'-O4'-C4'	-6.30	103.40	109.70
35	BA	42	G	P-O3'-C3'	6.30	129.65	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
51	BQ	34	GLN	CA-C-O	-6.30	113.24	120.24
2	AB	553	G	O4'-C1'-C2'	6.30	113.90	107.60
2	AB	893	C	C2'-C3'-O3'	6.30	123.15	113.70
2	AB	1752	C	C1'-O4'-C4'	-6.30	103.60	109.90
35	BA	589	U	C4'-C3'-O3'	6.30	122.45	113.00
35	BA	1331	G	C3'-C2'-C1'	-6.30	95.00	101.30
2	AB	788	A	O4'-C4'-C3'	-6.30	97.70	104.00
2	AB	1255	U	C3'-C2'-C1'	6.30	107.60	101.30
2	AB	1930	G	O5'-C5'-C4'	-6.30	102.05	111.50
35	BA	269	C	C3'-C2'-C1'	6.30	107.60	101.30
38	BD	211	LEU	CA-C-O	-6.30	113.25	120.24
49	BO	99	GLN	CB-CG-CD	-6.30	101.89	112.60
2	AB	221	A	O5'-C5'-C4'	6.30	121.14	111.70
2	AB	2319	G	C1'-O4'-C4'	-6.30	103.40	109.70
10	AJ	161	LYS	CA-C-N	6.30	131.27	121.26
10	AJ	161	LYS	C-N-CA	6.30	131.27	121.26
35	BA	58	C	C4'-C3'-C2'	-6.30	96.30	102.60
35	BA	359	G	C3'-C2'-C1'	6.30	107.60	101.30
35	BA	1305	G	C4'-C3'-C2'	-6.30	96.30	102.60
2	AB	1086	A	O4'-C1'-N9	6.29	117.94	108.50
35	BA	867	G	C3'-C2'-C1'	6.29	107.59	101.30
2	AB	146	A	C4'-C3'-C2'	-6.29	96.31	102.60
2	AB	470	A	O4'-C1'-N9	6.29	117.94	108.50
2	AB	614	A	C4'-C3'-C2'	-6.29	96.31	102.60
2	AB	992	C	C4'-C3'-C2'	-6.29	96.31	102.60
2	AB	1556	C	O4'-C4'-C3'	6.29	110.29	104.00
55	BU	7	GLY	O-C-N	-6.29	115.48	121.77
2	AB	1232	G	O4'-C1'-N9	6.29	117.94	108.50
2	AB	2027	G	C4'-C3'-C2'	-6.29	96.31	102.60
35	BA	1248	A	C4'-C3'-C2'	-6.29	96.31	102.60
35	BA	1350	A	C5'-C4'-C3'	-6.29	106.56	116.00
45	BK	95	SER	CA-C-N	6.29	129.22	120.29
45	BK	95	SER	C-N-CA	6.29	129.22	120.29
2	AB	82	U	C3'-C2'-C1'	-6.29	95.01	101.30
2	AB	1892	C	N1-C1'-C2'	-6.29	102.57	112.00
16	AP	51	LEU	CA-C-O	-6.29	113.75	120.42
35	BA	553	A	C1'-O4'-C4'	6.29	116.19	109.90
2	AB	2158	A	C4'-C3'-O3'	-6.29	99.97	109.40
3	AC	205	LYS	N-CA-C	-6.29	105.55	113.72
4	AD	150	GLY	O-C-N	6.29	129.20	122.60
40	BF	13	ARG	NE-CZ-NH1	-6.29	115.21	121.50
57	BW	54	ARG	CA-C-N	6.29	128.61	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
57	BW	54	ARG	C-N-CA	6.29	128.61	120.44
2	AB	652	U	C3'-C2'-O2'	6.28	120.12	110.70
35	BA	1404	C	C4'-C3'-O3'	-6.28	103.58	113.00
56	BV	16	ALA	CA-C-O	-6.28	113.89	120.55
35	BA	789	U	P-O3'-C3'	6.28	129.62	120.20
1	AA	109	A	C3'-C2'-O2'	6.28	120.12	110.70
1	AA	112	G	C3'-C2'-C1'	-6.28	95.02	101.30
2	AB	295	G	C5'-C4'-O4'	6.28	119.22	109.80
35	BA	611	C	C3'-C2'-C1'	6.28	107.58	101.30
37	BC	41	C	O4'-C1'-C2'	-6.28	101.32	107.60
2	AB	98	G	O5'-C5'-C4'	-6.28	102.08	111.50
3	AC	138	PRO	O-C-N	-6.28	115.31	122.91
2	AB	41	C	O4'-C4'-C3'	-6.28	97.72	104.00
2	AB	1823	G	C4'-C3'-O3'	-6.28	103.58	113.00
11	AK	13	ALA	CA-C-N	6.28	129.32	120.28
11	AK	13	ALA	C-N-CA	6.28	129.32	120.28
11	AK	111	THR	N-CA-C	6.28	119.10	111.82
35	BA	211	G	C5'-C4'-O4'	6.28	119.22	109.80
35	BA	678	U	C5'-C4'-O4'	6.28	119.22	109.80
2	AB	290	U	C3'-C2'-O2'	6.28	120.11	110.70
2	AB	1941	C	C5'-C4'-C3'	-6.28	106.59	116.00
2	AB	2183	A	C4'-C3'-C2'	-6.28	96.33	102.60
4	AD	178	GLY	CA-C-N	6.28	130.79	120.94
4	AD	178	GLY	C-N-CA	6.28	130.79	120.94
35	BA	36	C	C4'-C3'-C2'	-6.28	96.32	102.60
47	BM	54	SER	O-C-N	6.28	129.56	122.22
2	AB	2455	G	N9-C1'-C2'	-6.27	102.59	112.00
2	AB	989	G	C1'-O4'-C4'	6.27	115.97	109.70
2	AB	1951	U	C3'-C2'-C1'	6.27	107.57	101.30
35	BA	1038	C	C4'-C3'-C2'	-6.27	96.33	102.60
49	BO	42	VAL	CA-CB-CG1	6.27	121.06	110.40
2	AB	218	A	C3'-C2'-C1'	6.27	107.57	101.30
35	BA	218	U	C2'-C3'-O3'	-6.27	104.30	113.70
35	BA	300	A	C4'-C3'-C2'	-6.27	96.33	102.60
35	BA	670	G	O5'-C5'-C4'	-6.27	102.10	111.50
35	BA	957	U	C4'-C3'-O3'	-6.27	103.60	113.00
2	AB	1316	U	C3'-C2'-O2'	6.27	120.10	110.70
2	AB	1560	G	C2'-C3'-O3'	-6.27	104.30	113.70
3	AC	176	GLY	O-C-N	-6.27	118.60	123.80
18	AR	69	VAL	CB-CA-C	6.27	120.18	110.28
35	BA	285	C	O4'-C1'-C2'	-6.27	101.33	107.60
35	BA	738	C	O4'-C1'-N1	6.27	117.90	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	709	U	O4'-C1'-C2'	-6.26	101.33	107.60
2	AB	798	G	O4'-C1'-N9	6.26	117.90	108.50
2	AB	2349	G	C2'-C3'-O3'	-6.26	104.30	113.70
35	BA	380	G	O5'-C5'-C4'	6.26	120.90	111.50
43	BI	51	GLN	CA-C-O	6.26	127.18	119.79
2	AB	102	U	O3'-P-O5'	-6.26	94.61	104.00
2	AB	1244	A	N9-C1'-C2'	-6.26	102.61	112.00
2	AB	1875	G	N9-C1'-C2'	-6.26	102.61	112.00
22	AV	45	ALA	CA-C-N	6.26	129.49	120.79
22	AV	45	ALA	C-N-CA	6.26	129.49	120.79
35	BA	86	G	O3'-P-O5'	-6.26	94.61	104.00
2	AB	510	C	O4'-C1'-N1	6.26	117.89	108.50
2	AB	1092	C	O4'-C1'-N1	6.26	117.89	108.50
2	AB	2294	G	N9-C1'-C2'	-6.26	102.61	112.00
35	BA	1089	G	C3'-C2'-C1'	6.26	107.56	101.30
7	AG	36	ASN	CA-C-O	-6.26	111.56	120.51
35	BA	72	A	C4'-C3'-C2'	-6.26	96.34	102.60
2	AB	786	C	C3'-C2'-O2'	6.26	120.08	110.70
2	AB	802	A	O4'-C4'-C3'	6.26	110.26	104.00
2	AB	1075	C	O3'-P-O5'	-6.26	94.62	104.00
2	AB	2012	G	O5'-C5'-C4'	6.26	120.89	111.50
2	AB	2485	G	P-O3'-C3'	6.26	129.58	120.20
2	AB	2540	C	C5'-C4'-O4'	6.26	119.19	109.80
2	AB	2895	G	O4'-C1'-N9	6.26	117.88	108.50
6	AF	69	ARG	NE-CZ-NH2	-6.26	113.57	119.20
35	BA	625	U	C1'-C2'-O2'	-6.26	99.02	108.40
35	BA	631	C	C5'-C4'-C3'	-6.26	105.81	115.20
54	BT	73	HIS	ND1-CG-CD2	6.26	112.36	106.10
2	AB	973	A	C4'-C3'-C2'	-6.25	96.34	102.60
32	A5	5	PHE	CA-CB-CG	6.25	120.06	113.80
35	BA	44	A	C4'-C3'-C2'	-6.25	96.34	102.60
35	BA	208	U	C4'-C3'-C2'	-6.25	96.34	102.60
2	AB	970	U	C1'-C2'-O2'	6.25	117.78	108.40
2	AB	2319	G	C3'-C2'-C1'	-6.25	95.25	101.50
41	BG	131	ASN	CA-C-N	6.25	126.72	119.47
41	BG	131	ASN	C-N-CA	6.25	126.72	119.47
42	BH	44	ARG	CA-C-N	6.25	132.61	122.29
42	BH	44	ARG	C-N-CA	6.25	132.61	122.29
49	BO	39	ALA	CA-C-N	6.25	128.57	120.44
49	BO	39	ALA	C-N-CA	6.25	128.57	120.44
2	AB	834	G	C1'-O4'-C4'	6.25	116.15	109.90
2	AB	1023	U	O4'-C1'-N1	6.25	117.88	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1514	G	C4'-C3'-C2'	-6.25	96.35	102.60
5	AE	14	ILE	CA-C-N	6.25	131.77	121.39
5	AE	14	ILE	C-N-CA	6.25	131.77	121.39
35	BA	228	A	O4'-C1'-N9	6.25	117.88	108.50
35	BA	306	A	O4'-C1'-C2'	-6.25	101.35	107.60
2	AB	397	U	C4'-C3'-C2'	-6.25	96.35	102.60
35	BA	1461	G	C5'-C4'-C3'	-6.25	106.62	116.00
2	AB	316	C	O3'-P-O5'	-6.25	94.63	104.00
39	BE	36	PHE	CA-CB-CG	-6.25	107.55	113.80
40	BF	139	ASN	N-CA-C	6.25	120.69	113.38
44	BJ	111	THR	CA-CB-CG2	6.25	121.12	110.50
2	AB	328	U	P-O3'-C3'	6.25	129.57	120.20
12	AL	8	PRO	N-CA-CB	6.25	110.14	103.39
35	BA	729	A	C5'-C4'-O4'	6.25	119.17	109.80
2	AB	450	G	C4'-C3'-C2'	-6.25	96.36	102.60
2	AB	1139	G	C4'-C3'-C2'	6.25	108.84	102.60
2	AB	2391	G	O4'-C4'-C3'	-6.25	99.86	106.10
2	AB	832	U	C2'-C3'-O3'	6.24	123.06	113.70
2	AB	1066	U	C4'-C3'-C2'	-6.24	96.36	102.60
2	AB	2447	G	O4'-C4'-C3'	-6.24	99.86	106.10
22	AV	46	ALA	CA-C-O	-6.24	114.20	121.07
35	BA	155	A	O4'-C1'-C2'	-6.24	101.36	107.60
35	BA	422	C	O5'-C5'-C4'	-6.24	102.33	111.70
35	BA	518	C	O4'-C1'-C2'	-6.24	99.56	105.80
35	BA	647	C	O4'-C1'-N1	6.24	117.86	108.50
41	BG	132	PRO	N-CA-CB	6.24	110.29	103.30
2	AB	2749	A	O4'-C4'-C3'	6.24	110.24	104.00
33	A6	6	VAL	CB-CA-C	6.24	118.42	111.80
35	BA	1232	U	C5'-C4'-O4'	6.24	119.16	109.80
2	AB	533	G	C4'-C3'-C2'	-6.24	96.36	102.60
2	AB	1458	U	O4'-C4'-C3'	6.24	110.24	104.00
2	AB	1669	A	O4'-C4'-C3'	-6.24	97.76	104.00
19	AS	64	ILE	CA-C-N	6.24	128.55	120.44
19	AS	64	ILE	C-N-CA	6.24	128.55	120.44
35	BA	606	G	O4'-C1'-C2'	6.24	113.84	107.60
38	BD	188	THR	N-CA-C	6.24	118.16	111.36
2	AB	852	U	C5'-C4'-O4'	6.24	119.16	109.80
2	AB	907	G	O4'-C1'-C2'	6.24	113.84	107.60
2	AB	911	A	O5'-C5'-C4'	6.24	120.86	111.50
25	AY	45	HIS	ND1-CE1-NE2	6.24	114.64	108.40
35	BA	458	U	C1'-C2'-O2'	6.24	117.76	108.40
43	BI	147	ASN	OD1-CG-ND2	-6.24	116.36	122.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	370	G	O4'-C1'-N9	6.24	117.56	108.20
2	AB	1529	G	O4'-C4'-C3'	6.24	110.24	104.00
38	BD	207	ARG	NE-CZ-NH2	6.24	124.81	119.20
50	BP	57	SER	CA-C-N	6.24	132.33	122.60
50	BP	57	SER	C-N-CA	6.24	132.33	122.60
2	AB	883	G	C4'-C3'-C2'	-6.24	96.36	102.60
8	AH	134	GLY	CA-C-N	6.24	132.02	122.29
8	AH	134	GLY	C-N-CA	6.24	132.02	122.29
2	AB	1317	G	C2'-C3'-O3'	6.23	123.05	113.70
35	BA	534	U	C4'-C3'-C2'	6.23	108.83	102.60
1	AA	24	G	O4'-C4'-C3'	6.23	112.33	106.10
2	AB	914	G	C5'-C4'-C3'	-6.23	106.65	116.00
2	AB	2645	G	O4'-C4'-C3'	6.23	112.33	106.10
2	AB	2656	U	O4'-C4'-C3'	6.23	110.23	104.00
5	AE	113	SER	CB-CA-C	6.23	122.82	110.42
5	AE	169	ARG	CA-C-N	6.23	133.19	121.97
5	AE	169	ARG	C-N-CA	6.23	133.19	121.97
14	AN	13	LYS	CA-C-O	6.23	127.40	120.92
35	BA	693	G	C3'-C2'-C1'	6.23	107.53	101.30
2	AB	129	C	O4'-C4'-C3'	6.23	110.23	104.00
35	BA	810	C	O4'-C4'-C3'	-6.23	97.77	104.00
35	BA	897	C	P-O3'-C3'	6.23	129.54	120.20
35	BA	1190	G	C1'-O4'-C4'	-6.23	103.47	109.70
54	BT	31	TYR	N-CA-CB	-6.23	101.15	111.49
2	AB	2629	U	C3'-C2'-O2'	-6.23	105.26	114.60
14	AN	116	VAL	CA-C-N	6.23	133.44	121.54
14	AN	116	VAL	C-N-CA	6.23	133.44	121.54
38	BD	156	LEU	O-C-N	6.23	126.84	121.30
2	AB	607	U	C4'-C3'-O3'	6.23	122.34	113.00
2	AB	1411	U	C4'-C3'-O3'	-6.23	103.66	113.00
2	AB	1552	A	O4'-C4'-C3'	-6.23	97.77	104.00
2	AB	194	G	C4'-C3'-C2'	-6.22	96.38	102.60
2	AB	2058	A	C1'-O4'-C4'	-6.22	103.47	109.70
35	BA	1378	C	C5'-C4'-C3'	-6.22	106.66	116.00
2	AB	627	A	C3'-C2'-C1'	-6.22	95.28	101.50
2	AB	2070	A	C4'-C3'-C2'	-6.22	96.38	102.60
35	BA	410	G	O4'-C1'-N9	6.22	117.83	108.50
2	AB	365	U	O4'-C1'-N1	6.22	117.83	108.50
2	AB	1095	A	C3'-C2'-C1'	6.22	107.52	101.30
35	BA	1214	C	C4'-C3'-O3'	6.22	118.73	109.40
49	BO	48	SER	CA-C-N	6.22	129.24	120.28
49	BO	48	SER	C-N-CA	6.22	129.24	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	BO	62	PHE	CA-C-N	6.22	128.90	120.63
49	BO	62	PHE	C-N-CA	6.22	128.90	120.63
2	AB	166	U	C3'-C2'-C1'	-6.22	95.08	101.30
2	AB	1445	G	C5'-C4'-C3'	6.22	125.33	116.00
35	BA	224	U	C4'-C3'-C2'	-6.22	96.38	102.60
35	BA	370	C	O5'-C5'-C4'	-6.22	102.17	111.50
35	BA	1409	C	P-O5'-C5'	6.22	130.22	120.90
43	BI	171	GLN	CA-C-O	6.22	123.92	119.32
2	AB	891	G	C5'-C4'-O4'	6.21	119.12	109.80
5	AE	32	ASN	CA-C-O	-6.21	113.66	120.81
10	AJ	3	ASN	CA-CB-CG	6.21	118.81	112.60
15	AO	110	GLU	CA-C-O	-6.21	114.25	120.90
19	AS	18	LYS	O-C-N	6.21	129.23	122.15
35	BA	593	U	O4'-C1'-C2'	-6.21	101.39	107.60
2	AB	105	C	N1-C1'-C2'	-6.21	102.68	112.00
2	AB	534	U	C1'-O4'-C4'	6.21	116.11	109.90
2	AB	554	U	C2'-C3'-O3'	-6.21	104.38	113.70
2	AB	952	G	O4'-C1'-C2'	-6.21	101.39	107.60
2	AB	1778	U	C4'-C3'-O3'	6.21	118.72	109.40
2	AB	2570	G	O4'-C1'-C2'	-6.21	101.39	107.60
2	AB	152	A	C1'-C2'-O2'	6.21	117.72	108.40
2	AB	2557	G	C5'-C4'-C3'	-6.21	106.68	116.00
35	BA	674	G	O3'-P-O5'	-6.21	94.68	104.00
44	BJ	77	VAL	CA-C-O	-6.21	114.77	120.73
2	AB	142	A	O4'-C4'-C3'	6.21	110.21	104.00
6	AF	167	VAL	N-CA-C	-6.21	99.53	108.53
47	BM	87	GLY	CA-C-N	6.21	127.11	120.47
47	BM	87	GLY	C-N-CA	6.21	127.11	120.47
6	AF	88	ARG	NE-CZ-NH2	6.21	124.79	119.20
35	BA	605	U	O4'-C4'-C3'	6.21	110.21	104.00
2	AB	2587	A	O4'-C4'-C3'	6.21	110.21	104.00
35	BA	187	G	C2'-C3'-O3'	6.21	123.01	113.70
35	BA	561	U	C4'-C3'-O3'	-6.21	103.69	113.00
2	AB	13	A	O4'-C4'-C3'	-6.21	99.89	106.10
2	AB	1879	C	O4'-C1'-C2'	-6.21	101.39	107.60
35	BA	355	C	C4'-C3'-C2'	-6.21	96.39	102.60
35	BA	622	A	C4'-C3'-C2'	-6.21	96.39	102.60
35	BA	452	A	O4'-C4'-C3'	6.20	110.20	104.00
37	BC	41	C	C1'-O4'-C4'	6.20	116.10	109.90
41	BG	3	ILE	CA-C-N	6.20	131.69	121.39
41	BG	3	ILE	C-N-CA	6.20	131.69	121.39
2	AB	962	G	C3'-C2'-C1'	6.20	107.50	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1004	U	O4'-C1'-N1	6.20	117.80	108.50
35	BA	229	U	C3'-C2'-O2'	6.20	120.00	110.70
35	BA	625	U	O4'-C1'-N1	6.20	117.80	108.50
1	AA	45	A	O4'-C4'-C3'	-6.20	97.80	104.00
2	AB	455	C	O4'-C1'-C2'	-6.20	99.60	105.80
2	AB	1031	G	C1'-O4'-C4'	-6.20	103.70	109.90
2	AB	1781	U	O5'-C5'-C4'	6.20	121.00	111.70
2	AB	1946	U	N1-C1'-C2'	-6.20	102.70	112.00
2	AB	2059	A	C4'-C3'-C2'	-6.20	96.40	102.60
2	AB	2630	G	C2'-C3'-O3'	6.20	123.00	113.70
11	AK	64	ARG	NE-CZ-NH2	6.20	124.78	119.20
35	BA	47	C	O4'-C1'-C2'	-6.20	99.60	105.80
2	AB	1313	U	P-O3'-C3'	6.20	129.50	120.20
2	AB	2408	U	C4'-C3'-C2'	-6.20	96.40	102.60
35	BA	490	C	C5'-C4'-C3'	-6.20	106.70	116.00
35	BA	618	C	P-O3'-C3'	6.20	129.50	120.20
39	BE	138	GLN	CA-C-O	-6.20	114.32	120.70
2	AB	182	A	O4'-C4'-C3'	6.20	110.20	104.00
35	BA	534	U	C3'-C2'-C1'	-6.20	95.10	101.30
2	AB	6	A	N9-C1'-C2'	6.20	121.29	112.00
2	AB	549	G	C3'-C2'-C1'	6.20	107.70	101.50
19	AS	106	THR	CA-C-O	-6.20	113.85	120.42
41	BG	52	ALA	CA-C-N	6.20	130.51	120.60
41	BG	52	ALA	C-N-CA	6.20	130.51	120.60
45	BK	98	ARG	NE-CZ-NH2	6.20	124.78	119.20
2	AB	1284	A	C4'-C3'-C2'	-6.19	96.41	102.60
15	AO	50	ARG	CA-C-O	-6.19	114.32	120.82
41	BG	59	ILE	N-CA-CB	6.19	117.80	110.55
2	AB	231	A	C3'-C2'-C1'	-6.19	95.11	101.30
35	BA	4	U	P-O3'-C3'	6.19	129.49	120.20
6	AF	24	ASN	CB-CA-C	6.19	120.70	111.17
35	BA	355	C	O4'-C4'-C3'	6.19	110.19	104.00
35	BA	970	C	O4'-C1'-C2'	6.19	113.79	107.60
39	BE	116	ALA	N-CA-C	6.19	119.30	111.69
40	BF	155	LYS	N-CA-C	6.19	118.83	111.71
2	AB	1315	C	C1'-O4'-C4'	6.19	116.09	109.90
2	AB	1714	U	C4'-C3'-O3'	6.19	122.28	113.00
2	AB	2888	C	O4'-C4'-C3'	6.19	110.19	104.00
11	AK	82	ALA	CA-C-O	6.19	126.99	119.38
2	AB	1251	C	C4'-C3'-O3'	-6.19	100.12	109.40
2	AB	1795	C	O5'-C5'-C4'	6.19	120.78	111.50
35	BA	1502	A	C4'-C3'-O3'	-6.19	100.12	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
38	BD	66	ILE	CA-C-O	-6.19	113.67	120.72
1	AA	73	A	N9-C1'-C2'	-6.19	102.72	112.00
2	AB	796	C	C3'-C2'-C1'	6.19	107.49	101.30
2	AB	1270	C	C4'-C3'-O3'	6.19	118.68	109.40
2	AB	1516	G	C1'-O4'-C4'	6.19	116.09	109.90
23	AW	94	PHE	CA-CB-CG	6.19	119.99	113.80
35	BA	926	G	C3'-C2'-C1'	6.19	107.69	101.50
35	BA	1318	A	C5'-C4'-C3'	-6.19	106.72	116.00
2	AB	365	U	O4'-C1'-C2'	-6.18	101.42	107.60
21	AU	75	PHE	CA-CB-CG	6.18	119.98	113.80
35	BA	712	A	P-O5'-C5'	6.18	130.18	120.90
35	BA	1195	C	O4'-C4'-C3'	6.18	110.18	104.00
2	AB	275	C	C5'-C4'-O4'	6.18	119.07	109.80
2	AB	2597	G	C4'-C3'-C2'	-6.18	96.42	102.60
28	A1	29	ARG	NH1-CZ-NH2	-6.18	111.26	119.30
35	BA	1183	U	C5'-C4'-C3'	-6.18	106.73	116.00
35	BA	1183	U	O4'-C4'-C3'	6.18	110.18	104.00
51	BQ	64	LYS	N-CA-C	-6.18	104.62	111.36
2	AB	301	G	C2'-C3'-O3'	6.18	118.77	109.50
2	AB	532	A	O4'-C1'-C2'	-6.18	99.62	105.80
35	BA	380	G	C3'-C2'-O2'	6.18	119.97	110.70
37	BC	29	C	C3'-C2'-O2'	6.18	119.97	110.70
2	AB	2288	A	C1'-O4'-C4'	6.18	115.88	109.70
7	AG	118	ALA	CA-C-N	6.18	129.70	120.31
7	AG	118	ALA	C-N-CA	6.18	129.70	120.31
17	AQ	5	SER	O-C-N	-6.18	115.70	122.07
35	BA	183	C	C1'-O4'-C4'	-6.18	103.72	109.90
35	BA	452	A	C4'-C3'-C2'	-6.18	96.42	102.60
2	AB	2035	G	O4'-C1'-N9	6.18	117.47	108.20
2	AB	2631	G	C3'-C2'-O2'	6.18	119.97	110.70
2	AB	2756	U	P-O3'-C3'	6.18	129.47	120.20
53	BS	49	ASN	CA-C-O	-6.18	112.36	118.97
2	AB	762	U	C1'-O4'-C4'	6.17	116.07	109.90
2	AB	1565	C	O4'-C4'-C3'	6.17	112.27	106.10
2	AB	2699	C	O4'-C1'-C2'	-6.17	101.42	107.60
2	AB	2788	C	C5'-C4'-C3'	-6.17	106.74	116.00
35	BA	681	A	C1'-C2'-O2'	6.17	117.66	108.40
35	BA	1357	A	P-O5'-C5'	6.17	130.16	120.90
2	AB	879	G	C4'-C3'-C2'	-6.17	96.43	102.60
2	AB	1013	C	C2'-C3'-O3'	-6.17	104.44	113.70
2	AB	2477	U	C3'-C2'-C1'	6.17	107.47	101.30
2	AB	2578	G	C5'-C4'-C3'	-6.17	106.74	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	368	A	N9-C1'-C2'	6.17	121.26	112.00
2	AB	784	G	O4'-C1'-N9	6.17	117.76	108.50
2	AB	1414	C	C4'-C3'-O3'	6.17	122.26	113.00
2	AB	2480	C	O3'-P-O5'	6.17	113.26	104.00
2	AB	2860	A	C3'-C2'-C1'	6.17	107.47	101.30
8	AH	62	ALA	N-CA-CB	-6.17	101.06	110.01
13	AM	3	GLN	CA-C-O	-6.17	114.05	121.89
13	AM	39	ILE	CA-CB-CG1	6.17	120.89	110.40
26	AZ	73	ARG	NE-CZ-NH2	6.17	124.75	119.20
41	BG	24	VAL	N-CA-C	6.17	119.71	111.44
2	AB	11	C	C4'-C3'-C2'	-6.17	96.43	102.60
2	AB	269	C	O4'-C1'-C2'	-6.17	101.43	107.60
2	AB	1479	G	C5'-C4'-C3'	-6.17	106.75	116.00
33	A6	37	THR	CA-C-O	-6.17	114.01	120.55
35	BA	41	G	C3'-C2'-O2'	6.17	119.95	110.70
1	AA	41	G	O4'-C1'-C2'	-6.17	99.63	105.80
2	AB	2365	G	C4'-C3'-C2'	-6.17	96.43	102.60
35	BA	1145	A	C2'-C3'-O3'	6.17	118.75	109.50
35	BA	1221	G	O5'-C5'-C4'	6.17	120.75	111.50
2	AB	349	U	C1'-O4'-C4'	-6.17	103.73	109.90
2	AB	2084	C	C1'-O4'-C4'	-6.17	103.73	109.90
2	AB	2758	A	C1'-C2'-O2'	6.17	117.65	108.40
10	AJ	60	ARG	NE-CZ-NH2	-6.17	113.65	119.20
2	AB	446	G	C3'-C2'-C1'	6.16	107.66	101.50
2	AB	1102	C	O4'-C1'-N1	6.16	117.75	108.50
2	AB	2318	G	C1'-O4'-C4'	-6.16	103.74	109.90
3	AC	92	ALA	CA-C-O	-6.16	114.84	121.56
4	AD	110	LYS	N-CA-CB	-6.16	99.93	109.48
35	BA	610	U	O4'-C1'-N1	6.16	117.75	108.50
2	AB	932	U	C3'-C2'-C1'	6.16	107.46	101.30
35	BA	522	C	C5'-C4'-C3'	-6.16	106.76	116.00
50	BP	62	ARG	NE-CZ-NH2	-6.16	113.65	119.20
2	AB	544	C	C3'-C2'-C1'	6.16	107.46	101.30
2	AB	2235	G	C3'-C2'-C1'	6.16	107.46	101.30
56	BV	69	ASN	CA-C-N	6.16	128.85	120.54
56	BV	69	ASN	C-N-CA	6.16	128.85	120.54
1	AA	107	G	C4'-C3'-C2'	6.16	108.76	102.60
2	AB	192	C	C3'-C2'-O2'	6.16	119.94	110.70
2	AB	1503	A	O4'-C1'-C2'	-6.16	101.44	107.60
2	AB	2108	A	O3'-P-O5'	-6.16	94.76	104.00
2	AB	2565	A	C2'-C3'-O3'	-6.16	104.46	113.70
35	BA	422	C	C5'-C4'-O4'	6.16	118.34	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	816	A	O3'-P-O5'	-6.16	94.76	104.00
35	BA	1409	C	O5'-C5'-C4'	-6.16	102.26	111.50
2	AB	821	A	C4'-C3'-O3'	-6.16	103.76	113.00
2	AB	2319	G	O4'-C1'-C2'	6.16	111.96	105.80
8	AH	70	LEU	CA-C-N	6.16	129.03	120.29
8	AH	70	LEU	C-N-CA	6.16	129.03	120.29
35	BA	1353	G	C3'-C2'-O2'	6.16	119.94	110.70
14	AN	93	ASN	CA-CB-CG	6.16	118.75	112.60
26	AZ	62	GLY	CA-C-N	6.16	128.32	120.56
26	AZ	62	GLY	C-N-CA	6.16	128.32	120.56
35	BA	44	A	C3'-C2'-O2'	6.16	119.93	110.70
35	BA	558	G	C3'-C2'-O2'	6.16	119.94	110.70
37	BC	65	G	O4'-C1'-C2'	-6.16	101.44	107.60
54	BT	12	PHE	CA-CB-CG	6.16	119.96	113.80
6	AF	119	ILE	CA-C-N	6.15	133.05	121.97
6	AF	119	ILE	C-N-CA	6.15	133.05	121.97
35	BA	106	C	O4'-C1'-C2'	-6.15	101.45	107.60
38	BD	137	THR	N-CA-C	-6.15	104.48	111.07
2	AB	2008	C	C4'-C3'-C2'	-6.15	96.45	102.60
2	AB	2294	G	C5'-C4'-O4'	6.15	119.03	109.80
2	AB	2737	G	O4'-C1'-C2'	-6.15	101.45	107.60
35	BA	349	A	C3'-C2'-C1'	6.15	107.45	101.30
35	BA	446	G	N9-C1'-C2'	-6.15	102.77	112.00
40	BF	61	ARG	N-CA-C	6.15	118.77	111.33
42	BH	45	ARG	CA-C-N	6.15	131.16	121.99
42	BH	45	ARG	C-N-CA	6.15	131.16	121.99
42	BH	104	LYS	CA-C-N	6.15	129.14	120.28
42	BH	104	LYS	C-N-CA	6.15	129.14	120.28
56	BV	67	HIS	CB-CG-CD2	-6.15	123.20	131.20
2	AB	721	A	C3'-C2'-C1'	6.15	107.45	101.30
2	AB	743	A	C1'-C2'-O2'	6.15	117.63	108.40
23	AW	25	LYS	N-CA-C	-6.15	104.50	112.68
35	BA	212	G	C4'-C3'-C2'	-6.15	96.45	102.60
35	BA	907	A	C5'-C4'-O4'	6.15	119.03	109.80
35	BA	1085	U	C3'-C2'-C1'	-6.15	95.35	101.50
54	BT	6	ARG	CB-CA-C	6.15	119.69	111.82
2	AB	2850	A	O4'-C4'-C3'	6.15	110.15	104.00
35	BA	328	C	O4'-C1'-C2'	-6.15	99.65	105.80
1	AA	97	C	C4'-C3'-C2'	-6.15	96.45	102.60
2	AB	51	G	O3'-P-O5'	-6.15	94.78	104.00
2	AB	394	C	C1'-C2'-O2'	-6.15	99.18	108.40
2	AB	1580	A	C1'-C2'-O2'	6.15	117.62	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1773	A	C5'-C4'-C3'	-6.15	106.78	116.00
2	AB	2396	G	O4'-C1'-N9	6.15	117.72	108.50
12	AL	120	ARG	NH1-CZ-NH2	-6.15	111.31	119.30
41	BG	134	ASN	N-CA-C	-6.15	106.10	113.97
50	BP	60	ARG	NE-CZ-NH2	-6.15	113.67	119.20
2	AB	258	G	C4'-C3'-C2'	-6.15	96.45	102.60
2	AB	2432	A	C2'-C3'-O3'	6.15	122.92	113.70
5	AE	68	PHE	CA-C-N	6.15	129.02	120.29
5	AE	68	PHE	C-N-CA	6.15	129.02	120.29
46	BL	19	ASP	CA-C-O	-6.15	114.03	120.55
2	AB	119	A	O4'-C4'-C3'	6.14	112.25	106.10
2	AB	662	G	O4'-C1'-N9	6.14	117.72	108.50
2	AB	2076	U	C3'-C2'-O2'	6.14	119.92	110.70
35	BA	107	G	O4'-C1'-C2'	6.14	113.74	107.60
35	BA	1180	A	O4'-C4'-C3'	6.14	110.14	104.00
35	BA	1317	C	C5'-C4'-O4'	-6.14	99.89	109.10
2	AB	1047	G	O4'-C4'-C3'	6.14	112.24	106.10
2	AB	1494	A	O3'-P-O5'	-6.14	94.79	104.00
2	AB	1878	G	O4'-C1'-C2'	-6.14	101.46	107.60
2	AB	2182	U	C4'-C3'-O3'	6.14	122.22	113.00
2	AB	2362	C	O4'-C4'-C3'	6.14	110.14	104.00
2	AB	2887	A	O4'-C4'-C3'	-6.14	97.86	104.00
35	BA	72	A	C5'-C4'-O4'	6.14	119.01	109.80
35	BA	98	A	C4'-C3'-C2'	-6.14	96.46	102.60
35	BA	231	U	C5'-C4'-C3'	-6.14	106.79	116.00
35	BA	463	U	C3'-C2'-C1'	6.14	107.44	101.30
35	BA	1139	G	C3'-C2'-C1'	-6.14	95.36	101.50
2	AB	79	C	O3'-P-O5'	6.14	113.21	104.00
2	AB	453	A	C3'-C2'-O2'	6.14	119.91	110.70
2	AB	1511	G	O4'-C4'-C3'	6.14	110.14	104.00
2	AB	2107	G	O4'-C1'-N9	6.14	117.71	108.50
2	AB	2207	C	C5'-C4'-C3'	-6.14	106.79	116.00
10	AJ	106	GLU	CA-C-N	6.14	128.80	120.63
10	AJ	106	GLU	C-N-CA	6.14	128.80	120.63
2	AB	791	C	C3'-C2'-C1'	-6.14	95.36	101.50
2	AB	1755	A	N9-C1'-C2'	-6.14	102.79	112.00
34	A7	11	CYS	CA-C-O	-6.14	114.70	121.33
35	BA	642	A	C1'-O4'-C4'	-6.14	103.76	109.90
35	BA	1542	A	C1'-O4'-C4'	-6.14	103.76	109.90
46	BL	86	ALA	CA-C-N	6.14	129.32	120.79
46	BL	86	ALA	C-N-CA	6.14	129.32	120.79
2	AB	1205	A	C4'-C3'-O3'	6.14	118.61	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2178	C	N1-C1'-C2'	6.14	121.21	112.00
9	AI	77	THR	CA-C-N	6.14	130.39	121.80
9	AI	77	THR	C-N-CA	6.14	130.39	121.80
2	AB	721	A	C1'-O4'-C4'	6.14	116.04	109.90
2	AB	893	C	C1'-O4'-C4'	6.14	116.04	109.90
2	AB	2464	G	O4'-C1'-C2'	-6.14	101.46	107.60
2	AB	2806	C	O4'-C1'-N1	6.14	117.70	108.50
8	AH	73	SER	CA-C-N	6.14	128.50	120.28
8	AH	73	SER	C-N-CA	6.14	128.50	120.28
35	BA	979	C	C4'-C3'-C2'	-6.14	96.46	102.60
38	BD	17	HIS	CA-CB-CG	6.14	119.94	113.80
2	AB	624	C	O4'-C1'-C2'	-6.13	101.47	107.60
2	AB	1085	A	O5'-C5'-C4'	6.13	120.70	111.50
2	AB	1458	U	N1-C1'-C2'	6.13	121.20	112.00
16	AP	48	VAL	CA-C-O	-6.13	113.62	120.25
35	BA	1528	U	C4'-C3'-O3'	6.13	118.60	109.40
47	BM	58	THR	O-C-N	-6.13	117.52	121.88
2	AB	899	A	O4'-C1'-C2'	-6.13	101.47	107.60
35	BA	928	G	C4'-C3'-C2'	-6.13	96.47	102.60
47	BM	127	ARG	CA-CB-CG	6.13	126.37	114.10
2	AB	1728	C	C1'-C2'-O2'	-6.13	99.20	108.40
2	AB	1736	U	C4'-C3'-C2'	-6.13	96.47	102.60
2	AB	2440	C	C2'-C3'-O3'	6.13	122.90	113.70
2	AB	2662	A	O5'-C5'-C4'	-6.13	102.30	111.50
2	AB	2688	G	C5'-C4'-C3'	-6.13	106.80	116.00
10	AJ	118	PRO	N-CD-CG	6.13	112.40	103.20
35	BA	742	G	C3'-C2'-O2'	6.13	119.90	110.70
35	BA	1513	A	C4'-C3'-C2'	-6.13	96.47	102.60
10	AJ	40	LEU	CA-C-N	6.13	128.99	120.29
10	AJ	40	LEU	C-N-CA	6.13	128.99	120.29
35	BA	34	C	O4'-C1'-C2'	6.13	113.73	107.60
35	BA	1471	U	O5'-C5'-C4'	6.13	120.69	111.50
36	BB	45	G	C4'-C3'-C2'	-6.13	96.47	102.60
2	AB	29	U	P-O3'-C3'	6.13	129.39	120.20
2	AB	1346	G	C3'-C2'-C1'	6.13	107.43	101.30
3	AC	172	HIS	ND1-CG-CD2	6.13	112.23	106.10
12	AL	89	PHE	CA-C-N	6.13	131.09	120.68
12	AL	89	PHE	C-N-CA	6.13	131.09	120.68
30	A3	35	GLU	CA-C-O	-6.13	114.30	121.16
35	BA	1201	A	P-O3'-C3'	6.13	129.39	120.20
35	BA	675	A	C4'-C3'-O3'	6.12	122.19	113.00
54	BT	74	GLN	CB-CA-C	6.12	121.74	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	AL	106	LYS	CA-C-O	-6.12	114.33	121.07
18	AR	68	GLY	N-CA-C	6.12	119.87	111.54
35	BA	480	U	C3'-C2'-C1'	6.12	107.42	101.30
35	BA	541	G	O4'-C1'-N9	6.12	117.69	108.50
44	BJ	77	VAL	O-C-N	6.12	127.43	121.98
2	AB	282	A	C2'-C3'-O3'	-6.12	104.52	113.70
35	BA	17	U	C3'-C2'-C1'	6.12	107.42	101.30
35	BA	906	A	P-O3'-C3'	6.12	129.38	120.20
35	BA	787	A	O4'-C4'-C3'	6.12	110.12	104.00
2	AB	241	A	O4'-C1'-N9	6.12	117.38	108.20
2	AB	769	U	C4'-C3'-C2'	-6.12	96.48	102.60
5	AE	76	GLY	CA-C-N	6.12	129.09	120.28
5	AE	76	GLY	C-N-CA	6.12	129.09	120.28
6	AF	180	LEU	CA-C-O	-6.12	113.19	120.10
35	BA	92	U	C4'-C3'-C2'	-6.12	96.48	102.60
35	BA	372	C	C2'-C3'-O3'	6.12	118.68	109.50
35	BA	937	A	O4'-C4'-C3'	6.12	110.12	104.00
36	BB	44	U	O5'-C5'-C4'	-6.12	102.32	111.50
1	AA	17	C	C4'-C3'-C2'	6.12	108.72	102.60
2	AB	1510	G	C2'-C3'-O3'	-6.12	104.52	113.70
2	AB	2247	A	O4'-C1'-C2'	-6.12	101.48	107.60
12	AL	9	GLU	CA-C-N	6.12	130.94	120.72
12	AL	9	GLU	C-N-CA	6.12	130.94	120.72
14	AN	79	LEU	CA-C-O	-6.12	114.40	120.82
16	AP	33	ILE	CB-CG1-CD1	6.12	126.65	113.80
35	BA	499	A	O4'-C1'-N9	6.12	117.38	108.20
45	BK	105	ARG	O-C-N	6.12	130.35	122.89
2	AB	271	G	P-O3'-C3'	6.12	129.37	120.20
8	AH	100	ASN	CA-C-N	6.12	130.99	123.10
8	AH	100	ASN	C-N-CA	6.12	130.99	123.10
12	AL	69	ARG	NE-CZ-NH1	6.12	127.61	121.50
35	BA	1121	U	C5'-C4'-O4'	6.12	118.97	109.80
35	BA	1451	U	C3'-C2'-O2'	6.12	119.88	110.70
35	BA	1487	G	O4'-C1'-C2'	-6.12	101.48	107.60
38	BD	109	SER	CA-C-N	6.12	128.27	120.56
38	BD	109	SER	C-N-CA	6.12	128.27	120.56
44	BJ	98	LEU	CA-C-N	6.12	130.11	121.30
44	BJ	98	LEU	C-N-CA	6.12	130.11	121.30
47	BM	46	ALA	N-CA-C	-6.12	105.98	113.50
2	AB	801	G	O5'-C5'-C4'	6.11	120.87	111.70
35	BA	97	G	C3'-C2'-C1'	6.11	107.41	101.30
35	BA	1226	C	O3'-P-O5'	6.11	113.17	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1194	A	N9-C1'-C2'	-6.11	102.83	112.00
12	AL	67	ASN	N-CA-CB	-6.11	101.09	110.44
35	BA	1431	A	C5'-C4'-O4'	6.11	118.97	109.80
38	BD	151	LYS	O-C-N	-6.11	115.23	122.20
2	AB	1121	C	C4'-C3'-C2'	-6.11	96.49	102.60
2	AB	1948	G	C1'-O4'-C4'	6.11	116.01	109.90
2	AB	2886	A	C4'-C3'-C2'	-6.11	96.49	102.60
35	BA	692	U	C4'-C3'-C2'	-6.11	96.49	102.60
49	BO	86	ARG	NE-CZ-NH2	-6.11	113.70	119.20
2	AB	2167	U	O4'-C1'-C2'	-6.11	101.49	107.60
14	AN	82	LEU	O-C-N	6.11	128.60	122.12
35	BA	115	G	C1'-C2'-O2'	-6.11	102.64	111.80
2	AB	848	C	C1'-C2'-O2'	6.11	117.56	108.40
2	AB	1506	U	P-O5'-C5'	6.11	130.06	120.90
2	AB	2746	U	C4'-C3'-C2'	-6.11	96.49	102.60
2	AB	854	C	O5'-C5'-C4'	6.11	120.66	111.50
2	AB	1048	A	O5'-C5'-C4'	6.11	120.66	111.50
2	AB	1758	U	C2'-C3'-O3'	-6.11	104.54	113.70
2	AB	2850	A	C5'-C4'-C3'	-6.11	106.84	116.00
11	AK	45	THR	CA-C-O	-6.11	112.21	119.35
18	AR	112	ARG	NE-CZ-NH2	6.11	124.69	119.20
35	BA	471	U	O4'-C1'-N1	6.11	117.66	108.50
35	BA	606	G	O4'-C1'-N9	-6.11	99.34	108.50
35	BA	1143	G	C4'-C3'-O3'	6.11	122.16	113.00
49	BO	11	HIS	ND1-CG-CD2	6.11	112.20	106.10
4	AD	270	ARG	NE-CZ-NH2	6.10	124.69	119.20
2	AB	439	A	C2'-C3'-O3'	-6.10	104.55	113.70
2	AB	499	U	O4'-C4'-C3'	6.10	110.10	104.00
20	AT	5	PHE	CA-C-N	6.10	131.59	123.05
20	AT	5	PHE	C-N-CA	6.10	131.59	123.05
35	BA	1406	U	O4'-C1'-N1	6.10	117.66	108.50
2	AB	34	U	C1'-O4'-C4'	6.10	116.00	109.90
35	BA	1073	U	C4'-C3'-C2'	-6.10	96.50	102.60
2	AB	1020	A	C5'-C4'-C3'	-6.10	106.05	115.20
6	AF	15	SER	CA-C-N	6.10	128.37	120.44
6	AF	15	SER	C-N-CA	6.10	128.37	120.44
13	AM	47	ILE	CA-CB-CG2	6.10	120.87	110.50
2	AB	122	G	C1'-O4'-C4'	-6.10	103.80	109.90
2	AB	402	A	O4'-C1'-C2'	-6.10	101.50	107.60
2	AB	2861	U	O4'-C4'-C3'	6.10	110.10	104.00
2	AB	764	A	C4'-C3'-O3'	6.10	118.54	109.40
2	AB	1713	A	O4'-C1'-C2'	6.10	111.90	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	30	C	C2'-C3'-O3'	-6.09	104.56	113.70
2	AB	161	A	C1'-C2'-O2'	6.09	117.54	108.40
2	AB	1856	U	O3'-P-O5'	6.09	113.14	104.00
35	BA	9	G	O4'-C1'-N9	6.09	117.64	108.50
35	BA	963	G	O4'-C4'-C3'	6.09	110.09	104.00
35	BA	1228	C	O4'-C1'-N1	6.09	117.64	108.50
1	AA	5	U	C5'-C4'-O4'	6.09	118.94	109.80
2	AB	1058	U	C4'-C3'-C2'	-6.09	96.51	102.60
11	AK	64	ARG	NE-CZ-NH1	-6.09	115.41	121.50
15	AO	43	ALA	CA-C-N	6.09	129.05	120.28
15	AO	43	ALA	C-N-CA	6.09	129.05	120.28
30	A3	5	ASN	CA-C-N	6.09	131.04	121.17
30	A3	5	ASN	C-N-CA	6.09	131.04	121.17
35	BA	404	G	C2'-C3'-O3'	-6.09	104.56	113.70
50	BP	12	ARG	O-C-N	6.09	129.76	122.27
7	AG	141	ASP	CA-CB-CG	-6.09	106.51	112.60
2	AB	2538	C	C3'-C2'-C1'	-6.09	95.21	101.30
6	AF	60	TRP	NE1-CE2-CD2	-6.09	99.48	107.40
20	AT	45	GLU	CB-CG-CD	6.09	122.95	112.60
35	BA	667	G	C4'-C3'-O3'	-6.09	103.87	113.00
55	BU	33	TRP	CE2-CD2-CE3	-6.09	112.71	118.80
2	AB	797	G	C3'-C2'-C1'	6.09	107.39	101.30
2	AB	1063	G	C5'-C4'-O4'	6.09	118.93	109.80
2	AB	1761	C	C4'-C3'-C2'	-6.09	96.51	102.60
2	AB	2097	A	C3'-C2'-O2'	6.09	119.83	110.70
35	BA	1171	A	O4'-C1'-N9	6.09	117.63	108.50
2	AB	2195	U	O4'-C1'-N1	6.08	117.63	108.50
16	AP	47	VAL	CA-CB-CG2	-6.08	100.06	110.40
35	BA	744	C	O4'-C4'-C3'	6.08	110.08	104.00
2	AB	279	A	O4'-C4'-C3'	6.08	110.08	104.00
2	AB	1101	U	O4'-C1'-N1	6.08	117.62	108.50
35	BA	854	U	C3'-C2'-C1'	6.08	107.38	101.30
2	AB	55	G	C4'-C3'-C2'	-6.08	96.52	102.60
2	AB	728	G	O4'-C1'-N9	6.08	117.32	108.20
3	AC	26	ALA	N-CA-C	6.08	117.99	111.36
10	AJ	88	PRO	CA-C-N	6.08	126.69	120.00
10	AJ	88	PRO	C-N-CA	6.08	126.69	120.00
19	AS	80	ASN	CA-C-N	6.08	126.69	119.94
19	AS	80	ASN	C-N-CA	6.08	126.69	119.94
35	BA	203	G	O4'-C1'-C2'	6.08	113.68	107.60
40	BF	154	VAL	CA-C-O	-6.08	114.30	121.05
52	BR	14	ARG	O-C-N	-6.08	116.09	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2824	C	C4'-C3'-O3'	-6.08	103.88	113.00
2	AB	700	G	O4'-C1'-N9	6.08	117.62	108.50
2	AB	888	C	O5'-C5'-C4'	6.08	120.62	111.50
2	AB	939	G	C4'-C3'-C2'	-6.08	96.52	102.60
2	AB	2822	G	O4'-C4'-C3'	6.08	110.08	104.00
11	AK	53	PRO	N-CD-CG	6.08	112.32	103.20
2	AB	97	C	C3'-C2'-C1'	-6.08	95.22	101.30
2	AB	1486	U	C5'-C4'-C3'	-6.08	106.88	116.00
5	AE	28	GLU	CA-C-O	-6.08	113.73	120.60
22	AV	80	TRP	CD2-CE2-CZ2	6.08	128.48	122.40
35	BA	84	U	O4'-C1'-N1	6.08	117.32	108.20
2	AB	235	U	O4'-C1'-N1	6.08	117.61	108.50
2	AB	291	G	O3'-P-O5'	-6.08	94.89	104.00
2	AB	1460	U	N1-C1'-C2'	6.08	121.11	112.00
2	AB	2161	C	O4'-C4'-C3'	-6.08	97.92	104.00
2	AB	2774	C	C5'-C4'-C3'	-6.08	106.89	116.00
10	AJ	88	PRO	N-CA-CB	6.08	109.95	103.39
35	BA	562	U	C4'-C3'-O3'	6.08	118.51	109.40
1	AA	41	G	C3'-C2'-C1'	6.07	107.57	101.50
2	AB	381	G	P-O3'-C3'	6.07	129.31	120.20
2	AB	526	A	O4'-C1'-N9	-6.07	99.39	108.50
2	AB	727	A	O4'-C1'-N9	6.07	117.61	108.50
2	AB	1268	A	O4'-C1'-N9	6.07	117.61	108.50
2	AB	1573	G	C5'-C4'-C3'	-6.07	106.89	116.00
2	AB	1913	A	C1'-O4'-C4'	-6.07	103.63	109.70
2	AB	2000	C	C5'-C4'-C3'	-6.07	106.89	116.00
12	AL	127	GLY	O-C-N	6.07	130.59	122.70
35	BA	1038	C	C5'-C4'-C3'	-6.07	106.89	116.00
43	BI	137	ARG	NE-CZ-NH2	6.07	124.67	119.20
35	BA	196	A	C4'-C3'-C2'	-6.07	96.53	102.60
35	BA	344	A	C3'-C2'-O2'	-6.07	105.49	114.60
36	BB	29	G	O4'-C4'-C3'	-6.07	100.03	106.10
2	AB	470	A	C4'-C3'-C2'	-6.07	96.53	102.60
10	AJ	153	THR	CA-C-N	6.07	129.02	120.28
10	AJ	153	THR	C-N-CA	6.07	129.02	120.28
33	A6	39	ARG	NE-CZ-NH2	6.07	124.66	119.20
37	BC	75	C	C4'-C3'-C2'	-6.07	96.53	102.60
55	BU	2	ARG	CD-NE-CZ	6.07	132.90	124.40
2	AB	2578	G	C5'-C4'-O4'	6.07	118.90	109.80
2	AB	561	G	P-O3'-C3'	6.07	129.30	120.20
2	AB	2652	C	O5'-C5'-C4'	-6.07	102.40	111.50
24	AX	44	HIS	CA-CB-CG	-6.07	107.73	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	146	G	C1'-O4'-C4'	-6.07	103.83	109.90
35	BA	971	G	C1'-O4'-C4'	-6.07	103.63	109.70
35	BA	1455	G	P-O5'-C5'	6.07	130.00	120.90
2	AB	366	C	C4'-C3'-O3'	6.07	122.10	113.00
2	AB	712	G	C4'-C3'-C2'	-6.07	96.53	102.60
2	AB	1967	C	C5'-C4'-C3'	-6.07	106.90	116.00
2	AB	2862	G	C4'-C3'-C2'	-6.06	96.54	102.60
2	AB	418	C	O4'-C1'-N1	6.06	117.59	108.50
2	AB	1807	G	O4'-C1'-C2'	-6.06	101.54	107.60
2	AB	2249	U	O4'-C4'-C3'	6.06	110.06	104.00
2	AB	2586	U	O5'-C5'-C4'	6.06	120.59	111.50
12	AL	67	ASN	CA-CB-CG	6.06	118.66	112.60
22	AV	86	THR	CA-C-N	6.06	131.81	121.87
22	AV	86	THR	C-N-CA	6.06	131.81	121.87
23	AW	102	ILE	CA-C-O	-6.06	113.93	120.36
2	AB	498	G	C2'-C3'-O3'	-6.06	104.61	113.70
2	AB	2308	G	C4'-C3'-O3'	-6.06	103.91	113.00
3	AC	1	MET	CA-C-N	6.06	130.74	122.19
3	AC	1	MET	C-N-CA	6.06	130.74	122.19
35	BA	1213	A	C2'-C3'-O3'	6.06	122.79	113.70
2	AB	757	G	C3'-C2'-O2'	6.06	119.79	110.70
2	AB	1911	PSU	O3'-P-O5'	6.06	113.09	104.00
2	AB	1980	G	O4'-C1'-C2'	-6.06	99.74	105.80
4	AD	221	GLY	O-C-N	6.06	128.01	122.19
35	BA	33	A	C5'-C4'-C3'	-6.06	106.91	116.00
35	BA	436	C	C4'-C3'-C2'	-6.06	96.54	102.60
2	AB	664	G	C3'-C2'-C1'	6.06	107.36	101.30
2	AB	784	G	O5'-C5'-C4'	-6.06	102.41	111.50
2	AB	1340	U	O3'-P-O5'	-6.06	94.91	104.00
6	AF	79	ARG	O-C-N	6.06	130.65	122.59
35	BA	190	A	C5'-C4'-O4'	6.06	118.89	109.80
35	BA	521	G	O4'-C4'-C3'	6.06	110.06	104.00
35	BA	809	G	O3'-P-O5'	-6.06	94.92	104.00
35	BA	1094	G	C3'-C2'-C1'	6.06	107.56	101.50
44	BJ	117	GLN	CA-C-N	6.06	129.52	120.31
44	BJ	117	GLN	C-N-CA	6.06	129.52	120.31
2	AB	1043	C	O5'-C5'-C4'	6.06	120.58	111.50
35	BA	427	U	C3'-C2'-C1'	-6.06	95.24	101.30
35	BA	743	A	O5'-C5'-C4'	6.06	120.58	111.50
1	AA	42	C	O3'-P-O5'	6.05	113.08	104.00
2	AB	1813	G	O5'-C5'-C4'	6.05	120.58	111.50
2	AB	1954	G	O4'-C4'-C3'	6.05	112.16	106.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	1112	C	C4'-C3'-O3'	6.05	122.08	113.00
1	AA	111	U	N1-C1'-C2'	-6.05	102.92	112.00
2	AB	406	G	C4'-C3'-C2'	-6.05	96.55	102.60
2	AB	1967	C	O4'-C1'-N1	6.05	117.58	108.50
2	AB	2557	G	O4'-C4'-C3'	6.05	110.05	104.00
2	AB	2613	U	C4'-C3'-C2'	-6.05	96.55	102.60
35	BA	142	G	C4'-C3'-C2'	-6.05	96.55	102.60
35	BA	1059	C	O4'-C1'-N1	6.05	117.58	108.50
35	BA	1141	C	C4'-C3'-C2'	-6.05	96.55	102.60
42	BH	72	ASP	N-CA-C	6.05	118.84	111.82
2	AB	2394	C	C4'-C3'-O3'	-6.05	103.93	113.00
2	AB	2626	C	O5'-C5'-C4'	6.05	120.58	111.50
35	BA	1078	U	O5'-C5'-C4'	-6.05	102.42	111.50
2	AB	2185	U	O4'-C4'-C3'	6.05	110.05	104.00
2	AB	2349	G	C4'-C3'-C2'	-6.05	96.55	102.60
2	AB	2713	U	C1'-O4'-C4'	6.05	115.75	109.70
11	AK	68	PHE	CA-C-N	6.05	130.98	123.12
11	AK	68	PHE	C-N-CA	6.05	130.98	123.12
1	AA	55	U	C1'-O4'-C4'	-6.05	103.85	109.90
2	AB	95	A	C1'-C2'-O2'	6.05	117.47	108.40
2	AB	923	G	C3'-C2'-O2'	6.05	119.77	110.70
2	AB	2225	A	O5'-C5'-C4'	6.05	120.77	111.70
2	AB	2629	U	C3'-C2'-C1'	6.05	107.55	101.50
5	AE	33	ARG	NE-CZ-NH1	-6.05	115.45	121.50
35	BA	33	A	C3'-C2'-O2'	6.05	119.77	110.70
35	BA	359	G	C5'-C4'-C3'	-6.05	106.93	116.00
35	BA	1014	A	P-O3'-C3'	6.05	129.27	120.20
35	BA	1106	G	C5'-C4'-C3'	6.05	125.07	116.00
2	AB	20	C	O4'-C1'-C2'	-6.04	101.56	107.60
2	AB	1476	U	O4'-C1'-N1	6.04	117.57	108.50
35	BA	1113	C	C1'-O4'-C4'	-6.04	103.86	109.90
35	BA	1384	C	C5'-C4'-O4'	6.04	118.87	109.80
2	AB	1425	G	C1'-O4'-C4'	6.04	115.94	109.90
3	AC	191	ALA	CA-C-N	6.04	128.87	120.29
3	AC	191	ALA	C-N-CA	6.04	128.87	120.29
35	BA	203	G	C4'-C3'-O3'	6.04	122.06	113.00
35	BA	989	U	O4'-C1'-N1	6.04	117.56	108.50
2	AB	126	A	O4'-C1'-N9	6.04	117.56	108.50
15	AO	24	THR	N-CA-C	-6.04	105.57	113.12
30	A3	37	HIS	ND1-CG-CD2	6.04	112.14	106.10
42	BH	52	ASN	CA-C-N	6.04	133.08	121.54
42	BH	52	ASN	C-N-CA	6.04	133.08	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1477	A	O4'-C4'-C3'	6.04	110.04	104.00
35	BA	842	U	C1'-O4'-C4'	6.04	115.74	109.70
2	AB	550	C	O3'-P-O5'	-6.04	94.94	104.00
2	AB	1481	U	C3'-C2'-C1'	-6.04	95.26	101.30
2	AB	1863	G	O4'-C1'-C2'	-6.04	101.56	107.60
2	AB	2440	C	O4'-C1'-C2'	6.04	113.64	107.60
35	BA	260	G	O4'-C4'-C3'	6.04	110.04	104.00
35	BA	434	U	C4'-C3'-C2'	-6.04	96.56	102.60
35	BA	842	U	O4'-C4'-C3'	-6.04	100.06	106.10
35	BA	1252	A	C2'-C3'-O3'	-6.04	104.64	113.70
2	AB	692	C	C4'-C3'-C2'	-6.04	96.56	102.60
2	AB	759	G	C5'-C4'-O4'	6.04	118.86	109.80
2	AB	1294	U	O3'-P-O5'	6.04	113.06	104.00
2	AB	1460	U	C2'-C3'-O3'	-6.04	104.64	113.70
2	AB	1515	A	C1'-O4'-C4'	-6.04	103.86	109.90
2	AB	726	G	O4'-C1'-N9	6.04	117.55	108.50
2	AB	1485	U	C3'-C2'-O2'	6.03	119.75	110.70
2	AB	1828	G	O4'-C1'-N9	6.03	117.25	108.20
19	AS	55	GLN	CB-CG-CD	6.03	122.86	112.60
35	BA	476	U	C4'-C3'-O3'	6.03	122.05	113.00
35	BA	884	U	C4'-C3'-C2'	-6.03	96.57	102.60
35	BA	1462	C	O4'-C4'-C3'	6.03	110.03	104.00
2	AB	1586	A	O5'-C5'-C4'	-6.03	102.45	111.50
2	AB	2598	A	C4'-C3'-C2'	-6.03	96.57	102.60
4	AD	161	VAL	CA-CB-CG2	6.03	120.65	110.40
2	AB	1138	G	C1'-C2'-O2'	6.03	117.44	108.40
35	BA	928	G	O4'-C1'-C2'	-6.03	101.57	107.60
37	BC	70	C	C1'-O4'-C4'	6.03	115.93	109.90
38	BD	231	GLN	CA-C-N	6.03	128.68	120.54
38	BD	231	GLN	C-N-CA	6.03	128.68	120.54
40	BF	2	ARG	CA-C-N	6.03	133.06	121.54
40	BF	2	ARG	C-N-CA	6.03	133.06	121.54
15	AO	8	LYS	O-C-N	6.03	128.36	122.09
2	AB	22	C	O4'-C1'-N1	6.03	117.54	108.50
2	AB	146	A	O4'-C1'-N9	6.03	117.54	108.50
2	AB	554	U	C4'-C3'-O3'	6.03	122.04	113.00
2	AB	1326	U	C1'-O4'-C4'	-6.03	103.87	109.90
2	AB	1714	U	O4'-C1'-C2'	-6.03	101.57	107.60
7	AG	148	VAL	CB-CA-C	6.03	121.18	111.29
10	AJ	84	SER	CA-CB-OG	-6.03	99.05	111.10
11	AK	21	PRO	CA-C-O	-6.03	111.82	120.56
11	AK	75	ALA	O-C-N	6.03	128.51	122.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	A7	33	HIS	CA-C-N	6.03	133.05	121.54
34	A7	33	HIS	C-N-CA	6.03	133.05	121.54
35	BA	51	A	C3'-C2'-C1'	6.03	107.53	101.50
35	BA	539	A	C4'-C3'-C2'	-6.03	96.57	102.60
35	BA	1181	G	C4'-C3'-C2'	-6.03	96.57	102.60
42	BH	110	ARG	N-CA-C	6.03	117.85	111.28
2	AB	388	G	C1'-C2'-O2'	6.03	117.44	108.40
2	AB	2076	U	P-O3'-C3'	6.03	129.24	120.20
2	AB	2532	G	C4'-C3'-C2'	6.03	108.62	102.60
12	AL	104	ALA	CA-C-O	6.03	126.65	119.60
42	BH	11	HIS	CA-CB-CG	6.03	119.83	113.80
2	AB	1846	G	C5'-C4'-O4'	6.02	118.84	109.80
29	A2	3	LYS	CB-CA-C	6.02	120.42	110.90
2	AB	1380	G	O4'-C4'-C3'	6.02	110.02	104.00
2	AB	2261	C	O4'-C1'-C2'	-6.02	101.58	107.60
35	BA	1490	U	O4'-C1'-N1	6.02	117.53	108.50
2	AB	2148	G	C5'-C4'-C3'	6.02	125.03	116.00
2	AB	2189	U	C3'-C2'-C1'	6.02	107.32	101.30
35	BA	973	G	O4'-C1'-C2'	-6.02	101.58	107.60
56	BV	3	ILE	CA-CB-CG1	6.02	120.63	110.40
2	AB	685	A	C1'-O4'-C4'	6.02	115.72	109.70
2	AB	1272	A	O4'-C1'-N9	6.02	117.23	108.20
35	BA	584	G	C4'-C3'-O3'	-6.02	103.97	113.00
2	AB	803	U	O4'-C4'-C3'	6.01	110.01	104.00
2	AB	829	A	O4'-C4'-C3'	6.01	112.11	106.10
2	AB	1782	U	C5'-C4'-C3'	-6.01	106.18	115.20
32	A5	17	GLY	CA-C-N	6.01	129.60	122.44
32	A5	17	GLY	C-N-CA	6.01	129.60	122.44
35	BA	619	U	O5'-C5'-C4'	6.01	120.52	111.50
35	BA	840	C	O3'-P-O5'	6.01	113.02	104.00
40	BF	127	ARG	CD-NE-CZ	6.01	132.82	124.40
49	BO	2	ARG	NE-CZ-NH1	-6.01	115.48	121.50
50	BP	16	ALA	CA-C-N	6.01	128.83	120.29
50	BP	16	ALA	C-N-CA	6.01	128.83	120.29
2	AB	277	G	C5'-C4'-O4'	6.01	118.82	109.80
2	AB	648	G	C2'-C3'-O3'	6.01	122.72	113.70
2	AB	1506	U	C4'-C3'-C2'	-6.01	96.59	102.60
19	AS	60	TRP	NE1-CE2-CD2	-6.01	99.58	107.40
27	A0	33	ALA	N-CA-CB	-6.01	100.41	110.39
2	AB	607	U	C3'-C2'-C1'	-6.01	95.29	101.30
2	AB	804	A	O4'-C1'-N9	6.01	117.52	108.50
2	AB	823	C	C5'-C4'-O4'	6.01	118.82	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1346	G	O4'-C4'-C3'	6.01	110.01	104.00
2	AB	1373	A	C1'-C2'-O2'	6.01	117.42	108.40
2	AB	1603	A	C1'-O4'-C4'	-6.01	103.89	109.90
2	AB	2663	G	O4'-C1'-N9	6.01	117.52	108.50
4	AD	93	VAL	CA-C-N	6.01	133.02	121.54
4	AD	93	VAL	C-N-CA	6.01	133.02	121.54
16	AP	71	ARG	CD-NE-CZ	6.01	132.82	124.40
35	BA	333	U	C1'-O4'-C4'	6.01	115.91	109.90
35	BA	641	U	O3'-P-O5'	-6.01	94.98	104.00
2	AB	433	C	O3'-P-O5'	-6.01	94.98	104.00
2	AB	1317	G	O3'-P-O5'	6.01	113.01	104.00
2	AB	2739	U	O3'-P-O5'	-6.01	94.99	104.00
2	AB	2782	G	O5'-C5'-C4'	6.01	120.51	111.50
34	A7	21	GLY	CA-C-N	6.01	131.01	123.14
34	A7	21	GLY	C-N-CA	6.01	131.01	123.14
35	BA	275	G	C1'-C2'-O2'	6.01	117.41	108.40
35	BA	378	G	C3'-C2'-O2'	6.01	119.71	110.70
2	AB	619	G	N9-C1'-C2'	6.01	121.01	112.00
2	AB	1110	G	C3'-C2'-C1'	-6.01	95.49	101.50
25	AY	32	ALA	O-C-N	6.01	128.58	122.09
35	BA	802	A	O4'-C1'-N9	6.01	117.51	108.50
2	AB	2131	U	O4'-C1'-N1	6.00	117.51	108.50
2	AB	2725	A	C5'-C4'-O4'	6.00	118.11	109.10
31	A4	51	ALA	CA-C-N	6.00	133.01	121.54
31	A4	51	ALA	C-N-CA	6.00	133.01	121.54
2	AB	101	A	C1'-O4'-C4'	6.00	115.70	109.70
2	AB	939	G	O5'-C5'-C4'	-6.00	102.49	111.50
2	AB	1951	U	O4'-C1'-C2'	-6.00	101.60	107.60
2	AB	2707	U	C4'-C3'-O3'	-6.00	104.00	113.00
2	AB	2708	G	O4'-C1'-N9	6.00	117.50	108.50
35	BA	219	U	N1-C1'-C2'	-6.00	103.00	112.00
43	BI	167	ALA	CA-C-N	6.00	133.18	122.31
43	BI	167	ALA	C-N-CA	6.00	133.18	122.31
46	BL	96	VAL	N-CA-C	6.00	117.23	108.53
48	BN	47	ALA	N-CA-CB	-6.00	102.21	111.46
2	AB	181	A	C5'-C4'-O4'	6.00	118.80	109.80
2	AB	2149	U	O3'-P-O5'	-6.00	95.00	104.00
2	AB	2770	G	N9-C1'-C2'	6.00	121.00	112.00
35	BA	211	G	C5'-C4'-C3'	-6.00	107.00	116.00
35	BA	1306	A	C1'-O4'-C4'	-6.00	103.90	109.90
2	AB	922	C	C1'-C2'-O2'	-6.00	99.40	108.40
35	BA	758	C	O4'-C1'-N1	6.00	117.50	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1117	C	O3'-P-O5'	6.00	113.00	104.00
4	AD	200	MET	N-CA-C	6.00	120.07	112.87
5	AE	131	ASP	CA-C-O	-6.00	114.95	120.95
8	AH	31	GLU	CA-C-N	6.00	131.18	122.36
8	AH	31	GLU	C-N-CA	6.00	131.18	122.36
12	AL	119	PHE	CA-C-O	-6.00	114.52	120.82
2	AB	521	U	C3'-C2'-C1'	6.00	107.30	101.30
2	AB	2733	A	O4'-C4'-C3'	6.00	110.00	104.00
10	AJ	107	VAL	N-CA-CB	6.00	118.17	110.13
35	BA	1226	C	C2'-C3'-O3'	6.00	118.50	109.50
35	BA	1330	U	O4'-C1'-C2'	-6.00	101.60	107.60
2	AB	2227	A	C4'-C3'-C2'	-6.00	96.61	102.60
2	AB	2423	U	O5'-C5'-C4'	6.00	120.69	111.70
19	AS	59	LEU	CA-C-N	6.00	128.23	120.44
19	AS	59	LEU	C-N-CA	6.00	128.23	120.44
50	BP	82	LYS	CA-C-N	6.00	128.11	120.56
50	BP	82	LYS	C-N-CA	6.00	128.11	120.56
2	AB	635	C	C1'-O4'-C4'	5.99	115.89	109.90
2	AB	1284	A	O4'-C1'-C2'	-5.99	101.61	107.60
2	AB	1510	G	C3'-C2'-C1'	-5.99	95.31	101.30
2	AB	2332	C	O5'-C5'-C4'	-5.99	102.51	111.50
24	AX	84	PRO	N-CA-CB	5.99	109.26	103.51
26	AZ	63	ILE	CA-C-N	5.99	128.59	120.38
26	AZ	63	ILE	C-N-CA	5.99	128.59	120.38
35	BA	849	G	C4'-C3'-C2'	-5.99	96.61	102.60
35	BA	934	C	N1-C1'-C2'	5.99	122.99	114.00
46	BL	53	ILE	CA-C-O	-5.99	114.67	120.30
2	AB	1805	A	O4'-C1'-C2'	-5.99	101.61	107.60
2	AB	315	G	C2'-C3'-O3'	-5.99	104.71	113.70
2	AB	1174	U	O4'-C1'-C2'	-5.99	101.61	107.60
2	AB	2146	C	C3'-C2'-C1'	-5.99	95.51	101.50
20	AT	38	VAL	CB-CA-C	5.99	118.34	110.91
35	BA	181	A	C1'-O4'-C4'	-5.99	103.71	109.70
35	BA	550	G	O4'-C1'-C2'	-5.99	101.61	107.60
35	BA	581	G	O4'-C4'-C3'	5.99	109.99	104.00
35	BA	688	G	C1'-C2'-O2'	5.99	117.39	108.40
35	BA	1069	C	C1'-O4'-C4'	5.99	115.89	109.90
35	BA	1403	C	O4'-C1'-N1	5.99	117.48	108.50
2	AB	2390	U	N1-C1'-C2'	-5.99	103.02	112.00
35	BA	226	G	C3'-C2'-O2'	5.99	119.68	110.70
35	BA	566	G	C4'-C3'-C2'	-5.99	96.61	102.60
35	BA	1401	G	O4'-C1'-N9	5.99	117.48	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1336	A	C1'-C2'-O2'	5.99	117.38	108.40
5	AE	77	ARG	N-CA-CB	-5.99	101.00	110.22
38	BD	21	TYR	CA-C-N	5.99	132.98	121.54
38	BD	21	TYR	C-N-CA	5.99	132.98	121.54
2	AB	915	C	C1'-O4'-C4'	-5.99	103.92	109.90
2	AB	1497	U	C1'-O4'-C4'	-5.99	103.71	109.70
2	AB	1729	U	O3'-P-O5'	-5.99	95.02	104.00
18	AR	24	THR	N-CA-C	5.99	118.70	111.40
35	BA	680	C	C4'-C3'-C2'	-5.99	96.61	102.60
36	BB	18	A	P-O3'-C3'	5.99	129.18	120.20
2	AB	2112	G	C3'-C2'-C1'	5.98	107.28	101.30
35	BA	470	C	C4'-C3'-O3'	5.98	121.98	113.00
2	AB	218	A	C1'-C2'-O2'	5.98	117.37	108.40
2	AB	569	U	C3'-C2'-C1'	5.98	107.28	101.30
17	AQ	56	LYS	CB-CG-CD	5.98	125.06	111.30
35	BA	314	C	C4'-C3'-O3'	-5.98	104.03	113.00
56	BV	51	ASN	CA-CB-CG	5.98	118.58	112.60
2	AB	488	G	C1'-C2'-O2'	-5.98	99.43	108.40
2	AB	488	G	O5'-C5'-C4'	-5.98	102.53	111.50
2	AB	509	C	O4'-C1'-C2'	5.98	113.58	107.60
2	AB	1246	A	C3'-C2'-C1'	5.98	107.28	101.30
2	AB	2697	G	C3'-C2'-O2'	-5.98	101.73	110.70
17	AQ	77	ALA	N-CA-C	5.98	117.47	111.07
35	BA	1103	C	C5'-C4'-O4'	5.98	118.77	109.80
35	BA	790	A	C1'-C2'-O2'	-5.98	99.43	108.40
2	AB	184	C	C3'-C2'-O2'	5.98	119.67	110.70
2	AB	1748	C	O4'-C1'-N1	5.98	117.47	108.50
9	AI	51	ARG	CA-C-N	5.98	128.57	120.44
9	AI	51	ARG	C-N-CA	5.98	128.57	120.44
35	BA	823	C	C3'-C2'-C1'	5.98	107.28	101.30
35	BA	1458	G	O4'-C4'-C3'	5.98	109.98	104.00
42	BH	32	ALA	N-CA-C	5.98	119.88	112.59
35	BA	346	G	O4'-C1'-C2'	5.98	113.58	107.60
53	BS	68	LYS	CA-CB-CG	-5.98	102.15	114.10
1	AA	110	C	C1'-O4'-C4'	5.97	115.87	109.90
2	AB	1319	C	C5'-C4'-C3'	-5.97	107.04	116.00
35	BA	240	G	C4'-C3'-C2'	-5.97	96.62	102.60
35	BA	1018	G	C4'-C3'-O3'	5.97	121.96	113.00
35	BA	1074	G	C1'-O4'-C4'	5.97	115.88	109.90
1	AA	69	G	C3'-C2'-O2'	5.97	119.66	110.70
2	AB	2753	A	O4'-C1'-N9	5.97	117.46	108.50
16	AP	60	VAL	CA-C-O	-5.97	114.74	120.95

