Full wwPDB EM Validation Report ⓘ

Apr 28, 2024 – 10:18 am BST

PDB ID	:	2YKR
EMDB ID	:	EMD-1884
Title	:	30S ribosomal subunit with RsgA bound in the presence of GMPPNP
Authors	:	Guo, Q.; Yuan, Y.; Xu, Y.; Feng, B.; Liu, L.; Chen, K.; Lei, J.; Gao, N.
Deposited on	:	2011-05-30
Resolution	:	9.80 Å(reported)
Based on initial models	:	3OFA, 2RCN

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:

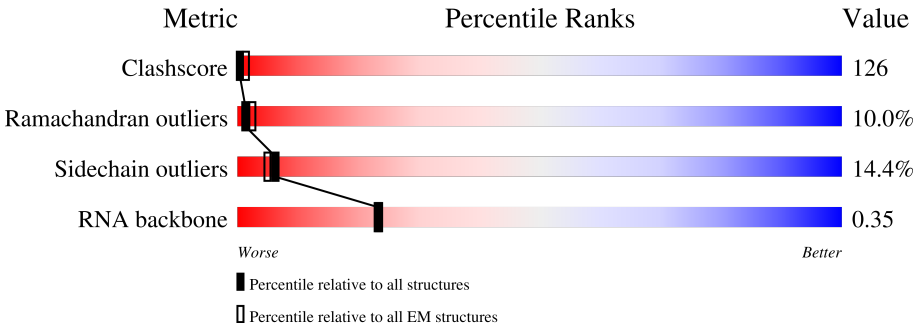
EMDB validation analysis	:	0.0.1.dev92
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36.2

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 9.80 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)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826
RNA backbone	4643	859

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	A	1533	14% 86%
2	B	218	26% 44% 24% 6%
3	C	206	27% 43% 25% 5%
4	D	205	29% 48% 16% 7%
5	E	150	21% 51% 19% 9%
6	F	100	31% 40% 21% 8%
7	G	151	9% 52% 32% 11% 5%

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Mol	Chain	Length	Quality of chain
8	H	129	26% 39% 26% 9%
9	I	127	31% 41% 17% 12%
10	J	98	21% 50% 18% 10%
11	K	117	30% 37% 28% 5%
12	L	123	33% 41% 18% 9%
13	M	114	25% 35% 26% 13%
14	N	100	29% 40% 20% 8%
15	O	88	25% 47% 20% 8%
16	P	82	28% 43% 23% 6%
17	Q	80	18% 32% 36% 14%
18	R	55	29% 49% 16% 5%
19	S	79	32% 43% 16% 9%
20	T	85	31% 44% 21% 5%
21	U	51	37% 57% 33% 6%
22	W	350	38% 30% 11% 19%

2 Entry composition (i)

There are 22 unique types of molecules in this entry. The entry contains 53633 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 16S RRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
1	A	1533	32892	14671	6036	10653	1532	0	0

- Molecule 2 is a protein called 30S RIBOSOMAL PROTEIN S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	B	218	1705	1081	305	312	7	0	0

- Molecule 3 is a protein called 30S RIBOSOMAL PROTEIN S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	C	206	1625	1028	305	289	3	0	0

- Molecule 4 is a protein called 30S RIBOSOMAL PROTEIN S4.

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

- Molecule 5 is a protein called 30S RIBOSOMAL PROTEIN S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	E	150	1106	687	211	202	6	0	0

- Molecule 6 is a protein called 30S RIBOSOMAL PROTEIN S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	F	100	818	515	148	149	6	0	0

- Molecule 7 is a protein called 30S RIBOSOMAL PROTEIN S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	G	151	Total	C	N	O	S	0	0
			1182	735	227	216	4		

- Molecule 8 is a protein called 30S RIBOSOMAL PROTEIN S8.

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

- Molecule 9 is a protein called 30S RIBOSOMAL PROTEIN S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	I	127	Total	C	N	O	S	0	0
			1022	634	206	179	3		

- Molecule 10 is a protein called 30S RIBOSOMAL PROTEIN S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	J	98	Total	C	N	O	S	0	0
			787	493	150	143	1		

- Molecule 11 is a protein called 30S RIBOSOMAL PROTEIN S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	K	117	Total	C	N	O	S	0	0
			877	540	174	160	3		

- Molecule 12 is a protein called 30S RIBOSOMAL PROTEIN S12.

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

- Molecule 13 is a protein called 30S RIBOSOMAL PROTEIN S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	M	114	Total	C	N	O	S	0	0
			884	546	178	157	3		

- Molecule 14 is a protein called 30S RIBOSOMAL PROTEIN S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	N	97	Total	C	N	O	S	0	1
			775	483	161	128	3		

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
N	39	ASP	GLU	conflict	UNP B7M1M1

- Molecule 15 is a protein called 30S RIBOSOMAL PROTEIN S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	O	88	Total	C	N	O	S	0	0
			714	439	144	130	1		

- Molecule 16 is a protein called 30S RIBOSOMAL PROTEIN S16.

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

- Molecule 17 is a protein called 30S RIBOSOMAL PROTEIN S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	Q	80	Total	C	N	O	S	0	0
			649	411	121	114	3		

- Molecule 18 is a protein called 30S RIBOSOMAL PROTEIN S18.

Mol	Chain	Residues	Atoms				AltConf	Trace
18	R	55	Total	C	N	O	0	0
			456	288	86	82		

- Molecule 19 is a protein called 30S RIBOSOMAL PROTEIN S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	S	79	Total	C	N	O	S	0	0
			638	408	120	108	2		

- Molecule 20 is a protein called 30S RIBOSOMAL PROTEIN S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	T	85	Total	C	N	O	S	0	0
			665	411	137	114	3		

- Molecule 21 is a protein called 30S RIBOSOMAL PROTEIN S21.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	U	51	Total	C	N	O	S	0	0
			426	265	86	74	1		

- Molecule 22 is a protein called PUTATIVE RIBOSOME BIOGENESIS GTPASE RSGA.

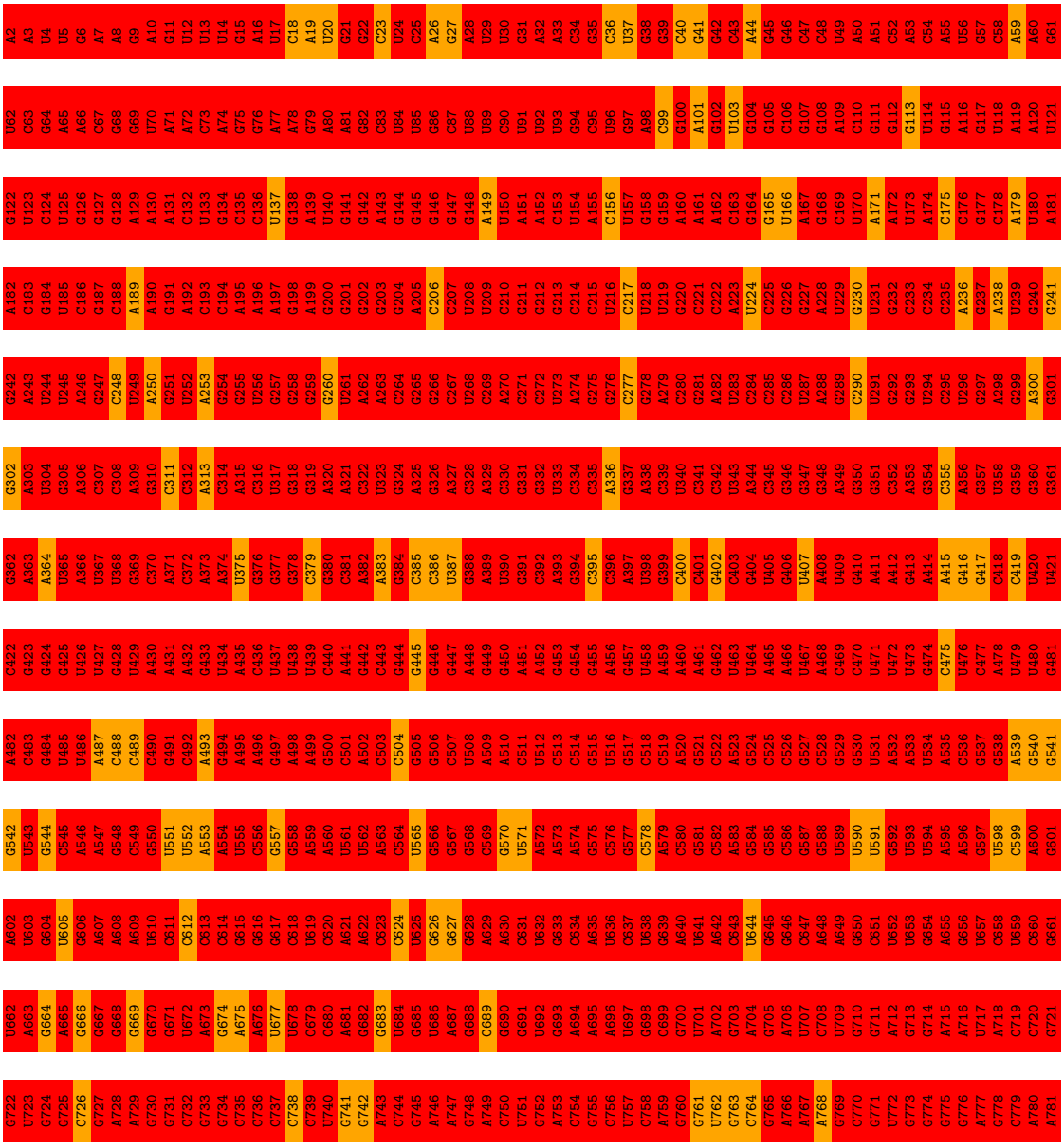
Mol	Chain	Residues	Atoms					AltConf	Trace
22	W	282	Total	C	N	O	S	0	4
			2186	1378	388	410	10		

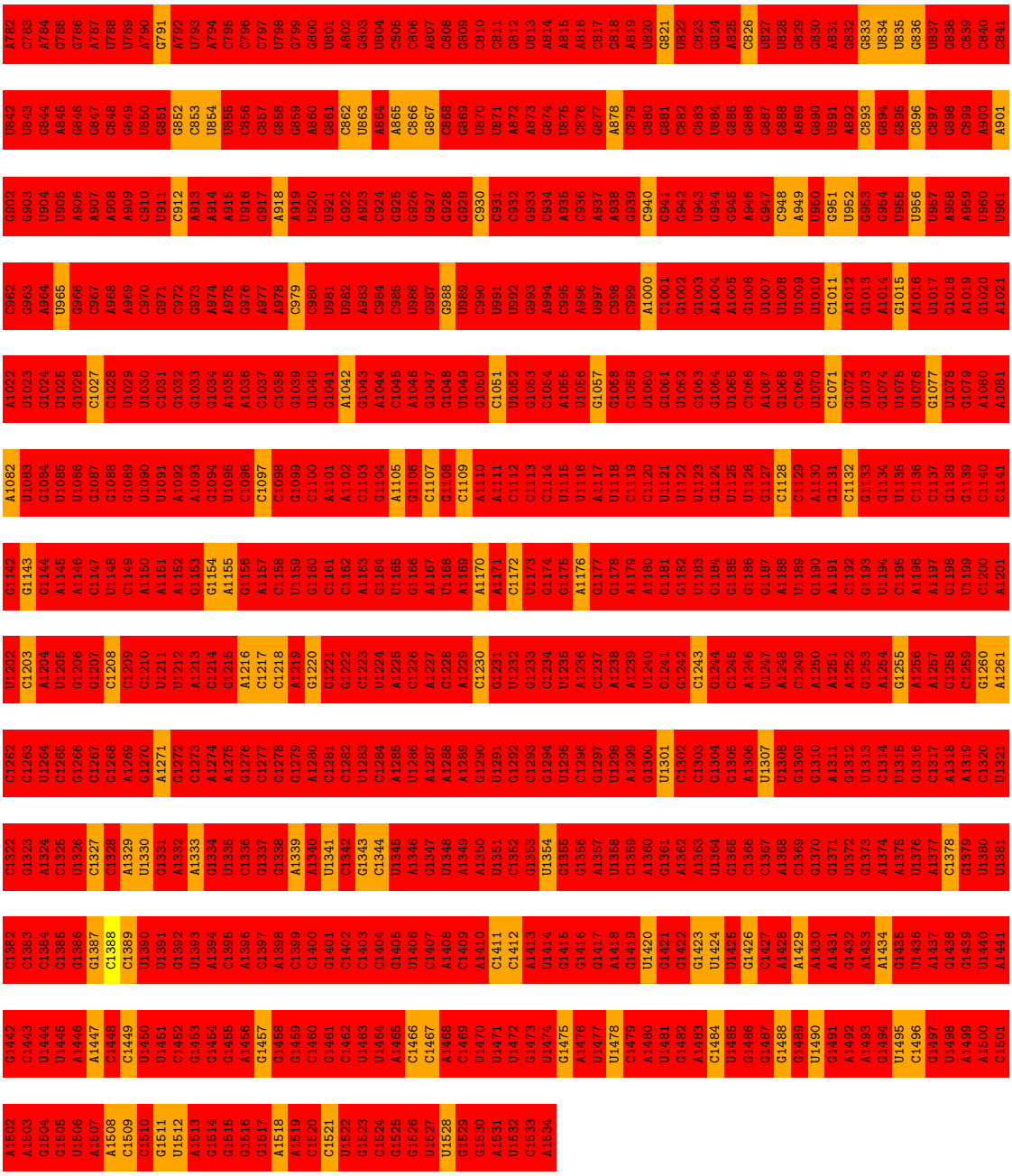
3 Residue-property plots (i)

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: 16S RRNA

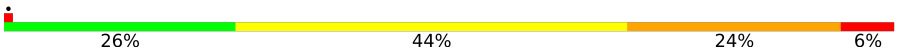
Chain A:

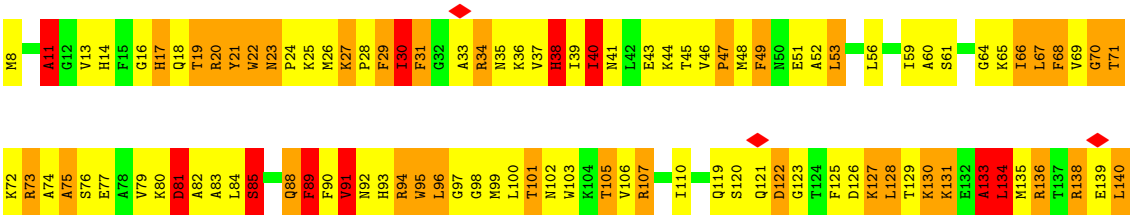


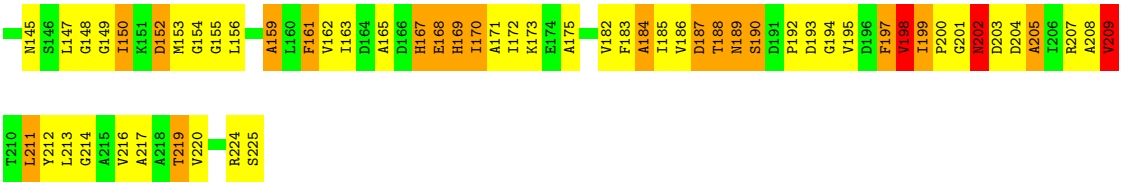


• Molecule 2: 30S RIBOSOMAL PROTEIN S2

Chain B:

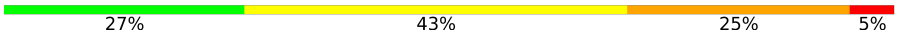


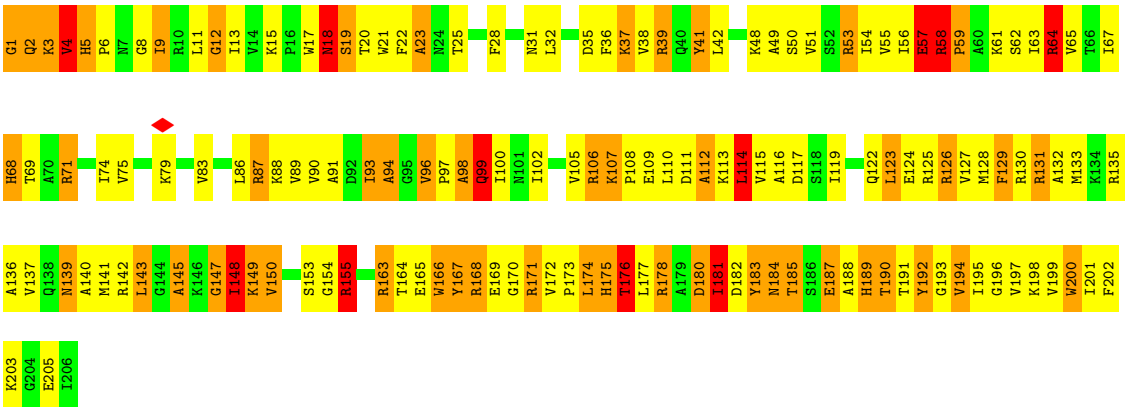




• Molecule 3: 30S RIBOSOMAL PROTEIN S3

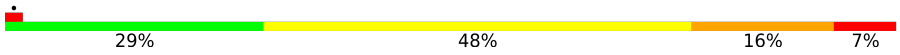
Chain C:

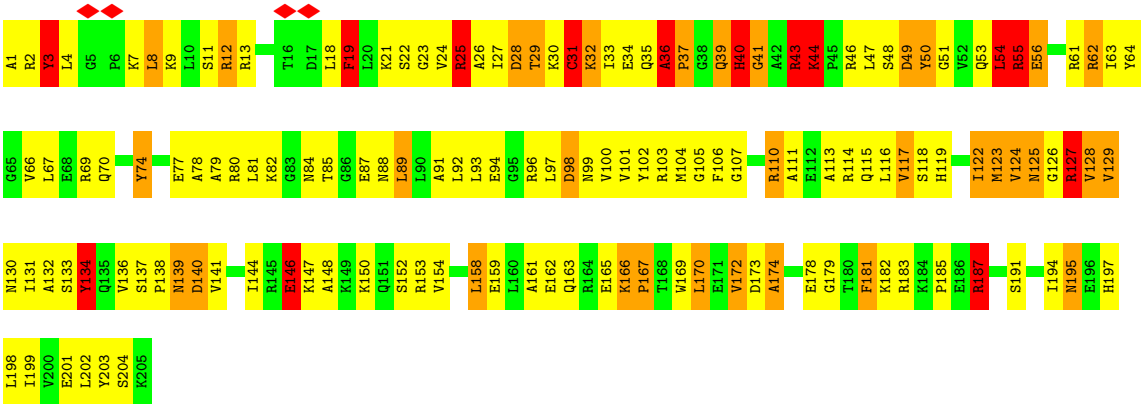




• Molecule 4: 30S RIBOSOMAL PROTEIN S4

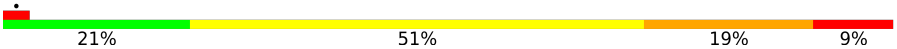
Chain D:

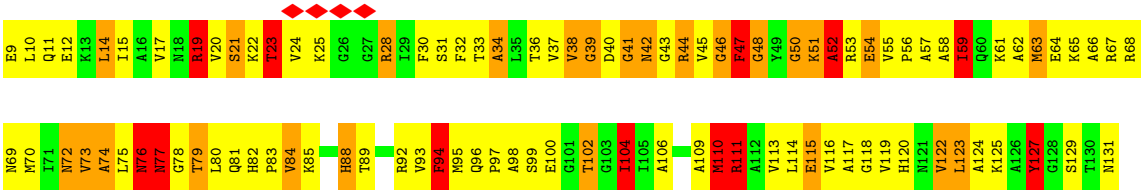




• Molecule 5: 30S RIBOSOMAL PROTEIN S5

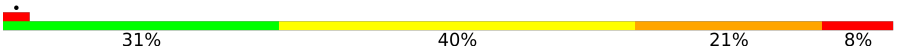
Chain E:





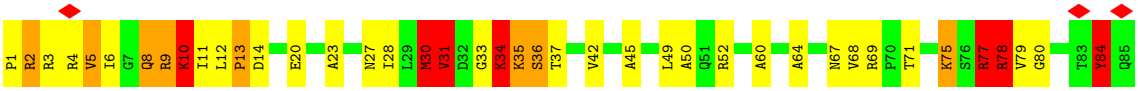
• Molecule 6: 30S RIBOSOMAL PROTEIN S6

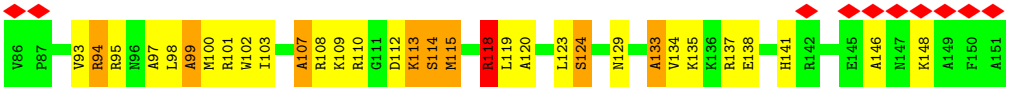
Chain F:



• Molecule 7: 30S RIBOSOMAL PROTEIN S7

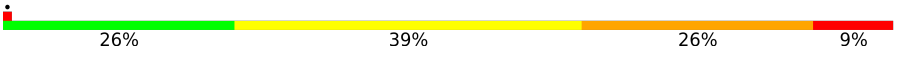
Chain G:

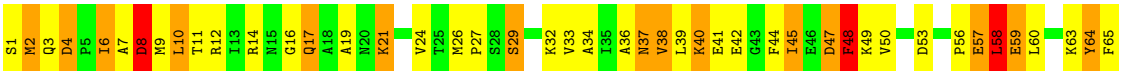


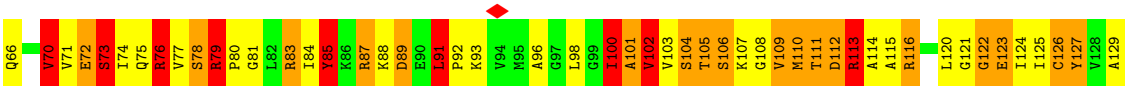


• Molecule 8: 30S RIBOSOMAL PROTEIN S8

Chain H:

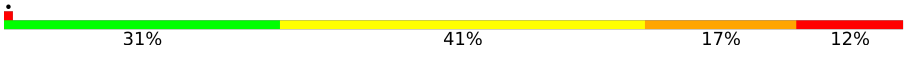


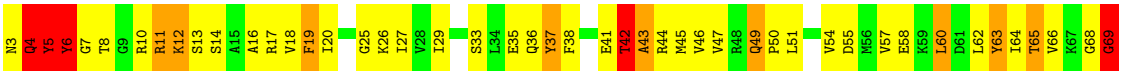


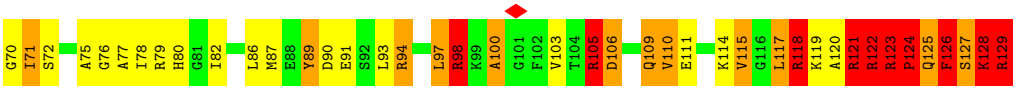


• Molecule 9: 30S RIBOSOMAL PROTEIN S9

Chain I:

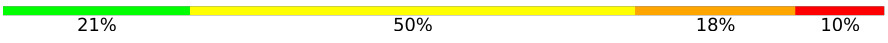


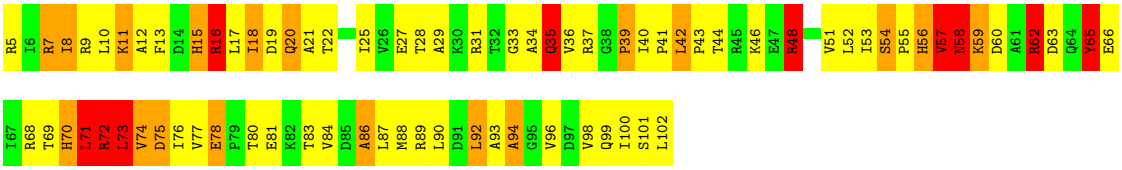




• Molecule 10: 30S RIBOSOMAL PROTEIN S10

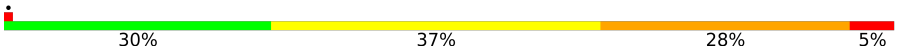
Chain J:

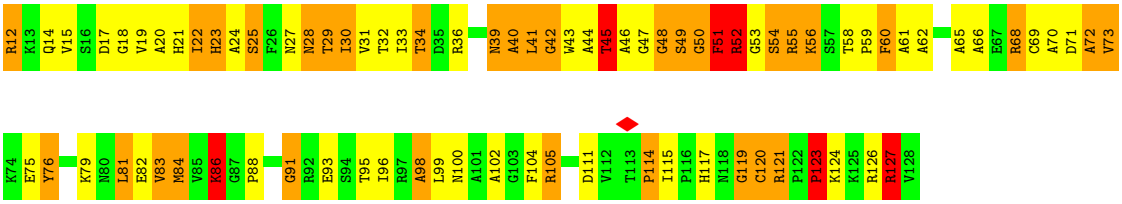




• Molecule 11: 30S RIBOSOMAL PROTEIN S11

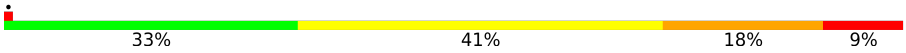
Chain K:

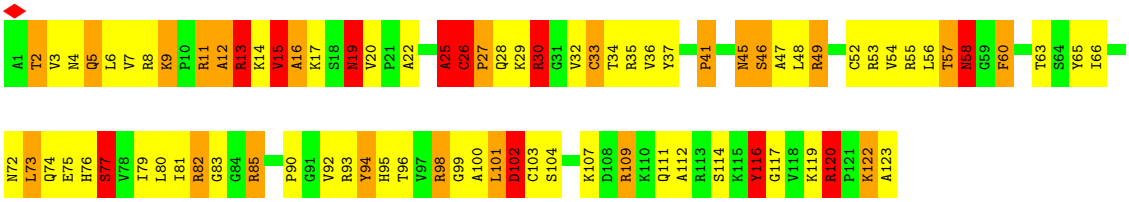




• Molecule 12: 30S RIBOSOMAL PROTEIN S12

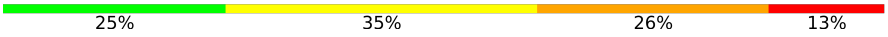
Chain L:

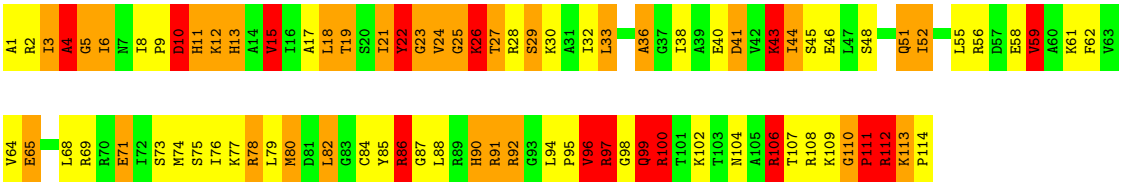




• Molecule 13: 30S RIBOSOMAL PROTEIN S13

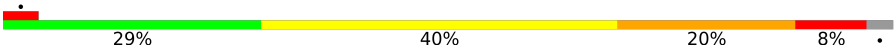
Chain M:

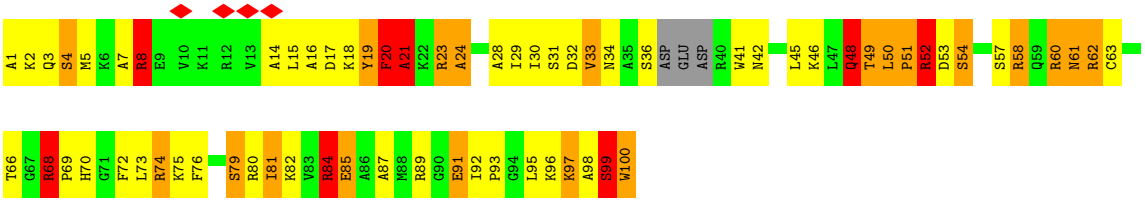




• Molecule 14: 30S RIBOSOMAL PROTEIN S14

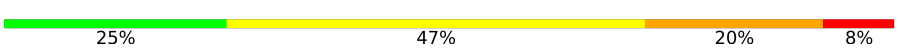
Chain N:

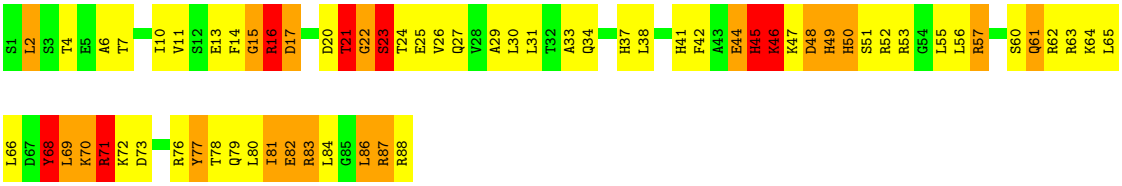




• Molecule 15: 30S RIBOSOMAL PROTEIN S15

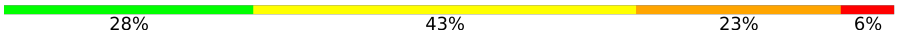
Chain O:

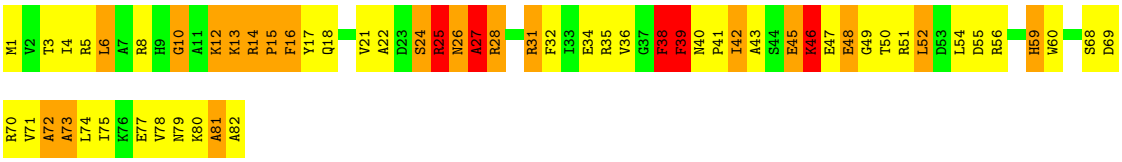




• Molecule 16: 30S RIBOSOMAL PROTEIN S16

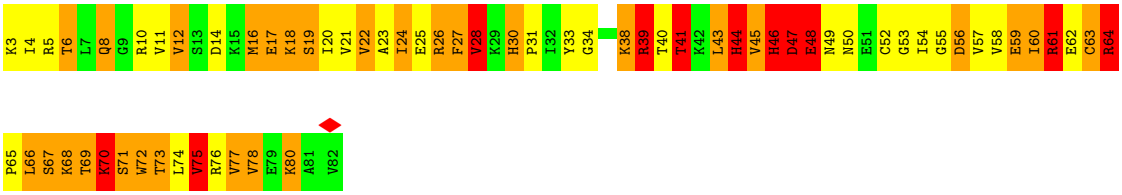
Chain P:





• Molecule 17: 30S RIBOSOMAL PROTEIN S17

Chain Q:

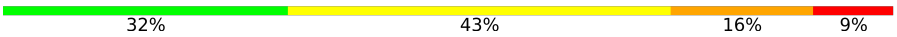


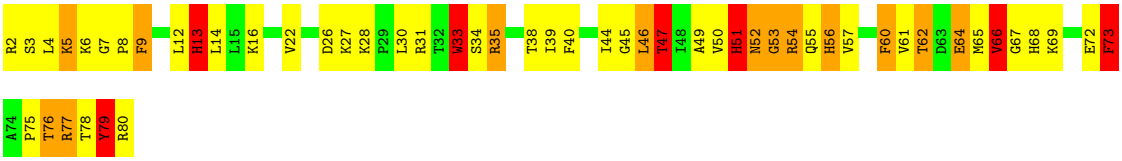
• Molecule 18: 30S RIBOSOMAL PROTEIN S18

Chain R:

• Molecule 19: 30S RIBOSOMAL PROTEIN S19

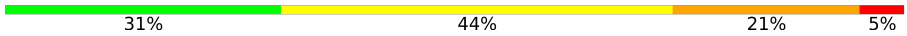
Chain S:

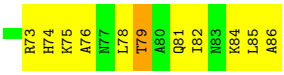




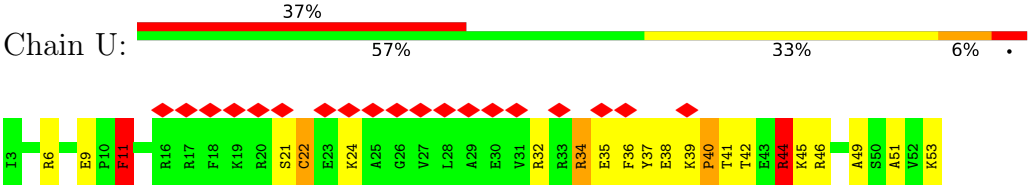
• Molecule 20: 30S RIBOSOMAL PROTEIN S20

Chain T:

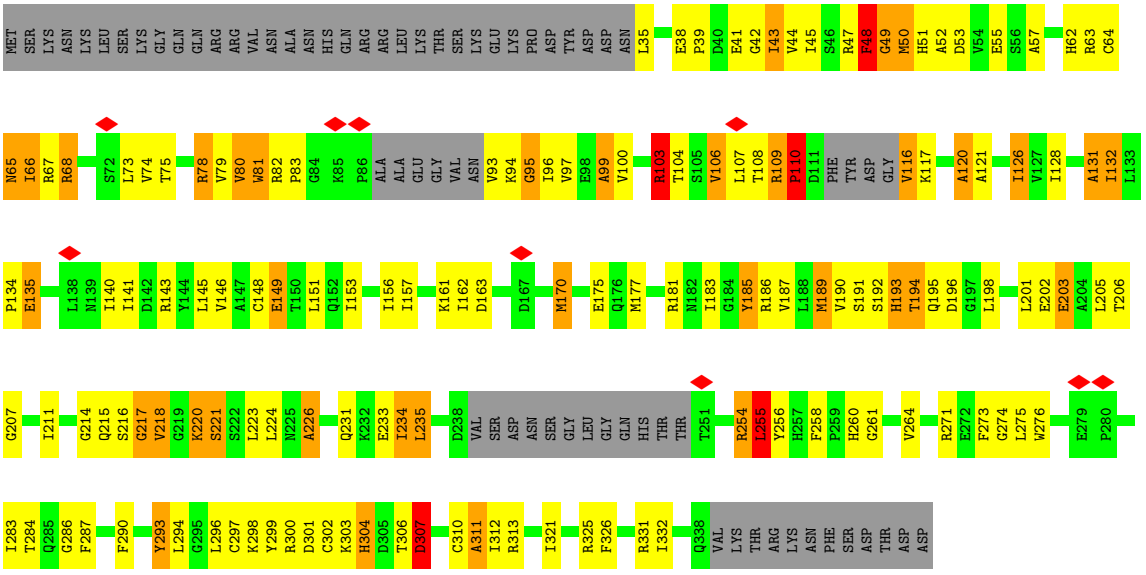




• Molecule 21: 30S RIBOSOMAL PROTEIN S21



• Molecule 22: PUTATIVE RIBOSOME BIOGENESIS GTPASE RSGA



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	77483	Depositor
Resolution determination method	Not provided	
CTF correction method	MAPS FROM EACH DEFOCUS GROUP	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	20	Depositor
Minimum defocus (nm)	2000	Depositor
Maximum defocus (nm)	3850	Depositor
Magnification	59000	Depositor
Image detector	FEI EAGLE (4k x 4k)	Depositor
Maximum map value	19.771	Depositor
Minimum map value	-6.451	Depositor
Average map value	0.106	Depositor
Map value standard deviation	1.371	Depositor
Recommended contour level	3.16	Depositor
Map size (Å)	362.5, 362.5, 362.5	wwPDB
Map dimensions	125, 125, 125	wwPDB
Map angles (°)	90, 90, 90	wwPDB
Pixel spacing (Å)	2.9, 2.9, 2.9	Depositor

5 Model quality

5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	3.88	6344/36831 (17.2%)	4.27	11020/57458 (19.2%)
2	B	1.35	2/1736 (0.1%)	1.90	59/2338 (2.5%)
3	C	1.48	2/1652 (0.1%)	1.88	48/2225 (2.2%)
4	D	1.45	4/1665 (0.2%)	1.82	40/2227 (1.8%)
5	E	1.57	8/1119 (0.7%)	1.93	38/1504 (2.5%)
6	F	1.37	1/836 (0.1%)	1.96	29/1128 (2.6%)
7	G	1.27	2/1196 (0.2%)	1.59	18/1602 (1.1%)
8	H	1.42	2/989 (0.2%)	1.96	36/1326 (2.7%)
9	I	1.45	1/1034 (0.1%)	1.93	36/1375 (2.6%)
10	J	1.41	0/797	2.00	23/1077 (2.1%)
11	K	1.61	4/893 (0.4%)	1.82	24/1205 (2.0%)
12	L	1.42	1/969 (0.1%)	1.88	27/1300 (2.1%)
13	M	1.60	5/893 (0.6%)	1.97	30/1193 (2.5%)
14	N	1.33	0/786	1.93	19/1045 (1.8%)
15	O	1.42	2/722 (0.3%)	1.99	26/964 (2.7%)
16	P	1.42	0/659	2.00	27/884 (3.1%)
17	Q	1.69	4/658 (0.6%)	2.31	40/881 (4.5%)
18	R	1.35	0/463	1.99	14/621 (2.3%)
19	S	1.20	1/653 (0.2%)	1.69	14/877 (1.6%)
20	T	1.37	1/671 (0.1%)	1.96	18/888 (2.0%)
21	U	1.28	0/431	1.60	2/570 (0.4%)
22	W	1.30	3/2223 (0.1%)	1.58	40/3008 (1.3%)
All	All	3.21	6387/57876 (11.0%)	3.66	11628/85696 (13.6%)

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	A	0	1238
2	B	0	14
3	C	0	16

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Mol	Chain	#Chirality outliers	#Planarity outliers
4	D	0	15
5	E	0	6
6	F	0	7
7	G	0	4
8	H	0	12
9	I	0	15
10	J	0	6
11	K	0	10
12	L	0	7
13	M	0	13
14	N	0	9
15	O	0	9
16	P	0	5
17	Q	0	7
18	R	0	4
19	S	0	8
20	T	0	5
21	U	0	2
22	W	0	7
All	All	0	1419