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	192	A	O4'-C4'-C3'	5.97	109.97	104.00
35	BA	885	G	C2'-C3'-O3'	5.97	122.66	113.70
35	BA	1156	G	C5'-C4'-O4'	5.97	118.76	109.80
35	BA	1511	G	C1'-O4'-C4'	5.97	115.87	109.90
2	AB	1761	C	C1'-C2'-O2'	-5.97	102.84	111.80
2	AB	1872	A	N9-C1'-C2'	-5.97	103.04	112.00
33	A6	42	HIS	CB-CG-CD2	-5.97	123.44	131.20
44	BJ	125	ILE	CB-CA-C	5.97	121.08	111.29
1	AA	91	C	C3'-C2'-C1'	5.97	107.27	101.30
2	AB	675	A	O4'-C4'-C3'	5.97	109.97	104.00
2	AB	2780	G	C1'-C2'-O2'	5.97	120.76	111.80
5	AE	15	PHE	CA-C-O	5.97	128.34	121.47
21	AU	28	LYS	N-CA-CB	5.97	120.58	110.49
21	AU	84	ARG	NE-CZ-NH2	5.97	124.57	119.20
2	AB	715	A	O4'-C1'-C2'	-5.97	101.63	107.60
3	AC	180	PHE	CA-CB-CG	5.97	119.77	113.80
35	BA	18	C	C5'-C4'-C3'	5.97	124.95	116.00
35	BA	243	A	O4'-C4'-C3'	-5.97	100.13	106.10
35	BA	1051	C	O4'-C4'-C3'	5.97	109.97	104.00
11	AK	124	MET	CA-C-N	5.97	128.56	120.38
11	AK	124	MET	C-N-CA	5.97	128.56	120.38
13	AM	49	ARG	CA-C-O	5.97	126.63	119.59
17	AQ	79	ALA	N-CA-C	5.97	117.45	111.07
35	BA	128	G	C3'-C2'-O2'	5.97	119.65	110.70
35	BA	1242	G	C4'-C3'-C2'	-5.97	96.63	102.60
2	AB	574	A	O4'-C1'-C2'	-5.96	99.83	105.80
2	AB	1804	C	C5'-C4'-O4'	5.96	118.75	109.80
2	AB	1978	A	C4'-C3'-C2'	-5.96	96.64	102.60
20	AT	18	GLN	O-C-N	5.96	130.02	123.22
2	AB	1508	A	C4'-C3'-O3'	5.96	121.94	113.00
35	BA	125	U	C4'-C3'-C2'	-5.96	96.64	102.60
57	BW	40	PRO	CA-C-N	5.96	129.09	120.38
57	BW	40	PRO	C-N-CA	5.96	129.09	120.38
2	AB	157	C	C5'-C4'-C3'	-5.96	107.06	116.00
2	AB	474	G	P-O5'-C5'	5.96	129.84	120.90
2	AB	758	C	O4'-C1'-N1	5.96	117.44	108.50
2	AB	967	U	C1'-C2'-O2'	5.96	117.34	108.40
6	AF	127	GLU	CA-C-O	-5.96	113.36	120.10
7	AG	19	PHE	N-CA-C	-5.96	105.66	113.17
35	BA	685	G	C3'-C2'-O2'	5.96	119.64	110.70
35	BA	795	C	N1-C1'-C2'	-5.96	103.06	112.00
37	BC	41	C	O4'-C1'-N1	5.96	117.44	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	81	G	O3'-P-O5'	-5.96	95.06	104.00
2	AB	2055	C	C4'-C3'-C2'	-5.96	96.64	102.60
2	AB	2135	A	C4'-C3'-C2'	-5.96	96.64	102.60
3	AC	152	ALA	CA-C-O	5.96	126.87	120.55
20	AT	5	PHE	CA-C-O	5.96	128.18	121.51
35	BA	344	A	C4'-C3'-O3'	-5.96	100.46	109.40
35	BA	861	G	O4'-C1'-N9	5.96	117.44	108.50
35	BA	984	C	O3'-P-O5'	-5.96	95.06	104.00
2	AB	1275	A	O4'-C4'-C3'	-5.96	98.04	104.00
2	AB	2512	C	C3'-C2'-C1'	-5.96	95.34	101.30
2	AB	2674	G	C4'-C3'-C2'	-5.96	96.64	102.60
5	AE	37	VAL	CA-C-O	-5.96	113.33	120.78
35	BA	481	G	C3'-C2'-C1'	5.96	107.46	101.50
35	BA	1239	A	O4'-C4'-C3'	5.96	112.06	106.10
57	BW	8	ASN	OD1-CG-ND2	-5.96	116.64	122.60
2	AB	1836	C	C1'-C2'-O2'	5.96	117.33	108.40
22	AV	92	ASN	OD1-CG-ND2	5.96	128.56	122.60
24	AX	47	VAL	CA-C-N	5.96	128.26	120.28
24	AX	47	VAL	C-N-CA	5.96	128.26	120.28
35	BA	618	C	C2'-C3'-O3'	5.96	122.63	113.70
35	BA	1243	C	O4'-C1'-C2'	-5.96	101.64	107.60
39	BE	134	LYS	O-C-N	-5.96	115.36	122.15
2	AB	936	A	C4'-C3'-C2'	-5.95	96.65	102.60
2	AB	1106	G	O5'-C5'-C4'	5.95	120.43	111.50
2	AB	1329	U	C4'-C3'-C2'	5.95	108.55	102.60
2	AB	1465	G	C4'-C3'-C2'	-5.95	96.65	102.60
6	AF	74	LYS	CB-CA-C	5.95	119.38	109.38
12	AL	85	LYS	CB-CG-CD	5.95	124.99	111.30
35	BA	530	G	O4'-C1'-N9	-5.95	99.57	108.50
35	BA	716	A	C4'-C3'-C2'	-5.95	96.65	102.60
35	BA	718	A	C4'-C3'-C2'	5.95	108.55	102.60
35	BA	1360	A	C5'-C4'-O4'	5.95	118.73	109.80
2	AB	81	G	C5'-C4'-O4'	5.95	118.72	109.80
2	AB	1182	G	C5'-C4'-C3'	5.95	124.93	116.00
31	A4	14	ALA	O-C-N	5.95	129.74	122.84
35	BA	414	A	C4'-C3'-C2'	-5.95	96.65	102.60
35	BA	610	U	C5'-C4'-C3'	5.95	124.92	116.00
2	AB	748	G	O4'-C1'-N9	5.95	117.12	108.20
2	AB	1052	C	C4'-C3'-O3'	5.95	121.92	113.00
2	AB	2020	A	P-O3'-C3'	5.95	129.12	120.20
9	AI	33	GLN	OE1-CD-NE2	-5.95	116.65	122.60
8	AH	110	HIS	O-C-N	5.95	128.19	121.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2190	G	C4'-C3'-C2'	-5.95	96.65	102.60
38	BD	115	ASP	CA-C-O	-5.95	114.58	120.70
1	AA	50	A	O4'-C4'-C3'	5.94	109.94	104.00
2	AB	2526	G	O3'-P-O5'	-5.94	95.08	104.00
35	BA	321	A	O3'-P-O5'	5.94	112.92	104.00
35	BA	757	U	O4'-C1'-N1	5.94	117.42	108.50
35	BA	802	A	C2'-C3'-O3'	-5.94	104.78	113.70
2	AB	108	G	O4'-C1'-N9	5.94	117.42	108.50
2	AB	1158	C	O4'-C4'-C3'	5.94	109.94	104.00
2	AB	2607	G	P-O3'-C3'	5.94	129.11	120.20
7	AG	177	ARG	NE-CZ-NH2	-5.94	113.85	119.20
35	BA	248	C	C4'-C3'-C2'	-5.94	96.66	102.60
35	BA	349	A	O4'-C1'-C2'	-5.94	101.66	107.60
37	BC	73	A	C4'-C3'-O3'	-5.94	104.09	113.00
48	BN	30	ARG	NE-CZ-NH2	-5.94	113.85	119.20
2	AB	299	A	C2'-C3'-O3'	-5.94	104.79	113.70
2	AB	926	G	O4'-C1'-C2'	5.94	113.54	107.60
3	AC	98	GLU	N-CA-C	5.94	117.56	111.14
4	AD	34	GLU	CB-CA-C	5.94	120.64	111.02
10	AJ	59	LEU	O-C-N	-5.94	115.82	122.12
35	BA	61	G	O4'-C1'-C2'	-5.94	101.66	107.60
35	BA	775	G	C3'-C2'-O2'	5.94	119.61	110.70
35	BA	1300	G	C4'-C3'-C2'	-5.94	96.66	102.60
2	AB	254	G	O4'-C1'-C2'	-5.94	101.66	107.60
2	AB	547	A	C1'-O4'-C4'	-5.94	103.96	109.90
45	BK	94	ARG	NH1-CZ-NH2	-5.94	111.58	119.30
50	BP	92	ILE	CA-C-N	5.94	126.24	119.83
50	BP	92	ILE	C-N-CA	5.94	126.24	119.83
2	AB	1175	A	C3'-C2'-C1'	-5.94	95.36	101.30
2	AB	1246	A	O4'-C1'-N9	5.94	117.41	108.50
16	AP	93	GLY	CA-C-N	5.94	130.63	120.72
16	AP	93	GLY	C-N-CA	5.94	130.63	120.72
44	BJ	49	LYS	CA-C-N	5.94	130.92	123.14
44	BJ	49	LYS	C-N-CA	5.94	130.92	123.14
57	BW	18	PHE	CA-C-N	5.94	130.62	120.71
57	BW	18	PHE	C-N-CA	5.94	130.62	120.71
2	AB	1286	A	C3'-C2'-C1'	-5.94	95.56	101.50
35	BA	210	C	C4'-C3'-O3'	-5.94	100.50	109.40
35	BA	440	C	C3'-C2'-C1'	5.94	107.24	101.30
35	BA	588	G	C1'-O4'-C4'	-5.94	103.96	109.90
2	AB	151	C	P-O3'-C3'	5.93	129.10	120.20
2	AB	1339	G	C4'-C3'-O3'	5.93	121.90	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1572	A	C4'-C3'-C2'	-5.93	96.67	102.60
2	AB	1843	C	C5'-C4'-O4'	5.93	118.70	109.80
2	AB	2237	G	C2'-C3'-O3'	-5.93	104.80	113.70
5	AE	134	HIS	ND1-CE1-NE2	5.93	114.33	108.40
8	AH	140	ILE	N-CA-CB	-5.93	102.47	110.54
34	A7	13	ASN	OD1-CG-ND2	5.93	128.53	122.60
35	BA	159	G	O5'-C5'-C4'	5.93	120.40	111.50
48	BN	95	HIS	CA-CB-CG	-5.93	107.87	113.80
2	AB	488	G	C3'-C2'-O2'	5.93	119.60	110.70
2	AB	1753	G	C3'-C2'-O2'	5.93	119.60	110.70
2	AB	1208	C	C1'-O4'-C4'	-5.93	103.97	109.90
2	AB	2663	G	C2'-C3'-O3'	5.93	122.60	113.70
51	BQ	74	VAL	N-CA-C	5.93	118.50	111.09
1	AA	21	G	O4'-C1'-C2'	-5.93	101.67	107.60
2	AB	635	C	O4'-C1'-C2'	-5.93	101.67	107.60
2	AB	824	U	C5'-C4'-C3'	-5.93	107.11	116.00
2	AB	1396	U	P-O3'-C3'	5.93	129.09	120.20
2	AB	1876	A	O4'-C4'-C3'	5.93	109.93	104.00
2	AB	2156	G	C3'-C2'-C1'	-5.93	95.37	101.30
2	AB	1179	G	C3'-C2'-O2'	-5.93	101.81	110.70
2	AB	2448	A	C1'-C2'-O2'	5.93	120.69	111.80
2	AB	1000	A	C2'-C3'-O3'	-5.93	104.81	113.70
2	AB	1014	A	C4'-C3'-C2'	-5.93	96.67	102.60
2	AB	2419	U	O4'-C1'-N1	5.93	117.39	108.50
18	AR	28	LYS	CA-C-N	5.93	131.09	123.03
18	AR	28	LYS	C-N-CA	5.93	131.09	123.03
35	BA	396	C	P-O5'-C5'	5.93	129.79	120.90
35	BA	507	C	C4'-C3'-C2'	-5.93	96.67	102.60
35	BA	517	G	O4'-C1'-C2'	5.93	111.73	105.80
35	BA	691	G	O4'-C1'-C2'	5.93	113.53	107.60
35	BA	1145	A	N9-C1'-C2'	-5.93	105.11	114.00
35	BA	1184	G	O4'-C1'-C2'	-5.93	101.67	107.60
40	BF	24	VAL	CB-CA-C	5.93	116.99	111.30
52	BR	4	ILE	CA-CB-CG1	5.93	120.48	110.40
2	AB	1700	A	O5'-C5'-C4'	-5.92	102.61	111.50
8	AH	94	ARG	CD-NE-CZ	5.92	132.69	124.40
20	AT	82	HIS	CB-CA-C	5.92	119.40	111.82
35	BA	126	G	C4'-C3'-C2'	-5.92	96.67	102.60
35	BA	365	U	C4'-C3'-C2'	-5.92	96.68	102.60
52	BR	76	LYS	CA-C-O	-5.92	113.16	119.97
2	AB	2870	C	P-O5'-C5'	5.92	129.78	120.90
35	BA	1215	G	O4'-C4'-C3'	5.92	109.92	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1017	G	O4'-C1'-N9	5.92	117.38	108.50
2	AB	2466	C	C5'-C4'-C3'	-5.92	107.12	116.00
7	AG	128	SER	CB-CA-C	5.92	119.26	110.14
26	AZ	36	ARG	NE-CZ-NH2	5.92	124.53	119.20
35	BA	505	G	C5'-C4'-C3'	-5.92	107.12	116.00
35	BA	1044	A	C5'-C4'-C3'	-5.92	107.12	116.00
35	BA	1334	G	O4'-C4'-C3'	5.92	109.92	104.00
36	BB	30	U	O4'-C1'-C2'	-5.92	101.68	107.60
47	BM	36	ARG	NH1-CZ-NH2	-5.92	111.60	119.30
53	BS	12	VAL	CA-C-O	-5.92	113.13	119.35
2	AB	994	C	O3'-P-O5'	-5.92	95.12	104.00
2	AB	1936	A	O4'-C1'-C2'	5.92	111.72	105.80
35	BA	1198	G	C1'-O4'-C4'	-5.92	103.98	109.90
2	AB	1741	C	N1-C1'-C2'	-5.92	103.12	112.00
2	AB	1833	C	C4'-C3'-C2'	-5.92	96.68	102.60
2	AB	2288	A	O4'-C4'-C3'	-5.92	100.18	106.10
35	BA	87	C	C5'-C4'-O4'	-5.92	100.92	109.80
35	BA	975	A	C4'-C3'-O3'	5.92	121.88	113.00
36	BB	53	G	C4'-C3'-O3'	5.92	118.28	109.40
54	BT	61	ALA	N-CA-C	5.92	117.40	111.07
2	AB	459	U	O4'-C1'-N1	5.92	117.38	108.50
2	AB	701	G	O4'-C4'-C3'	5.92	109.92	104.00
17	AQ	12	THR	CA-C-N	5.92	128.13	120.44
17	AQ	12	THR	C-N-CA	5.92	128.13	120.44
35	BA	372	C	O5'-C5'-C4'	5.92	120.57	111.70
37	BC	64	G	O4'-C4'-C3'	5.92	109.92	104.00
35	BA	1203	C	C5'-C4'-C3'	-5.92	107.13	116.00
2	AB	2128	G	O4'-C4'-C3'	5.91	109.91	104.00
2	AB	1450	G	C1'-O4'-C4'	-5.91	103.99	109.90
35	BA	395	C	C1'-O4'-C4'	-5.91	103.99	109.90
35	BA	1021	A	C5'-C4'-C3'	-5.91	107.13	116.00
2	AB	1061	U	C4'-C3'-O3'	5.91	118.27	109.40
2	AB	1387	A	C5'-C4'-C3'	5.91	124.87	116.00
2	AB	1405	U	C5'-C4'-C3'	-5.91	107.13	116.00
2	AB	1615	C	C5'-C4'-C3'	5.91	124.06	115.20
2	AB	2406	A	C2'-C3'-O3'	5.91	118.37	109.50
2	AB	2425	A	C2'-C3'-O3'	5.91	118.36	109.50
2	AB	2687	U	O5'-C5'-C4'	5.91	120.37	111.50
3	AC	221	GLY	CA-C-O	-5.91	115.25	121.57
35	BA	344	A	O5'-C5'-C4'	5.91	120.57	111.70
35	BA	345	C	C3'-C2'-C1'	5.91	107.41	101.50
35	BA	654	G	C3'-C2'-C1'	-5.91	95.39	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	880	C	O4'-C4'-C3'	-5.91	98.09	104.00
37	BC	48	U	O4'-C1'-N1	5.91	117.06	108.20
39	BE	106	ARG	NE-CZ-NH2	-5.91	113.88	119.20
2	AB	47	C	C3'-C2'-O2'	5.91	119.56	110.70
2	AB	89	A	C2'-C3'-O3'	-5.91	104.84	113.70
2	AB	115	C	C4'-C3'-C2'	-5.91	96.69	102.60
2	AB	900	A	C2'-C3'-O3'	5.91	122.56	113.70
2	AB	1255	U	O4'-C1'-C2'	-5.91	101.69	107.60
35	BA	1222	G	O4'-C1'-C2'	-5.91	101.69	107.60
39	BE	138	GLN	O-C-N	5.91	128.47	122.09
13	AM	17	ARG	CB-CA-C	5.91	122.17	110.42
2	AB	267	C	O4'-C1'-C2'	-5.91	101.69	107.60
2	AB	547	A	P-O5'-C5'	5.91	129.76	120.90
2	AB	613	A	C4'-C3'-C2'	-5.91	96.69	102.60
2	AB	804	A	C1'-O4'-C4'	-5.91	104.00	109.90
2	AB	1669	A	O4'-C1'-C2'	-5.91	101.69	107.60
2	AB	2881	U	C3'-C2'-C1'	5.91	107.21	101.30
35	BA	432	A	C3'-C2'-C1'	-5.91	95.39	101.30
35	BA	509	A	O4'-C4'-C3'	5.91	109.91	104.00
35	BA	971	G	C3'-C2'-C1'	-5.91	95.59	101.50
35	BA	1084	G	C1'-C2'-O2'	-5.91	99.54	108.40
35	BA	1160	G	C5'-C4'-O4'	5.91	118.66	109.80
35	BA	1351	U	O4'-C1'-N1	5.91	117.36	108.50
39	BE	115	VAL	CA-C-O	-5.91	114.39	120.71
41	BG	160	VAL	CA-CB-CG1	5.91	120.44	110.40
47	BM	1	ALA	CA-C-N	5.91	129.25	120.87
47	BM	1	ALA	C-N-CA	5.91	129.25	120.87
6	AF	93	SER	CA-C-N	5.90	134.19	123.27
6	AF	93	SER	C-N-CA	5.90	134.19	123.27
14	AN	129	LYS	CA-C-N	5.90	127.78	120.34
14	AN	129	LYS	C-N-CA	5.90	127.78	120.34
42	BH	6	ILE	CA-C-N	5.90	131.21	123.06
42	BH	6	ILE	C-N-CA	5.90	131.21	123.06
2	AB	407	G	N9-C1'-C2'	-5.90	103.15	112.00
2	AB	1860	G	O4'-C4'-C3'	5.90	109.90	104.00
3	AC	51	ASP	CA-C-O	5.90	127.22	120.90
21	AU	105	VAL	N-CA-C	-5.90	99.91	108.17
35	BA	776	G	O4'-C4'-C3'	5.90	109.90	104.00
35	BA	1448	C	C2'-C3'-O3'	5.90	122.55	113.70
42	BH	11	HIS	ND1-CG-CD2	5.90	112.00	106.10
2	AB	2074	U	P-O5'-C5'	5.90	129.75	120.90
2	AB	2668	G	O4'-C4'-C3'	5.90	109.90	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
47	BM	6	ARG	NE-CZ-NH2	5.90	124.51	119.20
1	AA	90	C	C5'-C4'-C3'	-5.90	107.15	116.00
18	AR	25	VAL	CA-C-O	-5.90	113.41	120.78
35	BA	100	G	C3'-C2'-O2'	5.90	119.55	110.70
35	BA	1238	A	O4'-C4'-C3'	5.90	109.90	104.00
2	AB	17	G	P-O3'-C3'	5.90	129.04	120.20
2	AB	494	G	O4'-C4'-C3'	5.90	109.90	104.00
2	AB	1098	A	O3'-P-O5'	-5.90	95.16	104.00
2	AB	2565	A	O4'-C1'-C2'	-5.90	101.70	107.60
2	AB	2902	C	C2'-C3'-O3'	-5.90	104.86	113.70
35	BA	1486	G	C5'-C4'-O4'	5.90	118.64	109.80
35	BA	1492	A	C3'-C2'-C1'	5.90	107.40	101.50
57	BW	49	ALA	N-CA-C	5.90	118.19	111.11
2	AB	97	C	C1'-C2'-O2'	5.89	117.24	108.40
2	AB	99	U	O4'-C1'-N1	5.89	117.34	108.50
2	AB	161	A	C5'-C4'-O4'	5.89	118.64	109.80
2	AB	877	A	O3'-P-O5'	5.89	112.84	104.00
2	AB	1897	G	O3'-P-O5'	-5.89	95.16	104.00
2	AB	2585	U	O4'-C1'-N1	5.89	117.04	108.20
13	AM	18	ARG	NE-CZ-NH1	5.89	127.39	121.50
35	BA	115	G	O4'-C4'-C3'	5.89	111.99	106.10
35	BA	197	A	C4'-C3'-O3'	-5.89	100.56	109.40
35	BA	355	C	C3'-C2'-C1'	5.89	107.19	101.30
35	BA	375	U	C5'-C4'-C3'	-5.89	107.16	116.00
35	BA	661	G	C3'-C2'-C1'	5.89	107.19	101.30
36	BB	25	U	C4'-C3'-C2'	-5.89	96.70	102.60
36	BB	28	U	O4'-C4'-C3'	5.89	109.89	104.00
43	BI	178	ASN	CA-CB-CG	5.89	118.50	112.60
45	BK	30	ASN	CA-C-N	5.89	131.81	122.61
45	BK	30	ASN	C-N-CA	5.89	131.81	122.61
2	AB	824	U	C3'-C2'-O2'	5.89	119.54	110.70
2	AB	860	U	O4'-C4'-C3'	5.89	109.89	104.00
2	AB	2390	U	C4'-C3'-O3'	-5.89	104.16	113.00
5	AE	9	VAL	O-C-N	-5.89	115.20	122.57
19	AS	39	ILE	N-CA-C	-5.89	104.77	110.72
36	BB	20	G	C1'-C2'-O2'	5.89	117.24	108.40
2	AB	942	G	C5'-C4'-C3'	-5.89	107.16	116.00
2	AB	968	C	C3'-C2'-C1'	5.89	107.19	101.30
2	AB	2507	C	O3'-P-O5'	-5.89	95.16	104.00
35	BA	173	U	P-O3'-C3'	5.89	129.04	120.20
35	BA	729	A	C3'-C2'-O2'	-5.89	101.86	110.70
35	BA	1239	A	C3'-C2'-C1'	5.89	107.39	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	BU	2	ARG	NE-CZ-NH2	5.89	124.50	119.20
2	AB	1	G	C1'-C2'-O2'	-5.89	99.57	108.40
2	AB	453	A	P-O3'-C3'	5.89	129.03	120.20
2	AB	761	A	C5'-C4'-C3'	-5.89	107.17	116.00
2	AB	2556	C	C5'-C4'-C3'	-5.89	107.17	116.00
2	AB	2631	G	C5'-C4'-O4'	5.89	118.63	109.80
11	AK	67	THR	CA-C-O	-5.89	114.22	121.11
25	AY	9	THR	CA-CB-CG2	5.89	120.51	110.50
37	BC	52	C	P-O5'-C5'	-5.89	112.07	120.90
53	BS	10	ARG	NE-CZ-NH2	-5.89	113.90	119.20
2	AB	605	G	N9-C1'-C2'	-5.89	103.17	112.00
2	AB	2118	U	O4'-C1'-C2'	-5.89	99.91	105.80
35	BA	114	U	C1'-O4'-C4'	-5.89	104.01	109.90
2	AB	119	A	O3'-P-O5'	-5.89	95.17	104.00
2	AB	1883	U	N1-C1'-C2'	-5.89	103.17	112.00
35	BA	884	U	O4'-C1'-N1	5.89	117.03	108.20
46	BL	9	ARG	CD-NE-CZ	5.89	132.64	124.40
2	AB	14	A	C5'-C4'-C3'	-5.88	107.17	116.00
2	AB	80	G	C4'-C3'-O3'	5.88	121.83	113.00
2	AB	279	A	C3'-C2'-C1'	5.88	107.19	101.30
2	AB	1185	G	C4'-C3'-C2'	-5.88	96.72	102.60
2	AB	1779	U	P-O5'-C5'	5.88	129.73	120.90
2	AB	2459	A	O4'-C4'-C3'	5.88	109.88	104.00
35	BA	277	C	C3'-C2'-O2'	5.88	119.53	110.70
35	BA	362	G	C5'-C4'-O4'	5.88	118.63	109.80
35	BA	518	C	O4'-C1'-N1	5.88	117.03	108.20
35	BA	692	U	O4'-C4'-C3'	5.88	109.88	104.00
42	BH	58	HIS	CB-CG-CD2	-5.88	123.55	131.20
2	AB	2026	U	O4'-C1'-N1	5.88	117.33	108.50
54	BT	18	GLN	CG-CD-NE2	5.88	125.22	116.40
2	AB	1103	A	O4'-C4'-C3'	5.88	109.88	104.00
2	AB	1999	C	C4'-C3'-C2'	-5.88	96.72	102.60
12	AL	35	ARG	CA-C-N	5.88	130.54	120.72
12	AL	35	ARG	C-N-CA	5.88	130.54	120.72
15	AO	55	ARG	NH1-CZ-NH2	-5.88	111.65	119.30
35	BA	1479	C	O4'-C1'-N1	5.88	117.32	108.50
9	AI	31	VAL	CA-C-O	-5.88	112.07	119.95
21	AU	42	LYS	CA-C-O	-5.88	114.19	120.42
40	BF	80	ARG	NH1-CZ-NH2	5.88	126.94	119.30
2	AB	1843	C	O4'-C1'-N1	5.88	117.32	108.50
2	AB	2144	G	C1'-C2'-O2'	-5.88	99.58	108.40
11	AK	124	MET	CA-C-O	-5.88	114.65	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	BB	59	A	C5'-C4'-C3'	-5.88	106.38	115.20
52	BR	34	GLU	O-C-N	-5.88	116.53	123.41
2	AB	798	G	O3'-P-O5'	-5.88	95.19	104.00
2	AB	1351	C	N1-C1'-C2'	-5.88	103.19	112.00
2	AB	2536	G	C5'-C4'-O4'	5.88	118.61	109.80
2	AB	2782	G	C5'-C4'-O4'	5.88	118.61	109.80
4	AD	170	TYR	CB-CG-CD1	-5.88	111.98	120.80
35	BA	632	U	C5'-C4'-O4'	5.88	118.61	109.80
35	BA	817	C	C4'-C3'-C2'	5.88	108.48	102.60
2	AB	891	G	C3'-C2'-O2'	5.88	119.51	110.70
35	BA	809	G	C5'-C4'-C3'	-5.88	107.19	116.00
38	BD	43	GLU	N-CA-C	-5.88	104.88	111.28
43	BI	96	ASN	CA-C-N	5.88	128.15	120.28
43	BI	96	ASN	C-N-CA	5.88	128.15	120.28
2	AB	1082	U	O4'-C1'-N1	5.87	117.31	108.50
2	AB	2161	C	C4'-C3'-C2'	-5.87	96.73	102.60
4	AD	256	THR	CA-CB-OG1	5.87	118.41	109.60
5	AE	140	HIS	ND1-CG-CD2	5.87	111.97	106.10
14	AN	72	ALA	O-C-N	5.87	130.11	122.42
35	BA	1367	C	O4'-C1'-N1	5.87	117.31	108.50
44	BJ	37	ASN	CA-CB-CG	-5.87	106.73	112.60
47	BM	40	ALA	N-CA-C	5.87	118.71	109.96
2	AB	2016	U	C1'-C2'-O2'	5.87	117.21	108.40
2	AB	2527	C	O4'-C4'-C3'	5.87	109.87	104.00
5	AE	96	ILE	CB-CA-C	5.87	118.06	110.96
27	A0	20	ASN	N-CA-C	-5.87	106.08	113.18
43	BI	158	LEU	CA-C-N	5.87	130.62	120.58
43	BI	158	LEU	C-N-CA	5.87	130.62	120.58
46	BL	15	HIS	CA-C-N	5.87	128.63	120.29
46	BL	15	HIS	C-N-CA	5.87	128.63	120.29
50	BP	82	LYS	N-CA-C	5.87	118.63	111.82
35	BA	455	G	O4'-C1'-C2'	5.87	113.47	107.60
43	BI	95	ARG	N-CA-C	-5.87	104.79	111.07
44	BJ	79	ARG	N-CA-C	5.87	115.06	108.25
2	AB	155	A	C5'-C4'-O4'	5.87	118.60	109.80
2	AB	290	U	O4'-C1'-C2'	-5.87	101.73	107.60
2	AB	949	G	C4'-C3'-O3'	5.87	121.80	113.00
2	AB	973	A	C4'-C3'-O3'	5.87	118.20	109.40
2	AB	1136	G	C3'-C2'-O2'	5.87	119.50	110.70
2	AB	2333	A	C3'-C2'-C1'	5.87	107.37	101.50
35	BA	156	C	C1'-C2'-O2'	-5.87	99.60	108.40
35	BA	707	U	O3'-P-O5'	-5.87	95.20	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	1236	A	C5'-C4'-C3'	-5.87	107.20	116.00
2	AB	1712	U	C4'-C3'-C2'	-5.87	96.73	102.60
2	AB	2451	A	C4'-C3'-C2'	-5.87	96.73	102.60
8	AH	84	LYS	CA-C-O	5.87	125.16	118.47
14	AN	40	SER	CA-C-N	5.87	131.39	120.95
14	AN	40	SER	C-N-CA	5.87	131.39	120.95
35	BA	277	C	O4'-C1'-C2'	-5.87	101.73	107.60
2	AB	92	U	O4'-C4'-C3'	5.87	109.86	104.00
2	AB	1393	A	O4'-C1'-N9	-5.87	99.70	108.50
7	AG	122	ASP	CA-CB-CG	-5.87	106.73	112.60
35	BA	25	C	C4'-C3'-C2'	5.87	108.47	102.60
2	AB	389	G	C1'-C2'-O2'	-5.86	103.01	111.80
2	AB	428	A	O4'-C1'-C2'	5.86	111.66	105.80
2	AB	852	U	C4'-C3'-C2'	-5.86	96.74	102.60
2	AB	952	G	C5'-C4'-C3'	-5.86	107.21	116.00
2	AB	1956	U	C4'-C3'-C2'	-5.86	96.74	102.60
2	AB	2275	C	C2'-C3'-O3'	-5.86	104.91	113.70
2	AB	2702	G	C5'-C4'-C3'	-5.86	107.21	116.00
17	AQ	90	VAL	CA-C-O	-5.86	116.22	121.97
29	A2	6	HIS	CE1-NE2-CD2	-5.86	103.14	109.00
2	AB	2536	G	O4'-C1'-C2'	-5.86	101.74	107.60
10	AJ	135	ILE	CB-CA-C	5.86	120.05	112.14
35	BA	727	G	O4'-C4'-C3'	5.86	109.86	104.00
35	BA	1517	G	C4'-C3'-O3'	5.86	121.79	113.00
2	AB	157	C	C4'-C3'-C2'	-5.86	96.74	102.60
2	AB	1246	A	O4'-C1'-C2'	-5.86	101.74	107.60
2	AB	2143	C	C5'-C4'-O4'	5.86	118.59	109.80
2	AB	2533	U	O4'-C1'-N1	5.86	117.29	108.50
19	AS	90	ASP	CA-C-N	5.86	132.73	121.54
19	AS	90	ASP	C-N-CA	5.86	132.73	121.54
2	AB	2472	G	O4'-C1'-C2'	-5.86	101.74	107.60
2	AB	2542	A	C5'-C4'-O4'	5.86	117.89	109.10
35	BA	331	G	O3'-P-O5'	-5.86	95.21	104.00
2	AB	208	C	O4'-C4'-C3'	-5.86	98.14	104.00
2	AB	1646	C	C1'-O4'-C4'	-5.86	104.04	109.90
2	AB	2855	C	O4'-C4'-C3'	5.86	109.86	104.00
35	BA	965	U	O4'-C1'-N1	5.86	117.29	108.50
46	BL	20	GLN	CA-C-O	-5.86	114.21	120.42
2	AB	786	C	O4'-C1'-N1	5.86	117.28	108.50
2	AB	1378	A	C4'-C3'-C2'	-5.86	96.74	102.60
2	AB	1878	G	C4'-C3'-C2'	-5.86	96.75	102.60
2	AB	2032	G	C5'-C4'-C3'	-5.86	106.42	115.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2171	A	O4'-C1'-C2'	-5.86	99.94	105.80
6	AF	90	GLN	CB-CG-CD	5.86	122.55	112.60
16	AP	112	TYR	CB-CA-C	5.86	119.19	109.53
25	AY	2	HIS	CB-CG-CD2	-5.86	123.59	131.20
35	BA	60	A	O3'-P-O5'	-5.86	95.22	104.00
38	BD	63	LYS	CA-CB-CG	5.86	125.81	114.10
2	AB	159	G	C4'-C3'-C2'	-5.85	96.75	102.60
2	AB	242	G	C4'-C3'-O3'	5.85	118.18	109.40
2	AB	2405	G	O4'-C1'-C2'	-5.85	101.75	107.60
18	AR	100	ARG	NE-CZ-NH2	5.85	124.47	119.20
1	AA	110	C	C4'-C3'-C2'	5.85	108.45	102.60
2	AB	1037	G	O4'-C4'-C3'	5.85	109.85	104.00
2	AB	1411	U	O4'-C1'-N1	5.85	117.28	108.50
3	AC	223	ALA	CA-C-N	5.85	131.14	123.06
3	AC	223	ALA	C-N-CA	5.85	131.14	123.06
7	AG	42	ALA	N-CA-C	5.85	119.73	112.24
8	AH	37	ASN	CA-C-O	-5.85	114.02	120.69
23	AW	54	PRO	O-C-N	-5.85	114.67	122.22
35	BA	215	C	O4'-C1'-N1	5.85	117.28	108.50
35	BA	222	C	O4'-C1'-C2'	-5.85	101.75	107.60
35	BA	505	G	C1'-O4'-C4'	-5.85	104.05	109.90
35	BA	723	U	C5'-C4'-C3'	-5.85	107.22	116.00
35	BA	1158	C	C4'-C3'-C2'	-5.85	96.75	102.60
48	BN	90	PRO	O-C-N	-5.85	116.55	123.10
21	AU	88	ARG	CA-C-N	5.85	132.72	121.54
21	AU	88	ARG	C-N-CA	5.85	132.72	121.54
35	BA	153	C	C3'-C2'-C1'	5.85	107.15	101.30
35	BA	727	G	C3'-C2'-C1'	5.85	107.15	101.30
41	BG	60	GLN	CA-C-N	5.85	128.05	120.44
41	BG	60	GLN	C-N-CA	5.85	128.05	120.44
44	BJ	39	LEU	CA-C-O	-5.85	114.31	120.63
2	AB	996	A	O4'-C1'-C2'	-5.85	101.75	107.60
2	AB	2391	G	O4'-C1'-N9	5.85	116.97	108.20
35	BA	845	A	P-O3'-C3'	5.85	128.97	120.20
35	BA	951	G	O4'-C1'-C2'	-5.85	101.75	107.60
2	AB	1162	G	O4'-C4'-C3'	-5.85	98.15	104.00
2	AB	2334	U	O4'-C4'-C3'	-5.85	98.15	104.00
26	AZ	2	ARG	O-C-N	-5.85	115.84	122.86
35	BA	989	U	O4'-C1'-C2'	-5.85	101.75	107.60
2	AB	10	A	C3'-C2'-C1'	5.84	107.14	101.30
2	AB	563	A	O4'-C1'-N9	5.84	117.27	108.50
2	AB	862	G	C3'-C2'-O2'	5.84	119.47	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2180	U	C4'-C3'-O3'	5.84	121.77	113.00
4	AD	45	ASN	CA-CB-CG	5.84	118.44	112.60
17	AQ	33	ARG	N-CA-CB	-5.84	101.82	110.53
35	BA	852	G	C4'-C3'-C2'	-5.84	96.75	102.60
35	BA	1041	G	O4'-C1'-C2'	-5.84	101.75	107.60
36	BB	18	A	C4'-C3'-O3'	-5.84	104.23	113.00
41	BG	112	ALA	CA-C-N	5.84	127.92	120.56
41	BG	112	ALA	C-N-CA	5.84	127.92	120.56
46	BL	74	VAL	CA-C-N	5.84	132.70	121.54
46	BL	74	VAL	C-N-CA	5.84	132.70	121.54
49	BO	40	GLU	CA-C-O	-5.84	114.68	120.82
2	AB	23	G	C5'-C4'-O4'	5.84	118.56	109.80
2	AB	719	C	O5'-C5'-C4'	-5.84	102.74	111.50
44	BJ	14	ARG	NE-CZ-NH2	5.84	124.46	119.20
2	AB	1290	C	O5'-C5'-C4'	-5.84	102.74	111.50
2	AB	1936	A	C4'-C3'-C2'	-5.84	96.76	102.60
2	AB	2223	G	N9-C1'-C2'	-5.84	103.24	112.00
6	AF	100	MET	N-CA-C	-5.84	104.83	111.14
13	AM	59	LYS	CG-CD-CE	5.84	124.73	111.30
17	AQ	34	HIS	CA-C-O	-5.84	113.59	120.60
35	BA	388	G	O4'-C1'-C2'	-5.84	99.96	105.80
1	AA	90	C	C4'-C3'-C2'	-5.84	96.76	102.60
2	AB	916	G	C4'-C3'-C2'	-5.84	96.76	102.60
15	AO	50	ARG	NE-CZ-NH2	5.84	124.45	119.20
35	BA	1302	C	O4'-C1'-C2'	-5.84	101.76	107.60
35	BA	1387	G	C5'-C4'-C3'	-5.84	107.24	116.00
54	BT	9	PHE	CB-CA-C	5.84	120.44	111.39
2	AB	37	C	C5'-C4'-C3'	-5.84	107.24	116.00
2	AB	1656	C	C5'-C4'-C3'	-5.84	107.24	116.00
2	AB	1989	G	P-O5'-C5'	5.84	129.66	120.90
35	BA	577	G	O4'-C4'-C3'	5.84	109.84	104.00
35	BA	1118	U	C1'-O4'-C4'	-5.84	104.06	109.90
46	BL	100	ILE	N-CA-C	-5.84	107.05	112.83
2	AB	797	G	O4'-C4'-C3'	5.84	109.84	104.00
2	AB	2006	C	O4'-C1'-C2'	-5.84	101.76	107.60
4	AD	261	ARG	NE-CZ-NH1	5.84	127.34	121.50
26	AZ	71	ARG	CA-C-O	-5.84	114.36	120.55
35	BA	237	G	C5'-C4'-C3'	5.84	124.75	116.00
35	BA	1244	G	O4'-C4'-C3'	5.84	109.84	104.00
2	AB	2118	U	P-O3'-C3'	5.83	128.95	120.20
2	AB	1279	G	C4'-C3'-C2'	-5.83	96.77	102.60
2	AB	1837	C	C4'-C3'-O3'	-5.83	104.25	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	1004	A	C5'-C4'-O4'	5.83	118.55	109.80
35	BA	1029	U	O3'-P-O5'	-5.83	95.25	104.00
35	BA	1089	G	O4'-C1'-C2'	-5.83	101.77	107.60
40	BF	58	GLN	N-CA-C	5.83	117.64	111.28
48	BN	97	VAL	CA-C-N	5.83	128.68	120.28
48	BN	97	VAL	C-N-CA	5.83	128.68	120.28
1	AA	20	G	C5'-C4'-O4'	5.83	118.55	109.80
1	AA	87	U	O3'-P-O5'	5.83	112.75	104.00
2	AB	45	G	O4'-C1'-N9	5.83	117.25	108.50
2	AB	168	G	O3'-P-O5'	-5.83	95.25	104.00
2	AB	889	C	O4'-C1'-N1	5.83	117.25	108.50
2	AB	1741	C	P-O5'-C5'	5.83	129.65	120.90
2	AB	2146	C	C1'-O4'-C4'	5.83	115.53	109.70
2	AB	2562	U	N1-C1'-C2'	-5.83	103.25	112.00
4	AD	17	LYS	N-CA-C	5.83	119.05	109.72
35	BA	926	G	O4'-C4'-C3'	5.83	111.93	106.10
37	BC	23	G	C5'-C4'-C3'	5.83	124.75	116.00
43	BI	171	GLN	O-C-N	-5.83	115.98	121.35
49	BO	101	THR	CA-C-N	5.83	128.68	120.28
49	BO	101	THR	C-N-CA	5.83	128.68	120.28
1	AA	47	C	O4'-C1'-N1	5.83	117.25	108.50
2	AB	592	A	P-O3'-C3'	5.83	128.95	120.20
2	AB	2203	U	C5'-C4'-O4'	5.83	118.55	109.80
42	BH	22	ILE	N-CA-C	5.83	116.57	110.62
52	BR	14	ARG	NE-CZ-NH2	-5.83	113.95	119.20
2	AB	400	G	P-O3'-C3'	5.83	128.94	120.20
2	AB	2293	G	C4'-C3'-C2'	-5.83	96.77	102.60
2	AB	2753	A	O4'-C1'-C2'	-5.83	101.77	107.60
2	AB	2861	U	C5'-C4'-O4'	5.83	118.54	109.80
35	BA	387	U	C2'-C3'-O3'	-5.83	104.96	113.70
35	BA	689	C	C1'-O4'-C4'	5.83	115.73	109.90
35	BA	1131	G	O3'-P-O5'	-5.83	95.26	104.00
49	BO	99	GLN	N-CA-CB	5.83	119.31	110.45
55	BU	85	ASP	CA-C-N	5.83	129.11	120.95
55	BU	85	ASP	C-N-CA	5.83	129.11	120.95
2	AB	26	G	C1'-O4'-C4'	-5.83	104.07	109.90
2	AB	369	U	C5'-C4'-O4'	5.83	118.54	109.80
2	AB	428	A	O4'-C4'-C3'	5.83	111.93	106.10
4	AD	271	SER	CA-C-O	-5.83	114.30	121.06
2	AB	186	G	N9-C1'-C2'	-5.83	103.26	112.00
2	AB	335	C	C4'-C3'-C2'	-5.83	96.78	102.60
2	AB	1286	A	P-O5'-C5'	5.83	129.64	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1896	G	P-O3'-C3'	5.83	128.94	120.20
4	AD	216	ARG	N-CA-CB	5.83	117.91	110.04
11	AK	72	THR	CA-C-O	-5.83	114.11	120.69
13	AM	83	ALA	N-CA-C	5.83	118.14	108.99
31	A4	7	LYS	CB-CA-C	5.83	119.14	109.53
35	BA	431	A	O4'-C4'-C3'	5.83	109.83	104.00
43	BI	14	ASP	CA-CB-CG	5.83	118.43	112.60
54	BT	25	ILE	CA-C-O	-5.83	113.96	120.25
2	AB	275	C	C4'-C3'-C2'	-5.82	96.78	102.60
2	AB	635	C	C5'-C4'-O4'	5.82	118.53	109.80
2	AB	658	U	C4'-C3'-O3'	5.82	121.73	113.00
2	AB	1763	G	C2'-C3'-O3'	5.82	122.44	113.70
19	AS	73	ILE	CB-CA-C	5.82	119.79	110.82
22	AV	39	THR	CA-C-O	5.82	128.84	120.51
35	BA	503	C	O4'-C4'-C3'	5.82	109.82	104.00
35	BA	1296	C	C4'-C3'-C2'	-5.82	96.78	102.60
2	AB	1898	U	O4'-C1'-N1	5.82	117.23	108.50
35	BA	530	G	O3'-P-O5'	-5.82	95.27	104.00
35	BA	1314	C	O4'-C1'-C2'	-5.82	101.78	107.60
36	BB	31	U	C4'-C3'-C2'	-5.82	96.78	102.60
39	BE	181	ILE	N-CA-C	-5.82	99.83	108.45
2	AB	1018	U	O4'-C1'-N1	5.82	117.23	108.50
2	AB	1191	G	O4'-C1'-N9	5.82	117.23	108.50
2	AB	1841	U	C5'-C4'-C3'	5.82	124.73	116.00
35	BA	565	U	O4'-C4'-C3'	5.82	109.82	104.00
35	BA	1105	A	O3'-P-O5'	5.82	112.73	104.00
45	BK	42	THR	CA-C-N	5.82	129.91	120.60
45	BK	42	THR	C-N-CA	5.82	129.91	120.60
5	AE	197	THR	O-C-N	-5.82	116.16	122.79
35	BA	307	C	C3'-C2'-C1'	5.82	107.32	101.50
35	BA	767	A	P-O3'-C3'	5.82	128.93	120.20
42	BH	124	ALA	CA-C-N	5.82	132.70	121.18
42	BH	124	ALA	C-N-CA	5.82	132.70	121.18
1	AA	4	C	C1'-C2'-O2'	5.82	117.13	108.40
2	AB	1225	G	C4'-C3'-C2'	-5.82	96.78	102.60
2	AB	1390	U	P-O3'-C3'	5.82	128.93	120.20
2	AB	1631	G	C4'-C3'-C2'	-5.82	96.78	102.60
2	AB	1933	G	C5'-C4'-C3'	5.82	124.73	116.00
2	AB	2392	A	O4'-C4'-C3'	5.82	109.82	104.00
19	AS	84	LYS	CA-C-N	5.82	129.53	120.75
19	AS	84	LYS	C-N-CA	5.82	129.53	120.75
25	AY	6	GLY	O-C-N	5.82	130.26	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	229	U	O4'-C1'-C2'	-5.82	101.78	107.60
35	BA	1235	U	O4'-C1'-N1	5.82	117.23	108.50
2	AB	1102	C	O5'-C5'-C4'	-5.82	102.78	111.50
2	AB	1286	A	C5'-C4'-C3'	-5.82	106.48	115.20
2	AB	1786	A	O3'-P-O5'	-5.82	95.28	104.00
2	AB	2181	U	C3'-C2'-O2'	5.82	119.42	110.70
4	AD	2	VAL	CA-C-N	5.82	130.83	123.10
4	AD	2	VAL	C-N-CA	5.82	130.83	123.10
11	AK	60	VAL	CB-CA-C	5.82	119.24	110.63
13	AM	13	ASN	N-CA-CB	-5.82	101.50	110.46
27	A0	49	ASP	O-C-N	-5.82	115.12	122.27
35	BA	522	C	C3'-C2'-C1'	5.82	107.12	101.30
35	BA	858	G	C4'-C3'-C2'	-5.82	96.78	102.60
2	AB	740	C	C1'-C2'-O2'	5.81	117.12	108.40
2	AB	1830	C	C3'-C2'-C1'	5.81	107.11	101.30
2	AB	1912	A	O4'-C1'-C2'	-5.81	101.79	107.60
30	A3	51	ARG	NE-CZ-NH2	5.81	124.43	119.20
35	BA	755	G	C4'-C3'-C2'	-5.81	96.79	102.60
2	AB	1153	C	C5'-C4'-C3'	-5.81	107.28	116.00
2	AB	1190	G	C5'-C4'-O4'	5.81	118.52	109.80
2	AB	2559	C	C4'-C3'-C2'	-5.81	96.79	102.60
2	AB	2752	C	O4'-C1'-N1	5.81	117.22	108.50
9	AI	48	GLU	CA-C-O	5.81	126.52	119.49
14	AN	138	ALA	CA-C-N	5.81	130.34	121.51
14	AN	138	ALA	C-N-CA	5.81	130.34	121.51
35	BA	196	A	C2'-C3'-O3'	-5.81	104.98	113.70
35	BA	1323	G	O4'-C1'-C2'	-5.81	101.79	107.60
39	BE	10	ARG	CA-C-N	5.81	130.43	120.72
39	BE	10	ARG	C-N-CA	5.81	130.43	120.72
42	BH	3	HIS	CB-CG-CD2	-5.81	123.64	131.20
2	AB	632	A	C2'-C3'-O3'	5.81	122.42	113.70
2	AB	977	G	C4'-C3'-C2'	-5.81	96.79	102.60
2	AB	1411	U	C4'-C3'-C2'	5.81	108.41	102.60
2	AB	1935	G	O4'-C1'-N9	5.81	117.22	108.50
2	AB	2000	C	C4'-C3'-C2'	-5.81	96.79	102.60
36	BB	22	G	O5'-C5'-C4'	5.81	120.42	111.70
39	BE	73	GLY	CA-C-N	5.81	128.67	120.42
39	BE	73	GLY	C-N-CA	5.81	128.67	120.42
2	AB	1143	A	C1'-O4'-C4'	5.81	115.51	109.70
2	AB	1401	G	P-O3'-C3'	5.81	128.91	120.20
2	AB	2519	U	C3'-C2'-C1'	-5.81	95.69	101.50
4	AD	211	ARG	CA-C-O	-5.81	114.72	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	AG	99	PHE	CA-C-N	5.81	131.89	121.66
7	AG	99	PHE	C-N-CA	5.81	131.89	121.66
35	BA	1055	A	C4'-C3'-O3'	5.81	121.72	113.00
35	BA	1383	C	C5'-C4'-C3'	-5.81	107.29	116.00
2	AB	1216	G	P-O5'-C5'	5.81	129.61	120.90
2	AB	1288	G	O4'-C1'-C2'	-5.81	99.99	105.80
2	AB	1982	U	O4'-C1'-N1	5.81	117.21	108.50
12	AL	44	TYR	CB-CG-CD1	5.81	129.51	120.80
35	BA	233	C	C5'-C4'-O4'	5.81	118.51	109.80
1	AA	29	A	O4'-C4'-C3'	5.80	109.81	104.00
2	AB	63	A	C3'-C2'-O2'	-5.80	101.99	110.70
2	AB	1024	G	C2'-C3'-O3'	-5.80	104.99	113.70
2	AB	1423	G	O4'-C1'-N9	5.80	117.21	108.50
2	AB	1796	U	C3'-C2'-C1'	5.80	107.11	101.30
2	AB	2309	A	O4'-C4'-C3'	5.80	109.81	104.00
35	BA	353	A	P-O5'-C5'	5.80	129.61	120.90
35	BA	1228	C	C1'-C2'-O2'	5.80	117.11	108.40
48	BN	98	ARG	N-CA-CB	-5.80	101.28	110.22
55	BU	53	GLY	CA-C-O	-5.80	110.47	120.57
2	AB	1362	C	C2'-C3'-O3'	-5.80	105.00	113.70
22	AV	18	GLU	CB-CA-C	5.80	121.97	110.42
2	AB	576	U	C3'-C2'-O2'	5.80	119.40	110.70
2	AB	946	C	C4'-C3'-C2'	-5.80	96.80	102.60
2	AB	1535	A	C1'-O4'-C4'	-5.80	103.90	109.70
2	AB	2091	C	C3'-C2'-O2'	5.80	119.40	110.70
2	AB	2404	U	C4'-C3'-C2'	5.80	108.40	102.60
35	BA	197	A	C2'-C3'-O3'	5.80	118.20	109.50
35	BA	747	A	C3'-C2'-O2'	5.80	119.40	110.70
35	BA	1011	C	C4'-C3'-C2'	-5.80	96.80	102.60
54	BT	49	LYS	N-CA-C	5.80	118.10	111.02
2	AB	1727	C	O3'-P-O5'	-5.80	95.30	104.00
18	AR	110	LYS	CA-C-N	5.80	128.95	120.71
18	AR	110	LYS	C-N-CA	5.80	128.95	120.71
25	AY	73	PRO	N-CD-CG	5.80	111.90	103.20
26	AZ	55	MET	N-CA-C	-5.80	105.04	111.71
35	BA	97	G	O4'-C1'-C2'	-5.80	101.80	107.60
35	BA	769	G	C1'-O4'-C4'	-5.80	104.10	109.90
35	BA	1050	G	O5'-C5'-C4'	5.80	120.20	111.50
38	BD	5	MET	CA-C-N	5.80	128.53	120.29
38	BD	5	MET	C-N-CA	5.80	128.53	120.29
2	AB	371	A	C4'-C3'-C2'	-5.80	96.80	102.60
2	AB	438	G	C1'-C2'-O2'	5.80	117.10	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	962	G	O4'-C1'-C2'	-5.80	101.80	107.60
2	AB	1336	A	C2'-C3'-O3'	5.80	122.40	113.70
2	AB	2887	A	C3'-C2'-C1'	-5.80	95.50	101.30
2	AB	684	G	O5'-C5'-C4'	5.80	120.19	111.50
2	AB	1070	A	O4'-C1'-C2'	-5.80	101.80	107.60
2	AB	1966	A	C3'-C2'-C1'	5.80	107.30	101.50
3	AC	211	LYS	N-CA-CB	-5.80	100.74	111.52
35	BA	607	A	O4'-C1'-C2'	-5.80	101.80	107.60
38	BD	138	ARG	CA-C-O	-5.80	114.28	120.42
2	AB	588	U	C3'-C2'-C1'	-5.79	95.50	101.30
2	AB	1515	A	O4'-C1'-N9	5.79	117.19	108.50
15	AO	40	ARG	NE-CZ-NH2	5.79	124.42	119.20
2	AB	370	G	O4'-C1'-C2'	-5.79	100.01	105.80
2	AB	675	A	C3'-C2'-C1'	5.79	107.09	101.30
2	AB	1532	A	C3'-C2'-O2'	5.79	119.39	110.70
2	AB	2025	C	C3'-C2'-C1'	5.79	107.09	101.30
2	AB	2268	A	C5'-C4'-C3'	-5.79	107.31	116.00
2	AB	2829	A	C4'-C3'-C2'	-5.79	96.81	102.60
17	AQ	78	VAL	CA-C-O	-5.79	114.51	120.71
35	BA	694	A	O3'-P-O5'	5.79	112.69	104.00
2	AB	455	C	P-O3'-C3'	5.79	128.89	120.20
2	AB	474	G	C3'-C2'-O2'	-5.79	105.91	114.60
2	AB	655	A	P-O3'-C3'	5.79	128.89	120.20
2	AB	2243	U	O4'-C1'-N1	5.79	117.19	108.50
23	AW	41	VAL	CB-CA-C	5.79	119.74	110.82
35	BA	407	U	C4'-C3'-O3'	-5.79	104.31	113.00
38	BD	221	ARG	N-CA-CB	-5.79	101.57	110.20
53	BS	2	ASP	CA-C-O	-5.79	112.83	119.60
2	AB	1059	G	C4'-C3'-O3'	5.79	121.69	113.00
35	BA	892	A	O4'-C4'-C3'	5.79	109.79	104.00
35	BA	989	U	O3'-P-O5'	5.79	112.69	104.00
2	AB	77	G	C2'-C3'-O3'	5.79	122.38	113.70
2	AB	404	A	C1'-O4'-C4'	-5.79	103.91	109.70
2	AB	1711	A	C5'-C4'-O4'	5.79	118.48	109.80
2	AB	2832	U	O3'-P-O5'	-5.79	95.32	104.00
17	AQ	102	ARG	N-CA-C	-5.79	105.05	111.36
35	BA	1072	G	C4'-C3'-C2'	-5.79	96.81	102.60
36	BB	21	U	C1'-O4'-C4'	-5.79	104.11	109.90
2	AB	25	U	O5'-C5'-C4'	-5.79	102.82	111.50
10	AJ	160	ALA	N-CA-C	-5.79	104.97	111.28
33	A6	31	ILE	CB-CA-C	5.79	120.78	111.29
35	BA	109	A	O4'-C1'-C2'	-5.79	100.01	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	AV	26	LYS	N-CA-C	5.79	119.60	112.54
35	BA	792	A	P-O3'-C3'	5.79	128.88	120.20
38	BD	221	ARG	NE-CZ-NH2	-5.79	113.99	119.20
1	AA	38	C	C3'-C2'-C1'	-5.78	95.52	101.30
2	AB	17	G	C4'-C3'-C2'	-5.78	96.82	102.60
2	AB	2623	G	C5'-C4'-O4'	5.78	118.47	109.80
26	AZ	39	VAL	CA-C-N	5.78	128.31	120.38
26	AZ	39	VAL	C-N-CA	5.78	128.31	120.38
35	BA	717	U	P-O3'-C3'	5.78	128.88	120.20
2	AB	809	G	N9-C1'-C2'	5.78	120.67	112.00
2	AB	1757	A	O4'-C1'-C2'	-5.78	101.82	107.60
2	AB	2425	A	P-O3'-C3'	5.78	128.87	120.20
23	AW	2	ALA	CA-C-N	5.78	130.51	120.68
23	AW	2	ALA	C-N-CA	5.78	130.51	120.68
35	BA	510	A	O4'-C4'-C3'	5.78	109.78	104.00
35	BA	1506	U	C4'-C3'-C2'	-5.78	96.82	102.60
2	AB	1083	U	C2'-C3'-O3'	-5.78	105.03	113.70
2	AB	1715	G	C4'-C3'-C2'	-5.78	96.82	102.60
2	AB	1727	C	C4'-C3'-C2'	-5.78	96.82	102.60
35	BA	124	C	N1-C1'-C2'	-5.78	103.33	112.00
36	BB	13	A	N9-C1'-C2'	-5.78	103.33	112.00
40	BF	46	ARG	CA-C-N	5.78	132.58	121.54
40	BF	46	ARG	C-N-CA	5.78	132.58	121.54
51	BQ	6	ALA	CA-C-N	5.78	128.50	120.29
51	BQ	6	ALA	C-N-CA	5.78	128.50	120.29
2	AB	344	A	C3'-C2'-C1'	5.78	107.08	101.30
7	AG	121	PHE	CA-CB-CG	-5.78	108.02	113.80
35	BA	845	A	N9-C1'-C2'	5.78	120.67	112.00
1	AA	70	C	O4'-C1'-C2'	-5.78	101.82	107.60
2	AB	218	A	O4'-C4'-C3'	5.78	109.78	104.00
2	AB	318	C	O4'-C1'-N1	5.78	117.17	108.50
2	AB	445	C	C4'-C3'-C2'	-5.78	96.82	102.60
2	AB	490	C	P-O5'-C5'	5.78	129.56	120.90
2	AB	584	C	O4'-C1'-N1	5.78	117.17	108.50
2	AB	2200	C	O4'-C1'-N1	5.78	117.17	108.50
7	AG	141	ASP	CB-CA-C	5.78	119.94	111.73
35	BA	67	C	P-O3'-C3'	5.78	128.87	120.20
35	BA	208	U	C1'-O4'-C4'	-5.78	104.12	109.90
35	BA	532	A	C4'-C3'-O3'	-5.78	104.33	113.00
35	BA	534	U	O4'-C1'-N1	5.78	117.17	108.50
35	BA	1097	C	O3'-P-O5'	-5.78	95.33	104.00
2	AB	487	C	O3'-P-O5'	-5.78	95.34	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1321	A	O3'-P-O5'	-5.78	95.33	104.00
2	AB	1616	A	C4'-C3'-O3'	5.78	118.06	109.40
2	AB	2490	G	P-O3'-C3'	5.78	128.86	120.20
2	AB	2515	C	O4'-C1'-N1	5.78	117.16	108.50
19	AS	16	ILE	CA-C-O	-5.78	115.05	121.17
2	AB	510	C	C3'-C2'-C1'	5.77	107.07	101.30
2	AB	2204	G	P-O3'-C3'	5.77	128.86	120.20
14	AN	69	ARG	NE-CZ-NH2	-5.77	114.00	119.20
35	BA	996	A	O3'-P-O5'	-5.77	95.34	104.00
40	BF	22	SER	N-CA-C	-5.77	105.07	111.36
2	AB	1117	C	C5'-C4'-O4'	5.77	118.46	109.80
2	AB	1217	U	C4'-C3'-C2'	-5.77	96.83	102.60
2	AB	1554	U	O4'-C1'-N1	5.77	116.86	108.20
2	AB	1891	G	C3'-C2'-O2'	5.77	119.36	110.70
2	AB	2638	G	C5'-C4'-O4'	5.77	117.76	109.10
35	BA	492	C	C4'-C3'-C2'	-5.77	96.83	102.60
35	BA	797	C	O3'-P-O5'	-5.77	95.34	104.00
2	AB	500	G	C2'-C3'-O3'	5.77	122.36	113.70
2	AB	2863	C	C5'-C4'-O4'	-5.77	101.14	109.80
25	AY	18	LYS	CA-CB-CG	5.77	125.64	114.10
35	BA	213	G	P-O3'-C3'	-5.77	111.54	120.20
35	BA	1498	UR3	P-O3'-C3'	5.77	126.62	119.70
41	BG	121	ASN	OD1-CG-ND2	5.77	128.37	122.60
1	AA	62	C	C3'-C2'-C1'	5.77	107.07	101.30
2	AB	2716	C	N1-C1'-C2'	-5.77	103.34	112.00
5	AE	62	LYS	CA-C-N	5.77	125.63	119.28
5	AE	62	LYS	C-N-CA	5.77	125.63	119.28
15	AO	13	HIS	CB-CG-CD2	-5.77	123.70	131.20
35	BA	1433	A	C4'-C3'-C2'	-5.77	96.83	102.60
53	BS	46	HIS	CB-CG-CD2	-5.77	123.70	131.20
2	AB	123	G	C1'-O4'-C4'	5.77	115.67	109.90
2	AB	194	G	O5'-C5'-C4'	5.77	120.15	111.50
2	AB	252	G	P-O3'-C3'	5.77	128.85	120.20
2	AB	1290	C	C3'-C2'-O2'	5.77	119.35	110.70
2	AB	2561	U	C4'-C3'-C2'	-5.77	96.83	102.60
8	AH	59	ASP	CA-C-N	5.77	126.05	121.61
8	AH	59	ASP	C-N-CA	5.77	126.05	121.61
9	AI	20	ASN	CA-CB-CG	5.77	118.37	112.60
2	AB	531	C	N1-C1'-C2'	5.77	122.65	114.00
49	BO	15	VAL	N-CA-C	5.77	115.95	110.42
2	AB	69	C	C5'-C4'-C3'	-5.76	107.35	116.00
2	AB	224	U	C3'-C2'-O2'	5.76	119.35	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	870	U	C4'-C3'-C2'	-5.76	96.84	102.60
2	AB	1142	A	C5'-C4'-O4'	5.76	117.75	109.10
2	AB	1248	G	O4'-C1'-C2'	-5.76	100.04	105.80
2	AB	1542	U	O4'-C4'-C3'	5.76	109.77	104.00
2	AB	2593	U	C1'-O4'-C4'	-5.76	104.14	109.90
3	AC	53	ARG	NE-CZ-NH1	5.76	127.26	121.50
6	AF	148	ILE	CB-CG1-CD1	5.76	125.91	113.80
35	BA	195	A	C5'-C4'-C3'	-5.76	107.35	116.00
35	BA	774	G	C4'-C3'-O3'	5.76	121.64	113.00
36	BB	35	G	N9-C1'-C2'	-5.76	103.35	112.00
2	AB	666	A	O4'-C1'-C2'	-5.76	101.84	107.60
2	AB	737	C	O4'-C1'-N1	5.76	117.14	108.50
2	AB	1036	G	C1'-C2'-O2'	5.76	117.05	108.40
2	AB	2477	U	C4'-C3'-O3'	-5.76	104.36	113.00
2	AB	2856	A	O5'-C5'-C4'	-5.76	102.86	111.50
6	AF	114	ARG	NE-CZ-NH2	5.76	124.39	119.20
44	BJ	117	GLN	O-C-N	-5.76	116.01	122.12
1	AA	41	G	O5'-C5'-C4'	5.76	120.34	111.70
2	AB	149	A	O4'-C4'-C3'	5.76	109.76	104.00
2	AB	214	G	O4'-C4'-C3'	-5.76	98.24	104.00
2	AB	318	C	C4'-C3'-C2'	-5.76	96.84	102.60
2	AB	992	C	O4'-C4'-C3'	5.76	109.76	104.00
2	AB	1184	U	C4'-C3'-O3'	-5.76	104.36	113.00
2	AB	1345	C	O4'-C1'-N1	5.76	117.14	108.50
7	AG	126	ASN	CA-C-O	-5.76	115.28	121.56
35	BA	1406	U	C3'-C2'-C1'	5.76	107.06	101.30
2	AB	1177	G	P-O5'-C5'	5.76	129.54	120.90
2	AB	1583	A	N9-C1'-C2'	-5.76	105.36	114.00
4	AD	93	VAL	CA-C-O	-5.76	112.97	119.42
37	BC	17	C	O4'-C1'-N1	5.76	116.84	108.20
47	BM	69	CYS	CA-C-O	-5.76	114.77	120.70
51	BQ	45	HIS	CE1-NE2-CD2	-5.76	103.24	109.00
35	BA	673	A	O5'-C5'-C4'	5.76	120.14	111.50
1	AA	59	A	C1'-O4'-C4'	5.76	115.66	109.90
2	AB	1084	A	C5'-C4'-O4'	5.76	118.44	109.80
2	AB	2751	G	C1'-C2'-O2'	5.76	120.44	111.80
2	AB	453	A	O5'-C5'-C4'	5.75	120.13	111.50
2	AB	654	A	C1'-C2'-O2'	5.75	117.03	108.40
12	AL	77	HIS	CB-CG-CD2	-5.75	123.72	131.20
35	BA	86	G	C3'-C2'-O2'	-5.75	105.97	114.60
35	BA	1502	A	C4'-C3'-C2'	-5.75	96.84	102.60
2	AB	323	C	O4'-C1'-C2'	-5.75	100.05	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1507	C	C1'-O4'-C4'	-5.75	104.15	109.90
2	AB	2497	A	C3'-C2'-C1'	5.75	107.25	101.50
7	AG	159	ALA	CA-C-N	5.75	131.23	122.08
7	AG	159	ALA	C-N-CA	5.75	131.23	122.08
35	BA	127	G	C1'-C2'-O2'	5.75	117.03	108.40
35	BA	1131	G	O4'-C4'-C3'	5.75	109.75	104.00
35	BA	1154	G	C1'-C2'-O2'	5.75	117.03	108.40
37	BC	54	G	C4'-C3'-O3'	5.75	121.63	113.00
2	AB	867	C	O4'-C4'-C3'	-5.75	98.25	104.00
2	AB	1110	G	O5'-C5'-C4'	5.75	120.33	111.70
2	AB	1474	U	O4'-C1'-C2'	-5.75	101.85	107.60
2	AB	1887	C	O3'-P-O5'	-5.75	95.37	104.00
2	AB	2755	C	C4'-C3'-O3'	-5.75	104.37	113.00
4	AD	24	HIS	CB-CG-CD2	-5.75	123.72	131.20
8	AH	3	VAL	CA-C-O	-5.75	112.57	119.36
19	AS	24	TYR	N-CA-CB	-5.75	101.38	110.06
24	AX	14	LYS	CA-C-N	5.75	126.32	119.94
24	AX	14	LYS	C-N-CA	5.75	126.32	119.94
35	BA	1063	C	P-O3'-C3'	5.75	128.83	120.20
35	BA	1445	U	O4'-C4'-C3'	5.75	109.75	104.00
36	BB	27	A	C4'-C3'-O3'	-5.75	104.37	113.00
2	AB	539	G	C3'-C2'-C1'	-5.75	95.55	101.30
2	AB	856	G	C1'-O4'-C4'	-5.75	104.15	109.90
2	AB	913	U	C3'-C2'-C1'	-5.75	95.75	101.50
2	AB	1469	A	C1'-O4'-C4'	5.75	115.65	109.90
2	AB	1754	A	O4'-C4'-C3'	5.75	109.75	104.00
40	BF	13	ARG	NE-CZ-NH2	5.75	124.38	119.20
43	BI	177	LEU	N-CA-C	-5.75	101.39	109.96
45	BK	73	GLY	N-CA-C	5.75	121.08	113.37
2	AB	286	U	C3'-C2'-O2'	5.75	119.32	110.70
2	AB	438	G	C2'-C3'-O3'	-5.75	105.08	113.70
2	AB	610	C	C3'-C2'-O2'	5.75	119.32	110.70
2	AB	829	A	O4'-C1'-N9	5.75	116.82	108.20
2	AB	1061	U	O4'-C4'-C3'	5.75	111.85	106.10
9	AI	20	ASN	OD1-CG-ND2	-5.75	116.85	122.60
12	AL	136	GLN	OE1-CD-NE2	-5.75	116.85	122.60
35	BA	250	A	O4'-C4'-C3'	5.75	109.75	104.00
35	BA	1262	C	C2'-C3'-O3'	5.75	122.32	113.70
35	BA	1335	U	P-O5'-C5'	5.75	129.52	120.90
2	AB	463	G	P-O3'-C3'	5.75	128.82	120.20
11	AK	108	ILE	O-C-N	5.75	127.44	121.87
12	AL	1	MET	CA-C-N	5.75	131.61	122.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	AL	1	MET	C-N-CA	5.75	131.61	122.59
35	BA	213	G	C5'-C4'-C3'	-5.75	107.38	116.00
35	BA	914	A	C3'-C2'-C1'	5.75	107.05	101.30
2	AB	1728	C	C4'-C3'-C2'	-5.75	96.86	102.60
2	AB	1905	C	C5'-C4'-C3'	-5.75	107.38	116.00
2	AB	2583	G	C4'-C3'-O3'	-5.75	104.38	113.00
35	BA	503	C	C4'-C3'-C2'	-5.75	96.86	102.60
35	BA	604	G	C3'-C2'-C1'	5.75	107.05	101.30
2	AB	954	G	O4'-C4'-C3'	5.74	109.74	104.00
2	AB	1176	U	O4'-C1'-N1	5.74	116.82	108.20
2	AB	1337	G	O4'-C1'-C2'	-5.74	101.86	107.60
2	AB	1523	U	C3'-C2'-O2'	5.74	119.32	110.70
11	AK	138	VAL	CB-CA-C	5.74	117.91	110.96
27	A0	23	ARG	CA-C-N	5.74	127.91	120.44
27	A0	23	ARG	C-N-CA	5.74	127.91	120.44
35	BA	112	G	C4'-C3'-O3'	-5.74	104.39	113.00
38	BD	175	ALA	CA-C-O	-5.74	114.43	120.63
1	AA	24	G	C5'-C4'-C3'	-5.74	106.59	115.20
2	AB	1654	A	C3'-C2'-O2'	5.74	119.31	110.70
2	AB	2532	G	C1'-O4'-C4'	5.74	115.64	109.90
15	AO	3	GLN	O-C-N	-5.74	117.46	121.65
35	BA	547	A	C5'-C4'-C3'	-5.74	106.59	115.20
38	BD	91	VAL	CA-C-O	-5.74	114.36	120.39
41	BG	147	ASN	OD1-CG-ND2	-5.74	116.86	122.60
43	BI	89	GLU	CA-C-N	5.74	131.69	122.50
43	BI	89	GLU	C-N-CA	5.74	131.69	122.50
2	AB	449	A	C5'-C4'-C3'	-5.74	107.39	116.00
2	AB	519	U	C3'-C2'-C1'	5.74	107.04	101.30
2	AB	1239	G	C5'-C4'-C3'	-5.74	107.39	116.00
2	AB	1606	C	O3'-P-O5'	5.74	112.61	104.00
2	AB	1734	G	C5'-C4'-C3'	-5.74	107.39	116.00
30	A3	9	ARG	NE-CZ-NH2	5.74	124.37	119.20
33	A6	51	LYS	CA-CB-CG	-5.74	102.62	114.10
35	BA	86	G	C2'-C3'-O3'	5.74	118.11	109.50
35	BA	486	U	O4'-C1'-N1	5.74	117.11	108.50
12	AL	25	LEU	O-C-N	5.74	127.98	122.07
15	AO	126	ILE	CA-C-N	5.74	129.02	120.87
15	AO	126	ILE	C-N-CA	5.74	129.02	120.87
27	A0	7	ARG	NE-CZ-NH2	5.74	124.36	119.20
35	BA	199	A	O3'-P-O5'	-5.74	95.39	104.00
13	AM	56	ASP	N-CA-C	-5.74	101.55	110.10
51	BQ	63	ARG	NE-CZ-NH1	5.74	127.24	121.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
56	BV	47	GLN	CA-C-O	-5.74	114.34	120.42
1	AA	22	U	C4'-C3'-C2'	-5.74	96.86	102.60
2	AB	96	C	O4'-C4'-C3'	5.74	109.74	104.00
2	AB	425	G	C3'-C2'-O2'	5.74	119.30	110.70
2	AB	637	A	O5'-C5'-C4'	5.74	120.30	111.70
2	AB	1906	G	C3'-C2'-O2'	5.74	119.30	110.70
2	AB	2402	U	C2'-C3'-O3'	5.74	118.10	109.50
35	BA	28	A	C4'-C3'-C2'	-5.74	96.86	102.60
35	BA	82	G	C2'-C3'-O3'	-5.74	105.10	113.70
40	BF	128	VAL	CB-CA-C	5.74	120.64	111.69
1	AA	10	G	O4'-C1'-C2'	5.73	113.33	107.60
18	AR	15	ASP	CA-C-N	5.73	129.14	121.23
18	AR	15	ASP	C-N-CA	5.73	129.14	121.23
47	BM	94	SER	CA-C-N	5.73	128.43	120.29
47	BM	94	SER	C-N-CA	5.73	128.43	120.29
2	AB	517	C	O4'-C1'-N1	5.73	117.10	108.50
2	AB	892	A	C1'-C2'-O2'	5.73	117.00	108.40
2	AB	2744	G	C5'-C4'-O4'	5.73	118.40	109.80
19	AS	57	ARG	NH1-CZ-NH2	-5.73	111.85	119.30
35	BA	92	U	C5'-C4'-C3'	-5.73	107.40	116.00
35	BA	1340	A	O4'-C4'-C3'	5.73	109.73	104.00
47	BM	83	VAL	CA-C-N	5.73	130.91	123.00
47	BM	83	VAL	C-N-CA	5.73	130.91	123.00
2	AB	87	U	C1'-O4'-C4'	-5.73	104.17	109.90
2	AB	894	U	N1-C1'-C2'	-5.73	103.40	112.00
2	AB	1465	G	C5'-C4'-O4'	-5.73	101.20	109.80
20	AT	84	ARG	CA-C-O	5.73	127.95	120.21
40	BF	172	VAL	CA-CB-CG1	5.73	120.14	110.40
43	BI	86	VAL	CA-CB-CG1	5.73	120.14	110.40
46	BL	29	ALA	CA-C-N	5.73	128.43	120.29
46	BL	29	ALA	C-N-CA	5.73	128.43	120.29
52	BR	40	ASN	CA-C-N	5.73	126.23	120.04
52	BR	40	ASN	C-N-CA	5.73	126.23	120.04
35	BA	1351	U	N1-C1'-C2'	-5.73	103.41	112.00
2	AB	371	A	C3'-C2'-C1'	5.73	107.23	101.50
2	AB	692	C	O4'-C1'-C2'	-5.73	101.87	107.60
2	AB	1081	U	C2'-C3'-O3'	-5.73	105.11	113.70
2	AB	1273	U	O4'-C1'-N1	5.73	117.09	108.50
2	AB	2107	G	C5'-C4'-C3'	-5.73	107.41	116.00
35	BA	390	U	C4'-C3'-C2'	-5.73	96.87	102.60
35	BA	456	A	O5'-C5'-C4'	-5.73	102.91	111.50
35	BA	480	U	C4'-C3'-C2'	-5.73	96.87	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
45	BK	99	LYS	CA-C-N	5.73	131.16	121.14
45	BK	99	LYS	C-N-CA	5.73	131.16	121.14
50	BP	41	TRP	NE1-CE2-CZ2	5.73	138.69	130.10
20	AT	66	HIS	CB-CG-CD2	-5.73	123.76	131.20
1	AA	47	C	C5'-C4'-C3'	-5.72	107.41	116.00
2	AB	408	G	O4'-C4'-C3'	5.72	109.72	104.00
2	AB	642	U	O4'-C1'-N1	5.72	117.09	108.50
2	AB	1213	A	O4'-C4'-C3'	5.72	109.72	104.00
2	AB	1730	C	N1-C1'-C2'	5.72	120.59	112.00
9	AI	110	VAL	O-C-N	5.72	129.19	123.18
35	BA	519	C	O4'-C1'-C2'	5.72	113.32	107.60
2	AB	264	C	C1'-O4'-C4'	-5.72	104.18	109.90
2	AB	1850	G	C4'-C3'-O3'	-5.72	104.42	113.00
2	AB	2811	G	C4'-C3'-C2'	-5.72	96.88	102.60
9	AI	27	ARG	NE-CZ-NH1	-5.72	115.78	121.50
35	BA	293	G	C3'-C2'-O2'	5.72	119.28	110.70
35	BA	466	A	C5'-C4'-C3'	-5.72	106.62	115.20
36	BB	24	A	O4'-C1'-C2'	-5.72	101.88	107.60
37	BC	22	A	C1'-O4'-C4'	-5.72	104.18	109.90
57	BW	54	ARG	NE-CZ-NH2	5.72	124.35	119.20
1	AA	91	C	C4'-C3'-C2'	-5.72	96.88	102.60
2	AB	2796	U	O5'-C5'-C4'	-5.72	102.92	111.50
5	AE	125	TRP	CE2-CD2-CE3	-5.72	113.08	118.80
35	BA	612	C	O4'-C4'-C3'	5.72	109.72	104.00
47	BM	86	LYS	O-C-N	-5.72	116.64	123.28
2	AB	669	G	C1'-O4'-C4'	5.72	115.62	109.90
2	AB	983	A	O4'-C1'-N9	5.72	117.08	108.50
2	AB	2339	C	C4'-C3'-C2'	-5.72	96.88	102.60
2	AB	2664	G	C4'-C3'-O3'	-5.72	104.42	113.00
8	AH	148	ARG	N-CA-C	5.72	120.00	113.19
35	BA	972	C	O4'-C1'-C2'	-5.72	101.88	107.60
35	BA	1004	A	C3'-C2'-O2'	-5.72	102.12	110.70
35	BA	1058	G	C5'-C4'-O4'	5.72	118.38	109.80
35	BA	85	U	O4'-C1'-N1	5.72	116.78	108.20
36	BB	40	G	C4'-C3'-C2'	-5.72	96.88	102.60
1	AA	111	U	O4'-C1'-N1	5.72	117.08	108.50
2	AB	2071	A	C5'-C4'-O4'	5.72	118.38	109.80
9	AI	77	THR	CB-CA-C	5.72	119.36	110.67
15	AO	126	ILE	CA-C-O	5.72	127.29	121.63
35	BA	231	U	C4'-C3'-C2'	-5.72	96.88	102.60
35	BA	736	C	O3'-P-O5'	-5.72	95.43	104.00
35	BA	1179	A	C5'-C4'-O4'	5.72	118.37	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	1395	C	O4'-C4'-C3'	5.72	109.72	104.00
2	AB	1357	C	O4'-C1'-C2'	-5.71	101.89	107.60
2	AB	1887	C	C5'-C4'-O4'	5.71	118.37	109.80
15	AO	95	LEU	O-C-N	5.71	129.79	122.93
35	BA	138	G	C5'-C4'-C3'	-5.71	107.43	116.00
35	BA	279	A	C3'-C2'-O2'	5.71	119.27	110.70
35	BA	1350	A	C5'-C4'-O4'	5.71	118.37	109.80
44	BJ	12	ARG	NE-CZ-NH1	-5.71	115.79	121.50
53	BS	44	HIS	CA-CB-CG	-5.71	108.09	113.80
56	BV	67	HIS	N-CA-CB	-5.71	100.83	110.49
2	AB	584	C	O5'-C5'-C4'	5.71	120.07	111.50
2	AB	1497	U	C4'-C3'-O3'	5.71	117.97	109.40
15	AO	50	ARG	NH1-CZ-NH2	-5.71	111.87	119.30
48	BN	44	PRO	CA-C-N	5.71	131.57	121.80
48	BN	44	PRO	C-N-CA	5.71	131.57	121.80
2	AB	700	G	C4'-C3'-C2'	-5.71	96.89	102.60
18	AR	10	GLU	CA-C-O	5.71	126.82	120.82
25	AY	45	HIS	CA-C-O	-5.71	115.25	121.87
30	A3	39	ARG	CD-NE-CZ	5.71	132.40	124.40
35	BA	698	G	C3'-C2'-C1'	-5.71	95.59	101.30
35	BA	804	U	O3'-P-O5'	-5.71	95.43	104.00
35	BA	976	G	C4'-C3'-C2'	-5.71	96.89	102.60
37	BC	31	G	C5'-C4'-O4'	5.71	118.37	109.80
56	BV	59	ARG	NE-CZ-NH2	5.71	124.34	119.20
2	AB	339	U	O4'-C1'-N1	5.71	117.06	108.50
2	AB	1020	A	P-O3'-C3'	5.71	128.76	120.20
2	AB	2274	A	C3'-C2'-O2'	5.71	119.26	110.70
2	AB	2408	U	C3'-C2'-O2'	5.71	119.26	110.70
2	AB	2523	G	O4'-C4'-C3'	5.71	109.71	104.00
2	AB	2846	G	O4'-C1'-N9	5.71	117.06	108.50
8	AH	140	ILE	N-CA-C	5.71	116.44	110.62
23	AW	93	ARG	CB-CA-C	5.71	118.81	109.90
24	AX	36	ALA	O-C-N	-5.71	114.75	121.32
35	BA	51	A	O4'-C1'-N9	5.71	116.76	108.20
35	BA	290	C	C5'-C4'-C3'	-5.71	107.44	116.00
35	BA	640	A	C1'-C2'-O2'	5.71	116.96	108.40
37	BC	48	U	C4'-C3'-C2'	5.71	108.31	102.60
2	AB	704	G	P-O3'-C3'	5.71	128.76	120.20
2	AB	1026	G	C2'-C3'-O3'	5.71	122.26	113.70
2	AB	2042	A	C2'-C3'-O3'	5.71	122.26	113.70
17	AQ	59	ALA	CA-C-O	5.71	126.53	119.97
35	BA	675	A	O4'-C1'-N9	-5.71	99.94	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	693	G	O4'-C1'-C2'	-5.71	101.89	107.60
49	BO	111	PRO	CA-C-N	5.71	129.90	120.94
49	BO	111	PRO	C-N-CA	5.71	129.90	120.94
5	AE	56	LYS	CA-C-N	5.71	130.92	122.82
5	AE	56	LYS	C-N-CA	5.71	130.92	122.82
24	AX	84	PRO	CA-C-N	5.71	128.94	120.90
24	AX	84	PRO	C-N-CA	5.71	128.94	120.90
35	BA	431	A	O3'-P-O5'	-5.71	95.44	104.00
35	BA	452	A	O3'-P-O5'	-5.71	95.44	104.00
35	BA	867	G	C5'-C4'-C3'	-5.71	107.44	116.00
2	AB	180	G	O5'-C5'-C4'	5.70	120.06	111.50
2	AB	561	G	C1'-C2'-O2'	-5.70	99.84	108.40
2	AB	750	A	C2'-C3'-O3'	-5.70	105.15	113.70
2	AB	976	G	C3'-C2'-C1'	-5.70	95.60	101.30
2	AB	1275	A	O4'-C1'-N9	5.70	117.06	108.50
2	AB	2860	A	P-O3'-C3'	5.70	128.76	120.20
2	AB	2888	C	C3'-C2'-C1'	5.70	107.00	101.30
12	AL	64	VAL	CA-C-O	-5.70	113.03	119.42
22	AV	26	LYS	CA-C-O	-5.70	112.36	119.38
44	BJ	74	ILE	CA-CB-CG2	5.70	120.19	110.50
53	BS	14	ASP	CA-C-N	5.70	129.72	120.60
53	BS	14	ASP	C-N-CA	5.70	129.72	120.60
2	AB	1100	C	P-O3'-C3'	5.70	128.75	120.20
2	AB	347	A	C5'-C4'-O4'	5.70	118.35	109.80
2	AB	507	A	O3'-P-O5'	-5.70	95.45	104.00
2	AB	739	A	O4'-C1'-N9	5.70	116.75	108.20
2	AB	1058	U	C5'-C4'-C3'	-5.70	107.45	116.00
2	AB	2151	U	C4'-C3'-C2'	-5.70	96.90	102.60
2	AB	2884	U	C5'-C4'-C3'	-5.70	107.45	116.00
3	AC	142	VAL	N-CA-CB	-5.70	102.79	110.54
11	AK	77	VAL	CA-C-O	-5.70	115.13	121.17
25	AY	38	ARG	NE-CZ-NH2	-5.70	114.07	119.20
35	BA	332	G	C5'-C4'-O4'	5.70	118.35	109.80
2	AB	498	G	C1'-O4'-C4'	5.70	115.60	109.90
2	AB	800	A	O4'-C4'-C3'	-5.70	100.40	106.10
2	AB	832	U	C1'-C2'-O2'	5.70	116.95	108.40
2	AB	1276	A	C4'-C3'-O3'	-5.70	104.45	113.00
2	AB	1595	C	O4'-C4'-C3'	5.70	109.70	104.00
2	AB	2697	G	C5'-C4'-O4'	5.70	118.35	109.80
2	AB	2749	A	C5'-C4'-O4'	5.70	118.35	109.80
4	AD	162	GLN	CA-C-N	5.70	128.73	120.98
4	AD	162	GLN	C-N-CA	5.70	128.73	120.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	174	A	O3'-P-O5'	-5.70	95.45	104.00
36	BB	36	U	O4'-C1'-N1	5.70	117.05	108.50
42	BH	42	TRP	CA-C-O	-5.70	112.78	119.05
2	AB	2181	U	O4'-C1'-N1	5.70	117.05	108.50
35	BA	703	G	C5'-C4'-C3'	-5.70	106.65	115.20
35	BA	993	G	O3'-P-O5'	-5.70	95.45	104.00
37	BC	19	G	C2'-C3'-O3'	5.70	118.05	109.50
44	BJ	74	ILE	N-CA-C	-5.70	99.34	107.77
2	AB	693	A	C3'-C2'-C1'	5.70	107.00	101.30
2	AB	1556	C	C3'-C2'-C1'	5.70	107.00	101.30
35	BA	78	A	O5'-C5'-C4'	-5.70	102.96	111.50
54	BT	14	ALA	O-C-N	-5.70	116.57	123.29
2	AB	199	A	O3'-P-O5'	-5.69	95.46	104.00
2	AB	2443	C	C4'-C3'-C2'	-5.69	96.91	102.60
17	AQ	89	ASP	CA-CB-CG	5.69	118.29	112.60
35	BA	712	A	O4'-C1'-C2'	-5.69	101.91	107.60
35	BA	1167	A	O4'-C1'-N9	5.69	116.74	108.20
1	AA	106	G	O4'-C1'-N9	5.69	117.04	108.50
2	AB	670	A	O4'-C1'-C2'	-5.69	100.11	105.80
2	AB	592	A	C1'-O4'-C4'	-5.69	104.21	109.90
2	AB	1223	G	C1'-O4'-C4'	5.69	115.59	109.90
2	AB	1347	A	C3'-C2'-O2'	5.69	119.24	110.70
2	AB	2406	A	P-O3'-C3'	5.69	128.74	120.20
8	AH	151	ARG	NE-CZ-NH1	5.69	127.19	121.50
21	AU	57	ASN	CA-C-O	-5.69	112.25	119.31
35	BA	1138	G	C5'-C4'-C3'	-5.69	107.46	116.00
8	AH	55	ASP	N-CA-CB	5.69	118.33	109.97
10	AJ	161	LYS	CB-CA-C	-5.69	101.18	110.85
30	A3	30	ASP	CA-C-O	-5.69	114.56	121.05
1	AA	76	G	O4'-C4'-C3'	5.69	109.69	104.00
2	AB	534	U	O4'-C4'-C3'	-5.69	98.31	104.00
2	AB	1284	A	O4'-C1'-N9	5.69	117.03	108.50
2	AB	2031	A	O3'-P-O5'	-5.69	95.47	104.00
35	BA	61	G	O5'-C5'-C4'	-5.69	102.97	111.50
35	BA	762	U	C3'-C2'-O2'	5.69	119.23	110.70
35	BA	1194	U	C3'-C2'-C1'	5.69	106.99	101.30
37	BC	63	C	O4'-C1'-C2'	-5.69	101.91	107.60
1	AA	33	G	O4'-C4'-C3'	5.69	109.69	104.00
2	AB	887	U	C5'-C4'-C3'	-5.69	107.47	116.00
15	AO	121	ALA	N-CA-C	5.69	119.48	112.54
35	BA	565	U	C3'-C2'-C1'	5.69	106.99	101.30
35	BA	739	C	C4'-C3'-C2'	-5.69	96.91	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
40	BF	88	ASN	CA-CB-CG	5.69	118.29	112.60
2	AB	80	G	O4'-C1'-N9	5.68	117.03	108.50
2	AB	2645	G	N9-C1'-C2'	-5.68	105.47	114.00
35	BA	1058	G	C1'-O4'-C4'	5.68	115.58	109.90
42	BH	103	VAL	CA-CB-CG1	5.68	120.06	110.40
55	BU	18	VAL	CA-C-O	-5.68	114.82	120.85
2	AB	1239	G	C1'-O4'-C4'	-5.68	104.22	109.90
10	AJ	131	TYR	CA-C-N	5.68	128.36	120.29
10	AJ	131	TYR	C-N-CA	5.68	128.36	120.29
20	AT	66	HIS	ND1-CG-CD2	5.68	111.78	106.10
35	BA	780	A	O4'-C1'-C2'	5.68	113.28	107.60
35	BA	1458	G	C5'-C4'-C3'	-5.68	107.48	116.00
2	AB	551	G	C3'-C2'-O2'	5.68	119.22	110.70
30	A3	37	HIS	N-CA-C	5.68	118.50	109.81
35	BA	1183	U	C2'-C3'-O3'	5.68	122.22	113.70
1	AA	44	G	O3'-P-O5'	-5.68	95.48	104.00
2	AB	437	U	O5'-C5'-C4'	-5.68	102.98	111.50
2	AB	1863	G	C1'-O4'-C4'	5.68	115.58	109.90
2	AB	1865	U	C3'-C2'-C1'	-5.68	95.82	101.50
2	AB	1968	G	O4'-C1'-N9	5.68	117.02	108.50
8	AH	126	THR	CA-CB-OG1	5.68	118.12	109.60
35	BA	26	A	C1'-C2'-O2'	5.68	116.92	108.40
35	BA	354	G	C4'-C3'-C2'	-5.68	96.92	102.60
35	BA	454	G	O4'-C1'-C2'	-5.68	101.92	107.60
35	BA	1497	G	C4'-C3'-C2'	-5.68	96.92	102.60
47	BM	114	PRO	CA-CB-CG	-5.68	93.71	104.50
2	AB	1110	G	O4'-C1'-N9	5.68	116.72	108.20
15	AO	86	LYS	CA-C-N	5.68	128.44	121.06
15	AO	86	LYS	C-N-CA	5.68	128.44	121.06
35	BA	1074	G	C3'-C2'-C1'	5.68	106.98	101.30
35	BA	1176	A	O4'-C4'-C3'	5.68	109.68	104.00
41	BG	11	GLN	CB-CA-C	5.68	119.13	109.53
42	BH	72	ASP	CA-CB-CG	5.68	118.28	112.60
57	BW	8	ASN	CA-C-O	-5.68	114.45	120.92
2	AB	164	C	O4'-C1'-N1	5.68	117.01	108.50
2	AB	368	A	C5'-C4'-O4'	5.68	118.31	109.80
2	AB	993	G	P-O3'-C3'	5.68	128.72	120.20
2	AB	1165	A	C2'-C3'-O3'	-5.68	105.19	113.70
2	AB	2601	C	C4'-C3'-O3'	5.68	117.92	109.40
2	AB	2675	A	C2'-C3'-O3'	5.68	122.22	113.70
10	AJ	11	VAL	CA-C-N	5.68	127.89	120.28
10	AJ	11	VAL	C-N-CA	5.68	127.89	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	622	A	C3'-C2'-C1'	5.68	106.98	101.30
35	BA	837	U	O5'-C5'-C4'	5.68	120.01	111.50
35	BA	1140	C	O3'-P-O5'	-5.68	95.49	104.00
35	BA	1201	A	C3'-C2'-O2'	5.68	123.11	114.60
48	BN	76	HIS	CB-CG-ND1	5.68	131.22	122.70
2	AB	1861	G	C1'-C2'-O2'	5.67	116.91	108.40
2	AB	2427	C	C2'-C3'-O3'	-5.67	105.19	113.70
8	AH	28	LYS	N-CA-C	-5.67	102.08	110.48
21	AU	41	LYS	CA-C-N	5.67	128.35	120.29
21	AU	41	LYS	C-N-CA	5.67	128.35	120.29
35	BA	826	C	O4'-C1'-N1	5.67	117.01	108.50
55	BU	85	ASP	CA-CB-CG	5.67	118.27	112.60
4	AD	7	PRO	N-CD-CG	5.67	111.71	103.20
2	AB	1219	U	C5'-C4'-O4'	5.67	118.31	109.80
2	AB	1585	C	O4'-C1'-N1	5.67	117.01	108.50
2	AB	2147	A	O4'-C4'-C3'	5.67	111.77	106.10
29	A2	56	ARG	NE-CZ-NH2	5.67	124.30	119.20
35	BA	813	U	C4'-C3'-C2'	5.67	108.27	102.60
35	BA	1437	A	C1'-O4'-C4'	-5.67	104.23	109.90
35	BA	855	U	C4'-C3'-C2'	-5.67	96.93	102.60
35	BA	926	G	O4'-C1'-N9	5.67	116.70	108.20
35	BA	1352	C	O4'-C4'-C3'	5.67	109.67	104.00
49	BO	90	HIS	CA-C-N	5.67	128.34	120.29
49	BO	90	HIS	C-N-CA	5.67	128.34	120.29
50	BP	100	TRP	CB-CG-CD2	5.67	134.74	126.80
2	AB	107	G	C4'-C3'-C2'	-5.67	96.93	102.60
2	AB	341	C	O4'-C1'-C2'	-5.67	101.93	107.60
2	AB	1059	G	O5'-C5'-C4'	-5.67	103.00	111.50
2	AB	1633	G	O4'-C4'-C3'	5.67	109.67	104.00
2	AB	2470	G	C5'-C4'-O4'	5.67	118.30	109.80
35	BA	284	C	O3'-P-O5'	5.67	112.50	104.00
35	BA	289	G	C4'-C3'-C2'	-5.67	96.93	102.60
35	BA	474	G	C5'-C4'-C3'	-5.67	107.50	116.00
35	BA	764	C	P-O3'-C3'	5.67	128.70	120.20
35	BA	1191	A	C4'-C3'-O3'	-5.67	104.50	113.00
39	BE	131	ARG	NE-CZ-NH1	5.67	127.17	121.50
43	BI	68	VAL	CB-CA-C	5.67	120.59	111.29
53	BS	32	ILE	O-C-N	5.67	126.34	121.98
57	BW	48	LYS	CA-C-N	5.67	128.19	120.54
57	BW	48	LYS	C-N-CA	5.67	128.19	120.54
2	AB	1089	A	C4'-C3'-C2'	-5.67	96.93	102.60
2	AB	1598	A	C5'-C4'-C3'	-5.67	107.50	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1610	A	O5'-C5'-C4'	5.67	120.20	111.70
2	AB	1963	U	C3'-C2'-C1'	5.67	106.97	101.30
35	BA	265	G	C5'-C4'-C3'	-5.67	107.50	116.00
35	BA	496	A	C5'-C4'-O4'	5.67	118.30	109.80
54	BT	52	ARG	NE-CZ-NH1	5.67	127.17	121.50
1	AA	12	C	N1-C1'-C2'	5.67	122.50	114.00
2	AB	378	C	N1-C1'-C2'	-5.67	103.50	112.00
2	AB	1084	A	O4'-C1'-C2'	-5.67	101.94	107.60
2	AB	1543	G	C5'-C4'-C3'	-5.67	107.50	116.00
2	AB	2787	C	O4'-C1'-C2'	-5.67	101.94	107.60
5	AE	144	GLY	O-C-N	-5.67	117.88	122.64
15	AO	127	LYS	O-C-N	-5.67	115.98	122.89
35	BA	1198	G	O4'-C1'-N9	5.67	117.00	108.50
5	AE	160	LYS	CA-C-O	-5.66	115.03	121.66
15	AO	78	LEU	N-CA-C	5.66	119.29	112.38
35	BA	196	A	O3'-P-O5'	-5.66	95.50	104.00
35	BA	735	C	O3'-P-O5'	-5.66	95.50	104.00
38	BD	65	LYS	CA-C-N	5.66	130.41	123.10
38	BD	65	LYS	C-N-CA	5.66	130.41	123.10
35	BA	600	A	C1'-C2'-O2'	5.66	116.89	108.40
46	BL	94	ALA	CA-C-N	5.66	126.26	119.98
46	BL	94	ALA	C-N-CA	5.66	126.26	119.98
2	AB	16	C	P-O5'-C5'	5.66	129.39	120.90
2	AB	870	U	O4'-C1'-C2'	-5.66	101.94	107.60
21	AU	69	LEU	CA-C-O	5.66	127.50	121.16
35	BA	65	A	O4'-C1'-N9	5.66	116.69	108.20
35	BA	315	A	O4'-C4'-C3'	-5.66	100.44	106.10
35	BA	543	U	C5'-C4'-C3'	-5.66	107.51	116.00
35	BA	1014	A	C3'-C2'-O2'	5.66	119.19	110.70
35	BA	1121	U	N1-C1'-C2'	-5.66	103.51	112.00
37	BC	77	A	C4'-C3'-C2'	5.66	108.26	102.60
2	AB	438	G	C3'-C2'-C1'	-5.66	95.64	101.30
2	AB	502	A	C2'-C3'-O3'	-5.66	105.21	113.70
2	AB	2477	U	O3'-P-O5'	-5.66	95.51	104.00
2	AB	2887	A	C5'-C4'-O4'	5.66	118.29	109.80
18	AR	88	ARG	NE-CZ-NH2	5.66	124.29	119.20
19	AS	72	GLY	O-C-N	5.66	128.76	122.31
28	A1	12	ALA	N-CA-CB	-5.66	102.26	110.47
35	BA	1182	G	C4'-C3'-O3'	5.66	117.89	109.40
1	AA	64	G	O3'-P-O5'	5.66	112.48	104.00
2	AB	554	U	P-O5'-C5'	5.66	129.38	120.90
2	AB	1360	G	C3'-C2'-O2'	5.66	119.18	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1699	G	C1'-O4'-C4'	-5.66	104.05	109.70
2	AB	2895	G	N9-C1'-C2'	-5.66	103.52	112.00
16	AP	16	HIS	CA-C-N	5.66	128.13	120.38
16	AP	16	HIS	C-N-CA	5.66	128.13	120.38
35	BA	229	U	C4'-C3'-C2'	-5.66	96.94	102.60
35	BA	1009	U	O4'-C1'-N1	5.66	116.98	108.50
35	BA	1347	G	C3'-C2'-C1'	5.66	107.16	101.50
17	AQ	83	LEU	O-C-N	5.65	129.22	122.27
30	A3	18	HIS	CB-CG-CD2	-5.65	123.85	131.20
35	BA	562	U	C4'-C3'-C2'	-5.65	96.95	102.60
2	AB	94	A	O3'-P-O5'	5.65	112.48	104.00
28	A1	15	ARG	NH1-CZ-NH2	-5.65	111.95	119.30
35	BA	555	U	O5'-C5'-C4'	-5.65	103.02	111.50
53	BS	50	ASN	CB-CA-C	5.65	120.05	111.80
57	BW	66	ARG	NE-CZ-NH2	5.65	124.29	119.20
2	AB	2106	U	C3'-C2'-O2'	5.65	119.18	110.70
2	AB	2734	A	C5'-C4'-C3'	-5.65	107.53	116.00
35	BA	691	G	C4'-C3'-O3'	-5.65	104.53	113.00
35	BA	1159	U	C3'-C2'-C1'	5.65	107.15	101.50
35	BA	1520	C	O3'-P-O5'	-5.65	95.52	104.00
37	BC	4	G	O4'-C1'-N9	5.65	116.98	108.50
2	AB	372	G	C3'-C2'-O2'	-5.65	106.13	114.60
35	BA	171	A	C5'-C4'-O4'	5.65	118.27	109.80
46	BL	45	ARG	NH1-CZ-NH2	-5.65	111.96	119.30
2	AB	1131	G	C5'-C4'-C3'	-5.65	106.73	115.20
2	AB	2127	G	C5'-C4'-O4'	5.65	118.27	109.80
35	BA	427	U	C2'-C3'-O3'	-5.65	105.23	113.70
35	BA	722	G	C5'-C4'-C3'	-5.65	107.53	116.00
35	BA	804	U	C4'-C3'-C2'	-5.65	96.95	102.60
37	BC	76	C	O4'-C1'-C2'	-5.65	101.95	107.60
2	AB	1103	A	P-O3'-C3'	5.65	128.67	120.20
2	AB	2083	G	P-O3'-C3'	5.65	128.67	120.20
12	AL	69	ARG	NH1-CZ-NH2	-5.65	111.96	119.30
35	BA	1062	U	C3'-C2'-C1'	5.65	106.95	101.30
46	BL	1	MET	O-C-N	5.65	132.03	123.00
2	AB	4	U	C5'-C4'-C3'	-5.64	107.53	116.00
2	AB	1237	A	P-O5'-C5'	5.64	129.37	120.90
2	AB	1711	A	C5'-C4'-C3'	-5.64	107.53	116.00
2	AB	1736	U	O5'-C5'-C4'	-5.64	103.03	111.50
2	AB	2777	G	P-O3'-C3'	5.64	128.67	120.20
11	AK	1	ALA	CA-C-N	5.64	128.41	120.28
11	AK	1	ALA	C-N-CA	5.64	128.41	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
16	AP	21	PHE	CA-C-N	5.64	128.31	120.29
16	AP	21	PHE	C-N-CA	5.64	128.31	120.29
26	AZ	39	VAL	CA-CB-CG2	5.64	120.00	110.40
48	BN	4	ASN	CA-C-O	-5.64	114.57	120.55
2	AB	1394	U	O3'-P-O5'	-5.64	95.53	104.00
2	AB	1570	A	C1'-C2'-O2'	-5.64	99.94	108.40
2	AB	2584	U	O4'-C1'-C2'	-5.64	101.96	107.60
11	AK	125	THR	CA-C-N	5.64	128.41	120.28
11	AK	125	THR	C-N-CA	5.64	128.41	120.28
15	AO	84	LYS	CA-C-N	5.64	131.12	121.87
15	AO	84	LYS	C-N-CA	5.64	131.12	121.87
17	AQ	99	TYR	CA-C-O	-5.64	115.06	121.66
35	BA	1460	C	C5'-C4'-C3'	5.64	124.47	116.00
35	BA	1525	G	C1'-C2'-O2'	5.64	116.86	108.40
41	BG	34	ALA	O-C-N	-5.64	116.50	123.33
42	BH	19	PRO	N-CA-CB	5.64	109.12	103.48
43	BI	70	PRO	N-CA-CB	5.64	108.59	103.34
35	BA	713	G	C3'-C2'-O2'	5.64	119.16	110.70
2	AB	515	A	C4'-C3'-C2'	-5.64	96.96	102.60
2	AB	1541	C	C1'-C2'-O2'	5.64	116.86	108.40
2	AB	2113	U	O4'-C1'-C2'	-5.64	101.96	107.60
35	BA	233	C	O3'-P-O5'	-5.64	95.54	104.00
35	BA	630	A	O4'-C1'-N9	5.64	116.96	108.50
35	BA	651	C	C1'-C2'-O2'	5.64	116.86	108.40
51	BQ	49	HIS	CB-CG-CD2	-5.64	123.87	131.20
2	AB	1043	C	O4'-C4'-C3'	5.64	109.64	104.00
2	AB	2236	U	O4'-C4'-C3'	5.64	109.64	104.00
2	AB	2868	A	P-O5'-C5'	5.64	129.36	120.90
35	BA	1313	U	O4'-C1'-N1	5.64	116.96	108.50
44	BJ	48	PHE	O-C-N	5.64	129.99	123.17
2	AB	109	C	C5'-C4'-O4'	5.64	118.25	109.80
2	AB	801	G	C3'-C2'-C1'	5.64	107.14	101.50
2	AB	1317	G	C4'-C3'-O3'	-5.64	104.54	113.00
2	AB	2098	U	C4'-C3'-C2'	-5.64	96.96	102.60
7	AG	104	THR	N-CA-C	5.64	118.15	111.33
26	AZ	14	GLY	CA-C-N	5.64	132.22	122.64
26	AZ	14	GLY	C-N-CA	5.64	132.22	122.64
35	BA	356	A	C5'-C4'-C3'	-5.64	107.54	116.00
35	BA	960	U	C4'-C3'-O3'	5.64	117.85	109.40
2	AB	65	U	C4'-C3'-O3'	5.63	121.45	113.00
2	AB	194	G	P-O5'-C5'	5.63	129.35	120.90
2	AB	214	G	O4'-C1'-C2'	-5.63	101.97	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1607	C	O4'-C1'-C2'	5.63	111.44	105.80
2	AB	2122	U	C5'-C4'-O4'	5.63	118.25	109.80
2	AB	2725	A	C5'-C4'-C3'	-5.63	106.75	115.20
29	A2	62	LYS	CB-CA-C	5.63	120.13	109.37
35	BA	141	G	C5'-C4'-C3'	-5.63	107.55	116.00
2	AB	1101	U	O3'-P-O5'	5.63	112.45	104.00
2	AB	1285	A	C1'-O4'-C4'	5.63	115.53	109.90
2	AB	1841	U	C1'-C2'-O2'	5.63	116.85	108.40
4	AD	92	LEU	CB-CA-C	5.63	119.79	110.78
35	BA	790	A	O4'-C1'-C2'	-5.63	101.97	107.60
42	BH	114	ASP	CA-C-N	5.63	127.83	120.28
42	BH	114	ASP	C-N-CA	5.63	127.83	120.28
2	AB	227	A	C3'-C2'-C1'	-5.63	95.87	101.50
2	AB	671	C	O4'-C1'-N1	5.63	116.95	108.50
2	AB	733	G	C5'-C4'-O4'	5.63	118.25	109.80
2	AB	1160	G	C1'-O4'-C4'	5.63	115.53	109.90
2	AB	2323	G	C4'-C3'-O3'	5.63	121.45	113.00
2	AB	2327	A	C1'-C2'-O2'	-5.63	99.95	108.40
2	AB	2658	C	C2'-C3'-O3'	5.63	122.15	113.70
4	AD	250	GLN	N-CA-C	-5.63	101.04	109.15
19	AS	27	ARG	NE-CZ-NH1	5.63	127.13	121.50
35	BA	152	A	C4'-C3'-C2'	-5.63	96.97	102.60
35	BA	564	C	O4'-C1'-N1	5.63	116.95	108.50
35	BA	1496	C	C3'-C2'-C1'	-5.63	95.67	101.30
37	BC	29	C	C1'-O4'-C4'	5.63	115.53	109.90
2	AB	517	C	O4'-C4'-C3'	5.63	109.63	104.00
2	AB	544	C	C1'-O4'-C4'	5.63	115.53	109.90
2	AB	1777	U	C4'-C3'-C2'	-5.63	96.97	102.60
2	AB	1922	G	C1'-C2'-O2'	5.63	116.84	108.40
41	BG	56	PRO	N-CA-CB	5.63	109.52	103.33
46	BL	98	VAL	CB-CA-C	5.63	117.89	110.91
2	AB	1599	U	O4'-C1'-N1	5.63	116.94	108.50
2	AB	1610	A	O3'-P-O5'	-5.63	95.56	104.00
20	AT	16	GLU	O-C-N	-5.63	116.16	122.75
35	BA	612	C	O4'-C1'-C2'	-5.63	101.97	107.60
35	BA	979	C	C2'-C3'-O3'	5.63	117.94	109.50
38	BD	139	GLU	O-C-N	-5.63	115.73	122.15
2	AB	498	G	C3'-C2'-O2'	5.63	119.14	110.70
2	AB	957	C	O4'-C4'-C3'	5.63	111.73	106.10
2	AB	2081	U	C4'-C3'-C2'	-5.63	96.97	102.60
15	AO	3	GLN	CA-C-N	5.63	125.39	119.76
15	AO	3	GLN	C-N-CA	5.63	125.39	119.76

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	AZ	57	VAL	CA-C-N	5.63	129.36	120.47
26	AZ	57	VAL	C-N-CA	5.63	129.36	120.47
35	BA	661	G	O4'-C1'-C2'	-5.63	101.97	107.60
35	BA	1159	U	O4'-C1'-N1	5.63	116.64	108.20
35	BA	1282	C	P-O5'-C5'	5.63	129.34	120.90
38	BD	130	LYS	CA-C-N	5.63	127.75	120.44
38	BD	130	LYS	C-N-CA	5.63	127.75	120.44
55	BU	62	THR	CA-CB-CG2	5.63	120.07	110.50
2	AB	94	A	P-O3'-C3'	5.62	128.64	120.20
2	AB	2144	G	O4'-C4'-C3'	5.62	109.62	104.00
6	AF	17	THR	CA-C-N	5.62	128.86	120.31
6	AF	17	THR	C-N-CA	5.62	128.86	120.31
24	AX	4	ILE	N-CA-C	5.62	116.95	108.96
37	BC	29	C	C4'-C3'-C2'	-5.62	96.97	102.60
39	BE	128	MET	N-CA-C	5.62	118.18	111.71
20	AT	29	THR	CA-C-O	5.62	126.51	120.55
35	BA	653	U	C4'-C3'-C2'	5.62	108.22	102.60
38	BD	32	GLY	O-C-N	-5.62	117.05	122.84
47	BM	10	ARG	CD-NE-CZ	5.62	132.27	124.40
2	AB	611	C	C2'-C3'-O3'	5.62	122.13	113.70
2	AB	1226	A	O4'-C4'-C3'	5.62	109.62	104.00
2	AB	1889	A	C4'-C3'-C2'	-5.62	96.98	102.60
6	AF	100	MET	CA-C-N	5.62	128.07	120.65
6	AF	100	MET	C-N-CA	5.62	128.07	120.65
14	AN	18	ARG	CB-CG-CD	5.62	124.23	111.30
35	BA	384	G	O3'-P-O5'	-5.62	95.57	104.00
35	BA	422	C	O4'-C1'-C2'	-5.62	100.18	105.80
35	BA	492	C	O3'-P-O5'	5.62	112.43	104.00
35	BA	625	U	C5'-C4'-C3'	-5.62	107.57	116.00
35	BA	1186	G	C2'-C3'-O3'	-5.62	105.27	113.70
43	BI	127	ALA	N-CA-C	5.62	118.17	111.71
51	BQ	21	THR	CA-C-O	5.62	125.23	119.05
2	AB	1455	G	C1'-C2'-O2'	-5.62	99.97	108.40
35	BA	810	C	O4'-C1'-C2'	-5.62	101.98	107.60
45	BK	96	GLU	CA-C-O	-5.62	114.46	120.42
2	AB	879	G	N9-C1'-C2'	-5.62	103.57	112.00
2	AB	1305	C	C4'-C3'-C2'	-5.62	96.98	102.60
2	AB	1351	C	O4'-C1'-N1	5.62	116.93	108.50
2	AB	1460	U	C4'-C3'-O3'	5.62	121.43	113.00
12	AL	52	ASP	O-C-N	-5.62	116.68	123.03
17	AQ	46	GLU	CA-C-N	5.62	129.99	122.01
17	AQ	46	GLU	C-N-CA	5.62	129.99	122.01