All (6387) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1306	A	N7-C5	-22.89	1.25	1.39
1	A	466	A	N7-C5	-22.87	1.25	1.39
1	A	627	G	N7-C5	-22.74	1.25	1.39
1	A	373	A	N9-C4	-22.28	1.24	1.37
1	A	78	A	N9-C4	22.19	1.51	1.37
1	A	1171	A	P-O5'	-22.13	1.37	1.59
1	A	780	A	N7-C5	-21.64	1.26	1.39
1	A	1276	G	N7-C5	-21.26	1.26	1.39
1	A	76	G	P-O5'	-20.99	1.38	1.59
1	A	1241	G	N7-C5	-20.58	1.26	1.39
1	A	858	G	N7-C5	-20.52	1.26	1.39
1	A	196	A	N7-C5	-20.51	1.26	1.39
1	A	78	A	N7-C5	-20.40	1.27	1.39
1	A	737	C	P-O5'	-20.28	1.39	1.59
1	A	903	G	N7-C5	-20.27	1.27	1.39
1	A	98	A	N7-C5	-19.71	1.27	1.39
1	A	1275	A	N7-C5	-19.62	1.27	1.39
1	A	276	G	P-O5'	-19.61	1.40	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	865	A	N7-C5	-19.57	1.27	1.39
1	A	1441	A	N7-C5	-19.51	1.27	1.39
1	A	1502	A	N7-C5	-19.50	1.27	1.39
1	A	655	A	N7-C5	-19.35	1.27	1.39
1	A	777	A	N7-C5	-19.21	1.27	1.39
1	A	1434	A	N7-C5	-19.08	1.27	1.39
1	A	595	A	N7-C5	-19.00	1.27	1.39
1	A	1093	A	N7-C5	-18.88	1.27	1.39
1	A	687	A	N9-C4	-18.84	1.26	1.37
1	A	77	A	N7-C5	-18.71	1.28	1.39
1	A	190	A	N7-C5	-18.68	1.28	1.39
1	A	1304	G	N7-C5	-18.67	1.28	1.39
1	A	860	A	N7-C5	-18.54	1.28	1.39
1	A	558	G	N7-C5	-18.28	1.28	1.39
1	A	1170	A	C8-N7	-18.28	1.18	1.31
1	A	1288	A	N7-C5	-18.07	1.28	1.39
1	A	366	A	N7-C5	-18.05	1.28	1.39
1	A	288	A	P-O5'	-17.96	1.41	1.59
1	A	772	U	P-O5'	-17.77	1.42	1.59
1	A	1058	G	N7-C5	-17.76	1.28	1.39
1	A	70	U	O3'-P	-17.71	1.40	1.61
1	A	68	G	N7-C5	-17.63	1.28	1.39
1	A	347	G	N7-C5	-17.62	1.28	1.39
1	A	1279	G	N7-C5	-17.57	1.28	1.39
1	A	76	G	N7-C5	-17.55	1.28	1.39
1	A	265	G	P-O5'	-17.53	1.42	1.59
1	A	628	G	N7-C5	-17.52	1.28	1.39
1	A	217	C	C2'-C1'	-17.43	1.34	1.53
1	A	193	C	P-O5'	-17.34	1.42	1.59
1	A	1306	A	C8-N7	-17.19	1.19	1.31
1	A	578	C	P-O5'	-17.12	1.42	1.59
1	A	1256	A	N7-C5	-17.05	1.29	1.39
1	A	1502	A	N9-C4	-17.03	1.27	1.37
1	A	450	G	P-O5'	-17.01	1.42	1.59
1	A	300	A	N7-C5	-16.93	1.29	1.39
1	A	130	A	N9-C4	-16.86	1.27	1.37
1	A	642	A	N7-C5	-16.86	1.29	1.39
1	A	187	G	P-O5'	-16.82	1.43	1.59
1	A	904	U	P-O5'	-16.75	1.43	1.59
1	A	1057	G	N7-C5	-16.75	1.29	1.39
1	A	1068	G	N7-C5	-16.71	1.29	1.39
1	A	313	A	N7-C5	-16.70	1.29	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	880	C	P-O5'	-16.68	1.43	1.59
1	A	264	C	P-O5'	-16.54	1.43	1.59
1	A	1440	U	C2'-C1'	-16.51	1.35	1.53
1	A	123	U	P-O5'	-16.42	1.43	1.59
1	A	1130	A	N7-C5	-16.39	1.29	1.39
1	A	80	A	N7-C5	-16.39	1.29	1.39
1	A	122	G	N7-C5	-16.31	1.29	1.39
1	A	696	A	N7-C5	-16.19	1.29	1.39
1	A	584	G	N7-C5	-16.18	1.29	1.39
1	A	1303	C	C2'-C1'	-16.13	1.35	1.53
1	A	557	G	P-O5'	-16.10	1.43	1.59
1	A	1408	A	N7-C5	-16.04	1.29	1.39
1	A	1170	A	N7-C5	-16.02	1.29	1.39
1	A	282	A	N7-C5	-15.93	1.29	1.39
1	A	94	G	P-O5'	-15.91	1.43	1.59
1	A	1290	G	N7-C5	-15.84	1.29	1.39
1	A	713	G	N7-C5	-15.72	1.29	1.39
1	A	1004	A	C4'-C3'	-15.71	1.35	1.53
1	A	117	G	P-O5'	-15.67	1.44	1.59
1	A	1231	G	N9-C4	-15.67	1.25	1.38
1	A	418	C	P-O5'	-15.59	1.44	1.59
1	A	669	G	P-O5'	-15.58	1.44	1.59
1	A	416	G	N7-C5	-15.54	1.29	1.39
1	A	1375	A	N7-C5	-15.45	1.29	1.39
1	A	1191	A	N7-C5	-15.44	1.29	1.39
1	A	1392	G	N7-C5	-15.42	1.29	1.39
1	A	782	A	P-O5'	-15.36	1.44	1.59
1	A	1239	A	C3'-C2'	-15.36	1.35	1.52
1	A	1129	C	N1-C6	-15.26	1.27	1.37
1	A	1408	A	P-O5'	-15.25	1.44	1.59
1	A	63	C	O3'-P	-15.25	1.42	1.61
1	A	28	A	N7-C5	-15.21	1.30	1.39
1	A	582	C	P-O5'	-15.21	1.44	1.59
1	A	192	A	N7-C5	-15.18	1.30	1.39
1	A	1382	C	C4-N4	-15.18	1.20	1.33
1	A	1263	C	P-O5'	-15.18	1.44	1.59
1	A	254	G	N7-C5	-15.17	1.30	1.39
1	A	1166	G	N7-C5	-15.09	1.30	1.39
1	A	1287	A	N9-C4	-15.08	1.28	1.37
1	A	253	A	N7-C5	-15.03	1.30	1.39
1	A	1176	A	N7-C5	-15.02	1.30	1.39
1	A	908	A	N7-C5	-15.01	1.30	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	180	U	O3'-P	-15.01	1.43	1.61
1	A	617	G	P-O5'	-15.00	1.44	1.59
1	A	288	A	N7-C5	-14.99	1.30	1.39
1	A	1192	C	P-O5'	-14.98	1.44	1.59
1	A	1268	G	N7-C5	-14.98	1.30	1.39
1	A	301	G	C4'-C3'	-14.97	1.36	1.53
1	A	923	A	N7-C5	-14.95	1.30	1.39
1	A	1170	A	N9-C4	-14.93	1.28	1.37
1	A	869	G	N9-C4	-14.90	1.26	1.38
1	A	1256	A	C8-N7	-14.88	1.21	1.31
1	A	1005	A	N7-C5	-14.88	1.30	1.39
1	A	299	G	N7-C5	-14.86	1.30	1.39
1	A	1282	C	C2'-C1'	-14.82	1.37	1.53
1	A	947	G	P-O5'	-14.81	1.45	1.59
1	A	647	C	P-O5'	-14.81	1.45	1.59
1	A	186	C	P-O5'	-14.79	1.45	1.59
1	A	858	G	N9-C8	-14.79	1.27	1.37
1	A	602	A	N7-C5	-14.79	1.30	1.39
1	A	925	G	N9-C4	-14.78	1.26	1.38
1	A	942	G	N7-C5	-14.77	1.30	1.39
1	A	846	G	N7-C5	-14.75	1.30	1.39
1	A	761	G	P-O5'	-14.74	1.45	1.59
1	A	644	U	P-O5'	-14.71	1.45	1.59
1	A	909	A	N7-C5	-14.67	1.30	1.39
1	A	655	A	N9-C4	-14.65	1.29	1.37
1	A	975	A	N7-C5	-14.65	1.30	1.39
1	A	195	A	N7-C5	-14.62	1.30	1.39
1	A	954	G	N9-C8	-14.62	1.27	1.37
1	A	695	A	N7-C5	-14.57	1.30	1.39
1	A	771	G	N7-C5	-14.55	1.30	1.39
1	A	254	G	P-O5'	-14.47	1.45	1.59
1	A	1198	G	N7-C5	-14.45	1.30	1.39
1	A	903	G	N9-C4	14.45	1.49	1.38
1	A	451	A	C2'-C1'	-14.44	1.37	1.53
1	A	1308	U	P-O5'	-14.43	1.45	1.59
1	A	918	A	C2'-C1'	-14.40	1.37	1.53
1	A	1101	A	N7-C5	-14.35	1.30	1.39
1	A	1157	A	N9-C4	-14.34	1.29	1.37
1	A	223	A	N7-C5	-14.34	1.30	1.39
1	A	470	C	N1-C6	-14.33	1.28	1.37
1	A	537	G	P-O5'	-14.30	1.45	1.59
1	A	240	G	N7-C5	-14.29	1.30	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	193	C	C2-N3	-14.27	1.24	1.35
1	A	426	U	P-O5'	-14.23	1.45	1.59
1	A	577	G	N7-C5	-14.18	1.30	1.39
1	A	1127	G	N7-C5	-14.17	1.30	1.39
1	A	794	A	N7-C5	-14.16	1.30	1.39
1	A	37	U	P-O5'	-14.09	1.45	1.59
1	A	404	G	N7-C5	-14.07	1.30	1.39
1	A	464	U	O3'-P	-14.06	1.44	1.61
1	A	116	A	N7-C5	-14.05	1.30	1.39
1	A	1269	A	C2'-C1'	-14.04	1.38	1.53
1	A	581	G	N7-C5	-14.04	1.30	1.39
1	A	1399	C	O3'-P	-14.03	1.44	1.61
1	A	459	A	N7-C5	-14.02	1.30	1.39
1	A	194	C	P-O5'	-14.02	1.45	1.59
1	A	452	A	N7-C5	-14.01	1.30	1.39
1	A	1467	C	N1-C6	-13.98	1.28	1.37
1	A	603	U	P-O5'	-13.97	1.45	1.59
1	A	1053	G	C2'-C1'	-13.96	1.38	1.53
1	A	1005	A	P-O5'	-13.93	1.45	1.59
1	A	1250	A	C2'-C1'	-13.93	1.38	1.53
1	A	1256	A	C2'-C1'	-13.93	1.38	1.53
1	A	1181	G	P-O5'	-13.91	1.45	1.59
1	A	81	A	N7-C5	-13.88	1.30	1.39
1	A	602	A	P-O5'	-13.88	1.45	1.59
1	A	184	G	P-O5'	-13.88	1.45	1.59
1	A	1055	A	P-O5'	-13.86	1.45	1.59
1	A	865	A	N3-C4	-13.83	1.26	1.34
1	A	959	A	N7-C5	-13.81	1.30	1.39
1	A	1021	A	N7-C5	-13.80	1.30	1.39
1	A	832	G	N9-C4	-13.80	1.26	1.38
1	A	857	C	P-O5'	-13.79	1.46	1.59
1	A	117	G	N7-C5	-13.79	1.30	1.39
1	A	71	A	N7-C5	-13.78	1.30	1.39
1	A	925	G	N7-C5	-13.76	1.30	1.39
1	A	823	C	P-O5'	-13.76	1.46	1.59
1	A	1468	A	N7-C5	-13.76	1.30	1.39
1	A	69	G	N7-C5	-13.75	1.30	1.39
1	A	1094	G	O3'-P	-13.73	1.44	1.61
1	A	907	A	N7-C5	-13.71	1.31	1.39
1	A	180	U	P-O5'	-13.70	1.46	1.59
1	A	1239	A	C1'-N9	-13.70	1.27	1.46
1	A	1130	A	C8-N7	-13.69	1.22	1.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	583	A	N7-C5	-13.69	1.31	1.39
1	A	1473	G	N7-C5	-13.69	1.31	1.39
1	A	864	A	N7-C5	-13.67	1.31	1.39
1	A	1186	G	N7-C5	-13.65	1.31	1.39
1	A	1326	U	C2'-C1'	-13.65	1.38	1.53
1	A	781	A	P-O5'	-13.65	1.46	1.59
1	A	674	G	C2'-C1'	-13.63	1.38	1.53
1	A	47	C	P-O5'	-13.62	1.46	1.59
1	A	704	A	P-O5'	-13.58	1.46	1.59
1	A	686	U	C2'-C1'	-13.57	1.38	1.53
1	A	1238	A	N9-C4	-13.57	1.29	1.37
1	A	1126	U	C2'-C1'	-13.57	1.38	1.53
1	A	580	C	P-O5'	-13.56	1.46	1.59
1	A	1417	G	C2'-C1'	-13.56	1.38	1.53
1	A	161	A	N9-C4	-13.53	1.29	1.37
1	A	201	G	C1'-N9	-13.53	1.27	1.46
1	A	640	A	N7-C5	-13.53	1.31	1.39
1	A	1095	U	C2'-C1'	-13.53	1.38	1.53
1	A	144	G	C8-N7	-13.53	1.22	1.30
1	A	430	A	N7-C5	-13.53	1.31	1.39
1	A	628	G	N9-C4	-13.52	1.27	1.38
1	A	1181	G	C1'-N9	-13.51	1.27	1.46
1	A	1434	A	N3-C4	-13.50	1.26	1.34
1	A	1075	U	P-O5'	-13.49	1.46	1.59
1	A	270	A	N7-C5	-13.48	1.31	1.39
1	A	1270	G	P-O5'	-13.48	1.46	1.59
1	A	604	G	N9-C4	-13.46	1.27	1.38
1	A	72	A	P-O5'	-13.44	1.46	1.59
1	A	413	G	C2'-C1'	-13.43	1.38	1.53
1	A	499	A	N9-C4	-13.42	1.29	1.37
1	A	1067	A	N9-C4	-13.42	1.29	1.37
1	A	138	G	C2'-C1'	-13.42	1.38	1.53
1	A	760	G	N7-C5	-13.36	1.31	1.39
1	A	1237	C	P-O5'	-13.36	1.46	1.59
1	A	1092	A	C2'-C1'	-13.34	1.38	1.53
1	A	373	A	N7-C5	-13.33	1.31	1.39
1	A	152	A	N3-C4	-13.32	1.26	1.34
1	A	1482	G	C2'-C1'	-13.31	1.38	1.53
1	A	901	A	N7-C5	-13.27	1.31	1.39
1	A	289	G	P-O5'	-13.26	1.46	1.59
1	A	1177	G	N7-C5	-13.23	1.31	1.39
1	A	1363	A	N9-C4	13.23	1.45	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	256	U	P-O5'	-13.21	1.46	1.59
1	A	46	G	C2'-C1'	-13.20	1.38	1.53
1	A	648	A	P-O5'	-13.11	1.46	1.59
1	A	1346	A	N9-C4	-13.11	1.29	1.37
1	A	1036	A	N7-C5	-13.08	1.31	1.39
1	A	584	G	P-O5'	-13.05	1.46	1.59
1	A	1480	A	N7-C5	-13.05	1.31	1.39
1	A	761	G	N7-C5	-13.04	1.31	1.39
1	A	1258	G	C2'-C1'	-13.02	1.39	1.53
1	A	1268	G	C2'-C1'	-13.00	1.39	1.53
1	A	1307	U	P-O5'	-13.00	1.46	1.59
1	A	1067	A	C2'-C1'	-12.99	1.39	1.53
1	A	1482	G	P-O5'	-12.96	1.46	1.59
1	A	189	A	N7-C5	-12.95	1.31	1.39
1	A	287	U	P-O5'	-12.94	1.46	1.59
1	A	258	G	N7-C5	-12.93	1.31	1.39
1	A	617	G	O3'-P	-12.92	1.45	1.61
1	A	1146	A	N9-C4	-12.92	1.30	1.37
1	A	500	G	P-O5'	-12.92	1.46	1.59
1	A	712	A	N7-C5	-12.86	1.31	1.39
1	A	181	A	C3'-C2'	-12.86	1.38	1.52
1	A	1242	G	N7-C5	-12.86	1.31	1.39
1	A	865	A	C2'-C1'	-12.84	1.39	1.53
1	A	178	C	P-O5'	-12.84	1.47	1.59
1	A	543	U	C2'-C1'	-12.84	1.39	1.53
1	A	1287	A	N7-C5	-12.83	1.31	1.39
1	A	1500	A	P-O5'	-12.82	1.47	1.59
1	A	1060	U	P-O5'	-12.81	1.47	1.59
1	A	1102	A	N7-C5	-12.81	1.31	1.39
1	A	282	A	N9-C4	-12.79	1.30	1.37
1	A	860	A	P-O5'	-12.79	1.47	1.59
1	A	627	G	C8-N7	-12.78	1.23	1.30
1	A	275	G	N7-C5	-12.78	1.31	1.39
1	A	90	C	P-O5'	-12.78	1.47	1.59
1	A	1117	A	N9-C4	-12.78	1.30	1.37
1	A	1334	G	N9-C8	-12.75	1.28	1.37
1	A	451	A	P-O5'	-12.74	1.47	1.59
1	A	1355	G	C3'-C2'	-12.74	1.38	1.52
1	A	1303	C	C4'-C3'	-12.72	1.39	1.53
1	A	996	A	N3-C4	-12.72	1.27	1.34
1	A	1313	U	P-O5'	-12.71	1.47	1.59
1	A	79	G	P-O5'	-12.71	1.47	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	182	A	P-O5'	-12.71	1.47	1.59
1	A	1277	C	C2'-C1'	-12.71	1.39	1.53
1	A	415	A	P-O5'	-12.70	1.47	1.59
1	A	59	A	N9-C4	-12.70	1.30	1.37
1	A	657	U	P-O5'	-12.70	1.47	1.59
1	A	785	G	N7-C5	-12.70	1.31	1.39
1	A	1410	A	N9-C4	-12.70	1.30	1.37
1	A	417	G	P-O5'	-12.69	1.47	1.59
1	A	373	A	C2'-C1'	-12.68	1.39	1.53
1	A	1270	G	C4'-C3'	-12.68	1.39	1.53
1	A	190	A	C8-N7	-12.66	1.22	1.31
1	A	1304	G	P-O5'	-12.65	1.47	1.59
1	A	22	G	N7-C5	-12.65	1.31	1.39
1	A	410	G	N9-C4	-12.64	1.27	1.38
1	A	1127	G	N9-C8	-12.64	1.29	1.37
1	A	655	A	N9-C8	-12.62	1.27	1.37
1	A	825	A	N9-C4	-12.62	1.30	1.37
1	A	1477	U	P-O5'	-12.62	1.47	1.59
1	A	585	G	P-O5'	-12.62	1.47	1.59
1	A	246	A	P-O5'	-12.61	1.47	1.59
1	A	1304	G	C2'-C1'	-12.60	1.39	1.53
1	A	1161	C	N1-C6	12.60	1.44	1.37
1	A	254	G	C2'-C1'	-12.60	1.39	1.53
1	A	782	A	N9-C4	-12.59	1.30	1.37
1	A	814	A	N7-C5	-12.58	1.31	1.39
1	A	1003	G	N7-C5	-12.55	1.31	1.39
1	A	90	C	C2'-C1'	-12.55	1.39	1.53
1	A	935	A	C2'-C1'	-12.54	1.39	1.53
1	A	265	G	C6-N1	12.53	1.48	1.39
1	A	816	A	P-O5'	-12.53	1.47	1.59
1	A	455	G	N1-C2	12.50	1.47	1.37
1	A	641	U	P-O5'	-12.50	1.47	1.59
1	A	776	G	P-O5'	-12.49	1.47	1.59
1	A	869	G	N7-C5	-12.49	1.31	1.39
1	A	380	G	P-O5'	-12.49	1.47	1.59
1	A	513	C	P-O5'	-12.48	1.47	1.59
1	A	165	G	P-O5'	-12.48	1.47	1.59
1	A	455	G	N7-C5	-12.48	1.31	1.39
1	A	1206	G	N7-C5	-12.47	1.31	1.39
1	A	1260	G	P-O5'	-12.47	1.47	1.59
1	A	1421	G	N9-C8	-12.46	1.29	1.37
1	A	96	U	C2'-C1'	-12.46	1.39	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	714	G	C2'-C1'	-12.45	1.39	1.53
1	A	1006	G	N7-C5	-12.44	1.31	1.39
1	A	1181	G	C2'-C1'	-12.44	1.39	1.53
1	A	866	C	P-O5'	-12.44	1.47	1.59
1	A	629	A	N7-C5	-12.42	1.31	1.39
1	A	1442	G	N7-C5	-12.42	1.31	1.39
1	A	246	A	N9-C4	-12.42	1.30	1.37
1	A	455	G	N3-C4	-12.41	1.26	1.35
1	A	62	U	P-O5'	-12.41	1.47	1.59
1	A	1334	G	N7-C5	-12.40	1.31	1.39
1	A	299	G	C2'-C1'	-12.39	1.39	1.53
1	A	498	A	N3-C4	-12.39	1.27	1.34
1	A	452	A	C2'-C1'	-12.39	1.39	1.53
1	A	1357	A	N7-C5	-12.39	1.31	1.39
1	A	172	A	N7-C5	-12.38	1.31	1.39
1	A	535	A	N7-C5	-12.38	1.31	1.39
1	A	348	G	C4'-C3'	-12.38	1.39	1.53
1	A	1319	A	N7-C5	-12.38	1.31	1.39
1	A	781	A	C4'-C3'	-12.37	1.39	1.53
1	A	1087	G	N7-C5	-12.37	1.31	1.39
1	A	1166	G	N9-C4	-12.37	1.28	1.38
1	A	1042	A	P-O5'	-12.35	1.47	1.59
1	A	818	G	N7-C5	-12.35	1.31	1.39
1	A	1406	U	C2'-C1'	-12.35	1.39	1.53
1	A	1115	U	P-O5'	-12.35	1.47	1.59
1	A	1356	G	C2'-C1'	-12.34	1.39	1.53
1	A	1374	A	N7-C5	-12.34	1.31	1.39
1	A	1053	G	P-O5'	-12.33	1.47	1.59
1	A	1266	G	C3'-C2'	-12.33	1.39	1.52
1	A	1368	A	N7-C5	-12.33	1.31	1.39
1	A	1525	G	N7-C5	-12.32	1.31	1.39
1	A	99	C	C2-N3	-12.31	1.25	1.35
1	A	274	A	P-O5'	-12.30	1.47	1.59
1	A	1094	G	P-O5'	-12.29	1.47	1.59
1	A	815	A	N7-C5	-12.28	1.31	1.39
1	A	861	G	P-O5'	-12.28	1.47	1.59
1	A	1085	U	P-O5'	-12.28	1.47	1.59
1	A	925	G	P-O5'	-12.27	1.47	1.59
1	A	1170	A	O3'-P	-12.27	1.46	1.61
1	A	1501	C	C4'-C3'	-12.27	1.39	1.53
1	A	1375	A	C8-N7	-12.26	1.23	1.31
1	A	204	G	C8-N7	-12.25	1.23	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1230	C	P-O5'	-12.25	1.47	1.59
1	A	1344	C	C2'-C1'	-12.23	1.39	1.53
1	A	1091	U	C4'-C3'	-12.23	1.39	1.53
1	A	119	A	N7-C5	-12.22	1.31	1.39
1	A	179	A	P-O5'	-12.21	1.47	1.59
1	A	1502	A	C1'-N9	-12.21	1.29	1.46
1	A	414	A	N7-C5	-12.20	1.31	1.39
1	A	1457	G	P-O5'	-12.19	1.47	1.59
1	A	1264	U	P-O5'	-12.18	1.47	1.59
1	A	1408	A	N9-C8	-12.17	1.28	1.37
1	A	1237	C	O3'-P	-12.17	1.46	1.61
1	A	1206	G	P-O5'	-12.16	1.47	1.59
1	A	1184	G	P-O5'	-12.16	1.47	1.59
1	A	263	A	O3'-P	-12.16	1.46	1.61
1	A	271	C	P-O5'	-12.14	1.47	1.59
1	A	1180	A	N9-C4	-12.14	1.30	1.37
1	A	889	A	N9-C4	-12.14	1.30	1.37
1	A	152	A	C3'-C2'	-12.13	1.39	1.52
1	A	1371	G	O3'-P	-12.13	1.46	1.61
1	A	1097	C	C2'-C1'	-12.12	1.40	1.53
1	A	1531	A	P-O5'	-12.11	1.47	1.59
1	A	729	A	N9-C4	-12.09	1.30	1.37
1	A	829	G	N7-C5	-12.06	1.32	1.39
1	A	935	A	N7-C5	-12.06	1.32	1.39
1	A	1170	A	C1'-N9	-12.06	1.29	1.46
1	A	94	G	C4'-O4'	-12.06	1.29	1.45
1	A	547	A	C8-N7	-12.06	1.23	1.31
1	A	46	G	O3'-P	-12.06	1.46	1.61
1	A	202	G	O4'-C1'	-12.05	1.25	1.41
1	A	780	A	C2'-C1'	-12.05	1.40	1.53
1	A	925	G	C3'-C2'	-12.05	1.39	1.52
1	A	417	G	N7-C5	-12.05	1.32	1.39
1	A	101	A	N7-C5	-12.04	1.32	1.39
1	A	986	U	P-O5'	-12.04	1.47	1.59
1	A	1171	A	C2'-C1'	-12.02	1.40	1.53
1	A	1102	A	C2'-C1'	-12.02	1.40	1.53
1	A	786	G	N7-C5	-12.02	1.32	1.39
1	A	1523	G	P-O5'	-12.01	1.47	1.59
1	A	1172	C	C2'-C1'	-12.00	1.40	1.53
1	A	1441	A	C8-N7	-12.00	1.23	1.31
1	A	538	G	N7-C5	-12.00	1.32	1.39
1	A	449	G	N7-C5	-11.99	1.32	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1306	A	N9-C8	-11.98	1.28	1.37
1	A	1088	G	N7-C5	-11.97	1.32	1.39
1	A	1110	A	N7-C5	-11.96	1.32	1.39
1	A	145	G	P-O5'	-11.96	1.47	1.59
1	A	1461	G	N7-C5	-11.95	1.32	1.39
1	A	729	A	C2'-C1'	-11.94	1.40	1.53
1	A	656	G	N7-C5	-11.94	1.32	1.39
1	A	695	A	C8-N7	-11.93	1.23	1.31
1	A	73	C	C4-C5	-11.93	1.33	1.43
1	A	861	G	N7-C5	-11.93	1.32	1.39
1	A	1296	C	C2-N3	-11.91	1.26	1.35
1	A	1275	A	C8-N7	-11.90	1.23	1.31
1	A	894	G	P-O5'	-11.90	1.47	1.59
1	A	1033	G	N7-C5	-11.89	1.32	1.39
1	A	144	G	P-O5'	-11.87	1.47	1.59
1	A	329	A	N7-C5	-11.87	1.32	1.39
1	A	279	A	C4'-O4'	-11.86	1.30	1.45
1	A	1306	A	N9-C4	-11.85	1.30	1.37
1	A	599	C	P-O5'	-11.85	1.47	1.59
1	A	81	A	O3'-P	-11.84	1.47	1.61
1	A	1522	U	C3'-C2'	-11.83	1.39	1.52
1	A	429	U	C2'-C1'	-11.82	1.40	1.53
1	A	1306	A	C2'-C1'	-11.82	1.40	1.53
1	A	925	G	C1'-N9	-11.81	1.30	1.46
1	A	1342	C	C2'-C1'	-11.79	1.40	1.53
1	A	181	A	N9-C4	-11.79	1.30	1.37
1	A	730	G	N7-C5	-11.75	1.32	1.39
1	A	466	A	C8-N7	-11.75	1.23	1.31
1	A	1447	A	C3'-C2'	-11.74	1.39	1.52
1	A	204	G	N7-C5	-11.74	1.32	1.39
1	A	1004	A	N9-C8	-11.74	1.28	1.37
1	A	257	G	N7-C5	-11.73	1.32	1.39
1	A	349	A	N7-C5	-11.73	1.32	1.39
1	A	213	G	N7-C5	-11.73	1.32	1.39
1	A	780	A	C8-N7	-11.71	1.23	1.31
1	A	1170	A	C2'-C1'	-11.71	1.40	1.53
1	A	869	G	P-O5'	-11.70	1.48	1.59
1	A	16	A	N7-C5	-11.69	1.32	1.39
1	A	469	C	C2'-C1'	-11.69	1.40	1.53
1	A	1231	G	N7-C5	-11.68	1.32	1.39
1	A	1005	A	N9-C4	-11.68	1.30	1.37
1	A	1279	G	C2'-C1'	-11.68	1.40	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	338	A	N7-C5	-11.68	1.32	1.39
1	A	365	U	C3'-C2'	-11.67	1.40	1.52
1	A	1171	A	C1'-N9	-11.67	1.30	1.46
1	A	1172	C	C4'-C3'	-11.67	1.40	1.53
1	A	878	A	C2'-C1'	-11.66	1.40	1.53
1	A	895	G	P-O5'	-11.65	1.48	1.59
1	A	864	A	C2'-C1'	-11.64	1.40	1.53
1	A	343	U	P-O5'	-11.64	1.48	1.59
1	A	82	G	N7-C5	-11.64	1.32	1.39
1	A	878	A	P-O5'	-11.63	1.48	1.59
1	A	194	C	O3'-P	-11.62	1.47	1.61
1	A	410	G	O3'-P	-11.63	1.47	1.61
1	A	1277	C	P-O5'	-11.62	1.48	1.59
1	A	1337	G	C2'-C1'	-11.62	1.40	1.53
1	A	1157	A	N3-C4	-11.61	1.27	1.34
1	A	648	A	N7-C5	-11.60	1.32	1.39
1	A	1334	G	N9-C4	-11.60	1.28	1.38
1	A	97	G	N7-C5	-11.59	1.32	1.39
1	A	1392	G	C1'-N9	-11.59	1.30	1.46
1	A	363	A	N9-C4	-11.59	1.30	1.37
1	A	906	A	N7-C5	-11.58	1.32	1.39
1	A	1258	G	N7-C5	-11.58	1.32	1.39
1	A	635	A	P-O5'	-11.57	1.48	1.59
1	A	428	G	N7-C5	-11.57	1.32	1.39
1	A	515	G	N7-C5	-11.57	1.32	1.39
1	A	788	U	C2'-C1'	-11.57	1.40	1.53
1	A	265	G	O4'-C1'	-11.57	1.26	1.41
1	A	339	C	P-O5'	-11.56	1.48	1.59
1	A	1231	G	C8-N7	-11.53	1.24	1.30
1	A	2	A	N7-C5	-11.53	1.32	1.39
1	A	161	A	C2'-C1'	-11.52	1.40	1.53
1	A	1228	C	C2'-C1'	-11.51	1.40	1.53
1	A	1432	G	O3'-P	-11.51	1.47	1.61
1	A	356	A	N9-C4	-11.50	1.30	1.37
1	A	816	A	N7-C5	-11.50	1.32	1.39
1	A	1251	A	C2'-C1'	-11.49	1.40	1.53
1	A	184	G	N7-C5	-11.48	1.32	1.39
1	A	1195	C	N1-C6	-11.47	1.30	1.37
1	A	411	A	N7-C5	-11.47	1.32	1.39
1	A	629	A	N9-C4	-11.47	1.30	1.37
1	A	94	G	O4'-C1'	-11.46	1.26	1.41
1	A	1434	A	P-O5'	-11.46	1.48	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	33	A	N9-C4	-11.45	1.30	1.37
1	A	802	A	N7-C5	-11.45	1.32	1.39
1	A	781	A	C1'-N9	-11.45	1.30	1.46
1	A	830	G	P-O5'	-11.45	1.48	1.59
13	M	25	GLY	CA-C	-11.44	1.33	1.51
1	A	1435	G	C2'-C1'	-11.44	1.40	1.53
1	A	780	A	N9-C8	-11.43	1.28	1.37
1	A	731	G	C2'-C1'	-11.42	1.40	1.53
1	A	1309	G	N7-C5	-11.42	1.32	1.39
1	A	471	U	P-O5'	-11.42	1.48	1.59
1	A	925	G	C5-C6	-11.41	1.30	1.42
1	A	1237	C	C2'-C1'	-11.41	1.40	1.53
1	A	1348	U	C2'-C1'	-11.40	1.40	1.53
1	A	1191	A	P-O5'	-11.40	1.48	1.59
1	A	61	G	C2'-C1'	-11.40	1.40	1.53
1	A	1399	C	C2'-C1'	-11.39	1.40	1.53
1	A	146	G	P-O5'	-11.38	1.48	1.59
1	A	1439	G	N7-C5	-11.38	1.32	1.39
1	A	592	G	N7-C5	-11.38	1.32	1.39
1	A	1519	A	C2'-C1'	-11.37	1.40	1.53
1	A	818	G	C8-N7	-11.37	1.24	1.30
1	A	1181	G	N7-C5	-11.36	1.32	1.39
1	A	535	A	O3'-P	-11.35	1.47	1.61
1	A	1148	U	P-O5'	-11.35	1.48	1.59
1	A	301	G	C2'-C1'	-11.35	1.40	1.53
1	A	649	A	N7-C5	-11.35	1.32	1.39
1	A	155	A	N7-C5	-11.34	1.32	1.39
1	A	1072	G	P-O5'	-11.34	1.48	1.59
1	A	1304	G	N9-C8	-11.33	1.29	1.37
1	A	1266	G	C2-N3	-11.33	1.23	1.32
1	A	633	G	N7-C5	-11.32	1.32	1.39
1	A	985	C	C2'-C1'	-11.32	1.40	1.53
1	A	1130	A	C2'-C1'	-11.32	1.40	1.53
1	A	57	G	P-O5'	-11.32	1.48	1.59
1	A	64	G	N7-C5	-11.30	1.32	1.39
1	A	868	C	P-O5'	-11.30	1.48	1.59
1	A	1402	C	P-O5'	-11.29	1.48	1.59
1	A	182	A	C2'-C1'	-11.29	1.41	1.53
1	A	241	G	P-O5'	-11.29	1.48	1.59
1	A	689	C	P-O5'	-11.29	1.48	1.59
1	A	364	A	N7-C5	-11.27	1.32	1.39
1	A	595	A	N3-C4	-11.27	1.28	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	570	G	N7-C5	-11.25	1.32	1.39
1	A	57	G	N7-C5	-11.25	1.32	1.39
1	A	960	U	C2'-C1'	-11.23	1.41	1.53
1	A	141	G	N7-C5	-11.23	1.32	1.39
1	A	70	U	C3'-O3'	-11.23	1.26	1.42
1	A	875	U	C2'-C1'	-11.23	1.41	1.53
1	A	739	C	P-O5'	-11.23	1.48	1.59
1	A	1306	A	N3-C4	-11.22	1.28	1.34
1	A	1421	G	N7-C5	-11.22	1.32	1.39
1	A	1084	G	O3'-P	-11.22	1.47	1.61
1	A	1468	A	C2'-C1'	-11.21	1.41	1.53
1	A	1354	U	P-O5'	-11.21	1.48	1.59
1	A	1131	G	N9-C4	-11.20	1.28	1.38
1	A	1281	C	N1-C6	-11.19	1.30	1.37
1	A	665	A	N9-C4	-11.19	1.31	1.37
1	A	850	U	C2'-C1'	-11.19	1.41	1.53
1	A	64	G	P-O5'	-11.18	1.48	1.59
1	A	1253	G	P-O5'	-11.18	1.48	1.59
1	A	1237	C	C4'-C3'	-11.18	1.40	1.53
1	A	1521	C	C2'-C1'	-11.18	1.41	1.53
1	A	130	A	P-O5'	-11.18	1.48	1.59
1	A	690	G	P-O5'	-11.17	1.48	1.59
1	A	888	G	P-O5'	-11.16	1.48	1.59
1	A	1074	G	N7-C5	-11.16	1.32	1.39
1	A	1124	G	C2'-C1'	-11.15	1.41	1.53
1	A	616	G	P-O5'	-11.15	1.48	1.59
1	A	1026	G	P-O5'	-11.15	1.48	1.59
1	A	218	U	C4'-C3'	-11.14	1.40	1.53
1	A	1004	A	O3'-P	-11.14	1.47	1.61
1	A	655	A	C2'-C1'	-11.13	1.41	1.53
1	A	1150	A	N7-C5	-11.14	1.32	1.39
1	A	233	C	C3'-C2'	-11.11	1.40	1.52
1	A	191	G	N7-C5	-11.10	1.32	1.39
1	A	1499	A	N7-C5	-11.10	1.32	1.39
1	A	404	G	C3'-C2'	-11.10	1.40	1.52
1	A	1171	A	C4'-C3'	-11.09	1.41	1.53
1	A	142	G	C3'-C2'	-11.08	1.40	1.52
1	A	700	G	P-O5'	-11.08	1.48	1.59
1	A	593	U	N1-C6	-11.07	1.27	1.38
1	A	656	G	P-O5'	-11.06	1.48	1.59
1	A	1153	G	P-O5'	-11.06	1.48	1.59
1	A	295	C	P-O5'	-11.05	1.48	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	368	U	C2'-C1'	-11.05	1.41	1.53
1	A	1213	A	C2'-C1'	-11.05	1.41	1.53
1	A	240	G	C8-N7	-11.05	1.24	1.30
1	A	1300	G	P-O5'	-11.05	1.48	1.59
1	A	301	G	N9-C4	-11.04	1.29	1.38
1	A	1058	G	P-O5'	-11.04	1.48	1.59
1	A	1377	A	N9-C4	-11.04	1.31	1.37
1	A	1358	U	P-O5'	-11.04	1.48	1.59
1	A	800	G	N7-C5	-11.03	1.32	1.39
1	A	1093	A	C2'-C1'	-11.03	1.41	1.53
1	A	1087	G	P-O5'	-11.03	1.48	1.59
1	A	852	G	P-O5'	-11.02	1.48	1.59
1	A	1244	G	P-O5'	-11.01	1.48	1.59
1	A	498	A	N9-C4	-11.00	1.31	1.37
1	A	1157	A	C2'-C1'	-11.00	1.41	1.53
1	A	1518	A	C2'-C1'	-10.99	1.41	1.53
1	A	614	C	C2'-C1'	-10.99	1.41	1.53
1	A	701	U	C4'-C3'	-10.99	1.41	1.53
1	A	483	C	P-O5'	-10.98	1.48	1.59
1	A	1042	A	N7-C5	-10.98	1.32	1.39
1	A	1167	A	N7-C5	-10.98	1.32	1.39
1	A	954	G	N7-C5	-10.96	1.32	1.39
1	A	911	U	P-O5'	-10.95	1.48	1.59
1	A	1250	A	N7-C5	-10.96	1.32	1.39
1	A	1447	A	C2'-C1'	-10.95	1.41	1.53
1	A	1111	A	P-O5'	-10.95	1.48	1.59
1	A	1457	G	N7-C5	-10.95	1.32	1.39
1	A	297	G	C2-N3	-10.95	1.24	1.32
1	A	346	G	C2-N2	-10.95	1.23	1.34
1	A	300	A	C2'-C1'	-10.94	1.41	1.53
1	A	314	C	P-O5'	-10.94	1.48	1.59
1	A	858	G	C8-N7	-10.94	1.24	1.30
1	A	1102	A	C4'-C3'	-10.94	1.41	1.53
1	A	581	G	N9-C4	-10.94	1.29	1.38
1	A	263	A	C1'-N9	-10.93	1.31	1.46
1	A	471	U	C3'-C2'	-10.93	1.40	1.52
1	A	752	G	N9-C8	-10.92	1.30	1.37
1	A	686	U	C2-N3	-10.91	1.30	1.37
1	A	510	A	N7-C5	-10.91	1.32	1.39
1	A	321	A	N7-C5	-10.91	1.32	1.39
1	A	371	A	P-O5'	-10.91	1.48	1.59
1	A	851	G	P-O5'	-10.91	1.48	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	468	A	C2'-C1'	-10.90	1.41	1.53
1	A	1371	G	C3'-C2'	-10.90	1.40	1.52
1	A	483	C	C3'-C2'	-10.89	1.40	1.52
1	A	337	G	P-O5'	-10.89	1.48	1.59
1	A	272	C	C2'-C1'	-10.89	1.41	1.53
1	A	900	A	C2'-C1'	-10.88	1.41	1.53
1	A	626	G	N7-C5	-10.88	1.32	1.39
1	A	384	G	P-O5'	-10.88	1.48	1.59
1	A	813	U	C2'-C1'	-10.88	1.41	1.53
1	A	1095	U	P-O5'	-10.85	1.48	1.59
1	A	1242	G	P-O5'	-10.85	1.49	1.59
1	A	1502	A	C4'-O4'	-10.85	1.31	1.45
1	A	862	C	P-O5'	-10.83	1.49	1.59
1	A	189	A	C2'-C1'	-10.83	1.41	1.53
1	A	613	C	C2'-C1'	-10.83	1.41	1.53
1	A	1025	U	C2'-C1'	-10.83	1.41	1.53
1	A	1313	U	C3'-C2'	-10.83	1.40	1.52
1	A	373	A	C8-N7	-10.82	1.24	1.31
1	A	31	G	C2'-C1'	-10.82	1.41	1.53
1	A	69	G	C4'-C3'	-10.82	1.41	1.53
1	A	1383	C	P-O5'	-10.82	1.49	1.59
1	A	1332	A	N7-C5	-10.82	1.32	1.39
1	A	1246	A	N7-C5	-10.81	1.32	1.39
1	A	1486	G	P-O5'	-10.81	1.49	1.59
1	A	1526	G	N7-C5	-10.81	1.32	1.39
1	A	69	G	O4'-C1'	-10.80	1.27	1.41
1	A	141	G	C8-N7	-10.80	1.24	1.30
1	A	1250	A	N9-C4	-10.80	1.31	1.37
1	A	201	G	P-O5'	-10.80	1.49	1.59
1	A	1305	G	C3'-C2'	-10.80	1.40	1.52
1	A	800	G	N9-C4	-10.80	1.29	1.38
1	A	1182	G	N9-C8	-10.80	1.30	1.37
1	A	461	A	N7-C5	-10.79	1.32	1.39
1	A	465	A	N7-C5	-10.79	1.32	1.39
1	A	1349	A	N9-C4	-10.79	1.31	1.37
1	A	386	C	P-O5'	-10.79	1.49	1.59
1	A	668	G	C2'-C1'	-10.78	1.41	1.53
1	A	655	A	P-O5'	-10.78	1.49	1.59
1	A	1091	U	O3'-P	-10.78	1.48	1.61
1	A	958	A	P-O5'	-10.77	1.49	1.59
1	A	224	U	C2'-C1'	-10.77	1.41	1.53
1	A	1068	G	C8-N7	-10.77	1.24	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1197	A	N7-C5	-10.77	1.32	1.39
1	A	687	A	C1'-N9	-10.76	1.31	1.46
1	A	1298	U	O3'-P	-10.76	1.48	1.61
1	A	1251	A	O3'-P	-10.76	1.48	1.61
1	A	343	U	C2-N3	-10.76	1.30	1.37
1	A	118	U	P-O5'	-10.76	1.49	1.59
1	A	1090	U	C2'-C1'	-10.76	1.41	1.53
1	A	336	A	N7-C5	-10.75	1.32	1.39
1	A	344	A	O3'-P	-10.75	1.48	1.61
1	A	412	A	N7-C5	-10.75	1.32	1.39
1	A	178	C	C4-N4	-10.74	1.24	1.33
1	A	1083	U	O3'-P	-10.74	1.48	1.61
1	A	1098	C	P-O5'	-10.74	1.49	1.59
1	A	640	A	N3-C4	-10.73	1.28	1.34
1	A	288	A	C3'-C2'	-10.73	1.41	1.52
1	A	1041	G	P-O5'	-10.73	1.49	1.59
1	A	1232	U	P-O5'	-10.73	1.49	1.59
1	A	148	G	N7-C5	-10.73	1.32	1.39
1	A	599	C	C3'-C2'	-10.72	1.41	1.52
1	A	1483	A	N7-C5	-10.72	1.32	1.39
1	A	1162	C	C2'-C1'	-10.72	1.41	1.53
1	A	1125	U	C2'-C1'	-10.71	1.41	1.53
1	A	683	G	P-O5'	-10.71	1.49	1.59
1	A	1380	U	O3'-P	-10.70	1.48	1.61
1	A	374	A	C2'-C1'	-10.70	1.41	1.53
1	A	1253	G	C3'-C2'	-10.70	1.41	1.52
1	A	121	U	O3'-P	-10.70	1.48	1.61
1	A	263	A	C4'-C3'	-10.70	1.41	1.53
1	A	1015	G	C2'-C1'	-10.70	1.41	1.53
1	A	1357	A	P-O5'	-10.69	1.49	1.59
1	A	39	G	C2'-C1'	-10.68	1.41	1.53
1	A	326	G	N7-C5	-10.68	1.32	1.39
1	A	861	G	C2'-C1'	-10.68	1.41	1.53
1	A	1004	A	C2'-C1'	-10.68	1.41	1.53
1	A	76	G	O5'-C5'	-10.67	1.25	1.42
1	A	1160	G	P-O5'	-10.66	1.49	1.59
1	A	1500	A	N9-C4	-10.66	1.31	1.37
1	A	904	U	C2'-C1'	-10.66	1.41	1.53
1	A	1231	G	C4'-C3'	-10.66	1.41	1.53
1	A	66	A	N7-C5	-10.66	1.32	1.39
1	A	1180	A	N7-C5	-10.65	1.32	1.39
1	A	1057	G	C4'-C3'	-10.65	1.41	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1206	G	C1'-N9	-10.65	1.31	1.46
1	A	842	U	P-O5'	-10.65	1.49	1.59
1	A	1269	A	N9-C4	-10.65	1.31	1.37
1	A	1296	C	C2'-C1'	-10.65	1.41	1.53
1	A	262	A	P-O5'	-10.64	1.49	1.59
1	A	1036	A	N9-C4	-10.64	1.31	1.37
1	A	894	G	N7-C5	-10.64	1.32	1.39
1	A	640	A	P-O5'	-10.64	1.49	1.59
1	A	105	G	N7-C5	-10.63	1.32	1.39
1	A	465	A	N9-C4	-10.63	1.31	1.37
1	A	859	G	N7-C5	-10.63	1.32	1.39
1	A	752	G	P-O5'	-10.61	1.49	1.59
1	A	1303	C	C1'-N1	-10.60	1.32	1.46
1	A	628	G	N3-C4	-10.60	1.28	1.35
1	A	255	G	P-O5'	-10.59	1.49	1.59
1	A	410	G	C3'-C2'	-10.59	1.41	1.52
1	A	216	U	P-O5'	-10.59	1.49	1.59
1	A	33	A	N7-C5	-10.58	1.32	1.39
1	A	203	G	O3'-P	-10.57	1.48	1.61
1	A	501	C	P-O5'	-10.57	1.49	1.59
1	A	1375	A	C4'-C3'	-10.57	1.41	1.53
1	A	504	C	P-O5'	-10.57	1.49	1.59
1	A	1186	G	C2-N2	-10.56	1.24	1.34
1	A	266	G	C4'-C3'	-10.56	1.41	1.53
1	A	986	U	C3'-C2'	-10.56	1.41	1.52
1	A	675	A	C3'-C2'	-10.54	1.41	1.52
1	A	1243	C	P-O5'	-10.54	1.49	1.59
1	A	371	A	C3'-C2'	-10.54	1.41	1.52
1	A	777	A	C2'-C1'	-10.54	1.41	1.53
1	A	1157	A	C1'-N9	-10.54	1.32	1.46
1	A	770	C	C2'-C1'	-10.53	1.41	1.53
1	A	1117	A	N3-C4	-10.53	1.28	1.34
1	A	1032	G	C2-N3	10.53	1.41	1.32
1	A	385	C	P-O5'	-10.52	1.49	1.59
1	A	1092	A	O3'-P	-10.52	1.48	1.61
1	A	1288	A	C8-N7	-10.52	1.24	1.31
1	A	98	A	P-O5'	-10.52	1.49	1.59
1	A	405	U	P-O5'	-10.50	1.49	1.59
1	A	1057	G	C8-N7	-10.50	1.24	1.30
1	A	1470	U	C2'-C1'	-10.49	1.41	1.53
1	A	419	C	C2'-C1'	-10.49	1.41	1.53
1	A	933	G	N7-C5	-10.49	1.32	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1274	A	C2'-C1'	-10.49	1.41	1.53
1	A	22	G	O3'-P	-10.49	1.48	1.61
1	A	759	A	P-O5'	-10.49	1.49	1.59
1	A	1346	A	P-O5'	-10.48	1.49	1.59
1	A	575	G	N7-C5	-10.48	1.32	1.39
1	A	959	A	C8-N7	-10.48	1.24	1.31
1	A	1141	C	C2'-C1'	-10.48	1.41	1.53
1	A	432	A	P-O5'	-10.47	1.49	1.59
1	A	579	A	C2'-C1'	-10.47	1.41	1.53
1	A	1499	A	C2'-C1'	-10.47	1.41	1.53
1	A	131	A	N9-C4	10.47	1.44	1.37
1	A	909	A	P-O5'	-10.47	1.49	1.59
1	A	1139	G	O3'-P	-10.47	1.48	1.61
1	A	301	G	P-O5'	-10.46	1.49	1.59
1	A	59	A	N7-C5	-10.46	1.32	1.39
1	A	205	A	C4'-C3'	-10.45	1.41	1.53
1	A	102	G	N7-C5	-10.45	1.32	1.39
1	A	163	C	C2'-C1'	-10.45	1.41	1.53
1	A	622	A	N7-C5	-10.45	1.32	1.39
1	A	948	C	P-O5'	-10.45	1.49	1.59
1	A	1495	U	P-O5'	-10.44	1.49	1.59
1	A	752	G	N7-C5	-10.43	1.32	1.39
1	A	433	G	P-O5'	-10.43	1.49	1.59
1	A	1279	G	N9-C8	-10.42	1.30	1.37
1	A	838	G	N7-C5	-10.42	1.32	1.39
1	A	1099	G	C2'-C1'	-10.42	1.41	1.53
1	A	908	A	C8-N7	-10.41	1.24	1.31
1	A	941	G	N7-C5	-10.41	1.33	1.39
1	A	456	A	C3'-C2'	-10.41	1.41	1.52
1	A	782	A	N7-C5	-10.41	1.33	1.39
1	A	1288	A	C2'-C1'	-10.40	1.42	1.53
1	A	1238	A	N3-C4	-10.40	1.28	1.34
1	A	700	G	C2'-C1'	-10.40	1.42	1.53
1	A	939	G	C3'-C2'	-10.38	1.41	1.52
1	A	654	G	N7-C5	-10.38	1.33	1.39
1	A	1118	U	P-O5'	-10.37	1.49	1.59
1	A	1435	G	N7-C5	-10.37	1.33	1.39
1	A	82	G	N3-C4	-10.37	1.28	1.35
1	A	547	A	N9-C4	-10.37	1.31	1.37
1	A	858	G	N9-C4	-10.37	1.29	1.38
1	A	1502	A	O4'-C1'	-10.37	1.28	1.41
1	A	1507	A	C2'-C1'	-10.37	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	700	G	C3'-C2'	-10.37	1.41	1.52
1	A	1323	G	C2'-C1'	-10.37	1.42	1.53
1	A	253	A	P-O5'	-10.36	1.49	1.59
1	A	616	G	C2'-C1'	-10.36	1.42	1.53
1	A	1523	G	C3'-C2'	-10.36	1.41	1.52
1	A	749	A	P-O5'	-10.36	1.49	1.59
1	A	1502	A	N3-C4	-10.36	1.28	1.34
1	A	137	U	C3'-C2'	-10.36	1.41	1.52
1	A	529	G	C2'-C1'	-10.36	1.42	1.53
1	A	1252	A	C2'-C1'	-10.36	1.42	1.53
1	A	789	U	P-O5'	-10.36	1.49	1.59
1	A	1171	A	O5'-C5'	-10.36	1.26	1.42
1	A	1380	U	C2'-C1'	-10.36	1.42	1.53
1	A	58	C	N1-C6	-10.35	1.30	1.37
1	A	867	G	P-O5'	-10.35	1.49	1.59
1	A	129	A	P-O5'	-10.35	1.49	1.59
1	A	996	A	P-O5'	-10.34	1.49	1.59
1	A	1519	A	P-O5'	-10.34	1.49	1.59
1	A	250	A	P-O5'	-10.34	1.49	1.59
1	A	993	G	N7-C5	-10.34	1.33	1.39
1	A	103	U	C3'-C2'	-10.33	1.41	1.52
1	A	199	A	N7-C5	-10.33	1.33	1.39
1	A	746	A	C2'-C1'	-10.33	1.42	1.53
1	A	771	G	P-O5'	-10.33	1.49	1.59
1	A	1522	U	C2'-C1'	-10.33	1.42	1.53
1	A	1313	U	C2'-C1'	-10.32	1.42	1.53
1	A	821	G	C2'-C1'	-10.31	1.42	1.53
1	A	1410	A	P-O5'	-10.31	1.49	1.59
1	A	363	A	N7-C5	-10.31	1.33	1.39
1	A	1004	A	P-O5'	-10.31	1.49	1.59
1	A	1527	U	C4'-C3'	-10.31	1.41	1.53
1	A	1501	C	N1-C6	-10.30	1.30	1.37
1	A	368	U	O3'-P	-10.30	1.48	1.61
1	A	584	G	N9-C8	-10.30	1.30	1.37
1	A	985	C	C3'-C2'	-10.30	1.41	1.52
1	A	1057	G	C2'-C1'	-10.30	1.42	1.53
1	A	905	U	P-O5'	-10.30	1.49	1.59
1	A	1334	G	C5-C6	-10.30	1.32	1.42
1	A	258	G	P-O5'	-10.29	1.49	1.59
1	A	700	G	N7-C5	-10.29	1.33	1.39
1	A	1242	G	C2'-C1'	-10.29	1.42	1.53
1	A	1158	C	P-O5'	-10.29	1.49	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1241	G	C5'-C4'	10.29	1.63	1.51
1	A	1478	U	C2'-C1'	-10.29	1.42	1.53
1	A	72	A	C5'-C4'	-10.29	1.39	1.51
1	A	869	G	N3-C4	-10.29	1.28	1.35
1	A	665	A	C2'-C1'	-10.28	1.42	1.53
1	A	52	C	C2'-C1'	-10.28	1.42	1.53
1	A	614	C	C4'-C3'	-10.27	1.41	1.53
1	A	1518	A	P-O5'	-10.27	1.49	1.59
1	A	81	A	C2'-C1'	-10.27	1.42	1.53
1	A	303	A	C2'-C1'	-10.27	1.42	1.53
1	A	1096	C	C3'-C2'	-10.26	1.41	1.52
1	A	144	G	C5-C6	-10.26	1.32	1.42
1	A	1252	A	N9-C4	-10.26	1.31	1.37
1	A	679	C	C2'-C1'	-10.25	1.42	1.53
1	A	191	G	O4'-C1'	-10.25	1.28	1.41
1	A	1433	A	N7-C5	-10.25	1.33	1.39
1	A	288	A	C8-N7	-10.23	1.24	1.31
1	A	559	A	C1'-N9	-10.23	1.32	1.46
1	A	243	A	C2'-C1'	-10.23	1.42	1.53
1	A	1283	U	C2'-C1'	-10.22	1.42	1.53
1	A	1434	A	C2'-C1'	-10.22	1.42	1.53
1	A	1502	A	C8-N7	-10.21	1.24	1.31
1	A	261	U	P-O5'	-10.21	1.49	1.59
1	A	410	G	N9-C8	-10.20	1.30	1.37
1	A	1343	G	C2'-C1'	-10.20	1.42	1.53
1	A	1514	G	C2'-C1'	-10.19	1.42	1.53
1	A	74	A	N7-C5	-10.19	1.33	1.39
1	A	1215	G	C2'-C1'	-10.19	1.42	1.53
1	A	910	C	P-O5'	-10.17	1.49	1.59
1	A	566	G	C2'-C1'	-10.17	1.42	1.53
1	A	1198	G	C8-N7	-10.17	1.24	1.30
1	A	1203	C	P-O5'	-10.17	1.49	1.59
1	A	592	G	P-O5'	-10.17	1.49	1.59
1	A	1046	A	C1'-N9	-10.17	1.32	1.46
1	A	927	G	N7-C5	-10.17	1.33	1.39
1	A	769	G	C4'-C3'	-10.16	1.42	1.53
1	A	1279	G	N3-C4	-10.16	1.28	1.35
1	A	37	U	C1'-N1	-10.16	1.32	1.46
1	A	262	A	C2'-C1'	-10.16	1.42	1.53
1	A	980	C	P-O5'	-10.16	1.49	1.59
1	A	1032	G	O3'-P	-10.15	1.49	1.61
1	A	1145	A	C2'-C1'	-10.15	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1523	G	C4'-C3'	-10.15	1.42	1.53
1	A	393	A	C2'-C1'	-10.15	1.42	1.53
1	A	1016	A	N9-C4	-10.15	1.31	1.37
1	A	502	A	N7-C5	-10.14	1.33	1.39
1	A	678	U	C3'-C2'	-10.14	1.41	1.52
1	A	1330	U	P-O5'	-10.14	1.49	1.59
1	A	1116	U	C2'-C1'	-10.14	1.42	1.53
1	A	411	A	C2'-C1'	-10.14	1.42	1.53
1	A	969	A	C2'-C1'	-10.14	1.42	1.53
1	A	1278	G	N9-C4	-10.14	1.29	1.38
1	A	1435	G	C3'-C2'	-10.13	1.41	1.52
1	A	1518	A	C3'-C2'	-10.13	1.41	1.52
1	A	787	A	C4'-C3'	-10.13	1.42	1.53
1	A	454	G	N1-C2	10.13	1.45	1.37
1	A	869	G	C2'-C1'	-10.12	1.42	1.53
1	A	1187	G	N9-C8	-10.12	1.30	1.37
1	A	234	C	P-O5'	-10.11	1.49	1.59
1	A	327	A	N7-C5	-10.11	1.33	1.39
1	A	269	C	P-O5'	-10.11	1.49	1.59
1	A	410	G	P-O5'	-10.11	1.49	1.59
1	A	1036	A	C2'-C1'	-10.11	1.42	1.53
1	A	410	G	C2'-C1'	-10.10	1.42	1.53
1	A	642	A	C2'-C1'	-10.10	1.42	1.53
1	A	357	G	P-O5'	-10.10	1.49	1.59
1	A	860	A	N9-C4	-10.09	1.31	1.37
1	A	1126	U	N1-C2	-10.09	1.29	1.38
1	A	687	A	N7-C5	-10.09	1.33	1.39
1	A	82	G	C2'-C1'	-10.09	1.42	1.53
1	A	683	G	N7-C5	-10.09	1.33	1.39
1	A	1238	A	C4'-C3'	-10.09	1.42	1.53
1	A	1225	A	N7-C5	-10.08	1.33	1.39
1	A	21	G	C3'-C2'	-10.08	1.41	1.52
1	A	729	A	P-O5'	-10.08	1.49	1.59
1	A	1222	G	N9-C4	-10.08	1.29	1.38
1	A	1287	A	P-O5'	-10.08	1.49	1.59
1	A	162	A	N7-C5	-10.07	1.33	1.39
1	A	257	G	P-O5'	-10.07	1.49	1.59
1	A	556	C	N1-C6	10.07	1.43	1.37
1	A	222	C	P-O5'	-10.07	1.49	1.59
1	A	1510	C	C3'-C2'	-10.07	1.41	1.52
1	A	279	A	N9-C4	-10.06	1.31	1.37
1	A	1225	A	P-O5'	-10.06	1.49	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1277	C	C3'-C2'	-10.06	1.41	1.52
1	A	147	G	C3'-C2'	-10.05	1.41	1.52
1	A	337	G	C2'-C1'	-10.05	1.42	1.53
1	A	608	A	P-O5'	-10.05	1.49	1.59
1	A	1114	C	P-O5'	-10.05	1.49	1.59
1	A	466	A	N3-C4	-10.05	1.28	1.34
1	A	557	G	N7-C5	-10.05	1.33	1.39
1	A	917	G	C2'-C1'	-10.04	1.42	1.53
1	A	1158	C	C4'-C3'	-10.04	1.42	1.53
1	A	1401	G	N7-C5	-10.03	1.33	1.39
1	A	120	A	C4'-C3'	10.03	1.64	1.53
1	A	483	C	C2'-C1'	-10.03	1.42	1.53
1	A	705	G	C8-N7	-10.03	1.25	1.30
1	A	1064	G	P-O5'	-10.03	1.49	1.59
1	A	1231	G	P-O5'	-10.03	1.49	1.59
1	A	1371	G	C1'-N9	-10.03	1.32	1.46
1	A	649	A	C8-N7	-10.03	1.24	1.31
1	A	673	A	C2'-C1'	-10.03	1.42	1.53
1	A	374	A	N7-C5	-10.02	1.33	1.39
1	A	664	G	O3'-P	-10.01	1.49	1.61
1	A	1256	A	N9-C4	-10.01	1.31	1.37
1	A	228	A	N9-C4	-10.00	1.31	1.37
1	A	359	G	P-O5'	-10.00	1.49	1.59
1	A	1259	C	P-O5'	-10.00	1.49	1.59
1	A	429	U	C1'-N1	-10.00	1.32	1.46
1	A	824	G	P-O5'	-10.00	1.49	1.59
1	A	1345	U	C2'-C1'	-9.99	1.42	1.53
1	A	618	C	P-O5'	-9.99	1.49	1.59
1	A	100	G	N7-C5	-9.99	1.33	1.39
1	A	522	C	P-O5'	-9.99	1.49	1.59
1	A	1506	U	C1'-N1	9.99	1.63	1.48
1	A	1435	G	P-O5'	-9.98	1.49	1.59
1	A	639	G	N7-C5	-9.98	1.33	1.39
1	A	749	A	C2'-C1'	-9.98	1.42	1.53
1	A	815	A	N9-C4	-9.98	1.31	1.37
1	A	1184	G	C4'-C3'	-9.98	1.42	1.53
1	A	1115	U	C2'-C1'	-9.98	1.42	1.53
1	A	1461	G	C2'-C1'	-9.98	1.42	1.53
1	A	1197	A	O3'-P	-9.98	1.49	1.61
1	A	1402	C	C4'-C3'	-9.97	1.42	1.53
1	A	916	U	C3'-C2'	-9.97	1.41	1.52
1	A	270	A	P-O5'	-9.97	1.49	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1099	G	P-O5'	-9.97	1.49	1.59
1	A	1144	G	O3'-P	-9.97	1.49	1.61
1	A	610	U	C2'-C1'	-9.96	1.42	1.53
1	A	815	A	O3'-P	-9.96	1.49	1.61
1	A	559	A	O3'-P	-9.96	1.49	1.61
1	A	675	A	N7-C5	-9.96	1.33	1.39
1	A	1374	A	C2'-C1'	-9.96	1.42	1.53
1	A	1097	C	C3'-C2'	-9.96	1.41	1.52
1	A	194	C	C2-N3	-9.96	1.27	1.35
1	A	686	U	N3-C4	-9.96	1.29	1.38
1	A	854	U	C2'-C1'	-9.96	1.42	1.53
1	A	1304	G	C6-N1	-9.95	1.32	1.39
1	A	223	A	C2'-C1'	-9.95	1.42	1.53
1	A	877	G	N7-C5	-9.95	1.33	1.39
1	A	1404	C	P-O5'	-9.95	1.49	1.59
1	A	22	G	C3'-C2'	-9.94	1.41	1.52
1	A	82	G	N9-C4	-9.94	1.30	1.38
1	A	1053	G	C4'-O4'	-9.94	1.32	1.45
1	A	997	U	P-O5'	-9.93	1.49	1.59
1	A	251	G	P-O5'	-9.93	1.49	1.59
1	A	235	C	P-O5'	-9.92	1.49	1.59
1	A	1420	U	P-O5'	-9.92	1.49	1.59
1	A	464	U	C2'-C1'	-9.92	1.42	1.53
1	A	391	G	O3'-P	-9.91	1.49	1.61
1	A	45	G	C3'-C2'	-9.91	1.41	1.52
1	A	1278	G	O3'-P	-9.91	1.49	1.61
1	A	617	G	C3'-C2'	-9.90	1.41	1.52
1	A	397	A	N9-C4	9.90	1.43	1.37
1	A	563	A	P-O5'	-9.90	1.49	1.59
1	A	218	U	O3'-P	-9.90	1.49	1.61
1	A	685	G	P-O5'	-9.89	1.49	1.59
1	A	954	G	P-O5'	-9.89	1.49	1.59
1	A	925	G	C2'-C1'	-9.89	1.42	1.53
1	A	1199	U	P-O5'	-9.88	1.49	1.59
1	A	410	G	N7-C5	-9.88	1.33	1.39
1	A	434	U	P-O5'	-9.88	1.49	1.59
1	A	1001	C	P-O5'	-9.88	1.49	1.59
1	A	1296	C	C3'-C2'	-9.88	1.41	1.52
1	A	1520	C	C2'-C1'	-9.88	1.42	1.53
1	A	1418	A	C3'-C2'	-9.87	1.41	1.52
1	A	474	G	N7-C5	-9.87	1.33	1.39
1	A	928	G	C2'-C1'	-9.87	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	680	C	P-O5'	-9.87	1.49	1.59
1	A	1307	U	O3'-P	-9.86	1.49	1.61
1	A	116	A	C2'-C1'	-9.86	1.42	1.53
1	A	1215	G	N7-C5	-9.86	1.33	1.39
1	A	466	A	C2'-C1'	-9.86	1.42	1.53
1	A	944	G	P-O5'	-9.86	1.49	1.59
1	A	1503	A	N7-C5	-9.86	1.33	1.39
1	A	202	G	C1'-N9	-9.85	1.33	1.46
1	A	134	G	P-O5'	-9.85	1.50	1.59
1	A	1295	U	P-O5'	-9.85	1.50	1.59
1	A	78	A	P-O5'	-9.84	1.50	1.59
1	A	1044	A	N9-C4	9.84	1.43	1.37
1	A	1409	C	P-O5'	-9.84	1.50	1.59
1	A	927	G	N9-C4	-9.84	1.30	1.38
1	A	918	A	P-O5'	-9.84	1.50	1.59
1	A	1526	G	P-O5'	-9.84	1.50	1.59
1	A	515	G	P-O5'	-9.83	1.50	1.59
1	A	1141	C	P-O5'	-9.83	1.50	1.59
1	A	1294	G	N7-C5	-9.83	1.33	1.39
1	A	1228	C	O3'-P	-9.83	1.49	1.61
1	A	356	A	N7-C5	-9.82	1.33	1.39
1	A	638	U	O3'-P	-9.82	1.49	1.61
1	A	1239	A	P-O5'	-9.82	1.50	1.59
1	A	162	A	C4'-C3'	-9.81	1.42	1.53
1	A	1179	A	N7-C5	-9.81	1.33	1.39
1	A	303	A	N7-C5	-9.81	1.33	1.39
1	A	433	G	N7-C5	-9.81	1.33	1.39
1	A	24	U	C2'-C1'	-9.81	1.42	1.53
1	A	1002	G	N7-C5	-9.81	1.33	1.39
1	A	301	G	C3'-C2'	-9.80	1.42	1.52
1	A	387	U	P-O5'	-9.80	1.50	1.59
1	A	979	C	P-O5'	-9.80	1.50	1.59
1	A	1447	A	O3'-P	-9.80	1.49	1.61
1	A	1202	U	C2'-C1'	-9.80	1.42	1.53
1	A	861	G	C8-N7	-9.79	1.25	1.30
1	A	194	C	C4'-C3'	-9.79	1.42	1.53
1	A	789	U	C2'-C1'	-9.79	1.42	1.53
1	A	1461	G	P-O5'	-9.79	1.50	1.59
1	A	768	A	N7-C5	-9.79	1.33	1.39
1	A	918	A	N7-C5	-9.79	1.33	1.39
1	A	465	A	C8-N7	-9.78	1.24	1.31
1	A	1027	C	P-O5'	-9.78	1.50	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1187	G	N7-C5	-9.78	1.33	1.39
1	A	848	C	C2'-C1'	-9.78	1.42	1.53
1	A	1484	C	C2'-C1'	-9.78	1.42	1.53
1	A	753	A	C2'-C1'	-9.77	1.42	1.53
1	A	1350	A	C2'-C1'	-9.77	1.42	1.53
1	A	1440	U	C3'-C2'	-9.77	1.42	1.52
1	A	1472	U	P-O5'	-9.77	1.50	1.59
1	A	906	A	C8-N7	-9.77	1.24	1.31
1	A	493	A	P-O5'	-9.76	1.50	1.59
1	A	1250	A	C4'-C3'	-9.75	1.42	1.53
1	A	193	C	O3'-P	-9.75	1.49	1.61
1	A	874	G	P-O5'	-9.75	1.50	1.59
1	A	466	A	P-O5'	-9.74	1.50	1.59
1	A	819	A	N7-C5	-9.74	1.33	1.39
1	A	1371	G	P-O5'	-9.74	1.50	1.59
1	A	1121	U	C2'-C1'	-9.74	1.42	1.53
1	A	1367	C	C2'-C1'	-9.74	1.42	1.53
1	A	1269	A	C1'-N9	-9.73	1.33	1.46
1	A	1279	G	O3'-P	-9.73	1.49	1.61
1	A	343	U	C3'-C2'	-9.73	1.42	1.52
1	A	259	G	P-O5'	-9.73	1.50	1.59
1	A	198	G	C2'-C1'	-9.72	1.42	1.53
1	A	300	A	C3'-C2'	-9.72	1.42	1.52
1	A	781	A	N7-C5	-9.72	1.33	1.39
1	A	262	A	O3'-P	-9.72	1.49	1.61
1	A	103	U	P-O5'	-9.72	1.50	1.59
1	A	1365	G	N9-C4	9.72	1.45	1.38
1	A	226	G	C2'-C1'	-9.72	1.42	1.53
1	A	1219	A	N7-C5	-9.72	1.33	1.39
1	A	1044	A	N7-C5	-9.72	1.33	1.39
1	A	324	G	P-O5'	-9.71	1.50	1.59
1	A	1333	A	N7-C5	-9.71	1.33	1.39
1	A	140	U	P-O5'	-9.71	1.50	1.59
1	A	290	C	P-O5'	-9.71	1.50	1.59
1	A	49	U	C2'-C1'	-9.71	1.42	1.53
1	A	82	G	P-O5'	-9.71	1.50	1.59
1	A	1084	G	C4'-O4'	-9.71	1.32	1.45
1	A	1268	G	C8-N7	-9.70	1.25	1.30
1	A	23	C	C3'-C2'	-9.70	1.42	1.52
1	A	61	G	C4'-C3'	-9.70	1.42	1.53
1	A	866	C	O3'-P	-9.70	1.49	1.61
1	A	1330	U	C2'-C1'	-9.69	1.42	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	361	G	P-O5'	-9.69	1.50	1.59
1	A	302	G	P-O5'	-9.69	1.50	1.59
1	A	1504	G	N7-C5	-9.69	1.33	1.39
1	A	37	U	O3'-P	-9.68	1.49	1.61
1	A	187	G	C2'-C1'	-9.68	1.42	1.53
1	A	258	G	C8-N7	-9.68	1.25	1.30
1	A	895	G	N9-C4	-9.68	1.30	1.38
1	A	1067	A	N7-C5	-9.68	1.33	1.39
1	A	1334	G	P-O5'	-9.68	1.50	1.59
1	A	380	G	C5'-C4'	-9.67	1.39	1.51
1	A	557	G	N9-C4	-9.67	1.30	1.38
1	A	771	G	C8-N7	-9.66	1.25	1.30
1	A	1344	C	O3'-P	-9.66	1.49	1.61
1	A	1299	A	N7-C5	-9.66	1.33	1.39
1	A	803	G	N7-C5	-9.65	1.33	1.39
1	A	738	C	P-O5'	-9.65	1.50	1.59
1	A	1207	G	P-O5'	-9.65	1.50	1.59
1	A	245	U	O3'-P	-9.65	1.49	1.61
1	A	750	C	C2'-C1'	-9.65	1.42	1.53
1	A	1102	A	O3'-P	-9.65	1.49	1.61
1	A	267	C	P-O5'	-9.64	1.50	1.59
1	A	263	A	C2'-C1'	-9.64	1.42	1.53
1	A	1163	A	P-O5'	-9.64	1.50	1.59
1	A	1453	G	N7-C5	-9.63	1.33	1.39
1	A	698	G	N7-C5	-9.63	1.33	1.39
1	A	425	G	P-O5'	-9.62	1.50	1.59
1	A	462	G	C3'-C2'	-9.62	1.42	1.52
1	A	1061	G	P-O5'	-9.62	1.50	1.59
1	A	1251	A	C4'-C3'	-9.62	1.42	1.53
1	A	1333	A	C3'-C2'	-9.62	1.42	1.52
1	A	957	U	P-O5'	-9.62	1.50	1.59
1	A	238	A	C2'-C1'	-9.62	1.42	1.53
1	A	562	U	O3'-P	-9.62	1.49	1.61
1	A	914	A	C2'-C1'	-9.62	1.42	1.53
1	A	1166	G	C3'-C2'	-9.62	1.42	1.52
1	A	91	U	C2'-C1'	-9.61	1.42	1.53
1	A	634	C	O3'-P	-9.62	1.49	1.61
1	A	101	A	P-O5'	-9.61	1.50	1.59
1	A	973	G	P-O5'	-9.61	1.50	1.59
1	A	1485	U	P-O5'	-9.61	1.50	1.59
1	A	371	A	N9-C4	-9.61	1.32	1.37
1	A	1274	A	N9-C4	-9.61	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1502	A	P-O5'	-9.61	1.50	1.59
1	A	160	A	N9-C4	-9.61	1.32	1.37
1	A	606	G	C2'-C1'	-9.61	1.42	1.53
1	A	1434	A	N9-C8	-9.60	1.30	1.37
1	A	454	G	N7-C5	-9.60	1.33	1.39
1	A	168	G	P-O5'	-9.59	1.50	1.59
1	A	249	U	C2'-C1'	-9.59	1.42	1.53
1	A	1129	C	C2'-C1'	-9.59	1.42	1.53
1	A	1256	A	O3'-P	-9.59	1.49	1.61
1	A	1377	A	C8-N7	-9.59	1.24	1.31
1	A	873	A	C2'-C1'	-9.59	1.42	1.53
1	A	925	G	C8-N7	-9.59	1.25	1.30
1	A	603	U	C2'-C1'	-9.58	1.42	1.53
1	A	677	U	C2'-C1'	-9.58	1.42	1.53
1	A	794	A	C2'-C1'	-9.58	1.42	1.53
1	A	753	A	O3'-P	-9.58	1.49	1.61
1	A	1390	U	C2'-C1'	-9.58	1.42	1.53
1	A	299	G	P-O5'	-9.58	1.50	1.59
1	A	851	G	N9-C4	-9.57	1.30	1.38
1	A	1067	A	O3'-P	-9.57	1.49	1.61
1	A	1133	G	N7-C5	-9.57	1.33	1.39
1	A	289	G	N7-C5	-9.57	1.33	1.39
1	A	305	G	P-O5'	-9.57	1.50	1.59
1	A	921	U	P-O5'	-9.56	1.50	1.59
1	A	1326	U	C3'-C2'	-9.56	1.42	1.52
1	A	1467	C	C2'-C1'	-9.56	1.42	1.53
1	A	1434	A	C1'-N9	-9.56	1.33	1.46
1	A	410	G	C8-N7	-9.55	1.25	1.30
1	A	861	G	C3'-C2'	-9.55	1.42	1.52
1	A	1304	G	C3'-C2'	-9.55	1.42	1.52
1	A	825	A	C8-N7	-9.55	1.24	1.31
1	A	21	G	P-O5'	-9.54	1.50	1.59
1	A	269	C	N1-C6	9.54	1.42	1.37
1	A	535	A	P-O5'	-9.54	1.50	1.59
1	A	81	A	N9-C8	-9.54	1.30	1.37
1	A	1241	G	C2'-C1'	-9.54	1.42	1.53
1	A	626	G	C2'-C1'	-9.54	1.42	1.53
1	A	1175	G	P-O5'	-9.54	1.50	1.59
1	A	937	A	C3'-C2'	-9.53	1.42	1.52
1	A	606	G	N3-C4	-9.52	1.28	1.35
1	A	1079	G	N7-C5	-9.52	1.33	1.39
1	A	493	A	N7-C5	-9.52	1.33	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	217	C	C3'-C2'	-9.51	1.42	1.52
1	A	646	G	N7-C5	-9.51	1.33	1.39
1	A	1512	U	C2'-C1'	-9.51	1.42	1.53
1	A	46	G	N7-C5	-9.51	1.33	1.39
1	A	160	A	C4'-C3'	-9.51	1.42	1.53
1	A	251	G	C1'-N9	-9.51	1.33	1.46
1	A	275	G	P-O5'	-9.51	1.50	1.59
1	A	678	U	C2'-C1'	-9.50	1.42	1.53
1	A	1221	G	N7-C5	-9.50	1.33	1.39
1	A	643	C	P-O5'	-9.50	1.50	1.59
1	A	986	U	C2'-C1'	-9.50	1.42	1.53
1	A	824	G	N7-C5	-9.50	1.33	1.39
1	A	1225	A	N9-C8	-9.50	1.30	1.37
1	A	1268	G	C3'-C2'	-9.50	1.42	1.52
1	A	1303	C	N1-C6	-9.50	1.31	1.37
1	A	676	A	N7-C5	-9.49	1.33	1.39
1	A	177	G	C2'-C1'	-9.49	1.43	1.53
1	A	169	C	P-O5'	-9.49	1.50	1.59
1	A	1236	A	N7-C5	-9.49	1.33	1.39
1	A	500	G	N7-C5	-9.48	1.33	1.39
1	A	687	A	C2'-C1'	-9.48	1.43	1.53
1	A	866	C	C4-C5	-9.47	1.35	1.43
1	A	350	G	N3-C4	-9.47	1.28	1.35
1	A	1248	A	C2'-C1'	-9.47	1.43	1.53
1	A	1287	A	C8-N7	-9.47	1.25	1.31
1	A	938	A	C1'-N9	-9.46	1.33	1.46
1	A	1321	U	P-O5'	-9.46	1.50	1.59
1	A	1074	G	C8-N7	-9.46	1.25	1.30
1	A	1304	G	C1'-N9	-9.46	1.33	1.46
1	A	1377	A	N7-C5	-9.46	1.33	1.39
1	A	3	A	N9-C4	-9.45	1.32	1.37
1	A	670	G	C2'-C1'	-9.45	1.43	1.53
1	A	145	G	N7-C5	-9.45	1.33	1.39
1	A	302	G	N7-C5	-9.45	1.33	1.39
1	A	382	A	N7-C5	-9.45	1.33	1.39
1	A	1093	A	C8-N7	-9.45	1.25	1.31
1	A	1103	C	C2'-C1'	-9.44	1.43	1.53
1	A	70	U	N1-C6	-9.44	1.29	1.38
1	A	428	G	P-O5'	-9.44	1.50	1.59
1	A	478	A	C3'-C2'	-9.43	1.42	1.52
1	A	1128	C	P-O5'	-9.43	1.50	1.59
1	A	1334	G	C1'-N9	-9.43	1.33	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	453	G	N7-C5	-9.43	1.33	1.39
1	A	775	G	N7-C5	-9.43	1.33	1.39
1	A	914	A	N7-C5	-9.43	1.33	1.39
1	A	1046	A	C2'-C1'	-9.43	1.43	1.53
1	A	483	C	O3'-P	-9.43	1.49	1.61
1	A	688	G	C2'-C1'	-9.43	1.43	1.53
1	A	462	G	N7-C5	-9.42	1.33	1.39
1	A	470	C	C4-N4	-9.42	1.25	1.33
1	A	1327	C	C2'-C1'	-9.42	1.43	1.53
1	A	752	G	C2'-C1'	-9.42	1.43	1.53
1	A	765	G	C3'-C2'	-9.41	1.42	1.52
1	A	864	A	P-O5'	-9.41	1.50	1.59
1	A	1258	G	P-O5'	-9.41	1.50	1.59
1	A	792	A	N7-C5	-9.40	1.33	1.39
1	A	1184	G	C4'-O4'	-9.40	1.33	1.45
1	A	1067	A	C8-N7	-9.40	1.25	1.31
1	A	166	U	P-O5'	-9.40	1.50	1.59
1	A	1091	U	C2'-C1'	-9.39	1.43	1.53
1	A	208	U	P-O5'	-9.39	1.50	1.59
1	A	395	C	P-O5'	-9.38	1.50	1.59
1	A	694	A	P-O5'	-9.38	1.50	1.59
1	A	1315	U	C2'-C1'	-9.38	1.43	1.53
1	A	1502	A	C3'-C2'	-9.38	1.42	1.52
1	A	38	G	N7-C5	-9.37	1.33	1.39
1	A	622	A	N9-C4	-9.38	1.32	1.37
1	A	807	A	C2'-C1'	-9.37	1.43	1.53
1	A	379	C	C2'-C1'	-9.37	1.43	1.53
1	A	672	U	P-O5'	-9.37	1.50	1.59
1	A	382	A	N9-C4	-9.36	1.32	1.37
1	A	663	A	N7-C5	-9.36	1.33	1.39
1	A	314	C	C2'-C1'	-9.36	1.43	1.53
1	A	449	G	O3'-P	-9.36	1.50	1.61
1	A	1216	A	C4'-C3'	-9.36	1.42	1.53
1	A	154	U	C2'-C1'	-9.36	1.43	1.53
1	A	1373	G	N9-C4	-9.36	1.30	1.38
1	A	991	U	P-O5'	-9.35	1.50	1.59
1	A	1369	C	P-O5'	-9.35	1.50	1.59
1	A	1405	G	C2'-C1'	-9.35	1.43	1.53
1	A	231	U	P-O5'	-9.35	1.50	1.59
1	A	57	G	C8-N7	-9.35	1.25	1.30
1	A	652	U	C2'-C1'	-9.35	1.43	1.53
1	A	1146	A	N7-C5	-9.35	1.33	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1234	C	P-O5'	-9.35	1.50	1.59
1	A	28	A	P-O5'	-9.35	1.50	1.59
1	A	468	A	N7-C5	-9.35	1.33	1.39
1	A	567	G	N7-C5	-9.35	1.33	1.39
1	A	88	U	N1-C2	9.34	1.47	1.38
1	A	303	A	P-O5'	-9.34	1.50	1.59
1	A	385	C	C3'-C2'	-9.34	1.42	1.52
1	A	481	G	N7-C5	-9.34	1.33	1.39
1	A	1443	C	P-O5'	-9.34	1.50	1.59
1	A	465	A	P-O5'	-9.34	1.50	1.59
1	A	1353	G	N7-C5	-9.34	1.33	1.39
1	A	1255	G	N7-C5	-9.34	1.33	1.39
1	A	1170	A	N3-C4	-9.33	1.29	1.34
1	A	749	A	N7-C5	-9.33	1.33	1.39
1	A	1032	G	P-O5'	-9.33	1.50	1.59
1	A	194	C	C1'-N1	-9.32	1.33	1.46
1	A	1462	C	P-O5'	-9.32	1.50	1.59
1	A	297	G	C2-N2	-9.32	1.25	1.34
1	A	959	A	C1'-N9	-9.32	1.33	1.46
1	A	1191	A	C8-N7	-9.32	1.25	1.31
1	A	952	U	C2'-C1'	-9.32	1.43	1.53
1	A	1504	G	O3'-P	-9.31	1.50	1.61
1	A	10	A	C2'-C1'	-9.31	1.43	1.53
1	A	707	U	C2'-C1'	-9.31	1.43	1.53
1	A	481	G	C5-C6	-9.31	1.33	1.42
1	A	993	G	N9-C8	-9.31	1.31	1.37
1	A	1262	C	P-O5'	-9.31	1.50	1.59
1	A	1399	C	C1'-N1	-9.30	1.33	1.46
1	A	81	A	O4'-C1'	-9.30	1.29	1.41
1	A	615	G	N9-C4	-9.29	1.30	1.38
1	A	892	A	N7-C5	-9.29	1.33	1.39
1	A	1419	G	N9-C4	-9.29	1.30	1.38
1	A	147	G	P-O5'	-9.29	1.50	1.59
1	A	508	U	O3'-P	-9.29	1.50	1.61
1	A	1515	G	N7-C5	-9.29	1.33	1.39
1	A	76	G	O3'-P	-9.29	1.50	1.61
1	A	1084	G	C4'-C3'	-9.29	1.43	1.53
1	A	6	G	P-O5'	-9.28	1.50	1.59
1	A	695	A	P-O5'	-9.28	1.50	1.59
1	A	736	C	C2'-C1'	-9.28	1.43	1.53
1	A	1004	A	N7-C5	-9.28	1.33	1.39
1	A	297	G	N3-C4	-9.28	1.28	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	468	A	N9-C4	-9.28	1.32	1.37
1	A	728	A	C2'-C1'	-9.27	1.43	1.53
1	A	900	A	N7-C5	-9.27	1.33	1.39
1	A	97	G	C8-N7	-9.27	1.25	1.30
1	A	864	A	N9-C4	-9.27	1.32	1.37
1	A	1299	A	P-O5'	-9.26	1.50	1.59
1	A	193	C	C1'-N1	-9.26	1.33	1.46
1	A	766	A	N9-C4	-9.26	1.32	1.37
1	A	905	U	C3'-C2'	-9.26	1.42	1.52
1	A	714	G	N7-C5	-9.25	1.33	1.39
1	A	108	G	C4'-C3'	-9.25	1.43	1.53
1	A	131	A	C3'-C2'	-9.25	1.42	1.52
1	A	181	A	P-O5'	-9.25	1.50	1.59
1	A	1382	C	C4-C5	-9.25	1.35	1.43
1	A	70	U	C4'-C3'	-9.25	1.43	1.53
1	A	206	C	C4-C5	-9.25	1.35	1.43
1	A	179	A	N7-C5	-9.24	1.33	1.39
1	A	732	C	C2'-C1'	-9.24	1.43	1.53
1	A	1089	G	C3'-C2'	-9.24	1.42	1.52
1	A	20	U	P-O5'	-9.24	1.50	1.59
1	A	699	C	N1-C6	-9.24	1.31	1.37
1	A	988	G	C3'-C2'	-9.24	1.42	1.52
1	A	655	A	C8-N7	-9.23	1.25	1.31
1	A	1170	A	C5-C6	-9.23	1.32	1.41
1	A	115	G	N7-C5	-9.22	1.33	1.39
1	A	1108	G	N9-C4	-9.22	1.30	1.38
1	A	171	A	N7-C5	-9.22	1.33	1.39
1	A	1301	U	P-O5'	-9.22	1.50	1.59
1	A	497	G	N9-C4	9.21	1.45	1.38
1	A	786	G	C2'-C1'	-9.21	1.43	1.53
1	A	851	G	N7-C5	-9.21	1.33	1.39
1	A	391	G	O4'-C1'	-9.21	1.29	1.41
1	A	348	G	C2'-C1'	-9.21	1.43	1.53
1	A	1089	G	C2-N2	-9.21	1.25	1.34
1	A	1263	C	C2'-C1'	-9.21	1.43	1.53
1	A	453	G	C1'-N9	-9.21	1.33	1.46
1	A	577	G	C2'-C1'	-9.21	1.43	1.53
1	A	565	U	P-O5'	-9.20	1.50	1.59
1	A	215	C	C2'-C1'	-9.20	1.43	1.53
1	A	338	A	P-O5'	-9.20	1.50	1.59
1	A	303	A	N3-C4	-9.20	1.29	1.34
1	A	1279	G	C5-C6	-9.20	1.33	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	404	G	C2'-C1'	-9.19	1.43	1.53
1	A	656	G	C2'-C1'	-9.19	1.43	1.53
1	A	196	A	N3-C4	-9.19	1.29	1.34
1	A	1333	A	C2'-C1'	-9.19	1.43	1.53
1	A	1127	G	C8-N7	-9.18	1.25	1.30
1	A	1496	C	P-O5'	-9.18	1.50	1.59
1	A	867	G	N7-C5	-9.18	1.33	1.39
1	A	791	G	N7-C5	-9.18	1.33	1.39
1	A	325	A	N9-C4	-9.17	1.32	1.37
1	A	795	C	P-O5'	-9.17	1.50	1.59
1	A	1157	A	C4'-O4'	-9.17	1.33	1.45
1	A	1090	U	C3'-C2'	-9.17	1.42	1.52
1	A	1402	C	C3'-C2'	-9.17	1.42	1.52
1	A	109	A	N7-C5	-9.17	1.33	1.39
1	A	918	A	N9-C4	-9.16	1.32	1.37
1	A	131	A	P-O5'	-9.16	1.50	1.59
1	A	707	U	P-O5'	-9.15	1.50	1.59
1	A	1239	A	O4'-C1'	-9.15	1.29	1.41
1	A	364	A	N9-C4	-9.15	1.32	1.37
1	A	488	C	P-O5'	-9.15	1.50	1.59
1	A	1279	G	P-O5'	-9.15	1.50	1.59
1	A	451	A	N9-C4	-9.15	1.32	1.37
1	A	883	C	P-O5'	-9.15	1.50	1.59
1	A	994	A	N7-C5	-9.15	1.33	1.39
1	A	1363	A	C3'-C2'	-9.14	1.42	1.52
1	A	1334	G	C6-N1	-9.14	1.33	1.39
1	A	583	A	C8-N7	-9.14	1.25	1.31
1	A	899	C	C2'-C1'	-9.14	1.43	1.53
1	A	1278	G	C2'-C1'	-9.13	1.43	1.53
1	A	890	G	O3'-P	-9.13	1.50	1.61
1	A	1302	C	P-O5'	-9.13	1.50	1.59
1	A	1271	A	P-O5'	-9.13	1.50	1.59
1	A	36	C	C3'-C2'	-9.13	1.42	1.52
1	A	299	G	C8-N7	-9.12	1.25	1.30
1	A	1474	U	P-O5'	-9.13	1.50	1.59
1	A	348	G	O3'-P	-9.12	1.50	1.61
1	A	627	G	C6-N1	-9.12	1.33	1.39
1	A	809	G	N7-C5	-9.12	1.33	1.39
1	A	860	A	C8-N7	-9.12	1.25	1.31
1	A	1332	A	C2'-C1'	-9.12	1.43	1.53
1	A	413	G	N9-C4	-9.12	1.30	1.38
1	A	596	A	N7-C5	-9.12	1.33	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	775	G	P-O5'	-9.12	1.50	1.59
1	A	936	C	C2'-C1'	-9.12	1.43	1.53
1	A	1269	A	N7-C5	-9.11	1.33	1.39
1	A	347	G	P-O5'	-9.11	1.50	1.59
1	A	771	G	C2'-C1'	-9.11	1.43	1.53
1	A	745	G	N7-C5	-9.10	1.33	1.39
1	A	25	C	C2'-C1'	-9.10	1.43	1.53
1	A	688	G	N7-C5	-9.10	1.33	1.39
1	A	824	G	C8-N7	-9.10	1.25	1.30
1	A	914	A	N9-C4	-9.10	1.32	1.37
1	A	96	U	O3'-P	-9.10	1.50	1.61
1	A	1211	U	P-O5'	-9.10	1.50	1.59
1	A	1222	G	C2'-C1'	-9.10	1.43	1.53
1	A	239	U	C3'-C2'	-9.10	1.42	1.52
1	A	411	A	C8-N7	-9.10	1.25	1.31
1	A	627	G	P-O5'	-9.10	1.50	1.59
1	A	199	A	C2'-C1'	-9.09	1.43	1.53
1	A	1216	A	C1'-N9	-9.09	1.34	1.46
1	A	1134	G	P-O5'	-9.09	1.50	1.59
1	A	207	C	C4'-O4'	-9.09	1.33	1.45
1	A	319	G	C1'-N9	-9.09	1.34	1.46
1	A	1369	C	C3'-C2'	-9.09	1.42	1.52
1	A	176	C	P-O5'	-9.09	1.50	1.59
1	A	1009	U	C3'-C2'	-9.09	1.42	1.52
1	A	1058	G	N9-C8	-9.09	1.31	1.37
1	A	1525	G	C3'-C2'	-9.09	1.42	1.52
1	A	320	A	C1'-N9	-9.08	1.34	1.46
1	A	685	G	C2'-C1'	-9.08	1.43	1.53
1	A	279	A	C1'-N9	-9.08	1.34	1.46
1	A	323	U	N3-C4	-9.07	1.30	1.38
1	A	324	G	C3'-C2'	-9.07	1.42	1.52
1	A	813	U	P-O5'	-9.06	1.50	1.59
1	A	1098	C	C3'-C2'	-9.06	1.42	1.52
1	A	595	A	N9-C4	-9.06	1.32	1.37
1	A	1141	C	C4-C5	-9.06	1.35	1.43
1	A	610	U	O3'-P	-9.06	1.50	1.61
1	A	477	C	P-O5'	-9.06	1.50	1.59
1	A	1354	U	C3'-C2'	-9.06	1.42	1.52
1	A	536	C	C2'-C1'	-9.05	1.43	1.53
1	A	1114	C	C3'-C2'	-9.05	1.42	1.52
1	A	1184	G	C2'-C1'	-9.05	1.43	1.53
1	A	252	U	C4'-C3'	-9.05	1.43	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	778	G	N7-C5	-9.05	1.33	1.39
1	A	950	U	P-O5'	-9.05	1.50	1.59
1	A	1504	G	C3'-C2'	-9.05	1.42	1.52
1	A	105	G	C8-N7	-9.04	1.25	1.30
1	A	1178	G	N9-C8	-9.04	1.31	1.37
1	A	600	A	C2'-C1'	-9.04	1.43	1.53
1	A	63	C	P-O5'	-9.04	1.50	1.59
1	A	263	A	C3'-C2'	-9.04	1.42	1.52
1	A	1231	G	N3-C4	-9.04	1.29	1.35
1	A	313	A	P-O5'	-9.04	1.50	1.59
1	A	443	C	P-O5'	-9.04	1.50	1.59
1	A	698	G	P-O5'	-9.03	1.50	1.59
1	A	1355	G	C2-N3	-9.03	1.25	1.32
1	A	284	C	P-O5'	-9.03	1.50	1.59
1	A	940	C	P-O5'	-9.03	1.50	1.59
1	A	1329	A	C3'-C2'	-9.03	1.42	1.52
1	A	1418	A	P-O5'	-9.03	1.50	1.59
1	A	1216	A	N9-C4	-9.03	1.32	1.37
1	A	1176	A	P-O5'	-9.03	1.50	1.59
1	A	1343	G	C4'-C3'	-9.03	1.43	1.53
1	A	144	G	N7-C5	-9.02	1.33	1.39
1	A	543	U	C1'-N1	-9.02	1.34	1.46
1	A	1274	A	N7-C5	-9.02	1.33	1.39
1	A	1270	G	O3'-P	-9.01	1.50	1.61
1	A	29	U	P-O5'	-9.01	1.50	1.59
1	A	16	A	C2'-C1'	-9.01	1.43	1.53
1	A	1165	U	P-O5'	-9.01	1.50	1.59
1	A	45	G	C2'-C1'	-9.01	1.43	1.53
1	A	858	G	C3'-C2'	-9.01	1.42	1.52
1	A	1268	G	P-O5'	-9.01	1.50	1.59
1	A	1068	G	C2'-C1'	-9.01	1.43	1.53
1	A	1074	G	C4'-C3'	-9.01	1.43	1.53
1	A	1428	A	N7-C5	-9.00	1.33	1.39
1	A	1440	U	C4'-O4'	9.00	1.57	1.45
1	A	1127	G	P-O5'	-9.00	1.50	1.59
1	A	1269	A	N9-C8	-9.00	1.30	1.37
1	A	615	G	C3'-C2'	-9.00	1.42	1.52
1	A	617	G	N9-C4	-9.00	1.30	1.38
1	A	1461	G	N9-C8	-9.00	1.31	1.37
1	A	578	C	C2'-C1'	-9.00	1.43	1.53
1	A	1020	G	C6-N1	-9.00	1.33	1.39
1	A	1442	G	C8-N7	-9.00	1.25	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	170	U	P-O5'	-8.99	1.50	1.59
1	A	496	A	C1'-N9	-8.99	1.34	1.46
1	A	688	G	O4'-C1'	-8.99	1.29	1.41
1	A	864	A	N3-C4	-8.99	1.29	1.34
1	A	1067	A	P-O5'	-8.99	1.50	1.59
1	A	1082	A	N7-C5	-8.99	1.33	1.39
1	A	68	G	C8-N7	-8.99	1.25	1.30
1	A	1053	G	N7-C5	-8.99	1.33	1.39
1	A	1318	A	N7-C5	-8.99	1.33	1.39
1	A	221	C	P-O5'	-8.98	1.50	1.59
1	A	457	G	N7-C5	-8.98	1.33	1.39
1	A	635	A	C4'-C3'	-8.98	1.43	1.53
1	A	1144	G	N7-C5	-8.98	1.33	1.39
1	A	340	U	P-O5'	-8.97	1.50	1.59
1	A	1306	A	C5-C6	-8.97	1.32	1.41
1	A	1356	G	N7-C5	-8.97	1.33	1.39
1	A	1463	U	N1-C6	-8.96	1.29	1.38
1	A	1033	G	P-O5'	-8.96	1.50	1.59
1	A	470	C	C4-C5	-8.95	1.35	1.43
1	A	619	U	O3'-P	-8.95	1.50	1.61
1	A	145	G	C1'-N9	-8.95	1.34	1.46
1	A	900	A	N9-C4	-8.95	1.32	1.37
1	A	266	G	C4'-O4'	-8.95	1.33	1.45
1	A	695	A	C2'-C1'	-8.95	1.43	1.53
1	A	1523	G	O3'-P	-8.95	1.50	1.61
1	A	1175	G	N7-C5	-8.94	1.33	1.39
1	A	621	A	N7-C5	-8.94	1.33	1.39
1	A	297	G	N9-C4	-8.94	1.30	1.38
1	A	529	G	C3'-C2'	-8.94	1.43	1.52
1	A	1494	G	N7-C5	-8.94	1.33	1.39
1	A	335	C	C2'-C1'	-8.94	1.43	1.53
1	A	970	C	O3'-P	-8.93	1.50	1.61
1	A	453	G	O4'-C1'	-8.93	1.30	1.41
1	A	937	A	P-O5'	-8.93	1.50	1.59
1	A	220	G	C3'-C2'	-8.92	1.43	1.52
1	A	601	G	N7-C5	-8.92	1.33	1.39
1	A	1513	A	C4'-C3'	-8.92	1.43	1.53
1	A	181	A	O4'-C1'	-8.92	1.30	1.41
1	A	546	A	N9-C4	-8.91	1.32	1.37
1	A	581	G	C8-N7	-8.91	1.25	1.30
1	A	896	C	P-O5'	-8.91	1.50	1.59
1	A	1166	G	N3-C4	-8.91	1.29	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	484	G	C1'-N9	-8.91	1.34	1.46
1	A	609	A	N7-C5	-8.91	1.33	1.39
1	A	1146	A	C6-N6	-8.91	1.26	1.33
1	A	1513	A	C2'-C1'	-8.91	1.43	1.53
1	A	104	G	N7-C5	-8.90	1.33	1.39
1	A	614	C	C1'-N1	-8.90	1.34	1.46
1	A	1162	C	P-O5'	-8.90	1.50	1.59
1	A	337	G	N7-C5	-8.89	1.33	1.39
1	A	915	A	N7-C5	-8.89	1.33	1.39
1	A	1385	G	P-O5'	-8.89	1.50	1.59
1	A	45	G	P-O5'	-8.89	1.50	1.59
1	A	202	G	C4'-C3'	-8.89	1.43	1.53
1	A	726	C	C2'-C1'	-8.89	1.43	1.53
1	A	616	G	C1'-N9	-8.89	1.34	1.46
1	A	1163	A	N7-C5	-8.89	1.33	1.39
1	A	1183	U	C2'-C1'	-8.88	1.43	1.53
1	A	558	G	P-O5'	-8.88	1.50	1.59
1	A	144	G	N9-C4	-8.88	1.30	1.38
1	A	1127	G	C1'-N9	-8.88	1.34	1.46
1	A	751	U	C2'-C1'	-8.87	1.43	1.53
1	A	117	G	C8-N7	-8.87	1.25	1.30
1	A	382	A	C2'-C1'	-8.87	1.43	1.53
1	A	225	C	C2'-C1'	-8.87	1.43	1.53
1	A	627	G	C5-C6	-8.87	1.33	1.42
1	A	168	G	N9-C4	-8.86	1.30	1.38
1	A	483	C	N1-C6	-8.86	1.31	1.37
1	A	654	G	P-O5'	-8.86	1.50	1.59
1	A	1068	G	C5-C6	-8.86	1.33	1.42
1	A	1300	G	O3'-P	-8.86	1.50	1.61
1	A	1468	A	C4'-C3'	-8.86	1.43	1.53
1	A	558	G	N3-C4	-8.86	1.29	1.35
1	A	984	C	C2'-C1'	-8.86	1.43	1.53
1	A	383	A	N7-C5	-8.85	1.33	1.39
1	A	1181	G	O4'-C1'	-8.85	1.30	1.41
1	A	814	A	N9-C4	-8.85	1.32	1.37
1	A	1205	U	P-O5'	-8.85	1.50	1.59
1	A	580	C	C4'-C3'	-8.84	1.43	1.53
1	A	24	U	P-O5'	-8.83	1.50	1.59
1	A	630	A	O3'-P	-8.83	1.50	1.61
1	A	865	A	C8-N7	-8.83	1.25	1.31
1	A	1058	G	C6-N1	-8.83	1.33	1.39
1	A	696	A	C8-N7	-8.83	1.25	1.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	500	G	C2'-C1'	-8.83	1.43	1.53
1	A	438	U	O3'-P	-8.82	1.50	1.61
1	A	190	A	P-O5'	-8.82	1.50	1.59
1	A	543	U	C3'-C2'	-8.82	1.43	1.52
1	A	1063	C	P-O5'	-8.82	1.50	1.59
1	A	1152	A	C4'-C3'	-8.82	1.43	1.53
1	A	130	A	C1'-N9	-8.81	1.34	1.46
1	A	786	G	P-O5'	-8.81	1.50	1.59
1	A	797	C	C3'-C2'	-8.81	1.43	1.52
1	A	862	C	C2'-C1'	-8.81	1.43	1.53
1	A	3	A	N3-C4	-8.81	1.29	1.34
1	A	282	A	N3-C4	-8.81	1.29	1.34
1	A	953	G	P-O5'	-8.81	1.50	1.59
1	A	1143	G	C3'-C2'	-8.81	1.43	1.52
1	A	1256	A	C1'-N9	-8.81	1.34	1.46
1	A	1419	G	N7-C5	-8.81	1.33	1.39
1	A	1270	G	N7-C5	-8.81	1.33	1.39
1	A	253	A	C5'-C4'	-8.80	1.40	1.51
1	A	427	U	P-O5'	-8.80	1.50	1.59
1	A	1504	G	N9-C8	-8.80	1.31	1.37
1	A	1515	G	C2'-C1'	-8.80	1.43	1.53
1	A	77	A	C8-N7	-8.80	1.25	1.31
1	A	604	G	N7-C5	-8.80	1.33	1.39
1	A	1502	A	C2'-C1'	-8.80	1.43	1.53
1	A	500	G	O3'-P	-8.80	1.50	1.61
1	A	691	G	N7-C5	-8.80	1.33	1.39
1	A	69	G	C4'-O4'	-8.80	1.34	1.45
1	A	498	A	N7-C5	-8.80	1.33	1.39
1	A	228	A	C2'-C1'	-8.79	1.43	1.53
1	A	1120	C	C2'-C1'	-8.79	1.43	1.53
1	A	157	U	C3'-C2'	-8.79	1.43	1.52
1	A	90	C	O3'-P	-8.79	1.50	1.61
1	A	1067	A	C1'-N9	-8.79	1.34	1.46
1	A	1157	A	O3'-P	-8.79	1.50	1.61
1	A	235	C	C2'-C1'	-8.79	1.43	1.53
1	A	429	U	N1-C6	-8.79	1.30	1.38
1	A	1502	A	C5'-C4'	-8.78	1.40	1.51
1	A	345	C	N1-C6	-8.78	1.31	1.37
1	A	281	G	O3'-P	-8.78	1.50	1.61
1	A	380	G	N9-C4	-8.78	1.30	1.38
1	A	1035	A	N7-C5	-8.78	1.33	1.39
1	A	613	C	P-O5'	-8.78	1.50	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	647	C	C3'-C2'	-8.78	1.43	1.52
1	A	1528	U	P-O5'	-8.77	1.50	1.59
1	A	1251	A	N7-C5	-8.77	1.33	1.39
1	A	1305	G	N7-C5	-8.77	1.33	1.39
1	A	641	U	C3'-C2'	-8.77	1.43	1.52
1	A	682	G	N7-C5	-8.77	1.33	1.39
1	A	440	C	O3'-P	-8.76	1.50	1.61
1	A	1129	C	N3-C4	-8.76	1.27	1.33
1	A	46	G	C3'-O3'	-8.76	1.29	1.42
1	A	356	A	P-O5'	-8.76	1.50	1.59
1	A	182	A	O3'-P	-8.76	1.50	1.61
1	A	628	G	N9-C8	-8.76	1.31	1.37
1	A	1146	A	N3-C4	-8.76	1.29	1.34
1	A	751	U	C1'-N1	-8.75	1.34	1.46
1	A	703	G	C2'-C1'	-8.75	1.43	1.53
1	A	774	G	N7-C5	-8.75	1.34	1.39
1	A	1053	G	O4'-C1'	-8.75	1.30	1.41
1	A	1358	U	C3'-C2'	-8.75	1.43	1.52
1	A	127	G	C5'-C4'	8.75	1.61	1.51
1	A	595	A	N9-C8	-8.75	1.30	1.37
1	A	1316	G	C3'-C2'	-8.75	1.43	1.52
1	A	30	U	O3'-P	-8.74	1.50	1.61
1	A	429	U	C3'-C2'	-8.74	1.43	1.52
1	A	1129	C	C3'-C2'	-8.74	1.43	1.52
1	A	1409	C	C2'-C1'	-8.74	1.43	1.53
1	A	586	C	P-O5'	-8.74	1.51	1.59
1	A	1473	G	C8-N7	-8.74	1.25	1.30
1	A	1190	G	C5'-C4'	8.73	1.61	1.51
1	A	151	A	N7-C5	-8.73	1.34	1.39
1	A	701	U	C4'-O4'	-8.73	1.34	1.45
1	A	442	G	P-O5'	-8.73	1.51	1.59
1	A	560	A	N9-C4	-8.73	1.32	1.37
1	A	242	G	P-O5'	-8.73	1.51	1.59
1	A	461	A	C2'-C1'	-8.73	1.43	1.53
1	A	61	G	C2-N2	-8.73	1.25	1.34
1	A	55	A	P-O5'	-8.72	1.51	1.59
1	A	706	A	N7-C5	-8.72	1.34	1.39
1	A	90	C	N1-C6	-8.72	1.31	1.37
1	A	193	C	C4-N4	-8.72	1.26	1.33
1	A	566	G	O3'-P	-8.71	1.50	1.61
1	A	1195	C	C4-C5	-8.71	1.35	1.43
1	A	613	C	C3'-C2'	-8.71	1.43	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	372	C	P-O5'	-8.71	1.51	1.59
1	A	1058	G	C5-C6	-8.71	1.33	1.42
1	A	1304	G	N9-C4	-8.71	1.30	1.38
1	A	70	U	C2'-C1'	-8.71	1.43	1.53
1	A	380	G	O3'-P	-8.71	1.50	1.61
1	A	472	U	C3'-C2'	-8.70	1.43	1.52
1	A	1262	C	C2'-C1'	-8.70	1.43	1.53
1	A	1373	G	C2'-C1'	-8.70	1.43	1.53
1	A	498	A	N1-C2	-8.70	1.26	1.34
1	A	1020	G	N7-C5	-8.70	1.34	1.39
1	A	1191	A	N9-C4	-8.70	1.32	1.37
1	A	1266	G	N9-C4	-8.70	1.30	1.38
1	A	130	A	N7-C5	-8.70	1.34	1.39
1	A	879	C	P-O5'	-8.70	1.51	1.59
1	A	1013	G	N7-C5	-8.69	1.34	1.39
1	A	1144	G	C2'-C1'	-8.69	1.43	1.53
1	A	204	G	N9-C4	-8.69	1.30	1.38
1	A	425	G	C2'-C1'	-8.69	1.43	1.53
1	A	303	A	N9-C4	-8.69	1.32	1.37
1	A	814	A	C8-N7	-8.69	1.25	1.31
1	A	918	A	O3'-P	-8.69	1.50	1.61
1	A	1343	G	P-O5'	-8.69	1.51	1.59
1	A	688	G	P-O5'	-8.69	1.51	1.59
1	A	129	A	C2'-C1'	-8.69	1.43	1.53
1	A	1303	C	O3'-P	-8.68	1.50	1.61
1	A	489	C	P-O5'	-8.68	1.51	1.59
1	A	533	A	N7-C5	-8.68	1.34	1.39
1	A	476	U	P-O5'	-8.68	1.51	1.59
1	A	559	A	P-O5'	-8.68	1.51	1.59
1	A	894	G	N9-C8	-8.68	1.31	1.37
1	A	380	G	C3'-C2'	-8.68	1.43	1.52
1	A	549	C	C2'-C1'	-8.68	1.43	1.53
1	A	1444	U	P-O5'	-8.68	1.51	1.59
1	A	122	G	N1-C2	8.67	1.44	1.37
1	A	648	A	N9-C4	-8.67	1.32	1.37
1	A	1464	U	C3'-C2'	-8.67	1.43	1.52
1	A	193	C	C3'-C2'	-8.67	1.43	1.52
1	A	127	G	C4'-C3'	8.66	1.62	1.53
1	A	253	A	C2'-C1'	-8.66	1.43	1.53
1	A	1088	G	N9-C8	-8.66	1.31	1.37
1	A	1093	A	N9-C4	-8.66	1.32	1.37
1	A	589	U	P-O5'	-8.66	1.51	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1040	U	O3'-P	-8.66	1.50	1.61
1	A	1321	U	C2'-C1'	-8.66	1.43	1.53
1	A	128	G	C2'-C1'	-8.65	1.43	1.53
1	A	205	A	N9-C4	-8.65	1.32	1.37
1	A	1405	G	P-O5'	-8.65	1.51	1.59
1	A	551	U	C2'-C1'	-8.65	1.43	1.53
1	A	1073	U	C2'-C1'	-8.65	1.43	1.53
1	A	37	U	C4'-C3'	-8.64	1.43	1.53
1	A	846	G	C1'-N9	-8.64	1.34	1.46
1	A	1309	G	C3'-C2'	-8.64	1.43	1.52
1	A	1143	G	C2'-C1'	-8.64	1.43	1.53
1	A	1237	C	C4'-O4'	-8.64	1.34	1.45
1	A	296	U	P-O5'	-8.63	1.51	1.59
1	A	314	C	C3'-C2'	-8.63	1.43	1.52
1	A	423	G	P-O5'	-8.63	1.51	1.59
1	A	1198	G	P-O5'	-8.63	1.51	1.59
1	A	1263	C	N1-C6	-8.63	1.31	1.37
1	A	1331	G	C2'-C1'	-8.63	1.43	1.53
1	A	237	G	C2'-C1'	-8.63	1.43	1.53
1	A	378	G	C2'-C1'	-8.63	1.43	1.53
1	A	1022	A	C3'-C2'	-8.63	1.43	1.52
1	A	1407	C	P-O5'	-8.63	1.51	1.59
1	A	615	G	C2'-C1'	-8.62	1.43	1.53
1	A	1504	G	C5-C4	-8.62	1.32	1.38
1	A	275	G	C2'-C1'	-8.62	1.43	1.53
1	A	354	G	C4'-C3'	-8.62	1.43	1.53
1	A	1128	C	C3'-C2'	-8.62	1.43	1.52
1	A	869	G	N9-C8	-8.62	1.31	1.37
1	A	1068	G	N9-C4	-8.62	1.31	1.38
1	A	1032	G	N7-C5	-8.62	1.34	1.39
1	A	1312	G	C2-N2	-8.62	1.25	1.34
1	A	380	G	C2-N3	-8.61	1.25	1.32
1	A	432	A	N7-C5	-8.61	1.34	1.39
1	A	506	G	N7-C5	-8.61	1.34	1.39
1	A	783	C	P-O5'	-8.61	1.51	1.59
1	A	1084	G	N9-C4	-8.61	1.31	1.38
1	A	1329	A	N7-C5	-8.61	1.34	1.39
1	A	1066	C	P-O5'	-8.61	1.51	1.59
1	A	304	U	C2'-C1'	-8.61	1.43	1.53
1	A	362	G	N7-C5	-8.61	1.34	1.39
1	A	1523	G	N9-C4	-8.61	1.31	1.38
1	A	255	G	N7-C5	-8.60	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	729	A	N3-C4	-8.60	1.29	1.34
1	A	1169	A	C2'-C1'	-8.60	1.43	1.53
1	A	1188	A	N7-C5	-8.60	1.34	1.39
1	A	601	G	C1'-N9	-8.60	1.34	1.46
1	A	1324	A	C2'-C1'	-8.60	1.43	1.53
1	A	1170	A	C3'-C2'	-8.60	1.43	1.52
1	A	430	A	C2'-C1'	-8.59	1.43	1.53
1	A	1090	U	P-O5'	-8.59	1.51	1.59
1	A	433	G	N9-C8	-8.59	1.31	1.37
1	A	956	U	P-O5'	-8.59	1.51	1.59
1	A	1484	C	C4'-C3'	-8.59	1.43	1.53
1	A	351	G	N7-C5	-8.58	1.34	1.39
1	A	1345	U	C2-N3	-8.58	1.31	1.37
1	A	1396	A	C2'-C1'	-8.58	1.44	1.53
1	A	1208	C	P-O5'	-8.58	1.51	1.59
1	A	988	G	C2'-C1'	-8.57	1.44	1.53
1	A	1238	A	N7-C5	-8.57	1.34	1.39
1	A	422	C	O3'-P	-8.57	1.50	1.61
1	A	1312	G	N7-C5	-8.57	1.34	1.39
1	A	113	G	C2'-C1'	-8.56	1.44	1.53
1	A	1238	A	O3'-P	-8.56	1.50	1.61
1	A	1335	U	C4'-C3'	-8.56	1.43	1.53
1	A	289	G	N9-C4	-8.56	1.31	1.38
1	A	377	G	P-O5'	-8.56	1.51	1.59
1	A	1032	G	C3'-C2'	-8.56	1.43	1.52
1	A	1316	G	O3'-P	-8.56	1.50	1.61
1	A	78	A	C8-N7	-8.56	1.25	1.31
1	A	693	G	N7-C5	-8.56	1.34	1.39
1	A	161	A	N3-C4	-8.55	1.29	1.34
1	A	1279	G	C4'-C3'	-8.55	1.43	1.53
1	A	171	A	C8-N7	-8.55	1.25	1.31
1	A	617	G	C1'-N9	-8.55	1.34	1.46
1	A	1306	A	P-O5'	-8.54	1.51	1.59
1	A	509	A	C3'-C2'	-8.54	1.43	1.52
1	A	993	G	O3'-P	-8.54	1.50	1.61
1	A	1215	G	P-O5'	-8.54	1.51	1.59
1	A	1295	U	C3'-C2'	-8.54	1.43	1.52
1	A	134	G	N9-C4	-8.54	1.31	1.38
1	A	35	G	C2'-C1'	-8.53	1.44	1.53
1	A	708	C	C2'-C1'	-8.53	1.44	1.53
1	A	1279	G	C8-N7	-8.53	1.25	1.30
1	A	1316	G	N9-C4	-8.53	1.31	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1481	U	P-O5'	-8.53	1.51	1.59
1	A	1305	G	N9-C4	-8.52	1.31	1.38
1	A	172	A	O3'-P	-8.52	1.50	1.61
1	A	602	A	C1'-N9	-8.52	1.34	1.46
1	A	176	C	C2'-C1'	-8.52	1.44	1.53
1	A	1015	G	N7-C5	-8.52	1.34	1.39
1	A	167	A	P-O5'	-8.51	1.51	1.59
1	A	1358	U	C2'-C1'	-8.51	1.44	1.53
1	A	850	U	P-O5'	-8.51	1.51	1.59
4	D	31	CYS	CB-SG	-8.51	1.67	1.82
1	A	1016	A	C2'-C1'	-8.51	1.44	1.53
1	A	1000	A	P-O5'	-8.51	1.51	1.59
1	A	1375	A	N3-C4	-8.51	1.29	1.34
1	A	757	U	P-O5'	-8.50	1.51	1.59
1	A	465	A	O3'-P	-8.50	1.50	1.61
1	A	947	G	N7-C5	-8.50	1.34	1.39
1	A	629	A	C2'-C1'	-8.50	1.44	1.53
1	A	145	G	C8-N7	-8.50	1.25	1.30
1	A	755	G	C2'-C1'	-8.50	1.44	1.53
1	A	5	U	C5'-C4'	8.50	1.61	1.51
1	A	197	A	C5'-C4'	8.49	1.61	1.51
1	A	560	A	C2'-C1'	-8.49	1.44	1.53
1	A	820	U	P-O5'	-8.49	1.51	1.59
1	A	279	A	O3'-P	-8.49	1.50	1.61
1	A	1014	A	C2'-C1'	-8.49	1.44	1.53
1	A	352	C	N1-C6	8.49	1.42	1.37
1	A	560	A	C1'-N9	-8.49	1.34	1.46
1	A	1178	G	N7-C5	-8.49	1.34	1.39
1	A	581	G	C2'-C1'	-8.49	1.44	1.53
1	A	305	G	C2'-C1'	-8.49	1.44	1.53
1	A	1043	G	P-O5'	-8.48	1.51	1.59
1	A	227	G	C2'-C1'	-8.48	1.44	1.53
1	A	193	C	C2'-C1'	-8.48	1.44	1.53
1	A	201	G	O3'-P	-8.48	1.50	1.61
1	A	213	G	C8-N7	-8.48	1.25	1.30
1	A	536	C	O3'-P	-8.48	1.50	1.61
1	A	591	U	C4-C5	-8.48	1.35	1.43
1	A	572	A	N7-C5	-8.47	1.34	1.39
1	A	1319	A	C2'-C1'	-8.47	1.44	1.53
1	A	792	A	C2'-C1'	-8.47	1.44	1.53
1	A	98	A	C8-N7	-8.47	1.25	1.31
1	A	940	C	C2'-C1'	-8.47	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	976	G	N7-C5	-8.47	1.34	1.39
1	A	1270	G	C2'-C1'	-8.47	1.44	1.53
1	A	114	U	P-O5'	-8.46	1.51	1.59
1	A	815	A	P-O5'	-8.46	1.51	1.59
1	A	994	A	N9-C4	-8.46	1.32	1.37
1	A	766	A	C2'-C1'	-8.46	1.44	1.53
1	A	1161	C	C2'-C1'	-8.45	1.44	1.53
1	A	1058	G	C8-N7	-8.45	1.25	1.30
1	A	1157	A	N7-C5	-8.45	1.34	1.39
1	A	559	A	N7-C5	-8.45	1.34	1.39
1	A	22	G	C2'-C1'	-8.45	1.44	1.53
1	A	428	G	O4'-C1'	-8.45	1.30	1.41
1	A	354	G	P-O5'	-8.45	1.51	1.59
1	A	602	A	C8-N7	-8.45	1.25	1.31
1	A	814	A	C2'-C1'	-8.45	1.44	1.53
1	A	909	A	C8-N7	-8.44	1.25	1.31
1	A	424	G	P-O5'	-8.44	1.51	1.59
1	A	703	G	P-O5'	-8.44	1.51	1.59
1	A	398	U	C3'-C2'	-8.44	1.43	1.52
1	A	503	C	C2-N3	-8.44	1.28	1.35
1	A	82	G	N1-C2	8.44	1.44	1.37
1	A	120	A	O4'-C1'	-8.43	1.30	1.41
1	A	160	A	C3'-C2'	-8.43	1.43	1.52
1	A	927	G	C2'-C1'	-8.43	1.44	1.53
1	A	172	A	N9-C4	-8.43	1.32	1.37
1	A	992	U	C2'-C1'	-8.43	1.44	1.53
1	A	370	C	C2'-C1'	-8.43	1.44	1.53
1	A	480	U	O3'-P	-8.43	1.51	1.61
1	A	483	C	C4'-C3'	-8.43	1.43	1.53
1	A	129	A	O3'-P	-8.42	1.51	1.61
1	A	1371	G	N9-C8	-8.42	1.31	1.37
1	A	760	G	P-O5'	-8.42	1.51	1.59
1	A	6	G	N7-C5	-8.42	1.34	1.39
1	A	617	G	N9-C8	-8.42	1.31	1.37
1	A	1007	U	C3'-C2'	-8.42	1.43	1.52
1	A	419	C	C4'-C3'	-8.42	1.43	1.53
1	A	1033	G	C4'-C3'	-8.42	1.43	1.53
1	A	1386	G	C2'-C1'	-8.42	1.44	1.53
1	A	1468	A	C8-N7	-8.42	1.25	1.31
1	A	139	A	C2'-C1'	-8.41	1.44	1.53
1	A	847	G	C2'-C1'	-8.41	1.44	1.53
1	A	733	G	C1'-N9	-8.41	1.35	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	265	G	N9-C4	-8.40	1.31	1.38
1	A	225	C	C3'-C2'	-8.40	1.43	1.52
1	A	401	C	C2'-C1'	-8.40	1.44	1.53
1	A	654	G	C2'-C1'	-8.40	1.44	1.53
1	A	755	G	N7-C5	-8.40	1.34	1.39
1	A	859	G	N9-C4	-8.40	1.31	1.38
1	A	1355	G	N3-C4	-8.40	1.29	1.35
1	A	1164	G	P-O5'	-8.40	1.51	1.59
1	A	797	C	P-O5'	-8.39	1.51	1.59
1	A	1325	C	C3'-C2'	-8.39	1.43	1.52
1	A	655	A	N3-C4	-8.39	1.29	1.34
1	A	128	G	N7-C5	-8.38	1.34	1.39
1	A	859	G	P-O5'	-8.38	1.51	1.59
1	A	220	G	N7-C5	-8.38	1.34	1.39
1	A	283	U	C4-C5	-8.38	1.36	1.43
1	A	1408	A	N3-C4	-8.38	1.29	1.34
1	A	547	A	C4'-O4'	-8.38	1.34	1.45
1	A	996	A	N7-C5	-8.38	1.34	1.39
1	A	1141	C	N1-C6	-8.38	1.32	1.37
1	A	1303	C	C4'-O4'	-8.37	1.34	1.45
1	A	1323	G	N7-C5	-8.38	1.34	1.39
1	A	203	G	C8-N7	-8.37	1.25	1.30
1	A	288	A	C5-C4	-8.37	1.32	1.38
1	A	696	A	P-O5'	-8.37	1.51	1.59
1	A	1376	U	C2'-C1'	-8.37	1.44	1.53
1	A	1352	C	C2'-C1'	-8.37	1.44	1.53
1	A	143	A	C3'-C2'	-8.37	1.43	1.52
1	A	1234	C	C2'-C1'	-8.37	1.44	1.53
1	A	480	U	C1'-N1	-8.37	1.35	1.46
1	A	1303	C	C2-N3	-8.36	1.29	1.35
1	A	1460	C	P-O5'	-8.36	1.51	1.59
1	A	361	G	N7-C5	-8.36	1.34	1.39
1	A	426	U	O3'-P	-8.36	1.51	1.61
1	A	1309	G	C4'-C3'	-8.36	1.44	1.53
1	A	1484	C	P-O5'	-8.36	1.51	1.59
1	A	529	G	P-O5'	-8.36	1.51	1.59
1	A	550	G	C2'-C1'	-8.36	1.44	1.53
1	A	690	G	C2'-C1'	-8.35	1.44	1.53
1	A	787	A	N9-C8	-8.35	1.31	1.37
1	A	1370	G	O4'-C1'	-8.35	1.30	1.41
1	A	279	A	P-O5'	-8.35	1.51	1.59
1	A	752	G	N1-C2	8.35	1.44	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	738	C	C2'-C1'	-8.35	1.44	1.53
1	A	1292	G	C2'-C1'	-8.34	1.44	1.53
1	A	1312	G	O3'-P	-8.34	1.51	1.61
1	A	1080	A	C4'-O4'	-8.34	1.34	1.45
1	A	1278	G	P-O5'	-8.34	1.51	1.59
1	A	253	A	C3'-C2'	-8.34	1.43	1.52
1	A	289	G	O3'-P	-8.34	1.51	1.61
1	A	780	A	C5'-C4'	8.34	1.61	1.51
1	A	848	C	C3'-C2'	-8.34	1.43	1.52
1	A	846	G	C2'-C1'	-8.34	1.44	1.53
1	A	1184	G	N7-C5	-8.34	1.34	1.39
1	A	758	C	C2'-C1'	-8.33	1.44	1.53
1	A	773	G	N7-C5	-8.33	1.34	1.39
1	A	1159	U	C2'-C1'	-8.33	1.44	1.53
1	A	1199	U	N1-C6	-8.33	1.30	1.38
1	A	303	A	C3'-C2'	-8.32	1.43	1.52
1	A	625	U	C2'-C1'	-8.32	1.44	1.53
1	A	612	C	P-O5'	-8.32	1.51	1.59
1	A	235	C	O3'-P	-8.31	1.51	1.61
1	A	238	A	C3'-C2'	-8.31	1.43	1.52
1	A	413	G	C1'-N9	-8.31	1.35	1.46
1	A	1230	C	C2'-C1'	-8.31	1.44	1.53
1	A	509	A	P-O5'	-8.31	1.51	1.59
1	A	38	G	C4'-C3'	-8.31	1.44	1.53
1	A	428	G	O3'-P	-8.31	1.51	1.61
1	A	1057	G	O3'-P	-8.31	1.51	1.61
1	A	733	G	N7-C5	-8.31	1.34	1.39
1	A	985	C	O3'-P	-8.30	1.51	1.61
1	A	1117	A	C4'-C3'	-8.30	1.44	1.53
1	A	450	G	O3'-P	-8.30	1.51	1.61
1	A	495	A	C1'-N9	-8.30	1.35	1.46
1	A	1082	A	P-O5'	-8.29	1.51	1.59
1	A	204	G	C4'-C3'	-8.29	1.44	1.53
1	A	1116	U	P-O5'	-8.29	1.51	1.59
1	A	117	G	C2'-C1'	-8.29	1.44	1.53
1	A	496	A	N9-C4	-8.29	1.32	1.37
1	A	641	U	C2'-C1'	-8.29	1.44	1.53
1	A	252	U	C5'-C4'	-8.29	1.41	1.51
1	A	297	G	C4'-C3'	-8.29	1.44	1.53
1	A	936	C	C4'-C3'	-8.29	1.44	1.53
1	A	1140	C	C4'-O4'	8.29	1.56	1.45
1	A	769	G	C2'-C1'	-8.28	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1481	U	N3-C4	-8.29	1.30	1.38
1	A	28	A	C8-N7	-8.28	1.25	1.31
1	A	547	A	N7-C5	-8.28	1.34	1.39
1	A	1054	C	O3'-P	-8.28	1.51	1.61
1	A	1334	G	C3'-C2'	-8.28	1.43	1.52
1	A	1483	A	P-O5'	-8.28	1.51	1.59
1	A	23	C	C2'-C1'	-8.28	1.44	1.53
1	A	715	A	C2'-C1'	-8.28	1.44	1.53
1	A	1179	A	P-O5'	-8.28	1.51	1.59
1	A	1346	A	O3'-P	-8.28	1.51	1.61
1	A	207	C	O4'-C1'	-8.27	1.30	1.41
1	A	1527	U	C3'-C2'	-8.27	1.43	1.52
1	A	299	G	N9-C4	-8.27	1.31	1.38
1	A	938	A	C3'-C2'	-8.27	1.43	1.52
1	A	98	A	N3-C4	-8.26	1.29	1.34
1	A	405	U	C4'-C3'	-8.26	1.44	1.53
1	A	787	A	N7-C5	-8.26	1.34	1.39
1	A	847	G	N7-C5	-8.26	1.34	1.39
1	A	780	A	C5-C6	-8.26	1.33	1.41
1	A	33	A	O3'-P	-8.26	1.51	1.61
1	A	194	C	N1-C6	-8.26	1.32	1.37
1	A	926	G	O3'-P	-8.26	1.51	1.61
1	A	1036	A	C8-N7	-8.26	1.25	1.31
1	A	703	G	C2'-O2'	-8.26	1.30	1.41
1	A	955	U	P-O5'	-8.26	1.51	1.59
1	A	1271	A	N9-C4	8.26	1.42	1.37
1	A	652	U	P-O5'	-8.25	1.51	1.59
1	A	109	A	N9-C4	-8.25	1.32	1.37
1	A	622	A	C1'-N9	-8.25	1.35	1.46
1	A	1181	G	C4'-O4'	-8.25	1.34	1.45
1	A	1533	C	P-O5'	-8.25	1.51	1.59
1	A	812	G	C4'-C3'	-8.25	1.44	1.53
1	A	1305	G	C2'-C1'	-8.25	1.44	1.53
1	A	1442	G	O3'-P	-8.25	1.51	1.61
1	A	152	A	O3'-P	-8.24	1.51	1.61
1	A	1147	C	P-O5'	-8.24	1.51	1.59
1	A	1343	G	N7-C5	-8.24	1.34	1.39
1	A	1367	C	C3'-C2'	-8.24	1.43	1.52
1	A	319	G	O3'-P	-8.24	1.51	1.61
1	A	664	G	N3-C4	-8.23	1.29	1.35
1	A	917	G	N7-C5	-8.23	1.34	1.39
1	A	67	C	P-O5'	-8.23	1.51	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	396	C	C3'-C2'	-8.23	1.43	1.52
1	A	960	U	C4'-C3'	-8.23	1.44	1.53
1	A	1402	C	C2'-C1'	-8.23	1.44	1.53
1	A	373	A	P-O5'	-8.22	1.51	1.59
1	A	1410	A	C2'-C1'	-8.22	1.44	1.53
1	A	401	C	P-O5'	-8.22	1.51	1.59
1	A	1377	A	P-O5'	-8.22	1.51	1.59
1	A	38	G	C1'-N9	-8.21	1.35	1.46
1	A	45	G	C1'-N9	-8.21	1.35	1.46
1	A	161	A	N7-C5	-8.22	1.34	1.39
1	A	705	G	N9-C4	-8.22	1.31	1.38
1	A	1223	C	O4'-C1'	-8.21	1.30	1.41
1	A	1088	G	P-O5'	-8.21	1.51	1.59
1	A	358	U	P-O5'	-8.21	1.51	1.59
1	A	721	G	N7-C5	-8.21	1.34	1.39
1	A	1171	A	C3'-C2'	-8.21	1.43	1.52
1	A	448	A	N7-C5	-8.21	1.34	1.39
1	A	729	A	N7-C5	-8.21	1.34	1.39
1	A	224	U	C3'-C2'	-8.20	1.43	1.52
1	A	981	U	C2'-C1'	-8.20	1.44	1.53
1	A	224	U	P-O5'	-8.20	1.51	1.59
1	A	732	C	C3'-C2'	-8.20	1.43	1.52
1	A	1305	G	O4'-C1'	-8.19	1.30	1.41
1	A	1504	G	C8-N7	-8.19	1.26	1.30
1	A	1486	G	N7-C5	-8.19	1.34	1.39
1	A	33	A	C2'-C1'	-8.19	1.44	1.53
1	A	1269	A	O3'-P	-8.19	1.51	1.61
1	A	309	A	N7-C5	-8.19	1.34	1.39
1	A	337	G	C4'-C3'	-8.19	1.44	1.53
1	A	340	U	C3'-C2'	-8.19	1.43	1.52
1	A	982	U	P-O5'	-8.19	1.51	1.59
1	A	1088	G	C2'-C1'	-8.19	1.44	1.53
1	A	119	A	P-O5'	-8.18	1.51	1.59
1	A	318	G	C3'-C2'	-8.18	1.43	1.52
1	A	600	A	N7-C5	-8.18	1.34	1.39
1	A	1005	A	C8-N7	-8.18	1.25	1.31
1	A	1177	G	N9-C8	-8.18	1.32	1.37
1	A	589	U	C3'-C2'	-8.17	1.43	1.52
1	A	883	C	C3'-C2'	-8.17	1.43	1.52
1	A	885	G	C2'-C1'	-8.17	1.44	1.53
1	A	1250	A	N3-C4	-8.17	1.29	1.34
1	A	272	C	P-O5'	-8.17	1.51	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	147	G	N7-C5	-8.17	1.34	1.39
1	A	245	U	C3'-O3'	-8.17	1.30	1.42
1	A	430	A	P-O5'	-8.17	1.51	1.59
1	A	958	A	C3'-C2'	-8.16	1.43	1.52
1	A	36	C	C2'-C1'	-8.16	1.44	1.53
1	A	525	C	P-O5'	-8.16	1.51	1.59
1	A	667	G	C2'-C1'	-8.16	1.44	1.53
1	A	751	U	C4'-C3'	-8.16	1.44	1.53
1	A	1010	U	C2'-C1'	-8.16	1.44	1.53
1	A	1314	C	C2'-C1'	-8.16	1.44	1.53
1	A	928	G	N7-C5	-8.16	1.34	1.39
1	A	1256	A	C4'-C3'	-8.16	1.44	1.53
1	A	215	C	P-O5'	-8.15	1.51	1.59
1	A	351	G	C5-C6	-8.15	1.34	1.42
1	A	470	C	P-O5'	-8.15	1.51	1.59
1	A	1468	A	P-O5'	-8.15	1.51	1.59
1	A	447	G	C3'-C2'	-8.15	1.43	1.52
1	A	874	G	C2'-C1'	-8.15	1.44	1.53
1	A	194	C	C2'-C1'	-8.15	1.44	1.53
1	A	951	G	N7-C5	-8.15	1.34	1.39
1	A	410	G	C5-C6	-8.14	1.34	1.42
1	A	903	G	O3'-P	-8.14	1.51	1.61
1	A	516	U	C2'-C1'	-8.14	1.44	1.53
1	A	810	C	P-O5'	-8.14	1.51	1.59
1	A	544	G	P-O5'	-8.14	1.51	1.59
1	A	1375	A	C2'-C1'	-8.14	1.44	1.53
1	A	1246	A	P-O5'	-8.13	1.51	1.59
1	A	19	A	C2'-C1'	-8.13	1.44	1.53
1	A	278	G	C2'-C1'	-8.13	1.44	1.53
1	A	435	A	N7-C5	-8.13	1.34	1.39
1	A	858	G	P-O5'	-8.13	1.51	1.59
1	A	187	G	N7-C5	-8.12	1.34	1.39
1	A	520	A	P-O5'	-8.12	1.51	1.59
1	A	236	A	C2'-C1'	-8.12	1.44	1.53
1	A	245	U	C2-N3	-8.12	1.32	1.37
1	A	996	A	C3'-C2'	-8.12	1.43	1.52
1	A	1121	U	P-O5'	-8.12	1.51	1.59
1	A	613	C	C1'-N1	-8.12	1.35	1.46
1	A	664	G	C3'-C2'	-8.12	1.43	1.52
1	A	201	G	C3'-C2'	-8.12	1.43	1.52
1	A	246	A	C1'-N9	-8.12	1.35	1.46
1	A	402	G	N7-C5	-8.11	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	469	C	C4'-O4'	-8.12	1.35	1.45
1	A	1108	G	C2'-C1'	-8.11	1.44	1.53
1	A	130	A	C5-C6	-8.11	1.33	1.41
1	A	153	C	C2'-C1'	-8.11	1.44	1.53
1	A	502	A	C8-N7	-8.11	1.25	1.31
1	A	502	A	P-O5'	-8.11	1.51	1.59
1	A	1144	G	C3'-C2'	-8.11	1.43	1.52
1	A	56	U	P-O5'	-8.11	1.51	1.59
1	A	1145	A	O4'-C1'	-8.11	1.31	1.41
1	A	152	A	C2'-C1'	-8.11	1.44	1.53
1	A	343	U	N1-C6	-8.11	1.30	1.38
1	A	266	G	N9-C4	8.10	1.44	1.38
1	A	740	U	C4'-C3'	-8.10	1.44	1.53
1	A	942	G	N9-C4	-8.10	1.31	1.38
1	A	1131	G	N3-C4	-8.10	1.29	1.35
1	A	1213	A	N7-C5	-8.09	1.34	1.39
1	A	852	G	N9-C4	-8.09	1.31	1.38
1	A	361	G	C4'-O4'	-8.09	1.35	1.45
1	A	521	G	N7-C5	-8.09	1.34	1.39
1	A	46	G	P-O5'	-8.08	1.51	1.59
1	A	1518	A	O3'-P	-8.08	1.51	1.61
1	A	775	G	N9-C4	-8.08	1.31	1.38
1	A	894	G	C2'-C1'	-8.08	1.44	1.53
1	A	1335	U	P-O5'	-8.08	1.51	1.59
1	A	1515	G	N9-C4	-8.08	1.31	1.38
1	A	1533	C	O3'-P	-8.08	1.51	1.61
1	A	304	U	P-O5'	-8.08	1.51	1.59
1	A	384	G	N7-C5	-8.08	1.34	1.39
1	A	301	G	O4'-C1'	-8.07	1.31	1.41
1	A	896	C	C2'-C1'	-8.07	1.44	1.53
1	A	968	A	O3'-P	-8.07	1.51	1.61
1	A	1459	G	N7-C5	-8.07	1.34	1.39
1	A	11	G	N7-C5	-8.07	1.34	1.39
1	A	160	A	C2'-C1'	-8.07	1.44	1.53
1	A	1280	A	P-O5'	-8.07	1.51	1.59
1	A	203	G	C1'-N9	-8.07	1.35	1.46
1	A	452	A	N9-C4	-8.06	1.33	1.37
1	A	924	C	C2'-C1'	-8.06	1.44	1.53
1	A	1256	A	N9-C8	-8.06	1.31	1.37
1	A	201	G	N9-C8	-8.06	1.32	1.37
1	A	583	A	P-O5'	-8.06	1.51	1.59
1	A	207	C	C4'-C3'	-8.06	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	465	A	C5-C6	-8.06	1.33	1.41
1	A	903	G	C3'-C2'	-8.05	1.43	1.52
1	A	1241	G	C8-N7	-8.05	1.26	1.30
1	A	1392	G	O4'-C1'	-8.05	1.31	1.41
1	A	1218	C	C2'-C1'	-8.05	1.44	1.53
1	A	478	A	N3-C4	-8.05	1.30	1.34
1	A	903	G	C8-N7	-8.05	1.26	1.30
1	A	454	G	N3-C4	-8.04	1.29	1.35
1	A	1391	U	C2'-C1'	-8.04	1.44	1.53
1	A	361	G	O3'-P	-8.04	1.51	1.61
1	A	1345	U	P-O5'	-8.04	1.51	1.59
1	A	1423	G	C2'-C1'	-8.04	1.44	1.53
1	A	617	G	C2'-C1'	-8.04	1.44	1.53
1	A	564	C	C2'-C1'	-8.04	1.44	1.53
1	A	1175	G	C5-C6	-8.04	1.34	1.42
1	A	46	G	C4'-C3'	-8.03	1.44	1.53
1	A	362	G	N3-C4	-8.03	1.29	1.35
1	A	942	G	C8-N7	-8.03	1.26	1.30
1	A	453	G	C2'-C1'	-8.03	1.44	1.53
1	A	833	G	C2'-C1'	-8.03	1.44	1.53
1	A	93	U	C2'-C1'	-8.03	1.44	1.53
1	A	95	C	C2'-C1'	-8.03	1.44	1.53
1	A	442	G	N7-C5	-8.02	1.34	1.39
1	A	616	G	C3'-C2'	-8.02	1.44	1.52
1	A	912	C	P-O5'	-8.02	1.51	1.59
1	A	1407	C	C4-C5	-8.02	1.36	1.43
1	A	318	G	P-O5'	-8.02	1.51	1.59
1	A	325	A	N7-C5	-8.02	1.34	1.39
1	A	902	G	O4'-C1'	-8.01	1.31	1.41
1	A	943	U	P-O5'	-8.01	1.51	1.59
1	A	1166	G	O3'-P	-8.01	1.51	1.61
1	A	779	C	C2'-C1'	-8.01	1.44	1.53
1	A	319	G	C2'-C1'	-8.00	1.44	1.53
1	A	98	A	N9-C8	-8.00	1.31	1.37
1	A	752	G	O3'-P	-8.00	1.51	1.61
1	A	671	G	N7-C5	-8.00	1.34	1.39
1	A	686	U	O3'-P	-8.00	1.51	1.61
1	A	946	A	N9-C8	-8.00	1.31	1.37
1	A	1098	C	C2'-C1'	-8.00	1.44	1.53
1	A	650	G	N7-C5	-8.00	1.34	1.39
1	A	668	G	P-O5'	-8.00	1.51	1.59
1	A	1180	A	N3-C4	-8.00	1.30	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1186	G	O4'-C1'	-8.00	1.31	1.41
1	A	160	A	O3'-P	-8.00	1.51	1.61
1	A	109	A	N3-C4	-7.99	1.30	1.34
1	A	301	G	N7-C5	-7.99	1.34	1.39
1	A	536	C	P-O5'	-7.99	1.51	1.59
1	A	959	A	N9-C4	-7.99	1.33	1.37
1	A	181	A	C5-C4	-7.99	1.33	1.38
1	A	1215	G	C1'-N9	-7.99	1.35	1.46
1	A	276	G	O5'-C5'	-7.99	1.30	1.42
1	A	300	A	P-O5'	-7.99	1.51	1.59
1	A	15	G	N7-C5	-7.99	1.34	1.39
1	A	118	U	C3'-C2'	-7.99	1.44	1.52
1	A	546	A	N7-C5	-7.99	1.34	1.39
1	A	1239	A	O3'-P	-7.99	1.51	1.61
1	A	131	A	C6-N1	7.99	1.41	1.35
1	A	94	G	C1'-N9	-7.98	1.35	1.46
1	A	662	U	P-O5'	-7.98	1.51	1.59
1	A	946	A	N7-C5	-7.98	1.34	1.39
1	A	1364	U	C5'-C4'	7.98	1.60	1.51
1	A	1510	C	C2'-C1'	-7.98	1.44	1.53
1	A	1062	U	N1-C2	-7.98	1.31	1.38
1	A	1206	G	C2'-C1'	-7.98	1.44	1.53
1	A	462	G	O3'-P	-7.98	1.51	1.61
1	A	585	G	N7-C5	-7.98	1.34	1.39
1	A	546	A	C2'-C1'	-7.98	1.44	1.53
1	A	840	C	C4-C5	-7.98	1.36	1.43
1	A	1303	C	C4-C5	-7.98	1.36	1.43
1	A	558	G	C8-N7	-7.97	1.26	1.30
1	A	751	U	N3-C4	-7.97	1.31	1.38
1	A	162	A	C1'-N9	-7.97	1.35	1.46
1	A	655	A	C5-C6	-7.97	1.33	1.41
1	A	362	G	O3'-P	-7.96	1.51	1.61
1	A	987	G	C2'-C1'	-7.96	1.44	1.53
1	A	996	A	C2'-C1'	-7.96	1.44	1.53
1	A	3	A	N7-C5	-7.96	1.34	1.39
1	A	287	U	C2'-C1'	-7.96	1.44	1.53
1	A	1118	U	C2'-C1'	-7.96	1.44	1.53
1	A	533	A	C8-N7	-7.96	1.25	1.31
1	A	1455	G	N7-C5	-7.96	1.34	1.39
1	A	917	G	N9-C4	-7.96	1.31	1.38
1	A	1117	A	N7-C5	-7.96	1.34	1.39
1	A	1156	G	C2'-C1'	-7.96	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	672	U	C2'-C1'	-7.95	1.44	1.53
1	A	1127	G	N9-C4	-7.95	1.31	1.38
1	A	363	A	C8-N7	-7.95	1.25	1.31
1	A	705	G	C5-C6	-7.95	1.34	1.42
1	A	1266	G	P-O5'	-7.95	1.51	1.59
1	A	713	G	N9-C8	-7.95	1.32	1.37
1	A	1504	G	C1'-N9	-7.95	1.35	1.46
1	A	234	C	C2'-C1'	-7.95	1.44	1.53
1	A	296	U	C2'-C1'	-7.95	1.44	1.53
1	A	50	A	N7-C5	-7.95	1.34	1.39
1	A	214	C	C2'-C1'	-7.94	1.44	1.53
1	A	694	A	N7-C5	-7.94	1.34	1.39
1	A	24	U	C3'-C2'	-7.94	1.44	1.52
1	A	1174	G	N7-C5	-7.94	1.34	1.39
1	A	1506	U	C3'-C2'	7.94	1.61	1.52
1	A	68	G	N3-C4	-7.93	1.29	1.35
1	A	70	U	C3'-C2'	-7.93	1.44	1.52
1	A	215	C	N1-C6	-7.93	1.32	1.37
1	A	729	A	C3'-C2'	-7.93	1.44	1.52
1	A	1221	G	C2'-C1'	-7.93	1.44	1.53
1	A	1480	A	C8-N7	-7.93	1.25	1.31
1	A	1342	C	P-O5'	-7.93	1.51	1.59
1	A	776	G	O3'-P	-7.93	1.51	1.61
1	A	1110	A	N9-C4	-7.93	1.33	1.37
1	A	538	G	C8-N7	-7.92	1.26	1.30
1	A	918	A	C3'-C2'	-7.92	1.44	1.52
1	A	1252	A	C8-N7	-7.92	1.26	1.31
1	A	450	G	C6-N1	7.92	1.45	1.39
1	A	1019	A	N7-C5	-7.92	1.34	1.39
1	A	1206	G	C8-N7	-7.92	1.26	1.30
1	A	35	G	P-O5'	-7.92	1.51	1.59
1	A	535	A	N3-C4	-7.91	1.30	1.34
1	A	1334	G	C8-N7	-7.91	1.26	1.30
1	A	288	A	C2'-C1'	-7.91	1.44	1.53
1	A	362	G	N9-C4	-7.91	1.31	1.38
1	A	699	C	P-O5'	-7.91	1.51	1.59
1	A	865	A	O3'-P	-7.91	1.51	1.61
1	A	517	G	N7-C5	-7.91	1.34	1.39
1	A	1016	A	N3-C4	-7.91	1.30	1.34
1	A	62	U	C3'-C2'	-7.90	1.44	1.52
1	A	1074	G	P-O5'	-7.90	1.51	1.59
1	A	1083	U	P-O5'	-7.90	1.51	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	790	A	C2'-C1'	-7.90	1.44	1.53
1	A	1241	G	C1'-N9	-7.90	1.35	1.46
1	A	1165	U	C2'-C1'	-7.90	1.44	1.53
1	A	873	A	N7-C5	-7.89	1.34	1.39
1	A	1373	G	C1'-N9	-7.89	1.35	1.46
1	A	262	A	C3'-C2'	-7.89	1.44	1.52
1	A	773	G	C2'-C1'	-7.89	1.44	1.53
1	A	606	G	C2-N2	-7.88	1.26	1.34
1	A	712	A	C8-N7	-7.88	1.26	1.31
1	A	927	G	N3-C4	-7.88	1.29	1.35
1	A	1421	G	P-O5'	-7.88	1.51	1.59
1	A	187	G	C3'-C2'	-7.88	1.44	1.52
1	A	684	U	C4-C5	-7.88	1.36	1.43
1	A	715	A	N7-C5	-7.88	1.34	1.39
1	A	522	C	C2'-C1'	-7.88	1.44	1.53
1	A	1502	A	C5-C6	-7.88	1.33	1.41
1	A	1067	A	C5-C6	-7.88	1.33	1.41
1	A	1196	A	N7-C5	-7.88	1.34	1.39
1	A	31	G	O3'-P	-7.87	1.51	1.61
1	A	765	G	P-O5'	-7.87	1.51	1.59
1	A	868	C	C3'-C2'	-7.87	1.44	1.52
1	A	1157	A	O4'-C1'	-7.87	1.31	1.41
1	A	1380	U	C2-N3	-7.87	1.32	1.37
1	A	171	A	C2'-C1'	-7.86	1.44	1.53
1	A	334	C	C3'-C2'	-7.86	1.44	1.52
1	A	580	C	C2'-C1'	-7.86	1.44	1.53
1	A	1398	A	O3'-P	-7.86	1.51	1.61
1	A	93	U	P-O5'	-7.86	1.51	1.59
1	A	1146	A	P-O5'	-7.86	1.51	1.59
1	A	714	G	P-O5'	-7.86	1.51	1.59
1	A	941	G	C8-N7	-7.86	1.26	1.30
1	A	140	U	O3'-P	-7.86	1.51	1.61
1	A	279	A	O4'-C1'	-7.86	1.31	1.41
1	A	344	A	P-O5'	-7.86	1.51	1.59
1	A	453	G	C4'-C3'	-7.86	1.44	1.53
1	A	719	C	C2'-C1'	-7.86	1.44	1.53
1	A	836	G	N7-C5	-7.86	1.34	1.39
1	A	348	G	C2-N2	-7.86	1.26	1.34
1	A	1278	G	C4'-C3'	-7.86	1.44	1.53
1	A	1449	C	C2'-C1'	-7.85	1.44	1.53
1	A	1303	C	O4'-C1'	-7.85	1.31	1.41
1	A	958	A	N7-C5	-7.85	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	606	G	N9-C4	-7.85	1.31	1.38
1	A	1190	G	O3'-P	-7.85	1.51	1.61
1	A	750	C	C4'-C3'	-7.85	1.44	1.53
1	A	46	G	N9-C8	-7.85	1.32	1.37
1	A	673	A	P-O5'	-7.85	1.51	1.59
1	A	105	G	P-O5'	-7.84	1.51	1.59
1	A	360	G	C2'-C1'	-7.84	1.44	1.53
1	A	72	A	C4'-C3'	-7.84	1.44	1.53
1	A	539	A	C8-N7	-7.84	1.26	1.31
1	A	964	A	C2'-C1'	-7.84	1.44	1.53
1	A	1370	G	C1'-N9	-7.84	1.35	1.46
3	C	1	GLY	CA-C	-7.84	1.39	1.51
1	A	947	G	C3'-C2'	-7.84	1.44	1.52
1	A	1522	U	P-O5'	-7.84	1.51	1.59
1	A	113	G	N7-C5	-7.83	1.34	1.39
1	A	604	G	N3-C4	-7.83	1.29	1.35
1	A	289	G	N3-C4	-7.83	1.29	1.35
1	A	179	A	C2'-C1'	-7.83	1.44	1.53
1	A	116	A	N9-C4	-7.83	1.33	1.37
1	A	324	G	N3-C4	-7.83	1.29	1.35
1	A	759	A	N7-C5	-7.83	1.34	1.39
1	A	1405	G	N7-C5	-7.83	1.34	1.39
1	A	1188	A	C2'-C1'	-7.83	1.44	1.53
1	A	1309	G	O3'-P	-7.83	1.51	1.61
1	A	761	G	C3'-C2'	-7.82	1.44	1.52
1	A	666	G	C2'-C1'	-7.82	1.44	1.53
1	A	595	A	P-O5'	-7.82	1.51	1.59
1	A	995	C	C2'-C1'	-7.82	1.44	1.53
1	A	113	G	P-O5'	-7.82	1.51	1.59
1	A	577	G	O3'-P	-7.82	1.51	1.61
1	A	978	A	P-O5'	-7.82	1.51	1.59
1	A	1181	G	C2'-O2'	-7.82	1.31	1.41
1	A	907	A	C8-N7	-7.81	1.26	1.31
1	A	1213	A	C1'-N9	-7.81	1.35	1.46
1	A	1301	U	C4'-O4'	-7.81	1.35	1.45
1	A	1380	U	C4'-C3'	-7.81	1.44	1.53
1	A	246	A	C4'-O4'	-7.81	1.35	1.45
1	A	1223	C	C4'-C3'	-7.81	1.44	1.53
1	A	222	C	C2'-C1'	-7.81	1.44	1.53
1	A	1026	G	N7-C5	-7.80	1.34	1.39
1	A	1091	U	C3'-C2'	-7.80	1.44	1.52
5	E	39	GLY	CA-C	-7.80	1.39	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	35	G	N7-C5	-7.80	1.34	1.39
1	A	268	U	P-O5'	-7.80	1.51	1.59
1	A	925	G	N9-C8	-7.80	1.32	1.37
1	A	264	C	C1'-N1	-7.80	1.35	1.46
1	A	300	A	N9-C4	-7.80	1.33	1.37
1	A	373	A	C5-C6	-7.80	1.34	1.41
1	A	1289	A	N7-C5	-7.80	1.34	1.39
1	A	1246	A	C3'-C2'	-7.79	1.44	1.52
1	A	770	C	P-O5'	-7.79	1.51	1.59
1	A	297	G	C2'-C1'	-7.79	1.44	1.53
1	A	559	A	C2'-C1'	-7.79	1.44	1.53
1	A	1125	U	O3'-P	-7.79	1.51	1.61
1	A	434	U	C3'-C2'	-7.79	1.44	1.52
1	A	1507	A	N3-C4	-7.79	1.30	1.34
1	A	1236	A	C1'-N9	-7.79	1.35	1.46
1	A	494	G	N7-C5	-7.78	1.34	1.39
1	A	145	G	C5-C6	-7.78	1.34	1.42
1	A	553	A	N7-C5	-7.78	1.34	1.39
1	A	1046	A	N9-C4	-7.78	1.33	1.37
1	A	703	G	C3'-C2'	-7.78	1.44	1.52
1	A	1303	C	C4-N4	-7.78	1.26	1.33
1	A	1340	A	N9-C4	7.78	1.42	1.37
1	A	598	U	C3'-C2'	-7.78	1.44	1.52
1	A	324	G	N9-C4	-7.77	1.31	1.38
1	A	990	C	P-O5'	-7.77	1.51	1.59
1	A	327	A	P-O5'	-7.77	1.51	1.59
1	A	1181	G	C4'-C3'	-7.77	1.44	1.53
1	A	254	G	C8-N7	-7.77	1.26	1.30
1	A	668	G	C3'-C2'	-7.77	1.44	1.52
1	A	366	A	P-O5'	-7.76	1.51	1.59
1	A	1149	C	P-O5'	-7.76	1.51	1.59
1	A	400	C	C3'-C2'	-7.76	1.44	1.52
1	A	633	G	C8-N7	-7.76	1.26	1.30
1	A	787	A	P-O5'	-7.76	1.51	1.59
1	A	912	C	O3'-P	-7.76	1.51	1.61
1	A	481	G	O3'-P	-7.76	1.51	1.61
1	A	1131	G	N7-C5	-7.76	1.34	1.39
1	A	1239	A	C2'-C1'	-7.76	1.44	1.53
1	A	1013	G	N9-C4	-7.76	1.31	1.38
1	A	504	C	C2'-C1'	-7.75	1.44	1.53
1	A	1281	C	C5-C6	-7.75	1.28	1.34
1	A	481	G	C6-N1	-7.75	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1344	C	C4'-C3'	-7.75	1.44	1.53
1	A	288	A	C6-N6	-7.75	1.27	1.33
1	A	781	A	C2'-C1'	-7.75	1.44	1.53
1	A	907	A	C2'-C1'	-7.75	1.44	1.53
1	A	926	G	P-O5'	-7.75	1.52	1.59
1	A	1399	C	C3'-O3'	-7.75	1.31	1.42
1	A	37	U	C2'-C1'	-7.74	1.44	1.53
1	A	527	G	C2'-C1'	-7.74	1.44	1.53
1	A	664	G	N9-C4	-7.74	1.31	1.38
1	A	709	U	P-O5'	-7.74	1.52	1.59
1	A	452	A	C1'-N9	-7.74	1.36	1.46
1	A	581	G	C5-C6	-7.74	1.34	1.42
1	A	775	G	N3-C4	-7.74	1.30	1.35
1	A	626	G	C2-N2	-7.74	1.26	1.34
1	A	687	A	O3'-P	-7.74	1.51	1.61
1	A	150	U	P-O5'	-7.74	1.52	1.59
1	A	867	G	O4'-C1'	-7.73	1.31	1.41
1	A	1506	U	C2-N3	7.73	1.43	1.37
1	A	116	A	C8-N7	-7.73	1.26	1.31
1	A	163	C	C4'-C3'	-7.73	1.44	1.53
1	A	1513	A	N9-C4	-7.73	1.33	1.37
1	A	394	G	C2'-C1'	-7.73	1.44	1.53
1	A	733	G	O4'-C1'	-7.73	1.31	1.41
1	A	1160	G	C1'-N9	-7.73	1.36	1.46
1	A	214	C	N1-C6	-7.73	1.32	1.37
1	A	700	G	O3'-P	-7.73	1.51	1.61
1	A	1179	A	C2'-C1'	-7.73	1.44	1.53
1	A	1349	A	P-O5'	-7.73	1.52	1.59
1	A	205	A	C6-N1	7.72	1.41	1.35
1	A	724	G	O3'-P	-7.72	1.51	1.61
1	A	357	G	N7-C5	-7.72	1.34	1.39
1	A	1187	G	N3-C4	-7.72	1.30	1.35
1	A	1507	A	C4'-C3'	-7.72	1.44	1.53
1	A	794	A	N9-C4	-7.72	1.33	1.37
1	A	733	G	C4'-O4'	-7.72	1.35	1.45
1	A	1375	A	O3'-P	-7.72	1.51	1.61
1	A	887	G	C1'-N9	-7.72	1.36	1.46
1	A	1129	C	C1'-N1	-7.72	1.36	1.46
1	A	160	A	N7-C5	-7.71	1.34	1.39
1	A	1270	G	O4'-C1'	-7.71	1.31	1.41
1	A	59	A	C2'-C1'	-7.71	1.44	1.53
1	A	1355	G	C2'-C1'	-7.71	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1029	U	C2'-C1'	-7.71	1.44	1.53
1	A	1333	A	C8-N7	-7.71	1.26	1.31
1	A	1074	G	O3'-P	-7.71	1.51	1.61
1	A	182	A	N7-C5	-7.70	1.34	1.39
1	A	1290	G	C2'-C1'	-7.70	1.44	1.53
1	A	1324	A	N7-C5	-7.70	1.34	1.39
1	A	1268	G	C4'-C3'	-7.70	1.44	1.53
1	A	685	G	C8-N7	-7.70	1.26	1.30
1	A	1403	C	C2'-C1'	-7.70	1.44	1.53
1	A	1408	A	C2'-C1'	-7.70	1.44	1.53
1	A	250	A	N7-C5	-7.69	1.34	1.39
1	A	798	U	C1'-N1	-7.69	1.36	1.46
1	A	1527	U	C2'-C1'	-7.69	1.44	1.53
1	A	520	A	C8-N7	-7.69	1.26	1.31
1	A	575	G	N3-C4	-7.69	1.30	1.35
1	A	1219	A	C3'-C2'	-7.69	1.44	1.52
1	A	73	C	C2'-C1'	-7.69	1.44	1.53
1	A	288	A	O3'-P	-7.69	1.51	1.61
1	A	634	C	C4-C5	-7.69	1.36	1.43
1	A	64	G	O3'-P	-7.69	1.51	1.61
1	A	198	G	C5'-C4'	7.69	1.60	1.51
1	A	377	G	N7-C5	-7.68	1.34	1.39
1	A	3	A	C2'-C1'	-7.68	1.45	1.53
1	A	593	U	C3'-C2'	-7.68	1.44	1.52
1	A	1130	A	N9-C8	-7.68	1.31	1.37
1	A	1063	C	C4-C5	-7.68	1.36	1.43
1	A	1490	U	C5'-C4'	7.68	1.60	1.51
1	A	33	A	C8-N7	-7.68	1.26	1.31
1	A	1096	C	C2'-C1'	-7.67	1.45	1.53
1	A	1222	G	N7-C5	-7.67	1.34	1.39
1	A	153	C	P-O5'	-7.67	1.52	1.59
1	A	641	U	N1-C2	-7.67	1.31	1.38
1	A	136	C	P-O5'	-7.67	1.52	1.59
1	A	597	G	P-O5'	-7.67	1.52	1.59
1	A	765	G	N9-C4	-7.67	1.31	1.38
1	A	869	G	N1-C2	7.67	1.43	1.37
1	A	285	C	P-O5'	-7.67	1.52	1.59
1	A	756	C	C2'-C1'	-7.67	1.45	1.53
1	A	1222	G	C1'-N9	-7.67	1.36	1.46
1	A	655	A	C1'-N9	-7.67	1.36	1.46
1	A	1093	A	C4'-C3'	-7.66	1.44	1.53
1	A	250	A	C2'-C1'	-7.66	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	215	C	C3'-C2'	-7.66	1.44	1.52
1	A	640	A	C3'-C2'	-7.66	1.44	1.52
1	A	1102	A	P-O5'	-7.66	1.52	1.59
1	A	800	G	C8-N7	-7.65	1.26	1.30
1	A	212	G	O3'-P	-7.65	1.51	1.61
1	A	588	G	C2'-C1'	-7.65	1.45	1.53
1	A	812	G	O3'-P	-7.65	1.51	1.61
1	A	1349	A	C4'-C3'	-7.65	1.44	1.53
1	A	943	U	C3'-C2'	-7.65	1.44	1.52
1	A	2	A	C8-N7	-7.64	1.26	1.31
1	A	541	G	P-O5'	-7.64	1.52	1.59
1	A	1371	G	C2'-C1'	-7.64	1.45	1.53
1	A	1376	U	C3'-C2'	-7.64	1.44	1.52
1	A	1169	A	N7-C5	-7.64	1.34	1.39
1	A	977	A	C4'-C3'	-7.64	1.44	1.53
1	A	1143	G	P-O5'	-7.64	1.52	1.59
1	A	95	C	O3'-P	-7.64	1.51	1.61
1	A	354	G	O3'-P	-7.64	1.51	1.61
1	A	512	U	C2'-C1'	-7.64	1.45	1.53
1	A	660	C	C2'-C1'	-7.64	1.45	1.53
1	A	1158	C	C2-O2	-7.64	1.17	1.24
1	A	19	A	N7-C5	-7.64	1.34	1.39
1	A	120	A	C1'-N9	-7.64	1.36	1.46
1	A	232	G	C3'-C2'	-7.64	1.44	1.52
1	A	239	U	C2-N3	-7.64	1.32	1.37
1	A	1266	G	C2-N2	-7.64	1.26	1.34
1	A	411	A	C1'-N9	-7.63	1.36	1.46
1	A	1198	G	N9-C4	-7.63	1.31	1.38
1	A	1273	C	C2'-C1'	-7.63	1.45	1.53
1	A	1094	G	C2'-C1'	-7.63	1.45	1.53
1	A	409	U	C3'-C2'	-7.63	1.44	1.52
1	A	1266	G	N7-C5	-7.63	1.34	1.39
1	A	1403	C	P-O5'	-7.63	1.52	1.59
1	A	1431	A	P-O5'	-7.63	1.52	1.59
1	A	706	A	P-O5'	-7.63	1.52	1.59
1	A	1045	C	C3'-C2'	-7.63	1.44	1.52
1	A	666	G	C4'-C3'	-7.62	1.44	1.53
1	A	935	A	N3-C4	-7.62	1.30	1.34
1	A	413	G	C4'-O4'	-7.62	1.35	1.45
1	A	919	A	C2'-C1'	-7.62	1.45	1.53
1	A	827	U	C3'-C2'	-7.62	1.44	1.52
1	A	1375	A	C3'-C2'	-7.62	1.44	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	170	U	C2'-C1'	-7.62	1.45	1.53
1	A	339	C	C3'-C2'	-7.62	1.44	1.52
1	A	8	A	O3'-P	-7.61	1.52	1.61
1	A	98	A	C2'-C1'	-7.61	1.45	1.53
1	A	1060	U	C2'-C1'	-7.61	1.45	1.53
1	A	1382	C	P-O5'	-7.61	1.52	1.59
1	A	1131	G	C2'-C1'	-7.61	1.45	1.53
1	A	1169	A	C8-N7	-7.61	1.26	1.31
1	A	692	U	P-O5'	-7.61	1.52	1.59
1	A	761	G	C8-N7	-7.61	1.26	1.30
1	A	92	U	N1-C2	7.60	1.45	1.38
1	A	142	G	O4'-C1'	-7.60	1.31	1.41
1	A	1048	G	C3'-C2'	-7.60	1.44	1.52
1	A	1024	G	C3'-C2'	-7.60	1.44	1.52
1	A	678	U	P-O5'	-7.60	1.52	1.59
1	A	992	U	O3'-P	-7.60	1.52	1.61
1	A	1514	G	N9-C4	-7.60	1.31	1.38
1	A	292	G	N7-C5	-7.60	1.34	1.39
1	A	416	G	P-O5'	-7.60	1.52	1.59
1	A	752	G	C5-C4	-7.60	1.33	1.38
1	A	577	G	O4'-C1'	-7.60	1.31	1.41
1	A	581	G	C2-N3	-7.59	1.26	1.32
1	A	740	U	C2'-C1'	-7.59	1.45	1.53
1	A	569	C	C2'-C1'	-7.59	1.45	1.53
1	A	1328	C	C3'-C2'	-7.59	1.44	1.52
1	A	1020	G	C5-C6	-7.59	1.34	1.42
1	A	1417	G	C4'-C3'	-7.59	1.44	1.53
1	A	724	G	C2'-C1'	-7.58	1.45	1.53
1	A	439	U	C2'-C1'	-7.58	1.45	1.53
1	A	265	G	N7-C5	-7.58	1.34	1.39
1	A	600	A	C3'-C2'	-7.58	1.44	1.52
1	A	1255	G	O3'-P	-7.58	1.52	1.61
1	A	182	A	O5'-C5'	-7.58	1.30	1.42
1	A	178	C	N1-C6	-7.57	1.32	1.37
1	A	665	A	N3-C4	-7.57	1.30	1.34
1	A	1527	U	O3'-P	-7.57	1.52	1.61
1	A	1352	C	C3'-C2'	-7.57	1.44	1.52
1	A	688	G	C4'-C3'	-7.57	1.44	1.53
1	A	538	G	P-O5'	-7.57	1.52	1.59
1	A	1118	U	O4'-C1'	-7.56	1.31	1.41
1	A	1272	G	C2'-C1'	-7.56	1.45	1.53
1	A	64	G	C1'-N9	-7.56	1.36	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	212	G	C2'-C1'	-7.56	1.45	1.53
1	A	404	G	P-O5'	-7.56	1.52	1.59
1	A	510	A	P-O5'	-7.56	1.52	1.59
1	A	371	A	C2'-C1'	-7.56	1.45	1.53
1	A	569	C	O3'-P	-7.56	1.52	1.61
1	A	1036	A	N3-C4	-7.55	1.30	1.34
1	A	59	A	C1'-N9	-7.55	1.36	1.46
1	A	266	G	O3'-P	-7.55	1.52	1.61
1	A	994	A	P-O5'	-7.55	1.52	1.59
1	A	1182	G	N9-C4	7.55	1.44	1.38
1	A	1328	C	O3'-P	-7.55	1.52	1.61
1	A	1417	G	C2-N3	7.55	1.38	1.32
1	A	628	G	C5-C6	-7.55	1.34	1.42
1	A	705	G	N7-C5	-7.55	1.34	1.39
1	A	888	G	C2'-C1'	-7.55	1.45	1.53
1	A	1486	G	C3'-C2'	-7.54	1.44	1.52
1	A	613	C	N1-C6	-7.54	1.32	1.37
1	A	712	A	C2'-C1'	-7.54	1.45	1.53
1	A	1173	U	C3'-C2'	-7.54	1.44	1.52
1	A	1464	U	C2'-C1'	-7.54	1.45	1.53
1	A	367	U	C2'-C1'	-7.54	1.45	1.53
1	A	485	U	O3'-P	-7.54	1.52	1.61
1	A	1173	U	P-O5'	-7.53	1.52	1.59
1	A	878	A	O3'-P	-7.53	1.52	1.61
1	A	203	G	C4'-C3'	-7.53	1.44	1.53
1	A	602	A	N9-C8	-7.53	1.31	1.37
1	A	1420	U	C4-C5	-7.53	1.36	1.43
1	A	1487	G	N7-C5	-7.53	1.34	1.39
1	A	639	G	C8-N7	-7.53	1.26	1.30
1	A	1290	G	P-O5'	-7.53	1.52	1.59
1	A	446	G	P-O5'	-7.52	1.52	1.59
1	A	246	A	C6-N6	-7.52	1.27	1.33
1	A	913	A	N9-C4	-7.52	1.33	1.37
1	A	1126	U	N1-C6	-7.52	1.31	1.38
1	A	540	G	N7-C5	-7.52	1.34	1.39
1	A	1080	A	C4'-C3'	-7.52	1.44	1.53
1	A	516	U	P-O5'	-7.52	1.52	1.59
1	A	102	G	P-O5'	-7.52	1.52	1.59
1	A	600	A	P-O5'	-7.52	1.52	1.59
1	A	779	C	C3'-C2'	-7.52	1.44	1.52
1	A	1276	G	C8-N7	-7.52	1.26	1.30
1	A	1488	G	P-O5'	-7.52	1.52	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1140	C	C2'-C1'	-7.52	1.45	1.53
1	A	718	A	O3'-P	-7.51	1.52	1.61
1	A	899	C	N1-C6	7.51	1.41	1.37
1	A	1098	C	O3'-P	-7.51	1.52	1.61
1	A	589	U	C2'-C1'	-7.51	1.45	1.53
1	A	697	U	C2'-C1'	-7.51	1.45	1.53
1	A	71	A	C8-N7	-7.51	1.26	1.31
1	A	1142	G	P-O5'	-7.51	1.52	1.59
1	A	81	A	C1'-N9	-7.50	1.36	1.46
1	A	137	U	C2'-C1'	-7.50	1.45	1.53
1	A	700	G	C2'-O2'	-7.50	1.31	1.41
1	A	1093	A	P-O5'	-7.50	1.52	1.59
1	A	575	G	N1-C2	7.50	1.43	1.37
1	A	633	G	C2'-C1'	-7.50	1.45	1.53
1	A	167	A	N7-C5	-7.50	1.34	1.39
1	A	377	G	C3'-C2'	-7.50	1.44	1.52
1	A	1088	G	N9-C4	-7.50	1.31	1.38
1	A	1226	C	O4'-C1'	-7.50	1.31	1.41
1	A	1084	G	O4'-C1'	-7.50	1.31	1.41
1	A	658	C	C2'-C1'	-7.49	1.45	1.53
1	A	701	U	O3'-P	-7.49	1.52	1.61
1	A	455	G	P-O5'	-7.49	1.52	1.59
1	A	633	G	P-O5'	-7.49	1.52	1.59
1	A	721	G	C2'-C1'	-7.49	1.45	1.53
1	A	59	A	C8-N7	-7.49	1.26	1.31
1	A	451	A	O3'-P	-7.49	1.52	1.61
1	A	460	A	C3'-C2'	-7.48	1.44	1.52
1	A	941	G	P-O5'	-7.48	1.52	1.59
1	A	1207	G	N7-C5	-7.48	1.34	1.39
1	A	1379	G	C5-C4	-7.48	1.33	1.38
1	A	1447	A	N9-C4	-7.48	1.33	1.37
1	A	1306	A	C5-C4	-7.48	1.33	1.38
1	A	544	G	C1'-N9	-7.48	1.36	1.46
1	A	1394	A	C2'-C1'	-7.48	1.45	1.53
1	A	563	A	C2'-C1'	-7.48	1.45	1.53
1	A	877	G	C1'-N9	-7.48	1.36	1.46
1	A	499	A	N7-C5	-7.47	1.34	1.39
1	A	615	G	C4'-C3'	-7.47	1.45	1.53
1	A	178	C	C2'-C1'	-7.47	1.45	1.53
1	A	561	U	P-O5'	-7.47	1.52	1.59
1	A	1186	G	C4'-C3'	7.47	1.61	1.53
1	A	1187	G	O4'-C1'	-7.47	1.31	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	28	A	C3'-C2'	-7.47	1.44	1.52
1	A	431	A	C4'-C3'	-7.47	1.45	1.53
1	A	1152	A	C2'-C1'	-7.47	1.45	1.53
1	A	181	A	C2'-C1'	-7.47	1.45	1.53
1	A	768	A	C2'-C1'	-7.47	1.45	1.53
1	A	164	G	C2'-C1'	-7.46	1.45	1.53
1	A	257	G	C8-N7	-7.46	1.26	1.30
1	A	1324	A	C3'-C2'	-7.46	1.44	1.52
1	A	440	C	N1-C6	-7.46	1.32	1.37
1	A	1250	A	C8-N7	-7.46	1.26	1.31
1	A	564	C	P-O5'	-7.46	1.52	1.59
1	A	1090	U	C2-N3	-7.46	1.32	1.37
1	A	1181	G	C3'-C2'	-7.46	1.44	1.52
1	A	491	G	N7-C5	-7.45	1.34	1.39
1	A	788	U	C4'-O4'	-7.45	1.35	1.45
1	A	1263	C	C3'-C2'	-7.45	1.44	1.52
1	A	507	C	P-O5'	-7.45	1.52	1.59
1	A	696	A	C2'-C1'	-7.45	1.45	1.53
1	A	1135	U	C4'-C3'	-7.45	1.45	1.53
1	A	27	G	C5'-C4'	7.45	1.60	1.51
1	A	929	G	C2'-C1'	-7.44	1.45	1.53
1	A	1023	U	C2'-C1'	-7.44	1.45	1.53
1	A	441	A	N7-C5	-7.44	1.34	1.39
1	A	55	A	C6-N1	7.44	1.40	1.35
1	A	1436	U	C3'-C2'	-7.44	1.44	1.52
1	A	1177	G	P-O5'	-7.43	1.52	1.59
1	A	1291	U	P-O5'	-7.43	1.52	1.59
1	A	1414	U	C3'-C2'	-7.43	1.44	1.52
1	A	243	A	O3'-P	-7.43	1.52	1.61
1	A	560	A	P-O5'	-7.43	1.52	1.59
1	A	1274	A	N3-C4	-7.43	1.30	1.34
1	A	1204	A	N7-C5	-7.42	1.34	1.39
1	A	1515	G	C5-C6	-7.42	1.34	1.42
1	A	73	C	C4'-C3'	-7.42	1.45	1.53
1	A	731	G	C3'-C2'	-7.42	1.44	1.52
1	A	1180	A	C8-N7	-7.42	1.26	1.31
1	A	696	A	N3-C4	-7.42	1.30	1.34
1	A	27	G	N7-C5	-7.41	1.34	1.39
1	A	648	A	C8-N7	-7.41	1.26	1.31
1	A	975	A	P-O5'	-7.41	1.52	1.59
1	A	1279	G	N9-C4	-7.41	1.32	1.38
1	A	181	A	C1'-N9	-7.41	1.36	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	247	G	C1'-N9	-7.41	1.36	1.46
1	A	1126	U	C3'-C2'	-7.41	1.44	1.52
1	A	1290	G	C8-N7	-7.41	1.26	1.30
1	A	253	A	C1'-N9	-7.41	1.36	1.46
1	A	380	G	O4'-C1'	-7.41	1.32	1.41
1	A	929	G	P-O5'	-7.40	1.52	1.59
1	A	958	A	N3-C4	-7.40	1.30	1.34
1	A	135	C	P-O5'	-7.40	1.52	1.59
1	A	175	C	C3'-C2'	-7.40	1.44	1.52
1	A	750	C	P-O5'	-7.40	1.52	1.59
1	A	255	G	C4'-C3'	-7.40	1.45	1.53
1	A	737	C	C3'-C2'	-7.40	1.44	1.52
1	A	326	G	C8-N7	-7.40	1.26	1.30
1	A	476	U	C3'-C2'	-7.40	1.44	1.52
1	A	1298	U	C4-C5	-7.40	1.36	1.43
1	A	616	G	C4'-C3'	-7.39	1.45	1.53
1	A	851	G	C8-N7	-7.39	1.26	1.30
1	A	1327	C	C4'-C3'	-7.39	1.45	1.53
1	A	1337	G	O3'-P	-7.39	1.52	1.61
1	A	178	C	C5-C6	-7.39	1.28	1.34
1	A	509	A	O3'-P	-7.39	1.52	1.61
1	A	841	C	P-O5'	-7.39	1.52	1.59
1	A	908	A	C2'-C1'	-7.39	1.45	1.53
1	A	1211	U	O3'-P	-7.39	1.52	1.61
1	A	1231	G	O4'-C1'	-7.39	1.32	1.41
1	A	364	A	C8-N7	-7.39	1.26	1.31
1	A	115	G	C2'-C1'	-7.38	1.45	1.53
1	A	216	U	O4'-C1'	-7.38	1.32	1.41
1	A	254	G	O3'-P	-7.38	1.52	1.61
1	A	1357	A	C8-N7	-7.38	1.26	1.31
1	A	410	G	N3-C4	-7.38	1.30	1.35
1	A	531	U	P-O5'	-7.38	1.52	1.59
1	A	902	G	P-O5'	-7.38	1.52	1.59
1	A	1108	G	C3'-C2'	-7.38	1.44	1.52
1	A	1350	A	N3-C4	-7.38	1.30	1.34
1	A	240	G	C2'-C1'	-7.38	1.45	1.53
1	A	1013	G	C8-N7	-7.38	1.26	1.30
1	A	766	A	P-O5'	-7.38	1.52	1.59
1	A	949	A	P-O5'	-7.38	1.52	1.59
1	A	1293	C	C2'-C1'	-7.37	1.45	1.53
1	A	936	C	C3'-C2'	-7.37	1.44	1.52
1	A	1016	A	N7-C5	-7.37	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	474	G	C4'-C3'	-7.37	1.45	1.53
1	A	927	G	O4'-C1'	-7.37	1.32	1.41
1	A	337	G	N3-C4	-7.37	1.30	1.35
1	A	1053	G	C5-C4	-7.37	1.33	1.38
1	A	1251	A	N9-C4	-7.37	1.33	1.37
1	A	1380	U	C3'-C2'	-7.37	1.44	1.52
1	A	484	G	C3'-C2'	-7.36	1.44	1.52
1	A	1140	C	O3'-P	-7.36	1.52	1.61
1	A	888	G	O3'-P	-7.36	1.52	1.61
1	A	597	G	N7-C5	-7.36	1.34	1.39
1	A	894	G	C1'-N9	-7.36	1.36	1.46
1	A	621	A	P-O5'	-7.36	1.52	1.59
1	A	118	U	C4'-C3'	-7.36	1.45	1.53
1	A	788	U	C1'-N1	-7.35	1.36	1.46
1	A	1236	A	C8-N7	-7.35	1.26	1.31
1	A	1171	A	N7-C5	-7.35	1.34	1.39
1	A	1229	A	C8-N7	-7.35	1.26	1.31
1	A	753	A	C1'-N9	-7.35	1.36	1.46
1	A	777	A	C8-N7	-7.35	1.26	1.31
1	A	1159	U	O3'-P	-7.35	1.52	1.61
1	A	1290	G	C2-N3	7.35	1.38	1.32
1	A	37	U	C3'-C2'	-7.35	1.44	1.52
1	A	332	G	C2'-C1'	-7.34	1.45	1.53
1	A	578	C	C3'-C2'	-7.34	1.44	1.52
1	A	1478	U	C3'-C2'	-7.34	1.44	1.52
1	A	133	U	O3'-P	-7.34	1.52	1.61
1	A	203	G	C2'-C1'	-7.34	1.45	1.53
1	A	308	C	C4'-C3'	7.34	1.61	1.53
1	A	1474	U	O3'-P	-7.34	1.52	1.61
1	A	1410	A	O3'-P	-7.34	1.52	1.61
1	A	373	A	O3'-P	-7.34	1.52	1.61
1	A	577	G	C8-N7	-7.34	1.26	1.30
1	A	1055	A	N7-C5	-7.33	1.34	1.39
1	A	1242	G	C3'-C2'	-7.33	1.44	1.52
1	A	16	A	C1'-N9	-7.33	1.36	1.46
1	A	837	U	C2'-C1'	-7.33	1.45	1.53
1	A	241	G	N7-C5	-7.33	1.34	1.39
1	A	91	U	C4'-O4'	7.33	1.55	1.45
1	A	238	A	P-O5'	-7.33	1.52	1.59
1	A	798	U	C2'-C1'	-7.33	1.45	1.53
1	A	1256	A	C3'-C2'	-7.33	1.44	1.52
1	A	761	G	C2'-C1'	-7.33	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	178	C	C3'-C2'	-7.33	1.44	1.52
1	A	509	A	C2'-C1'	-7.33	1.45	1.53
1	A	1153	G	C2'-C1'	-7.33	1.45	1.53
1	A	668	G	C5-C4	-7.32	1.33	1.38
1	A	946	A	P-O5'	-7.32	1.52	1.59
1	A	1215	G	C8-N7	-7.32	1.26	1.30
1	A	1335	U	O3'-P	-7.32	1.52	1.61
1	A	1072	G	N7-C5	-7.32	1.34	1.39
1	A	1216	A	C2'-C1'	-7.32	1.45	1.53
1	A	300	A	C8-N7	-7.32	1.26	1.31
1	A	1135	U	C2'-C1'	-7.32	1.45	1.53
1	A	452	A	C8-N7	-7.32	1.26	1.31
1	A	538	G	C2'-C1'	-7.32	1.45	1.53
1	A	692	U	O3'-P	-7.32	1.52	1.61
1	A	928	G	C4'-C3'	-7.32	1.45	1.53
1	A	750	C	O3'-P	-7.31	1.52	1.61
1	A	119	A	O4'-C1'	-7.31	1.32	1.41
1	A	543	U	P-O5'	-7.31	1.52	1.59
1	A	991	U	C2'-C1'	-7.31	1.45	1.53
1	A	1343	G	C3'-C2'	-7.31	1.44	1.52
1	A	337	G	O3'-P	-7.31	1.52	1.61
1	A	713	G	N9-C4	-7.31	1.32	1.38
1	A	460	A	C6-N1	7.31	1.40	1.35
1	A	957	U	C4'-C3'	-7.31	1.45	1.53
1	A	913	A	N7-C5	-7.30	1.34	1.39
1	A	1406	U	C4-O4	-7.30	1.17	1.23
1	A	3	A	O4'-C1'	-7.30	1.32	1.41
1	A	928	G	C3'-C2'	-7.30	1.44	1.52
1	A	90	C	C4'-C3'	-7.30	1.45	1.53
1	A	190	A	C2'-C1'	-7.30	1.45	1.53
1	A	888	G	C3'-C2'	-7.30	1.44	1.52
1	A	859	G	C8-N7	-7.29	1.26	1.30
1	A	1231	G	C5-C6	-7.29	1.35	1.42
1	A	65	A	C3'-C2'	7.29	1.60	1.52
1	A	498	A	C2'-C1'	-7.29	1.45	1.53
1	A	510	A	N9-C4	-7.29	1.33	1.37
1	A	45	G	N7-C5	-7.29	1.34	1.39
1	A	665	A	N7-C5	-7.29	1.34	1.39
1	A	685	G	C5-C6	-7.29	1.35	1.42
1	A	775	G	N9-C8	-7.29	1.32	1.37
1	A	372	C	N1-C6	7.29	1.41	1.37
1	A	1523	G	C1'-N9	-7.29	1.36	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1039	G	N9-C4	7.29	1.43	1.38
1	A	1424	U	P-O5'	-7.29	1.52	1.59
1	A	315	A	N7-C5	-7.29	1.34	1.39
1	A	1170	A	C4'-C3'	-7.29	1.45	1.53
1	A	1357	A	C2'-C1'	-7.29	1.45	1.53
1	A	106	C	P-O5'	-7.28	1.52	1.59
1	A	134	G	N7-C5	-7.28	1.34	1.39
1	A	185	U	P-O5'	-7.28	1.52	1.59
1	A	146	G	N9-C4	-7.28	1.32	1.38
1	A	195	A	C4'-C3'	-7.28	1.45	1.53
1	A	205	A	O4'-C1'	-7.28	1.32	1.41
1	A	1421	G	C2'-C1'	-7.28	1.45	1.53
1	A	595	A	C8-N7	-7.28	1.26	1.31
1	A	857	C	C4-C5	-7.28	1.37	1.43
1	A	178	C	C4-C5	-7.28	1.37	1.43
1	A	91	U	C2-N3	7.27	1.42	1.37
1	A	1418	A	N7-C5	-7.27	1.34	1.39
1	A	518	C	C2'-C1'	-7.27	1.45	1.53
1	A	1341	U	C2'-C1'	-7.27	1.45	1.53
1	A	673	A	O3'-P	-7.27	1.52	1.61
1	A	1166	G	C8-N7	-7.27	1.26	1.30
1	A	583	A	N9-C4	-7.26	1.33	1.37
1	A	760	G	N9-C4	-7.26	1.32	1.38
1	A	1354	U	C2'-C1'	-7.26	1.45	1.53
1	A	1391	U	C4'-O4'	-7.26	1.36	1.45
1	A	832	G	N3-C4	-7.26	1.30	1.35
1	A	969	A	P-O5'	-7.26	1.52	1.59
1	A	1366	C	C2'-C1'	-7.26	1.45	1.53
1	A	80	A	N3-C4	-7.26	1.30	1.34
1	A	122	G	N9-C8	-7.26	1.32	1.37
1	A	1524	C	C2'-C1'	-7.26	1.45	1.53
1	A	405	U	C2'-C1'	-7.26	1.45	1.53
1	A	927	G	C5'-C4'	-7.26	1.42	1.51
1	A	533	A	O3'-P	-7.26	1.52	1.61
1	A	963	G	P-O5'	-7.26	1.52	1.59
1	A	1091	U	O4'-C1'	-7.26	1.32	1.41
1	A	319	G	C4'-C3'	-7.25	1.45	1.53
1	A	547	A	C4'-C3'	-7.25	1.45	1.53
1	A	579	A	N7-C5	-7.25	1.34	1.39
1	A	1506	U	C2'-C1'	7.25	1.61	1.53
1	A	263	A	C3'-O3'	-7.25	1.31	1.42
1	A	686	U	P-O5'	-7.25	1.52	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	534	U	C4'-C3'	-7.25	1.45	1.53
1	A	381	C	C2'-C1'	-7.25	1.45	1.53
1	A	1249	C	C2'-C1'	-7.25	1.45	1.53
1	A	1348	U	C1'-N1	-7.25	1.36	1.46
1	A	225	C	P-O5'	-7.24	1.52	1.59
1	A	577	G	C1'-N9	-7.24	1.36	1.46
1	A	1421	G	C3'-C2'	-7.24	1.44	1.52
1	A	107	G	N7-C5	-7.24	1.34	1.39
1	A	1083	U	C2'-C1'	-7.24	1.45	1.53
1	A	18	C	C2'-C1'	-7.24	1.45	1.53
1	A	115	G	O3'-P	-7.24	1.52	1.61
1	A	529	G	O3'-P	-7.24	1.52	1.61
1	A	1334	G	O3'-P	-7.24	1.52	1.61
1	A	200	G	C2-N2	-7.24	1.27	1.34
1	A	539	A	P-O5'	-7.24	1.52	1.59
1	A	565	U	C2'-C1'	-7.24	1.45	1.53
1	A	1307	U	C3'-C2'	-7.24	1.44	1.52
1	A	482	A	N7-C5	-7.24	1.34	1.39
1	A	978	A	N7-C5	-7.24	1.34	1.39
1	A	1299	A	N1-C2	-7.24	1.27	1.34
1	A	1408	A	C8-N7	-7.24	1.26	1.31
1	A	1519	A	N7-C5	-7.24	1.34	1.39
1	A	1020	G	P-O5'	-7.23	1.52	1.59
1	A	394	G	N7-C5	-7.23	1.34	1.39
1	A	856	C	C2'-C1'	-7.23	1.45	1.53
1	A	463	U	C2-N3	7.23	1.42	1.37
1	A	673	A	C3'-C2'	-7.23	1.44	1.52
1	A	1140	C	C5'-C4'	7.23	1.60	1.51
1	A	138	G	C3'-C2'	-7.23	1.44	1.52
1	A	499	A	P-O5'	-7.23	1.52	1.59
1	A	917	G	P-O5'	-7.23	1.52	1.59
1	A	99	C	C2'-C1'	-7.23	1.45	1.53
1	A	371	A	N3-C4	-7.23	1.30	1.34
1	A	1083	U	C3'-C2'	-7.23	1.44	1.52
1	A	158	G	C2'-C1'	-7.22	1.45	1.53
1	A	412	A	O3'-P	-7.22	1.52	1.61
1	A	1377	A	C4'-C3'	-7.22	1.45	1.53
1	A	608	A	N7-C5	-7.22	1.34	1.39
1	A	1057	G	N9-C8	7.22	1.43	1.37
1	A	190	A	C5-C6	-7.22	1.34	1.41
1	A	1261	A	N7-C5	-7.22	1.34	1.39
1	A	1198	G	C2'-C1'	-7.22	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	470	C	C1'-N1	-7.22	1.36	1.46
1	A	499	A	C8-N7	-7.22	1.26	1.31
1	A	761	G	C5-C6	-7.22	1.35	1.42
1	A	1053	G	O3'-P	-7.21	1.52	1.61
1	A	1074	G	C2'-C1'	-7.21	1.45	1.53
1	A	253	A	N3-C4	-7.21	1.30	1.34
1	A	800	G	C5-C6	-7.21	1.35	1.42
1	A	246	A	C5-C6	-7.21	1.34	1.41
1	A	1401	G	P-O5'	-7.21	1.52	1.59
1	A	713	G	C8-N7	-7.21	1.26	1.30
1	A	781	A	C8-N7	-7.21	1.26	1.31
1	A	1226	C	P-O5'	-7.21	1.52	1.59
1	A	372	C	O4'-C1'	-7.20	1.32	1.41
1	A	693	G	N9-C4	-7.20	1.32	1.38
1	A	202	G	O3'-P	-7.20	1.52	1.61
1	A	548	G	C2'-C1'	-7.20	1.45	1.53
1	A	1174	G	C8-N7	-7.20	1.26	1.30
1	A	1287	A	N3-C4	-7.20	1.30	1.34
1	A	1357	A	O3'-P	-7.20	1.52	1.61
1	A	786	G	C3'-C2'	-7.20	1.44	1.52
1	A	1363	A	C1'-N9	-7.20	1.36	1.46
1	A	791	G	C8-N7	-7.20	1.26	1.30
1	A	1269	A	N3-C4	-7.20	1.30	1.34
1	A	1484	C	N1-C6	-7.20	1.32	1.37
1	A	79	G	N1-C2	7.20	1.43	1.37
1	A	148	G	C2'-C1'	-7.20	1.45	1.53
1	A	258	G	C5-C6	-7.20	1.35	1.42
1	A	447	G	P-O5'	-7.20	1.52	1.59
1	A	585	G	N9-C4	-7.20	1.32	1.38
1	A	679	C	C3'-C2'	-7.19	1.44	1.52
1	A	9	G	C2'-C1'	-7.19	1.45	1.53
1	A	686	U	C1'-N1	-7.19	1.36	1.46
1	A	949	A	N7-C5	-7.19	1.34	1.39
1	A	622	A	N3-C4	-7.19	1.30	1.34
1	A	1006	G	N1-C2	7.19	1.43	1.37
1	A	1084	G	C3'-C2'	-7.19	1.44	1.52
1	A	713	G	O3'-P	-7.18	1.52	1.61
1	A	1435	G	N9-C8	-7.18	1.32	1.37
1	A	877	G	C8-N7	-7.18	1.26	1.30
1	A	1048	G	C1'-N9	-7.18	1.36	1.46
1	A	1393	U	C2'-C1'	-7.18	1.45	1.53
1	A	566	G	P-O5'	-7.18	1.52	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	981	U	N1-C6	-7.18	1.31	1.38
1	A	1024	G	N9-C4	-7.18	1.32	1.38
1	A	207	C	P-O5'	-7.18	1.52	1.59
1	A	959	A	C2'-C1'	-7.17	1.45	1.53
1	A	949	A	N9-C4	-7.17	1.33	1.37
1	A	194	C	C3'-C2'	-7.17	1.44	1.52
1	A	318	G	N7-C5	-7.17	1.34	1.39
1	A	1062	U	P-O5'	-7.17	1.52	1.59
1	A	101	A	N9-C4	7.17	1.42	1.37
1	A	226	G	N7-C5	-7.17	1.34	1.39
1	A	437	U	C3'-C2'	-7.17	1.44	1.52
1	A	697	U	N1-C2	-7.17	1.32	1.38
1	A	1499	A	C8-N7	-7.17	1.26	1.31
1	A	406	G	N9-C4	7.16	1.43	1.38
1	A	704	A	N7-C5	-7.16	1.34	1.39
1	A	869	G	C2-N3	-7.16	1.27	1.32
1	A	1398	A	C4'-C3'	-7.16	1.45	1.53
1	A	322	C	C2'-C1'	-7.16	1.45	1.53
1	A	858	G	C5-C6	-7.16	1.35	1.42
1	A	465	A	C2'-C1'	-7.16	1.45	1.53
1	A	581	G	P-O5'	-7.16	1.52	1.59
1	A	1251	A	P-O5'	-7.16	1.52	1.59
1	A	289	G	C2'-C1'	-7.16	1.45	1.53
1	A	265	G	C4'-O4'	-7.15	1.36	1.45
1	A	539	A	N7-C5	-7.15	1.34	1.39
1	A	741	G	P-O5'	-7.15	1.52	1.59
1	A	648	A	C3'-C2'	-7.15	1.44	1.52
1	A	1257	A	N7-C5	-7.15	1.34	1.39
1	A	1502	A	C6-N1	-7.15	1.30	1.35
1	A	3	A	C4'-C3'	-7.15	1.45	1.53
1	A	181	A	C4'-O4'	-7.15	1.36	1.45
1	A	517	G	N9-C4	-7.15	1.32	1.38
1	A	603	U	C4-C5	-7.15	1.37	1.43
1	A	1264	U	C3'-C2'	-7.15	1.44	1.52
1	A	403	C	C4-C5	-7.15	1.37	1.43
1	A	977	A	N9-C4	-7.15	1.33	1.37
1	A	977	A	C2'-C1'	-7.14	1.45	1.53
1	A	1080	A	N9-C4	-7.14	1.33	1.37
1	A	1316	G	C2'-C1'	-7.14	1.45	1.53
1	A	1474	U	C2'-C1'	-7.14	1.45	1.53
1	A	543	U	C2'-O2'	-7.14	1.32	1.41
1	A	557	G	C8-N7	-7.14	1.26	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	928	G	P-O5'	-7.14	1.52	1.59
1	A	1468	A	C1'-N9	-7.14	1.36	1.46
1	A	670	G	N9-C4	-7.14	1.32	1.38
1	A	22	G	P-O5'	-7.14	1.52	1.59
1	A	643	C	C3'-C2'	-7.14	1.44	1.52
1	A	1283	U	P-O5'	-7.14	1.52	1.59
1	A	76	G	N9-C4	7.14	1.43	1.38
1	A	276	G	C6-N1	7.13	1.44	1.39
1	A	325	A	C2'-C1'	-7.13	1.45	1.53
1	A	141	G	C5-C6	-7.13	1.35	1.42
1	A	510	A	C1'-N9	-7.13	1.36	1.46
1	A	605	U	O4'-C1'	-7.13	1.32	1.41
1	A	676	A	C2'-C1'	-7.13	1.45	1.53
1	A	729	A	C8-N7	-7.13	1.26	1.31
1	A	816	A	C3'-C2'	-7.13	1.45	1.52
1	A	230	G	C2'-C1'	-7.13	1.45	1.53
1	A	1117	A	P-O5'	-7.13	1.52	1.59
1	A	21	G	N7-C5	-7.13	1.34	1.39
1	A	196	A	C8-N7	-7.13	1.26	1.31
1	A	727	G	N9-C4	-7.13	1.32	1.38
1	A	1102	A	C8-N7	-7.13	1.26	1.31
1	A	617	G	C5'-C4'	-7.12	1.42	1.51
1	A	1310	G	P-O5'	-7.12	1.52	1.59
1	A	537	G	N7-C5	-7.12	1.34	1.39
1	A	753	A	N9-C4	-7.12	1.33	1.37
1	A	649	A	N9-C4	-7.12	1.33	1.37
1	A	1469	C	N1-C6	7.12	1.41	1.37
1	A	670	G	N7-C5	-7.12	1.34	1.39
1	A	23	C	P-O5'	-7.12	1.52	1.59
1	A	456	A	N7-C5	-7.11	1.34	1.39
1	A	1260	G	O4'-C1'	-7.11	1.32	1.41
1	A	511	C	O3'-P	-7.11	1.52	1.61
1	A	767	A	C2'-C1'	-7.11	1.45	1.53
1	A	1226	C	C4'-O4'	-7.11	1.36	1.45
1	A	1231	G	O3'-P	-7.11	1.52	1.61
1	A	687	A	C5-C6	-7.11	1.34	1.41
1	A	944	G	C4'-C3'	-7.11	1.45	1.53
1	A	1129	C	C2-N3	-7.10	1.30	1.35
1	A	639	G	C5-C6	-7.10	1.35	1.42
1	A	730	G	P-O5'	-7.10	1.52	1.59
1	A	1004	A	N3-C4	-7.10	1.30	1.34
1	A	391	G	C2-N3	-7.10	1.27	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	946	A	C1'-N9	-7.10	1.36	1.46
1	A	65	A	N7-C5	-7.10	1.34	1.39
1	A	246	A	C5-C4	-7.09	1.33	1.38
1	A	1116	U	C3'-C2'	-7.09	1.45	1.52
1	A	1186	G	C8-N7	-7.09	1.26	1.30
1	A	1532	U	C4'-O4'	-7.09	1.36	1.45
1	A	46	G	C1'-N9	-7.09	1.36	1.46
1	A	430	A	C8-N7	-7.09	1.26	1.31
1	A	864	A	C8-N7	-7.09	1.26	1.31
1	A	1084	G	P-O5'	-7.09	1.52	1.59
1	A	1222	G	C8-N7	-7.09	1.26	1.30
1	A	522	C	C3'-C2'	-7.09	1.45	1.52
1	A	464	U	P-O5'	-7.09	1.52	1.59
1	A	694	A	C2'-C1'	-7.09	1.45	1.53
1	A	803	G	C4'-C3'	-7.09	1.45	1.53
1	A	1017	U	C2'-C1'	-7.09	1.45	1.53
1	A	1418	A	N9-C4	-7.09	1.33	1.37
1	A	781	A	N9-C4	-7.08	1.33	1.37
1	A	754	C	P-O5'	-7.08	1.52	1.59
1	A	338	A	N9-C4	-7.08	1.33	1.37
1	A	1012	A	N7-C5	-7.08	1.35	1.39
1	A	324	G	C2'-C1'	-7.08	1.45	1.53
1	A	391	G	C3'-C2'	-7.08	1.45	1.52
1	A	739	C	C2'-C1'	-7.08	1.45	1.53
1	A	776	G	C4'-O4'	-7.08	1.36	1.45
1	A	400	C	C2'-C1'	-7.08	1.45	1.53
1	A	1009	U	N3-C4	-7.08	1.32	1.38
1	A	202	G	C2'-C1'	-7.07	1.45	1.53
1	A	726	C	O3'-P	-7.07	1.52	1.61
1	A	777	A	C3'-C2'	-7.07	1.45	1.52
1	A	1304	G	C5-C4	-7.07	1.33	1.38
1	A	1437	A	N7-C5	-7.07	1.35	1.39
1	A	68	G	P-O5'	-7.06	1.52	1.59
1	A	528	C	C2'-C1'	-7.06	1.45	1.53
1	A	780	A	N9-C4	-7.06	1.33	1.37
1	A	1059	C	O3'-P	-7.06	1.52	1.61
1	A	255	G	C1'-N9	-7.06	1.36	1.46
1	A	864	A	C1'-N9	-7.06	1.36	1.46
1	A	369	G	C2'-C1'	-7.05	1.45	1.53
1	A	391	G	C5-C4	-7.05	1.33	1.38
1	A	920	U	C2'-C1'	-7.05	1.45	1.53
1	A	97	G	C1'-N9	-7.05	1.36	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	949	A	N3-C4	-7.05	1.30	1.34
1	A	1223	C	O3'-P	-7.05	1.52	1.61
1	A	1255	G	C3'-C2'	-7.05	1.45	1.52
1	A	1418	A	C6-N1	7.05	1.40	1.35
1	A	454	G	C2'-C1'	-7.05	1.45	1.53
1	A	801	U	O3'-P	-7.05	1.52	1.61
1	A	1329	A	C2'-C1'	-7.05	1.45	1.53
20	T	55	PRO	CA-C	-7.04	1.38	1.52
1	A	633	G	C6-O6	-7.04	1.17	1.24
1	A	1196	A	O3'-P	-7.04	1.52	1.61
1	A	770	C	C5'-C4'	-7.04	1.43	1.51
1	A	200	G	C3'-C2'	-7.04	1.45	1.52
1	A	138	G	C2-N2	-7.04	1.27	1.34
1	A	162	A	C4'-O4'	-7.03	1.36	1.45
1	A	535	A	C3'-O3'	-7.03	1.32	1.42
1	A	1093	A	N3-C4	-7.03	1.30	1.34
1	A	1300	G	N9-C8	-7.03	1.32	1.37
1	A	1428	A	P-O5'	-7.03	1.52	1.59
1	A	232	G	P-O5'	-7.03	1.52	1.59
1	A	171	A	N9-C4	-7.03	1.33	1.37
1	A	587	G	C2'-C1'	-7.03	1.45	1.53
1	A	1274	A	N1-C2	-7.03	1.28	1.34
1	A	1311	A	N7-C5	-7.02	1.35	1.39
1	A	560	A	C3'-C2'	-7.02	1.45	1.52
1	A	1295	U	O3'-P	-7.02	1.52	1.61
1	A	1349	A	N7-C5	-7.02	1.35	1.39
1	A	1373	G	O3'-P	-7.02	1.52	1.61
1	A	79	G	O3'-P	-7.02	1.52	1.61
1	A	194	C	C5'-C4'	-7.02	1.43	1.51
1	A	248	C	C2'-C1'	-7.02	1.45	1.53
1	A	1139	G	C4'-O4'	-7.02	1.36	1.45
1	A	89	U	O3'-P	-7.02	1.52	1.61
1	A	1152	A	N7-C5	-7.02	1.35	1.39
1	A	46	G	C8-N7	-7.02	1.26	1.30
1	A	704	A	C2'-C1'	-7.02	1.45	1.53
1	A	84	U	C4'-O4'	-7.02	1.36	1.45
1	A	764	C	P-O5'	-7.02	1.52	1.59
1	A	349	A	C3'-C2'	-7.01	1.45	1.52
1	A	1528	U	C2'-C1'	-7.01	1.45	1.53
1	A	46	G	C3'-C2'	-7.01	1.45	1.52
1	A	154	U	C3'-C2'	-7.01	1.45	1.52
1	A	1216	A	C5'-C4'	-7.01	1.43	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1444	U	C3'-C2'	-7.01	1.45	1.52
1	A	559	A	N9-C4	-7.01	1.33	1.37
1	A	946	A	C3'-C2'	-7.01	1.45	1.52
1	A	365	U	C2'-C1'	-7.01	1.45	1.53
1	A	376	G	C2'-C1'	-7.01	1.45	1.53
1	A	1494	G	N9-C8	-7.01	1.32	1.37
1	A	1331	G	C3'-C2'	-7.00	1.45	1.52
1	A	1295	U	C2'-C1'	-7.00	1.45	1.53
1	A	392	C	C2'-C1'	-7.00	1.45	1.53
1	A	1486	G	N9-C4	-7.00	1.32	1.38
1	A	218	U	C2'-C1'	-7.00	1.45	1.53
1	A	540	G	N9-C4	-7.00	1.32	1.38
1	A	467	U	P-O5'	-7.00	1.52	1.59
1	A	1186	G	C2'-C1'	-7.00	1.45	1.53
1	A	743	A	C3'-C2'	-6.99	1.45	1.52
1	A	1024	G	C2-N3	-6.99	1.27	1.32
1	A	1380	U	N1-C6	-6.99	1.31	1.38
1	A	1125	U	C4'-C3'	-6.99	1.45	1.53
1	A	666	G	C2-N3	6.99	1.38	1.32
1	A	770	C	C3'-C2'	-6.99	1.45	1.52
1	A	304	U	O3'-P	-6.99	1.52	1.61
1	A	470	C	C5-C6	-6.99	1.28	1.34
1	A	897	C	N1-C6	-6.99	1.32	1.37
1	A	1219	A	P-O5'	-6.99	1.52	1.59
1	A	1226	C	O3'-P	-6.99	1.52	1.61
1	A	1229	A	C2'-C1'	-6.99	1.45	1.53
1	A	615	G	C2-N2	-6.99	1.27	1.34
1	A	391	G	C1'-N9	-6.99	1.37	1.46
1	A	1006	G	C2'-C1'	-6.99	1.45	1.53
1	A	1184	G	C1'-N9	-6.99	1.37	1.46
1	A	594	U	C4'-O4'	-6.98	1.36	1.45
1	A	7	A	C5'-C4'	6.98	1.59	1.51
1	A	292	G	C3'-C2'	-6.98	1.45	1.52
1	A	21	G	C2'-C1'	-6.98	1.45	1.53
1	A	434	U	N1-C6	-6.98	1.31	1.38
1	A	1014	A	N9-C4	-6.97	1.33	1.37
1	A	227	G	C3'-C2'	-6.97	1.45	1.52
1	A	628	G	C2'-C1'	-6.97	1.45	1.53
1	A	295	C	C3'-C2'	-6.97	1.45	1.52
1	A	509	A	C4'-O4'	-6.97	1.36	1.45
1	A	1301	U	C2'-C1'	-6.97	1.45	1.53
1	A	662	U	C2'-C1'	-6.97	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1304	G	C8-N7	-6.97	1.26	1.30
1	A	1371	G	N7-C5	-6.97	1.35	1.39
1	A	269	C	C2'-C1'	-6.96	1.45	1.53
1	A	330	C	C2'-C1'	-6.96	1.45	1.53
1	A	621	A	C8-N7	-6.96	1.26	1.31
1	A	716	A	N7-C5	-6.96	1.35	1.39
1	A	763	G	P-O5'	-6.96	1.52	1.59
1	A	1210	C	C3'-C2'	-6.96	1.45	1.52
1	A	1180	A	C2'-C1'	-6.96	1.45	1.53
1	A	130	A	C8-N7	-6.96	1.26	1.31
1	A	898	G	P-O5'	-6.96	1.52	1.59
1	A	1033	G	C2'-C1'	-6.96	1.45	1.53
1	A	130	A	O3'-P	-6.96	1.52	1.61
1	A	1256	A	P-O5'	-6.96	1.52	1.59
1	A	1346	A	C1'-N9	-6.96	1.37	1.46
1	A	210	C	P-O5'	-6.95	1.52	1.59
1	A	462	G	C6-N1	-6.95	1.34	1.39
1	A	1010	U	P-O5'	-6.95	1.52	1.59
1	A	391	G	N3-C4	-6.95	1.30	1.35
1	A	518	C	O3'-P	-6.95	1.52	1.61
1	A	1278	G	C5'-C4'	-6.95	1.43	1.51
1	A	1378	C	C4-C5	-6.95	1.37	1.43
1	A	558	G	N9-C4	-6.95	1.32	1.38
1	A	617	G	C4'-C3'	-6.95	1.45	1.53
1	A	1022	A	N7-C5	-6.95	1.35	1.39
1	A	326	G	C2'-C1'	-6.95	1.45	1.53
1	A	1489	G	C2'-C1'	-6.95	1.45	1.53
1	A	123	U	C2'-C1'	-6.95	1.45	1.53
1	A	869	G	C8-N7	-6.95	1.26	1.30
1	A	80	A	C8-N7	-6.94	1.26	1.31
1	A	614	C	O4'-C1'	-6.94	1.32	1.41
1	A	658	C	P-O5'	-6.94	1.52	1.59
1	A	953	G	N7-C5	-6.94	1.35	1.39
1	A	1151	A	N9-C4	6.94	1.42	1.37
1	A	251	G	C2'-C1'	-6.93	1.45	1.53
1	A	133	U	C3'-C2'	-6.93	1.45	1.52
1	A	341	C	C2'-C1'	-6.93	1.45	1.53
1	A	560	A	O3'-P	-6.93	1.52	1.61
1	A	331	G	N7-C5	-6.93	1.35	1.39
1	A	831	A	P-O5'	-6.93	1.52	1.59
1	A	172	A	P-O5'	-6.93	1.52	1.59
1	A	431	A	C2'-C1'	-6.93	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	527	G	P-O5'	-6.93	1.52	1.59
1	A	917	G	C3'-C2'	-6.93	1.45	1.52
1	A	1473	G	C1'-N9	-6.93	1.37	1.46
1	A	63	C	O4'-C1'	-6.93	1.32	1.41
1	A	873	A	N9-C4	-6.93	1.33	1.37
1	A	1280	A	O3'-P	-6.93	1.52	1.61
1	A	1356	G	P-O5'	-6.93	1.52	1.59
1	A	980	C	C2-N3	-6.92	1.30	1.35
1	A	1413	A	N7-C5	-6.92	1.35	1.39
1	A	1274	A	P-O5'	-6.92	1.52	1.59
1	A	252	U	P-O5'	-6.92	1.52	1.59
1	A	1005	A	C4'-C3'	-6.92	1.45	1.53
1	A	290	C	C3'-C2'	-6.92	1.45	1.52
1	A	228	A	N7-C5	-6.92	1.35	1.39
1	A	539	A	C2'-C1'	-6.92	1.45	1.53
1	A	1015	G	N9-C4	-6.92	1.32	1.38
1	A	450	G	C5-C4	-6.92	1.33	1.38
1	A	687	A	C4'-O4'	-6.92	1.36	1.45
1	A	1177	G	C2'-C1'	-6.92	1.45	1.53
1	A	1399	C	P-O5'	-6.92	1.52	1.59
1	A	27	G	C2'-C1'	-6.91	1.45	1.53
1	A	485	U	C2-N3	6.91	1.42	1.37
1	A	822	U	P-O5'	-6.91	1.52	1.59
1	A	1029	U	P-O5'	-6.91	1.52	1.59
1	A	1088	G	N3-C4	-6.91	1.30	1.35
1	A	700	G	C8-N7	-6.91	1.26	1.30
1	A	181	A	C6-N6	-6.91	1.28	1.33
1	A	453	G	O3'-P	-6.91	1.52	1.61
1	A	517	G	C2'-C1'	-6.91	1.45	1.53
1	A	574	A	C2'-C1'	-6.91	1.45	1.53
1	A	155	A	C2'-C1'	-6.91	1.45	1.53
1	A	120	A	C3'-O3'	6.91	1.51	1.42
1	A	1360	A	N9-C4	6.90	1.42	1.37
1	A	279	A	C8-N7	-6.90	1.26	1.31
1	A	523	A	N9-C4	-6.90	1.33	1.37
1	A	668	G	C1'-N9	-6.90	1.37	1.46
1	A	753	A	N7-C5	-6.90	1.35	1.39
1	A	240	G	C5-C6	-6.90	1.35	1.42
1	A	1502	A	C4'-C3'	-6.90	1.45	1.53
1	A	219	U	C3'-C2'	-6.90	1.45	1.52
1	A	498	A	O3'-P	-6.90	1.52	1.61
1	A	872	A	C1'-N9	-6.90	1.37	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	588	G	P-O5'	-6.90	1.52	1.59
1	A	1337	G	P-O5'	-6.90	1.52	1.59
1	A	325	A	P-O5'	-6.90	1.52	1.59
1	A	1378	C	O3'-P	-6.90	1.52	1.61
1	A	181	A	C5'-C4'	-6.89	1.43	1.51
1	A	511	C	C2'-C1'	-6.89	1.45	1.53
1	A	751	U	C2-N3	-6.89	1.32	1.37
1	A	906	A	C3'-C2'	-6.89	1.45	1.52
1	A	1198	G	N9-C8	-6.89	1.33	1.37
1	A	1359	C	O3'-P	-6.89	1.52	1.61
1	A	846	G	C5'-C4'	6.89	1.59	1.51
1	A	1209	C	C3'-C2'	-6.89	1.45	1.52
1	A	1068	G	N9-C8	-6.89	1.33	1.37
1	A	1514	G	C3'-C2'	-6.89	1.45	1.52
1	A	621	A	C2'-C1'	-6.89	1.45	1.53
1	A	509	A	N9-C4	-6.89	1.33	1.37
1	A	1379	G	C4'-C3'	-6.89	1.45	1.53
1	A	246	A	C2'-C1'	-6.88	1.45	1.53
1	A	348	G	C5'-C4'	-6.88	1.43	1.51
1	A	440	C	N3-C4	6.88	1.38	1.33
1	A	830	G	C2'-C1'	-6.88	1.45	1.53
1	A	938	A	P-O5'	-6.88	1.52	1.59
1	A	1463	U	O3'-P	-6.88	1.52	1.61
1	A	300	A	O3'-P	-6.88	1.52	1.61
1	A	942	G	C5-C6	-6.88	1.35	1.42
1	A	1074	G	C1'-N9	-6.88	1.37	1.46
1	A	1344	C	P-O5'	-6.88	1.52	1.59
1	A	1465	A	C4'-C3'	6.88	1.60	1.53
1	A	651	C	P-O5'	-6.88	1.52	1.59
1	A	297	G	C5-C4	-6.88	1.33	1.38
1	A	546	A	P-O5'	-6.88	1.52	1.59
1	A	1154	G	P-O5'	-6.88	1.52	1.59
1	A	1274	A	C3'-C2'	-6.88	1.45	1.52
1	A	1180	A	C3'-C2'	-6.88	1.45	1.52
1	A	267	C	O4'-C1'	-6.88	1.32	1.41
1	A	457	G	C3'-C2'	-6.88	1.45	1.52
1	A	109	A	C2'-C1'	-6.87	1.45	1.53
1	A	255	G	C2'-C1'	-6.87	1.45	1.53
1	A	947	G	C1'-N9	-6.87	1.37	1.46
1	A	1132	C	P-O5'	-6.87	1.52	1.59
1	A	213	G	C2-N3	6.87	1.38	1.32
1	A	668	G	N7-C5	-6.87	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	484	G	O3'-P	-6.87	1.52	1.61
1	A	114	U	C3'-C2'	-6.87	1.45	1.52
1	A	294	U	C3'-C2'	-6.87	1.45	1.52
1	A	98	A	N9-C4	6.87	1.42	1.37
1	A	547	A	C5-C6	-6.87	1.34	1.41
1	A	645	G	N7-C5	-6.87	1.35	1.39
1	A	795	C	C4-C5	-6.87	1.37	1.43
1	A	949	A	C2'-C1'	-6.87	1.45	1.53
1	A	1145	A	N1-C2	-6.87	1.28	1.34
1	A	1531	A	O3'-P	-6.87	1.52	1.61
1	A	407	U	C3'-C2'	-6.86	1.45	1.52
1	A	796	C	P-O5'	-6.86	1.52	1.59
1	A	1171	A	C5-C4	-6.86	1.33	1.38
1	A	1205	U	C3'-C2'	-6.86	1.45	1.52
1	A	547	A	C2'-C1'	-6.86	1.45	1.53
1	A	189	A	O3'-P	-6.86	1.52	1.61
1	A	559	A	C3'-C2'	-6.86	1.45	1.52
1	A	999	C	P-O5'	-6.86	1.52	1.59
1	A	1261	A	P-O5'	-6.86	1.52	1.59
1	A	970	C	C4'-C3'	-6.86	1.45	1.53
1	A	1392	G	P-O5'	-6.86	1.52	1.59
1	A	13	U	C5'-C4'	6.85	1.59	1.51
1	A	511	C	P-O5'	-6.85	1.52	1.59
1	A	1110	A	N3-C4	-6.85	1.30	1.34
1	A	1160	G	N7-C5	-6.85	1.35	1.39
1	A	1377	A	C1'-N9	-6.85	1.37	1.46
1	A	1458	G	N7-C5	-6.85	1.35	1.39
1	A	1050	G	C2'-C1'	-6.85	1.45	1.53
1	A	1348	U	O3'-P	-6.85	1.52	1.61
1	A	800	G	C6-N1	-6.85	1.34	1.39
1	A	894	G	C8-N7	-6.85	1.26	1.30
1	A	1276	G	C2-N2	-6.85	1.27	1.34
1	A	15	G	P-O5'	-6.84	1.52	1.59
1	A	229	U	C2'-C1'	-6.84	1.45	1.53
1	A	1046	A	N7-C5	-6.84	1.35	1.39
1	A	633	G	C5-C6	-6.84	1.35	1.42
1	A	1455	G	P-O5'	-6.84	1.52	1.59
1	A	615	G	N3-C4	-6.84	1.30	1.35
1	A	868	C	C4'-C3'	-6.84	1.45	1.53
1	A	302	G	C2'-C1'	-6.84	1.45	1.53
1	A	809	G	C3'-C2'	-6.84	1.45	1.52
1	A	1365	G	C6-N1	-6.84	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1392	G	N9-C8	-6.84	1.33	1.37
1	A	198	G	N7-C5	-6.84	1.35	1.39
1	A	1171	A	O4'-C1'	-6.83	1.32	1.41
1	A	200	G	N3-C4	-6.83	1.30	1.35
1	A	205	A	N7-C5	-6.83	1.35	1.39
1	A	1515	G	C8-N7	-6.83	1.26	1.30
1	A	240	G	C2-N3	6.83	1.38	1.32
1	A	567	G	P-O5'	-6.83	1.52	1.59
1	A	939	G	C2'-C1'	-6.83	1.45	1.53
1	A	1450	U	C3'-C2'	-6.83	1.45	1.52
1	A	1409	C	C3'-C2'	-6.83	1.45	1.52
1	A	447	G	N9-C8	-6.83	1.33	1.37
1	A	558	G	N9-C8	-6.83	1.33	1.37
1	A	1107	C	C2'-C1'	-6.82	1.45	1.53
1	A	297	G	O3'-P	-6.82	1.52	1.61
1	A	356	A	C2'-C1'	-6.82	1.45	1.53
1	A	648	A	C5'-C4'	-6.82	1.43	1.51
1	A	1372	U	C2'-C1'	-6.82	1.45	1.53
1	A	106	C	O3'-P	-6.82	1.52	1.61
1	A	296	U	C4'-C3'	-6.82	1.45	1.53
1	A	360	G	N7-C5	-6.82	1.35	1.39
1	A	1046	A	C4'-C3'	-6.82	1.45	1.53
1	A	1102	A	C1'-N9	-6.82	1.37	1.46
1	A	1486	G	C2'-C1'	-6.82	1.45	1.53
1	A	594	U	O3'-P	-6.82	1.52	1.61
1	A	1178	G	N9-C4	-6.82	1.32	1.38
1	A	494	G	C4'-C3'	-6.81	1.45	1.53
1	A	1429	A	C3'-C2'	-6.81	1.45	1.52
1	A	357	G	C2'-C1'	-6.81	1.45	1.53
1	A	1028	C	P-O5'	-6.81	1.52	1.59
1	A	78	A	N9-C8	-6.81	1.32	1.37
1	A	376	G	C3'-C2'	-6.81	1.45	1.52
1	A	981	U	O3'-P	-6.81	1.52	1.61
1	A	1433	A	P-O5'	-6.81	1.52	1.59
1	A	59	A	N9-C8	-6.81	1.32	1.37
1	A	76	G	C2-N3	6.81	1.38	1.32
1	A	586	C	C3'-C2'	-6.81	1.45	1.52
1	A	1522	U	C2-N3	-6.81	1.32	1.37
1	A	670	G	P-O5'	-6.80	1.52	1.59
1	A	1364	U	C2'-C1'	-6.80	1.45	1.53
1	A	815	A	C1'-N9	-6.80	1.37	1.46
1	A	195	A	C8-N7	-6.80	1.26	1.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	538	G	C5-C6	-6.80	1.35	1.42
1	A	648	A	C5-C6	-6.80	1.34	1.41
1	A	840	C	P-O5'	-6.80	1.52	1.59
1	A	901	A	C8-N7	-6.80	1.26	1.31
1	A	918	A	C4'-C3'	-6.80	1.45	1.53
1	A	370	C	P-O5'	-6.80	1.52	1.59
1	A	350	G	C2-N3	-6.79	1.27	1.32
1	A	1059	C	P-O5'	-6.79	1.52	1.59
1	A	1131	G	C2-N3	-6.79	1.27	1.32
1	A	55	A	N7-C5	-6.79	1.35	1.39
1	A	62	U	C5'-C4'	-6.79	1.43	1.51
1	A	628	G	C8-N7	-6.79	1.26	1.30
1	A	1106	G	N9-C4	6.79	1.43	1.38
1	A	749	A	C3'-C2'	-6.79	1.45	1.52
1	A	1501	C	C5'-C4'	-6.79	1.43	1.51
1	A	126	G	O4'-C1'	-6.79	1.32	1.41
1	A	1308	U	O3'-P	-6.79	1.53	1.61
1	A	1309	G	C1'-N9	-6.79	1.37	1.46
1	A	276	G	C4'-C3'	-6.79	1.45	1.53
1	A	211	G	C5'-C4'	6.79	1.59	1.51
1	A	397	A	N7-C5	-6.79	1.35	1.39
1	A	1309	G	C2'-C1'	-6.79	1.45	1.53
1	A	193	C	C4'-O4'	-6.78	1.36	1.45
1	A	652	U	O3'-P	-6.78	1.53	1.61
1	A	1156	G	C3'-C2'	-6.78	1.45	1.52
1	A	302	G	C3'-C2'	-6.78	1.45	1.52
1	A	1243	C	C3'-C2'	-6.78	1.45	1.52
1	A	669	G	C2'-C1'	-6.78	1.45	1.53
1	A	293	G	C2'-C1'	-6.78	1.45	1.53
1	A	782	A	C4'-O4'	-6.78	1.36	1.45
1	A	1262	C	N3-C4	-6.78	1.29	1.33
1	A	113	G	C3'-C2'	-6.78	1.45	1.52
1	A	353	A	O3'-P	-6.78	1.53	1.61
1	A	399	G	C4'-C3'	-6.78	1.45	1.53
1	A	499	A	N3-C4	-6.78	1.30	1.34
1	A	685	G	O3'-P	-6.78	1.53	1.61
1	A	1319	A	C1'-N9	-6.78	1.37	1.46
1	A	1044	A	C1'-N9	-6.77	1.37	1.46
1	A	1368	A	C2'-C1'	-6.77	1.45	1.53
1	A	22	G	C8-N7	-6.77	1.26	1.30
1	A	706	A	N9-C4	-6.77	1.33	1.37
1	A	275	G	C4'-C3'	-6.77	1.45	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	132	C	P-O5'	-6.77	1.52	1.59
1	A	57	G	C5-C6	-6.77	1.35	1.42
1	A	1206	G	C4'-C3'	-6.77	1.45	1.53
1	A	1518	A	C4'-C3'	-6.77	1.45	1.53
1	A	313	A	C3'-C2'	-6.76	1.45	1.52
1	A	1157	A	C6-N6	-6.76	1.28	1.33
1	A	1486	G	N3-C4	-6.76	1.30	1.35
1	A	767	A	N9-C4	-6.76	1.33	1.37
1	A	937	A	C2'-C1'	-6.76	1.46	1.53
1	A	143	A	C4'-C3'	-6.76	1.45	1.53
1	A	638	U	P-O5'	-6.76	1.52	1.59
1	A	1041	G	C2-N3	6.76	1.38	1.32
1	A	340	U	C2'-C1'	-6.76	1.46	1.53
1	A	529	G	C1'-N9	-6.76	1.37	1.46
1	A	1135	U	C3'-C2'	-6.76	1.45	1.52
1	A	197	A	N7-C5	-6.75	1.35	1.39
1	A	484	G	P-O5'	-6.75	1.52	1.59
1	A	1048	G	C2'-C1'	-6.75	1.46	1.53
1	A	860	A	O3'-P	-6.75	1.53	1.61
1	A	1247	U	C3'-C2'	-6.75	1.45	1.52
1	A	748	G	N7-C5	-6.75	1.35	1.39
1	A	330	C	C2-N3	-6.75	1.30	1.35
1	A	403	C	C4-N4	-6.75	1.27	1.33
1	A	469	C	C4-C5	-6.75	1.37	1.43
1	A	806	C	C2'-C1'	-6.75	1.46	1.53
1	A	832	G	C8-N7	-6.75	1.26	1.30
1	A	166	U	C3'-C2'	-6.75	1.45	1.52
1	A	1389	C	C2'-C1'	-6.75	1.46	1.53
1	A	1421	G	N3-C4	-6.75	1.30	1.35
1	A	606	G	C2-N3	-6.74	1.27	1.32
1	A	825	A	P-O5'	-6.74	1.53	1.59
1	A	675	A	C2'-C1'	-6.74	1.46	1.53
1	A	1032	G	C8-N7	-6.74	1.26	1.30
1	A	1214	C	C2'-C1'	-6.74	1.46	1.53
1	A	79	G	N7-C5	-6.74	1.35	1.39
1	A	442	G	N9-C4	-6.74	1.32	1.38
1	A	466	A	N9-C8	-6.74	1.32	1.37
1	A	474	G	P-O5'	-6.74	1.53	1.59
1	A	495	A	C3'-C2'	-6.74	1.45	1.52
1	A	792	A	O3'-P	-6.74	1.53	1.61
1	A	546	A	N3-C4	-6.74	1.30	1.34
1	A	633	G	N3-C4	-6.74	1.30	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	320	A	O4'-C1'	-6.73	1.32	1.41
1	A	350	G	N7-C5	-6.73	1.35	1.39
1	A	1132	C	C2-N3	-6.73	1.30	1.35
1	A	1225	A	O3'-P	-6.73	1.53	1.61
1	A	559	A	C4'-O4'	-6.73	1.36	1.45
1	A	1304	G	N3-C4	-6.73	1.30	1.35
1	A	1363	A	N7-C5	-6.73	1.35	1.39
1	A	1379	G	N7-C5	-6.73	1.35	1.39
1	A	1370	G	C3'-C2'	-6.73	1.45	1.52
1	A	1110	A	C2'-C1'	-6.73	1.46	1.53
1	A	262	A	C4'-O4'	-6.72	1.36	1.45
1	A	872	A	O3'-P	-6.72	1.53	1.61
1	A	849	G	C2'-C1'	-6.72	1.46	1.53
1	A	300	A	N3-C4	-6.72	1.30	1.34
1	A	407	U	P-O5'	-6.72	1.53	1.59
1	A	20	U	C3'-C2'	-6.72	1.45	1.52
1	A	272	C	C4-C5	-6.72	1.37	1.43
1	A	1302	C	N3-C4	6.72	1.38	1.33
1	A	263	A	N9-C4	-6.72	1.33	1.37
1	A	1469	C	C4-C5	-6.72	1.37	1.43
1	A	93	U	C2-N3	-6.71	1.33	1.37
1	A	363	A	N3-C4	-6.71	1.30	1.34
1	A	602	A	C2'-C1'	-6.71	1.46	1.53
1	A	692	U	C4'-C3'	-6.71	1.45	1.53
1	A	1281	C	P-O5'	-6.71	1.53	1.59
1	A	1307	U	C2'-C1'	-6.71	1.46	1.53
1	A	123	U	C3'-C2'	-6.71	1.45	1.52
1	A	693	G	O3'-P	-6.71	1.53	1.61
1	A	832	G	N7-C5	-6.71	1.35	1.39
1	A	986	U	C2'-O2'	-6.71	1.32	1.41
1	A	1140	C	C1'-N1	6.71	1.58	1.48
1	A	313	A	C2'-C1'	-6.70	1.46	1.53
1	A	640	A	N9-C4	-6.70	1.33	1.37
1	A	1146	A	C8-N7	-6.70	1.26	1.31
1	A	365	U	P-O5'	-6.70	1.53	1.59
1	A	168	G	N7-C5	-6.70	1.35	1.39
1	A	289	G	C4'-C3'	-6.70	1.45	1.53
1	A	202	G	C5-C4	-6.70	1.33	1.38
1	A	630	A	N9-C4	-6.70	1.33	1.37
1	A	766	A	N7-C5	-6.70	1.35	1.39
1	A	1127	G	C5-C6	-6.70	1.35	1.42
1	A	527	G	N7-C5	-6.69	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1101	A	N9-C4	-6.69	1.33	1.37
1	A	707	U	C3'-C2'	-6.69	1.45	1.52
1	A	947	G	O3'-P	-6.69	1.53	1.61
1	A	1094	G	N7-C5	-6.69	1.35	1.39
1	A	633	G	C6-N1	-6.69	1.34	1.39
1	A	1000	A	N7-C5	-6.69	1.35	1.39
1	A	1176	A	C2'-C1'	-6.69	1.46	1.53
1	A	343	U	O4'-C1'	-6.69	1.32	1.41
1	A	1289	A	C2'-C1'	-6.69	1.46	1.53
1	A	1508	A	C2'-C1'	-6.69	1.46	1.53
15	O	22	GLY	CA-C	-6.69	1.41	1.51
1	A	1337	G	C1'-N9	-6.69	1.37	1.46
1	A	1518	A	N9-C4	-6.68	1.33	1.37
1	A	1154	G	C3'-C2'	-6.68	1.45	1.52
1	A	1237	C	O4'-C1'	-6.68	1.32	1.41
1	A	1253	G	C2'-C1'	-6.68	1.46	1.53
1	A	536	C	O4'-C1'	-6.68	1.32	1.41
1	A	938	A	C2'-C1'	-6.68	1.46	1.53
1	A	81	A	N3-C4	-6.68	1.30	1.34
1	A	410	G	C3'-O3'	-6.68	1.32	1.42
1	A	222	C	C3'-C2'	-6.67	1.45	1.52
1	A	235	C	C3'-C2'	-6.67	1.45	1.52
1	A	911	U	O3'-P	-6.67	1.53	1.61
1	A	1040	U	C4'-C3'	-6.67	1.45	1.53
1	A	1111	A	C2'-C1'	-6.67	1.46	1.53
9	I	69	GLY	CA-C	-6.67	1.41	1.51
1	A	1004	A	N9-C4	-6.67	1.33	1.37
1	A	354	G	N7-C5	-6.67	1.35	1.39
1	A	1460	C	C3'-C2'	-6.67	1.45	1.52
1	A	43	C	P-O5'	-6.67	1.53	1.59
1	A	691	G	C5-C4	-6.67	1.33	1.38
1	A	59	A	C4'-O4'	-6.67	1.36	1.45
1	A	142	G	O3'-P	-6.67	1.53	1.61
1	A	177	G	N7-C5	-6.67	1.35	1.39
1	A	878	A	C8-N7	-6.67	1.26	1.31
1	A	927	G	C3'-C2'	-6.67	1.45	1.52
1	A	1037	C	C2'-C1'	-6.67	1.46	1.53
1	A	1042	A	C8-N7	-6.67	1.26	1.31
1	A	289	G	C3'-C2'	-6.67	1.45	1.52
1	A	727	G	C2'-C1'	-6.66	1.46	1.53
1	A	407	U	C2'-C1'	-6.66	1.46	1.53
1	A	492	C	P-O5'	-6.66	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	745	G	C4'-C3'	-6.66	1.45	1.53
1	A	1004	A	C3'-C2'	-6.66	1.45	1.52
1	A	674	G	P-O5'	-6.66	1.53	1.59
1	A	782	A	N3-C4	-6.66	1.30	1.34
1	A	925	G	O3'-P	-6.66	1.53	1.61
1	A	1377	A	O3'-P	-6.66	1.53	1.61
1	A	721	G	C1'-N9	-6.65	1.37	1.46
1	A	384	G	C2'-C1'	-6.65	1.46	1.53
1	A	499	A	C2'-C1'	-6.65	1.46	1.53
1	A	895	G	C2'-C1'	-6.65	1.46	1.53
1	A	1108	G	P-O5'	-6.65	1.53	1.59
1	A	16	A	C3'-C2'	-6.65	1.45	1.52
1	A	424	G	N7-C5	-6.65	1.35	1.39
1	A	716	A	P-O5'	-6.65	1.53	1.59
1	A	1275	A	C5-C6	-6.65	1.35	1.41
1	A	821	G	N7-C5	-6.65	1.35	1.39
1	A	1067	A	C4'-O4'	-6.65	1.36	1.45
1	A	192	A	C8-N7	-6.65	1.26	1.31
1	A	1093	A	N9-C8	-6.65	1.32	1.37
1	A	82	G	C3'-C2'	-6.64	1.45	1.52
1	A	87	C	C2'-C1'	-6.64	1.46	1.53
1	A	257	G	C5-C6	-6.64	1.35	1.42
1	A	814	A	C1'-N9	-6.64	1.37	1.46
1	A	1142	G	C5'-C4'	-6.64	1.43	1.51
1	A	927	G	C4'-C3'	-6.64	1.45	1.53
1	A	788	U	N3-C4	6.64	1.44	1.38
1	A	1236	A	C2'-C1'	-6.64	1.46	1.53
1	A	1422	G	C2'-C1'	-6.64	1.46	1.53
1	A	138	G	N7-C5	-6.64	1.35	1.39
1	A	630	A	N7-C5	-6.64	1.35	1.39
1	A	1008	U	C3'-C2'	-6.64	1.45	1.52
1	A	1084	G	C5'-C4'	-6.64	1.43	1.51
1	A	81	A	C4'-O4'	-6.63	1.36	1.45
1	A	329	A	C1'-N9	6.63	1.58	1.48
1	A	824	G	N9-C4	-6.63	1.32	1.38
1	A	752	G	N3-C4	-6.63	1.30	1.35
1	A	232	G	O4'-C1'	-6.63	1.33	1.41
1	A	1003	G	P-O5'	-6.63	1.53	1.59
1	A	1456	A	N9-C4	-6.63	1.33	1.37
1	A	553	A	P-O5'	-6.62	1.53	1.59
1	A	536	C	C4'-O4'	-6.62	1.36	1.45
1	A	116	A	P-O5'	-6.62	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	264	C	C4-C5	-6.62	1.37	1.43
1	A	1359	C	C4'-C3'	-6.62	1.45	1.53
1	A	68	G	C5-C6	-6.62	1.35	1.42
1	A	974	A	O3'-P	-6.62	1.53	1.61
1	A	1355	G	P-O5'	-6.62	1.53	1.59
1	A	74	A	O3'-P	-6.62	1.53	1.61
1	A	327	A	N9-C8	-6.62	1.32	1.37
1	A	902	G	C2'-C1'	-6.62	1.46	1.53
1	A	1152	A	C5'-C4'	-6.62	1.43	1.51
1	A	1353	G	C2'-C1'	-6.62	1.46	1.53
1	A	155	A	P-O5'	-6.61	1.53	1.59
1	A	348	G	P-O5'	-6.61	1.53	1.59
1	A	1062	U	C2-N3	-6.61	1.33	1.37
1	A	994	A	C2'-C1'	-6.61	1.46	1.53
1	A	1528	U	O3'-P	-6.61	1.53	1.61
1	A	55	A	N9-C4	-6.61	1.33	1.37
1	A	420	U	O3'-P	-6.61	1.53	1.61
1	A	1329	A	P-O5'	-6.61	1.53	1.59
1	A	881	G	N7-C5	-6.61	1.35	1.39
1	A	1278	G	N3-C4	-6.61	1.30	1.35
1	A	1413	A	C2'-C1'	-6.61	1.46	1.53
1	A	312	C	O3'-P	-6.61	1.53	1.61
1	A	614	C	C4'-O4'	-6.61	1.36	1.45
1	A	1291	U	C3'-C2'	-6.61	1.45	1.52
1	A	537	G	C2'-C1'	-6.60	1.46	1.53
1	A	687	A	C5-C4	-6.60	1.34	1.38
1	A	745	G	N9-C8	-6.60	1.33	1.37
1	A	1384	C	P-O5'	-6.60	1.53	1.59
1	A	760	G	C8-N7	-6.60	1.26	1.30
1	A	66	A	C4'-C3'	-6.60	1.45	1.53
1	A	115	G	C5-C6	-6.60	1.35	1.42
1	A	189	A	N9-C4	-6.60	1.33	1.37
1	A	341	C	P-O5'	-6.60	1.53	1.59
1	A	867	G	C4'-C3'	-6.60	1.45	1.53
1	A	784	A	C3'-C2'	-6.59	1.45	1.52
1	A	1326	U	P-O5'	-6.59	1.53	1.59
1	A	344	A	C2'-C1'	-6.59	1.46	1.53
1	A	655	A	C3'-C2'	-6.59	1.45	1.52
1	A	775	G	C2'-C1'	-6.59	1.46	1.53
1	A	358	U	C2'-C1'	-6.59	1.46	1.53
1	A	1399	C	C3'-C2'	-6.59	1.45	1.52
1	A	326	G	C2-N3	6.59	1.38	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1395	C	O3'-P	-6.59	1.53	1.61
1	A	847	G	P-O5'	-6.59	1.53	1.59
1	A	151	A	N3-C4	-6.58	1.30	1.34
1	A	582	C	C4-C5	-6.58	1.37	1.43
1	A	657	U	C4'-C3'	-6.58	1.46	1.53
1	A	909	A	N3-C4	-6.58	1.30	1.34
1	A	33	A	C3'-C2'	-6.58	1.45	1.52
1	A	283	U	P-O5'	-6.58	1.53	1.59
1	A	763	G	N7-C5	-6.58	1.35	1.39
1	A	1133	G	P-O5'	-6.58	1.53	1.59
1	A	1197	A	C2'-C1'	-6.58	1.46	1.53
1	A	1315	U	C3'-C2'	-6.58	1.45	1.52
1	A	325	A	C3'-C2'	-6.58	1.45	1.52
1	A	516	U	C3'-C2'	-6.58	1.45	1.52
1	A	840	C	C3'-C2'	-6.58	1.45	1.52
1	A	1366	C	C2-N3	-6.58	1.30	1.35
1	A	283	U	C2'-C1'	-6.58	1.46	1.53
1	A	733	G	C2'-C1'	-6.58	1.46	1.53
1	A	1385	G	N7-C5	-6.58	1.35	1.39
1	A	404	G	O3'-P	-6.58	1.53	1.61
1	A	709	U	C3'-C2'	-6.58	1.45	1.52
1	A	535	A	N9-C4	-6.57	1.33	1.37
1	A	568	G	C3'-C2'	-6.57	1.45	1.52
1	A	1067	A	O4'-C1'	-6.57	1.33	1.41
13	M	23	GLY	CA-C	-6.57	1.41	1.51
1	A	960	U	C4'-O4'	-6.57	1.37	1.45
1	A	1268	G	N9-C8	-6.57	1.33	1.37
1	A	1514	G	N7-C5	-6.57	1.35	1.39
1	A	1482	G	C3'-O3'	-6.57	1.32	1.42
1	A	118	U	C4-C5	-6.57	1.37	1.43
1	A	685	G	C6-N1	6.57	1.44	1.39
1	A	1233	G	O3'-P	-6.57	1.53	1.61
1	A	1516	G	N7-C5	-6.57	1.35	1.39
1	A	444	G	P-O5'	-6.57	1.53	1.59
1	A	1090	U	O3'-P	-6.57	1.53	1.61
1	A	1501	C	O4'-C1'	-6.57	1.33	1.41
1	A	1191	A	C5-C6	-6.56	1.35	1.41
1	A	1242	G	C6-N1	-6.56	1.34	1.39
1	A	75	G	C4'-C3'	-6.56	1.46	1.53
1	A	626	G	P-O5'	-6.56	1.53	1.59
1	A	686	U	C4'-O4'	-6.56	1.37	1.45
1	A	809	G	P-O5'	-6.56	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1303	C	C5'-C4'	-6.56	1.43	1.51
1	A	932	C	P-O5'	-6.56	1.53	1.59
1	A	581	G	N9-C8	-6.56	1.33	1.37
1	A	584	G	N3-C4	-6.56	1.30	1.35
1	A	1530	G	O3'-P	-6.56	1.53	1.61
1	A	585	G	C3'-C2'	-6.56	1.45	1.52
1	A	1078	U	P-O5'	-6.56	1.53	1.59
1	A	272	C	O3'-P	-6.56	1.53	1.61
1	A	395	C	C3'-C2'	-6.56	1.45	1.52
1	A	481	G	O4'-C1'	-6.56	1.33	1.41
1	A	855	U	C3'-C2'	-6.56	1.45	1.52
1	A	1441	A	C4'-C3'	-6.56	1.46	1.53
1	A	348	G	O4'-C1'	-6.55	1.33	1.41
1	A	960	U	O4'-C1'	-6.55	1.33	1.41
1	A	1087	G	N9-C8	-6.55	1.33	1.37
1	A	1441	A	O3'-P	-6.55	1.53	1.61
1	A	675	A	C5'-C4'	-6.55	1.43	1.51
1	A	91	U	C5'-C4'	6.55	1.59	1.51
1	A	187	G	N9-C4	-6.55	1.32	1.38
1	A	275	G	C8-N7	-6.55	1.27	1.30
1	A	522	C	C4'-C3'	-6.55	1.46	1.53
1	A	653	U	P-O5'	-6.55	1.53	1.59
1	A	75	G	N7-C5	-6.55	1.35	1.39
1	A	293	G	C3'-C2'	-6.55	1.45	1.52
1	A	356	A	C3'-C2'	-6.55	1.45	1.52
1	A	774	G	C3'-C2'	-6.55	1.45	1.52
1	A	839	C	P-O5'	-6.55	1.53	1.59
1	A	923	A	N9-C8	-6.55	1.32	1.37
1	A	1127	G	O4'-C1'	-6.54	1.33	1.41
1	A	1370	G	C4'-C3'	-6.54	1.46	1.53
1	A	614	C	C2-N3	-6.54	1.30	1.35
1	A	766	A	C3'-C2'	-6.54	1.45	1.52
1	A	995	C	P-O5'	-6.54	1.53	1.59
1	A	1024	G	C2'-C1'	-6.54	1.46	1.53
1	A	164	G	N7-C5	-6.54	1.35	1.39
1	A	211	G	N7-C5	-6.54	1.35	1.39
1	A	359	G	O3'-P	-6.54	1.53	1.61
1	A	1012	A	C2'-C1'	-6.54	1.46	1.53
1	A	1284	C	C3'-C2'	-6.54	1.45	1.52
1	A	767	A	N3-C4	-6.53	1.30	1.34
1	A	998	C	C2'-C1'	-6.53	1.46	1.53
1	A	1464	U	P-O5'	-6.53	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1024	G	N3-C4	-6.53	1.30	1.35
1	A	1328	C	C2'-C1'	-6.53	1.46	1.53
1	A	241	G	C1'-N9	-6.53	1.37	1.46
1	A	730	G	C2'-C1'	-6.53	1.46	1.53
1	A	738	C	O3'-P	-6.53	1.53	1.61
1	A	1146	A	C5-C6	-6.53	1.35	1.41
1	A	1432	G	C2'-C1'	-6.53	1.46	1.53
1	A	308	C	C2'-C1'	-6.53	1.46	1.53
1	A	888	G	C5-C4	-6.53	1.33	1.38
1	A	1510	C	P-O5'	-6.53	1.53	1.59
1	A	267	C	N1-C6	-6.53	1.33	1.37
1	A	312	C	C2'-C1'	-6.53	1.46	1.53
1	A	591	U	C2'-C1'	-6.53	1.46	1.53
1	A	780	A	C6-N6	6.53	1.39	1.33
1	A	797	C	C2-N3	-6.53	1.30	1.35
1	A	1379	G	C1'-N9	-6.53	1.37	1.46
1	A	388	G	C2'-C1'	-6.53	1.46	1.53
1	A	542	G	C2'-C1'	-6.53	1.46	1.53
1	A	1300	G	C4'-O4'	-6.53	1.37	1.45
1	A	1417	G	O3'-P	-6.53	1.53	1.61
1	A	992	U	C3'-C2'	-6.52	1.45	1.52
1	A	1041	G	N7-C5	-6.52	1.35	1.39
1	A	1301	U	O4'-C1'	-6.52	1.33	1.41
1	A	1500	A	C2'-C1'	-6.52	1.46	1.53
1	A	1257	A	P-O5'	-6.52	1.53	1.59
1	A	100	G	C2'-C1'	-6.52	1.46	1.53
1	A	271	C	C4-C5	-6.52	1.37	1.43
1	A	480	U	C3'-C2'	-6.52	1.45	1.52
1	A	773	G	P-O5'	-6.52	1.53	1.59
1	A	803	G	C2'-C1'	-6.52	1.46	1.53
1	A	1139	G	O4'-C1'	-6.52	1.33	1.41
1	A	1513	A	N7-C5	-6.52	1.35	1.39
1	A	231	U	C3'-C2'	-6.52	1.45	1.52
1	A	649	A	O3'-P	-6.52	1.53	1.61
1	A	736	C	C3'-C2'	-6.52	1.45	1.52
1	A	1262	C	C4'-C3'	-6.52	1.46	1.53
1	A	1532	U	C4'-C3'	-6.52	1.46	1.53
1	A	233	C	O3'-P	-6.52	1.53	1.61
1	A	1177	G	C5-C6	-6.52	1.35	1.42
1	A	1269	A	C4'-C3'	-6.52	1.46	1.53
1	A	1197	A	C4'-C3'	-6.51	1.46	1.53
1	A	1252	A	N7-C5	-6.51	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1025	U	C3'-C2'	-6.51	1.45	1.52
1	A	72	A	N7-C5	-6.51	1.35	1.39
1	A	929	G	N9-C4	-6.51	1.32	1.38
1	A	1108	G	N7-C5	-6.51	1.35	1.39
1	A	1126	U	P-O5'	-6.51	1.53	1.59
1	A	1504	G	N3-C4	-6.51	1.30	1.35
1	A	451	A	N7-C5	-6.51	1.35	1.39
1	A	2	A	N9-C4	-6.51	1.33	1.37
1	A	218	U	O4'-C1'	-6.51	1.33	1.41
1	A	284	C	C2'-C1'	-6.50	1.46	1.53
1	A	1000	A	C8-N7	-6.50	1.26	1.31
1	A	428	G	C4'-O4'	-6.50	1.37	1.45
1	A	548	G	O3'-P	-6.50	1.53	1.61
1	A	646	G	C2'-C1'	-6.50	1.46	1.53
1	A	1523	G	C5'-C4'	-6.50	1.43	1.51
1	A	62	U	C4'-O4'	-6.50	1.37	1.45
1	A	1302	C	C2'-C1'	-6.50	1.46	1.53
1	A	281	G	C2'-C1'	-6.50	1.46	1.53
1	A	342	C	P-O5'	-6.50	1.53	1.59
1	A	944	G	C2'-C1'	-6.50	1.46	1.53
1	A	960	U	O3'-P	-6.50	1.53	1.61
1	A	1104	G	P-O5'	-6.50	1.53	1.59
1	A	1429	A	N7-C5	-6.50	1.35	1.39
1	A	455	G	N9-C4	-6.50	1.32	1.38
1	A	1375	A	P-O5'	-6.50	1.53	1.59
1	A	1245	C	C2'-C1'	-6.49	1.46	1.53
1	A	206	C	P-O5'	-6.49	1.53	1.59
1	A	99	C	P-O5'	-6.49	1.53	1.59
1	A	117	G	C5-C6	-6.49	1.35	1.42
1	A	359	G	C3'-C2'	-6.49	1.45	1.52
1	A	1182	G	C2'-C1'	-6.49	1.46	1.53
1	A	450	G	C2'-C1'	-6.49	1.46	1.53
1	A	695	A	N9-C4	-6.49	1.33	1.37
1	A	807	A	C3'-C2'	-6.49	1.45	1.52
1	A	1278	G	C1'-N9	-6.49	1.37	1.46
1	A	1501	C	C2'-C1'	-6.49	1.46	1.53
1	A	721	G	N9-C4	-6.49	1.32	1.38
1	A	1406	U	C1'-N1	-6.49	1.37	1.46
1	A	256	U	C3'-C2'	-6.48	1.45	1.52
1	A	320	A	C4'-O4'	-6.48	1.37	1.45
1	A	583	A	C2'-C1'	-6.48	1.46	1.53
1	A	167	A	N3-C4	-6.48	1.30	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	716	A	C2'-C1'	-6.48	1.46	1.53
1	A	816	A	N9-C8	-6.48	1.32	1.37
1	A	168	G	C5-C6	-6.48	1.35	1.42
1	A	494	G	P-O5'	-6.48	1.53	1.59
1	A	813	U	C4'-C3'	-6.48	1.46	1.53
1	A	275	G	N3-C4	-6.47	1.30	1.35
1	A	1297	G	O4'-C1'	-6.47	1.33	1.41
1	A	927	G	O3'-P	-6.47	1.53	1.61
1	A	1448	C	P-O5'	-6.47	1.53	1.59
1	A	603	U	C3'-C2'	-6.47	1.45	1.52
1	A	1064	G	C2-N2	-6.47	1.28	1.34
1	A	141	G	O4'-C1'	-6.47	1.33	1.41
1	A	273	U	C4'-C3'	-6.47	1.46	1.53
1	A	657	U	C2'-C1'	-6.47	1.46	1.53
1	A	701	U	O4'-C1'	-6.47	1.33	1.41
1	A	976	G	C5-C6	-6.47	1.35	1.42
1	A	1047	G	C3'-C2'	-6.47	1.45	1.52
1	A	1419	G	C4'-C3'	-6.47	1.46	1.53
1	A	386	C	C3'-C2'	-6.47	1.45	1.52
1	A	887	G	C5-C4	-6.47	1.33	1.38
1	A	253	A	N9-C8	-6.47	1.32	1.37
1	A	474	G	C8-N7	-6.47	1.27	1.30
1	A	521	G	C2'-C1'	-6.47	1.46	1.53
1	A	230	G	N7-C5	-6.46	1.35	1.39
1	A	245	U	C3'-C2'	-6.46	1.45	1.52
1	A	824	G	C5-C6	-6.46	1.35	1.42
1	A	288	A	N9-C4	-6.46	1.33	1.37
1	A	581	G	N3-C4	-6.46	1.30	1.35
1	A	791	G	P-O5'	-6.46	1.53	1.59
1	A	132	C	O4'-C1'	-6.46	1.33	1.41
1	A	324	G	O3'-P	-6.46	1.53	1.61
1	A	982	U	C2'-C1'	-6.46	1.46	1.53
1	A	1068	G	C1'-N9	-6.46	1.37	1.46
1	A	1117	A	C1'-N9	-6.46	1.37	1.46
1	A	681	A	N7-C5	-6.46	1.35	1.39
1	A	1233	G	P-O5'	-6.46	1.53	1.59
1	A	1278	G	N7-C5	-6.46	1.35	1.39
1	A	1514	G	C5-C6	-6.46	1.35	1.42
1	A	338	A	C3'-C2'	-6.46	1.45	1.52
1	A	552	U	C2'-C1'	-6.46	1.46	1.53
1	A	969	A	C8-N7	-6.46	1.27	1.31
1	A	194	C	O4'-C1'	-6.46	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	E	50	GLY	CA-C	-6.46	1.41	1.51
1	A	590	U	P-O5'	-6.45	1.53	1.59
1	A	1379	G	C2'-C1'	-6.45	1.46	1.53
1	A	738	C	C4'-C3'	-6.45	1.46	1.53
1	A	825	A	C3'-C2'	-6.45	1.45	1.52
1	A	1238	A	C3'-C2'	-6.45	1.45	1.52
1	A	92	U	O4'-C1'	-6.45	1.33	1.41
1	A	146	G	N1-C2	6.45	1.43	1.37
1	A	1145	A	C2-N3	-6.44	1.27	1.33
1	A	34	C	C2'-C1'	-6.44	1.46	1.53
1	A	186	C	C3'-C2'	-6.44	1.45	1.52
1	A	248	C	C3'-C2'	-6.44	1.45	1.52
1	A	1254	A	C2'-C1'	-6.44	1.46	1.53
1	A	487	A	N7-C5	-6.44	1.35	1.39
1	A	720	C	C3'-C2'	-6.44	1.45	1.52
1	A	1123	U	C3'-C2'	-6.44	1.45	1.52
1	A	614	C	C3'-C2'	-6.44	1.45	1.52
1	A	793	U	P-O5'	-6.44	1.53	1.59
1	A	38	G	N9-C4	-6.44	1.32	1.38
1	A	1238	A	O4'-C1'	-6.44	1.33	1.41
1	A	1331	G	N7-C5	-6.43	1.35	1.39
1	A	1334	G	C6-O6	-6.43	1.18	1.24
1	A	108	G	O3'-P	-6.43	1.53	1.61
1	A	127	G	C2'-C1'	-6.43	1.46	1.53
1	A	846	G	C2'-O2'	-6.43	1.33	1.41
1	A	1439	G	P-O5'	-6.43	1.53	1.59
1	A	1127	G	C2'-C1'	-6.43	1.46	1.53
1	A	1457	G	C3'-C2'	-6.43	1.45	1.52
1	A	72	A	O4'-C1'	-6.43	1.33	1.41
1	A	132	C	C4'-O4'	-6.43	1.37	1.45
1	A	921	U	C2'-C1'	-6.43	1.46	1.53
1	A	1150	A	N3-C4	-6.43	1.30	1.34
1	A	713	G	C5-C6	-6.42	1.35	1.42
1	A	437	U	C2'-C1'	-6.42	1.46	1.53
1	A	540	G	C2'-C1'	-6.42	1.46	1.53
1	A	765	G	O3'-P	-6.42	1.53	1.61
1	A	810	C	C2'-C1'	-6.42	1.46	1.53
1	A	399	G	P-O5'	-6.42	1.53	1.59
1	A	1453	G	N9-C8	-6.42	1.33	1.37
1	A	861	G	C5-C6	-6.42	1.35	1.42
1	A	1046	A	C5'-C4'	-6.42	1.43	1.51
1	A	345	C	O3'-P	-6.42	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1140	C	C2'-O2'	-6.42	1.33	1.41
1	A	205	A	O3'-P	-6.42	1.53	1.61
1	A	356	A	N3-C4	-6.42	1.31	1.34
1	A	1361	G	N7-C5	-6.42	1.35	1.39
4	D	179	GLY	CA-C	-6.42	1.41	1.51
1	A	441	A	C3'-C2'	-6.41	1.45	1.52
1	A	297	G	C3'-C2'	-6.41	1.45	1.52
1	A	1039	G	C2-N3	6.41	1.37	1.32
1	A	1531	A	C3'-C2'	-6.41	1.45	1.52
1	A	288	A	C3'-O3'	-6.41	1.33	1.42
1	A	1117	A	C2'-C1'	-6.41	1.46	1.53
1	A	1201	A	O3'-P	-6.41	1.53	1.61
1	A	1524	C	C3'-C2'	-6.41	1.45	1.52
1	A	745	G	P-O5'	-6.41	1.53	1.59
1	A	253	A	C8-N7	-6.41	1.27	1.31
1	A	1239	A	N9-C4	-6.41	1.34	1.37
1	A	185	U	C4-C5	-6.40	1.37	1.43
1	A	877	G	C2'-C1'	-6.40	1.46	1.53
1	A	196	A	C2'-C1'	-6.40	1.46	1.53
1	A	265	G	C5'-C4'	-6.40	1.43	1.51
1	A	1215	G	O4'-C1'	-6.40	1.33	1.41
1	A	410	G	C1'-N9	-6.40	1.37	1.46
1	A	865	A	C4'-C3'	-6.40	1.46	1.53
1	A	904	U	C3'-C2'	-6.40	1.45	1.52
1	A	1128	C	C5'-C4'	-6.40	1.43	1.51
1	A	1356	G	C4'-C3'	-6.40	1.46	1.53
1	A	786	G	N3-C4	-6.40	1.30	1.35
1	A	946	A	C2'-C1'	-6.40	1.46	1.53
1	A	1276	G	C2'-C1'	-6.40	1.46	1.53
1	A	1532	U	C2'-C1'	-6.40	1.46	1.53
1	A	102	G	N9-C8	-6.39	1.33	1.37
1	A	409	U	N1-C6	-6.39	1.32	1.38
1	A	911	U	C3'-C2'	-6.39	1.45	1.52
1	A	1207	G	C2'-C1'	-6.39	1.46	1.53
1	A	313	A	C8-N7	-6.39	1.27	1.31
1	A	393	A	N9-C4	-6.39	1.34	1.37
4	D	41	GLY	CA-C	-6.39	1.41	1.51
1	A	202	G	C4'-O4'	-6.39	1.37	1.45
1	A	70	U	C4-C5	-6.39	1.37	1.43
1	A	347	G	C2'-C1'	-6.39	1.46	1.53
1	A	1177	G	C8-N7	-6.39	1.27	1.30
1	A	357	G	C1'-N9	-6.39	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	371	A	N7-C5	-6.39	1.35	1.39
1	A	361	G	O4'-C1'	-6.38	1.33	1.41
1	A	363	A	C2'-C1'	-6.38	1.46	1.53
1	A	516	U	O3'-P	-6.38	1.53	1.61
1	A	557	G	C1'-N9	-6.38	1.38	1.46
1	A	614	C	O3'-P	-6.38	1.53	1.61
1	A	1055	A	C5-C4	-6.38	1.34	1.38
1	A	661	G	C2'-C1'	-6.38	1.46	1.53
1	A	617	G	O4'-C1'	-6.38	1.33	1.41
1	A	881	G	C1'-N9	-6.38	1.38	1.46
1	A	1237	C	N1-C6	-6.38	1.33	1.37
1	A	541	G	C3'-C2'	-6.38	1.45	1.52
1	A	1499	A	C3'-C2'	-6.38	1.45	1.52
1	A	752	G	C1'-N9	-6.38	1.38	1.46
1	A	830	G	N7-C5	-6.38	1.35	1.39
1	A	1073	U	C4'-C3'	-6.38	1.46	1.53
1	A	53	A	N7-C5	-6.37	1.35	1.39
1	A	129	A	C4'-O4'	-6.37	1.37	1.45
1	A	988	G	P-O5'	-6.37	1.53	1.59
1	A	265	G	C4'-C3'	-6.37	1.46	1.53
1	A	1147	C	O3'-P	-6.37	1.53	1.61
1	A	1253	G	N7-C5	-6.37	1.35	1.39
1	A	1473	G	N9-C8	-6.37	1.33	1.37
1	A	1376	U	P-O5'	-6.37	1.53	1.59
1	A	220	G	C2'-C1'	-6.37	1.46	1.53
1	A	306	A	O3'-P	-6.37	1.53	1.61
1	A	726	C	C3'-C2'	-6.37	1.45	1.52
1	A	1313	U	C1'-N1	-6.37	1.38	1.46
1	A	354	G	C2'-C1'	-6.37	1.46	1.53
1	A	684	U	C2'-C1'	-6.37	1.46	1.53
1	A	413	G	C8-N7	-6.37	1.27	1.30
1	A	649	A	C5-C6	-6.37	1.35	1.41
1	A	769	G	P-O5'	-6.37	1.53	1.59
1	A	1007	U	O3'-P	-6.37	1.53	1.61
1	A	1238	A	C1'-N9	-6.37	1.38	1.46
1	A	60	A	P-O5'	-6.36	1.53	1.59
1	A	413	G	C4'-C3'	-6.36	1.46	1.53
1	A	685	G	N7-C5	-6.36	1.35	1.39
1	A	427	U	O3'-P	-6.36	1.53	1.61
1	A	473	U	C3'-C2'	-6.36	1.45	1.52
1	A	628	G	C3'-C2'	-6.36	1.45	1.52
1	A	904	U	O5'-C5'	-6.36	1.32	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1359	C	O4'-C1'	-6.36	1.33	1.41
1	A	449	G	C3'-C2'	-6.36	1.45	1.52
1	A	473	U	P-O5'	-6.35	1.53	1.59
1	A	938	A	C4'-O4'	-6.35	1.37	1.45
1	A	805	C	P-O5'	-6.35	1.53	1.59
1	A	806	C	C3'-C2'	-6.35	1.45	1.52
1	A	847	G	C8-N7	-6.35	1.27	1.30
1	A	181	A	N7-C5	-6.35	1.35	1.39
1	A	193	C	C4'-C3'	-6.35	1.46	1.53
1	A	898	G	O3'-P	-6.35	1.53	1.61
1	A	1061	G	C3'-C2'	-6.35	1.45	1.52
1	A	640	A	N9-C8	-6.35	1.32	1.37
1	A	657	U	O3'-P	-6.35	1.53	1.61
1	A	745	G	C2-N3	6.35	1.37	1.32
1	A	1284	C	C2'-C1'	-6.35	1.46	1.53
1	A	1006	G	C8-N7	-6.35	1.27	1.30
1	A	963	G	N7-C5	-6.34	1.35	1.39
1	A	1338	G	C2'-C1'	-6.34	1.46	1.53
1	A	1369	C	O3'-P	-6.34	1.53	1.61
1	A	1438	G	N7-C5	-6.34	1.35	1.39
1	A	70	U	C4'-O4'	-6.34	1.37	1.45
1	A	182	A	C5'-C4'	-6.34	1.43	1.51
1	A	514	C	P-O5'	-6.34	1.53	1.59
1	A	782	A	O4'-C1'	-6.34	1.33	1.41
1	A	1346	A	N7-C5	-6.34	1.35	1.39
1	A	195	A	P-O5'	-6.34	1.53	1.59
1	A	315	A	C2'-C1'	-6.34	1.46	1.53
1	A	431	A	N7-C5	-6.34	1.35	1.39
1	A	745	G	C2'-C1'	-6.34	1.46	1.53
1	A	863	U	P-O5'	-6.34	1.53	1.59
1	A	479	U	P-O5'	-6.34	1.53	1.59
1	A	550	G	C1'-N9	-6.34	1.38	1.46
1	A	604	G	C8-N7	-6.34	1.27	1.30
1	A	416	G	C5-C6	-6.34	1.36	1.42
1	A	843	U	C4'-C3'	-6.34	1.46	1.53
1	A	910	C	C2'-C1'	-6.34	1.46	1.53
1	A	1055	A	N3-C4	-6.34	1.31	1.34
11	K	119	GLY	N-CA	-6.34	1.36	1.46
1	A	428	G	C1'-N9	-6.33	1.38	1.46
1	A	524	G	C2'-C1'	-6.33	1.46	1.53
1	A	674	G	O3'-P	-6.33	1.53	1.61
1	A	935	A	N9-C8	-6.33	1.32	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	81	A	C4'-C3'	-6.33	1.46	1.53
1	A	242	G	O3'-P	-6.33	1.53	1.61
1	A	429	U	C4'-O4'	-6.33	1.37	1.45
1	A	858	G	N3-C4	-6.33	1.31	1.35
1	A	833	G	N7-C5	-6.33	1.35	1.39
1	A	1241	G	C6-N1	-6.33	1.35	1.39
1	A	1417	G	C3'-O3'	-6.33	1.33	1.42
1	A	1188	A	P-O5'	-6.33	1.53	1.59
1	A	1425	U	C2'-C1'	-6.33	1.46	1.53
1	A	1416	G	C2'-C1'	-6.33	1.46	1.53
1	A	248	C	P-O5'	-6.33	1.53	1.59
1	A	353	A	N7-C5	-6.33	1.35	1.39
1	A	853	C	C2'-C1'	-6.33	1.46	1.53
1	A	1514	G	O3'-P	6.33	1.68	1.61
1	A	262	A	C4'-C3'	-6.32	1.46	1.53
1	A	275	G	C5-C6	-6.32	1.36	1.42
1	A	958	A	O3'-P	-6.32	1.53	1.61
1	A	1144	G	P-O5'	-6.32	1.53	1.59
1	A	1501	C	C4'-O4'	-6.32	1.37	1.45
1	A	80	A	C2'-C1'	-6.32	1.46	1.53
1	A	987	G	N7-C5	-6.32	1.35	1.39
1	A	234	C	C3'-C2'	-6.32	1.45	1.52
1	A	997	U	C2'-C1'	-6.32	1.46	1.53
1	A	1360	A	N7-C5	-6.32	1.35	1.39
1	A	751	U	C4'-O4'	-6.32	1.37	1.45
1	A	1357	A	N9-C4	-6.32	1.34	1.37
1	A	46	G	C5'-C4'	-6.32	1.43	1.51
1	A	349	A	C2'-C1'	-6.32	1.46	1.53
1	A	1300	G	C2'-C1'	-6.32	1.46	1.53
1	A	1435	G	C8-N7	-6.32	1.27	1.30
1	A	617	G	C4'-O4'	-6.31	1.37	1.45
1	A	1166	G	C5-C6	-6.31	1.36	1.42
1	A	313	A	N9-C8	-6.31	1.32	1.37
1	A	657	U	O4'-C1'	-6.31	1.33	1.41
1	A	1288	A	C5-C6	-6.31	1.35	1.41
1	A	1426	G	P-O5'	-6.31	1.53	1.59
1	A	187	G	N9-C8	-6.31	1.33	1.37
1	A	608	A	C2'-C1'	-6.31	1.46	1.53
1	A	1142	G	N7-C5	-6.31	1.35	1.39
1	A	1523	G	C5-C4	-6.31	1.33	1.38
1	A	13	U	C4'-C3'	6.30	1.60	1.53
1	A	338	A	C8-N7	-6.30	1.27	1.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	481	G	C8-N7	-6.30	1.27	1.30
1	A	761	G	C5-C4	-6.30	1.33	1.38
1	A	1370	G	O3'-P	-6.30	1.53	1.61
1	A	94	G	O3'-P	-6.30	1.53	1.61
1	A	203	G	N9-C8	-6.30	1.33	1.37
1	A	567	G	C2'-C1'	-6.30	1.46	1.53
1	A	817	C	C5'-C4'	6.30	1.58	1.51
1	A	849	G	N7-C5	-6.30	1.35	1.39
1	A	495	A	N7-C5	-6.30	1.35	1.39
1	A	517	G	O3'-P	-6.30	1.53	1.61
1	A	1006	G	C5-C4	-6.30	1.33	1.38
1	A	1216	A	O3'-P	-6.30	1.53	1.61
1	A	1433	A	C8-N7	-6.30	1.27	1.31
1	A	51	A	N7-C5	-6.30	1.35	1.39
1	A	64	G	O4'-C1'	-6.30	1.33	1.41
1	A	163	C	O3'-P	-6.30	1.53	1.61
1	A	184	G	C2'-C1'	-6.30	1.46	1.53
1	A	279	A	N7-C5	-6.30	1.35	1.39
1	A	289	G	C4'-O4'	-6.30	1.37	1.45
1	A	103	U	C2'-C1'	-6.29	1.46	1.53
1	A	138	G	N3-C4	-6.29	1.31	1.35
1	A	301	G	N3-C4	-6.29	1.31	1.35
1	A	523	A	C2'-C1'	-6.29	1.46	1.53
1	A	1305	G	N3-C4	-6.29	1.31	1.35
1	A	282	A	C5-C6	-6.29	1.35	1.41
1	A	1364	U	P-O5'	6.29	1.66	1.59
1	A	628	G	C1'-N9	-6.29	1.38	1.46
1	A	60	A	O3'-P	-6.29	1.53	1.61
1	A	288	A	N3-C4	-6.29	1.31	1.34
1	A	380	G	N7-C5	-6.29	1.35	1.39
1	A	646	G	C5-C6	-6.29	1.36	1.42
1	A	1245	C	P-O5'	-6.29	1.53	1.59
1	A	1434	A	C4'-C3'	-6.29	1.46	1.53
1	A	243	A	N7-C5	-6.29	1.35	1.39
1	A	169	C	C2-N3	-6.29	1.30	1.35
1	A	565	U	O3'-P	-6.29	1.53	1.61
1	A	180	U	C1'-N1	-6.28	1.38	1.46
1	A	517	G	N3-C4	-6.28	1.31	1.35
1	A	1228	C	C1'-N1	-6.28	1.38	1.46
1	A	1480	A	N9-C4	-6.28	1.34	1.37
1	A	927	G	C2-N2	-6.28	1.28	1.34
1	A	1300	G	C4'-C3'	-6.28	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	634	C	C3'-C2'	-6.28	1.45	1.52
1	A	825	A	N7-C5	-6.28	1.35	1.39
1	A	304	U	C3'-C2'	-6.28	1.45	1.52
1	A	906	A	C5-C4	-6.28	1.34	1.38
1	A	1100	C	O3'-P	-6.27	1.53	1.61
1	A	57	G	N9-C4	-6.27	1.32	1.38
1	A	69	G	N9-C8	-6.27	1.33	1.37
1	A	1242	G	N9-C8	-6.27	1.33	1.37
1	A	447	G	C2'-C1'	-6.27	1.46	1.53
1	A	637	C	C4-C5	-6.27	1.38	1.43
1	A	1223	C	C4'-O4'	-6.27	1.37	1.45
1	A	861	G	O3'-P	-6.27	1.53	1.61
1	A	740	U	O3'-P	-6.27	1.53	1.61
1	A	1500	A	N7-C5	-6.27	1.35	1.39
1	A	419	C	C3'-C2'	-6.27	1.45	1.52
1	A	851	G	C5-C6	-6.27	1.36	1.42
1	A	119	A	C8-N7	-6.26	1.27	1.31
1	A	1275	A	C2'-C1'	-6.26	1.46	1.53
1	A	1207	G	N9-C4	-6.26	1.32	1.38
1	A	1428	A	N9-C4	-6.26	1.34	1.37
1	A	22	G	C3'-O3'	-6.26	1.33	1.42
1	A	46	G	N9-C4	-6.26	1.32	1.38
1	A	202	G	C3'-C2'	-6.26	1.45	1.52
1	A	414	A	C8-N7	-6.26	1.27	1.31
1	A	629	A	N3-C4	-6.26	1.31	1.34
1	A	730	G	C8-N7	-6.26	1.27	1.30
1	A	1017	U	C3'-C2'	-6.26	1.45	1.52
1	A	142	G	N7-C5	-6.25	1.35	1.39
1	A	1382	C	C5-C6	-6.25	1.29	1.34
1	A	78	A	C2-N3	6.25	1.39	1.33
1	A	508	U	C3'-C2'	-6.25	1.45	1.52
1	A	614	C	C2'-O2'	-6.25	1.33	1.41
1	A	645	G	P-O5'	-6.25	1.53	1.59
1	A	670	G	C8-N7	-6.25	1.27	1.30
1	A	741	G	C2'-C1'	-6.25	1.46	1.53
1	A	104	G	C1'-N9	-6.25	1.38	1.46
1	A	115	G	C8-N7	-6.25	1.27	1.30
1	A	252	U	O4'-C1'	-6.25	1.33	1.41
1	A	607	A	N7-C5	-6.25	1.35	1.39
1	A	992	U	N3-C4	6.25	1.44	1.38
1	A	1398	A	C2'-C1'	-6.25	1.46	1.53
1	A	897	C	C3'-C2'	-6.25	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1314	C	C3'-C2'	-6.25	1.45	1.52
1	A	760	G	N3-C4	-6.25	1.31	1.35
1	A	647	C	N1-C6	-6.24	1.33	1.37
1	A	691	G	O4'-C1'	-6.24	1.33	1.41
1	A	775	G	O3'-P	-6.24	1.53	1.61
1	A	1250	A	C3'-C2'	-6.24	1.45	1.52
1	A	789	U	O3'-P	-6.24	1.53	1.61
1	A	1370	G	N9-C4	-6.24	1.32	1.38
1	A	146	G	N3-C4	-6.24	1.31	1.35
1	A	289	G	C5'-C4'	-6.24	1.43	1.51
1	A	530	G	C2'-C1'	-6.24	1.46	1.53
1	A	436	C	C3'-C2'	-6.24	1.45	1.52
1	A	276	G	C3'-C2'	-6.24	1.45	1.52
1	A	817	C	C2'-C1'	-6.24	1.46	1.53
1	A	1455	G	C2'-C1'	-6.24	1.46	1.53
1	A	787	A	O3'-P	-6.23	1.53	1.61
1	A	1018	G	N7-C5	-6.23	1.35	1.39
1	A	1244	G	C5-C6	-6.23	1.36	1.42
1	A	476	U	C2'-C1'	-6.23	1.46	1.53
1	A	741	G	C3'-C2'	-6.23	1.45	1.52
1	A	1511	G	N7-C5	-6.23	1.35	1.39
1	A	197	A	C2'-C1'	-6.23	1.46	1.53
1	A	620	C	P-O5'	-6.23	1.53	1.59
1	A	1064	G	C4'-C3'	6.23	1.60	1.53
1	A	1287	A	C5-C6	-6.23	1.35	1.41
1	A	1526	G	C3'-C2'	-6.23	1.45	1.52
1	A	322	C	C3'-C2'	-6.23	1.45	1.52
1	A	461	A	N9-C8	-6.23	1.32	1.37
1	A	1034	G	N7-C5	-6.23	1.35	1.39
1	A	1096	C	P-O5'	-6.22	1.53	1.59
1	A	299	G	N9-C8	-6.22	1.33	1.37
1	A	311	C	C2'-C1'	-6.22	1.46	1.53
1	A	145	G	O3'-P	-6.22	1.53	1.61
1	A	598	U	C2'-C1'	-6.22	1.46	1.53
1	A	631	C	C2'-C1'	-6.22	1.46	1.53
1	A	753	A	C3'-C2'	-6.22	1.46	1.52
1	A	1395	C	P-O5'	-6.22	1.53	1.59
1	A	874	G	C3'-C2'	-6.22	1.46	1.52
1	A	216	U	C3'-C2'	-6.22	1.46	1.52
1	A	447	G	N7-C5	-6.22	1.35	1.39
1	A	469	C	C4'-C3'	-6.22	1.46	1.53
1	A	399	G	C6-N1	6.21	1.43	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	465	A	C1'-N9	-6.21	1.38	1.46
1	A	510	A	O3'-P	-6.21	1.53	1.61
1	A	750	C	C3'-C2'	-6.21	1.46	1.52
1	A	858	G	C2-N3	-6.21	1.27	1.32
1	A	1248	A	N7-C5	-6.21	1.35	1.39
1	A	144	G	C5-C4	-6.21	1.34	1.38
1	A	203	G	N7-C5	-6.21	1.35	1.39
1	A	412	A	C8-N7	-6.21	1.27	1.31
1	A	807	A	C1'-N9	-6.21	1.38	1.46
1	A	1399	C	O4'-C1'	-6.21	1.33	1.41
1	A	1089	G	N7-C5	-6.21	1.35	1.39
1	A	577	G	P-O5'	-6.21	1.53	1.59
1	A	676	A	C3'-C2'	-6.21	1.46	1.52
1	A	898	G	N9-C4	-6.21	1.32	1.38
1	A	1347	G	C2-N2	-6.21	1.28	1.34
1	A	794	A	C8-N7	-6.21	1.27	1.31
1	A	1252	A	C1'-N9	-6.21	1.38	1.46
1	A	1149	C	C2'-C1'	-6.20	1.46	1.53
1	A	1191	A	O3'-P	-6.20	1.53	1.61
1	A	808	C	C2'-C1'	-6.20	1.46	1.53
1	A	470	C	C2'-C1'	-6.20	1.46	1.53
1	A	796	C	O4'-C1'	-6.20	1.33	1.41
1	A	767	A	N7-C5	-6.20	1.35	1.39
1	A	1068	G	C4'-C3'	-6.20	1.46	1.53
1	A	1370	G	C4'-O4'	-6.20	1.37	1.45
1	A	844	G	P-O5'	-6.20	1.53	1.59
1	A	944	G	N1-C2	6.20	1.42	1.37
1	A	1445	U	P-O5'	-6.20	1.53	1.59
1	A	712	A	N9-C4	-6.19	1.34	1.37
1	A	230	G	P-O5'	-6.19	1.53	1.59
1	A	429	U	C4'-C3'	-6.19	1.46	1.53
1	A	602	A	C5-C6	-6.19	1.35	1.41
1	A	237	G	C4'-C3'	-6.19	1.46	1.53
1	A	1454	G	N7-C5	-6.19	1.35	1.39
1	A	1516	G	N9-C4	-6.19	1.32	1.38
1	A	1023	U	C3'-C2'	-6.19	1.46	1.52
1	A	216	U	O5'-C5'	-6.18	1.32	1.42
1	A	627	G	N9-C8	-6.18	1.33	1.37
1	A	10	A	N7-C5	-6.18	1.35	1.39
1	A	310	G	P-O5'	-6.18	1.53	1.59
1	A	959	A	N1-C2	-6.18	1.28	1.34
1	A	1111	A	O5'-C5'	-6.18	1.32	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1185	G	P-O5'	-6.18	1.53	1.59
1	A	1209	C	P-O5'	-6.18	1.53	1.59
1	A	288	A	C5'-C4'	-6.18	1.44	1.51
1	A	502	A	C1'-N9	-6.18	1.38	1.46
1	A	97	G	C5-C6	-6.17	1.36	1.42
1	A	120	A	C2'-C1'	-6.17	1.46	1.53
1	A	859	G	C5-C6	-6.17	1.36	1.42
5	E	50	GLY	N-CA	-6.17	1.36	1.46
1	A	346	G	N7-C5	-6.17	1.35	1.39
1	A	1164	G	C2'-C1'	-6.17	1.46	1.53
1	A	137	U	O3'-P	-6.17	1.53	1.61
1	A	187	G	O4'-C1'	-6.17	1.33	1.41
1	A	223	A	C3'-C2'	-6.17	1.46	1.52
1	A	1505	G	P-O5'	-6.17	1.53	1.59
1	A	1523	G	O4'-C1'	-6.17	1.33	1.41
1	A	40	C	C3'-C2'	-6.17	1.46	1.52
1	A	107	G	C4'-C3'	-6.17	1.46	1.53
1	A	193	C	C5-C6	-6.17	1.29	1.34
1	A	725	G	N7-C5	-6.17	1.35	1.39
1	A	1069	C	P-O5'	-6.17	1.53	1.59
1	A	1215	G	N9-C8	-6.17	1.33	1.37
1	A	1228	C	C4-C5	-6.17	1.38	1.43
1	A	1396	A	O3'-P	-6.17	1.53	1.61
1	A	10	A	N9-C4	-6.17	1.34	1.37
1	A	108	G	P-O5'	-6.16	1.53	1.59
1	A	237	G	C3'-C2'	-6.16	1.46	1.52
1	A	521	G	O3'-P	-6.16	1.53	1.61
1	A	764	C	N1-C6	-6.16	1.33	1.37
1	A	913	A	P-O5'	-6.16	1.53	1.59
1	A	1201	A	O4'-C1'	-6.16	1.33	1.41
1	A	1222	G	O4'-C1'	-6.16	1.33	1.41
1	A	1231	G	C2-N2	-6.16	1.28	1.34
1	A	1288	A	N3-C4	-6.16	1.31	1.34
1	A	1101	A	O3'-P	-6.16	1.53	1.61
1	A	106	C	C2'-C1'	-6.16	1.46	1.53
1	A	201	G	N7-C5	-6.16	1.35	1.39
1	A	850	U	O3'-P	-6.16	1.53	1.61
1	A	924	C	N1-C6	-6.16	1.33	1.37
1	A	721	G	N9-C8	-6.16	1.33	1.37
1	A	778	G	C2'-C1'	-6.16	1.46	1.53
1	A	691	G	C8-N7	-6.16	1.27	1.30
1	A	1318	A	P-O5'	-6.16	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	M	29	SER	CA-CB	-6.16	1.43	1.52
1	A	86	G	N7-C5	-6.16	1.35	1.39
1	A	509	A	C1'-N9	-6.16	1.38	1.46
1	A	851	G	C4'-C3'	-6.16	1.46	1.53
1	A	1242	G	C8-N7	-6.16	1.27	1.30
1	A	1453	G	C5-C4	-6.16	1.34	1.38
1	A	575	G	N9-C8	-6.15	1.33	1.37
1	A	79	G	N3-C4	-6.15	1.31	1.35
1	A	184	G	N9-C8	-6.15	1.33	1.37
1	A	392	C	C4'-C3'	-6.15	1.46	1.53
1	A	250	A	N9-C4	-6.15	1.34	1.37
1	A	463	U	C4-C5	-6.15	1.38	1.43
1	A	615	G	N7-C5	-6.15	1.35	1.39
1	A	21	G	N9-C4	-6.15	1.33	1.38
1	A	687	A	O4'-C1'	-6.15	1.33	1.41
1	A	725	G	C2'-C1'	-6.15	1.46	1.53
1	A	42	G	C2'-C1'	-6.15	1.46	1.53
1	A	1303	C	C5-C6	-6.15	1.29	1.34
1	A	1460	C	N1-C6	-6.15	1.33	1.37
1	A	1195	C	P-O5'	-6.14	1.53	1.59
1	A	1346	A	C2'-C1'	-6.14	1.46	1.53
1	A	1386	G	N9-C4	-6.14	1.33	1.38
1	A	47	C	C4'-O4'	-6.14	1.37	1.45
1	A	73	C	C2-N3	6.14	1.40	1.35
1	A	146	G	N7-C5	-6.14	1.35	1.39
1	A	660	C	C4'-C3'	6.14	1.59	1.53
1	A	690	G	N7-C5	-6.14	1.35	1.39
1	A	814	A	O3'-P	-6.14	1.53	1.61
1	A	1265	C	C2'-C1'	-6.14	1.46	1.53
1	A	242	G	C1'-N9	-6.14	1.38	1.46
1	A	1115	U	C3'-C2'	-6.14	1.46	1.52
1	A	694	A	O3'-P	-6.14	1.53	1.61
1	A	726	C	C2-N3	-6.14	1.30	1.35
1	A	1308	U	C4'-C3'	-6.14	1.46	1.53
1	A	498	A	C3'-C2'	-6.14	1.46	1.52
1	A	843	U	O3'-P	-6.14	1.53	1.61
1	A	830	G	O3'-P	-6.14	1.53	1.61
1	A	969	A	C4'-C3'	-6.14	1.46	1.53
1	A	1355	G	O4'-C1'	-6.14	1.33	1.41
1	A	758	C	C3'-C2'	-6.13	1.46	1.52
1	A	871	U	C2-N3	6.13	1.42	1.37
1	A	947	G	C2'-C1'	-6.13	1.46	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	74	A	C4'-C3'	-6.13	1.46	1.53
1	A	320	A	P-O5'	-6.13	1.53	1.59
1	A	604	G	C4'-C3'	-6.13	1.46	1.53
1	A	641	U	O3'-P	-6.13	1.53	1.61
1	A	994	A	C8-N7	-6.13	1.27	1.31
1	A	792	A	P-O5'	-6.13	1.53	1.59
1	A	1333	A	P-O5'	-6.13	1.53	1.59
1	A	287	U	C3'-C2'	-6.13	1.46	1.52
1	A	917	G	C5-C6	-6.13	1.36	1.42
1	A	974	A	N9-C4	6.13	1.41	1.37
1	A	260	G	N7-C5	-6.13	1.35	1.39
1	A	457	G	C2'-C1'	-6.13	1.46	1.53
1	A	860	A	C5-C6	-6.13	1.35	1.41
1	A	1114	C	O3'-P	-6.13	1.53	1.61
1	A	32	A	N7-C5	-6.12	1.35	1.39
1	A	123	U	C5'-C4'	-6.12	1.44	1.51
1	A	213	G	C2'-C1'	-6.12	1.46	1.53
1	A	888	G	N9-C8	-6.12	1.33	1.37
1	A	1131	G	P-O5'	-6.12	1.53	1.59
1	A	675	A	P-O5'	-6.12	1.53	1.59
1	A	1005	A	C3'-C2'	6.12	1.59	1.52
1	A	42	G	P-O5'	-6.12	1.53	1.59
1	A	834	U	C2'-C1'	-6.12	1.46	1.53
1	A	876	C	C2'-C1'	-6.12	1.46	1.53
1	A	1099	G	C8-N7	-6.12	1.27	1.30
1	A	890	G	C2'-C1'	-6.12	1.46	1.53
1	A	694	A	C8-N7	-6.12	1.27	1.31
1	A	200	G	N9-C4	-6.11	1.33	1.38
1	A	710	G	P-O5'	-6.11	1.53	1.59
1	A	262	A	N7-C5	-6.11	1.35	1.39
1	A	362	G	C3'-C2'	-6.11	1.46	1.52
1	A	533	A	C2'-C1'	-6.11	1.46	1.53
1	A	273	U	O3'-P	-6.11	1.53	1.61