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	AX	24	ASN	CA-C-N	5.62	132.25	122.81
24	AX	24	ASN	C-N-CA	5.62	132.25	122.81
35	BA	180	U	O4'-C1'-C2'	5.62	113.22	107.60
2	AB	775	G	O4'-C1'-C2'	5.62	111.42	105.80
2	AB	1323	C	N1-C1'-C2'	-5.62	105.58	114.00
8	AH	114	HIS	CB-CG-CD2	-5.62	123.90	131.20
44	BJ	36	ALA	CA-C-N	5.62	128.27	120.29
44	BJ	36	ALA	C-N-CA	5.62	128.27	120.29
44	BJ	53	ASP	CA-C-N	5.62	132.27	121.54
44	BJ	53	ASP	C-N-CA	5.62	132.27	121.54
2	AB	107	G	C5'-C4'-C3'	-5.62	107.58	116.00
2	AB	351	C	C5'-C4'-O4'	5.62	118.22	109.80
2	AB	1404	C	O4'-C1'-C2'	-5.62	101.98	107.60
7	AG	15	LEU	CA-C-N	5.62	127.81	120.28
7	AG	15	LEU	C-N-CA	5.62	127.81	120.28
21	AU	69	LEU	CD1-CG-CD2	-5.62	98.45	110.80
35	BA	64	G	C5'-C4'-C3'	-5.62	106.78	115.20
35	BA	719	C	C2'-C3'-O3'	-5.62	105.28	113.70
35	BA	1014	A	C2'-C3'-O3'	5.62	122.12	113.70
35	BA	1051	C	C3'-C2'-O2'	5.62	119.12	110.70
35	BA	1525	G	C3'-C2'-C1'	-5.62	95.69	101.30
38	BD	231	GLN	CB-CA-C	5.62	120.11	110.79
2	AB	1895	C	C5'-C4'-C3'	5.61	124.42	116.00
2	AB	1916	A	O4'-C1'-C2'	5.61	113.21	107.60
5	AE	13	ARG	CA-CB-CG	-5.61	102.87	114.10
8	AH	47	ASN	CA-CB-CG	-5.61	106.99	112.60
11	AK	105	LEU	CA-C-N	5.61	128.36	120.28
11	AK	105	LEU	C-N-CA	5.61	128.36	120.28
35	BA	160	A	C4'-C3'-O3'	-5.61	104.58	113.00
35	BA	620	C	C1'-C2'-O2'	-5.61	99.98	108.40
35	BA	639	G	C1'-C2'-O2'	5.61	116.82	108.40
35	BA	979	C	C3'-C2'-C1'	5.61	107.11	101.50
2	AB	802	A	O4'-C1'-C2'	-5.61	101.99	107.60
2	AB	2759	G	C3'-C2'-C1'	-5.61	95.69	101.30
35	BA	840	C	C5'-C4'-O4'	5.61	118.22	109.80
35	BA	911	U	O3'-P-O5'	-5.61	95.58	104.00
2	AB	993	G	N9-C1'-C2'	-5.61	103.58	112.00
2	AB	1088	A	C4'-C3'-C2'	-5.61	96.99	102.60
20	AT	28	ALA	CA-C-N	5.61	127.80	120.28
20	AT	28	ALA	C-N-CA	5.61	127.80	120.28
35	BA	611	C	C2'-C3'-O3'	5.61	122.12	113.70
35	BA	889	A	C4'-C3'-C2'	-5.61	96.99	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2547	A	C1'-O4'-C4'	-5.61	104.29	109.90
5	AE	134	HIS	CE1-NE2-CD2	-5.61	103.39	109.00
1	AA	118	C	C3'-C2'-C1'	-5.61	95.69	101.30
2	AB	369	U	O3'-P-O5'	5.61	112.41	104.00
2	AB	1900	A	O3'-P-O5'	-5.61	95.59	104.00
35	BA	1365	G	O4'-C1'-N9	5.61	116.91	108.50
35	BA	1400	C	O4'-C1'-C2'	-5.61	100.19	105.80
38	BD	83	ALA	CA-C-O	-5.61	114.48	120.42
41	BG	104	ILE	N-CA-CB	5.61	119.71	111.52
41	BG	120	HIS	CE1-NE2-CD2	-5.61	103.39	109.00
2	AB	514	A	P-O3'-C3'	5.61	128.61	120.20
2	AB	558	U	C4'-C3'-C2'	-5.61	97.00	102.60
2	AB	1872	A	O4'-C4'-C3'	5.61	109.61	104.00
2	AB	1986	C	O4'-C1'-N1	5.61	116.91	108.50
2	AB	2848	G	C4'-C3'-O3'	-5.61	100.99	109.40
35	BA	1337	G	C3'-C2'-O2'	5.61	119.11	110.70
42	BH	60	VAL	O-C-N	5.61	129.12	123.07
2	AB	1208	C	C4'-C3'-C2'	-5.60	97.00	102.60
35	BA	221	C	O4'-C1'-N1	5.60	116.91	108.50
35	BA	1190	G	O5'-C5'-C4'	-5.60	103.29	111.70
53	BS	1	THR	CA-CB-CG2	5.60	120.03	110.50
1	AA	76	G	C4'-C3'-C2'	-5.60	97.00	102.60
1	AA	120	U	O4'-C1'-N1	5.60	116.60	108.20
2	AB	2061	G	O3'-P-O5'	-5.60	95.60	104.00
2	AB	2188	U	C1'-O4'-C4'	-5.60	104.30	109.90
7	AG	119	LYS	CA-C-N	5.60	130.08	120.72
7	AG	119	LYS	C-N-CA	5.60	130.08	120.72
35	BA	1475	G	O4'-C1'-N9	5.60	116.90	108.50
37	BC	51	U	O4'-C1'-N1	5.60	116.90	108.50
46	BL	5	ARG	CA-C-N	5.60	130.30	122.23
46	BL	5	ARG	C-N-CA	5.60	130.30	122.23
2	AB	1820	U	O4'-C1'-C2'	-5.60	100.20	105.80
2	AB	1841	U	O4'-C1'-N1	5.60	116.90	108.50
21	AU	68	ASP	CA-CB-CG	5.60	118.20	112.60
35	BA	1536	C	C3'-C2'-C1'	5.60	106.90	101.30
2	AB	1392	A	O3'-P-O5'	5.60	112.40	104.00
4	AD	18	VAL	CA-C-N	5.60	130.77	122.71
4	AD	18	VAL	C-N-CA	5.60	130.77	122.71
5	AE	200	ASP	CA-CB-CG	5.60	118.20	112.60
18	AR	95	LYS	CA-C-N	5.60	131.61	122.65
18	AR	95	LYS	C-N-CA	5.60	131.61	122.65
20	AT	101	ILE	CA-C-N	5.60	130.69	121.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	AT	101	ILE	C-N-CA	5.60	130.69	121.39
28	A1	10	ARG	NE-CZ-NH2	5.60	124.24	119.20
33	A6	42	HIS	N-CA-C	-5.60	105.17	112.23
35	BA	605	U	C1'-O4'-C4'	-5.60	104.30	109.90
35	BA	1301	U	C3'-C2'-O2'	-5.60	106.20	114.60
35	BA	1384	C	C5'-C4'-C3'	-5.60	107.60	116.00
42	BH	65	GLU	N-CA-CB	-5.60	101.09	110.83
2	AB	17	G	O4'-C1'-C2'	-5.60	102.00	107.60
2	AB	1181	U	C4'-C3'-O3'	5.60	121.40	113.00
2	AB	1966	A	O4'-C4'-C3'	5.60	111.70	106.10
2	AB	2076	U	O4'-C1'-N1	5.60	116.90	108.50
4	AD	80	LEU	CA-C-O	-5.60	114.37	120.36
17	AQ	102	ARG	NE-CZ-NH2	5.60	124.24	119.20
35	BA	837	U	P-O3'-C3'	-5.60	111.80	120.20
50	BP	34	ASN	O-C-N	5.60	129.93	122.43
2	AB	993	G	C4'-C3'-O3'	5.60	121.39	113.00
2	AB	2653	U	O5'-C5'-C4'	5.60	119.89	111.50
4	AD	118	GLY	N-CA-C	5.60	118.56	112.29
2	AB	472	A	C4'-C3'-C2'	-5.59	97.01	102.60
2	AB	1215	G	C5'-C4'-C3'	-5.59	107.61	116.00
2	AB	2775	G	O4'-C1'-N9	5.59	116.89	108.50
35	BA	757	U	O4'-C1'-C2'	-5.59	102.00	107.60
35	BA	1148	U	O4'-C4'-C3'	-5.59	98.41	104.00
40	BF	182	LYS	N-CA-C	-5.59	106.13	113.12
52	BR	17	TYR	O-C-N	-5.59	116.11	123.16
2	AB	1059	G	C3'-C2'-C1'	5.59	106.89	101.30
35	BA	567	G	O4'-C1'-C2'	-5.59	102.01	107.60
2	AB	1634	A	O4'-C4'-C3'	5.59	111.69	106.10
19	AS	2	ARG	CB-CA-C	5.59	118.65	110.26
35	BA	303	A	C5'-C4'-O4'	5.59	118.19	109.80
35	BA	730	G	O4'-C1'-C2'	-5.59	102.01	107.60
35	BA	743	A	C5'-C4'-C3'	-5.59	107.61	116.00
35	BA	931	C	C5'-C4'-O4'	5.59	118.19	109.80
35	BA	1532	U	O4'-C1'-C2'	-5.59	102.01	107.60
38	BD	94	ARG	NE-CZ-NH2	5.59	124.23	119.20
25	AY	71	LYS	CB-CA-C	5.59	120.06	111.95
27	A0	40	SER	CA-C-O	5.59	126.26	119.38
35	BA	583	A	C3'-C2'-O2'	5.59	119.08	110.70
35	BA	647	C	O3'-P-O5'	5.59	112.38	104.00
35	BA	702	A	N9-C1'-C2'	5.59	122.38	114.00
35	BA	1027	C	C5'-C4'-C3'	-5.59	107.61	116.00
35	BA	1072	G	O4'-C4'-C3'	5.59	109.59	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
42	BH	55	HIS	N-CA-C	5.59	119.73	113.02
2	AB	2650	U	O4'-C1'-N1	5.59	116.88	108.50
4	AD	231	HIS	ND1-CE1-NE2	5.59	113.99	108.40
19	AS	51	GLN	CA-C-N	5.59	128.04	120.38
19	AS	51	GLN	C-N-CA	5.59	128.04	120.38
35	BA	690	G	O4'-C1'-N9	5.59	116.88	108.50
2	AB	2006	C	C3'-C2'-C1'	5.59	106.89	101.30
2	AB	2738	A	C1'-O4'-C4'	-5.59	104.31	109.90
7	AG	137	PHE	CA-C-O	-5.59	114.62	120.88
9	AI	109	GLU	CA-CB-CG	5.59	125.27	114.10
35	BA	1134	G	C1'-O4'-C4'	-5.59	104.31	109.90
2	AB	111	A	C3'-C2'-C1'	5.58	106.89	101.30
2	AB	1729	U	C4'-C3'-C2'	-5.58	97.02	102.60
2	AB	2255	G	P-O3'-C3'	5.58	128.58	120.20
29	A2	27	THR	CB-CA-C	5.58	119.06	109.51
35	BA	574	A	C2'-C3'-O3'	-5.58	105.32	113.70
1	AA	71	C	C5'-C4'-C3'	-5.58	107.63	116.00
2	AB	552	U	O4'-C1'-N1	5.58	116.87	108.50
2	AB	655	A	P-O5'-C5'	5.58	129.28	120.90
2	AB	2824	C	C3'-C2'-O2'	5.58	119.08	110.70
11	AK	72	THR	CA-C-N	5.58	126.13	120.38
11	AK	72	THR	C-N-CA	5.58	126.13	120.38
35	BA	229	U	C4'-C3'-O3'	-5.58	104.62	113.00
35	BA	1116	U	O5'-C5'-C4'	5.58	119.88	111.50
36	BB	55	A	C2'-C3'-O3'	5.58	122.07	113.70
44	BJ	20	ASN	CA-CB-CG	5.58	118.18	112.60
46	BL	87	LEU	CA-C-N	5.58	128.80	120.31
46	BL	87	LEU	C-N-CA	5.58	128.80	120.31
2	AB	323	C	C1'-O4'-C4'	5.58	115.28	109.70
2	AB	1359	A	C1'-O4'-C4'	-5.58	104.32	109.90
2	AB	1685	C	C1'-O4'-C4'	5.58	115.48	109.90
2	AB	1766	G	O4'-C4'-C3'	5.58	109.58	104.00
4	AD	106	PRO	CA-C-N	5.58	128.22	120.29
4	AD	106	PRO	C-N-CA	5.58	128.22	120.29
4	AD	219	VAL	CA-C-O	-5.58	115.23	121.98
35	BA	678	U	C4'-C3'-C2'	5.58	108.18	102.60
38	BD	129	THR	CA-C-N	5.58	128.22	120.29
38	BD	129	THR	C-N-CA	5.58	128.22	120.29
2	AB	580	U	C5'-C4'-O4'	5.58	118.17	109.80
2	AB	1902	C	N1-C1'-C2'	-5.58	103.63	112.00
2	AB	2277	G	O4'-C1'-N9	5.58	116.87	108.50
35	BA	160	A	C3'-C2'-O2'	5.58	119.07	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	115	A	O3'-P-O5'	-5.58	95.63	104.00
2	AB	253	C	C1'-C2'-O2'	5.58	116.77	108.40
2	AB	1477	A	C4'-C3'-C2'	-5.58	97.02	102.60
2	AB	2824	C	P-O3'-C3'	5.58	128.57	120.20
3	AC	166	ASP	CA-CB-CG	5.58	118.18	112.60
12	AL	16	TYR	CA-C-O	-5.58	114.33	120.36
13	AM	65	THR	CB-CA-C	5.58	120.39	109.35
35	BA	232	G	O4'-C1'-C2'	-5.58	102.02	107.60
35	BA	371	A	O5'-C5'-C4'	-5.58	103.13	111.50
35	BA	984	C	C5'-C4'-O4'	5.58	118.17	109.80
35	BA	1308	U	O4'-C1'-N1	5.58	116.87	108.50
37	BC	53	G	C1'-O4'-C4'	-5.58	104.32	109.90
37	BC	67	C	O5'-C5'-C4'	-5.58	103.13	111.50
42	BH	10	VAL	N-CA-CB	-5.58	102.29	111.44
44	BJ	18	ALA	CB-CA-C	5.58	120.05	110.79
2	AB	470	A	C3'-C2'-C1'	5.58	106.88	101.30
2	AB	1716	U	O4'-C1'-C2'	-5.58	102.02	107.60
2	AB	1751	U	C3'-C2'-O2'	5.58	119.06	110.70
2	AB	2806	C	C5'-C4'-O4'	5.58	118.17	109.80
8	AH	58	ALA	CA-C-N	5.58	128.63	120.71
8	AH	58	ALA	C-N-CA	5.58	128.63	120.71
35	BA	512	U	O4'-C4'-C3'	5.58	109.58	104.00
1	AA	23	G	C4'-C3'-C2'	-5.58	97.03	102.60
2	AB	1508	A	O5'-C5'-C4'	-5.58	103.14	111.50
2	AB	2828	G	C4'-C3'-O3'	5.58	121.36	113.00
14	AN	95	LEU	N-CA-C	-5.58	105.16	112.41
19	AS	32	ARG	N-CA-C	5.58	117.04	111.07
35	BA	588	G	O4'-C1'-C2'	5.58	113.18	107.60
35	BA	996	A	C4'-C3'-C2'	-5.58	97.02	102.60
36	BB	39	U	C2'-C3'-O3'	5.58	122.06	113.70
48	BN	90	PRO	CA-C-N	5.58	131.84	120.80
48	BN	90	PRO	C-N-CA	5.58	131.84	120.80
1	AA	76	G	O5'-C5'-C4'	5.57	119.86	111.50
2	AB	262	A	O4'-C1'-C2'	5.57	113.17	107.60
2	AB	1521	G	C3'-C2'-C1'	5.57	106.87	101.30
2	AB	1531	C	C4'-C3'-C2'	-5.57	97.03	102.60
2	AB	1592	C	O4'-C4'-C3'	5.57	109.57	104.00
2	AB	2081	U	C3'-C2'-C1'	5.57	106.87	101.30
2	AB	2211	A	O5'-C5'-C4'	5.57	119.86	111.50
9	AI	128	HIS	ND1-CE1-NE2	5.57	113.97	108.40
13	AM	13	ASN	CA-CB-CG	5.57	118.17	112.60
13	AM	35	VAL	O-C-N	5.57	129.20	121.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	562	U	C3'-C2'-C1'	5.57	107.07	101.50
54	BT	70	THR	CA-C-N	5.57	128.31	120.28
54	BT	70	THR	C-N-CA	5.57	128.31	120.28
35	BA	987	G	O4'-C1'-N9	5.57	116.86	108.50
1	AA	14	U	C4'-C3'-O3'	5.57	117.76	109.40
2	AB	211	C	O4'-C1'-N1	5.57	116.85	108.50
2	AB	1468	U	C5'-C4'-O4'	5.57	118.16	109.80
2	AB	1488	C	O5'-C5'-C4'	-5.57	103.14	111.50
2	AB	1759	A	C2'-C3'-O3'	-5.57	105.34	113.70
2	AB	1874	C	O4'-C1'-N1	5.57	116.86	108.50
2	AB	1984	G	O4'-C1'-C2'	-5.57	102.03	107.60
2	AB	2245	U	N1-C1'-C2'	-5.57	103.64	112.00
35	BA	281	G	C5'-C4'-C3'	-5.57	106.84	115.20
35	BA	862	C	C3'-C2'-C1'	5.57	106.87	101.30
35	BA	883	C	O4'-C1'-C2'	-5.57	102.03	107.60
42	BH	82	ASP	CA-C-N	5.57	127.68	120.44
42	BH	82	ASP	C-N-CA	5.57	127.68	120.44
2	AB	553	G	O4'-C4'-C3'	5.57	109.57	104.00
2	AB	2501	C	C5'-C4'-C3'	5.57	124.35	116.00
35	BA	1248	A	O4'-C1'-N9	5.57	116.85	108.50
46	BL	9	ARG	NE-CZ-NH2	5.57	124.21	119.20
57	BW	32	ARG	NE-CZ-NH2	5.57	124.21	119.20
2	AB	1310	G	O4'-C1'-C2'	-5.57	102.03	107.60
2	AB	1543	G	C4'-C3'-O3'	-5.57	104.65	113.00
2	AB	2331	G	N9-C1'-C2'	-5.57	103.65	112.00
2	AB	1220	G	P-O3'-C3'	5.57	128.55	120.20
2	AB	1431	A	N9-C1'-C2'	-5.57	103.65	112.00
2	AB	1673	G	O4'-C4'-C3'	5.57	109.57	104.00
2	AB	2225	A	O4'-C4'-C3'	-5.57	100.53	106.10
2	AB	2283	C	C2'-C3'-O3'	-5.57	105.35	113.70
2	AB	2627	G	C5'-C4'-C3'	5.57	124.35	116.00
17	AQ	34	HIS	ND1-CG-CD2	5.57	111.67	106.10
19	AS	20	ALA	N-CA-C	5.57	119.70	113.02
35	BA	1076	U	C4'-C3'-C2'	-5.57	97.03	102.60
39	BE	189	HIS	CB-CG-CD2	-5.57	123.97	131.20
47	BM	51	PHE	N-CA-C	5.57	118.11	111.71
51	BQ	83	ARG	NE-CZ-NH2	5.57	124.21	119.20
2	AB	676	A	C4'-C3'-C2'	-5.56	97.04	102.60
2	AB	1230	A	O4'-C4'-C3'	5.56	109.56	104.00
2	AB	2612	C	C1'-O4'-C4'	-5.56	104.34	109.90
2	AB	2266	A	C4'-C3'-O3'	-5.56	101.06	109.40
6	AF	127	GLU	O-C-N	5.56	128.73	122.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
18	AR	10	GLU	N-CA-C	5.56	117.02	111.07
18	AR	20	ARG	CA-CB-CG	5.56	125.23	114.10
35	BA	1361	G	O4'-C1'-N9	5.56	116.84	108.50
57	BW	63	ASN	N-CA-C	5.56	118.27	111.82
2	AB	66	C	C5'-C4'-C3'	-5.56	107.66	116.00
14	AN	82	LEU	N-CA-C	5.56	117.34	111.28
15	AO	48	ALA	CA-C-N	5.56	130.00	120.71
15	AO	48	ALA	C-N-CA	5.56	130.00	120.71
35	BA	1467	C	C4'-C3'-C2'	-5.56	97.04	102.60
45	BK	4	GLN	CA-C-N	5.56	129.15	120.75
45	BK	4	GLN	C-N-CA	5.56	129.15	120.75
2	AB	64	A	O4'-C4'-C3'	5.56	109.56	104.00
2	AB	330	A	C5'-C4'-C3'	-5.56	106.86	115.20
2	AB	779	U	C3'-C2'-O2'	5.56	119.04	110.70
2	AB	972	A	O4'-C4'-C3'	5.56	109.56	104.00
2	AB	1125	G	C2'-C3'-O3'	5.56	122.04	113.70
3	AC	64	VAL	O-C-N	-5.56	116.16	122.94
11	AK	71	LYS	CA-C-N	5.56	129.10	120.60
11	AK	71	LYS	C-N-CA	5.56	129.10	120.60
13	AM	48	PRO	N-CA-C	5.56	121.15	113.65
35	BA	70	U	C3'-C2'-O2'	-5.56	106.26	114.60
35	BA	466	A	C2'-C3'-O3'	5.56	117.84	109.50
35	BA	781	A	C4'-C3'-O3'	5.56	121.34	113.00
2	AB	501	A	C3'-C2'-C1'	5.56	106.86	101.30
2	AB	534	U	C2'-C3'-O3'	5.56	122.04	113.70
2	AB	563	A	C1'-O4'-C4'	-5.56	104.34	109.90
2	AB	1135	C	C5'-C4'-O4'	5.56	118.14	109.80
2	AB	2267	A	O3'-P-O5'	-5.56	95.66	104.00
3	AC	96	GLY	N-CA-C	5.56	118.64	110.80
4	AD	57	HIS	CA-CB-CG	-5.56	108.24	113.80
18	AR	88	ARG	NE-CZ-NH1	-5.56	115.94	121.50
30	A3	36	LYS	N-CA-CB	-5.56	102.00	110.45
35	BA	1232	U	C5'-C4'-C3'	-5.56	107.67	116.00
2	AB	670	A	C1'-O4'-C4'	5.56	115.26	109.70
2	AB	2615	U	O5'-C5'-C4'	-5.56	103.17	111.50
9	AI	45	GLU	CA-C-N	5.56	127.72	120.28
9	AI	45	GLU	C-N-CA	5.56	127.72	120.28
19	AS	87	VAL	CA-C-N	5.56	132.15	121.54
19	AS	87	VAL	C-N-CA	5.56	132.15	121.54
24	AX	2	PHE	CA-CB-CG	5.56	119.36	113.80
35	BA	1458	G	N9-C1'-C2'	-5.56	103.67	112.00
56	BV	57	VAL	CA-C-O	-5.56	114.47	120.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	33	C	O3'-P-O5'	5.55	112.33	104.00
2	AB	298	G	C4'-C3'-C2'	-5.55	97.05	102.60
2	AB	1209	U	C4'-C3'-O3'	5.55	121.33	113.00
2	AB	1674	G	O3'-P-O5'	-5.55	95.67	104.00
2	AB	1778	U	C1'-C2'-O2'	5.55	120.13	111.80
2	AB	2518	A	N9-C1'-C2'	5.55	122.33	114.00
4	AD	78	GLU	O-C-N	5.55	128.48	122.15
35	BA	1040	U	C4'-C3'-C2'	-5.55	97.05	102.60
46	BL	47	GLU	CB-CA-C	5.55	118.81	109.48
2	AB	732	C	O4'-C1'-N1	5.55	116.83	108.50
35	BA	110	C	O4'-C4'-C3'	5.55	109.55	104.00
37	BC	46	G	C4'-C3'-O3'	-5.55	104.67	113.00
43	BI	113	LYS	O-C-N	-5.55	114.17	122.39
1	AA	14	U	C3'-C2'-C1'	5.55	107.05	101.50
2	AB	820	A	C2'-C3'-O3'	-5.55	105.37	113.70
2	AB	1824	G	O4'-C1'-N9	5.55	116.83	108.50
2	AB	2351	G	O4'-C1'-C2'	-5.55	102.05	107.60
2	AB	2566	A	O4'-C1'-N9	5.55	116.53	108.20
10	AJ	96	LYS	CA-C-N	5.55	128.17	120.29
10	AJ	96	LYS	C-N-CA	5.55	128.17	120.29
14	AN	110	VAL	N-CA-C	5.55	116.57	108.58
35	BA	999	C	C4'-C3'-O3'	-5.55	104.67	113.00
40	BF	33	ILE	N-CA-C	5.55	116.17	108.84
2	AB	1556	C	O3'-P-O5'	5.55	112.32	104.00
2	AB	1764	C	C4'-C3'-C2'	-5.55	97.05	102.60
21	AU	7	HIS	CB-CG-CD2	-5.55	123.98	131.20
23	AW	75	ALA	N-CA-C	5.55	117.13	111.14
35	BA	1401	G	C5'-C4'-C3'	-5.55	107.68	116.00
56	BV	68	LYS	CA-C-N	5.55	131.09	122.49
56	BV	68	LYS	C-N-CA	5.55	131.09	122.49
2	AB	32	C	O4'-C1'-C2'	-5.55	102.05	107.60
2	AB	1023	U	O4'-C4'-C3'	5.55	109.55	104.00
2	AB	2146	C	C2'-C3'-O3'	5.55	117.82	109.50
4	AD	139	THR	CA-CB-OG1	-5.55	101.28	109.60
11	AK	110	GLN	N-CA-C	5.55	118.09	111.71
21	AU	103	ILE	CA-C-O	-5.55	114.63	120.57
2	AB	167	A	O4'-C1'-C2'	-5.55	102.05	107.60
2	AB	547	A	O4'-C1'-C2'	5.55	113.15	107.60
2	AB	810	U	C3'-C2'-O2'	5.55	119.02	110.70
2	AB	828	U	O4'-C1'-C2'	-5.55	102.05	107.60
2	AB	2886	A	C1'-O4'-C4'	-5.55	104.35	109.90
35	BA	1030	U	O4'-C4'-C3'	-5.55	98.45	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	AK	68	PHE	CA-CB-CG	-5.54	108.25	113.80
35	BA	1365	G	O3'-P-O5'	-5.54	95.68	104.00
2	AB	618	G	O4'-C4'-C3'	5.54	109.54	104.00
2	AB	1722	A	C2'-C3'-O3'	5.54	122.01	113.70
2	AB	1859	U	C3'-C2'-O2'	5.54	119.01	110.70
2	AB	2688	G	O3'-P-O5'	-5.54	95.69	104.00
2	AB	2732	G	C3'-C2'-O2'	5.54	119.01	110.70
19	AS	58	GLN	CA-C-N	5.54	127.71	120.28
19	AS	58	GLN	C-N-CA	5.54	127.71	120.28
35	BA	861	G	C4'-C3'-C2'	-5.54	97.06	102.60
35	BA	1470	U	C3'-C2'-O2'	5.54	119.02	110.70
53	BS	22	VAL	CA-C-N	5.54	130.01	122.19
53	BS	22	VAL	C-N-CA	5.54	130.01	122.19
2	AB	117	G	P-O5'-C5'	5.54	129.21	120.90
2	AB	634	C	O4'-C4'-C3'	5.54	109.54	104.00
2	AB	940	G	C1'-C2'-O2'	5.54	116.71	108.40
2	AB	1294	U	N1-C1'-C2'	-5.54	103.69	112.00
3	AC	152	ALA	O-C-N	-5.54	116.25	122.12
39	BE	64	ARG	NE-CZ-NH2	-5.54	114.21	119.20
42	BH	49	TYR	O-C-N	5.54	126.87	121.66
2	AB	1773	A	C4'-C3'-O3'	5.54	121.31	113.00
2	AB	2656	U	C1'-O4'-C4'	-5.54	104.36	109.90
4	AD	242	HIS	CA-C-O	-5.54	114.58	120.23
7	AG	96	TRP	NE1-CE2-CZ2	5.54	138.41	130.10
2	AB	160	A	O5'-C5'-C4'	-5.54	103.19	111.50
2	AB	1374	G	C2'-C3'-O3'	-5.54	105.39	113.70
2	AB	1591	A	C4'-C3'-C2'	-5.54	97.06	102.60
2	AB	1685	C	C4'-C3'-O3'	5.54	121.31	113.00
2	AB	2067	G	C4'-C3'-O3'	5.54	117.71	109.40
38	BD	156	LEU	CA-C-O	-5.54	114.54	119.75
57	BW	56	ALA	O-C-N	5.54	127.78	122.07
2	AB	1909	C	O5'-C5'-C4'	-5.54	103.19	111.50
35	BA	803	G	C3'-C2'-C1'	-5.54	95.76	101.30
41	BG	137	ARG	CA-C-N	5.54	127.97	120.38
41	BG	137	ARG	C-N-CA	5.54	127.97	120.38
2	AB	584	C	C5'-C4'-O4'	5.54	118.10	109.80
2	AB	1592	C	N1-C1'-C2'	-5.54	103.70	112.00
2	AB	2544	G	C2'-C3'-O3'	5.54	122.00	113.70
2	AB	2772	C	O3'-P-O5'	-5.54	95.70	104.00
35	BA	214	C	C4'-C3'-O3'	5.54	121.30	113.00
37	BC	22	A	O4'-C4'-C3'	5.54	109.54	104.00
4	AD	84	PRO	CA-C-N	5.53	131.18	122.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	AD	84	PRO	C-N-CA	5.53	131.18	122.11
10	AJ	131	TYR	N-CA-C	5.53	117.31	111.28
17	AQ	72	ALA	N-CA-C	-5.53	105.33	111.36
26	AZ	60	LYS	CA-C-O	-5.53	114.10	120.24
34	A7	4	ARG	O-C-N	5.53	129.95	122.59
35	BA	320	A	C4'-C3'-C2'	-5.53	97.07	102.60
35	BA	518	C	C4'-C3'-O3'	5.53	117.70	109.40
40	BF	10	LEU	CA-C-O	-5.53	114.10	120.24
42	BH	78	PHE	CA-C-N	5.53	127.70	120.28
42	BH	78	PHE	C-N-CA	5.53	127.70	120.28
46	BL	8	ILE	CA-CB-CG2	-5.53	101.09	110.50
2	AB	598	U	N1-C1'-C2'	5.53	120.30	112.00
2	AB	1840	G	C5'-C4'-C3'	-5.53	107.70	116.00
2	AB	286	U	C1'-O4'-C4'	5.53	115.43	109.90
2	AB	572	A	C4'-C3'-C2'	-5.53	97.07	102.60
2	AB	766	U	C4'-C3'-C2'	-5.53	97.07	102.60
2	AB	908	C	C5'-C4'-C3'	-5.53	107.70	116.00
2	AB	1203	U	O4'-C1'-N1	5.53	116.80	108.50
2	AB	1589	U	O4'-C4'-C3'	5.53	109.53	104.00
2	AB	1668	A	O4'-C4'-C3'	-5.53	100.57	106.10
2	AB	1840	G	O4'-C4'-C3'	5.53	109.53	104.00
2	AB	1982	U	C5'-C4'-C3'	-5.53	107.70	116.00
2	AB	2674	G	C1'-O4'-C4'	-5.53	104.37	109.90
6	AF	60	TRP	NE1-CE2-CZ2	5.53	138.40	130.10
7	AG	174	PHE	CB-CA-C	5.53	117.18	108.88
35	BA	450	G	C4'-C3'-O3'	-5.53	104.70	113.00
42	BH	108	GLU	CB-CA-C	5.53	119.56	110.88
51	BQ	63	ARG	N-CA-C	5.53	117.31	111.28
2	AB	751	A	C5'-C4'-O4'	5.53	118.09	109.80
2	AB	1999	C	O4'-C1'-N1	5.53	116.79	108.50
3	AC	167	LYS	N-CA-C	-5.53	105.75	112.88
35	BA	1136	C	N1-C1'-C2'	5.53	120.29	112.00
2	AB	984	A	O4'-C4'-C3'	5.53	109.53	104.00
12	AL	34	ARG	N-CA-C	-5.53	105.17	111.14
16	AP	113	ILE	O-C-N	5.53	128.78	123.14
22	AV	2	ILE	CA-CB-CG1	5.53	119.80	110.40
35	BA	485	U	C4'-C3'-C2'	-5.53	97.07	102.60
35	BA	816	A	C5'-C4'-O4'	5.53	118.09	109.80
48	BN	72	ASN	O-C-N	5.53	127.79	121.93
2	AB	260	G	C3'-C2'-C1'	-5.53	95.77	101.30
2	AB	1031	G	O4'-C1'-C2'	5.53	113.13	107.60
2	AB	1150	C	O4'-C1'-N1	5.53	116.79	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1276	A	O4'-C1'-N9	5.53	116.79	108.50
2	AB	1955	U	O3'-P-O5'	-5.53	95.71	104.00
2	AB	2201	G	C4'-C3'-C2'	-5.53	97.07	102.60
2	AB	2323	G	P-O3'-C3'	5.53	128.49	120.20
5	AE	194	PRO	N-CA-CB	5.53	108.58	103.39
7	AG	70	ARG	NE-CZ-NH2	5.53	124.17	119.20
19	AS	41	ALA	CA-C-O	-5.53	115.02	120.82
35	BA	1015	G	C3'-C2'-O2'	5.53	118.99	110.70
35	BA	1247	U	O4'-C1'-N1	5.53	116.79	108.50
38	BD	39	ILE	CA-CB-CG1	5.53	119.79	110.40
40	BF	139	ASN	OD1-CG-ND2	5.53	128.12	122.60
44	BJ	12	ARG	NE-CZ-NH2	5.53	124.17	119.20
2	AB	69	C	C5'-C4'-O4'	5.52	118.09	109.80
2	AB	2717	C	O4'-C4'-C3'	5.52	109.52	104.00
8	AH	51	PHE	O-C-N	5.52	129.81	123.29
13	AM	120	PRO	N-CA-C	-5.52	106.00	113.40
35	BA	1097	C	C3'-C2'-C1'	5.52	106.82	101.30
2	AB	411	G	O4'-C1'-C2'	5.52	111.32	105.80
2	AB	681	G	C4'-C3'-O3'	-5.52	104.72	113.00
2	AB	734	A	C5'-C4'-C3'	-5.52	107.72	116.00
2	AB	2523	G	C2'-C3'-O3'	5.52	121.98	113.70
5	AE	144	GLY	N-CA-C	5.52	118.95	111.72
13	AM	94	PRO	N-CD-CG	5.52	111.48	103.20
18	AR	98	TYR	CA-C-O	-5.52	112.14	119.10
35	BA	1043	G	P-O5'-C5'	-5.52	112.62	120.90
35	BA	1073	U	C3'-C2'-C1'	5.52	106.82	101.30
35	BA	1195	C	C2'-C3'-O3'	5.52	121.98	113.70
32	A5	23	ALA	CA-C-N	5.52	131.51	122.07
32	A5	23	ALA	C-N-CA	5.52	131.51	122.07
2	AB	1505	A	C5'-C4'-C3'	-5.52	107.72	116.00
2	AB	1908	C	C4'-C3'-C2'	-5.52	97.08	102.60
2	AB	2352	A	O3'-P-O5'	5.52	112.28	104.00
4	AD	7	PRO	CA-N-CD	-5.52	104.27	112.00
5	AE	58	ASN	N-CA-C	5.52	120.29	113.50
14	AN	137	ALA	O-C-N	5.52	127.75	122.07
20	AT	12	HIS	CA-CB-CG	5.52	119.32	113.80
35	BA	898	G	N9-C1'-C2'	-5.52	103.72	112.00
35	BA	1244	G	C1'-O4'-C4'	-5.52	104.38	109.90
35	BA	1347	G	C4'-C3'-O3'	5.52	117.68	109.40
2	AB	504	A	C1'-O4'-C4'	5.52	115.42	109.90
2	AB	1712	U	O4'-C4'-C3'	5.52	109.52	104.00
2	AB	2374	C	C5'-C4'-C3'	-5.52	107.72	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	AE	61	THR	CA-C-N	5.52	126.99	120.09
5	AE	61	THR	C-N-CA	5.52	126.99	120.09
35	BA	836	G	C1'-O4'-C4'	5.52	115.42	109.90
35	BA	974	A	C4'-C3'-C2'	-5.52	97.08	102.60
35	BA	998	C	O4'-C4'-C3'	5.52	109.52	104.00
35	BA	1490	U	C1'-O4'-C4'	-5.52	104.38	109.90
2	AB	468	G	O4'-C1'-N9	5.51	116.77	108.50
2	AB	997	G	C1'-O4'-C4'	-5.51	104.39	109.90
2	AB	2370	G	O4'-C4'-C3'	5.51	109.51	104.00
5	AE	81	GLU	N-CA-C	5.51	118.21	109.50
22	AV	90	GLY	CA-C-N	5.51	131.01	120.97
22	AV	90	GLY	C-N-CA	5.51	131.01	120.97
35	BA	230	G	P-O3'-C3'	-5.51	111.93	120.20
35	BA	554	A	C4'-C3'-C2'	-5.51	97.09	102.60
35	BA	1376	U	O4'-C1'-N1	5.51	116.77	108.50
35	BA	1485	U	O3'-P-O5'	-5.51	95.73	104.00
38	BD	136	ARG	N-CA-C	5.51	117.37	111.36
45	BK	94	ARG	CA-C-N	5.51	127.61	120.44
45	BK	94	ARG	C-N-CA	5.51	127.61	120.44
57	BW	23	GLU	N-CA-C	5.51	117.81	110.53
2	AB	161	A	C5'-C4'-C3'	-5.51	107.73	116.00
2	AB	472	A	C5'-C4'-O4'	5.51	118.07	109.80
2	AB	2825	G	C4'-C3'-C2'	-5.51	97.09	102.60
11	AK	92	PRO	CA-C-N	5.51	132.07	121.54
11	AK	92	PRO	C-N-CA	5.51	132.07	121.54
21	AU	82	MET	CA-CB-CG	-5.51	103.07	114.10
35	BA	1428	A	C1'-C2'-O2'	-5.51	100.13	108.40
40	BF	64	TYR	CA-CB-CG	5.51	123.82	113.90
2	AB	45	G	C4'-C3'-O3'	5.51	121.27	113.00
2	AB	680	C	C2'-C3'-O3'	5.51	121.97	113.70
2	AB	1546	G	C3'-C2'-O2'	5.51	118.97	110.70
9	AI	67	ALA	CA-C-N	5.51	127.61	120.44
9	AI	67	ALA	C-N-CA	5.51	127.61	120.44
35	BA	31	G	C4'-C3'-O3'	5.51	117.67	109.40
35	BA	565	U	O4'-C1'-N1	5.51	116.77	108.50
54	BT	73	HIS	CB-CG-CD2	-5.51	124.03	131.20
55	BU	70	LEU	CA-C-O	-5.51	114.71	120.55
2	AB	830	G	O5'-C5'-C4'	5.51	119.96	111.70
2	AB	1156	A	C3'-C2'-C1'	5.51	107.01	101.50
3	AC	33	LEU	N-CA-C	-5.51	106.23	113.17
3	AC	192	LEU	CA-C-N	5.51	127.66	120.28
3	AC	192	LEU	C-N-CA	5.51	127.66	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
9	AI	91	PHE	CA-C-N	5.51	126.10	119.98
9	AI	91	PHE	C-N-CA	5.51	126.10	119.98
18	AR	2	ASN	N-CA-C	-5.51	106.23	113.17
31	A4	8	ILE	CA-CB-CG1	5.51	119.77	110.40
35	BA	600	A	O5'-C5'-C4'	-5.51	103.24	111.50
35	BA	778	G	O4'-C4'-C3'	5.51	109.51	104.00
35	BA	1347	G	C2'-C3'-O3'	5.51	117.76	109.50
2	AB	8	C	C5'-C4'-O4'	5.51	118.06	109.80
2	AB	1323	C	O4'-C1'-N1	5.51	116.46	108.20
12	AL	96	ARG	CA-C-N	5.51	125.12	119.56
12	AL	96	ARG	C-N-CA	5.51	125.12	119.56
1	AA	9	G	C5'-C4'-O4'	5.51	118.06	109.80
2	AB	275	C	C5'-C4'-C3'	-5.51	107.74	116.00
2	AB	366	C	O4'-C1'-C2'	-5.51	102.09	107.60
18	AR	17	PRO	N-CA-C	5.51	119.97	111.21
35	BA	1327	C	C4'-C3'-C2'	-5.51	97.09	102.60
37	BC	75	C	C2'-C3'-O3'	5.51	117.76	109.50
2	AB	444	C	C2'-C3'-O3'	5.50	121.96	113.70
2	AB	833	A	O3'-P-O5'	-5.50	95.74	104.00
2	AB	2010	G	C5'-C4'-C3'	-5.50	107.74	116.00
2	AB	909	A	P-O5'-C5'	5.50	129.16	120.90
2	AB	1633	G	C5'-C4'-C3'	-5.50	107.74	116.00
2	AB	1679	A	O5'-C5'-C4'	-5.50	103.24	111.50
5	AE	125	TRP	NE1-CE2-CD2	-5.50	100.25	107.40
15	AO	38	ARG	CA-C-N	5.50	128.60	121.23
15	AO	38	ARG	C-N-CA	5.50	128.60	121.23
16	AP	102	PHE	CA-CB-CG	5.50	119.30	113.80
35	BA	536	C	C1'-O4'-C4'	5.50	115.40	109.90
35	BA	1151	A	C4'-C3'-C2'	-5.50	97.10	102.60
35	BA	1383	C	P-O5'-C5'	5.50	129.16	120.90
1	AA	14	U	O4'-C1'-N1	5.50	116.45	108.20
2	AB	229	C	O4'-C4'-C3'	-5.50	98.50	104.00
2	AB	855	G	C2'-C3'-O3'	-5.50	105.45	113.70
2	AB	1096	A	C3'-C2'-O2'	5.50	118.95	110.70
2	AB	2263	C	C4'-C3'-O3'	-5.50	104.75	113.00
2	AB	2328	A	P-O5'-C5'	5.50	129.15	120.90
2	AB	2516	A	C4'-C3'-C2'	-5.50	97.10	102.60
8	AH	144	ALA	N-CA-C	-5.50	105.28	111.28
15	AO	96	ILE	N-CA-C	5.50	116.91	108.71
35	BA	324	G	O5'-C5'-C4'	5.50	119.75	111.50
35	BA	328	C	P-O3'-C3'	5.50	128.45	120.20
35	BA	539	A	C2'-C3'-O3'	-5.50	105.45	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	1123	U	O4'-C4'-C3'	5.50	109.50	104.00
51	BQ	74	VAL	CA-C-N	5.50	127.91	120.65
51	BQ	74	VAL	C-N-CA	5.50	127.91	120.65
54	BT	45	GLY	N-CA-C	-5.50	105.35	114.48
2	AB	726	G	O3'-P-O5'	-5.50	95.75	104.00
35	BA	1453	G	C5'-C4'-C3'	-5.50	107.75	116.00
37	BC	44	A	O4'-C1'-N9	5.50	116.75	108.50
2	AB	56	A	C4'-C3'-C2'	-5.50	97.10	102.60
2	AB	68	G	O4'-C4'-C3'	5.50	109.50	104.00
2	AB	1006	C	C2'-C3'-O3'	5.50	121.95	113.70
2	AB	1117	C	C4'-C3'-O3'	5.50	121.25	113.00
2	AB	1160	G	O4'-C1'-C2'	-5.50	102.10	107.60
2	AB	2117	A	C4'-C3'-O3'	5.50	121.25	113.00
2	AB	2173	A	C1'-C2'-O2'	-5.50	100.15	108.40
2	AB	2369	A	C1'-C2'-O2'	5.50	116.65	108.40
35	BA	842	U	C2'-C3'-O3'	5.50	117.75	109.50
35	BA	1202	U	O4'-C1'-C2'	-5.50	102.10	107.60
54	BT	59	LYS	N-CA-C	5.50	117.08	111.14
57	BW	50	SER	CA-C-N	5.50	128.67	120.31
57	BW	50	SER	C-N-CA	5.50	128.67	120.31
2	AB	57	C	N1-C1'-C2'	-5.50	103.76	112.00
2	AB	2717	C	C4'-C3'-O3'	5.50	121.25	113.00
7	AG	79	ARG	NE-CZ-NH2	5.50	124.15	119.20
35	BA	676	A	C5'-C4'-C3'	-5.50	107.76	116.00
35	BA	1246	A	N9-C1'-C2'	-5.50	103.75	112.00
52	BR	42	ILE	N-CA-C	5.50	116.80	111.91
2	AB	540	C	C1'-O4'-C4'	-5.49	104.41	109.90
2	AB	793	A	C3'-C2'-C1'	5.49	106.99	101.50
2	AB	1671	U	C3'-C2'-O2'	5.49	118.94	110.70
9	AI	101	ASP	CA-C-O	-5.49	113.10	119.14
15	AO	129	THR	CA-CB-OG1	5.49	117.84	109.60
17	AQ	34	HIS	CA-CB-CG	5.49	119.29	113.80
19	AS	29	ARG	CA-CB-CG	5.49	125.09	114.10
35	BA	396	C	C4'-C3'-O3'	5.49	121.24	113.00
35	BA	979	C	O4'-C1'-N1	5.49	116.44	108.20
35	BA	1335	U	O3'-P-O5'	-5.49	95.76	104.00
40	BF	119	HIS	CB-CG-CD2	-5.49	124.06	131.20
43	BI	15	PRO	CA-C-O	-5.49	111.98	118.90
2	AB	2233	U	N1-C1'-C2'	-5.49	103.76	112.00
18	AR	65	ASN	CA-CB-CG	5.49	118.09	112.60
35	BA	507	C	C5'-C4'-C3'	5.49	124.24	116.00
2	AB	242	G	O3'-P-O5'	5.49	112.24	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1779	U	C3'-C2'-C1'	5.49	106.79	101.30
2	AB	1966	A	C5'-C4'-O4'	-5.49	100.86	109.10
2	AB	2099	U	C4'-C3'-C2'	-5.49	97.11	102.60
2	AB	2102	G	C3'-C2'-O2'	-5.49	102.47	110.70
2	AB	2581	G	O3'-P-O5'	-5.49	95.76	104.00
2	AB	2631	G	C1'-O4'-C4'	5.49	115.39	109.90
35	BA	1081	A	O4'-C1'-N9	5.49	116.74	108.50
44	BJ	31	LEU	N-CA-C	-5.49	105.21	111.14
2	AB	2726	A	C1'-C2'-O2'	-5.49	103.57	111.80
35	BA	230	G	C4'-C3'-C2'	-5.49	97.11	102.60
35	BA	1119	C	C3'-C2'-C1'	-5.49	95.81	101.30
40	BF	87	GLU	N-CA-C	-5.49	105.20	111.07
2	AB	1049	C	C4'-C3'-O3'	-5.49	104.77	113.00
2	AB	1716	U	O4'-C1'-N1	5.49	116.73	108.50
2	AB	1860	G	O4'-C1'-N9	5.49	116.73	108.50
35	BA	367	U	O4'-C1'-C2'	5.49	111.29	105.80
35	BA	1320	C	C4'-C3'-C2'	-5.49	97.11	102.60
2	AB	644	A	O3'-P-O5'	5.49	112.23	104.00
2	AB	1054	A	C2'-C3'-O3'	-5.49	105.47	113.70
2	AB	1471	G	O4'-C4'-C3'	-5.49	98.52	104.00
2	AB	2672	U	O3'-P-O5'	5.49	112.23	104.00
35	BA	1174	G	C1'-O4'-C4'	-5.49	104.41	109.90
35	BA	1231	G	C5'-C4'-C3'	-5.49	107.77	116.00
41	BG	115	GLU	N-CA-CB	-5.49	102.03	110.20
2	AB	1823	G	P-O3'-C3'	-5.48	111.97	120.20
2	AB	2145	C	C4'-C3'-C2'	-5.48	97.12	102.60
2	AB	2180	U	C1'-C2'-O2'	-5.48	100.17	108.40
2	AB	2766	A	C3'-C2'-C1'	5.48	106.78	101.30
35	BA	952	U	C5'-C4'-C3'	5.48	124.23	116.00
2	AB	1631	G	O4'-C1'-C2'	-5.48	102.12	107.60
2	AB	1737	G	O4'-C1'-C2'	-5.48	102.12	107.60
2	AB	2021	C	O4'-C1'-N1	5.48	116.42	108.20
2	AB	2384	U	O4'-C4'-C3'	-5.48	100.62	106.10
10	AJ	129	PRO	N-CA-CB	5.48	109.01	103.25
21	AU	57	ASN	CA-CB-CG	5.48	118.08	112.60
35	BA	282	A	C3'-C2'-C1'	5.48	106.78	101.30
40	BF	96	ARG	NE-CZ-NH2	5.48	124.13	119.20
47	BM	21	HIS	CA-C-O	-5.48	114.23	120.32
2	AB	136	G	C1'-O4'-C4'	5.48	115.38	109.90
2	AB	1381	G	C2'-C3'-O3'	-5.48	105.48	113.70
2	AB	2731	G	O4'-C1'-C2'	5.48	113.08	107.60
33	A6	26	ALA	N-CA-CB	-5.48	102.52	110.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	433	G	O4'-C1'-C2'	-5.48	102.12	107.60
35	BA	600	A	C4'-C3'-C2'	-5.48	97.12	102.60
41	BG	117	ALA	CA-C-N	5.48	132.32	121.53
41	BG	117	ALA	C-N-CA	5.48	132.32	121.53
47	BM	50	GLY	CA-C-N	5.48	128.17	120.28
47	BM	50	GLY	C-N-CA	5.48	128.17	120.28
2	AB	232	G	C4'-C3'-O3'	-5.48	101.18	109.40
6	AF	29	HIS	CA-C-O	-5.48	114.71	120.63
35	BA	222	C	O4'-C1'-N1	5.48	116.72	108.50
2	AB	791	C	O4'-C1'-N1	5.48	116.42	108.20
2	AB	1409	U	C4'-C3'-C2'	-5.48	97.12	102.60
2	AB	1685	C	C2'-C3'-O3'	-5.48	105.48	113.70
2	AB	2878	U	P-O5'-C5'	5.48	129.12	120.90
7	AG	13	LYS	CA-C-N	5.48	127.93	120.54
7	AG	13	LYS	C-N-CA	5.48	127.93	120.54
35	BA	859	G	C2'-C3'-O3'	5.48	121.92	113.70
35	BA	1196	A	C4'-C3'-C2'	-5.48	97.12	102.60
40	BF	131	ILE	CA-C-O	5.48	126.09	120.39
41	BG	88	HIS	CG-CD2-NE2	5.48	112.68	107.20
35	BA	526	C	O5'-C5'-C4'	5.48	119.71	111.50
35	BA	1022	A	C3'-C2'-C1'	5.48	106.78	101.30
37	BC	36	A	C5'-C4'-C3'	5.48	124.21	116.00
2	AB	253	C	O4'-C4'-C3'	-5.47	98.53	104.00
2	AB	1312	U	C3'-C2'-C1'	5.47	106.97	101.50
2	AB	2447	G	C5'-C4'-O4'	5.47	117.31	109.10
2	AB	2787	C	C5'-C4'-O4'	5.47	118.01	109.80
2	AB	2853	C	C4'-C3'-C2'	-5.47	97.12	102.60
5	AE	123	LYS	CA-C-N	5.47	128.16	120.28
5	AE	123	LYS	C-N-CA	5.47	128.16	120.28
8	AH	72	ASN	OD1-CG-ND2	-5.47	117.13	122.60
12	AL	80	HIS	N-CA-C	5.47	118.48	109.72
1	AA	91	C	O4'-C4'-C3'	5.47	109.47	104.00
2	AB	540	C	C3'-C2'-C1'	5.47	106.77	101.30
2	AB	1261	C	C4'-C3'-C2'	-5.47	97.13	102.60
2	AB	2658	C	C3'-C2'-O2'	-5.47	102.49	110.70
10	AJ	73	ASP	CA-C-O	-5.47	112.52	119.31
39	BE	152	VAL	CA-C-O	-5.47	114.64	120.39
2	AB	503	A	P-O3'-C3'	5.47	128.41	120.20
2	AB	511	U	C4'-C3'-C2'	-5.47	97.13	102.60
2	AB	2746	U	O3'-P-O5'	5.47	112.21	104.00
35	BA	1053	G	C1'-O4'-C4'	-5.47	104.23	109.70
35	BA	1458	G	C4'-C3'-C2'	-5.47	97.13	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
42	BH	82	ASP	CA-C-O	-5.47	114.62	120.42
48	BN	75	GLU	CA-C-N	5.47	130.15	121.18
48	BN	75	GLU	C-N-CA	5.47	130.15	121.18
2	AB	1057	A	C4'-C3'-C2'	5.47	108.07	102.60
2	AB	1486	U	C3'-C2'-O2'	-5.47	102.50	110.70
2	AB	2260	C	C5'-C4'-C3'	-5.47	107.80	116.00
3	AC	8	MET	CA-C-O	-5.47	113.20	119.60
35	BA	13	U	O5'-C5'-C4'	5.47	119.90	111.70
2	AB	1599	U	O5'-C5'-C4'	-5.47	103.30	111.50
2	AB	2096	C	C5'-C4'-O4'	5.47	118.00	109.80
19	AS	95	ALA	N-CA-CB	-5.47	102.71	110.58
2	AB	314	C	O4'-C1'-N1	5.47	116.70	108.50
2	AB	709	U	C4'-C3'-C2'	-5.47	97.13	102.60
2	AB	796	C	N1-C1'-C2'	-5.47	103.80	112.00
2	AB	1498	C	O3'-P-O5'	5.47	112.20	104.00
2	AB	1514	G	O5'-C5'-C4'	-5.47	103.30	111.50
2	AB	1652	A	O4'-C1'-N9	5.47	116.70	108.50
2	AB	2452	C	O5'-C5'-C4'	-5.47	103.50	111.70
12	AL	40	HIS	CG-ND1-CE1	-5.47	100.01	109.30
26	AZ	36	ARG	CA-C-N	5.47	131.11	122.36
26	AZ	36	ARG	C-N-CA	5.47	131.11	122.36
47	BM	8	ARG	CD-NE-CZ	5.47	132.05	124.40
1	AA	18	G	O4'-C4'-C3'	5.46	109.46	104.00
2	AB	224	U	C5'-C4'-C3'	-5.46	107.80	116.00
2	AB	534	U	O4'-C1'-C2'	-5.46	102.14	107.60
2	AB	1369	G	C4'-C3'-C2'	-5.46	97.14	102.60
2	AB	1487	U	P-O5'-C5'	5.46	129.10	120.90
2	AB	2197	U	C1'-C2'-O2'	-5.46	103.61	111.80
2	AB	2773	C	C5'-C4'-C3'	-5.46	107.80	116.00
14	AN	103	ILE	CA-CB-CG2	5.46	119.79	110.50
24	AX	80	HIS	CA-C-N	5.46	125.11	119.05
24	AX	80	HIS	C-N-CA	5.46	125.11	119.05
27	A0	38	GLN	OE1-CD-NE2	-5.46	117.14	122.60
35	BA	331	G	C5'-C4'-O4'	5.46	118.00	109.80
35	BA	597	G	C4'-C3'-C2'	-5.46	97.14	102.60
35	BA	1323	G	C4'-C3'-O3'	5.46	121.20	113.00
35	BA	1338	G	C4'-C3'-C2'	-5.46	97.14	102.60
43	BI	45	ALA	N-CA-C	-5.46	104.97	111.03
14	AN	89	VAL	N-CA-C	5.46	117.32	109.51
35	BA	713	G	C4'-C3'-O3'	5.46	121.19	113.00
1	AA	25	U	O4'-C1'-C2'	-5.46	100.34	105.80
1	AA	109	A	O3'-P-O5'	-5.46	95.81	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	154	U	C3'-C2'-C1'	5.46	106.76	101.30
2	AB	1091	G	O4'-C1'-N9	5.46	116.69	108.50
2	AB	2394	C	O4'-C1'-N1	5.46	116.69	108.50
31	A4	3	GLY	N-CA-C	5.46	117.14	111.95
53	BS	50	ASN	CA-C-N	5.46	128.05	120.29
53	BS	50	ASN	C-N-CA	5.46	128.05	120.29
54	BT	22	TYR	CA-CB-CG	5.46	123.73	113.90
2	AB	300	A	C5'-C4'-C3'	5.46	124.19	116.00
2	AB	451	U	C4'-C3'-O3'	5.46	117.59	109.40
2	AB	1395	A	O4'-C1'-C2'	-5.46	100.34	105.80
2	AB	1697	G	O3'-P-O5'	-5.46	95.81	104.00
2	AB	2184	A	N9-C1'-C2'	-5.46	103.81	112.00
35	BA	361	G	C4'-C3'-O3'	5.46	121.19	113.00
35	BA	1263	C	C4'-C3'-C2'	-5.46	97.14	102.60
52	BR	60	TRP	CA-C-O	-5.46	115.09	120.82
1	AA	102	G	C3'-C2'-C1'	5.46	106.76	101.30
2	AB	1127	A	O5'-C5'-C4'	-5.46	103.31	111.50
2	AB	1848	A	O4'-C1'-C2'	-5.46	102.14	107.60
2	AB	2089	C	C3'-C2'-O2'	5.46	118.89	110.70
35	BA	368	U	C2'-C3'-O3'	5.46	121.89	113.70
36	BB	44	U	P-O3'-C3'	5.46	128.39	120.20
38	BD	85	SER	CA-C-N	5.46	131.97	121.54
38	BD	85	SER	C-N-CA	5.46	131.97	121.54
47	BM	23	HIS	CB-CG-CD2	-5.46	124.11	131.20
2	AB	2015	A	C4'-C3'-O3'	5.46	121.18	113.00
2	AB	2253	G	O5'-C5'-C4'	5.46	119.69	111.50
2	AB	2295	C	C3'-C2'-C1'	5.46	106.76	101.30
35	BA	127	G	C4'-C3'-C2'	-5.46	97.14	102.60
35	BA	1094	G	C2'-C3'-O3'	5.46	117.68	109.50
2	AB	2135	A	C4'-C3'-O3'	5.46	121.18	113.00
35	BA	811	C	C1'-C2'-O2'	5.46	116.58	108.40
37	BC	50	G	C5'-C4'-O4'	5.46	117.98	109.80
2	AB	231	A	C5'-C4'-C3'	-5.45	107.82	116.00
2	AB	1435	G	O4'-C1'-C2'	-5.45	102.15	107.60
2	AB	1715	G	C5'-C4'-C3'	-5.45	107.02	115.20
2	AB	2442	C	C3'-C2'-O2'	5.45	118.88	110.70
3	AC	8	MET	CA-C-N	5.45	127.59	120.28
3	AC	8	MET	C-N-CA	5.45	127.59	120.28
13	AM	81	GLY	O-C-N	-5.45	118.36	123.87
35	BA	592	G	O3'-P-O5'	-5.45	95.82	104.00
35	BA	610	U	C2'-C3'-O3'	-5.45	105.52	113.70
42	BH	89	VAL	N-CA-C	-5.45	100.48	108.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	740	C	O4'-C1'-N1	5.45	116.68	108.50
2	AB	1518	C	C5'-C4'-C3'	-5.45	107.82	116.00
2	AB	2212	A	C4'-C3'-C2'	-5.45	97.15	102.60
6	AF	170	ARG	NH1-CZ-NH2	-5.45	112.21	119.30
11	AK	82	ALA	N-CA-C	5.45	119.19	112.54
33	A6	62	PRO	N-CA-C	-5.45	107.05	113.86
35	BA	1348	U	C5'-C4'-C3'	-5.45	107.82	116.00
2	AB	2336	A	P-O3'-C3'	5.45	128.38	120.20
9	AI	49	ALA	O-C-N	5.45	128.76	122.17
35	BA	54	C	C3'-C2'-C1'	5.45	106.75	101.30
35	BA	338	A	C5'-C4'-O4'	5.45	117.98	109.80
35	BA	1283	U	O4'-C1'-N1	5.45	116.67	108.50
35	BA	1293	C	C5'-C4'-C3'	-5.45	107.83	116.00
40	BF	185	PRO	O-C-N	5.45	129.79	123.14
53	BS	10	ARG	O-C-N	-5.45	116.96	123.06
2	AB	540	C	O4'-C1'-N1	5.45	116.67	108.50
2	AB	748	G	C1'-C2'-O2'	-5.45	103.63	111.80
2	AB	1270	C	N1-C1'-C2'	5.45	122.17	114.00
2	AB	1763	G	C5'-C4'-C3'	-5.45	107.83	116.00
4	AD	249	VAL	CB-CA-C	5.45	118.66	110.98
35	BA	81	A	P-O3'-C3'	5.45	128.37	120.20
35	BA	146	G	O4'-C4'-C3'	5.45	109.45	104.00
35	BA	517	G	O4'-C1'-N9	5.45	116.37	108.20
35	BA	745	G	C3'-C2'-O2'	5.45	118.87	110.70
46	BL	43	PRO	CB-CA-C	-5.45	104.43	111.46
2	AB	881	G	O5'-C5'-C4'	5.45	119.67	111.50
2	AB	914	G	P-O5'-C5'	5.45	129.07	120.90
5	AE	135	GLY	O-C-N	5.45	128.99	122.34
17	AQ	85	LYS	CB-CA-C	5.45	120.46	110.11
21	AU	76	VAL	CG1-CB-CG2	5.45	122.78	110.80
35	BA	1082	A	C5'-C4'-C3'	-5.45	107.83	116.00
43	BI	168	SER	N-CA-C	-5.45	105.79	113.20
2	AB	415	A	P-O5'-C5'	5.45	129.07	120.90
2	AB	2417	C	C4'-C3'-C2'	5.45	108.05	102.60
2	AB	2522	U	O4'-C1'-N1	5.45	116.67	108.50
16	AP	76	VAL	CA-C-N	5.45	128.02	120.29
16	AP	76	VAL	C-N-CA	5.45	128.02	120.29
35	BA	191	G	N9-C1'-C2'	-5.45	103.83	112.00
35	BA	928	G	O4'-C4'-C3'	5.45	109.44	104.00
35	BA	1201	A	O4'-C1'-C2'	5.45	111.25	105.80
35	BA	1392	G	O3'-P-O5'	5.45	112.17	104.00
47	BM	100	ASN	CA-CB-CG	-5.45	107.16	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
52	BR	28	ARG	O-C-N	5.45	127.89	122.12
2	AB	1381	G	N9-C1'-C2'	-5.44	103.83	112.00
2	AB	1586	A	C4'-C3'-C2'	-5.44	97.16	102.60
2	AB	1948	G	O4'-C4'-C3'	-5.44	98.56	104.00
2	AB	2156	G	C2'-C3'-O3'	-5.44	105.53	113.70
18	AR	97	TYR	CA-C-O	-5.44	114.75	120.63
47	BM	66	ALA	CA-C-O	5.44	126.51	120.63
1	AA	28	C	C1'-C2'-O2'	-5.44	100.24	108.40
13	AM	2	ILE	CA-C-O	-5.44	115.50	120.73
23	AW	12	VAL	N-CA-CB	-5.44	104.79	110.72
35	BA	765	G	C3'-C2'-O2'	5.44	122.76	114.60
53	BS	15	LYS	CB-CG-CD	5.44	123.82	111.30
18	AR	95	LYS	CA-C-O	5.44	127.37	121.06
20	AT	55	ASP	CA-CB-CG	-5.44	107.16	112.60
35	BA	825	A	O3'-P-O5'	5.44	112.16	104.00
35	BA	1053	G	O3'-P-O5'	-5.44	95.84	104.00
55	BU	82	HIS	CB-CG-CD2	-5.44	124.13	131.20
12	AL	18	VAL	CA-C-O	-5.44	114.50	120.97
38	BD	44	LYS	N-CA-C	5.44	119.54	113.01
38	BD	46	VAL	CA-C-N	5.44	124.78	118.85
38	BD	46	VAL	C-N-CA	5.44	124.78	118.85
2	AB	598	U	O4'-C1'-C2'	-5.44	102.16	107.60
2	AB	613	A	O4'-C4'-C3'	5.44	109.44	104.00
2	AB	2539	C	C1'-O4'-C4'	-5.44	104.46	109.90
4	AD	54	GLY	O-C-N	-5.44	115.63	122.70
4	AD	60	ALA	N-CA-C	5.44	117.71	110.53
35	BA	430	A	O4'-C1'-C2'	-5.44	102.16	107.60
35	BA	934	C	C5'-C4'-O4'	-5.44	100.94	109.10
48	BN	10	PRO	CA-C-N	5.44	128.43	120.71
48	BN	10	PRO	C-N-CA	5.44	128.43	120.71
55	BU	13	HIS	CB-CG-CD2	-5.44	124.13	131.20
2	AB	552	U	C3'-C2'-C1'	5.44	106.74	101.30
2	AB	1940	U	O4'-C1'-N1	5.44	116.35	108.20
35	BA	198	G	C2'-C3'-O3'	5.44	121.85	113.70
42	BH	80	PHE	N-CA-C	5.44	119.54	113.02
2	AB	1340	U	P-O3'-C3'	5.43	128.35	120.20
2	AB	1525	A	C4'-C3'-C2'	-5.43	97.17	102.60
4	AD	155	ARG	CA-C-N	5.43	129.47	120.94
4	AD	155	ARG	C-N-CA	5.43	129.47	120.94
43	BI	150	PHE	O-C-N	5.43	129.35	123.10
48	BN	118	VAL	N-CA-CB	5.43	117.57	111.21
2	AB	68	G	C5'-C4'-C3'	-5.43	107.85	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1211	C	C3'-C2'-C1'	5.43	106.93	101.50
2	AB	1603	A	C5'-C4'-C3'	-5.43	107.85	116.00
2	AB	2881	U	C5'-C4'-C3'	-5.43	107.85	116.00
17	AQ	94	ARG	CB-CA-C	5.43	120.76	109.95
22	AV	96	VAL	CA-CB-CG1	5.43	119.63	110.40
35	BA	715	A	O4'-C4'-C3'	-5.43	98.57	104.00
37	BC	28	U	C2'-C3'-O3'	-5.43	105.55	113.70
52	BR	13	LYS	CA-C-N	5.43	128.62	122.59
52	BR	13	LYS	C-N-CA	5.43	128.62	122.59
2	AB	796	C	O4'-C1'-N1	5.43	116.65	108.50
4	AD	120	ASP	CA-CB-CG	5.43	118.03	112.60
6	AF	16	GLU	CA-C-O	-5.43	115.12	120.82
22	AV	54	GLU	CB-CG-CD	5.43	121.83	112.60
24	AX	78	GLN	CB-CA-C	5.43	118.71	109.75
35	BA	114	U	C4'-C3'-C2'	-5.43	97.17	102.60
35	BA	701	U	C1'-C2'-O2'	5.43	119.95	111.80
35	BA	1096	C	O4'-C1'-C2'	-5.43	102.17	107.60
50	BP	89	ARG	CA-C-N	5.43	130.79	121.07
50	BP	89	ARG	C-N-CA	5.43	130.79	121.07
2	AB	1196	C	C5'-C4'-C3'	-5.43	107.86	116.00
2	AB	1234	U	C5'-C4'-O4'	5.43	117.95	109.80
2	AB	1787	A	C5'-C4'-O4'	5.43	117.94	109.80
4	AD	210	ALA	N-CA-C	-5.43	105.01	111.69
6	AF	89	PRO	O-C-N	5.43	129.25	123.01
27	A0	28	LEU	CA-C-O	-5.43	114.80	120.55
35	BA	750	C	P-O5'-C5'	5.43	129.04	120.90
35	BA	804	U	O4'-C4'-C3'	5.43	109.43	104.00
35	BA	1097	C	C4'-C3'-C2'	-5.43	97.17	102.60
35	BA	1458	G	C3'-C2'-C1'	5.43	106.73	101.30
35	BA	1465	A	O4'-C1'-C2'	-5.43	102.17	107.60
2	AB	385	C	O3'-P-O5'	5.43	112.14	104.00
2	AB	1770	G	P-O3'-C3'	-5.43	112.06	120.20
35	BA	1086	U	C4'-C3'-C2'	-5.43	97.17	102.60
40	BF	101	VAL	CA-CB-CG2	5.43	119.63	110.40
56	BV	57	VAL	CA-C-N	5.43	129.91	120.68
56	BV	57	VAL	C-N-CA	5.43	129.91	120.68
2	AB	765	C	C2'-C3'-O3'	-5.43	105.56	113.70
2	AB	1508	A	O4'-C1'-N9	5.43	116.64	108.50
2	AB	2253	G	C5'-C4'-C3'	-5.43	107.86	116.00
2	AB	2312	U	C1'-C2'-O2'	5.43	116.54	108.40
2	AB	2355	G	C1'-O4'-C4'	-5.43	104.47	109.90
2	AB	2683	C	C5'-C4'-C3'	-5.43	107.86	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	AD	59	GLN	OE1-CD-NE2	-5.43	117.17	122.60
6	AF	90	GLN	CA-C-O	-5.43	114.47	120.38
1	AA	50	A	C1'-O4'-C4'	-5.42	104.47	109.90
2	AB	293	U	C4'-C3'-C2'	-5.42	97.17	102.60
2	AB	1416	G	C4'-C3'-O3'	-5.42	101.26	109.40
2	AB	1904	G	C3'-C2'-C1'	5.42	106.72	101.30
2	AB	2090	A	C1'-O4'-C4'	-5.42	104.48	109.90
2	AB	2157	G	N9-C1'-C2'	-5.42	105.86	114.00
17	AQ	92	PHE	CA-CB-CG	5.42	119.22	113.80
53	BS	71	SER	CA-C-O	-5.42	111.71	118.54
2	AB	800	A	C1'-O4'-C4'	5.42	115.12	109.70
2	AB	1007	C	C3'-C2'-C1'	5.42	106.72	101.30
2	AB	1215	G	O3'-P-O5'	-5.42	95.86	104.00
2	AB	1365	A	O3'-P-O5'	5.42	112.13	104.00
2	AB	1549	A	C5'-C4'-O4'	5.42	117.93	109.80
35	BA	289	G	O4'-C1'-N9	5.42	116.64	108.50
35	BA	1153	G	C4'-C3'-C2'	-5.42	97.18	102.60
35	BA	1428	A	C4'-C3'-C2'	-5.42	97.18	102.60
50	BP	13	VAL	N-CA-CB	-5.42	100.70	110.95
52	BR	56	ARG	NE-CZ-NH2	5.42	124.08	119.20
2	AB	106	C	C3'-C2'-C1'	-5.42	95.88	101.30
2	AB	1488	C	O4'-C1'-N1	5.42	116.63	108.50
2	AB	2808	G	C5'-C4'-C3'	5.42	124.13	116.00
3	AC	112	ASP	CA-CB-CG	5.42	118.02	112.60
12	AL	120	ARG	NE-CZ-NH1	-5.42	116.08	121.50
23	AW	8	ASP	CA-C-N	5.42	128.54	120.95
23	AW	8	ASP	C-N-CA	5.42	128.54	120.95
25	AY	32	ALA	CA-C-O	-5.42	115.12	120.70
35	BA	55	A	O4'-C4'-C3'	5.42	109.42	104.00
35	BA	441	A	O4'-C4'-C3'	5.42	109.42	104.00
35	BA	728	A	P-O3'-C3'	5.42	128.33	120.20
35	BA	812	G	C5'-C4'-C3'	-5.42	107.87	116.00
35	BA	917	G	C1'-O4'-C4'	5.42	115.32	109.90
45	BK	4	GLN	N-CA-C	5.42	117.25	108.41
2	AB	1523	U	C3'-C2'-C1'	5.42	106.72	101.30
10	AJ	48	GLY	O-C-N	5.42	127.72	122.41
38	BD	144	GLU	N-CA-C	-5.42	105.29	111.14
41	BG	19	ARG	NE-CZ-NH1	5.42	126.92	121.50
1	AA	33	G	O4'-C1'-N9	5.42	116.63	108.50
2	AB	406	G	O4'-C1'-C2'	-5.42	102.18	107.60
2	AB	448	U	N1-C1'-C2'	5.42	122.13	114.00
2	AB	675	A	C1'-O4'-C4'	-5.42	104.48	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1165	A	P-O3'-C3'	5.42	128.33	120.20
2	AB	1723	G	O4'-C1'-N9	5.42	116.63	108.50
2	AB	2125	G	C5'-C4'-O4'	5.42	117.93	109.80
3	AC	132	GLY	CA-C-N	5.42	126.61	119.84
3	AC	132	GLY	C-N-CA	5.42	126.61	119.84
21	AU	98	LYS	CA-C-N	5.42	130.38	121.39
21	AU	98	LYS	C-N-CA	5.42	130.38	121.39
33	A6	19	GLY	O-C-N	5.42	128.79	122.45
35	BA	502	A	C1'-C2'-O2'	5.42	116.53	108.40
35	BA	608	A	P-O5'-C5'	5.42	129.03	120.90
35	BA	930	C	C3'-C2'-O2'	5.42	118.83	110.70
35	BA	972	C	O4'-C1'-N1	5.42	116.63	108.50
35	BA	1491	G	O3'-P-O5'	-5.42	95.87	104.00
37	BC	77	A	C5'-C4'-C3'	-5.42	107.87	116.00
41	BG	42	ASN	CB-CA-C	5.42	119.42	109.99
47	BM	70	ALA	CA-C-N	5.42	127.48	120.44
47	BM	70	ALA	C-N-CA	5.42	127.48	120.44
2	AB	744	U	C4'-C3'-C2'	-5.42	97.18	102.60
2	AB	758	C	O4'-C4'-C3'	-5.42	98.58	104.00
2	AB	1175	A	O4'-C4'-C3'	5.42	109.42	104.00
2	AB	2142	A	C4'-C3'-O3'	-5.42	104.88	113.00
2	AB	2250	G	C2'-C3'-O3'	5.42	117.62	109.50
3	AC	144	THR	CA-CB-OG1	5.42	117.73	109.60
6	AF	159	LEU	N-CA-C	-5.42	106.34	113.17
14	AN	86	GLU	CA-C-N	5.42	130.21	121.00
14	AN	86	GLU	C-N-CA	5.42	130.21	121.00
35	BA	51	A	O5'-C5'-C4'	5.42	119.83	111.70
35	BA	262	A	N9-C1'-C2'	5.42	120.12	112.00
35	BA	505	G	C1'-C2'-O2'	-5.42	100.28	108.40
35	BA	530	G	C1'-O4'-C4'	5.42	115.32	109.90
41	BG	3	ILE	N-CA-CB	5.42	120.17	111.23
52	BR	54	LEU	O-C-N	5.42	127.72	122.09
3	AC	178	VAL	CA-CB-CG2	5.42	119.61	110.40
13	AM	66	LYS	CA-C-N	5.42	128.54	120.31
13	AM	66	LYS	C-N-CA	5.42	128.54	120.31
48	BN	1	ALA	CB-CA-C	5.42	118.62	110.50
56	BV	70	LYS	CA-C-N	5.42	128.32	120.79
56	BV	70	LYS	C-N-CA	5.42	128.32	120.79
2	AB	384	A	C1'-O4'-C4'	5.41	115.31	109.90
2	AB	470	A	C1'-O4'-C4'	5.41	115.31	109.90
2	AB	1076	C	C4'-C3'-O3'	5.41	121.12	113.00
2	AB	2081	U	O4'-C1'-N1	5.41	116.62	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2154	A	C5'-C4'-C3'	-5.41	107.88	116.00
8	AH	101	VAL	CB-CA-C	5.41	119.04	110.81
35	BA	138	G	C1'-O4'-C4'	-5.41	104.49	109.90
35	BA	766	A	O5'-C5'-C4'	-5.41	103.38	111.50
35	BA	1073	U	O4'-C1'-C2'	-5.41	102.19	107.60
35	BA	1094	G	C5'-C4'-O4'	5.41	117.22	109.10
1	AA	23	G	C5'-C4'-C3'	-5.41	107.88	116.00
2	AB	2092	U	O4'-C1'-N1	5.41	116.32	108.20
2	AB	2516	A	O5'-C5'-C4'	5.41	119.62	111.50
8	AH	55	ASP	CA-CB-CG	5.41	118.01	112.60
2	AB	1084	A	C2'-C3'-O3'	-5.41	105.59	113.70
2	AB	1127	A	O4'-C1'-N9	-5.41	100.38	108.50
2	AB	1724	G	C4'-C3'-O3'	5.41	121.12	113.00
4	AD	269	ARG	NE-CZ-NH1	-5.41	116.09	121.50
8	AH	51	PHE	CA-C-N	-5.41	113.38	121.87
8	AH	51	PHE	C-N-CA	-5.41	113.38	121.87
12	AL	88	THR	OG1-CB-CG2	5.41	120.12	109.30
13	AM	14	SER	CA-C-N	5.41	128.53	122.42
13	AM	14	SER	C-N-CA	5.41	128.53	122.42
21	AU	5	ALA	O-C-N	-5.41	116.91	123.29
35	BA	318	G	N9-C1'-C2'	-5.41	103.89	112.00
35	BA	1164	G	C4'-C3'-C2'	-5.41	97.19	102.60
35	BA	1497	G	C1'-O4'-C4'	-5.41	104.49	109.90
2	AB	1006	C	O4'-C1'-N1	5.41	116.61	108.50
2	AB	1292	G	C4'-C3'-C2'	-5.41	97.19	102.60
2	AB	2102	G	C1'-O4'-C4'	-5.41	104.49	109.90
11	AK	54	ILE	CA-C-O	-5.41	115.25	119.20
35	BA	1101	A	P-O3'-C3'	5.41	128.31	120.20
35	BA	1367	C	O4'-C1'-C2'	-5.41	102.19	107.60
2	AB	2591	C	O5'-C5'-C4'	-5.41	103.39	111.50
2	AB	2673	G	C5'-C4'-O4'	5.41	117.91	109.80
35	BA	112	G	O4'-C1'-C2'	-5.41	102.19	107.60
35	BA	987	G	C3'-C2'-C1'	5.41	106.71	101.30
43	BI	138	GLU	O-C-N	5.41	128.31	122.15
28	A1	10	ARG	CA-C-O	-5.41	114.49	120.38
35	BA	223	A	C4'-C3'-C2'	-5.41	97.19	102.60
39	BE	180	ASP	CA-C-N	5.41	130.49	122.71
39	BE	180	ASP	C-N-CA	5.41	130.49	122.71
47	BM	116	PRO	N-CA-CB	5.41	108.47	103.39
48	BN	38	THR	O-C-N	5.41	129.58	122.93
2	AB	881	G	O4'-C4'-C3'	5.40	109.40	104.00
2	AB	928	A	N9-C1'-C2'	-5.40	103.89	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1545	A	O4'-C4'-C3'	5.40	109.40	104.00
39	BE	92	ASP	CA-C-O	-5.40	114.82	120.55
2	AB	1037	G	O4'-C1'-N9	5.40	116.61	108.50
2	AB	1374	G	C1'-C2'-O2'	-5.40	100.30	108.40
35	BA	324	G	C3'-C2'-O2'	5.40	118.80	110.70
35	BA	1007	U	C5'-C4'-C3'	-5.40	107.90	116.00
36	BB	46	C	C4'-C3'-O3'	5.40	117.50	109.40
2	AB	1568	G	C5'-C4'-C3'	-5.40	107.90	116.00
2	AB	1616	A	C3'-C2'-C1'	5.40	106.90	101.50
2	AB	2010	G	O5'-C5'-C4'	5.40	119.60	111.50
2	AB	2539	C	O4'-C4'-C3'	5.40	109.40	104.00
15	AO	12	MET	CA-C-N	5.40	128.91	120.75
15	AO	12	MET	C-N-CA	5.40	128.91	120.75
35	BA	79	G	C4'-C3'-C2'	-5.40	97.20	102.60
35	BA	380	G	C2'-C3'-O3'	5.40	121.80	113.70
35	BA	1169	A	C1'-O4'-C4'	-5.40	104.50	109.90
35	BA	1492	A	C1'-O4'-C4'	-5.40	104.30	109.70
40	BF	119	HIS	CA-C-N	5.40	129.85	122.34
40	BF	119	HIS	C-N-CA	5.40	129.85	122.34
51	BQ	45	HIS	CB-CG-ND1	5.40	130.80	122.70
1	AA	6	G	C3'-C2'-C1'	-5.40	95.90	101.30
2	AB	2442	C	C1'-C2'-O2'	-5.40	100.30	108.40
5	AE	109	VAL	N-CA-CB	5.40	120.14	111.23
17	AQ	47	VAL	CA-C-N	5.40	127.96	120.29
17	AQ	47	VAL	C-N-CA	5.40	127.96	120.29
35	BA	1417	G	C1'-C2'-O2'	5.40	116.50	108.40
45	BK	98	ARG	CA-C-N	5.40	128.52	120.31
45	BK	98	ARG	C-N-CA	5.40	128.52	120.31
2	AB	241	A	O4'-C4'-C3'	-5.40	100.70	106.10
2	AB	265	A	C2'-C3'-O3'	5.40	121.80	113.70
2	AB	1016	G	C5'-C4'-O4'	5.40	117.90	109.80
2	AB	1453	A	C4'-C3'-O3'	5.40	121.10	113.00
2	AB	2134	A	O4'-C1'-N9	5.40	116.60	108.50
2	AB	2695	U	O3'-P-O5'	-5.40	95.90	104.00
2	AB	2707	U	C4'-C3'-C2'	-5.40	97.20	102.60
3	AC	192	LEU	CA-C-O	-5.40	114.70	120.42
7	AG	122	ASP	N-CA-CB	-5.40	103.15	111.46
13	AM	113	MET	CA-C-N	5.40	129.81	120.58
13	AM	113	MET	C-N-CA	5.40	129.81	120.58
26	AZ	1	SER	CA-C-N	5.40	130.49	122.82
26	AZ	1	SER	C-N-CA	5.40	130.49	122.82
35	BA	884	U	O4'-C4'-C3'	5.40	111.50	106.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	1311	A	O5'-C5'-C4'	-5.40	103.41	111.50
2	AB	340	A	C4'-C3'-C2'	-5.40	97.20	102.60
2	AB	972	A	O5'-C5'-C4'	5.40	119.59	111.50
2	AB	1176	U	C3'-C2'-C1'	5.40	106.90	101.50
2	AB	2473	U	O4'-C1'-N1	5.40	116.30	108.20
6	AF	185	LYS	CA-C-N	5.40	130.45	123.11
6	AF	185	LYS	C-N-CA	5.40	130.45	123.11
2	AB	471	A	C5'-C4'-O4'	5.39	117.89	109.80
2	AB	708	G	O4'-C1'-C2'	-5.39	102.21	107.60
2	AB	2361	G	C3'-C2'-C1'	-5.39	95.91	101.30
35	BA	512	U	C4'-C3'-C2'	-5.39	97.20	102.60
35	BA	955	U	O4'-C1'-N1	5.39	116.59	108.50
37	BC	32	G	C3'-C2'-O2'	5.39	118.79	110.70
39	BE	21	TRP	CA-CB-CG	5.39	123.85	113.60
40	BF	183	ARG	NE-CZ-NH2	5.39	124.06	119.20
51	BQ	51	SER	CA-C-N	5.39	127.51	120.28
51	BQ	51	SER	C-N-CA	5.39	127.51	120.28
2	AB	70	G	C1'-O4'-C4'	5.39	115.09	109.70
2	AB	659	G	C5'-C4'-O4'	5.39	117.89	109.80
2	AB	2375	G	C1'-O4'-C4'	-5.39	104.51	109.90
2	AB	2479	U	C3'-C2'-O2'	5.39	118.79	110.70
2	AB	2865	U	C4'-C3'-C2'	-5.39	97.21	102.60
6	AF	92	HIS	ND1-CE1-NE2	5.39	113.79	108.40
20	AT	32	THR	CA-CB-OG1	5.39	117.69	109.60
35	BA	1137	C	O4'-C1'-N1	5.39	116.29	108.20
36	BB	22	G	P-O3'-C3'	5.39	128.29	120.20
2	AB	863	A	N9-C1'-C2'	-5.39	103.91	112.00
2	AB	896	A	C4'-C3'-C2'	-5.39	97.21	102.60
2	AB	2042	A	P-O3'-C3'	5.39	128.29	120.20
2	AB	2588	G	O3'-P-O5'	-5.39	95.91	104.00
56	BV	43	LYS	CA-C-N	5.39	127.50	120.28
56	BV	43	LYS	C-N-CA	5.39	127.50	120.28
1	AA	62	C	C4'-C3'-O3'	5.39	121.08	113.00
2	AB	650	C	O4'-C1'-C2'	-5.39	102.21	107.60
2	AB	1003	G	O4'-C1'-N9	5.39	116.58	108.50
2	AB	2765	A	C2'-C3'-O3'	5.39	121.78	113.70
29	A2	18	CYS	O-C-N	-5.39	116.14	123.15
35	BA	1142	G	C2'-C3'-O3'	-5.39	105.62	113.70
35	BA	1187	G	O3'-P-O5'	5.39	112.08	104.00
42	BH	26	THR	CA-C-N	5.39	129.84	120.68
42	BH	26	THR	C-N-CA	5.39	129.84	120.68
44	BJ	125	ILE	CA-CB-CG1	5.39	119.56	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
8	AH	114	HIS	CG-CD2-NE2	5.39	112.59	107.20
29	A2	47	LYS	CB-CA-C	5.39	119.66	109.37
56	BV	56	ILE	N-CA-C	5.39	115.59	110.53
2	AB	431	U	C1'-O4'-C4'	-5.39	104.51	109.90
2	AB	525	U	C3'-C2'-C1'	5.39	106.69	101.30
2	AB	1032	A	O4'-C1'-C2'	-5.39	102.21	107.60
2	AB	1108	U	O4'-C4'-C3'	5.39	109.39	104.00
2	AB	1150	C	C4'-C3'-O3'	5.39	121.08	113.00
2	AB	1476	U	O4'-C1'-C2'	-5.39	102.21	107.60
3	AC	16	ASP	CB-CA-C	5.39	119.23	110.24
4	AD	126	GLY	CA-C-O	-5.39	113.03	119.06
17	AQ	13	ARG	CA-C-N	5.39	127.77	120.44
17	AQ	13	ARG	C-N-CA	5.39	127.77	120.44
32	A5	41	ARG	CD-NE-CZ	5.39	131.94	124.40
35	BA	734	G	O3'-P-O5'	-5.39	95.92	104.00
35	BA	739	C	C1'-C2'-O2'	-5.39	100.32	108.40
35	BA	1299	A	C4'-C3'-C2'	5.39	107.99	102.60
35	BA	1418	A	O4'-C4'-C3'	5.39	109.39	104.00
2	AB	481	G	C5'-C4'-O4'	-5.38	101.02	109.10
2	AB	2818	U	P-O3'-C3'	5.38	128.28	120.20
3	AC	130	VAL	O-C-N	5.38	129.30	122.57
6	AF	7	ASP	N-CA-C	5.38	116.95	111.14
37	BC	72	C	C4'-C3'-C2'	-5.38	97.22	102.60
29	A2	41	HIS	CA-CB-CG	5.38	119.18	113.80
40	BF	23	GLY	O-C-N	5.38	129.53	122.96
43	BI	91	ARG	CD-NE-CZ	5.38	131.94	124.40
1	AA	50	A	O4'-C1'-C2'	5.38	112.98	107.60
2	AB	335	C	O4'-C1'-C2'	-5.38	102.22	107.60
2	AB	2398	U	O4'-C1'-N1	5.38	116.57	108.50
17	AQ	22	GLY	CA-C-N	5.38	129.11	121.42
17	AQ	22	GLY	C-N-CA	5.38	129.11	121.42
35	BA	1509	C	C5'-C4'-O4'	5.38	117.87	109.80
43	BI	42	VAL	CB-CA-C	5.38	119.07	112.02
50	BP	6	LYS	CA-C-N	5.38	127.44	120.44
50	BP	6	LYS	C-N-CA	5.38	127.44	120.44
2	AB	1017	G	C4'-C3'-O3'	5.38	121.07	113.00
35	BA	787	A	O4'-C1'-C2'	5.38	112.98	107.60
13	AM	13	ASN	CB-CA-C	5.38	120.31	110.36
35	BA	576	C	C5'-C4'-O4'	-5.38	101.03	109.10
35	BA	706	A	C4'-C3'-O3'	-5.38	104.93	113.00
38	BD	197	PHE	CA-CB-CG	-5.38	108.42	113.80
44	BJ	19	ALA	N-CA-CB	-5.38	103.14	110.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1	G	C3'-C2'-O2'	5.38	118.76	110.70
2	AB	411	G	C4'-C3'-C2'	5.38	107.98	102.60
2	AB	825	A	O4'-C4'-C3'	-5.38	98.62	104.00
2	AB	1600	C	O4'-C4'-C3'	-5.38	98.62	104.00
2	AB	2338	C	C4'-C3'-C2'	-5.38	97.22	102.60
4	AD	224	MET	N-CA-C	-5.38	102.56	110.52
7	AG	45	ASP	CA-C-O	5.38	126.12	120.42
20	AT	32	THR	CA-C-N	5.38	129.70	122.93
20	AT	32	THR	C-N-CA	5.38	129.70	122.93
35	BA	376	G	O4'-C4'-C3'	5.38	109.38	104.00
35	BA	1297	G	C4'-C3'-C2'	-5.38	97.22	102.60
35	BA	1371	G	N9-C1'-C2'	-5.38	103.94	112.00
2	AB	2323	G	C5'-C4'-O4'	5.38	117.86	109.80
11	AK	26	ALA	CA-C-O	-5.38	114.85	120.55
2	AB	219	A	C1'-C2'-O2'	5.37	116.46	108.40
2	AB	778	G	C4'-C3'-C2'	-5.37	97.23	102.60
2	AB	1447	C	C3'-C2'-O2'	5.37	118.76	110.70
2	AB	2171	A	C4'-C3'-O3'	5.37	117.46	109.40
3	AC	103	GLN	CA-C-O	-5.37	115.18	120.82
3	AC	139	ASN	CA-C-O	-5.37	114.75	120.28
35	BA	247	G	O4'-C1'-N9	-5.37	100.44	108.50
35	BA	1228	C	N1-C1'-C2'	-5.37	103.94	112.00
38	BD	104	LYS	CB-CA-C	5.37	119.76	110.84
2	AB	432	A	O4'-C1'-C2'	-5.37	102.23	107.60
2	AB	572	A	O4'-C4'-C3'	5.37	109.37	104.00
2	AB	1207	C	C2'-C3'-O3'	-5.37	105.64	113.70
2	AB	2432	A	P-O3'-C3'	5.37	128.26	120.20
10	AJ	11	VAL	O-C-N	-5.37	116.65	121.91
13	AM	107	LEU	N-CA-CB	-5.37	102.68	110.47
35	BA	77	A	C5'-C4'-C3'	-5.37	107.94	116.00
35	BA	168	G	C4'-C3'-C2'	-5.37	97.23	102.60
41	BG	73	VAL	N-CA-CB	5.37	119.12	111.82
1	AA	27	C	C1'-O4'-C4'	5.37	115.27	109.90
1	AA	74	U	C4'-C3'-C2'	5.37	107.97	102.60
33	A6	5	THR	O-C-N	5.37	129.20	122.86
35	BA	307	C	C4'-C3'-C2'	-5.37	97.23	102.60
35	BA	1431	A	C1'-O4'-C4'	5.37	115.27	109.90
35	BA	1452	C	C1'-C2'-O2'	5.37	119.86	111.80
2	AB	134	G	O4'-C4'-C3'	5.37	109.37	104.00
2	AB	782	A	N9-C1'-C2'	-5.37	105.95	114.00
2	AB	2047	C	C3'-C2'-C1'	5.37	106.67	101.30
2	AB	2299	U	C5'-C4'-C3'	-5.37	107.95	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2724	U	C3'-C2'-C1'	5.37	106.67	101.30
4	AD	18	VAL	CA-C-O	-5.37	114.37	120.65
7	AG	72	SER	N-CA-C	5.37	118.53	111.28
9	AI	42	LYS	N-CA-C	-5.37	107.38	114.31
19	AS	109	VAL	CA-C-N	5.37	127.47	120.28
19	AS	109	VAL	C-N-CA	5.37	127.47	120.28
28	A1	46	MET	O-C-N	-5.37	116.43	122.12
35	BA	79	G	C2'-C3'-O3'	-5.37	105.65	113.70
35	BA	233	C	C5'-C4'-C3'	-5.37	107.95	116.00
14	AN	98	ALA	CA-C-N	5.37	131.79	121.54
14	AN	98	ALA	C-N-CA	5.37	131.79	121.54
2	AB	44	A	N9-C1'-C2'	-5.37	103.95	112.00
2	AB	463	G	C5'-C4'-O4'	5.37	117.85	109.80
2	AB	491	G	C4'-C3'-C2'	-5.37	97.23	102.60
2	AB	1542	U	O3'-P-O5'	5.37	112.05	104.00
2	AB	2196	C	O4'-C4'-C3'	5.37	109.37	104.00
2	AB	2865	U	O5'-C5'-C4'	-5.37	103.45	111.50
12	AL	44	TYR	N-CA-C	5.37	122.23	110.80
28	A1	45	GLY	CA-C-N	5.37	127.47	120.28
28	A1	45	GLY	C-N-CA	5.37	127.47	120.28
35	BA	1000	A	O3'-P-O5'	-5.37	95.95	104.00
35	BA	1004	A	C2'-C3'-O3'	5.37	121.75	113.70
55	BU	10	ILE	CB-CA-C	5.37	116.42	110.62
2	AB	1061	U	C4'-C3'-C2'	-5.36	97.24	102.60
2	AB	1614	A	C4'-C3'-C2'	-5.36	97.24	102.60
21	AU	33	LEU	CA-C-O	-5.36	113.80	119.97
35	BA	364	A	O4'-C1'-N9	5.36	116.55	108.50
35	BA	821	G	C3'-C2'-O2'	5.36	118.74	110.70
8	AH	169	ARG	NE-CZ-NH1	-5.36	116.14	121.50
24	AX	87	GLN	N-CA-CB	-5.36	102.21	110.20
35	BA	513	C	O4'-C1'-C2'	-5.36	102.24	107.60
35	BA	746	A	O4'-C1'-N9	5.36	116.54	108.50
35	BA	894	G	O4'-C4'-C3'	5.36	109.36	104.00
2	AB	807	U	C3'-C2'-C1'	-5.36	95.94	101.30
2	AB	1649	G	O3'-P-O5'	-5.36	95.96	104.00
2	AB	1694	C	C3'-C2'-C1'	-5.36	96.14	101.50
2	AB	2146	C	O4'-C1'-C2'	-5.36	100.44	105.80
2	AB	2666	C	O5'-C5'-C4'	5.36	119.54	111.50
35	BA	191	G	O4'-C1'-N9	5.36	116.54	108.50
35	BA	363	A	C4'-C3'-C2'	-5.36	97.24	102.60
35	BA	517	G	O3'-P-O5'	-5.36	95.96	104.00
51	BQ	37	HIS	CG-ND1-CE1	-5.36	100.19	109.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
52	BR	2	VAL	CG1-CB-CG2	-5.36	99.01	110.80
2	AB	249	C	C5'-C4'-C3'	-5.36	107.16	115.20
2	AB	1905	C	P-O3'-C3'	5.36	128.24	120.20
35	BA	6	G	P-O5'-C5'	5.36	128.94	120.90
2	AB	166	U	O4'-C4'-C3'	5.36	109.36	104.00
2	AB	1111	A	N9-C1'-C2'	-5.36	105.96	114.00
2	AB	1421	G	C5'-C4'-C3'	-5.36	107.97	116.00
2	AB	1537	G	O4'-C1'-C2'	-5.36	102.24	107.60
3	AC	160	GLN	N-CA-C	5.36	117.94	109.96
5	AE	60	VAL	CA-C-O	-5.36	116.18	122.13
19	AS	12	ARG	CA-C-N	5.36	128.24	120.79
19	AS	12	ARG	C-N-CA	5.36	128.24	120.79
29	A2	14	ALA	N-CA-C	5.36	118.00	110.23
35	BA	229	U	C1'-C2'-O2'	-5.36	100.36	108.40
49	BO	31	ALA	CA-C-O	-5.36	114.05	120.10
2	AB	654	A	O3'-P-O5'	-5.36	95.97	104.00
2	AB	1323	C	O4'-C4'-C3'	5.36	111.45	106.10
2	AB	1657	U	C4'-C3'-C2'	-5.36	97.24	102.60
2	AB	2102	G	O4'-C1'-N9	5.36	116.53	108.50
2	AB	2572	A	C3'-C2'-C1'	5.36	106.86	101.50
4	AD	61	TYR	O-C-N	5.36	129.81	123.27
11	AK	65	SER	N-CA-CB	5.36	117.84	109.97
35	BA	408	A	C3'-C2'-C1'	5.36	106.66	101.30
35	BA	551	U	O4'-C1'-C2'	-5.36	102.24	107.60
35	BA	740	U	O4'-C1'-N1	5.36	116.53	108.50
41	BG	97	PRO	N-CA-CB	5.36	107.82	103.32
2	AB	638	G	C4'-C3'-C2'	5.35	107.95	102.60
2	AB	2505	G	O4'-C1'-N9	5.35	116.23	108.20
2	AB	2626	C	O3'-P-O5'	5.35	112.03	104.00
3	AC	5	THR	CA-C-N	5.35	127.40	120.44
3	AC	5	THR	C-N-CA	5.35	127.40	120.44
35	BA	274	A	O4'-C1'-N9	5.35	116.23	108.20
35	BA	1050	G	C5'-C4'-C3'	-5.35	107.97	116.00
44	BJ	50	VAL	CA-C-O	-5.35	114.77	120.39
47	BM	102	ALA	CA-C-N	5.35	131.27	121.85
47	BM	102	ALA	C-N-CA	5.35	131.27	121.85
2	AB	331	C	C1'-O4'-C4'	-5.35	104.35	109.70
2	AB	827	U	C3'-C2'-C1'	5.35	106.85	101.50
2	AB	1237	A	O4'-C4'-C3'	-5.35	100.75	106.10
2	AB	2676	C	N1-C1'-C2'	5.35	120.03	112.00
23	AW	88	ASP	CA-CB-CG	5.35	117.95	112.60
2	AB	229	C	C3'-C2'-C1'	-5.35	95.95	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1170	C	O5'-C5'-C4'	5.35	119.53	111.50
2	AB	2181	U	C3'-C2'-C1'	-5.35	95.95	101.30
24	AX	20	LEU	CA-C-N	5.35	128.44	120.31
24	AX	20	LEU	C-N-CA	5.35	128.44	120.31
35	BA	1158	C	O4'-C1'-C2'	-5.35	102.25	107.60
35	BA	1183	U	C3'-C2'-C1'	5.35	106.65	101.30
2	AB	11	C	O5'-C5'-C4'	-5.35	103.48	111.50
2	AB	923	G	C4'-C3'-C2'	-5.35	97.25	102.60
2	AB	2582	G	O4'-C1'-C2'	-5.35	102.25	107.60
7	AG	167	ALA	N-CA-C	-5.35	106.80	113.38
35	BA	625	U	O4'-C4'-C3'	5.35	109.35	104.00
35	BA	805	C	O5'-C5'-C4'	5.35	119.53	111.50
35	BA	1077	G	C3'-C2'-C1'	5.35	106.65	101.30
35	BA	1245	C	N1-C1'-C2'	-5.35	103.97	112.00
39	BE	17	TRP	CG-CD2-CE3	5.35	139.25	133.90
2	AB	223	A	C4'-C3'-C2'	5.35	107.95	102.60
2	AB	1236	G	C3'-C2'-O2'	-5.35	106.58	114.60
21	AU	32	ALA	CA-C-O	-5.35	114.88	120.55
29	A2	51	VAL	CA-C-O	5.35	127.46	120.78
35	BA	240	G	O4'-C4'-C3'	5.35	109.35	104.00
35	BA	463	U	C4'-C3'-O3'	5.35	121.02	113.00
35	BA	1408	A	O4'-C4'-C3'	5.35	109.35	104.00
41	BG	41	GLY	CA-C-N	5.35	130.63	122.29
41	BG	41	GLY	C-N-CA	5.35	130.63	122.29
2	AB	114	U	C4'-C3'-C2'	-5.35	97.25	102.60
35	BA	289	G	O4'-C4'-C3'	5.35	109.35	104.00
2	AB	838	C	O4'-C1'-N1	5.34	116.52	108.50
2	AB	1803	A	O3'-P-O5'	-5.34	95.98	104.00
2	AB	2178	C	C5'-C4'-C3'	-5.34	107.98	116.00
2	AB	2639	A	O5'-C5'-C4'	5.34	119.52	111.50
21	AU	61	ASN	N-CA-C	5.34	117.59	108.67
22	AV	19	LYS	N-CA-C	5.34	117.54	111.02
33	A6	19	GLY	CA-C-N	5.34	126.75	120.71
33	A6	19	GLY	C-N-CA	5.34	126.75	120.71
35	BA	1182	G	O4'-C1'-C2'	-5.34	100.46	105.80
35	BA	1353	G	O4'-C4'-C3'	-5.34	98.66	104.00
39	BE	42	LEU	CA-C-O	-5.34	115.19	120.70
2	AB	453	A	C4'-C3'-O3'	5.34	121.02	113.00
2	AB	565	C	C5'-C4'-O4'	5.34	117.81	109.80
2	AB	696	G	O4'-C1'-C2'	-5.34	102.26	107.60
2	AB	912	C	C5'-C4'-C3'	-5.34	107.98	116.00
2	AB	1560	G	C1'-O4'-C4'	5.34	115.24	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1685	C	P-O3'-C3'	5.34	128.21	120.20
2	AB	2147	A	C4'-C3'-C2'	-5.34	97.26	102.60
6	AF	194	LYS	CA-C-O	-5.34	115.21	120.82
2	AB	712	G	O4'-C1'-N9	5.34	116.51	108.50
2	AB	1046	A	O4'-C1'-N9	5.34	116.21	108.20
2	AB	1168	G	C1'-O4'-C4'	5.34	115.24	109.90
2	AB	2010	G	C3'-C2'-C1'	5.34	106.64	101.30
35	BA	23	C	O3'-P-O5'	5.34	112.01	104.00
35	BA	1134	G	C4'-C3'-C2'	-5.34	97.26	102.60
2	AB	6	A	C5'-C4'-C3'	5.34	124.01	116.00
2	AB	816	C	C3'-C2'-C1'	5.34	106.64	101.30
35	BA	863	U	O4'-C1'-C2'	-5.34	102.26	107.60
35	BA	1319	A	C5'-C4'-O4'	5.34	117.11	109.10
49	BO	59	VAL	CA-CB-CG2	5.34	119.48	110.40
2	AB	1199	U	C5'-C4'-O4'	5.34	117.81	109.80
2	AB	1444	G	C1'-C2'-O2'	5.34	116.41	108.40
3	AC	3	LYS	N-CA-C	5.34	118.09	110.24
38	BD	226	GLN	OE1-CD-NE2	-5.34	117.26	122.60
1	AA	84	G	C5'-C4'-C3'	-5.34	108.00	116.00
1	AA	110	C	O4'-C4'-C3'	-5.34	98.66	104.00
2	AB	128	C	C1'-O4'-C4'	-5.34	104.56	109.90
2	AB	159	G	O4'-C1'-N9	5.34	116.50	108.50
2	AB	711	G	O3'-P-O5'	5.34	112.01	104.00
2	AB	2081	U	O4'-C1'-C2'	-5.34	102.26	107.60
2	AB	2536	G	O4'-C1'-N9	5.34	116.51	108.50
9	AI	104	THR	CA-CB-OG1	5.34	117.61	109.60
16	AP	81	ASN	CA-C-O	-5.34	115.20	120.80
35	BA	210	C	O5'-C5'-C4'	-5.34	103.70	111.70
35	BA	227	G	C1'-O4'-C4'	5.34	115.24	109.90
35	BA	1253	G	C2'-C3'-O3'	5.34	121.70	113.70
40	BF	170	LEU	CB-CA-C	5.34	120.27	110.24
42	BH	6	ILE	O-C-N	-5.34	116.87	122.95
2	AB	1021	A	C3'-C2'-C1'	-5.33	95.97	101.30
2	AB	1339	G	N9-C1'-C2'	-5.33	104.00	112.00
2	AB	2771	C	C4'-C3'-C2'	-5.33	97.27	102.60
6	AF	24	ASN	CA-CB-CG	-5.33	107.27	112.60
12	AL	119	PHE	CA-CB-CG	5.33	119.14	113.80
26	AZ	39	VAL	CB-CA-C	5.33	117.93	110.99
35	BA	1323	G	C4'-C3'-C2'	-5.33	97.27	102.60
40	BF	197	HIS	CB-CG-CD2	-5.33	124.26	131.20
49	BO	90	HIS	CA-CB-CG	5.33	119.14	113.80
50	BP	92	ILE	CA-CB-CG1	5.33	119.47	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	46	G	C3'-C2'-O2'	5.33	118.70	110.70
2	AB	175	G	O5'-C5'-C4'	-5.33	103.50	111.50
2	AB	485	C	C5'-C4'-O4'	5.33	117.80	109.80
2	AB	553	G	C3'-C2'-C1'	-5.33	95.97	101.30
2	AB	1637	A	O3'-P-O5'	5.33	112.00	104.00
5	AE	184	ARG	CA-C-N	5.33	130.42	122.74
5	AE	184	ARG	C-N-CA	5.33	130.42	122.74
10	AJ	114	GLY	CA-C-O	-5.33	113.29	119.10
36	BB	56	G	C3'-C2'-C1'	5.33	106.63	101.30
37	BC	51	U	C4'-C3'-C2'	-5.33	97.27	102.60
1	AA	35	C	P-O3'-C3'	5.33	128.20	120.20
2	AB	735	A	C5'-C4'-C3'	-5.33	108.00	116.00
2	AB	1143	A	O4'-C1'-C2'	-5.33	100.47	105.80
5	AE	164	GLN	CB-CG-CD	5.33	121.66	112.60
20	AT	47	VAL	CA-C-O	-5.33	114.10	121.51
35	BA	572	A	N9-C1'-C2'	5.33	120.00	112.00
54	BT	28	LEU	N-CA-C	5.33	117.09	111.28
2	AB	260	G	O4'-C1'-C2'	5.33	112.93	107.60
2	AB	379	G	O4'-C1'-C2'	-5.33	102.27	107.60
2	AB	748	G	C4'-C3'-C2'	-5.33	97.27	102.60
2	AB	2874	C	O3'-P-O5'	-5.33	96.00	104.00
35	BA	171	A	C1'-O4'-C4'	5.33	115.23	109.90
35	BA	740	U	C4'-C3'-C2'	-5.33	97.27	102.60
43	BI	131	GLY	CA-C-O	5.33	127.52	121.92
2	AB	177	G	C1'-C2'-O2'	5.33	119.79	111.80
2	AB	185	G	N9-C1'-C2'	-5.33	104.01	112.00
2	AB	853	C	C1'-C2'-O2'	-5.33	100.41	108.40
2	AB	923	G	N9-C1'-C2'	-5.33	104.01	112.00
2	AB	1047	G	C4'-C3'-C2'	-5.33	97.27	102.60
2	AB	1509	A	C3'-C2'-C1'	5.33	106.83	101.50
2	AB	1565	C	P-O5'-C5'	5.33	128.89	120.90
2	AB	2616	C	O4'-C4'-C3'	-5.33	98.67	104.00
34	A7	19	ARG	O-C-N	-5.33	116.98	123.27
35	BA	438	U	O4'-C1'-C2'	5.33	111.13	105.80
35	BA	1141	C	C1'-O4'-C4'	-5.33	104.57	109.90
36	BB	38	G	C1'-O4'-C4'	5.33	115.23	109.90
2	AB	1798	U	O3'-P-O5'	-5.33	96.01	104.00
2	AB	2138	G	O3'-P-O5'	-5.33	96.01	104.00
10	AJ	56	ASN	OD1-CG-ND2	-5.33	117.27	122.60
35	BA	207	C	O4'-C1'-N1	5.33	116.49	108.50
35	BA	1520	C	O4'-C1'-N1	5.33	116.49	108.50
1	AA	56	G	O4'-C4'-C3'	5.33	111.42	106.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1366	A	C1'-C2'-O2'	5.33	116.39	108.40
2	AB	1485	U	N1-C1'-C2'	-5.33	104.01	112.00
2	AB	1537	G	C4'-C3'-C2'	-5.33	97.27	102.60
2	AB	1576	U	O4'-C1'-N1	5.33	116.49	108.50
2	AB	2046	G	O5'-C5'-C4'	5.33	119.49	111.50
2	AB	2502	G	C3'-C2'-C1'	5.33	106.83	101.50
2	AB	2510	C	C5'-C4'-C3'	5.33	123.99	116.00
11	AK	59	THR	CA-C-O	-5.33	115.07	120.71
12	AL	93	ILE	N-CA-C	5.33	117.22	111.58
35	BA	405	U	O4'-C1'-C2'	-5.33	102.28	107.60
35	BA	886	G	O3'-P-O5'	-5.33	96.01	104.00
35	BA	1275	A	C3'-C2'-O2'	5.33	118.69	110.70
35	BA	1341	U	C5'-C4'-O4'	5.33	117.79	109.80
37	BC	40	C	O4'-C1'-C2'	-5.33	102.28	107.60
43	BI	97	ALA	CB-CA-C	-5.33	101.95	110.79
48	BN	74	GLN	OE1-CD-NE2	5.33	127.93	122.60
2	AB	87	U	O4'-C4'-C3'	5.32	109.32	104.00
2	AB	451	U	O4'-C1'-N1	5.32	116.19	108.20
2	AB	796	C	C5'-C4'-C3'	-5.32	108.02	116.00
2	AB	910	A	C4'-C3'-O3'	-5.32	101.42	109.40
2	AB	1549	A	C3'-C2'-C1'	-5.32	95.98	101.30
2	AB	2292	U	C5'-C4'-O4'	5.32	117.79	109.80
10	AJ	15	SER	CA-C-O	5.32	126.06	120.42
35	BA	497	G	P-O3'-C3'	5.32	128.19	120.20
35	BA	989	U	C5'-C4'-C3'	5.32	123.98	116.00
37	BC	20	G	C1'-C2'-O2'	-5.32	103.81	111.80
37	BC	34	U	C5'-C4'-C3'	-5.32	108.02	116.00
52	BR	81	ALA	CA-C-N	5.32	131.28	121.70
52	BR	81	ALA	C-N-CA	5.32	131.28	121.70
2	AB	285	G	C4'-C3'-O3'	5.32	120.98	113.00
2	AB	1369	G	C3'-C2'-C1'	5.32	106.62	101.30
2	AB	2283	C	C3'-C2'-C1'	-5.32	95.98	101.30
2	AB	2520	C	C3'-C2'-C1'	-5.32	95.98	101.30
7	AG	170	ALA	N-CA-C	-5.32	106.92	113.41
15	AO	71	LYS	O-C-N	5.32	127.27	121.36
21	AU	9	HIS	ND1-CE1-NE2	-5.32	103.08	108.40
35	BA	493	A	O5'-C5'-C4'	5.32	119.48	111.50
35	BA	1496	C	C4'-C3'-C2'	5.32	107.92	102.60
2	AB	768	G	C1'-O4'-C4'	5.32	115.22	109.90
2	AB	1433	A	O4'-C4'-C3'	5.32	109.32	104.00
2	AB	1862	G	O3'-P-O5'	5.32	111.98	104.00
8	AH	87	GLN	OE1-CD-NE2	5.32	127.92	122.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	AW	12	VAL	N-CA-C	5.32	116.24	108.58
35	BA	710	G	C4'-C3'-C2'	-5.32	97.28	102.60
35	BA	1102	A	C3'-C2'-O2'	-5.32	102.72	110.70
35	BA	1247	U	C5'-C4'-C3'	-5.32	108.02	116.00
50	BP	15	LEU	N-CA-C	-5.32	106.92	113.41
2	AB	435	C	C4'-C3'-C2'	-5.32	97.28	102.60
2	AB	1662	U	C4'-C3'-C2'	-5.32	97.28	102.60
5	AE	106	LYS	CA-C-O	-5.32	114.96	120.70
35	BA	473	U	O4'-C1'-N1	5.32	116.48	108.50
38	BD	179	GLY	O-C-N	5.32	127.97	122.54
51	BQ	53	ARG	CA-C-N	5.32	125.74	119.94
51	BQ	53	ARG	C-N-CA	5.32	125.74	119.94
1	AA	95	U	O4'-C1'-N1	5.32	116.48	108.50
2	AB	559	G	C4'-C3'-O3'	5.32	120.98	113.00
2	AB	1497	U	C4'-C3'-C2'	-5.32	97.28	102.60
2	AB	1518	C	O4'-C1'-N1	5.32	116.48	108.50
2	AB	2299	U	C4'-C3'-C2'	-5.32	97.28	102.60
2	AB	2564	A	C3'-C2'-C1'	-5.32	95.98	101.30
2	AB	2845	U	O4'-C1'-C2'	-5.32	102.28	107.60
11	AK	9	LYS	O-C-N	-5.32	116.99	123.16
11	AK	14	ALA	N-CA-C	5.32	117.82	111.71
35	BA	345	C	P-O3'-C3'	5.32	128.18	120.20
35	BA	836	G	O4'-C1'-C2'	-5.32	102.28	107.60
36	BB	29	G	C1'-C2'-O2'	-5.32	103.82	111.80
40	BF	178	GLU	N-CA-C	5.32	116.60	108.52
43	BI	119	LEU	CA-C-O	-5.32	114.78	120.42
49	BO	109	LYS	CA-C-O	5.32	124.90	119.05
2	AB	351	C	N1-C1'-C2'	-5.32	104.03	112.00
2	AB	641	U	C3'-C2'-C1'	5.32	106.62	101.30
2	AB	654	A	P-O3'-C3'	5.32	128.17	120.20
2	AB	1734	G	O4'-C1'-C2'	-5.32	102.28	107.60
4	AD	132	ARG	CD-NE-CZ	5.32	131.84	124.40
7	AG	135	ILE	CA-C-N	5.32	131.54	121.97
7	AG	135	ILE	C-N-CA	5.32	131.54	121.97
10	AJ	41	ARG	CA-CB-CG	-5.32	103.47	114.10
35	BA	551	U	O4'-C1'-N1	5.32	116.47	108.50
35	BA	804	U	O4'-C1'-N1	5.32	116.47	108.50
38	BD	91	VAL	CB-CA-C	5.32	118.50	110.63
43	BI	138	GLU	CA-C-O	-5.32	114.79	120.42
2	AB	704	G	O5'-C5'-C4'	5.31	119.47	111.50
2	AB	901	C	C4'-C3'-C2'	-5.31	97.29	102.60
2	AB	2815	C	O4'-C1'-C2'	-5.31	102.29	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	736	C	C2'-C3'-O3'	-5.31	105.73	113.70
2	AB	1616	A	O4'-C4'-C3'	5.31	111.41	106.10
2	AB	1918	A	O4'-C1'-N9	5.31	116.17	108.20
2	AB	2308	G	O3'-P-O5'	-5.31	96.03	104.00
17	AQ	113	ALA	O-C-N	5.31	128.21	122.15
25	AY	64	GLY	N-CA-C	5.31	118.02	110.74
35	BA	790	A	C3'-C2'-O2'	5.31	118.67	110.70
35	BA	981	U	O4'-C1'-C2'	-5.31	102.29	107.60
35	BA	1119	C	C5'-C4'-O4'	5.31	117.77	109.80
2	AB	1469	A	O4'-C1'-C2'	-5.31	102.29	107.60
2	AB	1525	A	N9-C1'-C2'	-5.31	104.03	112.00
2	AB	2886	A	O3'-P-O5'	5.31	111.97	104.00
1	AA	35	C	C4'-C3'-C2'	-5.31	97.29	102.60
2	AB	1772	A	O4'-C1'-C2'	-5.31	102.29	107.60
2	AB	2127	G	C3'-C2'-O2'	5.31	118.66	110.70
2	AB	2151	U	C5'-C4'-C3'	-5.31	108.03	116.00
2	AB	2772	C	C1'-O4'-C4'	5.31	115.21	109.90
2	AB	2844	G	O5'-C5'-C4'	-5.31	103.54	111.50
10	AJ	126	ALA	CA-C-N	5.31	127.93	120.28
10	AJ	126	ALA	C-N-CA	5.31	127.93	120.28
26	AZ	57	VAL	CA-CB-CG2	5.31	119.42	110.40
35	BA	313	A	O5'-C5'-C4'	-5.31	103.53	111.50
35	BA	591	U	P-O3'-C3'	5.31	128.17	120.20
35	BA	1093	A	O4'-C4'-C3'	5.31	109.31	104.00
36	BB	41	A	C3'-C2'-O2'	5.31	118.66	110.70
48	BN	71	HIS	ND1-CE1-NE2	5.31	113.71	108.40
2	AB	409	G	C5'-C4'-C3'	5.31	123.96	116.00
2	AB	892	A	O3'-P-O5'	-5.31	96.04	104.00
2	AB	2287	A	O4'-C4'-C3'	-5.31	100.79	106.10
2	AB	2367	G	C5'-C4'-O4'	5.31	117.76	109.80
2	AB	2883	A	C2'-C3'-O3'	-5.31	105.74	113.70
35	BA	184	G	C1'-O4'-C4'	-5.31	104.59	109.90
35	BA	359	G	C4'-C3'-C2'	-5.31	97.29	102.60
35	BA	520	A	O4'-C4'-C3'	5.31	109.31	104.00
35	BA	1250	A	O4'-C1'-N9	5.31	116.46	108.50
2	AB	774	G	P-O3'-C3'	5.31	128.16	120.20
35	BA	88	U	C4'-C3'-O3'	-5.31	105.04	113.00
1	AA	87	U	N1-C1'-C2'	-5.30	104.04	112.00
2	AB	1006	C	C3'-C2'-C1'	5.30	106.61	101.30
2	AB	1680	U	C3'-C2'-C1'	5.30	106.61	101.30
2	AB	1935	G	C5'-C4'-C3'	-5.30	108.04	116.00
2	AB	1941	C	C4'-C3'-C2'	-5.30	97.30	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
8	AH	44	HIS	ND1-CE1-NE2	5.30	113.70	108.40
35	BA	107	G	O4'-C4'-C3'	5.30	109.30	104.00
35	BA	294	U	C3'-C2'-O2'	5.30	118.66	110.70
35	BA	311	C	O4'-C1'-C2'	-5.30	102.30	107.60
35	BA	389	A	C5'-C4'-O4'	5.30	117.76	109.80
35	BA	426	U	C4'-C3'-C2'	5.30	107.90	102.60
35	BA	866	C	C4'-C3'-C2'	-5.30	97.30	102.60
36	BB	28	U	O3'-P-O5'	-5.30	96.04	104.00
56	BV	38	ILE	CA-C-O	-5.30	115.23	120.85
2	AB	1516	G	O4'-C1'-C2'	-5.30	102.30	107.60
10	AJ	5	GLN	CA-C-N	5.30	127.39	120.28
10	AJ	5	GLN	C-N-CA	5.30	127.39	120.28
17	AQ	43	ASN	CA-CB-CG	5.30	117.90	112.60
35	BA	504	C	C3'-C2'-C1'	5.30	106.60	101.30
35	BA	1156	G	O4'-C1'-C2'	-5.30	102.30	107.60
35	BA	1342	C	O4'-C1'-N1	5.30	116.45	108.50
36	BB	39	U	C3'-C2'-O2'	5.30	118.66	110.70
39	BE	7	ASN	CA-C-O	-5.30	112.73	119.31
48	BN	80	LEU	N-CA-CB	-5.30	101.64	110.23
2	AB	995	C	P-O3'-C3'	5.30	128.15	120.20
4	AD	188	ARG	NE-CZ-NH1	-5.30	116.20	121.50
11	AK	83	ALA	CA-C-N	5.30	132.79	121.18
11	AK	83	ALA	C-N-CA	5.30	132.79	121.18
20	AT	5	PHE	O-C-N	-5.30	116.28	122.96
20	AT	43	ASN	CA-CB-CG	5.30	117.90	112.60
21	AU	22	ASP	CA-CB-CG	5.30	117.90	112.60
35	BA	143	A	O4'-C1'-N9	5.30	116.45	108.50
35	BA	196	A	C5'-C4'-C3'	-5.30	108.05	116.00
35	BA	1154	G	N9-C1'-C2'	5.30	119.95	112.00
39	BE	92	ASP	O-C-N	5.30	127.74	122.12
56	BV	11	ILE	CA-C-O	-5.30	115.17	121.05
2	AB	326	G	C2'-C3'-O3'	-5.30	105.75	113.70
2	AB	447	A	C5'-C4'-O4'	5.30	117.05	109.10
2	AB	752	A	O4'-C4'-C3'	5.30	111.40	106.10
2	AB	2099	U	P-O5'-C5'	5.30	128.85	120.90
4	AD	166	ARG	O-C-N	5.30	127.31	121.85
13	AM	69	VAL	O-C-N	-5.30	117.47	123.03
17	AQ	84	GLU	N-CA-C	-5.30	105.58	111.36
38	BD	169	HIS	ND1-CE1-NE2	-5.30	103.10	108.40
47	BM	122	PRO	N-CD-CG	5.30	111.15	103.20
2	AB	1594	U	O4'-C4'-C3'	-5.30	98.70	104.00
10	AJ	156	ALA	O-C-N	5.30	129.28	122.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	2	G	C4'-C3'-O3'	5.30	120.95	113.00
2	AB	1514	G	P-O5'-C5'	5.30	128.84	120.90
2	AB	1647	U	O4'-C1'-N1	5.30	116.45	108.50
2	AB	2549	G	C4'-C3'-C2'	-5.30	97.30	102.60
2	AB	2620	C	C4'-C3'-C2'	-5.30	97.30	102.60
5	AE	126	ASN	OD1-CG-ND2	-5.30	117.30	122.60
26	AZ	10	ARG	NE-CZ-NH2	5.30	123.97	119.20
26	AZ	21	LEU	O-C-N	-5.30	113.50	122.03
28	A1	41	PRO	CA-C-N	5.30	127.64	120.44
28	A1	41	PRO	C-N-CA	5.30	127.64	120.44
35	BA	1242	G	C3'-C2'-O2'	5.30	118.64	110.70
35	BA	1533	C	O4'-C4'-C3'	5.30	109.30	104.00
39	BE	96	VAL	O-C-N	-5.30	118.01	121.72
2	AB	2121	G	C1'-O4'-C4'	5.29	115.19	109.90
13	AM	52	VAL	CA-C-N	5.29	130.90	122.59
13	AM	52	VAL	C-N-CA	5.29	130.90	122.59
26	AZ	60	LYS	CB-CG-CD	5.29	123.48	111.30
35	BA	86	G	C1'-O4'-C4'	5.29	115.00	109.70
35	BA	103	U	C1'-C2'-O2'	5.29	116.34	108.40
35	BA	813	U	C3'-C2'-O2'	5.29	118.64	110.70
2	AB	139	U	C5'-C4'-C3'	-5.29	107.26	115.20
2	AB	345	A	C2'-C3'-O3'	5.29	117.44	109.50
2	AB	1730	C	O4'-C1'-C2'	-5.29	102.31	107.60
2	AB	2055	C	C4'-C3'-O3'	5.29	120.94	113.00
15	AO	71	LYS	CA-C-O	-5.29	113.39	119.32
35	BA	947	G	C2'-C3'-O3'	-5.29	105.76	113.70
35	BA	948	C	C5'-C4'-C3'	-5.29	108.06	116.00
42	BH	106	LYS	CA-C-O	-5.29	115.45	120.90
2	AB	71	A	O4'-C1'-N9	5.29	116.14	108.20
2	AB	164	C	C1'-C2'-O2'	-5.29	100.46	108.40
2	AB	354	A	N9-C1'-C2'	-5.29	104.06	112.00
2	AB	1371	G	C5'-C4'-O4'	5.29	117.74	109.80
2	AB	1951	U	N1-C1'-C2'	-5.29	104.06	112.00
2	AB	2235	G	O4'-C1'-C2'	-5.29	102.31	107.60
11	AK	134	SER	CA-CB-OG	5.29	121.68	111.10
35	BA	18	C	O4'-C1'-C2'	5.29	112.89	107.60
35	BA	1055	A	C5'-C4'-C3'	-5.29	108.06	116.00
43	BI	129	ASN	O-C-N	5.29	129.11	122.55
2	AB	1434	A	O4'-C1'-C2'	-5.29	102.31	107.60
2	AB	2165	C	C5'-C4'-C3'	-5.29	108.07	116.00
2	AB	2813	A	O4'-C4'-C3'	5.29	109.29	104.00
35	BA	308	C	C3'-C2'-C1'	-5.29	96.01	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	1270	G	C1'-C2'-O2'	-5.29	100.47	108.40
35	BA	1296	C	O3'-P-O5'	-5.29	96.06	104.00
38	BD	216	VAL	N-CA-CB	-5.29	104.36	110.55
43	BI	176	TYR	CA-C-N	5.29	128.85	121.02
43	BI	176	TYR	C-N-CA	5.29	128.85	121.02
2	AB	1484	U	C4'-C3'-O3'	5.29	120.93	113.00
3	AC	51	ASP	CB-CA-C	5.29	119.27	110.81
19	AS	12	ARG	CD-NE-CZ	5.29	131.80	124.40
19	AS	26	ALA	N-CA-C	5.29	117.79	111.71
23	AW	76	THR	CA-C-O	-5.29	113.71	119.95
28	A1	23	LEU	CA-C-N	5.29	130.39	121.14
28	A1	23	LEU	C-N-CA	5.29	130.39	121.14
43	BI	7	GLY	CA-C-O	-5.29	116.37	121.92
2	AB	582	A	O4'-C4'-C3'	5.29	109.29	104.00
2	AB	685	A	C1'-C2'-O2'	5.29	119.73	111.80
2	AB	2212	A	O4'-C1'-C2'	-5.29	100.51	105.80
8	AH	21	GLN	CB-CG-CD	5.29	121.59	112.60
2	AB	89	A	C5'-C4'-C3'	-5.29	108.07	116.00
2	AB	440	C	C4'-C3'-C2'	-5.29	97.31	102.60
2	AB	1083	U	N1-C1'-C2'	5.29	119.93	112.00
2	AB	1448	G	C1'-O4'-C4'	-5.29	104.61	109.90
2	AB	1688	U	C4'-C3'-C2'	-5.29	97.31	102.60
2	AB	1752	C	O4'-C4'-C3'	5.29	109.28	104.00
2	AB	1854	A	O4'-C1'-N9	5.29	116.43	108.50
35	BA	328	C	O4'-C1'-N1	5.29	116.13	108.20
36	BB	55	A	O4'-C4'-C3'	5.29	109.28	104.00
2	AB	471	A	O3'-P-O5'	5.28	111.92	104.00
2	AB	1681	G	O4'-C4'-C3'	-5.28	100.82	106.10
2	AB	2321	U	O4'-C1'-C2'	5.28	112.88	107.60
25	AY	34	SER	CA-C-N	5.28	129.68	120.86
25	AY	34	SER	C-N-CA	5.28	129.68	120.86
35	BA	315	A	C3'-C2'-C1'	-5.28	96.22	101.50
41	BG	148	SER	CA-C-N	5.28	125.04	119.76
41	BG	148	SER	C-N-CA	5.28	125.04	119.76
52	BR	63	GLN	N-CA-C	-5.28	105.60	111.36
6	AF	101	TYR	N-CA-C	-5.28	105.21	110.97
6	AF	136	GLN	OE1-CD-NE2	-5.28	117.32	122.60
26	AZ	65	THR	CA-C-O	-5.28	115.27	120.82
38	BD	80	LYS	CA-C-N	5.28	129.66	120.68
38	BD	80	LYS	C-N-CA	5.28	129.66	120.68
41	BG	93	VAL	CB-CA-C	5.28	119.14	110.69
2	AB	42	A	O4'-C1'-N9	5.28	116.42	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1352	U	C5'-C4'-C3'	-5.28	108.08	116.00
2	AB	1711	A	C3'-C2'-O2'	5.28	118.62	110.70
2	AB	2673	G	C3'-C2'-O2'	5.28	118.62	110.70
10	AJ	17	VAL	CA-C-O	-5.28	115.25	120.85
11	AK	43	ALA	CA-C-N	5.28	130.67	122.49
11	AK	43	ALA	C-N-CA	5.28	130.67	122.49
33	A6	62	PRO	CA-C-N	5.28	130.22	122.77
33	A6	62	PRO	C-N-CA	5.28	130.22	122.77
35	BA	1027	C	C4'-C3'-O3'	5.28	120.92	113.00
51	BQ	4	THR	CA-CB-OG1	5.28	117.52	109.60
2	AB	399	U	O4'-C1'-N1	5.28	116.42	108.50
2	AB	753	A	O4'-C1'-N9	5.28	116.42	108.50
2	AB	1793	C	O4'-C1'-N1	5.28	116.42	108.50
2	AB	1909	C	O4'-C4'-C3'	-5.28	98.72	104.00
2	AB	2041	U	C3'-C2'-C1'	5.28	106.58	101.30
49	BO	8	ILE	CA-C-N	5.28	125.44	119.90
49	BO	8	ILE	C-N-CA	5.28	125.44	119.90
2	AB	288	U	C2'-C3'-O3'	5.28	121.62	113.70
2	AB	804	A	O4'-C4'-C3'	5.28	109.28	104.00
2	AB	1277	G	C1'-O4'-C4'	-5.28	104.62	109.90
2	AB	1606	C	O4'-C4'-C3'	-5.28	98.72	104.00
5	AE	15	PHE	O-C-N	-5.28	117.00	122.96
6	AF	118	LEU	N-CA-CB	-5.28	101.68	110.39
35	BA	52	C	O4'-C1'-N1	5.28	116.42	108.50
35	BA	176	C	C4'-C3'-C2'	-5.28	97.32	102.60
36	BB	49	U	O4'-C4'-C3'	-5.28	98.72	104.00
50	BP	10	VAL	CA-C-O	-5.28	115.46	120.95
2	AB	1165	A	O5'-C5'-C4'	-5.28	103.59	111.50
2	AB	2302	U	C3'-C2'-O2'	5.28	118.61	110.70
2	AB	2439	A	O4'-C1'-C2'	-5.28	102.32	107.60
2	AB	2786	U	C1'-O4'-C4'	-5.28	104.62	109.90
4	AD	176	ARG	O-C-N	5.28	129.74	122.46
11	AK	108	ILE	CA-C-O	-5.28	115.46	120.95
35	BA	2	A	N9-C1'-C2'	5.28	119.91	112.00
35	BA	468	A	C4'-C3'-O3'	5.28	120.91	113.00
43	BI	43	TYR	CA-C-O	-5.28	114.83	120.42
43	BI	128	GLU	O-C-N	5.28	128.94	122.34
2	AB	247	G	C2'-C3'-O3'	5.27	121.61	113.70
37	BC	76	C	O5'-C5'-C4'	-5.27	103.59	111.50
43	BI	46	LEU	N-CA-C	5.27	117.71	111.33
1	AA	108	A	O3'-P-O5'	-5.27	96.09	104.00
2	AB	1358	G	O5'-C5'-C4'	-5.27	103.59	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1851	U	O3'-P-O5'	-5.27	96.09	104.00
2	AB	2528	U	C4'-C3'-C2'	5.27	107.87	102.60
4	AD	118	GLY	CA-C-N	5.27	127.20	120.56
4	AD	118	GLY	C-N-CA	5.27	127.20	120.56
6	AF	106	LYS	CA-C-N	5.27	127.61	120.65
6	AF	106	LYS	C-N-CA	5.27	127.61	120.65
9	AI	56	ALA	CA-C-N	5.27	127.61	120.44
9	AI	56	ALA	C-N-CA	5.27	127.61	120.44
35	BA	480	U	O4'-C1'-N1	5.27	116.41	108.50
35	BA	947	G	O4'-C1'-C2'	-5.27	102.33	107.60
35	BA	1245	C	P-O3'-C3'	5.27	128.11	120.20
35	BA	1287	A	P-O3'-C3'	5.27	128.11	120.20
35	BA	1465	A	P-O3'-C3'	5.27	128.11	120.20
35	BA	1477	U	C3'-C2'-O2'	5.27	118.61	110.70
43	BI	111	GLY	CA-C-N	5.27	128.57	120.82
43	BI	111	GLY	C-N-CA	5.27	128.57	120.82
2	AB	2385	C	C5'-C4'-O4'	5.27	117.71	109.80
2	AB	2482	A	P-O3'-C3'	5.27	128.11	120.20
35	BA	231	U	C5'-C4'-O4'	5.27	117.71	109.80
35	BA	752	G	C5'-C4'-C3'	-5.27	107.29	115.20
36	BB	52	U	C5'-C4'-O4'	5.27	117.71	109.80
38	BD	216	VAL	CB-CA-C	5.27	118.72	111.97
2	AB	2499	C	O4'-C1'-C2'	-5.27	102.33	107.60
13	AM	117	SER	N-CA-CB	-5.27	102.38	110.44
35	BA	32	A	O4'-C1'-N9	5.27	116.40	108.50
36	BB	59	A	O4'-C1'-N9	5.27	116.11	108.20
57	BW	13	VAL	CA-C-N	5.27	128.25	120.82
57	BW	13	VAL	C-N-CA	5.27	128.25	120.82
57	BW	56	ALA	N-CA-C	5.27	116.71	111.07
2	AB	430	A	C5'-C4'-C3'	-5.27	108.10	116.00
2	AB	1137	G	O4'-C1'-C2'	5.27	112.87	107.60
2	AB	2873	A	C1'-C2'-O2'	5.27	119.70	111.80
8	AH	166	GLU	CA-C-O	-5.27	114.28	120.60
35	BA	18	C	O4'-C4'-C3'	-5.27	98.73	104.00
35	BA	20	U	C1'-O4'-C4'	5.27	115.17	109.90
35	BA	714	G	C5'-C4'-C3'	-5.27	108.10	116.00
35	BA	1061	G	O5'-C5'-C4'	5.27	119.40	111.50
2	AB	1674	G	O5'-C5'-C4'	5.27	119.60	111.70
2	AB	1860	G	C5'-C4'-O4'	5.27	117.70	109.80
2	AB	2315	G	C4'-C3'-O3'	5.27	120.90	113.00
28	A1	18	LYS	CA-C-O	5.27	126.35	120.82
35	BA	561	U	O4'-C4'-C3'	-5.27	98.73	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	782	A	C4'-C3'-C2'	-5.27	97.33	102.60
1	AA	33	G	C5'-C4'-C3'	-5.26	108.11	116.00
2	AB	1022	G	C1'-O4'-C4'	-5.26	104.44	109.70
2	AB	1458	U	C3'-C2'-O2'	5.26	118.60	110.70
2	AB	2476	A	N9-C1'-C2'	-5.26	104.10	112.00
19	AS	107	ALA	CA-C-N	5.26	127.33	120.28
19	AS	107	ALA	C-N-CA	5.26	127.33	120.28
35	BA	39	G	C5'-C4'-O4'	5.26	117.70	109.80
35	BA	329	A	O4'-C1'-N9	5.26	116.10	108.20
35	BA	582	C	C5'-C4'-O4'	5.26	117.70	109.80
35	BA	1188	A	C4'-C3'-O3'	5.26	120.90	113.00
41	BG	149	PRO	N-CA-CB	5.26	108.24	103.34
2	AB	558	U	O3'-P-O5'	-5.26	96.11	104.00
2	AB	1399	C	O4'-C1'-C2'	-5.26	102.34	107.60
2	AB	1816	C	P-O3'-C3'	5.26	128.09	120.20
2	AB	2718	G	C3'-C2'-C1'	-5.26	96.04	101.30
35	BA	113	G	O3'-P-O5'	-5.26	96.11	104.00
37	BC	66	C	O3'-P-O5'	-5.26	96.11	104.00
45	BK	103	VAL	CA-C-N	5.26	128.81	121.02
45	BK	103	VAL	C-N-CA	5.26	128.81	121.02
55	BU	52	ASN	N-CA-C	-5.26	106.09	112.88
2	AB	60	G	C5'-C4'-O4'	5.26	116.99	109.10
2	AB	155	A	C4'-C3'-C2'	-5.26	97.34	102.60
2	AB	634	C	O4'-C1'-C2'	-5.26	102.34	107.60
2	AB	935	C	C3'-C2'-C1'	5.26	106.56	101.30
2	AB	1593	A	C4'-C3'-C2'	-5.26	97.34	102.60
2	AB	1666	G	C2'-C3'-O3'	-5.26	105.81	113.70
2	AB	2262	U	C4'-C3'-C2'	-5.26	97.34	102.60
19	AS	49	ARG	CA-C-N	5.26	127.76	120.29
19	AS	49	ARG	C-N-CA	5.26	127.76	120.29
29	A2	57	VAL	CA-C-N	5.26	128.57	121.05
29	A2	57	VAL	C-N-CA	5.26	128.57	121.05
35	BA	1199	U	P-O5'-C5'	5.26	128.79	120.90
36	BB	20	G	O4'-C4'-C3'	5.26	109.26	104.00
2	AB	660	C	O4'-C1'-N1	5.26	116.39	108.50
2	AB	754	U	C3'-C2'-O2'	5.26	118.59	110.70
2	AB	875	G	C5'-C4'-O4'	-5.26	101.91	109.80
2	AB	931	U	O4'-C1'-N1	5.26	116.09	108.20
2	AB	1062	G	C4'-C3'-C2'	-5.26	97.34	102.60
2	AB	1219	U	C4'-C3'-C2'	-5.26	97.34	102.60
2	AB	1555	G	O4'-C1'-N9	5.26	116.39	108.50
2	AB	1636	U	O4'-C1'-N1	5.26	116.39	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2388	A	C4'-C3'-C2'	5.26	107.86	102.60
2	AB	2597	G	C1'-O4'-C4'	5.26	115.16	109.90
2	AB	2789	C	O4'-C1'-C2'	-5.26	102.34	107.60
13	AM	108	ARG	O-C-N	5.26	128.72	122.46
34	A7	35	GLN	OE1-CD-NE2	-5.26	117.34	122.60
35	BA	1520	C	C1'-O4'-C4'	5.26	115.16	109.90
37	BC	54	G	O5'-C5'-C4'	-5.26	103.61	111.50
42	BH	112	ARG	NE-CZ-NH2	-5.26	114.47	119.20
2	AB	590	A	C1'-C2'-O2'	5.26	116.29	108.40
2	AB	1998	A	N9-C1'-C2'	-5.26	104.11	112.00
2	AB	2282	G	P-O3'-C3'	5.26	128.09	120.20
2	AB	2398	U	C5'-C4'-O4'	5.26	117.69	109.80
2	AB	2399	G	C1'-C2'-O2'	5.26	116.29	108.40
2	AB	2720	U	C5'-C4'-C3'	-5.26	108.11	116.00
35	BA	77	A	C3'-C2'-O2'	5.26	118.59	110.70
35	BA	131	A	C1'-O4'-C4'	-5.26	104.64	109.90
35	BA	1527	U	C3'-C2'-C1'	5.26	106.56	101.30
39	BE	122	GLN	CA-C-O	5.26	126.34	120.82
49	BO	101	THR	N-CA-C	-5.26	107.52	114.04
2	AB	15	G	C3'-C2'-C1'	5.26	106.56	101.30
2	AB	576	U	C5'-C4'-O4'	5.26	117.69	109.80
2	AB	1114	C	C4'-C3'-O3'	5.26	120.89	113.00
2	AB	1160	G	O3'-P-O5'	5.26	111.88	104.00
2	AB	1471	G	C1'-O4'-C4'	5.26	115.16	109.90
2	AB	1862	G	O4'-C1'-N9	5.26	116.39	108.50
2	AB	1874	C	C4'-C3'-C2'	-5.26	97.34	102.60
2	AB	1944	U	P-O3'-C3'	5.26	128.09	120.20
6	AF	140	ASP	CA-C-O	5.26	126.08	120.24
28	A1	23	LEU	N-CA-CB	-5.26	102.39	110.12
38	BD	111	LYS	CA-C-O	-5.26	114.16	120.10
41	BG	141	ASP	O-C-N	-5.26	116.07	122.22
47	BM	61	ALA	CA-C-N	5.26	127.27	120.44
47	BM	61	ALA	C-N-CA	5.26	127.27	120.44
2	AB	1105	U	O4'-C1'-N1	5.25	116.38	108.50
12	AL	63	ALA	N-CA-C	5.25	117.91	110.50
35	BA	917	G	O4'-C1'-C2'	-5.25	102.34	107.60
35	BA	1082	A	C2'-C3'-O3'	5.25	121.58	113.70
2	AB	141	G	P-O5'-C5'	5.25	128.78	120.90
2	AB	1047	G	P-O3'-C3'	5.25	128.08	120.20
2	AB	1661	G	C5'-C4'-C3'	-5.25	108.12	116.00
2	AB	1854	A	C1'-C2'-O2'	5.25	116.28	108.40
2	AB	2058	A	C2'-C3'-O3'	5.25	117.38	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	AE	83	ARG	O-C-N	5.25	128.90	122.75
54	BT	42	ARG	CA-C-N	5.25	128.96	120.55
54	BT	42	ARG	C-N-CA	5.25	128.96	120.55
2	AB	1380	G	O4'-C1'-N9	5.25	116.38	108.50
16	AP	79	LEU	CA-C-O	-5.25	115.77	121.44
17	AQ	111	ARG	CA-C-N	5.25	127.75	120.29
17	AQ	111	ARG	C-N-CA	5.25	127.75	120.29
35	BA	614	C	C4'-C3'-O3'	5.25	120.88	113.00
35	BA	783	C	C2'-C3'-O3'	5.25	121.58	113.70
35	BA	976	G	C5'-C4'-O4'	-5.25	101.92	109.80
35	BA	1211	U	C3'-C2'-C1'	5.25	106.55	101.30
40	BF	99	ASN	N-CA-C	5.25	117.91	111.82
41	BG	113	VAL	N-CA-C	5.25	115.46	110.42
54	BT	51	GLN	CA-C-O	-5.25	114.41	120.24
2	AB	1874	C	N1-C1'-C2'	-5.25	104.12	112.00
51	BQ	36	ASN	CA-CB-CG	5.25	117.85	112.60
2	AB	62	U	C5'-C4'-C3'	-5.25	108.13	116.00
2	AB	655	A	C3'-C2'-C1'	-5.25	96.25	101.50
2	AB	1325	U	O4'-C1'-N1	5.25	116.07	108.20
2	AB	1723	G	C3'-C2'-O2'	5.25	118.57	110.70
2	AB	2043	C	O4'-C1'-C2'	-5.25	102.35	107.60
2	AB	2770	G	C5'-C4'-C3'	-5.25	108.13	116.00
11	AK	30	GLN	CA-C-N	5.25	131.09	121.85
11	AK	30	GLN	C-N-CA	5.25	131.09	121.85
12	AL	84	ILE	CA-C-O	-5.25	115.61	121.23
13	AM	89	ASN	CA-C-O	-5.25	112.23	119.05
18	AR	50	ARG	CA-C-N	5.25	131.56	121.54
18	AR	50	ARG	C-N-CA	5.25	131.56	121.54
35	BA	810	C	O4'-C1'-N1	5.25	116.37	108.50
41	BG	109	ALA	CB-CA-C	5.25	118.86	110.09
41	BG	156	ARG	NE-CZ-NH2	5.25	123.92	119.20
1	AA	54	G	C4'-C3'-C2'	-5.25	97.35	102.60
2	AB	95	A	C5'-C4'-O4'	5.25	117.67	109.80
2	AB	1112	G	O4'-C1'-N9	-5.25	100.63	108.50
2	AB	1416	G	C4'-C3'-C2'	-5.25	97.35	102.60
2	AB	1776	G	C5'-C4'-O4'	5.25	117.67	109.80
2	AB	2275	C	C3'-C2'-C1'	5.25	106.55	101.30
6	AF	41	GLN	OE1-CD-NE2	-5.25	117.35	122.60
9	AI	109	GLU	CB-CA-C	5.25	119.01	109.62
35	BA	73	C	O4'-C1'-N1	5.25	116.37	108.50
35	BA	317	U	N1-C1'-C2'	-5.25	104.13	112.00
35	BA	1040	U	C5'-C4'-C3'	-5.25	108.13	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
42	BH	77	THR	CA-CB-OG1	5.25	117.47	109.60
2	AB	1958	C	C4'-C3'-O3'	5.25	120.87	113.00
2	AB	2224	G	N9-C1'-C2'	5.25	119.87	112.00
35	BA	1008	U	C4'-C3'-C2'	-5.25	97.36	102.60
2	AB	544	C	C3'-C2'-O2'	-5.24	102.83	110.70
2	AB	1360	G	O4'-C4'-C3'	5.24	109.24	104.00
2	AB	2126	A	C5'-C4'-O4'	5.24	116.96	109.10
10	AJ	75	PHE	CA-CB-CG	5.24	119.04	113.80
38	BD	17	HIS	ND1-CE1-NE2	5.24	113.64	108.40
40	BF	125	ASN	CA-CB-CG	5.24	117.84	112.60
45	BK	56	MET	CA-C-N	5.24	127.36	120.60
45	BK	56	MET	C-N-CA	5.24	127.36	120.60
2	AB	735	A	C4'-C3'-C2'	-5.24	97.36	102.60
2	AB	2111	U	P-O3'-C3'	5.24	128.06	120.20
12	AL	98	GLU	CA-C-O	-5.24	114.33	120.20
35	BA	508	U	C5'-C4'-C3'	-5.24	107.34	115.20
35	BA	1408	A	C4'-C3'-C2'	-5.24	97.36	102.60
47	BM	119	GLY	CA-C-N	5.24	129.12	121.31
47	BM	119	GLY	C-N-CA	5.24	129.12	121.31
2	AB	133	U	C5'-C4'-O4'	5.24	117.66	109.80
2	AB	1472	C	O4'-C1'-N1	5.24	116.36	108.50
2	AB	1503	A	N9-C1'-C2'	5.24	119.86	112.00
2	AB	1643	G	C4'-C3'-O3'	-5.24	105.14	113.00
2	AB	2067	G	O4'-C1'-N9	5.24	116.06	108.20
13	AM	33	ALA	CA-C-N	5.24	129.19	121.96
13	AM	33	ALA	C-N-CA	5.24	129.19	121.96
24	AX	86	LEU	CA-C-O	-5.24	114.41	120.49
35	BA	1261	A	C5'-C4'-O4'	5.24	117.66	109.80
41	BG	59	ILE	CA-C-O	-5.24	115.61	121.17
42	BH	130	GLU	N-CA-C	5.24	118.16	110.30
2	AB	76	C	C1'-O4'-C4'	5.24	115.14	109.90
2	AB	326	G	O3'-P-O5'	5.24	111.86	104.00
2	AB	785	G	O4'-C4'-C3'	5.24	109.24	104.00
2	AB	1832	C	C5'-C4'-C3'	5.24	123.86	116.00
2	AB	1916	A	P-O5'-C5'	5.24	128.76	120.90
2	AB	1968	G	O4'-C1'-C2'	-5.24	102.36	107.60
2	AB	2895	G	C2'-C3'-O3'	5.24	121.56	113.70
10	AJ	148	GLY	CA-C-N	5.24	127.73	120.29
10	AJ	148	GLY	C-N-CA	5.24	127.73	120.29
35	BA	197	A	C5'-C4'-C3'	-5.24	107.34	115.20
35	BA	560	A	N9-C1'-C2'	5.24	119.86	112.00
35	BA	694	A	N9-C1'-C2'	-5.24	104.14	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	968	A	C5'-C4'-O4'	5.24	116.96	109.10
36	BB	38	G	N9-C1'-C2'	-5.24	104.14	112.00
40	BF	28	ASP	N-CA-C	5.24	116.93	108.08
47	BM	111	ASP	CA-CB-CG	-5.24	107.36	112.60
1	AA	52	A	C3'-C2'-O2'	5.24	118.56	110.70
2	AB	1018	U	O5'-C5'-C4'	-5.24	103.64	111.50
2	AB	1563	U	O5'-C5'-C4'	5.24	119.36	111.50
6	AF	154	ASP	CA-CB-CG	5.24	117.84	112.60
35	BA	279	A	P-O3'-C3'	5.24	128.06	120.20
35	BA	882	C	O4'-C1'-N1	5.24	116.36	108.50
39	BE	88	LYS	CA-C-O	-5.24	115.32	120.82
2	AB	498	G	O4'-C1'-C2'	-5.24	102.36	107.60
2	AB	1690	A	O4'-C1'-N9	5.24	116.35	108.50
8	AH	169	ARG	NE-CZ-NH2	5.24	123.91	119.20
10	AJ	157	VAL	CA-C-N	5.24	128.27	120.31
10	AJ	157	VAL	C-N-CA	5.24	128.27	120.31
35	BA	828	U	O4'-C1'-C2'	-5.24	102.36	107.60
38	BD	58	LYS	O-C-N	5.24	127.67	122.12
45	BK	4	GLN	OE1-CD-NE2	-5.24	117.36	122.60
46	BL	46	LYS	N-CA-CB	-5.24	102.01	110.81
48	BN	71	HIS	CB-CG-CD2	-5.24	124.39	131.20
53	BS	49	ASN	OD1-CG-ND2	-5.24	117.36	122.60
7	AG	94	ARG	NE-CZ-NH1	-5.23	116.27	121.50
35	BA	85	U	N1-C1'-C2'	-5.23	106.15	114.00
35	BA	303	A	C5'-C4'-C3'	-5.23	108.15	116.00
2	AB	312	G	O4'-C1'-N9	5.23	116.35	108.50
2	AB	1062	G	C1'-C2'-O2'	5.23	116.25	108.40
2	AB	1563	U	C4'-C3'-C2'	-5.23	97.37	102.60
2	AB	2282	G	O3'-P-O5'	-5.23	96.15	104.00
2	AB	2429	G	C3'-C2'-O2'	-5.23	102.85	110.70
11	AK	74	PRO	N-CA-CB	5.23	107.72	103.32
14	AN	132	ARG	NE-CZ-NH2	5.23	123.91	119.20
15	AO	67	VAL	CA-C-O	-5.23	114.75	120.72
16	AP	12	ARG	N-CA-C	5.23	115.26	107.88
35	BA	275	G	C3'-C2'-C1'	-5.23	96.07	101.30
35	BA	980	C	C1'-O4'-C4'	-5.23	104.67	109.90
38	BD	110	ILE	CA-CB-CG1	5.23	119.29	110.40
43	BI	176	TYR	CA-C-O	-5.23	114.90	120.92
47	BM	18	GLY	CA-C-N	5.23	131.46	122.67
47	BM	18	GLY	C-N-CA	5.23	131.46	122.67
2	AB	89	A	O3'-P-O5'	-5.23	96.15	104.00
2	AB	463	G	O3'-P-O5'	-5.23	96.16	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1269	A	O3'-P-O5'	-5.23	96.16	104.00
2	AB	2011	U	O4'-C1'-N1	5.23	116.35	108.50
2	AB	2592	G	C3'-C2'-C1'	-5.23	96.07	101.30
3	AC	22	ASP	CA-C-O	-5.23	115.30	121.16
6	AF	149	ILE	N-CA-CB	5.23	118.05	111.46
35	BA	291	U	C5'-C4'-O4'	5.23	117.65	109.80
35	BA	1014	A	C4'-C3'-C2'	5.23	107.83	102.60
40	BF	109	THR	CA-C-N	5.23	127.29	120.28
40	BF	109	THR	C-N-CA	5.23	127.29	120.28
48	BN	15	VAL	CA-CB-CG1	5.23	119.29	110.40
1	AA	24	G	C1'-O4'-C4'	-5.23	104.47	109.70
2	AB	2126	A	O4'-C1'-N9	-5.23	100.36	108.20
16	AP	23	ASN	CA-CB-CG	5.23	117.83	112.60
25	AY	77	LYS	CA-C-N	5.23	130.28	122.86
25	AY	77	LYS	C-N-CA	5.23	130.28	122.86
35	BA	451	A	P-O3'-C3'	5.23	128.04	120.20
1	AA	45	A	O4'-C1'-C2'	-5.23	102.37	107.60
2	AB	1030	C	C5'-C4'-O4'	5.23	117.64	109.80
2	AB	1672	A	C1'-O4'-C4'	-5.23	104.67	109.90
2	AB	2448	A	O4'-C4'-C3'	5.23	111.33	106.10
2	AB	2595	G	C1'-O4'-C4'	5.23	115.13	109.90
35	BA	138	G	O3'-P-O5'	-5.23	96.16	104.00
35	BA	863	U	O4'-C1'-N1	5.23	116.34	108.50
35	BA	912	C	O4'-C1'-C2'	-5.23	102.37	107.60
49	BO	52	ILE	CA-C-O	-5.23	115.51	120.95
2	AB	706	A	P-O3'-C3'	5.23	128.04	120.20
2	AB	1624	U	N1-C1'-C2'	5.23	119.84	112.00
2	AB	1641	A	C1'-C2'-O2'	-5.23	100.56	108.40
35	BA	718	A	C5'-C4'-O4'	5.23	117.64	109.80
2	AB	838	C	C1'-C2'-O2'	-5.22	100.56	108.40
2	AB	1993	U	C4'-C3'-C2'	-5.22	97.38	102.60
2	AB	2411	A	O4'-C1'-C2'	-5.22	102.38	107.60
2	AB	2772	C	O4'-C4'-C3'	-5.22	98.78	104.00
35	BA	1087	G	O3'-P-O5'	-5.22	96.16	104.00
35	BA	1156	G	O4'-C1'-N9	5.22	116.34	108.50
42	BH	51	ILE	CB-CA-C	5.22	117.47	110.42
2	AB	458	G	C5'-C4'-C3'	-5.22	107.37	115.20
2	AB	1052	C	O4'-C4'-C3'	5.22	109.22	104.00
2	AB	1342	A	P-O3'-C3'	5.22	128.03	120.20
2	AB	1854	A	C3'-C2'-C1'	-5.22	96.08	101.30
2	AB	2350	C	O5'-C5'-C4'	5.22	119.33	111.50
2	AB	2720	U	C5'-C4'-O4'	5.22	117.63	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2767	C	O4'-C4'-C3'	5.22	109.22	104.00
2	AB	2788	C	C5'-C4'-O4'	5.22	117.63	109.80
5	AE	15	PHE	CB-CA-C	5.22	119.07	109.46
26	AZ	58	ILE	CA-C-N	5.22	127.54	120.44
26	AZ	58	ILE	C-N-CA	5.22	127.54	120.44
30	A3	45	ASP	CA-C-N	5.22	131.04	121.85
30	A3	45	ASP	C-N-CA	5.22	131.04	121.85
35	BA	28	A	C2'-C3'-O3'	-5.22	105.87	113.70
35	BA	387	U	O4'-C1'-N1	5.22	116.33	108.50
35	BA	1278	G	O3'-P-O5'	5.22	111.83	104.00
45	BK	120	ALA	N-CA-CB	-5.22	102.43	110.16
48	BN	115	LYS	CA-C-O	-5.22	114.43	120.49
2	AB	1613	G	C3'-C2'-O2'	5.22	118.53	110.70
2	AB	2740	A	C4'-C3'-C2'	5.22	107.82	102.60
3	AC	60	ARG	O-C-N	-5.22	117.01	123.33
4	AD	161	VAL	CA-C-N	5.22	128.26	120.95
4	AD	161	VAL	C-N-CA	5.22	128.26	120.95
35	BA	1508	A	C2'-C3'-O3'	5.22	121.53	113.70
40	BF	27	ILE	CB-CG1-CD1	5.22	124.77	113.80
51	BQ	34	GLN	CA-C-N	5.22	127.61	120.46
51	BQ	34	GLN	C-N-CA	5.22	127.61	120.46
2	AB	103	A	C5'-C4'-C3'	-5.22	108.17	116.00
2	AB	362	A	C5'-C4'-C3'	-5.22	108.17	116.00
2	AB	656	G	P-O5'-C5'	5.22	128.73	120.90
2	AB	1135	C	C4'-C3'-C2'	-5.22	97.38	102.60
2	AB	2236	U	C3'-C2'-O2'	5.22	118.53	110.70
24	AX	10	LYS	CA-C-N	5.22	131.18	122.73
24	AX	10	LYS	C-N-CA	5.22	131.18	122.73
25	AY	7	GLY	N-CA-C	-5.22	100.81	113.18
35	BA	1194	U	C4'-C3'-O3'	5.22	120.83	113.00
35	BA	1222	G	O4'-C1'-N9	5.22	116.33	108.50
2	AB	404	A	P-O5'-C5'	5.22	128.73	120.90
2	AB	964	C	C1'-O4'-C4'	-5.22	104.68	109.90
7	AG	132	ARG	NE-CZ-NH2	5.22	123.90	119.20
18	AR	78	PRO	CB-CA-C	5.22	119.30	111.68
35	BA	1005	A	O4'-C1'-N9	5.22	116.33	108.50
41	BG	18	ASN	CA-CB-CG	5.22	117.82	112.60
46	BL	15	HIS	CB-CG-CD2	-5.22	124.42	131.20
2	AB	311	A	O3'-P-O5'	-5.22	96.18	104.00
2	AB	828	U	C5'-C4'-C3'	-5.22	108.17	116.00
2	AB	1463	C	C4'-C3'-C2'	-5.22	97.38	102.60
5	AE	137	SER	CA-C-N	5.22	129.77	122.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	AE	137	SER	C-N-CA	5.22	129.77	122.36
17	AQ	71	ALA	CA-C-N	5.22	127.70	120.29
17	AQ	71	ALA	C-N-CA	5.22	127.70	120.29
18	AR	76	HIS	ND1-CG-CD2	5.22	111.32	106.10
35	BA	38	G	C1'-C2'-O2'	5.22	116.22	108.40
35	BA	1066	C	O3'-P-O5'	-5.22	96.18	104.00
35	BA	1128	C	C4'-C3'-C2'	-5.22	97.38	102.60
35	BA	1209	C	O4'-C1'-N1	5.22	116.33	108.50
39	BE	156	LEU	O-C-N	5.22	129.32	123.06
48	BN	120	ARG	CB-CG-CD	5.22	123.30	111.30
49	BO	96	VAL	CB-CA-C	-5.22	105.19	110.88
2	AB	578	G	O3'-P-O5'	-5.21	96.18	104.00
2	AB	2818	U	C4'-C3'-C2'	-5.21	97.39	102.60
9	AI	135	HIS	CA-C-N	5.21	127.53	120.38
9	AI	135	HIS	C-N-CA	5.21	127.53	120.38
13	AM	18	ARG	CA-C-N	5.21	130.30	122.58
13	AM	18	ARG	C-N-CA	5.21	130.30	122.58
35	BA	75	G	O4'-C1'-C2'	-5.21	102.39	107.60
35	BA	91	U	O4'-C1'-C2'	-5.21	102.39	107.60
35	BA	463	U	O4'-C1'-N1	5.21	116.32	108.50
35	BA	591	U	O3'-P-O5'	-5.21	96.18	104.00
41	BG	66	ALA	N-CA-C	5.21	119.51	113.20
56	BV	61	ALA	N-CA-CB	-5.21	102.51	110.07
2	AB	84	A	O5'-C5'-C4'	-5.21	103.88	111.70
35	BA	156	C	C4'-C3'-C2'	-5.21	97.39	102.60
35	BA	1179	A	C1'-C2'-O2'	5.21	116.22	108.40
35	BA	1413	A	P-O5'-C5'	5.21	128.72	120.90
35	BA	1463	U	O4'-C1'-N1	5.21	116.32	108.50
2	AB	633	A	O4'-C4'-C3'	5.21	109.21	104.00
2	AB	1064	C	C5'-C4'-O4'	5.21	117.62	109.80
2	AB	1765	U	O3'-P-O5'	-5.21	96.18	104.00
2	AB	1870	C	C4'-C3'-C2'	-5.21	97.39	102.60
6	AF	92	HIS	CA-CB-CG	5.21	119.01	113.80
19	AS	57	ARG	CA-C-N	5.21	127.22	120.44
19	AS	57	ARG	C-N-CA	5.21	127.22	120.44
35	BA	889	A	C5'-C4'-O4'	-5.21	101.28	109.10
35	BA	948	C	C1'-C2'-O2'	-5.21	100.58	108.40
35	BA	1240	U	O4'-C1'-N1	5.21	116.02	108.20
41	BG	9	GLU	CA-C-N	5.21	128.11	120.71
41	BG	9	GLU	C-N-CA	5.21	128.11	120.71
44	BJ	95	MET	CA-C-N	5.21	129.52	122.07
44	BJ	95	MET	C-N-CA	5.21	129.52	122.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	BU	60	PHE	O-C-N	-5.21	117.14	123.13
2	AB	969	G	C4'-C3'-O3'	-5.21	105.19	113.00
2	AB	1647	U	C5'-C4'-O4'	-5.21	101.98	109.80
2	AB	1822	C	O4'-C1'-C2'	-5.21	102.39	107.60
2	AB	2755	C	P-O5'-C5'	5.21	128.72	120.90
3	AC	210	LYS	N-CA-C	5.21	117.76	111.40
4	AD	80	LEU	CB-CA-C	5.21	118.63	110.19
9	AI	39	ALA	CB-CA-C	5.21	118.22	111.50
33	A6	4	LYS	O-C-N	5.21	129.16	123.27
35	BA	781	A	O4'-C1'-N9	5.21	116.31	108.50
41	BG	122	VAL	CA-CB-CG2	5.21	119.26	110.40
45	BK	33	SER	N-CA-C	5.21	117.58	110.55
1	AA	66	A	P-O3'-C3'	5.21	128.01	120.20
2	AB	1352	U	O4'-C1'-N1	5.21	116.31	108.50
2	AB	1968	G	C4'-C3'-C2'	-5.21	97.39	102.60
3	AC	152	ALA	CA-C-N	5.21	127.12	120.56
3	AC	152	ALA	C-N-CA	5.21	127.12	120.56
35	BA	401	C	C1'-O4'-C4'	-5.21	104.69	109.90
36	BB	38	G	O4'-C1'-N9	5.21	116.31	108.50
45	BK	6	TYR	CB-CA-C	-5.21	100.53	109.65
54	BT	44	THR	CA-CB-CG2	5.21	119.35	110.50
2	AB	1793	C	O4'-C1'-C2'	-5.21	102.39	107.60
2	AB	2395	C	C5'-C4'-O4'	5.21	117.61	109.80
5	AE	47	ALA	N-CA-C	5.21	116.76	108.79
11	AK	119	ALA	CA-C-N	5.21	131.10	121.94
11	AK	119	ALA	C-N-CA	5.21	131.10	121.94
19	AS	20	ALA	CA-C-O	5.21	125.73	119.43
35	BA	74	A	C3'-C2'-O2'	5.21	118.51	110.70
35	BA	113	G	C5'-C4'-C3'	-5.21	108.19	116.00
35	BA	169	C	O4'-C4'-C3'	5.21	109.21	104.00
35	BA	560	A	O4'-C1'-C2'	-5.21	102.39	107.60
35	BA	1328	C	P-O5'-C5'	5.21	128.71	120.90
38	BD	231	GLN	OE1-CD-NE2	5.21	127.81	122.60
52	BR	12	LYS	CB-CA-C	5.21	117.65	109.84
2	AB	451	U	C5'-C4'-C3'	-5.21	107.39	115.20
2	AB	655	A	C3'-C2'-O2'	-5.21	106.79	114.60
2	AB	2475	C	C2'-C3'-O3'	-5.21	105.89	113.70
2	AB	2898	U	C5'-C4'-C3'	-5.21	108.19	116.00
4	AD	178	GLY	O-C-N	-5.21	116.41	122.60
19	AS	19	GLN	CA-C-O	-5.21	114.22	120.10
35	BA	704	A	C5'-C4'-C3'	-5.21	108.19	116.00
55	BU	11	ASP	CA-C-N	5.21	127.25	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	BU	11	ASP	C-N-CA	5.21	127.25	120.28
1	AA	26	C	O4'-C4'-C3'	5.20	109.20	104.00
2	AB	127	A	P-O3'-C3'	5.20	128.01	120.20
2	AB	2649	C	C4'-C3'-C2'	-5.20	97.40	102.60
12	AL	132	HIS	CB-CG-CD2	-5.20	124.44	131.20
27	A0	46	VAL	CA-C-O	-5.20	114.28	120.78
35	BA	347	G	P-O5'-C5'	5.20	128.70	120.90
35	BA	803	G	P-O3'-C3'	5.20	128.01	120.20
44	BJ	77	VAL	CG1-CB-CG2	-5.20	99.35	110.80
56	BV	29	THR	OG1-CB-CG2	5.20	119.70	109.30
2	AB	47	C	O4'-C1'-C2'	-5.20	102.40	107.60
4	AD	170	TYR	CB-CG-CD2	5.20	128.60	120.80
8	AH	123	GLU	CA-C-O	5.20	127.02	121.45
35	BA	545	C	O3'-P-O5'	5.20	111.80	104.00
35	BA	1425	U	O4'-C4'-C3'	5.20	109.20	104.00
2	AB	412	A	O4'-C1'-N9	5.20	116.30	108.50
2	AB	667	U	C3'-C2'-C1'	5.20	106.50	101.30
2	AB	1380	G	P-O5'-C5'	5.20	128.70	120.90
2	AB	1400	U	C5'-C4'-O4'	5.20	117.60	109.80
2	AB	1429	G	O4'-C1'-C2'	-5.20	102.40	107.60
2	AB	1817	G	O3'-P-O5'	5.20	111.80	104.00
2	AB	2143	C	O5'-C5'-C4'	5.20	119.30	111.50
7	AG	9	ASP	N-CA-C	5.20	117.03	111.36
21	AU	56	ALA	N-CA-C	5.20	117.03	111.36
38	BD	78	ALA	N-CA-C	5.20	117.85	111.82
2	AB	730	A	O5'-C5'-C4'	-5.20	103.70	111.50
2	AB	909	A	C4'-C3'-C2'	-5.20	97.40	102.60
2	AB	1112	G	C4'-C3'-C2'	-5.20	97.40	102.60
2	AB	2129	C	O4'-C1'-N1	5.20	116.00	108.20
2	AB	2598	A	C3'-C2'-C1'	5.20	106.50	101.30
8	AH	32	LEU	CA-C-N	-5.20	115.44	123.14
8	AH	32	LEU	C-N-CA	-5.20	115.44	123.14
35	BA	328	C	C5'-C4'-O4'	5.20	116.90	109.10
35	BA	633	G	C1'-O4'-C4'	-5.20	104.70	109.90
35	BA	759	A	C5'-C4'-O4'	5.20	117.60	109.80
35	BA	782	A	N9-C1'-C2'	-5.20	104.20	112.00
42	BH	110	ARG	CA-C-N	5.20	129.52	120.68
42	BH	110	ARG	C-N-CA	5.20	129.52	120.68
43	BI	106	ALA	CA-C-O	-5.20	114.91	120.42
2	AB	1266	G	O5'-C5'-C4'	5.20	119.50	111.70
13	AM	104	THR	CA-C-N	5.20	130.71	122.60
13	AM	104	THR	C-N-CA	5.20	130.71	122.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	271	G	C5'-C4'-C3'	-5.20	107.41	115.20
2	AB	309	A	O5'-C5'-C4'	5.20	119.29	111.50
2	AB	456	C	C3'-C2'-C1'	-5.20	96.30	101.50
2	AB	1502	A	C5'-C4'-O4'	5.20	117.59	109.80
7	AG	96	TRP	NE1-CE2-CD2	-5.20	100.65	107.40
13	AM	56	ASP	CB-CA-C	5.20	118.00	109.90
16	AP	33	ILE	CA-CB-CG1	5.20	119.23	110.40
26	AZ	71	ARG	NE-CZ-NH1	-5.20	116.31	121.50
35	BA	513	C	O4'-C1'-N1	5.20	116.29	108.50
35	BA	1403	C	O5'-C5'-C4'	5.20	119.29	111.50
2	AB	809	G	C4'-C3'-C2'	-5.19	97.41	102.60
2	AB	1697	G	C3'-C2'-O2'	5.19	118.49	110.70
29	A2	64	PHE	N-CA-C	-5.19	100.84	108.99
35	BA	37	U	N1-C1'-C2'	-5.19	104.21	112.00
35	BA	653	U	P-O3'-C3'	5.19	127.99	120.20
40	BF	54	LEU	CD1-CG-CD2	-5.19	99.37	110.80
46	BL	43	PRO	N-CA-CB	5.19	107.93	103.31
47	BM	86	LYS	CA-C-O	5.19	127.49	120.89
2	AB	1416	G	P-O3'-C3'	5.19	127.99	120.20
2	AB	1941	C	C3'-C2'-O2'	5.19	118.49	110.70
2	AB	1955	U	C1'-O4'-C4'	-5.19	104.51	109.70
2	AB	2041	U	O4'-C1'-N1	5.19	116.29	108.50
2	AB	2619	C	C1'-O4'-C4'	5.19	115.09	109.90
2	AB	2858	C	C4'-C3'-C2'	5.19	107.79	102.60
10	AJ	35	ASP	CA-C-N	5.19	127.24	120.28
10	AJ	35	ASP	C-N-CA	5.19	127.24	120.28
12	AL	8	PRO	CA-C-N	5.19	127.66	120.29
12	AL	8	PRO	C-N-CA	5.19	127.66	120.29
14	AN	6	LEU	O-C-N	5.19	128.77	122.85
14	AN	126	ARG	CA-C-N	5.19	130.19	122.71
14	AN	126	ARG	C-N-CA	5.19	130.19	122.71
35	BA	16	A	O4'-C4'-C3'	-5.19	98.81	104.00
35	BA	659	U	O4'-C1'-N1	5.19	116.29	108.50
35	BA	1191	A	O3'-P-O5'	5.19	111.79	104.00
2	AB	299	A	P-O3'-C3'	5.19	127.99	120.20
2	AB	1006	C	O4'-C1'-C2'	-5.19	102.41	107.60
2	AB	1172	C	O4'-C1'-C2'	-5.19	102.41	107.60
2	AB	1626	A	O4'-C1'-N9	5.19	115.98	108.20
2	AB	2723	C	C3'-C2'-C1'	5.19	106.49	101.30
35	BA	961	U	C4'-C3'-C2'	-5.19	97.41	102.60
35	BA	1286	U	O4'-C4'-C3'	5.19	109.19	104.00
35	BA	1331	G	C1'-C2'-O2'	5.19	116.19	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	1338	G	C5'-C4'-O4'	5.19	117.58	109.80
35	BA	1441	A	C4'-C3'-C2'	-5.19	97.41	102.60
49	BO	90	HIS	CB-CG-CD2	-5.19	124.45	131.20
56	BV	85	LEU	N-CA-CB	5.19	118.17	110.49
2	AB	27	G	C4'-C3'-O3'	-5.19	105.22	113.00
2	AB	1411	U	C2'-C3'-O3'	5.19	121.48	113.70
35	BA	783	C	O4'-C4'-C3'	5.19	109.19	104.00
2	AB	922	C	C3'-C2'-O2'	5.19	118.48	110.70
2	AB	2041	U	C4'-C3'-C2'	-5.19	97.41	102.60
2	AB	2404	U	N1-C1'-C2'	5.19	119.78	112.00
6	AF	149	ILE	CA-C-O	-5.19	114.98	120.53
35	BA	843	U	P-O3'-C3'	5.19	127.98	120.20
35	BA	1152	A	C5'-C4'-C3'	-5.19	108.22	116.00
36	BB	28	U	C4'-C3'-C2'	-5.19	97.41	102.60
38	BD	213	LEU	CA-C-N	5.19	126.81	120.22
38	BD	213	LEU	C-N-CA	5.19	126.81	120.22
48	BN	61	GLU	CA-C-O	5.19	126.66	120.28
2	AB	2205	A	C4'-C3'-O3'	5.19	120.78	113.00
2	AB	2313	C	O4'-C4'-C3'	5.19	109.19	104.00
2	AB	2696	U	O5'-C5'-C4'	-5.19	103.72	111.50
53	BS	30	HIS	CG-ND1-CE1	-5.19	100.48	109.30
1	AA	77	U	C5'-C4'-C3'	-5.18	108.22	116.00
2	AB	952	G	O4'-C1'-N9	5.18	116.28	108.50
2	AB	1359	A	C1'-C2'-O2'	-5.18	100.62	108.40
2	AB	1683	U	C1'-O4'-C4'	5.18	115.08	109.90
2	AB	2041	U	C4'-C3'-O3'	5.18	120.78	113.00
35	BA	155	A	C4'-C3'-C2'	-5.18	97.42	102.60
35	BA	195	A	C5'-C4'-O4'	5.18	117.58	109.80
35	BA	993	G	C3'-C2'-C1'	5.18	106.68	101.50
35	BA	1243	C	O4'-C4'-C3'	-5.18	98.81	104.00
38	BD	120	SER	CA-C-O	-5.18	115.38	120.82
41	BG	16	ALA	N-CA-CB	-5.18	103.00	111.66
2	AB	938	G	O3'-P-O5'	-5.18	96.22	104.00
2	AB	1783	A	C4'-C3'-C2'	5.18	107.78	102.60
2	AB	1983	G	O4'-C1'-N9	5.18	116.28	108.50
2	AB	2680	U	C5'-C4'-C3'	-5.18	108.23	116.00
2	AB	2891	U	C1'-O4'-C4'	5.18	115.08	109.90
35	BA	107	G	C1'-O4'-C4'	-5.18	104.72	109.90
35	BA	600	A	O4'-C1'-C2'	-5.18	102.42	107.60
43	BI	44	SER	CA-C-N	5.18	127.68	120.63
43	BI	44	SER	C-N-CA	5.18	127.68	120.63
2	AB	1238	G	C1'-C2'-O2'	5.18	116.17	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1516	G	C3'-C2'-O2'	5.18	118.47	110.70
2	AB	2221	G	C4'-C3'-C2'	5.18	107.78	102.60
2	AB	2863	C	C1'-O4'-C4'	5.18	115.08	109.90
35	BA	985	C	C5'-C4'-C3'	-5.18	108.23	116.00
35	BA	1200	C	C1'-O4'-C4'	5.18	114.88	109.70
2	AB	149	A	O3'-P-O5'	-5.18	96.23	104.00
2	AB	221	A	C3'-C2'-C1'	-5.18	96.32	101.50
2	AB	556	A	C4'-C3'-C2'	-5.18	97.42	102.60
13	AM	119	ALA	N-CA-CB	-5.18	101.15	110.37
22	AV	85	VAL	CA-C-O	5.18	125.76	119.54
34	A7	3	VAL	CA-C-O	-5.18	115.30	121.05
35	BA	149	A	C1'-O4'-C4'	-5.18	104.72	109.90
2	AB	100	U	C1'-C2'-O2'	-5.18	100.63	108.40
2	AB	1231	U	C3'-C2'-C1'	5.18	106.48	101.30
2	AB	1445	G	O4'-C1'-N9	5.18	116.27	108.50
2	AB	2760	C	C3'-C2'-O2'	5.18	118.47	110.70
35	BA	608	A	P-O3'-C3'	5.18	127.97	120.20
2	AB	218	A	O4'-C1'-C2'	-5.18	102.42	107.60
2	AB	756	A	O4'-C1'-N9	5.18	116.27	108.50
2	AB	1151	A	C4'-C3'-C2'	-5.18	97.42	102.60
2	AB	1288	G	C4'-C3'-C2'	5.18	107.78	102.60
2	AB	1361	G	O4'-C4'-C3'	5.18	109.18	104.00
2	AB	2229	U	C5'-C4'-O4'	5.18	117.56	109.80
2	AB	2290	G	O4'-C4'-C3'	5.18	109.18	104.00
2	AB	2412	A	O4'-C4'-C3'	5.18	109.18	104.00
4	AD	144	GLU	CA-C-O	-5.18	114.86	120.81
24	AX	60	VAL	CA-C-O	-5.18	115.72	121.98
35	BA	481	G	O4'-C1'-C2'	-5.18	100.62	105.80
35	BA	783	C	O4'-C1'-N1	5.18	116.26	108.50
2	AB	777	G	N9-C1'-C2'	-5.17	104.24	112.00
2	AB	1971	U	O4'-C1'-N1	5.17	116.26	108.50
2	AB	2247	A	P-O5'-C5'	-5.17	113.14	120.90
2	AB	2744	G	C4'-C3'-O3'	-5.17	105.24	113.00
8	AH	151	ARG	NE-CZ-NH2	-5.17	114.54	119.20
25	AY	12	GLY	CA-C-N	5.17	131.42	121.54
25	AY	12	GLY	C-N-CA	5.17	131.42	121.54
35	BA	396	C	C5'-C4'-C3'	-5.17	108.24	116.00
35	BA	737	C	C3'-C2'-O2'	5.17	118.46	110.70
35	BA	1230	C	O4'-C4'-C3'	-5.17	98.83	104.00
35	BA	1240	U	N1-C1'-C2'	5.17	121.76	114.00
35	BA	1368	A	C4'-C3'-C2'	-5.17	97.43	102.60
36	BB	40	G	P-O5'-C5'	5.17	128.66	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1548	A	C5'-C4'-O4'	5.17	117.56	109.80
5	AE	141	ARG	NE-CZ-NH2	5.17	123.86	119.20
35	BA	175	C	C1'-O4'-C4'	5.17	115.07	109.90
35	BA	687	A	O4'-C1'-C2'	-5.17	100.63	105.80
35	BA	1029	U	P-O3'-C3'	5.17	127.96	120.20
43	BI	24	LYS	O-C-N	5.17	128.63	122.27
2	AB	386	G	C4'-C3'-C2'	-5.17	97.43	102.60
2	AB	954	G	C4'-C3'-C2'	-5.17	97.43	102.60
2	AB	1502	A	C2'-C3'-O3'	-5.17	105.94	113.70
2	AB	1512	C	O4'-C1'-N1	5.17	116.26	108.50
2	AB	2744	G	P-O5'-C5'	5.17	128.66	120.90
3	AC	61	GLY	CA-C-N	5.17	130.70	121.75
3	AC	61	GLY	C-N-CA	5.17	130.70	121.75
4	AD	14	HIS	CA-C-O	5.17	127.01	120.65
7	AG	57	ALA	CA-C-O	-5.17	115.07	120.55
7	AG	111	ARG	CA-C-O	5.17	124.45	118.55
35	BA	59	A	O4'-C1'-C2'	5.17	112.77	107.60
35	BA	119	A	O5'-C5'-C4'	-5.17	103.94	111.70
35	BA	293	G	O4'-C4'-C3'	5.17	109.17	104.00
35	BA	1124	G	C3'-C2'-C1'	-5.17	96.33	101.50
44	BJ	48	PHE	N-CA-CB	-5.17	102.69	111.69
45	BK	72	SER	CA-C-N	5.17	126.79	120.22
45	BK	72	SER	C-N-CA	5.17	126.79	120.22
49	BO	73	SER	CA-C-O	-5.17	115.37	120.70
2	AB	11	C	O3'-P-O5'	5.17	111.75	104.00
2	AB	294	A	C3'-C2'-C1'	-5.17	96.13	101.30
2	AB	2322	A	C3'-C2'-O2'	5.17	118.45	110.70
35	BA	387	U	C3'-C2'-O2'	5.17	118.45	110.70
2	AB	169	G	C1'-C2'-O2'	5.17	116.15	108.40
2	AB	539	G	O4'-C1'-C2'	5.17	112.77	107.60
2	AB	793	A	P-O3'-C3'	5.17	127.95	120.20
2	AB	1011	G	O5'-C5'-C4'	-5.17	103.95	111.70
2	AB	1031	G	C3'-C2'-O2'	5.17	118.45	110.70
2	AB	1192	G	C3'-C2'-C1'	5.17	106.47	101.30
9	AI	7	ASP	O-C-N	-5.17	116.45	122.81
9	AI	74	ALA	N-CA-C	-5.17	97.30	107.69
35	BA	211	G	O4'-C4'-C3'	5.17	109.17	104.00
35	BA	351	G	O5'-C5'-C4'	-5.17	103.95	111.70
38	BD	131	LYS	O-C-N	5.17	127.39	122.07
2	AB	198	C	O3'-P-O5'	-5.17	96.25	104.00
2	AB	288	U	O4'-C1'-N1	5.17	116.25	108.50
2	AB	1007	C	O4'-C4'-C3'	5.17	109.17	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1802	A	C4'-C3'-O3'	-5.17	105.25	113.00
2	AB	2109	U	C2'-C3'-O3'	5.17	121.45	113.70
2	AB	2620	C	C3'-C2'-O2'	5.17	118.45	110.70
3	AC	98	GLU	CA-C-N	5.17	127.63	120.29
3	AC	98	GLU	C-N-CA	5.17	127.63	120.29
29	A2	3	LYS	O-C-N	5.17	127.67	122.09
35	BA	233	C	O4'-C1'-C2'	-5.17	102.43	107.60
35	BA	332	G	N9-C1'-C2'	-5.17	104.25	112.00
35	BA	833	G	O4'-C4'-C3'	5.17	109.17	104.00
35	BA	878	A	C4'-C3'-C2'	-5.17	97.43	102.60
35	BA	1511	G	C1'-C2'-O2'	5.17	116.15	108.40
39	BE	57	GLU	O-C-N	-5.17	117.36	123.41
45	BK	81	GLY	N-CA-C	5.17	120.01	113.24
4	AD	20	ASN	OD1-CG-ND2	5.17	127.77	122.60
6	AF	198	GLU	CA-CB-CG	5.17	124.43	114.10
38	BD	25	LYS	CA-C-N	5.17	131.67	122.06
38	BD	25	LYS	C-N-CA	5.17	131.67	122.06
2	AB	149	A	O5'-C5'-C4'	5.16	119.24	111.50
2	AB	1077	A	C1'-O4'-C4'	5.16	115.06	109.90
2	AB	1095	A	O4'-C1'-C2'	-5.16	102.44	107.60
2	AB	2116	G	C5'-C4'-C3'	-5.16	108.25	116.00
2	AB	2321	U	P-O3'-C3'	5.16	127.95	120.20
15	AO	6	ARG	CA-C-O	-5.16	115.57	121.40
35	BA	1082	A	C1'-C2'-O2'	-5.16	100.66	108.40
37	BC	13	C	C5'-C4'-C3'	-5.16	108.25	116.00
38	BD	165	ALA	CB-CA-C	5.16	118.64	109.65
40	BF	99	ASN	OD1-CG-ND2	-5.16	117.44	122.60
46	BL	90	LEU	CA-C-N	5.16	128.18	120.90
46	BL	90	LEU	C-N-CA	5.16	128.18	120.90
2	AB	1818	U	C3'-C2'-C1'	5.16	106.46	101.30
4	AD	172	THR	OG1-CB-CG2	5.16	119.62	109.30
6	AF	50	ALA	CA-C-N	5.16	129.46	120.68
6	AF	50	ALA	C-N-CA	5.16	129.46	120.68
35	BA	464	U	O4'-C4'-C3'	5.16	109.16	104.00
2	AB	1382	G	C4'-C3'-C2'	-5.16	97.44	102.60
2	AB	1722	A	C4'-C3'-C2'	-5.16	97.44	102.60
2	AB	1958	C	C5'-C4'-O4'	5.16	117.54	109.80
7	AG	171	ALA	CA-C-N	5.16	130.12	123.00
7	AG	171	ALA	C-N-CA	5.16	130.12	123.00
15	AO	3	GLN	CB-CG-CD	5.16	121.37	112.60
22	AV	79	ASP	CA-C-N	5.16	130.68	121.75
22	AV	79	ASP	C-N-CA	5.16	130.68	121.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	AY	56	HIS	CB-CG-CD2	-5.16	124.49	131.20
39	BE	229	LYS	O-C-N	5.16	128.50	122.67
41	BG	101	GLY	CA-C-N	5.16	130.74	121.66
41	BG	101	GLY	C-N-CA	5.16	130.74	121.66
1	AA	90	C	C3'-C2'-O2'	5.16	118.44	110.70
2	AB	1481	U	O4'-C1'-N1	5.16	116.24	108.50
2	AB	2032	G	P-O3'-C3'	5.16	127.94	120.20
2	AB	2712	C	O4'-C4'-C3'	-5.16	100.94	106.10
2	AB	2792	A	O5'-C5'-C4'	-5.16	103.76	111.50
7	AG	175	PRO	N-CA-CB	5.16	106.16	102.65
16	AP	45	ARG	N-CA-C	-5.16	105.55	111.07
35	BA	252	U	C5'-C4'-C3'	-5.16	108.26	116.00
52	BR	3	THR	CA-C-O	-5.16	115.57	121.40
2	AB	775	G	C4'-C3'-C2'	5.16	107.76	102.60
2	AB	1490	A	C5'-C4'-O4'	5.16	117.53	109.80
4	AD	13	ARG	O-C-N	-5.16	116.76	122.07
15	AO	73	ILE	O-C-N	5.16	128.77	123.20
35	BA	252	U	C3'-C2'-C1'	-5.16	96.14	101.30
35	BA	766	A	C5'-C4'-C3'	-5.16	108.26	116.00
36	BB	29	G	C2'-C3'-O3'	5.16	117.24	109.50
38	BD	176	ASN	O-C-N	5.16	128.03	122.15
1	AA	54	G	C5'-C4'-O4'	5.16	117.53	109.80
2	AB	316	C	O4'-C1'-N1	5.16	116.23	108.50
2	AB	477	A	C4'-C3'-O3'	-5.16	105.27	113.00
2	AB	612	G	C4'-C3'-C2'	5.16	107.76	102.60
2	AB	1391	U	O5'-C5'-C4'	5.16	119.43	111.70
2	AB	1740	G	C3'-C2'-C1'	-5.16	96.14	101.30
2	AB	2329	U	C1'-O4'-C4'	5.16	115.06	109.90
2	AB	2809	A	N9-C1'-C2'	-5.16	104.27	112.00
4	AD	134	ILE	CA-C-O	-5.16	115.87	119.38
4	AD	159	THR	N-CA-C	-5.16	104.07	110.41
5	AE	122	VAL	O-C-N	-5.16	116.13	122.57
35	BA	1205	U	O4'-C1'-C2'	-5.16	102.44	107.60
35	BA	1214	C	C1'-O4'-C4'	-5.16	104.54	109.70
35	BA	1492	A	P-O3'-C3'	5.16	127.93	120.20
41	BG	116	VAL	CA-C-O	-5.16	113.34	119.58
43	BI	9	ARG	CB-CA-C	5.16	120.32	109.65
48	BN	34	THR	N-CA-C	-5.16	105.82	112.68
2	AB	2657	A	C2'-C3'-O3'	-5.15	105.97	113.70
35	BA	199	A	C5'-C4'-O4'	5.15	117.53	109.80
35	BA	1190	G	C3'-C2'-C1'	-5.15	96.35	101.50
37	BC	51	U	C3'-C2'-C1'	-5.15	96.15	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	69	G	C5'-C4'-O4'	5.15	117.53	109.80
2	AB	899	A	O4'-C1'-N9	5.15	116.23	108.50
2	AB	1203	U	C3'-C2'-C1'	5.15	106.45	101.30
2	AB	2335	A	C4'-C3'-C2'	-5.15	97.45	102.60
12	AL	47	HIS	CB-CG-CD2	-5.15	124.50	131.20
35	BA	693	G	C2'-C3'-O3'	5.15	121.43	113.70
50	BP	52	ARG	N-CA-C	-5.15	105.75	111.36
2	AB	2068	U	C4'-C3'-O3'	5.15	120.72	113.00
2	AB	2306	C	O5'-C5'-C4'	-5.15	103.77	111.50
2	AB	2642	G	C1'-O4'-C4'	5.15	115.05	109.90
2	AB	2674	G	O3'-P-O5'	5.15	111.73	104.00
2	AB	2859	G	O4'-C1'-N9	5.15	116.22	108.50
27	A0	15	ASN	CA-C-N	5.15	127.61	120.29
27	A0	15	ASN	C-N-CA	5.15	127.61	120.29
32	A5	13	ASN	OD1-CG-ND2	-5.15	117.45	122.60
35	BA	172	A	C4'-C3'-O3'	-5.15	105.28	113.00
35	BA	644	U	N1-C1'-C2'	-5.15	104.27	112.00
35	BA	921	U	O4'-C1'-N1	5.15	116.23	108.50
35	BA	973	G	O5'-C5'-C4'	5.15	119.23	111.50
35	BA	1196	A	C1'-C2'-O2'	5.15	119.53	111.80
38	BD	112	ARG	N-CA-C	5.15	116.97	111.36
48	BN	122	LYS	CB-CA-C	5.15	118.80	109.37
2	AB	1228	G	C4'-C3'-C2'	-5.15	97.45	102.60
2	AB	2426	A	C1'-C2'-O2'	5.15	119.52	111.80
2	AB	2657	A	C5'-C4'-O4'	5.15	117.52	109.80
6	AF	155	GLU	N-CA-C	5.15	118.66	112.38
46	BL	58	ASN	CB-CA-C	5.15	120.67	110.42
1	AA	4	C	O4'-C4'-C3'	5.15	109.15	104.00
2	AB	500	G	O3'-P-O5'	-5.15	96.28	104.00
2	AB	2443	C	O4'-C1'-C2'	-5.15	102.45	107.60
2	AB	2715	C	O5'-C5'-C4'	-5.15	103.78	111.50
21	AU	14	ALA	CA-C-N	5.15	127.18	120.28
21	AU	14	ALA	C-N-CA	5.15	127.18	120.28
35	BA	367	U	C5'-C4'-C3'	-5.15	107.48	115.20
35	BA	398	U	C4'-C3'-O3'	5.15	120.72	113.00
35	BA	672	U	O4'-C1'-N1	5.15	116.22	108.50
35	BA	750	C	C4'-C3'-C2'	-5.15	97.45	102.60
35	BA	1396	A	N9-C1'-C2'	-5.15	106.28	114.00
36	BB	34	U	C1'-O4'-C4'	-5.15	104.75	109.90
57	BW	66	ARG	CA-CB-CG	-5.15	103.81	114.10
1	AA	21	G	C1'-O4'-C4'	5.15	115.05	109.90
2	AB	1412	U	P-O3'-C3'	5.15	127.92	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2532	G	O4'-C4'-C3'	-5.15	98.85	104.00
2	AB	332	A	C1'-O4'-C4'	-5.14	104.56	109.70
2	AB	638	G	C4'-C3'-O3'	-5.14	105.28	113.00
2	AB	1304	A	C3'-C2'-C1'	-5.14	96.16	101.30
2	AB	1404	C	C1'-O4'-C4'	5.14	115.05	109.90
2	AB	1611	C	O4'-C1'-C2'	-5.14	102.46	107.60
2	AB	2136	G	C1'-C2'-O2'	5.14	116.12	108.40
2	AB	2499	C	O4'-C1'-N1	5.14	116.22	108.50
2	AB	2611	C	C2'-C3'-O3'	5.14	121.42	113.70
6	AF	179	SER	O-C-N	5.14	127.37	122.07
35	BA	757	U	C5'-C4'-C3'	-5.14	108.28	116.00
35	BA	1430	A	O4'-C1'-C2'	-5.14	102.45	107.60
37	BC	16	C	O4'-C1'-N1	5.14	115.92	108.20
37	BC	73	A	O4'-C1'-N9	5.14	116.22	108.50
1	AA	119	A	C1'-O4'-C4'	-5.14	104.76	109.90
2	AB	129	C	C3'-C2'-O2'	5.14	118.42	110.70
2	AB	440	C	O4'-C4'-C3'	5.14	109.14	104.00
12	AL	17	VAL	CA-CB-CG1	5.14	119.14	110.40
25	AY	71	LYS	CA-C-N	5.14	129.94	121.87
25	AY	71	LYS	C-N-CA	5.14	129.94	121.87
32	A5	39	ARG	O-C-N	-5.14	116.57	122.95
35	BA	120	A	P-O3'-C3'	5.14	127.92	120.20
35	BA	605	U	C4'-C3'-O3'	5.14	120.71	113.00
35	BA	873	A	O4'-C1'-C2'	5.14	110.94	105.80
53	BS	5	ARG	CB-CG-CD	5.14	123.12	111.30
2	AB	480	A	C4'-C3'-C2'	-5.14	97.46	102.60
2	AB	996	A	C4'-C3'-O3'	-5.14	105.29	113.00
2	AB	1627	G	C4'-C3'-C2'	-5.14	97.46	102.60
2	AB	1791	A	C4'-C3'-O3'	-5.14	105.29	113.00
15	AO	71	LYS	CA-C-N	5.14	124.90	119.76
15	AO	71	LYS	C-N-CA	5.14	124.90	119.76
24	AX	45	ASP	CA-C-N	5.14	127.59	120.29
24	AX	45	ASP	C-N-CA	5.14	127.59	120.29
35	BA	1538	C	O3'-P-O5'	5.14	111.71	104.00
2	AB	1086	A	C4'-C3'-O3'	-5.14	105.29	113.00
2	AB	2316	G	O4'-C4'-C3'	5.14	109.14	104.00
2	AB	2321	U	C4'-C3'-C2'	5.14	107.74	102.60
10	AJ	79	THR	OG1-CB-CG2	-5.14	99.02	109.30
25	AY	40	ARG	CB-CA-C	5.14	120.65	110.42
35	BA	194	C	C3'-C2'-O2'	5.14	118.41	110.70
35	BA	730	G	C3'-C2'-C1'	5.14	106.44	101.30
35	BA	1014	A	C3'-C2'-C1'	-5.14	96.16	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	1381	U	C5'-C4'-O4'	5.14	117.51	109.80
47	BM	123	PRO	N-CA-CB	5.14	107.82	103.19
48	BN	50	LYS	O-C-N	5.14	129.35	123.29
55	BU	13	HIS	CA-CB-CG	5.14	118.94	113.80
2	AB	210	C	O4'-C1'-C2'	-5.14	102.46	107.60
2	AB	366	C	O4'-C4'-C3'	5.14	109.14	104.00
2	AB	2557	G	O3'-P-O5'	5.14	111.71	104.00
2	AB	2865	U	C5'-C4'-O4'	5.14	117.51	109.80
2	AB	548	G	C4'-C3'-O3'	5.14	117.11	109.40
2	AB	657	U	C3'-C2'-C1'	5.14	106.44	101.30
2	AB	1178	C	C5'-C4'-C3'	-5.14	108.30	116.00
2	AB	2131	U	O4'-C1'-C2'	-5.14	102.46	107.60
2	AB	2335	A	C1'-O4'-C4'	-5.14	104.76	109.90
2	AB	2639	A	O4'-C4'-C3'	5.14	109.14	104.00
2	AB	2881	U	O4'-C1'-C2'	-5.14	102.46	107.60
23	AW	42	LYS	N-CA-C	5.14	116.63	108.67
35	BA	29	U	C3'-C2'-O2'	5.14	118.41	110.70
35	BA	1342	C	P-O5'-C5'	5.14	128.60	120.90
2	AB	834	G	N9-C1'-C2'	-5.13	104.30	112.00
2	AB	1035	U	C4'-C3'-C2'	-5.13	97.47	102.60
2	AB	1237	A	C1'-O4'-C4'	5.13	114.83	109.70
2	AB	1745	A	O4'-C1'-N9	5.13	116.20	108.50
2	AB	1784	A	C1'-C2'-O2'	-5.13	104.10	111.80
35	BA	1097	C	C1'-O4'-C4'	5.13	115.03	109.90
35	BA	1314	C	C3'-C2'-C1'	5.13	106.44	101.30
2	AB	1027	A	C1'-O4'-C4'	5.13	115.03	109.90
24	AX	56	PHE	CA-C-N	5.13	132.38	122.53
24	AX	56	PHE	C-N-CA	5.13	132.38	122.53
26	AZ	65	THR	CA-CB-CG2	-5.13	101.78	110.50
35	BA	761	G	C1'-C2'-O2'	5.13	116.10	108.40
35	BA	880	C	O4'-C1'-C2'	5.13	112.73	107.60
35	BA	1237	C	O3'-P-O5'	-5.13	96.30	104.00
35	BA	1504	G	O4'-C1'-C2'	-5.13	100.67	105.80
37	BC	31	G	O4'-C1'-N9	5.13	116.20	108.50
2	AB	1076	C	C5'-C4'-O4'	5.13	117.50	109.80
2	AB	2004	G	C5'-C4'-C3'	-5.13	108.30	116.00
5	AE	78	GLY	N-CA-C	5.13	118.47	110.88
9	AI	129	GLU	N-CA-CB	5.13	118.54	110.23
35	BA	520	A	C4'-C3'-C2'	-5.13	97.47	102.60
35	BA	872	A	C3'-C2'-C1'	-5.13	96.37	101.50
35	BA	884	U	O4'-C1'-C2'	-5.13	100.67	105.80
35	BA	1028	C	C5'-C4'-O4'	5.13	117.50	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	1368	A	C5'-C4'-C3'	-5.13	108.30	116.00
35	BA	1491	G	P-O3'-C3'	5.13	127.90	120.20
38	BD	181	PRO	CA-C-O	-5.13	115.18	121.03
43	BI	150	PHE	N-CA-C	5.13	118.43	110.17
2	AB	1072	C	O4'-C1'-N1	5.13	116.19	108.50
2	AB	1921	G	C3'-C2'-O2'	5.13	118.40	110.70
35	BA	1411	C	P-O5'-C5'	5.13	128.59	120.90
35	BA	1426	G	C1'-O4'-C4'	-5.13	104.77	109.90
2	AB	641	U	C4'-C3'-C2'	-5.13	97.47	102.60
2	AB	1672	A	O4'-C4'-C3'	5.13	109.13	104.00
5	AE	13	ARG	NE-CZ-NH2	5.13	123.82	119.20
5	AE	69	ALA	CA-C-O	5.13	125.86	120.42
11	AK	93	ASN	N-CA-C	5.13	121.72	110.80
35	BA	48	C	O5'-C5'-C4'	-5.13	104.01	111.70
35	BA	307	C	O4'-C1'-C2'	-5.13	100.67	105.80
2	AB	550	C	P-O5'-C5'	5.13	128.59	120.90
2	AB	672	C	C3'-C2'-O2'	5.13	118.39	110.70
2	AB	1142	A	C2'-C3'-O3'	5.13	117.19	109.50
2	AB	1369	G	O4'-C1'-N9	5.13	116.19	108.50
2	AB	1868	C	O4'-C4'-C3'	5.13	109.13	104.00
2	AB	2310	C	P-O3'-C3'	5.13	127.89	120.20
5	AE	55	LYS	CA-C-O	-5.13	115.61	121.40
11	AK	86	LYS	CG-CD-CE	5.13	123.09	111.30
25	AY	2	HIS	CA-C-O	-5.13	116.23	121.87
35	BA	35	G	O3'-P-O5'	-5.13	96.31	104.00
35	BA	119	A	O3'-P-O5'	-5.13	96.31	104.00
35	BA	733	G	O4'-C1'-C2'	-5.13	100.67	105.80
35	BA	1411	C	O4'-C1'-N1	5.13	116.19	108.50
37	BC	30	G	O5'-C5'-C4'	5.13	119.19	111.50
57	BW	46	ARG	CA-C-N	5.13	127.57	120.29
57	BW	46	ARG	C-N-CA	5.13	127.57	120.29
2	AB	623	C	P-O3'-C3'	5.12	127.89	120.20
2	AB	731	C	O4'-C1'-C2'	-5.12	102.47	107.60
2	AB	851	C	O5'-C5'-C4'	-5.12	103.81	111.50
2	AB	1501	G	P-O3'-C3'	5.12	127.89	120.20
2	AB	2433	A	C3'-C2'-C1'	-5.12	96.17	101.30
4	AD	271	SER	O-C-N	5.12	129.22	123.27
34	A7	4	ARG	CD-NE-CZ	5.12	131.57	124.40
35	BA	1404	C	O3'-P-O5'	-5.12	96.31	104.00
45	BK	20	ILE	N-CA-C	5.12	116.35	108.71
2	AB	110	G	O4'-C4'-C3'	-5.12	98.88	104.00
2	AB	390	U	P-O3'-C3'	5.12	127.89	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	405	U	C3'-C2'-C1'	5.12	106.42	101.30
2	AB	768	G	C4'-C3'-C2'	-5.12	97.48	102.60
2	AB	1446	C	C2'-C3'-O3'	-5.12	106.02	113.70
2	AB	1893	C	C1'-O4'-C4'	5.12	115.02	109.90
2	AB	2216	G	C5'-C4'-O4'	5.12	117.48	109.80
2	AB	2534	A	C5'-C4'-C3'	-5.12	108.31	116.00
4	AD	31	PRO	CA-N-CD	-5.12	104.83	112.00
4	AD	238	ASN	OD1-CG-ND2	-5.12	117.48	122.60
6	AF	6	LYS	CB-CA-C	5.12	120.62	110.42
20	AT	80	ARG	CA-C-N	5.12	131.12	122.26
20	AT	80	ARG	C-N-CA	5.12	131.12	122.26
21	AU	39	THR	CB-CA-C	5.12	118.98	110.78
22	AV	11	LEU	N-CA-C	5.12	117.47	110.24
35	BA	424	G	C1'-C2'-O2'	5.12	116.08	108.40
35	BA	1127	G	C3'-C2'-C1'	-5.12	96.18	101.30
35	BA	1131	G	O5'-C5'-C4'	-5.12	103.82	111.50
35	BA	1171	A	O4'-C4'-C3'	5.12	109.12	104.00
2	AB	116	C	C4'-C3'-C2'	-5.12	97.48	102.60
2	AB	1038	G	O4'-C1'-N9	5.12	116.18	108.50
2	AB	1557	C	O4'-C4'-C3'	5.12	109.12	104.00
2	AB	2055	C	O5'-C5'-C4'	5.12	119.18	111.50
2	AB	2228	G	C4'-C3'-C2'	-5.12	97.48	102.60
35	BA	132	C	C4'-C3'-C2'	-5.12	97.48	102.60
35	BA	370	C	O4'-C1'-N1	5.12	116.18	108.50
35	BA	921	U	P-O3'-C3'	5.12	127.88	120.20
35	BA	952	U	C2'-C3'-O3'	-5.12	106.02	113.70
40	BF	170	LEU	CA-C-N	5.12	130.85	122.81
40	BF	170	LEU	C-N-CA	5.12	130.85	122.81
41	BG	134	ASN	CA-C-O	-5.12	113.49	118.97
43	BI	4	ARG	NE-CZ-NH1	5.12	126.62	121.50
50	BP	62	ARG	NH1-CZ-NH2	5.12	125.96	119.30
2	AB	1330	C	O5'-C5'-C4'	5.12	119.18	111.50
2	AB	2305	U	C3'-C2'-C1'	-5.12	96.18	101.30
2	AB	2359	C	O3'-P-O5'	5.12	111.68	104.00
2	AB	2591	C	O3'-P-O5'	5.12	111.68	104.00
2	AB	2734	A	O3'-P-O5'	5.12	111.68	104.00
15	AO	92	TRP	NE1-CE2-CZ2	5.12	137.78	130.10
35	BA	10	A	O4'-C1'-C2'	-5.12	102.48	107.60
35	BA	48	C	O4'-C4'-C3'	5.12	111.22	106.10
35	BA	495	A	C4'-C3'-O3'	5.12	117.08	109.40
37	BC	76	C	C4'-C3'-O3'	5.12	120.68	113.00
2	AB	1089	A	O4'-C1'-C2'	-5.12	100.68	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1375	U	C3'-C2'-O2'	5.12	118.38	110.70
2	AB	1644	C	O4'-C1'-N1	5.12	116.18	108.50
2	AB	2584	U	P-O3'-C3'	5.12	127.88	120.20
9	AI	75	LEU	CA-C-O	-5.12	115.03	120.92
14	AN	92	LEU	N-CA-C	-5.12	106.87	113.01
16	AP	34	ILE	CA-C-N	5.12	130.62	122.94
16	AP	34	ILE	C-N-CA	5.12	130.62	122.94
20	AT	19	THR	CA-C-N	5.12	130.83	122.69
20	AT	19	THR	C-N-CA	5.12	130.83	122.69
20	AT	62	GLU	CA-C-N	5.12	127.36	120.50
20	AT	62	GLU	C-N-CA	5.12	127.36	120.50
21	AU	105	VAL	CA-C-O	5.12	125.91	120.48
35	BA	696	A	P-O5'-C5'	5.12	128.58	120.90
35	BA	1120	C	C4'-C3'-C2'	-5.12	97.48	102.60
42	BH	50	PRO	N-CA-C	5.12	119.35	111.21
43	BI	49	LEU	CA-C-O	-5.12	115.10	120.63
2	AB	221	A	C5'-C4'-C3'	-5.12	107.53	115.20
2	AB	509	C	C1'-C2'-O2'	-5.12	100.72	108.40
2	AB	581	C	O3'-P-O5'	5.12	111.68	104.00
2	AB	1182	G	O4'-C4'-C3'	-5.12	98.88	104.00
2	AB	2318	G	C4'-C3'-O3'	-5.12	105.32	113.00
2	AB	2722	G	P-O3'-C3'	5.12	127.88	120.20
4	AD	260	LYS	CB-CA-C	5.12	119.70	111.36
35	BA	123	U	O4'-C1'-N1	5.12	116.18	108.50
35	BA	449	G	O4'-C1'-N9	5.12	116.17	108.50
35	BA	1300	G	C4'-C3'-O3'	5.12	117.08	109.40
47	BM	49	SER	CA-C-N	5.12	129.67	120.77
47	BM	49	SER	C-N-CA	5.12	129.67	120.77
2	AB	1828	G	O4'-C1'-C2'	5.12	110.92	105.80
2	AB	1891	G	C5'-C4'-O4'	5.12	117.47	109.80
2	AB	2073	C	O4'-C1'-C2'	-5.12	102.48	107.60
2	AB	2665	A	C1'-O4'-C4'	-5.12	104.78	109.90
9	AI	134	VAL	CA-C-N	5.12	130.90	121.85
9	AI	134	VAL	C-N-CA	5.12	130.90	121.85
13	AM	35	VAL	CA-C-O	-5.12	115.24	120.71
27	A0	41	HIS	CA-C-O	-5.12	115.13	120.55
36	BB	25	U	C1'-C2'-O2'	5.12	116.07	108.40
2	AB	415	A	N9-C1'-C2'	5.11	119.67	112.00
2	AB	699	A	O5'-C5'-C4'	-5.11	103.83	111.50
2	AB	1203	U	C1'-O4'-C4'	5.11	115.01	109.90
2	AB	1857	G	O4'-C1'-N9	5.11	115.87	108.20
2	AB	2475	C	C5'-C4'-O4'	5.11	117.47	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2554	U	O4'-C1'-N1	5.11	116.17	108.50
3	AC	42	VAL	N-CA-C	-5.11	100.95	108.11
7	AG	116	LEU	CB-CA-C	5.11	119.58	112.11
12	AL	130	HIS	ND1-CE1-NE2	5.11	113.51	108.40
28	A1	33	HIS	CB-CG-CD2	-5.11	124.55	131.20
30	A3	17	SER	O-C-N	5.11	128.56	122.27
35	BA	2	A	C1'-C2'-O2'	5.11	116.07	108.40
35	BA	169	C	O4'-C1'-N1	5.11	116.17	108.50
35	BA	444	G	C3'-C2'-O2'	5.11	118.37	110.70
35	BA	676	A	C4'-C3'-C2'	-5.11	97.49	102.60
35	BA	864	A	P-O3'-C3'	5.11	127.87	120.20
35	BA	1038	C	C4'-C3'-O3'	5.11	120.67	113.00
40	BF	81	LEU	CB-CA-C	5.11	118.39	109.65
2	AB	1712	U	O4'-C1'-N1	5.11	116.17	108.50
6	AF	9	GLN	OE1-CD-NE2	5.11	127.71	122.60
19	AS	60	TRP	CA-C-O	-5.11	115.45	120.82
24	AX	92	VAL	CA-CB-CG2	5.11	119.09	110.40
35	BA	402	G	C3'-C2'-O2'	5.11	118.37	110.70
35	BA	1253	G	N9-C1'-C2'	-5.11	104.33	112.00
57	BW	7	GLU	N-CA-CB	5.11	117.48	109.97
2	AB	32	C	O4'-C4'-C3'	5.11	109.11	104.00
2	AB	191	A	O4'-C1'-N9	5.11	116.17	108.50
2	AB	518	G	C3'-C2'-O2'	5.11	118.37	110.70
2	AB	1319	C	C4'-C3'-C2'	-5.11	97.49	102.60
2	AB	1350	C	C1'-C2'-O2'	-5.11	100.73	108.40
2	AB	1576	U	O4'-C1'-C2'	-5.11	102.49	107.60
5	AE	56	LYS	O-C-N	5.11	127.54	122.12
8	AH	69	ALA	CA-C-O	-5.11	115.43	120.90
14	AN	43	GLY	CA-C-N	5.11	127.91	121.83
14	AN	43	GLY	C-N-CA	5.11	127.91	121.83
17	AQ	7	ARG	CA-C-O	-5.11	115.11	120.63
35	BA	276	G	O4'-C1'-C2'	-5.11	102.49	107.60
35	BA	470	C	C5'-C4'-O4'	5.11	117.47	109.80
35	BA	569	C	O4'-C1'-N1	5.11	116.16	108.50
35	BA	725	G	O4'-C1'-C2'	-5.11	102.49	107.60
35	BA	998	C	N1-C1'-C2'	5.11	119.67	112.00
35	BA	1163	A	C1'-O4'-C4'	5.11	115.01	109.90
35	BA	1211	U	C5'-C4'-C3'	-5.11	108.33	116.00
38	BD	53	LEU	N-CA-C	5.11	117.75	111.82
53	BS	71	SER	N-CA-C	-5.11	108.79	114.62
2	AB	348	A	C2'-C3'-O3'	-5.11	106.04	113.70
2	AB	627	A	C1'-O4'-C4'	-5.11	104.59	109.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	808	G	C5'-C4'-C3'	-5.11	108.34	116.00
2	AB	1588	G	C5'-C4'-O4'	-5.11	102.14	109.80
16	AP	86	ARG	CD-NE-CZ	5.11	131.55	124.40
35	BA	236	A	C4'-C3'-C2'	-5.11	97.49	102.60
35	BA	511	C	N1-C1'-C2'	5.11	121.66	114.00
35	BA	1273	C	C1'-O4'-C4'	-5.11	104.79	109.90
41	BG	163	ILE	CA-C-N	5.11	129.37	120.68
41	BG	163	ILE	C-N-CA	5.11	129.37	120.68
2	AB	592	A	O5'-C5'-C4'	5.11	119.16	111.50
2	AB	1824	G	C5'-C4'-C3'	5.11	123.66	116.00
2	AB	2239	G	O5'-C5'-C4'	5.11	119.16	111.50
2	AB	2603	G	O4'-C4'-C3'	5.11	109.11	104.00
2	AB	2855	C	C1'-O4'-C4'	-5.11	104.79	109.90
3	AC	57	GLN	CG-CD-NE2	-5.11	108.74	116.40
21	AU	66	ILE	N-CA-CB	5.11	119.66	111.23
35	BA	1118	U	O4'-C1'-C2'	5.11	112.71	107.60
35	BA	1135	U	P-O3'-C3'	5.11	127.86	120.20
37	BC	58	A	C3'-C2'-O2'	-5.11	103.04	110.70
40	BF	107	GLY	CA-C-N	5.11	130.49	122.11
40	BF	107	GLY	C-N-CA	5.11	130.49	122.11
42	BH	3	HIS	CG-CD2-NE2	-5.11	102.09	107.20
42	BH	84	VAL	CG1-CB-CG2	-5.11	99.56	110.80
43	BI	82	SER	CA-C-O	-5.11	115.13	121.06
46	BL	3	ASN	CA-CB-CG	5.11	117.71	112.60
1	AA	109	A	O4'-C1'-N9	-5.11	100.84	108.50
2	AB	552	U	C4'-C3'-O3'	-5.11	105.34	113.00
2	AB	1563	U	C3'-C2'-C1'	5.11	106.41	101.30
16	AP	12	ARG	O-C-N	5.11	128.35	123.04
35	BA	185	U	C5'-C4'-C3'	-5.11	108.34	116.00
35	BA	973	G	P-O5'-C5'	5.11	128.56	120.90
35	BA	1055	A	O5'-C5'-C4'	5.11	119.16	111.50
35	BA	1097	C	O4'-C1'-C2'	-5.11	102.49	107.60
35	BA	1284	C	C4'-C3'-O3'	-5.11	105.34	113.00
37	BC	38	A	O4'-C1'-N9	5.11	116.16	108.50
37	BC	73	A	C3'-C2'-C1'	-5.11	96.19	101.30
52	BR	79	ASN	CA-CB-CG	-5.11	107.49	112.60
56	BV	24	ARG	NE-CZ-NH2	5.11	123.80	119.20
56	BV	28	ARG	N-CA-C	5.11	119.74	111.37
2	AB	1438	U	C3'-C2'-C1'	5.10	106.40	101.30
18	AR	64	SER	N-CA-C	-5.10	107.12	113.55
35	BA	519	C	C3'-C2'-C1'	-5.10	96.20	101.30
39	BE	194	VAL	N-CA-C	5.10	115.63	108.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	343	C	C4'-C3'-C2'	-5.10	97.50	102.60
2	AB	675	A	C5'-C4'-C3'	-5.10	108.35	116.00
2	AB	727	A	C4'-C3'-C2'	-5.10	97.50	102.60
2	AB	843	G	N9-C1'-C2'	-5.10	104.35	112.00
2	AB	2045	C	O4'-C4'-C3'	-5.10	98.90	104.00
2	AB	2131	U	C4'-C3'-C2'	-5.10	97.50	102.60
2	AB	2653	U	P-O3'-C3'	5.10	127.85	120.20
16	AP	38	LEU	O-C-N	-5.10	116.35	120.38
20	AT	90	ARG	CA-C-N	5.10	131.29	121.54
20	AT	90	ARG	C-N-CA	5.10	131.29	121.54
29	A2	63	ARG	NE-CZ-NH2	-5.10	114.61	119.20
35	BA	57	G	C1'-O4'-C4'	5.10	115.00	109.90
41	BG	135	VAL	CA-C-O	-5.10	113.52	119.85
46	BL	26	VAL	N-CA-CB	-5.10	103.60	110.54
2	AB	581	C	C2'-C3'-O3'	-5.10	106.05	113.70
2	AB	903	C	C2'-C3'-O3'	5.10	121.35	113.70
2	AB	974	G	C1'-O4'-C4'	-5.10	104.60	109.70
2	AB	2364	C	C4'-C3'-C2'	-5.10	97.50	102.60
12	AL	46	PRO	CB-CA-C	-5.10	103.69	110.27
22	AV	20	ALA	N-CA-C	5.10	116.84	111.28
38	BD	89	PHE	CB-CA-C	5.10	118.70	109.37
40	BF	140	ASP	O-C-N	5.10	128.88	122.86
45	BK	49	GLN	CA-C-N	5.10	126.22	119.84
45	BK	49	GLN	C-N-CA	5.10	126.22	119.84
2	AB	1291	C	C3'-C2'-O2'	5.10	118.35	110.70
2	AB	1345	C	O3'-P-O5'	-5.10	96.35	104.00
2	AB	1440	U	O4'-C4'-C3'	-5.10	98.90	104.00
2	AB	1929	G	O5'-C5'-C4'	5.10	119.35	111.70
2	AB	1994	C	O4'-C4'-C3'	5.10	109.10	104.00
2	AB	2773	C	C1'-C2'-O2'	5.10	116.05	108.40
2	AB	2791	G	C4'-C3'-C2'	-5.10	97.50	102.60
3	AC	137	MET	CA-C-N	5.10	125.38	119.92
3	AC	137	MET	C-N-CA	5.10	125.38	119.92
5	AE	125	TRP	CB-CG-CD2	5.10	133.94	126.80
5	AE	199	SER	N-CA-C	5.10	117.69	110.50
9	AI	38	PRO	CA-C-N	5.10	131.70	122.27
9	AI	38	PRO	C-N-CA	5.10	131.70	122.27
35	BA	399	G	C4'-C3'-C2'	-5.10	97.50	102.60
35	BA	902	G	C3'-C2'-O2'	5.10	118.35	110.70
35	BA	1095	U	C4'-C3'-C2'	-5.10	97.50	102.60
37	BC	62	C	O4'-C1'-N1	5.10	116.15	108.50
38	BD	114	LYS	CA-C-N	5.10	127.38	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
38	BD	114	LYS	C-N-CA	5.10	127.38	120.44
2	AB	15	G	O4'-C1'-N9	5.10	116.15	108.50
2	AB	404	A	C1'-C2'-O2'	5.10	119.45	111.80
2	AB	2096	C	P-O5'-C5'	5.10	128.55	120.90
2	AB	2119	A	C4'-C3'-C2'	5.10	107.70	102.60
2	AB	2354	C	O4'-C1'-N1	5.10	116.15	108.50
2	AB	2383	G	C5'-C4'-C3'	-5.10	108.35	116.00
2	AB	2587	A	C3'-C2'-O2'	5.10	118.34	110.70
2	AB	2845	U	N1-C1'-C2'	-5.10	104.35	112.00
10	AJ	86	GLU	O-C-N	-5.10	117.36	123.27
35	BA	198	G	C4'-C3'-O3'	-5.10	105.35	113.00
35	BA	247	G	C5'-C4'-O4'	5.10	117.45	109.80
35	BA	1372	U	O3'-P-O5'	5.10	111.65	104.00
42	BH	67	PRO	CB-CA-C	5.10	117.75	111.23
46	BL	68	ARG	N-CA-C	-5.10	102.22	110.32
26	AZ	38	TRP	CD2-CE3-CZ3	5.10	125.22	118.60
35	BA	212	G	O3'-P-O5'	5.10	111.64	104.00
35	BA	978	A	C5'-C4'-O4'	5.10	117.44	109.80
42	BH	113	ARG	NE-CZ-NH2	5.10	123.79	119.20
2	AB	444	C	O4'-C4'-C3'	5.09	109.09	104.00
2	AB	828	U	C3'-C2'-C1'	5.09	106.39	101.30
2	AB	1940	U	O4'-C1'-C2'	-5.09	100.71	105.80
2	AB	2628	C	O4'-C4'-C3'	5.09	111.19	106.10
4	AD	222	THR	OG1-CB-CG2	5.09	119.49	109.30
12	AL	54	ILE	CB-CA-C	5.09	118.40	110.96
25	AY	42	THR	CA-CB-CG2	5.09	119.16	110.50
35	BA	76	G	C5'-C4'-C3'	-5.09	108.36	116.00
35	BA	1505	G	O4'-C1'-N9	-5.09	100.86	108.50
48	BN	37	TYR	CA-CB-CG	5.09	123.07	113.90
2	AB	225	C	C4'-C3'-O3'	-5.09	105.36	113.00
2	AB	376	G	C2'-C3'-O3'	5.09	121.34	113.70
2	AB	714	U	C3'-C2'-O2'	5.09	118.34	110.70
2	AB	2612	C	C4'-C3'-O3'	5.09	120.64	113.00
5	AE	149	ASN	CA-C-N	5.09	127.61	120.28
5	AE	149	ASN	C-N-CA	5.09	127.61	120.28
32	A5	36	ALA	N-CA-C	5.09	117.57	111.71
35	BA	1137	C	O4'-C1'-C2'	-5.09	100.71	105.80
35	BA	1210	C	N1-C1'-C2'	-5.09	104.36	112.00
1	AA	106	G	C2'-C3'-O3'	5.09	121.34	113.70
2	AB	1566	A	O4'-C4'-C3'	5.09	111.19	106.10
2	AB	2254	C	C3'-C2'-O2'	5.09	118.34	110.70
21	AU	42	LYS	CA-C-N	5.09	127.81	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	AU	42	LYS	C-N-CA	5.09	127.81	120.38
35	BA	343	U	O4'-C4'-C3'	5.09	109.09	104.00
35	BA	721	G	C2'-C3'-O3'	5.09	117.14	109.50
1	AA	53	A	C4'-C3'-O3'	-5.09	105.37	113.00
2	AB	1009	A	C4'-C3'-O3'	5.09	120.63	113.00
2	AB	1393	A	O4'-C4'-C3'	5.09	109.09	104.00
2	AB	1861	G	O4'-C1'-N9	5.09	116.14	108.50
2	AB	2103	C	N1-C1'-C2'	-5.09	104.36	112.00
3	AC	94	LEU	N-CA-C	5.09	117.74	109.24
7	AG	31	GLU	CA-C-N	5.09	128.89	121.31
7	AG	31	GLU	C-N-CA	5.09	128.89	121.31
19	AS	110	GLU	CA-C-N	5.09	127.10	120.28
19	AS	110	GLU	C-N-CA	5.09	127.10	120.28
35	BA	1486	G	C5'-C4'-C3'	-5.09	108.37	116.00
42	BH	30	THR	CA-CB-OG1	5.09	117.23	109.60
53	BS	20	ILE	N-CA-C	5.09	117.06	108.81
1	AA	45	A	C2'-C3'-O3'	-5.09	106.07	113.70
2	AB	1883	U	O4'-C4'-C3'	5.09	109.09	104.00
2	AB	2172	U	O4'-C1'-N1	5.09	115.83	108.20
2	AB	2870	C	C5'-C4'-O4'	5.09	117.43	109.80
2	AB	2887	A	P-O5'-C5'	5.09	128.53	120.90
35	BA	1301	U	P-O5'-C5'	5.09	128.53	120.90
35	BA	1386	G	O4'-C4'-C3'	-5.09	98.91	104.00
2	AB	1289	C	C4'-C3'-O3'	5.09	120.63	113.00
2	AB	1882	U	C5'-C4'-O4'	5.09	117.43	109.80
2	AB	2050	C	C3'-C2'-C1'	5.09	106.39	101.30
2	AB	2431	U	O4'-C1'-N1	5.09	116.13	108.50
3	AC	181	ASP	CA-CB-CG	5.09	117.69	112.60
13	AM	60	ALA	N-CA-C	5.09	116.03	108.60
35	BA	192	A	N9-C1'-C2'	-5.09	104.37	112.00
35	BA	579	A	O5'-C5'-C4'	5.09	119.13	111.50
35	BA	1054	C	O4'-C4'-C3'	5.09	109.09	104.00
35	BA	1215	G	N9-C1'-C2'	-5.09	104.37	112.00
35	BA	1465	A	C4'-C3'-O3'	5.09	120.63	113.00
2	AB	994	C	C5'-C4'-C3'	-5.08	108.37	116.00
2	AB	1171	G	C4'-C3'-O3'	5.08	120.63	113.00
2	AB	1238	G	N1-C2-N2	5.08	131.46	116.20
8	AH	114	HIS	ND1-CE1-NE2	5.08	113.48	108.40
11	AK	26	ALA	O-C-N	5.08	127.51	122.12
31	A4	27	ARG	CD-NE-CZ	5.08	131.52	124.40
35	BA	124	C	C5'-C4'-O4'	5.08	117.43	109.80
35	BA	671	G	O4'-C4'-C3'	5.08	109.08	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	1137	C	C3'-C2'-O2'	-5.08	106.97	114.60
35	BA	1503	A	O4'-C1'-N9	5.08	115.83	108.20
2	AB	625	G	C3'-C2'-O2'	5.08	118.33	110.70
2	AB	1753	G	C3'-C2'-C1'	-5.08	96.22	101.30
2	AB	1927	A	C2'-C3'-O3'	5.08	121.33	113.70
2	AB	2700	A	C4'-C3'-C2'	-5.08	97.52	102.60
3	AC	190	GLU	CA-C-N	5.08	127.51	120.29
3	AC	190	GLU	C-N-CA	5.08	127.51	120.29
35	BA	546	A	C3'-C2'-C1'	5.08	106.38	101.30
35	BA	784	A	O4'-C4'-C3'	5.08	109.08	104.00
35	BA	1154	G	C5'-C4'-C3'	-5.08	108.38	116.00
35	BA	1394	A	C3'-C2'-C1'	5.08	106.58	101.50
45	BK	38	PHE	CA-C-O	-5.08	115.42	121.32
53	BS	58	VAL	CA-C-N	5.08	130.56	122.94
53	BS	58	VAL	C-N-CA	5.08	130.56	122.94
2	AB	658	U	O4'-C1'-C2'	-5.08	102.52	107.60
2	AB	2517	C	N1-C1'-C2'	-5.08	106.38	114.00
17	AQ	65	THR	CA-CB-OG1	5.08	117.22	109.60
32	A5	16	HIS	ND1-CG-CD2	-5.08	101.02	106.10
35	BA	685	G	O4'-C1'-C2'	-5.08	102.52	107.60
36	BB	57	C	P-O3'-C3'	5.08	127.82	120.20
47	BM	63	GLN	O-C-N	5.08	127.52	122.08
2	AB	1391	U	O4'-C1'-N1	5.08	115.82	108.20
9	AI	32	PRO	N-CA-CB	5.08	108.35	103.52
22	AV	84	TYR	N-CA-C	5.08	116.80	108.52
35	BA	750	C	N1-C1'-C2'	-5.08	104.38	112.00
2	AB	180	G	C4'-C3'-C2'	-5.08	97.52	102.60
2	AB	267	C	O5'-C5'-C4'	-5.08	103.88	111.50
2	AB	840	C	P-O5'-C5'	5.08	128.52	120.90
2	AB	1894	C	P-O3'-C3'	5.08	127.82	120.20
2	AB	1974	C	O4'-C1'-N1	5.08	116.12	108.50
5	AE	134	HIS	CA-C-N	5.08	130.86	120.80
5	AE	134	HIS	C-N-CA	5.08	130.86	120.80
9	AI	119	ASN	CB-CG-ND2	5.08	124.02	116.40
11	AK	115	ASP	N-CA-CB	-5.08	102.63	110.20
34	A7	36	ARG	CA-C-O	-5.08	114.60	120.24
35	BA	100	G	O4'-C1'-C2'	-5.08	102.52	107.60
35	BA	1468	A	N9-C1'-C2'	-5.08	104.38	112.00
38	BD	32	GLY	CA-C-N	5.08	128.29	120.82
38	BD	32	GLY	C-N-CA	5.08	128.29	120.82
57	BW	6	ARG	CA-C-N	5.08	128.08	120.87
57	BW	6	ARG	C-N-CA	5.08	128.08	120.87