1	A	345	C	C2'-C1'	-6.11	1.46	1.53
1	A	1436	U	P-O5'	-6.11	1.53	1.59
1	A	1147	C	C4-C5	-6.11	1.38	1.43
1	A	1343	G	O3'-P	-6.11	1.53	1.61
1	A	1480	A	P-O5'	-6.11	1.53	1.59
1	A	1097	C	C2-N3	-6.10	1.30	1.35
1	A	38	G	N9-C8	-6.10	1.33	1.37
1	A	265	G	C5-C4	-6.10	1.34	1.38
1	A	343	U	C4'-O4'	-6.10	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	751	U	C4-O4	-6.10	1.18	1.23
1	A	1036	A	C5-C6	-6.10	1.35	1.41
1	A	1377	A	C2'-C1'	-6.10	1.46	1.53
1	A	181	A	C4'-C3'	6.10	1.59	1.53
1	A	1334	G	C2'-C1'	-6.10	1.46	1.53
1	A	282	A	C8-N7	-6.09	1.27	1.31
1	A	480	U	N1-C6	-6.09	1.32	1.38
1	A	961	U	P-O5'	-6.09	1.53	1.59
1	A	1014	A	N3-C4	-6.09	1.31	1.34
1	A	1166	G	N9-C8	-6.09	1.33	1.37
1	A	1197	A	C5'-C4'	6.09	1.58	1.51
1	A	544	G	C2'-C1'	-6.09	1.46	1.53
1	A	713	G	C2'-C1'	-6.09	1.46	1.53
1	A	797	C	C4'-C3'	-6.09	1.46	1.53
1	A	1253	G	O3'-P	-6.09	1.53	1.61
1	A	1461	G	N3-C4	-6.09	1.31	1.35
1	A	247	G	C2'-C1'	-6.09	1.46	1.53
1	A	1473	G	C5-C6	-6.09	1.36	1.42
1	A	1512	U	O3'-P	-6.09	1.53	1.61
1	A	1091	U	N1-C2	-6.09	1.33	1.38
1	A	697	U	O3'-P	-6.09	1.53	1.61
1	A	1325	C	C2'-C1'	-6.09	1.46	1.53
1	A	26	A	C2'-C1'	-6.08	1.46	1.53
1	A	1123	U	C1'-N1	6.08	1.57	1.48
1	A	1280	A	C4'-O4'	-6.08	1.37	1.45
1	A	451	A	C3'-C2'	-6.08	1.46	1.52
1	A	485	U	C2'-C1'	-6.08	1.46	1.53
1	A	542	G	C3'-C2'	-6.08	1.46	1.52
1	A	1020	G	N9-C4	-6.08	1.33	1.38
1	A	789	U	C4'-C3'	-6.08	1.46	1.53
1	A	330	C	C3'-C2'	-6.08	1.46	1.52
1	A	747	A	N7-C5	-6.08	1.35	1.39
1	A	47	C	C5'-C4'	-6.08	1.44	1.51
1	A	510	A	C2'-C1'	-6.08	1.46	1.53
1	A	668	G	O4'-C1'	-6.08	1.33	1.41
1	A	889	A	C1'-N9	-6.08	1.38	1.46
1	A	1519	A	C4'-C3'	-6.08	1.46	1.53
1	A	1349	A	O4'-C1'	-6.08	1.33	1.41
1	A	94	G	O5'-C5'	-6.07	1.33	1.42
1	A	319	G	C3'-C2'	-6.07	1.46	1.52
1	A	1425	U	P-O5'	-6.07	1.53	1.59
1	A	1465	A	N9-C4	6.07	1.41	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1501	C	C3'-C2'	-6.07	1.46	1.52
1	A	287	U	O3'-P	-6.07	1.53	1.61
1	A	398	U	O3'-P	-6.07	1.53	1.61
1	A	428	G	C3'-C2'	-6.07	1.46	1.52
1	A	159	G	C4'-O4'	-6.07	1.37	1.45
1	A	1519	A	C3'-C2'	-6.07	1.46	1.52
1	A	76	G	C5-C6	-6.07	1.36	1.42
1	A	324	G	N7-C5	-6.07	1.35	1.39
1	A	863	U	C3'-C2'	-6.07	1.46	1.52
1	A	899	C	C3'-C2'	-6.07	1.46	1.52
1	A	1064	G	C2'-C1'	-6.07	1.46	1.53
1	A	1296	C	C4'-O4'	-6.07	1.37	1.45
1	A	172	A	C4'-O4'	-6.07	1.37	1.45
1	A	1206	G	C2-N3	6.07	1.37	1.32
1	A	687	A	C5'-C4'	-6.06	1.44	1.51
1	A	1285	A	C2'-C1'	-6.06	1.46	1.53
1	A	198	G	C1'-N9	-6.06	1.38	1.46
1	A	238	A	N7-C5	-6.06	1.35	1.39
1	A	969	A	N7-C5	-6.06	1.35	1.39
1	A	1353	G	C3'-C2'	-6.06	1.46	1.52
1	A	212	G	C4'-C3'	-6.06	1.46	1.53
1	A	23	C	O3'-P	-6.06	1.53	1.61
1	A	149	A	N7-C5	-6.06	1.35	1.39
1	A	526	C	C4'-C3'	-6.06	1.46	1.53
1	A	978	A	O3'-P	-6.06	1.53	1.61
1	A	1173	U	C2'-C1'	-6.06	1.46	1.53
1	A	216	U	C2'-C1'	-6.06	1.46	1.53
1	A	450	G	N9-C4	-6.06	1.33	1.38
1	A	905	U	C2-N3	-6.06	1.33	1.37
1	A	1373	G	O4'-C1'	-6.06	1.33	1.41
1	A	198	G	C3'-C2'	-6.05	1.46	1.52
1	A	246	A	C5'-C4'	-6.05	1.44	1.51
1	A	829	G	C8-N7	-6.05	1.27	1.30
1	A	1522	U	N1-C2	-6.05	1.33	1.38
1	A	530	G	C4'-O4'	-6.05	1.37	1.45
1	A	1339	A	C2'-C1'	-6.05	1.46	1.53
1	A	372	C	C4'-C3'	-6.05	1.46	1.53
1	A	507	C	O3'-P	-6.05	1.53	1.61
1	A	536	C	N1-C6	-6.05	1.33	1.37
1	A	607	A	C4'-C3'	-6.05	1.46	1.53
1	A	609	A	P-O5'	-6.05	1.53	1.59
1	A	821	G	C2-N3	6.05	1.37	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1053	G	C4'-C3'	-6.05	1.46	1.53
1	A	1374	A	N3-C4	-6.05	1.31	1.34
1	A	438	U	C4-O4	-6.05	1.18	1.23
1	A	1147	C	C2'-C1'	-6.05	1.46	1.53
1	A	1337	G	C3'-O3'	-6.05	1.33	1.42
1	A	1494	G	C4'-C3'	-6.05	1.46	1.53
1	A	947	G	N9-C8	-6.04	1.33	1.37
1	A	1503	A	C8-N7	-6.04	1.27	1.31
1	A	91	U	C4-C5	-6.04	1.38	1.43
1	A	647	C	C2'-C1'	-6.04	1.46	1.53
1	A	435	A	P-O5'	-6.04	1.53	1.59
1	A	1116	U	C4'-C3'	-6.04	1.46	1.53
1	A	1231	G	C2-N3	-6.04	1.27	1.32
1	A	712	A	N3-C4	-6.04	1.31	1.34
1	A	927	G	N9-C8	-6.04	1.33	1.37
1	A	187	G	O3'-P	-6.04	1.53	1.61
1	A	382	A	C4'-C3'	-6.04	1.46	1.53
1	A	604	G	P-O5'	-6.04	1.53	1.59
1	A	893	C	O3'-P	-6.04	1.53	1.61
1	A	1011	C	P-O5'	-6.04	1.53	1.59
1	A	1479	C	C2'-C1'	-6.04	1.46	1.53
1	A	287	U	C4-C5	-6.04	1.38	1.43
1	A	126	G	C2'-C1'	-6.04	1.46	1.53
1	A	477	C	C2'-C1'	-6.04	1.46	1.53
1	A	880	C	C3'-C2'	-6.04	1.46	1.52
1	A	761	G	N9-C8	-6.03	1.33	1.37
1	A	1266	G	C2'-C1'	-6.03	1.46	1.53
1	A	108	G	C2-N3	6.03	1.37	1.32
1	A	440	C	P-O5'	-6.03	1.53	1.59
1	A	455	G	C2-N3	-6.03	1.27	1.32
1	A	1128	C	C2'-O2'	-6.03	1.33	1.41
1	A	275	G	O3'-P	-6.03	1.53	1.61
1	A	796	C	C2-N3	-6.03	1.30	1.35
1	A	1499	A	O3'-P	-6.03	1.53	1.61
1	A	33	A	C4'-C3'	-6.03	1.46	1.53
1	A	227	G	N3-C4	-6.03	1.31	1.35
1	A	661	G	N7-C5	-6.03	1.35	1.39
1	A	1012	A	C3'-C2'	-6.03	1.46	1.52
1	A	1186	G	N3-C4	-6.03	1.31	1.35
1	A	63	C	C2'-C1'	-6.02	1.46	1.53
1	A	591	U	P-O5'	-6.02	1.53	1.59
1	A	808	C	C2-N3	-6.02	1.30	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	536	C	C3'-C2'	-6.02	1.46	1.52
1	A	1100	C	C3'-C2'	-6.02	1.46	1.52
1	A	468	A	N3-C4	-6.02	1.31	1.34
1	A	1004	A	C8-N7	-6.02	1.27	1.31
1	A	1371	G	C4'-C3'	-6.02	1.46	1.53
1	A	1436	U	O3'-P	-6.02	1.53	1.61
1	A	405	U	C4'-O4'	-6.02	1.37	1.45
1	A	916	U	P-O5'	-6.02	1.53	1.59
1	A	349	A	O3'-P	-6.02	1.53	1.61
1	A	391	G	C6-N1	6.02	1.43	1.39
1	A	450	G	C3'-C2'	-6.02	1.46	1.52
1	A	1006	G	P-O5'	-6.02	1.53	1.59
1	A	1298	U	C2-N3	-6.02	1.33	1.37
1	A	1205	U	C2'-C1'	-6.02	1.46	1.53
1	A	139	A	P-O5'	-6.01	1.53	1.59
1	A	1182	G	N7-C5	-6.01	1.35	1.39
1	A	1287	A	C2'-C1'	-6.01	1.46	1.53
1	A	1423	G	N7-C5	-6.01	1.35	1.39
1	A	1534	A	N7-C5	-6.01	1.35	1.39
7	G	4	ARG	CD-NE	6.01	1.56	1.46
1	A	174	A	C2'-C1'	-6.01	1.46	1.53
5	E	48	GLY	CA-C	-6.01	1.42	1.51
1	A	158	G	C3'-C2'	-6.01	1.46	1.52
1	A	220	G	C8-N7	-6.01	1.27	1.30
1	A	166	U	C2'-C1'	-6.01	1.46	1.53
1	A	216	U	C5'-C4'	-6.01	1.44	1.51
1	A	1287	A	O4'-C1'	-6.01	1.33	1.41
1	A	1298	U	C3'-C2'	-6.01	1.46	1.52
1	A	179	A	C4'-C3'	-6.01	1.46	1.53
1	A	271	C	C2'-C1'	-6.01	1.46	1.53
1	A	105	G	N9-C8	-6.01	1.33	1.37
1	A	192	A	P-O5'	-6.01	1.53	1.59
1	A	330	C	C4'-C3'	-6.01	1.46	1.52
1	A	362	G	C5-C4	-6.01	1.34	1.38
1	A	938	A	N7-C5	-6.01	1.35	1.39
1	A	22	G	N3-C4	-6.00	1.31	1.35
1	A	265	G	N3-C4	-6.00	1.31	1.35
1	A	430	A	C1'-N9	-6.00	1.38	1.46
1	A	443	C	C3'-C2'	-6.00	1.46	1.52
1	A	488	C	C2'-C1'	-6.00	1.46	1.53
1	A	691	G	N9-C8	-6.00	1.33	1.37
1	A	928	G	C1'-N9	-6.00	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	199	A	N3-C4	-6.00	1.31	1.34
1	A	563	A	N7-C5	-6.00	1.35	1.39
1	A	815	A	C8-N7	-6.00	1.27	1.31
1	A	484	G	C2'-C1'	-6.00	1.46	1.53
1	A	593	U	O4'-C1'	-6.00	1.33	1.41
1	A	1479	C	N1-C6	-6.00	1.33	1.37
1	A	543	U	C4'-C3'	-6.00	1.46	1.52
1	A	721	G	N3-C4	-6.00	1.31	1.35
1	A	466	A	O3'-P	-5.99	1.53	1.61
1	A	1346	A	C4'-O4'	-5.99	1.37	1.45
1	A	1373	G	C3'-C2'	-5.99	1.46	1.52
1	A	1401	G	N3-C4	-5.99	1.31	1.35
1	A	1462	C	C2'-C1'	-5.99	1.46	1.53
1	A	32	A	P-O5'	-5.99	1.53	1.59
1	A	404	G	N9-C4	5.99	1.42	1.38
1	A	896	C	O4'-C1'	-5.99	1.33	1.41
1	A	1369	C	O4'-C1'	-5.99	1.33	1.41
1	A	1147	C	N1-C6	-5.99	1.33	1.37
1	A	63	C	C3'-C2'	-5.99	1.46	1.52
1	A	654	G	N9-C4	5.99	1.42	1.38
1	A	1048	G	O4'-C1'	-5.99	1.33	1.41
1	A	1518	A	N7-C5	-5.99	1.35	1.39
1	A	1185	G	C2'-C1'	-5.99	1.46	1.53
1	A	1406	U	N3-C4	-5.99	1.33	1.38
1	A	737	C	C2'-C1'	-5.99	1.46	1.53
1	A	790	A	C4'-C3'	-5.99	1.46	1.52
1	A	1215	G	C4'-O4'	-5.99	1.37	1.45
1	A	1311	A	C2'-C1'	-5.99	1.46	1.53
1	A	1406	U	P-O5'	-5.99	1.53	1.59
1	A	217	C	C4'-C3'	-5.98	1.46	1.52
1	A	445	G	P-O5'	-5.98	1.53	1.59
1	A	670	G	C5-C6	-5.98	1.36	1.42
1	A	1202	U	P-O5'	-5.98	1.53	1.59
5	E	46	GLY	CA-C	-5.98	1.42	1.51
1	A	372	C	C4'-O4'	-5.98	1.37	1.45
1	A	1171	A	C5'-C4'	-5.98	1.44	1.51
1	A	1254	A	P-O5'	-5.98	1.53	1.59
1	A	870	U	C2'-C1'	-5.98	1.46	1.53
1	A	1065	U	C4'-C3'	-5.98	1.46	1.52
1	A	1275	A	C6-N1	-5.98	1.31	1.35
1	A	16	A	O4'-C1'	-5.98	1.33	1.41
1	A	199	A	P-O5'	-5.98	1.53	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	261	U	C4'-O4'	-5.98	1.37	1.45
1	A	1041	G	C8-N7	-5.98	1.27	1.30
1	A	63	C	C3'-O3'	-5.98	1.33	1.42
1	A	161	A	N9-C8	-5.98	1.32	1.37
1	A	241	G	C3'-C2'	-5.97	1.46	1.52
1	A	268	U	O4'-C1'	-5.97	1.33	1.41
1	A	410	G	C5-C4	-5.97	1.34	1.38
1	A	455	G	C3'-C2'	-5.97	1.46	1.52
1	A	777	A	N3-C4	-5.97	1.31	1.34
1	A	1531	A	C2'-C1'	-5.97	1.46	1.53
1	A	47	C	O3'-P	-5.97	1.53	1.61
1	A	134	G	C8-N7	-5.97	1.27	1.30
1	A	302	G	N3-C4	-5.97	1.31	1.35
1	A	857	C	C4'-C3'	-5.97	1.46	1.52
1	A	867	G	C2'-C1'	-5.97	1.46	1.53
1	A	1037	C	P-O5'	-5.97	1.53	1.59
1	A	161	A	C4'-O4'	-5.97	1.37	1.45
1	A	1058	G	C2'-C1'	-5.97	1.46	1.53
1	A	1197	A	C1'-N9	-5.97	1.38	1.46
1	A	1322	C	P-O5'	-5.97	1.53	1.59
1	A	1434	A	C3'-C2'	-5.97	1.46	1.52
1	A	101	A	C8-N7	-5.97	1.27	1.31
1	A	221	C	C3'-C2'	-5.97	1.46	1.52
1	A	250	A	N3-C4	-5.97	1.31	1.34
1	A	424	G	C2'-C1'	-5.97	1.46	1.53
1	A	128	G	C2-N2	-5.96	1.28	1.34
1	A	258	G	O3'-P	-5.96	1.53	1.61
1	A	615	G	P-O5'	-5.96	1.53	1.59
1	A	1176	A	C8-N7	-5.96	1.27	1.31
1	A	1355	G	C4'-C3'	-5.96	1.46	1.52
1	A	254	G	N3-C4	-5.96	1.31	1.35
1	A	309	A	C8-N7	-5.96	1.27	1.31
1	A	1410	A	N7-C5	-5.96	1.35	1.39
1	A	1071	C	C2-N3	5.96	1.40	1.35
1	A	1406	U	C2-N3	5.96	1.42	1.37
1	A	212	G	P-O5'	-5.96	1.53	1.59
1	A	602	A	O3'-P	-5.96	1.54	1.61
1	A	1074	G	C3'-C2'	-5.96	1.46	1.52
1	A	1409	C	N1-C6	-5.96	1.33	1.37
1	A	977	A	N7-C5	-5.96	1.35	1.39
1	A	365	U	C4-C5	-5.95	1.38	1.43
1	A	610	U	C4'-C3'	-5.95	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	638	U	C2'-C1'	-5.95	1.46	1.53
1	A	1236	A	C2'-O2'	-5.95	1.33	1.41
1	A	1396	A	O4'-C1'	-5.95	1.33	1.41
1	A	412	A	N9-C8	-5.95	1.32	1.37
1	A	693	G	C5-C6	-5.95	1.36	1.42
1	A	816	A	C4'-C3'	-5.95	1.46	1.52
1	A	22	G	N9-C4	-5.95	1.33	1.38
1	A	384	G	O4'-C1'	-5.95	1.33	1.41
1	A	856	C	P-O5'	-5.95	1.53	1.59
1	A	896	C	C3'-C2'	-5.95	1.46	1.52
1	A	1266	G	N3-C4	-5.95	1.31	1.35
1	A	1488	G	N3-C4	-5.95	1.31	1.35
1	A	68	G	C4'-C3'	-5.94	1.46	1.52
1	A	281	G	P-O5'	-5.94	1.53	1.59
1	A	301	G	O3'-P	-5.94	1.54	1.61
1	A	327	A	O3'-P	-5.94	1.54	1.61
1	A	1282	C	P-O5'	-5.94	1.53	1.59
1	A	1345	U	C5'-C4'	-5.94	1.44	1.51
1	A	331	G	C2-N3	5.94	1.37	1.32
1	A	446	G	N7-C5	-5.94	1.35	1.39
1	A	667	G	N7-C5	-5.94	1.35	1.39
1	A	914	A	C8-N7	-5.94	1.27	1.31
1	A	616	G	O3'-P	-5.94	1.54	1.61
1	A	1526	G	C2'-C1'	-5.94	1.46	1.53
1	A	106	C	C3'-C2'	-5.94	1.46	1.52
1	A	121	U	C3'-C2'	-5.94	1.46	1.52
1	A	1111	A	C3'-C2'	-5.94	1.46	1.52
1	A	540	G	C3'-C2'	-5.93	1.46	1.52
1	A	991	U	O3'-P	-5.93	1.54	1.61
1	A	469	C	N1-C2	-5.93	1.34	1.40
1	A	944	G	O3'-P	-5.93	1.54	1.61
1	A	1262	C	O3'-P	-5.93	1.54	1.61
1	A	603	U	O3'-P	-5.93	1.54	1.61
1	A	1026	G	C3'-C2'	-5.93	1.46	1.52
1	A	330	C	O3'-P	-5.93	1.54	1.61
1	A	533	A	C4'-C3'	-5.93	1.46	1.52
12	L	27	PRO	CA-C	-5.93	1.41	1.52
1	A	923	A	C2'-C1'	-5.93	1.46	1.53
1	A	1296	C	O4'-C1'	-5.93	1.33	1.41
1	A	1310	G	C2'-C1'	-5.93	1.46	1.53
1	A	1349	A	N3-C4	-5.93	1.31	1.34
1	A	274	A	C5-C4	-5.92	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	362	G	C2'-C1'	-5.92	1.46	1.53
1	A	464	U	N1-C2	-5.92	1.33	1.38
1	A	649	A	C1'-N9	-5.92	1.38	1.46
1	A	1216	A	C3'-C2'	-5.92	1.46	1.52
1	A	413	G	N7-C5	-5.92	1.35	1.39
1	A	781	A	O3'-P	-5.92	1.54	1.61
1	A	898	G	C3'-C2'	-5.92	1.46	1.52
1	A	1053	G	C5'-C4'	-5.92	1.44	1.51
1	A	1290	G	C3'-C2'	-5.92	1.46	1.52
1	A	1105	A	N7-C5	-5.92	1.35	1.39
1	A	46	G	N3-C4	-5.92	1.31	1.35
1	A	276	G	N3-C4	-5.92	1.31	1.35
1	A	321	A	C8-N7	-5.92	1.27	1.31
1	A	1006	G	N9-C8	-5.92	1.33	1.37
1	A	1057	G	N3-C4	-5.92	1.31	1.35
1	A	109	A	O3'-P	-5.91	1.54	1.61
1	A	1241	G	C2-N3	5.91	1.37	1.32
1	A	1334	G	C4'-O4'	-5.91	1.37	1.45
1	A	1362	A	C4'-O4'	-5.91	1.37	1.45
1	A	1368	A	N9-C8	-5.91	1.33	1.37
1	A	459	A	C8-N7	-5.91	1.27	1.31
1	A	1161	C	P-O5'	-5.91	1.53	1.59
1	A	1043	G	N7-C5	-5.91	1.35	1.39
1	A	1458	G	P-O5'	-5.91	1.53	1.59
1	A	21	G	N3-C4	-5.91	1.31	1.35
1	A	58	C	C3'-C2'	-5.91	1.46	1.52
1	A	177	G	C6-N1	5.91	1.43	1.39
1	A	1396	A	C1'-N9	-5.91	1.38	1.46
1	A	188	C	O3'-P	-5.91	1.54	1.61
1	A	682	G	C2-N3	5.90	1.37	1.32
1	A	890	G	N9-C4	-5.90	1.33	1.38
1	A	1181	G	C5-C4	-5.90	1.34	1.38
1	A	719	C	C4'-C3'	-5.90	1.46	1.52
1	A	790	A	O3'-P	-5.90	1.54	1.61
1	A	937	A	N9-C4	-5.90	1.34	1.37
1	A	941	G	C5-C6	-5.90	1.36	1.42
1	A	1432	G	C3'-C2'	-5.90	1.46	1.52
1	A	398	U	P-O5'	-5.90	1.53	1.59
1	A	570	G	N9-C8	-5.90	1.33	1.37
1	A	615	G	O3'-P	-5.90	1.54	1.61
1	A	725	G	P-O5'	-5.90	1.53	1.59
1	A	1057	G	C1'-N9	-5.90	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1316	G	N7-C5	-5.90	1.35	1.39
1	A	1490	U	C2'-C1'	-5.90	1.46	1.53
1	A	1501	C	C1'-N1	-5.90	1.38	1.46
1	A	142	G	P-O5'	-5.89	1.53	1.59
1	A	360	G	C3'-C2'	-5.89	1.46	1.52
1	A	750	C	O4'-C1'	-5.89	1.33	1.41
1	A	868	C	O3'-P	-5.89	1.54	1.61
1	A	906	A	N9-C8	-5.89	1.33	1.37
1	A	1356	G	C3'-C2'	-5.89	1.46	1.52
1	A	204	G	P-O5'	-5.89	1.53	1.59
1	A	894	G	C3'-C2'	-5.89	1.46	1.52
1	A	448	A	C8-N7	-5.89	1.27	1.31
1	A	1280	A	N7-C5	-5.89	1.35	1.39
1	A	337	G	N9-C4	-5.89	1.33	1.38
1	A	441	A	N9-C8	-5.89	1.33	1.37
1	A	1251	A	N3-C4	-5.89	1.31	1.34
1	A	258	G	C3'-C2'	-5.89	1.46	1.52
1	A	752	G	O4'-C1'	-5.89	1.33	1.41
1	A	1183	U	C5'-C4'	-5.89	1.44	1.51
1	A	1446	A	N7-C5	-5.89	1.35	1.39
1	A	126	G	P-O5'	-5.88	1.53	1.59
1	A	301	G	C5'-C4'	-5.88	1.44	1.51
1	A	1083	U	C4'-C3'	-5.88	1.46	1.52
1	A	1484	C	O3'-P	-5.88	1.54	1.61
1	A	847	G	C5-C6	-5.88	1.36	1.42
1	A	1101	A	C2'-C1'	-5.88	1.46	1.53
1	A	252	U	C4'-O4'	-5.88	1.38	1.45
1	A	696	A	C1'-N9	-5.88	1.38	1.46
1	A	1005	A	N9-C8	-5.88	1.33	1.37
1	A	1186	G	N9-C4	-5.88	1.33	1.38
1	A	169	C	C2'-C1'	-5.88	1.46	1.53
1	A	396	C	C2'-C1'	-5.88	1.46	1.53
1	A	534	U	C4'-O4'	-5.88	1.38	1.45
1	A	246	A	C8-N7	-5.88	1.27	1.31
1	A	482	A	C2'-C1'	-5.88	1.46	1.53
1	A	878	A	C4'-C3'	-5.88	1.46	1.52
1	A	1247	U	P-O5'	-5.88	1.53	1.59
1	A	1310	G	N7-C5	-5.88	1.35	1.39
1	A	1366	C	O3'-P	-5.88	1.54	1.61
1	A	128	G	C3'-C2'	-5.88	1.46	1.52
1	A	1258	G	C8-N7	-5.88	1.27	1.30
1	A	1232	U	C4-C5	-5.87	1.38	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1276	G	N9-C8	-5.87	1.33	1.37
1	A	1376	U	C4'-O4'	-5.87	1.38	1.45
1	A	1460	C	C2'-C1'	-5.87	1.46	1.53
1	A	683	G	N3-C4	-5.87	1.31	1.35
1	A	903	G	N9-C8	-5.87	1.33	1.37
1	A	1053	G	O5'-C5'	-5.87	1.33	1.42
1	A	363	A	C4'-O4'	-5.87	1.38	1.45
1	A	739	C	C4-C5	-5.87	1.38	1.43
1	A	968	A	C2'-C1'	-5.87	1.46	1.53
1	A	1015	G	P-O5'	-5.87	1.53	1.59
1	A	1300	G	C2-N3	-5.87	1.28	1.32
1	A	1503	A	C4'-C3'	-5.87	1.46	1.52
1	A	75	G	C5-C6	-5.87	1.36	1.42
1	A	1360	A	P-O5'	-5.87	1.53	1.59
1	A	1373	G	N1-C2	5.87	1.42	1.37
1	A	57	G	C6-N1	-5.87	1.35	1.39
1	A	641	U	C3'-O3'	-5.87	1.33	1.42
1	A	1033	G	C2-N3	5.87	1.37	1.32
1	A	674	G	C3'-C2'	-5.86	1.46	1.52
1	A	1344	C	N1-C6	-5.86	1.33	1.37
1	A	162	A	N9-C4	-5.86	1.34	1.37
1	A	708	C	P-O5'	-5.86	1.53	1.59
1	A	905	U	C2'-C1'	-5.86	1.47	1.53
1	A	1216	A	P-O5'	-5.86	1.53	1.59
1	A	546	A	O4'-C1'	-5.86	1.34	1.41
1	A	768	A	N3-C4	-5.86	1.31	1.34
1	A	1159	U	C4'-O4'	-5.86	1.38	1.45
1	A	411	A	C5'-C4'	5.86	1.58	1.51
1	A	333	U	N1-C2	5.86	1.43	1.38
1	A	1195	C	O3'-P	-5.86	1.54	1.61
1	A	1276	G	C6-N1	-5.86	1.35	1.39
1	A	959	A	N3-C4	-5.86	1.31	1.34
1	A	961	U	C3'-C2'	-5.86	1.46	1.52
1	A	1476	A	O3'-P	-5.86	1.54	1.61
1	A	59	A	C4'-C3'	-5.85	1.46	1.52
1	A	1049	U	C2'-C1'	-5.85	1.47	1.53
1	A	970	C	C2'-C1'	-5.85	1.47	1.53
1	A	1409	C	O3'-P	-5.85	1.54	1.61
1	A	1157	A	C5-C4	-5.85	1.34	1.38
1	A	1221	G	O3'-P	-5.85	1.54	1.61
1	A	868	C	C4-C5	-5.85	1.38	1.43
1	A	895	G	C5'-C4'	-5.85	1.44	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1067	A	C3'-C2'	-5.85	1.46	1.52
1	A	1124	G	O4'-C1'	-5.85	1.34	1.41
1	A	1446	A	N3-C4	-5.85	1.31	1.34
2	B	70	GLY	CA-C	-5.85	1.42	1.51
1	A	37	U	C4'-O4'	-5.85	1.38	1.45
1	A	413	G	C5-C6	-5.85	1.36	1.42
1	A	1429	A	N9-C4	-5.85	1.34	1.37
1	A	10	A	C3'-C2'	-5.85	1.46	1.52
1	A	215	C	C2-N3	-5.84	1.31	1.35
1	A	562	U	C2'-C1'	-5.84	1.47	1.53
1	A	923	A	N3-C4	-5.84	1.31	1.34
1	A	1473	G	C2'-C1'	-5.84	1.47	1.53
1	A	745	G	O3'-P	-5.84	1.54	1.61
1	A	1191	A	C2'-C1'	-5.84	1.47	1.53
1	A	1207	G	C5-C6	-5.84	1.36	1.42
1	A	1363	A	P-O5'	-5.84	1.53	1.59
1	A	588	G	N7-C5	-5.84	1.35	1.39
1	A	892	A	C8-N7	-5.84	1.27	1.31
1	A	1159	U	C4'-C3'	-5.84	1.46	1.52
1	A	1332	A	N1-C2	-5.84	1.29	1.34
1	A	534	U	O3'-P	-5.84	1.54	1.61
1	A	537	G	C5-C6	-5.84	1.36	1.42
1	A	671	G	C8-N7	-5.84	1.27	1.30
1	A	870	U	P-O5'	-5.84	1.53	1.59
1	A	1525	G	C5-C4	-5.84	1.34	1.38
1	A	919	A	N9-C4	-5.83	1.34	1.37
1	A	1043	G	C4'-C3'	-5.83	1.46	1.52
1	A	1234	C	C4'-C3'	-5.83	1.46	1.52
1	A	1406	U	C3'-C2'	-5.83	1.46	1.52
1	A	3	A	C4'-O4'	-5.83	1.38	1.45
1	A	59	A	O3'-P	-5.83	1.54	1.61
1	A	410	G	C2-N3	-5.83	1.28	1.32
1	A	645	G	C5-C6	-5.83	1.36	1.42
1	A	1058	G	C2-N3	5.83	1.37	1.32
1	A	1117	A	O4'-C1'	-5.83	1.34	1.41
1	A	1401	G	C2'-C1'	-5.83	1.47	1.53
1	A	585	G	C2'-C1'	-5.83	1.47	1.53
1	A	1244	G	C2'-C1'	-5.83	1.47	1.53
1	A	266	G	C1'-N9	-5.83	1.38	1.46
1	A	270	A	C3'-C2'	-5.83	1.46	1.52
1	A	560	A	N7-C5	-5.83	1.35	1.39
1	A	568	G	N7-C5	-5.83	1.35	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	867	G	N3-C4	-5.83	1.31	1.35
1	A	918	A	C8-N7	-5.83	1.27	1.31
1	A	362	G	N9-C8	-5.83	1.33	1.37
1	A	579	A	C3'-C2'	-5.83	1.46	1.52
1	A	1386	G	P-O5'	-5.83	1.53	1.59
1	A	187	G	C1'-N9	-5.83	1.38	1.46
1	A	218	U	P-O5'	-5.83	1.53	1.59
1	A	323	U	C4-O4	-5.83	1.19	1.23
1	A	404	G	C5'-C4'	-5.83	1.44	1.51
1	A	481	G	C5'-C4'	5.83	1.58	1.51
1	A	787	A	C3'-C2'	-5.83	1.46	1.52
1	A	1474	U	C3'-C2'	-5.83	1.46	1.52
1	A	928	G	C4'-O4'	-5.82	1.38	1.45
1	A	453	G	C3'-C2'	-5.82	1.46	1.52
1	A	641	U	C5'-C4'	-5.82	1.44	1.51
1	A	1225	A	C4'-O4'	-5.82	1.38	1.45
1	A	12	U	P-O5'	-5.82	1.53	1.59
1	A	1440	U	P-O5'	-5.82	1.53	1.59
1	A	1488	G	N9-C4	-5.82	1.33	1.38
1	A	363	A	C1'-N9	-5.82	1.38	1.46
1	A	1367	C	P-O5'	-5.81	1.53	1.59
1	A	674	G	N7-C5	-5.81	1.35	1.39
11	K	48	GLY	CA-C	-5.81	1.42	1.51
1	A	715	A	O3'-P	-5.81	1.54	1.61
1	A	336	A	N3-C4	-5.81	1.31	1.34
1	A	451	A	C1'-N9	-5.81	1.38	1.46
1	A	645	G	C2'-C1'	-5.81	1.47	1.53
1	A	1174	G	C1'-N9	-5.81	1.38	1.46
1	A	1362	A	O3'-P	-5.81	1.54	1.61
1	A	68	G	C2'-C1'	-5.81	1.47	1.53
1	A	130	A	C2'-C1'	-5.81	1.47	1.53
1	A	201	G	C2'-C1'	-5.81	1.47	1.53
1	A	1013	G	C5-C6	-5.81	1.36	1.42
1	A	1336	C	P-O5'	-5.81	1.53	1.59
1	A	1523	G	C2'-C1'	-5.81	1.47	1.53
1	A	60	A	C2'-C1'	-5.81	1.47	1.53
1	A	346	G	O3'-P	-5.81	1.54	1.61
1	A	1369	C	N1-C6	-5.81	1.33	1.37
1	A	1103	C	C4-C5	-5.80	1.38	1.43
1	A	300	A	N9-C8	-5.80	1.33	1.37
1	A	1466	C	P-O5'	-5.80	1.53	1.59
1	A	28	A	C5-C6	-5.80	1.35	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	178	C	C2-N3	-5.80	1.31	1.35
1	A	1469	C	C2'-C1'	-5.80	1.47	1.53
1	A	1504	G	P-O5'	-5.80	1.53	1.59
1	A	1238	A	P-O5'	-5.80	1.53	1.59
1	A	1268	G	N3-C4	-5.80	1.31	1.35
1	A	100	G	C8-N7	-5.80	1.27	1.30
1	A	951	G	C8-N7	-5.80	1.27	1.30
1	A	995	C	C4-C5	-5.80	1.38	1.43
1	A	1014	A	P-O5'	-5.80	1.53	1.59
1	A	1139	G	N1-C2	-5.80	1.33	1.37
1	A	1175	G	C8-N7	-5.80	1.27	1.30
1	A	441	A	C5'-C4'	-5.79	1.44	1.51
1	A	16	A	C8-N7	-5.79	1.27	1.31
1	A	486	U	C5'-C4'	-5.79	1.44	1.51
1	A	569	C	C5'-C4'	5.79	1.58	1.51
1	A	160	A	N3-C4	-5.79	1.31	1.34
1	A	349	A	N3-C4	-5.79	1.31	1.34
1	A	799	G	C4'-C3'	5.79	1.59	1.53
1	A	108	G	O4'-C1'	-5.79	1.34	1.41
1	A	266	G	N7-C5	-5.79	1.35	1.39
1	A	1167	A	P-O5'	-5.79	1.53	1.59
1	A	1298	U	P-O5'	-5.79	1.53	1.59
1	A	446	G	C3'-C2'	-5.78	1.46	1.52
1	A	1033	G	N1-C2	5.78	1.42	1.37
1	A	1219	A	C2'-C1'	-5.78	1.47	1.53
1	A	1255	G	C2-N2	-5.78	1.28	1.34
1	A	70	U	C1'-N1	-5.78	1.38	1.46
1	A	522	C	O4'-C1'	-5.78	1.34	1.41
1	A	803	G	N9-C4	5.78	1.42	1.38
1	A	1026	G	O3'-P	-5.78	1.54	1.61
1	A	1129	C	C5'-C4'	-5.78	1.44	1.51
1	A	1225	A	O4'-C1'	-5.78	1.34	1.41
1	A	1458	G	C4'-C3'	-5.78	1.46	1.52
1	A	233	C	C2-N3	-5.78	1.31	1.35
1	A	495	A	C2'-C1'	-5.78	1.47	1.53
1	A	1118	U	C3'-C2'	-5.78	1.46	1.52
1	A	1194	U	C2'-C1'	-5.78	1.47	1.53
1	A	319	G	N7-C5	-5.78	1.35	1.39
1	A	335	C	C3'-C2'	-5.78	1.46	1.52
1	A	543	U	O3'-P	-5.78	1.54	1.61
1	A	124	C	O4'-C1'	-5.78	1.34	1.41
1	A	210	C	O3'-P	-5.78	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	445	G	C4'-C3'	-5.78	1.46	1.52
1	A	481	G	N9-C4	-5.78	1.33	1.38
1	A	240	G	C5'-C4'	5.77	1.58	1.51
1	A	796	C	C3'-C2'	-5.77	1.46	1.52
1	A	1395	C	C5'-C4'	-5.77	1.44	1.51
1	A	455	G	O4'-C1'	-5.77	1.34	1.41
1	A	665	A	C4'-O4'	-5.77	1.38	1.45
1	A	1273	C	C1'-N1	-5.77	1.38	1.46
1	A	898	G	C2'-C1'	-5.77	1.47	1.53
1	A	727	G	N3-C4	-5.77	1.31	1.35
1	A	757	U	C3'-C2'	-5.77	1.46	1.52
1	A	931	C	C2'-C1'	-5.77	1.47	1.53
1	A	1094	G	C4'-O4'	-5.77	1.38	1.45
1	A	1233	G	C3'-C2'	-5.77	1.46	1.52
1	A	275	G	C3'-C2'	-5.77	1.46	1.52
1	A	1299	A	C5-C4	-5.77	1.34	1.38
1	A	255	G	O3'-P	-5.76	1.54	1.61
1	A	180	U	C3'-C2'	-5.76	1.46	1.52
1	A	415	A	N7-C5	-5.76	1.35	1.39
1	A	130	A	C5-C4	-5.76	1.34	1.38
1	A	305	G	N7-C5	-5.76	1.35	1.39
1	A	602	A	C3'-C2'	-5.76	1.46	1.52
1	A	917	G	C8-N7	-5.76	1.27	1.30
1	A	1306	A	C3'-C2'	-5.76	1.46	1.52
1	A	1435	G	O3'-P	-5.76	1.54	1.61
1	A	868	C	C2-N3	-5.76	1.31	1.35
1	A	1358	U	C4'-C3'	-5.76	1.46	1.52
1	A	1408	A	O3'-P	-5.76	1.54	1.61
1	A	1501	C	O3'-P	-5.76	1.54	1.61
1	A	1130	A	C5-C6	-5.75	1.35	1.41
1	A	1170	A	N9-C8	-5.75	1.33	1.37
1	A	1391	U	N1-C2	-5.75	1.33	1.38
1	A	1297	G	C4'-O4'	-5.75	1.38	1.45
1	A	186	C	C4-C5	-5.75	1.38	1.43
1	A	888	G	C1'-N9	-5.75	1.38	1.46
1	A	1269	A	C3'-C2'	-5.75	1.46	1.52
1	A	200	G	N7-C5	-5.75	1.35	1.39
5	E	38	VAL	N-CA	-5.75	1.34	1.46
1	A	440	C	C2'-C1'	-5.75	1.47	1.53
1	A	771	G	C2-N3	5.75	1.37	1.32
1	A	829	G	C2-N3	5.75	1.37	1.32
1	A	1463	U	C4'-O4'	-5.75	1.38	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	67	C	C2'-C1'	-5.75	1.47	1.53
1	A	578	C	O5'-C5'	-5.75	1.33	1.42
1	A	938	A	O4'-C1'	-5.75	1.34	1.41
1	A	1453	G	C1'-N9	-5.75	1.38	1.46
1	A	642	A	C4'-C3'	-5.75	1.46	1.52
1	A	10	A	N3-C4	-5.74	1.31	1.34
1	A	294	U	C2'-C1'	-5.74	1.47	1.53
1	A	537	G	C8-N7	-5.74	1.27	1.30
1	A	840	C	C2'-C1'	-5.74	1.47	1.53
1	A	1171	A	C4'-O4'	-5.74	1.38	1.45
1	A	1439	G	N9-C8	-5.74	1.33	1.37
1	A	865	A	N9-C4	-5.74	1.34	1.37
1	A	1272	G	C1'-N9	-5.74	1.38	1.46
1	A	1427	C	C2'-C1'	-5.74	1.47	1.53
1	A	134	G	C2'-C1'	-5.74	1.47	1.53
1	A	797	C	C4'-O4'	-5.74	1.38	1.45
1	A	937	A	N7-C5	-5.74	1.35	1.39
1	A	1148	U	C3'-C2'	-5.74	1.46	1.52
1	A	1349	A	O3'-P	-5.74	1.54	1.61
1	A	152	A	C6-N1	5.74	1.39	1.35
1	A	246	A	N7-C5	-5.74	1.35	1.39
1	A	392	C	O3'-P	-5.74	1.54	1.61
1	A	509	A	N3-C4	-5.74	1.31	1.34
1	A	834	U	C3'-C2'	-5.74	1.46	1.52
1	A	1432	G	C3'-O3'	-5.74	1.34	1.42
1	A	116	A	C5-C6	-5.74	1.35	1.41
1	A	438	U	C2'-C1'	-5.74	1.47	1.53
1	A	564	C	C4'-C3'	-5.74	1.46	1.52
1	A	976	G	N9-C4	-5.74	1.33	1.38
1	A	1480	A	N9-C8	-5.74	1.33	1.37
1	A	213	G	N9-C8	-5.73	1.33	1.37
1	A	299	G	C4'-C3'	-5.73	1.46	1.52
1	A	1452	C	C2'-C1'	-5.73	1.47	1.53
1	A	13	U	N1-C2	5.73	1.43	1.38
1	A	73	C	O4'-C1'	5.73	1.49	1.41
1	A	151	A	C2'-C1'	-5.73	1.47	1.53
1	A	273	U	N1-C6	-5.73	1.32	1.38
1	A	481	G	C6-O6	-5.73	1.19	1.24
1	A	1455	G	O3'-P	-5.73	1.54	1.61
1	A	192	A	N3-C4	-5.73	1.31	1.34
1	A	461	A	O3'-P	-5.73	1.54	1.61
1	A	1505	G	C2'-C1'	-5.73	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1534	A	N3-C4	-5.73	1.31	1.34
1	A	1483	A	C6-N1	5.73	1.39	1.35
1	A	581	G	O3'-P	-5.73	1.54	1.61
1	A	574	A	N7-C5	-5.73	1.35	1.39
1	A	687	A	C8-N7	-5.73	1.27	1.31
1	A	803	G	C2-N3	5.73	1.37	1.32
1	A	807	A	N7-C5	-5.73	1.35	1.39
1	A	1060	U	C3'-C2'	-5.73	1.46	1.52
1	A	1276	G	N3-C4	-5.73	1.31	1.35
1	A	116	A	N9-C8	-5.72	1.33	1.37
1	A	262	A	C1'-N9	-5.72	1.38	1.46
1	A	356	A	C2'-O2'	-5.72	1.34	1.41
1	A	975	A	C2'-C1'	-5.72	1.47	1.53
1	A	1085	U	C2'-C1'	-5.72	1.47	1.53
17	Q	72	TRP	N-CA	-5.72	1.34	1.46
1	A	282	A	P-O5'	-5.72	1.54	1.59
1	A	642	A	N9-C4	5.72	1.41	1.37
1	A	1145	A	N7-C5	-5.72	1.35	1.39
1	A	810	C	C3'-C2'	-5.72	1.46	1.52
4	D	134	TYR	CB-CG	-5.72	1.43	1.51
1	A	1321	U	C1'-N1	-5.72	1.38	1.46
1	A	1398	A	P-O5'	-5.72	1.54	1.59
1	A	318	G	C8-N7	-5.72	1.27	1.30
1	A	104	G	C2'-C1'	-5.71	1.47	1.53
1	A	415	A	C4'-C3'	-5.71	1.46	1.52
1	A	436	C	P-O5'	-5.71	1.54	1.59
1	A	804	U	C3'-C2'	-5.71	1.46	1.52
1	A	874	G	N7-C5	-5.71	1.35	1.39
1	A	1248	A	N3-C4	-5.71	1.31	1.34
1	A	1306	A	O3'-P	-5.71	1.54	1.61
1	A	245	U	C4'-C3'	-5.71	1.46	1.52
1	A	814	A	C5-C6	-5.71	1.35	1.41
1	A	755	G	P-O5'	-5.71	1.54	1.59
1	A	1013	G	C2'-C1'	-5.71	1.47	1.53
1	A	1043	G	C2-N3	5.71	1.37	1.32
1	A	1353	G	O3'-P	-5.71	1.54	1.61
1	A	462	G	N9-C4	-5.71	1.33	1.38
1	A	538	G	N9-C4	-5.71	1.33	1.38
1	A	627	G	C2'-C1'	-5.71	1.47	1.53
1	A	632	U	C4-C5	-5.71	1.38	1.43
1	A	831	A	C1'-N9	-5.71	1.38	1.46
1	A	1277	C	N1-C6	-5.71	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1353	G	C4'-O4'	-5.71	1.38	1.45
1	A	1509	C	C2-N3	-5.71	1.31	1.35
1	A	1163	A	C3'-C2'	-5.71	1.46	1.52
1	A	348	G	C2-N3	-5.70	1.28	1.32
1	A	905	U	O4'-C1'	-5.70	1.34	1.41
1	A	1392	G	C6-N1	-5.70	1.35	1.39
1	A	1452	C	P-O5'	-5.70	1.54	1.59
1	A	1455	G	C4'-C3'	-5.70	1.46	1.52
1	A	1482	G	N7-C5	-5.70	1.35	1.39
1	A	154	U	N1-C2	5.70	1.43	1.38
1	A	600	A	C1'-N9	-5.70	1.38	1.46
1	A	159	G	C3'-C2'	-5.70	1.46	1.52
1	A	198	G	C4'-C3'	5.70	1.59	1.53
1	A	750	C	C2-N3	-5.70	1.31	1.35
1	A	942	G	N3-C4	-5.70	1.31	1.35
1	A	373	A	C1'-N9	-5.70	1.38	1.46
1	A	679	C	P-O5'	-5.70	1.54	1.59
1	A	877	G	C5-C6	-5.70	1.36	1.42
1	A	1296	C	O3'-P	-5.70	1.54	1.61
1	A	1518	A	C3'-O3'	-5.70	1.34	1.42
1	A	73	C	P-O5'	-5.70	1.54	1.59
1	A	448	A	P-O5'	-5.70	1.54	1.59
1	A	466	A	C4'-C3'	-5.70	1.46	1.52
1	A	1527	U	C4'-O4'	-5.70	1.38	1.45
1	A	64	G	C2'-C1'	-5.70	1.47	1.53
1	A	808	C	C3'-C2'	-5.70	1.46	1.52
1	A	985	C	C1'-N1	-5.70	1.38	1.46
1	A	1251	A	C1'-N9	-5.70	1.38	1.46
1	A	402	G	N9-C4	-5.69	1.33	1.38
1	A	711	G	N7-C5	-5.69	1.35	1.39
1	A	1309	G	P-O5'	-5.69	1.54	1.59
1	A	172	A	N3-C4	-5.69	1.31	1.34
1	A	338	A	C2'-C1'	-5.69	1.47	1.53
1	A	1036	A	N1-C2	-5.69	1.29	1.34
1	A	1143	G	N7-C5	-5.69	1.35	1.39
1	A	564	C	O3'-P	-5.69	1.54	1.61
1	A	1065	U	P-O5'	-5.69	1.54	1.59
1	A	584	G	N9-C4	-5.69	1.33	1.38
1	A	377	G	C2'-C1'	-5.68	1.47	1.53
1	A	606	G	N7-C5	-5.68	1.35	1.39
1	A	733	G	N9-C4	-5.68	1.33	1.38
1	A	831	A	C5-C4	-5.68	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1071	C	C5'-C4'	5.68	1.58	1.51
1	A	566	G	C4'-C3'	-5.68	1.46	1.52
1	A	1370	G	P-O5'	-5.68	1.54	1.59
1	A	1396	A	P-O5'	-5.68	1.54	1.59
1	A	1182	G	C1'-N9	-5.68	1.38	1.46
1	A	357	G	C8-N7	-5.68	1.27	1.30
1	A	702	A	O3'-P	-5.68	1.54	1.61
1	A	1458	G	C8-N7	-5.68	1.27	1.30
1	A	399	G	N7-C5	-5.68	1.35	1.39
1	A	928	G	C2'-O2'	-5.68	1.34	1.41
1	A	387	U	O4'-C1'	-5.67	1.34	1.41
1	A	546	A	C2'-O2'	-5.67	1.34	1.41
1	A	988	G	N7-C5	-5.67	1.35	1.39
1	A	1060	U	C2-N3	-5.67	1.33	1.37
1	A	754	C	O3'-P	-5.67	1.54	1.61
1	A	1150	A	O3'-P	-5.67	1.54	1.61
1	A	691	G	C2'-C1'	-5.67	1.47	1.53
1	A	976	G	C3'-C2'	-5.67	1.46	1.52
1	A	322	C	O3'-P	-5.67	1.54	1.61
1	A	1335	U	C4'-O4'	-5.67	1.38	1.45
1	A	540	G	N9-C8	-5.67	1.33	1.37
1	A	159	G	C2'-C1'	-5.67	1.47	1.53
1	A	523	A	N7-C5	-5.67	1.35	1.39
1	A	1222	G	C5-C6	-5.67	1.36	1.42
1	A	143	A	N7-C5	-5.67	1.35	1.39
1	A	246	A	C3'-C2'	-5.67	1.46	1.52
1	A	328	C	P-O5'	-5.67	1.54	1.59
1	A	402	G	P-O5'	-5.67	1.54	1.59
1	A	1310	G	C4'-C3'	-5.66	1.46	1.52
1	A	275	G	O4'-C1'	-5.66	1.34	1.41
1	A	275	G	N9-C4	-5.66	1.33	1.38
1	A	558	G	O3'-P	-5.66	1.54	1.61
1	A	1016	A	O3'-P	-5.66	1.54	1.61
1	A	1442	G	C5'-C4'	5.66	1.58	1.51
1	A	1530	G	C2'-C1'	-5.66	1.47	1.53
1	A	1106	G	C2-N3	5.66	1.37	1.32
1	A	558	G	C5-C6	-5.66	1.36	1.42
1	A	1193	G	N7-C5	-5.66	1.35	1.39
1	A	1368	A	C3'-C2'	-5.66	1.46	1.52
1	A	1417	G	N7-C5	-5.66	1.35	1.39
1	A	123	U	C4'-C3'	-5.65	1.46	1.52
1	A	773	G	N1-C2	5.65	1.42	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	108	G	C4'-O4'	-5.65	1.38	1.45
1	A	916	U	C2'-C1'	-5.65	1.47	1.53
1	A	1045	C	C2'-C1'	-5.65	1.47	1.53
1	A	1086	U	P-O5'	-5.65	1.54	1.59
1	A	1128	C	C2-N3	-5.65	1.31	1.35
1	A	313	A	N3-C4	-5.65	1.31	1.34
1	A	474	G	C2'-C1'	-5.65	1.47	1.53
1	A	521	G	P-O5'	-5.65	1.54	1.59
1	A	672	U	O3'-P	-5.65	1.54	1.61
1	A	964	A	P-O5'	-5.65	1.54	1.59
1	A	1274	A	C8-N7	-5.65	1.27	1.31
1	A	1473	G	P-O5'	-5.65	1.54	1.59
1	A	1511	G	C1'-N9	-5.65	1.39	1.46
1	A	1016	A	C4'-C3'	-5.65	1.47	1.52
1	A	650	G	C5-C6	-5.65	1.36	1.42
1	A	1209	C	C2'-C1'	-5.65	1.47	1.53
1	A	823	C	C1'-N1	-5.65	1.39	1.46
1	A	38	G	O3'-P	-5.64	1.54	1.61
1	A	348	G	N3-C4	-5.64	1.31	1.35
1	A	895	G	N7-C5	-5.64	1.35	1.39
1	A	1463	U	C3'-C2'	-5.64	1.46	1.52
1	A	197	A	N9-C4	-5.64	1.34	1.37
1	A	668	G	C4'-O4'	-5.64	1.38	1.45
1	A	715	A	C3'-C2'	-5.64	1.46	1.52
1	A	872	A	C2'-C1'	-5.64	1.47	1.53
1	A	1070	U	P-O5'	-5.64	1.54	1.59
1	A	1224	U	O3'-P	-5.64	1.54	1.61
1	A	1370	G	N7-C5	-5.64	1.35	1.39
1	A	328	C	C2'-C1'	-5.64	1.47	1.53
1	A	702	A	N7-C5	-5.64	1.35	1.39
1	A	720	C	C4'-C3'	-5.64	1.47	1.52
1	A	787	A	N9-C4	-5.64	1.34	1.37
1	A	1230	C	C2'-O2'	-5.64	1.34	1.41
1	A	1380	U	P-O5'	-5.64	1.54	1.59
1	A	273	U	P-O5'	-5.64	1.54	1.59
1	A	1100	C	P-O5'	-5.64	1.54	1.59
1	A	1208	C	C2'-C1'	-5.64	1.47	1.53
1	A	126	G	C2'-O2'	-5.64	1.34	1.41
1	A	505	G	C5'-C4'	-5.64	1.44	1.51
1	A	606	G	C4'-O4'	-5.64	1.38	1.45
1	A	766	A	N3-C4	-5.64	1.31	1.34
1	A	1159	U	P-O5'	-5.64	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1469	C	C5'-C4'	-5.64	1.44	1.51
1	A	301	G	C5-C6	-5.63	1.36	1.42
1	A	627	G	C3'-C2'	-5.63	1.46	1.52
1	A	946	A	C8-N7	-5.63	1.27	1.31
1	A	976	G	P-O5'	-5.63	1.54	1.59
1	A	1095	U	C4-C5	-5.63	1.38	1.43
1	A	243	A	C4'-C3'	5.63	1.59	1.53
1	A	404	G	C5-C4	-5.63	1.34	1.38
1	A	453	G	C4'-O4'	-5.63	1.38	1.45
1	A	668	G	C5-C6	-5.63	1.36	1.42
19	S	53	GLY	CA-C	-5.63	1.42	1.51
1	A	236	A	N9-C4	-5.63	1.34	1.37
1	A	1102	A	O4'-C1'	-5.63	1.34	1.41
11	K	48	GLY	N-CA	-5.63	1.37	1.46
1	A	906	A	O4'-C1'	-5.63	1.34	1.41
1	A	718	A	C2'-C1'	-5.62	1.47	1.53
1	A	753	A	C8-N7	-5.62	1.27	1.31
1	A	428	G	C2'-C1'	-5.62	1.47	1.53
1	A	438	U	O4'-C1'	-5.62	1.34	1.41
1	A	1270	G	C8-N7	-5.62	1.27	1.30
1	A	645	G	C8-N7	-5.62	1.27	1.30
1	A	1099	G	N7-C5	-5.62	1.35	1.39
1	A	1353	G	C1'-N9	-5.62	1.39	1.46
1	A	760	G	C3'-C2'	-5.62	1.46	1.52
1	A	917	G	N3-C4	-5.62	1.31	1.35
1	A	1428	A	C3'-C2'	-5.62	1.46	1.52
1	A	117	G	C4'-C3'	-5.62	1.47	1.52
1	A	1227	A	N7-C5	-5.62	1.35	1.39
1	A	1244	G	N7-C5	-5.62	1.35	1.39
1	A	1302	C	C4'-C3'	-5.62	1.47	1.52
1	A	830	G	C5-C6	-5.61	1.36	1.42
1	A	1386	G	C3'-C2'	-5.61	1.46	1.52
1	A	1457	G	C4'-O4'	-5.61	1.38	1.45
1	A	1523	G	C6-N1	5.61	1.43	1.39
1	A	544	G	C3'-C2'	-5.61	1.46	1.52
1	A	860	A	N3-C4	-5.61	1.31	1.34
1	A	41	G	P-O5'	-5.61	1.54	1.59
1	A	535	A	C4'-C3'	-5.61	1.47	1.52
1	A	543	U	C2-N3	-5.61	1.33	1.37
1	A	892	A	N9-C4	-5.61	1.34	1.37
1	A	1317	C	P-O5'	-5.61	1.54	1.59
1	A	660	C	P-O5'	-5.61	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1357	A	C3'-C2'	-5.61	1.46	1.52
5	E	41	GLY	CA-C	-5.61	1.42	1.51
1	A	762	U	O3'-P	-5.60	1.54	1.61
1	A	1422	G	C3'-C2'	-5.60	1.46	1.52
1	A	891	U	P-O5'	-5.60	1.54	1.59
1	A	1065	U	C4'-O4'	-5.60	1.38	1.45
1	A	122	G	N3-C4	-5.60	1.31	1.35
1	A	187	G	N1-C2	-5.60	1.33	1.37
1	A	392	C	C4'-O4'	-5.60	1.38	1.45
1	A	462	G	N3-C4	-5.60	1.31	1.35
1	A	1447	A	C6-N1	5.60	1.39	1.35
1	A	1485	U	C2'-C1'	-5.60	1.47	1.53
1	A	35	G	C3'-C2'	-5.60	1.46	1.52
1	A	64	G	C8-N7	-5.60	1.27	1.30
1	A	454	G	P-O5'	-5.60	1.54	1.59
1	A	1021	A	N9-C8	-5.60	1.33	1.37
1	A	1484	C	C3'-C2'	-5.60	1.46	1.52
1	A	533	A	C6-N1	5.59	1.39	1.35
1	A	669	G	N7-C5	-5.59	1.35	1.39
1	A	1299	A	N3-C4	-5.59	1.31	1.34
1	A	1406	U	C4-C5	-5.59	1.38	1.43
1	A	1531	A	N7-C5	-5.59	1.35	1.39
1	A	505	G	C4'-O4'	-5.59	1.38	1.45
1	A	830	G	C4'-C3'	-5.59	1.47	1.52
1	A	1488	G	N7-C5	-5.59	1.35	1.39
1	A	115	G	N9-C8	-5.59	1.33	1.37
1	A	189	A	C8-N7	-5.59	1.27	1.31
1	A	496	A	C8-N7	-5.59	1.27	1.31
1	A	1220	G	C3'-C2'	-5.59	1.46	1.52
1	A	728	A	N7-C5	-5.59	1.35	1.39
1	A	403	C	C2'-C1'	-5.59	1.47	1.53
1	A	496	A	C2'-C1'	-5.59	1.47	1.53
1	A	685	G	C5-C4	-5.59	1.34	1.38
1	A	1304	G	O4'-C1'	-5.59	1.34	1.41
1	A	310	G	C2'-C1'	-5.58	1.47	1.53
1	A	579	A	P-O5'	-5.58	1.54	1.59
1	A	961	U	C2'-C1'	-5.58	1.47	1.53
1	A	1363	A	O3'-P	-5.58	1.54	1.61
1	A	141	G	C1'-N9	-5.58	1.39	1.46
1	A	382	A	N9-C8	-5.58	1.33	1.37
1	A	440	C	C2-N3	5.58	1.40	1.35
1	A	828	U	C5'-C4'	5.58	1.58	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	50	A	P-O5'	-5.58	1.54	1.59
1	A	960	U	N1-C2	-5.58	1.33	1.38
1	A	1157	A	C3'-C2'	-5.58	1.46	1.52
1	A	146	G	C5-C6	-5.58	1.36	1.42
1	A	305	G	N9-C4	-5.58	1.33	1.38
1	A	851	G	O5'-C5'	-5.58	1.33	1.42
1	A	881	G	C5-C6	-5.58	1.36	1.42
1	A	956	U	O3'-P	-5.58	1.54	1.61
1	A	1157	A	C4'-C3'	-5.58	1.47	1.52
1	A	1502	A	N9-C8	-5.58	1.33	1.37
1	A	124	C	C2'-C1'	-5.58	1.47	1.53
1	A	571	U	N1-C2	5.58	1.43	1.38
1	A	1350	A	N9-C4	-5.58	1.34	1.37
1	A	377	G	C4'-O4'	-5.57	1.38	1.45
1	A	393	A	N7-C5	-5.57	1.35	1.39
1	A	496	A	N7-C5	-5.57	1.35	1.39
1	A	958	A	C8-N7	-5.57	1.27	1.31
1	A	1055	A	C1'-N9	-5.57	1.39	1.46
1	A	633	G	N1-C2	5.57	1.42	1.37
1	A	823	C	N1-C6	-5.57	1.33	1.37
1	A	212	G	O4'-C1'	-5.57	1.34	1.41
1	A	336	A	C8-N7	-5.57	1.27	1.31
1	A	593	U	O3'-P	-5.57	1.54	1.61
1	A	601	G	C8-N7	-5.57	1.27	1.30
1	A	1256	A	C5-C6	-5.57	1.36	1.41
1	A	237	G	P-O5'	-5.57	1.54	1.59
1	A	92	U	C3'-C2'	-5.57	1.46	1.52
1	A	688	G	O3'-P	-5.57	1.54	1.61
1	A	752	G	C8-N7	-5.57	1.27	1.30
1	A	795	C	C2'-C1'	-5.57	1.47	1.53
1	A	1104	G	N7-C5	-5.57	1.35	1.39
1	A	236	A	P-O5'	-5.57	1.54	1.59
1	A	934	C	C2'-C1'	-5.57	1.47	1.53
1	A	1157	A	C5-C6	-5.57	1.36	1.41
1	A	350	G	C2-N2	-5.56	1.28	1.34
1	A	74	A	N9-C4	-5.56	1.34	1.37
1	A	535	A	C8-N7	-5.56	1.27	1.31
1	A	722	G	N3-C4	-5.56	1.31	1.35
1	A	825	A	C5-C6	-5.56	1.36	1.41
1	A	1335	U	C5'-C4'	-5.56	1.44	1.51
1	A	46	G	O4'-C1'	-5.56	1.34	1.41
1	A	500	G	O4'-C1'	-5.56	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	628	G	O4'-C1'	-5.56	1.34	1.41
1	A	879	C	O3'-P	-5.56	1.54	1.61
1	A	1162	C	C3'-C2'	-5.56	1.46	1.52
8	H	112	ASP	CA-C	-5.56	1.38	1.52
1	A	82	G	C6-N1	5.56	1.43	1.39
1	A	96	U	N1-C6	-5.56	1.32	1.38
1	A	576	C	O3'-P	-5.56	1.54	1.61
1	A	675	A	N3-C4	-5.56	1.31	1.34
1	A	824	G	O3'-P	-5.56	1.54	1.61
1	A	77	A	N9-C8	-5.55	1.33	1.37
1	A	1226	C	C4'-C3'	-5.55	1.47	1.52
1	A	1461	G	C3'-C2'	-5.55	1.46	1.52
1	A	603	U	C4'-C3'	-5.55	1.47	1.52
1	A	958	A	C2'-C1'	-5.55	1.47	1.53
1	A	1507	A	N7-C5	-5.55	1.35	1.39
1	A	376	G	O3'-P	-5.55	1.54	1.61
1	A	816	A	C5'-C4'	-5.55	1.44	1.51
1	A	1064	G	C2-N3	-5.55	1.28	1.32
1	A	1370	G	C2-N3	-5.55	1.28	1.32
1	A	399	G	C2'-C1'	-5.55	1.47	1.53
1	A	764	C	C2'-C1'	-5.55	1.47	1.53
1	A	1200	C	C4'-O4'	-5.55	1.38	1.45
1	A	193	C	C5'-C4'	-5.55	1.44	1.51
1	A	221	C	C2'-C1'	-5.55	1.47	1.53
1	A	327	A	C1'-N9	-5.55	1.39	1.46
1	A	1042	A	C6-N6	5.55	1.38	1.33
1	A	1300	G	C5-C4	-5.55	1.34	1.38
1	A	1527	U	P-O5'	-5.55	1.54	1.59
1	A	549	C	C1'-N1	-5.54	1.39	1.46
1	A	782	A	C8-N7	-5.54	1.27	1.31
1	A	1279	G	C5-C4	-5.54	1.34	1.38
1	A	131	A	C4'-C3'	-5.54	1.47	1.52
1	A	240	G	C5-C4	-5.54	1.34	1.38
1	A	832	G	O4'-C1'	-5.54	1.34	1.41
1	A	1513	A	C1'-N9	-5.54	1.39	1.46
1	A	90	C	O5'-C5'	-5.54	1.33	1.42
1	A	416	G	C8-N7	-5.54	1.27	1.30
1	A	554	A	C2'-C1'	-5.54	1.47	1.53
1	A	1056	U	C2'-C1'	-5.54	1.47	1.53
1	A	512	U	P-O5'	-5.54	1.54	1.59
1	A	618	C	C2'-C1'	-5.54	1.47	1.53
1	A	189	A	N9-C8	-5.54	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1011	C	O3'-P	-5.54	1.54	1.61
1	A	538	G	C3'-C2'	-5.54	1.46	1.52
1	A	893	C	C2'-C1'	-5.54	1.47	1.53
1	A	1110	A	C8-N7	-5.54	1.27	1.31
1	A	1186	G	C2-N3	-5.54	1.28	1.32
1	A	276	G	O4'-C1'	-5.54	1.34	1.41
1	A	385	C	C2'-C1'	-5.54	1.47	1.53
1	A	971	G	N7-C5	-5.54	1.35	1.39
1	A	1000	A	C2'-C1'	-5.54	1.47	1.53
1	A	1137	C	O3'-P	-5.54	1.54	1.61
1	A	1178	G	N3-C4	-5.54	1.31	1.35
1	A	1220	G	C2'-C1'	-5.54	1.47	1.53
1	A	480	U	C2'-C1'	-5.53	1.47	1.53
1	A	1135	U	N1-C2	-5.53	1.33	1.38
1	A	1251	A	C2'-O2'	-5.53	1.34	1.41
1	A	1365	G	C2'-C1'	-5.53	1.47	1.53
1	A	438	U	P-O5'	-5.53	1.54	1.59
1	A	478	A	N7-C5	-5.53	1.35	1.39
1	A	975	A	C8-N7	-5.53	1.27	1.31
1	A	1113	C	O3'-P	-5.53	1.54	1.61
1	A	1201	A	C4'-O4'	-5.53	1.38	1.45
1	A	1353	G	C4'-C3'	-5.53	1.47	1.52
1	A	245	U	O4'-C1'	-5.53	1.34	1.41
1	A	399	G	O3'-P	-5.53	1.54	1.61
1	A	984	C	C3'-C2'	-5.53	1.46	1.52
1	A	1218	C	C3'-C2'	-5.53	1.46	1.52
1	A	148	G	C8-N7	-5.53	1.27	1.30
1	A	278	G	C3'-C2'	-5.53	1.46	1.52
1	A	675	A	O4'-C1'	-5.53	1.34	1.41
1	A	687	A	C2-N3	-5.53	1.28	1.33
1	A	500	G	C2'-O2'	-5.53	1.34	1.41
1	A	980	C	N3-C4	-5.53	1.30	1.33
1	A	1035	A	C2'-C1'	-5.53	1.47	1.53
1	A	1128	C	O3'-P	-5.53	1.54	1.61
5	E	39	GLY	N-CA	-5.53	1.37	1.46
1	A	502	A	C2'-C1'	-5.52	1.47	1.53
1	A	426	U	O4'-C1'	-5.52	1.34	1.41
1	A	616	G	C5-C4	-5.52	1.34	1.38
1	A	863	U	C2'-C1'	-5.52	1.47	1.53
1	A	1258	G	C5-C6	-5.52	1.36	1.42
1	A	171	A	C5-C6	-5.52	1.36	1.41
1	A	262	A	N3-C4	-5.52	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	326	G	N9-C8	-5.52	1.33	1.37
1	A	1148	U	C5'-C4'	-5.52	1.44	1.51
1	A	1410	A	C3'-C2'	-5.52	1.46	1.52
1	A	202	G	C5-C6	-5.52	1.36	1.42
1	A	753	A	C5'-C4'	-5.52	1.44	1.51
1	A	955	U	C3'-C2'	-5.52	1.46	1.52
1	A	1319	A	P-O5'	-5.52	1.54	1.59
1	A	101	A	C2'-C1'	-5.52	1.47	1.53
1	A	362	G	P-O5'	-5.52	1.54	1.59
1	A	729	A	N9-C8	-5.52	1.33	1.37
1	A	1301	U	N1-C2	-5.52	1.33	1.38
1	A	1357	A	C5-C6	-5.51	1.36	1.41
1	A	448	A	C2'-C1'	-5.51	1.47	1.53
1	A	935	A	O3'-P	-5.51	1.54	1.61
1	A	1085	U	C4'-O4'	-5.51	1.38	1.45
1	A	131	A	O3'-P	-5.51	1.54	1.61
1	A	611	C	C4'-C3'	-5.51	1.47	1.52
1	A	795	C	C3'-C2'	-5.51	1.46	1.52
1	A	1241	G	N3-C4	-5.51	1.31	1.35
1	A	254	G	C5-C6	-5.51	1.36	1.42
1	A	1427	C	C4'-C3'	5.51	1.59	1.53
1	A	245	U	C2'-C1'	-5.51	1.47	1.53
1	A	1279	G	O4'-C1'	-5.51	1.34	1.41
1	A	247	G	O4'-C1'	-5.50	1.34	1.41
1	A	981	U	N1-C2	-5.50	1.33	1.38
1	A	322	C	P-O5'	-5.50	1.54	1.59
1	A	444	G	N7-C5	-5.50	1.35	1.39
1	A	519	C	P-O5'	-5.50	1.54	1.59
1	A	693	G	C4'-C3'	-5.50	1.47	1.52
1	A	909	A	O3'-P	-5.50	1.54	1.61
1	A	1162	C	N1-C6	-5.50	1.33	1.37
1	A	1260	G	C3'-C2'	-5.50	1.46	1.52
1	A	1002	G	C1'-N9	-5.50	1.39	1.46
1	A	1311	A	C8-N7	-5.50	1.27	1.31
1	A	107	G	C2'-C1'	-5.50	1.47	1.53
1	A	496	A	C5-C6	-5.50	1.36	1.41
1	A	1526	G	C8-N7	-5.50	1.27	1.30
1	A	419	C	O3'-P	-5.50	1.54	1.61
1	A	425	G	N7-C5	-5.50	1.35	1.39
1	A	1019	A	P-O5'	-5.50	1.54	1.59
1	A	1056	U	P-O5'	-5.50	1.54	1.59
1	A	1356	G	O3'-P	-5.50	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	416	G	C2-N3	5.50	1.37	1.32
1	A	768	A	C4'-C3'	-5.50	1.47	1.52
1	A	1095	U	C4'-C3'	-5.50	1.47	1.52
1	A	1450	U	P-O5'	-5.50	1.54	1.59
17	Q	63	CYS	CB-SG	-5.50	1.72	1.81
1	A	270	A	C8-N7	-5.50	1.27	1.31
1	A	797	C	C2'-C1'	-5.49	1.47	1.53
1	A	1521	C	O3'-P	-5.49	1.54	1.61
1	A	956	U	C3'-C2'	-5.49	1.46	1.52
1	A	2	A	N9-C8	-5.49	1.33	1.37
1	A	83	C	C2'-C1'	-5.49	1.47	1.53
1	A	228	A	C4'-C3'	-5.49	1.47	1.52
1	A	768	A	C8-N7	-5.49	1.27	1.31
1	A	1346	A	N1-C2	-5.49	1.29	1.34
1	A	327	A	C8-N7	-5.49	1.27	1.31
1	A	627	G	C5-C4	-5.49	1.34	1.38
1	A	1156	G	C4'-C3'	5.49	1.59	1.53
1	A	1166	G	C2-N3	-5.49	1.28	1.32
1	A	1229	A	N7-C5	-5.49	1.35	1.39
1	A	1270	G	O5'-C5'	-5.49	1.34	1.42
1	A	501	C	C5'-C4'	-5.48	1.44	1.51
1	A	752	G	C2-N3	-5.48	1.28	1.32
1	A	1172	C	P-O5'	-5.48	1.54	1.59
1	A	346	G	N3-C4	-5.48	1.31	1.35
1	A	1532	U	P-O5'	-5.48	1.54	1.59
1	A	382	A	C6-N6	-5.48	1.29	1.33
1	A	917	G	O3'-P	-5.48	1.54	1.61
1	A	1335	U	O4'-C1'	-5.48	1.34	1.41
1	A	1410	A	C4'-C3'	-5.48	1.47	1.52
1	A	1523	G	N7-C5	-5.48	1.35	1.39
1	A	202	G	N9-C4	-5.48	1.33	1.38
1	A	333	U	C2'-C1'	-5.48	1.47	1.53
1	A	451	A	C5-C4	-5.48	1.34	1.38
1	A	1376	U	N1-C6	-5.48	1.33	1.38
1	A	466	A	N9-C4	5.48	1.41	1.37
1	A	683	G	C5-C6	-5.48	1.36	1.42
1	A	846	G	N9-C8	-5.48	1.34	1.37
1	A	952	U	P-O5'	-5.48	1.54	1.59
1	A	378	G	N9-C4	-5.47	1.33	1.38
1	A	715	A	P-O5'	-5.47	1.54	1.59
1	A	540	G	N3-C4	-5.47	1.31	1.35
1	A	635	A	O5'-C5'	-5.47	1.34	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1221	G	C8-N7	-5.47	1.27	1.30
1	A	1255	G	N3-C4	-5.47	1.31	1.35
1	A	430	A	C5'-C4'	-5.47	1.44	1.51
1	A	466	A	C3'-C2'	-5.47	1.46	1.52
1	A	1368	A	C5-C4	-5.47	1.34	1.38
1	A	1447	A	C2'-O2'	-5.47	1.34	1.41
1	A	762	U	P-O5'	-5.47	1.54	1.59
1	A	1002	G	C8-N7	-5.47	1.27	1.30
1	A	601	G	C3'-C2'	-5.47	1.46	1.52
1	A	798	U	C4'-O4'	-5.47	1.38	1.45
1	A	1142	G	N9-C4	-5.47	1.33	1.38
1	A	1370	G	C5'-C4'	-5.47	1.44	1.51
1	A	718	A	C5'-C4'	5.46	1.57	1.51
1	A	1117	A	C8-N7	-5.46	1.27	1.31
1	A	1231	G	C4'-O4'	-5.46	1.38	1.45
1	A	1289	A	C3'-C2'	-5.46	1.46	1.52
1	A	200	G	O3'-P	-5.46	1.54	1.61
1	A	399	G	C3'-C2'	-5.46	1.46	1.52
1	A	529	G	C5'-C4'	-5.46	1.44	1.51
1	A	616	G	O4'-C1'	-5.46	1.34	1.41
1	A	1488	G	C2'-C1'	-5.46	1.47	1.53
1	A	642	A	C8-N7	-5.46	1.27	1.31
1	A	780	A	C1'-N9	-5.46	1.39	1.46
1	A	1125	U	C3'-C2'	-5.46	1.46	1.52
1	A	1304	G	O3'-P	-5.46	1.54	1.61
1	A	550	G	N7-C5	-5.46	1.35	1.39
1	A	1134	G	N7-C5	-5.46	1.35	1.39
1	A	1409	C	C4-C5	-5.46	1.38	1.43
15	O	15	GLY	CA-C	-5.46	1.43	1.51
1	A	519	C	C2'-C1'	-5.46	1.47	1.53
1	A	1067	A	N3-C4	-5.46	1.31	1.34
1	A	163	C	C3'-C2'	-5.46	1.46	1.52
1	A	928	G	C8-N7	-5.46	1.27	1.30
1	A	1265	C	P-O5'	-5.46	1.54	1.59
1	A	74	A	C2'-C1'	-5.45	1.47	1.53
1	A	1516	G	C8-N7	-5.45	1.27	1.30
1	A	191	G	C5-C6	-5.45	1.36	1.42
1	A	1308	U	C2'-C1'	-5.45	1.47	1.53
1	A	264	C	C3'-C2'	-5.45	1.46	1.52
1	A	325	A	C8-N7	-5.45	1.27	1.31
1	A	361	G	N3-C4	-5.45	1.31	1.35
1	A	428	G	N3-C4	-5.45	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	697	U	C3'-C2'	-5.45	1.46	1.52
1	A	827	U	C2'-C1'	-5.45	1.47	1.53
1	A	946	A	C2'-O2'	-5.45	1.34	1.41
1	A	61	G	O3'-P	-5.45	1.54	1.61
1	A	401	C	C1'-N1	-5.45	1.39	1.46
1	A	487	A	C2'-C1'	-5.45	1.47	1.53
1	A	606	G	C5'-C4'	5.45	1.57	1.51
1	A	1304	G	C5'-C4'	-5.45	1.44	1.51
1	A	203	G	C3'-O3'	-5.45	1.34	1.42
1	A	218	U	C1'-N1	-5.45	1.39	1.46
1	A	373	A	O4'-C1'	-5.45	1.34	1.41
1	A	948	C	C2'-C1'	-5.45	1.47	1.53
1	A	1012	A	N9-C4	-5.45	1.34	1.37
1	A	1327	C	O3'-P	-5.45	1.54	1.61
1	A	1423	G	C1'-N9	-5.44	1.39	1.46
1	A	357	G	N9-C4	-5.44	1.33	1.38
1	A	579	A	C1'-N9	-5.44	1.39	1.46
1	A	1215	G	C4'-C3'	-5.44	1.47	1.52
1	A	557	G	C2'-C1'	-5.44	1.47	1.53
1	A	627	G	N1-C2	-5.44	1.33	1.37
1	A	21	G	C8-N7	-5.44	1.27	1.30
1	A	61	G	P-O5'	-5.44	1.54	1.59
1	A	130	A	C6-N6	-5.44	1.29	1.33
1	A	143	A	O3'-P	-5.44	1.54	1.61
1	A	333	U	C4'-C3'	5.44	1.59	1.53
1	A	462	G	C4'-C3'	5.44	1.59	1.53
1	A	814	A	N3-C4	-5.44	1.31	1.34
1	A	929	G	C3'-C2'	-5.44	1.46	1.52
1	A	1235	U	C2'-C1'	-5.44	1.47	1.53
1	A	157	U	P-O5'	-5.43	1.54	1.59
1	A	629	A	N9-C8	-5.43	1.33	1.37
1	A	941	G	N9-C4	-5.43	1.33	1.38
1	A	1003	G	C2-N3	5.43	1.37	1.32
1	A	1009	U	C2-N3	-5.43	1.33	1.37
1	A	1015	G	C5-C6	-5.43	1.36	1.42
1	A	107	G	P-O5'	-5.43	1.54	1.59
1	A	574	A	C3'-C2'	-5.43	1.46	1.52
1	A	1123	U	P-O5'	-5.43	1.54	1.59
1	A	1256	A	N3-C4	-5.43	1.31	1.34
1	A	1523	G	C2-N3	-5.43	1.28	1.32
1	A	42	G	N7-C5	-5.43	1.35	1.39
1	A	381	C	O3'-P	-5.43	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	415	A	C6-N1	5.43	1.39	1.35
1	A	480	U	O4'-C1'	-5.43	1.34	1.41
1	A	889	A	N7-C5	-5.43	1.35	1.39
1	A	915	A	C3'-C2'	-5.43	1.46	1.52
1	A	1335	U	N1-C2	-5.43	1.33	1.38
1	A	1403	C	C4'-C3'	-5.43	1.47	1.52
1	A	14	U	O3'-P	-5.43	1.54	1.61
1	A	251	G	O3'-P	-5.43	1.54	1.61
1	A	279	A	C5-C4	-5.43	1.34	1.38
1	A	634	C	C4'-C3'	-5.43	1.47	1.52
1	A	760	G	C2'-C1'	-5.43	1.47	1.53
1	A	832	G	C5-C6	-5.43	1.36	1.42
1	A	112	G	N7-C5	-5.42	1.35	1.39
1	A	191	G	C2'-C1'	-5.42	1.47	1.53
1	A	359	G	N7-C5	-5.42	1.35	1.39
1	A	1193	G	C5-C6	-5.42	1.36	1.42
1	A	64	G	C3'-O3'	-5.42	1.34	1.42
1	A	941	G	C3'-C2'	-5.42	1.46	1.52
1	A	1034	G	N9-C4	-5.42	1.33	1.38
1	A	1288	A	C1'-N9	-5.42	1.39	1.46
1	A	1323	G	C5'-C4'	5.42	1.57	1.51
1	A	278	G	N9-C8	-5.42	1.34	1.37
1	A	288	A	N1-C2	-5.42	1.29	1.34
1	A	453	G	C5-C6	-5.42	1.36	1.42
1	A	1126	U	C4'-C3'	-5.42	1.47	1.52
1	A	1383	C	C4-C5	-5.42	1.38	1.43
1	A	1426	G	C3'-C2'	-5.42	1.46	1.52
1	A	563	A	O4'-C1'	-5.42	1.34	1.41
1	A	725	G	O4'-C1'	-5.42	1.34	1.41
1	A	1303	C	P-O5'	-5.42	1.54	1.59
1	A	1475	G	P-O5'	-5.42	1.54	1.59
1	A	119	A	C5'-C4'	-5.42	1.44	1.51
1	A	347	G	C8-N7	-5.42	1.27	1.30
1	A	695	A	N3-C4	-5.42	1.31	1.34
1	A	1351	U	C2'-C1'	-5.42	1.47	1.53
1	A	1420	U	C3'-C2'	-5.42	1.46	1.52
1	A	210	C	C2'-C1'	-5.42	1.47	1.53
1	A	387	U	O3'-P	-5.42	1.54	1.61
1	A	515	G	C2'-C1'	-5.42	1.47	1.53
1	A	59	A	N3-C4	-5.41	1.31	1.34
1	A	1278	G	C4'-O4'	-5.41	1.38	1.45
1	A	111	G	O3'-P	-5.41	1.54	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	321	A	C5'-C4'	5.41	1.57	1.51
1	A	604	G	O3'-P	-5.41	1.54	1.61
1	A	660	C	C4'-O4'	5.41	1.52	1.45
1	A	1242	G	C2-N3	5.41	1.37	1.32
1	A	1364	U	C2-N3	5.41	1.41	1.37
1	A	58	C	P-O5'	-5.41	1.54	1.59
1	A	152	A	N7-C5	-5.41	1.36	1.39
1	A	213	G	C5-C6	-5.41	1.36	1.42
1	A	510	A	N3-C4	-5.41	1.31	1.34
1	A	677	U	P-O5'	-5.41	1.54	1.59
1	A	773	G	C8-N7	-5.41	1.27	1.30
1	A	474	G	C5-C6	-5.41	1.36	1.42
1	A	182	A	C3'-O3'	-5.41	1.34	1.42
1	A	528	C	P-O5'	-5.41	1.54	1.59
1	A	533	A	P-O5'	-5.41	1.54	1.59
1	A	964	A	N9-C4	-5.41	1.34	1.37
1	A	1456	A	C4'-C3'	-5.41	1.47	1.52
1	A	390	U	C2'-C1'	-5.40	1.47	1.53
1	A	769	G	O3'-P	-5.40	1.54	1.61
1	A	1345	U	C4'-C3'	-5.40	1.47	1.52
1	A	705	G	C2'-C1'	-5.40	1.47	1.53
1	A	751	U	O3'-P	-5.40	1.54	1.61
1	A	1427	C	C5'-C4'	5.40	1.57	1.51
1	A	1482	G	C3'-C2'	-5.40	1.46	1.52
1	A	747	A	N9-C4	-5.40	1.34	1.37
1	A	1222	G	C4'-O4'	-5.40	1.38	1.45
1	A	1481	U	C2'-C1'	-5.40	1.47	1.53
1	A	64	G	C4'-O4'	-5.40	1.38	1.45
1	A	133	U	C4'-C3'	-5.40	1.47	1.52
1	A	815	A	C4'-C3'	-5.40	1.47	1.52
1	A	876	C	C3'-C2'	-5.40	1.46	1.52
1	A	903	G	C2'-C1'	-5.40	1.47	1.53
1	A	1171	A	N9-C8	-5.40	1.33	1.37
1	A	557	G	O3'-P	-5.40	1.54	1.61
1	A	770	C	O3'-P	-5.40	1.54	1.61
1	A	8	A	C2'-C1'	-5.39	1.47	1.53
1	A	115	G	O4'-C1'	-5.39	1.34	1.41
1	A	508	U	C4'-C3'	-5.39	1.47	1.52
1	A	646	G	O3'-P	-5.39	1.54	1.61
1	A	1160	G	C6-N1	-5.39	1.35	1.39
1	A	1244	G	C3'-C2'	-5.39	1.46	1.52
1	A	1494	G	C5'-C4'	-5.39	1.44	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1508	A	C3'-C2'	-5.39	1.46	1.52
1	A	1514	G	C4'-C3'	5.39	1.59	1.53
1	A	494	G	C2-N3	5.39	1.37	1.32
1	A	1261	A	N3-C4	-5.39	1.31	1.34
1	A	635	A	N7-C5	-5.39	1.36	1.39
1	A	534	U	C2'-C1'	-5.39	1.47	1.53
1	A	1071	C	C4-C5	-5.39	1.38	1.43
1	A	622	A	C8-N7	-5.38	1.27	1.31
1	A	663	A	C2'-C1'	-5.38	1.47	1.53
1	A	1337	G	C2-N2	-5.38	1.29	1.34
1	A	631	C	P-O5'	-5.38	1.54	1.59
1	A	714	G	C3'-C2'	-5.38	1.46	1.52
1	A	116	A	C3'-C2'	-5.38	1.46	1.52
1	A	384	G	N9-C4	-5.38	1.33	1.38
1	A	690	G	C3'-C2'	-5.38	1.46	1.52
1	A	1086	U	C4'-C3'	-5.38	1.47	1.52
1	A	1137	C	C2'-C1'	-5.38	1.47	1.53
1	A	155	A	N9-C4	-5.38	1.34	1.37
1	A	539	A	C1'-N9	-5.38	1.39	1.46
1	A	557	G	C5-C6	-5.38	1.36	1.42
1	A	940	C	C3'-C2'	-5.38	1.46	1.52
1	A	1165	U	C4'-C3'	-5.38	1.47	1.52
1	A	1186	G	C5-C6	-5.38	1.36	1.42
1	A	1198	G	C5-C6	-5.38	1.36	1.42
1	A	879	C	C2'-C1'	-5.38	1.47	1.53
1	A	23	C	C4'-O4'	-5.38	1.38	1.45
1	A	39	G	N7-C5	-5.38	1.36	1.39
1	A	957	U	C3'-C2'	-5.38	1.46	1.52
1	A	1131	G	N1-C2	5.38	1.42	1.37
1	A	1444	U	O3'-P	-5.38	1.54	1.61
1	A	82	G	C8-N7	-5.38	1.27	1.30
1	A	1374	A	O3'-P	-5.38	1.54	1.61
1	A	314	C	C4'-C3'	5.37	1.59	1.53
1	A	543	U	O4'-C1'	-5.37	1.34	1.41
1	A	737	C	O5'-C5'	-5.37	1.34	1.42
1	A	787	A	C4'-O4'	-5.37	1.38	1.45
1	A	1267	C	C4-C5	-5.37	1.38	1.43
1	A	1356	G	N3-C4	-5.37	1.31	1.35
1	A	886	G	C2'-C1'	-5.37	1.47	1.53
1	A	886	G	N7-C5	-5.37	1.36	1.39
1	A	1151	A	C4'-O4'	-5.37	1.38	1.45
1	A	1225	A	N3-C4	-5.37	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1260	G	C4'-C3'	-5.37	1.47	1.52
1	A	141	G	C4'-C3'	-5.37	1.47	1.52
1	A	568	G	C5-C6	-5.37	1.36	1.42
1	A	879	C	C3'-C2'	-5.37	1.46	1.52
1	A	988	G	N9-C4	-5.37	1.33	1.38
1	A	1043	G	O3'-P	-5.37	1.54	1.61
1	A	1210	C	O3'-P	-5.37	1.54	1.61
1	A	1264	U	C2'-C1'	-5.37	1.47	1.53
13	M	25	GLY	N-CA	-5.37	1.38	1.46
1	A	498	A	N9-C8	-5.37	1.33	1.37
1	A	1358	U	O4'-C1'	-5.37	1.34	1.41
1	A	1484	C	O4'-C1'	-5.37	1.34	1.41
1	A	1247	U	N3-C4	5.36	1.43	1.38
1	A	451	A	C4'-C3'	-5.36	1.47	1.52
3	C	59	PRO	CA-C	-5.36	1.42	1.52
1	A	124	C	O3'-P	-5.36	1.54	1.61
1	A	448	A	N9-C4	-5.36	1.34	1.37
1	A	1334	G	C4'-C3'	-5.36	1.47	1.52
1	A	1405	G	C5'-C4'	-5.36	1.45	1.51
1	A	180	U	N1-C6	-5.36	1.33	1.38
1	A	186	C	O4'-C1'	-5.36	1.34	1.41
1	A	530	G	C5'-C4'	5.36	1.57	1.51
1	A	76	G	C8-N7	-5.36	1.27	1.30
1	A	786	G	C5-C6	-5.36	1.36	1.42
1	A	374	A	C4'-C3'	-5.35	1.47	1.52
1	A	1380	U	C3'-O3'	-5.35	1.34	1.42
1	A	113	G	N3-C4	-5.35	1.31	1.35
1	A	161	A	C8-N7	-5.35	1.27	1.31
1	A	1128	C	C2'-C1'	-5.35	1.47	1.53
1	A	534	U	O4'-C1'	-5.35	1.34	1.41
1	A	197	A	C4'-C3'	5.35	1.59	1.53
1	A	299	G	C5-C6	-5.35	1.37	1.42
1	A	303	A	C8-N7	-5.35	1.27	1.31
1	A	333	U	C3'-C2'	-5.35	1.46	1.52
1	A	818	G	N9-C4	-5.35	1.33	1.38
1	A	831	A	C2'-C1'	-5.35	1.47	1.53
1	A	132	C	O3'-P	-5.35	1.54	1.61
1	A	537	G	N9-C4	-5.35	1.33	1.38
1	A	1032	G	C5'-C4'	-5.35	1.45	1.51
1	A	434	U	O3'-P	-5.35	1.54	1.61
1	A	1371	G	C5-C4	-5.35	1.34	1.38
1	A	77	A	C5-C6	-5.34	1.36	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	220	G	P-O5'	-5.34	1.54	1.59
1	A	1305	G	C2-N2	-5.34	1.29	1.34
1	A	228	A	P-O5'	-5.34	1.54	1.59
1	A	1196	A	N9-C4	-5.34	1.34	1.37
1	A	1414	U	O3'-P	-5.34	1.54	1.61
1	A	83	C	C4'-C3'	-5.34	1.47	1.52
1	A	305	G	N1-C2	5.34	1.42	1.37
1	A	1061	G	O3'-P	-5.34	1.54	1.61
1	A	1090	U	N1-C6	-5.34	1.33	1.38
1	A	1468	A	N9-C8	-5.34	1.33	1.37
1	A	323	U	P-O5'	-5.34	1.54	1.59
1	A	286	C	C2'-C1'	-5.34	1.47	1.53
1	A	336	A	C2'-C1'	-5.34	1.47	1.53
1	A	464	U	C3'-C2'	-5.34	1.46	1.52
1	A	705	G	P-O5'	-5.34	1.54	1.59
1	A	794	A	N3-C4	-5.34	1.31	1.34
1	A	862	C	C4'-C3'	-5.34	1.47	1.52
1	A	889	A	C3'-C2'	-5.33	1.46	1.52
1	A	1432	G	C4'-C3'	-5.33	1.47	1.52
1	A	162	A	N3-C4	-5.33	1.31	1.34
1	A	895	G	O4'-C1'	-5.33	1.34	1.41
1	A	1493	A	N7-C5	-5.33	1.36	1.39
1	A	180	U	C4-C5	-5.33	1.38	1.43
11	K	42	GLY	CA-C	-5.33	1.43	1.51
1	A	823	C	C2-N3	-5.33	1.31	1.35
1	A	186	C	N1-C6	-5.33	1.33	1.37
1	A	254	G	C1'-N9	-5.33	1.39	1.46
1	A	503	C	O3'-P	-5.33	1.54	1.61
1	A	727	G	C4'-C3'	-5.33	1.47	1.52
1	A	768	A	P-O5'	-5.33	1.54	1.59
1	A	815	A	C3'-C2'	-5.33	1.46	1.52
1	A	1005	A	N3-C4	-5.33	1.31	1.34
1	A	1247	U	N1-C6	-5.33	1.33	1.38
1	A	1379	G	C3'-C2'	-5.33	1.46	1.52
1	A	1400	C	O3'-P	-5.33	1.54	1.61
1	A	450	G	O5'-C5'	-5.32	1.34	1.42
1	A	657	U	C3'-C2'	-5.32	1.46	1.52
1	A	675	A	N9-C4	-5.32	1.34	1.37
1	A	1436	U	C2'-C1'	-5.32	1.47	1.53
1	A	251	G	N7-C5	-5.32	1.36	1.39
1	A	570	G	C2'-O2'	-5.32	1.34	1.41
1	A	1093	A	O4'-C1'	-5.32	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1443	C	C4-C5	-5.32	1.38	1.43
1	A	1473	G	O3'-P	-5.32	1.54	1.61
1	A	598	U	O3'-P	-5.32	1.54	1.61
1	A	848	C	C2-N3	-5.32	1.31	1.35
1	A	774	G	N3-C4	-5.32	1.31	1.35
1	A	811	C	C2'-C1'	-5.32	1.47	1.53
1	A	852	G	C3'-C2'	-5.32	1.47	1.52
1	A	1344	C	C1'-N1	-5.32	1.39	1.46
1	A	254	G	C4'-C3'	-5.32	1.47	1.52
1	A	532	A	P-O5'	-5.32	1.54	1.59
1	A	758	C	C2-N3	-5.32	1.31	1.35
1	A	1134	G	C2'-C1'	-5.32	1.47	1.53
1	A	1135	U	P-O5'	-5.32	1.54	1.59
1	A	1433	A	C4'-C3'	-5.32	1.47	1.52
1	A	1532	U	O3'-P	-5.32	1.54	1.61
1	A	60	A	C4'-C3'	-5.31	1.47	1.52
1	A	548	G	N3-C4	-5.31	1.31	1.35
1	A	833	G	C3'-C2'	-5.31	1.47	1.52
1	A	1089	G	O4'-C1'	-5.31	1.34	1.41
1	A	1509	C	C3'-C2'	-5.31	1.47	1.52
13	M	5	GLY	CA-C	-5.31	1.43	1.51
1	A	129	A	N7-C5	-5.31	1.36	1.39
1	A	787	A	N3-C4	-5.31	1.31	1.34
1	A	1024	G	N7-C5	-5.31	1.36	1.39
1	A	1077	G	N9-C4	-5.31	1.33	1.38
1	A	81	A	P-O5'	-5.31	1.54	1.59
1	A	419	C	C5'-C4'	-5.31	1.45	1.51
1	A	480	U	C4'-O4'	-5.31	1.38	1.45
1	A	1212	U	C4'-C3'	-5.31	1.47	1.52
1	A	148	G	C3'-C2'	-5.31	1.47	1.52
1	A	289	G	O4'-C1'	-5.31	1.34	1.41
1	A	663	A	O3'-P	-5.31	1.54	1.61
1	A	1081	A	N7-C5	-5.31	1.36	1.39
1	A	1343	G	O4'-C1'	-5.31	1.34	1.41
1	A	164	G	C4'-C3'	-5.31	1.47	1.52
1	A	300	A	C4'-C3'	-5.31	1.47	1.52
1	A	593	U	P-O5'	-5.31	1.54	1.59
1	A	601	G	P-O5'	-5.31	1.54	1.59
1	A	703	G	C5'-C4'	-5.31	1.45	1.51
1	A	752	G	N9-C4	-5.31	1.33	1.38
1	A	991	U	O4'-C1'	-5.31	1.34	1.41
1	A	1080	A	N3-C4	-5.31	1.31	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1435	G	C5-C6	-5.31	1.37	1.42
1	A	1002	G	C2'-C1'	-5.31	1.47	1.53
17	Q	60	ILE	N-CA	-5.31	1.35	1.46
1	A	433	G	N3-C4	-5.30	1.31	1.35
1	A	502	A	C5-C6	-5.30	1.36	1.41
1	A	902	G	N7-C5	-5.30	1.36	1.39
1	A	926	G	C2-N3	5.30	1.36	1.32
1	A	997	U	C3'-C2'	-5.30	1.47	1.52
1	A	1502	A	O3'-P	-5.30	1.54	1.61
1	A	1530	G	N9-C4	-5.30	1.33	1.38
1	A	706	A	O3'-P	-5.30	1.54	1.61
1	A	928	G	N9-C4	-5.30	1.33	1.38
1	A	1222	G	O3'-P	-5.30	1.54	1.61
1	A	34	C	C3'-C2'	-5.30	1.47	1.52
1	A	716	A	C3'-C2'	-5.30	1.47	1.52
1	A	745	G	C1'-N9	-5.30	1.39	1.46
1	A	899	C	O3'-P	-5.30	1.54	1.61
1	A	914	A	N3-C4	-5.30	1.31	1.34
1	A	933	G	P-O5'	-5.30	1.54	1.59
1	A	1467	C	C3'-C2'	-5.30	1.47	1.52
1	A	382	A	C8-N7	-5.30	1.27	1.31
1	A	818	G	C2'-C1'	-5.30	1.47	1.53
1	A	942	G	C2-N2	-5.30	1.29	1.34
1	A	259	G	N7-C5	-5.30	1.36	1.39
1	A	372	C	O3'-P	-5.30	1.54	1.61
1	A	413	G	C3'-C2'	-5.30	1.47	1.52
1	A	947	G	N9-C4	-5.30	1.33	1.38
1	A	32	A	C5'-C4'	-5.29	1.45	1.51
1	A	165	G	N1-C2	5.29	1.42	1.37
1	A	919	A	P-O5'	-5.29	1.54	1.59
1	A	724	G	C4'-C3'	-5.29	1.47	1.52
1	A	830	G	N9-C4	-5.29	1.33	1.38
1	A	966	G	N7-C5	-5.29	1.36	1.39
1	A	1048	G	P-O5'	-5.29	1.54	1.59
1	A	1276	G	C5-C6	-5.29	1.37	1.42
1	A	171	A	C6-N6	5.29	1.38	1.33
1	A	690	G	C5-C6	-5.29	1.37	1.42
1	A	883	C	C2'-C1'	-5.29	1.47	1.53
1	A	948	C	N3-C4	5.29	1.37	1.33
1	A	1123	U	N1-C2	5.29	1.43	1.38
1	A	1144	G	C2'-O2'	-5.29	1.34	1.41
1	A	2	A	C2'-C1'	-5.29	1.47	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	568	G	N9-C4	-5.29	1.33	1.38
1	A	597	G	C3'-C2'	-5.29	1.47	1.52
1	A	635	A	N9-C4	5.29	1.41	1.37
1	A	933	G	N9-C4	-5.29	1.33	1.38
1	A	1272	G	P-O5'	-5.29	1.54	1.59
1	A	1338	G	O3'-P	-5.29	1.54	1.61
1	A	192	A	C5-C6	-5.29	1.36	1.41
1	A	195	A	O3'-P	-5.29	1.54	1.61
1	A	233	C	N1-C6	-5.29	1.33	1.37
1	A	348	G	N9-C4	-5.29	1.33	1.38
1	A	534	U	P-O5'	-5.29	1.54	1.59
1	A	833	G	P-O5'	-5.29	1.54	1.59
1	A	57	G	C2'-C1'	-5.29	1.47	1.53
1	A	727	G	N7-C5	-5.29	1.36	1.39
1	A	913	A	C8-N7	-5.29	1.27	1.31
1	A	1196	A	N9-C8	-5.29	1.33	1.37
1	A	1379	G	C5-C6	-5.29	1.37	1.42
1	A	1516	G	C2'-C1'	-5.29	1.47	1.53
1	A	865	A	N9-C8	-5.29	1.33	1.37
1	A	521	G	N9-C4	-5.28	1.33	1.38
1	A	754	C	C4-N4	-5.28	1.29	1.33
1	A	953	G	C8-N7	-5.28	1.27	1.30
1	A	42	G	C3'-C2'	-5.28	1.47	1.52
1	A	685	G	C1'-N9	-5.28	1.39	1.46
1	A	873	A	C3'-C2'	-5.28	1.47	1.52
1	A	1501	C	P-O5'	-5.28	1.54	1.59
1	A	55	A	C8-N7	-5.28	1.27	1.31
1	A	265	G	C8-N7	-5.28	1.27	1.30
1	A	792	A	C1'-N9	-5.28	1.39	1.46
1	A	2	A	C5-C6	-5.28	1.36	1.41
1	A	957	U	C2'-C1'	-5.28	1.47	1.53
1	A	243	A	C4'-O4'	-5.28	1.38	1.45
1	A	362	G	C1'-N9	-5.28	1.39	1.46
1	A	1006	G	C1'-N9	-5.28	1.39	1.46
1	A	1323	G	C4'-C3'	5.28	1.58	1.53
1	A	1483	A	C2'-C1'	-5.28	1.47	1.53
1	A	1517	G	C2'-C1'	-5.28	1.47	1.53
1	A	656	G	C4'-C3'	-5.28	1.47	1.52
1	A	864	A	C4'-C3'	-5.28	1.47	1.52
1	A	78	A	O3'-P	-5.27	1.54	1.61
1	A	541	G	O3'-P	-5.27	1.54	1.61
1	A	1093	A	C4'-O4'	-5.27	1.38	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	606	G	C3'-C2'	-5.27	1.47	1.52
1	A	752	G	C3'-C2'	-5.27	1.47	1.52
1	A	920	U	P-O5'	-5.27	1.54	1.59
1	A	1201	A	N7-C5	-5.27	1.36	1.39
1	A	1459	G	C4'-C3'	-5.27	1.47	1.52
1	A	1504	G	C2'-C1'	-5.27	1.47	1.53
1	A	45	G	C2'-O2'	-5.27	1.34	1.41
1	A	495	A	O3'-P	-5.27	1.54	1.61
1	A	204	G	C4'-O4'	-5.27	1.38	1.45
1	A	337	G	C2-N2	-5.27	1.29	1.34
1	A	462	G	C8-N7	-5.27	1.27	1.30
1	A	469	C	O4'-C1'	-5.27	1.34	1.41
1	A	689	C	C3'-C2'	-5.27	1.47	1.52
1	A	828	U	C2'-C1'	-5.27	1.47	1.53
1	A	942	G	C2'-C1'	-5.27	1.47	1.53
1	A	1090	U	O4'-C1'	-5.27	1.34	1.41
1	A	1450	U	O3'-P	-5.27	1.54	1.61
2	B	47	PRO	CA-C	-5.27	1.42	1.52
1	A	824	G	N9-C8	-5.27	1.34	1.37
1	A	895	G	C3'-C2'	-5.27	1.47	1.52
1	A	906	A	N9-C4	-5.27	1.34	1.37
1	A	56	U	C3'-C2'	-5.26	1.47	1.52
1	A	79	G	C4'-C3'	-5.26	1.47	1.52
1	A	212	G	N9-C4	-5.26	1.33	1.38
1	A	233	C	C2-O2	-5.26	1.19	1.24
1	A	143	A	C2'-C1'	-5.26	1.47	1.53
1	A	1152	A	O3'-P	-5.26	1.54	1.61
1	A	1313	U	C2-N3	-5.26	1.34	1.37
1	A	409	U	P-O5'	-5.26	1.54	1.59
1	A	1156	G	N1-C2	5.26	1.42	1.37
1	A	1399	C	N1-C6	-5.26	1.33	1.37
1	A	504	C	C3'-C2'	-5.26	1.47	1.52
1	A	1281	C	C4'-C3'	-5.26	1.47	1.52
1	A	46	G	C5-C6	-5.26	1.37	1.42
1	A	665	A	C5-C4	-5.26	1.35	1.38
1	A	881	G	C8-N7	-5.26	1.27	1.30
1	A	1072	G	C5-C6	-5.26	1.37	1.42
1	A	505	G	P-O5'	-5.25	1.54	1.59
1	A	515	G	C5-C6	-5.25	1.37	1.42
1	A	725	G	C1'-N9	-5.25	1.39	1.46
1	A	742	G	C3'-C2'	-5.25	1.47	1.52
1	A	804	U	C2-N3	-5.25	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1065	U	C2'-C1'	-5.25	1.47	1.53
1	A	1181	G	N9-C4	-5.25	1.33	1.38
1	A	1251	A	O4'-C1'	-5.25	1.34	1.41
1	A	1290	G	N9-C8	-5.25	1.34	1.37
1	A	1406	U	O3'-P	-5.25	1.54	1.61
1	A	1497	G	O4'-C1'	-5.25	1.34	1.41
1	A	61	G	C6-N1	-5.25	1.35	1.39
1	A	298	A	N7-C5	-5.25	1.36	1.39
1	A	308	C	C5'-C4'	5.25	1.57	1.51
1	A	62	U	O4'-C1'	-5.25	1.34	1.41
1	A	377	G	O4'-C1'	-5.25	1.34	1.41
1	A	447	G	C5-C4	-5.25	1.34	1.38
1	A	524	G	O3'-P	-5.25	1.54	1.61
1	A	851	G	O3'-P	-5.25	1.54	1.61
1	A	54	C	C3'-C2'	-5.25	1.47	1.52
1	A	497	G	C2'-C1'	-5.25	1.47	1.53
1	A	520	A	N7-C5	-5.25	1.36	1.39
1	A	991	U	C2'-O2'	-5.25	1.34	1.41
1	A	193	C	N1-C6	-5.25	1.34	1.37
1	A	130	A	C4'-O4'	-5.24	1.38	1.45
1	A	3	A	C8-N7	-5.24	1.27	1.31
1	A	511	C	O4'-C1'	-5.24	1.34	1.41
1	A	583	A	C5-C6	-5.24	1.36	1.41
1	A	617	G	N7-C5	-5.24	1.36	1.39
1	A	162	A	C2'-C1'	-5.24	1.47	1.53
1	A	343	U	O3'-P	-5.24	1.54	1.61
1	A	738	C	C5'-C4'	-5.24	1.45	1.51
1	A	780	A	N3-C4	-5.24	1.31	1.34
1	A	1015	G	C8-N7	-5.24	1.27	1.30
1	A	1350	A	N7-C5	-5.24	1.36	1.39
1	A	181	A	C5-C6	-5.24	1.36	1.41
1	A	754	C	C4'-C3'	-5.24	1.47	1.52
1	A	1368	A	O3'-P	-5.24	1.54	1.61
1	A	1475	G	C3'-C2'	-5.24	1.47	1.52
1	A	505	G	N7-C5	-5.24	1.36	1.39
1	A	595	A	C2'-C1'	-5.24	1.47	1.53
1	A	142	G	N9-C8	-5.24	1.34	1.37
1	A	751	U	O4'-C1'	-5.24	1.34	1.41
1	A	1285	A	C1'-N9	-5.24	1.39	1.46
1	A	70	U	C4-O4	-5.23	1.19	1.23
1	A	1137	C	C4'-C3'	-5.23	1.47	1.52
1	A	351	G	C8-N7	-5.23	1.27	1.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	692	U	O4'-C1'	-5.23	1.34	1.41
1	A	830	G	C3'-C2'	-5.23	1.47	1.52
1	A	1267	C	P-O5'	-5.23	1.54	1.59
1	A	1533	C	C2'-C1'	-5.23	1.47	1.53
1	A	320	A	C2'-C1'	-5.23	1.47	1.53
1	A	364	A	C2'-C1'	-5.23	1.47	1.53
1	A	429	U	O4'-C1'	-5.23	1.34	1.41
1	A	1006	G	N9-C4	-5.23	1.33	1.38
1	A	1118	U	C5'-C4'	-5.23	1.45	1.51
1	A	1419	G	O4'-C1'	-5.23	1.34	1.41
1	A	240	G	N9-C4	5.23	1.42	1.38
1	A	1405	G	C3'-C2'	-5.23	1.47	1.52
1	A	496	A	P-O5'	-5.23	1.54	1.59
1	A	610	U	C4'-O4'	5.23	1.52	1.45
1	A	782	A	C1'-N9	-5.23	1.39	1.46
1	A	900	A	N3-C4	-5.23	1.31	1.34
1	A	999	C	N3-C4	5.23	1.37	1.33
1	A	1482	G	N1-C2	5.23	1.42	1.37
1	A	959	A	C5-C6	-5.23	1.36	1.41
1	A	1333	A	C4'-C3'	-5.23	1.47	1.52
1	A	296	U	O3'-P	-5.22	1.54	1.61
1	A	332	G	C5'-C4'	5.22	1.57	1.51
1	A	502	A	C5'-C4'	-5.22	1.45	1.51
1	A	1392	G	C4'-O4'	-5.22	1.38	1.45
1	A	80	A	C6-N1	-5.22	1.31	1.35
1	A	161	A	O3'-P	-5.22	1.54	1.61
1	A	300	A	C1'-N9	-5.22	1.39	1.46
1	A	306	A	O4'-C1'	-5.22	1.34	1.41
1	A	319	G	P-O5'	-5.22	1.54	1.59
1	A	529	G	N9-C4	-5.22	1.33	1.38
1	A	661	G	C5-C6	-5.22	1.37	1.42
1	A	1518	A	C5'-C4'	-5.22	1.45	1.51
1	A	118	U	C2-N3	5.22	1.41	1.37
1	A	589	U	O3'-P	-5.22	1.54	1.61
1	A	407	U	O4'-C1'	-5.22	1.34	1.41
1	A	142	G	C2'-C1'	-5.22	1.47	1.53
1	A	227	G	C2-N2	-5.22	1.29	1.34
1	A	566	G	C3'-C2'	-5.22	1.47	1.52
1	A	806	C	N1-C2	5.22	1.45	1.40
1	A	984	C	C4'-C3'	5.22	1.58	1.53
1	A	1178	G	C8-N7	-5.22	1.27	1.30
1	A	14	U	C3'-C2'	-5.21	1.47	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	203	G	O4'-C1'	-5.21	1.34	1.41
1	A	1054	C	C4'-C3'	-5.21	1.47	1.52
1	A	1217	C	C2'-C1'	-5.21	1.47	1.53
1	A	1310	G	N9-C4	-5.21	1.33	1.38
1	A	1127	G	C4'-C3'	-5.21	1.47	1.52
1	A	59	A	P-O5'	-5.21	1.54	1.59
1	A	283	U	C3'-C2'	-5.21	1.47	1.52
1	A	274	A	C1'-N9	-5.21	1.39	1.46
1	A	380	G	N3-C4	-5.21	1.31	1.35
1	A	781	A	O4'-C1'	-5.21	1.34	1.41
1	A	1006	G	N3-C4	-5.21	1.31	1.35
1	A	1072	G	C2'-C1'	-5.21	1.47	1.53
1	A	1151	A	N7-C5	-5.21	1.36	1.39
1	A	1246	A	C8-N7	-5.21	1.27	1.31
1	A	1273	C	C3'-C2'	-5.21	1.47	1.52
1	A	1353	G	C8-N7	-5.21	1.27	1.30
1	A	121	U	C4'-C3'	-5.21	1.47	1.52
1	A	350	G	P-O5'	-5.21	1.54	1.59
1	A	731	G	N7-C5	-5.21	1.36	1.39
1	A	838	G	C2'-C1'	-5.21	1.47	1.53
1	A	866	C	C5-C6	-5.21	1.30	1.34
1	A	1270	G	C4'-O4'	-5.21	1.38	1.45
1	A	1423	G	P-O5'	-5.21	1.54	1.59
1	A	237	G	C5'-C4'	-5.21	1.45	1.51
1	A	7	A	C4'-C3'	5.20	1.58	1.53
1	A	447	G	C4'-O4'	5.20	1.52	1.45
1	A	1157	A	C2-N3	-5.20	1.28	1.33
1	A	1317	C	C2'-C1'	-5.20	1.47	1.53
1	A	460	A	C4'-C3'	5.20	1.58	1.53
1	A	484	G	N7-C5	-5.20	1.36	1.39
1	A	604	G	C4'-O4'	-5.20	1.38	1.45
1	A	739	C	C5-C6	-5.20	1.30	1.34
1	A	112	G	C2'-C1'	-5.20	1.47	1.53
1	A	922	G	N7-C5	-5.20	1.36	1.39
1	A	1029	U	C3'-C2'	-5.20	1.47	1.52
1	A	459	A	N9-C8	-5.20	1.33	1.37
1	A	1021	A	C1'-N9	-5.20	1.39	1.46
1	A	1022	A	N9-C4	5.20	1.41	1.37
1	A	1512	U	C1'-N1	-5.20	1.39	1.46
1	A	599	C	C2-N3	-5.19	1.31	1.35
1	A	889	A	C5-C4	-5.19	1.35	1.38
1	A	1133	G	N9-C8	-5.19	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1289	A	C8-N7	-5.19	1.27	1.31
1	A	111	G	P-O5'	-5.19	1.54	1.59
1	A	183	C	O3'-P	-5.19	1.54	1.61
1	A	404	G	N3-C4	-5.19	1.31	1.35
1	A	451	A	O5'-C5'	-5.19	1.34	1.42
1	A	908	A	O3'-P	-5.19	1.54	1.61
1	A	1273	C	C2-N3	-5.19	1.31	1.35
1	A	1364	U	N1-C6	-5.19	1.33	1.38
1	A	1491	G	P-O5'	-5.19	1.54	1.59
1	A	987	G	C1'-N9	-5.19	1.39	1.46
1	A	1048	G	N7-C5	-5.19	1.36	1.39
1	A	92	U	C2'-C1'	-5.19	1.47	1.53
1	A	118	U	O3'-P	-5.19	1.54	1.61
1	A	713	G	N3-C4	-5.19	1.31	1.35
1	A	231	U	C2'-C1'	-5.18	1.47	1.53
1	A	352	C	C2-N3	-5.18	1.31	1.35
1	A	413	G	C2-N2	-5.18	1.29	1.34
1	A	1153	G	O3'-P	-5.18	1.54	1.61
1	A	1431	A	N9-C4	-5.18	1.34	1.37
1	A	510	A	C3'-C2'	-5.18	1.47	1.52
1	A	1117	A	C4'-O4'	-5.18	1.38	1.45
1	A	440	C	C4-C5	-5.18	1.38	1.43
1	A	145	G	C5-C4	-5.18	1.34	1.38
1	A	241	G	C2'-C1'	-5.18	1.47	1.53
1	A	1001	C	C2'-C1'	-5.18	1.47	1.53
1	A	1150	A	C1'-N9	-5.18	1.39	1.46
6	F	34	GLY	N-CA	-5.18	1.38	1.46
1	A	282	A	N9-C8	-5.18	1.33	1.37
1	A	373	A	N3-C4	-5.18	1.31	1.34
1	A	468	A	C4'-C3'	-5.18	1.47	1.52
1	A	787	A	C8-N7	-5.18	1.27	1.31
1	A	582	C	C2'-C1'	-5.18	1.47	1.53
1	A	586	C	C2'-C1'	-5.18	1.47	1.53
1	A	825	A	C2'-C1'	-5.18	1.47	1.53
1	A	1087	G	N3-C4	-5.18	1.31	1.35
1	A	1331	G	C4'-C3'	5.18	1.58	1.53
1	A	671	G	C2'-C1'	-5.17	1.47	1.53
1	A	791	G	C6-N1	5.17	1.43	1.39
1	A	506	G	C8-N7	-5.17	1.27	1.30
1	A	914	A	C5-C6	-5.17	1.36	1.41
1	A	1051	C	P-O5'	-5.17	1.54	1.59
1	A	1456	A	O4'-C1'	-5.17	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	27	G	C2-N3	5.17	1.36	1.32
1	A	459	A	O3'-P	-5.17	1.54	1.61
1	A	794	A	O3'-P	-5.17	1.54	1.61
1	A	972	C	C2'-C1'	-5.17	1.47	1.53
1	A	1037	C	N3-C4	5.17	1.37	1.33
1	A	1296	C	N1-C2	5.17	1.45	1.40
1	A	43	C	C3'-C2'	-5.17	1.47	1.52
1	A	63	C	C4'-O4'	-5.17	1.38	1.45
1	A	178	C	C4'-O4'	5.17	1.52	1.45
1	A	508	U	C4'-O4'	-5.17	1.38	1.45
1	A	144	G	C1'-N9	-5.17	1.39	1.46
1	A	276	G	O3'-P	-5.17	1.54	1.61
1	A	625	U	C3'-C2'	-5.17	1.47	1.52
1	A	650	G	N9-C4	-5.17	1.33	1.38
1	A	685	G	C4'-C3'	-5.17	1.47	1.52
1	A	1155	A	N9-C4	5.17	1.41	1.37
1	A	1370	G	C5-C4	-5.17	1.34	1.38
1	A	1395	C	C4'-C3'	-5.17	1.47	1.52
22	W	331	ARG	CD-NE	5.17	1.55	1.46
1	A	394	G	C8-N7	-5.17	1.27	1.30
1	A	1322	C	O3'-P	-5.17	1.54	1.61
1	A	1504	G	C4'-O4'	-5.16	1.38	1.45
1	A	963	G	C3'-C2'	-5.16	1.47	1.52
1	A	188	C	P-O5'	-5.16	1.54	1.59
1	A	364	A	N3-C4	-5.16	1.31	1.34
1	A	485	U	C4'-O4'	5.16	1.52	1.45
1	A	753	A	C4'-O4'	-5.16	1.38	1.45
1	A	1488	G	O3'-P	-5.16	1.54	1.61
1	A	268	U	C2'-C1'	-5.16	1.47	1.53
1	A	872	A	N7-C5	-5.16	1.36	1.39
1	A	880	C	N1-C6	-5.16	1.34	1.37
1	A	942	G	P-O5'	-5.16	1.54	1.59
1	A	1140	C	N1-C2	-5.16	1.34	1.40
1	A	302	G	C5'-C4'	-5.16	1.45	1.51
1	A	162	A	P-O5'	-5.16	1.54	1.59
1	A	419	C	O4'-C1'	-5.16	1.34	1.41
1	A	646	G	C1'-N9	-5.16	1.39	1.46
1	A	815	A	C2'-C1'	-5.16	1.47	1.53
1	A	936	C	P-O5'	-5.15	1.54	1.59
1	A	1112	C	C4'-C3'	-5.15	1.47	1.52
1	A	1170	A	P-O5'	-5.15	1.54	1.59
1	A	1220	G	P-O5'	-5.15	1.54	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	70	U	C2-N3	-5.15	1.34	1.37
1	A	100	G	P-O5'	-5.15	1.54	1.59
1	A	524	G	N7-C5	-5.15	1.36	1.39
1	A	601	G	C5-C4	-5.15	1.34	1.38
1	A	880	C	C5'-C4'	-5.15	1.45	1.51
1	A	1048	G	C5'-C4'	-5.15	1.45	1.51
1	A	99	C	C3'-C2'	-5.15	1.47	1.52
1	A	276	G	C5-C4	-5.15	1.34	1.38
1	A	305	G	C1'-N9	-5.15	1.39	1.46
1	A	949	A	O3'-P	-5.15	1.54	1.61
1	A	189	A	C3'-O3'	-5.15	1.34	1.42
1	A	247	G	N1-C2	5.15	1.41	1.37
1	A	1303	C	C3'-C2'	-5.15	1.47	1.52
1	A	226	G	C3'-C2'	-5.15	1.47	1.52
1	A	495	A	P-O5'	-5.15	1.54	1.59
1	A	1301	U	C3'-C2'	-5.15	1.47	1.52
1	A	33	A	C4'-O4'	-5.14	1.38	1.45
1	A	274	A	O4'-C1'	-5.14	1.34	1.41
1	A	295	C	C2-N3	-5.14	1.31	1.35
1	A	716	A	O3'-P	-5.14	1.54	1.61
1	A	972	C	C4'-O4'	-5.14	1.38	1.45
1	A	1006	G	O4'-C1'	-5.14	1.34	1.41
1	A	285	C	C2'-C1'	-5.14	1.47	1.53
1	A	650	G	C8-N7	-5.14	1.27	1.30
1	A	871	U	C1'-N1	5.14	1.56	1.48
1	A	1072	G	N9-C8	-5.14	1.34	1.37
1	A	475	C	C2'-C1'	-5.14	1.47	1.53
1	A	427	U	O4'-C1'	-5.14	1.34	1.41
1	A	559	A	N3-C4	-5.14	1.31	1.34
1	A	570	G	P-O5'	-5.14	1.54	1.59
1	A	265	G	C1'-N9	-5.14	1.39	1.46
1	A	1182	G	C4'-O4'	-5.14	1.38	1.45
17	Q	59	GLU	CA-C	-5.14	1.39	1.52
1	A	190	A	O3'-P	-5.14	1.54	1.61
1	A	1101	A	C8-N7	-5.14	1.27	1.31
1	A	1223	C	P-O5'	-5.14	1.54	1.59
1	A	1325	C	C4'-C3'	5.14	1.58	1.53
1	A	37	U	O5'-C5'	-5.13	1.34	1.42
1	A	697	U	P-O5'	-5.13	1.54	1.59
1	A	888	G	N9-C4	-5.13	1.33	1.38
1	A	942	G	O3'-P	-5.13	1.54	1.61
1	A	1014	A	N7-C5	-5.13	1.36	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1327	C	P-O5'	-5.13	1.54	1.59
1	A	179	A	C8-N7	-5.13	1.27	1.31
1	A	204	G	C2'-C1'	-5.13	1.47	1.53
1	A	705	G	C1'-N9	-5.13	1.39	1.46
1	A	1024	G	C2-N2	-5.13	1.29	1.34
1	A	1133	G	C3'-C2'	-5.13	1.47	1.52
1	A	116	A	O3'-P	-5.13	1.54	1.61
1	A	171	A	C4'-C3'	-5.13	1.47	1.52
1	A	240	G	O4'-C1'	5.13	1.48	1.41
1	A	398	U	C2'-C1'	-5.13	1.47	1.53
1	A	727	G	C3'-C2'	-5.13	1.47	1.52
1	A	1164	G	C5'-C4'	-5.13	1.45	1.51
1	A	1213	A	N9-C4	-5.13	1.34	1.37
1	A	1338	G	C4'-C3'	-5.13	1.47	1.52
1	A	1499	A	P-O5'	-5.13	1.54	1.59
1	A	517	G	P-O5'	-5.13	1.54	1.59
1	A	1419	G	O3'-P	-5.13	1.54	1.61
1	A	468	A	C3'-C2'	-5.13	1.47	1.52
1	A	558	G	C2'-C1'	-5.13	1.47	1.53
1	A	1108	G	N3-C4	-5.13	1.31	1.35
1	A	1172	C	O3'-P	-5.13	1.54	1.61
1	A	380	G	C4'-C3'	-5.13	1.47	1.52
1	A	1332	A	N3-C4	-5.13	1.31	1.34
1	A	1436	U	N1-C2	5.13	1.43	1.38
1	A	1495	U	C2'-C1'	-5.13	1.47	1.53
1	A	923	A	C8-N7	-5.12	1.27	1.31
1	A	1398	A	N7-C5	-5.12	1.36	1.39
1	A	47	C	C2'-C1'	-5.12	1.47	1.53
1	A	218	U	C3'-C2'	-5.12	1.47	1.52
1	A	281	G	C4'-O4'	-5.12	1.38	1.45
1	A	660	C	O3'-P	5.12	1.67	1.61
1	A	677	U	C4-C5	-5.12	1.39	1.43
1	A	1447	A	P-O5'	-5.12	1.54	1.59
1	A	366	A	C8-N7	-5.12	1.27	1.31
1	A	486	U	P-O5'	-5.12	1.54	1.59
1	A	1015	G	C3'-C2'	-5.12	1.47	1.52
1	A	32	A	C4'-C3'	-5.12	1.47	1.52
1	A	166	U	O3'-P	-5.12	1.55	1.61
1	A	685	G	O4'-C1'	-5.12	1.34	1.41
1	A	1084	G	N9-C8	-5.12	1.34	1.37
1	A	636	U	C2'-C1'	-5.12	1.47	1.53
1	A	738	C	O4'-C1'	-5.12	1.34	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	194	C	C4'-O4'	-5.12	1.38	1.45
1	A	893	C	P-O5'	-5.12	1.54	1.59
1	A	1142	G	O5'-C5'	-5.12	1.34	1.42
1	A	1391	U	C1'-N1	5.12	1.56	1.48
8	H	112	ASP	N-CA	-5.12	1.36	1.46
1	A	38	G	C2'-C1'	-5.11	1.47	1.53
1	A	207	C	C2'-C1'	-5.11	1.47	1.53
1	A	772	U	O5'-C5'	-5.11	1.34	1.42
1	A	922	G	C2-N3	5.11	1.36	1.32
1	A	926	G	N9-C4	5.11	1.42	1.38
1	A	19	A	C1'-N9	-5.11	1.39	1.46
1	A	145	G	N9-C4	-5.11	1.33	1.38
1	A	103	U	O3'-P	-5.11	1.55	1.61
1	A	127	G	C2-N2	-5.11	1.29	1.34
1	A	909	A	C2'-C1'	-5.11	1.47	1.53
1	A	1031	C	O3'-P	-5.11	1.55	1.61
1	A	1494	G	O4'-C1'	-5.11	1.35	1.41
1	A	726	C	C4'-C3'	-5.11	1.47	1.52
1	A	911	U	C4'-C3'	-5.11	1.47	1.52
1	A	963	G	N1-C2	5.11	1.41	1.37
1	A	8	A	C1'-N9	-5.11	1.39	1.46
1	A	27	G	P-O5'	5.11	1.64	1.59
1	A	94	G	N3-C4	-5.11	1.31	1.35
1	A	148	G	N3-C4	-5.11	1.31	1.35
1	A	667	G	C5'-C4'	5.11	1.57	1.51
1	A	877	G	O3'-P	-5.11	1.55	1.61
1	A	1345	U	N3-C4	-5.11	1.33	1.38
1	A	605	U	N1-C6	-5.11	1.33	1.38
1	A	703	G	N7-C5	-5.11	1.36	1.39
1	A	324	G	N1-C2	5.10	1.41	1.37
1	A	379	C	C3'-C2'	-5.10	1.47	1.52
1	A	374	A	O3'-P	-5.10	1.55	1.61
1	A	689	C	C2'-C1'	-5.10	1.47	1.53
1	A	712	A	C5-C6	-5.10	1.36	1.41
1	A	721	G	C5-C4	-5.10	1.34	1.38
1	A	1272	G	N7-C5	-5.10	1.36	1.39
1	A	1337	G	N7-C5	-5.10	1.36	1.39
1	A	1381	U	P-O5'	-5.10	1.54	1.59
1	A	1403	C	C3'-O3'	-5.10	1.35	1.42
1	A	291	U	C4'-C3'	5.10	1.58	1.53
1	A	490	C	P-O5'	-5.10	1.54	1.59
1	A	636	U	N1-C2	5.10	1.43	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	888	G	N1-C2	5.10	1.41	1.37
1	A	861	G	C5-C4	-5.10	1.34	1.38
1	A	1277	C	C2'-O2'	-5.10	1.35	1.41
1	A	501	C	O4'-C1'	-5.10	1.35	1.41
1	A	515	G	C8-N7	-5.10	1.27	1.30
1	A	583	A	C4'-C3'	-5.10	1.47	1.52
1	A	815	A	C4'-O4'	-5.10	1.39	1.45
1	A	1040	U	N3-C4	5.10	1.43	1.38
1	A	1313	U	O5'-C5'	-5.10	1.34	1.42
1	A	1440	U	C5'-C4'	-5.10	1.45	1.51
1	A	376	G	N7-C5	-5.10	1.36	1.39
1	A	887	G	O4'-C1'	-5.10	1.35	1.41
1	A	303	A	C4'-C3'	-5.09	1.47	1.52
1	A	640	A	C1'-N9	-5.09	1.39	1.46
1	A	1130	A	C3'-C2'	-5.09	1.47	1.52
1	A	1017	U	O3'-P	-5.09	1.55	1.61
1	A	500	G	C2-N3	-5.09	1.28	1.32
1	A	541	G	C2'-C1'	-5.09	1.47	1.53
1	A	604	G	N9-C8	-5.09	1.34	1.37
1	A	730	G	C6-N1	5.09	1.43	1.39
1	A	904	U	O3'-P	-5.09	1.55	1.61
1	A	1053	G	C3'-C2'	-5.09	1.47	1.52
1	A	143	A	O4'-C1'	-5.09	1.35	1.41
1	A	844	G	N7-C5	-5.09	1.36	1.39
1	A	878	A	N7-C5	-5.09	1.36	1.39
1	A	742	G	P-O5'	-5.09	1.54	1.59
1	A	169	C	C3'-C2'	-5.09	1.47	1.52
1	A	691	G	C3'-C2'	-5.09	1.47	1.52
1	A	852	G	C2'-C1'	-5.09	1.47	1.53
1	A	1191	A	N3-C4	-5.09	1.31	1.34
1	A	1453	G	C2'-C1'	-5.08	1.47	1.53
1	A	824	G	C2'-C1'	-5.08	1.47	1.53
1	A	1064	G	N7-C5	-5.08	1.36	1.39
1	A	1355	G	C2'-O2'	-5.08	1.35	1.41
1	A	309	A	C2'-C1'	-5.08	1.47	1.53
1	A	833	G	C1'-N9	-5.08	1.39	1.46
1	A	1141	C	O3'-P	-5.08	1.55	1.61
1	A	1282	C	C3'-C2'	-5.08	1.47	1.52
1	A	1392	G	C5-C6	-5.08	1.37	1.42
1	A	1452	C	O3'-P	-5.08	1.55	1.61
1	A	841	C	C3'-C2'	-5.08	1.47	1.52
1	A	1103	C	C2-N3	-5.08	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	742	G	C2'-C1'	-5.08	1.47	1.53
1	A	959	A	C5-C4	-5.08	1.35	1.38
1	A	1216	A	C4'-O4'	-5.08	1.39	1.45
1	A	1268	G	O3'-P	-5.08	1.55	1.61
1	A	1332	A	C5-C4	-5.08	1.35	1.38
1	A	348	G	C3'-C2'	-5.08	1.47	1.52
1	A	497	G	C1'-N9	-5.08	1.39	1.46
1	A	691	G	C5-C6	-5.08	1.37	1.42
1	A	900	A	C8-N7	-5.08	1.27	1.31
1	A	1069	C	C1'-N1	-5.08	1.39	1.46
1	A	1104	G	O4'-C1'	-5.08	1.35	1.41
1	A	1267	C	O3'-P	-5.08	1.55	1.61
1	A	1488	G	C5-C4	-5.08	1.34	1.38
1	A	99	C	O3'-P	-5.07	1.55	1.61
1	A	280	C	O3'-P	-5.07	1.55	1.61
1	A	356	A	C4'-C3'	-5.07	1.47	1.52
1	A	716	A	N3-C4	-5.07	1.31	1.34
1	A	809	G	C8-N7	-5.07	1.27	1.30
1	A	1094	G	C3'-C2'	-5.07	1.47	1.52
1	A	1124	G	N7-C5	-5.07	1.36	1.39
1	A	189	A	C1'-N9	-5.07	1.39	1.46
1	A	380	G	C2'-C1'	-5.07	1.47	1.53
1	A	503	C	P-O5'	-5.07	1.54	1.59
1	A	33	A	C1'-N9	-5.07	1.39	1.46
1	A	222	C	C4'-O4'	5.07	1.52	1.45
1	A	302	G	C4'-C3'	-5.07	1.47	1.52
1	A	568	G	C8-N7	-5.07	1.27	1.30
1	A	1102	A	C6-N1	-5.07	1.32	1.35
1	A	1379	G	P-O5'	-5.07	1.54	1.59
1	A	191	G	N3-C4	-5.07	1.31	1.35
1	A	672	U	C3'-C2'	-5.07	1.47	1.52
1	A	63	C	C1'-N1	-5.07	1.39	1.46
1	A	419	C	C4'-O4'	-5.07	1.39	1.45
1	A	1178	G	O4'-C1'	-5.07	1.35	1.41
1	A	1208	C	C3'-C2'	-5.07	1.47	1.52
1	A	1296	C	P-O5'	-5.07	1.54	1.59
1	A	38	G	C4'-O4'	-5.07	1.39	1.45
1	A	704	A	C4'-C3'	-5.07	1.47	1.52
1	A	1122	U	C2'-C1'	-5.07	1.47	1.53
1	A	1146	A	C5-C4	-5.07	1.35	1.38
1	A	1301	U	N3-C4	-5.07	1.33	1.38
1	A	383	A	C8-N7	-5.06	1.28	1.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	411	A	P-O5'	-5.06	1.54	1.59
1	A	455	G	O3'-P	-5.06	1.55	1.61
1	A	544	G	N9-C4	-5.06	1.33	1.38
1	A	869	G	C5-C6	-5.06	1.37	1.42
1	A	1041	G	C4'-C3'	-5.06	1.47	1.52
1	A	1064	G	C5-C4	-5.06	1.34	1.38
1	A	1380	U	C2-O2	-5.06	1.17	1.22
22	W	217	GLY	CA-C	-5.06	1.43	1.51
1	A	122	G	P-O5'	-5.06	1.54	1.59
1	A	345	C	C1'-N1	-5.06	1.39	1.46
1	A	558	G	N1-C2	5.06	1.41	1.37
1	A	851	G	C2'-C1'	-5.06	1.47	1.53
1	A	866	C	N3-C4	5.06	1.37	1.33
1	A	988	G	N3-C4	-5.06	1.31	1.35
1	A	1395	C	O4'-C1'	-5.06	1.35	1.41
1	A	159	G	N1-C2	5.06	1.41	1.37
1	A	530	G	C4'-C3'	-5.06	1.47	1.52
1	A	1044	A	C8-N7	-5.06	1.28	1.31
1	A	443	C	C2'-C1'	-5.06	1.47	1.53
1	A	475	C	O3'-P	-5.06	1.55	1.61
1	A	894	G	C5-C4	-5.06	1.34	1.38
1	A	1309	G	N1-C2	5.06	1.41	1.37
1	A	1319	A	C8-N7	-5.06	1.28	1.31
1	A	57	G	N9-C8	-5.06	1.34	1.37
1	A	1219	A	C8-N7	-5.06	1.28	1.31
1	A	446	G	N9-C4	-5.05	1.33	1.38
1	A	525	C	C2'-C1'	-5.05	1.47	1.53
1	A	622	A	C2'-C1'	-5.05	1.47	1.53
1	A	110	C	P-O5'	-5.05	1.54	1.59
1	A	1483	A	C4'-C3'	-5.05	1.47	1.52
1	A	319	G	N3-C4	-5.05	1.31	1.35
1	A	391	G	C4'-O4'	-5.05	1.39	1.45
1	A	562	U	C4'-C3'	-5.05	1.47	1.52
1	A	1059	C	C2-N3	-5.05	1.31	1.35
1	A	1182	G	C3'-C2'	-5.05	1.47	1.52
1	A	1119	C	C3'-C2'	-5.05	1.47	1.52
1	A	1359	C	C4'-O4'	-5.05	1.39	1.45
1	A	616	G	N9-C8	-5.05	1.34	1.37
1	A	876	C	C1'-N1	-5.05	1.39	1.46
1	A	1210	C	C2'-C1'	-5.05	1.47	1.53
1	A	3	A	C1'-N9	-5.05	1.39	1.46
1	A	281	G	N9-C8	-5.05	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	825	A	C1'-N9	-5.05	1.39	1.46
1	A	876	C	C2-N3	-5.05	1.31	1.35
1	A	1096	C	C2-N3	-5.05	1.31	1.35
1	A	1403	C	O3'-P	-5.05	1.55	1.61
1	A	1441	A	N3-C4	-5.04	1.31	1.34
1	A	725	G	C2'-O2'	-5.04	1.35	1.41
1	A	1336	C	C2'-C1'	-5.04	1.47	1.53
1	A	134	G	C3'-C2'	-5.04	1.47	1.52
1	A	227	G	N7-C5	-5.04	1.36	1.39
1	A	347	G	N3-C4	-5.04	1.31	1.35
1	A	869	G	C3'-C2'	-5.04	1.47	1.52
1	A	947	G	C8-N7	-5.04	1.27	1.30
1	A	1374	A	C6-N6	5.04	1.38	1.33
1	A	33	A	C5-C6	-5.04	1.36	1.41
1	A	411	A	C5-C6	-5.04	1.36	1.41
1	A	715	A	C4'-C3'	-5.04	1.47	1.52
1	A	1299	A	N9-C8	-5.04	1.33	1.37
1	A	1317	C	O3'-P	-5.04	1.55	1.61
1	A	1493	A	O3'-P	-5.04	1.55	1.61
1	A	353	A	N3-C4	-5.04	1.31	1.34
1	A	478	A	P-O5'	-5.04	1.54	1.59
1	A	373	A	C3'-C2'	-5.04	1.47	1.52
1	A	476	U	N1-C6	-5.04	1.33	1.38
1	A	866	C	C3'-C2'	-5.04	1.47	1.52
1	A	1520	C	O4'-C1'	5.04	1.48	1.41
1	A	179	A	O3'-P	-5.03	1.55	1.61
1	A	779	C	P-O5'	-5.03	1.54	1.59
1	A	835	U	C2'-C1'	-5.03	1.47	1.53
1	A	171	A	O3'-P	-5.03	1.55	1.61
1	A	460	A	N7-C5	-5.03	1.36	1.39
1	A	539	A	C3'-C2'	-5.03	1.47	1.52
1	A	585	G	O4'-C1'	-5.03	1.35	1.41
1	A	1098	C	C4'-C3'	-5.03	1.47	1.52
1	A	1401	G	O3'-P	-5.03	1.55	1.61
1	A	993	G	C3'-C2'	-5.03	1.47	1.52
1	A	1002	G	O3'-P	-5.03	1.55	1.61
1	A	635	A	C2'-C1'	-5.03	1.47	1.53
1	A	691	G	P-O5'	-5.03	1.54	1.59
1	A	920	U	C3'-C2'	-5.03	1.47	1.52
1	A	207	C	O3'-P	-5.03	1.55	1.61
1	A	211	G	C4'-C3'	5.03	1.58	1.53
1	A	469	C	C2-N3	-5.03	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	493	A	N9-C4	-5.03	1.34	1.37
1	A	1145	A	C5-C4	-5.03	1.35	1.38
1	A	1238	A	C4'-O4'	-5.03	1.39	1.45
1	A	184	G	C2-N3	5.02	1.36	1.32
1	A	1155	A	P-O5'	-5.02	1.54	1.59
1	A	1248	A	C3'-C2'	-5.02	1.47	1.52
1	A	1347	G	N7-C5	-5.02	1.36	1.39
1	A	264	C	C2'-C1'	-5.02	1.47	1.53
1	A	501	C	C4'-C3'	-5.02	1.47	1.52
1	A	800	G	C2'-C1'	-5.02	1.47	1.53
1	A	897	C	P-O5'	-5.02	1.54	1.59
1	A	1016	A	C1'-N9	-5.02	1.39	1.46
1	A	1311	A	C1'-N9	-5.02	1.39	1.46
1	A	1321	U	O3'-P	-5.02	1.55	1.61
1	A	1231	G	C2'-C1'	-5.02	1.47	1.53
1	A	609	A	C8-N7	-5.02	1.28	1.31
1	A	792	A	C8-N7	-5.02	1.28	1.31
1	A	1182	G	C2-N2	-5.02	1.29	1.34
1	A	1236	A	N9-C8	-5.02	1.33	1.37
1	A	292	G	C5-C6	-5.02	1.37	1.42
1	A	397	A	O3'-P	-5.02	1.55	1.61
1	A	439	U	C4'-C3'	-5.02	1.47	1.52
1	A	899	C	C4-C5	-5.02	1.39	1.43
1	A	957	U	O3'-P	-5.02	1.55	1.61
1	A	69	G	C3'-C2'	-5.02	1.47	1.52
1	A	362	G	C4'-C3'	-5.02	1.47	1.52
1	A	367	U	O3'-P	-5.01	1.55	1.61
1	A	714	G	C1'-N9	-5.01	1.39	1.46
1	A	1418	A	C5'-C4'	-5.01	1.45	1.51
1	A	1436	U	C4'-C3'	-5.01	1.47	1.52
7	G	3	ARG	CD-NE	5.01	1.54	1.46
1	A	143	A	C4'-O4'	-5.01	1.39	1.45
1	A	1475	G	N7-C5	-5.01	1.36	1.39
22	W	49	GLY	CA-C	-5.01	1.43	1.51
1	A	601	G	C5-C6	-5.01	1.37	1.42
1	A	1042	A	O3'-P	-5.01	1.55	1.61
1	A	1055	A	C6-N6	-5.01	1.29	1.33
1	A	1440	U	C4'-C3'	-5.01	1.47	1.52
1	A	3	A	C5-C4	-5.01	1.35	1.38
1	A	157	U	C2'-C1'	-5.01	1.47	1.53
1	A	484	G	O4'-C1'	-5.01	1.35	1.41
1	A	1009	U	C4-O4	-5.01	1.19	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1094	G	C3'-O3'	-5.01	1.35	1.42
1	A	1213	A	C8-N7	-5.01	1.28	1.31
1	A	55	A	C5'-C4'	-5.01	1.45	1.51
1	A	374	A	N3-C4	-5.01	1.31	1.34
1	A	422	C	C2'-C1'	-5.01	1.47	1.53
1	A	548	G	C1'-N9	-5.01	1.39	1.46
1	A	1097	C	O4'-C1'	-5.01	1.35	1.41
1	A	1379	G	C6-N1	5.01	1.43	1.39
1	A	122	G	N9-C4	5.01	1.42	1.38
1	A	1198	G	C6-N1	-5.01	1.36	1.39
1	A	1278	G	C5-C4	-5.01	1.34	1.38
1	A	1339	A	P-O5'	-5.01	1.54	1.59
1	A	1418	A	C2'-C1'	-5.01	1.47	1.53
1	A	1437	A	C2'-C1'	-5.01	1.47	1.53
1	A	90	C	C2-N3	5.00	1.39	1.35
1	A	413	G	C2'-O2'	-5.00	1.35	1.41
1	A	1200	C	N3-C4	-5.00	1.30	1.33
1	A	45	G	C4'-C3'	-5.00	1.47	1.52
1	A	820	U	O3'-P	-5.00	1.55	1.61
1	A	913	A	N3-C4	-5.00	1.31	1.34
1	A	1057	G	C5-C6	-5.00	1.37	1.42
1	A	155	A	C8-N7	-5.00	1.28	1.31
1	A	344	A	C4'-O4'	-5.00	1.39	1.45
1	A	436	C	C2'-C1'	-5.00	1.47	1.53
1	A	872	A	C8-N7	-5.00	1.28	1.31
1	A	1122	U	O3'-P	-5.00	1.55	1.61
1	A	1423	G	C5-C6	-5.00	1.37	1.42

All (11628) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1399	C	P-O3'-C3'	47.06	176.18	119.70
1	A	1139	G	P-O3'-C3'	47.02	176.13	119.70
1	A	556	C	C6-N1-C2	-44.83	102.37	120.30
1	A	306	A	P-O3'-C3'	39.05	166.56	119.70
1	A	73	C	C6-N1-C2	-38.49	104.91	120.30
1	A	840	C	C6-N1-C2	-38.14	105.04	120.30
1	A	484	G	P-O3'-C3'	37.59	164.81	119.70
1	A	1161	C	C6-N1-C2	-36.04	105.88	120.30
1	A	269	C	C6-N1-C2	-35.85	105.96	120.30
1	A	76	G	P-O5'-C5'	33.97	175.25	120.90
1	A	465	A	N1-C6-N6	30.80	137.08	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	569	C	P-O3'-C3'	30.59	156.41	119.70
1	A	90	C	P-O5'-C5'	30.50	169.70	120.90
1	A	207	C	C6-N1-C2	-29.61	108.46	120.30
1	A	780	A	N1-C6-N6	29.52	136.31	118.60
1	A	78	A	C8-N9-C4	-29.51	94.00	105.80
1	A	186	C	C6-N1-C2	-29.48	108.51	120.30
1	A	839	C	C6-N1-C2	-29.11	108.66	120.30
1	A	73	C	C2-N1-C1'	28.53	150.18	118.80
1	A	347	G	C8-N9-C4	-28.27	95.09	106.40
1	A	631	C	C6-N1-C2	-28.05	109.08	120.30
1	A	196	A	C8-N9-C4	-27.67	94.73	105.80
1	A	1432	G	P-O3'-C3'	27.36	152.53	119.70
1	A	276	G	P-O5'-C5'	27.25	164.51	120.90
1	A	1500	A	P-O5'-C5'	26.94	164.00	120.90
1	A	450	G	C5-C6-O6	-26.04	112.97	128.60
1	A	1062	U	C6-N1-C2	-25.62	105.63	121.00
1	A	685	G	C5-C6-O6	-25.60	113.24	128.60
1	A	903	G	C8-N9-C4	-25.46	96.22	106.40
1	A	1313	U	P-O5'-C5'	25.39	161.52	120.90
1	A	463	U	C6-N1-C2	-25.32	105.81	121.00
1	A	705	G	N1-C6-O6	25.21	135.03	119.90
1	A	789	U	P-O5'-C5'	25.07	161.01	120.90
1	A	520	A	N1-C6-N6	24.91	133.54	118.60
1	A	243	A	P-O3'-C3'	24.84	149.50	119.70
1	A	438	U	P-O3'-C3'	24.77	149.42	119.70
1	A	90	C	C2-N3-C4	-24.66	107.57	119.90
1	A	1140	C	P-O3'-C3'	24.60	149.22	119.70
1	A	533	A	N1-C6-N6	24.09	133.06	118.60
1	A	1529	G	P-O3'-C3'	24.08	148.59	119.70
1	A	1170	A	N1-C6-N6	23.90	132.94	118.60
1	A	547	A	N1-C6-N6	23.73	132.84	118.60
1	A	1443	C	C6-N1-C2	-23.59	110.86	120.30
1	A	120	A	O4'-C1'-N9	23.58	127.07	108.20
1	A	814	A	N1-C6-N6	23.56	132.74	118.60
1	A	1140	C	O4'-C1'-N1	23.54	127.03	108.20
1	A	499	A	N1-C6-N6	23.50	132.70	118.60
1	A	685	G	N1-C6-O6	23.36	133.91	119.90
1	A	334	C	C6-N1-C2	-23.29	110.98	120.30
1	A	1071	C	C6-N1-C2	-23.27	110.99	120.30
1	A	925	G	N1-C6-O6	23.10	133.76	119.90
1	A	705	G	C5-C6-O6	-23.04	114.78	128.60
1	A	1276	G	C8-N9-C4	-22.96	97.21	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	351	G	P-O3'-C3'	22.89	147.16	119.70
1	A	347	G	P-O5'-C5'	22.86	157.48	120.90
1	A	1287	A	P-O5'-C5'	22.64	157.12	120.90
1	A	1375	A	N1-C6-N6	22.58	132.15	118.60
1	A	1333	A	N1-C6-N6	22.52	132.11	118.60
1	A	1130	A	N1-C6-N6	22.48	132.09	118.60
1	A	909	A	N1-C6-N6	22.46	132.07	118.60
1	A	171	A	N1-C6-N6	22.44	132.07	118.60
1	A	899	C	C6-N1-C2	-22.41	111.34	120.30
1	A	272	C	C6-N1-C2	-22.32	111.37	120.30
1	A	47	C	C6-N1-C2	-21.99	111.50	120.30
1	A	1479	C	C6-N1-C2	-21.98	111.51	120.30
1	A	55	A	N1-C6-N6	21.92	131.75	118.60
1	A	1138	G	C5-C6-O6	-21.91	115.46	128.60
1	A	1057	G	C8-N9-C4	-21.84	97.66	106.40
1	A	992	U	C2-N3-C4	-21.69	113.99	127.00
1	A	391	G	P-O3'-C3'	21.66	145.70	119.70
1	A	1279	G	C5-C6-O6	-21.66	115.60	128.60
1	A	776	G	P-O5'-C5'	21.63	155.51	120.90
1	A	87	C	C6-N1-C2	-21.58	111.67	120.30
1	A	49	U	C2-N3-C4	-21.57	114.06	127.00
1	A	258	G	C5-C6-O6	-21.51	115.69	128.60
1	A	172	A	P-O3'-C3'	21.50	145.50	119.70
1	A	812	G	P-O3'-C3'	21.44	145.43	119.70
1	A	258	G	N1-C6-O6	21.41	132.75	119.90
1	A	1241	G	C8-N9-C4	-21.41	97.84	106.40
1	A	871	U	C2-N3-C4	-21.38	114.17	127.00
1	A	1404	C	C6-N1-C2	-21.33	111.77	120.30
1	A	396	C	C6-N1-C2	-21.27	111.79	120.30
1	A	1306	A	N1-C6-N6	21.27	131.36	118.60
1	A	1231	G	C5-C6-O6	-21.25	115.85	128.60
1	A	1279	G	N1-C6-O6	21.17	132.60	119.90
1	A	217	C	O4'-C1'-N1	21.03	125.02	108.20
1	A	1098	C	C6-N1-C2	-21.02	111.89	120.30
1	A	575	G	P-O3'-C3'	20.98	144.88	119.70
1	A	1229	A	N1-C6-N6	20.96	131.18	118.60
1	A	245	U	P-O3'-C3'	20.89	144.77	119.70
1	A	1469	C	C6-N1-C2	-20.73	112.01	120.30
1	A	649	A	N1-C6-N6	20.69	131.01	118.60
1	A	914	A	N1-C6-N6	20.65	130.99	118.60
1	A	410	G	N1-C6-O6	20.62	132.27	119.90
1	A	1288	A	C8-N9-C4	-20.56	97.58	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	309	A	N1-C6-N6	20.54	130.92	118.60
1	A	1171	A	P-O5'-C5'	20.52	153.73	120.90
1	A	531	U	O4'-C1'-N1	20.51	124.61	108.20
1	A	339	C	C6-N1-C2	-20.50	112.10	120.30
1	A	1359	C	C6-N1-C2	-20.48	112.11	120.30
1	A	1087	G	P-O5'-C5'	20.46	153.63	120.90
1	A	908	A	N1-C6-N6	20.45	130.87	118.60
1	A	372	C	C6-N1-C2	-20.43	112.13	120.30
1	A	1042	A	N1-C6-N6	20.38	130.83	118.60
1	A	98	A	C8-N9-C4	-20.35	97.66	105.80
1	A	1480	A	N1-C6-N6	20.25	130.75	118.60
1	A	450	G	N1-C6-O6	20.21	132.03	119.90
1	A	801	U	P-O3'-C3'	20.21	143.96	119.70
1	A	511	C	P-O3'-C3'	20.19	143.93	119.70
1	A	468	A	N1-C6-N6	20.16	130.69	118.60
1	A	132	C	C6-N1-C2	-20.11	112.26	120.30
1	A	1504	G	P-O3'-C3'	20.06	143.78	119.70
1	A	959	A	N1-C6-N6	20.05	130.63	118.60
1	A	1169	A	N1-C6-N6	20.01	130.61	118.60
1	A	1067	A	N1-C6-N6	20.00	130.60	118.60
1	A	1418	A	N1-C6-N6	19.98	130.59	118.60
1	A	1434	A	C8-N9-C4	-19.97	97.81	105.80
1	A	559	A	N1-C6-N6	19.93	130.56	118.60
1	A	493	A	N1-C6-N6	19.88	130.53	118.60
1	A	73	C	N3-C4-N4	19.84	131.89	118.00
1	A	846	G	C8-N9-C4	-19.81	98.48	106.40
1	A	925	G	C5-C6-O6	-19.79	116.72	128.60
1	A	974	A	P-O5'-C5'	19.78	152.55	120.90
1	A	1447	A	N1-C6-N6	19.71	130.42	118.60
1	A	279	A	N1-C6-N6	19.60	130.36	118.60
1	A	1346	A	N1-C6-N6	19.59	130.36	118.60
1	A	994	A	N1-C6-N6	19.59	130.35	118.60
1	A	76	G	C8-N9-C4	-19.54	98.58	106.40
1	A	447	G	N9-C4-C5	-19.54	97.58	105.40
1	A	634	C	C6-N1-C2	-19.49	112.50	120.30
1	A	780	A	C8-N9-C4	-19.43	98.03	105.80
1	A	78	A	P-O3'-C3'	19.39	142.97	119.70
1	A	539	A	N1-C6-N6	19.36	130.22	118.60
1	A	372	C	P-O3'-C3'	19.29	142.84	119.70
1	A	1468	A	N1-C6-N6	19.28	130.17	118.60
1	A	635	A	P-O5'-C5'	19.26	151.72	120.90
1	A	411	A	N1-C6-N6	19.25	130.15	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1393	U	C5'-C4'-C3'	19.24	146.79	116.00
1	A	470	C	P-O5'-C5'	19.21	151.64	120.90
1	A	47	C	P-O3'-C3'	19.18	142.72	119.70
1	A	422	C	O4'-C1'-N1	19.18	123.54	108.20
1	A	520	A	C5-C6-N6	-19.17	108.36	123.70
1	A	1072	G	P-O5'-C5'	19.14	151.53	120.90
1	A	1441	A	C8-N9-C4	-19.14	98.14	105.80
1	A	78	A	C4-N9-C1'	19.13	160.74	126.30
1	A	130	A	N1-C6-N6	19.11	130.07	118.60
1	A	122	G	C8-N9-C4	-19.10	98.76	106.40
1	A	144	G	C5-C6-O6	-19.10	117.14	128.60
1	A	487	A	N1-C6-N6	19.09	130.05	118.60
1	A	1231	G	N1-C6-O6	19.07	131.34	119.90
1	A	485	U	O4'-C1'-N1	19.07	123.45	108.20
1	A	78	A	C4-C5-C6	18.96	126.48	117.00
1	A	141	G	C5-C6-O6	-18.95	117.23	128.60
1	A	1138	G	N1-C6-O6	18.94	131.26	119.90
1	A	351	G	N1-C6-O6	18.86	131.22	119.90
1	A	639	G	C5-C6-O6	-18.82	117.31	128.60
1	A	52	C	C6-N1-C2	-18.80	112.78	120.30
1	A	1114	C	C6-N1-C2	-18.74	112.81	120.30
1	A	605	U	P-O3'-C3'	18.73	142.17	119.70
1	A	101	A	C8-N9-C4	-18.62	98.35	105.80
1	A	93	U	P-O5'-C5'	18.58	150.63	120.90
1	A	351	G	C5-C6-O6	-18.58	117.45	128.60
1	A	465	A	C5-C6-N6	-18.56	108.85	123.70
1	A	533	A	C5-C6-N6	-18.55	108.86	123.70
1	A	1236	A	N1-C6-N6	18.52	129.71	118.60
1	A	1533	C	P-O5'-C5'	18.50	150.51	120.90
1	A	696	A	C8-N9-C4	-18.50	98.40	105.80
1	A	1146	A	N1-C6-N6	18.50	129.70	118.60
1	A	120	A	N1-C6-N6	18.46	129.68	118.60
1	A	639	G	N1-C6-O6	18.45	130.97	119.90
1	A	75	G	P-O5'-C5'	-18.43	91.42	120.90
1	A	1298	U	C2-N3-C4	-18.35	115.99	127.00
1	A	1191	A	N1-C6-N6	18.35	129.61	118.60
1	A	265	G	C5-C6-O6	-18.34	117.59	128.60
1	A	718	A	P-O3'-C3'	18.31	141.67	119.70
1	A	568	G	P-O3'-C3'	18.30	141.66	119.70
1	A	683	G	N1-C6-O6	18.27	130.86	119.90
1	A	316	C	C6-N1-C2	-18.25	113.00	120.30
1	A	281	G	P-O3'-C3'	18.24	141.59	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	205	A	N1-C6-N6	18.21	129.53	118.60
1	A	141	G	N1-C6-O6	18.14	130.79	119.90
1	A	77	A	N1-C6-N6	18.13	129.48	118.60
1	A	1274	A	N1-C6-N6	18.13	129.48	118.60
1	A	308	C	C6-N1-C2	-18.12	113.05	120.30
1	A	345	C	O4'-C1'-N1	18.07	122.66	108.20
1	A	97	G	C5-C6-O6	-18.03	117.78	128.60
1	A	712	A	N1-C6-N6	18.03	129.42	118.60
1	A	410	G	C5-C6-O6	-18.02	117.79	128.60
1	A	696	A	N1-C6-N6	18.01	129.41	118.60
1	A	1175	G	C5-C6-O6	-18.01	117.80	128.60
1	A	1064	G	O4'-C1'-N9	17.96	122.56	108.20
1	A	144	G	N1-C6-O6	17.95	130.67	119.90
1	A	648	A	N1-C6-N6	17.94	129.36	118.60
1	A	1113	C	C6-N1-C2	-17.92	113.13	120.30
1	A	1379	G	C5-C6-O6	-17.90	117.86	128.60
1	A	832	G	C5-C6-O6	-17.89	117.87	128.60
1	A	1433	A	N1-C6-N6	17.87	129.32	118.60
1	A	97	G	N1-C6-O6	17.84	130.61	119.90
1	A	923	A	C8-N9-C4	-17.81	98.68	105.80
10	J	48	ARG	NE-CZ-NH1	17.78	129.19	120.30
1	A	825	A	N1-C6-N6	17.77	129.26	118.60
1	A	1252	A	N1-C6-N6	17.72	129.23	118.60
1	A	384	G	N1-C6-O6	17.70	130.52	119.90
1	A	106	C	C6-N1-C2	-17.65	113.24	120.30
1	A	1311	A	N1-C6-N6	17.64	129.19	118.60
1	A	440	C	C5-C4-N4	-17.60	107.88	120.20
1	A	654	G	C8-N9-C4	-17.53	99.39	106.40
1	A	206	C	N3-C4-N4	17.52	130.26	118.00
1	A	222	C	C6-N1-C2	-17.49	113.30	120.30
1	A	1251	A	O4'-C1'-N9	17.48	122.18	108.20
1	A	76	G	C5'-C4'-O4'	17.42	130.00	109.10
1	A	120	A	C1'-O4'-C4'	-17.42	95.97	109.90
1	A	106	C	P-O3'-C3'	17.41	140.60	119.70
1	A	718	A	N1-C6-N6	17.39	129.03	118.60
1	A	352	C	C6-N1-C2	-17.38	113.35	120.30
1	A	411	A	P-O5'-C5'	17.34	148.64	120.90
1	A	33	A	N1-C6-N6	17.32	128.99	118.60
1	A	1057	G	N1-C6-O6	17.30	130.28	119.90
1	A	1441	A	N1-C6-N6	17.25	128.95	118.60
1	A	1263	C	P-O5'-C5'	17.18	148.38	120.90
1	A	924	C	C6-N1-C2	-17.17	113.43	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	945	G	C5-C6-O6	-17.16	118.30	128.60
1	A	1494	G	C5-C6-O6	-17.16	118.31	128.60
1	A	440	C	N3-C4-N4	17.16	130.01	118.00
1	A	817	C	P-O3'-C3'	17.15	140.28	119.70
1	A	73	C	C6-N1-C1'	-17.11	100.27	120.80
1	A	1044	A	C8-N9-C4	-17.09	98.97	105.80
1	A	913	A	N1-C6-N6	17.00	128.80	118.60
1	A	271	C	C6-N1-C2	-16.99	113.50	120.30
1	A	82	G	N1-C6-O6	16.98	130.09	119.90
1	A	332	G	C5-C6-O6	-16.96	118.42	128.60
1	A	321	A	N1-C6-N6	16.96	128.78	118.60
1	A	535	A	P-O3'-C3'	16.95	140.03	119.70
1	A	1377	A	N1-C6-N6	16.94	128.76	118.60
1	A	1456	A	N1-C6-N6	16.93	128.76	118.60
1	A	729	A	N1-C6-N6	16.91	128.75	118.60
1	A	78	A	N7-C8-N9	16.87	122.23	113.80
1	A	613	C	P-O5'-C5'	16.87	147.89	120.90
1	A	1379	G	N1-C6-O6	16.86	130.02	119.90
1	A	194	C	N3-C4-C5	-16.85	115.16	121.90
1	A	1179	A	N1-C6-N6	16.85	128.71	118.60
1	A	883	C	C6-N1-C2	-16.84	113.56	120.30
1	A	847	G	N1-C6-O6	16.82	130.00	119.90
1	A	1488	G	P-O5'-C5'	16.82	147.81	120.90
1	A	1494	G	N1-C6-O6	16.78	129.97	119.90
1	A	507	C	C6-N1-C2	-16.77	113.59	120.30
1	A	996	A	N9-C4-C5	16.77	112.51	105.80
1	A	881	G	C5-C6-O6	-16.75	118.55	128.60
1	A	847	G	C5-C6-O6	-16.75	118.55	128.60
1	A	206	C	C5-C4-N4	-16.75	108.48	120.20
1	A	373	A	N1-C6-N6	16.75	128.65	118.60
1	A	831	A	N1-C6-N6	16.75	128.65	118.60
1	A	1021	A	C8-N9-C4	-16.71	99.12	105.80
1	A	83	C	C6-N1-C2	-16.70	113.62	120.30
1	A	878	A	N1-C6-N6	16.70	128.62	118.60
1	A	1236	A	P-O3'-C3'	16.67	139.71	119.70
1	A	628	G	N1-C6-O6	16.67	129.90	119.90
1	A	847	G	P-O5'-C5'	16.65	147.53	120.90
1	A	26	A	N1-C6-N6	16.64	128.59	118.60
1	A	145	G	N1-C6-O6	16.62	129.87	119.90
1	A	1391	U	P-O3'-C3'	16.59	139.61	119.70
1	A	1242	G	P-O5'-C5'	16.56	147.40	120.90
1	A	1469	C	C5'-C4'-C3'	-16.53	89.55	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	652	U	P-O3'-C3'	16.52	139.52	119.70
1	A	535	A	P-O5'-C5'	16.51	147.31	120.90
1	A	792	A	P-O3'-C3'	16.48	139.48	119.70
1	A	1123	U	C6-N1-C2	-16.48	111.11	121.00
1	A	547	A	C5-C6-N6	-16.48	110.52	123.70
1	A	1103	C	C6-N1-C2	-16.46	113.72	120.30
1	A	332	G	N1-C6-O6	16.46	129.78	119.90
1	A	610	U	O4'-C1'-N1	16.44	121.36	108.20
1	A	1186	G	N1-C6-O6	16.44	129.76	119.90
1	A	201	G	P-O3'-C3'	16.41	139.39	119.70
1	A	1364	U	O4'-C1'-N1	16.40	121.32	108.20
1	A	145	G	C5-C6-O6	-16.39	118.77	128.60
1	A	1357	A	N1-C6-N6	16.37	128.42	118.60
1	A	996	A	C8-N9-C4	-16.32	99.27	105.80
1	A	240	G	C5-C6-O6	-16.31	118.82	128.60
1	A	747	A	N1-C6-N6	16.29	128.37	118.60
1	A	196	A	N1-C6-N6	16.28	128.37	118.60
1	A	946	A	N1-C6-N6	16.28	128.37	118.60
1	A	415	A	N1-C6-N6	16.27	128.37	118.60
1	A	1057	G	C4-N9-C1'	16.27	147.66	126.50
1	A	1053	G	C8-N9-C1'	16.26	148.14	127.00
1	A	37	U	O5'-P-OP2	-16.26	91.06	105.70
1	A	1142	G	C5'-C4'-C3'	-16.26	89.98	116.00
1	A	197	A	P-O5'-C5'	16.26	146.91	120.90
1	A	79	G	C5-C6-O6	-16.24	118.86	128.60
1	A	963	G	C5-C6-O6	-16.22	118.86	128.60
1	A	903	G	C4-N9-C1'	16.18	147.54	126.50
1	A	1000	A	N1-C6-N6	16.18	128.31	118.60
1	A	1074	G	C8-N9-C4	-16.18	99.93	106.40
6	F	4	TYR	CB-CG-CD2	-16.17	111.30	121.00
1	A	351	G	C4-N9-C1'	16.16	147.51	126.50
1	A	1274	A	O4'-C1'-N9	16.16	121.13	108.20
1	A	1146	A	C5-C6-N6	-16.14	110.79	123.70
1	A	976	G	C5-C6-O6	-16.12	118.92	128.60
1	A	579	A	N1-C6-N6	16.12	128.27	118.60
1	A	766	A	N1-C6-N6	16.12	128.27	118.60
1	A	976	G	N1-C6-O6	16.10	129.56	119.90
1	A	1229	A	C5-C6-N6	-16.10	110.82	123.70
1	A	1174	G	N9-C4-C5	-16.08	98.97	105.40
1	A	1205	U	C6-N1-C2	-16.03	111.38	121.00
1	A	860	A	N1-C6-N6	16.03	128.22	118.60
1	A	1101	A	N1-C6-N6	16.02	128.22	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	168	G	N1-C6-O6	16.02	129.51	119.90
1	A	1523	G	N1-C6-O6	16.02	129.51	119.90
1	A	76	G	C5'-C4'-C3'	-16.00	90.40	116.00
1	A	1032	G	C8-N9-C1'	-16.00	106.20	127.00
1	A	94	G	P-O3'-C3'	15.99	138.89	119.70
1	A	383	A	N1-C6-N6	15.99	128.19	118.60
1	A	1473	G	N1-C6-O6	15.97	129.48	119.90
1	A	1250	A	N1-C6-N6	15.96	128.17	118.60
14	N	19	TYR	CB-CG-CD2	-15.96	111.42	121.00
1	A	257	G	N1-C6-O6	15.96	129.47	119.90
1	A	327	A	N1-C6-N6	15.93	128.16	118.60
1	A	2	A	N1-C6-N6	15.93	128.16	118.60
1	A	1110	A	N1-C6-N6	15.91	128.15	118.60
1	A	349	A	C8-N9-C4	-15.89	99.44	105.80
1	A	903	G	N3-C4-C5	-15.89	120.65	128.60
1	A	906	A	N1-C6-N6	15.89	128.13	118.60
1	A	713	G	N1-C6-O6	15.89	129.43	119.90
1	A	254	G	C8-N9-C4	-15.88	100.05	106.40
1	A	681	A	N1-C6-N6	15.85	128.11	118.60
1	A	448	A	N1-C6-N6	15.85	128.11	118.60
1	A	1403	C	O4'-C1'-N1	15.84	120.87	108.20
1	A	655	A	N1-C6-N6	15.83	128.10	118.60
1	A	1296	C	O4'-C1'-N1	15.83	120.87	108.20
1	A	1206	G	C5-C6-O6	-15.83	119.10	128.60
1	A	645	G	N1-C6-O6	15.82	129.39	119.90
1	A	639	G	C5'-C4'-C3'	-15.80	90.72	116.00
1	A	1054	C	P-O3'-C3'	15.80	138.66	119.70
1	A	633	G	C5-C6-O6	-15.75	119.15	128.60
1	A	77	A	C8-N9-C4	-15.72	99.51	105.80
1	A	772	U	P-O5'-C5'	15.72	146.06	120.90
1	A	32	A	N1-C6-N6	15.72	128.03	118.60
1	A	1007	U	P-O3'-C3'	15.71	138.56	119.70
1	A	938	A	N1-C6-N6	15.69	128.02	118.60
1	A	1170	A	C5-C6-N6	-15.69	111.15	123.70
1	A	232	G	C4-N9-C1'	-15.67	106.12	126.50
1	A	699	C	C6-N1-C2	-15.67	114.03	120.30
1	A	336	A	N1-C6-N6	15.67	128.00	118.60
1	A	364	A	N1-C6-N6	15.67	128.00	118.60
1	A	602	A	N1-C6-N6	15.64	127.98	118.60
1	A	1350	A	O4'-C1'-N9	15.64	120.71	108.20
1	A	384	G	C5-C6-O6	-15.62	119.23	128.60
1	A	455	G	N3-C2-N2	-15.61	108.97	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	70	U	P-O3'-C3'	15.59	138.41	119.70
1	A	963	G	C5'-C4'-C3'	-15.58	91.08	116.00
1	A	1129	C	N3-C4-C5	-15.57	115.67	121.90
1	A	1193	G	C5-C6-O6	-15.56	119.26	128.60
1	A	1239	A	C1'-O4'-C4'	-15.56	97.45	109.90
1	A	347	G	N1-C6-O6	15.56	129.24	119.90
1	A	343	U	P-O5'-C5'	15.56	145.79	120.90
1	A	1473	G	C5-C6-O6	-15.55	119.27	128.60
1	A	1407	C	N3-C4-N4	15.54	128.87	118.00
1	A	206	C	C6-N1-C2	-15.53	114.09	120.30
1	A	780	A	C5-C6-N6	-15.53	111.28	123.70
1	A	240	G	N1-C6-O6	15.53	129.22	119.90
1	A	1219	A	N1-C6-N6	15.51	127.91	118.60
1	A	257	G	C5-C6-O6	-15.47	119.32	128.60
1	A	292	G	C5-C6-O6	-15.47	119.32	128.60
1	A	119	A	N1-C6-N6	15.47	127.88	118.60
1	A	262	A	N1-C6-N6	15.47	127.88	118.60
1	A	897	C	C6-N1-C2	-15.46	114.11	120.30
1	A	1296	C	C2-N1-C1'	-15.46	101.80	118.80
1	A	691	G	C5-C6-O6	-15.45	119.33	128.60
1	A	182	A	C5'-C4'-C3'	-15.44	91.29	116.00
1	A	545	C	P-O3'-C3'	15.44	138.23	119.70
1	A	1129	C	O4'-C1'-N1	15.44	120.55	108.20
1	A	785	G	C8-N9-C4	-15.42	100.23	106.40
1	A	24	U	O4'-C1'-N1	15.39	120.52	108.20
1	A	1493	A	N1-C6-N6	15.38	127.83	118.60
1	A	329	A	C8-N9-C4	-15.38	99.65	105.80
1	A	78	A	N3-C4-C5	-15.36	116.05	126.80
1	A	1487	G	C5'-C4'-C3'	15.36	140.57	116.00
1	A	1365	G	N1-C6-O6	-15.33	110.70	119.90
1	A	771	G	C8-N9-C4	-15.32	100.27	106.40
1	A	28	A	N1-C6-N6	15.32	127.79	118.60
1	A	1014	A	N1-C6-N6	15.32	127.79	118.60
1	A	1428	A	N1-C6-N6	15.32	127.79	118.60
1	A	466	A	C5-N7-C8	15.29	111.54	103.90
1	A	1193	G	N1-C6-O6	15.27	129.06	119.90
1	A	502	A	N1-C6-N6	15.27	127.76	118.60
1	A	866	C	C6-N1-C2	-15.27	114.19	120.30
1	A	1053	G	C4-N9-C1'	-15.26	106.67	126.50
1	A	416	G	C8-N9-C4	-15.22	100.31	106.40
1	A	7	A	N1-C6-N6	15.20	127.72	118.60
1	A	1287	A	N1-C6-N6	15.20	127.72	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	538	G	N1-C6-O6	15.20	129.02	119.90
1	A	811	C	O4'-C1'-N1	15.18	120.35	108.20
1	A	475	C	C6-N1-C2	-15.18	114.23	120.30
1	A	1451	U	P-O3'-C3'	15.18	137.91	119.70
1	A	122	G	C5'-C4'-C3'	-15.17	91.72	116.00
1	A	177	G	C5-C6-O6	-15.16	119.50	128.60
1	A	986	U	P-O5'-C5'	15.15	145.15	120.90
1	A	814	A	C5-C6-N6	-15.15	111.58	123.70
1	A	213	G	C5'-C4'-C3'	-15.13	91.78	116.00
1	A	1171	A	N1-C6-N6	15.10	127.66	118.60
1	A	1222	G	N1-C6-O6	15.09	128.95	119.90
1	A	1175	G	N1-C6-O6	15.07	128.94	119.90
1	A	1417	G	O3'-P-O5'	-15.05	75.39	104.00
1	A	455	G	N1-C6-O6	15.05	128.93	119.90
1	A	1195	C	N3-C4-N4	15.05	128.54	118.00
1	A	1523	G	C5-C6-O6	-15.02	119.59	128.60
1	A	391	G	C5-C6-O6	-14.98	119.61	128.60
1	A	351	G	C8-N9-C1'	-14.97	107.53	127.00
1	A	254	G	N1-C6-O6	14.97	128.88	119.90
1	A	210	C	P-O3'-C3'	14.96	137.65	119.70
1	A	110	C	P-O3'-C3'	14.95	137.63	119.70
1	A	1078	U	P-O3'-C3'	14.94	137.63	119.70
1	A	1080	A	N1-C6-N6	14.94	127.56	118.60
1	A	1489	G	O4'-C1'-N9	14.93	120.15	108.20
1	A	1206	G	N1-C6-O6	14.93	128.86	119.90
1	A	52	C	O4'-C1'-N1	14.92	120.14	108.20
1	A	1176	A	C8-N9-C4	-14.91	99.83	105.80
1	A	683	G	C5-C6-O6	-14.91	119.65	128.60
1	A	1197	A	N1-C6-N6	14.91	127.55	118.60
1	A	382	A	N1-C6-N6	14.91	127.54	118.60
1	A	510	A	N1-C6-N6	14.90	127.54	118.60
1	A	1145	A	N1-C6-N6	14.89	127.53	118.60
1	A	1288	A	N1-C6-N6	14.88	127.53	118.60
1	A	74	A	C5'-C4'-C3'	-14.87	92.21	116.00
1	A	780	A	C6-C5-N7	-14.86	121.90	132.30
1	A	1300	G	C8-N9-C1'	14.85	146.30	127.00
1	A	486	U	C5'-C4'-C3'	-14.85	92.25	116.00
1	A	1476	A	N1-C6-N6	14.85	127.51	118.60
1	A	633	G	P-O5'-C5'	14.84	144.65	120.90
1	A	600	A	N1-C6-N6	14.84	127.50	118.60
1	A	1016	A	N1-C6-N6	14.84	127.50	118.60
1	A	1305	G	C8-N9-C1'	14.84	146.29	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1032	G	C4-N9-C1'	14.82	145.77	126.50
1	A	1253	G	C5'-C4'-C3'	-14.82	92.28	116.00
18	R	69	TYR	CB-CG-CD2	-14.82	112.11	121.00
1	A	68	G	C8-N9-C4	-14.81	100.47	106.40
1	A	652	U	O4'-C1'-N1	14.81	120.05	108.20
1	A	343	U	C2-N1-C1'	-14.81	99.93	117.70
1	A	797	C	C2-N1-C1'	-14.80	102.51	118.80
1	A	730	G	N1-C6-O6	14.80	128.78	119.90
1	A	1241	G	P-O5'-C5'	14.80	144.57	120.90
1	A	1269	A	N1-C6-N6	14.78	127.47	118.60
1	A	1111	A	O4'-C1'-N9	14.77	120.02	108.20
1	A	451	A	O4'-C1'-N9	14.76	120.00	108.20
1	A	1300	G	C4-N9-C1'	-14.76	107.32	126.50
1	A	1380	U	C2-N3-C4	-14.76	118.15	127.00
1	A	270	A	N1-C6-N6	14.74	127.45	118.60
1	A	1057	G	C5-C6-O6	-14.73	119.76	128.60
1	A	148	G	C8-N9-C4	-14.73	100.51	106.40
1	A	1391	U	C6-N1-C2	-14.73	112.16	121.00
1	A	77	A	C4-C5-C6	14.73	124.36	117.00
1	A	195	A	C8-N9-C4	-14.72	99.91	105.80
1	A	881	G	N1-C6-O6	14.72	128.73	119.90
1	A	963	G	N1-C6-O6	14.71	128.73	119.90
1	A	316	C	O4'-C1'-N1	14.70	119.96	108.20
1	A	31	G	O4'-C1'-N9	14.70	119.96	108.20
1	A	1071	C	N3-C4-C5	-14.69	116.03	121.90
1	A	1207	G	N1-C6-O6	14.68	128.71	119.90
1	A	1482	G	O4'-C4'-C3'	-14.67	89.33	104.00
1	A	1418	A	C5-C6-N6	-14.66	111.97	123.70
1	A	177	G	N1-C6-O6	14.66	128.69	119.90
1	A	203	G	N9-C4-C5	-14.64	99.54	105.40
1	A	975	A	N1-C6-N6	14.64	127.38	118.60
1	A	1448	C	O4'-C1'-N1	14.63	119.91	108.20
1	A	1111	A	N1-C6-N6	14.63	127.38	118.60
1	A	1186	G	P-O3'-C3'	14.63	137.25	119.70
1	A	1036	A	N1-C6-N6	14.62	127.37	118.60
1	A	1333	A	C5-C6-N6	-14.62	112.01	123.70
1	A	83	C	O4'-C1'-N1	14.61	119.89	108.20
1	A	7	A	P-O3'-C3'	14.60	137.22	119.70
1	A	878	A	C5-C6-N6	-14.60	112.02	123.70
1	A	265	G	N1-C6-O6	14.59	128.66	119.90
1	A	146	G	C5-C6-O6	-14.58	119.85	128.60
1	A	759	A	O5'-P-OP2	-14.58	92.58	105.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1008	U	C5'-C4'-C3'	-14.58	92.68	116.00
1	A	753	A	N1-C6-N6	14.57	127.34	118.60
1	A	276	G	C8-N9-C1'	14.56	145.93	127.00
1	A	901	A	N1-C6-N6	14.54	127.32	118.60
1	A	363	A	N1-C6-N6	14.53	127.32	118.60
1	A	593	U	C6-N1-C2	-14.52	112.29	121.00
1	A	468	A	C5-C6-N6	-14.51	112.09	123.70
1	A	1150	A	C8-N9-C4	-14.50	100.00	105.80
1	A	162	A	N1-C6-N6	14.50	127.30	118.60
1	A	92	U	C2-N1-C1'	-14.49	100.31	117.70
1	A	199	A	P-O5'-C5'	14.48	144.07	120.90
1	A	232	G	C8-N9-C1'	14.47	145.81	127.00
1	A	412	A	N1-C6-N6	14.47	127.28	118.60
1	A	499	A	C5-C6-N6	-14.46	112.13	123.70
1	A	869	G	C5'-C4'-C3'	-14.45	92.88	116.00
1	A	1064	G	C1'-O4'-C4'	-14.45	98.34	109.90
1	A	197	A	O4'-C1'-N9	14.45	119.76	108.20
1	A	536	C	C6-N1-C2	-14.44	114.52	120.30
1	A	1301	U	O5'-P-OP2	-14.44	92.70	105.70
1	A	601	G	N9-C4-C5	-14.44	99.62	105.40
1	A	658	C	O4'-C1'-N1	14.42	119.74	108.20
1	A	187	G	N3-C2-N2	14.42	129.99	119.90
1	A	391	G	N1-C6-O6	14.42	128.55	119.90
1	A	1388	C	O4'-C1'-N1	14.41	119.73	108.20
1	A	1090	U	O4'-C1'-N1	14.41	119.73	108.20
1	A	546	A	N1-C6-N6	14.40	127.24	118.60
1	A	130	A	C5-C6-N6	-14.38	112.20	123.70
1	A	750	C	C6-N1-C2	-14.37	114.55	120.30
1	A	1339	A	N1-C6-N6	14.37	127.22	118.60
1	A	466	A	C8-N9-C4	-14.36	100.06	105.80
1	A	1166	G	N1-C6-O6	14.36	128.51	119.90
1	A	389	A	N1-C6-N6	14.36	127.21	118.60
1	A	468	A	C5'-C4'-C3'	-14.35	93.05	116.00
1	A	554	A	O4'-C1'-N9	14.34	119.67	108.20
1	A	1490	U	O4'-C1'-N1	14.33	119.67	108.20
1	A	123	U	C6-N1-C2	-14.33	112.40	121.00
1	A	1032	G	N3-C2-N2	14.31	129.92	119.90
1	A	982	U	P-O3'-C3'	14.30	136.87	119.70
1	A	1441	A	C4-C5-C6	14.30	124.15	117.00
1	A	1232	U	P-O5'-C5'	14.30	143.78	120.90
1	A	1063	C	C6-N1-C2	-14.30	114.58	120.30
1	A	1434	A	N7-C8-N9	14.29	120.95	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	873	A	P-O3'-C3'	-14.28	102.56	119.70
1	A	90	C	C6-N1-C2	-14.28	114.59	120.30
1	A	1442	G	P-O3'-C3'	14.27	136.82	119.70
1	A	408	A	P-O3'-C3'	14.27	136.82	119.70
1	A	282	A	N1-C6-N6	14.26	127.16	118.60
1	A	802	A	C8-N9-C4	-14.26	100.10	105.80
1	A	1349	A	N1-C6-N6	14.26	127.15	118.60
1	A	1186	G	C5-C6-O6	-14.25	120.05	128.60
1	A	670	G	N1-C6-O6	14.25	128.45	119.90
1	A	80	A	C8-N9-C4	-14.24	100.10	105.80
1	A	1184	G	P-O3'-C3'	-14.24	102.61	119.70
1	A	451	A	P-O3'-C3'	14.19	136.72	119.70
1	A	1037	C	O4'-C1'-N1	14.19	119.55	108.20
1	A	159	G	C4-N9-C1'	-14.19	108.06	126.50
1	A	691	G	N1-C6-O6	14.18	128.41	119.90
1	A	829	G	C8-N9-C4	-14.18	100.73	106.40
1	A	275	G	N1-C6-O6	14.17	128.41	119.90
1	A	924	C	N3-C4-C5	-14.15	116.24	121.90
1	A	1515	G	N1-C6-O6	14.15	128.39	119.90
1	A	832	G	N1-C6-O6	14.15	128.39	119.90
1	A	702	A	N1-C6-N6	14.14	127.08	118.60
1	A	866	C	C5-C6-N1	14.14	128.07	121.00
1	A	194	C	C6-N1-C2	-14.13	114.65	120.30
1	A	159	G	C8-N9-C1'	14.13	145.37	127.00
1	A	1123	U	C2-N1-C1'	-14.13	100.75	117.70
1	A	258	G	C8-N9-C4	-14.12	100.75	106.40
1	A	691	G	C4-N9-C1'	-14.12	108.15	126.50
1	A	869	G	N1-C6-O6	14.12	128.37	119.90
1	A	1391	U	O4'-C1'-N1	14.12	119.49	108.20
1	A	786	G	N1-C6-O6	14.10	128.36	119.90
1	A	947	G	C5-C6-O6	-14.09	120.15	128.60
1	A	1094	G	P-O3'-C3'	14.08	136.60	119.70
1	A	292	G	N1-C6-O6	14.08	128.35	119.90
1	A	1005	A	N1-C6-N6	14.08	127.05	118.60
1	A	308	C	C5'-C4'-C3'	14.08	138.52	116.00
1	A	557	G	N1-C6-O6	14.08	128.35	119.90
1	A	1095	U	C6-N1-C2	-14.07	112.56	121.00
1	A	873	A	N1-C6-N6	14.07	127.04	118.60
1	A	687	A	N1-C6-N6	14.06	127.04	118.60
1	A	866	C	N3-C4-N4	14.06	127.84	118.00
1	A	93	U	O4'-C1'-N1	14.06	119.45	108.20
1	A	190	A	N1-C6-N6	14.06	127.03	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	481	G	N3-C2-N2	14.05	129.73	119.90
1	A	417	G	C8-N9-C4	-14.04	100.78	106.40
1	A	115	G	P-O3'-C3'	14.04	136.55	119.70
1	A	670	G	C5-C6-O6	-14.02	120.19	128.60
1	A	746	A	O4'-C1'-N9	14.02	119.41	108.20
1	A	191	G	C8-N9-C1'	14.01	145.22	127.00
1	A	1064	G	P-O3'-C3'	-14.01	102.89	119.70
1	A	1266	G	C8-N9-C1'	14.00	145.20	127.00
1	A	682	G	C8-N9-C4	-13.99	100.80	106.40
1	A	470	C	C5-C4-N4	-13.98	110.41	120.20
1	A	903	G	N7-C8-N9	13.98	120.09	113.10
1	A	455	G	C8-N9-C1'	13.98	145.17	127.00
1	A	607	A	N1-C6-N6	13.96	126.98	118.60
1	A	1156	G	C4-N9-C1'	-13.96	108.35	126.50
1	A	846	G	C5'-C4'-O4'	13.96	125.85	109.10
1	A	663	A	N1-C6-N6	13.95	126.97	118.60
1	A	668	G	C5-C6-O6	-13.94	120.24	128.60
1	A	1305	G	C4-N9-C1'	-13.94	108.38	126.50
1	A	1222	G	C5-C6-O6	-13.93	120.24	128.60
1	A	439	U	O4'-C1'-N1	13.92	119.34	108.20
1	A	1442	G	C5'-C4'-O4'	13.92	125.81	109.10
1	A	1362	A	P-O3'-C3'	13.92	136.40	119.70
1	A	752	G	O4'-C1'-N9	13.91	119.33	108.20
1	A	795	C	C6-N1-C2	-13.91	114.74	120.30
1	A	1206	G	C8-N9-C4	-13.91	100.84	106.40
1	A	1126	U	P-O3'-C3'	-13.89	103.04	119.70
1	A	1316	G	N1-C6-O6	13.88	128.23	119.90
1	A	1460	C	C6-N1-C2	-13.87	114.75	120.30
1	A	455	G	C8-N9-C4	-13.87	100.85	106.40
1	A	1239	A	N1-C6-N6	13.86	126.92	118.60
1	A	1241	G	C5'-C4'-C3'	-13.86	93.82	116.00
1	A	1145	A	C3'-C2'-C1'	-13.86	90.41	101.50
1	A	894	G	P-O5'-C5'	13.86	143.07	120.90
1	A	161	A	N1-C6-N6	13.84	126.91	118.60
1	A	329	A	N1-C6-N6	13.84	126.91	118.60
1	A	851	G	C5'-C4'-C3'	-13.83	93.87	116.00
1	A	61	G	C8-N9-C1'	13.83	144.97	127.00
1	A	1514	G	N1-C6-O6	13.82	128.19	119.90
1	A	154	U	O4'-C1'-N1	13.82	119.26	108.20
1	A	115	G	N1-C6-O6	13.79	128.18	119.90
1	A	1261	A	N1-C6-N6	13.79	126.88	118.60
1	A	865	A	C8-N9-C4	-13.79	100.28	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	189	A	N1-C6-N6	13.79	126.87	118.60
1	A	1068	G	N1-C6-O6	13.79	128.17	119.90
1	A	1375	A	C5-C6-N6	-13.78	112.67	123.70
1	A	1392	G	P-O5'-C5'	13.78	142.96	120.90
1	A	192	A	N1-C6-N6	13.78	126.87	118.60
1	A	471	U	C2-N3-C4	-13.78	118.73	127.00
1	A	63	C	P-O3'-C3'	13.78	136.23	119.70
1	A	347	G	C5-C6-O6	-13.78	120.33	128.60
1	A	71	A	N1-C6-N6	13.77	126.86	118.60
1	A	1165	U	O4'-C1'-N1	13.76	119.20	108.20
1	A	696	A	N7-C8-N9	13.75	120.68	113.80
1	A	691	G	C8-N9-C1'	13.74	144.86	127.00
1	A	558	G	C8-N9-C4	-13.73	100.91	106.40
1	A	1500	A	O5'-P-OP2	-13.70	93.37	105.70
1	A	1158	C	C6-N1-C2	-13.70	114.82	120.30
1	A	661	G	N1-C6-O6	13.69	128.12	119.90
1	A	69	G	N1-C6-O6	13.69	128.11	119.90
1	A	726	C	O4'-C1'-N1	13.68	119.14	108.20
1	A	1093	A	N1-C6-N6	13.66	126.80	118.60
1	A	300	A	N1-C6-N6	13.66	126.80	118.60
1	A	860	A	C8-N9-C4	-13.65	100.34	105.80
1	A	487	A	C5-C6-N6	-13.64	112.79	123.70
1	A	239	U	O4'-C1'-N1	13.62	119.10	108.20
1	A	120	A	C5-C6-N6	-13.62	112.80	123.70
1	A	1275	A	N1-C6-N6	13.62	126.77	118.60
1	A	1000	A	C5-C6-N6	-13.61	112.81	123.70
1	A	637	C	C5-C4-N4	-13.60	110.68	120.20
1	A	74	A	N1-C6-N6	13.59	126.75	118.60
1	A	321	A	C5-C6-N6	-13.59	112.83	123.70
1	A	1099	G	C5-C6-O6	-13.58	120.45	128.60
1	A	98	A	C5'-C4'-C3'	-13.57	94.28	116.00
1	A	75	G	C5-C6-O6	-13.57	120.46	128.60
1	A	222	C	O4'-C1'-N1	13.57	119.06	108.20
1	A	1482	G	O3'-P-O5'	-13.56	78.23	104.00
1	A	1050	G	C5'-C4'-C3'	-13.56	94.30	116.00
1	A	791	G	N1-C6-O6	13.54	128.02	119.90
1	A	695	A	P-O5'-C5'	13.54	142.56	120.90
1	A	427	U	C6-N1-C2	-13.53	112.88	121.00
1	A	184	G	P-O5'-C5'	13.51	142.51	120.90
1	A	1500	A	N1-C6-N6	13.50	126.70	118.60
1	A	1482	G	O4'-C1'-N9	13.50	119.00	108.20
1	A	1096	C	O4'-C1'-N1	13.49	119.00	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	313	A	C8-N9-C4	-13.49	100.40	105.80
1	A	1518	A	N1-C6-N6	13.49	126.69	118.60
1	A	1145	A	C5'-C4'-C3'	13.49	137.58	116.00
1	A	276	G	C4-N9-C1'	-13.48	108.98	126.50
1	A	1515	G	C5-C6-O6	-13.48	120.51	128.60
1	A	266	G	P-O3'-C3'	13.47	135.87	119.70
1	A	673	A	N1-C6-N6	13.47	126.68	118.60
1	A	645	G	C5-C6-O6	-13.47	120.52	128.60
1	A	451	A	C1'-O4'-C4'	-13.44	99.15	109.90
1	A	1027	C	C5'-C4'-C3'	-13.44	94.50	116.00
1	A	55	A	C5-C6-N6	-13.44	112.95	123.70
1	A	116	A	N1-C6-N6	13.43	126.66	118.60
1	A	1380	U	P-O3'-C3'	13.42	135.81	119.70
1	A	92	U	C6-N1-C2	-13.41	112.95	121.00
1	A	339	C	C6-N1-C1'	13.41	136.89	120.80
1	A	313	A	C5'-C4'-C3'	-13.40	94.56	116.00
1	A	146	G	N1-C6-O6	13.40	127.94	119.90
1	A	539	A	C5-C6-N6	-13.38	112.99	123.70
1	A	646	G	N1-C6-O6	13.38	127.93	119.90
1	A	1244	G	C5-C6-O6	-13.38	120.57	128.60
1	A	460	A	P-O5'-C5'	13.37	142.29	120.90
1	A	1306	A	C5-C6-N6	-13.37	113.01	123.70
1	A	1442	G	C6-C5-N7	-13.36	122.38	130.40
1	A	509	A	N1-C6-N6	13.36	126.61	118.60
1	A	1156	G	O4'-C1'-N9	13.35	118.88	108.20
1	A	1144	G	P-O3'-C3'	13.35	135.72	119.70
1	A	1455	G	O3'-P-O5'	-13.35	78.63	104.00
1	A	730	G	C5-C6-O6	-13.34	120.59	128.60
1	A	700	G	N1-C6-O6	13.34	127.90	119.90
1	A	426	U	P-O3'-C3'	13.33	135.69	119.70
1	A	1440	U	O4'-C1'-N1	13.32	118.86	108.20
1	A	269	C	C2-N1-C1'	-13.32	104.15	118.80
1	A	1228	C	C6-N1-C2	-13.31	114.97	120.30
1	A	91	U	O4'-C1'-N1	13.28	118.83	108.20
1	A	455	G	C5-C6-O6	-13.28	120.64	128.60
1	A	1468	A	C5-C6-N6	-13.26	113.09	123.70
1	A	1389	C	O4'-C1'-N1	13.26	118.81	108.20
1	A	1099	G	O4'-C1'-N9	13.26	118.81	108.20
1	A	115	G	C5-C6-O6	-13.26	120.65	128.60
1	A	890	G	P-O3'-C3'	13.25	135.60	119.70
1	A	21	G	C5-C6-O6	-13.24	120.65	128.60
1	A	568	G	N1-C6-O6	13.24	127.85	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	872	A	N1-C6-N6	13.24	126.55	118.60
1	A	1282	C	C6-N1-C2	-13.23	115.01	120.30
1	A	411	A	C5-C6-N6	-13.23	113.12	123.70
1	A	127	G	C5'-C4'-C3'	13.21	137.14	116.00
1	A	216	U	C2-N1-C1'	-13.21	101.85	117.70
1	A	1275	A	C8-N9-C4	-13.20	100.52	105.80
1	A	1299	A	N1-C6-N6	13.20	126.52	118.60
1	A	76	G	C4-N9-C1'	13.20	143.66	126.50
1	A	506	G	N1-C6-O6	13.20	127.82	119.90
1	A	650	G	N1-C6-O6	13.20	127.82	119.90
1	A	1236	A	C5-C6-N6	-13.20	113.14	123.70
1	A	68	G	N1-C6-O6	13.18	127.81	119.90
1	A	907	A	C8-N9-C4	-13.18	100.53	105.80
1	A	183	C	O4'-C1'-N1	13.17	118.74	108.20
1	A	371	A	N1-C6-N6	13.17	126.50	118.60
1	A	947	G	N1-C6-O6	13.17	127.80	119.90
1	A	661	G	C5-C6-O6	-13.17	120.70	128.60
1	A	120	A	C4'-C3'-C2'	-13.17	89.43	102.60
1	A	621	A	N1-C6-N6	13.17	126.50	118.60
1	A	923	A	N7-C8-N9	13.16	120.38	113.80
1	A	1456	A	C5-C6-N6	-13.16	113.17	123.70
1	A	68	G	C6-C5-N7	-13.15	122.51	130.40
1	A	50	A	N1-C6-N6	13.15	126.49	118.60
14	N	19	TYR	CB-CG-CD1	13.15	128.89	121.00
1	A	918	A	N1-C6-N6	13.14	126.49	118.60
1	A	1195	C	C6-N1-C2	-13.14	115.04	120.30
1	A	816	A	P-O3'-C3'	-13.14	103.93	119.70
1	A	555	U	P-O3'-C3'	13.13	135.46	119.70
1	A	1225	A	N1-C6-N6	13.12	126.47	118.60
1	A	1365	G	C5-C6-O6	13.12	136.47	128.60
1	A	99	C	P-O3'-C3'	13.11	135.44	119.70
1	A	917	G	N1-C6-O6	13.09	127.76	119.90
1	A	1502	A	C5-C6-N1	-13.09	111.15	117.70
1	A	87	C	O4'-C1'-N1	13.09	118.67	108.20
5	E	21	SER	N-CA-CB	13.09	130.13	110.50
1	A	1184	G	P-O5'-C5'	13.08	141.83	120.90
1	A	346	G	C5-C6-O6	-13.08	120.75	128.60
1	A	814	A	P-O3'-C3'	13.08	135.40	119.70
1	A	82	G	C5-C6-O6	-13.07	120.76	128.60
1	A	1277	C	O4'-C1'-N1	13.07	118.65	108.20
1	A	1531	A	N1-C6-N6	13.07	126.44	118.60
1	A	637	C	N3-C4-N4	13.07	127.15	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	809	G	C5-C6-O6	-13.06	120.77	128.60
1	A	831	A	C5-C6-N6	-13.05	113.26	123.70
1	A	1483	A	N1-C6-N6	13.05	126.43	118.60
1	A	1126	U	C2-N3-C4	-13.04	119.17	127.00
1	A	1530	G	P-O3'-C3'	13.03	135.33	119.70
1	A	117	G	N1-C6-O6	13.02	127.71	119.90
1	A	508	U	C5'-C4'-C3'	-13.02	95.17	116.00
1	A	16	A	N1-C6-N6	13.02	126.41	118.60
1	A	1046	A	N1-C6-N6	13.00	126.40	118.60
1	A	1141	C	N3-C4-C5	-13.00	116.70	121.90
1	A	908	A	C8-N9-C4	-13.00	100.60	105.80
1	A	466	A	C4-C5-C6	12.99	123.50	117.00
1	A	1037	C	O4'-C4'-C3'	-12.99	91.01	104.00
1	A	643	C	C6-N1-C2	-12.99	115.11	120.30
1	A	78	A	C6-C5-N7	-12.98	123.21	132.30
1	A	546	A	O4'-C1'-N9	12.98	118.58	108.20
1	A	263	A	N1-C6-N6	12.98	126.39	118.60
1	A	1186	G	C5'-C4'-C3'	12.97	136.75	116.00
1	A	1461	G	O4'-C1'-N9	12.97	118.58	108.20
1	A	974	A	P-O3'-C3'	12.96	135.25	119.70
1	A	239	U	C6-N1-C1'	12.95	139.33	121.20
1	A	531	U	P-O3'-C3'	-12.95	104.16	119.70
1	A	1363	A	C8-N9-C4	-12.95	100.62	105.80
1	A	1166	G	N7-C8-N9	12.94	119.57	113.10
1	A	1266	G	O4'-C1'-N9	12.94	118.55	108.20
1	A	328	C	O4'-C1'-N1	12.94	118.55	108.20
1	A	560	A	N1-C6-N6	12.92	126.35	118.60
1	A	101	A	N1-C6-N6	12.91	126.35	118.60
1	A	586	C	C2-N1-C1'	-12.91	104.60	118.80
1	A	788	U	C6-N1-C2	-12.91	113.25	121.00
1	A	223	A	C8-N9-C4	-12.90	100.64	105.80
1	A	152	A	N9-C4-C5	12.88	110.95	105.80
1	A	893	C	C6-N1-C2	-12.88	115.15	120.30
1	A	1436	U	C2-N1-C1'	-12.88	102.24	117.70
1	A	500	G	C8-N9-C1'	12.88	143.74	127.00
1	A	868	C	C6-N1-C2	-12.87	115.15	120.30
1	A	1121	U	O4'-C1'-N1	12.87	118.49	108.20
1	A	206	C	C5-C6-N1	12.86	127.43	121.00
1	A	17	U	O4'-C1'-N1	12.85	118.48	108.20
1	A	642	A	C4-C5-C6	12.85	123.42	117.00
1	A	698	G	C5'-C4'-C3'	-12.85	95.45	116.00
1	A	191	G	C8-N9-C4	-12.84	101.26	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	712	A	P-O3'-C3'	12.84	135.10	119.70
1	A	1103	C	C5-C6-N1	12.83	127.42	121.00
1	A	1236	A	C5'-C4'-C3'	-12.83	95.48	116.00
1	A	1241	G	N3-C2-N2	12.83	128.88	119.90
1	A	242	G	C5-C6-O6	-12.82	120.91	128.60
1	A	380	G	C8-N9-C1'	12.82	143.66	127.00
1	A	1429	A	N1-C6-N6	12.80	126.28	118.60
1	A	73	C	N3-C4-C5	-12.79	116.78	121.90
1	A	239	U	N1-C2-N3	12.78	122.57	114.90
1	A	243	A	C4-N9-C1'	-12.78	103.30	126.30
1	A	1113	C	P-O3'-C3'	12.78	135.03	119.70
1	A	120	A	C3'-C2'-C1'	-12.78	91.28	101.50
1	A	1296	C	N3-C2-O2	-12.77	112.96	121.90
1	A	1275	A	C4-C5-C6	12.77	123.39	117.00
1	A	1136	C	C6-N1-C2	-12.77	115.19	120.30
1	A	196	A	C4-C5-C6	12.76	123.38	117.00
1	A	792	A	N1-C6-N6	12.76	126.26	118.60
1	A	315	A	O4'-C1'-N9	12.75	118.40	108.20
1	A	1099	G	N1-C6-O6	12.75	127.55	119.90
1	A	1399	C	C6-N1-C2	-12.74	115.20	120.30
1	A	642	A	C8-N9-C4	-12.74	100.70	105.80
1	A	430	A	O5'-P-OP1	-12.74	94.24	105.70
1	A	1519	A	N1-C6-N6	12.73	126.24	118.60
1	A	439	U	C2-N1-C1'	12.72	132.96	117.70
1	A	1173	U	O4'-C1'-N1	12.71	118.37	108.20
1	A	500	G	C4-N9-C1'	-12.71	109.98	126.50
1	A	704	A	N1-C6-N6	12.71	126.22	118.60
1	A	61	G	O4'-C1'-N9	12.70	118.36	108.20
1	A	456	A	N1-C6-N6	12.70	126.22	118.60
1	A	248	C	O4'-C1'-N1	12.70	118.36	108.20
1	A	320	A	N1-C6-N6	12.70	126.22	118.60
18	R	69	TYR	CB-CG-CD1	12.70	128.62	121.00
1	A	264	C	P-O5'-C5'	12.69	141.21	120.90
1	A	917	G	C5-C6-O6	-12.69	120.99	128.60
1	A	73	C	C5-C4-N4	-12.69	111.32	120.20
1	A	75	G	O3'-P-O5'	-12.68	79.91	104.00
1	A	471	U	C6-N1-C2	-12.68	113.39	121.00
1	A	869	G	C5-C6-O6	-12.68	121.00	128.60
1	A	66	A	N1-C6-N6	12.67	126.20	118.60
1	A	858	G	C6-C5-N7	-12.67	122.80	130.40
1	A	186	C	N3-C4-C5	-12.66	116.84	121.90
1	A	682	G	N1-C6-O6	12.65	127.49	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	994	A	C5-C6-N6	-12.65	113.58	123.70
1	A	1058	G	C8-N9-C4	-12.64	101.34	106.40
1	A	1285	A	N1-C6-N6	12.64	126.19	118.60
1	A	247	G	C5-C6-O6	-12.64	121.02	128.60
1	A	1470	U	O4'-C1'-N1	12.64	118.31	108.20
1	A	165	G	C8-N9-C1'	12.63	143.43	127.00
1	A	1513	A	P-O3'-C3'	-12.63	104.54	119.70
1	A	523	A	O4'-C1'-N9	12.63	118.31	108.20
1	A	574	A	N1-C6-N6	12.63	126.18	118.60
1	A	1144	G	N1-C6-O6	12.63	127.48	119.90
1	A	134	G	N1-C6-O6	12.62	127.47	119.90
1	A	840	C	N3-C4-C5	-12.62	116.85	121.90
1	A	1126	U	C2-N1-C1'	-12.62	102.55	117.70
1	A	418	C	C6-N1-C2	-12.62	115.25	120.30
1	A	780	A	C4-C5-C6	12.62	123.31	117.00
1	A	1283	U	O4'-C1'-N1	12.62	118.30	108.20
4	D	134	TYR	CB-CG-CD1	-12.62	113.43	121.00
1	A	1266	G	C4-N9-C1'	-12.62	110.10	126.50
1	A	1502	A	N1-C6-N6	12.61	126.17	118.60
1	A	1413	A	N1-C6-N6	12.61	126.17	118.60
1	A	191	G	C4-N9-C1'	-12.61	110.11	126.50
1	A	404	G	C8-N9-C4	-12.61	101.36	106.40
1	A	269	C	C6-N1-C1'	12.61	135.93	120.80
1	A	610	U	O3'-P-O5'	-12.61	80.05	104.00
1	A	1363	A	P-O3'-C3'	12.60	134.82	119.70
1	A	1280	A	C8-N9-C4	-12.60	100.76	105.80
1	A	411	A	P-O3'-C3'	-12.59	104.59	119.70
1	A	796	C	C2-N1-C1'	-12.59	104.96	118.80
1	A	1166	G	C8-N9-C4	-12.58	101.37	106.40
1	A	671	G	C5'-C4'-C3'	-12.58	95.87	116.00
1	A	809	G	N1-C6-O6	12.58	127.45	119.90
1	A	515	G	N1-C6-O6	12.58	127.45	119.90
1	A	777	A	C4-C5-C6	12.58	123.29	117.00
1	A	1342	C	O4'-C1'-N1	12.58	118.26	108.20
1	A	236	A	N1-C6-N6	12.57	126.14	118.60
1	A	1097	C	O4'-C1'-N1	12.56	118.25	108.20
1	A	79	G	N1-C6-O6	12.56	127.44	119.90
1	A	909	A	C8-N9-C4	-12.56	100.78	105.80
1	A	1461	G	C8-N9-C1'	12.55	143.31	127.00
1	A	1369	C	C6-N1-C1'	12.55	135.86	120.80
1	A	531	U	P-O5'-C5'	12.55	140.97	120.90
1	A	391	G	C4-N9-C1'	-12.54	110.19	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1058	G	P-O5'-C5'	12.54	140.96	120.90
1	A	1244	G	N1-C6-O6	12.54	127.42	119.90
1	A	1045	C	C5'-C4'-C3'	-12.54	95.94	116.00
1	A	997	U	C2-N1-C1'	-12.53	102.66	117.70
1	A	851	G	N3-C2-N2	12.53	128.67	119.90
1	A	1176	A	N1-C6-N6	12.51	126.11	118.60
1	A	1228	C	N3-C4-N4	12.51	126.76	118.00
3	C	155	ARG	NE-CZ-NH1	12.51	126.56	120.30
1	A	1296	C	C6-N1-C1'	12.51	135.81	120.80
1	A	1442	G	N9-C4-C5	-12.50	100.40	105.40
1	A	38	G	N1-C6-O6	12.50	127.40	119.90
1	A	46	G	N1-C6-O6	12.50	127.40	119.90
1	A	78	A	C8-N9-C1'	-12.50	105.20	127.70
1	A	761	G	N1-C6-O6	12.49	127.39	119.90
1	A	581	G	N1-C6-O6	12.48	127.39	119.90
1	A	628	G	C5-C6-O6	-12.48	121.11	128.60
1	A	61	G	C4-N9-C1'	-12.48	110.27	126.50
1	A	1071	C	C5-C6-N1	12.48	127.24	121.00
1	A	581	G	C8-N9-C1'	12.48	143.22	127.00
1	A	686	U	C2-N3-C4	-12.48	119.52	127.00
1	A	89	U	P-O3'-C3'	12.47	134.67	119.70
1	A	593	U	C2-N1-C1'	-12.46	102.74	117.70
1	A	896	C	C6-N1-C2	-12.46	115.31	120.30
1	A	20	U	C6-N1-C1'	12.46	138.64	121.20
1	A	1202	U	O4'-C1'-N1	12.46	118.17	108.20
1	A	119	A	P-O3'-C3'	12.46	134.65	119.70
1	A	887	G	C5-C6-O6	-12.46	121.13	128.60
1	A	8	A	N1-C6-N6	12.45	126.07	118.60
1	A	1001	C	C6-N1-C2	-12.45	115.32	120.30
1	A	1022	A	C8-N9-C4	-12.45	100.82	105.80
1	A	101	A	N7-C8-N9	12.44	120.02	113.80
1	A	1358	U	C2-N1-C1'	-12.43	102.78	117.70
1	A	1373	G	N1-C6-O6	12.43	127.36	119.90
1	A	1111	A	P-O5'-C5'	12.42	140.78	120.90
1	A	1531	A	P-O5'-C5'	12.40	140.74	120.90
1	A	589	U	C5'-C4'-C3'	-12.40	96.16	116.00
1	A	935	A	N1-C2-N3	12.40	135.50	129.30
1	A	937	A	N1-C6-N6	12.39	126.03	118.60
1	A	1363	A	N1-C6-N6	12.39	126.03	118.60
1	A	1520	C	O4'-C1'-N1	12.39	118.11	108.20
1	A	913	A	P-O3'-C3'	12.38	134.55	119.70
1	A	781	A	N1-C6-N6	12.38	126.03	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1241	G	C5'-C4'-O4'	12.37	123.94	109.10
1	A	20	U	C2-N1-C1'	-12.37	102.86	117.70
1	A	1114	C	C1'-O4'-C4'	-12.36	100.01	109.90
1	A	182	A	N1-C6-N6	12.36	126.01	118.60
1	A	339	C	C2-N1-C1'	-12.36	105.21	118.80
1	A	313	A	N1-C6-N6	12.35	126.01	118.60
1	A	721	G	C1'-O4'-C4'	-12.35	100.02	109.90
1	A	985	C	O4'-C1'-N1	12.35	118.08	108.20
1	A	758	C	C5'-C4'-C3'	12.35	135.75	116.00
1	A	1483	A	C8-N9-C4	-12.34	100.86	105.80
1	A	1055	A	N1-C6-N6	12.33	126.00	118.60
1	A	1316	G	C5-C6-O6	-12.32	121.21	128.60
1	A	1156	G	C8-N9-C1'	12.32	143.01	127.00
1	A	1172	C	O4'-C1'-N1	12.31	118.05	108.20
1	A	1256	A	N1-C6-N6	12.31	125.98	118.60
1	A	342	C	C6-N1-C2	-12.30	115.38	120.30
1	A	972	C	C2-N1-C1'	-12.30	105.27	118.80
1	A	1449	C	C5'-C4'-C3'	12.30	135.69	116.00
1	A	76	G	P-O3'-C3'	12.30	134.46	119.70
1	A	453	G	N1-C6-O6	12.30	127.28	119.90
1	A	260	G	P-O3'-C3'	12.30	134.46	119.70
1	A	788	U	N3-C4-C5	-12.29	107.22	114.60
1	A	1370	G	C4-N9-C1'	-12.29	110.53	126.50
1	A	318	G	N1-C6-O6	12.28	127.27	119.90
1	A	653	U	O4'-C1'-N1	12.28	118.02	108.20
1	A	973	G	P-O3'-C3'	12.28	134.44	119.70
1	A	761	G	C5-C6-O6	-12.28	121.23	128.60
1	A	455	G	N1-C2-N2	12.27	127.24	116.20
1	A	1461	G	C8-N9-C4	-12.27	101.49	106.40
1	A	523	A	P-O3'-C3'	-12.27	104.98	119.70
1	A	459	A	N1-C6-N6	12.27	125.96	118.60
1	A	432	A	N1-C6-N6	12.26	125.95	118.60
1	A	344	A	P-O3'-C3'	12.25	134.40	119.70
1	A	991	U	P-O3'-C3'	12.24	134.39	119.70
1	A	860	A	C5-C6-N1	-12.23	111.58	117.70
1	A	609	A	N1-C6-N6	12.23	125.94	118.60
1	A	21	G	N1-C6-O6	12.23	127.24	119.90
1	A	372	C	N3-C4-C5	-12.23	117.01	121.90
1	A	1207	G	C5-C6-O6	-12.23	121.26	128.60
1	A	187	G	C4-N9-C1'	-12.22	110.61	126.50
1	A	1307	U	C5'-C4'-C3'	-12.22	96.44	116.00
1	A	238	A	O4'-C1'-N9	12.22	117.98	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1491	G	P-O5'-C5'	12.22	140.46	120.90
1	A	1224	U	P-O3'-C3'	12.22	134.36	119.70
1	A	59	A	N1-C6-N6	12.22	125.93	118.60
1	A	73	C	O4'-C1'-N1	12.21	117.97	108.20
1	A	697	U	C5'-C4'-O4'	12.21	123.75	109.10
1	A	5	U	P-O3'-C3'	12.21	134.34	119.70
1	A	56	U	C5'-C4'-C3'	-12.20	96.48	116.00
1	A	772	U	C2-N1-C1'	-12.20	103.06	117.70
1	A	945	G	N1-C6-O6	12.20	127.22	119.90
1	A	1257	A	N1-C6-N6	12.20	125.92	118.60
1	A	531	U	C6-N1-C1'	-12.19	104.13	121.20
1	A	98	A	C4-C5-C6	12.19	123.09	117.00
1	A	228	A	N1-C6-N6	12.18	125.91	118.60
1	A	914	A	C5-C6-N6	-12.18	113.95	123.70
1	A	1144	G	C5-C6-O6	-12.17	121.30	128.60
1	A	93	U	C6-N1-C1'	12.17	138.24	121.20
1	A	766	A	C5-C6-N6	-12.17	113.96	123.70
1	A	178	C	O4'-C1'-N1	12.17	117.93	108.20
1	A	1153	G	C4-N9-C1'	-12.16	110.69	126.50
1	A	568	G	C5-C6-O6	-12.16	121.30	128.60
1	A	430	A	N1-C6-N6	12.16	125.90	118.60
1	A	95	C	C6-N1-C2	-12.15	115.44	120.30
1	A	1255	G	C8-N9-C1'	12.15	142.80	127.00
1	A	1530	G	N1-C6-O6	12.15	127.19	119.90
1	A	1187	G	C1'-O4'-C4'	-12.15	100.18	109.90
1	A	671	G	C5-C6-O6	-12.14	121.31	128.60
1	A	447	G	N7-C8-N9	-12.14	107.03	113.10
1	A	1507	A	O4'-C1'-N9	12.14	117.91	108.20
1	A	270	A	C8-N9-C4	-12.13	100.95	105.80
1	A	1130	A	C5-C6-N6	-12.13	113.99	123.70
1	A	877	G	N3-C2-N2	12.13	128.39	119.90
1	A	425	G	O4'-C1'-N9	12.13	117.90	108.20
1	A	168	G	C5-C6-O6	-12.13	121.32	128.60
1	A	888	G	P-O3'-C3'	12.13	134.25	119.70
1	A	880	C	C5'-C4'-C3'	-12.12	96.61	116.00
1	A	943	U	C6-N1-C2	-12.12	113.73	121.00
1	A	1322	C	P-O3'-C3'	12.12	134.24	119.70
1	A	117	G	C5-C6-O6	-12.11	121.33	128.60
1	A	1370	G	C8-N9-C1'	12.11	142.75	127.00
1	A	1143	G	O4'-C1'-N9	12.11	117.89	108.20
1	A	949	A	N1-C6-N6	12.11	125.86	118.60
1	A	1273	C	O4'-C1'-N1	12.11	117.89	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1169	A	C5-C6-N6	-12.10	114.02	123.70
1	A	1455	G	N1-C6-O6	12.09	127.16	119.90
6	F	4	TYR	CB-CG-CD1	12.09	128.25	121.00
1	A	1473	G	C8-N9-C4	-12.08	101.57	106.40
1	A	460	A	N1-C6-N6	12.08	125.85	118.60
1	A	416	G	N7-C8-N9	12.08	119.14	113.10
1	A	1158	C	N1-C2-N3	12.07	127.65	119.20
1	A	318	G	C5-C6-O6	-12.07	121.36	128.60
1	A	641	U	O3'-P-O5'	-12.07	81.07	104.00
1	A	601	G	C5-C6-O6	-12.06	121.36	128.60
1	A	350	G	C8-N9-C4	-12.06	101.58	106.40
1	A	303	A	N1-C6-N6	12.06	125.83	118.60
1	A	75	G	P-O3'-C3'	-12.04	105.25	119.70
1	A	366	A	N1-C6-N6	12.05	125.83	118.60
1	A	547	A	P-O3'-C3'	12.04	134.15	119.70
1	A	1447	A	C5-C6-N6	-12.03	114.07	123.70
1	A	460	A	C8-N9-C4	-12.03	100.99	105.80
1	A	104	G	C5-C6-O6	-12.03	121.38	128.60
1	A	983	A	N1-C6-N6	12.03	125.82	118.60
1	A	1140	C	P-O5'-C5'	12.02	140.13	120.90
1	A	75	G	N1-C6-O6	12.02	127.11	119.90
1	A	309	A	C5-C6-N6	-12.02	114.09	123.70
1	A	992	U	C5-C4-O4	-12.01	118.69	125.90
1	A	816	A	C5'-C4'-C3'	-12.01	96.79	116.00
1	A	535	A	C8-N9-C4	-12.00	101.00	105.80
1	A	538	G	C5-C6-O6	-12.00	121.40	128.60
1	A	28	A	C8-N9-C4	-11.99	101.00	105.80
1	A	686	U	C5-C6-N1	-11.99	116.70	122.70
1	A	1258	G	C5'-C4'-C3'	-11.99	96.82	116.00
1	A	686	U	C5-C4-O4	11.98	133.09	125.90
1	A	556	C	N3-C4-C5	-11.98	117.11	121.90
1	A	1095	U	O4'-C1'-N1	11.98	117.78	108.20
1	A	497	G	C8-N9-C1'	11.98	142.57	127.00
1	A	216	U	C1'-O4'-C4'	-11.97	100.32	109.90
1	A	601	G	N1-C6-O6	11.97	127.08	119.90
1	A	297	G	C8-N9-C1'	11.97	142.56	127.00
1	A	435	A	C8-N9-C4	-11.96	101.02	105.80
1	A	241	G	N1-C6-O6	11.96	127.07	119.90
1	A	335	C	O4'-C1'-N1	11.96	117.76	108.20
1	A	467	U	C2-N1-C1'	11.96	132.05	117.70
1	A	515	G	C8-N9-C4	-11.95	101.62	106.40
1	A	164	G	C5'-C4'-C3'	-11.95	96.88	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1082	A	N1-C6-N6	11.95	125.77	118.60
1	A	1114	C	C3'-C2'-C1'	-11.94	91.95	101.50
1	A	321	A	C5'-C4'-C3'	11.94	135.10	116.00
1	A	470	C	N3-C4-N4	11.93	126.35	118.00
1	A	1305	G	N1-C6-O6	11.93	127.06	119.90
1	A	968	A	N1-C6-N6	11.93	125.76	118.60
1	A	1068	G	C5'-C4'-C3'	-11.93	96.91	116.00
1	A	207	C	C1'-O4'-C4'	11.93	119.44	109.90
1	A	1252	A	O4'-C1'-N9	11.93	117.74	108.20
1	A	689	C	O4'-C1'-N1	11.92	117.73	108.20
1	A	806	C	C2-N1-C1'	-11.92	105.69	118.80
1	A	336	A	C8-N9-C4	-11.92	101.03	105.80
1	A	378	G	N1-C6-O6	11.92	127.05	119.90
1	A	697	U	C5'-C4'-C3'	-11.92	96.93	116.00
1	A	452	A	C8-N9-C4	-11.91	101.03	105.80
1	A	719	C	P-O3'-C3'	-11.91	105.41	119.70
1	A	718	A	C5-C6-N6	-11.91	114.17	123.70
1	A	491	G	N1-C6-O6	11.91	127.04	119.90
1	A	1401	G	C5'-C4'-C3'	-11.91	96.95	116.00
1	A	1417	G	O4'-C4'-C3'	-11.90	92.09	104.00
1	A	53	A	N1-C6-N6	11.90	125.74	118.60
1	A	604	G	N1-C6-O6	11.90	127.04	119.90
1	A	627	G	N3-C2-N2	11.88	128.22	119.90
1	A	925	G	C4'-C3'-C2'	11.88	114.48	102.60
1	A	399	G	C5-C6-O6	-11.87	121.47	128.60
1	A	488	C	C5'-C4'-C3'	-11.87	97.00	116.00
1	A	806	C	C6-N1-C1'	11.87	135.05	120.80
1	A	413	G	C5-C6-O6	-11.87	121.48	128.60
1	A	1094	G	P-O5'-C5'	11.87	139.89	120.90
1	A	223	A	N1-C6-N6	11.87	125.72	118.60
1	A	1141	C	C6-N1-C2	-11.87	115.55	120.30
1	A	496	A	N1-C6-N6	11.86	125.72	118.60
1	A	1361	G	N1-C6-O6	11.86	127.02	119.90
1	A	1166	G	C8-N9-C1'	11.86	142.42	127.00
1	A	1502	A	C6-C5-N7	-11.86	124.00	132.30
1	A	1095	U	C5'-C4'-C3'	-11.85	97.03	116.00
1	A	557	G	C5-C6-O6	-11.85	121.49	128.60
1	A	668	G	C8-N9-C1'	11.85	142.40	127.00
1	A	46	G	C5-C6-O6	-11.85	121.49	128.60
1	A	1195	C	C5-C4-N4	-11.84	111.91	120.20
1	A	1403	C	C3'-C2'-C1'	-11.84	92.03	101.50
1	A	86	G	O4'-C1'-N9	11.84	117.67	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	635	A	P-O3'-C3'	-11.84	105.50	119.70
1	A	668	G	N1-C6-O6	11.83	127.00	119.90
1	A	1057	G	N7-C8-N9	11.83	119.02	113.10
1	A	1378	C	N3-C4-N4	11.83	126.28	118.00
1	A	369	G	C5-C6-O6	-11.82	121.51	128.60
1	A	649	A	C5-C6-N6	-11.82	114.24	123.70
1	A	1274	A	C3'-C2'-C1'	-11.82	92.04	101.50
1	A	681	A	P-O5'-C5'	-11.81	102.01	120.90
1	A	1407	C	C5-C4-N4	-11.81	111.94	120.20
1	A	1480	A	C5-C6-N6	-11.81	114.25	123.70
1	A	72	A	O3'-P-O5'	-11.80	81.57	104.00
1	A	498	A	N1-C6-N6	11.80	125.68	118.60
1	A	164	G	P-O5'-C5'	-11.80	102.02	120.90
1	A	252	U	C5'-C4'-C3'	-11.80	97.13	116.00
1	A	797	C	O4'-C1'-N1	11.80	117.64	108.20
1	A	838	G	N1-C6-O6	11.79	126.97	119.90
1	A	426	U	C6-N1-C1'	11.78	137.69	121.20
1	A	730	G	O4'-C1'-N9	11.78	117.62	108.20
1	A	1288	A	N7-C8-N9	11.78	119.69	113.80
1	A	1369	C	C2-N1-C1'	-11.78	105.84	118.80
1	A	729	A	O4'-C1'-N9	11.78	117.62	108.20
1	A	344	A	N1-C6-N6	11.78	125.67	118.60
1	A	1186	G	C8-N9-C4	-11.78	101.69	106.40
1	A	1113	C	C5'-C4'-C3'	-11.77	97.17	116.00
1	A	70	U	O3'-P-O5'	-11.77	81.64	104.00
1	A	95	C	C5'-C4'-C3'	-11.77	97.17	116.00
1	A	298	A	N1-C6-N6	11.76	125.66	118.60
1	A	1170	A	N7-C8-N9	11.76	119.68	113.80
1	A	626	G	O4'-C1'-N9	11.76	117.61	108.20
1	A	1197	A	P-O5'-C5'	11.76	139.72	120.90
1	A	160	A	N1-C6-N6	11.76	125.66	118.60
1	A	1055	A	C5-C6-N6	-11.76	114.29	123.70
1	A	902	G	N1-C6-O6	11.76	126.95	119.90
1	A	297	G	C4-N9-C1'	-11.75	111.22	126.50
1	A	380	G	C4-N9-C1'	-11.75	111.23	126.50
1	A	1032	G	O5'-P-OP2	-11.75	95.13	105.70
1	A	622	A	N1-C6-N6	11.74	125.64	118.60
1	A	1427	C	C6-N1-C2	-11.74	115.60	120.30
1	A	1122	U	P-O3'-C3'	11.73	133.78	119.70
1	A	99	C	O3'-P-O5'	-11.73	81.71	104.00
1	A	100	G	C8-N9-C4	-11.73	101.71	106.40
1	A	413	G	N1-C6-O6	11.73	126.94	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	132	C	C2-N1-C1'	-11.72	105.90	118.80
1	A	921	U	O4'-C1'-N1	11.72	117.58	108.20
1	A	1226	C	C6-N1-C2	-11.72	115.61	120.30
1	A	90	C	O4'-C1'-N1	11.72	117.57	108.20
1	A	382	A	C5-C6-N6	-11.72	114.33	123.70
1	A	903	G	C4-C5-C6	11.72	125.83	118.80
1	A	1064	G	C4-N9-C1'	-11.72	111.27	126.50
1	A	404	G	N3-C4-C5	-11.71	122.74	128.60
1	A	90	C	O5'-C5'-C4'	-11.71	89.46	111.70
1	A	430	A	C8-N9-C4	-11.71	101.12	105.80
1	A	529	G	C5-C6-O6	-11.70	121.58	128.60
1	A	755	G	C5'-C4'-C3'	-11.69	97.29	116.00
1	A	239	U	C2-N1-C1'	-11.69	103.67	117.70
1	A	247	G	N1-C6-O6	11.69	126.92	119.90
1	A	283	U	C5'-C4'-C3'	-11.69	97.29	116.00
1	A	573	A	N1-C6-N6	11.69	125.61	118.60
1	A	815	A	N1-C6-N6	11.69	125.61	118.60
1	A	6	G	N1-C6-O6	11.69	126.91	119.90
1	A	203	G	O4'-C1'-N9	11.69	117.55	108.20
1	A	514	C	C6-N1-C2	-11.68	115.63	120.30
1	A	694	A	N1-C6-N6	11.68	125.61	118.60
1	A	903	G	N3-C4-N9	11.68	133.01	126.00
1	A	1221	G	N3-C2-N2	11.68	128.08	119.90
1	A	1467	C	O4'-C1'-N1	11.68	117.55	108.20
1	A	869	G	C8-N9-C4	-11.68	101.73	106.40
1	A	1395	C	C6-N1-C2	-11.68	115.63	120.30
1	A	1365	G	O4'-C1'-N9	11.68	117.54	108.20
1	A	1331	G	O4'-C1'-N9	11.67	117.54	108.20
1	A	409	U	C2-N1-C1'	-11.67	103.69	117.70
1	A	768	A	N1-C6-N6	11.67	125.60	118.60
1	A	1382	C	C2-N1-C1'	11.66	131.63	118.80
1	A	765	G	N1-C6-O6	11.66	126.90	119.90
1	A	115	G	C4-N9-C1'	-11.66	111.35	126.50
17	Q	70	LYS	N-CA-C	-11.65	79.53	111.00
1	A	231	U	N1-C2-N3	11.64	121.88	114.90
1	A	586	C	O4'-C1'-N1	11.64	117.51	108.20
1	A	1474	U	P-O5'-C5'	11.64	139.52	120.90
1	A	942	G	N1-C6-O6	11.63	126.88	119.90
1	A	1129	C	C5-C4-N4	11.63	128.34	120.20
1	A	1064	G	C8-N9-C1'	11.63	142.12	127.00
1	A	582	C	C6-N1-C2	-11.63	115.65	120.30
1	A	1042	A	C8-N9-C4	-11.62	101.15	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1057	G	C6-C5-N7	-11.62	123.43	130.40
1	A	1278	G	N1-C6-O6	11.61	126.86	119.90
1	A	839	C	C5-C6-N1	11.61	126.80	121.00
1	A	472	U	C2-N1-C1'	-11.60	103.78	117.70
1	A	861	G	N3-C2-N2	11.60	128.02	119.90
1	A	1213	A	N1-C6-N6	11.60	125.56	118.60
1	A	1441	A	C5-C6-N1	-11.59	111.91	117.70
1	A	289	G	N1-C6-O6	11.59	126.85	119.90
1	A	1032	G	N1-C2-N2	-11.58	105.78	116.20
1	A	728	A	N1-C6-N6	11.58	125.55	118.60
1	A	99	C	O4'-C1'-N1	11.57	117.46	108.20
1	A	2	A	C5-C6-N6	-11.57	114.44	123.70
1	A	456	A	C3'-C2'-C1'	-11.57	92.24	101.50
1	A	773	G	C8-N9-C4	-11.57	101.77	106.40
1	A	532	A	N1-C6-N6	11.56	125.54	118.60
1	A	1479	C	C5-C6-N1	11.56	126.78	121.00
1	A	859	G	N1-C6-O6	11.56	126.83	119.90
1	A	683	G	P-O5'-C5'	11.56	139.39	120.90
1	A	1046	A	N9-C1'-C2'	-11.56	98.97	114.00
1	A	1067	A	C5-C6-N6	-11.55	114.46	123.70
1	A	1514	G	O3'-P-O5'	11.55	125.95	104.00
1	A	299	G	N1-C6-O6	11.55	126.83	119.90
1	A	196	A	C5-C6-N1	-11.55	111.93	117.70
1	A	231	U	C2-N3-C4	-11.54	120.08	127.00
1	A	999	C	N3-C4-N4	11.54	126.08	118.00
1	A	1068	G	P-O3'-C3'	-11.54	105.86	119.70
1	A	359	G	C5'-C4'-C3'	-11.54	97.54	116.00
1	A	1252	A	C5-C6-N6	-11.53	114.47	123.70
1	A	773	G	N1-C6-O6	11.53	126.82	119.90
1	A	997	U	C6-N1-C1'	11.53	137.34	121.20
1	A	1443	C	C5'-C4'-O4'	11.53	122.94	109.10
1	A	104	G	N1-C6-O6	11.53	126.82	119.90
1	A	1182	G	C4-C5-N7	-11.52	106.19	110.80
1	A	909	A	C5-C6-N6	-11.52	114.48	123.70
1	A	1311	A	C5-C6-N6	-11.52	114.48	123.70
1	A	813	U	P-O3'-C3'	-11.52	105.88	119.70
1	A	937	A	O4'-C1'-N9	11.52	117.42	108.20
1	A	1278	G	C5-C6-O6	-11.52	121.69	128.60
1	A	1088	G	P-O5'-C5'	11.52	139.32	120.90
1	A	1129	C	C6-N1-C2	-11.52	115.69	120.30
1	A	1216	A	N1-C6-N6	11.51	125.51	118.60
1	A	350	G	N3-C2-N2	-11.51	111.84	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	453	G	C5-C6-O6	-11.50	121.70	128.60
1	A	1003	G	P-O3'-C3'	11.50	133.50	119.70
1	A	737	C	O4'-C1'-N1	11.50	117.40	108.20
1	A	908	A	C4-C5-C6	11.49	122.75	117.00
1	A	1063	C	N3-C4-N4	11.49	126.05	118.00
1	A	1131	G	N1-C6-O6	11.49	126.79	119.90
1	A	314	C	O4'-C1'-N1	11.48	117.39	108.20
1	A	942	G	C8-N9-C4	-11.48	101.81	106.40
1	A	1003	G	C5'-C4'-C3'	-11.48	97.64	116.00
1	A	977	A	N1-C6-N6	11.47	125.48	118.60
1	A	95	C	O4'-C1'-N1	11.47	117.38	108.20
1	A	651	C	C6-N1-C2	-11.47	115.71	120.30
1	A	921	U	P-O5'-C5'	11.47	139.26	120.90
1	A	923	A	C4-C5-C6	11.47	122.73	117.00
1	A	1242	G	C8-N9-C4	-11.46	101.81	106.40
1	A	584	G	C5'-C4'-C3'	-11.46	97.67	116.00
1	A	30	U	P-O3'-C3'	11.46	133.45	119.70
1	A	115	G	C8-N9-C1'	11.45	141.89	127.00
1	A	809	G	C8-N9-C1'	11.45	141.88	127.00
1	A	403	C	C5-C4-N4	-11.45	112.19	120.20
1	A	791	G	C5-C6-O6	-11.44	121.73	128.60
1	A	279	A	C5-C6-N6	-11.44	114.55	123.70
1	A	914	A	O4'-C1'-N9	11.44	117.35	108.20
1	A	996	A	C3'-C2'-C1'	-11.44	92.35	101.50
1	A	862	C	O4'-C1'-N1	11.44	117.35	108.20
1	A	1035	A	O4'-C1'-N9	11.43	117.35	108.20
1	A	273	U	C6-N1-C2	-11.43	114.14	121.00
1	A	241	G	C5-C6-O6	-11.43	121.74	128.60
1	A	1514	G	C5-C6-O6	-11.43	121.74	128.60
1	A	813	U	O4'-C1'-N1	11.43	117.34	108.20
1	A	1182	G	C8-N9-C1'	11.42	141.84	127.00
1	A	198	G	O4'-C1'-N9	11.41	117.33	108.20
1	A	572	A	N1-C6-N6	11.41	125.45	118.60
1	A	1024	G	O4'-C1'-N9	11.41	117.33	108.20
1	A	1191	A	C5-C6-N1	-11.41	111.99	117.70
1	A	101	A	C4-C5-C6	11.41	122.70	117.00
1	A	1481	U	P-O5'-C5'	11.41	139.15	120.90
1	A	1153	G	O4'-C1'-N9	11.40	117.32	108.20
1	A	198	G	C8-N9-C1'	11.39	141.81	127.00
1	A	398	U	C6-N1-C2	-11.39	114.16	121.00
1	A	190	A	P-O5'-C5'	11.39	139.12	120.90
1	A	1265	C	O4'-C1'-N1	11.39	117.31	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	533	A	C5'-C4'-O4'	11.38	122.76	109.10
1	A	1144	G	C8-N9-C1'	11.38	141.79	127.00
1	A	246	A	C5-C6-N6	-11.38	114.60	123.70
1	A	901	A	C4-C5-C6	11.37	122.69	117.00
1	A	1292	G	C4-N9-C1'	-11.37	111.72	126.50
1	A	780	A	C5-C6-N1	-11.37	112.02	117.70
1	A	1442	G	N1-C6-O6	11.37	126.72	119.90
1	A	904	U	P-O5'-C5'	11.37	139.08	120.90
1	A	1377	A	C5-C6-N6	-11.37	114.61	123.70
1	A	1447	A	O4'-C1'-N9	11.36	117.29	108.20
1	A	1003	G	C8-N9-C4	-11.36	101.86	106.40
1	A	1360	A	N1-C6-N6	11.36	125.41	118.60
1	A	1421	G	C3'-C2'-C1'	-11.36	92.42	101.50
1	A	1108	G	N1-C6-O6	11.36	126.71	119.90
1	A	1432	G	C4'-C3'-C2'	11.35	113.95	102.60
1	A	1496	C	P-O3'-C3'	11.35	133.32	119.70
1	A	745	G	P-O5'-C5'	11.35	139.06	120.90
1	A	65	A	N1-C6-N6	11.35	125.41	118.60
1	A	187	G	P-O5'-C5'	11.35	139.06	120.90
1	A	195	A	N1-C6-N6	11.35	125.41	118.60
1	A	522	C	O4'-C1'-N1	11.34	117.27	108.20
1	A	1238	A	N1-C6-N6	11.34	125.41	118.60
1	A	1119	C	C6-N1-C2	-11.34	115.77	120.30
1	A	1428	A	P-O5'-C5'	11.33	139.03	120.90
1	A	634	C	N3-C4-N4	11.33	125.93	118.00
1	A	1432	G	C4-N9-C1'	-11.33	111.77	126.50
1	A	82	G	N3-C2-N2	-11.33	111.97	119.90
1	A	491	G	C5-C6-O6	-11.33	121.80	128.60
1	A	391	G	C5'-C4'-C3'	11.32	134.11	116.00
1	A	141	G	C6-C5-N7	-11.31	123.61	130.40
1	A	415	A	C5'-C4'-C3'	-11.31	97.90	116.00
1	A	380	G	O4'-C1'-N9	11.30	117.24	108.20
1	A	845	A	N1-C6-N6	11.30	125.38	118.60
1	A	467	U	O4'-C1'-N1	11.30	117.24	108.20
1	A	680	C	C2-N1-C1'	-11.30	106.37	118.80
1	A	1319	A	P-O3'-C3'	11.30	133.26	119.70
1	A	202	G	C4-N9-C1'	-11.30	111.81	126.50
1	A	330	C	C6-N1-C2	-11.30	115.78	120.30
1	A	1187	G	C5'-C4'-C3'	-11.30	97.93	116.00
1	A	165	G	C4-N9-C1'	-11.29	111.82	126.50
1	A	1143	G	C8-N9-C1'	11.29	141.68	127.00
1	A	471	U	N1-C2-N3	11.29	121.67	114.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1173	U	P-O3'-C3'	-11.29	106.16	119.70
1	A	60	A	P-O3'-C3'	11.28	133.24	119.70
1	A	788	U	N1-C2-N3	-11.28	108.13	114.90
1	A	491	G	C5'-C4'-C3'	-11.28	97.95	116.00
1	A	1224	U	O4'-C1'-N1	11.28	117.22	108.20
1	A	723	U	O4'-C1'-N1	11.27	117.22	108.20
1	A	1449	C	O4'-C1'-N1	11.27	117.21	108.20
1	A	1469	C	O4'-C1'-N1	11.27	117.21	108.20
1	A	94	G	O5'-C5'-C4'	-11.27	90.30	111.70
1	A	302	G	C8-N9-C1'	11.26	141.64	127.00
1	A	1396	A	N1-C6-N6	11.26	125.36	118.60
1	A	434	U	C3'-C2'-C1'	-11.26	92.50	101.50
1	A	647	C	C3'-C2'-C1'	-11.26	92.50	101.50
1	A	500	G	O4'-C1'-N9	11.25	117.20	108.20
1	A	1319	A	C8-N9-C4	-11.25	101.30	105.80
1	A	25	C	P-O3'-C3'	-11.24	106.21	119.70
1	A	633	G	C6-N1-C2	-11.24	118.36	125.10
1	A	984	C	O4'-C1'-N1	11.24	117.19	108.20
1	A	1077	G	C4-N9-C1'	-11.24	111.88	126.50
1	A	765	G	C4-N9-C1'	-11.24	111.89	126.50
1	A	879	C	O4'-C1'-N1	11.24	117.19	108.20
1	A	353	A	N1-C6-N6	11.23	125.34	118.60
1	A	523	A	N1-C6-N6	11.23	125.34	118.60
1	A	1153	G	C5-C6-O6	-11.23	121.86	128.60
1	A	54	C	C6-N1-C2	-11.23	115.81	120.30
1	A	1405	G	O4'-C1'-N9	11.23	117.18	108.20
1	A	94	G	O4'-C1'-N9	-11.22	99.22	108.20
1	A	1144	G	O4'-C1'-N9	11.22	117.18	108.20
1	A	1467	C	N3-C4-N4	11.22	125.86	118.00
1	A	713	G	C5-C6-O6	-11.22	121.87	128.60
1	A	892	A	N1-C6-N6	11.22	125.33	118.60
1	A	377	G	C8-N9-C1'	11.21	141.58	127.00
1	A	1045	C	O4'-C1'-N1	11.22	117.17	108.20
1	A	721	G	O4'-C1'-N9	11.21	117.17	108.20
1	A	340	U	C6-N1-C2	-11.21	114.27	121.00
1	A	144	G	N9-C4-C5	-11.21	100.92	105.40
1	A	655	A	P-O5'-C5'	11.21	138.83	120.90
1	A	966	G	O4'-C1'-N9	11.21	117.17	108.20
1	A	441	A	P-O5'-C5'	-11.20	102.98	120.90
1	A	506	G	C5-C6-O6	-11.20	121.88	128.60
1	A	1185	G	O4'-C1'-N9	11.20	117.16	108.20
1	A	1153	G	N1-C6-O6	11.19	126.62	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	327	A	P-O3'-C3'	11.19	133.13	119.70
1	A	143	A	N1-C6-N6	11.19	125.31	118.60
1	A	456	A	C8-N9-C4	-11.18	101.33	105.80
1	A	583	A	N1-C6-N6	11.18	125.31	118.60
1	A	752	G	C4-N9-C1'	-11.18	111.97	126.50
1	A	866	C	C5-C4-N4	-11.18	112.38	120.20
1	A	1443	C	C5'-C4'-C3'	-11.18	98.12	116.00
1	A	919	A	N1-C6-N6	11.17	125.30	118.60
1	A	152	A	C2-N3-C4	11.17	116.19	110.60
1	A	81	A	N1-C6-N6	11.17	125.30	118.60
1	A	1120	C	O4'-C1'-N1	11.17	117.13	108.20
1	A	213	G	C5-C6-O6	-11.16	121.90	128.60
1	A	585	G	C8-N9-C1'	11.16	141.51	127.00
1	A	1163	A	N1-C6-N6	11.16	125.30	118.60
1	A	679	C	C5'-C4'-C3'	-11.16	98.15	116.00
1	A	77	A	C5'-C4'-O4'	11.16	122.49	109.10
1	A	775	G	P-O5'-C5'	11.15	138.75	120.90
1	A	1481	U	C5'-C4'-C3'	-11.15	98.16	116.00
1	A	1124	G	C4-N9-C1'	-11.14	112.02	126.50
1	A	1270	G	C5'-C4'-O4'	11.14	122.47	109.10
1	A	668	G	C4-N9-C1'	-11.13	112.03	126.50
1	A	68	G	N7-C8-N9	11.13	118.67	113.10
1	A	840	C	N3-C4-N4	11.13	125.79	118.00
1	A	93	U	C2-N1-C1'	-11.13	104.34	117.70
1	A	671	G	N1-C6-O6	11.13	126.58	119.90
1	A	1513	A	N1-C6-N6	11.13	125.28	118.60
1	A	1041	G	P-O5'-C5'	11.12	138.70	120.90
1	A	1431	A	N1-C6-N6	11.12	125.28	118.60
1	A	1468	A	C8-N9-C4	-11.12	101.35	105.80
1	A	68	G	N3-C2-N2	11.11	127.68	119.90
1	A	83	C	C2-N1-C1'	-11.11	106.58	118.80
1	A	118	U	C5-C4-O4	-11.11	119.23	125.90
1	A	638	U	O3'-P-O5'	-11.11	82.89	104.00
1	A	711	G	N1-C6-O6	11.11	126.57	119.90
1	A	959	A	C5-C6-N6	-11.11	114.81	123.70
1	A	297	G	O4'-C1'-N9	11.11	117.09	108.20
1	A	1068	G	C5-C6-O6	-11.11	121.94	128.60
1	A	1171	A	O4'-C1'-N9	11.11	117.08	108.20
1	A	1219	A	C8-N9-C4	-11.11	101.36	105.80
1	A	157	U	C2-N1-C1'	-11.10	104.38	117.70
1	A	428	G	C8-N9-C1'	11.10	141.43	127.00
1	A	192	A	C8-N9-C4	-11.10	101.36	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	779	C	P-O3'-C3'	11.10	133.02	119.70
1	A	880	C	P-O3'-C3'	-11.10	106.38	119.70
1	A	896	C	O4'-C1'-N1	11.10	117.08	108.20
1	A	586	C	C6-N1-C1'	11.09	134.11	120.80
1	A	748	G	C5-C6-O6	-11.09	121.95	128.60
1	A	1441	A	N7-C8-N9	11.09	119.35	113.80
1	A	1058	G	N7-C8-N9	11.09	118.64	113.10
1	A	1382	C	C6-N1-C2	-11.08	115.87	120.30
1	A	749	A	O4'-C1'-N9	11.08	117.06	108.20
1	A	643	C	C5'-C4'-O4'	11.08	122.39	109.10
1	A	350	G	N9-C4-C5	11.07	109.83	105.40
1	A	637	C	C2-N1-C1'	11.07	130.98	118.80
1	A	476	U	C3'-C2'-C1'	-11.07	92.64	101.50
1	A	362	G	N1-C6-O6	11.07	126.54	119.90
1	A	634	C	C5-C6-N1	11.07	126.53	121.00
1	A	484	G	O5'-P-OP1	-11.06	95.74	105.70
1	A	1099	G	C3'-C2'-C1'	-11.06	92.65	101.50
1	A	426	U	C2-N1-C1'	-11.05	104.44	117.70
1	A	635	A	O4'-C1'-N9	11.05	117.04	108.20
1	A	1359	C	P-O5'-C5'	-11.04	103.23	120.90
1	A	472	U	C6-N1-C2	-11.04	114.38	121.00
1	A	1275	A	C6-C5-N7	-11.04	124.57	132.30
1	A	631	C	N3-C4-C5	-11.04	117.49	121.90
1	A	448	A	P-O3'-C3'	11.03	132.93	119.70
1	A	783	C	N3-C4-N4	11.03	125.72	118.00
1	A	194	C	O4'-C1'-N1	11.02	117.02	108.20
1	A	755	G	P-O3'-C3'	-11.02	106.48	119.70
1	A	695	A	N1-C6-N6	11.01	125.21	118.60
1	A	1174	G	C6-C5-N7	-11.01	123.79	130.40
1	A	1275	A	C5-C6-N1	-11.01	112.19	117.70
1	A	76	G	O4'-C1'-N9	-11.01	99.39	108.20
1	A	940	C	O4'-C1'-N1	11.01	117.00	108.20
1	A	1298	U	N3-C4-O4	11.01	127.10	119.40
1	A	9	G	O4'-C1'-N9	11.00	117.00	108.20
1	A	703	G	C4-N9-C1'	-11.00	112.19	126.50
1	A	825	A	C5-C6-N6	-11.00	114.90	123.70
1	A	1143	G	C4-N9-C1'	-11.00	112.20	126.50
1	A	211	G	P-O3'-C3'	11.00	132.90	119.70
1	A	347	G	C5'-C4'-C3'	-11.00	98.40	116.00
1	A	71	A	C8-N9-C4	-11.00	101.40	105.80
1	A	1177	G	N1-C6-O6	11.00	126.50	119.90
1	A	1446	A	N1-C6-N6	11.00	125.20	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	287	U	C5'-C4'-C3'	-10.99	98.41	116.00
1	A	267	C	P-O3'-C3'	10.99	132.89	119.70
1	A	275	G	C5-C6-O6	-10.99	122.01	128.60
1	A	848	C	O4'-C1'-N1	10.99	116.99	108.20
1	A	1361	G	C5-C6-O6	-10.99	122.01	128.60
1	A	131	A	C6-N1-C2	-10.99	112.01	118.60
1	A	627	G	C8-N9-C4	-10.99	102.00	106.40
1	A	665	A	N1-C6-N6	10.99	125.19	118.60
1	A	706	A	N1-C6-N6	10.99	125.19	118.60
1	A	1152	A	O4'-C1'-N9	10.99	116.99	108.20
1	A	752	G	N1-C6-O6	10.98	126.49	119.90
1	A	865	A	N1-C6-N6	10.98	125.19	118.60
1	A	1131	G	C3'-C2'-C1'	-10.98	92.71	101.50
1	A	958	A	N1-C6-N6	10.98	125.19	118.60
1	A	1310	G	N1-C6-O6	10.98	126.49	119.90
1	A	1371	G	C5-C6-O6	-10.97	122.02	128.60
1	A	985	C	C6-N1-C2	-10.97	115.91	120.30
1	A	1375	A	C8-N9-C4	-10.97	101.41	105.80
1	A	1401	G	N1-C6-O6	10.97	126.48	119.90
1	A	1522	U	O4'-C1'-N1	10.97	116.97	108.20
1	A	1405	G	C8-N9-C1'	10.96	141.25	127.00
1	A	122	G	N7-C8-N9	10.96	118.58	113.10
1	A	969	A	N1-C6-N6	10.96	125.18	118.60
1	A	1398	A	N1-C6-N6	10.96	125.18	118.60
1	A	556	C	C5-C6-N1	10.96	126.48	121.00
1	A	629	A	N1-C6-N6	10.96	125.17	118.60
1	A	1152	A	C8-N9-C4	-10.95	101.42	105.80
1	A	570	G	N1-C6-O6	10.95	126.47	119.90
1	A	788	U	C4-C5-C6	-10.95	113.13	119.70
1	A	851	G	N1-C6-O6	10.94	126.47	119.90
1	A	417	G	C5'-C4'-C3'	-10.94	98.50	116.00
1	A	1086	U	C5'-C4'-C3'	-10.94	98.50	116.00
1	A	1324	A	N1-C6-N6	10.94	125.16	118.60
1	A	391	G	C8-N9-C1'	10.94	141.22	127.00
1	A	468	A	O4'-C1'-N9	10.93	116.95	108.20
1	A	760	G	C8-N9-C4	-10.93	102.03	106.40
1	A	786	G	C5-C6-O6	-10.93	122.04	128.60
1	A	980	C	C6-N1-C2	-10.93	115.93	120.30
1	A	254	G	N7-C8-N9	10.93	118.57	113.10
1	A	766	A	C3'-C2'-C1'	-10.93	92.76	101.50
1	A	1455	G	C5-C6-O6	-10.93	122.05	128.60
1	A	1440	U	C3'-C2'-C1'	-10.92	92.76	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	271	C	N3-C4-N4	10.92	125.64	118.00
1	A	369	G	N1-C6-O6	10.92	126.45	119.90
1	A	1510	C	C6-N1-C2	-10.91	115.94	120.30
1	A	859	G	C5-C6-O6	-10.91	122.05	128.60
1	A	1259	C	C6-N1-C2	-10.91	115.94	120.30
1	A	1020	G	C5'-C4'-C3'	-10.91	98.55	116.00
1	A	456	A	C1'-O4'-C4'	-10.91	101.17	109.90
1	A	1469	C	N3-C4-N4	10.91	125.63	118.00
1	A	581	G	O4'-C1'-N9	10.90	116.92	108.20
1	A	568	G	O3'-P-O5'	10.90	124.72	104.00
1	A	861	G	N1-C6-O6	10.90	126.44	119.90
1	A	1204	A	N1-C6-N6	10.90	125.14	118.60
1	A	171	A	C5-C6-N6	-10.90	114.98	123.70
1	A	271	C	C5-C6-N1	10.90	126.45	121.00
1	A	475	C	C5-C6-N1	10.90	126.45	121.00
1	A	903	G	N3-C2-N2	10.89	127.52	119.90
1	A	995	C	N3-C4-C5	-10.89	117.54	121.90
1	A	1371	G	N1-C6-O6	10.89	126.43	119.90
1	A	1460	C	N3-C4-N4	10.89	125.62	118.00
1	A	1469	C	C5-C6-N1	10.89	126.44	121.00
1	A	450	G	C6-N1-C2	-10.88	118.57	125.10
1	A	1483	A	O4'-C1'-N9	10.89	116.91	108.20
1	A	1030	U	O4'-C1'-N1	10.88	116.90	108.20
1	A	1176	A	N7-C8-N9	10.88	119.24	113.80
1	A	140	U	C2-N1-C1'	-10.88	104.65	117.70
1	A	180	U	P-O3'-C3'	10.87	132.75	119.70
1	A	1160	G	C8-N9-C4	-10.87	102.05	106.40
1	A	533	A	C5'-C4'-C3'	-10.87	98.61	116.00
1	A	54	C	P-O3'-C3'	-10.87	106.66	119.70
1	A	311	C	O4'-C1'-N1	10.87	116.90	108.20
1	A	760	G	C5'-C4'-C3'	-10.87	98.61	116.00
1	A	897	C	C5-C6-N1	10.86	126.43	121.00
1	A	1117	A	N1-C6-N6	10.86	125.12	118.60
1	A	1280	A	N9-C4-C5	10.86	110.14	105.80
1	A	939	G	C2-N3-C4	10.86	117.33	111.90
1	A	1485	U	O4'-C1'-N1	10.86	116.89	108.20
1	A	861	G	C5'-C4'-C3'	-10.86	98.63	116.00
1	A	153	C	P-O5'-C5'	10.85	138.26	120.90
1	A	142	G	C1'-O4'-C4'	-10.85	101.22	109.90
1	A	643	C	C5'-C4'-C3'	-10.85	98.64	116.00
1	A	906	A	C4-N9-C1'	-10.85	106.78	126.30
1	A	1529	G	N1-C6-O6	10.85	126.41	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	566	G	P-O3'-C3'	10.84	132.71	119.70
1	A	54	C	C5'-C4'-C3'	-10.83	98.67	116.00
1	A	385	C	O4'-C1'-N1	10.83	116.86	108.20
1	A	647	C	C6-N1-C1'	10.83	133.80	120.80
1	A	476	U	C6-N1-C2	-10.83	114.50	121.00
1	A	702	A	O4'-C1'-N9	10.83	116.86	108.20
1	A	773	G	C5-C6-O6	-10.83	122.10	128.60
1	A	460	A	C6-N1-C2	-10.82	112.11	118.60
1	A	1534	A	N1-C6-N6	10.82	125.09	118.60
1	A	866	C	C5'-C4'-C3'	-10.82	98.68	116.00
1	A	980	C	O4'-C1'-N1	10.82	116.86	108.20
1	A	997	U	O4'-C1'-N1	10.82	116.86	108.20
1	A	1442	G	C5-C6-O6	-10.82	122.11	128.60
1	A	1152	A	N1-C6-N6	10.82	125.09	118.60
1	A	1274	A	C5-C6-N6	-10.81	115.05	123.70
1	A	1161	C	N3-C4-C5	-10.81	117.58	121.90
1	A	146	G	C5'-C4'-C3'	-10.81	98.71	116.00
1	A	993	G	P-O3'-C3'	10.81	132.67	119.70
1	A	1529	G	C5-C6-O6	-10.81	122.11	128.60
1	A	843	U	P-O3'-C3'	-10.80	106.73	119.70
1	A	1127	G	N3-C2-N2	10.80	127.46	119.90
1	A	1195	C	C5-C6-N1	10.80	126.40	121.00
1	A	1287	A	C5-C6-N1	-10.80	112.30	117.70
1	A	1143	G	N1-C6-O6	10.80	126.38	119.90
1	A	1479	C	N3-C4-C5	-10.80	117.58	121.90
1	A	75	G	O4'-C1'-N9	10.79	116.83	108.20
1	A	656	G	C8-N9-C1'	10.79	141.03	127.00
1	A	656	G	C8-N9-C4	-10.79	102.08	106.40
1	A	1313	U	O4'-C1'-N1	10.79	116.83	108.20
1	A	630	A	N1-C6-N6	10.79	125.07	118.60
1	A	889	A	N1-C6-N6	10.79	125.07	118.60
1	A	1135	U	O4'-C1'-N1	10.78	116.83	108.20
1	A	253	A	N1-C6-N6	10.78	125.07	118.60
1	A	109	A	P-O3'-C3'	10.78	132.63	119.70
1	A	1008	U	C3'-C2'-C1'	-10.78	92.88	101.50
1	A	423	G	N1-C6-O6	-10.77	113.44	119.90
1	A	88	U	N3-C2-O2	-10.76	114.67	122.20
1	A	1255	G	C4-N9-C1'	-10.76	112.51	126.50
1	A	419	C	O4'-C1'-N1	10.76	116.81	108.20
1	A	903	G	C6-C5-N7	-10.76	123.94	130.40
1	A	1120	C	C5'-C4'-C3'	-10.76	98.78	116.00
1	A	1401	G	C8-N9-C4	-10.76	102.10	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	283	U	C6-N1-C2	-10.75	114.55	121.00
1	A	1387	G	P-O3'-C3'	10.75	132.60	119.70
1	A	1168	U	O4'-C1'-N1	10.75	116.80	108.20
1	A	1192	C	P-O5'-C5'	10.75	138.10	120.90
1	A	1203	C	C5'-C4'-C3'	-10.75	98.80	116.00
1	A	69	G	C5-C6-O6	-10.75	122.15	128.60
1	A	124	C	C6-N1-C1'	10.75	133.70	120.80
1	A	457	G	C3'-C2'-C1'	-10.75	92.90	101.50
1	A	1397	C	P-O3'-C3'	-10.74	106.81	119.70
1	A	1170	A	C8-N9-C4	-10.74	101.50	105.80
1	A	154	U	C3'-C2'-C1'	-10.74	92.91	101.50
1	A	1136	C	N3-C4-C5	-10.74	117.61	121.90
1	A	888	G	C4-N9-C1'	-10.74	112.54	126.50
1	A	1455	G	P-O5'-C5'	10.73	138.07	120.90
1	A	1508	A	N1-C6-N6	10.73	125.04	118.60
1	A	1330	U	O4'-C1'-N1	10.73	116.79	108.20
1	A	1406	U	O4'-C1'-N1	10.73	116.79	108.20
1	A	1501	C	P-O5'-C5'	-10.73	103.72	120.90
1	A	132	C	P-O5'-C5'	10.73	138.07	120.90
1	A	429	U	P-O3'-C3'	10.73	132.58	119.70
1	A	435	A	N1-C6-N6	10.73	125.04	118.60
1	A	676	A	N1-C6-N6	10.73	125.04	118.60
1	A	417	G	N1-C6-O6	10.73	126.34	119.90
1	A	1521	C	O4'-C1'-N1	10.73	116.78	108.20
1	A	277	C	O4'-C1'-N1	10.72	116.78	108.20
1	A	499	A	P-O3'-C3'	10.72	132.57	119.70
1	A	196	A	N7-C8-N9	10.72	119.16	113.80
1	A	388	G	C6-C5-N7	-10.72	123.97	130.40
1	A	45	G	C4-N9-C1'	-10.72	112.56	126.50
1	A	1139	G	N3-C2-N2	10.72	127.41	119.90
1	A	346	G	C5'-C4'-C3'	-10.71	98.86	116.00
1	A	1044	A	C5'-C4'-C3'	-10.71	98.86	116.00
1	A	190	A	C8-N9-C4	-10.71	101.52	105.80
1	A	737	C	C5'-C4'-C3'	-10.71	98.87	116.00
1	A	931	C	O4'-C1'-N1	10.71	116.77	108.20
1	A	515	G	O5'-P-OP2	-10.70	96.07	105.70
1	A	206	C	C2-N1-C1'	10.70	130.57	118.80
1	A	252	U	O3'-P-O5'	-10.68	83.71	104.00
1	A	306	A	N1-C6-N6	10.68	125.01	118.60
1	A	1387	G	C5-C6-O6	-10.68	122.19	128.60
1	A	1329	A	N1-C6-N6	10.68	125.01	118.60
1	A	177	G	O4'-C1'-N9	10.68	116.74	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1444	U	C5'-C4'-C3'	-10.67	98.92	116.00
1	A	901	A	C5'-C4'-C3'	-10.67	98.93	116.00
1	A	1247	U	C2-N3-C4	-10.67	120.60	127.00
1	A	569	C	C6-N1-C2	-10.66	116.03	120.30
1	A	1292	G	C3'-C2'-C1'	-10.66	92.97	101.50
1	A	640	A	C8-N9-C4	-10.66	101.53	105.80
1	A	1084	G	C4-N9-C1'	-10.66	112.64	126.50
1	A	1210	C	C6-N1-C2	-10.66	116.04	120.30
1	A	210	C	C6-N1-C2	-10.66	116.04	120.30
1	A	225	C	C3'-C2'-C1'	-10.65	92.98	101.50
1	A	505	G	N1-C6-O6	10.65	126.29	119.90
1	A	681	A	P-O3'-C3'	10.65	132.48	119.70
1	A	775	G	N1-C6-O6	10.65	126.29	119.90
1	A	1053	G	P-O5'-C5'	10.65	137.94	120.90
1	A	1182	G	C8-N9-C4	-10.65	102.14	106.40
1	A	204	G	N1-C6-O6	10.65	126.29	119.90
1	A	411	A	O5'-C5'-C4'	10.65	131.93	111.70
1	A	650	G	C5'-C4'-C3'	-10.65	98.96	116.00
1	A	65	A	C5-C6-N1	-10.64	112.38	117.70
1	A	205	A	C5-C6-N6	-10.64	115.18	123.70
1	A	178	C	C5'-C4'-C3'	-10.64	98.98	116.00
1	A	420	U	O4'-C1'-N1	10.63	116.71	108.20
1	A	1310	G	C5-C6-O6	-10.63	122.22	128.60
1	A	895	G	C4-N9-C1'	-10.63	112.68	126.50
1	A	669	G	O4'-C1'-N9	10.63	116.70	108.20
1	A	1241	G	C4-C5-C6	10.63	125.18	118.80
1	A	1391	U	C2'-C3'-O3'	10.63	132.88	109.50
1	A	300	A	C4-C5-C6	10.62	122.31	117.00
1	A	714	G	C8-N9-C4	-10.62	102.15	106.40
1	A	1373	G	C5-C6-O6	-10.62	122.23	128.60
1	A	1419	G	N1-C6-O6	10.62	126.28	119.90
1	A	356	A	N1-C6-N6	10.62	124.97	118.60
1	A	1464	U	C3'-C2'-C1'	-10.62	93.00	101.50
1	A	374	A	C5'-C4'-C3'	10.62	132.99	116.00
1	A	1523	G	C4-N9-C1'	-10.62	112.70	126.50
1	A	1168	U	C2-N3-C4	-10.62	120.63	127.00
1	A	777	A	O4'-C1'-N9	10.61	116.69	108.20
1	A	83	C	P-O3'-C3'	-10.61	106.97	119.70
1	A	239	U	C2-N3-C4	-10.61	120.63	127.00
1	A	452	A	N1-C6-N6	10.61	124.97	118.60
1	A	704	A	P-O3'-C3'	-10.61	106.97	119.70
1	A	169	C	C5-C4-N4	10.61	127.62	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1481	U	P-O3'-C3'	-10.61	106.97	119.70
1	A	1288	A	C6-C5-N7	-10.60	124.88	132.30
1	A	669	G	C5-C6-O6	-10.60	122.24	128.60
1	A	1174	G	C5-C6-O6	-10.60	122.24	128.60
1	A	1323	G	C8-N9-C1'	10.60	140.78	127.00
1	A	416	G	C5'-C4'-C3'	-10.60	99.05	116.00
1	A	109	A	N1-C6-N6	10.59	124.95	118.60
1	A	400	C	C5'-C4'-C3'	10.59	132.94	116.00
1	A	887	G	N1-C6-O6	10.58	126.25	119.90
1	A	1227	A	C5'-C4'-C3'	-10.58	99.06	116.00
1	A	1060	U	C2-N3-C4	-10.58	120.65	127.00
1	A	418	C	O4'-C1'-N1	10.58	116.67	108.20
1	A	715	A	N1-C6-N6	10.58	124.95	118.60
1	A	267	C	N3-C4-C5	-10.58	117.67	121.90
1	A	866	C	P-O3'-C3'	10.57	132.39	119.70
1	A	276	G	N1-C6-O6	10.57	126.24	119.90
1	A	242	G	N1-C6-O6	10.57	126.24	119.90
1	A	869	G	N3-C2-N2	-10.57	112.50	119.90
1	A	341	C	C6-N1-C2	-10.56	116.07	120.30
1	A	203	G	C4-N9-C1'	-10.56	112.77	126.50
1	A	91	U	C2-N3-C4	-10.56	120.67	127.00
1	A	349	A	C3'-C2'-C1'	-10.56	93.06	101.50
1	A	700	G	C5-C6-O6	-10.56	122.27	128.60
1	A	1007	U	C6-N1-C1'	10.56	135.98	121.20
1	A	1154	G	C5'-C4'-C3'	-10.56	99.11	116.00
1	A	125	U	P-O3'-C3'	10.55	132.37	119.70
1	A	670	G	O4'-C1'-N9	10.55	116.64	108.20
1	A	233	C	C6-N1-C2	-10.55	116.08	120.30
1	A	1383	C	C6-N1-C2	-10.55	116.08	120.30
1	A	1008	U	C2-N3-C4	-10.55	120.67	127.00
1	A	134	G	C3'-C2'-C1'	-10.54	93.07	101.50
1	A	276	G	C5-C6-O6	-10.54	122.28	128.60
1	A	394	G	C5-C6-O6	-10.54	122.28	128.60
1	A	933	G	C8-N9-C1'	10.54	140.70	127.00
1	A	1125	U	P-O3'-C3'	10.54	132.35	119.70
1	A	1269	A	O4'-C1'-N9	10.54	116.63	108.20
1	A	1083	U	P-O3'-C3'	10.53	132.34	119.70
1	A	923	A	N1-C6-N6	10.53	124.92	118.60
1	A	1077	G	C8-N9-C1'	10.53	140.69	127.00
1	A	1406	U	C6-N1-C2	-10.53	114.68	121.00
1	A	321	A	C8-N9-C4	-10.53	101.59	105.80
1	A	1462	C	O4'-C1'-N1	10.53	116.62	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	486	U	P-O5'-C5'	-10.52	104.06	120.90
1	A	887	G	C4-N9-C1'	-10.52	112.82	126.50
1	A	68	G	C5-C6-O6	-10.52	122.29	128.60
1	A	1228	C	C5-C6-N1	10.52	126.26	121.00
1	A	1333	A	C8-N9-C4	-10.52	101.59	105.80
1	A	1196	A	N1-C6-N6	10.52	124.91	118.60
1	A	370	C	C6-N1-C2	-10.52	116.09	120.30
1	A	1177	G	N7-C8-N9	10.52	118.36	113.10
1	A	618	C	C6-N1-C2	-10.51	116.09	120.30
1	A	1268	G	P-O3'-C3'	10.51	132.31	119.70
1	A	868	C	O4'-C1'-N1	10.51	116.61	108.20
1	A	953	G	C5'-C4'-C3'	-10.51	99.19	116.00
1	A	925	G	P-O5'-C5'	10.50	137.71	120.90
1	A	1022	A	C1'-O4'-C4'	-10.50	101.50	109.90
1	A	1366	C	C2-N3-C4	10.50	125.15	119.90
1	A	214	C	N3-C4-C5	-10.50	117.70	121.90
1	A	404	G	N3-C2-N2	10.50	127.25	119.90
1	A	602	A	C5'-C4'-C3'	-10.50	99.20	116.00
1	A	1380	U	N1-C2-N3	10.50	121.20	114.90
1	A	190	A	C5'-C4'-C3'	-10.50	99.20	116.00
1	A	81	A	C8-N9-C4	-10.49	101.60	105.80
1	A	1098	C	C5-C6-N1	10.49	126.25	121.00
1	A	1276	G	N7-C8-N9	10.49	118.35	113.10
1	A	152	A	C8-N9-C4	-10.49	101.60	105.80
1	A	748	G	N1-C6-O6	10.49	126.19	119.90
1	A	151	A	N1-C6-N6	10.49	124.89	118.60
1	A	616	G	N9-C1'-C2'	-10.48	100.37	114.00
1	A	752	G	P-O3'-C3'	10.48	132.28	119.70
1	A	127	G	P-O5'-C5'	10.48	137.67	120.90
1	A	399	G	N1-C6-O6	10.48	126.19	119.90
1	A	172	A	N1-C6-N6	10.48	124.89	118.60
1	A	713	G	C6-C5-N7	-10.47	124.12	130.40
1	A	656	G	N1-C6-O6	10.47	126.18	119.90
1	A	688	G	C8-N9-C4	-10.47	102.21	106.40
1	A	1247	U	C2-N1-C1'	-10.47	105.14	117.70
1	A	1514	G	C5'-C4'-C3'	10.47	132.75	116.00
1	A	790	A	N1-C6-N6	10.47	124.88	118.60
1	A	1203	C	O4'-C1'-N1	10.46	116.57	108.20
1	A	1383	C	N3-C4-C5	-10.46	117.72	121.90
1	A	1076	U	C2-N1-C1'	-10.46	105.14	117.70
1	A	242	G	C4-N9-C1'	-10.46	112.90	126.50
1	A	867	G	C8-N9-C4	-10.46	102.22	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	80	A	P-O5'-C5'	-10.45	104.18	120.90
1	A	1403	C	C5'-C4'-C3'	-10.45	99.28	116.00
1	A	478	A	C8-N9-C4	-10.45	101.62	105.80
1	A	782	A	N1-C6-N6	10.45	124.87	118.60
1	A	515	G	C5'-C4'-C3'	-10.44	99.29	116.00
1	A	974	A	N1-C6-N6	10.44	124.86	118.60
1	A	1093	A	C4-C5-C6	10.44	122.22	117.00
1	A	1141	C	P-O3'-C3'	-10.44	107.17	119.70
1	A	1530	G	O4'-C1'-N9	10.44	116.55	108.20
1	A	594	U	P-O3'-C3'	10.44	132.22	119.70
1	A	623	C	C6-N1-C2	-10.44	116.13	120.30
1	A	265	G	C4-C5-C6	-10.43	112.54	118.80
1	A	275	G	C8-N9-C4	-10.42	102.23	106.40
1	A	1392	G	C8-N9-C4	-10.42	102.23	106.40
1	A	996	A	O4'-C1'-N9	10.42	116.53	108.20
1	A	633	G	C8-N9-C4	-10.41	102.23	106.40
1	A	1168	U	N3-C4-C5	-10.41	108.35	114.60
1	A	267	C	C5'-C4'-O4'	-10.41	96.61	109.10
1	A	819	A	N1-C6-N6	10.41	124.85	118.60
1	A	612	C	N3-C4-N4	10.40	125.28	118.00
1	A	455	G	C6-N1-C2	-10.40	118.86	125.10
1	A	1484	C	C5-C6-N1	10.40	126.20	121.00
1	A	439	U	C6-N1-C1'	-10.40	106.64	121.20
1	A	1038	C	C6-N1-C2	-10.40	116.14	120.30
1	A	1430	A	N1-C6-N6	10.40	124.84	118.60
1	A	142	G	N3-C2-N2	10.40	127.18	119.90
1	A	1130	A	C4-C5-C6	10.40	122.20	117.00
1	A	1015	G	N1-C6-O6	10.40	126.14	119.90
1	A	123	U	C2-N1-C1'	-10.39	105.23	117.70
1	A	493	A	C5-C6-N6	-10.39	115.39	123.70
1	A	528	C	C5'-C4'-C3'	-10.39	99.38	116.00
1	A	531	U	C5'-C4'-O4'	10.39	121.57	109.10
1	A	656	G	O4'-C1'-N9	10.39	116.51	108.20
1	A	1004	A	N1-C6-N6	10.39	124.83	118.60
1	A	372	C	N1-C2-N3	-10.39	111.93	119.20
1	A	895	G	O4'-C1'-N9	10.39	116.51	108.20
1	A	549	C	O4'-C1'-N1	10.38	116.50	108.20
1	A	690	G	O4'-C1'-N9	10.38	116.50	108.20
1	A	318	G	N3-C2-N2	10.38	127.17	119.90
1	A	330	C	N3-C4-C5	-10.38	117.75	121.90
1	A	22	G	N1-C6-O6	10.38	126.12	119.90
1	A	579	A	C5-C6-N6	-10.38	115.40	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1277	C	P-O5'-C5'	10.37	137.50	120.90
1	A	650	G	C5-C6-O6	-10.37	122.38	128.60
1	A	562	U	O4'-C1'-N1	10.37	116.50	108.20
1	A	1046	A	P-O5'-C5'	-10.37	104.31	120.90
1	A	595	A	C5-C6-N1	-10.37	112.52	117.70
1	A	609	A	C5'-C4'-C3'	-10.36	99.42	116.00
1	A	682	G	C5-C6-O6	-10.36	122.38	128.60
1	A	705	G	C5'-C4'-C3'	-10.36	99.43	116.00
1	A	714	G	C8-N9-C1'	10.36	140.47	127.00
1	A	843	U	O4'-C1'-N1	10.36	116.49	108.20
1	A	1482	G	C3'-C2'-C1'	-10.36	93.21	101.50
1	A	1386	G	N1-C6-O6	10.36	126.11	119.90
1	A	167	A	C3'-C2'-C1'	-10.35	93.22	101.50
1	A	315	A	N1-C6-N6	10.35	124.81	118.60
1	A	307	C	C2-N1-C1'	10.35	130.18	118.80
1	A	730	G	C5'-C4'-C3'	-10.35	99.44	116.00
1	A	1228	C	C5-C4-N4	-10.35	112.96	120.20
1	A	531	U	O4'-C4'-C3'	-10.34	93.66	104.00
1	A	283	U	C5'-C4'-O4'	10.34	121.51	109.10
1	A	581	G	C4-N9-C1'	-10.34	113.06	126.50
1	A	1246	A	N1-C6-N6	10.34	124.80	118.60
1	A	688	G	C5'-C4'-C3'	-10.34	99.46	116.00
1	A	1149	C	C6-N1-C2	-10.34	116.17	120.30
1	A	300	A	C5'-C4'-C3'	-10.33	99.47	116.00
1	A	995	C	N3-C4-N4	10.33	125.23	118.00
1	A	1468	A	N7-C8-N9	10.33	118.96	113.80
1	A	119	A	C5-C6-N6	-10.33	115.44	123.70
1	A	1163	A	C5'-C4'-C3'	-10.32	99.49	116.00
1	A	772	U	O4'-C1'-N1	10.32	116.45	108.20
1	A	1096	C	C6-N1-C2	-10.32	116.17	120.30
1	A	1131	G	C8-N9-C1'	10.32	140.41	127.00
2	B	22	TRP	CB-CG-CD2	-10.31	113.19	126.60
1	A	444	G	C5-C6-O6	-10.31	122.41	128.60
1	A	124	C	C2-N1-C1'	-10.31	107.46	118.80
1	A	61	G	N1-C6-O6	-10.31	113.72	119.90
1	A	789	U	O4'-C4'-C3'	-10.31	93.69	104.00
1	A	908	A	N7-C8-N9	10.31	118.95	113.80
1	A	346	G	C6-N1-C2	-10.30	118.92	125.10
1	A	1409	C	C5-C6-N1	10.30	126.15	121.00
1	A	245	U	C2-N1-C1'	-10.30	105.34	117.70
1	A	1350	A	N1-C6-N6	10.30	124.78	118.60
1	A	38	G	C5-C6-O6	-10.29	122.42	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	259	G	N1-C6-O6	10.29	126.08	119.90
1	A	362	G	C5-C6-O6	-10.29	122.42	128.60
1	A	896	C	C6-N1-C1'	10.29	133.15	120.80
1	A	1001	C	C5'-C4'-C3'	-10.29	99.53	116.00
1	A	1478	U	O4'-C1'-N1	10.29	116.43	108.20
1	A	1491	G	C4-N9-C1'	-10.29	113.12	126.50
1	A	200	G	N1-C6-O6	10.29	126.07	119.90
1	A	505	G	P-O5'-C5'	-10.29	104.44	120.90
1	A	1201	A	N1-C6-N6	10.29	124.77	118.60
1	A	3	A	N1-C6-N6	10.28	124.77	118.60
1	A	313	A	P-O5'-C5'	10.28	137.35	120.90
1	A	558	G	N1-C6-O6	10.28	126.07	119.90
1	A	174	A	N1-C6-N6	10.28	124.77	118.60
1	A	1346	A	C5-C6-N6	-10.28	115.48	123.70
1	A	426	U	C2'-C3'-O3'	10.28	132.11	109.50
1	A	1187	G	C8-N9-C4	-10.28	102.29	106.40
1	A	131	A	O4'-C1'-N9	10.27	116.42	108.20
1	A	693	G	N1-C6-O6	10.27	126.06	119.90
1	A	964	A	N1-C6-N6	10.26	124.76	118.60
1	A	578	C	P-O5'-C5'	10.26	137.31	120.90
1	A	1006	G	C5-C6-O6	-10.25	122.45	128.60
1	A	1089	G	C1'-O4'-C4'	-10.25	101.70	109.90
1	A	908	A	C5'-C4'-O4'	10.25	121.40	109.10
1	A	1113	C	N3-C4-C5	-10.25	117.80	121.90
1	A	1440	U	O4'-C4'-C3'	-10.24	93.76	104.00
1	A	368	U	N1-C2-N3	10.24	121.04	114.90
1	A	1382	C	C5-C4-N4	-10.24	113.03	120.20
1	A	378	G	C5-C6-O6	-10.23	122.46	128.60
1	A	1260	G	C4-N9-C1'	-10.23	113.20	126.50
1	A	631	C	P-O5'-C5'	10.23	137.26	120.90
1	A	907	A	C6-C5-N7	-10.23	125.14	132.30
1	A	646	G	C5-C6-O6	-10.22	122.47	128.60
1	A	637	C	O4'-C1'-N1	10.22	116.38	108.20
1	A	1085	U	P-O3'-C3'	-10.22	107.43	119.70
1	A	610	U	C2-N1-C1'	-10.22	105.44	117.70
1	A	1148	U	C5-C6-N1	10.22	127.81	122.70
1	A	783	C	C5-C4-N4	-10.22	113.05	120.20
1	A	70	U	C5'-C4'-C3'	-10.21	99.66	116.00
1	A	126	G	O4'-C1'-N9	10.21	116.37	108.20
1	A	1197	A	O5'-C5'-C4'	10.21	131.10	111.70
1	A	1435	G	N1-C6-O6	10.20	126.02	119.90
1	A	1511	G	N3-C2-N2	10.20	127.04	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	902	G	C5-C6-O6	-10.20	122.48	128.60
1	A	1055	A	P-O5'-C5'	10.20	137.22	120.90
1	A	1407	C	C5'-C4'-C3'	-10.20	99.69	116.00
1	A	785	G	N9-C4-C5	-10.19	101.32	105.40
1	A	1364	U	C1'-O4'-C4'	-10.19	101.75	109.90
1	A	39	G	N1-C6-O6	10.19	126.01	119.90
1	A	1305	G	C5-C6-O6	-10.19	122.49	128.60
3	C	167	TYR	CB-CG-CD2	-10.19	114.89	121.00
1	A	713	G	C8-N9-C4	-10.18	102.33	106.40
1	A	713	G	N7-C8-N9	10.17	118.19	113.10
1	A	42	G	N1-C6-O6	10.17	126.00	119.90
1	A	179	A	N1-C6-N6	10.17	124.70	118.60
1	A	714	G	O4'-C1'-N9	10.17	116.33	108.20
1	A	222	C	N3-C4-C5	-10.17	117.83	121.90
1	A	105	G	P-O3'-C3'	10.16	131.90	119.70
1	A	199	A	C8-N9-C4	-10.16	101.73	105.80
1	A	689	C	P-O3'-C3'	-10.16	107.51	119.70
1	A	780	A	P-O5'-C5'	10.16	137.16	120.90
1	A	1347	G	C4'-C3'-C2'	-10.16	92.44	102.60
1	A	248	C	C3'-C2'-C1'	-10.16	93.37	101.50
1	A	1023	U	O4'-C1'-N1	10.16	116.33	108.20
1	A	749	A	C8-N9-C4	-10.16	101.74	105.80
1	A	711	G	C5-C6-O6	-10.15	122.51	128.60
1	A	860	A	N7-C8-N9	10.15	118.88	113.80
1	A	963	G	P-O3'-C3'	-10.15	107.52	119.70
1	A	1082	A	C8-N9-C4	-10.15	101.74	105.80
1	A	1437	A	N1-C6-N6	10.15	124.69	118.60
1	A	1123	U	O4'-C1'-N1	10.14	116.31	108.20
1	A	421	U	O4'-C1'-N1	10.14	116.31	108.20
1	A	522	C	C6-N1-C2	-10.14	116.24	120.30
1	A	633	G	C5-C6-N1	10.14	116.57	111.50
1	A	299	G	O4'-C1'-N9	10.13	116.31	108.20
1	A	482	A	C8-N9-C4	-10.13	101.75	105.80
1	A	548	G	N1-C6-O6	10.13	125.98	119.90
1	A	45	G	N9-C1'-C2'	-10.13	100.83	114.00
1	A	344	A	P-O5'-C5'	10.13	137.10	120.90
1	A	70	U	P-O5'-C5'	-10.12	104.70	120.90
1	A	1144	G	C8-N9-C4	-10.12	102.35	106.40