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2488	G	O4'-C4'-C3'	5.08	109.08	104.00
2	AB	2811	G	O3'-P-O5'	-5.08	96.39	104.00
29	A2	9	TYR	CA-C-N	5.08	127.39	120.54
29	A2	9	TYR	C-N-CA	5.08	127.39	120.54
35	BA	1161	C	C1'-C2'-O2'	5.08	116.02	108.40
37	BC	64	G	C4'-C3'-C2'	-5.08	97.52	102.60
52	BR	74	LEU	CA-C-N	5.08	127.15	120.60
52	BR	74	LEU	C-N-CA	5.08	127.15	120.60
2	AB	1036	G	C4'-C3'-C2'	-5.08	97.53	102.60
2	AB	1248	G	O5'-C5'-C4'	-5.08	104.09	111.70
2	AB	1652	A	C2'-C3'-O3'	-5.08	106.09	113.70
2	AB	2368	C	C5'-C4'-O4'	5.08	117.41	109.80
20	AT	27	ILE	CA-C-O	-5.08	115.24	121.13
20	AT	77	PHE	O-C-N	-5.08	117.47	123.41
35	BA	261	U	N1-C1'-C2'	-5.08	104.39	112.00
35	BA	526	C	C4'-C3'-C2'	-5.08	97.53	102.60
38	BD	223	GLY	O-C-N	5.08	127.06	122.19
2	AB	2386	A	C5'-C4'-O4'	5.07	117.41	109.80
2	AB	2800	A	N9-C1'-C2'	-5.07	104.39	112.00
4	AD	44	ASN	N-CA-C	5.07	117.47	111.33
16	AP	12	ARG	CA-C-N	5.07	131.23	121.54
16	AP	12	ARG	C-N-CA	5.07	131.23	121.54
24	AX	28	ALA	N-CA-C	5.07	115.23	108.38
26	AZ	49	ARG	N-CA-CB	-5.07	101.82	109.94
35	BA	10	A	C3'-C2'-O2'	5.07	118.31	110.70
35	BA	657	U	C1'-C2'-O2'	-5.07	100.79	108.40
42	BH	122	ASP	CA-C-O	-5.07	114.52	120.20
43	BI	74	VAL	N-CA-CB	-5.07	104.35	111.25
48	BN	79	ILE	CA-CB-CG1	5.07	119.02	110.40
49	BO	5	GLY	O-C-N	5.07	127.72	122.90
49	BO	59	VAL	N-CA-C	5.07	115.84	110.72
53	BS	17	GLU	CA-C-N	5.07	130.52	122.61
53	BS	17	GLU	C-N-CA	5.07	130.52	122.61
56	BV	55	PRO	N-CA-CB	5.07	108.91	103.33
2	AB	4	U	O4'-C1'-C2'	-5.07	102.53	107.60
2	AB	1753	G	C5'-C4'-O4'	5.07	117.41	109.80
12	AL	40	HIS	CE1-NE2-CD2	-5.07	103.93	109.00
19	AS	2	ARG	NE-CZ-NH1	-5.07	116.43	121.50
35	BA	299	G	O5'-C5'-C4'	5.07	119.11	111.50
35	BA	1179	A	C2'-C3'-O3'	-5.07	106.09	113.70
39	BE	174	LEU	N-CA-C	-5.07	107.04	113.43
2	AB	1092	C	O3'-P-O5'	5.07	111.61	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1890	A	C2'-C3'-O3'	-5.07	106.09	113.70
2	AB	2216	G	C4'-C3'-C2'	5.07	107.67	102.60
2	AB	2744	G	O4'-C4'-C3'	-5.07	98.93	104.00
5	AE	123	LYS	CG-CD-CE	5.07	122.96	111.30
10	AJ	125	LEU	CA-C-N	5.07	131.22	121.18
10	AJ	125	LEU	C-N-CA	5.07	131.22	121.18
35	BA	195	A	O3'-P-O5'	5.07	111.61	104.00
35	BA	430	A	C5'-C4'-O4'	5.07	117.41	109.80
35	BA	639	G	O4'-C4'-C3'	5.07	109.07	104.00
35	BA	1184	G	C1'-C2'-O2'	5.07	116.00	108.40
2	AB	3	U	O4'-C4'-C3'	5.07	109.07	104.00
2	AB	846	U	O4'-C1'-N1	5.07	116.10	108.50
2	AB	1072	C	N1-C1'-C2'	-5.07	104.40	112.00
2	AB	2867	G	C4'-C3'-C2'	-5.07	97.53	102.60
18	AR	72	VAL	CA-C-O	-5.07	114.73	120.66
35	BA	1374	A	C1'-O4'-C4'	-5.07	104.83	109.90
2	AB	342	A	O4'-C4'-C3'	5.07	109.07	104.00
2	AB	918	A	O3'-P-O5'	5.07	111.60	104.00
2	AB	1393	A	O4'-C1'-C2'	5.07	112.67	107.60
2	AB	1484	U	C1'-C2'-O2'	5.07	116.00	108.40
2	AB	2179	C	C5'-C4'-C3'	-5.07	108.40	116.00
2	AB	2220	U	O4'-C1'-N1	5.07	116.10	108.50
2	AB	2773	C	C1'-O4'-C4'	-5.07	104.83	109.90
26	AZ	34	SER	CA-C-O	-5.07	115.73	121.66
35	BA	151	A	O4'-C1'-N9	5.07	116.10	108.50
35	BA	185	U	C4'-C3'-C2'	-5.07	97.53	102.60
35	BA	485	U	O4'-C1'-N1	5.07	115.80	108.20
35	BA	627	G	C1'-O4'-C4'	-5.07	104.83	109.90
35	BA	1294	G	O4'-C1'-N9	5.07	116.10	108.50
35	BA	1452	C	P-O3'-C3'	5.07	127.80	120.20
40	BF	192	ALA	CA-C-N	5.07	130.69	121.92
40	BF	192	ALA	C-N-CA	5.07	130.69	121.92
41	BG	157	GLY	O-C-N	5.07	127.05	122.19
42	BH	93	LYS	O-C-N	5.07	129.16	122.93
52	BR	19	VAL	CB-CA-C	5.07	118.38	110.83
2	AB	1413	A	C4'-C3'-C2'	-5.07	97.53	102.60
2	AB	2743	U	O5'-C5'-C4'	-5.07	103.90	111.50
3	AC	231	ALA	CA-C-N	5.07	130.54	122.94
3	AC	231	ALA	C-N-CA	5.07	130.54	122.94
35	BA	181	A	N9-C1'-C2'	5.07	121.60	114.00
35	BA	243	A	P-O3'-C3'	5.07	127.80	120.20
35	BA	1476	A	O4'-C4'-C3'	5.07	109.06	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	1536	C	C5'-C4'-O4'	-5.07	102.20	109.80
38	BD	78	ALA	N-CA-CB	-5.07	102.43	110.28
48	BN	113	ARG	NE-CZ-NH1	-5.07	116.44	121.50
2	AB	1613	G	C4'-C3'-C2'	-5.06	97.54	102.60
35	BA	1155	A	C4'-C3'-O3'	-5.06	105.40	113.00
2	AB	205	G	O4'-C1'-N9	5.06	115.79	108.20
2	AB	531	C	O4'-C1'-C2'	-5.06	100.74	105.80
7	AG	101	ARG	CA-C-N	5.06	128.39	120.75
7	AG	101	ARG	C-N-CA	5.06	128.39	120.75
11	AK	28	GLY	O-C-N	-5.06	117.26	122.17
21	AU	9	HIS	ND1-CG-CD2	5.06	111.16	106.10
35	BA	22	G	O4'-C4'-C3'	-5.06	98.94	104.00
35	BA	410	G	C5'-C4'-C3'	-5.06	108.41	116.00
35	BA	534	U	C2'-C3'-O3'	5.06	121.29	113.70
35	BA	657	U	O4'-C4'-C3'	5.06	109.06	104.00
35	BA	1426	G	C2'-C3'-O3'	-5.06	106.11	113.70
39	BE	67	ILE	CB-CA-C	5.06	118.30	110.50
39	BE	102	ILE	CB-CA-C	5.06	117.19	110.91
2	AB	1630	A	C3'-C2'-O2'	5.06	118.29	110.70
35	BA	83	C	O4'-C1'-C2'	-5.06	102.54	107.60
35	BA	902	G	C5'-C4'-C3'	-5.06	108.41	116.00
51	BQ	27	GLN	N-CA-C	-5.06	105.84	111.36
2	AB	1054	A	O4'-C1'-N9	5.06	116.09	108.50
2	AB	1565	C	C4'-C3'-C2'	-5.06	97.54	102.60
13	AM	75	SER	CA-C-O	-5.06	115.28	121.05
35	BA	783	C	C1'-C2'-O2'	-5.06	100.81	108.40
35	BA	1462	C	C4'-C3'-C2'	-5.06	97.54	102.60
38	BD	56	LEU	CD1-CG-CD2	-5.06	99.67	110.80
40	BF	87	GLU	CA-C-O	-5.06	115.51	120.82
55	BU	8	PRO	CA-C-N	5.06	129.98	123.00
55	BU	8	PRO	C-N-CA	5.06	129.98	123.00
2	AB	112	U	C4'-C3'-C2'	-5.06	97.54	102.60
2	AB	2118	U	C4'-C3'-C2'	-5.06	97.54	102.60
2	AB	2628	C	C1'-O4'-C4'	-5.06	104.64	109.70
16	AP	22	ARG	CA-CB-CG	-5.06	103.99	114.10
19	AS	106	THR	N-CA-C	5.06	116.87	111.36
35	BA	316	C	C4'-C3'-C2'	5.06	107.66	102.60
35	BA	404	G	N9-C1'-C2'	-5.06	104.41	112.00
2	AB	44	A	C3'-C2'-O2'	5.06	118.28	110.70
2	AB	688	U	C2'-C3'-O3'	5.06	121.28	113.70
5	AE	5	VAL	CA-CB-CG1	5.06	119.00	110.40
35	BA	852	G	C4'-C3'-O3'	5.06	120.58	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
47	BM	17	ASP	CA-C-O	-5.06	115.33	120.99
2	AB	72	U	P-O5'-C5'	5.05	128.48	120.90
2	AB	291	G	C3'-C2'-C1'	-5.05	96.25	101.30
2	AB	1081	U	C4'-C3'-O3'	5.05	120.58	113.00
2	AB	1126	A	C1'-O4'-C4'	5.05	114.75	109.70
2	AB	1825	U	C1'-C2'-O2'	-5.05	100.82	108.40
2	AB	2410	G	O4'-C1'-C2'	-5.05	102.55	107.60
2	AB	2629	U	O4'-C1'-C2'	-5.05	100.75	105.80
2	AB	2702	G	C2'-C3'-O3'	-5.05	106.12	113.70
2	AB	2721	A	O3'-P-O5'	5.05	111.58	104.00
2	AB	2853	C	O4'-C1'-N1	5.05	116.08	108.50
13	AM	123	LEU	CB-CA-C	5.05	119.70	110.10
21	AU	53	SER	N-CA-C	5.05	116.79	111.28
35	BA	380	G	O4'-C1'-C2'	-5.05	102.55	107.60
35	BA	758	C	O4'-C1'-C2'	-5.05	102.55	107.60
35	BA	821	G	C4'-C3'-C2'	-5.05	97.55	102.60
38	BD	75	ALA	CA-C-N	5.05	127.05	120.28
38	BD	75	ALA	C-N-CA	5.05	127.05	120.28
49	BO	14	ALA	CA-C-O	-5.05	113.83	119.79
54	BT	6	ARG	O-C-N	-5.05	116.96	122.67
2	AB	731	C	C5'-C4'-C3'	-5.05	108.42	116.00
2	AB	2121	G	C4'-C3'-C2'	-5.05	97.55	102.60
2	AB	2295	C	O4'-C1'-C2'	-5.05	102.55	107.60
2	AB	2739	U	O4'-C1'-N1	5.05	116.08	108.50
2	AB	2860	A	C3'-C2'-O2'	5.05	118.28	110.70
6	AF	189	THR	CA-C-O	5.05	127.64	121.68
11	AK	126	ARG	CA-C-O	-5.05	114.39	120.10
13	AM	2	ILE	CB-CA-C	5.05	116.24	111.44
28	A1	20	LYS	CA-C-N	5.05	127.36	120.54
28	A1	20	LYS	C-N-CA	5.05	127.36	120.54
35	BA	665	A	C4'-C3'-O3'	5.05	120.58	113.00
35	BA	859	G	C4'-C3'-C2'	-5.05	97.55	102.60
2	AB	36	G	C5'-C4'-O4'	5.05	117.38	109.80
2	AB	242	G	O4'-C1'-N9	5.05	115.78	108.20
2	AB	2798	U	C3'-C2'-C1'	5.05	106.55	101.50
7	AG	52	ALA	CA-C-N	5.05	127.05	120.28
7	AG	52	ALA	C-N-CA	5.05	127.05	120.28
13	AM	100	PHE	CD1-CG-CD2	-5.05	111.02	118.60
24	AX	8	VAL	CA-C-N	5.05	129.29	121.26
24	AX	8	VAL	C-N-CA	5.05	129.29	121.26
25	AY	73	PRO	CA-C-O	-5.05	115.70	121.56
35	BA	233	C	N1-C1'-C2'	5.05	119.58	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	519	C	O5'-C5'-C4'	-5.05	103.92	111.50
35	BA	764	C	C2'-C3'-O3'	5.05	121.28	113.70
35	BA	994	A	C3'-C2'-C1'	-5.05	96.25	101.30
35	BA	1026	G	C5'-C4'-C3'	-5.05	108.42	116.00
38	BD	106	VAL	CA-C-N	5.05	127.56	120.28
38	BD	106	VAL	C-N-CA	5.05	127.56	120.28
40	BF	85	THR	CA-C-N	5.05	125.56	120.00
40	BF	85	THR	C-N-CA	5.05	125.56	120.00
40	BF	151	GLN	CB-CG-CD	5.05	121.19	112.60
49	BO	21	ILE	CA-C-N	5.05	131.19	121.54
49	BO	21	ILE	C-N-CA	5.05	131.19	121.54
2	AB	30	G	C4'-C3'-C2'	-5.05	97.55	102.60
2	AB	375	G	C1'-O4'-C4'	5.05	114.95	109.90
2	AB	1241	A	C3'-C2'-C1'	5.05	106.35	101.30
2	AB	1878	G	O4'-C4'-C3'	5.05	109.05	104.00
2	AB	1990	C	O3'-P-O5'	5.05	111.58	104.00
2	AB	2022	U	C5'-C4'-O4'	-5.05	101.53	109.10
2	AB	2031	A	O4'-C1'-N9	5.05	115.77	108.20
2	AB	2586	U	C5'-C4'-O4'	-5.05	102.22	109.80
3	AC	36	ALA	CA-C-O	-5.05	116.23	121.99
35	BA	492	C	C3'-C2'-C1'	5.05	106.35	101.30
37	BC	54	G	C2'-C3'-O3'	-5.05	106.12	113.70
49	BO	3	ILE	O-C-N	5.05	126.86	121.91
2	AB	627	A	O3'-P-O5'	-5.05	96.43	104.00
2	AB	2131	U	C4'-C3'-O3'	5.05	120.57	113.00
7	AG	71	LYS	N-CA-CB	5.05	119.09	110.51
35	BA	1129	C	C1'-C2'-O2'	5.05	119.37	111.80
35	BA	1168	U	C4'-C3'-O3'	-5.05	105.43	113.00
2	AB	150	U	C4'-C3'-C2'	-5.05	97.55	102.60
2	AB	458	G	C5'-C4'-O4'	5.05	116.67	109.10
2	AB	921	C	C4'-C3'-C2'	-5.05	97.55	102.60
2	AB	1783	A	O5'-C5'-C4'	5.05	119.27	111.70
2	AB	1842	G	O5'-C5'-C4'	5.05	119.07	111.50
2	AB	2277	G	O4'-C1'-C2'	-5.05	102.55	107.60
3	AC	129	GLN	CB-CA-C	5.05	118.13	109.65
8	AH	82	PHE	CA-C-N	5.05	128.24	120.82
8	AH	82	PHE	C-N-CA	5.05	128.24	120.82
30	A3	4	GLN	CB-CG-CD	5.05	121.18	112.60
35	BA	12	U	P-O3'-C3'	5.05	127.77	120.20
35	BA	430	A	O4'-C4'-C3'	5.05	109.05	104.00
35	BA	568	G	C1'-C2'-O2'	-5.05	100.83	108.40
35	BA	604	G	C2'-C3'-O3'	5.05	121.27	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	61	C	O4'-C1'-C2'	-5.04	102.56	107.60
2	AB	151	C	O4'-C1'-N1	5.04	116.07	108.50
2	AB	284	U	O4'-C1'-N1	5.04	116.07	108.50
2	AB	295	G	O4'-C1'-N9	5.04	116.07	108.50
2	AB	1205	A	O5'-C5'-C4'	5.04	119.27	111.70
2	AB	2264	C	C4'-C3'-O3'	5.04	120.57	113.00
2	AB	2733	A	C4'-C3'-C2'	-5.04	97.56	102.60
2	AB	2891	U	O4'-C1'-N1	5.04	116.07	108.50
5	AE	118	PHE	CA-C-N	5.04	131.18	121.54
5	AE	118	PHE	C-N-CA	5.04	131.18	121.54
35	BA	539	A	C3'-C2'-C1'	5.04	106.34	101.30
40	BF	152	SER	CA-C-N	5.04	128.67	120.60
40	BF	152	SER	C-N-CA	5.04	128.67	120.60
43	BI	13	PRO	N-CA-CB	5.04	108.55	103.25
2	AB	1059	G	C4'-C3'-C2'	-5.04	97.56	102.60
2	AB	1183	U	C3'-C2'-C1'	5.04	106.34	101.30
2	AB	1412	U	C2'-C3'-O3'	-5.04	106.14	113.70
2	AB	1461	C	O4'-C1'-N1	5.04	116.06	108.50
2	AB	2070	A	O4'-C1'-N9	5.04	116.06	108.50
2	AB	2439	A	C4'-C3'-O3'	5.04	120.57	113.00
2	AB	2454	G	C3'-C2'-C1'	5.04	106.34	101.30
16	AP	117	ASP	CA-C-N	5.04	128.50	121.24
16	AP	117	ASP	C-N-CA	5.04	128.50	121.24
33	A6	39	ARG	N-CA-C	5.04	116.47	110.97
35	BA	93	U	N1-C1'-C2'	-5.04	104.44	112.00
2	AB	19	A	C3'-C2'-C1'	5.04	106.34	101.30
2	AB	222	A	O4'-C1'-N9	5.04	115.76	108.20
2	AB	638	G	C5'-C4'-O4'	5.04	117.36	109.80
2	AB	876	C	C5'-C4'-O4'	5.04	117.36	109.80
2	AB	2292	U	C5'-C4'-C3'	-5.04	108.44	116.00
2	AB	2652	C	O4'-C1'-N1	5.04	116.06	108.50
2	AB	2750	A	C1'-C2'-O2'	5.04	119.36	111.80
6	AF	120	VAL	CA-C-N	5.04	127.92	120.91
6	AF	120	VAL	C-N-CA	5.04	127.92	120.91
7	AG	168	LEU	CB-CG-CD1	5.04	125.83	110.70
10	AJ	68	PHE	CA-C-N	5.04	130.11	123.05
10	AJ	68	PHE	C-N-CA	5.04	130.11	123.05
10	AJ	127	THR	CA-CB-CG2	5.04	119.07	110.50
19	AS	49	ARG	NE-CZ-NH2	5.04	123.74	119.20
32	A5	11	LYS	N-CA-C	-5.04	105.91	111.71
35	BA	657	U	N1-C1'-C2'	-5.04	104.44	112.00
35	BA	1013	G	C3'-C2'-C1'	-5.04	96.26	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2315	G	C2'-C3'-O3'	-5.04	106.14	113.70
35	BA	16	A	C4'-C3'-C2'	5.04	107.64	102.60
1	AA	106	G	C4'-C3'-C2'	-5.04	97.56	102.60
2	AB	239	C	O4'-C1'-N1	5.04	116.06	108.50
2	AB	645	C	O4'-C1'-N1	5.04	115.76	108.20
2	AB	860	U	O4'-C1'-N1	5.04	116.06	108.50
2	AB	1136	G	O4'-C1'-C2'	-5.04	102.56	107.60
2	AB	2280	G	C5'-C4'-O4'	5.04	117.36	109.80
2	AB	2480	C	O4'-C1'-N1	5.04	116.06	108.50
2	AB	2621	G	O4'-C1'-N9	5.04	116.06	108.50
18	AR	97	TYR	N-CA-C	5.04	117.43	111.33
35	BA	243	A	C2'-C3'-O3'	5.04	117.06	109.50
35	BA	809	G	P-O3'-C3'	5.04	127.76	120.20
35	BA	1397	C	C1'-O4'-C4'	5.04	114.74	109.70
37	BC	40	C	O4'-C1'-N1	5.04	116.06	108.50
41	BG	96	GLN	O-C-N	5.04	125.46	121.88
42	BH	115	ASP	CA-C-N	5.04	129.29	122.19
42	BH	115	ASP	C-N-CA	5.04	129.29	122.19
47	BM	5	ILE	N-CA-C	5.04	116.22	108.71
2	AB	443	A	O3'-P-O5'	5.04	111.56	104.00
2	AB	637	A	C4'-C3'-C2'	-5.04	97.56	102.60
2	AB	1263	U	C4'-C3'-C2'	-5.04	97.56	102.60
2	AB	1642	G	O3'-P-O5'	-5.04	96.44	104.00
2	AB	2120	G	O4'-C1'-N9	5.04	116.06	108.50
2	AB	2260	C	O4'-C4'-C3'	5.04	109.04	104.00
21	AU	60	HIS	CB-CG-ND1	5.04	130.25	122.70
35	BA	498	A	O3'-P-O5'	5.04	111.56	104.00
35	BA	908	A	P-O5'-C5'	5.04	128.46	120.90
48	BN	7	VAL	CA-CB-CG2	5.04	118.96	110.40
2	AB	734	A	O3'-P-O5'	-5.04	96.44	104.00
2	AB	2063	C	O3'-P-O5'	-5.04	96.45	104.00
3	AC	181	ASP	N-CA-C	5.04	117.35	110.55
6	AF	130	LYS	CA-C-O	-5.04	114.92	120.36
18	AR	114	ASN	OD1-CG-ND2	5.04	127.64	122.60
22	AV	1	MET	CA-C-O	-5.04	112.24	120.80
35	BA	382	A	O4'-C1'-C2'	-5.04	102.56	107.60
35	BA	456	A	C5'-C4'-O4'	5.04	117.35	109.80
38	BD	122	ASP	O-C-N	5.04	128.47	122.27
1	AA	110	C	O4'-C1'-N1	5.03	116.05	108.50
2	AB	289	G	C4'-C3'-C2'	-5.03	97.57	102.60
2	AB	1677	A	O3'-P-O5'	5.03	111.55	104.00
2	AB	1762	A	O3'-P-O5'	-5.03	96.45	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1815	A	C1'-C2'-O2'	-5.03	104.25	111.80
2	AB	2214	C	C4'-C3'-C2'	-5.03	97.57	102.60
4	AD	41	GLY	CA-C-O	5.03	124.38	119.04
35	BA	412	A	C3'-C2'-C1'	5.03	106.33	101.30
35	BA	530	G	C4'-C3'-C2'	5.03	107.63	102.60
35	BA	650	G	C4'-C3'-C2'	-5.03	97.57	102.60
35	BA	774	G	O4'-C4'-C3'	5.03	109.03	104.00
35	BA	957	U	O4'-C4'-C3'	5.03	109.03	104.00
35	BA	1208	C	C5'-C4'-O4'	5.03	117.35	109.80
35	BA	1484	C	O4'-C1'-C2'	-5.03	102.57	107.60
40	BF	86	GLY	CA-C-N	5.03	126.98	120.44
40	BF	86	GLY	C-N-CA	5.03	126.98	120.44
57	BW	9	GLU	CB-CG-CD	5.03	121.16	112.60
2	AB	302	C	C5'-C4'-C3'	-5.03	108.45	116.00
2	AB	2509	G	C3'-C2'-O2'	5.03	118.25	110.70
19	AS	60	TRP	N-CA-CB	5.03	117.31	110.01
35	BA	239	U	O3'-P-O5'	-5.03	96.45	104.00
35	BA	1080	A	O4'-C1'-N9	5.03	116.05	108.50
35	BA	1520	C	C3'-C2'-C1'	5.03	106.33	101.30
1	AA	46	A	C1'-O4'-C4'	-5.03	104.87	109.90
2	AB	102	U	C4'-C3'-O3'	-5.03	101.85	109.40
2	AB	230	G	N9-C1'-C2'	-5.03	104.45	112.00
2	AB	1807	G	C4'-C3'-C2'	-5.03	97.57	102.60
2	AB	2406	A	C4'-C3'-O3'	-5.03	101.85	109.40
3	AC	217	THR	CA-CB-CG2	5.03	119.05	110.50
4	AD	115	ILE	N-CA-CB	-5.03	105.56	111.39
9	AI	20	ASN	CA-C-N	5.03	129.83	122.69
9	AI	20	ASN	C-N-CA	5.03	129.83	122.69
12	AL	25	LEU	CD1-CG-CD2	-5.03	99.73	110.80
35	BA	606	G	C3'-C2'-C1'	-5.03	96.27	101.30
48	BN	3	VAL	CA-C-N	5.03	127.02	120.28
48	BN	3	VAL	C-N-CA	5.03	127.02	120.28
48	BN	81	ILE	CA-CB-CG1	5.03	118.95	110.40
43	BI	91	ARG	N-CA-CB	-5.03	103.05	110.14
44	BJ	79	ARG	NE-CZ-NH1	5.03	126.53	121.50
2	AB	1935	G	C4'-C3'-C2'	-5.03	97.57	102.60
2	AB	2083	G	N9-C1'-C2'	-5.03	104.46	112.00
2	AB	2719	G	O5'-C5'-C4'	5.03	119.04	111.50
6	AF	42	GLY	CA-C-N	5.03	129.18	120.58
6	AF	42	GLY	C-N-CA	5.03	129.18	120.58
21	AU	88	ARG	NE-CZ-NH1	-5.03	116.47	121.50
1	AA	33	G	C4'-C3'-C2'	-5.03	97.57	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	1133	A	C1'-O4'-C4'	-5.03	104.67	109.70
2	AB	1684	G	C4'-C3'-C2'	-5.03	97.57	102.60
14	AN	46	VAL	CA-C-O	5.03	127.16	121.28
32	A5	25	LYS	CA-C-O	-5.03	115.54	121.07
35	BA	560	A	C3'-C2'-O2'	5.03	118.24	110.70
35	BA	1443	C	C4'-C3'-O3'	-5.03	105.46	113.00
37	BC	54	G	P-O5'-C5'	5.03	128.44	120.90
53	BS	6	THR	CA-CB-CG2	5.03	119.04	110.50
2	AB	916	G	O4'-C1'-C2'	-5.02	102.58	107.60
2	AB	2265	U	O4'-C4'-C3'	-5.02	98.98	104.00
2	AB	2783	U	O5'-C5'-C4'	-5.02	103.96	111.50
35	BA	96	U	C4'-C3'-C2'	-5.02	97.58	102.60
35	BA	149	A	C2'-C3'-O3'	-5.02	106.17	113.70
35	BA	652	U	O4'-C1'-N1	5.02	115.74	108.20
35	BA	888	G	P-O3'-C3'	5.02	127.73	120.20
56	BV	85	LEU	O-C-N	-5.02	116.06	122.34
2	AB	667	U	N1-C1'-C2'	5.02	119.53	112.00
2	AB	1284	A	C3'-C2'-C1'	5.02	106.32	101.30
2	AB	2238	G	C5'-C4'-O4'	5.02	116.63	109.10
2	AB	2721	A	C5'-C4'-C3'	-5.02	108.47	116.00
3	AC	166	ASP	CA-C-N	5.02	130.44	122.60
3	AC	166	ASP	C-N-CA	5.02	130.44	122.60
4	AD	28	PRO	CB-CA-C	5.02	117.60	111.12
5	AE	103	ASP	CA-C-N	5.02	129.14	122.01
5	AE	103	ASP	C-N-CA	5.02	129.14	122.01
35	BA	617	G	C5'-C4'-C3'	-5.02	108.47	116.00
35	BA	733	G	O3'-P-O5'	-5.02	96.47	104.00
35	BA	818	G	C4'-C3'-O3'	5.02	120.53	113.00
35	BA	870	U	C1'-C2'-O2'	5.02	119.33	111.80
39	BE	87	ARG	N-CA-CB	-5.02	102.50	110.28
1	AA	79	G	C5'-C4'-O4'	5.02	117.33	109.80
2	AB	2562	U	O3'-P-O5'	5.02	111.53	104.00
19	AS	88	GLU	CA-C-O	5.02	127.69	120.51
35	BA	958	A	C5'-C4'-C3'	-5.02	108.47	116.00
36	BB	20	G	C5'-C4'-C3'	-5.02	108.47	116.00
39	BE	130	ARG	O-C-N	5.02	128.45	122.27
42	BH	107	ASP	N-CA-CB	-5.02	102.53	110.06
2	AB	193	U	N1-C1'-C2'	-5.02	104.47	112.00
2	AB	546	U	O4'-C1'-C2'	-5.02	102.58	107.60
2	AB	1765	U	N1-C1'-C2'	-5.02	104.47	112.00
2	AB	1997	C	C5'-C4'-O4'	5.02	117.33	109.80
9	AI	97	ARG	CD-NE-CZ	5.02	131.43	124.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	AL	27	ARG	NE-CZ-NH2	5.02	123.72	119.20
13	AM	119	ALA	N-CA-C	5.02	120.90	109.81
21	AU	91	GLY	CA-C-N	5.02	128.23	121.05
21	AU	91	GLY	C-N-CA	5.02	128.23	121.05
35	BA	1022	A	O4'-C1'-C2'	-5.02	102.58	107.60
35	BA	1342	C	C5'-C4'-C3'	-5.02	108.47	116.00
37	BC	1	C	O4'-C1'-C2'	-5.02	102.58	107.60
1	AA	67	G	N9-C1'-C2'	-5.02	104.47	112.00
2	AB	114	U	O4'-C1'-C2'	-5.02	102.58	107.60
2	AB	410	G	C5'-C4'-C3'	5.02	123.53	116.00
2	AB	930	G	C3'-C2'-O2'	5.02	118.22	110.70
2	AB	1124	G	C3'-C2'-C1'	5.02	106.32	101.30
2	AB	1816	C	C5'-C4'-C3'	-5.02	107.67	115.20
2	AB	2315	G	C4'-C3'-C2'	-5.02	97.58	102.60
2	AB	2418	A	C2'-C3'-O3'	-5.02	106.17	113.70
2	AB	2766	A	P-O3'-C3'	-5.02	112.67	120.20
11	AK	7	TYR	CA-CB-CG	5.02	122.93	113.90
35	BA	117	G	C5'-C4'-C3'	-5.02	108.47	116.00
35	BA	206	C	O5'-C5'-C4'	-5.02	103.97	111.50
35	BA	433	G	O5'-C5'-C4'	-5.02	103.97	111.50
35	BA	1042	A	C5'-C4'-C3'	-5.02	108.47	116.00
38	BD	53	LEU	CA-C-N	5.02	127.94	120.31
38	BD	53	LEU	C-N-CA	5.02	127.94	120.31
39	BE	169	GLU	CA-C-N	5.02	128.40	120.07
39	BE	169	GLU	C-N-CA	5.02	128.40	120.07
48	BN	58	ASN	CA-CB-CG	5.02	117.62	112.60
48	BN	89	LEU	CA-C-N	5.02	125.17	119.90
48	BN	89	LEU	C-N-CA	5.02	125.17	119.90
2	AB	48	G	C3'-C2'-O2'	5.02	118.22	110.70
2	AB	231	A	C5'-C4'-O4'	5.02	117.33	109.80
2	AB	1809	A	C4'-C3'-C2'	-5.02	97.58	102.60
2	AB	2147	A	C5'-C4'-C3'	-5.02	107.67	115.20
24	AX	14	LYS	CA-C-O	-5.02	115.23	120.55
24	AX	27	PRO	N-CA-CB	5.02	108.52	103.25
35	BA	28	A	O4'-C4'-C3'	5.02	109.02	104.00
35	BA	672	U	O4'-C4'-C3'	5.02	109.02	104.00
35	BA	684	U	O4'-C1'-N1	5.02	116.02	108.50
35	BA	948	C	C2'-C3'-O3'	-5.02	106.18	113.70
2	AB	259	G	C3'-C2'-C1'	5.01	106.31	101.30
2	AB	971	G	C4'-C3'-C2'	-5.01	97.58	102.60
2	AB	1718	G	C4'-C3'-C2'	-5.01	97.59	102.60
2	AB	2208	C	O4'-C1'-N1	5.01	116.02	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2364	C	C4'-C3'-O3'	-5.01	105.48	113.00
2	AB	2487	G	C1'-C2'-O2'	-5.01	100.88	108.40
9	AI	71	LYS	CA-C-N	5.01	127.51	121.84
9	AI	71	LYS	C-N-CA	5.01	127.51	121.84
12	AL	124	VAL	CA-CB-CG2	5.01	118.93	110.40
32	A5	34	ARG	CA-C-N	5.01	126.96	120.44
32	A5	34	ARG	C-N-CA	5.01	126.96	120.44
35	BA	1328	C	O5'-C5'-C4'	5.01	119.02	111.50
35	BA	1350	A	O4'-C4'-C3'	5.01	109.01	104.00
37	BC	38	A	P-O3'-C3'	5.01	127.72	120.20
41	BG	158	LYS	CB-CG-CD	5.01	122.83	111.30
42	BH	60	VAL	CA-CB-CG1	5.01	118.93	110.40
45	BK	65	THR	CA-CB-OG1	5.01	117.12	109.60
45	BK	89	TYR	CA-C-N	5.01	130.42	121.75
45	BK	89	TYR	C-N-CA	5.01	130.42	121.75
51	BQ	10	ILE	CA-C-N	5.01	127.54	120.42
51	BQ	10	ILE	C-N-CA	5.01	127.54	120.42
2	AB	1239	G	C1'-C2'-O2'	5.01	115.92	108.40
2	AB	1626	A	C2'-C3'-O3'	5.01	117.02	109.50
2	AB	2073	C	O4'-C1'-N1	5.01	116.02	108.50
2	AB	2479	U	C4'-C3'-C2'	-5.01	97.59	102.60
5	AE	51	THR	CA-C-N	5.01	131.35	121.58
5	AE	51	THR	C-N-CA	5.01	131.35	121.58
42	BH	85	ILE	CB-CA-C	5.01	118.49	111.92
47	BM	11	VAL	CB-CA-C	5.01	118.71	110.69
2	AB	967	U	O5'-C5'-C4'	-5.01	103.98	111.50
2	AB	2149	U	P-O5'-C5'	5.01	128.42	120.90
2	AB	2307	G	C4'-C3'-O3'	-5.01	101.88	109.40
2	AB	2376	A	C2'-C3'-O3'	-5.01	106.18	113.70
2	AB	2521	C	C5'-C4'-O4'	5.01	117.32	109.80
2	AB	2792	A	C5'-C4'-O4'	5.01	117.32	109.80
5	AE	118	PHE	CB-CA-C	-5.01	102.33	110.85
11	AK	11	GLN	CA-C-O	-5.01	113.28	120.15
12	AL	137	PRO	CB-CA-C	5.01	117.53	111.46
27	A0	26	PHE	CA-CB-CG	5.01	118.81	113.80
33	A6	41	ARG	N-CA-C	5.01	118.54	112.23
35	BA	146	G	C4'-C3'-C2'	-5.01	97.59	102.60
35	BA	277	C	C4'-C3'-C2'	-5.01	97.59	102.60
35	BA	361	G	O4'-C1'-N9	5.01	116.02	108.50
35	BA	877	G	O5'-C5'-C4'	5.01	119.02	111.50
35	BA	879	C	O4'-C4'-C3'	-5.01	98.99	104.00
35	BA	1047	G	O3'-P-O5'	-5.01	96.48	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	1283	U	N1-C1'-C2'	-5.01	104.48	112.00
2	AB	225	C	C3'-C2'-O2'	5.01	118.22	110.70
2	AB	386	G	O4'-C1'-N9	5.01	115.71	108.20
2	AB	481	G	O3'-P-O5'	-5.01	96.48	104.00
2	AB	1074	G	O4'-C1'-N9	5.01	116.01	108.50
2	AB	1149	G	O4'-C4'-C3'	5.01	109.01	104.00
2	AB	1253	A	C4'-C3'-O3'	5.01	116.91	109.40
2	AB	1513	U	C4'-C3'-C2'	-5.01	97.59	102.60
2	AB	1685	C	O4'-C4'-C3'	-5.01	98.99	104.00
7	AG	102	LEU	N-CA-C	-5.01	103.54	110.35
9	AI	3	VAL	CB-CA-C	5.01	119.51	111.29
18	AR	72	VAL	CB-CA-C	5.01	118.15	111.19
34	A7	37	GLN	CG-CD-NE2	-5.01	108.89	116.40
35	BA	442	G	C1'-O4'-C4'	-5.01	104.89	109.90
35	BA	453	G	C3'-C2'-O2'	5.01	118.22	110.70
35	BA	597	G	C1'-C2'-O2'	5.01	115.92	108.40
35	BA	928	G	C3'-C2'-C1'	5.01	106.31	101.30
44	BJ	23	ALA	N-CA-C	5.01	117.76	109.85
44	BJ	33	VAL	CA-CB-CG1	5.01	118.92	110.40
52	BR	51	ARG	NE-CZ-NH2	-5.01	114.69	119.20
2	AB	552	U	C4'-C3'-C2'	-5.01	97.59	102.60
2	AB	2263	C	O5'-C5'-C4'	5.01	119.01	111.50
22	AV	85	VAL	CA-C-N	5.01	131.10	121.54
22	AV	85	VAL	C-N-CA	5.01	131.10	121.54
1	AA	97	C	O4'-C1'-N1	5.01	116.01	108.50
2	AB	1134	A	C1'-O4'-C4'	-5.01	104.69	109.70
2	AB	1244	A	P-O5'-C5'	-5.01	113.39	120.90
2	AB	1558	C	C1'-O4'-C4'	5.01	114.71	109.70
2	AB	1757	A	O4'-C1'-N9	5.01	116.01	108.50
2	AB	1853	A	C3'-C2'-O2'	5.01	118.21	110.70
26	AZ	67	LEU	N-CA-C	5.01	116.74	111.28
2	AB	696	G	P-O5'-C5'	5.00	128.41	120.90
8	AH	53	PRO	N-CA-CB	-5.00	98.44	103.19
35	BA	600	A	C3'-C2'-C1'	5.00	106.31	101.30
35	BA	794	A	C5'-C4'-C3'	-5.00	108.49	116.00
42	BH	49	TYR	N-CA-C	-5.00	102.58	110.14
51	BQ	36	ASN	O-C-N	-5.00	116.68	122.09
2	AB	1948	G	O4'-C1'-C2'	-5.00	102.60	107.60
2	AB	2217	G	C1'-C2'-O2'	5.00	115.91	108.40
2	AB	2250	G	O4'-C1'-N9	5.00	115.71	108.20
9	AI	121	VAL	N-CA-C	5.00	115.69	108.48
20	AT	54	VAL	CA-CB-CG2	5.00	118.91	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BA	371	A	O3'-P-O5'	5.00	111.50	104.00
35	BA	1039	G	O4'-C1'-N9	5.00	116.00	108.50
35	BA	1195	C	O4'-C1'-C2'	-5.00	102.60	107.60
35	BA	1471	U	O4'-C1'-N1	5.00	116.01	108.50
2	AB	212	G	C5'-C4'-O4'	5.00	117.30	109.80
2	AB	374	A	C3'-C2'-O2'	5.00	118.20	110.70
2	AB	815	C	C3'-C2'-O2'	5.00	118.20	110.70
2	AB	989	G	C1'-C2'-O2'	-5.00	104.30	111.80
2	AB	1347	A	C2'-C3'-O3'	-5.00	106.20	113.70
2	AB	2856	A	C1'-C2'-O2'	-5.00	100.90	108.40
35	BA	10	A	O4'-C1'-N9	5.00	116.00	108.50
35	BA	395	C	C4'-C3'-C2'	-5.00	97.60	102.60
35	BA	1076	U	C1'-O4'-C4'	-5.00	104.90	109.90
35	BA	1116	U	C5'-C4'-C3'	-5.00	108.50	116.00
35	BA	1385	G	C1'-O4'-C4'	5.00	114.90	109.90
35	BA	1459	G	C3'-C2'-C1'	-5.00	96.30	101.30
51	BQ	87	ARG	CA-C-N	5.00	130.70	121.70
51	BQ	87	ARG	C-N-CA	5.00	130.70	121.70