1	A	1466	C	O4'-C1'-N1	10.13	116.30	108.20
1	A	454	G	N3-C2-N2	-10.12	112.81	119.90
1	A	709	U	C2-N3-C4	-10.12	120.93	127.00
1	A	151	A	C8-N9-C4	-10.12	101.75	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	301	G	O4'-C1'-N9	10.12	116.30	108.20
1	A	1093	A	C5-C6-N1	-10.12	112.64	117.70
1	A	263	A	O4'-C1'-N9	10.11	116.29	108.20
1	A	1173	U	C2-N1-C1'	-10.11	105.56	117.70
1	A	1459	G	C8-N9-C4	-10.11	102.36	106.40
1	A	669	G	N1-C6-O6	10.11	125.97	119.90
1	A	104	G	C5'-C4'-C3'	-10.10	99.84	116.00
1	A	187	G	C8-N9-C1'	10.10	140.13	127.00
1	A	341	C	C5-C6-N1	10.10	126.05	121.00
1	A	1105	A	N1-C6-N6	10.10	124.66	118.60
1	A	352	C	C5'-C4'-C3'	-10.10	99.84	116.00
1	A	775	G	C6-C5-N7	-10.10	124.34	130.40
1	A	1054	C	N3-C4-N4	10.10	125.07	118.00
1	A	338	A	C8-N9-C1'	10.10	145.88	127.70
1	A	444	G	N1-C6-O6	10.10	125.96	119.90
1	A	749	A	N1-C6-N6	10.10	124.66	118.60
1	A	1392	G	N3-C2-N2	10.10	126.97	119.90
1	A	577	G	C8-N9-C4	-10.09	102.36	106.40
1	A	805	C	O3'-P-O5'	10.09	123.18	104.00
1	A	1029	U	P-O3'-C3'	-10.09	107.59	119.70
1	A	1496	C	C6-N1-C2	-10.09	116.26	120.30
1	A	101	A	C5'-C4'-C3'	-10.09	99.85	116.00
1	A	579	A	O3'-P-O5'	-10.09	84.83	104.00
1	A	1343	G	O4'-C1'-N9	10.09	116.27	108.20
1	A	94	G	P-O5'-C5'	10.09	137.04	120.90
1	A	564	C	N3-C4-C5	-10.08	117.87	121.90
1	A	939	G	C8-N9-C1'	10.08	140.11	127.00
1	A	225	C	O4'-C1'-N1	10.08	116.27	108.20
1	A	1450	U	O4'-C1'-N1	10.08	116.27	108.20
1	A	422	C	C1'-O4'-C4'	-10.08	101.84	109.90
1	A	1185	G	C4-N9-C1'	-10.08	113.40	126.50
1	A	169	C	C2-N3-C4	10.07	124.94	119.90
1	A	454	G	C5-C6-O6	-10.07	122.56	128.60
1	A	696	A	C4-C5-C6	10.07	122.04	117.00
1	A	1101	A	P-O3'-C3'	10.07	131.79	119.70
1	A	596	A	N1-C6-N6	10.07	124.64	118.60
1	A	953	G	N1-C6-O6	10.07	125.94	119.90
1	A	1530	G	C5-C6-O6	-10.07	122.56	128.60
1	A	468	A	P-O3'-C3'	-10.07	107.62	119.70
1	A	637	C	C6-N1-C1'	-10.07	108.72	120.80
1	A	1151	A	N1-C6-N6	10.07	124.64	118.60
1	A	1253	G	C5'-C4'-O4'	10.07	121.18	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	265	G	C6-C5-N7	-10.06	124.36	130.40
1	A	273	U	C5'-C4'-C3'	-10.06	99.90	116.00
1	A	537	G	N1-C6-O6	10.06	125.94	119.90
1	A	865	A	C4-C5-C6	10.06	122.03	117.00
1	A	347	G	N7-C8-N9	10.06	118.13	113.10
1	A	821	G	O4'-C1'-N9	10.06	116.25	108.20
3	C	39	ARG	NE-CZ-NH1	10.06	125.33	120.30
1	A	567	G	C8-N9-C4	-10.06	102.38	106.40
1	A	93	U	C3'-C2'-C1'	-10.06	93.45	101.50
1	A	617	G	C5'-C4'-C3'	-10.06	99.91	116.00
1	A	102	G	N1-C6-O6	10.05	125.93	119.90
1	A	302	G	C8-N9-C4	-10.05	102.38	106.40
1	A	320	A	C5-C6-N6	-10.05	115.66	123.70
1	A	773	G	C8-N9-C1'	10.05	140.07	127.00
1	A	839	C	N3-C4-N4	10.05	125.04	118.00
1	A	1450	U	C5'-C4'-C3'	-10.05	99.92	116.00
1	A	1471	U	C5'-C4'-C3'	-10.05	99.92	116.00
1	A	655	A	C5-C6-N1	-10.05	112.68	117.70
1	A	1355	G	C8-N9-C1'	10.05	140.06	127.00
1	A	1368	A	P-O5'-C5'	-10.05	104.82	120.90
1	A	721	G	P-O3'-C3'	10.05	131.76	119.70
1	A	839	C	C1'-O4'-C4'	-10.05	101.86	109.90
1	A	1458	G	O4'-C1'-N9	10.05	116.24	108.20
1	A	1236	A	C2'-C3'-O3'	10.04	131.60	109.50
1	A	1432	G	C8-N9-C1'	10.04	140.06	127.00
1	A	1406	U	C3'-C2'-C1'	-10.04	93.47	101.50
1	A	1024	G	C3'-C2'-C1'	-10.04	93.47	101.50
1	A	1494	G	C4-N9-C1'	-10.04	113.44	126.50
1	A	434	U	C6-N1-C1'	10.04	135.26	121.20
1	A	601	G	C8-N9-C1'	10.04	140.05	127.00
1	A	244	U	O4'-C1'-N1	10.03	116.23	108.20
1	A	821	G	C5-C6-O6	-10.04	122.58	128.60
1	A	908	A	C5-C6-N6	-10.03	115.67	123.70
1	A	26	A	C5-C6-N6	-10.03	115.67	123.70
1	A	1044	A	C4-C5-C6	10.03	122.02	117.00
1	A	1346	A	N1-C2-N3	-10.03	124.28	129.30
1	A	1033	G	P-O3'-C3'	-10.03	107.67	119.70
1	A	1290	G	P-O5'-C5'	10.03	136.95	120.90
1	A	497	G	C4-N9-C1'	-10.03	113.47	126.50
1	A	27	G	C5-C6-O6	-10.02	122.59	128.60
1	A	1125	U	O4'-C1'-N1	10.02	116.22	108.20
1	A	1187	G	C5-C6-O6	-10.02	122.59	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1455	G	P-O3'-C3'	10.02	131.73	119.70
1	A	531	U	C2-N1-C1'	10.02	129.72	117.70
1	A	1327	C	O4'-C1'-N1	10.02	116.21	108.20
1	A	394	G	N1-C6-O6	10.02	125.91	119.90
1	A	1387	G	N1-C6-O6	10.02	125.91	119.90
1	A	739	C	C6-N1-C2	-10.02	116.29	120.30
1	A	246	A	N1-C6-N6	10.01	124.61	118.60
1	A	680	C	C6-N1-C1'	10.01	132.82	120.80
1	A	1350	A	O4'-C4'-C3'	-10.01	93.99	104.00
1	A	1364	U	C2-N1-C1'	10.01	129.72	117.70
1	A	231	U	O4'-C1'-N1	10.01	116.21	108.20
1	A	830	G	N1-C6-O6	10.01	125.91	119.90
1	A	1057	G	C8-N9-C1'	-10.01	113.99	127.00
1	A	1141	C	N3-C4-N4	10.01	125.01	118.00
1	A	1505	G	N1-C6-O6	10.01	125.91	119.90
1	A	256	U	C2-N1-C1'	-10.01	105.69	117.70
1	A	1505	G	C5-C6-O6	-10.01	122.60	128.60
1	A	185	U	C5'-C4'-C3'	-10.00	100.00	116.00
1	A	274	A	N1-C6-N6	10.00	124.60	118.60
1	A	338	A	N1-C6-N6	10.00	124.60	118.60
1	A	854	U	O4'-C1'-N1	10.00	116.20	108.20
1	A	1504	G	C4-C5-N7	-10.00	106.80	110.80
1	A	1337	G	O3'-P-O5'	-10.00	85.01	104.00
1	A	1497	G	C4-N9-C1'	-9.99	113.51	126.50
1	A	1115	U	C3'-C2'-C1'	-9.99	93.51	101.50
1	A	1126	U	N1-C2-O2	-9.99	115.81	122.80
1	A	100	G	C4-N9-C1'	9.99	139.48	126.50
1	A	203	G	C5'-C4'-O4'	9.98	121.08	109.10
1	A	1042	A	C5-C6-N6	-9.98	115.71	123.70
1	A	1111	A	C5'-C4'-O4'	9.98	121.08	109.10
1	A	98	A	C5-N7-C8	9.98	108.89	103.90
1	A	999	C	C5-C4-N4	-9.98	113.21	120.20
1	A	1179	A	C5'-C4'-C3'	-9.98	100.03	116.00
1	A	863	U	C5'-C4'-C3'	-9.98	100.03	116.00
1	A	1395	C	N3-C4-C5	-9.98	117.91	121.90
1	A	441	A	C5'-C4'-C3'	-9.98	100.04	116.00
1	A	1405	G	O3'-P-O5'	-9.98	85.04	104.00
1	A	1141	C	P-O5'-C5'	9.98	136.86	120.90
1	A	185	U	C6-N1-C2	-9.97	115.02	121.00
1	A	1344	C	N3-C4-C5	-9.97	117.91	121.90
1	A	265	G	C2-N3-C4	-9.97	106.92	111.90
1	A	1521	C	O4'-C4'-C3'	-9.97	94.03	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	139	A	C3'-C2'-C1'	-9.96	93.53	101.50
1	A	788	U	N3-C4-O4	9.96	126.38	119.40
1	A	1314	C	C3'-C2'-C1'	-9.96	93.53	101.50
1	A	366	A	C4-C5-C6	9.96	121.98	117.00
1	A	709	U	C2-N1-C1'	-9.96	105.74	117.70
1	A	1055	A	C8-N9-C4	-9.96	101.81	105.80
1	A	1062	U	C2-N3-C4	-9.96	121.02	127.00
1	A	1468	A	C4-C5-C6	9.96	121.98	117.00
1	A	1522	U	C3'-C2'-C1'	-9.96	93.53	101.50
1	A	563	A	N1-C6-N6	9.95	124.57	118.60
1	A	681	A	C5-C6-N6	-9.96	115.74	123.70
1	A	756	C	O4'-C1'-N1	9.96	116.16	108.20
1	A	324	G	N1-C6-O6	9.95	125.87	119.90
1	A	397	A	O4'-C1'-N9	9.95	116.16	108.20
1	A	115	G	O4'-C1'-N9	9.95	116.16	108.20
1	A	1081	A	N1-C6-N6	9.95	124.57	118.60
1	A	1277	C	P-O3'-C3'	-9.95	107.77	119.70
1	A	93	U	N1-C1'-C2'	-9.94	101.06	112.00
1	A	240	G	N9-C1'-C2'	-9.94	101.06	112.00
1	A	171	A	O4'-C1'-N9	9.94	116.15	108.20
1	A	680	C	O4'-C1'-N1	9.94	116.15	108.20
1	A	767	A	N1-C6-N6	9.94	124.56	118.60
1	A	187	G	N1-C6-O6	9.93	125.86	119.90
1	A	258	G	N7-C8-N9	9.93	118.07	113.10
1	A	350	G	C8-N9-C1'	9.93	139.91	127.00
1	A	475	C	N3-C4-C5	-9.93	117.93	121.90
1	A	413	G	P-O3'-C3'	-9.93	107.78	119.70
1	A	182	A	O4'-C1'-N9	9.93	116.14	108.20
1	A	464	U	C6-N1-C2	-9.93	115.04	121.00
1	A	616	G	C5-C6-O6	-9.93	122.64	128.60
1	A	1363	A	N3-C4-C5	-9.93	119.85	126.80
1	A	294	U	C3'-C2'-C1'	-9.93	93.56	101.50
1	A	1330	U	O4'-C4'-C3'	-9.93	94.07	104.00
1	A	1468	A	C5'-C4'-O4'	9.93	121.01	109.10
1	A	345	C	P-O3'-C3'	9.92	131.60	119.70
1	A	729	A	C5-C6-N6	-9.92	115.77	123.70
1	A	890	G	O4'-C1'-N9	9.92	116.13	108.20
1	A	1332	A	O4'-C1'-N9	9.91	116.13	108.20
1	A	416	G	C5'-C4'-O4'	9.91	120.99	109.10
1	A	878	A	P-O3'-C3'	-9.91	107.81	119.70
1	A	1290	G	C8-N9-C4	-9.91	102.44	106.40
1	A	377	G	C4-N9-C1'	-9.91	113.62	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1166	G	O4'-C1'-N9	9.91	116.13	108.20
1	A	559	A	C5-C6-N6	-9.91	115.78	123.70
1	A	991	U	O4'-C1'-N1	9.90	116.12	108.20
1	A	1154	G	C3'-C2'-C1'	-9.90	93.58	101.50
1	A	1507	A	N1-C6-N6	9.90	124.54	118.60
1	A	453	G	N3-C2-N2	9.90	126.83	119.90
1	A	472	U	C3'-C2'-C1'	-9.90	93.58	101.50
1	A	616	G	C4-N9-C1'	-9.90	113.63	126.50
1	A	686	U	C3'-C2'-C1'	-9.90	93.58	101.50
1	A	108	G	N3-C2-N2	9.89	126.83	119.90
1	A	196	A	C4-N9-C1'	9.89	144.11	126.30
1	A	203	G	O3'-P-O5'	-9.89	85.20	104.00
1	A	860	A	C4-C5-C6	9.89	121.95	117.00
1	A	906	A	C8-N9-C1'	9.89	145.51	127.70
1	A	99	C	C2-N1-C1'	-9.89	107.92	118.80
1	A	187	G	O4'-C1'-N9	9.89	116.11	108.20
1	A	321	A	O5'-C5'-C4'	9.89	130.49	111.70
1	A	1075	U	P-O3'-C3'	-9.89	107.83	119.70
1	A	1249	C	C5-C4-N4	-9.89	113.28	120.20
1	A	840	C	C1'-O4'-C4'	-9.88	101.99	109.90
1	A	1264	U	C2-N1-C1'	-9.88	105.84	117.70
1	A	1370	G	N1-C6-O6	9.88	125.83	119.90
1	A	349	A	N1-C6-N6	9.88	124.53	118.60
1	A	613	C	O4'-C1'-N1	9.88	116.11	108.20
1	A	918	A	O4'-C1'-N9	9.88	116.11	108.20
10	J	48	ARG	NE-CZ-NH2	-9.88	115.36	120.30
1	A	679	C	C3'-C2'-C1'	-9.88	93.60	101.50
1	A	925	G	C5'-C4'-C3'	-9.88	100.19	116.00
1	A	120	A	C5'-C4'-C3'	9.88	131.81	116.00
1	A	1417	G	C3'-C2'-C1'	-9.88	93.60	101.50
1	A	278	G	N1-C6-O6	9.88	125.83	119.90
1	A	334	C	C3'-C2'-C1'	-9.87	93.60	101.50
1	A	111	G	C8-N9-C1'	9.87	139.83	127.00
1	A	1366	C	N3-C4-C5	-9.87	117.95	121.90
1	A	602	A	C5-C6-N6	-9.86	115.81	123.70
1	A	975	A	C6-C5-N7	-9.86	125.40	132.30
1	A	672	U	O4'-C1'-N1	9.86	116.09	108.20
1	A	1077	G	N1-C6-O6	9.86	125.82	119.90
1	A	1304	G	O4'-C1'-N9	9.86	116.09	108.20
1	A	1310	G	P-O3'-C3'	-9.86	107.87	119.70
1	A	95	C	O5'-C5'-C4'	9.86	130.43	111.70
1	A	365	U	O4'-C1'-N1	9.86	116.09	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1261	A	N9-C1'-C2'	-9.85	101.16	112.00
1	A	342	C	C6-N1-C1'	9.85	132.62	120.80
1	A	802	A	N1-C6-N6	9.85	124.51	118.60
1	A	1180	A	N1-C6-N6	9.85	124.51	118.60
1	A	346	G	N1-C6-O6	9.85	125.81	119.90
1	A	447	G	C1'-O4'-C4'	-9.85	102.02	109.90
1	A	255	G	N1-C6-O6	9.85	125.81	119.90
1	A	1048	G	N3-C2-N2	9.85	126.79	119.90
1	A	1371	G	C4'-C3'-C2'	9.85	112.44	102.60
1	A	49	U	O3'-P-O5'	-9.84	85.30	104.00
1	A	982	U	C2-N3-C4	-9.84	121.09	127.00
1	A	231	U	C5'-C4'-C3'	-9.84	100.25	116.00
1	A	841	C	C2-N1-C1'	9.84	129.63	118.80
1	A	1463	U	O4'-C1'-N1	9.84	116.07	108.20
1	A	370	C	N3-C4-N4	9.84	124.89	118.00
1	A	339	C	O4'-C1'-N1	9.84	116.07	108.20
1	A	876	C	C5'-C4'-C3'	-9.84	100.26	116.00
1	A	1223	C	C6-N1-C2	-9.84	116.37	120.30
1	A	94	G	C5-C6-O6	-9.83	122.70	128.60
1	A	452	A	C5'-C4'-C3'	-9.83	100.27	116.00
1	A	198	G	C4-N9-C1'	-9.83	113.72	126.50
1	A	592	G	C5'-C4'-C3'	-9.83	100.27	116.00
1	A	1126	U	C5-C6-N1	-9.83	117.78	122.70
1	A	1501	C	N3-C4-C5	-9.83	117.97	121.90
1	A	167	A	C8-N9-C4	-9.83	101.87	105.80
1	A	1021	A	C5-C6-N1	-9.83	112.79	117.70
1	A	1355	G	C4-N9-C1'	-9.83	113.72	126.50
1	A	305	G	N1-C6-O6	9.83	125.80	119.90
1	A	442	G	N1-C6-O6	9.83	125.80	119.90
1	A	1034	G	O4'-C1'-N9	9.83	116.06	108.20
1	A	1122	U	O4'-C1'-N1	9.83	116.06	108.20
1	A	954	G	C5'-C4'-C3'	-9.82	100.28	116.00
1	A	1241	G	N3-C4-C5	-9.82	123.69	128.60
1	A	78	A	N3-C4-N9	9.82	135.25	127.40
1	A	90	C	N1-C2-N3	9.82	126.07	119.20
1	A	626	G	C8-N9-C4	-9.82	102.47	106.40
1	A	1482	G	C5-C6-O6	-9.81	122.71	128.60
1	A	92	U	N3-C2-O2	-9.81	115.33	122.20
1	A	829	G	N1-C6-O6	9.81	125.78	119.90
1	A	1155	A	N1-C6-N6	9.81	124.48	118.60
1	A	329	A	C4-C5-C6	9.80	121.90	117.00
1	A	1145	A	C2-N3-C4	9.80	115.50	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	617	G	N1-C6-O6	9.80	125.78	119.90
1	A	913	A	C5-C6-N6	-9.80	115.86	123.70
1	A	13	U	C6-N1-C2	-9.80	115.12	121.00
1	A	865	A	O4'-C1'-N9	9.80	116.04	108.20
1	A	1124	G	O3'-P-O5'	-9.79	85.40	104.00
1	A	246	A	C5'-C4'-C3'	-9.79	100.33	116.00
1	A	447	G	C8-N9-C1'	9.79	139.73	127.00
1	A	673	A	O4'-C1'-N9	9.78	116.03	108.20
1	A	1022	A	N1-C6-N6	9.78	124.47	118.60
1	A	248	C	O4'-C4'-C3'	-9.77	94.23	104.00
1	A	1201	A	P-O3'-C3'	9.77	131.43	119.70
1	A	269	C	C3'-C2'-C1'	-9.77	93.68	101.50
1	A	1090	U	C2-N1-C1'	-9.77	105.98	117.70
1	A	1141	C	O4'-C1'-N1	9.77	116.02	108.20
1	A	1187	G	N1-C6-O6	9.77	125.76	119.90
1	A	752	G	C8-N9-C1'	9.77	139.70	127.00
1	A	849	G	C5-C6-O6	-9.76	122.74	128.60
1	A	1528	U	P-O5'-C5'	9.76	136.52	120.90
1	A	1162	C	O4'-C1'-N1	9.76	116.01	108.20
1	A	515	G	C5-C6-O6	-9.76	122.74	128.60
1	A	524	G	N1-C6-O6	9.76	125.76	119.90
1	A	1158	C	C6-N1-C1'	9.76	132.51	120.80
1	A	65	A	O4'-C1'-N9	9.76	116.01	108.20
1	A	180	U	C5'-C4'-C3'	-9.76	100.39	116.00
1	A	454	G	C8-N9-C4	-9.76	102.50	106.40
1	A	459	A	C4-C5-C6	9.76	121.88	117.00
1	A	498	A	N9-C4-C5	9.76	109.70	105.80
1	A	925	G	O4'-C1'-C2'	9.76	116.38	107.60
1	A	1399	C	O4'-C1'-C2'	9.76	116.38	107.60
1	A	1484	C	C6-N1-C2	-9.76	116.40	120.30
1	A	145	G	N9-C4-C5	-9.75	101.50	105.40
1	A	24	U	C2-N3-C4	-9.75	121.15	127.00
1	A	1041	G	O3'-P-O5'	-9.75	85.47	104.00
1	A	216	U	C6-N1-C1'	9.75	134.85	121.20
1	A	908	A	C4-N9-C1'	9.75	143.85	126.30
1	A	1188	A	N1-C6-N6	9.75	124.45	118.60
1	A	202	G	C8-N9-C1'	9.75	139.67	127.00
1	A	1107	C	C2-N3-C4	9.75	124.77	119.90
1	A	1379	G	C4-N9-C1'	-9.75	113.83	126.50
1	A	190	A	C5-C6-N1	-9.74	112.83	117.70
1	A	199	A	N1-C6-N6	9.74	124.45	118.60
1	A	138	G	C3'-C2'-C1'	-9.74	93.71	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	431	A	C5'-C4'-C3'	-9.74	100.42	116.00
1	A	1157	A	N1-C6-N6	9.74	124.44	118.60
1	A	1334	G	C4'-C3'-C2'	9.74	112.34	102.60
1	A	537	G	C5-C6-O6	-9.73	122.76	128.60
1	A	23	C	C6-N1-C2	-9.73	116.41	120.30
1	A	551	U	O4'-C1'-N1	9.73	115.98	108.20
1	A	184	G	N3-C2-N2	9.73	126.71	119.90
1	A	478	A	N1-C6-N6	9.73	124.44	118.60
1	A	1511	G	C5-C6-O6	-9.73	122.77	128.60
1	A	424	G	N1-C6-O6	9.72	125.73	119.90
1	A	641	U	P-O3'-C3'	9.72	131.37	119.70
1	A	45	G	C8-N9-C1'	9.72	139.63	127.00
1	A	765	G	C5-C6-O6	-9.72	122.77	128.60
1	A	196	A	O3'-P-O5'	-9.71	85.55	104.00
1	A	763	G	C5'-C4'-C3'	-9.71	100.46	116.00
1	A	1323	G	N1-C6-O6	9.71	125.72	119.90
1	A	678	U	O4'-C1'-N1	9.70	115.96	108.20
1	A	256	U	C6-N1-C1'	9.70	134.78	121.20
1	A	849	G	N1-C6-O6	9.70	125.72	119.90
1	A	858	G	N1-C6-O6	9.70	125.72	119.90
1	A	1339	A	O4'-C1'-N9	9.70	115.96	108.20
1	A	65	A	C4-C5-C6	9.70	121.85	117.00
1	A	580	C	O4'-C1'-N1	9.70	115.96	108.20
1	A	777	A	N1-C6-N6	9.70	124.42	118.60
1	A	1173	U	C3'-C2'-C1'	-9.70	93.74	101.50
1	A	1234	C	P-O3'-C3'	-9.70	108.06	119.70
1	A	1004	A	C4'-C3'-C2'	9.69	112.29	102.60
1	A	1181	G	P-O5'-C5'	9.69	136.40	120.90
1	A	1254	A	O4'-C1'-N9	9.69	115.95	108.20
1	A	585	G	C4-N9-C1'	-9.69	113.91	126.50
1	A	946	A	C5-C6-N6	-9.69	115.95	123.70
1	A	393	A	N1-C6-N6	9.68	124.41	118.60
1	A	467	U	C6-N1-C1'	-9.68	107.65	121.20
1	A	1344	C	O4'-C1'-N1	9.68	115.94	108.20
1	A	547	A	C8-N9-C1'	-9.68	110.28	127.70
1	A	935	A	O4'-C1'-N9	9.68	115.94	108.20
1	A	1002	G	C5-C6-O6	-9.68	122.80	128.60
1	A	186	C	C5'-C4'-C3'	-9.67	100.52	116.00
1	A	39	G	P-O3'-C3'	-9.67	108.09	119.70
1	A	169	C	O4'-C1'-N1	9.67	115.94	108.20
1	A	966	G	N1-C6-O6	9.67	125.70	119.90
1	A	1090	U	C2-N3-C4	-9.67	121.20	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1098	C	O4'-C1'-N1	9.67	115.94	108.20
1	A	345	C	N3-C4-C5	-9.67	118.03	121.90
1	A	409	U	C3'-C2'-C1'	-9.67	93.76	101.50
1	A	583	A	C5'-C4'-C3'	-9.67	100.53	116.00
1	A	1259	C	P-O5'-C5'	9.67	136.37	120.90
1	A	180	U	P-O5'-C5'	9.66	136.36	120.90
1	A	424	G	C5'-C4'-C3'	-9.66	100.54	116.00
1	A	215	C	N3-C4-C5	-9.66	118.03	121.90
1	A	1026	G	N1-C6-O6	9.66	125.70	119.90
1	A	1188	A	O4'-C1'-N9	9.66	115.93	108.20
1	A	1150	A	N1-C6-N6	9.66	124.39	118.60
1	A	639	G	C5'-C4'-O4'	9.65	120.69	109.10
1	A	1509	C	N3-C2-O2	-9.65	115.14	121.90
1	A	249	U	C2-N1-C1'	-9.65	106.12	117.70
1	A	1293	C	C2-N1-C1'	-9.65	108.18	118.80
1	A	215	C	C6-N1-C1'	9.65	132.38	120.80
1	A	1514	G	O4'-C1'-N9	9.65	115.92	108.20
1	A	254	G	O4'-C1'-N9	9.65	115.92	108.20
1	A	455	G	C4-N9-C1'	-9.65	113.96	126.50
1	A	1012	A	N1-C6-N6	9.65	124.39	118.60
1	A	1186	G	C6-N1-C2	-9.65	119.31	125.10
1	A	1338	G	O4'-C1'-N9	9.65	115.92	108.20
1	A	1314	C	O4'-C1'-N1	9.65	115.92	108.20
1	A	1462	C	C6-N1-C1'	9.65	132.38	120.80
1	A	20	U	C3'-C2'-C1'	-9.64	93.78	101.50
1	A	61	G	O4'-C4'-C3'	-9.64	94.36	104.00
1	A	517	G	O4'-C1'-N9	9.64	115.92	108.20
1	A	203	G	C6-C5-N7	-9.64	124.61	130.40
1	A	397	A	N1-C6-N6	9.64	124.39	118.60
1	A	713	G	C1'-O4'-C4'	-9.64	102.19	109.90
1	A	772	U	O4'-C4'-C3'	-9.64	94.36	104.00
1	A	204	G	C3'-C2'-C1'	-9.64	93.79	101.50
1	A	1401	G	C5-C6-O6	-9.64	122.82	128.60
8	H	2	MET	CA-CB-CG	9.64	129.68	113.30
1	A	147	G	C5'-C4'-C3'	-9.63	100.58	116.00
1	A	389	A	O4'-C1'-N9	9.64	115.91	108.20
1	A	1288	A	P-O5'-C5'	9.63	136.31	120.90
1	A	1363	A	C2-N3-C4	9.63	115.42	110.60
1	A	953	G	C5-C6-O6	-9.63	122.82	128.60
1	A	1305	G	C2-N3-C4	-9.63	107.09	111.90
1	A	143	A	C3'-C2'-C1'	-9.62	93.80	101.50
1	A	145	G	C4-N9-C1'	-9.63	113.99	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	954	G	N1-C6-O6	9.62	125.67	119.90
1	A	1063	C	N3-C4-C5	-9.63	118.05	121.90
1	A	1499	A	C5'-C4'-C3'	9.62	131.40	116.00
18	R	63	TYR	CB-CG-CD2	-9.62	115.22	121.00
1	A	738	C	C6-N1-C2	-9.62	116.45	120.30
1	A	1442	G	C5'-C4'-C3'	-9.62	100.60	116.00
1	A	199	A	P-O3'-C3'	-9.62	108.16	119.70
1	A	410	G	P-O3'-C3'	9.62	131.24	119.70
1	A	460	A	C5-C6-N6	-9.62	116.00	123.70
1	A	529	G	N1-C6-O6	9.62	125.67	119.90
1	A	1111	A	O4'-C4'-C3'	-9.62	94.38	104.00
1	A	1129	C	O4'-C1'-C2'	9.62	116.26	107.60
1	A	1441	A	C6-C5-N7	-9.61	125.57	132.30
1	A	130	A	C3'-C2'-C1'	-9.61	93.81	101.50
1	A	454	G	C6-N1-C2	-9.61	119.33	125.10
1	A	595	A	C4-C5-C6	9.61	121.81	117.00
1	A	349	A	C5'-C4'-C3'	-9.61	100.62	116.00
1	A	647	C	C2-N1-C1'	-9.61	108.23	118.80
1	A	839	C	N3-C4-C5	-9.60	118.06	121.90
1	A	1239	A	C5'-C4'-O4'	9.60	120.62	109.10
1	A	1045	C	P-O5'-C5'	-9.60	105.54	120.90
1	A	1104	G	C8-N9-C1'	9.60	139.48	127.00
1	A	286	C	C6-N1-C2	-9.60	116.46	120.30
1	A	406	G	C8-N9-C4	-9.60	102.56	106.40
1	A	861	G	C5-C6-O6	-9.60	122.84	128.60
15	O	71	ARG	NE-CZ-NH1	-9.60	115.50	120.30
1	A	56	U	C4-C5-C6	-9.59	113.94	119.70
1	A	80	A	C5'-C4'-C3'	-9.59	100.65	116.00
1	A	317	U	C5'-C4'-C3'	-9.59	100.65	116.00
1	A	1007	U	C6-N1-C2	-9.59	115.24	121.00
1	A	1227	A	P-O5'-C5'	-9.59	105.55	120.90
1	A	290	C	O4'-C1'-N1	9.59	115.87	108.20
1	A	1276	G	C4-N9-C1'	9.59	138.97	126.50
1	A	1207	G	C5'-C4'-C3'	-9.59	100.66	116.00
1	A	908	A	C6-C5-N7	-9.59	125.59	132.30
1	A	935	A	C6-N1-C2	-9.58	112.85	118.60
1	A	1276	G	C4-C5-C6	9.58	124.55	118.80
1	A	1475	G	C5'-C4'-C3'	-9.58	100.67	116.00
1	A	262	A	C5-C6-N6	-9.58	116.04	123.70
1	A	1261	A	O4'-C1'-N9	9.58	115.86	108.20
1	A	1049	U	O4'-C1'-N1	9.57	115.86	108.20
1	A	766	A	O4'-C1'-N9	9.57	115.86	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1343	G	C8-N9-C1'	9.57	139.44	127.00
1	A	310	G	O4'-C1'-N9	9.57	115.86	108.20
1	A	449	G	C4'-C3'-C2'	9.57	112.17	102.60
1	A	806	C	C5'-C4'-C3'	9.57	131.31	116.00
1	A	1402	C	C5'-C4'-O4'	9.57	120.58	109.10
1	A	1183	U	C4'-C3'-C2'	-9.57	93.03	102.60
1	A	182	A	C8-N9-C4	-9.57	101.97	105.80
1	A	158	G	C3'-C2'-C1'	-9.56	93.85	101.50
3	C	167	TYR	CB-CG-CD1	9.56	126.74	121.00
1	A	652	U	C5'-C4'-C3'	-9.56	100.70	116.00
1	A	1384	C	C6-N1-C2	-9.56	116.48	120.30
1	A	221	C	C3'-C2'-C1'	-9.56	93.85	101.50
1	A	246	A	C4'-C3'-C2'	9.56	112.16	102.60
1	A	916	U	C3'-C2'-C1'	-9.56	93.85	101.50
1	A	1524	C	O4'-C1'-N1	9.56	115.85	108.20
1	A	11	G	C8-N9-C4	-9.56	102.58	106.40
1	A	234	C	C6-N1-C2	-9.55	116.48	120.30
1	A	256	U	C3'-C2'-C1'	-9.55	93.86	101.50
1	A	793	U	O4'-C1'-N1	9.55	115.84	108.20
13	M	5	GLY	N-CA-C	-9.55	89.22	113.10
1	A	496	A	C5'-C4'-C3'	-9.55	100.72	116.00
1	A	1111	A	C1'-O4'-C4'	-9.55	102.26	109.90
1	A	1118	U	C6-N1-C2	-9.55	115.27	121.00
1	A	77	A	P-O5'-C5'	-9.54	105.63	120.90
1	A	268	U	C2-N1-C1'	-9.54	106.25	117.70
1	A	1434	A	C5'-C4'-C3'	-9.54	100.73	116.00
1	A	499	A	C4'-C3'-C2'	9.54	112.14	102.60
1	A	1275	A	N7-C8-N9	9.54	118.57	113.80
1	A	392	C	N3-C4-N4	9.54	124.68	118.00
1	A	929	G	C4-N9-C1'	-9.54	114.10	126.50
1	A	1064	G	P-O5'-C5'	9.54	136.16	120.90
1	A	1526	G	O5'-P-OP2	-9.54	97.12	105.70
1	A	1340	A	N1-C6-N6	9.53	124.32	118.60
1	A	1080	A	O4'-C1'-N9	-9.53	100.57	108.20
1	A	1363	A	C3'-C2'-C1'	-9.53	93.88	101.50
1	A	450	G	O5'-C5'-C4'	-9.53	93.59	111.70
1	A	434	U	C2-N1-C1'	-9.53	106.27	117.70
1	A	1193	G	C5'-C4'-C3'	-9.53	100.75	116.00
1	A	4	U	C6-N1-C2	-9.53	115.28	121.00
1	A	1343	G	N1-C6-O6	9.53	125.61	119.90
1	A	777	A	C8-N9-C4	-9.52	101.99	105.80
1	A	459	A	C5'-C4'-O4'	9.52	120.52	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	514	C	C5-C6-N1	9.52	125.76	121.00
1	A	1260	G	N3-C2-N2	9.52	126.56	119.90
1	A	186	C	C1'-O4'-C4'	-9.52	102.29	109.90
1	A	378	G	C5'-C4'-C3'	9.52	131.23	116.00
1	A	393	A	O4'-C4'-C3'	-9.52	94.48	104.00
1	A	785	G	N1-C6-O6	9.52	125.61	119.90
1	A	974	A	O3'-P-O5'	-9.52	85.92	104.00
1	A	861	G	C5'-C4'-O4'	9.52	120.52	109.10
1	A	1042	A	C2'-C3'-O3'	9.52	130.43	109.50
1	A	1405	G	C4-N9-C1'	-9.51	114.13	126.50
1	A	39	G	O4'-C1'-N9	9.51	115.81	108.20
1	A	1160	G	N9-C1'-C2'	-9.51	101.54	112.00
1	A	472	U	C6-N1-C1'	9.51	134.51	121.20
1	A	816	A	C4-C5-C6	9.51	121.75	117.00
1	A	986	U	O4'-C1'-N1	9.51	115.81	108.20
1	A	1315	U	O4'-C1'-N1	9.51	115.81	108.20
1	A	61	G	C3'-C2'-C1'	-9.50	93.90	101.50
1	A	869	G	C5'-C4'-O4'	9.50	120.50	109.10
1	A	981	U	O4'-C1'-N1	9.50	115.80	108.20
1	A	79	G	C5'-C4'-O4'	9.50	120.50	109.10
1	A	500	G	N9-C1'-C2'	-9.50	101.55	112.00
1	A	1264	U	O4'-C1'-N1	9.50	115.80	108.20
1	A	171	A	C5-C6-N1	-9.50	112.95	117.70
1	A	384	G	C8-N9-C1'	9.50	139.34	127.00
1	A	1176	A	C4-C5-C6	9.50	121.75	117.00
1	A	1364	U	N3-C4-C5	-9.50	108.90	114.60
1	A	1022	A	C3'-C2'-C1'	-9.49	93.91	101.50
1	A	1230	C	O4'-C1'-N1	9.49	115.80	108.20
1	A	134	G	C5-C6-O6	-9.49	122.91	128.60
1	A	1031	C	P-O3'-C3'	-9.49	108.31	119.70
1	A	1249	C	N3-C4-N4	9.49	124.64	118.00
1	A	732	C	N1-C1'-C2'	-9.49	101.56	112.00
1	A	80	A	P-O3'-C3'	-9.48	108.32	119.70
1	A	340	U	O4'-C1'-N1	9.48	115.79	108.20
1	A	361	G	C8-N9-C4	-9.48	102.61	106.40
1	A	176	C	C6-N1-C2	-9.48	116.51	120.30
1	A	644	U	P-O5'-C5'	9.48	136.07	120.90
1	A	1386	G	C5-C6-O6	-9.48	122.91	128.60
16	P	14	ARG	NE-CZ-NH2	-9.48	115.56	120.30
1	A	1378	C	C5-C4-N4	-9.48	113.57	120.20
1	A	1194	U	C2-N1-C1'	-9.47	106.33	117.70
1	A	237	G	C8-N9-C1'	9.47	139.31	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1440	U	C1'-O4'-C4'	-9.47	102.33	109.90
1	A	749	A	O3'-P-O5'	-9.47	86.01	104.00
1	A	99	C	N1-C2-O2	9.46	124.58	118.90
1	A	381	C	P-O5'-C5'	-9.46	105.76	120.90
1	A	1119	C	O4'-C1'-N1	9.46	115.77	108.20
1	A	1246	A	C8-N9-C4	-9.46	102.02	105.80
1	A	1363	A	C5-C6-N6	-9.46	116.13	123.70
1	A	803	G	O4'-C1'-N9	9.46	115.77	108.20
1	A	936	C	C5'-C4'-C3'	-9.46	100.87	116.00
1	A	297	G	P-O3'-C3'	-9.45	108.36	119.70
1	A	403	C	N3-C4-N4	9.46	124.62	118.00
1	A	296	U	O4'-C1'-N1	9.45	115.76	108.20
1	A	799	G	C5'-C4'-C3'	9.45	131.12	116.00
1	A	1029	U	O4'-C1'-N1	9.45	115.76	108.20
1	A	1293	C	C6-N1-C1'	9.45	132.14	120.80
1	A	295	C	C5'-C4'-C3'	-9.45	100.88	116.00
1	A	890	G	C3'-C2'-C1'	-9.45	93.94	101.50
1	A	890	G	N1-C6-O6	9.45	125.57	119.90
1	A	7	A	C5-C6-N6	-9.45	116.14	123.70
1	A	373	A	C5-C6-N1	-9.45	112.98	117.70
1	A	746	A	N1-C6-N6	9.45	124.27	118.60
1	A	835	U	O4'-C1'-N1	9.45	115.76	108.20
1	A	1015	G	O4'-C1'-N9	9.45	115.76	108.20
1	A	995	C	C6-N1-C2	-9.44	116.52	120.30
1	A	1072	G	N1-C6-O6	9.45	125.57	119.90
1	A	1353	G	N3-C2-N2	9.44	126.51	119.90
1	A	460	A	N9-C4-C5	9.44	109.58	105.80
1	A	867	G	O3'-P-O5'	-9.44	86.06	104.00
18	R	52	ARG	NE-CZ-NH2	9.44	125.02	120.30
1	A	40	C	O4'-C1'-N1	9.44	115.75	108.20
1	A	77	A	C5-C6-N1	-9.44	112.98	117.70
1	A	675	A	N1-C6-N6	9.44	124.26	118.60
1	A	934	C	P-O3'-C3'	9.44	131.03	119.70
1	A	1062	U	C2-N1-C1'	-9.44	106.37	117.70
1	A	1457	G	N1-C6-O6	9.44	125.56	119.90
1	A	1008	U	C1'-O4'-C4'	-9.44	102.35	109.90
1	A	1292	G	C8-N9-C1'	9.44	139.26	127.00
1	A	996	A	C5'-C4'-C3'	-9.43	100.91	116.00
1	A	773	G	C6-C5-N7	-9.43	124.74	130.40
1	A	131	A	C4-N9-C1'	-9.43	109.33	126.30
1	A	250	A	C5-C6-N1	-9.43	112.99	117.70
1	A	605	U	C2-N1-C1'	-9.43	106.39	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1435	G	C5-C6-O6	-9.43	122.94	128.60
1	A	383	A	C8-N9-C4	-9.43	102.03	105.80
1	A	478	A	N9-C4-C5	9.43	109.57	105.80
1	A	779	C	O4'-C1'-N1	9.43	115.74	108.20
1	A	1434	A	C4-C5-C6	9.43	121.71	117.00
1	A	61	G	C5-C6-O6	9.42	134.25	128.60
1	A	305	G	C5-C6-O6	-9.42	122.95	128.60
1	A	327	A	C5-C6-N6	-9.42	116.16	123.70
1	A	1323	G	O4'-C1'-N9	9.42	115.74	108.20
1	A	415	A	C5-C6-N6	-9.42	116.17	123.70
1	A	840	C	C3'-C2'-C1'	-9.42	93.97	101.50
1	A	973	G	O3'-P-O5'	9.42	121.89	104.00
1	A	122	G	C4-N9-C1'	9.41	138.74	126.50
1	A	1264	U	C5'-C4'-C3'	-9.41	100.94	116.00
1	A	655	A	C5'-C4'-C3'	-9.41	100.94	116.00
1	A	1288	A	C4-C5-C6	9.41	121.71	117.00
1	A	1420	U	N3-C4-O4	9.41	125.99	119.40
1	A	25	C	O4'-C1'-N1	9.41	115.73	108.20
1	A	1299	A	P-O3'-C3'	-9.41	108.41	119.70
1	A	251	G	O5'-C5'-C4'	-9.41	93.82	111.70
1	A	935	A	C4-C5-C6	9.41	121.70	117.00
1	A	703	G	O4'-C1'-N9	9.40	115.72	108.20
1	A	1174	G	N1-C6-O6	9.40	125.54	119.90
1	A	428	G	N3-C2-N2	9.40	126.48	119.90
1	A	1258	G	C8-N9-C4	-9.40	102.64	106.40
1	A	1466	C	C6-N1-C2	-9.40	116.54	120.30
1	A	1175	G	C5'-C4'-C3'	-9.40	100.97	116.00
1	A	1520	C	N3-C4-N4	9.40	124.58	118.00
1	A	1141	C	C5'-C4'-C3'	-9.39	100.97	116.00
1	A	271	C	C5-C4-N4	-9.39	113.62	120.20
1	A	319	G	N3-C2-N2	9.39	126.47	119.90
15	O	68	TYR	CB-CG-CD1	-9.39	115.37	121.00
1	A	90	C	N1-C2-O2	-9.39	113.27	118.90
1	A	431	A	C5'-C4'-O4'	9.39	120.37	109.10
1	A	304	U	O4'-C1'-N1	9.39	115.71	108.20
1	A	1374	A	O4'-C1'-N9	9.39	115.71	108.20
1	A	662	U	C6-N1-C2	-9.39	115.37	121.00
1	A	774	G	C5'-C4'-C3'	-9.39	100.98	116.00
1	A	1095	U	O4'-C4'-C3'	-9.39	94.61	104.00
1	A	1247	U	O4'-C1'-N1	9.38	115.71	108.20
1	A	500	G	N1-C6-O6	9.38	125.53	119.90
1	A	745	G	N1-C6-O6	9.38	125.53	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1485	U	C5'-C4'-C3'	-9.38	100.99	116.00
1	A	883	C	P-O5'-C5'	9.38	135.91	120.90
1	A	1276	G	N1-C6-O6	9.38	125.53	119.90
1	A	765	G	C8-N9-C1'	9.38	139.19	127.00
1	A	787	A	N1-C6-N6	9.38	124.22	118.60
1	A	1028	C	C5'-C4'-C3'	-9.37	101.00	116.00
1	A	1276	G	C5'-C4'-O4'	9.38	120.35	109.10
1	A	1323	G	C3'-C2'-C1'	-9.38	94.00	101.50
1	A	70	U	C5'-C4'-O4'	9.37	120.35	109.10
1	A	281	G	N1-C6-O6	9.37	125.52	119.90
1	A	1285	A	P-O3'-C3'	9.37	130.95	119.70
1	A	313	A	C4-C5-C6	9.37	121.69	117.00
1	A	153	C	O4'-C1'-N1	9.37	115.70	108.20
1	A	186	C	C3'-C2'-C1'	-9.37	94.00	101.50
1	A	1268	G	O4'-C1'-N9	9.37	115.70	108.20
1	A	1304	G	C1'-O4'-C4'	-9.37	102.41	109.90
1	A	611	C	N3-C4-C5	-9.36	118.15	121.90
1	A	794	A	C5'-C4'-C3'	-9.36	101.02	116.00
1	A	804	U	O4'-C1'-N1	9.37	115.69	108.20
1	A	972	C	C6-N1-C1'	9.36	132.04	120.80
1	A	106	C	C5-C6-N1	9.36	125.68	121.00
1	A	544	G	C4-N9-C1'	-9.36	114.33	126.50
1	A	600	A	C3'-C2'-C1'	-9.36	94.01	101.50
1	A	892	A	C6-C5-N7	-9.36	125.75	132.30
1	A	484	G	C1'-O4'-C4'	-9.36	102.42	109.90
1	A	1289	A	C5'-C4'-C3'	-9.36	101.03	116.00
1	A	1192	C	O4'-C1'-N1	9.35	115.68	108.20
1	A	1208	C	C5'-C4'-C3'	-9.35	101.03	116.00
1	A	52	C	N3-C4-N4	9.35	124.55	118.00
1	A	676	A	C8-N9-C4	-9.35	102.06	105.80
1	A	313	A	N7-C8-N9	9.35	118.47	113.80
1	A	1005	A	C5-C6-N1	-9.35	113.03	117.70
1	A	601	G	C4-N9-C1'	-9.34	114.35	126.50
1	A	752	G	N1-C2-N2	9.34	124.61	116.20
1	A	1273	C	N1-C1'-C2'	-9.34	101.72	112.00
1	A	1459	G	C5'-C4'-C3'	-9.34	101.05	116.00
1	A	554	A	N1-C6-N6	9.34	124.20	118.60
1	A	407	U	P-O5'-C5'	9.34	135.84	120.90
1	A	27	G	N1-C6-O6	9.34	125.50	119.90
1	A	1015	G	C8-N9-C1'	9.33	139.13	127.00
1	A	480	U	P-O3'-C3'	9.33	130.90	119.70
1	A	838	G	C5'-C4'-C3'	-9.33	101.07	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	881	G	P-O5'-C5'	-9.33	105.97	120.90
1	A	1374	A	C8-N9-C4	-9.33	102.07	105.80
1	A	659	U	C5'-C4'-C3'	-9.32	101.08	116.00
1	A	72	A	C4'-C3'-C2'	-9.32	93.28	102.60
1	A	1054	C	O3'-P-O5'	-9.32	86.29	104.00
1	A	238	A	C8-N9-C1'	9.32	144.48	127.70
1	A	1092	A	O4'-C1'-N9	9.32	115.66	108.20
1	A	190	A	C5'-C4'-O4'	9.32	120.28	109.10
1	A	723	U	P-O3'-C3'	-9.32	108.52	119.70
1	A	634	C	N3-C4-C5	-9.31	118.17	121.90
1	A	1408	A	C8-N9-C4	-9.31	102.07	105.80
1	A	339	C	N3-C4-C5	-9.31	118.18	121.90
1	A	239	U	N3-C2-O2	-9.31	115.68	122.20
1	A	513	C	N3-C4-C5	-9.31	118.18	121.90
1	A	884	U	P-O3'-C3'	9.30	130.87	119.70
1	A	910	C	P-O5'-C5'	9.30	135.79	120.90
1	A	1374	A	C5-C6-N1	-9.30	113.05	117.70
1	A	691	G	N9-C4-C5	-9.30	101.68	105.40
1	A	257	G	C8-N9-C4	-9.30	102.68	106.40
1	A	451	A	C5'-C4'-O4'	9.30	120.26	109.10
1	A	463	U	P-O3'-C3'	-9.30	108.54	119.70
1	A	915	A	N1-C6-N6	9.30	124.18	118.60
1	A	1447	A	C4-N9-C1'	-9.30	109.56	126.30
1	A	1319	A	C5-C6-N1	-9.30	113.05	117.70
1	A	385	C	N3-C4-N4	9.30	124.51	118.00
1	A	991	U	C5'-C4'-C3'	-9.29	101.13	116.00
1	A	855	U	C5'-C4'-C3'	-9.29	101.13	116.00
1	A	986	U	C2-N1-C1'	-9.29	106.55	117.70
1	A	45	G	N1-C6-O6	9.29	125.47	119.90
1	A	278	G	C5-C6-O6	-9.29	123.03	128.60
1	A	696	A	C5-C6-N6	-9.28	116.27	123.70
1	A	337	G	N1-C6-O6	9.28	125.47	119.90
1	A	1375	A	C4-C5-C6	9.28	121.64	117.00
1	A	405	U	P-O5'-C5'	9.28	135.75	120.90
1	A	434	U	C1'-O4'-C4'	-9.28	102.48	109.90
1	A	505	G	C5-C6-O6	-9.28	123.03	128.60
1	A	871	U	O4'-C1'-N1	9.28	115.62	108.20
1	A	971	G	P-O3'-C3'	9.28	130.84	119.70
1	A	1042	A	C4-C5-C6	9.28	121.64	117.00
1	A	98	A	C4-C5-N7	-9.28	106.06	110.70
1	A	846	G	C5'-C4'-C3'	-9.28	101.16	116.00
1	A	1197	A	C5'-C4'-C3'	-9.28	101.16	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1231	G	N3-C2-N2	-9.28	113.41	119.90
1	A	933	G	C4-N9-C1'	-9.27	114.44	126.50
1	A	951	G	N3-C2-N2	9.27	126.39	119.90
1	A	1169	A	C4'-C3'-C2'	-9.27	93.33	102.60
1	A	577	G	N1-C6-O6	9.27	125.46	119.90
1	A	495	A	O4'-C1'-C2'	9.27	115.94	107.60
1	A	581	G	C3'-C2'-C1'	-9.27	94.08	101.50
1	A	381	C	N3-C4-C5	-9.27	118.19	121.90
1	A	157	U	C3'-C2'-C1'	-9.27	94.09	101.50
1	A	540	G	N1-C6-O6	9.27	125.46	119.90
1	A	1184	G	C5'-C4'-C3'	-9.27	101.17	116.00
1	A	1124	G	C8-N9-C1'	9.26	139.04	127.00
1	A	1511	G	N1-C6-O6	9.26	125.46	119.90
1	A	142	G	N9-C1'-C2'	9.26	126.04	114.00
1	A	598	U	P-O3'-C3'	-9.26	108.59	119.70
1	A	1064	G	C5-C6-O6	-9.26	123.04	128.60
1	A	1140	C	O3'-P-O5'	-9.26	86.41	104.00
1	A	1205	U	C2-N1-C1'	-9.26	106.59	117.70
1	A	519	C	O4'-C1'-N1	9.26	115.61	108.20
1	A	755	G	C8-N9-C4	-9.26	102.70	106.40
1	A	1404	C	N3-C4-C5	-9.26	118.20	121.90
17	Q	44	HIS	CA-CB-CG	9.26	129.33	113.60
1	A	183	C	C1'-O4'-C4'	-9.25	102.50	109.90
1	A	1267	C	N3-C4-N4	9.25	124.48	118.00
1	A	1470	U	O4'-C4'-C3'	-9.25	94.75	104.00
1	A	71	A	C4-C5-C6	9.25	121.62	117.00
1	A	724	G	O4'-C1'-N9	9.25	115.60	108.20
1	A	1037	C	P-O5'-C5'	9.25	135.70	120.90
1	A	1312	G	C5'-C4'-C3'	-9.25	101.20	116.00
1	A	302	G	O4'-C1'-N9	9.24	115.60	108.20
1	A	940	C	P-O3'-C3'	-9.24	108.61	119.70
1	A	305	G	C5'-C4'-C3'	-9.24	101.21	116.00
1	A	1009	U	C2-N1-C1'	-9.24	106.61	117.70
1	A	1174	G	C5'-C4'-O4'	9.24	120.19	109.10
9	I	13	SER	N-CA-CB	9.24	124.36	110.50
1	A	289	G	C5-C6-O6	-9.24	123.06	128.60
1	A	395	C	C6-N1-C2	-9.24	116.61	120.30
1	A	1166	G	P-O3'-C3'	9.24	130.79	119.70
1	A	1179	A	C5-C6-N6	-9.24	116.31	123.70
1	A	1357	A	C5'-C4'-C3'	-9.24	101.22	116.00
1	A	154	U	C6-N1-C1'	9.23	134.13	121.20
1	A	579	A	N9-C1'-C2'	-9.23	101.84	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1442	G	C8-N9-C4	-9.23	102.71	106.40
1	A	1226	C	P-O3'-C3'	9.23	130.78	119.70
3	C	155	ARG	NE-CZ-NH2	-9.23	115.68	120.30
1	A	170	U	O4'-C1'-N1	9.23	115.58	108.20
1	A	231	U	C6-N1-C1'	9.23	134.12	121.20
1	A	1503	A	N1-C6-N6	9.23	124.14	118.60
1	A	1174	G	P-O5'-C5'	-9.22	106.15	120.90
1	A	1220	G	C4-N9-C1'	-9.22	114.52	126.50
1	A	785	G	C5'-C4'-O4'	9.22	120.16	109.10
1	A	791	G	O4'-C1'-N9	9.22	115.57	108.20
1	A	1319	A	C4-C5-C6	9.22	121.61	117.00
1	A	1378	C	C5'-C4'-O4'	9.21	120.16	109.10
1	A	259	G	C5-C6-O6	-9.21	123.07	128.60
1	A	691	G	O4'-C1'-N9	9.21	115.57	108.20
1	A	1392	G	C8-N9-C1'	9.21	138.97	127.00
1	A	890	G	C4-N9-C1'	-9.21	114.53	126.50
1	A	251	G	C4'-C3'-C2'	-9.21	93.39	102.60
1	A	1134	G	C8-N9-C1'	9.21	138.97	127.00
1	A	1434	A	N9-C4-C5	9.21	109.48	105.80
1	A	71	A	C5-C6-N6	-9.20	116.34	123.70
1	A	801	U	C5'-C4'-C3'	9.20	130.72	116.00
1	A	396	C	C1'-O4'-C4'	-9.20	102.54	109.90
1	A	1267	C	C6-N1-C2	-9.20	116.62	120.30
1	A	1331	G	P-O3'-C3'	9.20	130.74	119.70
1	A	249	U	P-O3'-C3'	-9.20	108.67	119.70
1	A	1461	G	C4-N9-C1'	-9.20	114.54	126.50
1	A	179	A	C8-N9-C4	-9.19	102.12	105.80
1	A	1330	U	C3'-C2'-C1'	-9.19	94.15	101.50
1	A	1143	G	C5-C6-O6	-9.19	123.09	128.60
1	A	1167	A	N1-C6-N6	9.19	124.11	118.60
1	A	1331	G	N3-C2-N2	9.19	126.33	119.90
1	A	455	G	N9-C4-C5	9.19	109.07	105.40
1	A	72	A	C8-N9-C4	-9.18	102.13	105.80
1	A	92	U	C6-N1-C1'	9.18	134.06	121.20
1	A	333	U	P-O3'-C3'	9.18	130.72	119.70
1	A	1421	G	N1-C6-O6	9.18	125.41	119.90
1	A	1440	U	C4'-C3'-O3'	9.18	131.36	113.00
1	A	144	G	C8-N9-C4	9.18	110.07	106.40
1	A	1356	G	N1-C6-O6	9.18	125.41	119.90
1	A	1482	G	P-O5'-C5'	9.18	135.58	120.90
1	A	1043	G	C5-C6-O6	-9.17	123.09	128.60
1	A	548	G	O4'-C1'-N9	9.17	115.54	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1118	U	C2-N1-C1'	-9.17	106.69	117.70
1	A	1439	G	C8-N9-C4	-9.17	102.73	106.40
1	A	770	C	C3'-C2'-C1'	-9.17	94.16	101.50
1	A	1179	A	C5'-C4'-O4'	9.17	120.10	109.10
1	A	204	G	O4'-C4'-C3'	-9.17	94.83	104.00
1	A	324	G	C5'-C4'-C3'	-9.17	101.33	116.00
1	A	1490	U	P-O3'-C3'	9.17	130.70	119.70
1	A	54	C	C3'-C2'-C1'	-9.16	94.17	101.50
1	A	1239	A	C5-C6-N6	-9.16	116.37	123.70
1	A	1509	C	C6-N1-C2	-9.16	116.63	120.30
1	A	11	G	N1-C6-O6	9.16	125.40	119.90
1	A	660	C	O4'-C1'-N1	9.16	115.53	108.20
1	A	1032	G	C3'-C2'-C1'	-9.16	94.17	101.50
1	A	1406	U	C5'-C4'-C3'	-9.16	101.34	116.00
1	A	297	G	N3-C2-N2	-9.16	113.49	119.90
1	A	471	U	C3'-C2'-C1'	-9.16	94.17	101.50
1	A	1149	C	N3-C4-C5	-9.16	118.24	121.90
1	A	722	G	C8-N9-C4	-9.15	102.74	106.40
1	A	254	G	C5-C6-O6	-9.15	123.11	128.60
1	A	345	C	C4'-C3'-C2'	-9.15	93.45	102.60
1	A	784	A	P-O5'-C5'	-9.15	106.26	120.90
1	A	1150	A	N7-C8-N9	9.14	118.37	113.80
1	A	210	C	O4'-C1'-N1	9.14	115.51	108.20
1	A	631	C	C2-N1-C1'	9.14	128.86	118.80
1	A	1258	G	O4'-C1'-N9	9.14	115.51	108.20
1	A	1305	G	C6-C5-N7	-9.14	124.91	130.40
1	A	731	G	O4'-C1'-N9	9.14	115.51	108.20
1	A	1233	G	N3-C2-N2	9.14	126.30	119.90
1	A	719	C	O4'-C1'-N1	9.14	115.51	108.20
1	A	1154	G	C1'-O4'-C4'	-9.14	102.59	109.90
1	A	103	U	P-O3'-C3'	-9.14	108.74	119.70
1	A	223	A	C4-C5-C6	9.14	121.57	117.00
1	A	787	A	P-O3'-C3'	-9.14	108.74	119.70
1	A	1034	G	O5'-C5'-C4'	9.14	129.06	111.70
1	A	529	G	O4'-C1'-N9	9.13	115.51	108.20
1	A	1251	A	N1-C6-N6	9.13	124.08	118.60
1	A	1384	C	N3-C4-C5	-9.13	118.25	121.90
1	A	1515	G	P-O3'-C3'	-9.13	108.74	119.70
1	A	471	U	C1'-O4'-C4'	-9.13	102.59	109.90
1	A	658	C	P-O3'-C3'	-9.13	108.74	119.70
1	A	844	G	N1-C6-O6	9.13	125.38	119.90
1	A	1006	G	N1-C6-O6	9.13	125.38	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1019	A	N9-C1'-C2'	-9.13	101.96	112.00
1	A	1026	G	P-O3'-C3'	9.13	130.66	119.70
1	A	1383	C	N3-C4-N4	9.13	124.39	118.00
1	A	1435	G	O4'-C1'-N9	9.13	115.50	108.20
1	A	93	U	P-O3'-C3'	-9.13	108.75	119.70
1	A	406	G	C2-N3-C4	9.13	116.46	111.90
1	A	656	G	C4-N9-C1'	-9.13	114.64	126.50
1	A	1007	U	N3-C2-O2	-9.13	115.81	122.20
1	A	591	U	C6-N1-C2	-9.13	115.52	121.00
1	A	809	G	C4-N9-C1'	-9.12	114.64	126.50
1	A	420	U	C2-N1-C1'	-9.12	106.75	117.70
1	A	935	A	C5-N7-C8	9.12	108.46	103.90
1	A	698	G	N1-C6-O6	9.12	125.37	119.90
1	A	1123	U	N1-C2-N3	9.12	120.37	114.90
1	A	371	A	C5'-C4'-C3'	-9.12	101.41	116.00
1	A	752	G	C4-C5-N7	-9.12	107.15	110.80
1	A	785	G	C5'-C4'-C3'	-9.12	101.41	116.00
1	A	1097	C	N3-C4-C5	-9.12	118.25	121.90
1	A	471	U	N3-C2-O2	-9.12	115.82	122.20
1	A	890	G	C5-C6-O6	-9.12	123.13	128.60
1	A	1320	C	O4'-C1'-N1	9.12	115.49	108.20
1	A	241	G	C5'-C4'-C3'	-9.12	101.42	116.00
1	A	461	A	N1-C6-N6	9.12	124.07	118.60
1	A	100	G	N7-C8-N9	9.11	117.66	113.10
1	A	63	C	C2-N1-C1'	-9.11	108.78	118.80
1	A	834	U	O4'-C1'-N1	9.11	115.49	108.20
1	A	181	A	N1-C6-N6	9.11	124.06	118.60
17	Q	44	HIS	CB-CA-C	9.11	128.61	110.40
1	A	118	U	C5-C6-N1	9.10	127.25	122.70
1	A	230	G	C8-N9-C4	-9.10	102.76	106.40
1	A	696	A	C5'-C4'-O4'	9.10	120.02	109.10
1	A	857	C	C5'-C4'-C3'	-9.10	101.44	116.00
1	A	909	A	C4-C5-C6	9.10	121.55	117.00
1	A	1107	C	O4'-C1'-N1	9.10	115.48	108.20
1	A	1365	G	C8-N9-C4	-9.10	102.76	106.40
1	A	1393	U	C5'-C4'-O4'	-9.10	98.18	109.10
1	A	99	C	C6-N1-C1'	9.10	131.72	120.80
1	A	181	A	C5-C6-N6	-9.10	116.42	123.70
1	A	1435	G	C1'-O4'-C4'	-9.10	102.62	109.90
1	A	1494	G	C6-C5-N7	-9.10	124.94	130.40
1	A	1364	U	C3'-C2'-C1'	-9.09	94.22	101.50
1	A	342	C	C5-C6-N1	9.09	125.55	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	432	A	C8-N9-C4	-9.09	102.16	105.80
1	A	1211	U	O4'-C1'-N1	9.09	115.47	108.20
1	A	1308	U	C2-N3-C4	-9.09	121.55	127.00
1	A	531	U	N1-C1'-C2'	-9.09	102.01	112.00
1	A	1164	G	O4'-C1'-N9	9.09	115.47	108.20
1	A	203	G	N3-C4-C5	-9.08	124.06	128.60
1	A	264	C	N3-C4-N4	9.08	124.36	118.00
1	A	666	G	N3-C2-N2	9.08	126.26	119.90
1	A	712	A	C8-N9-C4	-9.08	102.17	105.80
1	A	1324	A	C3'-C2'-C1'	-9.08	94.23	101.50
1	A	13	U	C2-N1-C1'	9.08	128.60	117.70
1	A	1186	G	C8-N9-C1'	9.08	138.81	127.00
1	A	1355	G	N9-C4-C5	9.08	109.03	105.40
1	A	301	G	N1-C6-O6	9.08	125.35	119.90
1	A	614	C	N1-C1'-C2'	-9.08	102.01	112.00
1	A	28	A	C4-C5-C6	9.08	121.54	117.00
1	A	618	C	C4'-C3'-C2'	-9.08	93.52	102.60
1	A	1033	G	C8-N9-C4	-9.08	102.77	106.40
1	A	732	C	C4'-C3'-C2'	9.07	111.67	102.60
1	A	28	A	C3'-C2'-C1'	-9.07	94.24	101.50
1	A	690	G	N3-C2-N2	9.07	126.25	119.90
1	A	338	A	O4'-C1'-N9	9.07	115.46	108.20
1	A	1197	A	C8-N9-C4	-9.07	102.17	105.80
1	A	1220	G	C8-N9-C1'	9.07	138.79	127.00
1	A	449	G	C8-N9-C4	-9.07	102.77	106.40
1	A	49	U	C4-C5-C6	-9.07	114.26	119.70
1	A	265	G	C6-N1-C2	-9.07	119.66	125.10
1	A	1147	C	P-O5'-C5'	9.07	135.41	120.90
1	A	1153	G	C8-N9-C1'	9.07	138.79	127.00
1	A	49	U	P-O3'-C3'	-9.06	108.82	119.70
1	A	516	U	O4'-C1'-N1	9.06	115.45	108.20
1	A	856	C	O4'-C1'-N1	9.06	115.45	108.20
1	A	1104	G	C5'-C4'-C3'	-9.06	101.50	116.00
3	C	39	ARG	NE-CZ-NH2	-9.06	115.77	120.30
1	A	68	G	C4-N9-C1'	9.06	138.27	126.50
1	A	137	U	C3'-C2'-C1'	-9.06	94.25	101.50
1	A	163	C	O4'-C1'-N1	9.05	115.44	108.20
1	A	331	G	N3-C2-N2	9.05	126.24	119.90
1	A	77	A	C6-C5-N7	-9.05	125.96	132.30
1	A	903	G	N1-C6-O6	9.05	125.33	119.90
1	A	417	G	N7-C8-N9	9.05	117.62	113.10
1	A	428	G	C4-N9-C1'	-9.05	114.73	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1035	A	P-O3'-C3'	-9.05	108.84	119.70
1	A	1168	U	C6-N1-C2	-9.05	115.57	121.00
1	A	145	G	C5'-C4'-C3'	-9.05	101.52	116.00
1	A	381	C	O4'-C1'-N1	9.05	115.44	108.20
1	A	389	A	C5-C6-N6	-9.04	116.46	123.70
1	A	1191	A	C4-C5-C6	9.05	121.52	117.00
1	A	670	G	C4-N9-C1'	-9.04	114.74	126.50
1	A	436	C	C6-N1-C1'	9.04	131.65	120.80
1	A	721	G	N1-C6-O6	9.04	125.33	119.90
1	A	897	C	N3-C4-C5	-9.04	118.28	121.90
1	A	1452	C	O4'-C1'-N1	9.04	115.43	108.20
1	A	414	A	C8-N9-C4	-9.04	102.18	105.80
1	A	447	G	C4-N9-C1'	-9.04	114.75	126.50
1	A	190	A	C5-C6-N6	-9.04	116.47	123.70
1	A	1068	G	N3-C2-N2	9.04	126.23	119.90
1	A	1095	U	C4'-C3'-C2'	-9.04	93.56	102.60
1	A	1282	C	N3-C4-C5	-9.04	118.28	121.90
1	A	304	U	C3'-C2'-C1'	-9.03	94.27	101.50
1	A	496	A	C5-C6-N6	-9.04	116.47	123.70
1	A	730	G	C4'-C3'-C2'	-9.03	93.57	102.60
1	A	1523	G	C3'-C2'-C1'	-9.03	94.27	101.50
1	A	714	G	C4-N9-C1'	-9.03	114.76	126.50
1	A	985	C	N3-C4-C5	-9.03	118.29	121.90
1	A	273	U	C5-C6-N1	9.03	127.21	122.70
1	A	1162	C	C1'-O4'-C4'	-9.03	102.68	109.90
1	A	648	A	C5-C6-N1	-9.03	113.19	117.70
1	A	1265	C	C6-N1-C1'	9.03	131.63	120.80
1	A	1355	G	C2-N3-C4	9.03	116.41	111.90
1	A	764	C	O4'-C1'-N1	9.02	115.42	108.20
1	A	461	A	P-O5'-C5'	-9.02	106.47	120.90
1	A	926	G	P-O3'-C3'	9.02	130.53	119.70
1	A	1244	G	C8-N9-C1'	9.02	138.73	127.00
1	A	404	G	C2-N3-C4	9.02	116.41	111.90
1	A	1191	A	P-O5'-C5'	9.02	135.33	120.90
1	A	1330	U	O5'-P-OP2	-9.02	97.58	105.70
1	A	450	G	P-O5'-C5'	9.02	135.33	120.90
1	A	712	A	C5-C6-N6	-9.02	116.49	123.70
1	A	716	A	N1-C6-N6	9.02	124.01	118.60
1	A	1197	A	C4-C5-C6	9.02	121.51	117.00
1	A	1293	C	C3'-C2'-C1'	-9.02	94.29	101.50
1	A	1491	G	C8-N9-C1'	9.02	138.72	127.00
1	A	82	G	N1-C2-N2	9.01	124.31	116.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	522	C	C2-N1-C1'	-9.01	108.89	118.80
1	A	1133	G	C5'-C4'-C3'	-9.01	101.59	116.00
1	A	147	G	N3-C2-N2	9.01	126.20	119.90
1	A	289	G	O5'-C5'-C4'	-9.01	94.58	111.70
1	A	1030	U	C2-N1-C1'	9.01	128.51	117.70
1	A	1248	A	C8-N9-C4	-9.01	102.20	105.80
1	A	341	C	O4'-C1'-N1	9.00	115.40	108.20
1	A	805	C	O4'-C1'-N1	9.00	115.40	108.20
1	A	1382	C	C5-C6-N1	9.00	125.50	121.00
1	A	100	G	N1-C6-O6	9.00	125.30	119.90
1	A	783	C	C6-N1-C2	-9.00	116.70	120.30
1	A	975	A	C4-C5-C6	9.00	121.50	117.00
1	A	1057	G	C4-C5-C6	9.00	124.20	118.80
1	A	1068	G	C6-C5-N7	-9.00	125.00	130.40
1	A	1123	U	N3-C2-O2	-9.00	115.90	122.20
1	A	347	G	N3-C4-C5	-9.00	124.10	128.60
1	A	1037	C	C5'-C4'-C3'	9.00	130.40	116.00
1	A	1094	G	C5'-C4'-C3'	-9.00	101.60	116.00
1	A	1402	C	P-O3'-C3'	-9.00	108.90	119.70
1	A	1039	G	C8-N9-C4	-9.00	102.80	106.40
1	A	869	G	O3'-P-O5'	-8.99	86.91	104.00
1	A	101	A	C5'-C4'-O4'	8.99	119.89	109.10
1	A	352	C	C5'-C4'-O4'	8.99	119.89	109.10
1	A	464	U	C2-N3-C4	-8.99	121.60	127.00
1	A	739	C	C5-C6-N1	8.99	125.50	121.00
1	A	472	U	C1'-O4'-C4'	-8.99	102.71	109.90
1	A	1023	U	C3'-C2'-C1'	-8.99	94.31	101.50
1	A	1061	G	C5-C6-O6	-8.99	123.20	128.60
1	A	92	U	O4'-C1'-N1	8.99	115.39	108.20
1	A	759	A	N1-C6-N6	8.99	123.99	118.60
1	A	1343	G	C5'-C4'-C3'	-8.99	101.62	116.00
1	A	1241	G	C1'-O4'-C4'	-8.99	102.71	109.90
1	A	784	A	N1-C6-N6	8.98	123.99	118.60
1	A	270	A	C4-C5-C6	8.98	121.49	117.00
1	A	1420	U	C5-C4-O4	-8.98	120.51	125.90
1	A	1482	G	O5'-C5'-C4'	-8.98	94.63	111.70
1	A	1485	U	C6-N1-C2	-8.98	115.61	121.00
1	A	197	A	N1-C6-N6	8.98	123.99	118.60
1	A	797	C	C6-N1-C1'	8.98	131.57	120.80
1	A	805	C	C6-N1-C2	-8.98	116.71	120.30
1	A	321	A	O4'-C1'-N9	8.98	115.38	108.20
1	A	1305	G	C1'-O4'-C4'	-8.98	102.72	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	C	194	VAL	CA-CB-CG1	-8.98	97.43	110.90
1	A	27	G	N3-C2-N2	8.97	126.18	119.90
1	A	324	G	O4'-C1'-N9	8.97	115.38	108.20
1	A	1058	G	C6-C5-N7	-8.97	125.02	130.40
17	Q	68	LYS	N-CA-CB	8.97	126.75	110.60
1	A	1355	G	C1'-O4'-C4'	-8.97	102.73	109.90
1	A	56	U	C2-N3-C4	-8.97	121.62	127.00
1	A	454	G	N1-C6-O6	8.96	125.28	119.90
1	A	614	C	O4'-C1'-N1	8.96	115.37	108.20
1	A	1101	A	C5-C6-N1	-8.97	113.22	117.70
1	A	119	A	O4'-C4'-C3'	8.96	113.27	106.10
1	A	564	C	C6-N1-C2	-8.96	116.72	120.30
1	A	961	U	O4'-C1'-N1	8.96	115.37	108.20
1	A	1127	G	P-O3'-C3'	-8.96	108.95	119.70
1	A	239	U	C1'-O4'-C4'	-8.96	102.73	109.90
1	A	341	C	N3-C4-C5	-8.96	118.32	121.90
1	A	571	U	O4'-C1'-N1	8.95	115.36	108.20
1	A	1242	G	P-O3'-C3'	-8.95	108.96	119.70
1	A	1492	A	N1-C6-N6	8.96	123.97	118.60
1	A	287	U	C5'-C4'-O4'	8.95	119.84	109.10
1	A	867	G	C4'-C3'-C2'	-8.95	93.65	102.60
20	T	49	ALA	CB-CA-C	8.95	123.53	110.10
1	A	148	G	N1-C6-O6	8.95	125.27	119.90
2	B	30	ILE	N-CA-C	-8.95	86.83	111.00
1	A	94	G	C8-N9-C4	-8.95	102.82	106.40
1	A	345	C	C1'-O4'-C4'	-8.95	102.74	109.90
1	A	902	G	O5'-C5'-C4'	-8.95	94.70	111.70
1	A	1433	A	C5-C6-N6	-8.95	116.54	123.70
1	A	131	A	C5-C6-N6	-8.95	116.54	123.70
1	A	272	C	C5-C6-N1	8.95	125.47	121.00
1	A	312	C	C5'-C4'-C3'	8.95	130.31	116.00
1	A	416	G	N1-C6-O6	8.95	125.27	119.90
1	A	939	G	C4-N9-C1'	-8.95	114.87	126.50
1	A	1049	U	P-O3'-C3'	8.94	130.43	119.70
1	A	548	G	C5-C6-O6	-8.94	123.24	128.60
1	A	832	G	C6-N1-C2	-8.94	119.73	125.10
17	Q	47	ASP	N-CA-C	-8.94	86.86	111.00
1	A	795	C	P-O5'-C5'	8.94	135.20	120.90
1	A	1523	G	C8-N9-C1'	8.94	138.62	127.00
1	A	18	C	C2-N3-C4	8.94	124.37	119.90
1	A	703	G	N1-C6-O6	8.94	125.26	119.90
1	A	460	A	C1'-O4'-C4'	-8.93	102.75	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	466	A	C4-C5-N7	-8.93	106.23	110.70
1	A	1499	A	N1-C6-N6	8.93	123.96	118.60
1	A	1021	A	C4-C5-C6	8.93	121.46	117.00
1	A	1185	G	N9-C1'-C2'	-8.93	102.18	112.00
1	A	392	C	C5-C4-N4	-8.92	113.95	120.20
1	A	557	G	O5'-C5'-C4'	-8.92	94.75	111.70
16	P	16	PHE	N-CA-C	-8.92	86.91	111.00
1	A	903	G	C8-N9-C1'	-8.92	115.40	127.00
1	A	1517	G	N1-C6-O6	8.92	125.25	119.90
1	A	42	G	C5-C6-O6	-8.92	123.25	128.60
1	A	261	U	P-O3'-C3'	-8.92	109.00	119.70
1	A	495	A	N1-C6-N6	8.92	123.95	118.60
1	A	1154	G	C5-C6-O6	-8.92	123.25	128.60
1	A	1260	G	N1-C6-O6	8.92	125.25	119.90
1	A	1473	G	N7-C8-N9	8.92	117.56	113.10
1	A	414	A	C5'-C4'-C3'	-8.91	101.74	116.00
1	A	1484	C	O4'-C1'-N1	8.91	115.33	108.20
1	A	312	C	C3'-C2'-C1'	-8.91	94.37	101.50
1	A	1037	C	N3-C4-N4	8.91	124.24	118.00
1	A	1280	A	O5'-C5'-C4'	-8.91	94.77	111.70
1	A	583	A	C5'-C4'-O4'	8.91	119.79	109.10
1	A	1276	G	C6-C5-N7	-8.91	125.06	130.40
1	A	486	U	C6-N1-C2	-8.90	115.66	121.00
1	A	547	A	C1'-O4'-C4'	-8.90	102.78	109.90
1	A	1260	G	C5-C6-O6	-8.90	123.26	128.60
1	A	1472	U	C4'-C3'-C2'	-8.90	93.70	102.60
1	A	1118	U	C6-N1-C1'	8.90	133.66	121.20
1	A	1208	C	C3'-C2'-C1'	-8.90	94.38	101.50
1	A	443	C	C3'-C2'-C1'	-8.90	94.38	101.50
1	A	869	G	C1'-O4'-C4'	-8.90	102.78	109.90
1	A	1346	A	P-O3'-C3'	8.90	130.38	119.70
1	A	281	G	C5-C6-O6	-8.89	123.26	128.60
1	A	1014	A	P-O5'-C5'	-8.89	106.67	120.90
1	A	1522	U	P-O3'-C3'	-8.89	109.03	119.70
1	A	218	U	C5'-C4'-O4'	8.89	119.77	109.10
1	A	796	C	N3-C4-C5	-8.89	118.34	121.90
1	A	860	A	C6-C5-N7	-8.89	126.08	132.30
1	A	1278	G	P-O5'-C5'	-8.89	106.68	120.90
1	A	71	A	C5'-C4'-C3'	-8.88	101.78	116.00
1	A	805	C	P-O5'-C5'	8.88	135.12	120.90
1	A	992	U	O4'-C1'-N1	8.88	115.31	108.20
17	Q	72	TRP	N-CA-C	-8.88	87.01	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	283	U	C5-C4-O4	-8.88	120.57	125.90
1	A	427	U	C2-N3-C4	-8.88	121.67	127.00
1	A	1376	U	O4'-C1'-N1	8.88	115.31	108.20
1	A	954	G	C8-N9-C1'	8.88	138.54	127.00
1	A	371	A	C3'-C2'-C1'	-8.88	94.40	101.50
1	A	1332	A	N9-C1'-C2'	-8.87	102.24	112.00
1	A	278	G	C5'-C4'-C3'	8.87	130.19	116.00
1	A	1161	C	C5-C6-N1	8.87	125.44	121.00
1	A	88	U	C1'-O4'-C4'	8.87	117.00	109.90
1	A	777	A	C5-C6-N1	-8.87	113.27	117.70
1	A	962	C	C5'-C4'-O4'	8.87	119.74	109.10
1	A	1054	C	C5-C4-N4	-8.87	113.99	120.20
1	A	1152	A	C5'-C4'-C3'	-8.87	101.81	116.00
1	A	1325	C	C6-N1-C2	-8.87	116.75	120.30
1	A	10	A	N1-C6-N6	8.86	123.92	118.60
1	A	695	A	C5-C6-N6	-8.87	116.61	123.70
1	A	952	U	O4'-C1'-N1	8.87	115.29	108.20
1	A	52	C	P-O3'-C3'	-8.86	109.06	119.70
1	A	1219	A	C5-C6-N6	-8.86	116.61	123.70
1	A	1336	C	C2'-C3'-O3'	8.86	129.00	109.50
1	A	11	G	C5'-C4'-C3'	-8.86	101.82	116.00
1	A	195	A	C5'-C4'-O4'	8.86	119.73	109.10
1	A	463	U	C2-N3-C4	-8.86	121.69	127.00
1	A	739	C	N3-C4-N4	8.86	124.20	118.00
1	A	1463	U	C6-N1-C2	-8.86	115.69	121.00
1	A	214	C	O4'-C1'-N1	8.86	115.29	108.20
1	A	331	G	C8-N9-C4	-8.86	102.86	106.40
1	A	332	G	O3'-P-O5'	8.86	120.83	104.00
1	A	1092	A	C4-C5-C6	-8.86	112.57	117.00
1	A	237	G	C4-N9-C1'	-8.85	114.99	126.50
1	A	868	C	C5-C6-N1	8.85	125.43	121.00
1	A	1186	G	C1'-O4'-C4'	-8.85	102.82	109.90
1	A	1487	G	C8-N9-C1'	8.85	138.51	127.00
1	A	794	A	P-O3'-C3'	-8.85	109.08	119.70
1	A	954	G	N7-C8-N9	8.85	117.53	113.10
1	A	1122	U	C6-N1-C1'	8.85	133.59	121.20
1	A	131	A	N1-C6-N6	8.85	123.91	118.60
1	A	350	G	C4-N9-C1'	-8.85	115.00	126.50
1	A	449	G	P-O3'-C3'	-8.85	109.08	119.70
1	A	1072	G	C8-N9-C1'	8.84	138.50	127.00
1	A	300	A	C5-C6-N1	-8.84	113.28	117.70
1	A	786	G	C8-N9-C4	-8.84	102.86	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	31	G	P-O5'-C5'	-8.84	106.76	120.90
1	A	567	G	C8-N9-C1'	8.84	138.49	127.00
1	A	1467	C	C5-C4-N4	-8.84	114.02	120.20
1	A	1227	A	N1-C6-N6	8.83	123.90	118.60
1	A	1487	G	N1-C6-O6	8.83	125.20	119.90
1	A	529	G	C1'-O4'-C4'	-8.83	102.83	109.90
1	A	356	A	O4'-C1'-N9	8.82	115.25	108.20
1	A	393	A	P-O3'-C3'	-8.82	109.12	119.70
1	A	529	G	C4'-C3'-C2'	-8.82	93.78	102.60
1	A	1001	C	N3-C4-C5	-8.82	118.37	121.90
1	A	1526	G	C5'-C4'-C3'	-8.82	101.89	116.00
1	A	176	C	P-O5'-C5'	8.81	135.00	120.90
1	A	195	A	C4-N9-C1'	8.81	142.16	126.30
1	A	652	U	C2'-C3'-O3'	8.81	128.88	109.50
1	A	1060	U	C6-N1-C2	-8.81	115.71	121.00
1	A	936	C	C5'-C4'-O4'	8.81	119.67	109.10
1	A	1057	G	O5'-C5'-C4'	8.81	128.44	111.70
1	A	1162	C	C3'-C2'-C1'	-8.81	94.45	101.50
1	A	1391	U	C6-N1-C1'	8.81	133.53	121.20
1	A	1474	U	C3'-C2'-C1'	-8.81	94.45	101.50
1	A	94	G	C6-N1-C2	-8.80	119.82	125.10
1	A	1290	G	P-O3'-C3'	-8.80	109.13	119.70
1	A	1158	C	N3-C2-O2	-8.80	115.74	121.90
1	A	81	A	N9-C4-C5	8.80	109.32	105.80
1	A	240	G	O5'-C5'-C4'	8.80	128.42	111.70
1	A	587	G	C5-C6-O6	-8.80	123.32	128.60
1	A	909	A	O4'-C1'-N9	8.80	115.24	108.20
1	A	287	U	C2-N3-C4	-8.80	121.72	127.00
1	A	457	G	C1'-O4'-C4'	-8.80	102.86	109.90
1	A	1002	G	P-O5'-C5'	-8.80	106.83	120.90
1	A	1088	G	N1-C6-O6	8.80	125.18	119.90
1	A	265	G	N1-C2-N3	-8.80	118.62	123.90
1	A	403	C	C2-N1-C1'	8.80	128.48	118.80
1	A	1015	G	C4-N9-C1'	-8.80	115.06	126.50
1	A	1071	C	P-O5'-C5'	8.80	134.97	120.90
1	A	829	G	C6-C5-N7	-8.79	125.12	130.40
1	A	1056	U	C1'-O4'-C4'	-8.79	102.86	109.90
1	A	52	C	O4'-C4'-C3'	-8.79	95.21	104.00
1	A	1216	A	C5'-C4'-C3'	8.79	130.07	116.00
1	A	1260	G	C8-N9-C1'	8.79	138.43	127.00
1	A	1349	A	O4'-C1'-N9	8.79	115.23	108.20
1	A	196	A	N3-C4-C5	-8.79	120.65	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	223	A	O4'-C1'-N9	8.79	115.23	108.20
1	A	293	G	O4'-C1'-N9	8.79	115.23	108.20
1	A	447	G	C3'-C2'-C1'	-8.79	94.47	101.50
1	A	710	G	C8-N9-C1'	8.79	138.43	127.00
1	A	235	C	C6-N1-C2	-8.79	116.78	120.30
1	A	907	A	N7-C8-N9	8.79	118.19	113.80
1	A	908	A	C5-C6-N1	-8.78	113.31	117.70
1	A	219	U	C2-N1-C1'	-8.78	107.16	117.70
1	A	875	U	P-O3'-C3'	-8.78	109.16	119.70
1	A	28	A	C5-C6-N1	-8.78	113.31	117.70
1	A	481	G	C6-C5-N7	-8.78	125.13	130.40
1	A	969	A	C5-C6-N6	-8.78	116.67	123.70
1	A	1131	G	C5-C6-N1	-8.78	107.11	111.50
1	A	73	C	C5'-C4'-C3'	-8.78	101.95	116.00
1	A	285	C	C5'-C4'-C3'	-8.78	101.95	116.00
1	A	739	C	O4'-C1'-N1	8.78	115.22	108.20
1	A	314	C	C1'-O4'-C4'	-8.78	102.88	109.90
1	A	321	A	C4-C5-C6	8.78	121.39	117.00
1	A	1436	U	C2-N3-C4	-8.77	121.74	127.00
1	A	253	A	C4-C5-C6	8.77	121.39	117.00
1	A	1395	C	O4'-C1'-N1	8.77	115.22	108.20
1	A	263	A	N9-C1'-C2'	-8.77	102.35	112.00
1	A	862	C	O3'-P-O5'	-8.77	87.34	104.00
1	A	157	U	O4'-C1'-N1	8.77	115.21	108.20
1	A	227	G	P-O3'-C3'	-8.77	109.18	119.70
1	A	1029	U	C3'-C2'-C1'	-8.77	94.49	101.50
1	A	129	A	C5'-C4'-C3'	-8.76	101.98	116.00
1	A	143	A	P-O3'-C3'	-8.76	109.18	119.70
1	A	214	C	C4-C5-C6	8.76	121.78	117.40
1	A	589	U	O4'-C1'-N1	8.76	115.21	108.20
1	A	991	U	C3'-C2'-C1'	8.76	108.51	101.50
1	A	96	U	O4'-C1'-N1	8.76	115.21	108.20
1	A	435	A	C1'-O4'-C4'	-8.76	102.89	109.90
1	A	1491	G	N1-C6-O6	8.76	125.16	119.90
1	A	440	C	C5'-C4'-C3'	-8.76	101.99	116.00
1	A	864	A	C6-C5-N7	-8.76	126.17	132.30
1	A	1042	A	C5-C6-N1	-8.76	113.32	117.70
1	A	173	U	P-O5'-C5'	-8.75	106.89	120.90
1	A	656	G	N7-C8-N9	8.75	117.48	113.10
1	A	875	U	O4'-C1'-N1	8.75	115.20	108.20
1	A	1133	G	C3'-C2'-C1'	-8.75	94.50	101.50
1	A	74	A	P-O5'-C5'	-8.75	106.90	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	422	C	O3'-P-O5'	-8.75	87.37	104.00
1	A	1124	G	N3-C2-N2	8.75	126.03	119.90
1	A	88	U	O4'-C1'-N1	8.75	115.20	108.20
1	A	710	G	C5'-C4'-C3'	-8.74	102.01	116.00
1	A	725	G	P-O5'-C5'	8.74	134.89	120.90
1	A	1263	C	O4'-C1'-N1	8.74	115.19	108.20
1	A	654	G	P-O5'-C5'	8.74	134.89	120.90
1	A	1110	A	C6-C5-N7	-8.74	126.18	132.30
1	A	1332	A	C2-N3-C4	8.74	114.97	110.60
1	A	829	G	N7-C8-N9	8.74	117.47	113.10
1	A	1128	C	O4'-C1'-N1	8.74	115.19	108.20
1	A	1422	G	C3'-C2'-C1'	-8.74	94.51	101.50
1	A	832	G	N9-C4-C5	-8.73	101.91	105.40
1	A	1231	G	C6-C5-N7	-8.73	125.16	130.40
1	A	1263	C	N3-C4-N4	8.73	124.11	118.00
1	A	547	A	C4-N9-C1'	8.73	142.02	126.30
1	A	637	C	C5'-C4'-O4'	8.73	119.58	109.10
1	A	1378	C	C6-N1-C2	-8.73	116.81	120.30
1	A	401	C	P-O3'-C3'	-8.73	109.22	119.70
1	A	611	C	C6-N1-C2	-8.73	116.81	120.30
1	A	752	G	C5'-C4'-C3'	-8.73	102.03	116.00
1	A	1405	G	N9-C4-C5	-8.73	101.91	105.40
1	A	201	G	C4-N9-C1'	-8.73	115.15	126.50
1	A	491	G	C5'-C4'-O4'	8.73	119.58	109.10
1	A	600	A	C5-C6-N6	-8.73	116.72	123.70
1	A	374	A	O4'-C1'-N9	8.73	115.18	108.20
1	A	833	G	O4'-C1'-N9	8.73	115.18	108.20
1	A	1270	G	N1-C6-O6	8.73	125.14	119.90
1	A	1379	G	C8-N9-C1'	8.73	138.34	127.00
1	A	79	G	C6-N1-C2	-8.72	119.87	125.10
1	A	145	G	N9-C1'-C2'	-8.72	102.41	112.00
1	A	1181	G	C5'-C4'-O4'	8.72	119.57	109.10
1	A	1272	G	N9-C1'-C2'	-8.72	102.41	112.00
1	A	175	C	C2-N1-C1'	-8.72	109.21	118.80
1	A	183	C	C5'-C4'-O4'	8.72	119.56	109.10
1	A	1160	G	C5-C6-O6	8.72	133.83	128.60
1	A	1493	A	P-O3'-C3'	8.72	130.16	119.70
1	A	169	C	C6-N1-C1'	8.72	131.26	120.80
1	A	202	G	C5-C6-O6	-8.72	123.37	128.60
1	A	1166	G	C5-N7-C8	-8.72	99.94	104.30
1	A	301	G	O5'-C5'-C4'	-8.71	95.14	111.70
1	A	444	G	C5'-C4'-C3'	-8.71	102.06	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	647	C	C1'-O4'-C4'	-8.71	102.93	109.90
1	A	1171	A	N9-C1'-C2'	-8.71	102.42	112.00
17	Q	68	LYS	CB-CA-C	-8.71	92.97	110.40
1	A	472	U	N3-C2-O2	-8.71	116.10	122.20
1	A	606	G	C4'-C3'-C2'	8.71	111.31	102.60
1	A	134	G	O4'-C4'-C3'	-8.71	95.29	104.00
1	A	944	G	O4'-C1'-N9	8.71	115.17	108.20
1	A	91	U	C6-N1-C2	-8.70	115.78	121.00
1	A	1296	C	N1-C2-O2	8.70	124.12	118.90
1	A	889	A	O3'-P-O5'	8.70	120.53	104.00
1	A	1160	G	N1-C6-O6	-8.70	114.68	119.90
1	A	45	G	C5-C6-O6	-8.70	123.38	128.60
1	A	430	A	C5-C6-N6	-8.70	116.74	123.70
1	A	535	A	C3'-C2'-C1'	-8.70	94.54	101.50
1	A	302	G	C4-N9-C1'	-8.70	115.19	126.50
1	A	724	G	N3-C2-N2	8.70	125.99	119.90
1	A	176	C	N3-C4-N4	8.70	124.09	118.00
1	A	349	A	N7-C8-N9	8.70	118.15	113.80
1	A	554	A	C5'-C4'-C3'	8.70	129.91	116.00
1	A	1147	C	C6-N1-C2	-8.70	116.82	120.30
1	A	1323	G	C4-N9-C1'	-8.69	115.20	126.50
1	A	1515	G	N9-C1'-C2'	-8.69	102.44	112.00
1	A	824	G	N3-C2-N2	8.69	125.98	119.90
1	A	1325	C	C1'-O4'-C4'	-8.69	102.95	109.90
1	A	32	A	C5-C6-N6	-8.69	116.75	123.70
1	A	317	U	C5'-C4'-O4'	8.69	119.52	109.10
1	A	1241	G	C4-N9-C1'	8.69	137.79	126.50
1	A	79	G	P-O5'-C5'	8.68	134.79	120.90
1	A	1009	U	C6-N1-C1'	8.68	133.36	121.20
1	A	157	U	C1'-O4'-C4'	-8.68	102.95	109.90
1	A	1215	G	C5'-C4'-C3'	-8.68	102.11	116.00
1	A	265	G	C4'-C3'-C2'	-8.68	93.92	102.60
1	A	837	U	O4'-C1'-N1	8.68	115.14	108.20
1	A	958	A	C8-N9-C4	-8.68	102.33	105.80
1	A	371	A	P-O5'-C5'	8.68	134.78	120.90
1	A	459	A	C6-C5-N7	-8.68	126.23	132.30
1	A	750	C	C6-N1-C1'	8.68	131.21	120.80
1	A	938	A	C5-C6-N6	-8.68	116.76	123.70
1	A	348	G	C8-N9-C1'	8.67	138.27	127.00
1	A	397	A	C8-N9-C4	-8.67	102.33	105.80
1	A	699	C	N3-C4-C5	-8.67	118.43	121.90
1	A	713	G	C5'-C4'-C3'	-8.67	102.13	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	334	C	C1'-O4'-C4'	-8.67	102.97	109.90
1	A	612	C	C6-N1-C2	-8.67	116.83	120.30
1	A	679	C	C5'-C4'-O4'	8.67	119.50	109.10
1	A	1250	A	P-O3'-C3'	-8.67	109.30	119.70
1	A	307	C	C6-N1-C1'	-8.66	110.40	120.80
1	A	460	A	C3'-C2'-C1'	-8.66	94.57	101.50
1	A	1270	G	P-O5'-C5'	8.66	134.76	120.90
1	A	770	C	O4'-C1'-N1	8.66	115.13	108.20
1	A	909	A	N7-C8-N9	8.66	118.13	113.80
1	A	1131	G	C4-N9-C1'	-8.66	115.24	126.50
1	A	453	G	C5'-C4'-C3'	-8.66	102.15	116.00
1	A	408	A	N1-C6-N6	8.66	123.79	118.60
1	A	1493	A	C5-C6-N6	-8.66	116.78	123.70
1	A	266	G	C8-N9-C4	-8.65	102.94	106.40
1	A	1253	G	C1'-O4'-C4'	-8.65	102.98	109.90
1	A	887	G	C8-N9-C1'	8.65	138.24	127.00
1	A	1152	A	P-O3'-C3'	-8.65	109.32	119.70
1	A	1435	G	C8-N9-C1'	8.65	138.24	127.00
1	A	1477	U	P-O5'-C5'	8.65	134.74	120.90
1	A	592	G	N1-C6-O6	8.65	125.09	119.90
1	A	348	G	P-O5'-C5'	-8.64	107.07	120.90
1	A	577	G	N7-C8-N9	8.64	117.42	113.10
1	A	1022	A	P-O5'-C5'	-8.64	107.07	120.90
1	A	1476	A	C5-C6-N6	-8.64	116.78	123.70
1	A	155	A	C5'-C4'-C3'	-8.64	102.17	116.00
1	A	488	C	P-O3'-C3'	-8.64	109.33	119.70
1	A	210	C	N3-C4-C5	-8.64	118.44	121.90
1	A	881	G	N9-C4-C5	-8.64	101.94	105.40
1	A	159	G	C5-C6-O6	-8.63	123.42	128.60
1	A	647	C	O4'-C1'-N1	8.63	115.11	108.20
1	A	724	G	P-O5'-C5'	-8.63	107.08	120.90
1	A	1440	U	P-O5'-C5'	-8.64	107.08	120.90
1	A	689	C	C5'-C4'-C3'	-8.63	102.19	116.00
1	A	28	A	C8-N9-C1'	8.63	143.24	127.70
1	A	88	U	C2-N1-C1'	-8.63	107.34	117.70
1	A	581	G	N7-C8-N9	8.63	117.42	113.10
1	A	265	G	P-O3'-C3'	8.63	130.05	119.70
1	A	263	A	C8-N9-C4	8.63	109.25	105.80
1	A	85	U	O4'-C1'-N1	8.62	115.10	108.20
1	A	357	G	P-O3'-C3'	-8.62	109.35	119.70
1	A	901	A	C5'-C4'-O4'	8.62	119.45	109.10
1	A	1197	A	O5'-P-OP1	8.62	121.05	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	658	C	C3'-C2'-C1'	-8.62	94.60	101.50
1	A	604	G	C5-C6-O6	-8.62	123.43	128.60
1	A	906	A	C5-C6-N6	-8.62	116.81	123.70
1	A	1072	G	C4-N9-C1'	-8.62	115.30	126.50
1	A	1300	G	P-O3'-C3'	8.62	130.04	119.70
1	A	658	C	C6-N1-C1'	8.62	131.14	120.80
1	A	492	C	C6-N1-C2	-8.61	116.86	120.30
1	A	1002	G	N1-C6-O6	8.61	125.07	119.90
1	A	475	C	C6-N1-C1'	8.61	131.13	120.80
1	A	76	G	C6-C5-N7	-8.61	125.24	130.40
1	A	154	U	C2-N1-C1'	-8.61	107.37	117.70
1	A	182	A	O3'-P-O5'	-8.61	87.65	104.00
1	A	972	C	O4'-C1'-N1	8.61	115.09	108.20
1	A	993	G	C5'-C4'-O4'	8.61	119.43	109.10
1	A	1134	G	C3'-C2'-C1'	-8.61	94.61	101.50
1	A	1459	G	C8-N9-C1'	8.61	138.19	127.00
3	C	1	GLY	N-CA-C	-8.61	91.58	113.10
1	A	33	A	C5-C6-N1	-8.60	113.40	117.70
1	A	321	A	P-O5'-C5'	8.60	134.66	120.90
1	A	328	C	C6-N1-C1'	-8.60	110.48	120.80
1	A	921	U	P-O3'-C3'	-8.60	109.38	119.70
1	A	1134	G	C5-C6-O6	-8.60	123.44	128.60
1	A	1173	U	C6-N1-C1'	8.60	133.24	121.20
1	A	151	A	N1-C2-N3	8.60	133.60	129.30
1	A	941	G	N1-C6-O6	8.60	125.06	119.90
7	G	2	ARG	NE-CZ-NH2	-8.60	116.00	120.30
1	A	10	A	C3'-C2'-C1'	-8.60	94.62	101.50
1	A	15	G	N1-C6-O6	8.60	125.06	119.90
1	A	379	C	O4'-C1'-N1	8.60	115.08	108.20
1	A	996	A	C1'-O4'-C4'	-8.60	103.02	109.90
1	A	1180	A	P-O3'-C3'	-8.60	109.38	119.70
1	A	187	G	N1-C2-N2	-8.60	108.47	116.20
1	A	1082	A	C4-C5-C6	8.60	121.30	117.00
1	A	230	G	C3'-C2'-C1'	-8.59	94.63	101.50
1	A	278	G	C4-N9-C1'	-8.59	115.33	126.50
1	A	905	U	P-O3'-C3'	-8.59	109.39	119.70
1	A	1241	G	N1-C6-O6	8.59	125.06	119.90
1	A	1409	C	N3-C4-N4	8.59	124.01	118.00
1	A	1504	G	C5-N7-C8	8.59	108.59	104.30
1	A	54	C	C1'-O4'-C4'	-8.59	103.03	109.90
1	A	568	G	C1'-O4'-C4'	-8.59	103.03	109.90
1	A	662	U	O4'-C1'-N1	8.59	115.07	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	752	G	N3-C2-N2	-8.59	113.89	119.90
1	A	886	G	P-O3'-C3'	-8.59	109.39	119.70
1	A	321	A	N9-C1'-C2'	-8.59	102.56	112.00
1	A	949	A	C3'-C2'-C1'	-8.59	94.63	101.50
1	A	975	A	C5-C6-N1	-8.59	113.41	117.70
1	A	192	A	C5-C6-N1	-8.58	113.41	117.70
1	A	365	U	C5-C4-O4	-8.58	120.75	125.90
1	A	687	A	N9-C4-C5	-8.58	102.37	105.80
1	A	849	G	P-O5'-C5'	-8.58	107.17	120.90
1	A	1268	G	N1-C6-O6	8.58	125.05	119.90
1	A	1372	U	O4'-C1'-N1	8.58	115.06	108.20
1	A	180	U	C3'-C2'-C1'	-8.58	94.64	101.50
1	A	464	U	C5'-C4'-O4'	8.58	119.39	109.10
1	A	686	U	N1-C2-N3	-8.58	109.75	114.90
1	A	818	G	N1-C6-O6	8.58	125.05	119.90
1	A	1200	C	C5'-C4'-C3'	8.58	129.72	116.00
1	A	503	C	N3-C4-N4	8.57	124.00	118.00
1	A	1071	C	C2-N3-C4	8.57	124.19	119.90
1	A	1295	U	C2-N1-C1'	-8.57	107.41	117.70
1	A	466	A	N3-C4-C5	-8.57	120.80	126.80
1	A	1499	A	C4-C5-C6	8.57	121.28	117.00
1	A	930	C	O4'-C1'-N1	8.57	115.06	108.20
1	A	1176	A	C5-C6-N1	-8.57	113.42	117.70
1	A	1458	G	O3'-P-O5'	-8.57	87.72	104.00
1	A	94	G	C8-N9-C1'	8.56	138.13	127.00
1	A	452	A	P-O3'-C3'	-8.56	109.42	119.70
1	A	509	A	C5-C6-N6	-8.56	116.85	123.70
1	A	636	U	O4'-C1'-N1	8.56	115.05	108.20
1	A	1475	G	N1-C6-O6	8.56	125.04	119.90
1	A	142	G	C5-C6-O6	-8.56	123.46	128.60
1	A	358	U	C5'-C4'-C3'	-8.56	102.30	116.00
1	A	484	G	O3'-P-O5'	8.56	120.26	104.00
1	A	1417	G	N3-C2-N2	8.56	125.89	119.90
1	A	76	G	N3-C4-C5	-8.56	124.32	128.60
1	A	321	A	C6-N1-C2	-8.56	113.47	118.60
1	A	416	G	C6-C5-N7	-8.56	125.27	130.40
1	A	1294	G	C8-N9-C1'	8.56	138.13	127.00
7	G	30	MET	C-N-CA	8.56	143.10	121.70
1	A	587	G	N1-C6-O6	8.56	125.03	119.90
1	A	132	C	C6-N1-C1'	8.55	131.07	120.80
1	A	240	G	C4-C5-C6	8.55	123.93	118.80
1	A	1206	G	C6-C5-N7	-8.55	125.27	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1236	A	C4-C5-C6	8.55	121.28	117.00
1	A	1162	C	P-O5'-C5'	8.55	134.59	120.90
1	A	1382	C	N3-C4-C5	8.55	125.32	121.90
1	A	380	G	N1-C6-O6	8.55	125.03	119.90
1	A	746	A	P-O3'-C3'	-8.55	109.44	119.70
1	A	928	G	P-O3'-C3'	-8.55	109.44	119.70
1	A	634	C	C2-N1-C1'	8.55	128.20	118.80
1	A	742	G	O4'-C1'-N9	8.55	115.04	108.20
1	A	1515	G	O4'-C1'-N9	8.55	115.04	108.20
8	H	105	THR	CA-CB-CG2	8.55	124.37	112.40
1	A	686	U	C1'-O4'-C4'	-8.55	103.06	109.90
1	A	1374	A	C4-C5-C6	8.54	121.27	117.00
1	A	23	C	N3-C4-N4	8.54	123.98	118.00
1	A	608	A	C5'-C4'-C3'	-8.54	102.33	116.00
1	A	765	G	C3'-C2'-C1'	-8.54	94.67	101.50
1	A	895	G	C8-N9-C1'	8.54	138.10	127.00
1	A	914	A	C3'-C2'-C1'	-8.54	94.67	101.50
1	A	806	C	O4'-C1'-N1	8.54	115.03	108.20
1	A	1244	G	C4-N9-C1'	-8.54	115.40	126.50
1	A	365	U	P-O3'-C3'	-8.54	109.46	119.70
1	A	585	G	N1-C6-O6	8.54	125.02	119.90
1	A	1321	U	P-O3'-C3'	-8.54	109.45	119.70
8	H	112	ASP	CB-CG-OD2	-8.54	110.62	118.30
1	A	807	A	N1-C6-N6	8.53	123.72	118.60
1	A	893	C	N3-C4-N4	8.54	123.97	118.00
1	A	1473	G	C6-C5-N7	-8.53	125.28	130.40
1	A	498	A	C8-N9-C4	-8.53	102.39	105.80
1	A	623	C	N3-C4-C5	-8.53	118.49	121.90
1	A	840	C	C4-C5-C6	8.53	121.66	117.40
1	A	863	U	C1'-O4'-C4'	-8.53	103.08	109.90
1	A	230	G	P-O5'-C5'	8.53	134.54	120.90
1	A	257	G	C8-N9-C1'	8.53	138.09	127.00
1	A	476	U	N1-C2-N3	8.52	120.02	114.90
1	A	1325	C	O3'-P-O5'	8.52	120.19	104.00
1	A	418	C	O5'-C5'-C4'	-8.52	95.51	111.70
1	A	593	U	C6-N1-C1'	8.52	133.13	121.20
1	A	66	A	C8-N9-C4	-8.52	102.39	105.80
1	A	200	G	C5-C6-O6	-8.52	123.49	128.60
1	A	251	G	C5-C6-O6	-8.52	123.49	128.60
1	A	1333	A	C4-C5-C6	8.52	121.26	117.00
1	A	1492	A	C5-C6-N1	-8.52	113.44	117.70
1	A	802	A	C4-C5-C6	8.52	121.26	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	909	A	C5-C6-N1	-8.52	113.44	117.70
1	A	1520	C	N1-C1'-C2'	-8.52	102.63	112.00
1	A	1200	C	C5'-C4'-O4'	-8.52	98.88	109.10
1	A	1296	C	C6-N1-C2	-8.52	116.89	120.30
1	A	1309	G	C5'-C4'-C3'	-8.52	102.37	116.00
1	A	1444	U	C6-N1-C2	-8.52	115.89	121.00
14	N	33	VAL	N-CA-C	-8.52	88.00	111.00
1	A	40	C	C5'-C4'-C3'	-8.52	102.38	116.00
1	A	598	U	C3'-C2'-C1'	-8.52	94.69	101.50
1	A	839	C	P-O3'-C3'	8.52	129.92	119.70
1	A	64	G	C8-N9-C4	-8.51	103.00	106.40
1	A	1489	G	C5'-C4'-C3'	8.51	129.62	116.00
1	A	75	G	N9-C1'-C2'	-8.51	102.64	112.00
1	A	420	U	C6-N1-C1'	8.51	133.12	121.20
1	A	864	A	N1-C6-N6	8.51	123.71	118.60
1	A	336	A	C4-C5-C6	8.51	121.25	117.00
1	A	721	G	C5'-C4'-O4'	8.51	119.31	109.10
1	A	1139	G	O3'-P-O5'	-8.51	87.83	104.00
1	A	1298	U	P-O3'-C3'	-8.51	109.49	119.70
1	A	1519	A	O4'-C1'-N9	8.51	115.01	108.20
1	A	494	G	C5'-C4'-C3'	-8.51	102.39	116.00
2	B	31	PHE	N-CA-CB	8.51	125.91	110.60
1	A	1139	G	C5'-C4'-C3'	8.50	129.61	116.00
1	A	655	A	C4-C5-C6	8.50	121.25	117.00
1	A	742	G	P-O3'-C3'	-8.50	109.50	119.70
1	A	1153	G	N9-C1'-C2'	-8.50	102.65	112.00
1	A	1148	U	C6-N1-C2	-8.50	115.90	121.00
1	A	150	U	O4'-C1'-N1	8.50	115.00	108.20
1	A	312	C	N3-C4-N4	8.50	123.95	118.00
1	A	670	G	C8-N9-C1'	8.50	138.05	127.00
1	A	155	A	N1-C6-N6	8.49	123.70	118.60
1	A	998	C	C5-C4-N4	-8.49	114.25	120.20
1	A	1064	G	N1-C6-O6	8.49	125.00	119.90
1	A	1069	C	C3'-C2'-C1'	-8.49	94.71	101.50
1	A	1358	U	P-O3'-C3'	8.49	129.89	119.70
1	A	179	A	O3'-P-O5'	-8.49	87.87	104.00
1	A	1421	G	N7-C8-N9	8.49	117.34	113.10
1	A	1426	G	C8-N9-C1'	8.49	138.04	127.00
1	A	258	G	C5'-C4'-C3'	-8.49	102.42	116.00
1	A	697	U	C3'-C2'-C1'	-8.49	94.71	101.50
1	A	320	A	C4-N9-C1'	-8.49	111.03	126.30
1	A	765	G	C4'-C3'-C2'	8.49	111.09	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1104	G	C4-N9-C1'	-8.49	115.47	126.50
1	A	584	G	C8-N9-C4	-8.48	103.01	106.40
1	A	774	G	C8-N9-C4	-8.48	103.01	106.40
1	A	1465	A	N1-C6-N6	8.48	123.69	118.60
1	A	70	U	N1-C1'-C2'	-8.48	102.67	112.00
1	A	194	C	N1-C2-O2	8.48	123.99	118.90
1	A	471	U	O4'-C1'-N1	8.48	114.99	108.20
1	A	838	G	C8-N9-C4	-8.48	103.01	106.40
1	A	1008	U	C6-N1-C2	-8.48	115.91	121.00
1	A	117	G	C8-N9-C4	-8.48	103.01	106.40
1	A	119	A	C8-N9-C4	-8.48	102.41	105.80
1	A	213	G	C5'-C4'-O4'	8.48	119.27	109.10
1	A	1249	C	P-O3'-C3'	-8.47	109.53	119.70
1	A	542	G	N1-C2-N3	-8.47	118.82	123.90
1	A	712	A	C4-C5-C6	8.47	121.24	117.00
1	A	1050	G	O4'-C1'-N9	8.47	114.98	108.20
1	A	1350	A	N9-C1'-C2'	-8.47	102.68	112.00
1	A	1416	G	N1-C6-O6	8.47	124.98	119.90
1	A	314	C	C3'-C2'-C1'	-8.47	94.73	101.50
1	A	579	A	O4'-C1'-N9	8.47	114.97	108.20
1	A	1080	A	P-O5'-C5'	-8.47	107.35	120.90
1	A	426	U	C4'-C3'-C2'	-8.47	94.13	102.60
1	A	535	A	O4'-C4'-C3'	-8.46	95.54	104.00
1	A	395	C	C3'-C2'-C1'	-8.46	94.73	101.50
1	A	1046	A	C5-C6-N1	-8.46	113.47	117.70
1	A	1157	A	C5'-C4'-O4'	8.46	119.25	109.10
1	A	169	C	N3-C4-C5	-8.46	118.52	121.90
1	A	95	C	C2-N3-C4	-8.46	115.67	119.90
1	A	1292	G	O4'-C1'-N9	8.46	114.97	108.20
1	A	424	G	C5-C6-O6	-8.45	123.53	128.60
1	A	383	A	C5-C6-N6	-8.45	116.94	123.70
1	A	508	U	C2-N1-C1'	-8.45	107.56	117.70
1	A	581	G	O3'-P-O5'	-8.45	87.94	104.00
1	A	889	A	C5-C6-N6	-8.45	116.94	123.70
1	A	881	G	N9-C1'-C2'	-8.45	102.70	112.00
1	A	1166	G	C5-C6-O6	-8.45	123.53	128.60
1	A	195	A	O5'-P-OP1	-8.45	98.10	105.70
1	A	123	U	O3'-P-O5'	-8.45	87.95	104.00
1	A	647	C	P-O5'-C5'	8.44	134.41	120.90
1	A	745	G	C8-N9-C4	-8.44	103.02	106.40
1	A	830	G	C5-C6-O6	-8.45	123.53	128.60
1	A	1099	G	P-O3'-C3'	-8.44	109.57	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1519	A	P-O3'-C3'	-8.45	109.57	119.70
1	A	173	U	P-O3'-C3'	8.44	129.83	119.70
1	A	889	A	P-O3'-C3'	-8.44	109.57	119.70
1	A	231	U	C2-N1-C1'	-8.44	107.57	117.70
1	A	894	G	P-O3'-C3'	-8.44	109.57	119.70
1	A	679	C	P-O3'-C3'	-8.44	109.57	119.70
1	A	822	U	C5'-C4'-C3'	-8.44	102.50	116.00
1	A	858	G	C3'-C2'-C1'	-8.44	94.75	101.50
1	A	83	C	N3-C4-C5	-8.44	118.53	121.90
1	A	1247	U	C6-N1-C1'	8.44	133.01	121.20
1	A	47	C	O4'-C1'-N1	8.44	114.95	108.20
1	A	211	G	C5'-C4'-C3'	8.44	129.50	116.00
1	A	220	G	C3'-C2'-C1'	-8.44	94.75	101.50
1	A	1014	A	C5-C6-N6	-8.44	116.95	123.70
1	A	264	C	C5-C6-N1	8.44	125.22	121.00
1	A	750	C	P-O3'-C3'	-8.44	109.58	119.70
1	A	929	G	P-O3'-C3'	-8.44	109.58	119.70
1	A	705	G	C5'-C4'-O4'	8.43	119.22	109.10
1	A	1098	C	P-O3'-C3'	-8.43	109.58	119.70
1	A	1114	C	C5'-C4'-O4'	8.43	119.22	109.10
1	A	1171	A	C5-C6-N6	-8.43	116.95	123.70
8	H	64	TYR	CB-CG-CD1	-8.43	115.94	121.00
1	A	148	G	C1'-O4'-C4'	-8.43	103.16	109.90
1	A	1045	C	P-O3'-C3'	-8.43	109.59	119.70
1	A	1050	G	N1-C6-O6	8.43	124.96	119.90
1	A	1177	G	C8-N9-C4	-8.43	103.03	106.40
1	A	1435	G	N7-C8-N9	8.43	117.31	113.10
1	A	1512	U	O4'-C1'-N1	8.43	114.94	108.20
1	A	129	A	N1-C6-N6	8.42	123.66	118.60
1	A	328	C	C2-N1-C1'	8.42	128.06	118.80
1	A	342	C	N3-C4-C5	-8.42	118.53	121.90
1	A	950	U	C5'-C4'-C3'	-8.42	102.52	116.00
1	A	623	C	N3-C4-N4	8.42	123.89	118.00
1	A	1189	U	O4'-C1'-N1	8.42	114.94	108.20
2	B	22	TRP	CB-CG-CD1	8.42	137.95	127.00
1	A	963	G	C5'-C4'-O4'	8.42	119.20	109.10
1	A	1040	U	O3'-P-O5'	-8.42	88.00	104.00
1	A	240	G	C6-C5-N7	-8.42	125.35	130.40
1	A	116	A	C5-C6-N6	-8.42	116.97	123.70
1	A	210	C	N3-C4-N4	8.42	123.89	118.00
1	A	216	U	C4'-C3'-C2'	-8.42	94.18	102.60
1	A	874	G	O4'-C1'-N9	8.42	114.93	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	102	G	C5-C6-N1	-8.41	107.29	111.50
1	A	90	C	C5-C4-N4	-8.41	114.31	120.20
1	A	202	G	N1-C6-O6	8.41	124.95	119.90
1	A	553	A	N1-C6-N6	8.41	123.65	118.60
1	A	1108	G	C5-C6-O6	-8.41	123.55	128.60
1	A	398	U	O4'-C1'-N1	8.41	114.93	108.20
1	A	419	C	C6-N1-C1'	8.41	130.89	120.80
1	A	98	A	N3-C4-C5	-8.41	120.92	126.80
1	A	1481	U	C3'-C2'-C1'	-8.41	94.77	101.50
1	A	240	G	C8-N9-C4	-8.41	103.04	106.40
1	A	497	G	N3-C2-N2	8.41	125.78	119.90
1	A	957	U	P-O5'-C5'	8.41	134.35	120.90
1	A	1423	G	N1-C6-O6	8.41	124.94	119.90
16	P	14	ARG	NE-CZ-NH1	8.41	124.50	120.30
1	A	26	A	O4'-C1'-N9	8.40	114.92	108.20
1	A	180	U	C1'-O4'-C4'	-8.40	103.18	109.90
1	A	190	A	C6-C5-N7	-8.40	126.42	132.30
1	A	882	C	P-O3'-C3'	8.40	129.79	119.70
1	A	627	G	C6-C5-N7	-8.40	125.36	130.40
1	A	1182	G	N3-C4-C5	-8.40	124.40	128.60
1	A	1507	A	P-O3'-C3'	-8.40	109.62	119.70
1	A	31	G	C3'-C2'-C1'	-8.40	94.78	101.50
1	A	99	C	N3-C2-O2	-8.40	116.02	121.90
1	A	78	A	C6-N1-C2	-8.40	113.56	118.60
1	A	607	A	C5'-C4'-C3'	-8.40	102.56	116.00
1	A	1273	C	C2-N1-C1'	-8.40	109.56	118.80
1	A	313	A	P-O3'-C3'	-8.40	109.62	119.70
1	A	191	G	N1-C6-O6	8.39	124.94	119.90
1	A	350	G	C6-N1-C2	-8.39	120.06	125.10
1	A	1081	A	C1'-O4'-C4'	-8.39	103.19	109.90
1	A	348	G	C4-N9-C1'	-8.39	115.59	126.50
1	A	254	G	C6-C5-N7	-8.39	125.37	130.40
1	A	626	G	C3'-C2'-C1'	-8.39	94.79	101.50
1	A	1306	A	C5'-C4'-C3'	-8.39	102.58	116.00
1	A	1427	C	N3-C4-N4	8.39	123.87	118.00
1	A	31	G	N1-C6-O6	8.39	124.93	119.90
1	A	305	G	P-O3'-C3'	8.39	129.76	119.70
1	A	805	C	N3-C4-N4	8.39	123.87	118.00
1	A	972	C	N1-C1'-C2'	-8.39	102.77	112.00
1	A	231	U	N3-C2-O2	-8.39	116.33	122.20
1	A	313	A	C5-C6-N1	-8.38	113.51	117.70
1	A	334	C	O4'-C1'-N1	8.38	114.91	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1172	C	C5'-C4'-C3'	-8.39	102.58	116.00
1	A	450	G	C4-N9-C1'	-8.38	115.60	126.50
1	A	979	C	O4'-C1'-N1	8.38	114.91	108.20
1	A	436	C	O4'-C1'-N1	8.38	114.91	108.20
1	A	544	G	C8-N9-C1'	8.38	137.90	127.00
1	A	877	G	N1-C2-N2	-8.38	108.66	116.20
1	A	1045	C	C6-N1-C2	-8.38	116.95	120.30
1	A	1114	C	P-O5'-C5'	8.38	134.31	120.90
1	A	416	G	C5-C6-O6	-8.38	123.57	128.60
1	A	207	C	N3-C4-C5	-8.38	118.55	121.90
1	A	249	U	O3'-P-O5'	-8.38	88.08	104.00
1	A	763	G	C8-N9-C4	-8.38	103.05	106.40
1	A	1502	A	C4-C5-C6	8.38	121.19	117.00
1	A	79	G	O5'-C5'-C4'	-8.38	95.79	111.70
1	A	829	G	C5-C6-O6	-8.38	123.57	128.60
1	A	1134	G	C4-N9-C1'	-8.38	115.61	126.50
1	A	227	G	C8-N9-C1'	8.37	137.88	127.00
1	A	466	A	C4-N9-C1'	8.37	141.37	126.30
1	A	1390	U	O4'-C1'-N1	8.37	114.90	108.20
1	A	1495	U	C6-N1-C2	-8.37	115.98	121.00
1	A	129	A	C4-N9-C1'	-8.37	111.24	126.30
1	A	162	A	C5'-C4'-C3'	-8.37	102.61	116.00
1	A	190	A	C4-C5-C6	8.37	121.18	117.00
1	A	542	G	N1-C6-O6	8.37	124.92	119.90
1	A	483	C	O4'-C1'-N1	8.37	114.89	108.20
1	A	584	G	N1-C6-O6	8.37	124.92	119.90
1	A	219	U	C3'-C2'-C1'	-8.36	94.81	101.50
1	A	1401	G	P-O5'-C5'	8.36	134.28	120.90
1	A	581	G	C5-C6-O6	-8.36	123.58	128.60
1	A	995	C	C2-N1-C1'	8.36	128.00	118.80
1	A	45	G	O4'-C1'-N9	8.36	114.89	108.20
1	A	905	U	C2-N3-C4	-8.36	121.98	127.00
1	A	1083	U	O4'-C1'-N1	8.36	114.89	108.20
1	A	1435	G	C8-N9-C4	-8.36	103.06	106.40
1	A	247	G	C4-N9-C1'	-8.36	115.64	126.50
1	A	788	U	P-O3'-C3'	-8.36	109.67	119.70
1	A	992	U	C5'-C4'-C3'	8.36	129.37	116.00
1	A	780	A	C1'-O4'-C4'	-8.35	103.22	109.90
1	A	373	A	C6-C5-N7	-8.35	126.45	132.30
1	A	749	A	C4-C5-C6	8.35	121.18	117.00
1	A	1187	G	C2-N3-C4	8.35	116.08	111.90
1	A	1407	C	P-O5'-C5'	8.35	134.26	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	336	A	C5-C6-N6	-8.35	117.02	123.70
1	A	339	C	C3'-C2'-C1'	-8.35	94.82	101.50
1	A	426	U	C2-N3-C4	-8.35	121.99	127.00
1	A	440	C	C5-C6-N1	8.35	125.17	121.00
1	A	1122	U	C2-N1-C1'	-8.35	107.68	117.70
1	A	1007	U	N1-C2-N3	8.35	119.91	114.90
1	A	1134	G	N1-C6-O6	8.35	124.91	119.90
1	A	1276	G	C5'-C4'-C3'	-8.35	102.64	116.00
7	G	78	ARG	N-CA-CB	8.35	125.62	110.60
1	A	264	C	C4'-C3'-O3'	-8.35	91.88	109.40
1	A	554	A	O4'-C4'-C3'	-8.35	95.66	104.00
1	A	743	A	C4-N9-C1'	-8.35	111.28	126.30
1	A	1035	A	C8-N9-C4	-8.35	102.46	105.80
1	A	1182	G	C4-N9-C1'	-8.35	115.65	126.50
1	A	1354	U	C2-N1-C1'	-8.35	107.69	117.70
1	A	243	A	N1-C6-N6	8.34	123.61	118.60
1	A	325	A	C3'-C2'-C1'	-8.34	94.83	101.50
1	A	563	A	C1'-O4'-C4'	8.34	116.58	109.90
1	A	1288	A	P-O3'-C3'	-8.34	109.69	119.70
1	A	249	U	C3'-C2'-C1'	-8.34	94.83	101.50
1	A	699	C	C3'-C2'-C1'	-8.34	94.83	101.50
1	A	831	A	N9-C1'-C2'	-8.34	102.83	112.00
1	A	1044	A	N7-C8-N9	8.34	117.97	113.80
1	A	502	A	C5-C6-N6	-8.34	117.03	123.70
1	A	513	C	C5'-C4'-C3'	-8.34	102.66	116.00
1	A	654	G	N3-C2-N2	8.34	125.74	119.90
1	A	651	C	N3-C4-N4	8.33	123.83	118.00
1	A	1439	G	C5'-C4'-C3'	-8.33	102.67	116.00
1	A	735	C	O3'-P-O5'	8.33	119.83	104.00
1	A	1185	G	C4'-C3'-C2'	-8.33	94.27	102.60
1	A	741	G	N1-C6-O6	8.33	124.90	119.90
1	A	1391	U	C2-N1-C1'	-8.33	107.70	117.70
1	A	1447	A	C8-N9-C1'	8.33	142.69	127.70
1	A	370	C	C3'-C2'-C1'	-8.33	94.84	101.50
1	A	628	G	C8-N9-C4	-8.32	103.07	106.40
1	A	384	G	C4-N9-C1'	-8.32	115.69	126.50
1	A	472	U	N1-C2-N3	8.32	119.89	114.90
1	A	689	C	C6-N1-C2	-8.32	116.97	120.30
1	A	898	G	O4'-C1'-N9	8.32	114.86	108.20
1	A	639	G	C6-C5-N7	-8.32	125.41	130.40
1	A	1357	A	C5-C6-N1	-8.32	113.54	117.70
1	A	438	U	C2-N3-C4	-8.31	122.01	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	515	G	C5'-C4'-O4'	8.31	119.08	109.10
1	A	995	C	O4'-C1'-N1	8.31	114.85	108.20
1	A	888	G	C8-N9-C1'	8.31	137.81	127.00
1	A	75	G	C4-N9-C1'	-8.31	115.69	126.50
1	A	640	A	N9-C4-C5	8.31	109.12	105.80
1	A	868	C	C5'-C4'-C3'	-8.31	102.70	116.00
1	A	1025	U	O4'-C1'-N1	8.31	114.85	108.20
1	A	75	G	C8-N9-C1'	8.31	137.80	127.00
1	A	812	G	N1-C6-O6	8.30	124.88	119.90
1	A	1376	U	P-O5'-C5'	8.30	134.19	120.90
1	A	1468	A	P-O3'-C3'	8.30	129.66	119.70
1	A	1454	G	C8-N9-C4	-8.30	103.08	106.40
1	A	31	G	P-O3'-C3'	-8.30	109.75	119.70
1	A	266	G	C5'-C4'-C3'	-8.30	102.73	116.00
1	A	190	A	N3-C4-C5	-8.29	121.00	126.80
1	A	258	G	C6-C5-N7	-8.29	125.42	130.40
1	A	731	G	O4'-C4'-C3'	-8.29	95.71	104.00
1	A	1129	C	C4'-C3'-C2'	8.29	110.89	102.60
1	A	1287	A	C6-N1-C2	8.29	123.57	118.60
1	A	1506	U	C3'-C2'-C1'	8.29	108.13	101.50
1	A	49	U	N3-C4-C5	-8.29	109.63	114.60
1	A	140	U	P-O3'-C3'	8.29	129.65	119.70
1	A	288	A	C8-N9-C4	-8.29	102.48	105.80
1	A	388	G	C5-C6-O6	-8.29	123.63	128.60
1	A	874	G	C5-C6-O6	-8.29	123.63	128.60
1	A	1037	C	C2-N1-C1'	-8.29	109.68	118.80
1	A	656	G	C5'-C4'-C3'	-8.29	102.74	116.00
1	A	1463	U	C5-C6-N1	8.29	126.84	122.70
13	M	4	ALA	C-N-CA	8.29	139.70	122.30
1	A	504	C	C3'-C2'-C1'	-8.28	94.88	101.50
1	A	267	C	OP2-P-O3'	8.28	123.41	105.20
1	A	832	G	C2-N3-C4	-8.28	107.76	111.90
1	A	1308	U	C5'-C4'-C3'	-8.28	102.75	116.00
1	A	1042	A	C5'-C4'-C3'	-8.28	102.76	116.00
1	A	1103	C	N3-C4-N4	8.27	123.79	118.00
1	A	1299	A	C5'-C4'-C3'	-8.27	102.77	116.00
1	A	148	G	C5-C6-O6	-8.27	123.64	128.60
1	A	477	C	C5'-C4'-C3'	-8.27	102.77	116.00
1	A	932	C	N3-C4-C5	-8.27	118.59	121.90
1	A	1284	C	O4'-C1'-N1	8.27	114.81	108.20
1	A	31	G	C5'-C4'-O4'	8.27	119.02	109.10
1	A	872	A	P-O3'-C3'	8.27	129.62	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1184	G	N3-C2-N2	8.27	125.69	119.90
1	A	1456	A	C8-N9-C4	8.27	109.11	105.80
1	A	81	A	C4-C5-C6	8.27	121.13	117.00
1	A	238	A	C4-N9-C1'	-8.26	111.43	126.30
1	A	400	C	C3'-C2'-C1'	-8.26	94.89	101.50
1	A	426	U	C5'-C4'-C3'	-8.26	102.78	116.00
1	A	433	G	C8-N9-C4	-8.26	103.09	106.40
2	B	139	GLU	N-CA-C	8.26	133.31	111.00
1	A	98	A	C6-N1-C2	-8.26	113.64	118.60
1	A	535	A	N9-C4-C5	8.26	109.10	105.80
1	A	1139	G	C8-N9-C4	-8.26	103.10	106.40
1	A	86	G	C1'-O4'-C4'	-8.26	103.30	109.90
1	A	393	A	C3'-C2'-C1'	-8.26	94.89	101.50
1	A	858	G	N1-C2-N3	-8.26	118.94	123.90
1	A	627	G	C4'-C3'-C2'	-8.26	94.34	102.60
1	A	193	C	N1-C2-O2	8.25	123.85	118.90
1	A	270	A	C3'-C2'-C1'	-8.25	94.90	101.50
1	A	572	A	C4-C5-C6	8.25	121.13	117.00
1	A	1152	A	C4-C5-C6	8.25	121.13	117.00
1	A	384	G	C3'-C2'-C1'	-8.25	94.90	101.50
1	A	192	A	N7-C8-N9	8.25	117.92	113.80
1	A	1480	A	N7-C8-N9	8.25	117.92	113.80
1	A	274	A	P-O3'-C3'	8.25	129.59	119.70
1	A	454	G	N1-C2-N2	8.25	123.62	116.20
1	A	1151	A	C8-N9-C4	-8.24	102.50	105.80
1	A	282	A	C5-C6-N1	-8.24	113.58	117.70
1	A	440	C	C5'-C4'-O4'	8.24	118.99	109.10
1	A	182	A	C5-C6-N6	-8.24	117.11	123.70
1	A	390	U	O4'-C1'-N1	8.24	114.79	108.20
1	A	762	U	C2-N1-C1'	-8.24	107.81	117.70
1	A	1448	C	C6-N1-C2	-8.24	117.00	120.30
1	A	404	G	C5-N7-C8	8.24	108.42	104.30
1	A	1260	G	C5'-C4'-C3'	-8.24	102.82	116.00
1	A	1453	G	C5-N7-C8	8.24	108.42	104.30
1	A	445	G	C5-C6-O6	-8.23	123.66	128.60
1	A	418	C	N3-C4-C5	-8.23	118.61	121.90
1	A	559	A	C5-C6-N1	-8.23	113.58	117.70
1	A	338	A	C4-N9-C1'	-8.23	111.48	126.30
1	A	506	G	N7-C8-N9	8.23	117.22	113.10
1	A	838	G	C5-C6-O6	-8.23	123.66	128.60
1	A	1162	C	N3-C4-N4	8.23	123.76	118.00
1	A	1260	G	P-O3'-C3'	-8.23	109.82	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	508	U	C5'-C4'-O4'	8.23	118.97	109.10
1	A	901	A	C8-N9-C4	-8.23	102.51	105.80
1	A	1263	C	C3'-C2'-C1'	-8.23	94.92	101.50
1	A	31	G	C1'-O4'-C4'	-8.23	103.32	109.90
1	A	430	A	C4-C5-C6	8.22	121.11	117.00
1	A	503	C	C5'-C4'-C3'	-8.22	102.84	116.00
1	A	538	G	C6-C5-N7	-8.22	125.47	130.40
1	A	788	U	C2-N3-C4	-8.22	122.07	127.00
1	A	1299	A	C5-N7-C8	8.22	108.01	103.90
1	A	1358	U	C6-N1-C1'	8.22	132.71	121.20
1	A	202	G	N1-C2-N3	-8.22	118.97	123.90
1	A	654	G	N7-C8-N9	8.22	117.21	113.10
1	A	739	C	N3-C4-C5	-8.22	118.61	121.90
1	A	1520	C	C5-C4-N4	-8.22	114.45	120.20
1	A	608	A	N1-C6-N6	8.22	123.53	118.60
1	A	351	G	C6-C5-N7	-8.22	125.47	130.40
1	A	1408	A	C4-C5-C6	8.22	121.11	117.00
1	A	79	G	C8-N9-C4	-8.21	103.11	106.40
1	A	383	A	C4-C5-C6	8.21	121.11	117.00
1	A	1088	G	C3'-C2'-C1'	-8.21	94.93	101.50
1	A	198	G	P-O5'-C5'	8.21	134.03	120.90
1	A	449	G	P-O5'-C5'	8.21	134.03	120.90
1	A	904	U	O4'-C1'-N1	8.21	114.77	108.20
1	A	1331	G	N1-C2-N2	-8.21	108.81	116.20
1	A	1369	C	P-O5'-C5'	8.21	134.03	120.90
7	G	115	MET	N-CA-CB	8.21	125.37	110.60
1	A	902	G	C4'-C3'-C2'	-8.21	94.39	102.60
1	A	919	A	O4'-C1'-N9	8.21	114.77	108.20
1	A	110	C	N3-C4-C5	-8.20	118.62	121.90
1	A	397	A	C4-C5-C6	8.20	121.10	117.00
1	A	898	G	C4-N9-C1'	-8.20	115.84	126.50
1	A	1144	G	C4-N9-C1'	-8.20	115.84	126.50
1	A	921	U	C2-N1-C1'	-8.20	107.86	117.70
1	A	1367	C	C1'-O4'-C4'	-8.20	103.34	109.90
1	A	352	C	C6-N1-C1'	-8.20	110.96	120.80
1	A	7	A	O4'-C1'-N9	8.19	114.75	108.20
1	A	687	A	C5-C6-N6	-8.19	117.14	123.70
1	A	781	A	O5'-C5'-C4'	-8.19	96.13	111.70
1	A	1008	U	N1-C2-N3	8.20	119.82	114.90
1	A	1095	U	N3-C4-O4	8.20	125.14	119.40
1	A	1290	G	C4-C5-C6	8.19	123.72	118.80
1	A	151	A	C4-C5-C6	8.19	121.10	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	198	G	N3-C2-N2	8.19	125.63	119.90
1	A	1178	G	C4'-C3'-C2'	-8.19	94.41	102.60
1	A	22	G	C8-N9-C4	-8.19	103.12	106.40
1	A	73	C	C5-C6-N1	8.19	125.09	121.00
1	A	1370	G	C5-C6-O6	-8.19	123.69	128.60
1	A	513	C	P-O5'-C5'	8.19	134.00	120.90
1	A	395	C	O4'-C1'-N1	8.18	114.75	108.20
1	A	714	G	N1-C6-O6	8.18	124.81	119.90
1	A	1006	G	C4-N9-C1'	-8.18	115.86	126.50
1	A	1024	G	C8-N9-C1'	8.18	137.64	127.00
1	A	1463	U	N1-C2-N3	8.18	119.81	114.90
1	A	169	C	C5'-C4'-C3'	-8.18	102.91	116.00
1	A	746	A	O4'-C4'-C3'	-8.18	95.82	104.00
1	A	758	C	C6-N1-C2	-8.18	117.03	120.30
1	A	1329	A	P-O3'-C3'	-8.18	109.89	119.70
1	A	1107	C	N3-C4-C5	-8.18	118.63	121.90
1	A	612	C	O4'-C1'-N1	8.17	114.74	108.20
1	A	677	U	C5-C6-N1	8.17	126.79	122.70
1	A	1405	G	C1'-O4'-C4'	-8.17	103.36	109.90
1	A	687	A	C5-C6-N1	-8.17	113.61	117.70
1	A	915	A	C3'-C2'-C1'	-8.17	94.96	101.50
1	A	1317	C	O4'-C1'-N1	8.17	114.73	108.20
1	A	1032	G	O4'-C1'-N9	8.17	114.73	108.20
1	A	610	U	O4'-C4'-C3'	-8.17	95.83	104.00
1	A	620	C	C5'-C4'-C3'	-8.17	102.93	116.00
1	A	901	A	C5-C6-N1	-8.17	113.62	117.70
1	A	1071	C	N3-C4-N4	8.17	123.72	118.00
1	A	1273	C	P-O5'-C5'	-8.17	107.83	120.90
1	A	155	A	C5-C6-N1	-8.16	113.62	117.70
1	A	633	G	O4'-C1'-N9	8.16	114.73	108.20
1	A	853	C	O4'-C1'-N1	8.16	114.73	108.20
1	A	1102	A	C4-C5-C6	8.16	121.08	117.00
1	A	1428	A	C1'-O4'-C4'	-8.16	103.37	109.90
5	E	21	SER	CB-CA-C	-8.16	94.59	110.10
1	A	185	U	C5'-C4'-O4'	8.16	118.89	109.10
1	A	1131	G	P-O3'-C3'	-8.16	109.91	119.70
1	A	1265	C	C2-N1-C1'	-8.16	109.83	118.80
1	A	16	A	C5-N7-C8	8.16	107.98	103.90
1	A	111	G	C4-N9-C1'	-8.16	115.90	126.50
1	A	776	G	N1-C6-O6	8.15	124.79	119.90
1	A	1084	G	C8-N9-C4	8.15	109.66	106.40
1	A	72	A	O5'-C5'-C4'	-8.15	96.21	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	465	A	C5-C6-N1	-8.15	113.62	117.70
1	A	580	C	C5'-C4'-C3'	-8.15	102.95	116.00
1	A	1441	A	P-O5'-C5'	-8.15	107.85	120.90
1	A	1022	A	N1-C2-N3	8.15	133.38	129.30
1	A	1232	U	C5'-C4'-C3'	-8.15	102.95	116.00
1	A	121	U	P-O5'-C5'	-8.15	107.86	120.90
1	A	1276	G	N3-C4-C5	-8.15	124.52	128.60
1	A	1332	A	C8-N9-C4	-8.15	102.54	105.80
1	A	1262	C	O4'-C1'-N1	8.15	114.72	108.20
1	A	1382	C	C6-N1-C1'	-8.15	111.03	120.80
1	A	392	C	O4'-C1'-N1	8.14	114.72	108.20
1	A	591	U	N3-C4-O4	8.14	125.10	119.40
1	A	1084	G	C8-N9-C1'	8.14	137.59	127.00
1	A	173	U	O4'-C1'-N1	8.14	114.71	108.20
1	A	480	U	C2-N1-C1'	-8.14	107.93	117.70
1	A	1034	G	N1-C6-O6	8.14	124.78	119.90
1	A	1213	A	P-O3'-C3'	-8.14	109.93	119.70
1	A	193	C	O5'-P-OP2	-8.14	98.37	105.70
1	A	1405	G	C3'-C2'-C1'	-8.14	94.99	101.50
1	A	1444	U	C5'-C4'-O4'	8.14	118.87	109.10
8	H	85	TYR	CB-CG-CD2	-8.14	116.11	121.00
1	A	331	G	N1-C6-O6	8.14	124.78	119.90
1	A	1095	U	N3-C4-C5	-8.14	109.72	114.60
1	A	1322	C	C5'-C4'-C3'	8.14	129.02	116.00
1	A	887	G	N9-C1'-C2'	-8.14	103.05	112.00
1	A	39	G	C5-C6-O6	-8.13	123.72	128.60
1	A	450	G	C8-N9-C1'	8.13	137.57	127.00
1	A	164	G	C3'-C2'-C1'	-8.13	94.99	101.50
1	A	1087	G	C8-N9-C4	-8.13	103.15	106.40
1	A	1379	G	C5'-C4'-C3'	-8.13	102.99	116.00
1	A	96	U	C2-N1-C1'	-8.13	107.95	117.70
1	A	241	G	C8-N9-C1'	8.13	137.57	127.00
1	A	743	A	N1-C6-N6	8.13	123.48	118.60
1	A	1474	U	C5'-C4'-C3'	-8.13	103.00	116.00
1	A	1364	U	C6-N1-C1'	-8.12	109.83	121.20
15	O	17	ASP	N-CA-CB	8.12	125.22	110.60
1	A	768	A	O4'-C1'-N9	8.12	114.70	108.20
1	A	869	G	N3-C4-N9	-8.12	121.13	126.00
1	A	944	G	N1-C6-O6	8.12	124.77	119.90
1	A	928	G	O4'-C1'-N9	8.12	114.70	108.20
1	A	1160	G	P-O5'-C5'	8.12	133.89	120.90
1	A	687	A	C6-N1-C2	8.12	123.47	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	914	A	P-O3'-C3'	-8.12	109.96	119.70
1	A	1349	A	P-O5'-C5'	8.12	133.89	120.90
1	A	776	G	C5-C6-O6	-8.12	123.73	128.60
1	A	962	C	C6-N1-C2	-8.12	117.05	120.30
1	A	16	A	C4-C5-C6	8.11	121.06	117.00
1	A	548	G	C4-N9-C1'	-8.11	115.95	126.50
1	A	759	A	C8-N9-C4	-8.11	102.56	105.80
1	A	1441	A	C4-N9-C1'	8.11	140.90	126.30
1	A	1488	G	C5-C6-O6	-8.11	123.73	128.60
13	M	97	ARG	N-CA-CB	8.11	125.20	110.60
1	A	1524	C	C3'-C2'-C1'	-8.11	95.01	101.50
1	A	167	A	N1-C6-N6	8.11	123.47	118.60
1	A	199	A	O4'-C1'-N9	8.11	114.69	108.20
1	A	805	C	N3-C4-C5	-8.11	118.66	121.90
1	A	877	G	N9-C1'-C2'	-8.11	103.08	112.00
1	A	195	A	C4-C5-C6	8.11	121.05	117.00
1	A	608	A	C8-N9-C4	-8.11	102.56	105.80
1	A	366	A	C5-N7-C8	8.11	107.95	103.90
1	A	707	U	O4'-C1'-N1	8.11	114.69	108.20
1	A	752	G	C5-C6-O6	-8.11	123.74	128.60
1	A	1105	A	C5-C6-N1	-8.11	113.65	117.70
1	A	504	C	P-O5'-C5'	8.10	133.87	120.90
1	A	988	G	C8-N9-C1'	8.10	137.53	127.00
1	A	1410	A	O4'-C1'-N9	8.10	114.68	108.20
1	A	1360	A	C8-N9-C4	-8.10	102.56	105.80
1	A	890	G	C8-N9-C1'	8.10	137.53	127.00
1	A	861	G	O3'-P-O5'	-8.10	88.61	104.00
1	A	1459	G	N1-C6-O6	8.10	124.76	119.90
1	A	1515	G	O4'-C4'-C3'	-8.10	95.90	104.00
1	A	338	A	C3'-C2'-C1'	-8.10	95.02	101.50
1	A	446	G	C4-N9-C1'	-8.10	115.97	126.50
1	A	940	C	C3'-C2'-C1'	-8.10	95.02	101.50
1	A	1203	C	N3-C4-N4	8.10	123.67	118.00
1	A	872	A	O4'-C1'-N9	8.09	114.68	108.20
1	A	940	C	C2-N3-C4	8.09	123.95	119.90
1	A	395	C	C1'-O4'-C4'	-8.09	103.43	109.90
1	A	974	A	C4-C5-C6	8.09	121.05	117.00
1	A	1279	G	C8-N9-C4	-8.09	103.16	106.40
1	A	1404	C	C5'-C4'-C3'	-8.09	103.05	116.00
1	A	39	G	C8-N9-C1'	8.09	137.52	127.00
1	A	322	C	C6-N1-C2	-8.09	117.06	120.30
1	A	768	A	C8-N9-C4	-8.09	102.56	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	948	C	C5'-C4'-C3'	-8.09	103.06	116.00
1	A	1077	G	C5-C6-O6	-8.09	123.75	128.60
1	A	253	A	P-O5'-C5'	-8.08	107.97	120.90
1	A	265	G	O5'-C5'-C4'	-8.08	96.34	111.70
1	A	445	G	N1-C6-O6	8.08	124.75	119.90
1	A	495	A	C5-C6-N6	-8.08	117.23	123.70
1	A	1392	G	C5-C6-N1	-8.08	107.46	111.50
1	A	719	C	P-O5'-C5'	8.08	133.83	120.90
1	A	910	C	C5'-C4'-C3'	-8.08	103.07	116.00
1	A	143	A	C8-N9-C4	-8.08	102.57	105.80
1	A	235	C	O4'-C1'-N1	8.08	114.66	108.20
1	A	284	C	C1'-O4'-C4'	-8.08	103.44	109.90
1	A	663	A	C4-C5-C6	8.08	121.04	117.00
1	A	862	C	C5'-C4'-O4'	8.08	118.79	109.10
1	A	484	G	C6-C5-N7	-8.08	125.56	130.40
17	Q	67	SER	N-CA-CB	8.08	122.61	110.50
1	A	403	C	C5'-C4'-C3'	-8.07	103.08	116.00
1	A	924	C	N3-C4-N4	8.07	123.65	118.00
1	A	997	U	P-O5'-C5'	8.07	133.82	120.90
1	A	1016	A	C5-C6-N6	-8.07	117.24	123.70
1	A	1116	U	C2-N1-C1'	-8.07	108.01	117.70
1	A	76	G	N1-C6-O6	8.07	124.74	119.90
1	A	121	U	C3'-C2'-C1'	-8.07	95.04	101.50
1	A	151	A	P-O3'-C3'	-8.07	110.02	119.70
1	A	403	C	C6-N1-C2	-8.07	117.07	120.30
1	A	498	A	N1-C2-N3	8.07	133.34	129.30
1	A	547	A	N9-C4-C5	-8.07	102.57	105.80
1	A	998	C	N3-C4-N4	8.07	123.65	118.00
1	A	770	C	O3'-P-O5'	-8.07	88.68	104.00
1	A	883	C	C5'-C4'-C3'	-8.07	103.09	116.00
1	A	969	A	P-O3'-C3'	-8.07	110.02	119.70
1	A	1314	C	C5'-C4'-C3'	-8.07	103.09	116.00
9	I	122	ARG	NE-CZ-NH2	-8.07	116.27	120.30
1	A	157	U	C2-N3-C4	-8.06	122.16	127.00
1	A	111	G	N1-C6-O6	8.06	124.74	119.90
1	A	602	A	O3'-P-O5'	-8.06	88.68	104.00
1	A	241	G	C4-N9-C1'	-8.06	116.02	126.50
1	A	836	G	N3-C2-N2	8.06	125.54	119.90
1	A	1479	C	N3-C4-N4	8.06	123.64	118.00
9	I	100	ALA	N-CA-CB	8.06	121.39	110.10
1	A	857	C	O4'-C1'-N1	8.06	114.65	108.20
1	A	915	A	O4'-C1'-N9	8.06	114.65	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	951	G	N1-C6-O6	8.06	124.74	119.90
1	A	1253	G	O4'-C1'-N9	8.06	114.65	108.20
1	A	1525	G	N1-C6-O6	8.06	124.74	119.90
1	A	16	A	C5-C6-N1	-8.06	113.67	117.70
1	A	569	C	C5-C4-N4	-8.06	114.56	120.20
1	A	799	G	P-O3'-C3'	8.06	129.37	119.70
1	A	951	G	C5-C6-O6	-8.06	123.77	128.60
1	A	416	G	C4-N9-C1'	8.06	136.97	126.50
1	A	738	C	C6-N1-C1'	8.05	130.46	120.80
1	A	895	G	N9-C1'-C2'	-8.05	103.14	112.00
1	A	962	C	C5'-C4'-C3'	-8.05	103.11	116.00
1	A	80	A	C4-C5-C6	8.05	121.03	117.00
1	A	1421	G	C8-N9-C4	-8.05	103.18	106.40
1	A	348	G	C6-N1-C2	-8.05	120.27	125.10
1	A	960	U	C2-N3-C4	-8.05	122.17	127.00
1	A	1009	U	N3-C4-O4	-8.05	113.77	119.40
1	A	276	G	O5'-C5'-C4'	-8.05	96.41	111.70
22	W	274	GLY	N-CA-C	-8.05	92.98	113.10
1	A	273	U	C5'-C4'-O4'	8.04	118.75	109.10
1	A	154	U	O4'-C4'-C3'	-8.04	95.96	104.00
1	A	1005	A	C5'-C4'-C3'	-8.04	103.13	116.00
1	A	1302	C	N3-C4-N4	8.04	123.63	118.00
1	A	1236	A	C5'-C4'-O4'	8.04	118.75	109.10
1	A	1483	A	C4-C5-C6	8.04	121.02	117.00
1	A	578	C	O5'-C5'-C4'	-8.04	96.42	111.70
1	A	750	C	N3-C4-C5	-8.04	118.68	121.90
1	A	779	C	C6-N1-C2	-8.04	117.08	120.30
1	A	826	C	C5'-C4'-C3'	-8.04	103.14	116.00
1	A	927	G	P-O5'-C5'	-8.04	108.03	120.90
1	A	1015	G	C5-C6-O6	-8.04	123.78	128.60
1	A	129	A	O4'-C1'-N9	8.04	114.63	108.20
1	A	193	C	O5'-C5'-C4'	-8.03	96.44	111.70
1	A	451	A	C4'-C3'-C2'	8.03	110.63	102.60
1	A	481	G	O4'-C4'-C3'	-8.04	95.97	104.00
1	A	526	C	N3-C4-N4	8.03	123.62	118.00
1	A	622	A	C8-N9-C4	-8.03	102.59	105.80
1	A	662	U	P-O5'-C5'	8.04	133.76	120.90
1	A	753	A	P-O3'-C3'	8.04	129.34	119.70
1	A	803	G	C8-N9-C4	-8.04	103.19	106.40
1	A	1130	A	C5-C6-N1	-8.04	113.68	117.70
17	Q	6	THR	N-CA-C	-8.04	89.30	111.00
1	A	9	G	N1-C6-O6	8.03	124.72	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	393	A	C5'-C4'-C3'	8.03	128.85	116.00
1	A	424	G	C8-N9-C4	-8.03	103.19	106.40
1	A	696	A	C5-C6-N1	-8.03	113.68	117.70
1	A	821	G	O4'-C4'-C3'	-8.03	95.97	104.00
1	A	1133	G	C1'-O4'-C4'	-8.03	103.47	109.90
1	A	62	U	C2-N1-C1'	-8.03	108.06	117.70
1	A	18	C	N3-C4-C5	-8.03	118.69	121.90
1	A	820	U	O4'-C1'-N1	8.03	114.62	108.20
1	A	890	G	N1-C2-N3	-8.03	119.08	123.90
1	A	1196	A	O4'-C1'-N9	8.03	114.62	108.20
1	A	1147	C	N3-C4-N4	8.03	123.62	118.00
1	A	1360	A	C5-C6-N6	-8.03	117.28	123.70
1	A	528	C	C1'-O4'-C4'	-8.02	103.48	109.90
1	A	592	G	C8-N9-C1'	8.02	137.43	127.00
1	A	1463	U	C3'-C2'-C1'	-8.02	95.08	101.50
1	A	1035	A	C4-C5-C6	8.02	121.01	117.00
1	A	1385	G	C8-N9-C4	-8.02	103.19	106.40
1	A	1345	U	C2-N1-C1'	-8.02	108.08	117.70
1	A	118	U	N3-C4-O4	8.01	125.01	119.40
1	A	85	U	C2-N1-C1'	8.01	127.31	117.70
1	A	87	C	N3-C4-C5	-8.01	118.70	121.90
1	A	480	U	P-O5'-C5'	-8.01	108.08	120.90
1	A	611	C	C2-N1-C1'	8.01	127.61	118.80
1	A	1064	G	C3'-C2'-C1'	-8.01	95.09	101.50
1	A	1333	A	O4'-C1'-N9	8.01	114.61	108.20
1	A	1114	C	N3-C4-C5	-8.01	118.70	121.90
1	A	1158	C	C3'-C2'-C1'	8.01	107.91	101.50
1	A	142	G	C5'-C4'-O4'	8.01	118.71	109.10
1	A	366	A	P-O5'-C5'	-8.01	108.09	120.90
1	A	384	G	P-O5'-C5'	8.01	133.71	120.90
1	A	867	G	C5-C6-O6	-8.01	123.80	128.60
1	A	1193	G	N9-C1'-C2'	-8.01	103.19	112.00
1	A	244	U	C5'-C4'-C3'	-8.01	103.19	116.00
1	A	1301	U	P-O3'-C3'	-8.00	110.09	119.70
1	A	249	U	O4'-C1'-N1	8.00	114.60	108.20
1	A	513	C	N3-C4-N4	8.00	123.60	118.00
1	A	899	C	C1'-O4'-C4'	-8.00	103.50	109.90
1	A	962	C	C1'-O4'-C4'	-8.00	103.50	109.90
1	A	1107	C	P-O3'-C3'	-8.00	110.10	119.70
1	A	313	A	C1'-O4'-C4'	-8.00	103.50	109.90
1	A	337	G	C5-C6-O6	-8.00	123.80	128.60
1	A	1387	G	O4'-C1'-N9	8.00	114.60	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	775	G	C5-C6-O6	-8.00	123.80	128.60
1	A	1306	A	C4-C5-C6	8.00	121.00	117.00
1	A	732	C	O4'-C1'-N1	8.00	114.60	108.20
1	A	1166	G	C4-N9-C1'	-8.00	116.10	126.50
1	A	1266	G	N1-C6-O6	8.00	124.70	119.90
1	A	1322	C	C2-N1-C1'	8.00	127.60	118.80
1	A	1342	C	N3-C4-C5	-8.00	118.70	121.90
1	A	1392	G	O5'-C5'-C4'	-8.00	96.51	111.70
1	A	76	G	C8-N9-C1'	-8.00	116.61	127.00
1	A	169	C	C2-N1-C1'	-8.00	110.00	118.80
1	A	889	A	P-O5'-C5'	-8.00	108.11	120.90
1	A	1333	A	N7-C8-N9	8.00	117.80	113.80
1	A	449	G	N1-C6-O6	7.99	124.70	119.90
1	A	738	C	O4'-C1'-N1	7.99	114.59	108.20
1	A	1458	G	N1-C6-O6	7.99	124.70	119.90
8	H	85	TYR	CB-CG-CD1	7.99	125.80	121.00
1	A	300	A	O4'-C1'-N9	7.99	114.59	108.20
1	A	635	A	C5'-C4'-O4'	7.99	118.69	109.10
1	A	1043	G	N1-C6-O6	7.99	124.69	119.90
1	A	103	U	C5-C6-N1	7.99	126.69	122.70
1	A	595	A	P-O5'-C5'	7.99	133.69	120.90
1	A	1063	C	C6-N1-C1'	7.99	130.39	120.80
1	A	1239	A	C3'-C2'-C1'	-7.99	95.11	101.50
1	A	1285	A	C5-C6-N6	-7.99	117.31	123.70
3	C	19	SER	CB-CA-C	-7.99	94.92	110.10
1	A	168	G	C4-N9-C1'	-7.99	116.11	126.50
1	A	747	A	C5-C6-N1	-7.99	113.71	117.70
1	A	1114	C	C5'-C4'-C3'	-7.99	103.22	116.00
1	A	1316	G	C4-N9-C1'	-7.99	116.11	126.50
1	A	926	G	N3-C2-N2	7.99	125.49	119.90
5	E	34	ALA	N-CA-CB	7.99	121.28	110.10
1	A	276	G	O4'-C1'-N9	7.99	114.59	108.20
1	A	687	A	P-O5'-C5'	-7.99	108.12	120.90
1	A	300	A	C3'-C2'-C1'	-7.98	95.11	101.50
1	A	1421	G	C5-C6-O6	-7.98	123.81	128.60
1	A	347	G	C4-C5-C6	7.98	123.59	118.80
8	H	112	ASP	CB-CG-OD1	7.98	125.48	118.30
1	A	1305	G	N3-C4-N9	-7.98	121.21	126.00
1	A	440	C	C3'-C2'-C1'	-7.98	95.12	101.50
1	A	574	A	O4'-C1'-N9	7.98	114.58	108.20
1	A	1208	C	C1'-O4'-C4'	-7.98	103.52	109.90
1	A	50	A	O4'-C1'-N9	7.97	114.58	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	577	G	C6-C5-N7	-7.97	125.62	130.40
1	A	1462	C	C5'-C4'-C3'	-7.97	103.24	116.00
1	A	58	C	O4'-C1'-N1	7.97	114.58	108.20
1	A	275	G	N7-C8-N9	7.97	117.09	113.10
1	A	916	U	C6-N1-C2	-7.97	116.22	121.00
1	A	987	G	N1-C6-O6	7.97	124.68	119.90
1	A	206	C	O4'-C1'-N1	7.97	114.58	108.20
1	A	366	A	C5-C6-N1	-7.97	113.72	117.70
1	A	1077	G	O4'-C1'-N9	7.97	114.58	108.20
1	A	379	C	N3-C4-N4	7.97	123.58	118.00
1	A	1032	G	C1'-O4'-C4'	-7.97	103.53	109.90
1	A	1183	U	O4'-C1'-N1	7.97	114.57	108.20
1	A	230	G	C8-N9-C1'	7.96	137.35	127.00
1	A	323	U	O4'-C1'-N1	7.96	114.57	108.20
1	A	440	C	C2-N3-C4	-7.96	115.92	119.90
1	A	373	A	C8-N9-C4	7.96	108.98	105.80
1	A	1063	C	C5-C4-N4	-7.96	114.63	120.20
1	A	493	A	C8-N9-C4	-7.96	102.61	105.80
1	A	713	G	C5'-C4'-O4'	7.96	118.65	109.10
1	A	813	U	C5'-C4'-C3'	-7.96	103.26	116.00
1	A	1180	A	C3'-C2'-C1'	-7.96	95.13	101.50
1	A	1525	G	C8-N9-C1'	7.96	137.35	127.00
1	A	877	G	O3'-P-O5'	-7.96	88.88	104.00
1	A	1454	G	C4'-C3'-C2'	-7.96	94.64	102.60
1	A	404	G	N1-C6-O6	-7.96	115.12	119.90
1	A	505	G	C4'-C3'-C2'	-7.96	94.64	102.60
1	A	1199	U	O4'-C1'-N1	7.96	114.57	108.20
1	A	1278	G	O4'-C1'-N9	7.96	114.57	108.20
1	A	195	A	P-O3'-C3'	-7.96	110.15	119.70
1	A	578	C	P-O3'-C3'	-7.96	110.15	119.70
1	A	1256	A	C4-C5-C6	7.96	120.98	117.00
1	A	1497	G	C8-N9-C1'	7.96	137.34	127.00
1	A	1506	U	N1-C1'-C2'	7.96	124.34	114.00
1	A	418	C	C4'-C3'-C2'	-7.95	94.65	102.60
1	A	1177	G	C6-C5-N7	-7.95	125.63	130.40
1	A	1451	U	O4'-C1'-N1	7.95	114.56	108.20
1	A	197	A	P-O3'-C3'	7.95	129.24	119.70
1	A	1171	A	C4-N9-C1'	-7.95	111.99	126.30
1	A	1250	A	C5-C6-N6	-7.95	117.34	123.70
1	A	114	U	C3'-C2'-C1'	-7.95	95.14	101.50
1	A	156	C	C3'-C2'-C1'	-7.95	95.14	101.50
1	A	422	C	C3'-C2'-C1'	-7.95	95.14	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1246	A	C1'-O4'-C4'	-7.94	103.55	109.90
1	A	131	A	C5-N7-C8	7.94	107.87	103.90
1	A	338	A	C8-N9-C4	-7.94	102.62	105.80
1	A	419	C	P-O5'-C5'	-7.94	108.20	120.90
1	A	98	A	P-O5'-C5'	7.94	133.60	120.90
1	A	391	G	N1-C2-N2	7.94	123.34	116.20
1	A	886	G	C3'-C2'-C1'	-7.94	95.15	101.50
1	A	1170	A	C4-C5-C6	7.94	120.97	117.00
1	A	1515	G	O5'-P-OP2	-7.94	98.56	105.70
1	A	581	G	C8-N9-C4	-7.94	103.22	106.40
1	A	1126	U	N3-C2-O2	7.94	127.75	122.20
1	A	529	G	O3'-P-O5'	7.93	119.08	104.00
1	A	1332	A	C5-N7-C8	7.93	107.87	103.90
1	A	758	C	N3-C4-N4	7.93	123.55	118.00
1	A	874	G	N1-C6-O6	7.93	124.66	119.90
1	A	898	G	C8-N9-C1'	7.93	137.31	127.00
1	A	242	G	C8-N9-C1'	7.93	137.31	127.00
1	A	1179	A	C4-C5-C6	7.93	120.97	117.00
1	A	485	U	P-O3'-C3'	7.93	129.22	119.70
1	A	529	G	C8-N9-C4	7.93	109.57	106.40
13	M	80	MET	CG-SD-CE	-7.93	87.51	100.20
1	A	26	A	C1'-O4'-C4'	-7.93	103.56	109.90
1	A	521	G	N1-C6-O6	7.93	124.66	119.90
1	A	432	A	C5-C6-N6	-7.93	117.36	123.70
1	A	1262	C	C6-N1-C2	-7.93	117.13	120.30
1	A	777	A	O4'-C4'-C3'	-7.92	96.08	104.00
1	A	897	C	N3-C4-N4	7.92	123.55	118.00
1	A	1050	G	C5-C6-O6	-7.92	123.84	128.60
8	H	72	GLU	N-CA-C	-7.92	89.60	111.00
1	A	139	A	P-O3'-C3'	-7.92	110.19	119.70
1	A	251	G	N1-C6-O6	7.92	124.65	119.90
1	A	658	C	C2-N1-C1'	-7.92	110.09	118.80
1	A	916	U	C1'-O4'-C4'	-7.92	103.56	109.90
1	A	1101	A	C8-N9-C4	-7.92	102.63	105.80
1	A	943	U	C4'-C3'-C2'	7.92	110.52	102.60
1	A	370	C	N3-C4-C5	-7.92	118.73	121.90
1	A	942	G	C5-C6-O6	-7.92	123.85	128.60
1	A	1090	U	C6-N1-C1'	7.92	132.29	121.20
1	A	1514	G	C4'-C3'-O3'	7.92	128.84	113.00
1	A	342	C	O4'-C1'-N1	7.92	114.53	108.20
1	A	371	A	O4'-C1'-N9	7.92	114.53	108.20
1	A	1041	G	C5'-C4'-O4'	7.92	118.60	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	144	G	C5'-C4'-O4'	7.91	118.59	109.10
1	A	598	U	C2-N1-C1'	-7.91	108.20	117.70
1	A	1325	C	C3'-C2'-C1'	-7.91	95.17	101.50
1	A	1420	U	C5'-C4'-C3'	-7.91	103.34	116.00
1	A	879	C	C6-N1-C2	-7.91	117.14	120.30
1	A	288	A	C5-C6-N6	-7.91	117.37	123.70
1	A	450	G	C3'-C2'-C1'	-7.91	95.17	101.50
1	A	646	G	C6-C5-N7	-7.91	125.65	130.40
1	A	896	C	C3'-C2'-C1'	-7.91	95.17	101.50
1	A	47	C	O5'-C5'-C4'	-7.91	96.67	111.70
1	A	414	A	O3'-P-O5'	-7.91	88.97	104.00
1	A	424	G	O4'-C1'-N9	7.91	114.53	108.20
1	A	448	A	C5-C6-N6	-7.91	117.37	123.70
1	A	338	A	C5'-C4'-C3'	-7.91	103.35	116.00
1	A	833	G	C5-C6-O6	-7.91	123.86	128.60
1	A	501	C	O4'-C1'-N1	7.90	114.52	108.20
1	A	501	C	C6-N1-C2	-7.90	117.14	120.30
1	A	659	U	P-O3'-C3'	-7.90	110.22	119.70
1	A	748	G	C5'-C4'-C3'	-7.90	103.36	116.00
1	A	1022	A	O5'-C5'-C4'	7.90	126.71	111.70
1	A	1514	G	O4'-C4'-C3'	-7.90	96.10	104.00
1	A	521	G	N3-C2-N2	7.90	125.43	119.90
1	A	1416	G	P-O3'-C3'	-7.90	110.22	119.70
1	A	292	G	C4-N9-C1'	-7.90	116.23	126.50
1	A	391	G	C6-N1-C2	-7.90	120.36	125.10
1	A	460	A	P-O3'-C3'	-7.90	110.22	119.70
1	A	555	U	C6-N1-C2	-7.90	116.26	121.00
1	A	1357	A	C4-C5-C6	7.90	120.95	117.00
1	A	414	A	C4-C5-C6	7.90	120.95	117.00
14	N	74	ARG	NE-CZ-NH2	-7.90	116.35	120.30
1	A	367	U	C5'-C4'-C3'	-7.89	103.37	116.00
1	A	1066	C	C6-N1-C2	-7.89	117.14	120.30
1	A	93	U	O4'-C4'-C3'	-7.89	96.11	104.00
1	A	348	G	O3'-P-O5'	-7.89	89.01	104.00
1	A	467	U	P-O3'-C3'	-7.89	110.23	119.70
1	A	666	G	P-O3'-C3'	-7.89	110.23	119.70
1	A	27	G	C5'-C4'-C3'	7.89	128.62	116.00
15	O	48	ASP	N-CA-CB	7.89	124.80	110.60
1	A	255	G	C8-N9-C4	-7.89	103.24	106.40
1	A	1409	C	N3-C4-C5	-7.89	118.75	121.90
1	A	1488	G	N1-C6-O6	7.89	124.63	119.90
1	A	1017	U	O4'-C1'-N1	7.89	114.51	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	289	G	C3'-C2'-C1'	-7.89	95.19	101.50
1	A	547	A	C5'-C4'-O4'	7.89	118.56	109.10
1	A	755	G	C3'-C2'-C1'	-7.89	95.19	101.50
1	A	1472	U	O4'-C1'-N1	7.89	114.51	108.20
1	A	94	G	N1-C6-O6	7.88	124.63	119.90
1	A	477	C	P-O5'-C5'	7.88	133.51	120.90
1	A	491	G	C6-C5-N7	-7.88	125.67	130.40
1	A	528	C	C2-N3-C4	7.88	123.84	119.90
1	A	621	A	P-O3'-C3'	-7.88	110.24	119.70
1	A	240	G	N3-C4-N9	7.88	130.73	126.00
1	A	1103	C	N3-C4-C5	-7.88	118.75	121.90
1	A	259	G	C5'-C4'-C3'	-7.88	103.39	116.00
1	A	616	G	N1-C6-O6	7.88	124.63	119.90
1	A	867	G	O5'-C5'-C4'	-7.88	96.73	111.70
1	A	1483	A	N9-C4-C5	7.88	108.95	105.80
1	A	512	U	O4'-C1'-N1	7.88	114.50	108.20
1	A	656	G	C5-C6-O6	-7.88	123.87	128.60
1	A	1255	G	N1-C6-O6	7.88	124.63	119.90
1	A	212	G	O5'-C5'-C4'	-7.88	96.73	111.70
1	A	409	U	N3-C2-O2	-7.88	116.69	122.20
1	A	1264	U	C3'-C2'-C1'	-7.88	95.20	101.50
1	A	1403	C	C5'-C4'-O4'	7.88	118.55	109.10
1	A	627	G	N1-C6-O6	7.88	124.62	119.90
1	A	869	G	C5-N7-C8	-7.88	100.36	104.30
1	A	13	U	P-O3'-C3'	7.87	129.15	119.70
1	A	249	U	C2-N3-C4	-7.87	122.28	127.00
1	A	376	G	N3-C2-N2	7.87	125.41	119.90
1	A	1263	C	P-O3'-C3'	-7.87	110.25	119.70
1	A	1267	C	P-O5'-C5'	-7.87	108.30	120.90
1	A	329	A	P-O3'-C3'	7.87	129.15	119.70
1	A	1097	C	C2-N3-C4	7.87	123.84	119.90
9	I	37	TYR	CB-CG-CD1	-7.87	116.28	121.00
1	A	648	A	C5-C6-N6	-7.87	117.40	123.70
1	A	211	G	N1-C6-O6	7.87	124.62	119.90
1	A	922	G	N1-C6-O6	7.87	124.62	119.90
1	A	1272	G	C4'-C3'-C2'	-7.87	94.73	102.60
1	A	277	C	C5'-C4'-C3'	7.87	128.59	116.00
1	A	780	A	C4-C5-N7	-7.87	106.77	110.70
1	A	841	C	C6-N1-C1'	-7.87	111.36	120.80
1	A	947	G	P-O3'-C3'	-7.87	110.26	119.70
1	A	1111	A	C5-C6-N6	-7.87	117.41	123.70
1	A	1164	G	C8-N9-C1'	7.87	137.23	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1318	A	N1-C6-N6	7.87	123.32	118.60
1	A	743	A	C8-N9-C1'	7.86	141.85	127.70
1	A	1362	A	N1-C6-N6	7.86	123.32	118.60
1	A	455	G	C1'-O4'-C4'	-7.86	103.61	109.90
1	A	38	G	P-O3'-C3'	-7.86	110.27	119.70
1	A	100	G	C6-C5-N7	-7.86	125.68	130.40
1	A	326	G	C5'-C4'-C3'	-7.86	103.42	116.00
1	A	469	C	N3-C4-C5	-7.86	118.76	121.90
1	A	159	G	C3'-C2'-C1'	-7.86	95.21	101.50
1	A	414	A	C4'-C3'-C2'	-7.86	94.74	102.60
1	A	478	A	C3'-C2'-C1'	-7.86	95.21	101.50
1	A	600	A	N9-C1'-C2'	-7.86	103.36	112.00
1	A	650	G	C1'-O4'-C4'	-7.86	103.61	109.90
1	A	805	C	C5-C6-N1	7.86	124.93	121.00
1	A	907	A	C4-C5-C6	7.86	120.93	117.00
1	A	1065	U	C2-N3-C4	-7.86	122.29	127.00
1	A	1417	G	P-O3'-C3'	-7.86	110.27	119.70
1	A	1223	C	C5'-C4'-C3'	7.86	128.57	116.00
1	A	1403	C	O3'-P-O5'	-7.86	89.08	104.00
1	A	784	A	C5-C6-N6	-7.85	117.42	123.70
1	A	1421	G	C5'-C4'-C3'	-7.85	103.43	116.00
1	A	155	A	C8-N9-C4	-7.85	102.66	105.80
5	E	52	ALA	N-CA-CB	7.85	121.09	110.10
1	A	1080	A	C5-C6-N6	-7.85	117.42	123.70
1	A	660	C	C1'-O4'-C4'	-7.85	103.62	109.90
3	C	181	ILE	N-CA-C	-7.85	89.81	111.00
1	A	115	G	C4'-C3'-C2'	7.85	110.45	102.60
1	A	279	A	O5'-C5'-C4'	-7.85	96.79	111.70
1	A	75	G	C5'-C4'-C3'	-7.84	103.45	116.00
1	A	157	U	C6-N1-C1'	7.84	132.18	121.20
1	A	227	G	C6-N1-C2	-7.84	120.39	125.10
1	A	261	U	P-O5'-C5'	7.84	133.45	120.90
1	A	642	A	O3'-P-O5'	-7.84	89.10	104.00
1	A	688	G	C8-N9-C1'	7.84	137.20	127.00
1	A	929	G	C8-N9-C1'	7.84	137.20	127.00
1	A	490	C	O4'-C1'-N1	7.84	114.47	108.20
1	A	1168	U	N3-C4-O4	7.84	124.89	119.40
1	A	380	G	N1-C2-N2	7.84	123.26	116.20
1	A	804	U	C4'-C3'-C2'	7.84	110.44	102.60
1	A	252	U	C6-N1-C1'	7.84	132.17	121.20
1	A	197	A	C5'-C4'-C3'	7.83	128.53	116.00
1	A	709	U	C6-N1-C1'	7.83	132.17	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1365	G	N3-C4-C5	-7.83	124.68	128.60
1	A	1368	A	C4-C5-C6	7.83	120.92	117.00
1	A	1268	G	C5-C6-O6	-7.83	123.90	128.60
1	A	1349	A	P-O3'-C3'	-7.83	110.30	119.70
1	A	226	G	P-O3'-C3'	-7.83	110.31	119.70
1	A	1310	G	N9-C1'-C2'	-7.83	103.39	112.00
2	B	31	PHE	CB-CG-CD1	7.83	126.28	120.80
1	A	484	G	O4'-C1'-N9	7.83	114.46	108.20
1	A	932	C	C6-N1-C2	-7.83	117.17	120.30
1	A	1345	U	C6-N1-C1'	7.83	132.16	121.20
1	A	502	A	C4'-C3'-C2'	-7.83	94.78	102.60
1	A	846	G	C4-C5-C6	7.83	123.50	118.80
1	A	1168	U	P-O3'-C3'	7.83	129.09	119.70
1	A	1243	C	C2-N3-C4	7.83	123.81	119.90
1	A	1426	G	O4'-C1'-N9	7.83	114.46	108.20
1	A	962	C	C3'-C2'-C1'	-7.82	95.24	101.50
1	A	1089	G	C4'-C3'-C2'	-7.82	94.78	102.60
1	A	492	C	C2'-C3'-O3'	7.82	126.71	109.50
1	A	1022	A	C6-N1-C2	-7.82	113.91	118.60
1	A	1519	A	N3-C4-C5	-7.82	121.33	126.80
1	A	282	A	C4-C5-C6	7.82	120.91	117.00
1	A	1140	C	O5'-C5'-C4'	7.82	126.55	111.70
1	A	327	A	C4-C5-C6	7.82	120.91	117.00
1	A	648	A	C3'-C2'-C1'	-7.82	95.25	101.50
1	A	802	A	P-O5'-C5'	7.82	133.41	120.90
1	A	1521	C	N3-C4-N4	7.82	123.47	118.00
1	A	883	C	C2-N1-C1'	-7.81	110.20	118.80
1	A	82	G	C3'-C2'-C1'	-7.81	95.25	101.50
1	A	430	A	C5'-C4'-C3'	-7.81	103.50	116.00
1	A	1246	A	C3'-C2'-C1'	-7.81	95.25	101.50
1	A	941	G	C6-C5-N7	-7.81	125.71	130.40
1	A	1520	C	O4'-C4'-C3'	-7.81	96.19	104.00
1	A	96	U	C6-N1-C2	-7.81	116.31	121.00
1	A	257	G	C1'-O4'-C4'	-7.81	103.65	109.90
1	A	837	U	C2-N1-C1'	-7.81	108.33	117.70
1	A	898	G	N1-C6-O6	7.81	124.59	119.90
1	A	1055	A	C6-N1-C2	-7.81	113.92	118.60
1	A	1074	G	C5'-C4'-O4'	7.81	118.47	109.10
1	A	1358	U	C4'-C3'-C2'	7.81	110.41	102.60
1	A	423	G	O4'-C1'-N9	7.81	114.44	108.20
1	A	435	A	C5'-C4'-C3'	-7.81	103.51	116.00
1	A	709	U	C3'-C2'-C1'	-7.81	95.25	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1046	A	C1'-O4'-C4'	-7.81	103.66	109.90
1	A	585	G	O4'-C1'-N9	7.80	114.44	108.20
1	A	708	C	N3-C4-N4	7.80	123.46	118.00
1	A	1128	C	C1'-O4'-C4'	-7.80	103.66	109.90
1	A	506	G	C8-N9-C4	-7.80	103.28	106.40
1	A	658	C	C6-N1-C2	-7.80	117.18	120.30
1	A	385	C	N3-C4-C5	-7.80	118.78	121.90
2	B	38	HIS	N-CA-CB	7.80	124.64	110.60
1	A	228	A	C5-C6-N1	-7.80	113.80	117.70
1	A	500	G	C5-C6-O6	-7.80	123.92	128.60
1	A	1417	G	C6-C5-N7	-7.80	125.72	130.40
1	A	1103	C	C2-N3-C4	7.80	123.80	119.90
1	A	139	A	O4'-C1'-N9	7.80	114.44	108.20
1	A	591	U	C5-C6-N1	7.80	126.60	122.70
1	A	606	G	C3'-C2'-C1'	-7.80	95.26	101.50
1	A	833	G	N3-C2-N2	7.80	125.36	119.90
1	A	854	U	C5'-C4'-C3'	-7.80	103.52	116.00
1	A	1001	C	O4'-C1'-N1	7.79	114.44	108.20
1	A	1032	G	C5'-C4'-C3'	-7.79	103.53	116.00
1	A	1402	C	C5'-C4'-C3'	-7.79	103.53	116.00
1	A	752	G	N7-C8-N9	-7.79	109.20	113.10
1	A	225	C	C1'-O4'-C4'	-7.79	103.67	109.90
1	A	513	C	C3'-C2'-C1'	-7.79	95.27	101.50
1	A	774	G	C4'-C3'-C2'	7.79	110.39	102.60
1	A	810	C	O4'-C1'-N1	7.79	114.43	108.20
1	A	1145	A	N9-C4-C5	7.79	108.92	105.80
1	A	1199	U	C6-N1-C1'	7.79	132.11	121.20
1	A	1234	C	N3-C4-N4	7.79	123.45	118.00
1	A	739	C	P-O5'-C5'	7.79	133.36	120.90
1	A	176	C	C5-C4-N4	-7.78	114.75	120.20
1	A	201	G	O5'-C5'-C4'	-7.78	96.91	111.70
1	A	296	U	C2-N3-C4	-7.78	122.33	127.00
1	A	1287	A	C5'-C4'-C3'	7.78	128.45	116.00
1	A	1520	C	O3'-P-O5'	7.78	118.79	104.00
1	A	180	U	C6-N1-C1'	7.78	132.09	121.20
1	A	990	C	O4'-C1'-N1	7.78	114.43	108.20
1	A	1523	G	P-O3'-C3'	-7.78	110.36	119.70
1	A	1439	G	C3'-C2'-C1'	-7.78	95.28	101.50
1	A	140	U	C2'-C3'-O3'	7.78	126.61	109.50
1	A	517	G	P-O3'-C3'	7.78	129.03	119.70
1	A	627	G	N1-C2-N2	-7.78	109.20	116.20
1	A	1131	G	C2-N3-C4	-7.78	108.01	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	492	C	N3-C4-C5	-7.78	118.79	121.90
1	A	890	G	P-O5'-C5'	7.78	133.34	120.90
1	A	1407	C	O4'-C1'-N1	7.78	114.42	108.20
1	A	145	G	C8-N9-C4	7.78	109.51	106.40
1	A	1061	G	C5'-C4'-C3'	-7.78	103.56	116.00
1	A	1464	U	C6-N1-C1'	7.78	132.09	121.20
1	A	412	A	C4-C5-C6	7.77	120.89	117.00
1	A	438	U	P-O5'-C5'	-7.77	108.46	120.90
1	A	28	A	N7-C8-N9	7.77	117.69	113.80
1	A	159	G	N1-C6-O6	7.77	124.56	119.90
1	A	798	U	P-O3'-C3'	-7.77	110.37	119.70
1	A	879	C	C5'-C4'-C3'	-7.77	103.57	116.00
1	A	142	G	C5'-C4'-C3'	-7.77	103.57	116.00
1	A	1166	G	C5-C6-N1	-7.77	107.61	111.50
1	A	196	A	N9-C4-C5	7.77	108.91	105.80
1	A	537	G	O4'-C1'-N9	7.77	114.42	108.20
1	A	731	G	P-O3'-C3'	-7.77	110.38	119.70
1	A	1041	G	C5-C6-O6	-7.77	123.94	128.60
1	A	1273	C	N3-C4-N4	7.77	123.44	118.00
1	A	1525	G	C5-C6-O6	-7.77	123.94	128.60
1	A	226	G	N3-C2-N2	7.77	125.34	119.90
1	A	848	C	O3'-P-O5'	7.77	118.76	104.00
1	A	144	G	N9-C1'-C2'	-7.76	103.46	112.00
1	A	147	G	C1'-O4'-C4'	-7.76	103.69	109.90
1	A	583	A	C4-C5-C6	7.76	120.88	117.00
1	A	794	A	O4'-C1'-N9	7.76	114.41	108.20
1	A	901	A	C6-C5-N7	-7.76	126.86	132.30
1	A	1053	G	O5'-C5'-C4'	-7.76	96.95	111.70
1	A	1170	A	C6-C5-N7	-7.76	126.86	132.30
1	A	772	U	C6-N1-C2	-7.76	116.34	121.00
1	A	813	U	C6-N1-C1'	-7.76	110.33	121.20
1	A	734	G	N1-C6-O6	7.76	124.56	119.90
1	A	1167	A	C5'-C4'-C3'	-7.76	103.59	116.00
1	A	1308	U	O4'-C1'-N1	7.76	114.41	108.20
1	A	1359	C	P-O3'-C3'	-7.76	110.39	119.70
1	A	794	A	N1-C6-N6	7.76	123.25	118.60
1	A	122	G	N3-C4-C5	-7.76	124.72	128.60
1	A	314	C	C6-N1-C2	-7.76	117.20	120.30
1	A	529	G	N9-C4-C5	-7.76	102.30	105.40
1	A	947	G	C6-C5-N7	-7.76	125.75	130.40
1	A	1306	A	C5'-C4'-O4'	7.75	118.41	109.10
1	A	247	G	C8-N9-C1'	7.75	137.08	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	371	A	C5-C6-N6	-7.75	117.50	123.70
1	A	510	A	C4'-C3'-C2'	7.75	110.35	102.60
1	A	592	G	C8-N9-C4	-7.75	103.30	106.40
1	A	1200	C	C6-N1-C1'	7.75	130.10	120.80
1	A	167	A	O3'-P-O5'	-7.75	89.27	104.00
1	A	231	U	P-O3'-C3'	-7.75	110.40	119.70
1	A	1462	C	C2-N1-C1'	-7.75	110.27	118.80
1	A	711	G	C4'-C3'-C2'	-7.75	94.85	102.60
17	Q	46	HIS	C-N-CA	7.75	141.08	121.70
1	A	81	A	N3-C4-C5	-7.75	121.38	126.80
1	A	1005	A	C4'-C3'-C2'	-7.75	94.85	102.60
1	A	1343	G	C4-N9-C1'	-7.75	116.43	126.50
1	A	1463	U	C2-N1-C1'	-7.75	108.41	117.70
1	A	722	G	N9-C4-C5	7.74	108.50	105.40
1	A	1116	U	O4'-C1'-N1	7.74	114.39	108.20
1	A	939	G	N1-C2-N3	-7.74	119.25	123.90
1	A	1005	A	C4-C5-C6	7.74	120.87	117.00
1	A	1072	G	N3-C2-N2	7.74	125.32	119.90
1	A	1290	G	C4-N9-C1'	7.74	136.56	126.50
1	A	1273	C	C5-C4-N4	-7.74	114.78	120.20
1	A	1374	A	N1-C2-N3	7.74	133.17	129.30
20	T	19	HIS	N-CA-CB	7.74	124.53	110.60
1	A	166	U	C3'-C2'-C1'	-7.74	95.31	101.50
1	A	104	G	C5'-C4'-O4'	7.74	118.38	109.10
1	A	667	G	N1-C6-O6	7.74	124.54	119.90
1	A	809	G	C8-N9-C4	-7.74	103.31	106.40
1	A	932	C	O5'-P-OP2	-7.74	98.74	105.70
1	A	1253	G	P-O3'-C3'	-7.74	110.42	119.70
1	A	324	G	C4-N9-C1'	-7.73	116.45	126.50
1	A	1272	G	N1-C6-O6	7.73	124.54	119.90
1	A	269	C	C5-C4-N4	7.73	125.61	120.20
1	A	128	G	C8-N9-C1'	7.73	137.05	127.00
1	A	153	C	P-O3'-C3'	-7.73	110.42	119.70
1	A	318	G	O4'-C1'-N9	7.73	114.39	108.20
1	A	977	A	C4'-C3'-C2'	-7.73	94.87	102.60
1	A	1318	A	C5'-C4'-C3'	-7.73	103.63	116.00
1	A	927	G	C5'-C4'-C3'	7.73	128.37	116.00
1	A	638	U	P-O3'-C3'	7.73	128.97	119.70
1	A	922	G	N3-C2-N2	7.73	125.31	119.90
1	A	999	C	O4'-C1'-N1	7.73	114.38	108.20
1	A	1098	C	N3-C4-C5	-7.73	118.81	121.90
15	O	82	GLU	CA-CB-CG	7.73	130.40	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	257	G	C4'-C3'-C2'	-7.73	94.87	102.60
1	A	47	C	C5'-C4'-O4'	-7.72	99.83	109.10
1	A	789	U	P-O3'-C3'	-7.72	110.43	119.70
1	A	778	G	N1-C6-O6	7.72	124.53	119.90
1	A	1329	A	C3'-C2'-C1'	-7.72	95.32	101.50
1	A	303	A	C5-C6-N6	-7.72	117.52	123.70
1	A	322	C	O3'-P-O5'	-7.72	89.33	104.00
1	A	560	A	C3'-C2'-C1'	-7.72	95.33	101.50
1	A	601	G	N9-C1'-C2'	-7.72	103.51	112.00
1	A	1390	U	C5'-C4'-C3'	7.72	128.35	116.00
1	A	94	G	C5'-C4'-C3'	7.72	128.35	116.00
1	A	433	G	N7-C8-N9	7.72	116.96	113.10
1	A	77	A	C5-C6-N6	-7.72	117.53	123.70
1	A	219	U	C6-N1-C1'	7.72	132.00	121.20
1	A	425	G	P-O5'-C5'	7.72	133.25	120.90
1	A	1258	G	N1-C6-O6	7.72	124.53	119.90
1	A	121	U	O5'-C5'-C4'	-7.71	97.04	111.70
1	A	635	A	N1-C6-N6	7.71	123.23	118.60
1	A	699	C	O3'-P-O5'	-7.71	89.34	104.00
1	A	1011	C	C6-N1-C2	-7.71	117.21	120.30
1	A	1198	G	N1-C6-O6	7.71	124.53	119.90
1	A	1514	G	C3'-C2'-C1'	-7.71	95.33	101.50
1	A	1419	G	C5-C6-O6	-7.71	123.97	128.60
1	A	347	G	C6-C5-N7	-7.71	125.77	130.40
1	A	324	G	C8-N9-C1'	7.71	137.02	127.00
1	A	1332	A	P-O5'-C5'	-7.71	108.57	120.90
1	A	212	G	O4'-C4'-C3'	-7.71	96.29	104.00
1	A	1152	A	P-O5'-C5'	-7.71	108.57	120.90
1	A	1382	C	P-O5'-C5'	7.71	133.23	120.90
1	A	122	G	C5'-C4'-O4'	7.70	118.34	109.10
1	A	267	C	C6-N1-C1'	-7.70	111.56	120.80
1	A	265	G	O5'-P-OP2	-7.70	98.77	105.70
1	A	1031	C	N3-C4-C5	-7.70	118.82	121.90
1	A	1351	U	C2-N1-C1'	-7.70	108.46	117.70
1	A	1353	G	C8-N9-C4	-7.70	103.32	106.40
1	A	182	A	C4-C5-C6	7.70	120.85	117.00
1	A	396	C	P-O3'-C3'	7.70	128.94	119.70
1	A	923	A	C5-C6-N1	-7.70	113.85	117.70
1	A	1091	U	O4'-C1'-N1	7.70	114.36	108.20
1	A	1407	C	N3-C4-C5	-7.70	118.82	121.90
1	A	537	G	C4-N9-C1'	-7.70	116.49	126.50
1	A	546	A	C5-C6-N1	-7.70	113.85	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1071	C	C2-N1-C1'	7.70	127.27	118.80
1	A	1234	C	O4'-C1'-N1	7.70	114.36	108.20
1	A	462	G	C3'-C2'-C1'	-7.70	95.34	101.50
1	A	1203	C	P-O5'-C5'	7.70	133.21	120.90
1	A	406	G	N3-C4-C5	-7.69	124.75	128.60
6	F	80	PHE	CB-CG-CD2	-7.69	115.42	120.80
1	A	48	C	N3-C4-C5	-7.69	118.82	121.90
1	A	1352	C	C2-N3-C4	7.69	123.75	119.90
1	A	39	G	C4-N9-C1'	-7.69	116.50	126.50
1	A	466	A	C5'-C4'-C3'	-7.69	103.70	116.00
1	A	1046	A	P-O3'-C3'	-7.69	110.47	119.70
1	A	192	A	C4-C5-C6	7.69	120.84	117.00
1	A	256	U	C6-N1-C2	-7.69	116.39	121.00
1	A	740	U	O4'-C1'-N1	7.69	114.35	108.20
1	A	1219	A	C4-C5-C6	7.69	120.84	117.00
1	A	1248	A	C5'-C4'-C3'	7.69	128.30	116.00
1	A	322	C	C3'-C2'-C1'	-7.69	95.35	101.50
1	A	440	C	C6-N1-C2	-7.69	117.23	120.30
1	A	222	C	N3-C4-N4	7.68	123.38	118.00
1	A	253	A	C4'-C3'-C2'	-7.68	94.92	102.60
1	A	1491	G	O4'-C4'-C3'	-7.68	96.31	104.00
1	A	24	U	C4'-C3'-C2'	7.68	110.28	102.60
1	A	227	G	C3'-C2'-C1'	-7.68	95.36	101.50
1	A	427	U	C4-C5-C6	-7.68	115.09	119.70
1	A	808	C	O4'-C1'-N1	7.68	114.35	108.20
1	A	1024	G	C4-N9-C1'	-7.68	116.51	126.50
1	A	1293	C	O4'-C1'-N1	7.68	114.35	108.20
1	A	352	C	P-O3'-C3'	-7.68	110.48	119.70
1	A	616	G	C8-N9-C1'	7.68	136.98	127.00
1	A	1404	C	C2'-C3'-O3'	7.68	126.40	109.50
1	A	1409	C	C6-N1-C2	-7.68	117.23	120.30
1	A	923	A	O4'-C1'-N9	7.68	114.34	108.20
1	A	1007	U	C2-N1-C1'	-7.68	108.49	117.70
1	A	155	A	C3'-C2'-C1'	-7.68	95.36	101.50
1	A	215	C	C2-N1-C1'	-7.68	110.36	118.80
1	A	633	G	C5'-C4'-C3'	7.68	128.28	116.00
1	A	1001	C	P-O5'-C5'	7.68	133.18	120.90
1	A	1006	G	N1-C2-N2	7.68	123.11	116.20
1	A	1290	G	C6-C5-N7	-7.68	125.79	130.40
1	A	1457	G	C5-C6-O6	-7.68	123.99	128.60
1	A	44	A	N1-C6-N6	7.67	123.20	118.60
1	A	189	A	C4-C5-C6	7.67	120.84	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	201	G	C8-N9-C1'	7.67	136.98	127.00
1	A	946	A	C2'-C3'-O3'	7.67	126.38	109.50
1	A	1443	C	C1'-O4'-C4'	-7.67	103.76	109.90
1	A	84	U	N3-C2-O2	7.67	127.57	122.20
1	A	552	U	O4'-C1'-N1	7.67	114.34	108.20
1	A	1433	A	O3'-P-O5'	-7.67	89.42	104.00
1	A	313	A	C5'-C4'-O4'	7.67	118.31	109.10
1	A	904	U	C3'-C2'-C1'	-7.67	95.36	101.50
1	A	1142	G	C8-N9-C1'	7.67	136.97	127.00
22	W	226	ALA	CB-CA-C	-7.67	98.59	110.10
1	A	200	G	C3'-C2'-C1'	-7.67	95.36	101.50
1	A	512	U	C6-N1-C2	-7.67	116.40	121.00
1	A	6	G	O4'-C1'-N9	7.67	114.33	108.20
1	A	680	C	C3'-C2'-C1'	-7.67	95.36	101.50
1	A	774	G	N1-C6-O6	7.67	124.50	119.90
1	A	1383	C	C2-N3-C4	7.67	123.73	119.90
1	A	186	C	O3'-P-O5'	-7.67	89.43	104.00
1	A	843	U	O4'-C4'-C3'	-7.67	96.33	104.00
1	A	1353	G	C5'-C4'-C3'	-7.67	103.73	116.00
1	A	397	A	O4'-C4'-C3'	-7.67	96.33	104.00
1	A	432	A	C5'-C4'-C3'	-7.66	103.74	116.00
1	A	848	C	C3'-C2'-C1'	-7.66	95.37	101.50
1	A	377	G	N1-C6-O6	7.66	124.50	119.90
1	A	1359	C	N3-C2-O2	-7.66	116.54	121.90
1	A	1504	G	OP1-P-O3'	7.66	122.05	105.20
1	A	508	U	P-O3'-C3'	7.66	128.89	119.70
1	A	708	C	P-O3'-C3'	-7.66	110.51	119.70
1	A	867	G	N1-C6-O6	7.66	124.49	119.90
4	D	25	ARG	CD-NE-CZ	-7.65	112.89	123.60
1	A	139	A	C5'-C4'-C3'	-7.65	103.75	116.00
1	A	220	G	N1-C6-O6	7.65	124.49	119.90
1	A	1069	C	C2-N1-C1'	-7.65	110.38	118.80
1	A	1238	A	N9-C4-C5	7.65	108.86	105.80
4	D	179	GLY	N-CA-C	-7.65	93.97	113.10
1	A	282	A	C2-N3-C4	-7.65	106.78	110.60
1	A	345	C	C3'-C2'-C1'	-7.65	95.38	101.50
1	A	832	G	C8-N9-C4	7.65	109.46	106.40
1	A	1521	C	N1-C1'-C2'	-7.65	103.58	112.00
1	A	215	C	C6-N1-C2	-7.65	117.24	120.30
1	A	778	G	N3-C2-N2	7.65	125.25	119.90
1	A	928	G	C8-N9-C1'	7.65	136.94	127.00
1	A	1145	A	C5-C6-N1	-7.65	113.88	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	4	U	C2-N3-C4	-7.65	122.41	127.00
1	A	309	A	P-O5'-C5'	7.65	133.13	120.90
1	A	385	C	C5-C6-N1	7.65	124.82	121.00
1	A	1061	G	C8-N9-C1'	7.65	136.94	127.00
1	A	1158	C	O5'-C5'-C4'	-7.65	97.17	111.70
1	A	313	A	C3'-C2'-C1'	-7.64	95.38	101.50
1	A	599	C	N1-C1'-C2'	-7.64	103.59	112.00
1	A	1079	G	P-O3'-C3'	7.64	128.87	119.70
1	A	1096	C	C2-N3-C4	7.64	123.72	119.90
1	A	1261	A	C5-C6-N6	-7.64	117.58	123.70
7	G	100	MET	CG-SD-CE	-7.64	87.97	100.20
1	A	451	A	C8-N9-C1'	7.64	141.46	127.70
1	A	597	G	N1-C6-O6	7.64	124.48	119.90
1	A	674	G	O4'-C1'-N9	7.64	114.31	108.20
1	A	893	C	C5-C4-N4	-7.64	114.85	120.20
2	B	91	VAL	N-CA-C	-7.64	90.37	111.00
1	A	436	C	C2-N1-C1'	-7.64	110.39	118.80
1	A	513	C	C2-N3-C4	7.64	123.72	119.90
1	A	1337	G	N3-C2-N2	7.64	125.25	119.90
1	A	538	G	C3'-C2'-C1'	-7.64	95.39	101.50
1	A	1435	G	C5'-C4'-C3'	-7.64	103.78	116.00
1	A	1510	C	N3-C4-C5	-7.64	118.84	121.90
1	A	18	C	C5'-C4'-C3'	7.64	128.22	116.00
1	A	1022	A	C4-C5-C6	7.64	120.82	117.00
1	A	1482	G	N1-C6-O6	7.64	124.48	119.90
4	D	40	HIS	CA-CB-CG	7.64	126.58	113.60
1	A	289	G	O5'-P-OP2	-7.63	98.83	105.70
1	A	1525	G	C8-N9-C4	-7.63	103.35	106.40
1	A	33	A	C5-C6-N6	-7.63	117.59	123.70
1	A	101	A	C6-C5-N7	-7.63	126.96	132.30
1	A	912	C	N3-C4-N4	7.63	123.34	118.00
1	A	1276	G	P-O5'-C5'	7.63	133.11	120.90
1	A	307	C	O4'-C1'-N1	7.63	114.30	108.20
1	A	399	G	C1'-O4'-C4'	-7.63	103.80	109.90
1	A	992	U	C3'-C2'-C1'	-7.63	95.40	101.50
1	A	1491	G	C5-C6-O6	-7.63	124.02	128.60
1	A	1161	C	C2-N3-C4	-7.62	116.09	119.90
1	A	988	G	C4-N9-C1'	-7.62	116.59	126.50
1	A	1302	C	C5'-C4'-C3'	-7.62	103.80	116.00
1	A	540	G	C5-C6-O6	-7.62	124.03	128.60
1	A	1073	U	O4'-C1'-N1	7.62	114.30	108.20
1	A	1421	G	O4'-C1'-N9	7.62	114.30	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	22	G	C5-C6-O6	-7.62	124.03	128.60
1	A	927	G	N1-C6-O6	7.62	124.47	119.90
1	A	1429	A	C3'-C2'-C1'	-7.62	95.41	101.50
1	A	445	G	C5'-C4'-C3'	-7.62	103.81	116.00
1	A	207	C	P-O5'-C5'	7.62	133.09	120.90
1	A	312	C	N3-C4-C5	-7.62	118.85	121.90
1	A	642	A	C4-N9-C1'	7.62	140.01	126.30
1	A	941	G	P-O3'-C3'	7.62	128.84	119.70
1	A	231	U	C3'-C2'-C1'	-7.61	95.41	101.50
1	A	233	C	N3-C2-O2	-7.61	116.57	121.90
1	A	451	A	C4-N9-C1'	-7.61	112.59	126.30
1	A	1205	U	C2-N3-C4	-7.61	122.43	127.00
1	A	605	U	O3'-P-O5'	7.61	118.46	104.00
1	A	642	A	C6-C5-N7	-7.61	126.97	132.30
1	A	579	A	C5'-C4'-C3'	-7.61	103.82	116.00
1	A	910	C	O4'-C1'-N1	7.61	114.29	108.20
1	A	145	G	C1'-O4'-C4'	-7.61	103.81	109.90
1	A	566	G	N3-C2-N2	7.61	125.23	119.90
1	A	1300	G	O4'-C1'-N9	7.61	114.29	108.20
1	A	1368	A	C5-N7-C8	7.61	107.70	103.90
1	A	447	G	N1-C6-O6	7.60	124.46	119.90
1	A	753	A	C5'-C4'-C3'	-7.60	103.83	116.00
1	A	1350	A	C5'-C4'-C3'	7.60	128.17	116.00
1	A	181	A	C4-N9-C1'	-7.60	112.61	126.30
1	A	300	A	C5-N7-C8	7.60	107.70	103.90
1	A	622	A	C3'-C2'-C1'	-7.60	95.42	101.50
1	A	1421	G	C1'-O4'-C4'	-7.60	103.82	109.90
1	A	839	C	C3'-C2'-C1'	-7.60	95.42	101.50
1	A	1253	G	O3'-P-O5'	7.60	118.44	104.00
1	A	331	G	C5-C6-O6	-7.60	124.04	128.60
1	A	145	G	N7-C8-N9	-7.60	109.30	113.10
1	A	553	A	O4'-C1'-N9	7.60	114.28	108.20
1	A	823	C	C2'-C3'-O3'	7.60	126.21	109.50
1	A	1033	G	C5'-C4'-C3'	-7.60	103.84	116.00
1	A	1241	G	C6-C5-N7	-7.60	125.84	130.40
1	A	542	G	N3-C2-N2	7.60	125.22	119.90
2	B	152	ASP	N-CA-CB	7.60	124.27	110.60
1	A	214	C	C2-N1-C1'	-7.59	110.44	118.80
1	A	655	A	N7-C8-N9	7.59	117.60	113.80
1	A	997	U	C3'-C2'-C1'	-7.59	95.42	101.50
1	A	684	U	N3-C4-O4	7.59	124.72	119.40
1	A	1230	C	N3-C4-N4	7.59	123.31	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1499	A	C8-N9-C4	-7.59	102.76	105.80
1	A	240	G	O4'-C4'-C3'	-7.59	96.41	104.00
1	A	470	C	C3'-C2'-C1'	-7.59	95.43	101.50
1	A	674	G	C8-N9-C1'	7.59	136.87	127.00
1	A	1506	U	O3'-P-O5'	7.59	118.43	104.00
1	A	76	G	C4-C5-C6	7.59	123.35	118.80
1	A	800	G	C6-C5-N7	-7.59	125.85	130.40
1	A	1283	U	C6-N1-C2	-7.59	116.45	121.00
1	A	1324	A	C1'-O4'-C4'	-7.58	103.83	109.90
1	A	441	A	N1-C6-N6	7.58	123.15	118.60
1	A	1058	G	C5'-C4'-O4'	7.58	118.20	109.10
1	A	1062	U	N3-C4-C5	-7.58	110.05	114.60
1	A	1486	G	N1-C6-O6	7.58	124.45	119.90
1	A	325	A	O5'-P-OP1	-7.58	98.88	105.70
1	A	348	G	O4'-C1'-N9	7.58	114.27	108.20
1	A	1237	C	C2-N1-C1'	-7.58	110.46	118.80
1	A	874	G	C3'-C2'-C1'	-7.58	95.44	101.50
1	A	1145	A	O3'-P-O5'	-7.58	89.60	104.00
1	A	1145	A	N1-C2-N3	-7.58	125.51	129.30
1	A	919	A	C1'-O4'-C4'	-7.58	103.84	109.90
1	A	1245	C	C6-N1-C1'	7.58	129.89	120.80
1	A	1307	U	C3'-C2'-C1'	-7.58	95.44	101.50
1	A	229	U	O4'-C1'-N1	7.58	114.26	108.20
1	A	245	U	C2-N3-C4	-7.57	122.46	127.00
1	A	474	G	O4'-C1'-N9	7.57	114.26	108.20
8	H	29	SER	N-CA-CB	7.57	121.86	110.50
1	A	95	C	N3-C4-N4	7.57	123.30	118.00
1	A	147	G	C5-C6-O6	-7.57	124.06	128.60
1	A	230	G	O4'-C1'-N9	7.57	114.26	108.20
1	A	239	U	C6-N1-C2	-7.57	116.46	121.00
1	A	354	G	C5'-C4'-O4'	7.57	118.19	109.10
1	A	423	G	C5'-C4'-C3'	-7.57	103.89	116.00
1	A	425	G	C5'-C4'-C3'	-7.57	103.89	116.00
1	A	562	U	C5'-C4'-C3'	7.57	128.11	116.00
1	A	633	G	C6-C5-N7	-7.57	125.86	130.40
1	A	1047	G	P-O5'-C5'	-7.57	108.79	120.90
1	A	1137	C	N3-C4-C5	-7.57	118.87	121.90
1	A	95	C	C2-N1-C1'	7.57	127.12	118.80
1	A	417	G	C4-C5-C6	7.56	123.34	118.80
1	A	838	G	C1'-O4'-C4'	-7.56	103.85	109.90
1	A	1096	C	O4'-C4'-C3'	-7.56	96.44	104.00
1	A	1131	G	N9-C4-C5	7.56	108.42	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1239	A	C4'-C3'-O3'	7.56	128.12	113.00
1	A	1481	U	C6-N1-C2	-7.56	116.46	121.00
1	A	77	A	C4-N9-C1'	7.56	139.91	126.30
1	A	443	C	O4'-C1'-N1	7.56	114.25	108.20
1	A	525	C	P-O5'-C5'	7.56	133.00	120.90
1	A	760	G	C5'-C4'-O4'	7.56	118.17	109.10
1	A	950	U	C5-C4-O4	-7.56	121.36	125.90
1	A	1406	U	C2-N3-C4	-7.56	122.47	127.00
1	A	1248	A	N1-C6-N6	7.56	123.14	118.60
1	A	346	G	C8-N9-C4	-7.55	103.38	106.40
1	A	1198	G	C5-C6-N1	-7.55	107.72	111.50
1	A	167	A	C5'-C4'-O4'	7.55	118.16	109.10
1	A	525	C	C6-N1-C2	-7.55	117.28	120.30
1	A	1519	A	C3'-C2'-C1'	-7.55	95.46	101.50
1	A	676	A	C5-C6-N1	-7.55	113.92	117.70
1	A	710	G	C4-N9-C1'	-7.55	116.68	126.50
1	A	968	A	O3'-P-O5'	-7.55	89.65	104.00
1	A	1131	G	N1-C2-N2	7.55	123.00	116.20
1	A	144	G	P-O5'-C5'	7.55	132.98	120.90
1	A	747	A	P-O3'-C3'	-7.55	110.64	119.70
1	A	1087	G	N1-C6-O6	7.55	124.43	119.90
1	A	1231	G	C5-N7-C8	-7.55	100.53	104.30
1	A	483	C	C5'-C4'-O4'	7.55	118.16	109.10
1	A	469	C	N3-C4-N4	7.55	123.28	118.00
1	A	1422	G	C5-C6-O6	-7.54	124.07	128.60
18	R	24	ASP	N-CA-C	-7.54	90.63	111.00
1	A	698	G	C5'-C4'-O4'	7.54	118.15	109.10
1	A	730	G	C8-N9-C1'	7.54	136.81	127.00
1	A	936	C	C3'-C2'-C1'	-7.54	95.47	101.50
1	A	1399	C	O4'-C1'-N1	7.54	114.23	108.20
1	A	180	U	C2-N1-C1'	-7.54	108.65	117.70
1	A	856	C	O3'-P-O5'	-7.54	89.67	104.00
1	A	1097	C	C6-N1-C1'	7.54	129.85	120.80
1	A	1242	G	C4-C5-C6	7.54	123.33	118.80
1	A	1439	G	C8-N9-C1'	7.54	136.80	127.00
1	A	1409	C	O4'-C1'-N1	7.54	114.23	108.20
1	A	456	A	N9-C4-C5	7.54	108.81	105.80
1	A	671	G	C1'-O4'-C4'	-7.54	103.87	109.90
1	A	1279	G	C5'-C4'-O4'	7.54	118.14	109.10
1	A	270	A	C1'-O4'-C4'	-7.54	103.87	109.90
1	A	453	G	C8-N9-C1'	7.54	136.80	127.00
1	A	566	G	O4'-C1'-N9	7.54	114.23	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	748	G	C8-N9-C4	-7.54	103.39	106.40
1	A	774	G	O3'-P-O5'	-7.54	89.68	104.00
1	A	1299	A	O5'-P-OP2	-7.54	98.92	105.70
22	W	299	TYR	CB-CG-CD1	-7.54	116.48	121.00
1	A	102	G	N7-C8-N9	7.53	116.87	113.10
1	A	684	U	C5-C6-N1	7.53	126.47	122.70
1	A	727	G	P-O3'-C3'	-7.53	110.66	119.70
1	A	1132	C	C2-N3-C4	7.53	123.67	119.90
1	A	741	G	C8-N9-C1'	7.53	136.79	127.00
1	A	1260	G	O5'-C5'-C4'	-7.53	97.39	111.70
1	A	128	G	C8-N9-C4	-7.53	103.39	106.40
1	A	288	A	C3'-C2'-C1'	-7.53	95.48	101.50
1	A	1041	G	P-O3'-C3'	-7.53	110.67	119.70
1	A	1110	A	C5-C6-N1	-7.53	113.94	117.70
1	A	599	C	P-O3'-C3'	-7.53	110.67	119.70
1	A	755	G	C6-C5-N7	-7.53	125.89	130.40
1	A	1124	G	C6-N1-C2	7.53	129.62	125.10
1	A	1203	C	C5'-C4'-O4'	7.53	118.13	109.10
1	A	954	G	C3'-C2'-C1'	-7.52	95.48	101.50
1	A	76	G	N3-C4-N9	7.52	130.51	126.00
1	A	338	A	P-O3'-C3'	-7.52	110.67	119.70
1	A	711	G	C5'-C4'-C3'	7.52	128.04	116.00
1	A	995	C	C5-C6-N1	7.52	124.76	121.00
1	A	76	G	N3-C2-N2	7.52	125.16	119.90
1	A	1147	C	C5'-C4'-C3'	-7.52	103.97	116.00
1	A	1268	G	C8-N9-C1'	-7.52	117.22	127.00
1	A	883	C	C3'-C2'-C1'	-7.52	95.48	101.50
1	A	1345	U	C4'-C3'-C2'	7.52	110.12	102.60
1	A	1377	A	P-O5'-C5'	-7.52	108.87	120.90
1	A	76	G	C5-C6-N1	-7.52	107.74	111.50
1	A	513	C	O4'-C1'-N1	7.52	114.21	108.20
1	A	1465	A	C8-N9-C4	-7.52	102.79	105.80
1	A	1201	A	P-O5'-C5'	-7.51	108.88	120.90
1	A	315	A	C8-N9-C4	-7.51	102.80	105.80
1	A	725	G	N1-C6-O6	7.51	124.41	119.90
1	A	437	U	C6-N1-C1'	7.51	131.72	121.20
1	A	1163	A	C8-N9-C4	-7.51	102.80	105.80
1	A	388	G	N1-C6-O6	7.51	124.41	119.90
1	A	771	G	C3'-C2'-C1'	-7.51	95.49	101.50
1	A	830	G	N3-C2-N2	7.51	125.16	119.90
1	A	889	A	C4-N9-C1'	-7.51	112.78	126.30
1	A	925	G	C6-C5-N7	-7.51	125.89	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1166	G	N1-C2-N3	-7.51	119.39	123.90
1	A	1367	C	C6-N1-C2	-7.51	117.30	120.30
1	A	1442	G	C2'-C3'-O3'	7.51	126.02	109.50
1	A	118	U	C5'-C4'-C3'	-7.51	103.99	116.00
1	A	789	U	O4'-C1'-N1	7.51	114.21	108.20
1	A	888	G	C5'-C4'-C3'	-7.51	103.99	116.00
1	A	802	A	N7-C8-N9	7.50	117.55	113.80
1	A	1312	G	C6-C5-N7	-7.50	125.90	130.40
1	A	460	A	N1-C2-N3	7.50	133.05	129.30
1	A	583	A	C5-C6-N6	-7.50	117.70	123.70
1	A	1206	G	C5'-C4'-O4'	7.50	118.11	109.10
1	A	1438	G	C3'-C2'-C1'	-7.50	95.50	101.50
19	S	80	ARG	N-CA-CB	7.50	124.11	110.60
1	A	1137	C	C2-N3-C4	7.50	123.65	119.90
1	A	1362	A	C5'-C4'-C3'	7.50	128.00	116.00
1	A	1428	A	C5'-C4'-C3'	-7.50	104.00	116.00
1	A	1515	G	P-O5'-C5'	-7.50	108.90	120.90
1	A	753	A	C5-C6-N6	-7.50	117.70	123.70
1	A	586	C	C3'-C2'-C1'	-7.50	95.50	101.50
1	A	645	G	C8-N9-C1'	7.50	136.75	127.00
1	A	1141	C	C4-C5-C6	7.50	121.15	117.40
1	A	122	G	P-O5'-C5'	7.50	132.90	120.90
1	A	907	A	N1-C6-N6	7.50	123.10	118.60
1	A	894	G	O4'-C1'-N9	7.50	114.20	108.20
1	A	488	C	O4'-C1'-N1	7.49	114.19	108.20
1	A	817	C	P-O5'-C5'	7.49	132.89	120.90
1	A	1210	C	N3-C4-N4	7.49	123.25	118.00
1	A	1439	G	C6-C5-N7	-7.49	125.90	130.40
1	A	71	A	P-O3'-C3'	-7.49	110.71	119.70
1	A	495	A	C4'-C3'-C2'	7.49	110.09	102.60
1	A	1118	U	C5'-C4'-O4'	-7.49	100.11	109.10
1	A	857	C	C6-N1-C2	-7.49	117.30	120.30
1	A	1288	A	C5-C6-N6	-7.49	117.71	123.70
1	A	1392	G	C6-N1-C2	7.49	129.59	125.10
1	A	1413	A	C5'-C4'-C3'	7.49	127.98	116.00
1	A	1382	C	C4-C5-C6	-7.49	113.66	117.40
1	A	1363	A	C5'-C4'-O4'	7.49	118.08	109.10
1	A	1357	A	C8-N9-C1'	7.49	141.17	127.70
1	A	940	C	C5'-C4'-C3'	-7.48	104.03	116.00
1	A	1013	G	N1-C6-O6	7.48	124.39	119.90
1	A	68	G	N1-C2-N2	-7.48	109.47	116.20
1	A	385	C	C6-N1-C2	-7.48	117.31	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	767	A	P-O3'-C3'	7.48	128.68	119.70
1	A	968	A	O4'-C1'-N9	7.48	114.19	108.20
1	A	736	C	N3-C4-N4	7.48	123.24	118.00
1	A	1087	G	C3'-C2'-C1'	7.48	107.48	101.50
1	A	1264	U	C6-N1-C1'	7.48	131.67	121.20
1	A	1367	C	N3-C4-C5	-7.48	118.91	121.90
1	A	1423	G	N9-C1'-C2'	-7.48	103.77	112.00
1	A	1151	A	C4-C5-C6	7.48	120.74	117.00
1	A	1349	A	C5-C6-N6	-7.48	117.72	123.70
1	A	119	A	P-O5'-C5'	-7.48	108.94	120.90
1	A	489	C	C5'-C4'-C3'	-7.48	104.04	116.00
1	A	640	A	C5-C6-N1	-7.48	113.96	117.70
1	A	684	U	C5-C4-O4	-7.48	121.41	125.90
1	A	542	G	C3'-C2'-C1'	-7.48	95.52	101.50
1	A	19	A	C4-C5-C6	7.47	120.74	117.00
1	A	355	C	P-O3'-C3'	7.47	128.67	119.70
1	A	369	G	P-O5'-C5'	-7.47	108.94	120.90
1	A	415	A	O3'-P-O5'	-7.47	89.80	104.00
1	A	536	C	C2-N1-C1'	-7.47	110.58	118.80
2	B	91	VAL	CA-CB-CG1	-7.47	99.69	110.90
1	A	1230	C	C4'-C3'-C2'	-7.47	95.13	102.60
1	A	1245	C	C3'-C2'-C1'	-7.47	95.52	101.50
1	A	6	G	C5-C6-O6	-7.47	124.12	128.60
1	A	1096	C	N3-C4-C5	-7.47	118.91	121.90
1	A	1232	U	O4'-C1'-N1	7.47	114.18	108.20
1	A	78	A	N1-C6-N6	7.47	123.08	118.60
1	A	204	G	C5-C6-O6	-7.47	124.12	128.60
1	A	132	C	N3-C4-C5	-7.47	118.91	121.90
1	A	163	C	C3'-C2'-C1'	-7.47	95.53	101.50
1	A	171	A	C4-C5-C6	7.47	120.73	117.00
1	A	712	A	C5-C6-N1	-7.47	113.97	117.70
1	A	1355	G	O4'-C1'-N9	7.47	114.17	108.20
1	A	1392	G	N1-C6-O6	7.47	124.38	119.90
1	A	1069	C	N3-C4-C5	-7.46	118.91	121.90
1	A	1160	G	P-O3'-C3'	-7.46	110.74	119.70
14	N	7	ALA	N-CA-CB	7.46	120.55	110.10
1	A	674	G	C4-N9-C1'	-7.46	116.80	126.50
1	A	819	A	C4-C5-C6	7.46	120.73	117.00
1	A	873	A	C5-C6-N6	-7.46	117.73	123.70
1	A	1092	A	C5-C6-N6	-7.46	117.73	123.70
1	A	330	C	O4'-C1'-N1	7.46	114.17	108.20
1	A	668	G	N1-C2-N3	-7.46	119.42	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	961	U	C2-N1-C1'	-7.46	108.75	117.70
1	A	967	C	O4'-C1'-N1	7.46	114.17	108.20
1	A	49	U	O4'-C1'-N1	7.46	114.17	108.20
1	A	180	U	C4'-C3'-O3'	-7.46	93.74	109.40
1	A	214	C	C3'-C2'-C1'	-7.46	95.53	101.50
1	A	463	U	N3-C4-O4	7.46	124.62	119.40
1	A	660	C	P-O3'-C3'	-7.46	110.75	119.70
1	A	162	A	C5'-C4'-O4'	7.46	118.05	109.10
1	A	648	A	C6-N1-C2	7.46	123.07	118.60
1	A	851	G	C5-C6-O6	-7.46	124.13	128.60
1	A	11	G	N7-C8-N9	7.46	116.83	113.10
1	A	364	A	C5-C6-N6	-7.46	117.74	123.70
1	A	1299	A	C5-C6-N6	-7.46	117.74	123.70
1	A	279	A	C8-N9-C4	7.45	108.78	105.80
1	A	899	C	C6-N1-C1'	-7.45	111.86	120.80
1	A	1263	C	C1'-O4'-C4'	-7.45	103.94	109.90
1	A	18	C	O4'-C1'-N1	7.45	114.16	108.20
1	A	167	A	N9-C4-C5	7.45	108.78	105.80
1	A	696	A	C6-C5-N7	-7.45	127.08	132.30
1	A	791	G	C5'-C4'-O4'	7.45	118.04	109.10
1	A	1345	U	C5-C4-O4	7.45	130.37	125.90
1	A	1448	C	N3-C4-N4	7.45	123.22	118.00
1	A	363	A	C5-C6-N6	-7.45	117.74	123.70
1	A	669	G	C5'-C4'-C3'	-7.45	104.08	116.00
1	A	1139	G	C8-N9-C1'	7.45	136.68	127.00
1	A	550	G	N1-C6-O6	7.45	124.37	119.90
1	A	31	G	O3'-P-O5'	-7.45	89.86	104.00
1	A	591	U	C5-C4-O4	-7.45	121.43	125.90
1	A	914	A	C8-N9-C4	-7.45	102.82	105.80
1	A	1262	C	C5'-C4'-C3'	-7.45	104.09	116.00
1	A	322	C	N3-C4-N4	7.44	123.21	118.00
1	A	179	A	C5'-C4'-C3'	-7.44	104.09	116.00
1	A	197	A	C4'-C3'-C2'	7.44	110.04	102.60
1	A	872	A	C5-C6-N6	-7.44	117.75	123.70
1	A	980	C	C5-C4-N4	7.44	125.41	120.20
1	A	900	A	O4'-C1'-N9	7.44	114.15	108.20
1	A	977	A	C5-C6-N1	-7.44	113.98	117.70
1	A	1272	G	O4'-C1'-N9	7.44	114.15	108.20
1	A	1300	G	O5'-C5'-C4'	-7.44	97.57	111.70
1	A	599	C	C1'-O4'-C4'	-7.44	103.95	109.90
1	A	1267	C	C5'-C4'-C3'	-7.44	104.10	116.00
1	A	1374	A	N1-C6-N6	7.44	123.06	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	365	U	N3-C4-O4	7.43	124.61	119.40
1	A	539	A	C5'-C4'-C3'	-7.43	104.10	116.00
1	A	657	U	O5'-C5'-C4'	-7.43	97.57	111.70
1	A	1450	U	C1'-O4'-C4'	-7.43	103.95	109.90
1	A	314	C	C4'-C3'-C2'	-7.43	95.17	102.60
1	A	569	C	C2-N3-C4	-7.43	116.18	119.90
1	A	1100	C	O4'-C1'-N1	7.43	114.15	108.20
1	A	1241	G	C5-C6-N1	-7.43	107.78	111.50
9	I	100	ALA	CB-CA-C	-7.43	98.95	110.10
1	A	777	A	C6-C5-N7	-7.43	127.10	132.30
1	A	843	U	C1'-O4'-C4'	-7.43	103.96	109.90
1	A	978	A	O5'-P-OP1	-7.43	99.01	105.70
1	A	1329	A	C5'-C4'-C3'	-7.43	104.12	116.00
1	A	1425	U	O4'-C1'-N1	7.43	114.14	108.20
1	A	71	A	C1'-O4'-C4'	7.43	115.84	109.90
1	A	162	A	C5-C6-N1	-7.43	113.99	117.70
1	A	536	C	C6-N1-C1'	7.43	129.71	120.80
1	A	987	G	N3-C2-N2	7.43	125.10	119.90
1	A	1006	G	N3-C2-N2	-7.43	114.70	119.90
1	A	161	A	C3'-C2'-C1'	-7.42	95.56	101.50
1	A	223	A	C5-C6-N1	-7.42	113.99	117.70
1	A	553	A	C5'-C4'-C3'	-7.42	104.12	116.00
1	A	1095	U	P-O3'-C3'	-7.42	110.79	119.70
1	A	82	G	O5'-C5'-C4'	-7.42	97.60	111.70
1	A	287	U	P-O3'-C3'	-7.42	110.80	119.70
1	A	556	C	N3-C4-N4	7.42	123.19	118.00
1	A	1462	C	N3-C4-C5	-7.42	118.93	121.90
1	A	942	G	C6-C5-N7	-7.42	125.95	130.40
1	A	696	A	N9-C1'-C2'	-7.42	103.84	112.00
1	A	1049	U	C1'-O4'-C4'	-7.42	103.97	109.90
1	A	1454	G	O4'-C1'-N9	7.42	114.13	108.20
1	A	91	U	C5-C4-O4	-7.42	121.45	125.90
1	A	1271	A	O4'-C1'-N9	7.42	114.13	108.20
1	A	18	C	P-O3'-C3'	-7.41	110.81	119.70
1	A	862	C	C5'-C4'-C3'	-7.41	104.14	116.00
1	A	1364	U	C5'-C4'-O4'	7.41	118.00	109.10
1	A	1451	U	P-O5'-C5'	-7.41	109.04	120.90
1	A	582	C	C4'-C3'-C2'	-7.41	95.19	102.60
1	A	692	U	O4'-C1'-N1	7.41	114.13	108.20
1	A	1437	A	C4-C5-C6	7.41	120.71	117.00
1	A	329	A	P-O5'-C5'	-7.41	109.04	120.90
1	A	973	G	C5-C6-O6	-7.41	124.15	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1020	G	N3-C2-N2	7.41	125.09	119.90
1	A	403	C	C5-C6-N1	7.41	124.70	121.00
1	A	475	C	O4'-C1'-N1	7.41	114.13	108.20
1	A	681	A	C2'-C3'-O3'	7.41	125.80	109.50
1	A	1058	G	C4-N9-C1'	7.41	136.13	126.50
1	A	56	U	N3-C4-C5	-7.41	110.16	114.60
1	A	977	A	P-O5'-C5'	-7.41	109.05	120.90
1	A	1032	G	C4-C5-C6	7.41	123.24	118.80
1	A	1075	U	O4'-C1'-N1	7.41	114.12	108.20
1	A	1266	G	P-O3'-C3'	-7.41	110.81	119.70
1	A	22	G	C3'-C2'-C1'	-7.40	95.58	101.50
1	A	855	U	O4'-C1'-N1	7.40	114.12	108.20
1	A	1259	C	C5-C6-N1	7.40	124.70	121.00
1	A	1462	C	C6-N1-C2	-7.40	117.34	120.30
1	A	546	A	N1-C2-N3	7.40	133.00	129.30
1	A	339	C	P-O5'-C5'	7.40	132.73	120.90
1	A	894	G	N1-C6-O6	7.40	124.34	119.90
1	A	1363	A	N9-C4-C5	7.40	108.76	105.80
22	W	183	ILE	CB-CA-C	7.40	126.39	111.60
1	A	844	G	C5-C6-O6	-7.40	124.16	128.60
1	A	438	U	C5-C6-N1	-7.39	119.00	122.70
1	A	721	G	C5-C6-O6	-7.39	124.16	128.60
1	A	1128	C	C6-N1-C1'	7.39	129.67	120.80
1	A	1190	G	N1-C2-N3	-7.39	119.46	123.90
1	A	437	U	C2-N1-C1'	-7.39	108.83	117.70
1	A	652	U	C2-N1-C1'	-7.39	108.83	117.70
1	A	503	C	O4'-C1'-N1	7.39	114.11	108.20
1	A	649	A	N7-C8-N9	7.39	117.50	113.80
1	A	1163	A	C5'-C4'-O4'	7.39	117.97	109.10
2	B	159	ALA	N-CA-CB	7.39	120.44	110.10
1	A	708	C	O4'-C1'-N1	7.39	114.11	108.20
1	A	1115	U	O4'-C1'-N1	7.39	114.11	108.20
1	A	973	G	N1-C6-O6	7.38	124.33	119.90
1	A	1238	A	N3-C4-N9	-7.38	121.49	127.40
1	A	1496	C	O4'-C1'-N1	7.38	114.11	108.20
1	A	1163	A	C3'-C2'-C1'	-7.38	95.59	101.50
1	A	937	A	C3'-C2'-C1'	-7.38	95.59	101.50
1	A	1370	G	O4'-C4'-C3'	7.38	112.01	106.10
1	A	1226	C	C2-N1-C1'	-7.38	110.68	118.80
1	A	1038	C	P-O5'-C5'	-7.38	109.09	120.90
1	A	1200	C	C5-C4-N4	7.38	125.36	120.20
1	A	1387	G	C5'-C4'-C3'	-7.38	104.19	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1021	A	N1-C6-N6	7.38	123.03	118.60
1	A	1074	G	C5'-C4'-C3'	-7.38	104.20	116.00
1	A	1204	A	C5-C6-N6	-7.38	117.80	123.70
1	A	404	G	O4'-C1'-N9	7.38	114.10	108.20
1	A	787	A	P-O5'-C5'	7.38	132.70	120.90
1	A	1359	C	C5'-C4'-C3'	7.38	127.80	116.00
1	A	373	A	C5'-C4'-C3'	7.37	127.80	116.00
1	A	507	C	N3-C4-C5	-7.37	118.95	121.90
1	A	569	C	O5'-P-OP2	-7.37	99.06	105.70
1	A	680	C	P-O3'-C3'	-7.37	110.85	119.70
1	A	731	G	C3'-C2'-C1'	-7.37	95.60	101.50
1	A	1159	U	P-O3'-C3'	-7.37	110.85	119.70
1	A	1345	U	N3-C4-O4	-7.37	114.24	119.40
1	A	31	G	C5-C6-O6	-7.37	124.18	128.60
1	A	1164	G	C4-N9-C1'	-7.37	116.92	126.50
1	A	488	C	N3-C4-N4	7.37	123.16	118.00
1	A	330	C	N1-C2-O2	7.37	123.32	118.90
1	A	644	U	C4'-C3'-C2'	-7.37	95.23	102.60
1	A	676	A	C4-C5-C6	7.37	120.68	117.00
1	A	969	A	O4'-C1'-N9	7.37	114.09	108.20
1	A	1254	A	O4'-C4'-C3'	-7.37	96.63	104.00
1	A	93	U	C6-N1-C2	-7.37	116.58	121.00
1	A	343	U	O5'-C5'-C4'	-7.37	97.70	111.70
1	A	782	A	C5-C6-N1	-7.37	114.02	117.70
1	A	900	A	N1-C6-N6	7.37	123.02	118.60
1	A	1358	U	C2'-C3'-O3'	7.37	125.70	109.50
1	A	117	G	C5'-C4'-C3'	-7.36	104.22	116.00
1	A	84	U	P-O5'-C5'	-7.36	109.12	120.90
1	A	1367	C	P-O3'-C3'	-7.36	110.87	119.70
1	A	1532	U	C4'-C3'-C2'	7.36	109.96	102.60
1	A	748	G	C6-C5-N7	-7.36	125.98	130.40
5	E	88	HIS	N-CA-C	-7.36	91.13	111.00
1	A	21	G	C1'-O4'-C4'	-7.36	104.01	109.90
1	A	98	A	C8-N9-C1'	7.36	140.94	127.70
1	A	287	U	C1'-O4'-C4'	-7.36	104.01	109.90
1	A	700	G	C5'-C4'-C3'	-7.36	104.23	116.00
1	A	829	G	C4-C5-C6	7.36	123.22	118.80
1	A	857	C	C5'-C4'-O4'	7.36	117.93	109.10
1	A	1145	A	C5-C6-N6	-7.36	117.81	123.70
1	A	513	C	C4'-C3'-C2'	-7.36	95.24	102.60
1	A	626	G	P-O3'-C3'	-7.36	110.87	119.70
1	A	646	G	C3'-C2'-C1'	-7.36	95.61	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	741	G	P-O3'-C3'	-7.36	110.87	119.70
1	A	758	C	N3-C4-C5	-7.36	118.96	121.90
1	A	1258	G	N3-C2-N2	7.36	125.05	119.90
1	A	1354	U	C6-N1-C1'	7.36	131.50	121.20
1	A	1468	A	C6-C5-N7	-7.36	127.15	132.30
1	A	310	G	O4'-C4'-C3'	-7.35	96.65	104.00
1	A	97	G	C6-C5-N7	-7.35	125.99	130.40
1	A	131	A	N3-C4-C5	-7.35	121.65	126.80
1	A	182	A	N1-C2-N3	7.35	132.98	129.30
1	A	493	A	C5-C6-N1	-7.35	114.02	117.70
1	A	752	G	C5-N7-C8	7.35	107.98	104.30
1	A	1117	A	O3'-P-O5'	-7.35	90.03	104.00
1	A	1295	U	O4'-C1'-N1	7.35	114.08	108.20
1	A	1428	A	C5-C6-N1	-7.35	114.02	117.70
1	A	180	U	C2'-C3'-O3'	7.35	125.67	109.50
1	A	879	C	N3-C4-N4	7.35	123.15	118.00
1	A	86	G	C5-C6-N1	-7.35	107.83	111.50
1	A	131	A	C8-N9-C1'	7.35	140.93	127.70
1	A	456	A	C5-C6-N6	-7.35	117.82	123.70
1	A	741	G	O4'-C1'-N9	7.35	114.08	108.20
1	A	836	G	C5'-C4'-C3'	-7.35	104.24	116.00
1	A	848	C	C1'-O4'-C4'	-7.35	104.02	109.90
20	T	65	LEU	CB-CG-CD1	7.35	123.49	111.00
1	A	101	A	C4-N9-C1'	7.35	139.53	126.30
1	A	106	C	C5'-C4'-C3'	-7.35	104.25	116.00
1	A	266	G	N3-C4-C5	-7.35	124.93	128.60
1	A	846	G	C1'-O4'-C4'	-7.35	104.02	109.90
1	A	1116	U	C4'-C3'-C2'	7.35	109.95	102.60
1	A	1506	U	C2'-C3'-O3'	7.35	125.67	109.50
1	A	1516	G	C5'-C4'-C3'	7.35	127.75	116.00
2	B	73	ARG	NE-CZ-NH2	-7.35	116.63	120.30
1	A	954	G	C4-N9-C1'	-7.35	116.95	126.50
1	A	1460	C	C5'-C4'-C3'	-7.34	104.25	116.00
1	A	59	A	C5-C6-N1	-7.34	114.03	117.70
1	A	568	G	C6-C5-N7	-7.34	126.00	130.40
1	A	715	A	C5'-C4'-C3'	7.34	127.75	116.00
1	A	1011	C	O4'-C1'-N1	7.34	114.07	108.20
1	A	1048	G	C4-N9-C1'	-7.34	116.96	126.50
1	A	1353	G	P-O3'-C3'	-7.34	110.89	119.70
1	A	1478	U	P-O5'-C5'	-7.34	109.15	120.90
1	A	283	U	N3-C4-O4	7.34	124.54	119.40
1	A	387	U	C2-N1-C1'	-7.34	108.89	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	847	G	C3'-C2'-C1'	-7.34	95.63	101.50
1	A	1140	C	N3-C4-N4	7.34	123.14	118.00
1	A	481	G	N9-C4-C5	-7.34	102.47	105.40
22	W	99	ALA	N-CA-CB	7.34	120.37	110.10
1	A	265	G	C4-N9-C1'	-7.34	116.96	126.50
1	A	451	A	O4'-C4'-C3'	-7.34	96.66	104.00
1	A	453	G	C4-N9-C1'	-7.34	116.96	126.50
1	A	760	G	N7-C8-N9	7.34	116.77	113.10
1	A	770	C	N3-C4-C5	-7.34	118.97	121.90
1	A	1518	A	C3'-C2'-C1'	-7.33	95.63	101.50
1	A	144	G	N3-C2-N2	7.33	125.03	119.90
1	A	668	G	O4'-C1'-N9	7.33	114.06	108.20
1	A	1263	C	C5'-C4'-C3'	-7.33	104.27	116.00
10	J	57	VAL	CB-CA-C	7.33	125.33	111.40
1	A	1098	C	C5'-C4'-O4'	7.33	117.90	109.10
1	A	760	G	C3'-C2'-C1'	-7.33	95.64	101.50
1	A	1075	U	C5'-C4'-C3'	-7.33	104.28	116.00
1	A	1348	U	N3-C2-O2	-7.33	117.07	122.20
1	A	144	G	C6-C5-N7	-7.33	126.00	130.40
1	A	182	A	C6-N1-C2	-7.33	114.20	118.60
1	A	342	C	C2-N1-C1'	-7.33	110.74	118.80
1	A	723	U	O4'-C4'-C3'	-7.33	96.67	104.00
1	A	771	G	C5'-C4'-C3'	-7.33	104.28	116.00
1	A	998	C	C6-N1-C1'	7.33	129.59	120.80
1	A	1193	G	N3-C2-N2	7.33	125.03	119.90
1	A	404	G	C5-C6-O6	7.32	133.00	128.60
1	A	747	A	N9-C1'-C2'	-7.32	103.94	112.00
1	A	954	G	C8-N9-C4	-7.32	103.47	106.40
1	A	1420	U	C6-N1-C2	-7.32	116.61	121.00
1	A	1143	G	C3'-C2'-C1'	-7.32	95.64	101.50
1	A	123	U	O4'-C1'-N1	7.32	114.06	108.20
1	A	308	C	C5'-C4'-O4'	-7.32	100.31	109.10
1	A	634	C	C5'-C4'-O4'	7.32	117.88	109.10
1	A	1217	C	O4'-C1'-N1	7.32	114.06	108.20
1	A	1333	A	C4-N9-C1'	7.32	139.48	126.30
1	A	358	U	C3'-C2'-C1'	-7.32	95.64	101.50
1	A	784	A	P-O3'-C3'	7.32	128.48	119.70
1	A	139	A	N1-C6-N6	7.32	122.99	118.60
1	A	374	A	C5-C6-N1	-7.32	114.04	117.70
1	A	1357	A	C5-C6-N6	-7.32	117.85	123.70
3	C	182	ASP	N-CA-C	-7.32	91.24	111.00
1	A	81	A	C2-N3-C4	7.32	114.26	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	239	U	P-O3'-C3'	7.32	128.48	119.70
1	A	284	C	C3'-C2'-C1'	-7.32	95.65	101.50
1	A	366	A	C2'-C3'-O3'	7.32	125.59	109.50
1	A	747	A	C5-C6-N6	-7.32	117.85	123.70
1	A	1345	U	C3'-C2'-C1'	-7.32	95.65	101.50
1	A	1381	U	P-O5'-C5'	-7.32	109.20	120.90
1	A	98	A	N9-C4-C5	7.31	108.73	105.80
1	A	686	U	C2'-C3'-O3'	7.31	125.59	109.50
1	A	1242	G	O4'-C4'-C3'	-7.31	96.69	104.00
1	A	651	C	C5'-C4'-C3'	-7.31	104.30	116.00
1	A	926	G	N1-C6-O6	7.31	124.29	119.90
1	A	966	G	C5-C6-O6	-7.31	124.21	128.60
1	A	1500	A	P-O3'-C3'	-7.31	110.93	119.70
1	A	284	C	N3-C4-N4	7.31	123.12	118.00
1	A	349	A	O4'-C1'-N9	7.31	114.05	108.20
1	A	899	C	C5-C6-N1	7.31	124.66	121.00
1	A	941	G	C2'-C3'-O3'	7.31	125.58	109.50
1	A	1241	G	P-O3'-C3'	-7.31	110.93	119.70
1	A	423	G	C5-C6-O6	7.31	132.99	128.60
1	A	504	C	O4'-C1'-N1	7.31	114.05	108.20
1	A	538	G	C8-N9-C4	-7.31	103.48	106.40
1	A	618	C	P-O3'-C3'	-7.31	110.93	119.70
1	A	1206	G	C4-C5-C6	7.30	123.18	118.80
1	A	126	G	C5'-C4'-C3'	7.30	127.68	116.00
1	A	1207	G	C5'-C4'-O4'	7.30	117.86	109.10
1	A	1384	C	C5-C6-N1	7.30	124.65	121.00
1	A	772	U	P-O3'-C3'	-7.30	110.94	119.70
1	A	923	A	C4'-C3'-C2'	-7.30	95.30	102.60
1	A	222	C	C5'-C4'-O4'	-7.30	100.34	109.10
1	A	703	G	C5'-C4'-C3'	-7.30	104.32	116.00
1	A	832	G	C4'-C3'-C2'	-7.30	95.30	102.60
1	A	121	U	C6-N1-C2	-7.30	116.62	121.00
1	A	276	G	N9-C4-C5	7.30	108.32	105.40
1	A	523	A	P-O5'-C5'	7.30	132.58	120.90
1	A	824	G	C3'-C2'-C1'	-7.30	95.66	101.50
1	A	940	C	N3-C4-C5	-7.30	118.98	121.90
1	A	1277	C	O5'-C5'-C4'	-7.30	97.84	111.70
1	A	1441	A	C8-N9-C1'	-7.30	114.56	127.70
1	A	322	C	O4'-C1'-N1	7.29	114.04	108.20
1	A	481	G	N1-C2-N2	-7.29	109.63	116.20
1	A	770	C	P-O3'-C3'	-7.29	110.95	119.70
1	A	923	A	N3-C4-C5	-7.29	121.69	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
19	S	62	THR	N-CA-C	-7.29	91.31	111.00
1	A	888	G	C1'-O4'-C4'	-7.29	104.07	109.90
1	A	1340	A	C5-N7-C8	7.29	107.55	103.90
1	A	362	G	O4'-C1'-N9	7.29	114.03	108.20
1	A	880	C	N3-C4-N4	7.29	123.10	118.00
1	A	1323	G	C8-N9-C4	-7.29	103.48	106.40
18	R	57	ALA	CB-CA-C	-7.29	99.17	110.10
1	A	1316	G	C8-N9-C1'	7.29	136.48	127.00
1	A	794	A	C5-C6-N1	-7.29	114.06	117.70
1	A	302	G	N9-C4-C5	7.29	108.31	105.40
1	A	1062	U	C2'-C3'-O3'	7.29	125.53	109.50
1	A	1062	U	C3'-C2'-C1'	-7.29	95.67	101.50
1	A	226	G	C3'-C2'-C1'	-7.28	95.67	101.50
1	A	332	G	O4'-C1'-N9	7.28	114.03	108.20
1	A	1298	U	N3-C4-C5	-7.28	110.23	114.60
1	A	284	C	C5'-C4'-C3'	-7.28	104.35	116.00
1	A	394	G	N3-C2-N2	7.28	125.00	119.90
1	A	675	A	C5-C6-N1	-7.28	114.06	117.70
1	A	446	G	C8-N9-C1'	7.28	136.46	127.00
1	A	904	U	C5'-C4'-C3'	-7.28	104.35	116.00
1	A	1469	C	N3-C4-C5	-7.28	118.99	121.90
1	A	28	A	C6-C5-N7	-7.28	127.20	132.30
1	A	542	G	C5-C6-O6	-7.28	124.23	128.60
1	A	1065	U	O4'-C1'-N1	7.28	114.02	108.20
1	A	1327	C	N3-C4-N4	7.28	123.09	118.00
1	A	100	G	C5-C6-O6	-7.28	124.23	128.60
1	A	416	G	C4-C5-C6	7.28	123.17	118.80
1	A	611	C	N3-C4-N4	7.28	123.09	118.00
1	A	669	G	P-O3'-C3'	-7.28	110.97	119.70
1	A	865	A	C4'-C3'-C2'	-7.28	95.33	102.60
1	A	992	U	C2-N1-C1'	-7.28	108.97	117.70
1	A	1193	G	N1-C2-N3	-7.28	119.53	123.90
1	A	1163	A	C4-C5-C6	7.27	120.64	117.00
1	A	152	A	C4'-C3'-C2'	7.27	109.87	102.60
1	A	609	A	C8-N9-C4	-7.27	102.89	105.80
1	A	1033	G	C4-N9-C1'	7.27	135.96	126.50
1	A	1294	G	N1-C6-O6	7.27	124.26	119.90
1	A	1408	A	O4'-C1'-N9	7.27	114.02	108.20
1	A	633	G	N1-C6-O6	7.27	124.26	119.90
1	A	1108	G	C1'-O4'-C4'	-7.27	104.08	109.90
1	A	164	G	N3-C2-N2	7.27	124.99	119.90
1	A	1028	C	N3-C4-N4	7.27	123.09	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1074	G	N1-C6-O6	7.27	124.26	119.90
1	A	1323	G	C5'-C4'-C3'	7.27	127.63	116.00
1	A	1429	A	C1'-O4'-C4'	-7.27	104.08	109.90
1	A	361	G	P-O5'-C5'	7.27	132.53	120.90
1	A	666	G	O4'-C1'-N9	7.27	114.01	108.20
1	A	113	G	C3'-C2'-C1'	-7.27	95.69	101.50
1	A	1356	G	C5-C6-O6	-7.27	124.24	128.60
1	A	902	G	C4-N9-C1'	-7.26	117.06	126.50
1	A	1036	A	C5-C6-N6	-7.26	117.89	123.70
1	A	1203	C	P-O3'-C3'	-7.26	110.98	119.70
1	A	1298	U	C6-N1-C1'	-7.26	111.03	121.20
1	A	228	A	C3'-C2'-C1'	-7.26	95.69	101.50
1	A	1091	U	P-O5'-C5'	-7.26	109.28	120.90
1	A	138	G	N1-C6-O6	7.26	124.26	119.90
19	S	9	PHE	CB-CG-CD2	-7.26	115.72	120.80
1	A	165	G	N9-C1'-C2'	-7.26	104.01	112.00
1	A	653	U	C1'-O4'-C4'	-7.26	104.09	109.90
1	A	1054	C	C2-N1-C1'	7.26	126.78	118.80
1	A	76	G	C2'-C3'-O3'	7.26	125.47	109.50
1	A	87	C	N3-C2-O2	-7.26	116.82	121.90
1	A	131	A	C2-N3-C4	7.26	114.23	110.60
1	A	907	A	C5-C6-N1	-7.25	114.07	117.70
1	A	484	G	N9-C1'-C2'	-7.25	104.02	112.00
1	A	1249	C	C3'-C2'-C1'	-7.25	95.70	101.50
1	A	172	A	C6-C5-N7	-7.25	127.22	132.30
1	A	373	A	C6-N1-C2	7.25	122.95	118.60
1	A	399	G	C8-N9-C1'	7.25	136.43	127.00
1	A	135	C	N3-C4-N4	7.25	123.08	118.00
1	A	1311	A	P-O5'-C5'	-7.25	109.30	120.90
4	D	64	TYR	CB-CG-CD1	7.25	125.35	121.00
1	A	123	U	C6-N1-C1'	7.25	131.35	121.20
1	A	227	G	C4-N9-C1'	-7.25	117.08	126.50
1	A	941	G	C4'-C3'-C2'	-7.25	95.35	102.60
1	A	1243	C	N3-C4-C5	-7.25	119.00	121.90
1	A	172	A	C5-C6-N1	-7.25	114.08	117.70
1	A	414	A	OP2-P-O3'	7.25	121.14	105.20
1	A	806	C	O4'-C4'-C3'	-7.25	96.75	104.00
1	A	919	A	C3'-C2'-C1'	-7.25	95.70	101.50
1	A	1033	G	C4-C5-C6	7.25	123.15	118.80
1	A	1525	G	C3'-C2'-C1'	-7.25	95.70	101.50
1	A	240	G	O4'-C1'-N9	7.25	114.00	108.20
1	A	305	G	C2'-C3'-O3'	7.25	125.44	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	682	G	N7-C8-N9	7.24	116.72	113.10
1	A	1200	C	C2-N1-C1'	-7.24	110.83	118.80
1	A	1508	A	C5-C6-N6	-7.24	117.91	123.70
1	A	58	C	N3-C4-C5	-7.24	119.00	121.90
1	A	257	G	C3'-C2'-C1'	-7.24	95.71	101.50
1	A	405	U	O4'-C1'-N1	7.24	113.99	108.20
1	A	1110	A	C5-C6-N6	-7.24	117.91	123.70
1	A	409	U	C1'-O4'-C4'	-7.24	104.11	109.90
1	A	638	U	C2'-C3'-O3'	7.24	125.43	109.50
1	A	1167	A	C4-C5-C6	7.24	120.62	117.00
1	A	1418	A	O4'-C1'-N9	7.24	113.99	108.20
4	D	123	MET	CG-SD-CE	-7.24	88.62	100.20
1	A	192	A	C2'-C3'-O3'	7.24	125.42	109.50
1	A	430	A	OP2-P-O3'	7.24	121.12	105.20
1	A	1171	A	O3'-P-O5'	-7.24	90.25	104.00
1	A	274	A	O4'-C1'-N9	7.24	113.99	108.20
1	A	822	U	C5'-C4'-O4'	7.24	117.78	109.10
1	A	1055	A	O5'-C5'-C4'	-7.24	97.95	111.70
22	W	135	GLU	N-CA-CB	7.24	123.62	110.60
1	A	142	G	P-O3'-C3'	7.23	128.38	119.70
1	A	431	A	N1-C6-N6	7.23	122.94	118.60
1	A	687	A	N7-C8-N9	-7.23	110.18	113.80
13	M	51	GLN	CB-CA-C	-7.23	95.93	110.40
1	A	470	C	C2-N3-C4	-7.23	116.28	119.90
1	A	504	C	C1'-O4'-C4'	-7.23	104.11	109.90
1	A	572	A	C5-C6-N1	-7.23	114.08	117.70
1	A	1325	C	N3-C2-O2	-7.23	116.84	121.90
1	A	1460	C	C5-C4-N4	-7.23	115.14	120.20
1	A	58	C	C2'-C3'-O3'	7.23	125.41	109.50
1	A	190	A	C4-N9-C1'	7.23	139.31	126.30
1	A	224	U	C3'-C2'-C1'	-7.23	95.72	101.50
1	A	1310	G	O4'-C1'-N9	7.23	113.98	108.20
1	A	1486	G	C8-N9-C4	-7.23	103.51	106.40
5	E	32	PHE	N-CA-C	-7.23	91.48	111.00
1	A	13	U	C5'-C4'-C3'	7.23	127.57	116.00
1	A	84	U	C6-N1-C1'	-7.23	111.08	121.20
1	A	1519	A	O5'-C5'-C4'	-7.23	97.96	111.70
1	A	153	C	C6-N1-C2	-7.23	117.41	120.30
1	A	245	U	O3'-P-O5'	-7.23	90.27	104.00
1	A	249	U	C6-N1-C1'	7.23	131.32	121.20
1	A	550	G	C5-C6-O6	-7.23	124.26	128.60
1	A	1056	U	C6-N1-C2	-7.23	116.66	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	956	U	O4'-C1'-N1	7.23	113.98	108.20
1	A	362	G	C8-N9-C1'	7.22	136.39	127.00
1	A	474	G	N1-C6-O6	7.22	124.23	119.90
1	A	641	U	C5-C4-O4	-7.22	121.56	125.90
1	A	1256	A	C5-C6-N6	-7.22	117.92	123.70
1	A	1332	A	N3-C4-C5	-7.22	121.74	126.80
1	A	69	G	P-O3'-C3'	-7.22	111.03	119.70
1	A	218	U	C3'-C2'-C1'	-7.22	95.72	101.50
1	A	386	C	C5'-C4'-C3'	-7.22	104.44	116.00
1	A	422	C	C5'-C4'-O4'	7.22	117.77	109.10
1	A	443	C	C6-N1-C1'	7.22	129.47	120.80
1	A	299	G	C8-N9-C1'	7.22	136.39	127.00
1	A	1058	G	C4-C5-C6	7.22	123.13	118.80
1	A	1292	G	C1'-O4'-C4'	-7.22	104.12	109.90
1	A	87	C	C3'-C2'-C1'	7.22	107.27	101.50
1	A	179	A	C5'-C4'-O4'	7.22	117.76	109.10
1	A	193	C	C5'-C4'-O4'	7.22	117.76	109.10
1	A	660	C	C3'-C2'-C1'	-7.22	95.73	101.50
1	A	837	U	C6-N1-C1'	7.22	131.30	121.20
1	A	941	G	O4'-C1'-N9	7.22	113.97	108.20
1	A	987	G	O4'-C1'-N9	7.22	113.97	108.20
1	A	998	C	C2-N1-C1'	-7.22	110.86	118.80
1	A	1231	G	C2'-C3'-O3'	7.22	125.38	109.50
1	A	55	A	P-O5'-C5'	-7.21	109.36	120.90
1	A	1218	C	N3-C4-C5	-7.21	119.01	121.90
1	A	1220	G	O4'-C1'-N9	7.21	113.97	108.20
1	A	1259	C	P-O3'-C3'	-7.21	111.04	119.70
1	A	1334	G	P-O5'-C5'	7.21	132.44	120.90
1	A	239	U	O3'-P-O5'	7.21	117.70	104.00
1	A	525	C	N3-C4-C5	-7.21	119.02	121.90
1	A	1174	G	C1'-O4'-C4'	-7.21	104.13	109.90
13	M	106	ARG	CA-C-N	7.21	133.06	117.20
1	A	593	U	N1-C2-N3	7.21	119.23	114.90
1	A	1344	C	C5-C6-N1	7.21	124.60	121.00
1	A	1392	G	C6-C5-N7	-7.21	126.08	130.40
4	D	8	LEU	CB-CG-CD2	7.21	123.26	111.00
9	I	63	TYR	N-CA-C	-7.21	91.53	111.00
1	A	426	U	C4'-C3'-O3'	-7.21	94.27	109.40
1	A	642	A	N1-C6-N6	7.21	122.92	118.60
1	A	646	G	C8-N9-C4	-7.21	103.52	106.40
10	J	15	HIS	C-N-CA	7.21	139.72	121.70
1	A	727	G	N1-C6-O6	7.21	124.22	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1332	A	N1-C6-N6	7.21	122.92	118.60
1	A	936	C	O4'-C1'-N1	7.20	113.96	108.20
1	A	1205	U	O3'-P-O5'	-7.20	90.31	104.00
1	A	821	G	N3-C2-N2	7.20	124.94	119.90
1	A	1124	G	N1-C2-N3	-7.20	119.58	123.90
1	A	171	A	C6-C5-N7	-7.20	127.26	132.30
1	A	252	U	C6-N1-C2	-7.20	116.68	121.00
1	A	260	G	N1-C6-O6	7.20	124.22	119.90
1	A	264	C	O5'-C5'-C4'	-7.20	98.02	111.70
1	A	271	C	N1-C1'-C2'	-7.20	104.08	112.00
1	A	406	G	C4-N9-C1'	-7.20	117.14	126.50
1	A	910	C	C5'-C4'-O4'	7.20	117.74	109.10
1	A	78	A	C3'-C2'-C1'	7.20	107.26	101.50
1	A	907	A	C4-N9-C1'	7.20	139.26	126.30
1	A	74	A	C5-C6-N6	-7.20	117.94	123.70
1	A	63	C	O4'-C1'-N1	7.20	113.96	108.20
1	A	1171	A	C5'-C4'-O4'	7.20	117.73	109.10
1	A	1411	C	C5'-C4'-C3'	-7.20	104.49	116.00
1	A	429	U	C6-N1-C2	-7.19	116.68	121.00
1	A	168	G	C3'-C2'-C1'	-7.19	95.75	101.50
1	A	185	U	C2-N1-C1'	7.19	126.33	117.70
1	A	383	A	C5'-C4'-O4'	7.19	117.73	109.10
1	A	397	A	C5-C6-N6	-7.19	117.95	123.70
1	A	687	A	C8-N9-C4	7.19	108.68	105.80
1	A	1182	G	C6-N1-C2	-7.19	120.78	125.10
1	A	1488	G	O4'-C1'-N9	7.19	113.95	108.20
1	A	525	C	O4'-C1'-N1	7.19	113.95	108.20
1	A	689	C	C3'-C2'-C1'	-7.19	95.75	101.50
1	A	747	A	O4'-C1'-N9	7.19	113.95	108.20
1	A	975	A	C8-N9-C4	-7.19	102.92	105.80
1	A	1058	G	N3-C2-N2	7.19	124.93	119.90
1	A	1236	A	N1-C2-N3	7.19	132.90	129.30
17	Q	18	LYS	CB-CA-C	7.19	124.78	110.40
1	A	627	G	C5-C6-O6	-7.19	124.29	128.60
1	A	794	A	C8-N9-C4	-7.19	102.92	105.80
1	A	1237	C	C6-N1-C1'	7.19	129.43	120.80
9	I	63	TYR	CB-CG-CD1	-7.19	116.69	121.00
21	U	44	ARG	N-CA-C	-7.19	91.59	111.00
1	A	203	G	N9-C1'-C2'	-7.19	104.09	112.00
1	A	604	G	C5-N7-C8	-7.19	100.71	104.30
1	A	164	G	C5'-C4'-O4'	7.18	117.72	109.10
1	A	1203	C	C5-C4-N4	-7.18	115.17	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1268	G	C4-N9-C1'	7.18	135.84	126.50
1	A	1300	G	C2'-C3'-O3'	7.18	125.31	109.50
1	A	1433	A	C4-C5-C6	7.18	120.59	117.00
1	A	138	G	C1'-O4'-C4'	-7.18	104.16	109.90
1	A	172	A	C2'-C3'-O3'	7.18	125.30	109.50
1	A	757	U	O4'-C1'-N1	7.18	113.95	108.20
1	A	129	A	P-O5'-C5'	7.18	132.39	120.90
1	A	433	G	N1-C6-O6	7.18	124.21	119.90
1	A	242	G	N9-C1'-C2'	-7.18	104.10	112.00
1	A	499	A	C5'-C4'-O4'	7.18	117.72	109.10
1	A	646	G	N3-C2-N2	7.18	124.93	119.90
1	A	935	A	O4'-C4'-C3'	-7.18	96.82	104.00
1	A	1190	G	C5'-C4'-O4'	7.18	117.72	109.10
1	A	1492	A	C8-N9-C1'	7.18	140.62	127.70
16	P	45	GLU	N-CA-CB	7.18	123.52	110.60
1	A	223	A	C5'-C4'-C3'	-7.18	104.52	116.00
1	A	829	G	N3-C2-N2	7.18	124.92	119.90
1	A	910	C	C6-N1-C2	-7.18	117.43	120.30
14	N	74	ARG	NE-CZ-NH1	7.18	123.89	120.30
1	A	73	C	P-O5'-C5'	7.17	132.38	120.90
1	A	127	G	O4'-C4'-C3'	-7.17	96.83	104.00
1	A	374	A	P-O3'-C3'	-7.17	111.09	119.70
1	A	500	G	C8-N9-C4	-7.17	103.53	106.40
1	A	877	G	P-O5'-C5'	-7.17	109.42	120.90
1	A	1048	G	C8-N9-C1'	7.17	136.33	127.00
1	A	42	G	C8-N9-C1'	7.17	136.32	127.00
1	A	685	G	C4-N9-C1'	-7.17	117.18	126.50
1	A	725	G	N3-C2-N2	7.17	124.92	119.90
1	A	858	G	N7-C8-N9	7.17	116.69	113.10
2	B	190	SER	N-CA-CB	7.17	121.26	110.50
1	A	474	G	C5-C6-O6	-7.17	124.30	128.60
1	A	746	A	C3'-C2'-C1'	-7.17	95.77	101.50
1	A	1365	G	C5-N7-C8	7.17	107.88	104.30
1	A	158	G	C5-C6-O6	-7.17	124.30	128.60
1	A	513	C	O5'-P-OP2	-7.17	99.25	105.70
1	A	517	G	N1-C2-N3	-7.17	119.60	123.90
1	A	1269	A	C5-C6-N6	-7.17	117.97	123.70
1	A	510	A	O3'-P-O5'	-7.16	90.39	104.00
1	A	1289	A	P-O5'-C5'	-7.16	109.44	120.90
1	A	672	U	C5'-C4'-C3'	-7.16	104.54	116.00
1	A	956	U	C2-N3-C4	7.16	131.30	127.00
1	A	1438	G	C8-N9-C4	-7.16	103.54	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	221	C	C6-N1-C2	-7.16	117.44	120.30
1	A	337	G	O3'-P-O5'	-7.16	90.40	104.00
1	A	486	U	O4'-C1'-N1	7.16	113.93	108.20
1	A	496	A	C6-C5-N7	-7.16	127.29	132.30
1	A	578	C	C3'-C2'-C1'	-7.16	95.77	101.50
1	A	217	C	O4'-C4'-C3'	-7.16	96.84	104.00
1	A	1113	C	C5'-C4'-O4'	7.16	117.69	109.10
1	A	409	U	C5'-C4'-C3'	-7.16	104.55	116.00
1	A	418	C	P-O5'-C5'	7.16	132.35	120.90
1	A	620	C	N3-C4-N4	7.16	123.01	118.00
1	A	1172	C	O3'-P-O5'	-7.16	90.40	104.00
1	A	1352	C	N3-C4-C5	-7.16	119.04	121.90
1	A	348	G	O5'-C5'-C4'	-7.15	98.11	111.70
1	A	812	G	C5-C6-O6	-7.15	124.31	128.60
1	A	1098	C	C6-N1-C1'	7.15	129.38	120.80
1	A	177	G	N9-C1'-C2'	-7.15	104.13	112.00
1	A	330	C	C5-C4-N4	7.15	125.21	120.20
1	A	583	A	C8-N9-C4	-7.15	102.94	105.80
1	A	934	C	N3-C4-C5	-7.15	119.04	121.90
1	A	387	U	C6-N1-C1'	7.15	131.21	121.20
1	A	801	U	C6-N1-C2	-7.15	116.71	121.00
1	A	1060	U	C3'-C2'-C1'	-7.15	95.78	101.50
1	A	1061	G	C4-N9-C1'	-7.15	117.20	126.50
1	A	637	C	C4'-C3'-C2'	-7.15	95.45	102.60
1	A	856	C	N3-C4-N4	7.15	123.00	118.00
1	A	251	G	P-O3'-C3'	7.15	128.28	119.70
1	A	417	G	C2'-C3'-O3'	7.15	125.23	109.50
1	A	496	A	P-O3'-C3'	-7.15	111.12	119.70
1	A	682	G	C6-C5-N7	-7.15	126.11	130.40
1	A	1113	C	C1'-O4'-C4'	-7.15	104.18	109.90
1	A	187	G	C8-N9-C4	7.14	109.26	106.40
1	A	237	G	O4'-C1'-N9	7.14	113.92	108.20
1	A	399	G	P-O3'-C3'	-7.14	111.13	119.70
1	A	1427	C	C5'-C4'-C3'	7.14	127.43	116.00
1	A	1526	G	C8-N9-C4	-7.14	103.54	106.40
1	A	276	G	N1-C2-N3	-7.14	119.61	123.90
1	A	392	C	C3'-C2'-C1'	7.14	107.21	101.50
1	A	601	G	C6-C5-N7	-7.14	126.11	130.40
1	A	854	U	P-O3'-C3'	-7.14	111.13	119.70
1	A	66	A	C4-C5-C6	7.14	120.57	117.00
1	A	113	G	O4'-C4'-C3'	-7.14	96.86	104.00
1	A	656	G	N3-C2-N2	7.14	124.90	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	929	G	O4'-C1'-N9	7.14	113.91	108.20
1	A	1006	G	N9-C1'-C2'	-7.14	104.15	112.00
1	A	1432	G	C2'-C3'-O3'	7.14	125.21	109.50
10	J	65	TYR	CB-CG-CD2	-7.14	116.72	121.00
1	A	42	G	C1'-O4'-C4'	-7.14	104.19	109.90
1	A	181	A	P-O3'-C3'	7.14	128.27	119.70
1	A	377	G	P-O3'-C3'	-7.14	111.14	119.70
1	A	665	A	P-O3'-C3'	-7.14	111.13	119.70
1	A	755	G	N3-C2-N2	7.14	124.90	119.90
1	A	1185	G	O4'-C4'-C3'	-7.14	96.86	104.00
1	A	453	G	C8-N9-C4	-7.14	103.55	106.40
1	A	612	C	N3-C4-C5	-7.14	119.05	121.90
1	A	1407	C	C5'-C4'-O4'	7.14	117.66	109.10
1	A	257	G	C6-C5-N7	-7.13	126.12	130.40
1	A	316	C	N3-C4-C5	-7.13	119.05	121.90
1	A	362	G	C4-N9-C1'	-7.13	117.22	126.50
1	A	1036	A	C5-C6-N1	-7.13	114.13	117.70
1	A	1062	U	C4'-C3'-C2'	7.13	109.73	102.60
1	A	1433	A	C5-C6-N1	-7.13	114.13	117.70
1	A	693	G	C5-C6-O6	-7.13	124.32	128.60
1	A	403	C	C5'-C4'-O4'	7.13	117.66	109.10
1	A	852	G	P-O3'-C3'	-7.13	111.14	119.70
1	A	28	A	C5'-C4'-C3'	-7.13	104.59	116.00
1	A	527	G	C8-N9-C1'	7.13	136.27	127.00
1	A	879	C	C3'-C2'-C1'	-7.13	95.80	101.50
1	A	1272	G	C5'-C4'-C3'	-7.13	104.59	116.00
15	O	21	THR	CA-CB-CG2	-7.13	102.42	112.40
1	A	104	G	C3'-C2'-C1'	-7.13	95.80	101.50
1	A	741	G	C4-N9-C1'	-7.13	117.23	126.50
17	Q	64	ARG	NE-CZ-NH2	-7.13	116.74	120.30
1	A	164	G	P-O3'-C3'	-7.13	111.15	119.70
1	A	737	C	C5'-C4'-O4'	7.13	117.65	109.10
1	A	474	G	N3-C2-N2	7.12	124.89	119.90
1	A	1024	G	C1'-O4'-C4'	-7.12	104.20	109.90
1	A	1053	G	N3-C2-N2	7.12	124.89	119.90
1	A	1526	G	P-O3'-C3'	-7.12	111.15	119.70
1	A	136	C	O4'-C1'-N1	7.12	113.90	108.20
1	A	348	G	C3'-C2'-C1'	-7.12	95.80	101.50
1	A	391	G	N9-C4-C5	7.12	108.25	105.40
1	A	510	A	C5-C6-N1	-7.12	114.14	117.70
5	E	65	LYS	CB-CA-C	7.12	124.64	110.40
8	H	76	ARG	NE-CZ-NH1	7.12	123.86	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	K	22	ILE	N-CA-C	-7.12	91.78	111.00
1	A	426	U	C3'-C2'-C1'	-7.12	95.81	101.50
1	A	1061	G	O5'-P-OP2	-7.12	99.29	105.70
1	A	1343	G	C5-C6-O6	-7.12	124.33	128.60
1	A	777	A	C2-N3-C4	-7.12	107.04	110.60
1	A	530	G	C5'-C4'-O4'	7.12	117.64	109.10
1	A	617	G	C5-C6-O6	-7.12	124.33	128.60
1	A	700	G	O4'-C1'-N9	7.12	113.89	108.20
1	A	702	A	C4-C5-C6	7.12	120.56	117.00
1	A	857	C	N3-C4-N4	7.12	122.98	118.00
1	A	319	G	N9-C1'-C2'	-7.11	104.17	112.00
1	A	320	A	P-O3'-C3'	-7.11	111.16	119.70
1	A	954	G	C1'-O4'-C4'	-7.11	104.21	109.90
1	A	989	U	C5'-C4'-C3'	-7.11	104.62	116.00
1	A	1206	G	N7-C8-N9	7.11	116.66	113.10
1	A	988	G	O4'-C1'-N9	7.11	113.89	108.20
1	A	1127	G	C4-N9-C1'	-7.11	117.25	126.50
1	A	1503	A	C4-C5-C6	7.11	120.56	117.00
1	A	850	U	O4'-C1'-N1	7.11	113.89	108.20
5	E	23	THR	C-N-CA	7.11	139.48	121.70
1	A	65	A	C8-N9-C4	-7.11	102.96	105.80
1	A	1464	U	O3'-P-O5'	7.11	117.51	104.00
1	A	645	G	N3-C2-N2	7.11	124.88	119.90
1	A	688	G	N1-C6-O6	7.11	124.17	119.90
1	A	765	G	P-O3'-C3'	-7.11	111.17	119.70
1	A	1163	A	P-O3'-C3'	-7.11	111.17	119.70
1	A	1436	U	C6-N1-C2	-7.11	116.73	121.00
1	A	1480	A	C5'-C4'-O4'	7.11	117.63	109.10
1	A	9	G	O4'-C4'-C3'	-7.11	96.89	104.00
1	A	142	G	N1-C6-O6	7.11	124.16	119.90
1	A	442	G	C8-N9-C1'	7.11	136.24	127.00
1	A	858	G	C5'-C4'-C3'	-7.10	104.63	116.00
1	A	1191	A	C6-C5-N7	-7.10	127.33	132.30
1	A	1352	C	C1'-O4'-C4'	-7.10	104.22	109.90
1	A	1433	A	C5'-C4'-C3'	-7.10	104.63	116.00
1	A	406	G	O4'-C1'-N9	7.10	113.88	108.20
1	A	745	G	C5-C6-O6	-7.10	124.34	128.60
1	A	792	A	C4-C5-C6	7.10	120.55	117.00
1	A	1276	G	C5-C6-N1	-7.10	107.95	111.50
1	A	97	G	C5'-C4'-C3'	-7.10	104.64	116.00
1	A	272	C	N3-C4-C5	-7.10	119.06	121.90
1	A	773	G	C4-N9-C1'	-7.10	117.27	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	593	U	C2'-C3'-O3'	7.10	125.12	109.50
1	A	899	C	N3-C4-C5	-7.10	119.06	121.90
1	A	1108	G	C3'-C2'-C1'	-7.10	95.82	101.50
1	A	1140	C	C5'-C4'-C3'	7.10	127.36	116.00
1	A	1383	C	O4'-C1'-N1	7.10	113.88	108.20
1	A	510	A	N1-C2-N3	7.10	132.85	129.30
1	A	889	A	C8-N9-C1'	7.10	140.47	127.70
1	A	98	A	C5'-C4'-O4'	7.09	117.61	109.10
1	A	1518	A	C5-C6-N6	-7.09	118.03	123.70
1	A	1274	A	C8-N9-C1'	7.09	140.47	127.70
1	A	184	G	C5'-C4'-C3'	-7.09	104.65	116.00
1	A	237	G	P-O5'-C5'	-7.09	109.55	120.90
1	A	387	U	O5'-C5'-C4'	-7.09	98.22	111.70
1	A	27	G	N1-C2-N2	-7.09	109.82	116.20
1	A	582	C	O4'-C1'-N1	7.09	113.87	108.20
1	A	733	G	N1-C6-O6	7.09	124.15	119.90
1	A	771	G	O3'-P-O5'	-7.09	90.53	104.00
1	A	1209	C	C6-N1-C2	-7.09	117.46	120.30
1	A	1225	A	C5-C6-N6	-7.09	118.03	123.70
1	A	194	C	C1'-O4'-C4'	-7.09	104.23	109.90
1	A	241	G	N9-C1'-C2'	-7.09	104.20	112.00
1	A	973	G	O5'-C5'-C4'	-7.09	98.23	111.70
1	A	1484	C	N3-C4-C5	-7.09	119.06	121.90
1	A	176	C	P-O3'-C3'	-7.09	111.20	119.70
1	A	687	A	N1-C2-N3	-7.09	125.76	129.30
1	A	1023	U	O4'-C4'-C3'	-7.09	96.91	104.00
1	A	1423	G	N3-C2-N2	7.09	124.86	119.90
22	W	311	ALA	CB-CA-C	-7.09	99.47	110.10
1	A	768	A	C4-C5-C6	7.08	120.54	117.00
1	A	771	G	N3-C4-C5	-7.08	125.06	128.60
18	R	50	TYR	CB-CG-CD2	-7.08	116.75	121.00
1	A	52	C	N3-C4-C5	-7.08	119.07	121.90
1	A	266	G	C5-N7-C8	7.08	107.84	104.30
1	A	640	A	N1-C6-N6	7.08	122.85	118.60
1	A	1073	U	O3'-P-O5'	-7.08	90.54	104.00
1	A	1402	C	O4'-C1'-N1	7.08	113.87	108.20
1	A	1464	U	C6-N1-C2	-7.08	116.75	121.00
1	A	1170	A	C5-N7-C8	-7.08	100.36	103.90
1	A	1070	U	C6-N1-C2	-7.08	116.75	121.00
3	C	188	ALA	N-CA-C	-7.08	91.89	111.00
1	A	368	U	C4'-C3'-C2'	7.08	109.68	102.60
1	A	734	G	C5-C6-O6	-7.08	124.36	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1042	A	C6-C5-N7	-7.08	127.35	132.30
1	A	1044	A	N3-C4-C5	-7.08	121.85	126.80
1	A	1142	G	P-O5'-C5'	-7.08	109.58	120.90
1	A	1416	G	C5-C6-O6	-7.08	124.36	128.60
1	A	1487	G	C4-N9-C1'	-7.08	117.30	126.50
1	A	642	A	N3-C4-C5	-7.07	121.85	126.80
1	A	1290	G	C5'-C4'-C3'	-7.07	104.68	116.00
20	T	5	SER	N-CA-CB	7.07	121.11	110.50
1	A	477	C	C3'-C2'-C1'	-7.07	95.84	101.50
1	A	600	A	P-O3'-C3'	-7.07	111.22	119.70
1	A	702	A	C5-C6-N1	-7.07	114.17	117.70
1	A	148	G	C6-C5-N7	-7.07	126.16	130.40
1	A	415	A	O4'-C1'-N9	7.07	113.86	108.20
1	A	1346	A	C5-C6-N1	-7.07	114.17	117.70
1	A	132	C	O4'-C1'-N1	7.07	113.85	108.20
1	A	439	U	C2-N3-C4	7.07	131.24	127.00
1	A	511	C	O3'-P-O5'	-7.07	90.57	104.00
1	A	1465	A	C4-C5-C6	7.07	120.53	117.00
1	A	183	C	O3'-P-O5'	-7.07	90.58	104.00
1	A	219	U	C5'-C4'-C3'	-7.07	104.69	116.00
1	A	329	A	C5-C6-N1	-7.07	114.17	117.70
1	A	425	G	C8-N9-C1'	7.07	136.18	127.00
1	A	943	U	N1-C2-N3	7.07	119.14	114.90
1	A	985	C	C2-N3-C4	7.07	123.43	119.90
1	A	90	C	P-O3'-C3'	7.06	128.18	119.70
1	A	1146	A	C6-N1-C2	-7.06	114.36	118.60
1	A	1303	C	C6-N1-C2	-7.06	117.47	120.30
1	A	220	G	C5-C6-O6	-7.06	124.36	128.60
1	A	354	G	C3'-C2'-C1'	-7.06	95.85	101.50
1	A	1396	A	O4'-C1'-N9	7.06	113.85	108.20
1	A	289	G	C8-N9-C4	-7.06	103.58	106.40
1	A	616	G	O3'-P-O5'	-7.06	90.58	104.00
1	A	56	U	C3'-C2'-C1'	-7.06	95.85	101.50
1	A	131	A	N1-C2-N3	7.06	132.83	129.30
1	A	349	A	C5-C6-N1	-7.06	114.17	117.70
1	A	447	G	C5-C6-O6	-7.06	124.36	128.60
1	A	1299	A	C8-N9-C4	-7.06	102.98	105.80
1	A	1383	C	C5-C6-N1	7.06	124.53	121.00
1	A	117	G	N3-C2-N2	7.06	124.84	119.90
1	A	172	A	P-O5'-C5'	7.06	132.19	120.90
1	A	429	U	C1'-O4'-C4'	-7.06	104.25	109.90
1	A	64	G	P-O3'-C3'	7.05	128.17	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	178	C	O4'-C4'-C3'	-7.05	96.95	104.00
1	A	358	U	O4'-C1'-N1	7.05	113.84	108.20
1	A	501	C	C4'-C3'-C2'	-7.05	95.55	102.60
1	A	40	C	N3-C4-N4	7.05	122.94	118.00
1	A	374	A	C8-N9-C4	-7.05	102.98	105.80
1	A	863	U	O4'-C1'-N1	7.05	113.84	108.20
1	A	117	G	C6-C5-N7	-7.05	126.17	130.40
1	A	647	C	C5'-C4'-C3'	-7.05	104.72	116.00
1	A	1272	G	C5-C6-O6	-7.05	124.37	128.60
1	A	1179	A	C1'-O4'-C4'	-7.05	104.26	109.90
1	A	1439	G	C1'-O4'-C4'	-7.05	104.26	109.90
1	A	646	G	C5'-C4'-O4'	7.05	117.56	109.10
1	A	708	C	C3'-C2'-C1'	-7.05	95.86	101.50
1	A	1027	C	O3'-P-O5'	-7.05	90.61	104.00
1	A	1127	G	C5'-C4'-O4'	-7.05	100.64	109.10
1	A	301	G	O3'-P-O5'	-7.04	90.61	104.00
1	A	1139	G	N3-C4-C5	-7.04	125.08	128.60
1	A	138	G	C5-C6-O6	-7.04	124.37	128.60
1	A	155	A	P-O5'-C5'	7.04	132.17	120.90
1	A	191	G	O3'-P-O5'	-7.04	90.62	104.00
1	A	378	G	C3'-C2'-C1'	-7.04	95.86	101.50
1	A	1119	C	C6-N1-C1'	7.04	129.25	120.80
1	A	1120	C	C4'-C3'-C2'	-7.04	95.56	102.60
1	A	162	A	C4-C5-C6	7.04	120.52	117.00
1	A	955	U	C6-N1-C2	-7.04	116.78	121.00
1	A	62	U	C5'-C4'-C3'	-7.04	104.74	116.00
1	A	1364	U	N3-C4-O4	7.04	124.33	119.40
1	A	64	G	C8-N9-C1'	7.04	136.15	127.00
1	A	417	G	C6-C5-N7	-7.04	126.18	130.40
1	A	1363	A	C5-N7-C8	7.04	107.42	103.90
1	A	583	A	N7-C8-N9	7.04	117.32	113.80
1	A	303	A	C3'-C2'-C1'	-7.03	95.87	101.50
1	A	463	U	C3'-C2'-C1'	-7.03	95.87	101.50
1	A	575	G	C8-N9-C4	-7.03	103.59	106.40
1	A	615	G	P-O3'-C3'	-7.03	111.26	119.70
1	A	1066	C	O4'-C1'-N1	7.03	113.83	108.20
1	A	1234	C	C5'-C4'-C3'	-7.03	104.75	116.00
1	A	1495	U	C5-C6-N1	7.03	126.22	122.70
1	A	169	C	C3'-C2'-C1'	-7.03	95.88	101.50
1	A	212	G	N9-C1'-C2'	7.03	123.14	114.00
1	A	247	G	C4'-C3'-C2'	-7.03	95.57	102.60
1	A	614	C	N1-C2-O2	7.03	123.12	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	759	A	N9-C1'-C2'	-7.03	104.27	112.00
1	A	1098	C	C1'-O4'-C4'	-7.03	104.28	109.90
1	A	443	C	C2-N1-C1'	-7.03	111.07	118.80
1	A	171	A	C4-N9-C1'	7.03	138.95	126.30
1	A	179	A	C5-C6-N6	-7.03	118.08	123.70
1	A	657	U	O4'-C1'-N1	7.03	113.82	108.20
1	A	1099	G	O4'-C4'-C3'	-7.03	96.97	104.00
1	A	1303	C	N3-C4-N4	7.03	122.92	118.00
1	A	1340	A	O4'-C1'-N9	7.03	113.82	108.20
1	A	1365	G	C4-C5-N7	-7.03	107.99	110.80
1	A	419	C	C2-N1-C1'	-7.03	111.07	118.80
1	A	1130	A	C6-C5-N7	-7.03	127.38	132.30
1	A	1199	U	C2'-C3'-O3'	7.03	124.95	109.50
1	A	1348	U	O4'-C1'-N1	7.02	113.82	108.20
1	A	1469	C	C5-C4-N4	-7.02	115.28	120.20
1	A	30	U	C6-N1-C2	-7.02	116.79	121.00
1	A	177	G	P-O3'-C3'	-7.02	111.27	119.70
1	A	833	G	C3'-C2'-C1'	-7.02	95.88	101.50
1	A	1091	U	P-O3'-C3'	7.02	128.13	119.70
1	A	1095	U	O5'-P-OP1	-7.02	99.38	105.70
1	A	1238	A	C8-N9-C4	-7.02	102.99	105.80
1	A	1302	C	C5-C4-N4	-7.02	115.28	120.20
1	A	1525	G	N3-C2-N2	7.02	124.81	119.90
1	A	43	C	C5'-C4'-C3'	-7.02	104.77	116.00
1	A	1172	C	C5'-C4'-O4'	7.02	117.53	109.10
1	A	1281	C	N3-C4-C5	-7.02	119.09	121.90
1	A	29	U	C1'-O4'-C4'	-7.02	104.28	109.90
1	A	250	A	O4'-C1'-N9	7.02	113.81	108.20
1	A	777	A	N9-C1'-C2'	-7.02	104.28	112.00
1	A	877	G	N1-C6-O6	7.02	124.11	119.90
1	A	1481	U	C5-C4-O4	7.02	130.11	125.90
1	A	82	G	N9-C4-C5	7.02	108.21	105.40
1	A	869	G	C6-C5-N7	-7.02	126.19	130.40
1	A	885	G	P-O3'-C3'	-7.02	111.28	119.70
1	A	983	A	P-O3'-C3'	-7.02	111.28	119.70
1	A	1011	C	N3-C4-C5	-7.02	119.09	121.90
1	A	1251	A	C5'-C4'-O4'	7.02	117.52	109.10
1	A	1507	A	C5'-C4'-C3'	-7.02	104.77	116.00
1	A	513	C	C5-C6-N1	7.02	124.51	121.00
1	A	858	G	C5-C6-O6	-7.02	124.39	128.60
1	A	899	C	C5'-C4'-O4'	7.02	117.52	109.10
8	H	122	GLY	N-CA-C	-7.02	95.56	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1268	G	C5'-C4'-O4'	7.01	117.52	109.10
1	A	295	C	O4'-C1'-N1	7.01	113.81	108.20
1	A	717	U	C2'-C3'-O3'	7.01	124.93	109.50
1	A	928	G	C4-N9-C1'	-7.01	117.38	126.50
5	E	102	THR	CA-CB-CG2	-7.01	102.58	112.40
6	F	65	GLU	N-CA-C	-7.01	92.07	111.00