There are no chirality outliers.

All (2857) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
27	A0	29	ARG	Sidechain
27	A0	57	LEU	Peptide
27	A0	6	LEU	Mainchain
27	A0	7	ARG	Sidechain
28	A1	10	ARG	Sidechain
28	A1	29	ARG	Sidechain
28	A1	30	ARG	Peptide
28	A1	44	ARG	Sidechain
29	A2	30	HIS	Peptide
29	A2	33	ASN	Peptide
29	A2	49	ARG	Peptide
30	A3	48	TYR	Sidechain
31	A4	23	THR	Mainchain
31	A4	48	TYR	Sidechain
32	A5	15	SER	Peptide
32	A5	21	ARG	Sidechain
33	A6	39	ARG	Sidechain
33	A6	63	TYR	Sidechain
34	A7	19	ARG	Sidechain

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Mol	Chain	Res	Type	Group
34	A7	36	ARG	Sidechain
1	AA	1	U	Sidechain
1	AA	10	G	Sidechain
1	AA	100	G	Sidechain
1	AA	103	U	Sidechain
1	AA	104	A	Sidechain
1	AA	107	G	Sidechain
1	AA	109	A	Sidechain
1	AA	11	C	Sidechain
1	AA	112	G	Sidechain
1	AA	113	C	Sidechain
1	AA	116	G	Sidechain
1	AA	120	U	Sidechain
1	AA	13	G	Sidechain
1	AA	14	U	Sidechain
1	AA	18	G	Sidechain
1	AA	2	G	Sidechain
1	AA	20	G	Sidechain
1	AA	21	G	Sidechain
1	AA	25	U	Sidechain
1	AA	26	C	Sidechain
1	AA	29	A	Sidechain
1	AA	3	C	Sidechain
1	AA	30	C	Sidechain
1	AA	31	C	Sidechain
1	AA	32	U	Sidechain
1	AA	33	G	Sidechain
1	AA	34	A	Sidechain
1	AA	35	C	Sidechain
1	AA	36	C	Sidechain
1	AA	37	C	Sidechain
1	AA	4	C	Sidechain
1	AA	42	C	Sidechain
1	AA	44	G	Sidechain
1	AA	46	A	Sidechain
1	AA	48	U	Sidechain
1	AA	5	U	Sidechain
1	AA	51	G	Sidechain
1	AA	52	A	Sidechain
1	AA	55	U	Sidechain
1	AA	56	G	Sidechain
1	AA	59	A	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	6	G	Sidechain
1	AA	60	C	Sidechain
1	AA	61	G	Sidechain
1	AA	62	C	Sidechain
1	AA	64	G	Sidechain
1	AA	65	U	Sidechain
1	AA	66	A	Sidechain
1	AA	67	G	Sidechain
1	AA	68	C	Sidechain
1	AA	7	G	Sidechain
1	AA	72	G	Sidechain
1	AA	73	A	Sidechain
1	AA	76	G	Sidechain
1	AA	78	A	Sidechain
1	AA	79	G	Sidechain
1	AA	8	C	Sidechain
1	AA	81	G	Sidechain
1	AA	83	G	Sidechain
1	AA	84	G	Sidechain
1	AA	85	G	Sidechain
1	AA	86	G	Sidechain
1	AA	87	U	Sidechain
1	AA	88	C	Sidechain
1	AA	89	U	Sidechain
1	AA	90	C	Sidechain
1	AA	91	C	Sidechain
1	AA	92	C	Sidechain
1	AA	98	G	Sidechain
2	AB	1	G	Sidechain
2	AB	10	A	Sidechain
2	AB	100	U	Sidechain
2	AB	1000	A	Sidechain
2	AB	1001	A	Sidechain
2	AB	1002	G	Sidechain
2	AB	1003	G	Sidechain
2	AB	1005	C	Sidechain
2	AB	1006	C	Sidechain
2	AB	1007	C	Sidechain
2	AB	1009	A	Sidechain
2	AB	1014	A	Sidechain
2	AB	1015	U	Sidechain
2	AB	1016	G	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	1017	G	Sidechain
2	AB	102	U	Sidechain
2	AB	1020	A	Sidechain
2	AB	1021	A	Sidechain
2	AB	1022	G	Sidechain
2	AB	1023	U	Sidechain
2	AB	1026	G	Sidechain
2	AB	1028	A	Sidechain
2	AB	1029	A	Sidechain
2	AB	103	A	Sidechain
2	AB	1033	U	Sidechain
2	AB	1034	G	Sidechain
2	AB	1035	U	Sidechain
2	AB	1036	G	Sidechain
2	AB	1038	G	Sidechain
2	AB	104	A	Sidechain
2	AB	1040	A	Sidechain
2	AB	1041	G	Sidechain
2	AB	1042	G	Sidechain
2	AB	1043	C	Sidechain
2	AB	1044	C	Sidechain
2	AB	1045	C	Sidechain
2	AB	1046	A	Sidechain
2	AB	1047	G	Sidechain
2	AB	1049	C	Sidechain
2	AB	105	C	Sidechain
2	AB	1050	A	Sidechain
2	AB	1051	G	Sidechain
2	AB	1052	C	Sidechain
2	AB	1053	C	Sidechain
2	AB	1056	G	Sidechain
2	AB	1057	A	Sidechain
2	AB	1058	U	Sidechain
2	AB	1059	G	Sidechain
2	AB	106	C	Sidechain
2	AB	1063	G	Sidechain
2	AB	1064	C	Sidechain
2	AB	1067	A	Sidechain
2	AB	1068	G	Sidechain
2	AB	1069	A	Sidechain
2	AB	1070	A	Sidechain
2	AB	1073	A	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	1074	G	Sidechain
2	AB	1075	C	Sidechain
2	AB	1076	C	Sidechain
2	AB	1077	A	Sidechain
2	AB	1078	U	Sidechain
2	AB	1079	C	Sidechain
2	AB	1080	A	Sidechain
2	AB	1081	U	Sidechain
2	AB	1082	U	Sidechain
2	AB	1083	U	Sidechain
2	AB	1084	A	Sidechain
2	AB	1085	A	Sidechain
2	AB	1086	A	Sidechain
2	AB	1087	G	Sidechain
2	AB	1088	A	Sidechain
2	AB	1089	A	Sidechain
2	AB	1092	C	Sidechain
2	AB	1093	G	Sidechain
2	AB	1094	U	Sidechain
2	AB	1099	G	Sidechain
2	AB	11	C	Sidechain
2	AB	1101	U	Sidechain
2	AB	1102	C	Sidechain
2	AB	1104	C	Sidechain
2	AB	1107	G	Sidechain
2	AB	1108	U	Sidechain
2	AB	1109	C	Sidechain
2	AB	1110	G	Sidechain
2	AB	1111	A	Sidechain
2	AB	1112	G	Sidechain
2	AB	1114	C	Sidechain
2	AB	1117	C	Sidechain
2	AB	1119	U	Sidechain
2	AB	1121	C	Sidechain
2	AB	1122	G	Sidechain
2	AB	1124	G	Sidechain
2	AB	1125	G	Sidechain
2	AB	1129	A	Sidechain
2	AB	113	U	Sidechain
2	AB	1130	U	Sidechain
2	AB	1131	G	Sidechain
2	AB	1135	C	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	1136	G	Sidechain
2	AB	1137	G	Sidechain
2	AB	114	U	Sidechain
2	AB	1141	U	Sidechain
2	AB	1148	U	Sidechain
2	AB	115	C	Sidechain
2	AB	1155	A	Sidechain
2	AB	1158	C	Sidechain
2	AB	1160	G	Sidechain
2	AB	1162	G	Sidechain
2	AB	1163	G	Sidechain
2	AB	1164	C	Sidechain
2	AB	1165	A	Sidechain
2	AB	1166	G	Sidechain
2	AB	1167	C	Sidechain
2	AB	1168	G	Sidechain
2	AB	1169	A	Sidechain
2	AB	1170	C	Sidechain
2	AB	1171	G	Sidechain
2	AB	1173	U	Sidechain
2	AB	1176	U	Sidechain
2	AB	1177	G	Sidechain
2	AB	1178	C	Sidechain
2	AB	1179	G	Sidechain
2	AB	118	A	Sidechain
2	AB	1183	U	Sidechain
2	AB	1184	U	Sidechain
2	AB	1185	G	Sidechain
2	AB	1186	G	Sidechain
2	AB	1187	G	Sidechain
2	AB	1188	U	Sidechain
2	AB	1189	A	Sidechain
2	AB	1190	G	Sidechain
2	AB	1191	G	Sidechain
2	AB	1192	G	Sidechain
2	AB	1193	G	Sidechain
2	AB	1195	G	Sidechain
2	AB	1196	C	Sidechain
2	AB	1197	G	Sidechain
2	AB	1199	U	Sidechain
2	AB	12	U	Sidechain
2	AB	120	U	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	1200	C	Sidechain
2	AB	1202	G	Sidechain
2	AB	1204	A	Sidechain
2	AB	1206	G	Sidechain
2	AB	1207	C	Sidechain
2	AB	1208	C	Sidechain
2	AB	1209	U	Sidechain
2	AB	1212	G	Sidechain
2	AB	1213	A	Sidechain
2	AB	1215	G	Sidechain
2	AB	122	G	Sidechain
2	AB	1220	G	Sidechain
2	AB	1226	A	Sidechain
2	AB	1227	G	Sidechain
2	AB	1228	G	Sidechain
2	AB	1229	C	Sidechain
2	AB	123	G	Sidechain
2	AB	1231	U	Sidechain
2	AB	1234	U	Sidechain
2	AB	1235	G	Sidechain
2	AB	1236	G	Sidechain
2	AB	1237	A	Sidechain
2	AB	1238	G	Sidechain
2	AB	1239	G	Sidechain
2	AB	124	G	Sidechain
2	AB	1243	C	Sidechain
2	AB	1244	A	Sidechain
2	AB	1245	G	Sidechain
2	AB	1246	A	Sidechain
2	AB	1248	G	Sidechain
2	AB	1249	U	Sidechain
2	AB	1250	G	Sidechain
2	AB	1251	C	Sidechain
2	AB	1252	G	Sidechain
2	AB	1254	A	Sidechain
2	AB	1255	U	Sidechain
2	AB	1256	G	Sidechain
2	AB	126	A	Sidechain
2	AB	1260	A	Sidechain
2	AB	1262	A	Sidechain
2	AB	1263	U	Sidechain
2	AB	1265	A	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	1266	G	Sidechain
2	AB	1267	U	Sidechain
2	AB	1268	A	Sidechain
2	AB	127	A	Sidechain
2	AB	1270	C	Sidechain
2	AB	1271	G	Sidechain
2	AB	1273	U	Sidechain
2	AB	1274	A	Sidechain
2	AB	1277	G	Sidechain
2	AB	1278	C	Sidechain
2	AB	1281	G	Sidechain
2	AB	1284	A	Sidechain
2	AB	1285	A	Sidechain
2	AB	1286	A	Sidechain
2	AB	1287	A	Sidechain
2	AB	1288	G	Sidechain
2	AB	129	C	Sidechain
2	AB	1290	C	Sidechain
2	AB	1291	C	Sidechain
2	AB	1292	G	Sidechain
2	AB	1293	C	Sidechain
2	AB	1296	G	Sidechain
2	AB	1298	C	Sidechain
2	AB	1299	G	Sidechain
2	AB	130	C	Sidechain
2	AB	1301	A	Sidechain
2	AB	1302	A	Sidechain
2	AB	1305	C	Sidechain
2	AB	1306	C	Sidechain
2	AB	1310	G	Sidechain
2	AB	1311	G	Sidechain
2	AB	1313	U	Sidechain
2	AB	1319	C	Sidechain
2	AB	1321	A	Sidechain
2	AB	1322	A	Sidechain
2	AB	1323	C	Sidechain
2	AB	1324	G	Sidechain
2	AB	1325	U	Sidechain
2	AB	1327	A	Sidechain
2	AB	133	U	Sidechain
2	AB	1330	C	Sidechain
2	AB	1331	G	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	1332	G	Sidechain
2	AB	1333	G	Sidechain
2	AB	1337	G	Sidechain
2	AB	1339	G	Sidechain
2	AB	134	G	Sidechain
2	AB	1340	U	Sidechain
2	AB	1342	A	Sidechain
2	AB	1343	G	Sidechain
2	AB	1345	C	Sidechain
2	AB	1346	G	Sidechain
2	AB	1349	C	Sidechain
2	AB	135	U	Sidechain
2	AB	1352	U	Sidechain
2	AB	1353	A	Sidechain
2	AB	1355	G	Sidechain
2	AB	1356	G	Sidechain
2	AB	1357	C	Sidechain
2	AB	1358	G	Sidechain
2	AB	1359	A	Sidechain
2	AB	1360	G	Sidechain
2	AB	1361	G	Sidechain
2	AB	1362	C	Sidechain
2	AB	1365	A	Sidechain
2	AB	1367	A	Sidechain
2	AB	1369	G	Sidechain
2	AB	137	U	Sidechain
2	AB	1371	G	Sidechain
2	AB	1372	U	Sidechain
2	AB	1376	C	Sidechain
2	AB	1379	U	Sidechain
2	AB	1380	G	Sidechain
2	AB	1381	G	Sidechain
2	AB	1382	G	Sidechain
2	AB	1384	A	Sidechain
2	AB	1385	A	Sidechain
2	AB	1386	C	Sidechain
2	AB	1387	A	Sidechain
2	AB	1389	G	Sidechain
2	AB	1391	U	Sidechain
2	AB	1392	A	Sidechain
2	AB	1393	A	Sidechain
2	AB	1394	U	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	1395	A	Sidechain
2	AB	1396	U	Sidechain
2	AB	14	A	Sidechain
2	AB	140	C	Sidechain
2	AB	1400	U	Sidechain
2	AB	1403	A	Sidechain
2	AB	1404	C	Sidechain
2	AB	1406	U	Sidechain
2	AB	1407	G	Sidechain
2	AB	1409	U	Sidechain
2	AB	141	G	Sidechain
2	AB	1410	G	Sidechain
2	AB	1411	U	Sidechain
2	AB	1412	U	Sidechain
2	AB	1414	C	Sidechain
2	AB	1416	G	Sidechain
2	AB	1417	C	Sidechain
2	AB	1418	G	Sidechain
2	AB	1421	G	Sidechain
2	AB	1422	G	Sidechain
2	AB	1423	G	Sidechain
2	AB	1425	G	Sidechain
2	AB	1427	A	Sidechain
2	AB	1428	C	Sidechain
2	AB	1436	G	Sidechain
2	AB	1438	U	Sidechain
2	AB	1439	A	Sidechain
2	AB	144	A	Sidechain
2	AB	1442	U	Sidechain
2	AB	1443	U	Sidechain
2	AB	1444	G	Sidechain
2	AB	1447	C	Sidechain
2	AB	1448	G	Sidechain
2	AB	1451	C	Sidechain
2	AB	1453	A	Sidechain
2	AB	1455	G	Sidechain
2	AB	1456	G	Sidechain
2	AB	1457	U	Sidechain
2	AB	1458	U	Sidechain
2	AB	1459	G	Sidechain
2	AB	1460	U	Sidechain
2	AB	1462	C	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	1463	C	Sidechain
2	AB	1464	G	Sidechain
2	AB	1466	U	Sidechain
2	AB	1468	U	Sidechain
2	AB	147	C	Sidechain
2	AB	1470	A	Sidechain
2	AB	1471	G	Sidechain
2	AB	1474	U	Sidechain
2	AB	1475	G	Sidechain
2	AB	1476	U	Sidechain
2	AB	1478	G	Sidechain
2	AB	1479	G	Sidechain
2	AB	148	U	Sidechain
2	AB	1480	C	Sidechain
2	AB	1481	U	Sidechain
2	AB	1482	G	Sidechain
2	AB	1483	G	Sidechain
2	AB	1484	U	Sidechain
2	AB	1485	U	Sidechain
2	AB	1487	U	Sidechain
2	AB	1488	C	Sidechain
2	AB	1492	G	Sidechain
2	AB	1494	A	Sidechain
2	AB	1496	A	Sidechain
2	AB	1499	C	Sidechain
2	AB	15	G	Sidechain
2	AB	1500	G	Sidechain
2	AB	1501	G	Sidechain
2	AB	1502	A	Sidechain
2	AB	1507	C	Sidechain
2	AB	1508	A	Sidechain
2	AB	1511	G	Sidechain
2	AB	1513	U	Sidechain
2	AB	1515	A	Sidechain
2	AB	1516	G	Sidechain
2	AB	1517	G	Sidechain
2	AB	1519	G	Sidechain
2	AB	1520	U	Sidechain
2	AB	1521	G	Sidechain
2	AB	1522	A	Sidechain
2	AB	1524	G	Sidechain
2	AB	1525	A	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	1527	G	Sidechain
2	AB	153	U	Sidechain
2	AB	1530	G	Sidechain
2	AB	1532	A	Sidechain
2	AB	1534	U	Sidechain
2	AB	1537	G	Sidechain
2	AB	1538	G	Sidechain
2	AB	1540	G	Sidechain
2	AB	1542	U	Sidechain
2	AB	1545	A	Sidechain
2	AB	1546	G	Sidechain
2	AB	1547	C	Sidechain
2	AB	1548	A	Sidechain
2	AB	155	A	Sidechain
2	AB	1554	U	Sidechain
2	AB	1555	G	Sidechain
2	AB	1556	C	Sidechain
2	AB	1559	U	Sidechain
2	AB	1560	G	Sidechain
2	AB	1563	U	Sidechain
2	AB	1565	C	Sidechain
2	AB	1567	G	Sidechain
2	AB	1568	G	Sidechain
2	AB	1569	A	Sidechain
2	AB	157	C	Sidechain
2	AB	1572	A	Sidechain
2	AB	1573	G	Sidechain
2	AB	1575	C	Sidechain
2	AB	1576	U	Sidechain
2	AB	1577	C	Sidechain
2	AB	158	U	Sidechain
2	AB	1581	G	Sidechain
2	AB	1583	A	Sidechain
2	AB	1584	U	Sidechain
2	AB	1585	C	Sidechain
2	AB	1586	A	Sidechain
2	AB	1587	G	Sidechain
2	AB	1588	G	Sidechain
2	AB	1589	U	Sidechain
2	AB	159	G	Sidechain
2	AB	1593	A	Sidechain
2	AB	1595	C	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	1597	A	Sidechain
2	AB	1598	A	Sidechain
2	AB	1599	U	Sidechain
2	AB	1600	C	Sidechain
2	AB	1601	G	Sidechain
2	AB	1602	U	Sidechain
2	AB	1604	C	Sidechain
2	AB	1605	C	Sidechain
2	AB	1608	A	Sidechain
2	AB	161	A	Sidechain
2	AB	1612	C	Sidechain
2	AB	1613	G	Sidechain
2	AB	1614	A	Sidechain
2	AB	1616	A	Sidechain
2	AB	1619	G	Sidechain
2	AB	1621	U	Sidechain
2	AB	1623	G	Sidechain
2	AB	1626	A	Sidechain
2	AB	1631	G	Sidechain
2	AB	1633	G	Sidechain
2	AB	1635	A	Sidechain
2	AB	1637	A	Sidechain
2	AB	1638	C	Sidechain
2	AB	164	C	Sidechain
2	AB	1640	A	Sidechain
2	AB	1641	A	Sidechain
2	AB	1642	G	Sidechain
2	AB	1644	C	Sidechain
2	AB	1645	G	Sidechain
2	AB	1646	C	Sidechain
2	AB	1648	U	Sidechain
2	AB	1649	G	Sidechain
2	AB	1651	G	Sidechain
2	AB	1653	G	Sidechain
2	AB	1655	A	Sidechain
2	AB	1656	C	Sidechain
2	AB	1657	U	Sidechain
2	AB	166	U	Sidechain
2	AB	1660	G	Sidechain
2	AB	1664	A	Sidechain
2	AB	1665	A	Sidechain
2	AB	1666	G	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	1667	G	Sidechain
2	AB	1671	U	Sidechain
2	AB	1672	A	Sidechain
2	AB	1673	G	Sidechain
2	AB	1675	C	Sidechain
2	AB	1676	A	Sidechain
2	AB	1677	A	Sidechain
2	AB	1678	A	Sidechain
2	AB	168	G	Sidechain
2	AB	1680	U	Sidechain
2	AB	1682	G	Sidechain
2	AB	1683	U	Sidechain
2	AB	1684	G	Sidechain
2	AB	1685	C	Sidechain
2	AB	1687	G	Sidechain
2	AB	1688	U	Sidechain
2	AB	1689	A	Sidechain
2	AB	169	G	Sidechain
2	AB	1690	A	Sidechain
2	AB	1692	U	Sidechain
2	AB	1694	C	Sidechain
2	AB	1695	G	Sidechain
2	AB	1696	G	Sidechain
2	AB	1699	G	Sidechain
2	AB	170	U	Sidechain
2	AB	1703	G	Sidechain
2	AB	1704	C	Sidechain
2	AB	1705	A	Sidechain
2	AB	1706	C	Sidechain
2	AB	1707	G	Sidechain
2	AB	1708	C	Sidechain
2	AB	1709	U	Sidechain
2	AB	171	U	Sidechain
2	AB	1710	G	Sidechain
2	AB	1712	U	Sidechain
2	AB	1715	G	Sidechain
2	AB	1717	A	Sidechain
2	AB	1719	G	Sidechain
2	AB	1720	U	Sidechain
2	AB	1722	A	Sidechain
2	AB	1723	G	Sidechain
2	AB	1724	G	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	1727	C	Sidechain
2	AB	1728	C	Sidechain
2	AB	1729	U	Sidechain
2	AB	1733	G	Sidechain
2	AB	1734	G	Sidechain
2	AB	1736	U	Sidechain
2	AB	1737	G	Sidechain
2	AB	1738	G	Sidechain
2	AB	1740	G	Sidechain
2	AB	1741	C	Sidechain
2	AB	1742	U	Sidechain
2	AB	1745	A	Sidechain
2	AB	1750	G	Sidechain
2	AB	1751	U	Sidechain
2	AB	1752	C	Sidechain
2	AB	1753	G	Sidechain
2	AB	1754	A	Sidechain
2	AB	1756	G	Sidechain
2	AB	1757	A	Sidechain
2	AB	1758	U	Sidechain
2	AB	1759	A	Sidechain
2	AB	176	A	Sidechain
2	AB	1761	C	Sidechain
2	AB	1763	G	Sidechain
2	AB	1764	C	Sidechain
2	AB	1767	G	Sidechain
2	AB	1769	U	Sidechain
2	AB	177	G	Sidechain
2	AB	1771	C	Sidechain
2	AB	1772	A	Sidechain
2	AB	1774	C	Sidechain
2	AB	1775	U	Sidechain
2	AB	1778	U	Sidechain
2	AB	178	G	Sidechain
2	AB	1780	A	Sidechain
2	AB	1782	U	Sidechain
2	AB	1784	A	Sidechain
2	AB	1785	A	Sidechain
2	AB	1786	A	Sidechain
2	AB	1788	C	Sidechain
2	AB	1789	A	Sidechain
2	AB	179	C	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	1792	G	Sidechain
2	AB	1793	C	Sidechain
2	AB	1797	G	Sidechain
2	AB	1799	G	Sidechain
2	AB	180	G	Sidechain
2	AB	1801	A	Sidechain
2	AB	1802	A	Sidechain
2	AB	1808	A	Sidechain
2	AB	1809	A	Sidechain
2	AB	181	A	Sidechain
2	AB	1810	A	Sidechain
2	AB	1814	G	Sidechain
2	AB	1815	A	Sidechain
2	AB	1817	G	Sidechain
2	AB	182	A	Sidechain
2	AB	1820	U	Sidechain
2	AB	1822	C	Sidechain
2	AB	1823	G	Sidechain
2	AB	1826	G	Sidechain
2	AB	1828	G	Sidechain
2	AB	1830	C	Sidechain
2	AB	1832	C	Sidechain
2	AB	1834	U	Sidechain
2	AB	1836	C	Sidechain
2	AB	1837	C	Sidechain
2	AB	1838	C	Sidechain
2	AB	1840	G	Sidechain
2	AB	1841	U	Sidechain
2	AB	1845	G	Sidechain
2	AB	1846	G	Sidechain
2	AB	1847	A	Sidechain
2	AB	1848	A	Sidechain
2	AB	1849	G	Sidechain
2	AB	1851	U	Sidechain
2	AB	1852	U	Sidechain
2	AB	1853	A	Sidechain
2	AB	1857	G	Sidechain
2	AB	1858	A	Sidechain
2	AB	186	G	Sidechain
2	AB	1861	G	Sidechain
2	AB	1862	G	Sidechain
2	AB	1863	G	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	1864	U	Sidechain
2	AB	1866	A	Sidechain
2	AB	1869	G	Sidechain
2	AB	1873	G	Sidechain
2	AB	1874	C	Sidechain
2	AB	1875	G	Sidechain
2	AB	1877	A	Sidechain
2	AB	1879	C	Sidechain
2	AB	188	G	Sidechain
2	AB	1883	U	Sidechain
2	AB	1887	C	Sidechain
2	AB	1889	A	Sidechain
2	AB	1890	A	Sidechain
2	AB	1891	G	Sidechain
2	AB	1892	C	Sidechain
2	AB	1897	G	Sidechain
2	AB	1899	A	Sidechain
2	AB	190	A	Sidechain
2	AB	1900	A	Sidechain
2	AB	1904	G	Sidechain
2	AB	1906	G	Sidechain
2	AB	1907	G	Sidechain
2	AB	1909	C	Sidechain
2	AB	1910	G	Sidechain
2	AB	1912	A	Sidechain
2	AB	1913	A	Sidechain
2	AB	1914	C	Sidechain
2	AB	1916	A	Sidechain
2	AB	1919	A	Sidechain
2	AB	1920	C	Sidechain
2	AB	1921	G	Sidechain
2	AB	1927	A	Sidechain
2	AB	1928	A	Sidechain
2	AB	1929	G	Sidechain
2	AB	1930	G	Sidechain
2	AB	1934	C	Sidechain
2	AB	1935	G	Sidechain
2	AB	1937	A	Sidechain
2	AB	1938	A	Sidechain
2	AB	194	G	Sidechain
2	AB	1940	U	Sidechain
2	AB	1941	C	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	1945	G	Sidechain
2	AB	1946	U	Sidechain
2	AB	1947	C	Sidechain
2	AB	1948	G	Sidechain
2	AB	195	A	Sidechain
2	AB	1955	U	Sidechain
2	AB	1959	G	Sidechain
2	AB	196	A	Sidechain
2	AB	1960	A	Sidechain
2	AB	1961	C	Sidechain
2	AB	1963	U	Sidechain
2	AB	1966	A	Sidechain
2	AB	1971	U	Sidechain
2	AB	1973	G	Sidechain
2	AB	1974	C	Sidechain
2	AB	1976	U	Sidechain
2	AB	1979	U	Sidechain
2	AB	1980	G	Sidechain
2	AB	1982	U	Sidechain
2	AB	1983	G	Sidechain
2	AB	1984	G	Sidechain
2	AB	1985	C	Sidechain
2	AB	1987	A	Sidechain
2	AB	1988	G	Sidechain
2	AB	199	A	Sidechain
2	AB	1991	U	Sidechain
2	AB	1994	C	Sidechain
2	AB	1995	U	Sidechain
2	AB	1996	C	Sidechain
2	AB	2	G	Sidechain
2	AB	20	C	Sidechain
2	AB	2000	C	Sidechain
2	AB	2002	G	Sidechain
2	AB	2004	G	Sidechain
2	AB	2005	A	Sidechain
2	AB	2006	C	Sidechain
2	AB	2007	U	Sidechain
2	AB	2008	C	Sidechain
2	AB	2009	A	Sidechain
2	AB	2010	G	Sidechain
2	AB	2011	U	Sidechain
2	AB	2014	A	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	2015	A	Sidechain
2	AB	2016	U	Sidechain
2	AB	2018	G	Sidechain
2	AB	2019	A	Sidechain
2	AB	202	U	Sidechain
2	AB	2022	U	Sidechain
2	AB	2026	U	Sidechain
2	AB	2027	G	Sidechain
2	AB	2028	U	Sidechain
2	AB	2029	G	Sidechain
2	AB	2033	A	Sidechain
2	AB	2034	U	Sidechain
2	AB	2035	G	Sidechain
2	AB	2038	G	Sidechain
2	AB	2039	U	Sidechain
2	AB	204	A	Sidechain
2	AB	2040	G	Sidechain
2	AB	2042	A	Sidechain
2	AB	2043	C	Sidechain
2	AB	2044	C	Sidechain
2	AB	2047	C	Sidechain
2	AB	2048	G	Sidechain
2	AB	2049	G	Sidechain
2	AB	205	G	Sidechain
2	AB	2053	G	Sidechain
2	AB	2054	A	Sidechain
2	AB	2055	C	Sidechain
2	AB	2056	G	Sidechain
2	AB	2058	A	Sidechain
2	AB	2059	A	Sidechain
2	AB	206	U	Sidechain
2	AB	2060	A	Sidechain
2	AB	2062	A	Sidechain
2	AB	2066	C	Sidechain
2	AB	2067	G	Sidechain
2	AB	2068	U	Sidechain
2	AB	207	A	Sidechain
2	AB	2072	C	Sidechain
2	AB	2075	U	Sidechain
2	AB	2076	U	Sidechain
2	AB	2079	U	Sidechain
2	AB	208	C	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	2083	G	Sidechain
2	AB	2084	C	Sidechain
2	AB	2085	U	Sidechain
2	AB	2087	G	Sidechain
2	AB	2090	A	Sidechain
2	AB	2092	U	Sidechain
2	AB	2093	G	Sidechain
2	AB	2094	A	Sidechain
2	AB	2097	A	Sidechain
2	AB	2099	U	Sidechain
2	AB	2101	A	Sidechain
2	AB	2102	G	Sidechain
2	AB	2106	U	Sidechain
2	AB	2107	G	Sidechain
2	AB	2109	U	Sidechain
2	AB	2110	G	Sidechain
2	AB	2111	U	Sidechain
2	AB	2112	G	Sidechain
2	AB	2113	U	Sidechain
2	AB	2114	A	Sidechain
2	AB	2115	G	Sidechain
2	AB	2116	G	Sidechain
2	AB	212	G	Sidechain
2	AB	2120	G	Sidechain
2	AB	2122	U	Sidechain
2	AB	2123	G	Sidechain
2	AB	2124	G	Sidechain
2	AB	2125	G	Sidechain
2	AB	2126	A	Sidechain
2	AB	2127	G	Sidechain
2	AB	2128	G	Sidechain
2	AB	2129	C	Sidechain
2	AB	213	A	Sidechain
2	AB	2130	U	Sidechain
2	AB	2133	G	Sidechain
2	AB	2135	A	Sidechain
2	AB	2136	G	Sidechain
2	AB	2137	U	Sidechain
2	AB	2140	G	Sidechain
2	AB	2141	G	Sidechain
2	AB	2144	G	Sidechain
2	AB	2145	C	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	2148	G	Sidechain
2	AB	2149	U	Sidechain
2	AB	215	G	Sidechain
2	AB	2153	C	Sidechain
2	AB	2154	A	Sidechain
2	AB	2155	U	Sidechain
2	AB	2157	G	Sidechain
2	AB	2159	G	Sidechain
2	AB	2160	C	Sidechain
2	AB	2161	C	Sidechain
2	AB	2164	C	Sidechain
2	AB	2165	C	Sidechain
2	AB	2166	U	Sidechain
2	AB	2167	U	Sidechain
2	AB	2168	G	Sidechain
2	AB	2169	A	Sidechain
2	AB	217	A	Sidechain
2	AB	2170	A	Sidechain
2	AB	2171	A	Sidechain
2	AB	2172	U	Sidechain
2	AB	2175	C	Sidechain
2	AB	2176	A	Sidechain
2	AB	2178	C	Sidechain
2	AB	2179	C	Sidechain
2	AB	2184	A	Sidechain
2	AB	2185	U	Sidechain
2	AB	2186	G	Sidechain
2	AB	2187	U	Sidechain
2	AB	219	A	Sidechain
2	AB	2190	G	Sidechain
2	AB	2191	A	Sidechain
2	AB	2194	U	Sidechain
2	AB	2196	C	Sidechain
2	AB	2197	U	Sidechain
2	AB	2198	A	Sidechain
2	AB	220	G	Sidechain
2	AB	2200	C	Sidechain
2	AB	2201	G	Sidechain
2	AB	2203	U	Sidechain
2	AB	2204	G	Sidechain
2	AB	2206	C	Sidechain
2	AB	2209	G	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	2210	U	Sidechain
2	AB	2211	A	Sidechain
2	AB	2212	A	Sidechain
2	AB	2213	U	Sidechain
2	AB	2214	C	Sidechain
2	AB	2218	G	Sidechain
2	AB	222	A	Sidechain
2	AB	2220	U	Sidechain
2	AB	2221	G	Sidechain
2	AB	2222	C	Sidechain
2	AB	2227	A	Sidechain
2	AB	2228	G	Sidechain
2	AB	2230	G	Sidechain
2	AB	2233	U	Sidechain
2	AB	2234	G	Sidechain
2	AB	2235	G	Sidechain
2	AB	2237	G	Sidechain
2	AB	2238	G	Sidechain
2	AB	2239	G	Sidechain
2	AB	2241	A	Sidechain
2	AB	2243	U	Sidechain
2	AB	2244	U	Sidechain
2	AB	2245	U	Sidechain
2	AB	2246	G	Sidechain
2	AB	2249	U	Sidechain
2	AB	2250	G	Sidechain
2	AB	2252	G	Sidechain
2	AB	2253	G	Sidechain
2	AB	2254	C	Sidechain
2	AB	2255	G	Sidechain
2	AB	2256	G	Sidechain
2	AB	2258	C	Sidechain
2	AB	2259	U	Sidechain
2	AB	226	A	Sidechain
2	AB	2260	C	Sidechain
2	AB	2261	C	Sidechain
2	AB	2263	C	Sidechain
2	AB	2264	C	Sidechain
2	AB	2265	U	Sidechain
2	AB	2267	A	Sidechain
2	AB	2268	A	Sidechain
2	AB	2269	G	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	2271	G	Sidechain
2	AB	2272	U	Sidechain
2	AB	2273	A	Sidechain
2	AB	2274	A	Sidechain
2	AB	2276	G	Sidechain
2	AB	228	C	Sidechain
2	AB	2281	A	Sidechain
2	AB	2282	G	Sidechain
2	AB	2285	C	Sidechain
2	AB	2286	G	Sidechain
2	AB	2288	A	Sidechain
2	AB	2292	U	Sidechain
2	AB	2294	G	Sidechain
2	AB	2295	C	Sidechain
2	AB	2296	U	Sidechain
2	AB	2297	A	Sidechain
2	AB	23	G	Sidechain
2	AB	230	G	Sidechain
2	AB	2301	C	Sidechain
2	AB	2302	U	Sidechain
2	AB	2303	G	Sidechain
2	AB	2304	G	Sidechain
2	AB	2305	U	Sidechain
2	AB	2306	C	Sidechain
2	AB	231	A	Sidechain
2	AB	2313	C	Sidechain
2	AB	2315	G	Sidechain
2	AB	2317	A	Sidechain
2	AB	2318	G	Sidechain
2	AB	2319	G	Sidechain
2	AB	232	G	Sidechain
2	AB	2321	U	Sidechain
2	AB	2322	A	Sidechain
2	AB	2323	G	Sidechain
2	AB	2324	U	Sidechain
2	AB	2325	G	Sidechain
2	AB	2326	C	Sidechain
2	AB	2327	A	Sidechain
2	AB	2328	A	Sidechain
2	AB	233	A	Sidechain
2	AB	2331	G	Sidechain
2	AB	2334	U	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	2335	A	Sidechain
2	AB	2337	G	Sidechain
2	AB	2339	C	Sidechain
2	AB	234	U	Sidechain
2	AB	2340	A	Sidechain
2	AB	2342	C	Sidechain
2	AB	2343	U	Sidechain
2	AB	2344	U	Sidechain
2	AB	2345	G	Sidechain
2	AB	2346	A	Sidechain
2	AB	2347	C	Sidechain
2	AB	2348	U	Sidechain
2	AB	2349	G	Sidechain
2	AB	235	U	Sidechain
2	AB	2353	G	Sidechain
2	AB	2355	G	Sidechain
2	AB	2357	G	Sidechain
2	AB	2360	G	Sidechain
2	AB	2361	G	Sidechain
2	AB	2363	G	Sidechain
2	AB	2364	C	Sidechain
2	AB	2365	G	Sidechain
2	AB	2367	G	Sidechain
2	AB	2371	G	Sidechain
2	AB	2372	U	Sidechain
2	AB	2373	G	Sidechain
2	AB	2374	C	Sidechain
2	AB	2375	G	Sidechain
2	AB	2379	G	Sidechain
2	AB	2382	G	Sidechain
2	AB	2383	G	Sidechain
2	AB	2384	U	Sidechain
2	AB	2388	A	Sidechain
2	AB	2389	G	Sidechain
2	AB	2390	U	Sidechain
2	AB	2391	G	Sidechain
2	AB	2393	U	Sidechain
2	AB	2397	G	Sidechain
2	AB	2398	U	Sidechain
2	AB	24	G	Sidechain
2	AB	240	C	Sidechain
2	AB	2401	U	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	2405	G	Sidechain
2	AB	2411	A	Sidechain
2	AB	2412	A	Sidechain
2	AB	2413	G	Sidechain
2	AB	2415	G	Sidechain
2	AB	2416	C	Sidechain
2	AB	2417	C	Sidechain
2	AB	242	G	Sidechain
2	AB	2420	C	Sidechain
2	AB	2421	G	Sidechain
2	AB	2423	U	Sidechain
2	AB	2425	A	Sidechain
2	AB	2426	A	Sidechain
2	AB	2428	G	Sidechain
2	AB	2430	A	Sidechain
2	AB	2431	U	Sidechain
2	AB	2432	A	Sidechain
2	AB	2433	A	Sidechain
2	AB	2434	A	Sidechain
2	AB	2435	A	Sidechain
2	AB	2436	G	Sidechain
2	AB	2439	A	Sidechain
2	AB	2440	C	Sidechain
2	AB	2441	U	Sidechain
2	AB	2442	C	Sidechain
2	AB	2444	G	Sidechain
2	AB	2446	G	Sidechain
2	AB	2453	A	Sidechain
2	AB	2455	G	Sidechain
2	AB	2456	C	Sidechain
2	AB	2458	G	Sidechain
2	AB	2459	A	Sidechain
2	AB	2461	A	Sidechain
2	AB	2462	C	Sidechain
2	AB	2465	C	Sidechain
2	AB	2467	C	Sidechain
2	AB	2469	A	Sidechain
2	AB	247	G	Sidechain
2	AB	2471	A	Sidechain
2	AB	2472	G	Sidechain
2	AB	2474	U	Sidechain
2	AB	2475	C	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	2476	A	Sidechain
2	AB	2477	U	Sidechain
2	AB	2479	U	Sidechain
2	AB	248	G	Sidechain
2	AB	2482	A	Sidechain
2	AB	2484	G	Sidechain
2	AB	2485	G	Sidechain
2	AB	2487	G	Sidechain
2	AB	2488	G	Sidechain
2	AB	2489	U	Sidechain
2	AB	2490	G	Sidechain
2	AB	2492	U	Sidechain
2	AB	2493	U	Sidechain
2	AB	2495	G	Sidechain
2	AB	25	U	Sidechain
2	AB	250	G	Sidechain
2	AB	2500	U	Sidechain
2	AB	2502	G	Sidechain
2	AB	2505	G	Sidechain
2	AB	2506	U	Sidechain
2	AB	2508	G	Sidechain
2	AB	251	A	Sidechain
2	AB	2511	U	Sidechain
2	AB	2512	C	Sidechain
2	AB	2513	A	Sidechain
2	AB	2515	C	Sidechain
2	AB	2518	A	Sidechain
2	AB	252	G	Sidechain
2	AB	2520	C	Sidechain
2	AB	2522	U	Sidechain
2	AB	2523	G	Sidechain
2	AB	2525	G	Sidechain
2	AB	2528	U	Sidechain
2	AB	2529	G	Sidechain
2	AB	2531	A	Sidechain
2	AB	2532	G	Sidechain
2	AB	2533	U	Sidechain
2	AB	2535	G	Sidechain
2	AB	2536	G	Sidechain
2	AB	2537	U	Sidechain
2	AB	254	G	Sidechain
2	AB	2541	A	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	2545	G	Sidechain
2	AB	255	A	Sidechain
2	AB	2550	G	Sidechain
2	AB	2553	G	Sidechain
2	AB	2555	U	Sidechain
2	AB	2556	C	Sidechain
2	AB	2557	G	Sidechain
2	AB	2559	C	Sidechain
2	AB	256	A	Sidechain
2	AB	2561	U	Sidechain
2	AB	2562	U	Sidechain
2	AB	2563	U	Sidechain
2	AB	2566	A	Sidechain
2	AB	2567	G	Sidechain
2	AB	2568	U	Sidechain
2	AB	257	C	Sidechain
2	AB	2571	U	Sidechain
2	AB	2572	A	Sidechain
2	AB	2573	C	Sidechain
2	AB	2576	G	Sidechain
2	AB	2578	G	Sidechain
2	AB	2579	C	Sidechain
2	AB	258	G	Sidechain
2	AB	2581	G	Sidechain
2	AB	2582	G	Sidechain
2	AB	2583	G	Sidechain
2	AB	2584	U	Sidechain
2	AB	2585	U	Sidechain
2	AB	2586	U	Sidechain
2	AB	2588	G	Sidechain
2	AB	2591	C	Sidechain
2	AB	2592	G	Sidechain
2	AB	2593	U	Sidechain
2	AB	2595	G	Sidechain
2	AB	2596	U	Sidechain
2	AB	2598	A	Sidechain
2	AB	2599	G	Sidechain
2	AB	2600	A	Sidechain
2	AB	2601	C	Sidechain
2	AB	2607	G	Sidechain
2	AB	2608	G	Sidechain
2	AB	2609	U	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	261	G	Sidechain
2	AB	2613	U	Sidechain
2	AB	2614	A	Sidechain
2	AB	2616	C	Sidechain
2	AB	2618	G	Sidechain
2	AB	262	A	Sidechain
2	AB	2621	G	Sidechain
2	AB	2623	G	Sidechain
2	AB	2624	G	Sidechain
2	AB	2625	G	Sidechain
2	AB	2627	G	Sidechain
2	AB	2628	C	Sidechain
2	AB	2629	U	Sidechain
2	AB	263	G	Sidechain
2	AB	2630	G	Sidechain
2	AB	2631	G	Sidechain
2	AB	2632	A	Sidechain
2	AB	2634	A	Sidechain
2	AB	2635	A	Sidechain
2	AB	2637	U	Sidechain
2	AB	2639	A	Sidechain
2	AB	2641	G	Sidechain
2	AB	2644	G	Sidechain
2	AB	2645	G	Sidechain
2	AB	2647	U	Sidechain
2	AB	2655	G	Sidechain
2	AB	2656	U	Sidechain
2	AB	2659	G	Sidechain
2	AB	2661	G	Sidechain
2	AB	2662	A	Sidechain
2	AB	2664	G	Sidechain
2	AB	2665	A	Sidechain
2	AB	2667	C	Sidechain
2	AB	2668	G	Sidechain
2	AB	2669	G	Sidechain
2	AB	2673	G	Sidechain
2	AB	2677	G	Sidechain
2	AB	268	C	Sidechain
2	AB	2680	U	Sidechain
2	AB	2681	C	Sidechain
2	AB	2682	A	Sidechain
2	AB	2683	C	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	2684	U	Sidechain
2	AB	2685	G	Sidechain
2	AB	2686	G	Sidechain
2	AB	2689	U	Sidechain
2	AB	269	C	Sidechain
2	AB	2690	U	Sidechain
2	AB	2692	G	Sidechain
2	AB	2694	G	Sidechain
2	AB	2698	U	Sidechain
2	AB	27	G	Sidechain
2	AB	270	A	Sidechain
2	AB	2702	G	Sidechain
2	AB	2703	C	Sidechain
2	AB	2704	C	Sidechain
2	AB	2705	A	Sidechain
2	AB	2708	G	Sidechain
2	AB	271	G	Sidechain
2	AB	2710	C	Sidechain
2	AB	2713	U	Sidechain
2	AB	2714	G	Sidechain
2	AB	2715	C	Sidechain
2	AB	2717	C	Sidechain
2	AB	2718	G	Sidechain
2	AB	2719	G	Sidechain
2	AB	2722	G	Sidechain
2	AB	2723	C	Sidechain
2	AB	2724	U	Sidechain
2	AB	2725	A	Sidechain
2	AB	2727	A	Sidechain
2	AB	2728	U	Sidechain
2	AB	2729	G	Sidechain
2	AB	273	G	Sidechain
2	AB	2731	G	Sidechain
2	AB	2732	G	Sidechain
2	AB	2733	A	Sidechain
2	AB	2735	G	Sidechain
2	AB	2737	G	Sidechain
2	AB	2739	U	Sidechain
2	AB	274	C	Sidechain
2	AB	2740	A	Sidechain
2	AB	2741	A	Sidechain
2	AB	2742	G	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	2743	U	Sidechain
2	AB	2746	U	Sidechain
2	AB	2747	G	Sidechain
2	AB	2749	A	Sidechain
2	AB	2752	C	Sidechain
2	AB	2753	A	Sidechain
2	AB	2755	C	Sidechain
2	AB	2759	G	Sidechain
2	AB	276	U	Sidechain
2	AB	2760	C	Sidechain
2	AB	2764	A	Sidechain
2	AB	2765	A	Sidechain
2	AB	2766	A	Sidechain
2	AB	2767	C	Sidechain
2	AB	2768	U	Sidechain
2	AB	2769	U	Sidechain
2	AB	2772	C	Sidechain
2	AB	2774	C	Sidechain
2	AB	2775	G	Sidechain
2	AB	2777	G	Sidechain
2	AB	2779	U	Sidechain
2	AB	2781	A	Sidechain
2	AB	2782	G	Sidechain
2	AB	2783	U	Sidechain
2	AB	2787	C	Sidechain
2	AB	279	A	Sidechain
2	AB	2792	A	Sidechain
2	AB	2793	C	Sidechain
2	AB	2796	U	Sidechain
2	AB	2797	U	Sidechain
2	AB	2798	U	Sidechain
2	AB	2800	A	Sidechain
2	AB	2802	G	Sidechain
2	AB	2808	G	Sidechain
2	AB	2809	A	Sidechain
2	AB	281	C	Sidechain
2	AB	2810	A	Sidechain
2	AB	2811	G	Sidechain
2	AB	2812	G	Sidechain
2	AB	2813	A	Sidechain
2	AB	2814	A	Sidechain
2	AB	2815	C	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	2816	G	Sidechain
2	AB	2818	U	Sidechain
2	AB	2819	G	Sidechain
2	AB	282	A	Sidechain
2	AB	2821	A	Sidechain
2	AB	2824	C	Sidechain
2	AB	2827	C	Sidechain
2	AB	2828	G	Sidechain
2	AB	283	G	Sidechain
2	AB	2830	C	Sidechain
2	AB	2831	G	Sidechain
2	AB	2832	U	Sidechain
2	AB	2834	G	Sidechain
2	AB	2836	U	Sidechain
2	AB	2838	G	Sidechain
2	AB	2839	G	Sidechain
2	AB	2843	G	Sidechain
2	AB	2844	G	Sidechain
2	AB	2845	U	Sidechain
2	AB	2846	G	Sidechain
2	AB	2848	G	Sidechain
2	AB	2849	U	Sidechain
2	AB	285	G	Sidechain
2	AB	2852	G	Sidechain
2	AB	2853	C	Sidechain
2	AB	2854	G	Sidechain
2	AB	2857	G	Sidechain
2	AB	2858	C	Sidechain
2	AB	2859	G	Sidechain
2	AB	286	U	Sidechain
2	AB	2860	A	Sidechain
2	AB	2866	U	Sidechain
2	AB	2868	A	Sidechain
2	AB	2869	G	Sidechain
2	AB	2871	U	Sidechain
2	AB	2874	C	Sidechain
2	AB	2875	C	Sidechain
2	AB	2876	G	Sidechain
2	AB	2877	G	Sidechain
2	AB	2878	U	Sidechain
2	AB	2879	A	Sidechain
2	AB	288	U	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	2880	C	Sidechain
2	AB	2881	U	Sidechain
2	AB	2885	G	Sidechain
2	AB	2886	A	Sidechain
2	AB	2887	A	Sidechain
2	AB	289	G	Sidechain
2	AB	2890	G	Sidechain
2	AB	2891	U	Sidechain
2	AB	2892	G	Sidechain
2	AB	2893	A	Sidechain
2	AB	2894	G	Sidechain
2	AB	2896	C	Sidechain
2	AB	2899	A	Sidechain
2	AB	29	U	Sidechain
2	AB	2902	C	Sidechain
2	AB	2903	U	Sidechain
2	AB	2904	U	Sidechain
2	AB	291	G	Sidechain
2	AB	293	U	Sidechain
2	AB	295	G	Sidechain
2	AB	296	U	Sidechain
2	AB	297	G	Sidechain
2	AB	299	A	Sidechain
2	AB	3	U	Sidechain
2	AB	30	G	Sidechain
2	AB	300	A	Sidechain
2	AB	301	G	Sidechain
2	AB	303	G	Sidechain
2	AB	307	G	Sidechain
2	AB	310	A	Sidechain
2	AB	311	A	Sidechain
2	AB	315	G	Sidechain
2	AB	316	C	Sidechain
2	AB	317	G	Sidechain
2	AB	318	C	Sidechain
2	AB	319	G	Sidechain
2	AB	320	A	Sidechain
2	AB	322	A	Sidechain
2	AB	323	C	Sidechain
2	AB	324	A	Sidechain
2	AB	325	G	Sidechain
2	AB	327	G	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	328	U	Sidechain
2	AB	330	A	Sidechain
2	AB	331	C	Sidechain
2	AB	333	G	Sidechain
2	AB	334	C	Sidechain
2	AB	335	C	Sidechain
2	AB	336	C	Sidechain
2	AB	337	C	Sidechain
2	AB	338	G	Sidechain
2	AB	34	U	Sidechain
2	AB	340	A	Sidechain
2	AB	341	C	Sidechain
2	AB	344	A	Sidechain
2	AB	345	A	Sidechain
2	AB	346	A	Sidechain
2	AB	347	A	Sidechain
2	AB	349	U	Sidechain
2	AB	35	G	Sidechain
2	AB	350	G	Sidechain
2	AB	352	A	Sidechain
2	AB	353	C	Sidechain
2	AB	356	G	Sidechain
2	AB	358	U	Sidechain
2	AB	359	G	Sidechain
2	AB	36	G	Sidechain
2	AB	361	G	Sidechain
2	AB	362	A	Sidechain
2	AB	364	C	Sidechain
2	AB	366	C	Sidechain
2	AB	367	G	Sidechain
2	AB	368	A	Sidechain
2	AB	369	U	Sidechain
2	AB	37	C	Sidechain
2	AB	370	G	Sidechain
2	AB	372	G	Sidechain
2	AB	373	U	Sidechain
2	AB	375	G	Sidechain
2	AB	376	G	Sidechain
2	AB	377	G	Sidechain
2	AB	380	G	Sidechain
2	AB	381	G	Sidechain
2	AB	383	C	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	385	C	Sidechain
2	AB	387	U	Sidechain
2	AB	388	G	Sidechain
2	AB	389	G	Sidechain
2	AB	39	G	Sidechain
2	AB	391	A	Sidechain
2	AB	392	U	Sidechain
2	AB	394	C	Sidechain
2	AB	395	U	Sidechain
2	AB	396	G	Sidechain
2	AB	4	U	Sidechain
2	AB	401	A	Sidechain
2	AB	402	A	Sidechain
2	AB	403	U	Sidechain
2	AB	404	A	Sidechain
2	AB	405	U	Sidechain
2	AB	407	G	Sidechain
2	AB	408	G	Sidechain
2	AB	409	G	Sidechain
2	AB	410	G	Sidechain
2	AB	412	A	Sidechain
2	AB	414	C	Sidechain
2	AB	415	A	Sidechain
2	AB	419	U	Sidechain
2	AB	421	C	Sidechain
2	AB	425	G	Sidechain
2	AB	426	C	Sidechain
2	AB	428	A	Sidechain
2	AB	43	G	Sidechain
2	AB	430	A	Sidechain
2	AB	432	A	Sidechain
2	AB	435	C	Sidechain
2	AB	437	U	Sidechain
2	AB	438	G	Sidechain
2	AB	439	A	Sidechain
2	AB	44	A	Sidechain
2	AB	440	C	Sidechain
2	AB	441	U	Sidechain
2	AB	442	G	Sidechain
2	AB	443	A	Sidechain
2	AB	448	U	Sidechain
2	AB	45	G	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	450	G	Sidechain
2	AB	451	U	Sidechain
2	AB	453	A	Sidechain
2	AB	454	A	Sidechain
2	AB	455	C	Sidechain
2	AB	457	A	Sidechain
2	AB	458	G	Sidechain
2	AB	459	U	Sidechain
2	AB	46	G	Sidechain
2	AB	460	A	Sidechain
2	AB	462	C	Sidechain
2	AB	463	G	Sidechain
2	AB	464	U	Sidechain
2	AB	465	G	Sidechain
2	AB	466	A	Sidechain
2	AB	467	G	Sidechain
2	AB	468	G	Sidechain
2	AB	469	G	Sidechain
2	AB	472	A	Sidechain
2	AB	474	G	Sidechain
2	AB	475	C	Sidechain
2	AB	477	A	Sidechain
2	AB	48	G	Sidechain
2	AB	480	A	Sidechain
2	AB	481	G	Sidechain
2	AB	486	C	Sidechain
2	AB	487	C	Sidechain
2	AB	488	G	Sidechain
2	AB	489	G	Sidechain
2	AB	49	A	Sidechain
2	AB	491	G	Sidechain
2	AB	494	G	Sidechain
2	AB	496	G	Sidechain
2	AB	498	G	Sidechain
2	AB	499	U	Sidechain
2	AB	501	A	Sidechain
2	AB	503	A	Sidechain
2	AB	505	A	Sidechain
2	AB	506	G	Sidechain
2	AB	512	G	Sidechain
2	AB	514	A	Sidechain
2	AB	515	A	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	516	C	Sidechain
2	AB	518	G	Sidechain
2	AB	520	G	Sidechain
2	AB	521	U	Sidechain
2	AB	524	G	Sidechain
2	AB	528	A	Sidechain
2	AB	53	A	Sidechain
2	AB	530	G	Sidechain
2	AB	531	C	Sidechain
2	AB	534	U	Sidechain
2	AB	535	G	Sidechain
2	AB	536	G	Sidechain
2	AB	537	G	Sidechain
2	AB	540	C	Sidechain
2	AB	541	A	Sidechain
2	AB	543	G	Sidechain
2	AB	546	U	Sidechain
2	AB	548	G	Sidechain
2	AB	549	G	Sidechain
2	AB	55	G	Sidechain
2	AB	550	C	Sidechain
2	AB	551	G	Sidechain
2	AB	553	G	Sidechain
2	AB	555	G	Sidechain
2	AB	558	U	Sidechain
2	AB	56	A	Sidechain
2	AB	561	G	Sidechain
2	AB	562	U	Sidechain
2	AB	563	A	Sidechain
2	AB	564	C	Sidechain
2	AB	566	U	Sidechain
2	AB	567	U	Sidechain
2	AB	568	U	Sidechain
2	AB	569	U	Sidechain
2	AB	570	G	Sidechain
2	AB	573	U	Sidechain
2	AB	574	A	Sidechain
2	AB	576	U	Sidechain
2	AB	577	G	Sidechain
2	AB	578	G	Sidechain
2	AB	579	G	Sidechain
2	AB	58	G	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	580	U	Sidechain
2	AB	581	C	Sidechain
2	AB	582	A	Sidechain
2	AB	583	G	Sidechain
2	AB	585	G	Sidechain
2	AB	586	A	Sidechain
2	AB	588	U	Sidechain
2	AB	589	U	Sidechain
2	AB	590	A	Sidechain
2	AB	592	A	Sidechain
2	AB	593	U	Sidechain
2	AB	594	U	Sidechain
2	AB	595	C	Sidechain
2	AB	596	U	Sidechain
2	AB	597	G	Sidechain
2	AB	60	G	Sidechain
2	AB	600	G	Sidechain
2	AB	601	C	Sidechain
2	AB	605	G	Sidechain
2	AB	606	U	Sidechain
2	AB	608	A	Sidechain
2	AB	612	G	Sidechain
2	AB	613	A	Sidechain
2	AB	615	U	Sidechain
2	AB	618	G	Sidechain
2	AB	619	G	Sidechain
2	AB	62	U	Sidechain
2	AB	621	A	Sidechain
2	AB	622	G	Sidechain
2	AB	628	G	Sidechain
2	AB	629	G	Sidechain
2	AB	63	A	Sidechain
2	AB	630	G	Sidechain
2	AB	631	A	Sidechain
2	AB	632	A	Sidechain
2	AB	636	G	Sidechain
2	AB	641	U	Sidechain
2	AB	646	U	Sidechain
2	AB	647	G	Sidechain
2	AB	648	G	Sidechain
2	AB	650	C	Sidechain
2	AB	651	G	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	652	U	Sidechain
2	AB	653	U	Sidechain
2	AB	655	A	Sidechain
2	AB	656	G	Sidechain
2	AB	660	C	Sidechain
2	AB	661	A	Sidechain
2	AB	662	G	Sidechain
2	AB	663	G	Sidechain
2	AB	664	G	Sidechain
2	AB	665	U	Sidechain
2	AB	666	A	Sidechain
2	AB	668	A	Sidechain
2	AB	669	G	Sidechain
2	AB	67	U	Sidechain
2	AB	670	A	Sidechain
2	AB	672	C	Sidechain
2	AB	676	A	Sidechain
2	AB	677	A	Sidechain
2	AB	679	C	Sidechain
2	AB	68	G	Sidechain
2	AB	684	G	Sidechain
2	AB	685	A	Sidechain
2	AB	690	G	Sidechain
2	AB	692	C	Sidechain
2	AB	695	G	Sidechain
2	AB	697	G	Sidechain
2	AB	699	A	Sidechain
2	AB	70	G	Sidechain
2	AB	700	G	Sidechain
2	AB	702	U	Sidechain
2	AB	703	U	Sidechain
2	AB	704	G	Sidechain
2	AB	705	A	Sidechain
2	AB	707	G	Sidechain
2	AB	708	G	Sidechain
2	AB	709	U	Sidechain
2	AB	711	G	Sidechain
2	AB	712	G	Sidechain
2	AB	713	G	Sidechain
2	AB	715	A	Sidechain
2	AB	716	A	Sidechain
2	AB	717	C	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	719	C	Sidechain
2	AB	720	U	Sidechain
2	AB	721	A	Sidechain
2	AB	722	A	Sidechain
2	AB	727	A	Sidechain
2	AB	729	G	Sidechain
2	AB	73	A	Sidechain
2	AB	732	C	Sidechain
2	AB	735	A	Sidechain
2	AB	738	G	Sidechain
2	AB	74	A	Sidechain
2	AB	740	C	Sidechain
2	AB	741	U	Sidechain
2	AB	743	A	Sidechain
2	AB	744	U	Sidechain
2	AB	750	A	Sidechain
2	AB	751	A	Sidechain
2	AB	752	A	Sidechain
2	AB	757	G	Sidechain
2	AB	759	G	Sidechain
2	AB	760	G	Sidechain
2	AB	764	A	Sidechain
2	AB	766	U	Sidechain
2	AB	767	U	Sidechain
2	AB	768	G	Sidechain
2	AB	77	G	Sidechain
2	AB	771	G	Sidechain
2	AB	773	U	Sidechain
2	AB	774	G	Sidechain
2	AB	776	G	Sidechain
2	AB	777	G	Sidechain
2	AB	778	G	Sidechain
2	AB	78	U	Sidechain
2	AB	781	A	Sidechain
2	AB	784	G	Sidechain
2	AB	785	G	Sidechain
2	AB	787	C	Sidechain
2	AB	788	A	Sidechain
2	AB	79	C	Sidechain
2	AB	792	A	Sidechain
2	AB	794	A	Sidechain
2	AB	796	C	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	798	G	Sidechain
2	AB	799	G	Sidechain
2	AB	800	A	Sidechain
2	AB	801	G	Sidechain
2	AB	802	A	Sidechain
2	AB	803	U	Sidechain
2	AB	804	A	Sidechain
2	AB	805	G	Sidechain
2	AB	806	C	Sidechain
2	AB	807	U	Sidechain
2	AB	808	G	Sidechain
2	AB	810	U	Sidechain
2	AB	811	U	Sidechain
2	AB	812	C	Sidechain
2	AB	814	C	Sidechain
2	AB	818	G	Sidechain
2	AB	820	A	Sidechain
2	AB	821	A	Sidechain
2	AB	822	G	Sidechain
2	AB	824	U	Sidechain
2	AB	826	U	Sidechain
2	AB	828	U	Sidechain
2	AB	829	A	Sidechain
2	AB	83	A	Sidechain
2	AB	830	G	Sidechain
2	AB	832	U	Sidechain
2	AB	834	G	Sidechain
2	AB	835	C	Sidechain
2	AB	837	C	Sidechain
2	AB	838	C	Sidechain
2	AB	839	U	Sidechain
2	AB	84	A	Sidechain
2	AB	840	C	Sidechain
2	AB	841	G	Sidechain
2	AB	845	A	Sidechain
2	AB	847	U	Sidechain
2	AB	849	A	Sidechain
2	AB	852	U	Sidechain
2	AB	853	C	Sidechain
2	AB	856	G	Sidechain
2	AB	857	G	Sidechain
2	AB	859	G	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	86	G	Sidechain
2	AB	860	U	Sidechain
2	AB	864	G	Sidechain
2	AB	869	G	Sidechain
2	AB	87	U	Sidechain
2	AB	870	U	Sidechain
2	AB	871	U	Sidechain
2	AB	875	G	Sidechain
2	AB	876	C	Sidechain
2	AB	877	A	Sidechain
2	AB	882	G	Sidechain
2	AB	883	G	Sidechain
2	AB	884	U	Sidechain
2	AB	885	C	Sidechain
2	AB	886	A	Sidechain
2	AB	887	U	Sidechain
2	AB	888	C	Sidechain
2	AB	890	C	Sidechain
2	AB	891	G	Sidechain
2	AB	894	U	Sidechain
2	AB	899	A	Sidechain
2	AB	90	U	Sidechain
2	AB	901	C	Sidechain
2	AB	902	C	Sidechain
2	AB	904	G	Sidechain
2	AB	906	U	Sidechain
2	AB	908	C	Sidechain
2	AB	909	A	Sidechain
2	AB	910	A	Sidechain
2	AB	911	A	Sidechain
2	AB	912	C	Sidechain
2	AB	913	U	Sidechain
2	AB	918	A	Sidechain
2	AB	922	C	Sidechain
2	AB	923	G	Sidechain
2	AB	924	G	Sidechain
2	AB	926	G	Sidechain
2	AB	927	A	Sidechain
2	AB	928	A	Sidechain
2	AB	931	U	Sidechain
2	AB	932	U	Sidechain
2	AB	934	U	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	935	C	Sidechain
2	AB	936	A	Sidechain
2	AB	937	C	Sidechain
2	AB	938	G	Sidechain
2	AB	939	G	Sidechain
2	AB	94	A	Sidechain
2	AB	940	G	Sidechain
2	AB	943	A	Sidechain
2	AB	944	C	Sidechain
2	AB	947	A	Sidechain
2	AB	948	C	Sidechain
2	AB	949	G	Sidechain
2	AB	95	A	Sidechain
2	AB	950	G	Sidechain
2	AB	953	G	Sidechain
2	AB	954	G	Sidechain
2	AB	958	U	Sidechain
2	AB	959	A	Sidechain
2	AB	96	C	Sidechain
2	AB	962	G	Sidechain
2	AB	963	U	Sidechain
2	AB	964	C	Sidechain
2	AB	965	C	Sidechain
2	AB	966	G	Sidechain
2	AB	968	C	Sidechain
2	AB	97	C	Sidechain
2	AB	970	U	Sidechain
2	AB	975	A	Sidechain
2	AB	976	G	Sidechain
2	AB	977	G	Sidechain
2	AB	979	A	Sidechain
2	AB	98	G	Sidechain
2	AB	980	A	Sidechain
2	AB	981	A	Sidechain
2	AB	983	A	Sidechain
2	AB	984	A	Sidechain
2	AB	985	C	Sidechain
2	AB	986	C	Sidechain
2	AB	987	C	Sidechain
2	AB	989	G	Sidechain
2	AB	99	U	Sidechain
2	AB	993	G	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	995	C	Sidechain
2	AB	997	G	Sidechain
3	AC	12	ARG	Sidechain
3	AC	134	ARG	Mainchain
3	AC	208	TYR	Sidechain
4	AD	101	ARG	Peptide
4	AD	128	THR	Mainchain
4	AD	157	ALA	Mainchain
4	AD	170	TYR	Sidechain
4	AD	199	HIS	Sidechain
4	AD	240	GLY	Peptide
4	AD	35	LYS	Mainchain
4	AD	5	CYS	Mainchain,Peptide
4	AD	51	ARG	Sidechain
4	AD	82	TYR	Sidechain
5	AE	113	SER	Peptide
5	AE	114	LYS	Peptide
5	AE	119	ALA	Peptide
5	AE	156	PHE	Sidechain
5	AE	40	LEU	Peptide
5	AE	77	ARG	Sidechain
5	AE	82	PHE	Sidechain
6	AF	70	SER	Peptide
6	AF	79	ARG	Sidechain
7	AG	102	LEU	Peptide
8	AH	29	ASN	Peptide
8	AH	69	ALA	Mainchain
9	AI	132	PHE	Sidechain
9	AI	23	ALA	Mainchain
9	AI	70	GLU	Peptide
10	AJ	112	PHE	Sidechain
10	AJ	124	ARG	Sidechain
10	AJ	130	THR	Mainchain,Peptide
10	AJ	152	ARG	Sidechain
10	AJ	30	ARG	Sidechain
10	AJ	50	TYR	Sidechain
10	AJ	92	ALA	Mainchain
11	AK	59	THR	Mainchain
12	AL	46	PRO	Peptide
12	AL	53	TYR	Sidechain
12	AL	98	GLU	Peptide
13	AM	17	ARG	Sidechain

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Mol	Chain	Res	Type	Group
13	AM	29	HIS	Sidechain
13	AM	70	ARG	Sidechain
14	AN	45	GLY	Peptide
14	AN	58	TYR	Sidechain
15	AO	18	ARG	Sidechain
15	AO	40	ARG	Sidechain
15	AO	91	TYR	Sidechain
16	AP	112	TYR	Sidechain
16	AP	125	ALA	Mainchain
16	AP	63	ARG	Sidechain
16	AP	7	GLY	Peptide
16	AP	80	PHE	Sidechain
17	AQ	10	ARG	Sidechain
17	AQ	13	ARG	Sidechain
17	AQ	15	ARG	Sidechain
17	AQ	16	ARG	Sidechain
18	AR	100	ARG	Sidechain
18	AR	19	PHE	Sidechain
18	AR	20	ARG	Sidechain
18	AR	71	ARG	Sidechain
18	AR	96	LEU	Mainchain
18	AR	98	TYR	Sidechain
19	AS	29	ARG	Sidechain
19	AS	56	PHE	Sidechain
19	AS	75	TYR	Sidechain
20	AT	12	HIS	Sidechain
20	AT	78	ARG	Sidechain
20	AT	82	HIS	Sidechain
20	AT	83	TYR	Sidechain
20	AT	90	ARG	Sidechain
21	AU	4	ILE	Peptide
21	AU	57	ASN	Mainchain
21	AU	6	LYS	Peptide
21	AU	8	ARG	Sidechain
21	AU	99	ARG	Sidechain
22	AV	49	LYS	Peptide
24	AX	26	PHE	Sidechain
24	AX	31	TYR	Sidechain
24	AX	44	HIS	Sidechain
24	AX	91	PHE	Sidechain
24	AX	93	ARG	Sidechain
25	AY	12	GLY	Peptide

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Mol	Chain	Res	Type	Group
25	AY	13	ARG	Peptide
25	AY	14	ASP	Peptide
25	AY	16	GLU	Peptide
26	AZ	1	SER	Peptide
26	AZ	28	PHE	Sidechain
35	BA	10	A	Sidechain
35	BA	1002	G	Sidechain
35	BA	1003	G	Sidechain
35	BA	1004	A	Sidechain
35	BA	101	A	Sidechain
35	BA	1012	A	Sidechain
35	BA	1013	G	Sidechain
35	BA	1014	A	Sidechain
35	BA	1016	A	Sidechain
35	BA	1018	G	Sidechain
35	BA	102	G	Sidechain
35	BA	1022	A	Sidechain
35	BA	1024	G	Sidechain
35	BA	103	U	Sidechain
35	BA	1033	G	Sidechain
35	BA	1035	A	Sidechain
35	BA	1039	G	Sidechain
35	BA	104	G	Sidechain
35	BA	1041	G	Sidechain
35	BA	1042	A	Sidechain
35	BA	1043	G	Sidechain
35	BA	1045	C	Sidechain
35	BA	1046	A	Sidechain
35	BA	1048	G	Sidechain
35	BA	105	G	Sidechain
35	BA	1058	G	Sidechain
35	BA	1060	U	Sidechain
35	BA	1063	C	Sidechain
35	BA	1064	G	Sidechain
35	BA	1067	A	Sidechain
35	BA	1068	G	Sidechain
35	BA	107	G	Sidechain
35	BA	1070	U	Sidechain
35	BA	1071	C	Sidechain
35	BA	1072	G	Sidechain
35	BA	1073	U	Sidechain
35	BA	1077	G	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	1079	G	Sidechain
35	BA	108	G	Sidechain
35	BA	1081	A	Sidechain
35	BA	1082	A	Sidechain
35	BA	1083	U	Sidechain
35	BA	1084	G	Sidechain
35	BA	1085	U	Sidechain
35	BA	1087	G	Sidechain
35	BA	1088	G	Sidechain
35	BA	1091	U	Sidechain
35	BA	1092	A	Sidechain
35	BA	1093	A	Sidechain
35	BA	1094	G	Sidechain
35	BA	1095	U	Sidechain
35	BA	1096	C	Sidechain
35	BA	1099	G	Sidechain
35	BA	1101	A	Sidechain
35	BA	1104	G	Sidechain
35	BA	1105	A	Sidechain
35	BA	1106	G	Sidechain
35	BA	1107	C	Sidechain
35	BA	1108	G	Sidechain
35	BA	1109	C	Sidechain
35	BA	111	G	Sidechain
35	BA	1110	A	Sidechain
35	BA	1113	C	Sidechain
35	BA	1114	C	Sidechain
35	BA	1115	U	Sidechain
35	BA	1116	U	Sidechain
35	BA	1117	A	Sidechain
35	BA	1119	C	Sidechain
35	BA	112	G	Sidechain
35	BA	1120	C	Sidechain
35	BA	1121	U	Sidechain
35	BA	1122	U	Sidechain
35	BA	1123	U	Sidechain
35	BA	1124	G	Sidechain
35	BA	1125	U	Sidechain
35	BA	1126	U	Sidechain
35	BA	1129	C	Sidechain
35	BA	113	G	Sidechain
35	BA	1130	A	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	1132	C	Sidechain
35	BA	1133	G	Sidechain
35	BA	1139	G	Sidechain
35	BA	114	U	Sidechain
35	BA	1140	C	Sidechain
35	BA	1141	C	Sidechain
35	BA	1143	G	Sidechain
35	BA	1145	A	Sidechain
35	BA	1146	A	Sidechain
35	BA	1148	U	Sidechain
35	BA	115	G	Sidechain
35	BA	1155	A	Sidechain
35	BA	1159	U	Sidechain
35	BA	116	A	Sidechain
35	BA	1162	C	Sidechain
35	BA	1164	G	Sidechain
35	BA	1165	U	Sidechain
35	BA	1166	G	Sidechain
35	BA	1168	U	Sidechain
35	BA	1169	A	Sidechain
35	BA	117	G	Sidechain
35	BA	1170	A	Sidechain
35	BA	1174	G	Sidechain
35	BA	1175	G	Sidechain
35	BA	1177	G	Sidechain
35	BA	118	U	Sidechain
35	BA	1181	G	Sidechain
35	BA	1183	U	Sidechain
35	BA	1185	G	Sidechain
35	BA	1188	A	Sidechain
35	BA	1189	U	Sidechain
35	BA	119	A	Sidechain
35	BA	1191	A	Sidechain
35	BA	1195	C	Sidechain
35	BA	1196	A	Sidechain
35	BA	1198	G	Sidechain
35	BA	12	U	Sidechain
35	BA	1201	A	Sidechain
35	BA	1202	U	Sidechain
35	BA	1203	C	Sidechain
35	BA	1204	A	Sidechain
35	BA	1206	G	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	1208	C	Sidechain
35	BA	1209	C	Sidechain
35	BA	1211	U	Sidechain
35	BA	1212	U	Sidechain
35	BA	1215	G	Sidechain
35	BA	1216	A	Sidechain
35	BA	1218	C	Sidechain
35	BA	122	G	Sidechain
35	BA	1220	G	Sidechain
35	BA	1221	G	Sidechain
35	BA	1223	C	Sidechain
35	BA	1224	U	Sidechain
35	BA	1227	A	Sidechain
35	BA	1228	C	Sidechain
35	BA	1230	C	Sidechain
35	BA	1231	G	Sidechain
35	BA	1232	U	Sidechain
35	BA	1234	C	Sidechain
35	BA	1237	C	Sidechain
35	BA	1238	A	Sidechain
35	BA	1240	U	Sidechain
35	BA	1241	G	Sidechain
35	BA	1242	G	Sidechain
35	BA	1244	G	Sidechain
35	BA	1249	C	Sidechain
35	BA	1250	A	Sidechain
35	BA	1254	A	Sidechain
35	BA	1255	G	Sidechain
35	BA	1257	A	Sidechain
35	BA	1259	C	Sidechain
35	BA	1260	G	Sidechain
35	BA	1261	A	Sidechain
35	BA	1265	C	Sidechain
35	BA	1266	G	Sidechain
35	BA	1268	G	Sidechain
35	BA	1269	A	Sidechain
35	BA	1270	G	Sidechain
35	BA	1272	G	Sidechain
35	BA	1274	A	Sidechain
35	BA	1275	A	Sidechain
35	BA	1278	G	Sidechain
35	BA	1279	G	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	128	G	Sidechain
35	BA	1280	A	Sidechain
35	BA	1283	U	Sidechain
35	BA	1286	U	Sidechain
35	BA	1287	A	Sidechain
35	BA	1289	A	Sidechain
35	BA	129	A	Sidechain
35	BA	1290	G	Sidechain
35	BA	1291	U	Sidechain
35	BA	1292	G	Sidechain
35	BA	1294	G	Sidechain
35	BA	1295	U	Sidechain
35	BA	1297	G	Sidechain
35	BA	1298	U	Sidechain
35	BA	1299	A	Sidechain
35	BA	13	U	Sidechain
35	BA	1300	G	Sidechain
35	BA	1302	C	Sidechain
35	BA	1304	G	Sidechain
35	BA	1305	G	Sidechain
35	BA	1306	A	Sidechain
35	BA	1309	G	Sidechain
35	BA	1311	A	Sidechain
35	BA	1313	U	Sidechain
35	BA	1314	C	Sidechain
35	BA	1316	G	Sidechain
35	BA	1317	C	Sidechain
35	BA	1320	C	Sidechain
35	BA	1321	U	Sidechain
35	BA	1322	C	Sidechain
35	BA	1326	U	Sidechain
35	BA	1327	C	Sidechain
35	BA	1328	C	Sidechain
35	BA	133	U	Sidechain
35	BA	1330	U	Sidechain
35	BA	1331	G	Sidechain
35	BA	1333	A	Sidechain
35	BA	1336	C	Sidechain
35	BA	1337	G	Sidechain
35	BA	1341	U	Sidechain
35	BA	1343	G	Sidechain
35	BA	1345	U	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	1346	A	Sidechain
35	BA	1348	U	Sidechain
35	BA	1349	A	Sidechain
35	BA	135	C	Sidechain
35	BA	1350	A	Sidechain
35	BA	1352	C	Sidechain
35	BA	1353	G	Sidechain
35	BA	1354	U	Sidechain
35	BA	1358	U	Sidechain
35	BA	1360	A	Sidechain
35	BA	1361	G	Sidechain
35	BA	1365	G	Sidechain
35	BA	137	U	Sidechain
35	BA	1370	G	Sidechain
35	BA	1371	G	Sidechain
35	BA	1372	U	Sidechain
35	BA	1373	G	Sidechain
35	BA	1374	A	Sidechain
35	BA	1375	A	Sidechain
35	BA	1377	A	Sidechain
35	BA	1379	G	Sidechain
35	BA	138	G	Sidechain
35	BA	1380	U	Sidechain
35	BA	1381	U	Sidechain
35	BA	1383	C	Sidechain
35	BA	1384	C	Sidechain
35	BA	1387	G	Sidechain
35	BA	1392	G	Sidechain
35	BA	1393	U	Sidechain
35	BA	1397	C	Sidechain
35	BA	1398	A	Sidechain
35	BA	1399	C	Sidechain
35	BA	140	U	Sidechain
35	BA	1400	C	Sidechain
35	BA	1401	G	Sidechain
35	BA	1404	C	Sidechain
35	BA	1405	G	Sidechain
35	BA	1409	C	Sidechain
35	BA	141	G	Sidechain
35	BA	1410	A	Sidechain
35	BA	1412	C	Sidechain
35	BA	1413	A	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	1415	G	Sidechain
35	BA	1417	G	Sidechain
35	BA	1418	A	Sidechain
35	BA	1419	G	Sidechain
35	BA	142	G	Sidechain
35	BA	1421	G	Sidechain
35	BA	1423	G	Sidechain
35	BA	1424	U	Sidechain
35	BA	1425	U	Sidechain
35	BA	1426	G	Sidechain
35	BA	1428	A	Sidechain
35	BA	1429	A	Sidechain
35	BA	143	A	Sidechain
35	BA	1430	A	Sidechain
35	BA	1431	A	Sidechain
35	BA	1432	G	Sidechain
35	BA	1433	A	Sidechain
35	BA	1435	G	Sidechain
35	BA	1436	U	Sidechain
35	BA	1438	G	Sidechain
35	BA	1439	G	Sidechain
35	BA	1440	U	Sidechain
35	BA	1441	A	Sidechain
35	BA	1442	G	Sidechain
35	BA	1443	C	Sidechain
35	BA	1444	U	Sidechain
35	BA	1445	U	Sidechain
35	BA	1446	A	Sidechain
35	BA	1449	C	Sidechain
35	BA	145	G	Sidechain
35	BA	1450	U	Sidechain
35	BA	1451	U	Sidechain
35	BA	1452	C	Sidechain
35	BA	1453	G	Sidechain
35	BA	1454	G	Sidechain
35	BA	1455	G	Sidechain
35	BA	1456	A	Sidechain
35	BA	1458	G	Sidechain
35	BA	1459	G	Sidechain
35	BA	146	G	Sidechain
35	BA	1461	G	Sidechain
35	BA	1464	U	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	1469	C	Sidechain
35	BA	147	G	Sidechain
35	BA	1470	U	Sidechain
35	BA	1473	G	Sidechain
35	BA	1474	U	Sidechain
35	BA	1476	A	Sidechain
35	BA	1477	U	Sidechain
35	BA	1478	U	Sidechain
35	BA	1479	C	Sidechain
35	BA	148	G	Sidechain
35	BA	1482	G	Sidechain
35	BA	1485	U	Sidechain
35	BA	1486	G	Sidechain
35	BA	1487	G	Sidechain
35	BA	1489	G	Sidechain
35	BA	1492	A	Sidechain
35	BA	1493	A	Sidechain
35	BA	1497	G	Sidechain
35	BA	1499	A	Sidechain
35	BA	15	G	Sidechain
35	BA	1503	A	Sidechain
35	BA	1505	G	Sidechain
35	BA	1506	U	Sidechain
35	BA	1507	A	Sidechain
35	BA	1511	G	Sidechain
35	BA	1512	U	Sidechain
35	BA	1513	A	Sidechain
35	BA	1514	G	Sidechain
35	BA	152	A	Sidechain
35	BA	1521	C	Sidechain
35	BA	1522	U	Sidechain
35	BA	1523	G	Sidechain
35	BA	1524	C	Sidechain
35	BA	1525	G	Sidechain
35	BA	1529	G	Sidechain
35	BA	1532	U	Sidechain
35	BA	1535	C	Sidechain
35	BA	1536	C	Sidechain
35	BA	1537	U	Sidechain
35	BA	1538	C	Sidechain
35	BA	1539	C	Sidechain
35	BA	1540	U	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	156	C	Sidechain
35	BA	157	U	Sidechain
35	BA	158	G	Sidechain
35	BA	159	G	Sidechain
35	BA	16	A	Sidechain
35	BA	160	A	Sidechain
35	BA	163	C	Sidechain
35	BA	166	U	Sidechain
35	BA	167	A	Sidechain
35	BA	168	G	Sidechain
35	BA	169	C	Sidechain
35	BA	17	U	Sidechain
35	BA	171	A	Sidechain
35	BA	173	U	Sidechain
35	BA	176	C	Sidechain
35	BA	179	A	Sidechain
35	BA	183	C	Sidechain
35	BA	185	U	Sidechain
35	BA	187	G	Sidechain
35	BA	188	C	Sidechain
35	BA	189	A	Sidechain
35	BA	190	A	Sidechain
35	BA	192	A	Sidechain
35	BA	196	A	Sidechain
35	BA	197	A	Sidechain
35	BA	2	A	Sidechain
35	BA	20	U	Sidechain
35	BA	202	G	Sidechain
35	BA	203	G	Sidechain
35	BA	204	G	Sidechain
35	BA	207	C	Sidechain
35	BA	208	U	Sidechain
35	BA	21	G	Sidechain
35	BA	211	G	Sidechain
35	BA	213	G	Sidechain
35	BA	214	C	Sidechain
35	BA	22	G	Sidechain
35	BA	220	G	Sidechain
35	BA	221	C	Sidechain
35	BA	224	U	Sidechain
35	BA	226	G	Sidechain
35	BA	227	G	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	229	U	Sidechain
35	BA	23	C	Sidechain
35	BA	230	G	Sidechain
35	BA	232	G	Sidechain
35	BA	233	C	Sidechain
35	BA	235	C	Sidechain
35	BA	238	A	Sidechain
35	BA	24	U	Sidechain
35	BA	240	G	Sidechain
35	BA	244	U	Sidechain
35	BA	245	U	Sidechain
35	BA	246	A	Sidechain
35	BA	247	G	Sidechain
35	BA	249	U	Sidechain
35	BA	251	G	Sidechain
35	BA	252	U	Sidechain
35	BA	255	G	Sidechain
35	BA	258	G	Sidechain
35	BA	259	G	Sidechain
35	BA	260	G	Sidechain
35	BA	261	U	Sidechain
35	BA	263	A	Sidechain
35	BA	264	C	Sidechain
35	BA	265	G	Sidechain
35	BA	266	G	Sidechain
35	BA	27	G	Sidechain
35	BA	271	C	Sidechain
35	BA	273	U	Sidechain
35	BA	275	G	Sidechain
35	BA	276	G	Sidechain
35	BA	278	G	Sidechain
35	BA	279	A	Sidechain
35	BA	280	C	Sidechain
35	BA	281	G	Sidechain
35	BA	285	C	Sidechain
35	BA	288	A	Sidechain
35	BA	29	U	Sidechain
35	BA	291	U	Sidechain
35	BA	293	G	Sidechain
35	BA	295	C	Sidechain
35	BA	297	G	Sidechain
35	BA	298	A	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	299	G	Sidechain
35	BA	3	A	Sidechain
35	BA	30	U	Sidechain
35	BA	301	G	Sidechain
35	BA	302	G	Sidechain
35	BA	303	A	Sidechain
35	BA	305	G	Sidechain
35	BA	306	A	Sidechain
35	BA	307	C	Sidechain
35	BA	309	A	Sidechain
35	BA	31	G	Sidechain
35	BA	314	C	Sidechain
35	BA	316	C	Sidechain
35	BA	317	U	Sidechain
35	BA	322	C	Sidechain
35	BA	323	U	Sidechain
35	BA	324	G	Sidechain
35	BA	326	G	Sidechain
35	BA	327	A	Sidechain
35	BA	328	C	Sidechain
35	BA	329	A	Sidechain
35	BA	33	A	Sidechain
35	BA	330	C	Sidechain
35	BA	331	G	Sidechain
35	BA	332	G	Sidechain
35	BA	334	C	Sidechain
35	BA	335	C	Sidechain
35	BA	337	G	Sidechain
35	BA	338	A	Sidechain
35	BA	341	C	Sidechain
35	BA	343	U	Sidechain
35	BA	347	G	Sidechain
35	BA	349	A	Sidechain
35	BA	35	G	Sidechain
35	BA	350	G	Sidechain
35	BA	352	C	Sidechain
35	BA	354	G	Sidechain
35	BA	355	C	Sidechain
35	BA	356	A	Sidechain
35	BA	357	G	Sidechain
35	BA	359	G	Sidechain
35	BA	36	C	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	360	G	Sidechain
35	BA	366	A	Sidechain
35	BA	367	U	Sidechain
35	BA	368	U	Sidechain
35	BA	369	G	Sidechain
35	BA	37	U	Sidechain
35	BA	370	C	Sidechain
35	BA	371	A	Sidechain
35	BA	373	A	Sidechain
35	BA	375	U	Sidechain
35	BA	378	G	Sidechain
35	BA	38	G	Sidechain
35	BA	380	G	Sidechain
35	BA	381	C	Sidechain
35	BA	382	A	Sidechain
35	BA	384	G	Sidechain
35	BA	385	C	Sidechain
35	BA	386	C	Sidechain
35	BA	387	U	Sidechain
35	BA	388	G	Sidechain
35	BA	390	U	Sidechain
35	BA	391	G	Sidechain
35	BA	392	C	Sidechain
35	BA	396	C	Sidechain
35	BA	397	A	Sidechain
35	BA	399	G	Sidechain
35	BA	40	C	Sidechain
35	BA	400	C	Sidechain
35	BA	401	C	Sidechain
35	BA	403	C	Sidechain
35	BA	404	G	Sidechain
35	BA	406	G	Sidechain
35	BA	408	A	Sidechain
35	BA	409	U	Sidechain
35	BA	41	G	Sidechain
35	BA	410	G	Sidechain
35	BA	412	A	Sidechain
35	BA	414	A	Sidechain
35	BA	415	A	Sidechain
35	BA	416	G	Sidechain
35	BA	417	G	Sidechain
35	BA	418	C	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	419	C	Sidechain
35	BA	42	G	Sidechain
35	BA	421	U	Sidechain
35	BA	422	C	Sidechain
35	BA	423	G	Sidechain
35	BA	426	U	Sidechain
35	BA	429	U	Sidechain
35	BA	433	G	Sidechain
35	BA	434	U	Sidechain
35	BA	435	A	Sidechain
35	BA	436	C	Sidechain
35	BA	437	U	Sidechain
35	BA	442	G	Sidechain
35	BA	443	C	Sidechain
35	BA	444	G	Sidechain
35	BA	445	G	Sidechain
35	BA	446	G	Sidechain
35	BA	448	A	Sidechain
35	BA	45	G	Sidechain
35	BA	450	G	Sidechain
35	BA	456	A	Sidechain
35	BA	457	G	Sidechain
35	BA	458	U	Sidechain
35	BA	459	A	Sidechain
35	BA	460	A	Sidechain
35	BA	461	A	Sidechain
35	BA	462	G	Sidechain
35	BA	463	U	Sidechain
35	BA	464	U	Sidechain
35	BA	466	A	Sidechain
35	BA	468	A	Sidechain
35	BA	473	U	Sidechain
35	BA	474	G	Sidechain
35	BA	478	A	Sidechain
35	BA	48	C	Sidechain
35	BA	481	G	Sidechain
35	BA	482	A	Sidechain
35	BA	483	C	Sidechain
35	BA	484	G	Sidechain
35	BA	485	U	Sidechain
35	BA	486	U	Sidechain
35	BA	490	C	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	491	G	Sidechain
35	BA	493	A	Sidechain
35	BA	494	G	Sidechain
35	BA	496	A	Sidechain
35	BA	498	A	Sidechain
35	BA	5	U	Sidechain
35	BA	50	A	Sidechain
35	BA	500	G	Sidechain
35	BA	501	C	Sidechain
35	BA	503	C	Sidechain
35	BA	505	G	Sidechain
35	BA	507	C	Sidechain
35	BA	508	U	Sidechain
35	BA	510	A	Sidechain
35	BA	511	C	Sidechain
35	BA	512	U	Sidechain
35	BA	514	C	Sidechain
35	BA	517	G	Sidechain
35	BA	519	C	Sidechain
35	BA	520	A	Sidechain
35	BA	523	A	Sidechain
35	BA	525	C	Sidechain
35	BA	528	C	Sidechain
35	BA	529	G	Sidechain
35	BA	53	A	Sidechain
35	BA	531	U	Sidechain
35	BA	532	A	Sidechain
35	BA	536	C	Sidechain
35	BA	538	G	Sidechain
35	BA	540	G	Sidechain
35	BA	542	G	Sidechain
35	BA	543	U	Sidechain
35	BA	544	G	Sidechain
35	BA	545	C	Sidechain
35	BA	546	A	Sidechain
35	BA	548	G	Sidechain
35	BA	550	G	Sidechain
35	BA	552	U	Sidechain
35	BA	553	A	Sidechain
35	BA	555	U	Sidechain
35	BA	556	C	Sidechain
35	BA	558	G	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	562	U	Sidechain
35	BA	563	A	Sidechain
35	BA	565	U	Sidechain
35	BA	566	G	Sidechain
35	BA	567	G	Sidechain
35	BA	57	G	Sidechain
35	BA	570	G	Sidechain
35	BA	571	U	Sidechain
35	BA	573	A	Sidechain
35	BA	575	G	Sidechain
35	BA	576	C	Sidechain
35	BA	577	G	Sidechain
35	BA	579	A	Sidechain
35	BA	58	C	Sidechain
35	BA	580	C	Sidechain
35	BA	581	G	Sidechain
35	BA	583	A	Sidechain
35	BA	584	G	Sidechain
35	BA	587	G	Sidechain
35	BA	592	G	Sidechain
35	BA	593	U	Sidechain
35	BA	596	A	Sidechain
35	BA	597	G	Sidechain
35	BA	598	U	Sidechain
35	BA	599	C	Sidechain
35	BA	6	G	Sidechain
35	BA	60	A	Sidechain
35	BA	600	A	Sidechain
35	BA	603	U	Sidechain
35	BA	608	A	Sidechain
35	BA	609	A	Sidechain
35	BA	61	G	Sidechain
35	BA	610	U	Sidechain
35	BA	611	C	Sidechain
35	BA	613	C	Sidechain
35	BA	615	G	Sidechain
35	BA	616	G	Sidechain
35	BA	617	G	Sidechain
35	BA	618	C	Sidechain
35	BA	620	C	Sidechain
35	BA	621	A	Sidechain
35	BA	623	C	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	624	C	Sidechain
35	BA	627	G	Sidechain
35	BA	628	G	Sidechain
35	BA	629	A	Sidechain
35	BA	63	C	Sidechain
35	BA	632	U	Sidechain
35	BA	633	G	Sidechain
35	BA	634	C	Sidechain
35	BA	637	C	Sidechain
35	BA	638	U	Sidechain
35	BA	639	G	Sidechain
35	BA	64	G	Sidechain
35	BA	641	U	Sidechain
35	BA	642	A	Sidechain
35	BA	643	C	Sidechain
35	BA	645	G	Sidechain
35	BA	646	G	Sidechain
35	BA	648	A	Sidechain
35	BA	649	A	Sidechain
35	BA	65	A	Sidechain
35	BA	650	G	Sidechain
35	BA	651	C	Sidechain
35	BA	652	U	Sidechain
35	BA	653	U	Sidechain
35	BA	654	G	Sidechain
35	BA	656	G	Sidechain
35	BA	657	U	Sidechain
35	BA	663	A	Sidechain
35	BA	666	G	Sidechain
35	BA	667	G	Sidechain
35	BA	668	G	Sidechain
35	BA	67	C	Sidechain
35	BA	670	G	Sidechain
35	BA	671	G	Sidechain
35	BA	672	U	Sidechain
35	BA	673	A	Sidechain
35	BA	676	A	Sidechain
35	BA	678	U	Sidechain
35	BA	680	C	Sidechain
35	BA	682	G	Sidechain
35	BA	684	U	Sidechain
35	BA	686	U	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	687	A	Sidechain
35	BA	689	C	Sidechain
35	BA	69	G	Sidechain
35	BA	690	G	Sidechain
35	BA	692	U	Sidechain
35	BA	693	G	Sidechain
35	BA	694	A	Sidechain
35	BA	695	A	Sidechain
35	BA	696	A	Sidechain
35	BA	697	U	Sidechain
35	BA	698	G	Sidechain
35	BA	7	A	Sidechain
35	BA	701	U	Sidechain
35	BA	703	G	Sidechain
35	BA	704	A	Sidechain
35	BA	709	U	Sidechain
35	BA	710	G	Sidechain
35	BA	711	G	Sidechain
35	BA	712	A	Sidechain
35	BA	714	G	Sidechain
35	BA	715	A	Sidechain
35	BA	716	A	Sidechain
35	BA	719	C	Sidechain
35	BA	72	A	Sidechain
35	BA	720	C	Sidechain
35	BA	721	G	Sidechain
35	BA	722	G	Sidechain
35	BA	723	U	Sidechain
35	BA	725	G	Sidechain
35	BA	727	G	Sidechain
35	BA	728	A	Sidechain
35	BA	729	A	Sidechain
35	BA	730	G	Sidechain
35	BA	731	G	Sidechain
35	BA	732	C	Sidechain
35	BA	733	G	Sidechain
35	BA	734	G	Sidechain
35	BA	736	C	Sidechain
35	BA	738	C	Sidechain
35	BA	74	A	Sidechain
35	BA	740	U	Sidechain
35	BA	742	G	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	743	A	Sidechain
35	BA	746	A	Sidechain
35	BA	747	A	Sidechain
35	BA	748	G	Sidechain
35	BA	749	A	Sidechain
35	BA	750	C	Sidechain
35	BA	752	G	Sidechain
35	BA	753	A	Sidechain
35	BA	755	G	Sidechain
35	BA	757	U	Sidechain
35	BA	759	A	Sidechain
35	BA	76	G	Sidechain
35	BA	762	U	Sidechain
35	BA	763	G	Sidechain
35	BA	764	C	Sidechain
35	BA	766	A	Sidechain
35	BA	767	A	Sidechain
35	BA	769	G	Sidechain
35	BA	77	A	Sidechain
35	BA	770	C	Sidechain
35	BA	771	G	Sidechain
35	BA	772	U	Sidechain
35	BA	773	G	Sidechain
35	BA	776	G	Sidechain
35	BA	778	G	Sidechain
35	BA	779	C	Sidechain
35	BA	78	A	Sidechain
35	BA	782	A	Sidechain
35	BA	785	G	Sidechain
35	BA	786	G	Sidechain
35	BA	787	A	Sidechain
35	BA	788	U	Sidechain
35	BA	79	G	Sidechain
35	BA	795	C	Sidechain
35	BA	796	C	Sidechain
35	BA	797	C	Sidechain
35	BA	798	U	Sidechain
35	BA	799	G	Sidechain
35	BA	80	A	Sidechain
35	BA	800	G	Sidechain
35	BA	802	A	Sidechain
35	BA	803	G	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	805	C	Sidechain
35	BA	806	C	Sidechain
35	BA	808	C	Sidechain
35	BA	809	G	Sidechain
35	BA	812	G	Sidechain
35	BA	813	U	Sidechain
35	BA	814	A	Sidechain
35	BA	816	A	Sidechain
35	BA	817	C	Sidechain
35	BA	818	G	Sidechain
35	BA	819	A	Sidechain
35	BA	82	G	Sidechain
35	BA	820	U	Sidechain
35	BA	821	G	Sidechain
35	BA	822	U	Sidechain
35	BA	826	C	Sidechain
35	BA	827	U	Sidechain
35	BA	83	C	Sidechain
35	BA	830	G	Sidechain
35	BA	832	G	Sidechain
35	BA	834	U	Sidechain
35	BA	835	U	Sidechain
35	BA	837	U	Sidechain
35	BA	838	G	Sidechain
35	BA	839	C	Sidechain
35	BA	84	U	Sidechain
35	BA	840	C	Sidechain
35	BA	841	C	Sidechain
35	BA	846	G	Sidechain
35	BA	847	G	Sidechain
35	BA	849	G	Sidechain
35	BA	85	U	Sidechain
35	BA	850	U	Sidechain
35	BA	851	G	Sidechain
35	BA	852	G	Sidechain
35	BA	854	U	Sidechain
35	BA	857	C	Sidechain
35	BA	858	G	Sidechain
35	BA	859	G	Sidechain
35	BA	860	A	Sidechain
35	BA	861	G	Sidechain
35	BA	862	C	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	863	U	Sidechain
35	BA	864	A	Sidechain
35	BA	865	A	Sidechain
35	BA	867	G	Sidechain
35	BA	868	C	Sidechain
35	BA	869	G	Sidechain
35	BA	87	C	Sidechain
35	BA	870	U	Sidechain
35	BA	873	A	Sidechain
35	BA	875	U	Sidechain
35	BA	879	C	Sidechain
35	BA	881	G	Sidechain
35	BA	882	C	Sidechain
35	BA	884	U	Sidechain
35	BA	885	G	Sidechain
35	BA	886	G	Sidechain
35	BA	887	G	Sidechain
35	BA	888	G	Sidechain
35	BA	889	A	Sidechain
35	BA	89	U	Sidechain
35	BA	890	G	Sidechain
35	BA	892	A	Sidechain
35	BA	894	G	Sidechain
35	BA	898	G	Sidechain
35	BA	899	C	Sidechain
35	BA	9	G	Sidechain
35	BA	90	C	Sidechain
35	BA	900	A	Sidechain
35	BA	901	A	Sidechain
35	BA	902	G	Sidechain
35	BA	903	G	Sidechain
35	BA	905	U	Sidechain
35	BA	906	A	Sidechain
35	BA	907	A	Sidechain
35	BA	91	U	Sidechain
35	BA	913	A	Sidechain
35	BA	914	A	Sidechain
35	BA	915	A	Sidechain
35	BA	916	U	Sidechain
35	BA	917	G	Sidechain
35	BA	92	U	Sidechain
35	BA	920	U	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	921	U	Sidechain
35	BA	924	C	Sidechain
35	BA	925	G	Sidechain
35	BA	926	G	Sidechain
35	BA	927	G	Sidechain
35	BA	928	G	Sidechain
35	BA	929	G	Sidechain
35	BA	93	U	Sidechain
35	BA	930	C	Sidechain
35	BA	933	G	Sidechain
35	BA	934	C	Sidechain
35	BA	938	A	Sidechain
35	BA	939	G	Sidechain
35	BA	94	G	Sidechain
35	BA	940	C	Sidechain
35	BA	941	G	Sidechain
35	BA	945	G	Sidechain
35	BA	95	C	Sidechain
35	BA	950	U	Sidechain
35	BA	951	G	Sidechain
35	BA	952	U	Sidechain
35	BA	955	U	Sidechain
35	BA	957	U	Sidechain
35	BA	959	A	Sidechain
35	BA	960	U	Sidechain
35	BA	961	U	Sidechain
35	BA	963	G	Sidechain
35	BA	964	A	Sidechain
35	BA	965	U	Sidechain
35	BA	968	A	Sidechain
35	BA	97	G	Sidechain
35	BA	972	C	Sidechain
35	BA	973	G	Sidechain
35	BA	975	A	Sidechain
35	BA	976	G	Sidechain
35	BA	980	C	Sidechain
35	BA	982	U	Sidechain
35	BA	983	A	Sidechain
35	BA	984	C	Sidechain
35	BA	986	U	Sidechain
35	BA	987	G	Sidechain
35	BA	988	G	Sidechain

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Mol	Chain	Res	Type	Group
35	BA	989	U	Sidechain
35	BA	994	A	Sidechain
35	BA	995	C	Sidechain
35	BA	997	U	Sidechain
35	BA	998	C	Sidechain
36	BB	13	A	Sidechain
36	BB	14	G	Sidechain
36	BB	15	G	Sidechain
36	BB	16	A	Sidechain
36	BB	17	U	Sidechain
36	BB	18	A	Sidechain
36	BB	20	G	Sidechain
36	BB	23	C	Sidechain
36	BB	25	U	Sidechain
36	BB	29	G	Sidechain
36	BB	30	U	Sidechain
36	BB	33	A	Sidechain
36	BB	34	U	Sidechain
36	BB	35	G	Sidechain
36	BB	36	U	Sidechain
36	BB	37	G	Sidechain
36	BB	38	G	Sidechain
36	BB	39	U	Sidechain
36	BB	40	G	Sidechain
36	BB	42	U	Sidechain
36	BB	43	U	Sidechain
36	BB	44	U	Sidechain
36	BB	45	G	Sidechain
36	BB	46	C	Sidechain
36	BB	47	C	Sidechain
36	BB	49	U	Sidechain
36	BB	53	G	Sidechain
36	BB	54	U	Sidechain
36	BB	56	G	Sidechain
36	BB	59	A	Sidechain
37	BC	12	G	Sidechain
37	BC	14	A	Sidechain
37	BC	15	G	Sidechain
37	BC	16	C	Sidechain
37	BC	17	C	Sidechain
37	BC	2	G	Sidechain
37	BC	20	G	Sidechain

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Mol	Chain	Res	Type	Group
37	BC	25	U	Sidechain
37	BC	29	C	Sidechain
37	BC	3	C	Sidechain
37	BC	30	G	Sidechain
37	BC	31	G	Sidechain
37	BC	32	G	Sidechain
37	BC	35	C	Sidechain
37	BC	37	U	Sidechain
37	BC	38	A	Sidechain
37	BC	40	C	Sidechain
37	BC	41	C	Sidechain
37	BC	43	G	Sidechain
37	BC	44	A	Sidechain
37	BC	46	G	Sidechain
37	BC	47	A	Sidechain
37	BC	48	U	Sidechain
37	BC	49	C	Sidechain
37	BC	5	G	Sidechain
37	BC	50	G	Sidechain
37	BC	51	U	Sidechain
37	BC	53	G	Sidechain
37	BC	58	A	Sidechain
37	BC	59	A	Sidechain
37	BC	60	A	Sidechain
37	BC	63	C	Sidechain
37	BC	64	G	Sidechain
37	BC	65	G	Sidechain
37	BC	67	C	Sidechain
37	BC	7	G	Sidechain
37	BC	71	G	Sidechain
37	BC	72	C	Sidechain
37	BC	73	A	Sidechain
37	BC	77	A	Sidechain
37	BC	9	G	Sidechain
38	BD	112	ARG	Sidechain
38	BD	198	VAL	Peptide
38	BD	21	TYR	Sidechain
38	BD	89	PHE	Sidechain
39	BE	125	ARG	Sidechain
39	BE	131	ARG	Sidechain
39	BE	155	ARG	Sidechain
39	BE	167	TYR	Sidechain

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Mol	Chain	Res	Type	Group
39	BE	171	ARG	Sidechain
39	BE	175	HIS	Sidechain
39	BE	208	GLY	Peptide
39	BE	36	PHE	Sidechain
39	BE	96	VAL	Mainchain
40	BF	145	ARG	Sidechain
40	BF	163	GLN	Peptide
40	BF	64	TYR	Sidechain
41	BG	156	ARG	Mainchain
41	BG	49	TYR	Sidechain
41	BG	73	VAL	Peptide
42	BH	111	GLU	Peptide
42	BH	46	GLN	Peptide
42	BH	49	TYR	Sidechain
42	BH	59	TYR	Sidechain
42	BH	64	VAL	Peptide
42	BH	69	GLU	Mainchain
42	BH	78	PHE	Sidechain
42	BH	79	ARG	Sidechain
42	BH	80	PHE	Sidechain
43	BI	154	ARG	Peptide
43	BI	61	PHE	Sidechain
43	BI	89	GLU	Mainchain
44	BJ	100	ILE	Peptide
44	BJ	113	ARG	Sidechain
44	BJ	12	ARG	Sidechain
44	BJ	127	TYR	Sidechain
44	BJ	20	ASN	Mainchain
44	BJ	44	PHE	Peptide
44	BJ	64	TYR	Sidechain
45	BK	108	ARG	Sidechain
45	BK	122	ARG	Sidechain
45	BK	123	ARG	Sidechain
45	BK	48	ARG	Sidechain
45	BK	84	ARG	Sidechain
46	BL	13	PHE	Sidechain
46	BL	65	TYR	Sidechain
47	BM	126	ARG	Sidechain
48	BN	116	TYR	Peptide
48	BN	120	ARG	Sidechain
48	BN	37	TYR	Peptide
48	BN	42	LYS	Peptide

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Mol	Chain	Res	Type	Group
48	BN	71	HIS	Sidechain
48	BN	94	TYR	Sidechain
49	BO	106	ARG	Sidechain
49	BO	22	TYR	Sidechain
49	BO	78	ARG	Sidechain
49	BO	85	TYR	Sidechain
50	BP	68	ARG	Sidechain
51	BQ	50	HIS	Sidechain
51	BQ	63	ARG	Sidechain
52	BR	17	TYR	Sidechain
52	BR	6	LEU	Peptide
53	BS	33	TYR	Sidechain
54	BT	10	CYS	Peptide
54	BT	50	TYR	Sidechain
55	BU	73	PHE	Sidechain
55	BU	82	HIS	Mainchain,Peptide
55	BU	87	LYS	Peptide
57	BW	11	PHE	Sidechain
57	BW	20	ARG	Sidechain
57	BW	44	ARG	Sidechain
57	BW	68	ARG	Sidechain

5.2 Too-close contacts (i)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	2566	0	1299	0	0
2	AB	62351	0	31248	0	0
3	AC	1733	0	1824	0	0
4	AD	2092	0	2170	0	0
5	AE	1565	0	1616	0	0
6	AF	1552	0	1619	0	0
7	AG	1420	0	1460	0	0
8	AH	1323	0	1374	0	0
9	AI	1111	0	1148	0	0
10	AJ	1233	0	1283	0	0
11	AK	1032	0	1088	0	0
12	AL	1129	0	1162	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
13	AM	947	0	1023	0	0
14	AN	1053	0	1129	0	0
15	AO	1074	0	1157	0	0
16	AP	1008	0	1045	0	0
17	AQ	900	0	935	0	0
18	AR	917	0	965	0	0
19	AS	947	0	1022	0	0
20	AT	816	0	839	0	0
21	AU	857	0	922	0	0
22	AV	787	0	846	0	0
23	AW	789	0	847	0	0
24	AX	753	0	780	0	0
25	AY	634	0	656	0	0
26	AZ	625	0	655	0	0
27	A0	509	0	543	0	0
28	A1	449	0	491	0	0
29	A2	549	0	552	0	0
30	A3	444	0	461	0	0
31	A4	441	0	485	0	0
32	A5	377	0	418	0	0
33	A6	504	0	574	0	0
34	A7	302	0	343	0	0
35	BA	33089	0	16599	0	0
36	BB	993	0	501	0	0
37	BC	1641	0	841	0	0
38	BD	1872	0	1885	0	0
39	BE	1822	0	1913	0	0
40	BF	1643	0	1710	0	0
41	BG	1225	0	1273	0	0
42	BH	1101	0	1050	0	0
43	BI	1400	0	1449	0	0
44	BJ	979	0	1034	0	0
45	BK	1036	0	1084	0	0
46	BL	825	0	865	0	0
47	BM	965	0	997	0	0
48	BN	955	0	1019	0	0
49	BO	910	0	981	0	0
50	BP	805	0	847	0	0
51	BQ	716	0	742	0	0
52	BR	649	0	666	0	0
53	BS	672	0	716	0	0
54	BT	626	0	651	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	BU	727	0	769	0	0
56	BV	670	0	722	0	0
57	BW	590	0	631	0	0
All	All	150700	0	102924	0	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). Clashscore could not be calculated for this entry.

There are no clashes within the asymmetric unit.

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
3	AC	232/234 (99%)	215 (93%)	12 (5%)	5 (2%)	5 29
4	AD	270/272 (99%)	237 (88%)	24 (9%)	9 (3%)	3 21
5	AE	207/209 (99%)	175 (84%)	24 (12%)	8 (4%)	2 19
6	AF	199/201 (99%)	173 (87%)	16 (8%)	10 (5%)	1 16
7	AG	176/178 (99%)	151 (86%)	15 (8%)	10 (6%)	1 14
8	AH	174/176 (99%)	159 (91%)	11 (6%)	4 (2%)	5 28
9	AI	147/149 (99%)	131 (89%)	12 (8%)	4 (3%)	4 25
10	AJ	162/164 (99%)	155 (96%)	6 (4%)	1 (1%)	21 59
11	AK	139/141 (99%)	134 (96%)	4 (3%)	1 (1%)	18 56
12	AL	140/142 (99%)	120 (86%)	15 (11%)	5 (4%)	2 20
13	AM	121/123 (98%)	105 (87%)	12 (10%)	4 (3%)	3 21
14	AN	142/144 (99%)	125 (88%)	14 (10%)	3 (2%)	5 30
15	AO	134/136 (98%)	124 (92%)	8 (6%)	2 (2%)	8 40
16	AP	125/127 (98%)	115 (92%)	9 (7%)	1 (1%)	16 54

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
17	AQ	115/117 (98%)	110 (96%)	5 (4%)	0	100	100
18	AR	112/114 (98%)	97 (87%)	13 (12%)	2 (2%)	6	34
19	AS	115/117 (98%)	108 (94%)	3 (3%)	4 (4%)	3	20
20	AT	101/103 (98%)	89 (88%)	9 (9%)	3 (3%)	3	23
21	AU	108/110 (98%)	99 (92%)	5 (5%)	4 (4%)	2	20
22	AV	98/100 (98%)	77 (79%)	18 (18%)	3 (3%)	3	22
23	AW	101/103 (98%)	89 (88%)	9 (9%)	3 (3%)	3	23
24	AX	92/94 (98%)	84 (91%)	7 (8%)	1 (1%)	11	46
25	AY	82/84 (98%)	64 (78%)	14 (17%)	4 (5%)	1	16
26	AZ	75/77 (97%)	68 (91%)	4 (5%)	3 (4%)	2	18
27	A0	61/63 (97%)	56 (92%)	4 (7%)	1 (2%)	7	38
28	A1	56/58 (97%)	54 (96%)	2 (4%)	0	100	100
29	A2	68/70 (97%)	64 (94%)	3 (4%)	1 (2%)	8	40
30	A3	54/56 (96%)	48 (89%)	4 (7%)	2 (4%)	2	20
31	A4	52/54 (96%)	49 (94%)	1 (2%)	2 (4%)	2	19
32	A5	44/46 (96%)	40 (91%)	2 (4%)	2 (4%)	2	17
33	A6	62/64 (97%)	58 (94%)	3 (5%)	1 (2%)	7	38
34	A7	36/38 (95%)	29 (81%)	4 (11%)	3 (8%)	0	9
38	BD	238/240 (99%)	218 (92%)	14 (6%)	6 (2%)	4	26
39	BE	230/232 (99%)	217 (94%)	9 (4%)	4 (2%)	7	36
40	BF	203/205 (99%)	186 (92%)	13 (6%)	4 (2%)	6	31
41	BG	164/166 (99%)	150 (92%)	12 (7%)	2 (1%)	10	44
42	BH	133/135 (98%)	123 (92%)	9 (7%)	1 (1%)	16	54
43	BI	176/178 (99%)	168 (96%)	5 (3%)	3 (2%)	7	36
44	BJ	127/129 (98%)	119 (94%)	7 (6%)	1 (1%)	16	54
45	BK	127/129 (98%)	114 (90%)	10 (8%)	3 (2%)	4	27
46	BL	101/103 (98%)	91 (90%)	4 (4%)	6 (6%)	1	13
47	BM	126/128 (98%)	109 (86%)	15 (12%)	2 (2%)	7	38
48	BN	121/123 (98%)	103 (85%)	16 (13%)	2 (2%)	7	36
49	BO	115/117 (98%)	109 (95%)	5 (4%)	1 (1%)	14	51
50	BP	98/100 (98%)	85 (87%)	6 (6%)	7 (7%)	1	11

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
51	BQ	86/88 (98%)	81 (94%)	4 (5%)	1 (1%)	10 44
52	BR	80/82 (98%)	76 (95%)	4 (5%)	0	100 100
53	BS	81/83 (98%)	73 (90%)	7 (9%)	1 (1%)	10 44
54	BT	72/74 (97%)	62 (86%)	7 (10%)	3 (4%)	2 17
55	BU	89/91 (98%)	82 (92%)	6 (7%)	1 (1%)	11 46
56	BV	84/86 (98%)	79 (94%)	4 (5%)	1 (1%)	10 44
57	BW	68/70 (97%)	61 (90%)	4 (6%)	3 (4%)	2 17
All	All	6319/6423 (98%)	5708 (90%)	453 (7%)	158 (2%)	6 26

All (158) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	AD	94	LEU
6	AF	62	GLN
6	AF	188	MET
7	AG	136	ILE
9	AI	3	VAL
18	AR	25	VAL
19	AS	88	GLU
21	AU	41	LYS
22	AV	39	THR
22	AV	86	THR
23	AW	97	SER
31	A4	35	LEU
41	BG	77	ASN
46	BL	57	VAL
47	BM	52	ARG
50	BP	2	LYS
50	BP	70	HIS
54	BT	11	ARG
3	AC	217	THR
4	AD	35	LYS
4	AD	64	VAL
4	AD	140	VAL
4	AD	142	ASN
5	AE	119	ALA
5	AE	173	GLN
6	AF	44	ARG
6	AF	78	TRP
6	AF	79	ARG

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Mol	Chain	Res	Type
8	AH	61	TRP
9	AI	113	SER
11	AK	93	ASN
12	AL	14	ASP
12	AL	81	ILE
13	AM	6	THR
13	AM	71	ARG
14	AN	19	LEU
15	AO	36	VAL
16	AP	107	ASN
19	AS	87	VAL
21	AU	65	ASP
21	AU	89	ALA
23	AW	74	ALA
26	AZ	18	SER
26	AZ	27	ARG
29	A2	43	PHE
31	A4	52	LYS
34	A7	6	SER
34	A7	16	ILE
38	BD	22	TRP
39	BE	14	VAL
39	BE	163	ARG
39	BE	179	ALA
40	BF	47	LEU
44	BJ	80	PRO
46	BL	62	ARG
46	BL	74	VAL
50	BP	32	ASP
50	BP	61	ASN
55	BU	11	ASP
4	AD	37	SER
4	AD	123	ILE
5	AE	113	SER
6	AF	60	TRP
6	AF	183	PHE
7	AG	99	PHE
7	AG	132	ARG
7	AG	148	VAL
8	AH	170	THR
9	AI	27	ARG
9	AI	122	LEU

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Mol	Chain	Res	Type
12	AL	65	THR
14	AN	3	LEU
20	AT	91	GLN
22	AV	9	LYS
24	AX	71	LYS
27	A0	23	ARG
30	A3	2	VAL
32	A5	7	PRO
45	BK	106	ASP
45	BK	122	ARG
45	BK	128	LYS
50	BP	62	ARG
51	BQ	87	ARG
53	BS	81	ALA
54	BT	18	GLN
57	BW	3	ILE
57	BW	9	GLU
57	BW	24	LYS
3	AC	159	GLY
6	AF	68	ALA
6	AF	96	VAL
7	AG	103	ILE
7	AG	145	VAL
8	AH	9	VAL
8	AH	94	ARG
12	AL	120	ARG
19	AS	5	ARG
25	AY	36	ILE
25	AY	52	CYS
34	A7	4	ARG
39	BE	145	ALA
40	BF	27	ILE
42	BH	54	LEU
46	BL	42	LEU
46	BL	58	ASN
48	BN	23	LEU
50	BP	37	ASP
54	BT	5	ARG
3	AC	55	SER
3	AC	73	VAL
5	AE	43	ASP
5	AE	109	VAL

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Mol	Chain	Res	Type
5	AE	168	GLU
5	AE	170	VAL
7	AG	66	ILE
10	AJ	33	THR
13	AM	17	ARG
13	AM	46	ALA
14	AN	117	THR
20	AT	43	ASN
20	AT	101	ILE
21	AU	28	LYS
26	AZ	53	LYS
30	A3	48	TYR
38	BD	17	HIS
38	BD	35	ASN
38	BD	123	GLY
38	BD	205	ALA
40	BF	37	PRO
41	BG	26	GLY
43	BI	13	PRO
43	BI	84	TYR
48	BN	43	LYS
50	BP	80	ARG
56	BV	67	HIS
4	AD	204	LEU
6	AF	45	ALA
7	AG	88	VAL
12	AL	79	GLY
15	AO	43	ALA
19	AS	91	ARG
25	AY	13	ARG
25	AY	23	LYS
40	BF	21	LYS
43	BI	2	ARG
46	BL	75	ASP
47	BM	118	ASN
7	AG	38	GLY
18	AR	32	VAL
23	AW	15	GLY
5	AE	152	PRO
49	BO	6	ILE
4	AD	240	GLY
7	AG	84	ILE

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Mol	Chain	Res	Type
33	A6	31	ILE
38	BD	13	VAL
32	A5	44	VAL
3	AC	206	GLY

5.3.2 Protein sidechains (i)

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	
3	AC	181/181 (100%)	175 (97%)	6 (3%)	33	55
4	AD	217/217 (100%)	206 (95%)	11 (5%)	21	42
5	AE	164/164 (100%)	153 (93%)	11 (7%)	15	36
6	AF	165/165 (100%)	160 (97%)	5 (3%)	36	57
7	AG	149/149 (100%)	140 (94%)	9 (6%)	17	39
8	AH	137/137 (100%)	124 (90%)	13 (10%)	8	25
9	AI	114/114 (100%)	106 (93%)	8 (7%)	14	35
10	AJ	122/122 (100%)	117 (96%)	5 (4%)	27	49
11	AK	109/109 (100%)	104 (95%)	5 (5%)	24	45
12	AL	116/116 (100%)	108 (93%)	8 (7%)	14	36
13	AM	104/104 (100%)	99 (95%)	5 (5%)	23	44
14	AN	103/103 (100%)	102 (99%)	1 (1%)	68	78
15	AO	109/109 (100%)	101 (93%)	8 (7%)	13	34
16	AP	103/103 (100%)	99 (96%)	4 (4%)	28	49
17	AQ	87/87 (100%)	80 (92%)	7 (8%)	11	31
18	AR	99/99 (100%)	95 (96%)	4 (4%)	28	49
19	AS	89/89 (100%)	86 (97%)	3 (3%)	32	54
20	AT	84/84 (100%)	81 (96%)	3 (4%)	31	52
21	AU	93/93 (100%)	88 (95%)	5 (5%)	20	41
22	AV	84/84 (100%)	79 (94%)	5 (6%)	17	39

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
23	AW	84/84 (100%)	79 (94%)	5 (6%)	17 39
24	AX	78/78 (100%)	73 (94%)	5 (6%)	16 37
25	AY	62/62 (100%)	56 (90%)	6 (10%)	8 24
26	AZ	67/67 (100%)	60 (90%)	7 (10%)	7 22
27	A0	55/55 (100%)	53 (96%)	2 (4%)	31 52
28	A1	48/48 (100%)	42 (88%)	6 (12%)	4 16
29	A2	62/62 (100%)	61 (98%)	1 (2%)	55 70
30	A3	47/47 (100%)	46 (98%)	1 (2%)	47 65
31	A4	48/48 (100%)	46 (96%)	2 (4%)	26 48
32	A5	38/38 (100%)	33 (87%)	5 (13%)	4 15
33	A6	51/51 (100%)	51 (100%)	0	100 100
34	A7	34/34 (100%)	33 (97%)	1 (3%)	37 58
38	BD	198/198 (100%)	190 (96%)	8 (4%)	28 49
39	BE	189/189 (100%)	179 (95%)	10 (5%)	20 41
40	BF	172/172 (100%)	168 (98%)	4 (2%)	44 64
41	BG	125/125 (100%)	118 (94%)	7 (6%)	19 40
42	BH	116/116 (100%)	108 (93%)	8 (7%)	14 36
43	BI	146/146 (100%)	138 (94%)	8 (6%)	19 41
44	BJ	104/104 (100%)	99 (95%)	5 (5%)	23 44
45	BK	106/106 (100%)	100 (94%)	6 (6%)	18 40
46	BL	90/90 (100%)	84 (93%)	6 (7%)	15 36
47	BM	98/98 (100%)	97 (99%)	1 (1%)	68 78
48	BN	103/103 (100%)	96 (93%)	7 (7%)	14 36
49	BO	95/95 (100%)	90 (95%)	5 (5%)	20 41
50	BP	83/83 (100%)	80 (96%)	3 (4%)	31 52
51	BQ	76/76 (100%)	75 (99%)	1 (1%)	61 74
52	BR	65/65 (100%)	59 (91%)	6 (9%)	8 27
53	BS	77/77 (100%)	70 (91%)	7 (9%)	9 27
54	BT	64/64 (100%)	61 (95%)	3 (5%)	23 45
55	BU	78/78 (100%)	71 (91%)	7 (9%)	9 27
56	BV	65/65 (100%)	65 (100%)	0	100 100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
57	BW	60/60 (100%)	57 (95%)	3 (5%)	22 43
All	All	5213/5213 (100%)	4941 (95%)	272 (5%)	22 42

All (272) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	AC	6	LYS
3	AC	67	HIS
3	AC	75	VAL
3	AC	130	VAL
3	AC	134	ARG
3	AC	162	ARG
4	AD	50	THR
4	AD	103	ILE
4	AD	119	VAL
4	AD	140	VAL
4	AD	172	THR
4	AD	213	ARG
4	AD	219	VAL
4	AD	235	GLU
4	AD	249	VAL
4	AD	251	THR
4	AD	263	ASP
5	AE	39	ASP
5	AE	74	GLU
5	AE	83	ARG
5	AE	99	GLU
5	AE	113	SER
5	AE	114	LYS
5	AE	148	GLN
5	AE	168	GLU
5	AE	175	LEU
5	AE	197	THR
5	AE	201	LEU
6	AF	7	ASP
6	AF	40	ARG
6	AF	95	LYS
6	AF	118	LEU
6	AF	152	GLU
7	AG	3	LEU
7	AG	29	ARG
7	AG	48	LEU

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Mol	Chain	Res	Type
7	AG	84	ILE
7	AG	93	GLU
7	AG	116	LEU
7	AG	137	PHE
7	AG	155	ILE
7	AG	168	LEU
8	AH	17	LYS
8	AH	34	ARG
8	AH	40	VAL
8	AH	42	VAL
8	AH	61	TRP
8	AH	85	LYS
8	AH	87	GLN
8	AH	88	LEU
8	AH	100	ASN
8	AH	109	SER
8	AH	120	ILE
8	AH	130	ILE
8	AH	170	THR
9	AI	2	GLN
9	AI	45	GLU
9	AI	76	GLU
9	AI	99	ILE
9	AI	109	GLU
9	AI	114	GLU
9	AI	115	VAL
9	AI	121	VAL
10	AJ	50	TYR
10	AJ	58	LEU
10	AJ	63	VAL
10	AJ	96	LYS
10	AJ	107	VAL
11	AK	2	LYS
11	AK	55	PRO
11	AK	58	ILE
11	AK	101	SER
11	AK	107	GLU
12	AL	5	THR
12	AL	37	ARG
12	AL	43	GLU
12	AL	61	LYS
12	AL	64	VAL

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Mol	Chain	Res	Type
12	AL	106	LYS
12	AL	123	LYS
12	AL	129	GLU
13	AM	8	LEU
13	AM	29	HIS
13	AM	39	ILE
13	AM	63	VAL
13	AM	123	LEU
14	AN	78	ARG
15	AO	14	LYS
15	AO	20	LEU
15	AO	59	ARG
15	AO	93	VAL
15	AO	106	ASP
15	AO	108	VAL
15	AO	115	GLU
15	AO	136	MET
16	AP	34	ILE
16	AP	39	PRO
16	AP	48	VAL
16	AP	71	ARG
17	AQ	3	LYS
17	AQ	30	ARG
17	AQ	63	LYS
17	AQ	88	LYS
17	AQ	91	SER
17	AQ	100	HIS
17	AQ	112	GLU
18	AR	21	PRO
18	AR	25	VAL
18	AR	27	VAL
18	AR	98	TYR
19	AS	4	LYS
19	AS	48	ASP
19	AS	70	GLN
20	AT	24	LYS
20	AT	68	ARG
20	AT	83	TYR
21	AU	9	HIS
21	AU	13	SER
21	AU	27	LYS
21	AU	68	ASP

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Mol	Chain	Res	Type
21	AU	77	ASP
22	AV	31	VAL
22	AV	42	GLU
22	AV	50	LEU
22	AV	72	GLN
22	AV	85	VAL
23	AW	17	ASP
23	AW	46	LYS
23	AW	82	VAL
23	AW	87	GLU
23	AW	94	PHE
24	AX	26	PHE
24	AX	53	LYS
24	AX	65	VAL
24	AX	70	ILE
24	AX	71	LYS
25	AY	13	ARG
25	AY	18	LYS
25	AY	20	LEU
25	AY	49	ASN
25	AY	54	ARG
25	AY	59	PHE
26	AZ	6	VAL
26	AZ	7	THR
26	AZ	19	HIS
26	AZ	32	LEU
26	AZ	58	ILE
26	AZ	75	GLU
26	AZ	76	LYS
27	A0	24	GLU
27	A0	55	THR
28	A1	2	LYS
28	A1	33	HIS
28	A1	34	THR
28	A1	36	GLU
28	A1	43	ILE
28	A1	56	VAL
29	A2	24	ILE
30	A3	2	VAL
31	A4	16	THR
31	A4	47	ILE
32	A5	6	GLN

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Mol	Chain	Res	Type
32	A5	11	LYS
32	A5	14	ARG
32	A5	42	LEU
32	A5	44	VAL
34	A7	23	ILE
38	BD	18	GLN
38	BD	34	ARG
38	BD	38	HIS
38	BD	77	GLU
38	BD	113	LEU
38	BD	141	GLU
38	BD	156	LEU
38	BD	168	GLU
39	BE	2	GLN
39	BE	13	ILE
39	BE	111	ASP
39	BE	118	SER
39	BE	128	MET
39	BE	149	LYS
39	BE	166	TRP
39	BE	176	THR
39	BE	203	LYS
39	BE	227	GLN
40	BF	4	LEU
40	BF	25	ARG
40	BF	46	ARG
40	BF	191	SER
41	BG	15	ILE
41	BG	19	ARG
41	BG	28	ARG
41	BG	120	HIS
41	BG	122	VAL
41	BG	125	LYS
41	BG	146	MET
42	BH	9	MET
42	BH	75	GLU
42	BH	76	THR
42	BH	89	VAL
42	BH	98	GLU
42	BH	106	LYS
42	BH	118	ASN
42	BH	130	GLU

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Mol	Chain	Res	Type
43	BI	1	PRO
43	BI	4	ARG
43	BI	6	ILE
43	BI	14	ASP
43	BI	26	VAL
43	BI	42	VAL
43	BI	88	VAL
43	BI	163	HIS
44	BJ	59	GLU
44	BJ	68	LYS
44	BJ	104	SER
44	BJ	109	VAL
44	BJ	128	VAL
45	BK	24	ASN
45	BK	45	MET
45	BK	57	VAL
45	BK	88	GLU
45	BK	114	LYS
45	BK	129	ARG
46	BL	9	ARG
46	BL	11	LYS
46	BL	48	ARG
46	BL	56	HIS
46	BL	77	VAL
46	BL	92	LEU
47	BM	37	GLN
48	BN	23	LEU
48	BN	28	GLN
48	BN	40	THR
48	BN	63	THR
48	BN	69	GLU
48	BN	87	LYS
48	BN	122	LYS
49	BO	18	LEU
49	BO	24	VAL
49	BO	68	LEU
49	BO	78	ARG
49	BO	106	ARG
50	BP	5	MET
50	BP	66	THR
50	BP	95	LEU
51	BQ	11	VAL

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Mol	Chain	Res	Type
52	BR	4	ILE
52	BR	18	GLN
52	BR	23	ASP
52	BR	42	ILE
52	BR	46	LYS
52	BR	47	GLU
53	BS	1	THR
53	BS	10	ARG
53	BS	20	ILE
53	BS	44	HIS
53	BS	48	GLU
53	BS	49	ASN
53	BS	68	LYS
54	BT	17	VAL
54	BT	18	GLN
54	BT	35	SER
55	BU	1	PRO
55	BU	4	LEU
55	BU	12	LEU
55	BU	35	ARG
55	BU	47	THR
55	BU	52	ASN
55	BU	55	GLN
57	BW	1	PRO
57	BW	7	GLU
57	BW	40	PRO

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. There are no such sidechains identified.

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	119/120 (99%)	19 (15%)	13 (10%)
2	AB	2901/2904 (99%)	552 (19%)	180 (6%)
35	BA	1541/1542 (99%)	310 (20%)	112 (7%)
36	BB	46/47 (97%)	16 (34%)	6 (13%)
37	BC	76/77 (98%)	14 (18%)	1 (1%)
All	All	4683/4690 (99%)	911 (19%)	312 (6%)

All (911) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	9	G
1	AA	13	G
1	AA	14	U
1	AA	25	U
1	AA	26	C
1	AA	35	C
1	AA	41	G
1	AA	43	C
1	AA	44	G
1	AA	45	A
1	AA	51	G
1	AA	58	A
1	AA	66	A
1	AA	67	G
1	AA	73	A
1	AA	88	C
1	AA	90	C
1	AA	99	A
1	AA	120	U
2	AB	13	A
2	AB	14	A
2	AB	18	U
2	AB	30	G
2	AB	34	U
2	AB	35	G
2	AB	42	A
2	AB	43	G
2	AB	45	G
2	AB	46	G
2	AB	49	A
2	AB	50	U
2	AB	71	A
2	AB	72	U
2	AB	75	G
2	AB	91	A
2	AB	92	U
2	AB	95	A
2	AB	98	G
2	AB	101	A
2	AB	102	U
2	AB	103	A
2	AB	115	C
2	AB	119	A

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Mol	Chain	Res	Type
2	AB	120	U
2	AB	128	C
2	AB	194	G
2	AB	196	A
2	AB	197	A
2	AB	199	A
2	AB	200	U
2	AB	204	A
2	AB	205	G
2	AB	215	G
2	AB	216	A
2	AB	218	A
2	AB	222	A
2	AB	224	U
2	AB	225	C
2	AB	232	G
2	AB	242	G
2	AB	243	U
2	AB	248	G
2	AB	250	G
2	AB	255	A
2	AB	265	A
2	AB	266	G
2	AB	271	G
2	AB	277	G
2	AB	294	A
2	AB	295	G
2	AB	311	A
2	AB	321	U
2	AB	330	A
2	AB	332	A
2	AB	333	G
2	AB	338	G
2	AB	368	A
2	AB	370	G
2	AB	371	A
2	AB	372	G
2	AB	386	G
2	AB	387	U
2	AB	388	G
2	AB	389	G
2	AB	390	U

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Mol	Chain	Res	Type
2	AB	391	A
2	AB	396	G
2	AB	403	U
2	AB	404	A
2	AB	406	G
2	AB	411	G
2	AB	418	C
2	AB	424	G
2	AB	428	A
2	AB	429	A
2	AB	431	U
2	AB	436	C
2	AB	452	G
2	AB	454	A
2	AB	455	C
2	AB	456	C
2	AB	479	A
2	AB	480	A
2	AB	481	G
2	AB	484	C
2	AB	489	G
2	AB	504	A
2	AB	505	A
2	AB	508	A
2	AB	509	C
2	AB	527	C
2	AB	532	A
2	AB	545	U
2	AB	546	U
2	AB	550	C
2	AB	562	U
2	AB	563	A
2	AB	573	U
2	AB	575	A
2	AB	603	A
2	AB	604	G
2	AB	612	G
2	AB	613	A
2	AB	614	A
2	AB	615	U
2	AB	620	G
2	AB	621	A

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Mol	Chain	Res	Type
2	AB	627	A
2	AB	635	C
2	AB	637	A
2	AB	644	A
2	AB	645	C
2	AB	655	A
2	AB	656	G
2	AB	671	C
2	AB	675	A
2	AB	686	U
2	AB	696	G
2	AB	718	A
2	AB	719	C
2	AB	728	G
2	AB	730	A
2	AB	732	C
2	AB	736	C
2	AB	747	5MU
2	AB	751	A
2	AB	753	A
2	AB	758	C
2	AB	762	U
2	AB	763	G
2	AB	764	A
2	AB	775	G
2	AB	776	G
2	AB	777	G
2	AB	782	A
2	AB	784	G
2	AB	786	C
2	AB	789	A
2	AB	790	U
2	AB	793	A
2	AB	802	A
2	AB	805	G
2	AB	806	C
2	AB	812	C
2	AB	846	U
2	AB	847	U
2	AB	848	C
2	AB	859	G
2	AB	870	U

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Mol	Chain	Res	Type
2	AB	888	C
2	AB	889	C
2	AB	894	U
2	AB	896	A
2	AB	897	C
2	AB	901	C
2	AB	911	A
2	AB	915	C
2	AB	925	A
2	AB	932	U
2	AB	933	A
2	AB	938	G
2	AB	941	A
2	AB	945	A
2	AB	946	C
2	AB	961	C
2	AB	973	A
2	AB	974	G
2	AB	979	A
2	AB	980	A
2	AB	981	A
2	AB	983	A
2	AB	984	A
2	AB	985	C
2	AB	986	C
2	AB	990	A
2	AB	995	C
2	AB	996	A
2	AB	1002	G
2	AB	1003	G
2	AB	1005	C
2	AB	1008	A
2	AB	1010	A
2	AB	1011	G
2	AB	1012	U
2	AB	1013	C
2	AB	1022	G
2	AB	1025	G
2	AB	1026	G
2	AB	1044	C
2	AB	1045	C
2	AB	1047	G

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Mol	Chain	Res	Type
2	AB	1048	A
2	AB	1060	U
2	AB	1061	U
2	AB	1062	G
2	AB	1070	A
2	AB	1071	G
2	AB	1073	A
2	AB	1078	U
2	AB	1079	C
2	AB	1081	U
2	AB	1083	U
2	AB	1084	A
2	AB	1087	G
2	AB	1094	U
2	AB	1096	A
2	AB	1097	U
2	AB	1098	A
2	AB	1104	C
2	AB	1109	C
2	AB	1110	G
2	AB	1112	G
2	AB	1123	C
2	AB	1128	G
2	AB	1129	A
2	AB	1130	U
2	AB	1132	U
2	AB	1134	A
2	AB	1135	C
2	AB	1142	A
2	AB	1143	A
2	AB	1157	G
2	AB	1158	C
2	AB	1173	U
2	AB	1175	A
2	AB	1177	G
2	AB	1184	U
2	AB	1204	A
2	AB	1211	C
2	AB	1236	G
2	AB	1237	A
2	AB	1238	G
2	AB	1239	G

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Mol	Chain	Res	Type
2	AB	1241	A
2	AB	1253	A
2	AB	1254	A
2	AB	1255	U
2	AB	1256	G
2	AB	1266	G
2	AB	1272	A
2	AB	1273	U
2	AB	1274	A
2	AB	1275	A
2	AB	1283	G
2	AB	1300	G
2	AB	1301	A
2	AB	1302	A
2	AB	1303	G
2	AB	1307	A
2	AB	1308	A
2	AB	1318	U
2	AB	1321	A
2	AB	1323	C
2	AB	1329	U
2	AB	1341	G
2	AB	1349	C
2	AB	1362	C
2	AB	1363	C
2	AB	1365	A
2	AB	1368	G
2	AB	1378	A
2	AB	1379	U
2	AB	1385	A
2	AB	1386	C
2	AB	1387	A
2	AB	1392	A
2	AB	1395	A
2	AB	1396	U
2	AB	1416	G
2	AB	1417	C
2	AB	1420	A
2	AB	1421	G
2	AB	1452	G
2	AB	1453	A
2	AB	1454	C

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Mol	Chain	Res	Type
2	AB	1455	G
2	AB	1459	G
2	AB	1460	U
2	AB	1461	C
2	AB	1482	G
2	AB	1493	C
2	AB	1509	A
2	AB	1514	G
2	AB	1515	A
2	AB	1522	A
2	AB	1523	U
2	AB	1524	G
2	AB	1552	A
2	AB	1558	C
2	AB	1565	C
2	AB	1566	A
2	AB	1567	G
2	AB	1568	G
2	AB	1569	A
2	AB	1578	U
2	AB	1584	U
2	AB	1585	C
2	AB	1608	A
2	AB	1609	A
2	AB	1610	A
2	AB	1612	C
2	AB	1616	A
2	AB	1617	C
2	AB	1618	6MZ
2	AB	1632	A
2	AB	1634	A
2	AB	1635	A
2	AB	1636	U
2	AB	1646	C
2	AB	1648	U
2	AB	1669	A
2	AB	1674	G
2	AB	1676	A
2	AB	1678	A
2	AB	1693	U
2	AB	1694	C
2	AB	1713	A

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Mol	Chain	Res	Type
2	AB	1715	G
2	AB	1716	U
2	AB	1724	G
2	AB	1730	C
2	AB	1758	U
2	AB	1759	A
2	AB	1760	C
2	AB	1761	C
2	AB	1762	A
2	AB	1763	G
2	AB	1764	C
2	AB	1773	A
2	AB	1778	U
2	AB	1779	U
2	AB	1780	A
2	AB	1782	U
2	AB	1786	A
2	AB	1787	A
2	AB	1800	C
2	AB	1808	A
2	AB	1809	A
2	AB	1815	A
2	AB	1825	U
2	AB	1830	C
2	AB	1831	G
2	AB	1833	C
2	AB	1851	U
2	AB	1854	A
2	AB	1873	G
2	AB	1900	A
2	AB	1901	A
2	AB	1912	A
2	AB	1913	A
2	AB	1928	A
2	AB	1930	G
2	AB	1937	A
2	AB	1938	A
2	AB	1940	U
2	AB	1941	C
2	AB	1943	U
2	AB	1944	U
2	AB	1945	G

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Mol	Chain	Res	Type
2	AB	1955	U
2	AB	1956	U
2	AB	1963	U
2	AB	1964	G
2	AB	1965	C
2	AB	1968	G
2	AB	1970	A
2	AB	1971	U
2	AB	1972	G
2	AB	1982	U
2	AB	1993	U
2	AB	1996	C
2	AB	2004	G
2	AB	2012	G
2	AB	2020	A
2	AB	2023	C
2	AB	2030	6MZ
2	AB	2031	A
2	AB	2032	G
2	AB	2034	U
2	AB	2040	G
2	AB	2043	C
2	AB	2055	C
2	AB	2056	G
2	AB	2058	A
2	AB	2059	A
2	AB	2061	G
2	AB	2062	A
2	AB	2069	7MG
2	AB	2077	A
2	AB	2084	C
2	AB	2093	G
2	AB	2095	A
2	AB	2107	G
2	AB	2111	U
2	AB	2112	G
2	AB	2118	U
2	AB	2119	A
2	AB	2127	G
2	AB	2128	G
2	AB	2132	U
2	AB	2133	G

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Mol	Chain	Res	Type
2	AB	2134	A
2	AB	2137	U
2	AB	2143	C
2	AB	2147	A
2	AB	2148	G
2	AB	2154	A
2	AB	2158	A
2	AB	2163	A
2	AB	2198	A
2	AB	2199	A
2	AB	2204	G
2	AB	2211	A
2	AB	2212	A
2	AB	2213	U
2	AB	2214	C
2	AB	2215	C
2	AB	2224	G
2	AB	2225	A
2	AB	2237	G
2	AB	2238	G
2	AB	2239	G
2	AB	2246	G
2	AB	2249	U
2	AB	2250	G
2	AB	2253	G
2	AB	2266	A
2	AB	2282	G
2	AB	2283	C
2	AB	2287	A
2	AB	2288	A
2	AB	2307	G
2	AB	2309	A
2	AB	2321	U
2	AB	2322	A
2	AB	2325	G
2	AB	2334	U
2	AB	2335	A
2	AB	2336	A
2	AB	2337	G
2	AB	2340	A
2	AB	2345	G
2	AB	2346	A

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Mol	Chain	Res	Type
2	AB	2347	C
2	AB	2350	C
2	AB	2354	C
2	AB	2358	A
2	AB	2383	G
2	AB	2385	C
2	AB	2386	A
2	AB	2389	G
2	AB	2390	U
2	AB	2402	U
2	AB	2406	A
2	AB	2407	A
2	AB	2411	A
2	AB	2426	A
2	AB	2427	C
2	AB	2428	G
2	AB	2429	G
2	AB	2432	A
2	AB	2433	A
2	AB	2435	A
2	AB	2439	A
2	AB	2440	C
2	AB	2441	U
2	AB	2448	A
2	AB	2449	H2U
2	AB	2450	A
2	AB	2452	C
2	AB	2453	A
2	AB	2472	G
2	AB	2476	A
2	AB	2478	A
2	AB	2486	C
2	AB	2491	U
2	AB	2493	U
2	AB	2494	G
2	AB	2501	C
2	AB	2502	G
2	AB	2503	2MA
2	AB	2504	PSU
2	AB	2505	G
2	AB	2515	C
2	AB	2516	A

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Mol	Chain	Res	Type
2	AB	2518	A
2	AB	2519	U
2	AB	2530	A
2	AB	2547	A
2	AB	2554	U
2	AB	2566	A
2	AB	2567	G
2	AB	2572	A
2	AB	2573	C
2	AB	2582	G
2	AB	2585	U
2	AB	2586	U
2	AB	2599	G
2	AB	2602	A
2	AB	2603	G
2	AB	2608	G
2	AB	2609	U
2	AB	2610	C
2	AB	2611	C
2	AB	2613	U
2	AB	2616	C
2	AB	2628	C
2	AB	2629	U
2	AB	2639	A
2	AB	2654	A
2	AB	2655	G
2	AB	2656	U
2	AB	2664	G
2	AB	2685	G
2	AB	2689	U
2	AB	2690	U
2	AB	2714	G
2	AB	2737	G
2	AB	2739	U
2	AB	2742	G
2	AB	2744	G
2	AB	2757	A
2	AB	2765	A
2	AB	2766	A
2	AB	2769	U
2	AB	2771	C
2	AB	2774	C

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Mol	Chain	Res	Type
2	AB	2777	G
2	AB	2778	A
2	AB	2779	U
2	AB	2782	G
2	AB	2791	G
2	AB	2800	A
2	AB	2807	U
2	AB	2825	G
2	AB	2832	U
2	AB	2833	U
2	AB	2842	G
2	AB	2849	U
2	AB	2858	C
2	AB	2864	G
2	AB	2867	G
2	AB	2868	A
2	AB	2879	A
2	AB	2880	C
2	AB	2883	A
2	AB	2885	G
2	AB	2889	C
2	AB	2893	A
2	AB	2895	G
2	AB	2903	U
35	BA	2	A
35	BA	3	A
35	BA	4	U
35	BA	5	U
35	BA	7	A
35	BA	8	A
35	BA	9	G
35	BA	32	A
35	BA	36	C
35	BA	48	C
35	BA	52	C
35	BA	53	A
35	BA	54	C
35	BA	60	A
35	BA	61	G
35	BA	83	C
35	BA	84	U
35	BA	85	U

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Mol	Chain	Res	Type
35	BA	98	A
35	BA	108	G
35	BA	121	U
35	BA	122	G
35	BA	123	U
35	BA	129	A
35	BA	153	C
35	BA	164	G
35	BA	166	U
35	BA	171	A
35	BA	174	A
35	BA	178	C
35	BA	179	A
35	BA	182	A
35	BA	184	G
35	BA	188	C
35	BA	189	A
35	BA	197	A
35	BA	204	G
35	BA	205	A
35	BA	206	C
35	BA	209	U
35	BA	210	C
35	BA	211	G
35	BA	212	G
35	BA	225	C
35	BA	228	A
35	BA	240	G
35	BA	244	U
35	BA	245	U
35	BA	247	G
35	BA	249	U
35	BA	250	A
35	BA	251	G
35	BA	252	U
35	BA	262	A
35	BA	266	G
35	BA	267	C
35	BA	272	C
35	BA	280	C
35	BA	289	G
35	BA	293	G

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Mol	Chain	Res	Type
35	BA	306	A
35	BA	307	C
35	BA	316	C
35	BA	317	U
35	BA	319	G
35	BA	328	C
35	BA	329	A
35	BA	332	G
35	BA	344	A
35	BA	352	C
35	BA	353	A
35	BA	354	G
35	BA	365	U
35	BA	367	U
35	BA	372	C
35	BA	373	A
35	BA	374	A
35	BA	381	C
35	BA	382	A
35	BA	384	G
35	BA	389	A
35	BA	390	U
35	BA	392	C
35	BA	395	C
35	BA	398	U
35	BA	406	G
35	BA	411	A
35	BA	412	A
35	BA	413	G
35	BA	415	A
35	BA	421	U
35	BA	422	C
35	BA	429	U
35	BA	430	A
35	BA	444	G
35	BA	463	U
35	BA	464	U
35	BA	465	A
35	BA	467	U
35	BA	468	A
35	BA	476	U
35	BA	479	U

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Mol	Chain	Res	Type
35	BA	481	G
35	BA	482	A
35	BA	485	U
35	BA	496	A
35	BA	498	A
35	BA	505	G
35	BA	508	U
35	BA	510	A
35	BA	518	C
35	BA	528	C
35	BA	531	U
35	BA	532	A
35	BA	533	A
35	BA	534	U
35	BA	535	A
35	BA	547	A
35	BA	552	U
35	BA	553	A
35	BA	560	A
35	BA	561	U
35	BA	566	G
35	BA	572	A
35	BA	573	A
35	BA	575	G
35	BA	576	C
35	BA	577	G
35	BA	578	C
35	BA	583	A
35	BA	588	G
35	BA	611	C
35	BA	615	G
35	BA	620	C
35	BA	631	C
35	BA	632	U
35	BA	633	G
35	BA	636	U
35	BA	642	A
35	BA	650	G
35	BA	653	U
35	BA	687	A
35	BA	688	G
35	BA	702	A

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Mol	Chain	Res	Type
35	BA	718	A
35	BA	721	G
35	BA	724	G
35	BA	729	A
35	BA	755	G
35	BA	760	G
35	BA	765	G
35	BA	766	A
35	BA	777	A
35	BA	783	C
35	BA	789	U
35	BA	790	A
35	BA	792	A
35	BA	793	U
35	BA	794	A
35	BA	805	C
35	BA	810	C
35	BA	812	G
35	BA	815	A
35	BA	816	A
35	BA	817	C
35	BA	819	A
35	BA	821	G
35	BA	828	U
35	BA	829	G
35	BA	840	C
35	BA	841	C
35	BA	842	U
35	BA	843	U
35	BA	870	U
35	BA	871	U
35	BA	873	A
35	BA	876	C
35	BA	899	C
35	BA	900	A
35	BA	910	C
35	BA	914	A
35	BA	926	G
35	BA	927	G
35	BA	938	A
35	BA	939	G
35	BA	945	G

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Mol	Chain	Res	Type
35	BA	960	U
35	BA	961	U
35	BA	962	C
35	BA	965	U
35	BA	966	2MG
35	BA	968	A
35	BA	969	A
35	BA	970	C
35	BA	973	G
35	BA	974	A
35	BA	975	A
35	BA	978	A
35	BA	979	C
35	BA	980	C
35	BA	982	U
35	BA	983	A
35	BA	984	C
35	BA	992	U
35	BA	993	G
35	BA	994	A
35	BA	995	C
35	BA	1004	A
35	BA	1006	G
35	BA	1015	G
35	BA	1026	G
35	BA	1028	C
35	BA	1030	U
35	BA	1031	C
35	BA	1050	G
35	BA	1064	G
35	BA	1065	U
35	BA	1081	A
35	BA	1094	G
35	BA	1095	U
35	BA	1101	A
35	BA	1118	U
35	BA	1135	U
35	BA	1137	C
35	BA	1139	G
35	BA	1143	G
35	BA	1149	C
35	BA	1152	A

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Mol	Chain	Res	Type
35	BA	1154	G
35	BA	1159	U
35	BA	1168	U
35	BA	1181	G
35	BA	1182	G
35	BA	1183	U
35	BA	1190	G
35	BA	1197	A
35	BA	1198	G
35	BA	1200	C
35	BA	1201	A
35	BA	1202	U
35	BA	1208	C
35	BA	1212	U
35	BA	1214	C
35	BA	1215	G
35	BA	1224	U
35	BA	1225	A
35	BA	1226	C
35	BA	1227	A
35	BA	1228	C
35	BA	1238	A
35	BA	1239	A
35	BA	1240	U
35	BA	1250	A
35	BA	1254	A
35	BA	1256	A
35	BA	1257	A
35	BA	1258	G
35	BA	1264	U
35	BA	1270	G
35	BA	1278	G
35	BA	1280	A
35	BA	1281	C
35	BA	1286	U
35	BA	1290	G
35	BA	1297	G
35	BA	1300	G
35	BA	1301	U
35	BA	1303	C
35	BA	1305	G
35	BA	1315	U

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Mol	Chain	Res	Type
35	BA	1317	C
35	BA	1318	A
35	BA	1319	A
35	BA	1322	C
35	BA	1340	A
35	BA	1345	U
35	BA	1346	A
35	BA	1347	G
35	BA	1348	U
35	BA	1360	A
35	BA	1363	A
35	BA	1364	U
35	BA	1365	G
35	BA	1368	A
35	BA	1378	C
35	BA	1401	G
35	BA	1431	A
35	BA	1432	G
35	BA	1437	A
35	BA	1446	A
35	BA	1448	C
35	BA	1452	C
35	BA	1453	G
35	BA	1454	G
35	BA	1490	U
35	BA	1492	A
35	BA	1493	A
35	BA	1494	G
35	BA	1502	A
35	BA	1503	A
35	BA	1506	U
35	BA	1507	A
35	BA	1529	G
35	BA	1530	G
35	BA	1531	A
35	BA	1534	A
35	BA	1536	C
35	BA	1539	C
35	BA	1540	U
35	BA	1542	A
36	BB	17	U
36	BB	18	A

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Mol	Chain	Res	Type
36	BB	21	U
36	BB	23	C
36	BB	26	U
36	BB	27	A
36	BB	30	U
36	BB	33	A
36	BB	34	U
36	BB	40	G
36	BB	44	U
36	BB	47	C
36	BB	48	C
36	BB	53	G
36	BB	54	U
36	BB	56	G
37	BC	8	4SU
37	BC	9	G
37	BC	10	G
37	BC	18	U
37	BC	19	G
37	BC	20	G
37	BC	22	A
37	BC	38	A
37	BC	48	U
37	BC	49	C
37	BC	50	G
37	BC	75	C
37	BC	76	C
37	BC	77	A

All (312) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	11	C
1	AA	13	G
1	AA	15	A
1	AA	25	U
1	AA	29	A
1	AA	34	A
1	AA	41	G
1	AA	43	C
1	AA	44	G
1	AA	57	A

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Mol	Chain	Res	Type
1	AA	66	A
1	AA	72	G
1	AA	87	U
2	AB	13	A
2	AB	26	G
2	AB	42	A
2	AB	49	A
2	AB	63	A
2	AB	71	A
2	AB	91	A
2	AB	94	A
2	AB	99	U
2	AB	109	C
2	AB	114	U
2	AB	196	A
2	AB	199	A
2	AB	228	C
2	AB	231	A
2	AB	241	A
2	AB	242	G
2	AB	265	A
2	AB	277	G
2	AB	294	A
2	AB	332	A
2	AB	386	G
2	AB	387	U
2	AB	389	G
2	AB	401	A
2	AB	403	U
2	AB	428	A
2	AB	445	C
2	AB	451	U
2	AB	453	A
2	AB	455	C
2	AB	463	G
2	AB	479	A
2	AB	503	A
2	AB	534	U
2	AB	561	G
2	AB	603	A
2	AB	611	C
2	AB	620	G

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Mol	Chain	Res	Type
2	AB	625	G
2	AB	628	G
2	AB	635	C
2	AB	671	C
2	AB	689	A
2	AB	714	U
2	AB	743	A
2	AB	748	G
2	AB	762	U
2	AB	775	G
2	AB	776	G
2	AB	789	A
2	AB	847	U
2	AB	870	U
2	AB	900	A
2	AB	940	G
2	AB	945	A
2	AB	974	G
2	AB	979	A
2	AB	980	A
2	AB	995	C
2	AB	1012	U
2	AB	1040	A
2	AB	1043	C
2	AB	1061	U
2	AB	1069	A
2	AB	1070	A
2	AB	1078	U
2	AB	1083	U
2	AB	1095	A
2	AB	1133	A
2	AB	1134	A
2	AB	1142	A
2	AB	1157	G
2	AB	1163	G
2	AB	1166	G
2	AB	1200	C
2	AB	1210	G
2	AB	1239	G
2	AB	1254	A
2	AB	1255	U
2	AB	1288	G

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Mol	Chain	Res	Type
2	AB	1300	G
2	AB	1329	U
2	AB	1349	C
2	AB	1351	C
2	AB	1386	C
2	AB	1391	U
2	AB	1395	A
2	AB	1416	G
2	AB	1451	C
2	AB	1452	G
2	AB	1454	C
2	AB	1460	U
2	AB	1476	U
2	AB	1567	G
2	AB	1608	A
2	AB	1609	A
2	AB	1616	A
2	AB	1634	A
2	AB	1693	U
2	AB	1697	G
2	AB	1715	G
2	AB	1723	G
2	AB	1759	A
2	AB	1773	A
2	AB	1778	U
2	AB	1783	A
2	AB	1784	A
2	AB	1786	A
2	AB	1807	G
2	AB	1832	C
2	AB	1882	U
2	AB	1889	A
2	AB	1912	A
2	AB	1913	A
2	AB	1927	A
2	AB	1939	5MU
2	AB	1940	U
2	AB	1944	U
2	AB	1955	U
2	AB	1973	G
2	AB	2019	A
2	AB	2021	C

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Mol	Chain	Res	Type
2	AB	2031	A
2	AB	2033	A
2	AB	2042	A
2	AB	2058	A
2	AB	2061	G
2	AB	2068	U
2	AB	2076	U
2	AB	2079	U
2	AB	2106	U
2	AB	2118	U
2	AB	2132	U
2	AB	2133	G
2	AB	2198	A
2	AB	2213	U
2	AB	2223	G
2	AB	2225	A
2	AB	2236	U
2	AB	2238	G
2	AB	2249	U
2	AB	2282	G
2	AB	2287	A
2	AB	2336	A
2	AB	2353	G
2	AB	2385	C
2	AB	2402	U
2	AB	2425	A
2	AB	2432	A
2	AB	2434	A
2	AB	2439	A
2	AB	2440	C
2	AB	2452	C
2	AB	2500	U
2	AB	2504	PSU
2	AB	2515	C
2	AB	2571	U
2	AB	2585	U
2	AB	2602	A
2	AB	2608	G
2	AB	2610	C
2	AB	2613	U
2	AB	2628	C
2	AB	2655	G

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Mol	Chain	Res	Type
2	AB	2663	G
2	AB	2690	U
2	AB	2697	G
2	AB	2756	U
2	AB	2765	A
2	AB	2771	C
2	AB	2777	G
2	AB	2791	G
2	AB	2802	G
2	AB	2806	C
2	AB	2833	U
2	AB	2835	A
2	AB	2842	G
2	AB	2858	C
2	AB	2879	A
35	BA	2	A
35	BA	7	A
35	BA	39	G
35	BA	42	G
35	BA	51	A
35	BA	84	U
35	BA	97	G
35	BA	101	A
35	BA	121	U
35	BA	128	G
35	BA	173	U
35	BA	178	C
35	BA	187	G
35	BA	188	C
35	BA	204	G
35	BA	205	A
35	BA	206	C
35	BA	209	U
35	BA	224	U
35	BA	243	A
35	BA	244	U
35	BA	249	U
35	BA	251	G
35	BA	261	U
35	BA	272	C
35	BA	279	A
35	BA	306	A

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Mol	Chain	Res	Type
35	BA	328	C
35	BA	337	G
35	BA	366	A
35	BA	372	C
35	BA	410	G
35	BA	429	U
35	BA	467	U
35	BA	481	G
35	BA	497	G
35	BA	533	A
35	BA	534	U
35	BA	552	U
35	BA	578	C
35	BA	582	C
35	BA	606	G
35	BA	618	C
35	BA	653	U
35	BA	675	A
35	BA	681	A
35	BA	682	G
35	BA	700	G
35	BA	717	U
35	BA	727	G
35	BA	744	C
35	BA	764	C
35	BA	765	G
35	BA	782	A
35	BA	789	U
35	BA	792	A
35	BA	815	A
35	BA	816	A
35	BA	840	C
35	BA	844	G
35	BA	845	A
35	BA	870	U
35	BA	897	C
35	BA	898	G
35	BA	926	G
35	BA	931	C
35	BA	937	A
35	BA	944	G
35	BA	960	U

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Mol	Chain	Res	Type
35	BA	965	U
35	BA	968	A
35	BA	969	A
35	BA	974	A
35	BA	979	C
35	BA	992	U
35	BA	993	G
35	BA	1014	A
35	BA	1029	U
35	BA	1125	U
35	BA	1129	C
35	BA	1160	G
35	BA	1167	A
35	BA	1201	A
35	BA	1213	A
35	BA	1214	C
35	BA	1224	U
35	BA	1226	C
35	BA	1239	A
35	BA	1253	G
35	BA	1256	A
35	BA	1279	G
35	BA	1281	C
35	BA	1289	A
35	BA	1302	C
35	BA	1310	G
35	BA	1313	U
35	BA	1318	A
35	BA	1323	G
35	BA	1329	A
35	BA	1346	A
35	BA	1347	G
35	BA	1364	U
35	BA	1393	U
35	BA	1404	C
35	BA	1417	G
35	BA	1452	C
35	BA	1461	G
35	BA	1465	A
35	BA	1491	G
35	BA	1492	A
35	BA	1502	A

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Mol	Chain	Res	Type
35	BA	1530	G
36	BB	22	G
36	BB	29	G
36	BB	39	U
36	BB	43	U
36	BB	53	G
36	BB	55	A
37	BC	9	G

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

40 non-standard protein/DNA/RNA residues are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. 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 $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
2	PSU	AB	1917	2	18,21,22	1.36	3 (16%)	21,30,33	1.95	5 (23%)
37	4SU	BC	8	37	18,21,22	2.00	6 (33%)	25,30,33	1.85	7 (28%)
35	PSU	BA	516	35	18,21,22	1.69	4 (22%)	21,30,33	2.42	4 (19%)
37	PSU	BC	56	37	18,21,22	2.21	5 (27%)	21,30,33	1.26	1 (4%)
2	PSU	AB	2504	2	18,21,22	1.73	3 (16%)	21,30,33	2.30	6 (28%)
2	OMU	AB	2552	2	19,22,23	0.82	1 (5%)	25,31,34	1.42	3 (12%)
35	7MG	BA	527	35	23,26,27	2.94	6 (26%)	27,39,42	1.67	2 (7%)
2	H2U	AB	2449	2	18,21,22	1.24	1 (5%)	19,30,33	2.97	9 (47%)
2	PSU	AB	2580	2	18,21,22	1.83	4 (22%)	21,30,33	1.42	4 (19%)
2	PSU	AB	746	2	18,21,22	2.04	6 (33%)	21,30,33	2.00	6 (28%)
2	7MG	AB	2069	2	23,26,27	3.98	4 (17%)	27,39,42	1.67	5 (18%)
2	5MU	AB	747	2	19,22,23	1.51	3 (15%)	27,32,35	2.85	17 (62%)
2	2MG	AB	1835	2	23,26,27	1.08	1 (4%)	33,38,41	1.38	5 (15%)
2	2MA	AB	2503	2	22,25,26	1.21	1 (4%)	32,37,40	1.81	9 (28%)
35	2MG	BA	1207	35	23,26,27	1.21	3 (13%)	33,38,41	1.08	2 (6%)
35	MA6	BA	1518	35	23,26,27	1.03	1 (4%)	33,38,41	1.92	8 (24%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
2	OMC	AB	2498	2	19,22,23	1.28	4 (21%)	25,31,34	1.63	5 (20%)
2	1MG	AB	745	2	23,26,27	1.60	5 (21%)	33,39,42	1.50	6 (18%)
2	CH	AB	2575	2	16,21,22	1.71	2 (12%)	19,30,33	1.44	3 (15%)
2	PSU	AB	2457	2	18,21,22	1.60	3 (16%)	21,30,33	2.50	6 (28%)
2	2MG	AB	2445	2	23,26,27	1.34	3 (13%)	33,38,41	1.66	7 (21%)
2	5MU	AB	1939	2	19,22,23	1.33	1 (5%)	27,32,35	2.37	9 (33%)
35	5MC	BA	967	35	19,22,23	1.10	2 (10%)	26,32,35	1.30	4 (15%)
2	5MC	AB	1962	2	19,22,23	1.23	3 (15%)	26,32,35	1.58	7 (26%)
37	OMC	BC	33	37	19,22,23	1.25	3 (15%)	25,31,34	1.41	5 (20%)
35	UR3	BA	1498	35	19,22,23	1.27	3 (15%)	26,32,35	2.14	8 (30%)
35	4OC	BA	1402	35	20,23,24	1.18	4 (20%)	25,32,35	2.03	8 (32%)
35	MA6	BA	1519	35	23,26,27	1.15	3 (13%)	33,38,41	2.63	11 (33%)
2	3TD	AB	1915	2	19,22,23	1.31	2 (10%)	23,32,35	2.17	6 (26%)
35	2MG	BA	966	35	23,26,27	1.35	4 (17%)	33,38,41	1.46	5 (15%)
2	PSU	AB	955	2	18,21,22	1.87	3 (16%)	21,30,33	1.62	4 (19%)
37	5MU	BC	55	37	19,22,23	0.99	0	27,32,35	1.98	7 (25%)
35	2MG	BA	1516	35	23,26,27	1.25	3 (13%)	33,38,41	1.60	5 (15%)
37	H2U	BC	21	37	18,21,22	1.68	5 (27%)	19,30,33	2.08	8 (42%)
35	5MC	BA	1407	35	19,22,23	1.79	4 (21%)	26,32,35	1.53	6 (23%)
2	OMG	AB	2251	2	23,26,27	1.48	5 (21%)	32,38,41	1.59	5 (15%)
2	6MZ	AB	2030	2	22,25,26	1.83	4 (18%)	29,36,39	1.58	4 (13%)
2	PSU	AB	2605	2	18,21,22	1.83	3 (16%)	21,30,33	2.02	7 (33%)
2	6MZ	AB	1618	2	22,25,26	1.23	1 (4%)	29,36,39	1.47	6 (20%)
2	PSU	AB	1911	2	18,21,22	2.34	8 (44%)	21,30,33	1.38	4 (19%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	PSU	AB	1917	2	-	3/7/25/26	0/2/2/2
37	4SU	BC	8	37	-	0/7/25/26	0/2/2/2
35	PSU	BA	516	35	-	1/7/25/26	0/2/2/2
37	PSU	BC	56	37	-	0/7/25/26	0/2/2/2
2	PSU	AB	2504	2	-	2/7/25/26	0/2/2/2
2	OMU	AB	2552	2	-	1/9/27/28	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
35	7MG	BA	527	35	-	1/7/37/38	0/3/3/3
2	H2U	AB	2449	2	-	0/7/38/39	0/2/2/2
2	PSU	AB	2580	2	-	3/7/25/26	0/2/2/2
2	PSU	AB	746	2	-	1/7/25/26	0/2/2/2
2	7MG	AB	2069	2	-	0/7/37/38	0/3/3/3
2	5MU	AB	747	2	-	0/7/25/26	0/2/2/2
2	2MG	AB	1835	2	-	0/9/27/28	0/3/3/3
2	2MA	AB	2503	2	-	2/7/25/26	0/3/3/3
35	2MG	BA	1207	35	-	0/9/27/28	0/3/3/3
35	MA6	BA	1518	35	-	0/11/29/30	0/3/3/3
2	OMC	AB	2498	2	-	0/9/27/28	0/2/2/2
2	1MG	AB	745	2	-	0/7/25/26	0/3/3/3
2	CH	AB	2575	2	-	0/5/25/26	0/2/2/2
2	PSU	AB	2457	2	-	0/7/25/26	0/2/2/2
2	2MG	AB	2445	2	-	0/9/27/28	0/3/3/3
2	5MU	AB	1939	2	-	0/7/25/26	0/2/2/2
35	5MC	BA	967	35	-	1/7/25/26	0/2/2/2
2	5MC	AB	1962	2	-	0/7/25/26	0/2/2/2
37	OMC	BC	33	37	-	0/9/27/28	0/2/2/2
35	UR3	BA	1498	35	-	0/7/25/26	0/2/2/2
35	4OC	BA	1402	35	-	0/9/29/30	0/2/2/2
35	MA6	BA	1519	35	-	0/11/29/30	0/3/3/3
2	3TD	AB	1915	2	-	0/7/25/26	0/2/2/2
35	2MG	BA	966	35	-	0/9/27/28	0/3/3/3
2	PSU	AB	955	2	-	0/7/25/26	0/2/2/2
37	5MU	BC	55	37	-	0/7/25/26	0/2/2/2
35	2MG	BA	1516	35	-	0/9/27/28	0/3/3/3
37	H2U	BC	21	37	-	0/7/38/39	0/2/2/2
35	5MC	BA	1407	35	-	0/7/25/26	0/2/2/2
2	OMG	AB	2251	2	-	0/9/27/28	0/3/3/3
2	6MZ	AB	2030	2	-	0/9/27/28	0/3/3/3
2	PSU	AB	2605	2	-	0/7/25/26	0/2/2/2
2	6MZ	AB	1618	2	-	1/9/27/28	0/3/3/3
2	PSU	AB	1911	2	-	1/7/25/26	0/2/2/2

All (130) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	2069	7MG	C8-N9	-17.64	1.34	1.45
35	BA	527	7MG	C8-N9	-11.88	1.38	1.45
2	AB	2575	CH	C2'-C1'	5.31	1.61	1.53
2	AB	1911	PSU	C2'-C1'	-5.12	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	BC	56	PSU	C1'-C5	5.07	1.61	1.50
2	AB	955	PSU	C2'-C1'	-5.03	1.46	1.53
37	BC	8	4SU	C5-C4	-4.87	1.36	1.42
37	BC	56	PSU	C6-N1	4.71	1.44	1.36
2	AB	2580	PSU	C2-N1	4.64	1.42	1.36
2	AB	746	PSU	O4'-C4'	-4.64	1.34	1.45
2	AB	2030	6MZ	C6-N1	4.63	1.42	1.35
2	AB	2030	6MZ	C6-N6	4.55	1.39	1.34
2	AB	2605	PSU	C2-N1	4.48	1.42	1.36
35	BA	1407	5MC	C6-C5	4.26	1.41	1.34
2	AB	1911	PSU	C4-N3	4.23	1.46	1.38
35	BA	1407	5MC	C5-C4	4.13	1.47	1.44
2	AB	2069	7MG	C5-N7	4.07	1.40	1.35
2	AB	2605	PSU	C6-C5	3.96	1.39	1.35
2	AB	747	5MU	C2-N1	3.83	1.44	1.38
2	AB	2504	PSU	C6-N1	3.81	1.42	1.36
37	BC	56	PSU	C2'-C1'	3.79	1.58	1.53
2	AB	2503	2MA	C5-N7	3.77	1.46	1.39
37	BC	8	4SU	C4-N3	3.69	1.41	1.37
2	AB	2504	PSU	C6-C5	3.66	1.39	1.35
2	AB	1939	5MU	C2-N3	3.62	1.44	1.38
2	AB	2580	PSU	O4'-C1'	3.56	1.48	1.43
2	AB	746	PSU	C2-N1	3.52	1.41	1.36
2	AB	2457	PSU	C6-C5	3.50	1.39	1.35
2	AB	746	PSU	C6-N1	3.36	1.41	1.36
2	AB	745	1MG	O3'-C3'	-3.27	1.34	1.43
2	AB	2445	2MG	C6-N1	3.26	1.44	1.38
35	BA	516	PSU	C3'-C4'	3.22	1.61	1.53
37	BC	21	H2U	C2-N1	3.20	1.40	1.35
2	AB	1911	PSU	C2-N1	3.18	1.40	1.36
2	AB	745	1MG	CM1-N1	3.06	1.52	1.47
35	BA	516	PSU	C2-N1	3.06	1.40	1.36
35	BA	527	7MG	O3'-C3'	-3.04	1.35	1.43
2	AB	955	PSU	C6-C5	3.00	1.38	1.35
2	AB	955	PSU	C3'-C4'	3.00	1.60	1.53
37	BC	21	H2U	C2'-C3'	2.98	1.61	1.53
35	BA	516	PSU	C2-N3	2.95	1.42	1.37
2	AB	2251	OMG	C4-N3	2.94	1.41	1.34
2	AB	746	PSU	C4-C5	2.92	1.52	1.44
37	BC	8	4SU	C3'-C4'	-2.90	1.45	1.53
2	AB	2069	7MG	C8-N7	-2.89	1.28	1.42
2	AB	2504	PSU	C2'-C1'	-2.87	1.49	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	1917	PSU	C2-N1	2.87	1.40	1.36
2	AB	2251	OMG	O4'-C4'	-2.85	1.38	1.45
35	BA	527	7MG	C5'-C4'	2.79	1.60	1.51
2	AB	2445	2MG	O4'-C4'	-2.79	1.38	1.45
2	AB	1911	PSU	C1'-C5	2.76	1.56	1.50
35	BA	1207	2MG	CM2-N2	2.76	1.50	1.45
37	BC	33	OMC	C2-N1	2.75	1.45	1.40
37	BC	21	H2U	C5-C4	2.73	1.55	1.50
2	AB	2030	6MZ	C4-N3	2.72	1.39	1.34
2	AB	2251	OMG	C2-N3	2.70	1.39	1.33
37	BC	56	PSU	O4'-C4'	-2.69	1.39	1.45
2	AB	1911	PSU	C5'-C4'	2.64	1.59	1.51
35	BA	1498	UR3	C3U-N3	2.64	1.51	1.47
35	BA	966	2MG	C2-N3	2.63	1.37	1.32
2	AB	2580	PSU	C6-C5	2.61	1.38	1.35
2	AB	1911	PSU	C2-N3	2.61	1.41	1.37
2	AB	745	1MG	C2-N1	2.60	1.42	1.37
2	AB	2457	PSU	O4'-C1'	2.58	1.47	1.43
35	BA	1516	2MG	O3'-C3'	-2.56	1.36	1.43
35	BA	527	7MG	C1'-N9	2.56	1.51	1.46
35	BA	1519	MA6	O4'-C4'	-2.53	1.39	1.45
2	AB	2449	H2U	C2-N1	2.51	1.39	1.35
35	BA	516	PSU	C4-N3	-2.49	1.34	1.38
2	AB	745	1MG	C2'-C3'	2.47	1.60	1.53
37	BC	56	PSU	C2-N1	2.46	1.39	1.36
2	AB	1618	6MZ	C9-N6	2.46	1.49	1.45
2	AB	746	PSU	C2'-C1'	-2.43	1.50	1.53
35	BA	967	5MC	C5-C4	2.43	1.46	1.44
35	BA	1516	2MG	O2'-C2'	-2.42	1.37	1.43
37	BC	21	H2U	C5'-C4'	2.41	1.58	1.51
2	AB	2498	OMC	O2'-C2'	2.41	1.48	1.42
35	BA	1207	2MG	C2-N1	2.41	1.40	1.36
2	AB	2457	PSU	C6-N1	-2.41	1.32	1.36
2	AB	2251	OMG	O4'-C1'	-2.41	1.36	1.42
2	AB	1917	PSU	C5'-C4'	2.38	1.58	1.51
2	AB	2069	7MG	C2-N3	2.37	1.38	1.33
35	BA	1519	MA6	O2'-C2'	-2.37	1.37	1.43
35	BA	966	2MG	C2-N1	2.36	1.40	1.36
2	AB	1911	PSU	O4'-C1'	2.32	1.47	1.43
2	AB	1962	5MC	CM5-C5	2.31	1.56	1.50
35	BA	1498	UR3	C3'-C2'	-2.31	1.47	1.53
35	BA	1407	5MC	C3'-C4'	-2.31	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	2605	PSU	C3'-C2'	2.31	1.59	1.53
2	AB	747	5MU	C2-N3	2.30	1.42	1.38
2	AB	1911	PSU	O3'-C3'	-2.30	1.37	1.43
37	BC	8	4SU	C2-N1	2.30	1.42	1.38
37	BC	33	OMC	C3'-C4'	2.29	1.58	1.53
2	AB	2580	PSU	O3'-C3'	2.28	1.48	1.43
2	AB	1915	3TD	C10-N3	2.27	1.51	1.47
2	AB	745	1MG	O2'-C2'	2.27	1.48	1.43
2	AB	1835	2MG	C8-N7	-2.25	1.26	1.32
2	AB	2575	CH	O2'-C2'	-2.25	1.37	1.43
2	AB	2498	OMC	O4'-C4'	-2.22	1.40	1.45
2	AB	2445	2MG	C2-N3	2.22	1.36	1.32
2	AB	2552	OMU	C4-N3	2.19	1.42	1.38
35	BA	966	2MG	O6-C6	2.19	1.27	1.23
2	AB	2498	OMC	C5'-C4'	2.19	1.58	1.51
35	BA	1402	4OC	O2'-CM2	2.19	1.49	1.42
2	AB	2498	OMC	C1'-N1	2.19	1.53	1.47
35	BA	1519	MA6	C3'-C2'	-2.19	1.47	1.53
35	BA	1207	2MG	C2-N3	2.18	1.36	1.32
37	BC	8	4SU	C6-C5	2.17	1.40	1.35
35	BA	966	2MG	C1'-N9	-2.16	1.41	1.47
35	BA	1402	4OC	CM4-N4	2.16	1.49	1.45
35	BA	527	7MG	O4'-C1'	-2.15	1.37	1.42
2	AB	1915	3TD	O4'-C1'	2.14	1.46	1.43
35	BA	1407	5MC	C1'-N1	2.14	1.53	1.47
35	BA	1518	MA6	O4'-C1'	2.13	1.46	1.42
37	BC	8	4SU	O4'-C4'	-2.12	1.40	1.45
2	AB	2251	OMG	C2-N2	-2.08	1.29	1.34
35	BA	1498	UR3	C2'-C1'	2.08	1.60	1.53
37	BC	21	H2U	C2-N3	-2.07	1.34	1.38
35	BA	1402	4OC	O3'-C3'	2.06	1.48	1.43
2	AB	1962	5MC	O5'-C5'	-2.06	1.38	1.44
35	BA	967	5MC	O5'-C5'	-2.05	1.38	1.44
35	BA	527	7MG	C8-N7	-2.05	1.32	1.42
35	BA	1402	4OC	O5'-C5'	-2.04	1.38	1.44
2	AB	1962	5MC	C5'-C4'	2.03	1.57	1.51
2	AB	747	5MU	O3'-C3'	2.03	1.48	1.43
2	AB	2030	6MZ	C4-N9	2.02	1.41	1.37
37	BC	33	OMC	O3'-C3'	2.02	1.48	1.43
2	AB	1917	PSU	O4'-C4'	-2.01	1.40	1.45
2	AB	746	PSU	O4'-C1'	-2.01	1.41	1.43
35	BA	1516	2MG	C3'-C4'	2.00	1.58	1.53

All (239) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2457	PSU	C6-C5-C4	8.06	123.62	118.17
35	BA	516	PSU	C3'-C2'-C1'	7.51	110.55	101.69
2	AB	2449	H2U	O2-C2-N1	-7.47	114.12	123.10
2	AB	2504	PSU	C6-C5-C4	6.92	122.84	118.17
2	AB	1939	5MU	C5M-C5-C4	6.89	126.14	118.78
2	AB	747	5MU	C5-C4-N3	6.49	120.97	115.32
35	BA	1519	MA6	C4-C5-C6	6.47	122.59	115.91
35	BA	1519	MA6	C4-C5-N7	-6.42	103.24	110.58
35	BA	527	7MG	N9-C8-N7	6.06	111.95	103.37
2	AB	747	5MU	O4-C4-C5	-5.88	118.19	124.92
2	AB	1917	PSU	C6-C5-C4	5.85	122.12	118.17
2	AB	2449	H2U	O2-C2-N3	5.53	131.67	121.49
35	BA	516	PSU	C6-C5-C4	5.43	121.84	118.17
2	AB	2030	6MZ	C9-N6-C6	5.32	127.79	122.85
2	AB	2069	7MG	N9-C8-N7	5.23	110.77	103.37
37	BC	55	5MU	C5M-C5-C4	5.16	124.30	118.78
2	AB	2445	2MG	N1-C2-N2	-5.14	111.31	116.56
35	BA	1498	UR3	O4-C4-N3	5.09	125.85	119.66
2	AB	1915	3TD	C6-C5-C4	4.96	121.52	118.19
35	BA	1519	MA6	C2-N1-C6	4.85	123.68	111.83
2	AB	1915	3TD	C5-C6-N1	-4.81	115.47	122.14
35	BA	1402	4OC	C6-C5-C4	-4.77	111.26	117.00
2	AB	1939	5MU	C5M-C5-C6	-4.63	116.58	122.85
2	AB	2498	OMC	O4'-C1'-N1	4.60	118.78	108.36
35	BA	1519	MA6	C5-C4-N9	4.59	110.81	105.81
2	AB	1915	3TD	C3'-C2'-C1'	4.58	107.09	101.69
2	AB	2605	PSU	O2-C2-N1	-4.56	118.09	122.79
35	BA	1516	2MG	N1-C2-N2	-4.45	112.02	116.56
37	BC	55	5MU	C5M-C5-C6	-4.40	116.89	122.85
35	BA	1518	MA6	C5-C4-N9	4.37	110.58	105.81
35	BA	1518	MA6	C2-N1-C6	4.35	122.47	111.83
2	AB	2251	OMG	C2'-C1'-N9	-4.34	106.00	114.24
2	AB	747	5MU	C1'-N1-C6	-4.27	114.13	121.15
2	AB	747	5MU	C4-N3-C2	-4.26	121.75	127.34
37	BC	55	5MU	O2-C2-N1	4.26	128.34	122.80
2	AB	2449	H2U	O4'-C1'-N1	4.25	115.09	109.30
2	AB	747	5MU	O2-C2-N1	-4.21	117.32	122.80
35	BA	1402	4OC	C5-C4-N3	4.20	129.16	122.60
2	AB	2503	2MA	O4'-C1'-N9	4.18	116.12	108.09
2	AB	746	PSU	O4'-C4'-C3'	4.15	113.39	105.15
2	AB	2504	PSU	O4'-C1'-C2'	4.12	110.86	105.15
35	BA	1518	MA6	C4-C5-C6	4.11	120.16	115.91

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2449	H2U	O4'-C4'-C3'	4.09	113.27	105.15
35	BA	1519	MA6	N1-C6-N6	4.06	121.80	116.86
2	AB	2503	2MA	C4-N9-C8	3.97	109.91	105.74
2	AB	2449	H2U	C2'-C3'-C4'	-3.94	94.99	102.61
2	AB	1939	5MU	C4-N3-C2	-3.91	122.22	127.34
2	AB	747	5MU	C5M-C5-C4	3.89	122.94	118.78
35	BA	1498	UR3	C5-C4-N3	-3.82	110.01	115.04
2	AB	2503	2MA	O4'-C4'-C3'	-3.81	97.59	105.15
35	BA	1519	MA6	C5-N7-C8	3.78	109.39	103.45
2	AB	746	PSU	C3'-C2'-C1'	3.77	106.14	101.69
2	AB	2457	PSU	O2-C2-N1	3.76	126.67	122.79
35	BA	1518	MA6	C4-C5-N7	-3.75	106.30	110.58
2	AB	2575	CH	C5-C4-N3	3.74	120.17	118.04
2	AB	2457	PSU	C6-N1-C2	3.74	126.16	122.69
35	BA	1402	4OC	CM4-N4-C4	3.72	129.72	122.45
37	BC	21	H2U	C5-C4-N3	-3.71	112.74	116.69
2	AB	1835	2MG	O6-C6-N1	3.71	127.08	120.11
2	AB	2552	OMU	O4'-C1'-N1	3.70	116.75	108.36
35	BA	1407	5MC	C5-C4-N3	-3.67	117.99	121.75
35	BA	1516	2MG	O3'-C3'-C4'	3.67	121.63	111.08
35	BA	1498	UR3	O4'-C1'-N1	3.67	116.67	108.36
2	AB	2504	PSU	C5-C6-N1	-3.67	117.05	122.14
37	BC	21	H2U	C2'-C3'-C4'	-3.66	95.53	102.61
37	BC	8	4SU	C5-C4-S4	3.66	128.48	124.31
35	BA	966	2MG	C2-N1-C6	-3.64	120.15	124.55
37	BC	8	4SU	O4'-C4'-C3'	3.64	112.38	105.15
2	AB	2457	PSU	C5-C6-N1	-3.63	117.10	122.14
35	BA	1518	MA6	C4-N9-C8	-3.61	101.95	105.74
2	AB	2605	PSU	C6-C5-C4	3.60	120.60	118.17
2	AB	2251	OMG	O2'-C2'-C1'	-3.58	102.18	108.99
2	AB	746	PSU	C2'-C3'-C4'	-3.56	95.74	102.61
2	AB	2504	PSU	N1-C2-N3	3.56	118.92	115.17
35	BA	527	7MG	C5-C4-N9	3.53	110.85	106.33
35	BA	1519	MA6	O4'-C1'-N9	3.53	114.86	108.09
2	AB	955	PSU	O2-C2-N1	3.50	126.39	122.79
35	BA	1498	UR3	C2'-C1'-N1	-3.48	103.56	113.25
2	AB	745	1MG	CM1-N1-C6	-3.47	112.27	117.64
2	AB	746	PSU	N1-C2-N3	3.45	118.81	115.17
37	BC	8	4SU	O4'-C1'-N1	3.44	116.15	108.36
2	AB	1939	5MU	O4-C4-C5	-3.43	120.99	124.92
35	BA	966	2MG	O3'-C3'-C4'	3.43	120.93	111.08
2	AB	1939	5MU	C5-C4-N3	3.40	118.28	115.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	747	5MU	O2-C2-N3	3.39	127.73	121.49
37	BC	56	PSU	C2'-C3'-C4'	-3.37	96.10	102.61
35	BA	1519	MA6	C5-C4-N3	-3.33	122.14	126.72
2	AB	2445	2MG	C2'-C3'-C4'	-3.31	96.21	102.61
2	AB	1618	6MZ	C6-C5-N7	-3.30	128.83	132.43
35	BA	966	2MG	C2-N3-C4	3.22	116.03	112.00
2	AB	2030	6MZ	O4'-C1'-N9	3.21	114.26	108.09
37	BC	8	4SU	C6-N1-C2	-3.20	117.10	121.00
35	BA	1519	MA6	C5-C6-N1	-3.20	111.91	118.55
37	BC	55	5MU	O4-C4-C5	3.20	128.57	124.92
35	BA	1516	2MG	C2-N1-C6	-3.19	120.69	124.55
35	BA	1519	MA6	O3'-C3'-C4'	3.19	120.24	111.08
37	BC	21	H2U	N3-C2-N1	-3.18	113.45	116.65
2	AB	2552	OMU	C4-N3-C2	-3.13	122.72	126.61
2	AB	1962	5MC	C5-C4-N3	3.10	124.94	121.75
2	AB	1939	5MU	O3'-C3'-C2'	3.09	121.74	111.82
35	BA	1518	MA6	C5-C6-N1	-3.08	112.15	118.55
37	BC	33	OMC	O2'-C2'-C1'	3.08	114.83	108.99
2	AB	2251	OMG	C4'-O4'-C1'	3.04	116.19	109.47
35	BA	516	PSU	C5-C6-N1	-3.02	117.95	122.14
35	BA	967	5MC	C5-C6-N1	-3.01	120.04	123.31
2	AB	1915	3TD	C6-N1-C2	3.01	129.46	121.80
2	AB	2498	OMC	O4'-C4'-C5'	3.01	118.97	109.33
35	BA	1498	UR3	O4'-C1'-C2'	-2.99	100.22	106.62
2	AB	745	1MG	CM1-N1-C2	2.99	123.80	120.70
2	AB	2552	OMU	N3-C2-N1	2.97	118.76	114.89
2	AB	2605	PSU	C3'-C2'-C1'	2.96	105.18	101.69
2	AB	2605	PSU	C4'-O4'-C1'	2.94	115.81	108.44
35	BA	1498	UR3	C6-N1-C2	-2.94	119.40	121.80
2	AB	1835	2MG	C2-N1-C6	2.93	128.09	124.55
37	BC	21	H2U	O4'-C1'-C2'	-2.88	100.45	106.62
2	AB	1917	PSU	O2-C2-N1	2.88	125.75	122.79
2	AB	1917	PSU	C5-C6-N1	-2.87	118.16	122.14
2	AB	2030	6MZ	C3'-C2'-C1'	2.82	106.80	101.46
2	AB	2605	PSU	C5-C6-N1	-2.80	118.25	122.14
35	BA	1498	UR3	C6-C5-C4	2.80	126.08	120.73
2	AB	2503	2MA	C4-C5-N7	-2.79	107.39	110.58
2	AB	1911	PSU	C4-N3-C2	-2.78	122.54	126.37
37	BC	33	OMC	C2'-C1'-N1	-2.77	108.98	114.24
2	AB	747	5MU	O4'-C4'-C5'	2.77	118.21	109.33
37	BC	21	H2U	O4'-C1'-N1	2.73	113.01	109.30
2	AB	1618	6MZ	C1'-N9-C8	2.72	133.13	127.09

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2580	PSU	O4'-C1'-C2'	2.71	108.89	105.15
2	AB	2069	7MG	C2'-C3'-C4'	-2.68	97.43	102.61
2	AB	1618	6MZ	C4-N9-C1'	-2.67	120.40	126.63
35	BA	1207	2MG	C2'-C3'-C4'	-2.66	97.47	102.61
35	BA	1516	2MG	C5-C4-N3	-2.65	124.17	128.39
2	AB	2503	2MA	C5-C4-N3	-2.63	124.41	127.18
2	AB	2445	2MG	O6-C6-N1	2.63	125.05	120.11
2	AB	1911	PSU	O3'-C3'-C4'	2.62	118.60	111.08
35	BA	1402	4OC	O4'-C4'-C3'	-2.61	99.97	105.15
2	AB	745	1MG	C2-N1-C6	2.61	123.17	120.99
35	BA	1518	MA6	C5-C4-N3	-2.61	123.12	126.72
2	AB	2445	2MG	N2-C2-N3	2.61	123.83	120.51
35	BA	1402	4OC	C5-C4-N4	-2.60	116.68	122.40
2	AB	1962	5MC	C1'-N1-C6	2.60	125.43	121.15
2	AB	747	5MU	O4'-C1'-N1	2.58	114.21	108.36
35	BA	967	5MC	O2-C2-N3	-2.58	118.27	122.33
2	AB	1962	5MC	O4'-C1'-N1	2.57	114.19	108.36
2	AB	745	1MG	C5-C6-N1	-2.57	110.27	115.02
2	AB	2449	H2U	N3-C2-N1	-2.56	114.08	116.65
37	BC	33	OMC	O4'-C1'-N1	2.55	114.14	108.36
35	BA	1407	5MC	O4'-C4'-C3'	-2.54	100.11	105.15
37	BC	21	H2U	C4'-O4'-C1'	2.54	115.08	109.47
35	BA	1518	MA6	N1-C6-N6	2.54	119.94	116.86
2	AB	2069	7MG	N2-C2-N3	-2.53	114.72	119.67
2	AB	2445	2MG	C6-C5-C4	2.53	122.63	118.83
37	BC	8	4SU	O2-C2-N1	2.53	126.08	122.80
2	AB	2498	OMC	C4-N3-C2	2.52	124.23	120.26
2	AB	2575	CH	C3'-C2'-C1'	-2.52	97.22	100.84
2	AB	2251	OMG	C5-C4-N9	2.52	110.16	105.66
2	AB	2069	7MG	C3'-C2'-C1'	2.51	106.22	101.46
2	AB	1915	3TD	C4-N3-C2	-2.51	121.95	124.61
2	AB	746	PSU	C6-N1-C2	-2.51	120.36	122.69
2	AB	2605	PSU	C2'-C3'-C4'	-2.51	97.77	102.61
2	AB	2445	2MG	O3'-C3'-C4'	2.49	118.22	111.08
2	AB	1962	5MC	O2-C2-N3	-2.48	118.42	122.33
2	AB	1917	PSU	O4'-C1'-C2'	2.48	108.58	105.15
2	AB	1917	PSU	C5'-C4'-C3'	2.48	124.13	115.21
2	AB	1939	5MU	O3'-C3'-C4'	-2.48	103.97	111.08
2	AB	1618	6MZ	C4-C5-C6	2.47	118.83	116.78
37	BC	21	H2U	O4-C4-N3	2.47	124.11	120.30
2	AB	1911	PSU	O2'-C2'-C1'	-2.47	105.35	111.21
35	BA	1516	2MG	C2-N3-C4	2.46	115.08	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	2580	PSU	O4'-C4'-C3'	2.46	110.03	105.15
37	BC	21	H2U	O2-C2-N1	2.46	126.06	123.10
2	AB	2251	OMG	O4'-C1'-N9	2.45	113.90	108.36
35	BA	1402	4OC	O3'-C3'-C2'	-2.45	104.34	111.19
2	AB	1618	6MZ	O4'-C1'-N9	2.44	112.77	108.09
2	AB	2504	PSU	O4'-C4'-C3'	2.44	109.99	105.15
2	AB	747	5MU	C6-N1-C2	2.44	123.73	121.30
2	AB	745	1MG	C2'-C1'-N9	-2.43	106.50	113.25
35	BA	1402	4OC	O4'-C1'-N1	2.42	113.85	108.36
2	AB	1962	5MC	C5-C4-N4	-2.42	117.98	121.39
35	BA	1407	5MC	O2-C2-N3	-2.41	118.54	122.33
35	BA	1407	5MC	C5-C6-N1	-2.40	120.70	123.31
2	AB	2605	PSU	O4'-C1'-C2'	-2.40	101.83	105.15
2	AB	747	5MU	C3'-C2'-C1'	2.40	106.00	101.46
35	BA	1519	MA6	C9-N6-C6	2.39	126.61	120.52
35	BA	1402	4OC	N1-C2-N3	-2.39	114.66	118.80
2	AB	2449	H2U	C3'-C2'-C1'	2.38	105.96	101.46
35	BA	966	2MG	O3'-C3'-C2'	-2.37	104.21	111.82
2	AB	1939	5MU	O2'-C2'-C3'	-2.36	104.25	111.82
2	AB	747	5MU	C1'-N1-C2	2.36	121.83	117.59
2	AB	2580	PSU	C4'-O4'-C1'	-2.34	102.58	108.44
35	BA	1207	2MG	O2'-C2'-C3'	2.34	119.32	111.82
2	AB	2457	PSU	O2-C2-N3	-2.33	117.72	121.86
35	BA	1498	UR3	C1'-N1-C6	2.33	125.75	120.78
2	AB	2498	OMC	C2'-C1'-N1	-2.31	109.85	114.24
2	AB	2503	2MA	N3-C4-N9	2.31	129.92	126.99
2	AB	1911	PSU	O4'-C1'-C2'	2.29	108.32	105.15
2	AB	1962	5MC	O2-C2-N1	2.28	123.37	118.90
2	AB	2445	2MG	C4-C5-N7	-2.28	107.06	110.67
2	AB	2030	6MZ	O4'-C4'-C3'	2.26	109.64	105.15
2	AB	2503	2MA	CM2-C2-N3	-2.26	113.74	117.13
35	BA	516	PSU	C4'-O4'-C1'	2.24	114.04	108.44
2	AB	1835	2MG	O4'-C4'-C3'	-2.23	100.72	105.15
2	AB	1618	6MZ	C5-C6-N1	-2.22	115.77	118.15
37	BC	8	4SU	O2-C2-N3	-2.22	117.40	121.49
2	AB	1939	5MU	O4'-C4'-C5'	2.21	116.41	109.33
2	AB	745	1MG	N2-C2-N1	-2.21	117.01	118.79
2	AB	1915	3TD	O2'-C2'-C1'	2.19	116.42	111.21
2	AB	2503	2MA	N3-C2-N1	2.19	129.63	125.77
37	BC	8	4SU	S4-C4-N3	-2.19	117.92	120.20
37	BC	55	5MU	O4'-C1'-N1	2.18	113.30	108.36
37	BC	33	OMC	C1'-N1-C6	2.18	125.43	120.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	BC	33	OMC	C5-C4-N3	-2.17	117.66	121.32
35	BA	967	5MC	O4'-C1'-N1	2.17	113.27	108.36
2	AB	955	PSU	O4'-C1'-C2'	2.16	108.13	105.15
2	AB	747	5MU	C5M-C5-C6	-2.15	119.94	122.85
2	AB	747	5MU	C5-C6-N1	-2.15	120.97	123.31
2	AB	747	5MU	O4'-C1'-C2'	-2.15	102.02	106.62
35	BA	967	5MC	CM5-C5-C6	-2.14	119.95	122.85
37	BC	55	5MU	C6-N1-C2	2.14	123.43	121.30
37	BC	55	5MU	O4-C4-N3	-2.14	116.10	120.11
2	AB	2575	CH	C2'-C3'-C4'	2.14	106.74	102.61
2	AB	2503	2MA	N9-C8-N7	-2.13	110.92	113.94
2	AB	2449	H2U	O4'-C1'-C2'	-2.13	102.07	106.62
2	AB	747	5MU	O3'-C3'-C2'	2.12	118.62	111.82
2	AB	955	PSU	O2'-C2'-C3'	-2.11	105.05	111.82
2	AB	2069	7MG	O3'-C3'-C2'	2.09	118.51	111.82
2	AB	2580	PSU	C5-C6-N1	-2.08	119.25	122.14
35	BA	1407	5MC	C2'-C1'-N1	-2.08	107.47	113.25
2	AB	747	5MU	C2'-C3'-C4'	-2.06	98.64	102.61
35	BA	1407	5MC	O2'-C2'-C3'	-2.05	105.24	111.82
2	AB	746	PSU	C4-N3-C2	-2.05	123.55	126.37
2	AB	2498	OMC	O3'-C3'-C2'	-2.04	105.46	111.19
2	AB	1962	5MC	CM5-C5-C4	2.04	123.86	120.51
35	BA	966	2MG	O4'-C4'-C3'	-2.04	101.11	105.15
2	AB	2449	H2U	O4-C4-N3	2.03	123.44	120.30
2	AB	1835	2MG	O4'-C4'-C5'	2.03	115.84	109.33
2	AB	1835	2MG	C5-C4-N9	-2.03	102.03	105.66
2	AB	955	PSU	C2'-C3'-C4'	-2.02	98.70	102.61
2	AB	2457	PSU	O2'-C2'-C3'	-2.01	105.39	111.82
2	AB	2504	PSU	O2-C2-N1	-2.00	120.72	122.79

There are no chirality outliers.

All (17) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	AB	746	PSU	C2'-C1'-C5-C4
2	AB	2503	2MA	O4'-C1'-N9-C8
2	AB	2503	2MA	O4'-C1'-N9-C4
2	AB	2552	OMU	C1'-C2'-O2'-CM2
2	AB	1917	PSU	O4'-C4'-C5'-O5'
2	AB	1917	PSU	C3'-C4'-C5'-O5'
35	BA	527	7MG	C4'-C5'-O5'-P
2	AB	1911	PSU	O4'-C1'-C5-C4

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Mol	Chain	Res	Type	Atoms
2	AB	2504	PSU	O4'-C1'-C5-C4
35	BA	516	PSU	O4'-C1'-C5-C4
2	AB	2580	PSU	C3'-C4'-C5'-O5'
35	BA	967	5MC	O4'-C4'-C5'-O5'
2	AB	2580	PSU	C4'-C5'-O5'-P
2	AB	1618	6MZ	O4'-C4'-C5'-O5'
2	AB	1917	PSU	O4'-C1'-C5-C6
2	AB	2504	PSU	O4'-C1'-C5-C6
2	AB	2580	PSU	O4'-C4'-C5'-O5'

There are no ring outliers.

No monomer is involved in short contacts.

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
2	AB	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	AB	2831:G	O3'	2832:U	P	1.76

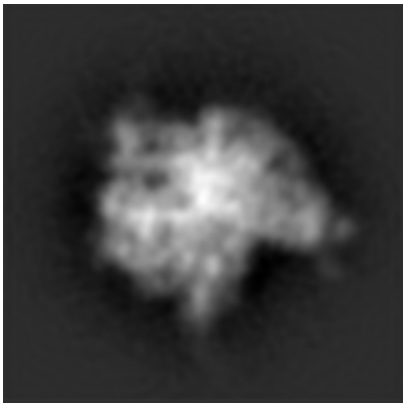
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-5360. These allow visual inspection of the internal detail of the map and identification of artifacts.

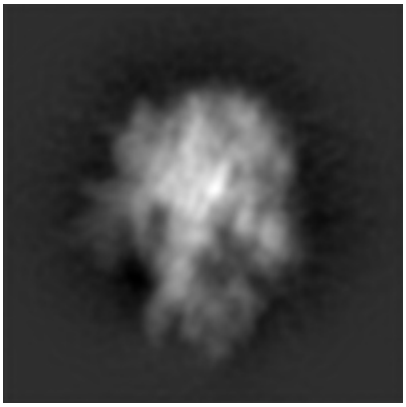
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

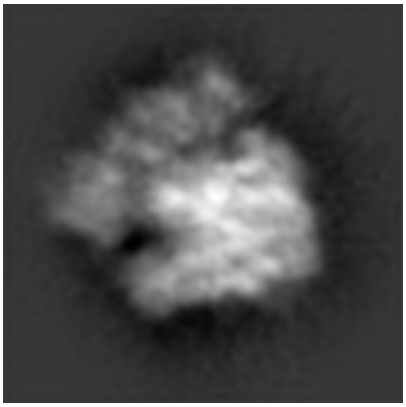
6.1.1 Primary map



X



Y

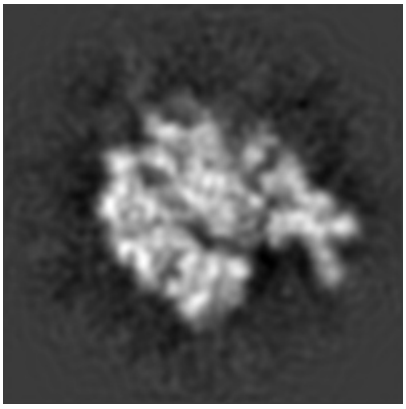


Z

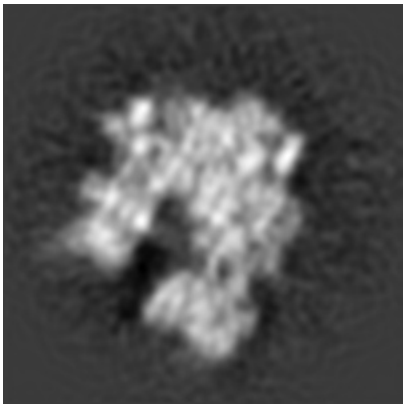
The images above show the map projected in three orthogonal directions.

6.2 Central slices

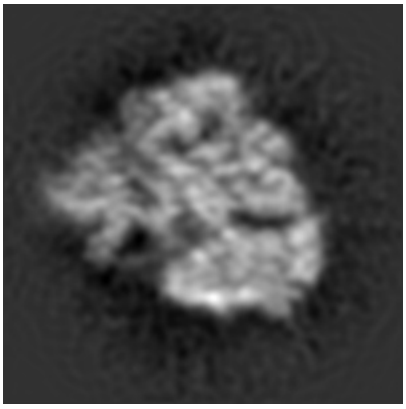
6.2.1 Primary map



X Index: 125



Y Index: 125

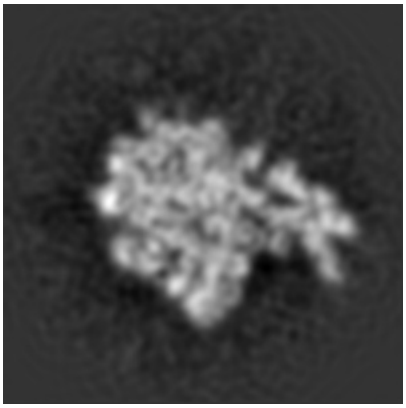


Z Index: 125

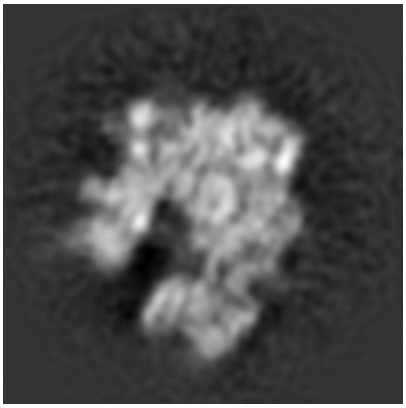
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

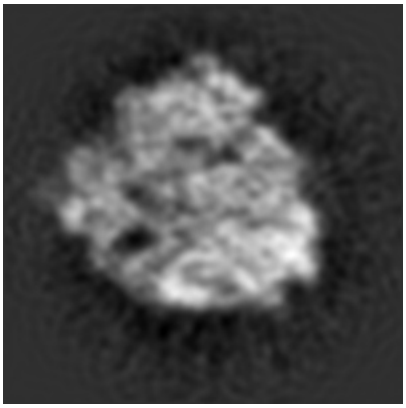
6.3.1 Primary map



X Index: 131



Y Index: 128

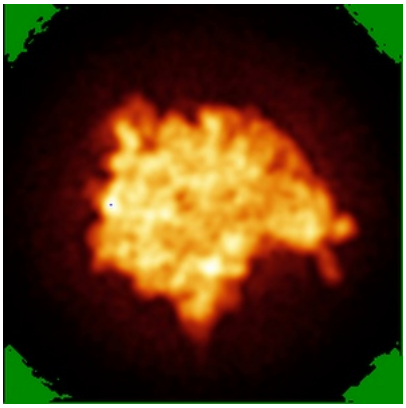


Z Index: 118

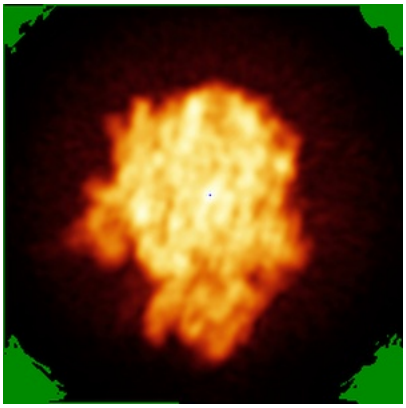
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

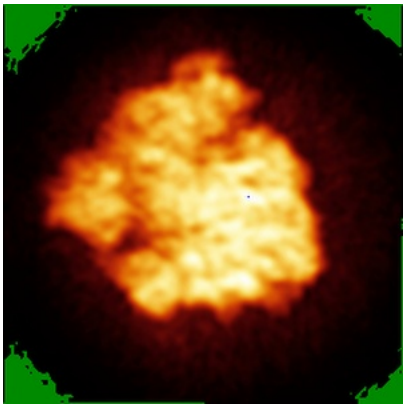
6.4.1 Primary map



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

X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.1. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

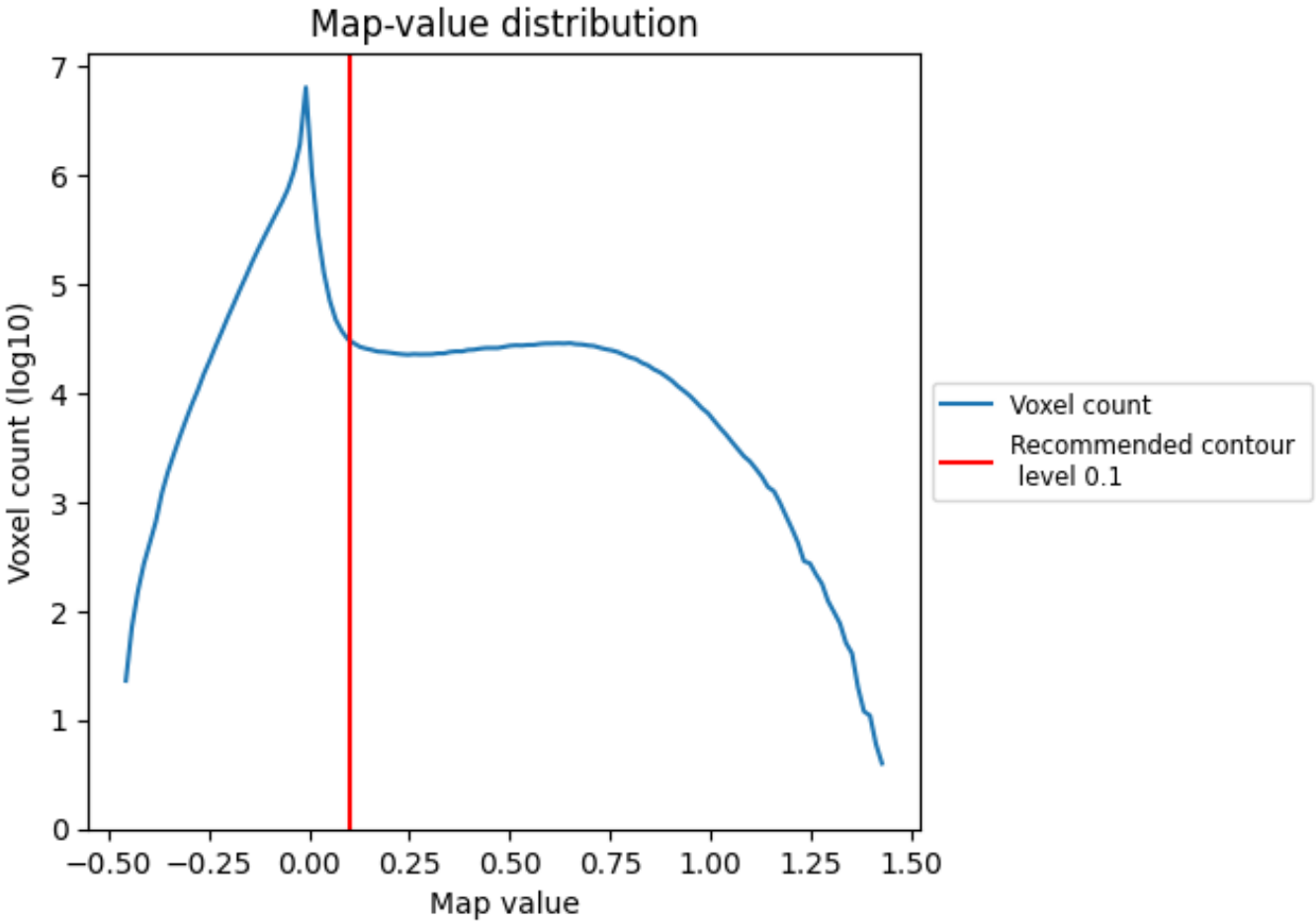
6.6 Mask visualisation (i)

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

7 Map analysis

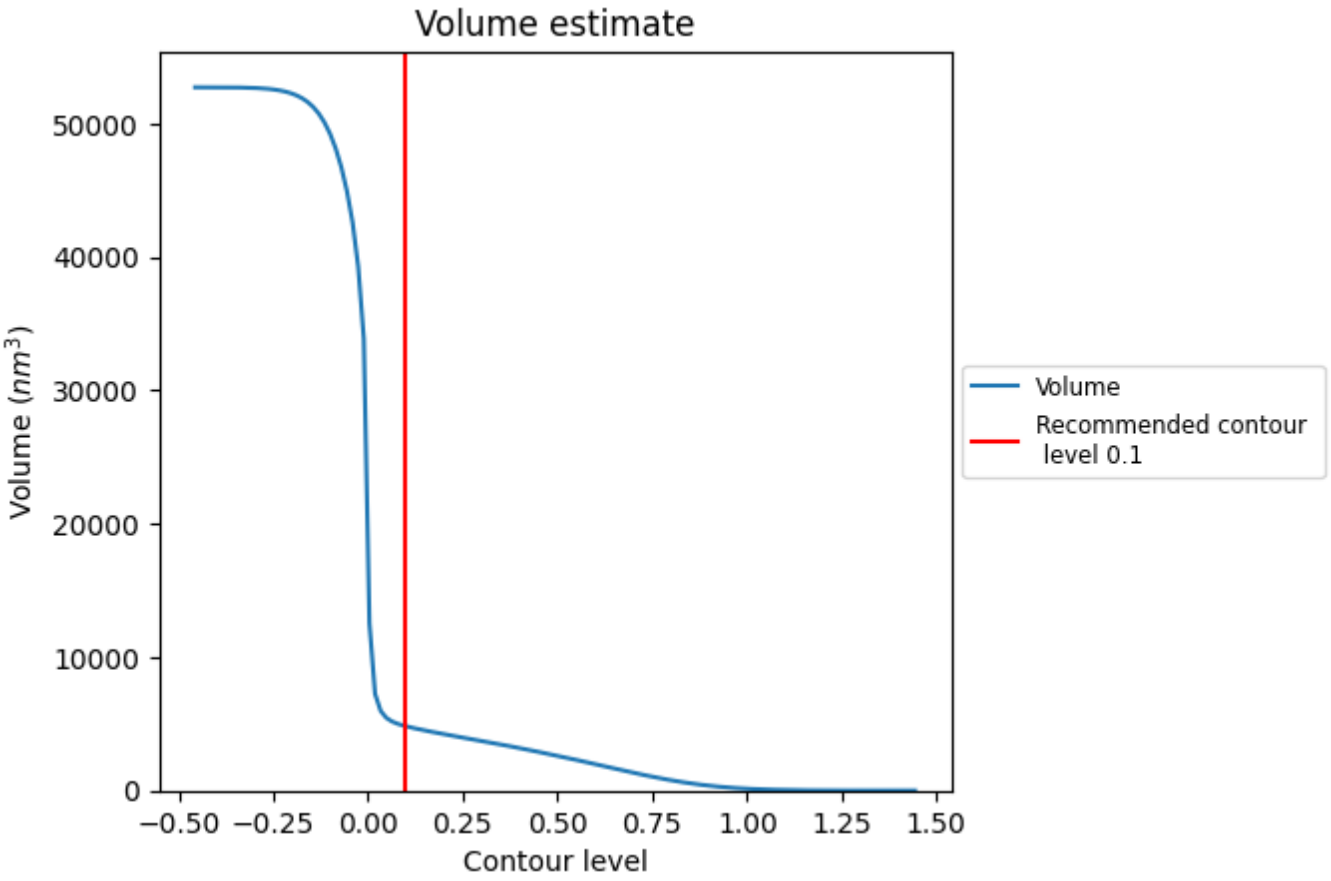
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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.

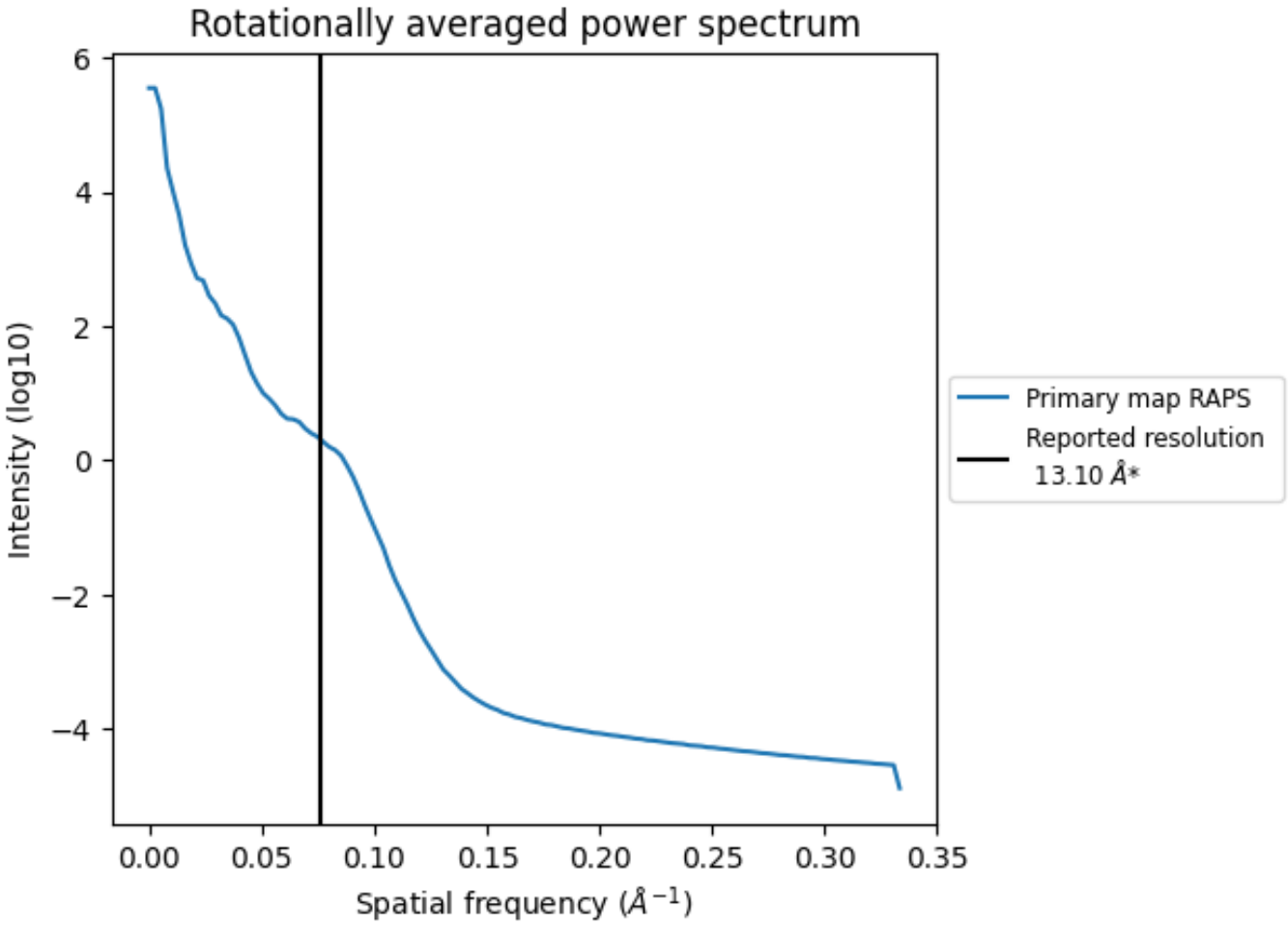
7.2 Volume estimate



The volume at the recommended contour level is 4825 nm^3; this corresponds to an approximate mass of 4359 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum (i)



*Reported resolution corresponds to spatial frequency of 0.076 Å^{-1}

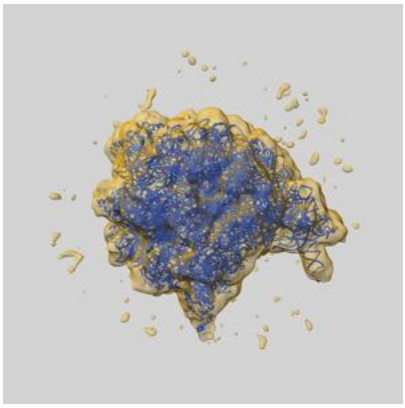
8 Fourier-Shell correlation

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

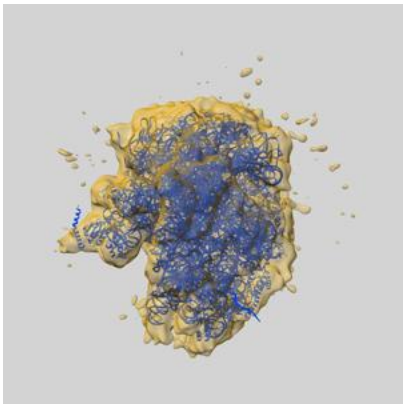
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-5360 and PDB model 4V6S. Per-residue inclusion information can be found in section 3 on page 15.

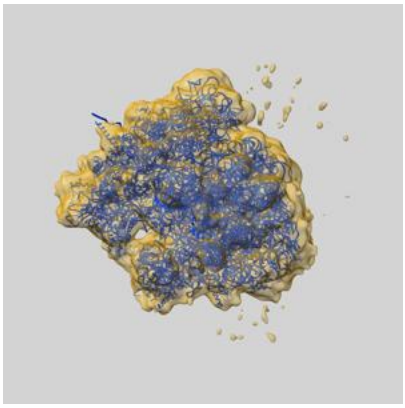
9.1 Map-model overlay



X



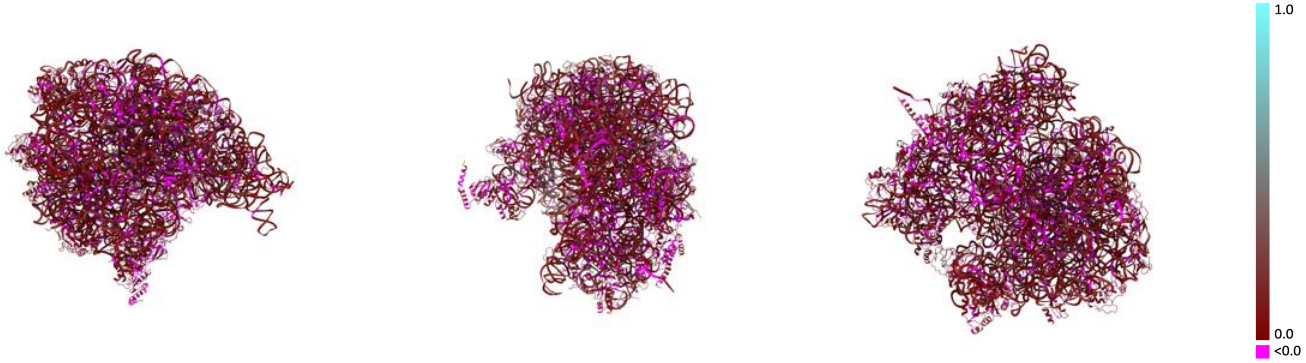
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.1 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.

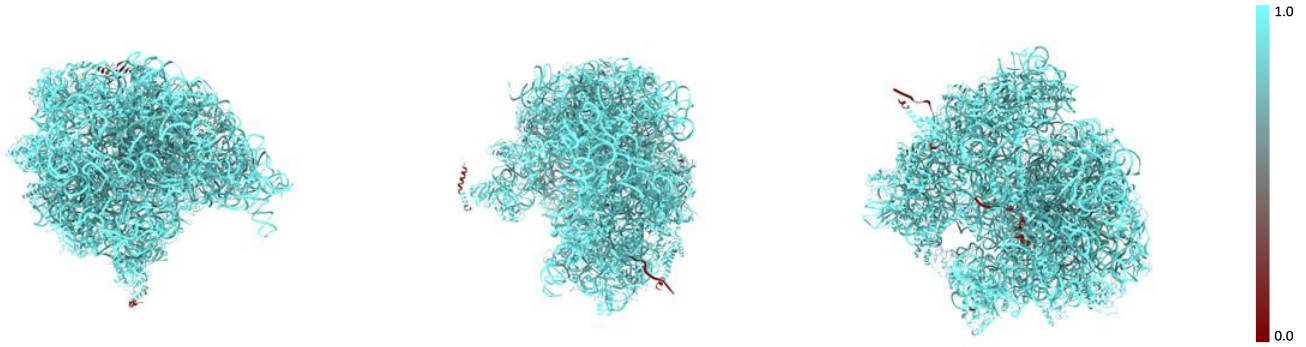
9.2 Q-score mapped to coordinate model



X Y Z

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.

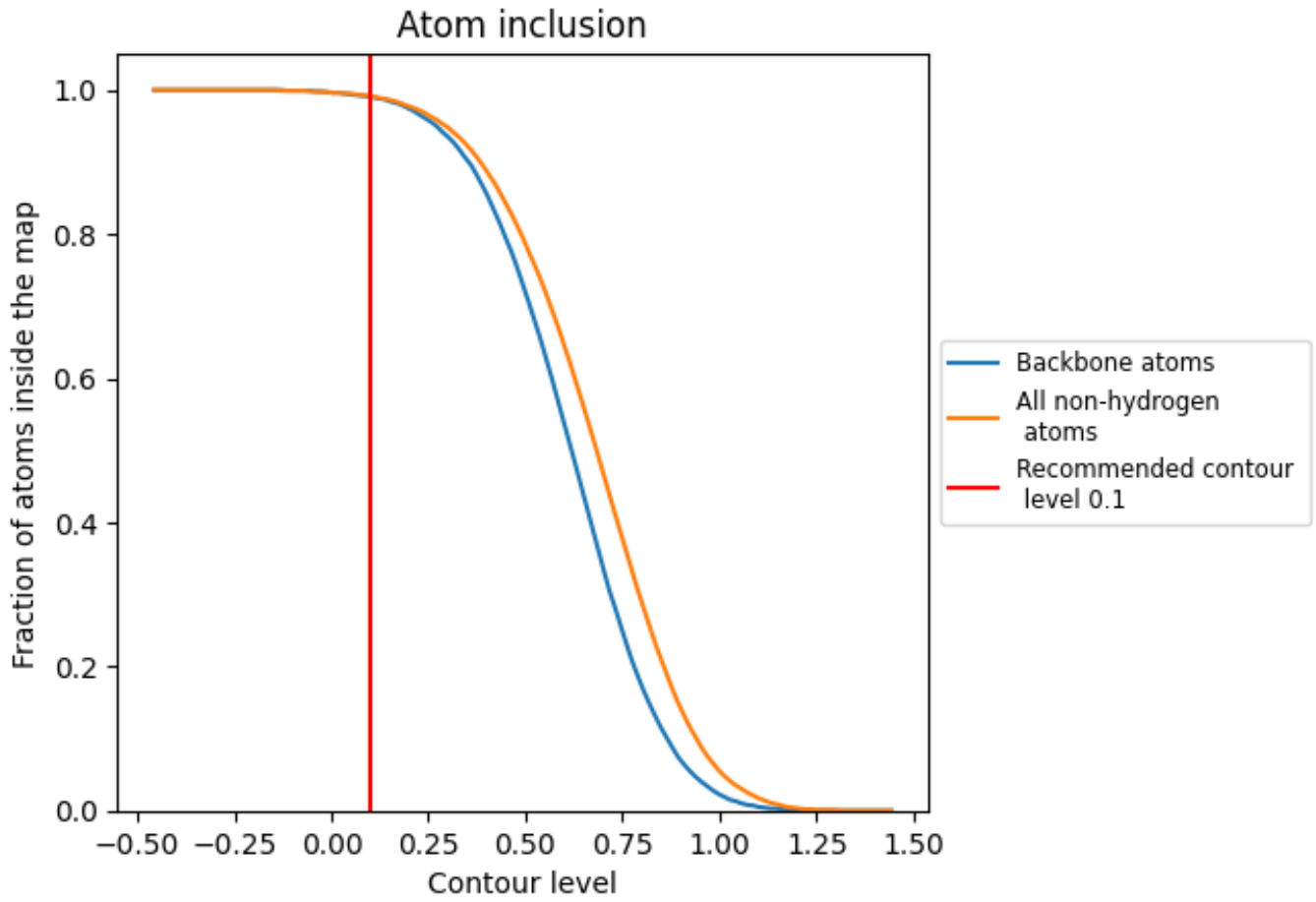
9.3 Atom inclusion mapped to coordinate model



X Y Z

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 (0.1).

9.4 Atom inclusion (i)



At the recommended contour level, 99% of all backbone atoms, 99% 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 (0.1) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.9910	0.0680
A0	1.0000	0.0510
A1	0.9950	0.0290
A2	0.9110	0.0270
A3	1.0000	0.0260
A4	1.0000	0.0490
A5	1.0000	-0.0180
A6	1.0000	-0.0250
A7	1.0000	0.0160
AA	1.0000	0.0850
AB	0.9990	0.0850
AC	0.9610	0.0370
AD	1.0000	0.0210
AE	0.9960	0.0150
AF	0.9970	0.0470
AG	0.9980	0.0730
AH	0.9990	0.0210
AI	0.7900	0.0310
AJ	0.8700	0.0350
AK	0.9800	0.0440
AL	0.9990	0.0250
AM	0.9900	0.0340
AN	0.9940	0.0100
AO	1.0000	0.0310
AP	1.0000	0.0080
AQ	0.9930	0.0550
AR	0.9790	0.0230
AS	0.9980	0.0170
AT	1.0000	0.0470
AU	1.0000	0.0140
AV	1.0000	0.0310
AW	1.0000	0.0770
AX	1.0000	0.0740
AY	0.9980	0.0080
AZ	1.0000	0.0600

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Chain	Atom inclusion	Q-score
BA	0.9990	0.0840
BB	0.7340	-0.0130
BC	1.0000	0.0980
BD	0.9090	0.0220
BE	0.9980	0.0640
BF	1.0000	0.0460
BG	0.9970	0.0420
BH	0.9620	0.0290
BI	0.9930	0.0680
BJ	0.9730	0.0280
BK	0.9880	0.0480
BL	1.0000	0.0400
BM	0.9370	0.0550
BN	0.9770	0.0330
BO	0.9720	0.0480
BP	1.0000	0.0270
BQ	1.0000	0.0410
BR	1.0000	0.0480
BS	1.0000	0.0660
BT	1.0000	0.0540
BU	0.9820	0.0270
BV	1.0000	0.0460
BW	0.9960	0.0570