1	A	28	A	C1'-O4'-C4'	-7.01	104.29	109.90
1	A	32	A	C5'-C4'-C3'	-7.01	104.78	116.00
1	A	354	G	C1'-O4'-C4'	-7.01	104.29	109.90
1	A	516	U	C5'-C4'-C3'	-7.01	104.78	116.00
1	A	690	G	O4'-C4'-C3'	-7.01	96.99	104.00
1	A	846	G	N3-C4-C5	-7.01	125.09	128.60
1	A	1430	A	C5-C6-N6	-7.01	118.09	123.70
1	A	680	C	C5'-C4'-C3'	-7.01	104.78	116.00
1	A	685	G	P-O5'-C5'	7.01	132.12	120.90
1	A	1172	C	P-O3'-C3'	-7.01	111.29	119.70
1	A	1282	C	O4'-C1'-N1	7.01	113.81	108.20
1	A	1342	C	C2-N3-C4	7.01	123.41	119.90
1	A	1267	C	C5-C6-N1	7.01	124.50	121.00
1	A	1311	A	N9-C1'-C2'	-7.01	104.29	112.00
1	A	214	C	C6-N1-C1'	7.01	129.21	120.80
1	A	491	G	C8-N9-C4	-7.01	103.60	106.40
1	A	1234	C	C5-C4-N4	-7.01	115.30	120.20
1	A	855	U	C5'-C4'-O4'	7.00	117.51	109.10
1	A	1149	C	C2-N3-C4	7.00	123.40	119.90
1	A	1465	A	C3'-C2'-C1'	-7.00	95.90	101.50
1	A	254	G	C5-C6-N1	-7.00	108.00	111.50
1	A	700	G	C6-C5-N7	-7.00	126.20	130.40
1	A	82	G	C8-N9-C4	-7.00	103.60	106.40
1	A	172	A	C2-N3-C4	-7.00	107.10	110.60
1	A	444	G	N9-C1'-C2'	-7.00	104.30	112.00
1	A	527	G	C4-N9-C1'	-7.00	117.40	126.50
1	A	1394	A	N1-C6-N6	7.00	122.80	118.60
1	A	1461	G	C4-C5-N7	-7.00	108.00	110.80
1	A	151	A	C6-N1-C2	-7.00	114.40	118.60
1	A	169	C	C1'-O4'-C4'	-7.00	104.30	109.90
1	A	502	A	C1'-O4'-C4'	-7.00	104.30	109.90
1	A	1005	A	P-O3'-C3'	-7.00	111.30	119.70
1	A	893	C	C5-C6-N1	7.00	124.50	121.00
1	A	1216	A	N9-C1'-C2'	-7.00	104.30	112.00
1	A	1232	U	C5-C6-N1	7.00	126.20	122.70
1	A	750	C	C5-C6-N1	7.00	124.50	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	775	G	O4'-C1'-N9	7.00	113.80	108.20
1	A	1386	G	C4-N9-C1'	-7.00	117.41	126.50
1	A	450	G	C5-C6-N1	7.00	115.00	111.50
1	A	1205	U	C1'-O4'-C4'	-7.00	104.30	109.90
1	A	150	U	P-O3'-C3'	-6.99	111.31	119.70
1	A	272	C	O4'-C1'-N1	6.99	113.80	108.20
1	A	928	G	N3-C2-N2	6.99	124.80	119.90
1	A	140	U	C6-N1-C1'	6.99	130.99	121.20
1	A	1278	G	P-O3'-C3'	6.99	128.09	119.70
1	A	1502	A	C6-N1-C2	6.99	122.80	118.60
9	I	6	TYR	CB-CG-CD1	-6.99	116.81	121.00
15	O	6	ALA	N-CA-CB	6.99	119.89	110.10
1	A	498	A	N9-C1'-C2'	6.99	123.09	114.00
1	A	657	U	C6-N1-C1'	6.99	130.99	121.20
1	A	983	A	C5-C6-N1	-6.99	114.20	117.70
1	A	1126	U	O4'-C1'-N1	6.99	113.79	108.20
1	A	1169	A	C4-C5-C6	6.99	120.50	117.00
1	A	1357	A	C4-N9-C1'	-6.99	113.72	126.30
1	A	902	G	C8-N9-C1'	6.99	136.09	127.00
1	A	1246	A	C5'-C4'-C3'	-6.99	104.82	116.00
1	A	1315	U	O4'-C1'-C2'	6.99	113.89	107.60
1	A	1375	A	C4-N9-C1'	6.99	138.88	126.30
1	A	269	C	O4'-C1'-N1	6.99	113.79	108.20
1	A	1131	G	O4'-C1'-N9	6.99	113.79	108.20
1	A	1164	G	N1-C6-O6	6.99	124.09	119.90
1	A	1531	A	N9-C1'-C2'	-6.99	104.32	112.00
1	A	1126	U	N3-C4-C5	-6.98	110.41	114.60
1	A	256	U	O4'-C1'-N1	6.98	113.79	108.20
1	A	423	G	N3-C2-N2	6.98	124.79	119.90
1	A	1142	G	N1-C2-N3	-6.98	119.71	123.90
1	A	1266	G	C5'-C4'-C3'	-6.98	104.83	116.00
2	B	155	GLY	N-CA-C	-6.98	95.64	113.10
4	D	7	LYS	N-CA-C	6.98	129.85	111.00
1	A	41	G	N1-C6-O6	6.98	124.09	119.90
1	A	258	G	C5'-C4'-O4'	6.98	117.47	109.10
1	A	459	A	C5'-C4'-C3'	-6.98	104.83	116.00
1	A	506	G	P-O5'-C5'	-6.98	109.73	120.90
1	A	911	U	C2-N1-C1'	-6.98	109.32	117.70
1	A	1022	A	N9-C4-C5	6.98	108.59	105.80
1	A	1480	A	C8-N9-C4	-6.98	103.01	105.80
6	F	58	HIS	CA-CB-CG	6.98	125.47	113.60
22	W	170	MET	CG-SD-CE	-6.98	89.03	100.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	163	C	O4'-C4'-C3'	-6.98	97.02	104.00
1	A	412	A	C5-C6-N1	-6.98	114.21	117.70
1	A	617	G	C1'-O4'-C4'	-6.98	104.32	109.90
1	A	908	A	C8-N9-C1'	-6.98	115.14	127.70
1	A	1175	G	O3'-P-O5'	-6.98	90.74	104.00
1	A	1197	A	C5-C6-N1	-6.98	114.21	117.70
1	A	599	C	N3-C4-C5	-6.98	119.11	121.90
1	A	1243	C	C3'-C2'-C1'	-6.98	95.92	101.50
1	A	177	G	O4'-C4'-C3'	-6.97	97.03	104.00
1	A	341	C	C2-N3-C4	6.97	123.39	119.90
1	A	553	A	C4-C5-C6	6.97	120.49	117.00
1	A	518	C	C2-N1-C1'	6.97	126.47	118.80
1	A	880	C	O4'-C1'-N1	6.97	113.78	108.20
1	A	560	A	C5-C6-N6	-6.97	118.12	123.70
1	A	940	C	P-O5'-C5'	6.97	132.05	120.90
1	A	199	A	C4-C5-C6	6.97	120.48	117.00
1	A	203	G	C8-N9-C4	6.97	109.19	106.40
1	A	865	A	N9-C4-C5	6.97	108.59	105.80
1	A	1120	C	N3-C4-N4	6.97	122.88	118.00
1	A	370	C	C5-C6-N1	6.97	124.48	121.00
1	A	447	G	C8-N9-C4	-6.97	103.61	106.40
1	A	932	C	O4'-C1'-N1	6.97	113.77	108.20
1	A	287	U	C3'-C2'-C1'	-6.97	95.93	101.50
1	A	879	C	C5-C4-N4	-6.97	115.32	120.20
1	A	1397	C	N3-C4-N4	6.97	122.88	118.00
1	A	397	A	N3-C4-C5	-6.96	121.92	126.80
1	A	592	G	C5-C6-O6	-6.96	124.42	128.60
1	A	1092	A	O4'-C4'-C3'	-6.96	97.04	104.00
1	A	1386	G	O4'-C1'-N9	6.96	113.77	108.20
2	B	49	PHE	CB-CG-CD2	-6.96	115.92	120.80
12	L	116	TYR	CB-CG-CD2	-6.96	116.82	121.00
1	A	278	G	P-O3'-C3'	-6.96	111.34	119.70
1	A	1193	G	O4'-C1'-N9	6.96	113.77	108.20
1	A	1223	C	C1'-O4'-C4'	-6.96	104.33	109.90
1	A	1480	A	C4-C5-C6	6.96	120.48	117.00
1	A	111	G	C8-N9-C4	-6.96	103.61	106.40
1	A	335	C	N3-C4-N4	6.96	122.87	118.00
1	A	435	A	C2'-C3'-O3'	6.96	124.84	113.70
1	A	333	U	O4'-C1'-N1	6.96	113.77	108.20
1	A	557	G	O3'-P-O5'	-6.96	90.78	104.00
1	A	803	G	C4-C5-C6	6.96	122.97	118.80
1	A	1115	U	P-O3'-C3'	-6.96	111.35	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	171	A	C8-N9-C1'	-6.96	115.18	127.70
1	A	222	C	C6-N1-C1'	6.96	129.15	120.80
1	A	694	A	P-O5'-C5'	6.96	132.03	120.90
1	A	726	C	P-O5'-C5'	-6.96	109.77	120.90
1	A	917	G	N3-C2-N2	6.96	124.77	119.90
17	Q	48	GLU	N-CA-C	-6.96	92.22	111.00
1	A	147	G	N1-C6-O6	6.96	124.07	119.90
1	A	227	G	O4'-C1'-N9	6.96	113.76	108.20
1	A	987	G	C4-N9-C1'	-6.96	117.46	126.50
1	A	1367	C	O4'-C1'-N1	6.96	113.76	108.20
1	A	1405	G	C2'-C3'-O3'	6.95	124.83	113.70
1	A	154	U	N3-C2-O2	-6.95	117.33	122.20
1	A	568	G	N1-C2-N3	-6.95	119.73	123.90
1	A	1369	C	C5'-C4'-C3'	-6.95	104.88	116.00
6	F	88	MET	CG-SD-CE	-6.95	89.08	100.20
1	A	180	U	C5'-C4'-O4'	6.95	117.44	109.10
1	A	424	G	P-O5'-C5'	6.95	132.02	120.90
1	A	607	A	C4-C5-C6	6.95	120.47	117.00
1	A	865	A	C3'-C2'-C1'	-6.95	95.94	101.50
1	A	89	U	O4'-C1'-C2'	-6.95	98.85	105.80
1	A	438	U	O5'-P-OP2	-6.95	99.45	105.70
1	A	584	G	N7-C8-N9	6.95	116.57	113.10
1	A	642	A	C5'-C4'-O4'	6.95	117.44	109.10
1	A	3	A	P-O5'-C5'	-6.95	109.78	120.90
1	A	322	C	C5-C4-N4	-6.95	115.34	120.20
1	A	610	U	P-O5'-C5'	-6.95	109.78	120.90
1	A	649	A	C1'-O4'-C4'	-6.95	104.34	109.90
1	A	668	G	C2-N3-C4	6.95	115.37	111.90
1	A	1294	G	C4-N9-C1'	-6.95	117.47	126.50
1	A	1420	U	C3'-C2'-C1'	-6.95	95.94	101.50
1	A	337	G	C8-N9-C4	-6.95	103.62	106.40
1	A	385	C	C2-N3-C4	6.95	123.37	119.90
1	A	562	U	N1-C1'-C2'	-6.95	104.36	112.00
1	A	575	G	N3-C2-N2	-6.95	115.04	119.90
1	A	1280	A	C5-C6-N1	-6.95	114.23	117.70
1	A	1295	U	P-O5'-C5'	6.95	132.01	120.90
1	A	1406	U	P-O3'-C3'	-6.95	111.36	119.70
1	A	1415	G	P-O5'-C5'	6.95	132.01	120.90
1	A	1454	G	N9-C1'-C2'	-6.95	104.36	112.00
1	A	643	C	O3'-P-O5'	-6.94	90.81	104.00
1	A	1040	U	C5-C4-O4	-6.94	121.73	125.90
1	A	1411	C	O4'-C1'-N1	6.94	113.75	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
8	H	29	SER	N-CA-C	-6.94	92.25	111.00
1	A	275	G	C6-C5-N7	-6.94	126.23	130.40
1	A	410	G	N1-C2-N3	-6.94	119.74	123.90
1	A	599	C	C2-N3-C4	6.94	123.37	119.90
1	A	1100	C	C5'-C4'-C3'	-6.94	104.89	116.00
1	A	1497	G	N1-C6-O6	6.94	124.06	119.90
1	A	358	U	C1'-O4'-C4'	-6.94	104.35	109.90
1	A	493	A	C4-C5-C6	6.94	120.47	117.00
1	A	795	C	N3-C4-N4	6.94	122.86	118.00
1	A	1187	G	N9-C4-C5	6.94	108.18	105.40
1	A	842	U	C2-N1-C1'	6.94	126.02	117.70
1	A	1133	G	N1-C6-O6	6.94	124.06	119.90
1	A	364	A	C5-C6-N1	-6.94	114.23	117.70
1	A	466	A	C5-C6-N1	-6.94	114.23	117.70
1	A	468	A	C8-N9-C4	-6.94	103.03	105.80
1	A	1198	G	O4'-C1'-N9	6.94	113.75	108.20
1	A	1364	U	C2-N3-C4	-6.94	122.84	127.00
1	A	253	A	C8-N9-C4	-6.93	103.03	105.80
1	A	285	C	C5'-C4'-O4'	6.93	117.42	109.10
1	A	933	G	N1-C2-N3	-6.93	119.74	123.90
1	A	1508	A	O4'-C1'-N9	6.93	113.75	108.20
1	A	1093	A	C6-C5-N7	-6.93	127.45	132.30
1	A	1242	G	N3-C4-C5	-6.93	125.13	128.60
1	A	1471	U	P-O5'-C5'	-6.93	109.81	120.90
1	A	1479	C	C1'-O4'-C4'	-6.93	104.35	109.90
1	A	342	C	C2-N3-C4	6.93	123.36	119.90
1	A	602	A	C8-N9-C4	-6.93	103.03	105.80
18	R	24	ASP	C-N-CA	6.93	139.03	121.70
1	A	627	G	C1'-O4'-C4'	-6.93	104.36	109.90
1	A	1172	C	P-O5'-C5'	-6.93	109.81	120.90
1	A	519	C	N3-C4-C5	-6.93	119.13	121.90
1	A	722	G	C2-N3-C4	6.93	115.36	111.90
1	A	286	C	N3-C4-N4	6.93	122.85	118.00
1	A	488	C	C5'-C4'-O4'	6.93	117.41	109.10
1	A	782	A	C4'-C3'-C2'	-6.93	95.67	102.60
1	A	996	A	N1-C2-N3	6.93	132.76	129.30
1	A	1249	C	C6-N1-C2	-6.93	117.53	120.30
1	A	1463	U	C2-N3-C4	-6.93	122.84	127.00
1	A	1481	U	N3-C4-C5	-6.93	110.44	114.60
1	A	123	U	C5'-C4'-C3'	-6.92	104.92	116.00
1	A	522	C	C6-N1-C1'	6.92	129.11	120.80
1	A	605	U	C4'-C3'-C2'	-6.92	95.67	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	772	U	O5'-C5'-C4'	-6.92	98.54	111.70
1	A	786	G	P-O5'-C5'	6.92	131.98	120.90
17	Q	78	VAL	N-CA-C	-6.92	92.30	111.00
1	A	184	G	O4'-C1'-N9	6.92	113.74	108.20
1	A	283	U	C1'-O4'-C4'	-6.92	104.36	109.90
1	A	569	C	N3-C4-N4	6.92	122.85	118.00
1	A	135	C	O4'-C1'-N1	6.92	113.74	108.20
1	A	476	U	C1'-O4'-C4'	-6.92	104.36	109.90
1	A	985	C	N3-C4-N4	6.92	122.84	118.00
1	A	82	G	C6-N1-C2	-6.92	120.95	125.10
1	A	1229	A	O4'-C1'-N9	6.92	113.74	108.20
1	A	1526	G	C5'-C4'-O4'	6.92	117.40	109.10
1	A	270	A	C5-C6-N6	-6.92	118.17	123.70
1	A	274	A	C4-N9-C1'	-6.92	113.85	126.30
1	A	466	A	C8-N9-C1'	-6.92	115.25	127.70
1	A	1486	G	O4'-C1'-N9	6.92	113.73	108.20
1	A	163	C	P-O3'-C3'	-6.92	111.40	119.70
1	A	1268	G	N3-C2-N2	6.92	124.74	119.90
1	A	9	G	C5-C6-O6	-6.92	124.45	128.60
1	A	496	A	C5'-C4'-O4'	6.92	117.40	109.10
1	A	119	A	O5'-P-OP2	-6.91	99.48	105.70
1	A	598	U	C6-N1-C1'	6.91	130.88	121.20
1	A	666	G	C5'-C4'-O4'	6.91	117.40	109.10
1	A	1312	G	C5'-C4'-O4'	6.91	117.39	109.10
1	A	1514	G	P-O3'-C3'	-6.91	111.40	119.70
1	A	181	A	O5'-C5'-C4'	-6.91	98.57	111.70
1	A	230	G	P-O3'-C3'	-6.91	111.41	119.70
1	A	414	A	C4-N9-C1'	6.91	138.74	126.30
1	A	1260	G	C1'-O4'-C4'	-6.91	104.37	109.90
1	A	1273	C	C5'-C4'-C3'	-6.91	104.94	116.00
1	A	1418	A	C1'-O4'-C4'	-6.91	104.37	109.90
1	A	669	G	C8-N9-C1'	6.91	135.99	127.00
1	A	1423	G	C5-C6-O6	-6.91	124.45	128.60
1	A	1428	A	C5-C6-N6	-6.91	118.17	123.70
2	B	31	PHE	CB-CG-CD2	-6.91	115.96	120.80
1	A	61	G	N9-C1'-C2'	-6.91	104.40	112.00
1	A	178	C	C1'-O4'-C4'	-6.91	104.37	109.90
1	A	650	G	C2'-C3'-O3'	6.91	124.75	113.70
1	A	650	G	C5'-C4'-O4'	6.91	117.39	109.10
1	A	1366	C	O4'-C1'-N1	6.91	113.73	108.20
1	A	102	G	C8-N9-C4	-6.91	103.64	106.40
1	A	949	A	C5-C6-N6	-6.91	118.17	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	207	C	N3-C4-N4	6.91	122.83	118.00
1	A	492	C	N3-C4-N4	6.91	122.83	118.00
1	A	816	A	C8-N9-C4	-6.91	103.04	105.80
1	A	1375	A	C5'-C4'-O4'	6.91	117.39	109.10
6	F	49	TYR	CB-CG-CD1	-6.91	116.86	121.00
1	A	86	G	N3-C2-N2	6.90	124.73	119.90
1	A	117	G	O3'-P-O5'	-6.90	90.88	104.00
1	A	373	A	C5'-C4'-O4'	-6.90	100.81	109.10
1	A	577	G	N1-C2-N2	-6.90	109.99	116.20
1	A	1019	A	C5-N7-C8	6.90	107.35	103.90
1	A	1038	C	O4'-C1'-N1	6.90	113.72	108.20
1	A	1116	U	C6-N1-C1'	6.90	130.87	121.20
1	A	1231	G	C6-N1-C2	-6.90	120.96	125.10
1	A	1410	A	N1-C6-N6	6.90	122.74	118.60
1	A	242	G	C6-C5-N7	-6.90	126.26	130.40
1	A	634	C	C5'-C4'-C3'	-6.90	104.96	116.00
1	A	828	U	O4'-C1'-N1	6.90	113.72	108.20
1	A	1043	G	C5'-C4'-O4'	6.90	117.38	109.10
1	A	1375	A	N7-C8-N9	6.90	117.25	113.80
1	A	1422	G	N1-C6-O6	6.90	124.04	119.90
1	A	27	G	C6-C5-N7	-6.90	126.26	130.40
1	A	669	G	C4-N9-C1'	-6.90	117.53	126.50
1	A	1417	G	C5-C6-O6	-6.90	124.46	128.60
1	A	151	A	C3'-C2'-C1'	-6.90	95.98	101.50
1	A	886	G	N3-C2-N2	6.90	124.73	119.90
1	A	289	G	C1'-O4'-C4'	-6.90	104.38	109.90
1	A	441	A	C3'-C2'-C1'	-6.90	95.98	101.50
1	A	695	A	C4-C5-C6	6.90	120.45	117.00
1	A	788	U	O4'-C1'-N1	6.90	113.72	108.20
1	A	1337	G	N1-C2-N2	-6.90	109.99	116.20
1	A	160	A	C5'-C4'-O4'	6.90	117.38	109.10
1	A	1106	G	N1-C6-O6	6.90	124.04	119.90
1	A	1391	U	O3'-P-O5'	6.90	117.10	104.00
1	A	660	C	C4'-C3'-C2'	-6.89	95.70	102.60
1	A	924	C	C1'-O4'-C4'	-6.89	104.39	109.90
1	A	1489	G	O4'-C4'-C3'	-6.89	97.11	104.00
1	A	86	G	N1-C6-O6	6.89	124.03	119.90
1	A	479	U	C5'-C4'-C3'	-6.89	104.97	116.00
1	A	175	C	C6-N1-C1'	6.89	129.07	120.80
1	A	195	A	C6-C5-N7	-6.89	127.48	132.30
1	A	383	A	C6-C5-N7	-6.89	127.48	132.30
1	A	412	A	P-O3'-C3'	6.89	127.97	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	607	A	C5-C6-N6	-6.89	118.19	123.70
1	A	640	A	C3'-C2'-C1'	-6.89	95.99	101.50
1	A	101	A	C5-C6-N1	-6.89	114.26	117.70
1	A	178	C	C5'-C4'-O4'	6.89	117.37	109.10
1	A	1037	C	C5-C4-N4	-6.89	115.38	120.20
1	A	46	G	P-O3'-C3'	6.89	127.96	119.70
1	A	143	A	C4'-C3'-C2'	6.89	109.49	102.60
1	A	1533	C	N3-C4-C5	-6.89	119.15	121.90
1	A	168	G	N1-C2-N3	-6.88	119.77	123.90
1	A	195	A	N3-C4-C5	-6.88	121.98	126.80
1	A	344	A	C5-C6-N6	-6.88	118.19	123.70
1	A	357	G	C5'-C4'-O4'	6.88	117.36	109.10
1	A	510	A	C5-C6-N6	-6.88	118.19	123.70
1	A	979	C	N3-C4-C5	-6.88	119.15	121.90
1	A	1028	C	O4'-C1'-N1	6.88	113.71	108.20
1	A	1332	A	O4'-C4'-C3'	-6.88	97.11	104.00
1	A	1350	A	P-O5'-C5'	6.88	131.91	120.90
1	A	1502	A	O4'-C1'-C2'	6.88	113.80	107.60
1	A	175	C	C1'-O4'-C4'	-6.88	104.39	109.90
1	A	822	U	C3'-C2'-C1'	-6.88	96.00	101.50
1	A	1074	G	N3-C4-C5	-6.88	125.16	128.60
1	A	1355	G	C8-N9-C4	-6.88	103.65	106.40
1	A	1494	G	O3'-P-O5'	-6.88	90.93	104.00
1	A	1355	G	C5'-C4'-C3'	-6.88	104.99	116.00
22	W	50	MET	N-CA-CB	-6.88	98.22	110.60
1	A	325	A	P-O3'-C3'	-6.88	111.44	119.70
1	A	430	A	C4'-C3'-C2'	-6.88	95.72	102.60
1	A	622	A	C5-C6-N1	-6.88	114.26	117.70
1	A	835	U	P-O3'-C3'	-6.88	111.44	119.70
1	A	960	U	C1'-O4'-C4'	-6.88	104.40	109.90
1	A	1181	G	C2'-C3'-O3'	6.88	124.71	113.70
1	A	1502	A	C2-N3-C4	-6.88	107.16	110.60
9	I	42	THR	CA-CB-CG2	-6.88	102.77	112.40
1	A	347	G	C8-N9-C1'	6.88	135.94	127.00
1	A	460	A	N3-C4-C5	-6.88	121.99	126.80
1	A	821	G	N9-C1'-C2'	-6.88	104.44	112.00
1	A	1236	A	C6-C5-N7	-6.88	127.49	132.30
1	A	634	C	N3-C2-O2	-6.88	117.09	121.90
1	A	531	U	C2-N3-C4	-6.87	122.88	127.00
1	A	1158	C	C5'-C4'-C3'	-6.87	105.00	116.00
1	A	1263	C	O4'-C4'-C3'	-6.87	97.13	104.00
1	A	1290	G	N3-C2-N2	6.87	124.71	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1467	C	C5-C6-N1	6.87	124.44	121.00
1	A	288	A	O5'-C5'-C4'	-6.87	98.65	111.70
1	A	368	U	C2-N3-C4	-6.87	122.88	127.00
1	A	830	G	O4'-C1'-N9	6.87	113.70	108.20
1	A	202	G	P-O3'-C3'	-6.87	111.46	119.70
1	A	263	A	C5-C6-N6	-6.87	118.21	123.70
1	A	649	A	C5-C6-N1	-6.87	114.27	117.70
1	A	1373	G	O4'-C1'-C2'	6.87	113.78	107.60
1	A	1483	A	P-O5'-C5'	-6.87	109.91	120.90
1	A	529	G	P-O3'-C3'	6.87	127.94	119.70
1	A	599	C	C6-N1-C1'	6.87	129.04	120.80
1	A	162	A	C8-N9-C4	-6.87	103.05	105.80
1	A	179	A	C4-C5-C6	6.87	120.43	117.00
1	A	534	U	P-O3'-C3'	-6.87	111.46	119.70
1	A	901	A	C4-N9-C1'	6.87	138.66	126.30
1	A	1127	G	N1-C6-O6	6.87	124.02	119.90
1	A	1218	C	C6-N1-C2	-6.87	117.55	120.30
1	A	1223	C	N1-C1'-C2'	6.87	122.92	114.00
1	A	1314	C	C1'-O4'-C4'	-6.87	104.41	109.90
1	A	1522	U	C1'-O4'-C4'	-6.87	104.41	109.90
1	A	996	A	C4-C5-N7	-6.86	107.27	110.70
1	A	151	A	O4'-C4'-C3'	-6.86	97.14	104.00
1	A	161	A	C5'-C4'-C3'	6.86	126.98	116.00
1	A	770	C	N3-C4-N4	6.86	122.80	118.00
1	A	988	G	N1-C6-O6	6.86	124.02	119.90
2	B	48	MET	CG-SD-CE	-6.86	89.22	100.20
1	A	1128	C	C2-N1-C1'	-6.86	111.25	118.80
1	A	1295	U	C6-N1-C1'	6.86	130.80	121.20
1	A	1479	C	C3'-C2'-C1'	-6.86	96.01	101.50
11	K	60	PHE	CA-CB-CG	-6.86	97.44	113.90
1	A	1274	A	C1'-O4'-C4'	-6.86	104.41	109.90
1	A	346	G	N3-C4-C5	-6.86	125.17	128.60
1	A	231	U	C6-N1-C2	-6.86	116.89	121.00
1	A	349	A	C8-N9-C1'	6.86	140.04	127.70
1	A	497	G	P-O5'-C5'	-6.86	109.93	120.90
1	A	728	A	C5-C6-N1	-6.86	114.27	117.70
1	A	1519	A	C5-C6-N6	-6.86	118.22	123.70
16	P	52	LEU	N-CA-CB	6.86	124.11	110.40
1	A	637	C	C6-N1-C2	-6.85	117.56	120.30
1	A	1191	A	C5-C6-N6	-6.85	118.22	123.70
1	A	1380	U	N3-C2-O2	-6.85	117.40	122.20
17	Q	77	VAL	N-CA-C	-6.85	92.50	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	63	C	N3-C4-N4	6.85	122.80	118.00
1	A	216	U	C3'-C2'-C1'	-6.85	96.02	101.50
1	A	258	G	C8-N9-C1'	6.85	135.91	127.00
1	A	1024	G	N1-C6-O6	6.85	124.01	119.90
1	A	167	A	C2'-C3'-O3'	6.85	124.66	113.70
1	A	1022	A	C5-C6-N6	-6.85	118.22	123.70
1	A	1026	G	C1'-O4'-C4'	-6.85	104.42	109.90
7	G	30	MET	CA-C-N	-6.85	102.13	117.20
1	A	198	G	O4'-C1'-C2'	6.85	113.76	107.60
1	A	942	G	N7-C8-N9	6.85	116.52	113.10
1	A	989	U	P-O5'-C5'	-6.85	109.94	120.90
1	A	1087	G	C4-C5-N7	-6.85	108.06	110.80
1	A	426	U	N1-C2-N3	6.85	119.01	114.90
1	A	160	A	C5-C6-N1	-6.84	114.28	117.70
1	A	317	U	N1-C2-N3	-6.84	110.79	114.90
1	A	567	G	C3'-C2'-C1'	-6.84	96.03	101.50
1	A	807	A	N9-C1'-C2'	-6.84	104.47	112.00
1	A	812	G	P-O5'-C5'	-6.84	109.95	120.90
1	A	886	G	N9-C1'-C2'	-6.84	104.47	112.00
1	A	1147	C	N3-C4-C5	-6.84	119.16	121.90
1	A	1179	A	C8-N9-C4	-6.84	103.06	105.80
1	A	71	A	OP2-P-O3'	6.84	120.25	105.20
1	A	986	U	P-O3'-C3'	-6.84	111.49	119.70
1	A	989	U	C3'-C2'-C1'	-6.84	96.03	101.50
1	A	1506	U	O4'-C4'-C3'	6.84	111.57	106.10
1	A	178	C	C3'-C2'-C1'	-6.84	96.03	101.50
1	A	638	U	C2-N3-C4	6.84	131.10	127.00
1	A	649	A	C3'-C2'-C1'	-6.84	96.03	101.50
1	A	850	U	C5'-C4'-C3'	-6.84	105.06	116.00
1	A	1197	A	C5-C6-N6	-6.84	118.23	123.70
13	M	21	ILE	N-CA-CB	6.84	126.53	110.80
16	P	72	ALA	N-CA-CB	6.84	119.67	110.10
1	A	908	A	C5'-C4'-C3'	-6.84	105.06	116.00
1	A	67	C	C2'-C3'-O3'	6.84	124.64	113.70
1	A	760	G	N1-C6-O6	6.84	124.00	119.90
1	A	814	A	C6-C5-N7	-6.84	127.52	132.30
1	A	956	U	C5'-C4'-C3'	-6.84	105.06	116.00
1	A	1186	G	C3'-C2'-C1'	-6.84	96.03	101.50
1	A	1485	U	P-O3'-C3'	-6.84	111.50	119.70
1	A	235	C	C5-C6-N1	6.83	124.42	121.00
1	A	492	C	P-O3'-C3'	6.83	127.90	119.70
1	A	883	C	C1'-O4'-C4'	-6.83	104.43	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	895	G	N1-C6-O6	6.83	124.00	119.90
1	A	1044	A	C6-C5-N7	-6.83	127.52	132.30
1	A	1426	G	C4-N9-C1'	-6.83	117.62	126.50
1	A	446	G	N1-C6-O6	6.83	124.00	119.90
1	A	577	G	N3-C2-N2	6.83	124.68	119.90
1	A	771	G	N3-C2-N2	6.83	124.68	119.90
9	I	123	ARG	N-CA-CB	6.83	122.89	110.60
1	A	434	U	C5'-C4'-C3'	-6.83	105.08	116.00
1	A	621	A	C5-C6-N6	-6.83	118.24	123.70
1	A	1422	G	O4'-C1'-N9	6.83	113.66	108.20
1	A	506	G	C6-C5-N7	-6.83	126.30	130.40
1	A	731	G	C5-C6-O6	-6.83	124.50	128.60
1	A	785	G	C6-C5-N7	-6.83	126.30	130.40
1	A	895	G	C4'-C3'-C2'	-6.83	95.77	102.60
1	A	1416	G	N1-C2-N3	-6.83	119.80	123.90
1	A	1521	C	C5-C4-N4	-6.83	115.42	120.20
1	A	36	C	C5'-C4'-C3'	6.83	126.92	116.00
1	A	492	C	C5'-C4'-O4'	6.83	117.29	109.10
1	A	779	C	N3-C2-O2	-6.83	117.12	121.90
1	A	1013	G	C5-C6-O6	-6.83	124.50	128.60
1	A	238	A	N1-C6-N6	6.82	122.69	118.60
1	A	1095	U	C4'-C3'-O3'	6.82	126.65	113.00
1	A	1447	A	C5'-C4'-C3'	-6.82	105.08	116.00
19	S	9	PHE	CB-CG-CD1	6.82	125.58	120.80
1	A	1502	A	C1'-O4'-C4'	-6.82	104.44	109.90
1	A	869	G	N1-C2-N2	6.82	122.34	116.20
9	I	125	GLN	N-CA-CB	-6.82	98.32	110.60
1	A	614	C	C5'-C4'-C3'	6.82	126.91	116.00
1	A	905	U	C2-N1-C1'	-6.82	109.52	117.70
1	A	1022	A	N3-C4-C5	-6.82	122.03	126.80
1	A	1139	G	N1-C6-O6	6.82	123.99	119.90
1	A	1154	G	C2-N3-C4	6.82	115.31	111.90
1	A	988	G	C1'-O4'-C4'	-6.82	104.45	109.90
1	A	1095	U	C6-N1-C1'	6.82	130.74	121.20
1	A	1266	G	C1'-O4'-C4'	-6.82	104.45	109.90
1	A	107	G	N3-C2-N2	6.82	124.67	119.90
1	A	154	U	C5'-C4'-C3'	6.82	126.91	116.00
1	A	165	G	C5'-C4'-C3'	-6.82	105.09	116.00
1	A	503	C	C6-N1-C2	-6.82	117.57	120.30
1	A	1210	C	C5-C6-N1	6.82	124.41	121.00
1	A	1344	C	C6-N1-C2	-6.82	117.57	120.30
1	A	19	A	O4'-C1'-N9	6.81	113.65	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	949	A	C1'-O4'-C4'	-6.81	104.45	109.90
1	A	1001	C	C5-C6-N1	6.81	124.41	121.00
1	A	1181	G	C8-N9-C4	-6.81	103.67	106.40
1	A	1186	G	C4'-C3'-C2'	-6.81	95.79	102.60
1	A	1008	U	C5-C4-O4	-6.81	121.81	125.90
1	A	1019	A	C3'-C2'-C1'	-6.81	96.05	101.50
1	A	1026	G	O3'-P-O5'	-6.81	91.06	104.00
1	A	635	A	C4'-C3'-C2'	-6.81	95.79	102.60
1	A	1124	G	P-O3'-C3'	-6.81	111.53	119.70
1	A	165	G	C3'-C2'-C1'	-6.81	96.05	101.50
1	A	865	A	C2'-C3'-O3'	6.81	124.59	113.70
1	A	1003	G	C6-N1-C2	-6.81	121.02	125.10
1	A	1150	A	N9-C4-C5	6.81	108.52	105.80
1	A	1277	C	N3-C4-C5	-6.81	119.18	121.90
1	A	378	G	C4-N9-C1'	-6.81	117.65	126.50
1	A	462	G	C1'-O4'-C4'	-6.81	104.45	109.90
1	A	216	U	O4'-C1'-N1	6.81	113.64	108.20
1	A	702	A	P-O5'-C5'	-6.81	110.01	120.90
1	A	1368	A	N3-C4-C5	-6.81	122.04	126.80
1	A	256	U	C2'-C3'-O3'	6.80	124.59	113.70
1	A	596	A	O4'-C1'-N9	6.80	113.64	108.20
1	A	737	C	N3-C4-C5	-6.80	119.18	121.90
1	A	1395	C	C4'-C3'-C2'	-6.80	95.80	102.60
1	A	1404	C	C4'-C3'-C2'	-6.80	95.80	102.60
1	A	784	A	O4'-C1'-N9	6.80	113.64	108.20
1	A	839	C	C5'-C4'-C3'	-6.80	105.12	116.00
1	A	956	U	P-O3'-C3'	-6.80	111.54	119.70
1	A	1098	C	N3-C4-N4	6.80	122.76	118.00
1	A	1164	G	O3'-P-O5'	-6.80	91.08	104.00
1	A	1245	C	O4'-C1'-N1	6.80	113.64	108.20
1	A	1457	G	C8-N9-C4	-6.80	103.68	106.40
1	A	361	G	C6-C5-N7	-6.80	126.32	130.40
1	A	620	C	N3-C4-C5	-6.80	119.18	121.90
1	A	1037	C	C6-N1-C2	-6.80	117.58	120.30
1	A	1453	G	C5'-C4'-C3'	-6.80	105.12	116.00
16	P	39	PHE	N-CA-C	-6.80	92.64	111.00
1	A	192	A	C1'-O4'-C4'	-6.80	104.46	109.90
1	A	637	C	C5'-C4'-C3'	-6.80	105.12	116.00
1	A	583	A	C6-C5-N7	-6.80	127.54	132.30
1	A	817	C	N3-C4-N4	6.80	122.76	118.00
1	A	825	A	C3'-C2'-C1'	-6.80	96.06	101.50
1	A	1021	A	C1'-O4'-C4'	-6.80	104.46	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1205	U	C3'-C2'-C1'	-6.80	96.06	101.50
22	W	185	TYR	CB-CG-CD2	-6.80	116.92	121.00
1	A	20	U	N1-C2-N3	6.79	118.98	114.90
1	A	410	G	C3'-C2'-C1'	-6.79	96.06	101.50
1	A	431	A	P-O3'-C3'	-6.79	111.55	119.70
1	A	948	C	N3-C4-N4	6.79	122.76	118.00
1	A	1435	G	C5'-C4'-O4'	6.79	117.25	109.10
1	A	114	U	C6-N1-C2	-6.79	116.92	121.00
1	A	537	G	C4'-C3'-C2'	-6.79	95.81	102.60
1	A	765	G	N1-C2-N3	-6.79	119.83	123.90
1	A	1209	C	O4'-C1'-N1	6.79	113.63	108.20
1	A	1441	A	C5'-C4'-O4'	6.79	117.25	109.10
1	A	16	A	P-O5'-C5'	-6.79	110.04	120.90
1	A	270	A	C5-C6-N1	-6.79	114.31	117.70
1	A	118	U	O4'-C1'-N1	6.79	113.63	108.20
1	A	627	G	N3-C4-C5	-6.79	125.21	128.60
1	A	1187	G	N7-C8-N9	6.79	116.50	113.10
1	A	1244	G	C3'-C2'-C1'	-6.79	96.07	101.50
1	A	327	A	C1'-O4'-C4'	-6.79	104.47	109.90
1	A	507	C	O5'-P-OP1	-6.79	99.59	105.70
1	A	569	C	O4'-C1'-N1	6.79	113.63	108.20
1	A	655	A	C2-N3-C4	-6.79	107.21	110.60
1	A	922	G	C5'-C4'-O4'	6.79	117.24	109.10
1	A	1027	C	C5'-C4'-O4'	6.79	117.24	109.10
1	A	673	A	C5-C6-N6	-6.78	118.27	123.70
1	A	874	G	C8-N9-C1'	6.78	135.82	127.00
1	A	1408	A	O5'-C5'-C4'	-6.78	98.81	111.70
1	A	1142	G	C4-N9-C1'	-6.78	117.68	126.50
1	A	99	C	OP2-P-O3'	6.78	120.11	105.20
1	A	99	C	C2-N3-C4	6.78	123.29	119.90
1	A	243	A	C3'-C2'-C1'	-6.78	96.08	101.50
1	A	268	U	C6-N1-C2	-6.78	116.93	121.00
1	A	646	G	C5'-C4'-C3'	-6.78	105.15	116.00
1	A	1101	A	C5-C6-N6	-6.78	118.28	123.70
1	A	242	G	P-O3'-C3'	6.78	127.83	119.70
1	A	270	A	C8-N9-C1'	6.78	139.90	127.70
1	A	584	G	C5-C6-N1	-6.78	108.11	111.50
1	A	1385	G	P-O3'-C3'	-6.78	111.57	119.70
1	A	46	G	N7-C8-N9	6.78	116.49	113.10
1	A	941	G	C5-C6-O6	-6.78	124.53	128.60
1	A	1018	G	P-O3'-C3'	-6.78	111.57	119.70
1	A	1433	A	C8-N9-C4	-6.78	103.09	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1272	G	P-O3'-C3'	-6.77	111.57	119.70
1	A	69	G	P-O5'-C5'	-6.77	110.06	120.90
1	A	168	G	C2'-C3'-O3'	6.77	124.54	113.70
1	A	1162	C	C5-C4-N4	-6.77	115.46	120.20
1	A	1500	A	C5-C6-N6	-6.77	118.28	123.70
1	A	636	U	P-O5'-C5'	-6.77	110.07	120.90
1	A	297	G	P-O5'-C5'	-6.77	110.07	120.90
1	A	482	A	C6-N1-C2	-6.77	114.54	118.60
1	A	600	A	O4'-C4'-C3'	-6.77	97.23	104.00
1	A	621	A	C3'-C2'-C1'	-6.77	96.08	101.50
1	A	1182	G	N9-C4-C5	6.77	108.11	105.40
1	A	1458	G	N3-C2-N2	6.77	124.64	119.90
1	A	1487	G	C5-C6-O6	-6.77	124.54	128.60
3	C	68	HIS	CA-CB-CG	-6.77	102.09	113.60
1	A	46	G	OP2-P-O3'	6.77	120.09	105.20
1	A	497	G	O4'-C1'-N9	6.77	113.61	108.20
1	A	764	C	C6-N1-C1'	6.77	128.92	120.80
1	A	1362	A	C2'-C3'-O3'	6.77	124.53	113.70
3	C	41	TYR	CB-CG-CD1	6.77	125.06	121.00
1	A	168	G	O3'-P-O5'	-6.77	91.14	104.00
1	A	480	U	N1-C1'-C2'	-6.77	104.56	112.00
1	A	1169	A	O4'-C1'-N9	6.77	113.61	108.20
1	A	1265	C	O3'-P-O5'	-6.77	91.14	104.00
1	A	1460	C	P-O5'-C5'	6.77	131.73	120.90
1	A	15	G	P-O3'-C3'	-6.76	111.58	119.70
1	A	638	U	C2-N1-C1'	-6.76	109.58	117.70
1	A	1090	U	N1-C2-N3	6.76	118.96	114.90
12	L	11	ARG	N-CA-C	6.76	129.26	111.00
1	A	877	G	C5-C6-O6	-6.76	124.54	128.60
1	A	1284	C	N3-C4-N4	6.76	122.73	118.00
1	A	1293	C	N3-C4-C5	-6.76	119.19	121.90
1	A	1322	C	C6-N1-C2	-6.76	117.60	120.30
1	A	283	U	C5-C6-N1	6.76	126.08	122.70
1	A	652	U	N3-C2-O2	-6.76	117.47	122.20
1	A	718	A	C5'-C4'-C3'	6.76	126.82	116.00
1	A	896	C	N3-C4-C5	-6.76	119.20	121.90
1	A	1488	G	O5'-C5'-C4'	-6.76	98.86	111.70
1	A	563	A	C4'-C3'-C2'	6.76	109.36	102.60
1	A	626	G	C8-N9-C1'	6.76	135.78	127.00
1	A	1007	U	N1-C1'-C2'	6.76	122.78	114.00
1	A	788	U	C5-C6-N1	-6.75	119.32	122.70
1	A	143	A	C5-C6-N6	-6.75	118.30	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	256	U	C5'-C4'-C3'	-6.75	105.19	116.00
1	A	783	C	P-O3'-C3'	-6.75	111.60	119.70
1	A	1223	C	N3-C4-C5	-6.75	119.20	121.90
1	A	87	C	N1-C2-N3	6.75	123.93	119.20
1	A	102	G	C5'-C4'-C3'	-6.75	105.20	116.00
1	A	876	C	N1-C1'-C2'	-6.75	104.57	112.00
1	A	951	G	N1-C2-N2	-6.75	110.12	116.20
1	A	1240	U	O4'-C1'-N1	6.75	113.60	108.20
1	A	1515	G	C3'-C2'-C1'	-6.75	96.10	101.50
1	A	199	A	O4'-C4'-C3'	-6.75	97.25	104.00
1	A	640	A	C1'-O4'-C4'	-6.75	104.50	109.90
1	A	1245	C	C6-N1-C2	-6.75	117.60	120.30
1	A	1334	G	N9-C1'-C2'	-6.75	104.58	112.00
1	A	806	C	P-O3'-C3'	-6.75	111.60	119.70
1	A	1255	G	C3'-C2'-C1'	-6.75	96.10	101.50
1	A	1261	A	O4'-C4'-C3'	-6.75	97.25	104.00
1	A	1442	G	C1'-O4'-C4'	-6.75	104.50	109.90
1	A	960	U	O5'-C5'-C4'	-6.75	98.88	111.70
1	A	1268	G	C4-C5-C6	6.75	122.85	118.80
1	A	1307	U	C6-N1-C2	-6.75	116.95	121.00
1	A	279	A	O4'-C1'-N9	-6.75	102.80	108.20
1	A	756	C	O4'-C4'-C3'	-6.75	97.25	104.00
1	A	1039	G	N3-C2-N2	6.75	124.62	119.90
1	A	1150	A	C4-C5-C6	6.75	120.37	117.00
1	A	43	C	C5'-C4'-O4'	6.74	117.19	109.10
1	A	430	A	O3'-P-O5'	-6.74	91.19	104.00
1	A	478	A	C2-N3-C4	6.74	113.97	110.60
1	A	1057	G	O5'-P-OP2	6.74	118.79	110.70
1	A	1496	C	C5-C6-N1	6.74	124.37	121.00
1	A	23	C	C5-C6-N1	6.74	124.37	121.00
1	A	350	G	N3-C4-N9	-6.74	121.95	126.00
1	A	766	A	O4'-C4'-C3'	-6.74	97.26	104.00
1	A	97	G	C4-N9-C1'	6.74	135.26	126.50
1	A	235	C	N3-C4-N4	6.74	122.72	118.00
1	A	727	G	C5-C6-O6	-6.74	124.56	128.60
1	A	861	G	N1-C2-N3	-6.74	119.86	123.90
1	A	880	C	C5-C4-N4	-6.74	115.48	120.20
1	A	987	G	C3'-C2'-C1'	-6.74	96.11	101.50
1	A	1118	U	N3-C4-C5	-6.74	110.56	114.60
1	A	1323	G	C5'-C4'-O4'	-6.74	101.01	109.10
1	A	1326	U	P-O3'-C3'	-6.74	111.61	119.70
22	W	290	PHE	CB-CG-CD1	6.74	125.52	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	823	C	C4'-C3'-C2'	-6.74	95.86	102.60
1	A	871	U	C6-N1-C2	-6.74	116.96	121.00
1	A	878	A	O4'-C1'-N9	6.74	113.59	108.20
1	A	1256	A	O4'-C4'-C3'	-6.74	97.26	104.00
1	A	21	G	C3'-C2'-C1'	-6.74	96.11	101.50
1	A	737	C	P-O5'-C5'	6.74	131.68	120.90
1	A	987	G	C5-C6-O6	-6.74	124.56	128.60
1	A	1136	C	P-O3'-C3'	6.74	127.78	119.70
1	A	1187	G	C5'-C4'-O4'	6.74	117.19	109.10
8	H	111	THR	N-CA-CB	6.74	123.10	110.30
15	O	34	GLN	N-CA-CB	-6.74	98.47	110.60
1	A	236	A	O4'-C1'-N9	6.74	113.59	108.20
1	A	1246	A	C4-C5-C6	6.74	120.37	117.00
1	A	1201	A	C4-C5-C6	6.73	120.37	117.00
1	A	118	U	C2-N1-C1'	6.73	125.78	117.70
1	A	264	C	C5-C4-N4	-6.73	115.49	120.20
1	A	712	A	C6-C5-N7	-6.73	127.59	132.30
1	A	715	A	C4-C5-C6	6.73	120.37	117.00
1	A	1034	G	C5-C6-N1	-6.73	108.13	111.50
1	A	1427	C	N3-C4-C5	-6.73	119.21	121.90
1	A	1531	A	C5-C6-N6	-6.73	118.31	123.70
5	E	94	PHE	CB-CG-CD1	-6.73	116.09	120.80
1	A	254	G	C4-C5-C6	6.73	122.84	118.80
1	A	791	G	C5'-C4'-C3'	-6.73	105.23	116.00
1	A	998	C	C2-N3-C4	-6.73	116.53	119.90
10	J	54	SER	N-CA-CB	6.73	120.60	110.50
1	A	792	A	C5-N7-C8	6.73	107.26	103.90
1	A	411	A	N9-C1'-C2'	-6.73	104.60	112.00
1	A	492	C	O3'-P-O5'	-6.73	91.22	104.00
1	A	770	C	O4'-C4'-C3'	-6.73	97.27	104.00
1	A	1209	C	C5'-C4'-C3'	-6.73	105.23	116.00
14	N	4	SER	N-CA-C	6.73	129.16	111.00
1	A	73	C	C4'-C3'-C2'	6.72	109.33	102.60
1	A	279	A	N7-C8-N9	-6.72	110.44	113.80
1	A	340	U	C3'-C2'-C1'	-6.72	96.12	101.50
1	A	1044	A	N1-C6-N6	6.72	122.64	118.60
5	E	47	PHE	CB-CG-CD1	-6.72	116.09	120.80
1	A	50	A	C5-C6-N6	-6.72	118.32	123.70
1	A	278	G	O4'-C1'-C2'	6.72	113.65	107.60
1	A	1334	G	C4-N9-C1'	-6.72	117.76	126.50
1	A	1408	A	N1-C6-N6	6.72	122.63	118.60
1	A	396	C	N3-C4-N4	6.72	122.70	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	512	U	C5'-C4'-C3'	-6.72	105.25	116.00
1	A	375	U	O4'-C1'-N1	6.72	113.58	108.20
1	A	379	C	N3-C4-C5	-6.72	119.21	121.90
1	A	531	U	C1'-O4'-C4'	-6.72	104.52	109.90
1	A	635	A	C5-N7-C8	6.72	107.26	103.90
1	A	1133	G	O3'-P-O5'	-6.72	91.23	104.00
1	A	1239	A	O5'-C5'-C4'	-6.72	98.93	111.70
1	A	1251	A	C5-C6-N1	-6.72	114.34	117.70
1	A	1340	A	C6-C5-N7	-6.72	127.60	132.30
22	W	78	ARG	NE-CZ-NH1	6.72	123.66	120.30
1	A	1304	G	P-O3'-C3'	-6.72	111.64	119.70
1	A	1480	A	C6-C5-N7	-6.72	127.60	132.30
1	A	205	A	O5'-C5'-C4'	-6.72	98.94	111.70
1	A	383	A	C5'-C4'-C3'	-6.72	105.25	116.00
1	A	319	G	N1-C2-N2	-6.71	110.16	116.20
1	A	442	G	C5-C6-O6	-6.71	124.57	128.60
1	A	446	G	C5'-C4'-C3'	-6.71	105.26	116.00
1	A	699	C	O4'-C1'-N1	6.71	113.57	108.20
1	A	1018	G	C3'-C2'-C1'	-6.71	96.13	101.50
1	A	1339	A	C5-C6-N6	-6.71	118.33	123.70
1	A	143	A	P-O5'-C5'	-6.71	110.16	120.90
1	A	149	A	C5-C6-N1	-6.71	114.34	117.70
1	A	928	G	C4'-C3'-C2'	6.71	109.31	102.60
1	A	1318	A	C8-N9-C4	-6.71	103.11	105.80
1	A	8	A	C3'-C2'-C1'	-6.71	96.13	101.50
1	A	66	A	C5-C6-N1	-6.71	114.34	117.70
1	A	278	G	C8-N9-C1'	6.71	135.72	127.00
1	A	284	C	C6-N1-C2	-6.71	117.61	120.30
1	A	369	G	N9-C1'-C2'	-6.71	104.62	112.00
1	A	1496	C	N3-C4-N4	6.71	122.70	118.00
1	A	1077	G	N1-C2-N3	-6.71	119.87	123.90
1	A	1419	G	P-O5'-C5'	6.71	131.64	120.90
1	A	187	G	C5-C6-O6	-6.71	124.58	128.60
1	A	478	A	C5-C6-N6	-6.71	118.33	123.70
1	A	1270	G	C5-C6-O6	-6.71	124.58	128.60
1	A	436	C	N3-C4-C5	-6.71	119.22	121.90
1	A	580	C	P-O3'-C3'	-6.71	111.65	119.70
1	A	819	A	C5-C6-N1	-6.71	114.35	117.70
1	A	844	G	O4'-C1'-N9	6.71	113.57	108.20
1	A	894	G	O5'-C5'-C4'	-6.71	98.96	111.70
1	A	161	A	C5-C6-N1	-6.71	114.35	117.70
1	A	413	G	O4'-C4'-C3'	-6.71	97.30	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	167	A	C5'-C4'-C3'	-6.70	105.28	116.00
1	A	305	G	C5'-C4'-O4'	6.70	117.14	109.10
1	A	434	U	N1-C2-N3	6.70	118.92	114.90
1	A	695	A	N9-C4-C5	-6.70	103.12	105.80
1	A	796	C	N3-C4-N4	6.70	122.69	118.00
1	A	940	C	C6-N1-C1'	6.70	128.84	120.80
1	A	987	G	C8-N9-C1'	6.70	135.71	127.00
1	A	1218	C	C2-N3-C4	6.70	123.25	119.90
1	A	1417	G	O4'-C1'-N9	6.70	113.56	108.20
12	L	13	ARG	NE-CZ-NH2	-6.70	116.95	120.30
21	U	49	ALA	N-CA-C	6.70	129.10	111.00
1	A	865	A	N3-C4-C5	-6.70	122.11	126.80
1	A	1449	C	C6-N1-C2	-6.70	117.62	120.30
1	A	411	A	C5-N7-C8	6.70	107.25	103.90
1	A	767	A	O4'-C1'-N9	6.70	113.56	108.20
1	A	1250	A	O5'-C5'-C4'	-6.70	98.97	111.70
18	R	52	ARG	NE-CZ-NH1	-6.70	116.95	120.30
1	A	816	A	N9-C1'-C2'	6.70	122.71	114.00
1	A	1430	A	C5'-C4'-C3'	-6.70	105.28	116.00
5	E	151	MET	CA-CB-CG	6.70	124.68	113.30
1	A	309	A	C4-C5-C6	6.69	120.35	117.00
1	A	833	G	N1-C6-O6	6.69	123.92	119.90
1	A	1506	U	C1'-O4'-C4'	6.69	115.25	109.90
1	A	62	U	C4'-C3'-C2'	-6.69	95.91	102.60
1	A	183	C	P-O5'-C5'	6.69	131.61	120.90
1	A	1158	C	N1-C1'-C2'	6.69	122.70	114.00
1	A	665	A	C5-C6-N6	-6.69	118.35	123.70
1	A	826	C	C5'-C4'-O4'	6.69	117.13	109.10
1	A	896	C	C2-N1-C1'	-6.69	111.44	118.80
1	A	1014	A	C3'-C2'-C1'	-6.69	96.15	101.50
1	A	1032	G	C5-N7-C8	6.69	107.64	104.30
1	A	1093	A	C8-N9-C4	-6.69	103.12	105.80
1	A	1386	G	C8-N9-C1'	6.69	135.70	127.00
1	A	592	G	C6-C5-N7	-6.69	126.39	130.40
1	A	769	G	N1-C6-O6	6.69	123.91	119.90
1	A	915	A	N9-C1'-C2'	-6.69	104.64	112.00
1	A	1006	G	C6-C5-N7	-6.69	126.39	130.40
1	A	1038	C	N3-C4-C5	-6.69	119.22	121.90
1	A	1269	A	C5-C6-N1	-6.69	114.36	117.70
1	A	129	A	O4'-C1'-C2'	6.69	113.62	107.60
1	A	391	G	N1-C2-N3	-6.69	119.89	123.90
1	A	1081	A	C4-C5-C6	6.69	120.34	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	125	U	C5-C6-N1	6.68	126.04	122.70
1	A	502	A	C4-C5-C6	6.68	120.34	117.00
1	A	808	C	N3-C4-C5	-6.68	119.23	121.90
1	A	1513	A	O4'-C4'-C3'	-6.68	97.32	104.00
1	A	1172	C	O4'-C4'-C3'	-6.68	97.32	104.00
1	A	295	C	C6-N1-C1'	6.68	128.81	120.80
1	A	554	A	N9-C1'-C2'	-6.68	104.65	112.00
1	A	912	C	C2'-C3'-O3'	6.68	124.39	113.70
1	A	998	C	O4'-C1'-N1	6.68	113.54	108.20
1	A	1432	G	C5-C6-O6	-6.68	124.59	128.60
6	F	49	TYR	N-CA-CB	6.68	122.62	110.60
1	A	478	A	C1'-O4'-C4'	-6.68	104.56	109.90
22	W	290	PHE	CB-CG-CD2	-6.68	116.13	120.80
1	A	9	G	N9-C1'-C2'	-6.67	104.66	112.00
1	A	553	A	P-O5'-C5'	6.67	131.58	120.90
1	A	1019	A	O4'-C1'-N9	6.67	113.54	108.20
1	A	1113	C	O4'-C1'-N1	6.67	113.54	108.20
1	A	1358	U	O5'-C5'-C4'	-6.67	99.02	111.70
1	A	1470	U	C5'-C4'-C3'	6.67	126.68	116.00
1	A	1214	C	P-O3'-C3'	-6.67	111.69	119.70
10	J	65	TYR	CB-CG-CD1	6.67	125.00	121.00
17	Q	47	ASP	CB-CG-OD1	-6.67	112.29	118.30
1	A	65	A	C3'-C2'-C1'	6.67	106.84	101.50
1	A	321	A	N3-C4-C5	-6.67	122.13	126.80
1	A	904	U	P-O3'-C3'	-6.67	111.69	119.70
1	A	971	G	C5'-C4'-C3'	-6.67	105.33	116.00
1	A	181	A	C8-N9-C1'	6.67	139.71	127.70
1	A	99	C	C3'-C2'-C1'	-6.67	96.17	101.50
1	A	876	C	C1'-O4'-C4'	-6.67	104.57	109.90
1	A	1055	A	N9-C1'-C2'	-6.67	104.67	112.00
1	A	1460	C	N3-C4-C5	-6.67	119.23	121.90
1	A	111	G	C5-C6-O6	-6.67	124.60	128.60
1	A	293	G	C3'-C2'-C1'	-6.67	96.17	101.50
1	A	455	G	P-O5'-C5'	6.67	131.56	120.90
1	A	909	A	C5'-C4'-C3'	-6.67	105.33	116.00
1	A	1028	C	O3'-P-O5'	-6.67	91.33	104.00
1	A	1167	A	C5-C6-N6	-6.67	118.37	123.70
1	A	1191	A	C4'-C3'-C2'	6.67	109.27	102.60
1	A	295	C	C2-N3-C4	6.67	123.23	119.90
1	A	475	C	C3'-C2'-C1'	-6.67	96.17	101.50
1	A	1167	A	C3'-C2'-C1'	6.67	106.83	101.50
1	A	1463	U	C2'-C3'-O3'	6.67	124.36	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	T	52	GLU	CA-CB-CG	6.67	128.06	113.40
1	A	274	A	C2'-C3'-O3'	6.66	124.36	113.70
1	A	709	U	C1'-O4'-C4'	-6.66	104.57	109.90
1	A	773	G	C5'-C4'-C3'	6.66	126.66	116.00
1	A	808	C	C2-N1-C1'	-6.66	111.47	118.80
1	A	1323	G	O4'-C4'-C3'	-6.66	97.34	104.00
1	A	1391	U	C5'-C4'-O4'	-6.66	101.10	109.10
1	A	1406	U	C2-N1-C1'	6.66	125.69	117.70
1	A	1432	G	C5'-C4'-C3'	6.66	126.66	116.00
1	A	336	A	O4'-C1'-N9	6.66	113.53	108.20
1	A	350	G	N1-C2-N2	6.66	122.20	116.20
1	A	642	A	C5-N7-C8	6.66	107.23	103.90
1	A	960	U	P-O3'-C3'	6.66	127.69	119.70
1	A	1504	G	P-O5'-C5'	-6.66	110.24	120.90
1	A	112	G	N3-C2-N2	6.66	124.56	119.90
1	A	356	A	C5'-C4'-O4'	6.66	117.09	109.10
1	A	1006	G	C5'-C4'-C3'	6.66	126.66	116.00
1	A	1379	G	P-O3'-C3'	-6.66	111.71	119.70
1	A	373	A	C5-C6-N6	-6.66	118.37	123.70
1	A	477	C	O4'-C1'-N1	6.66	113.53	108.20
1	A	648	A	C1'-O4'-C4'	-6.66	104.57	109.90
1	A	737	C	N1-C1'-C2'	-6.66	104.67	112.00
1	A	1290	G	N3-C4-C5	-6.66	125.27	128.60
1	A	275	G	O5'-C5'-C4'	-6.66	99.05	111.70
1	A	341	C	C3'-C2'-C1'	-6.66	96.17	101.50
1	A	117	G	N7-C8-N9	6.66	116.43	113.10
1	A	410	G	C4-N9-C1'	-6.66	117.85	126.50
1	A	766	A	P-O3'-C3'	-6.66	111.71	119.70
1	A	1208	C	C5'-C4'-O4'	6.66	117.09	109.10
1	A	1305	G	C6-N1-C2	-6.66	121.11	125.10
1	A	447	G	O4'-C1'-N9	6.65	113.52	108.20
1	A	260	G	C8-N9-C1'	6.65	135.65	127.00
1	A	360	G	N3-C2-N2	6.65	124.56	119.90
1	A	518	C	O4'-C1'-N1	6.65	113.52	108.20
1	A	854	U	C4'-C3'-C2'	-6.65	95.95	102.60
1	A	1075	U	C5-C6-N1	6.65	126.03	122.70
1	A	113	G	C8-N9-C4	-6.65	103.74	106.40
1	A	524	G	C8-N9-C4	-6.65	103.74	106.40
1	A	1480	A	C5'-C4'-C3'	-6.65	105.36	116.00
15	O	34	GLN	CA-CB-CG	6.65	128.03	113.40
1	A	82	G	N3-C4-N9	-6.65	122.01	126.00
1	A	86	G	C6-N1-C2	6.65	129.09	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	412	A	C5-C6-N6	-6.65	118.38	123.70
1	A	1051	C	O4'-C1'-N1	6.65	113.52	108.20
1	A	426	U	O4'-C1'-N1	6.65	113.52	108.20
1	A	888	G	C6-N1-C2	-6.65	121.11	125.10
1	A	1292	G	P-O3'-C3'	-6.65	111.72	119.70
2	B	131	LYS	N-CA-CB	-6.65	98.63	110.60
1	A	767	A	C4'-C3'-C2'	-6.65	95.95	102.60
1	A	1000	A	C5'-C4'-C3'	-6.64	105.37	116.00
1	A	1461	G	P-O5'-C5'	6.64	131.53	120.90
1	A	503	C	C5-C4-N4	-6.64	115.55	120.20
1	A	1247	U	N3-C2-O2	-6.64	117.55	122.20
3	C	183	TYR	CB-CG-CD1	6.64	124.98	121.00
1	A	113	G	C8-N9-C1'	6.64	135.63	127.00
1	A	1030	U	C6-N1-C1'	-6.64	111.90	121.20
1	A	1076	U	O4'-C1'-N1	6.64	113.51	108.20
1	A	1314	C	N3-C4-C5	-6.64	119.24	121.90
1	A	1142	G	C4'-C3'-C2'	-6.64	95.96	102.60
1	A	199	A	N9-C1'-C2'	-6.64	104.70	112.00
1	A	360	G	C5'-C4'-C3'	-6.64	105.38	116.00
1	A	371	A	O4'-C4'-C3'	-6.64	97.36	104.00
1	A	383	A	C4-N9-C1'	6.64	138.25	126.30
1	A	687	A	C3'-C2'-C1'	-6.64	96.19	101.50
1	A	929	G	N1-C6-O6	6.64	123.88	119.90
1	A	81	A	P-O3'-C3'	-6.63	111.74	119.70
1	A	264	C	C6-N1-C2	-6.63	117.65	120.30
1	A	867	G	N3-C4-C5	-6.63	125.28	128.60
1	A	1057	G	P-O5'-C5'	-6.63	110.28	120.90
1	A	1147	C	C5-C6-N1	6.63	124.32	121.00
1	A	1461	G	C3'-C2'-C1'	-6.63	96.19	101.50
1	A	332	G	P-O5'-C5'	6.63	131.51	120.90
1	A	895	G	N1-C2-N3	-6.63	119.92	123.90
1	A	1273	C	C1'-O4'-C4'	-6.63	104.59	109.90
12	L	30	ARG	N-CA-CB	6.63	122.54	110.60
1	A	627	G	O3'-P-O5'	6.63	116.60	104.00
1	A	53	A	N9-C1'-C2'	-6.63	104.71	112.00
1	A	510	A	C6-C5-N7	-6.63	127.66	132.30
1	A	561	U	O4'-C1'-N1	6.63	113.50	108.20
1	A	867	G	C2-N3-C4	6.63	115.22	111.90
1	A	191	G	O4'-C1'-N9	6.63	113.50	108.20
1	A	198	G	N9-C1'-C2'	-6.63	104.71	112.00
1	A	796	C	C6-N1-C2	-6.63	117.65	120.30
1	A	1258	G	C6-C5-N7	-6.63	126.42	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	282	A	C8-N9-C4	-6.62	103.15	105.80
1	A	602	A	C4-C5-C6	6.62	120.31	117.00
1	A	719	C	C5-C6-N1	6.62	124.31	121.00
1	A	1141	C	O3'-P-O5'	-6.62	91.42	104.00
1	A	91	U	C2-N1-C1'	6.62	125.65	117.70
1	A	410	G	O3'-P-O5'	-6.62	91.42	104.00
1	A	549	C	N3-C4-C5	-6.62	119.25	121.90
1	A	888	G	C5-C6-O6	-6.62	124.63	128.60
1	A	1259	C	C3'-C2'-C1'	-6.62	96.20	101.50
1	A	1488	G	C2'-C3'-O3'	6.62	124.29	113.70
1	A	513	C	C6-N1-C2	-6.62	117.65	120.30
1	A	186	C	C4'-C3'-C2'	-6.62	95.98	102.60
1	A	321	A	C4'-C3'-C2'	-6.62	95.98	102.60
1	A	763	G	N7-C8-N9	6.62	116.41	113.10
1	A	581	G	C6-C5-N7	-6.62	126.43	130.40
1	A	599	C	N1-C2-O2	6.62	122.87	118.90
1	A	781	A	C5-C6-N6	-6.62	118.41	123.70
1	A	686	U	N3-C4-O4	-6.62	114.77	119.40
1	A	762	U	C6-N1-C1'	6.62	130.46	121.20
1	A	948	C	O4'-C1'-N1	6.62	113.49	108.20
1	A	1027	C	C2-N3-C4	6.62	123.21	119.90
1	A	1319	A	N1-C6-N6	6.62	122.57	118.60
1	A	118	U	O4'-C1'-C2'	-6.61	99.19	105.80
1	A	501	C	P-O3'-C3'	-6.61	111.76	119.70
1	A	880	C	C6-N1-C1'	6.61	128.74	120.80
1	A	685	G	C8-N9-C1'	6.61	135.60	127.00
1	A	1397	C	N3-C4-C5	-6.61	119.25	121.90
1	A	69	G	C4-C5-C6	6.61	122.77	118.80
1	A	126	G	C3'-C2'-C1'	6.61	106.79	101.50
1	A	817	C	O4'-C1'-N1	6.61	113.49	108.20
1	A	1492	A	N9-C4-C5	6.61	108.44	105.80
1	A	1264	U	C1'-O4'-C4'	-6.61	104.61	109.90
1	A	631	C	C6-N1-C1'	-6.61	112.87	120.80
1	A	1236	A	C3'-C2'-C1'	6.61	106.79	101.50
1	A	1363	A	C4-C5-C6	6.61	120.30	117.00
1	A	1415	G	C5'-C4'-C3'	6.61	126.57	116.00
5	E	77	ASN	N-CA-CB	6.61	122.49	110.60
1	A	303	A	C8-N9-C4	-6.61	103.16	105.80
1	A	361	G	C5-C6-O6	-6.61	124.64	128.60
1	A	950	U	N3-C4-O4	6.61	124.02	119.40
1	A	954	G	C5'-C4'-O4'	6.61	117.03	109.10
1	A	1125	U	C5'-C4'-C3'	-6.61	105.43	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1205	U	N1-C2-N3	-6.61	110.94	114.90
1	A	85	U	C6-N1-C1'	-6.60	111.95	121.20
1	A	649	A	C2'-C3'-O3'	6.60	124.27	113.70
1	A	1110	A	C5'-C4'-C3'	6.60	126.57	116.00
1	A	546	A	C2-N3-C4	-6.60	107.30	110.60
1	A	599	C	C3'-C2'-C1'	-6.60	96.22	101.50
1	A	1009	U	C3'-C2'-C1'	-6.60	96.22	101.50
1	A	1148	U	C5'-C4'-C3'	-6.60	105.44	116.00
1	A	1310	G	C5'-C4'-C3'	-6.60	105.44	116.00
1	A	524	G	C5-C6-O6	-6.60	124.64	128.60
1	A	797	C	C4'-C3'-C2'	6.60	109.20	102.60
1	A	860	A	C5'-C4'-C3'	-6.60	105.44	116.00
1	A	1318	A	C4-C5-C6	6.60	120.30	117.00
1	A	243	A	O4'-C1'-N9	6.60	113.48	108.20
1	A	1230	C	C5'-C4'-C3'	-6.60	105.44	116.00
1	A	1283	U	C2-N1-C1'	-6.60	109.78	117.70
13	M	5	GLY	C-N-CA	6.60	138.19	121.70
1	A	349	A	N9-C4-C5	6.60	108.44	105.80
1	A	657	U	C2-N1-C1'	-6.59	109.79	117.70
1	A	1274	A	C4-N9-C1'	-6.59	114.43	126.30
3	C	19	SER	N-CA-CB	6.59	120.39	110.50
4	D	140	ASP	N-CA-C	-6.59	93.19	111.00
1	A	299	G	C5-C6-O6	-6.59	124.64	128.60
1	A	482	A	N3-C4-C5	-6.59	122.19	126.80
1	A	612	C	C5-C4-N4	-6.59	115.59	120.20
1	A	1306	A	C8-N9-C4	-6.59	103.16	105.80
1	A	191	G	N1-C2-N3	-6.59	119.95	123.90
1	A	535	A	C5'-C4'-O4'	6.59	117.01	109.10
1	A	556	C	C2'-C3'-O3'	6.59	124.24	113.70
1	A	879	C	C5'-C4'-O4'	6.59	117.01	109.10
1	A	1505	G	C5'-C4'-C3'	-6.59	105.45	116.00
1	A	885	G	N3-C2-N2	6.59	124.51	119.90
1	A	1344	C	N3-C4-N4	6.59	122.61	118.00
1	A	1339	A	C5-C6-N1	-6.58	114.41	117.70
1	A	1403	C	N3-C4-N4	6.58	122.61	118.00
1	A	958	A	C5-C6-N6	-6.58	118.43	123.70
1	A	987	G	P-O3'-C3'	-6.58	111.80	119.70
1	A	1236	A	C6-N1-C2	-6.58	114.65	118.60
22	W	135	GLU	N-CA-C	-6.58	93.22	111.00
1	A	158	G	N1-C6-O6	6.58	123.85	119.90
1	A	374	A	N9-C4-C5	6.58	108.43	105.80
1	A	644	U	P-O3'-C3'	-6.58	111.80	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1060	U	P-O3'-C3'	-6.58	111.80	119.70
1	A	1111	A	C4'-C3'-C2'	-6.58	96.02	102.60
1	A	617	G	C4-N9-C1'	-6.58	117.95	126.50
1	A	621	A	C4-C5-C6	6.58	120.29	117.00
1	A	1145	A	C4'-C3'-C2'	-6.58	96.02	102.60
1	A	1315	U	C2-N1-C1'	-6.58	109.81	117.70
6	F	78	PHE	CB-CA-C	-6.58	97.24	110.40
1	A	643	C	C3'-C2'-C1'	-6.58	96.24	101.50
1	A	941	G	N3-C2-N2	6.58	124.50	119.90
1	A	981	U	N1-C2-O2	-6.58	118.20	122.80
1	A	1137	C	C5'-C4'-O4'	6.58	116.99	109.10
1	A	1419	G	C5'-C4'-O4'	6.58	116.99	109.10
1	A	1427	C	C3'-C2'-C1'	-6.58	96.24	101.50
1	A	1455	G	C6-C5-N7	-6.58	126.45	130.40
2	B	198	VAL	N-CA-C	-6.58	93.24	111.00
11	K	51	PHE	CB-CG-CD2	-6.58	116.20	120.80
1	A	58	C	N3-C4-N4	6.57	122.60	118.00
1	A	102	G	C5'-C4'-O4'	6.57	116.99	109.10
1	A	476	U	P-O5'-C5'	6.57	131.42	120.90
1	A	1002	G	C8-N9-C4	-6.57	103.77	106.40
1	A	1268	G	OP2-P-O3'	6.57	119.66	105.20
1	A	149	A	N1-C6-N6	6.57	122.54	118.60
1	A	308	C	N3-C4-N4	6.57	122.60	118.00
1	A	372	C	N3-C4-N4	6.57	122.60	118.00
1	A	462	G	N1-C2-N3	-6.57	119.96	123.90
1	A	1460	C	C3'-C2'-C1'	-6.57	96.24	101.50
1	A	654	G	C4-C5-C6	6.57	122.74	118.80
1	A	1033	G	C6-C5-N7	-6.57	126.46	130.40
1	A	1499	A	O4'-C1'-N9	6.57	113.46	108.20
1	A	1075	U	C4'-C3'-C2'	-6.57	96.03	102.60
1	A	1129	C	C2-N1-C1'	-6.57	111.57	118.80
1	A	1238	A	C5-C6-N6	-6.57	118.44	123.70
1	A	218	U	P-O3'-C3'	-6.57	111.82	119.70
1	A	600	A	C4-C5-C6	6.57	120.28	117.00
1	A	678	U	C3'-C2'-C1'	-6.57	96.25	101.50
1	A	990	C	C6-N1-C2	-6.57	117.67	120.30
1	A	1096	C	P-O3'-C3'	-6.57	111.82	119.70
1	A	1120	C	P-O3'-C3'	-6.57	111.82	119.70
1	A	1508	A	C3'-C2'-C1'	-6.57	96.25	101.50
22	W	293	TYR	CB-CG-CD2	-6.57	117.06	121.00
1	A	410	G	C8-N9-C1'	6.57	135.53	127.00
1	A	734	G	O4'-C1'-N9	6.57	113.45	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	741	G	C5-C6-O6	-6.57	124.66	128.60
1	A	800	G	N1-C2-N3	-6.57	119.96	123.90
1	A	1148	U	C4'-C3'-C2'	-6.57	96.03	102.60
1	A	463	U	N3-C4-C5	-6.56	110.66	114.60
1	A	731	G	O3'-P-O5'	6.56	116.47	104.00
9	I	122	ARG	N-CA-C	-6.56	93.28	111.00
1	A	304	U	C5'-C4'-C3'	-6.56	105.50	116.00
1	A	341	C	C6-N1-C1'	6.56	128.68	120.80
1	A	428	G	C5'-C4'-O4'	-6.56	101.22	109.10
1	A	449	G	N7-C8-N9	6.56	116.38	113.10
1	A	694	A	C5-C6-N6	-6.56	118.45	123.70
1	A	705	G	C6-C5-N7	-6.56	126.46	130.40
1	A	794	A	N9-C1'-C2'	-6.56	104.78	112.00
1	A	27	G	C8-N9-C4	-6.56	103.78	106.40
1	A	267	C	C6-N1-C2	-6.56	117.68	120.30
1	A	790	A	P-O3'-C3'	-6.56	111.83	119.70
1	A	1043	G	C5'-C4'-C3'	-6.56	105.50	116.00
1	A	288	A	N1-C6-N6	6.56	122.53	118.60
1	A	590	U	C3'-C2'-C1'	-6.56	96.25	101.50
1	A	1085	U	C5'-C4'-C3'	-6.56	105.51	116.00
1	A	93	U	N1-C2-N3	6.55	118.83	114.90
1	A	690	G	C3'-C2'-C1'	-6.55	96.26	101.50
1	A	1173	U	C5'-C4'-C3'	-6.55	105.51	116.00
1	A	1242	G	C3'-C2'-C1'	-6.55	96.26	101.50
1	A	1389	C	N3-C4-C5	-6.55	119.28	121.90
1	A	499	A	C5'-C4'-C3'	-6.55	105.52	116.00
1	A	771	G	C4-C5-C6	6.55	122.73	118.80
1	A	1097	C	C6-N1-C2	-6.55	117.68	120.30
1	A	1158	C	O4'-C4'-C3'	6.55	111.34	106.10
1	A	1367	C	C2-N1-C1'	-6.55	111.59	118.80
1	A	543	U	C2-N1-C1'	-6.55	109.84	117.70
1	A	1127	G	C5-C6-N1	-6.55	108.22	111.50
1	A	649	A	C6-C5-N7	-6.55	127.72	132.30
1	A	700	G	C8-N9-C4	-6.55	103.78	106.40
1	A	714	G	O5'-C5'-C4'	-6.55	99.26	111.70
1	A	348	G	P-O3'-C3'	6.55	127.56	119.70
1	A	601	G	N1-C2-N3	-6.55	119.97	123.90
1	A	947	G	C5'-C4'-O4'	6.55	116.96	109.10
1	A	992	U	N3-C4-O4	6.55	123.98	119.40
1	A	1454	G	P-O3'-C3'	6.55	127.56	119.70
1	A	1528	U	O4'-C1'-N1	6.55	113.44	108.20
1	A	140	U	C3'-C2'-C1'	-6.55	96.26	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	599	C	C6-N1-C2	-6.55	117.68	120.30
1	A	683	G	C8-N9-C4	-6.55	103.78	106.40
1	A	1018	G	O4'-C1'-N9	6.55	113.44	108.20
7	G	77	ARG	C-N-CA	6.55	138.07	121.70
1	A	25	C	C3'-C2'-C1'	-6.54	96.26	101.50
1	A	329	A	N7-C8-N9	6.54	117.07	113.80
1	A	220	G	N3-C2-N2	6.54	124.48	119.90
10	J	99	GLN	N-CA-CB	6.54	122.38	110.60
1	A	25	C	C5'-C4'-C3'	-6.54	105.53	116.00
1	A	711	G	P-O5'-C5'	-6.54	110.44	120.90
1	A	1422	G	N3-C2-N2	6.54	124.48	119.90
1	A	1428	A	C3'-C2'-C1'	-6.54	96.27	101.50
1	A	824	G	C6-C5-N7	-6.54	126.48	130.40
1	A	1217	C	C3'-C2'-C1'	-6.54	96.27	101.50
1	A	448	A	C4-C5-C6	6.54	120.27	117.00
1	A	859	G	C6-C5-N7	-6.54	126.48	130.40
1	A	1225	A	C4-C5-C6	6.54	120.27	117.00
1	A	1515	G	C6-C5-N7	-6.54	126.48	130.40
1	A	425	G	C8-N9-C4	-6.54	103.78	106.40
1	A	1309	G	N1-C6-O6	6.54	123.82	119.90
1	A	71	A	C6-C5-N7	-6.54	127.73	132.30
1	A	645	G	C3'-C2'-C1'	-6.54	96.27	101.50
1	A	698	G	C5-C6-O6	-6.54	124.68	128.60
1	A	1206	G	P-O3'-C3'	-6.54	111.86	119.70
1	A	1491	G	C4'-C3'-C2'	6.54	109.14	102.60
1	A	25	C	C1'-O4'-C4'	-6.53	104.67	109.90
1	A	69	G	C8-N9-C1'	6.53	135.49	127.00
1	A	690	G	C4-N9-C1'	-6.53	118.00	126.50
1	A	999	C	C5-C6-N1	6.53	124.27	121.00
1	A	1095	U	C2-N3-C4	-6.53	123.08	127.00
1	A	1307	U	O4'-C1'-N1	6.53	113.43	108.20
1	A	1459	G	C6-C5-N7	-6.53	126.48	130.40
1	A	65	A	O4'-C1'-C2'	-6.53	99.27	105.80
12	L	94	TYR	CB-CG-CD1	6.53	124.92	121.00
1	A	117	G	C5'-C4'-O4'	6.53	116.94	109.10
1	A	164	G	O3'-P-O5'	-6.53	91.59	104.00
1	A	226	G	C6-C5-N7	-6.53	126.48	130.40
1	A	1420	U	C5-C6-N1	6.53	125.97	122.70
1	A	418	C	C3'-C2'-C1'	6.53	106.72	101.50
1	A	582	C	C5-C6-N1	6.53	124.27	121.00
6	F	80	PHE	CB-CG-CD1	6.53	125.37	120.80
1	A	189	A	C5-C6-N6	-6.53	118.48	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	543	U	N1-C1'-C2'	-6.53	104.82	112.00
1	A	1139	G	C3'-C2'-C1'	6.53	106.72	101.50
13	M	111	PRO	C-N-CA	6.53	138.02	121.70
1	A	81	A	C3'-C2'-C1'	-6.53	96.28	101.50
1	A	105	G	C1'-O4'-C4'	-6.53	104.68	109.90
1	A	495	A	C5'-C4'-C3'	-6.53	105.56	116.00
1	A	1379	G	C2'-C3'-O3'	6.53	124.14	113.70
1	A	315	A	C5-C6-N6	-6.52	118.48	123.70
1	A	1306	A	C4-N9-C1'	6.52	138.04	126.30
1	A	80	A	C6-C5-N7	-6.52	127.73	132.30
1	A	541	G	O4'-C1'-N9	6.52	113.42	108.20
2	B	209	VAL	CA-CB-CG2	-6.52	101.12	110.90
1	A	824	G	C5-C6-O6	-6.52	124.69	128.60
1	A	402	G	C3'-C2'-C1'	-6.52	96.28	101.50
1	A	428	G	C8-N9-C4	-6.52	103.79	106.40
1	A	861	G	C8-N9-C1'	6.52	135.47	127.00
10	J	72	ARG	NE-CZ-NH2	-6.52	117.04	120.30
15	O	22	GLY	N-CA-C	-6.52	96.80	113.10
1	A	348	G	C5'-C4'-C3'	-6.52	105.57	116.00
1	A	357	G	C5'-C4'-C3'	-6.52	105.57	116.00
1	A	489	C	O4'-C1'-N1	6.52	113.41	108.20
1	A	696	A	C5'-C4'-C3'	-6.52	105.57	116.00
1	A	730	G	C5'-C4'-O4'	6.52	116.92	109.10
1	A	1395	C	N3-C4-N4	6.52	122.56	118.00
4	D	12	ARG	NE-CZ-NH1	6.52	123.56	120.30
1	A	1181	G	N1-C2-N2	-6.51	110.34	116.20
1	A	1199	U	C2-N1-C1'	-6.51	109.88	117.70
1	A	105	G	N1-C2-N2	-6.51	110.34	116.20
1	A	89	U	O4'-C1'-N1	6.51	113.41	108.20
1	A	138	G	P-O3'-C3'	-6.51	111.89	119.70
1	A	213	G	N1-C6-O6	6.51	123.81	119.90
1	A	374	A	N9-C1'-C2'	-6.51	104.84	112.00
1	A	634	C	C5-C4-N4	-6.51	115.64	120.20
1	A	696	A	C4-N9-C1'	6.51	138.02	126.30
1	A	704	A	C5'-C4'-C3'	-6.51	105.58	116.00
1	A	868	C	P-O3'-C3'	-6.51	111.89	119.70
1	A	954	G	C5-C6-O6	-6.51	124.69	128.60
1	A	1048	G	C1'-O4'-C4'	-6.51	104.69	109.90
1	A	67	C	C4'-C3'-C2'	-6.51	96.09	102.60
1	A	234	C	N3-C4-N4	6.51	122.56	118.00
4	D	147	LYS	N-CA-CB	6.51	122.32	110.60
1	A	52	C	C5'-C4'-C3'	-6.51	105.59	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	180	U	O3'-P-O5'	-6.51	91.64	104.00
1	A	705	G	N9-C1'-C2'	-6.51	104.84	112.00
1	A	750	C	C3'-C2'-C1'	-6.51	96.29	101.50
15	O	68	TYR	CB-CG-CD2	6.51	124.90	121.00
1	A	207	C	C5-C6-N1	6.50	124.25	121.00
1	A	26	A	N9-C1'-C2'	-6.50	104.85	112.00
1	A	121	U	C5'-C4'-O4'	6.50	116.90	109.10
1	A	406	G	N9-C1'-C2'	-6.50	104.85	112.00
1	A	627	G	C4-C5-C6	6.50	122.70	118.80
1	A	1064	G	C5'-C4'-O4'	6.50	116.90	109.10
1	A	1350	A	O5'-P-OP1	6.50	118.50	110.70
10	J	71	LEU	N-CA-CB	6.50	123.41	110.40
1	A	496	A	P-O5'-C5'	6.50	131.30	120.90
1	A	522	C	N3-C4-C5	-6.50	119.30	121.90
1	A	547	A	O4'-C1'-C2'	-6.50	99.30	105.80
1	A	576	C	C6-N1-C2	-6.50	117.70	120.30
1	A	593	U	C1'-O4'-C4'	-6.50	104.70	109.90
1	A	939	G	P-O5'-C5'	-6.50	110.50	120.90
1	A	1265	C	C3'-C2'-C1'	-6.50	96.30	101.50
1	A	299	G	C4-N9-C1'	-6.50	118.05	126.50
1	A	439	U	P-O3'-C3'	-6.50	111.90	119.70
1	A	544	G	N1-C6-O6	6.50	123.80	119.90
1	A	769	G	P-O3'-C3'	-6.50	111.90	119.70
1	A	424	G	C8-N9-C1'	6.50	135.45	127.00
1	A	573	A	C5-C6-N1	-6.50	114.45	117.70
1	A	1112	C	N3-C4-N4	6.50	122.55	118.00
1	A	1250	A	C5-C6-N1	-6.50	114.45	117.70
1	A	1347	G	O4'-C1'-N9	6.50	113.40	108.20
1	A	1413	A	C4-C5-C6	6.50	120.25	117.00
1	A	238	A	C6-N1-C2	-6.50	114.70	118.60
1	A	324	G	P-O5'-C5'	6.50	131.29	120.90
1	A	176	C	C3'-C2'-C1'	-6.49	96.31	101.50
1	A	1160	G	N3-C2-N2	6.49	124.44	119.90
1	A	1315	U	C5-C4-O4	6.49	129.80	125.90
1	A	190	A	C8-N9-C1'	-6.49	116.02	127.70
1	A	654	G	N1-C2-N2	-6.49	110.36	116.20
1	A	754	C	C5'-C4'-C3'	-6.49	105.61	116.00
1	A	908	A	O3'-P-O5'	-6.49	91.67	104.00
1	A	935	A	C4-C5-N7	-6.49	107.45	110.70
18	R	37	LYS	C-N-CA	6.49	137.93	121.70
1	A	323	U	C2-N3-C4	-6.49	123.11	127.00
1	A	943	U	C5-C6-N1	6.49	125.94	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1045	C	N3-C4-C5	-6.49	119.30	121.90
1	A	1054	C	C4'-C3'-C2'	-6.49	96.11	102.60
1	A	1175	G	N3-C2-N2	6.49	124.44	119.90
1	A	1475	G	C3'-C2'-C1'	-6.49	96.31	101.50
1	A	1501	C	C6-N1-C2	-6.49	117.70	120.30
1	A	275	G	N3-C2-N2	6.49	124.44	119.90
1	A	926	G	C5-C6-O6	-6.49	124.71	128.60
1	A	1428	A	C8-N9-C4	-6.49	103.20	105.80
1	A	1438	G	N1-C2-N3	-6.49	120.01	123.90
1	A	850	U	P-O5'-C5'	6.49	131.28	120.90
1	A	795	C	C3'-C2'-C1'	-6.48	96.31	101.50
1	A	1302	C	C2-N3-C4	-6.48	116.66	119.90
1	A	416	G	C3'-C2'-C1'	-6.48	96.31	101.50
1	A	794	A	P-O5'-C5'	-6.48	110.53	120.90
1	A	875	U	O4'-C4'-C3'	-6.48	97.52	104.00
1	A	1079	G	N3-C2-N2	6.48	124.44	119.90
1	A	1332	A	C4-C5-C6	6.48	120.24	117.00
1	A	163	C	O5'-C5'-C4'	-6.48	99.39	111.70
1	A	253	A	C1'-O4'-C4'	-6.48	104.72	109.90
1	A	353	A	O4'-C1'-N9	6.48	113.38	108.20
1	A	485	U	C2-N1-C1'	6.48	125.48	117.70
1	A	145	G	C6-C5-N7	-6.48	126.51	130.40
1	A	379	C	C5-C6-N1	6.48	124.24	121.00
1	A	860	A	P-O5'-C5'	6.48	131.27	120.90
1	A	925	G	C5'-C4'-O4'	6.48	116.88	109.10
1	A	989	U	C5'-C4'-O4'	6.48	116.87	109.10
1	A	1089	G	C8-N9-C1'	6.48	135.42	127.00
1	A	139	A	O4'-C4'-C3'	-6.48	97.52	104.00
1	A	222	C	C3'-C2'-C1'	-6.48	96.32	101.50
1	A	691	G	N7-C8-N9	-6.48	109.86	113.10
1	A	1127	G	C3'-C2'-C1'	-6.48	96.32	101.50
1	A	1408	A	C3'-C2'-C1'	-6.48	96.32	101.50
1	A	467	U	O4'-C4'-C3'	-6.48	97.52	104.00
1	A	221	C	C5'-C4'-C3'	-6.47	105.64	116.00
1	A	425	G	N1-C6-O6	6.47	123.78	119.90
1	A	1201	A	O3'-P-O5'	-6.47	91.70	104.00
1	A	1368	A	C4'-C3'-C2'	-6.47	96.12	102.60
1	A	1422	G	C8-N9-C1'	6.47	135.42	127.00
1	A	1526	G	N3-C2-N2	6.47	124.43	119.90
1	A	263	A	C4-N9-C1'	-6.47	114.65	126.30
1	A	326	G	C5'-C4'-O4'	6.47	116.87	109.10
1	A	722	G	C8-N9-C1'	6.47	135.41	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	784	A	C6-C5-N7	-6.47	127.77	132.30
1	A	1355	G	C3'-C2'-C1'	-6.47	96.32	101.50
1	A	596	A	C5-C6-N6	-6.47	118.52	123.70
1	A	1158	C	N3-C4-C5	-6.47	119.31	121.90
1	A	124	C	O4'-C1'-N1	6.47	113.38	108.20
1	A	779	C	N3-C4-N4	6.47	122.53	118.00
1	A	1113	C	N3-C4-N4	6.47	122.53	118.00
1	A	1175	G	C6-C5-N7	-6.47	126.52	130.40
1	A	1448	C	C5'-C4'-C3'	-6.47	105.65	116.00
1	A	1209	C	C1'-O4'-C4'	-6.47	104.73	109.90
1	A	640	A	C4-C5-C6	6.47	120.23	117.00
1	A	668	G	N3-C2-N2	6.47	124.43	119.90
1	A	1252	A	C6-C5-N7	-6.47	127.77	132.30
1	A	1399	C	O5'-C5'-C4'	-6.47	99.41	111.70
1	A	1453	G	C2-N3-C4	6.47	115.13	111.90
1	A	1524	C	N3-C4-N4	6.47	122.53	118.00
1	A	53	A	O4'-C1'-N9	6.46	113.37	108.20
1	A	176	C	C2-N3-C4	-6.46	116.67	119.90
1	A	761	G	C5'-C4'-C3'	-6.46	105.66	116.00
1	A	1038	C	C5'-C4'-C3'	6.46	126.34	116.00
1	A	1190	G	P-O3'-C3'	6.46	127.46	119.70
1	A	1366	C	N1-C2-O2	6.46	122.78	118.90
1	A	816	A	N1-C6-N6	6.46	122.48	118.60
1	A	966	G	C1'-O4'-C4'	-6.46	104.73	109.90
1	A	1258	G	N7-C8-N9	6.46	116.33	113.10
1	A	435	A	C3'-C2'-C1'	-6.46	96.33	101.50
1	A	510	A	C8-N9-C4	-6.46	103.22	105.80
1	A	772	U	C6-N1-C1'	6.46	130.25	121.20
1	A	1072	G	C5-C6-O6	-6.46	124.72	128.60
1	A	679	C	O4'-C1'-N1	6.46	113.37	108.20
1	A	1132	C	N3-C4-N4	6.46	122.52	118.00
1	A	1398	A	C5'-C4'-O4'	6.46	116.85	109.10
1	A	105	G	N9-C1'-C2'	-6.46	104.90	112.00
1	A	299	G	P-O3'-C3'	-6.46	111.95	119.70
1	A	500	G	C5'-C4'-C3'	-6.46	105.67	116.00
1	A	522	C	C4'-C3'-C2'	6.46	109.06	102.60
1	A	381	C	C4-C5-C6	6.46	120.63	117.40
1	A	677	U	N3-C4-O4	6.46	123.92	119.40
1	A	1315	U	C6-N1-C1'	6.46	130.24	121.20
1	A	172	A	O3'-P-O5'	6.46	116.27	104.00
1	A	248	C	C6-N1-C2	-6.46	117.72	120.30
1	A	568	G	N3-C2-N2	6.46	124.42	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	490	C	O3'-P-O5'	-6.45	91.74	104.00
1	A	593	U	C2-N3-C4	-6.45	123.13	127.00
1	A	1259	C	C6-N1-C1'	6.45	128.54	120.80
1	A	1334	G	C5-N7-C8	-6.45	101.07	104.30
15	O	16	ARG	NE-CZ-NH2	-6.45	117.07	120.30
19	S	79	TYR	CB-CG-CD1	6.45	124.87	121.00
1	A	1262	C	O3'-P-O5'	-6.45	91.74	104.00
1	A	1301	U	C2-N1-C1'	-6.45	109.96	117.70
1	A	1451	U	C6-N1-C2	-6.45	117.13	121.00
1	A	448	A	C5-C6-N1	-6.45	114.47	117.70
1	A	837	U	C3'-C2'-C1'	-6.45	96.34	101.50
1	A	1171	A	C1'-O4'-C4'	-6.45	104.74	109.90
1	A	1181	G	O4'-C1'-N9	-6.45	103.04	108.20
1	A	1427	C	C1'-O4'-C4'	-6.45	104.74	109.90
1	A	1458	G	C4'-C3'-C2'	-6.45	96.15	102.60
1	A	336	A	O3'-P-O5'	-6.45	91.75	104.00
1	A	483	C	N3-C4-N4	6.45	122.51	118.00
1	A	542	G	O3'-P-O5'	6.45	116.25	104.00
1	A	596	A	C4-C5-C6	6.45	120.22	117.00
1	A	715	A	P-O3'-C3'	-6.45	111.96	119.70
1	A	841	C	O4'-C1'-N1	6.45	113.36	108.20
1	A	910	C	N3-C4-N4	6.45	122.51	118.00
1	A	1069	C	C6-N1-C1'	6.45	128.54	120.80
1	A	1428	A	C4-C5-C6	6.45	120.22	117.00
1	A	246	A	C4-N9-C1'	-6.45	114.69	126.30
1	A	703	G	N9-C4-C5	-6.45	102.82	105.40
1	A	595	A	C8-N9-C4	-6.45	103.22	105.80
1	A	658	C	N3-C2-O2	-6.45	117.39	121.90
1	A	1141	C	O5'-P-OP2	-6.45	99.90	105.70
1	A	1299	A	C4-C5-N7	-6.45	107.48	110.70
1	A	1483	A	C5-C6-N6	-6.45	118.54	123.70
1	A	247	G	N9-C1'-C2'	-6.44	104.91	112.00
1	A	1014	A	O3'-P-O5'	-6.44	91.76	104.00
1	A	1517	G	C5-C6-O6	-6.44	124.73	128.60
13	M	106	ARG	O-C-N	-6.44	112.39	122.70
1	A	36	C	O4'-C1'-N1	6.44	113.35	108.20
1	A	141	G	N9-C4-C5	-6.44	102.82	105.40
1	A	308	C	N3-C4-C5	-6.44	119.32	121.90
1	A	663	A	C5-C6-N6	-6.44	118.55	123.70
1	A	880	C	C2-N3-C4	-6.44	116.68	119.90
1	A	996	A	P-O5'-C5'	6.44	131.21	120.90
1	A	1036	A	C6-C5-N7	-6.44	127.79	132.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1062	U	C5'-C4'-C3'	-6.44	105.69	116.00
18	R	63	TYR	CB-CG-CD1	6.44	124.87	121.00
1	A	1305	G	OP2-P-O3'	6.44	119.37	105.20
1	A	1471	U	P-O3'-C3'	-6.44	111.97	119.70
1	A	1481	U	C5'-C4'-O4'	6.44	116.83	109.10
1	A	421	U	C5'-C4'-C3'	-6.44	105.70	116.00
1	A	511	C	N3-C4-C5	-6.44	119.32	121.90
1	A	636	U	C2-N1-C1'	-6.44	109.97	117.70
1	A	645	G	C4-N9-C1'	-6.44	118.13	126.50
1	A	159	G	O4'-C1'-N9	6.44	113.35	108.20
1	A	413	G	C8-N9-C4	6.44	108.97	106.40
1	A	572	A	C6-C5-N7	-6.44	127.79	132.30
1	A	671	G	C3'-C2'-C1'	-6.44	96.35	101.50
1	A	674	G	N1-C6-O6	6.44	123.76	119.90
1	A	682	G	C5'-C4'-C3'	6.44	126.30	116.00
1	A	1038	C	N3-C4-N4	6.44	122.51	118.00
1	A	15	G	N3-C2-N2	6.44	124.41	119.90
1	A	663	A	C5-C6-N1	-6.44	114.48	117.70
1	A	1465	A	C5'-C4'-C3'	6.44	126.30	116.00
1	A	1528	U	O5'-C5'-C4'	-6.44	99.47	111.70
1	A	61	G	P-O3'-C3'	-6.43	111.98	119.70
1	A	508	U	C4'-C3'-C2'	6.43	109.03	102.60
1	A	559	A	P-O3'-C3'	6.43	127.42	119.70
1	A	577	G	C4-C5-C6	6.43	122.66	118.80
1	A	1337	G	C8-N9-C1'	6.43	135.36	127.00
2	B	134	LEU	N-CA-CB	6.43	123.27	110.40
1	A	15	G	C5-C6-O6	-6.43	124.74	128.60
1	A	191	G	C3'-C2'-C1'	-6.43	96.35	101.50
1	A	472	U	C5'-C4'-C3'	-6.43	105.71	116.00
1	A	797	C	O4'-C1'-C2'	6.43	113.39	107.60
1	A	897	C	C3'-C2'-C1'	-6.43	96.35	101.50
1	A	1020	G	C4-C5-N7	6.43	113.37	110.80
1	A	1035	A	C3'-C2'-C1'	-6.43	96.35	101.50
1	A	1133	G	C8-N9-C4	-6.43	103.83	106.40
1	A	155	A	C1'-O4'-C4'	-6.43	104.75	109.90
1	A	66	A	O3'-P-O5'	-6.43	91.78	104.00
1	A	1197	A	P-O3'-C3'	-6.43	111.98	119.70
1	A	955	U	C3'-C2'-C1'	-6.43	96.36	101.50
1	A	1248	A	N1-C2-N3	6.43	132.51	129.30
1	A	808	C	C6-N1-C1'	6.43	128.51	120.80
1	A	1364	U	O5'-C5'-C4'	6.43	123.91	111.70
1	A	53	A	C5-C6-N6	-6.42	118.56	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	471	U	C5'-C4'-C3'	-6.42	105.72	116.00
1	A	1073	U	P-O5'-C5'	-6.42	110.62	120.90
1	A	1106	G	C8-N9-C4	-6.42	103.83	106.40
1	A	1296	C	O4'-C1'-C2'	6.42	113.38	107.60
1	A	1336	C	O5'-C5'-C4'	-6.42	99.49	111.70
1	A	194	C	O5'-C5'-C4'	-6.42	99.50	111.70
1	A	978	A	N1-C6-N6	6.42	122.45	118.60
1	A	1497	G	N1-C2-N3	-6.42	120.05	123.90
1	A	1519	A	O4'-C4'-C3'	-6.42	97.58	104.00
1	A	144	G	N1-C2-N3	-6.42	120.05	123.90
1	A	262	A	O3'-P-O5'	-6.42	91.80	104.00
1	A	417	G	C5-C6-N1	-6.42	108.29	111.50
1	A	431	A	O3'-P-O5'	-6.42	91.80	104.00
1	A	647	C	O3'-P-O5'	-6.42	91.80	104.00
1	A	723	U	C2-N1-C1'	6.42	125.41	117.70
1	A	952	U	C5'-C4'-C3'	-6.42	105.73	116.00
1	A	1200	C	P-O5'-C5'	-6.42	110.62	120.90
1	A	1343	G	N3-C2-N2	6.42	124.39	119.90
1	A	1375	A	C5'-C4'-C3'	-6.42	105.72	116.00
1	A	1406	U	C4'-C3'-C2'	6.42	109.02	102.60
3	C	4	VAL	CA-CB-CG1	6.42	120.53	110.90
1	A	496	A	O4'-C1'-C2'	6.42	113.38	107.60
1	A	1124	G	C5'-C4'-C3'	6.42	126.27	116.00
1	A	449	G	C6-C5-N7	-6.42	126.55	130.40
1	A	556	C	N1-C2-N3	6.42	123.69	119.20
1	A	659	U	C3'-C2'-C1'	-6.42	96.36	101.50
1	A	733	G	P-O5'-C5'	-6.42	110.63	120.90
1	A	750	C	C5'-C4'-C3'	-6.42	105.73	116.00
1	A	1105	A	P-O3'-C3'	6.42	127.40	119.70
1	A	1254	A	N1-C6-N6	6.42	122.45	118.60
1	A	1271	A	P-O3'-C3'	-6.42	112.00	119.70
1	A	1279	G	N7-C8-N9	6.42	116.31	113.10
1	A	1417	G	N1-C6-O6	6.42	123.75	119.90
2	B	89	PHE	CB-CG-CD1	-6.42	116.31	120.80
16	P	14	ARG	N-CA-CB	6.42	122.15	110.60
1	A	515	G	N3-C2-N2	6.42	124.39	119.90
1	A	563	A	P-O3'-C3'	-6.42	112.00	119.70
1	A	489	C	C1'-O4'-C4'	-6.41	104.77	109.90
1	A	821	G	N1-C6-O6	6.41	123.75	119.90
1	A	857	C	N3-C4-C5	-6.41	119.33	121.90
1	A	602	A	N9-C1'-C2'	-6.41	104.95	112.00
1	A	645	G	C6-C5-N7	-6.41	126.55	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1289	A	C8-N9-C4	-6.41	103.23	105.80
1	A	1340	A	C4-N9-C1'	-6.41	114.76	126.30
1	A	1438	G	C1'-O4'-C4'	-6.41	104.77	109.90
1	A	210	C	P-O5'-C5'	6.41	131.16	120.90
1	A	464	U	N3-C4-O4	6.41	123.89	119.40
1	A	1011	C	C5'-C4'-C3'	-6.41	105.74	116.00
1	A	288	A	C1'-O4'-C4'	-6.41	104.77	109.90
1	A	318	G	N1-C2-N2	-6.41	110.43	116.20
1	A	1126	U	C5'-C4'-O4'	6.41	116.79	109.10
1	A	1232	U	C3'-C2'-C1'	-6.41	96.37	101.50
1	A	1192	C	O5'-P-OP2	-6.41	99.93	105.70
1	A	129	A	C4'-C3'-C2'	6.41	109.00	102.60
1	A	131	A	C4'-C3'-C2'	6.41	109.00	102.60
1	A	176	C	O4'-C1'-N1	6.41	113.32	108.20
1	A	425	G	P-O3'-C3'	-6.41	112.01	119.70
1	A	944	G	O4'-C4'-C3'	-6.41	97.59	104.00
1	A	1353	G	N7-C8-N9	6.41	116.30	113.10
1	A	1429	A	C5-C6-N6	-6.41	118.58	123.70
4	D	129	VAL	CA-CB-CG1	-6.41	101.29	110.90
16	P	6	LEU	N-CA-CB	6.41	123.21	110.40
1	A	840	C	C5'-C4'-C3'	-6.40	105.75	116.00
1	A	1439	G	N7-C8-N9	6.40	116.30	113.10
3	C	23	ALA	N-CA-CB	6.40	119.07	110.10
1	A	124	C	P-O5'-C5'	-6.40	110.66	120.90
1	A	364	A	C4-C5-C6	6.40	120.20	117.00
1	A	858	G	C5'-C4'-O4'	6.40	116.78	109.10
1	A	869	G	C3'-C2'-C1'	-6.40	96.38	101.50
1	A	881	G	N3-C2-N2	6.40	124.38	119.90
1	A	1055	A	C2-N3-C4	6.40	113.80	110.60
1	A	1512	U	P-O3'-C3'	6.40	127.38	119.70
1	A	8	A	C5-C6-N1	-6.40	114.50	117.70
1	A	289	G	C8-N9-C1'	6.40	135.32	127.00
1	A	595	A	N1-C6-N6	6.40	122.44	118.60
1	A	980	C	N3-C4-N4	-6.40	113.52	118.00
7	G	10	LYS	N-CA-CB	6.40	122.12	110.60
11	K	72	ALA	N-CA-CB	6.40	119.06	110.10
1	A	109	A	C5-C6-N1	-6.40	114.50	117.70
1	A	1332	A	N9-C4-C5	6.40	108.36	105.80
1	A	334	C	N3-C4-N4	6.40	122.48	118.00
1	A	440	C	P-O3'-C3'	6.40	127.38	119.70
1	A	660	C	C4'-C3'-O3'	6.40	125.79	113.00
1	A	752	G	O3'-P-O5'	-6.40	91.85	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1519	A	O5'-P-OP2	-6.40	99.94	105.70
1	A	120	A	O4'-C1'-C2'	-6.40	99.40	105.80
1	A	620	C	O4'-C1'-N1	6.40	113.32	108.20
1	A	1226	C	N3-C4-C5	-6.40	119.34	121.90
1	A	1248	A	N9-C4-C5	6.40	108.36	105.80
1	A	301	G	P-O3'-C3'	-6.39	112.03	119.70
1	A	347	G	P-O3'-C3'	-6.39	112.03	119.70
1	A	399	G	C2-N3-C4	6.39	115.10	111.90
1	A	651	C	N3-C4-C5	-6.39	119.34	121.90
1	A	862	C	C3'-C2'-C1'	-6.39	96.39	101.50
1	A	944	G	O3'-P-O5'	-6.39	91.85	104.00
1	A	1057	G	C5'-C4'-C3'	-6.39	105.77	116.00
1	A	178	C	N1-C1'-C2'	-6.39	104.97	112.00
1	A	412	A	C5'-C4'-C3'	-6.39	105.77	116.00
1	A	928	G	N1-C6-O6	6.39	123.74	119.90
1	A	1277	C	O4'-C4'-C3'	-6.39	97.61	104.00
1	A	1436	U	O4'-C1'-N1	6.39	113.31	108.20
1	A	144	G	P-O3'-C3'	-6.39	112.03	119.70
1	A	512	U	P-O3'-C3'	-6.39	112.03	119.70
1	A	1323	G	C5-C6-N1	-6.39	108.30	111.50
1	A	1454	G	C5'-C4'-C3'	-6.39	105.77	116.00
1	A	868	C	P-O5'-C5'	6.39	131.12	120.90
1	A	1456	A	N7-C8-N9	-6.39	110.61	113.80
1	A	148	G	N7-C8-N9	6.39	116.29	113.10
1	A	198	G	O3'-P-O5'	6.39	116.14	104.00
1	A	295	C	N3-C4-C5	-6.39	119.35	121.90
1	A	478	A	N3-C4-C5	-6.39	122.33	126.80
1	A	141	G	C5'-C4'-O4'	6.38	116.76	109.10
1	A	195	A	O5'-P-OP2	6.38	118.36	110.70
1	A	398	U	C4'-C3'-C2'	6.38	108.98	102.60
1	A	536	C	O5'-C5'-C4'	-6.38	99.57	111.70
1	A	613	C	N3-C4-C5	-6.38	119.35	121.90
8	H	113	ARG	NE-CZ-NH1	-6.38	117.11	120.30
1	A	962	C	N3-C4-N4	6.38	122.47	118.00
1	A	232	G	C3'-C2'-C1'	-6.38	96.39	101.50
1	A	479	U	C6-N1-C1'	6.38	130.13	121.20
1	A	671	G	C5'-C4'-O4'	6.38	116.76	109.10
1	A	718	A	O4'-C1'-N9	6.38	113.31	108.20
1	A	738	C	N3-C4-N4	6.38	122.47	118.00
1	A	1239	A	P-O3'-C3'	6.38	127.36	119.70
1	A	482	A	C3'-C2'-C1'	-6.38	96.40	101.50
1	A	184	G	C6-C5-N7	-6.38	126.57	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	392	C	P-O5'-C5'	-6.38	110.69	120.90
1	A	487	A	C8-N9-C4	-6.38	103.25	105.80
1	A	570	G	C8-N9-C4	-6.38	103.85	106.40
1	A	694	A	O4'-C1'-N9	6.38	113.30	108.20
1	A	719	C	N3-C4-N4	6.38	122.47	118.00
1	A	737	C	O5'-C5'-C4'	-6.38	99.58	111.70
1	A	1039	G	O4'-C1'-N9	6.38	113.30	108.20
1	A	1176	A	C6-C5-N7	-6.38	127.83	132.30
1	A	1352	C	N1-C1'-C2'	-6.38	104.98	112.00
11	K	119	GLY	N-CA-C	-6.38	97.15	113.10
1	A	106	C	O4'-C1'-N1	6.38	113.30	108.20
1	A	403	C	O4'-C1'-N1	6.38	113.30	108.20
1	A	425	G	C3'-C2'-C1'	-6.38	96.40	101.50
1	A	1147	C	O3'-P-O5'	-6.38	91.88	104.00
1	A	190	A	N7-C8-N9	6.38	116.99	113.80
1	A	731	G	N1-C6-O6	6.38	123.72	119.90
1	A	280	C	N3-C4-N4	6.37	122.46	118.00
1	A	357	G	N1-C6-O6	6.37	123.72	119.90
1	A	410	G	O5'-C5'-C4'	-6.37	99.59	111.70
1	A	530	G	P-O3'-C3'	-6.37	112.05	119.70
1	A	728	A	P-O3'-C3'	-6.37	112.05	119.70
1	A	874	G	C5'-C4'-O4'	-6.37	101.45	109.10
1	A	1068	G	N1-C2-N2	-6.37	110.47	116.20
1	A	95	C	N3-C4-C5	-6.37	119.35	121.90
1	A	565	U	C2-N1-C1'	-6.37	110.05	117.70
1	A	616	G	O4'-C1'-N9	6.37	113.30	108.20
1	A	865	A	O4'-C4'-C3'	-6.37	97.63	104.00
1	A	1168	U	OP2-P-O3'	6.37	119.22	105.20
1	A	1398	A	O4'-C1'-N9	6.37	113.30	108.20
1	A	1457	G	C6-C5-N7	-6.37	126.58	130.40
1	A	1486	G	P-O3'-C3'	-6.37	112.06	119.70
17	Q	16	MET	C-N-CA	6.37	137.63	121.70
1	A	655	A	C5'-C4'-O4'	6.37	116.74	109.10
1	A	1074	G	C4-C5-C6	6.37	122.62	118.80
1	A	1485	U	C6-N1-C1'	6.37	130.12	121.20
1	A	299	G	P-O5'-C5'	6.37	131.09	120.90
1	A	655	A	C5-C6-N6	-6.37	118.61	123.70
1	A	736	C	N1-C1'-C2'	-6.37	105.00	112.00
1	A	1278	G	O5'-C5'-C4'	-6.37	99.61	111.70
1	A	1283	U	C4'-C3'-C2'	6.37	108.97	102.60
1	A	1309	G	C6-C5-N7	-6.37	126.58	130.40
3	C	126	ARG	N-CA-CB	6.37	122.06	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	F	65	GLU	N-CA-CB	6.37	122.06	110.60
1	A	904	U	O5'-P-OP2	-6.36	99.97	105.70
1	A	952	U	P-O3'-C3'	-6.36	112.06	119.70
1	A	1032	G	N3-C4-N9	6.36	129.82	126.00
1	A	1129	C	C5'-C4'-O4'	-6.36	101.46	109.10
1	A	425	G	C5'-C4'-O4'	6.36	116.73	109.10
1	A	476	U	C5-C6-N1	6.36	125.88	122.70
1	A	624	C	C3'-C2'-C1'	-6.36	96.41	101.50
1	A	749	A	C5'-C4'-O4'	6.36	116.73	109.10
1	A	1110	A	C4-C5-C6	6.36	120.18	117.00
1	A	785	G	P-O5'-C5'	-6.36	110.72	120.90
1	A	47	C	O5'-P-OP2	-6.36	99.98	105.70
1	A	258	G	C3'-C2'-C1'	-6.36	96.41	101.50
1	A	654	G	N3-C4-C5	-6.36	125.42	128.60
1	A	1253	G	N1-C6-O6	6.36	123.71	119.90
1	A	285	C	O4'-C1'-N1	6.36	113.28	108.20
1	A	454	G	O3'-P-O5'	-6.36	91.92	104.00
1	A	1160	G	C8-N9-C1'	-6.36	118.74	127.00
1	A	1309	G	O3'-P-O5'	-6.36	91.92	104.00
22	W	203	GLU	CB-CA-C	6.36	123.11	110.40
1	A	970	C	C6-N1-C1'	-6.35	113.17	120.80
1	A	548	G	C6-N1-C2	-6.35	121.29	125.10
1	A	933	G	N1-C6-O6	6.35	123.71	119.90
1	A	1047	G	N3-C2-N2	6.35	124.35	119.90
1	A	1059	C	N3-C4-C5	-6.35	119.36	121.90
1	A	502	A	C6-C5-N7	-6.35	127.86	132.30
1	A	504	C	O5'-C5'-C4'	-6.35	99.63	111.70
1	A	165	G	C4'-C3'-C2'	-6.35	96.25	102.60
1	A	271	C	O4'-C1'-N1	6.35	113.28	108.20
1	A	362	G	P-O5'-C5'	-6.35	110.74	120.90
1	A	422	C	O4'-C1'-C2'	-6.35	99.45	105.80
1	A	498	A	N7-C8-N9	6.35	116.97	113.80
1	A	918	A	O5'-C5'-C4'	-6.35	99.64	111.70
1	A	1208	C	O4'-C1'-N1	6.35	113.28	108.20
1	A	1392	G	N7-C8-N9	6.35	116.28	113.10
8	H	8	ASP	N-CA-CB	6.35	122.03	110.60
1	A	609	A	C2'-C3'-O3'	6.35	123.86	113.70
1	A	888	G	N1-C6-O6	6.35	123.71	119.90
1	A	905	U	O4'-C1'-N1	6.35	113.28	108.20
1	A	909	A	C6-C5-N7	-6.35	127.86	132.30
1	A	1283	U	P-O3'-C3'	-6.35	112.08	119.70
1	A	1292	G	N1-C2-N3	-6.35	120.09	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1469	C	C2'-C3'-O3'	6.35	123.86	113.70
1	A	195	A	C5'-C4'-C3'	-6.34	105.85	116.00
1	A	353	A	C5-C6-N1	-6.34	114.53	117.70
1	A	401	C	C2-N3-C4	6.34	123.07	119.90
1	A	899	C	C3'-C2'-C1'	-6.34	96.42	101.50
1	A	985	C	C3'-C2'-C1'	-6.34	96.42	101.50
1	A	1227	A	C4-C5-C6	6.34	120.17	117.00
1	A	1267	C	C5-C4-N4	-6.34	115.76	120.20
1	A	66	A	O4'-C1'-C2'	-6.34	99.46	105.80
1	A	78	A	C2'-C3'-O3'	6.34	123.85	113.70
1	A	63	C	P-O5'-C5'	6.34	131.05	120.90
1	A	407	U	C6-N1-C1'	6.34	130.08	121.20
1	A	785	G	C5-C6-O6	-6.34	124.80	128.60
1	A	863	U	C4'-C3'-C2'	-6.34	96.26	102.60
1	A	1202	U	O4'-C4'-C3'	-6.34	97.66	104.00
9	I	105	ARG	NE-CZ-NH2	-6.34	117.13	120.30
1	A	122	G	C4-C5-C6	6.34	122.60	118.80
1	A	320	A	C6-C5-N7	-6.34	127.86	132.30
1	A	812	G	C4-N9-C1'	-6.34	118.26	126.50
1	A	866	C	P-O5'-C5'	6.34	131.04	120.90
1	A	975	A	C5'-C4'-O4'	-6.34	101.49	109.10
1	A	1258	G	O3'-P-O5'	-6.34	91.96	104.00
1	A	1371	G	C5'-C4'-O4'	6.34	116.71	109.10
4	D	203	TYR	CB-CG-CD2	-6.34	117.20	121.00
1	A	213	G	C6-N1-C2	-6.34	121.30	125.10
1	A	356	A	C5'-C4'-C3'	-6.34	105.86	116.00
1	A	485	U	C4'-C3'-C2'	6.34	108.94	102.60
1	A	810	C	C2-N1-C1'	-6.34	111.83	118.80
1	A	973	G	C4-N9-C1'	-6.34	118.26	126.50
1	A	1055	A	N9-C4-C5	6.34	108.33	105.80
1	A	1393	U	O4'-C4'-C3'	-6.34	97.66	104.00
1	A	33	A	C6-C5-N7	-6.34	127.86	132.30
1	A	934	C	C4'-C3'-C2'	6.34	108.94	102.60
1	A	1011	C	C3'-C2'-C1'	-6.34	96.43	101.50
1	A	30	U	C4'-C3'-C2'	6.33	108.93	102.60
1	A	112	G	C3'-C2'-C1'	-6.33	96.43	101.50
1	A	298	A	O3'-P-O5'	-6.33	91.97	104.00
1	A	531	U	C4'-C3'-C2'	-6.33	96.27	102.60
1	A	579	A	C4-C5-C6	6.33	120.17	117.00
1	A	671	G	C6-C5-N7	-6.33	126.60	130.40
1	A	694	A	N9-C1'-C2'	-6.33	105.03	112.00
1	A	847	G	C6-C5-N7	-6.33	126.60	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	869	G	N3-C4-C5	6.33	131.77	128.60
1	A	891	U	O4'-C1'-N1	6.33	113.27	108.20
1	A	338	A	C5-C6-N1	-6.33	114.53	117.70
1	A	885	G	N1-C6-O6	6.33	123.70	119.90
1	A	1203	C	O5'-P-OP2	-6.33	100.00	105.70
1	A	1486	G	C5-C6-O6	-6.33	124.80	128.60
1	A	384	G	P-O3'-C3'	-6.33	112.10	119.70
1	A	457	G	C8-N9-C4	-6.33	103.87	106.40
1	A	1044	A	C5'-C4'-O4'	6.33	116.70	109.10
1	A	58	C	C4'-C3'-C2'	6.33	108.93	102.60
1	A	323	U	N3-C4-O4	-6.33	114.97	119.40
1	A	415	A	C8-N9-C4	-6.33	103.27	105.80
1	A	797	C	N3-C2-O2	-6.33	117.47	121.90
1	A	920	U	C2-N1-C1'	-6.33	110.11	117.70
1	A	973	G	C8-N9-C1'	6.33	135.23	127.00
9	I	110	VAL	C-N-CA	6.33	137.52	121.70
1	A	399	G	C3'-C2'-C1'	-6.33	96.44	101.50
1	A	154	U	N1-C2-N3	6.33	118.69	114.90
1	A	1030	U	N3-C4-O4	6.33	123.83	119.40
1	A	1434	A	C5-C6-N1	-6.33	114.54	117.70
1	A	69	G	C6-C5-N7	-6.32	126.61	130.40
1	A	439	U	C4'-C3'-C2'	-6.32	96.28	102.60
1	A	558	G	C5-C6-N1	-6.32	108.34	111.50
1	A	567	G	C1'-O4'-C4'	-6.32	104.84	109.90
1	A	825	A	N9-C4-C5	-6.32	103.27	105.80
1	A	880	C	C6-N1-C2	-6.32	117.77	120.30
1	A	963	G	C2-N3-C4	6.32	115.06	111.90
1	A	1258	G	C5-C6-O6	-6.32	124.81	128.60
1	A	149	A	C5'-C4'-C3'	-6.32	105.89	116.00
1	A	860	A	C4'-C3'-C2'	-6.32	96.28	102.60
1	A	96	U	O4'-C1'-C2'	6.32	113.29	107.60
1	A	435	A	C5'-C4'-O4'	6.32	116.69	109.10
1	A	460	A	C4-C5-C6	6.32	120.16	117.00
1	A	1066	C	C5'-C4'-C3'	-6.32	105.89	116.00
1	A	1225	A	O5'-C5'-C4'	-6.32	99.69	111.70
1	A	1487	G	C5'-C4'-O4'	-6.32	101.52	109.10
1	A	594	U	C4'-C3'-C2'	6.32	108.92	102.60
1	A	720	C	P-O3'-C3'	-6.32	112.12	119.70
1	A	797	C	P-O3'-C3'	-6.32	112.12	119.70
1	A	925	G	C4-N9-C1'	-6.32	118.29	126.50
1	A	1062	U	C4-C5-C6	-6.32	115.91	119.70
1	A	488	C	N3-C4-C5	-6.32	119.37	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	697	U	C1'-O4'-C4'	-6.32	104.85	109.90
1	A	1379	G	O4'-C1'-N9	6.32	113.25	108.20
1	A	100	G	C8-N9-C1'	-6.31	118.79	127.00
1	A	47	C	N3-C4-C5	-6.31	119.38	121.90
1	A	368	U	O5'-C5'-C4'	-6.31	99.71	111.70
1	A	630	A	P-O3'-C3'	6.31	127.28	119.70
1	A	959	A	C5-C6-N1	-6.31	114.54	117.70
1	A	297	G	N9-C4-C5	6.31	107.92	105.40
1	A	416	G	P-O5'-C5'	6.31	131.00	120.90
1	A	492	C	C5'-C4'-C3'	-6.31	105.90	116.00
1	A	675	A	N1-C2-N3	6.31	132.46	129.30
1	A	727	G	O4'-C1'-N9	6.31	113.25	108.20
1	A	1184	G	N1-C2-N3	-6.31	120.11	123.90
1	A	86	G	P-O3'-C3'	6.31	127.27	119.70
1	A	122	G	P-O3'-C3'	-6.31	112.13	119.70
1	A	243	A	C8-N9-C4	-6.31	103.28	105.80
1	A	271	C	C2-N1-C1'	6.31	125.74	118.80
1	A	366	A	O5'-C5'-C4'	-6.31	99.71	111.70
1	A	797	C	C5-C6-N1	-6.31	117.84	121.00
1	A	1380	U	O4'-C1'-N1	6.31	113.25	108.20
1	A	1519	A	C6-N1-C2	-6.31	114.81	118.60
1	A	603	U	C6-N1-C2	-6.31	117.22	121.00
1	A	704	A	C5-C6-N6	-6.31	118.65	123.70
1	A	975	A	C5-C6-N6	-6.31	118.65	123.70
1	A	1232	U	C6-N1-C2	-6.31	117.22	121.00
1	A	1249	C	C5-C6-N1	6.31	124.15	121.00
1	A	292	G	C4'-C3'-C2'	6.31	108.91	102.60
1	A	606	G	O4'-C4'-C3'	-6.31	97.69	104.00
1	A	706	A	C5-C6-N6	-6.31	118.66	123.70
1	A	1232	U	N3-C4-O4	6.31	123.81	119.40
1	A	299	G	C6-C5-N7	-6.30	126.62	130.40
15	O	71	ARG	NE-CZ-NH2	6.30	123.45	120.30
1	A	1229	A	C4-C5-C6	6.30	120.15	117.00
1	A	91	U	N3-C4-O4	6.30	123.81	119.40
1	A	408	A	C4-C5-C6	6.30	120.15	117.00
1	A	935	A	O3'-P-O5'	-6.30	92.03	104.00
1	A	1058	G	C5'-C4'-C3'	-6.30	105.92	116.00
1	A	1399	C	N3-C4-N4	6.30	122.41	118.00
1	A	1041	G	O4'-C1'-N9	6.30	113.24	108.20
1	A	1469	C	C6-N1-C1'	6.30	128.36	120.80
1	A	1513	A	C5-C6-N1	-6.30	114.55	117.70
2	B	135	MET	N-CA-CB	6.30	121.94	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	373	A	O5'-C5'-C4'	-6.30	99.73	111.70
1	A	1455	G	N3-C2-N2	6.30	124.31	119.90
1	A	77	A	O5'-C5'-C4'	6.30	123.66	111.70
1	A	174	A	N9-C1'-C2'	-6.30	105.07	112.00
1	A	539	A	N9-C1'-C2'	-6.30	105.08	112.00
1	A	704	A	C4'-C3'-C2'	-6.30	96.30	102.60
1	A	191	G	C5-C6-O6	-6.29	124.82	128.60
1	A	711	G	N3-C2-N2	6.29	124.31	119.90
1	A	1180	A	O4'-C1'-N9	6.29	113.23	108.20
1	A	1345	U	N1-C2-N3	6.29	118.68	114.90
1	A	1361	G	O3'-P-O5'	-6.29	92.04	104.00
1	A	526	C	P-O3'-C3'	-6.29	112.15	119.70
1	A	1524	C	O4'-C4'-C3'	-6.29	97.71	104.00
1	A	101	A	N3-C4-C5	-6.29	122.40	126.80
1	A	159	G	P-O3'-C3'	-6.29	112.15	119.70
1	A	544	G	C5-C6-O6	-6.29	124.83	128.60
1	A	1061	G	N1-C6-O6	6.29	123.67	119.90
1	A	262	A	O5'-C5'-C4'	-6.29	99.75	111.70
1	A	781	A	C4-C5-C6	6.29	120.14	117.00
1	A	185	U	C3'-C2'-C1'	-6.29	96.47	101.50
1	A	234	C	C5-C4-N4	-6.29	115.80	120.20
1	A	648	A	C4-N9-C1'	-6.29	114.99	126.30
1	A	1259	C	O4'-C1'-N1	6.29	113.23	108.20
1	A	302	G	P-O3'-C3'	-6.28	112.16	119.70
1	A	860	A	C6-N1-C2	6.28	122.37	118.60
1	A	1120	C	C6-N1-C2	-6.28	117.79	120.30
1	A	1127	G	N1-C2-N2	-6.28	110.55	116.20
1	A	1160	G	N3-C4-C5	-6.28	125.46	128.60
1	A	1448	C	C1'-O4'-C4'	-6.28	104.87	109.90
1	A	343	U	N3-C2-O2	-6.28	117.80	122.20
1	A	532	A	P-O3'-C3'	-6.28	112.16	119.70
1	A	580	C	P-O5'-C5'	6.28	130.95	120.90
1	A	735	C	O4'-C1'-N1	6.28	113.23	108.20
1	A	804	U	C2-N1-C1'	-6.28	110.16	117.70
1	A	1074	G	O3'-P-O5'	-6.28	92.06	104.00
1	A	1469	C	O5'-C5'-C4'	6.28	123.64	111.70
1	A	145	G	N1-C2-N3	-6.28	120.13	123.90
1	A	645	G	N1-C2-N3	-6.28	120.13	123.90
1	A	851	G	O5'-C5'-C4'	-6.28	99.77	111.70
1	A	1375	A	C6-C5-N7	-6.28	127.90	132.30
1	A	1408	A	O3'-P-O5'	-6.28	92.07	104.00
1	A	371	A	C1'-O4'-C4'	-6.28	104.88	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1213	A	C5-C6-N6	-6.28	118.68	123.70
13	M	10	ASP	CB-CG-OD2	-6.28	112.65	118.30
1	A	675	A	C4-C5-C6	6.28	120.14	117.00
1	A	1432	G	N1-C6-O6	6.28	123.67	119.90
1	A	74	A	O5'-C5'-C4'	6.28	123.62	111.70
1	A	238	A	N1-C2-N3	6.28	132.44	129.30
1	A	815	A	N7-C8-N9	-6.28	110.66	113.80
1	A	963	G	C1'-O4'-C4'	-6.28	104.88	109.90
1	A	579	A	C5'-C4'-O4'	6.27	116.63	109.10
1	A	929	G	C5-C6-O6	-6.27	124.84	128.60
1	A	1194	U	P-O5'-C5'	-6.27	110.86	120.90
1	A	1375	A	N3-C4-C5	-6.27	122.41	126.80
1	A	73	C	O4'-C1'-C2'	-6.27	99.53	105.80
1	A	255	G	C5'-C4'-C3'	-6.27	105.97	116.00
1	A	527	G	N1-C6-O6	6.27	123.66	119.90
1	A	1181	G	C6-N1-C2	-6.27	121.34	125.10
1	A	1280	A	P-O5'-C5'	-6.27	110.86	120.90
1	A	9	G	N3-C2-N2	6.27	124.29	119.90
1	A	50	A	P-O3'-C3'	6.27	127.22	119.70
1	A	455	G	N7-C8-N9	6.27	116.23	113.10
1	A	699	C	C5-C6-N1	6.27	124.14	121.00
1	A	1093	A	C4'-C3'-C2'	-6.27	96.33	102.60
1	A	802	A	C5-C6-N1	-6.27	114.57	117.70
1	A	815	A	C5-C6-N1	-6.27	114.57	117.70
1	A	923	A	C6-C5-N7	-6.27	127.91	132.30
1	A	962	C	P-O5'-C5'	-6.27	110.87	120.90
1	A	1088	G	C8-N9-C4	-6.27	103.89	106.40
1	A	1093	A	P-O3'-C3'	-6.27	112.18	119.70
1	A	1153	G	O3'-P-O5'	-6.27	92.09	104.00
1	A	1267	C	C5'-C4'-O4'	6.27	116.62	109.10
1	A	1523	G	N1-C2-N2	6.27	121.84	116.20
1	A	657	U	C4'-C3'-C2'	-6.27	96.33	102.60
1	A	736	C	C5'-C4'-C3'	6.27	126.03	116.00
1	A	1105	A	O3'-P-O5'	6.27	115.91	104.00
1	A	1316	G	C1'-O4'-C4'	-6.27	104.89	109.90
1	A	1427	C	C5-C6-N1	6.27	124.13	121.00
1	A	240	G	C4-N9-C1'	6.26	134.64	126.50
1	A	359	G	C5'-C4'-O4'	6.26	116.62	109.10
1	A	361	G	C1'-O4'-C4'	6.26	114.91	109.90
1	A	1069	C	C2'-C3'-O3'	6.26	123.72	113.70
1	A	1410	A	C4-N9-C1'	-6.26	115.03	126.30
1	A	1450	U	C3'-C2'-C1'	-6.26	96.49	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	886	G	C8-N9-C1'	6.26	135.14	127.00
1	A	1149	C	C6-N1-C1'	6.26	128.32	120.80
1	A	1459	G	O4'-C1'-N9	6.26	113.21	108.20
1	A	350	G	O4'-C1'-N9	6.26	113.21	108.20
1	A	826	C	C3'-C2'-C1'	-6.26	96.49	101.50
1	A	867	G	N3-C2-N2	6.26	124.28	119.90
1	A	1374	A	O3'-P-O5'	-6.26	92.10	104.00
1	A	1384	C	N3-C4-N4	6.26	122.38	118.00
1	A	1468	A	C2'-C3'-O3'	6.26	123.72	113.70
1	A	195	A	C5-C6-N1	-6.26	114.57	117.70
1	A	376	G	O4'-C1'-N9	6.26	113.21	108.20
1	A	384	G	C5'-C4'-C3'	-6.26	105.98	116.00
1	A	1090	U	C1'-O4'-C4'	-6.26	104.89	109.90
1	A	1145	A	N9-C1'-C2'	6.26	122.14	114.00
15	O	48	ASP	CB-CA-C	-6.26	97.88	110.40
1	A	107	G	O4'-C1'-N9	6.26	113.21	108.20
1	A	1232	U	C5'-C4'-O4'	6.26	116.61	109.10
1	A	609	A	C5-C6-N1	-6.26	114.57	117.70
1	A	1091	U	C6-N1-C2	-6.26	117.25	121.00
10	J	72	ARG	N-CA-CB	6.26	121.86	110.60
1	A	483	C	C2-N1-C1'	6.25	125.68	118.80
1	A	1075	U	P-O5'-C5'	6.25	130.91	120.90
1	A	1267	C	N3-C4-C5	-6.25	119.40	121.90
1	A	1273	C	P-O3'-C3'	-6.25	112.19	119.70
1	A	187	G	O5'-C5'-C4'	-6.25	99.82	111.70
1	A	466	A	C6-C5-N7	-6.25	127.92	132.30
1	A	551	U	C6-N1-C2	6.25	124.75	121.00
1	A	868	C	N3-C4-C5	-6.25	119.40	121.90
1	A	1247	U	N1-C2-N3	6.25	118.65	114.90
1	A	348	G	N1-C6-O6	6.25	123.65	119.90
1	A	515	G	C4-C5-C6	6.25	122.55	118.80
1	A	570	G	C5-C6-N1	-6.25	108.38	111.50
1	A	700	G	N7-C8-N9	6.25	116.23	113.10
1	A	1509	C	N1-C2-O2	6.25	122.65	118.90
4	D	187	ARG	NE-CZ-NH1	6.25	123.43	120.30
1	A	685	G	C6-C5-N7	-6.25	126.65	130.40
4	D	19	PHE	CB-CG-CD1	6.25	125.17	120.80
1	A	15	G	C8-N9-C1'	6.25	135.12	127.00
1	A	58	C	C6-N1-C1'	6.25	128.30	120.80
1	A	99	C	C5-C4-N4	6.25	124.57	120.20
1	A	122	G	C4'-C3'-C2'	-6.25	96.35	102.60
1	A	162	A	C5-C6-N6	-6.25	118.70	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	253	A	P-O3'-C3'	-6.25	112.20	119.70
1	A	823	C	N3-C4-N4	6.25	122.37	118.00
1	A	833	G	O4'-C4'-C3'	-6.25	97.75	104.00
1	A	1443	C	C2'-C3'-O3'	6.25	123.70	113.70
1	A	219	U	N1-C2-N3	6.25	118.65	114.90
1	A	264	C	C4'-C3'-C2'	-6.25	96.35	102.60
1	A	574	A	C5-C6-N6	-6.25	118.70	123.70
1	A	585	G	C5-C6-O6	-6.25	124.85	128.60
1	A	739	C	C5'-C4'-C3'	-6.25	106.01	116.00
1	A	1031	C	O4'-C1'-N1	6.25	113.20	108.20
7	G	118	ARG	CD-NE-CZ	-6.25	114.85	123.60
9	I	98	ARG	N-CA-CB	6.25	121.84	110.60
1	A	537	G	N3-C2-N2	6.25	124.27	119.90
1	A	815	A	C1'-O4'-C4'	-6.25	104.90	109.90
1	A	1263	C	N3-C4-C5	-6.25	119.40	121.90
1	A	1493	A	C4-C5-C6	6.25	120.12	117.00
1	A	70	U	N1-C2-O2	6.24	127.17	122.80
1	A	292	G	C8-N9-C1'	6.24	135.12	127.00
1	A	1009	U	C1'-O4'-C4'	-6.24	104.91	109.90
1	A	1230	C	C1'-O4'-C4'	-6.24	104.91	109.90
1	A	274	A	C5-C6-N6	-6.24	118.71	123.70
1	A	378	G	C8-N9-C1'	6.24	135.11	127.00
1	A	539	A	C3'-C2'-C1'	-6.24	96.51	101.50
1	A	643	C	C5-C6-N1	6.24	124.12	121.00
1	A	883	C	O4'-C1'-N1	6.24	113.19	108.20
1	A	1101	A	C4-C5-C6	6.24	120.12	117.00
1	A	1142	G	C1'-O4'-C4'	-6.24	104.91	109.90
1	A	1186	G	C4-N9-C1'	-6.24	118.39	126.50
1	A	67	C	C6-N1-C2	-6.24	117.80	120.30
1	A	88	U	N1-C2-O2	6.24	127.17	122.80
1	A	174	A	O4'-C1'-N9	6.24	113.19	108.20
1	A	910	C	P-O3'-C3'	-6.24	112.21	119.70
1	A	934	C	C4-C5-C6	6.24	120.52	117.40
1	A	1046	A	C4'-C3'-C2'	-6.24	96.36	102.60
1	A	1170	A	C2-N3-C4	-6.24	107.48	110.60
5	E	137	ARG	NE-CZ-NH1	6.24	123.42	120.30
1	A	306	A	C4-C5-C6	6.24	120.12	117.00
1	A	1216	A	O4'-C1'-N9	6.24	113.19	108.20
1	A	161	A	C5-C6-N6	-6.24	118.71	123.70
1	A	394	G	C3'-C2'-C1'	-6.24	96.51	101.50
1	A	740	U	P-O5'-C5'	-6.24	110.92	120.90
1	A	949	A	C2'-C3'-O3'	6.24	123.68	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1069	C	C4'-C3'-C2'	-6.24	96.36	102.60
1	A	1155	A	C1'-O4'-C4'	-6.24	104.91	109.90
10	J	73	LEU	C-N-CA	6.24	137.29	121.70
1	A	294	U	N1-C2-N3	6.23	118.64	114.90
1	A	504	C	N3-C4-N4	6.23	122.36	118.00
1	A	1231	G	C8-N9-C1'	6.23	135.10	127.00
1	A	1533	C	N3-C4-N4	6.23	122.36	118.00
12	L	13	ARG	NE-CZ-NH1	6.23	123.42	120.30
1	A	285	C	N3-C4-N4	6.23	122.36	118.00
1	A	312	C	O4'-C1'-N1	6.23	113.19	108.20
1	A	435	A	C4-C5-C6	6.23	120.12	117.00
1	A	523	A	C8-N9-C1'	6.23	138.92	127.70
1	A	893	C	C3'-C2'-C1'	-6.23	96.51	101.50
1	A	1250	A	C4-C5-C6	6.23	120.12	117.00
1	A	1366	C	C6-N1-C1'	6.23	128.28	120.80
1	A	2	A	C4-C5-C6	6.23	120.11	117.00
1	A	225	C	O4'-C4'-C3'	-6.23	97.77	104.00
1	A	602	A	N7-C8-N9	6.23	116.92	113.80
1	A	745	G	O4'-C1'-N9	6.23	113.19	108.20
1	A	766	A	C8-N9-C1'	6.23	138.91	127.70
1	A	918	A	C4-C5-C6	6.23	120.11	117.00
1	A	1142	G	C8-N9-C4	-6.23	103.91	106.40
1	A	686	U	C5'-C4'-O4'	6.23	116.58	109.10
1	A	1002	G	N9-C1'-C2'	-6.23	105.15	112.00
1	A	1253	G	C5-C6-O6	-6.23	124.86	128.60
1	A	365	U	C2-N3-C4	-6.23	123.26	127.00
1	A	429	U	O4'-C1'-N1	6.23	113.18	108.20
1	A	452	A	C5-C6-N1	-6.23	114.59	117.70
1	A	635	A	C4-C5-C6	6.23	120.11	117.00
1	A	1329	A	C5-C6-N6	-6.23	118.72	123.70
1	A	1072	G	N1-C2-N3	-6.23	120.16	123.90
1	A	167	A	C4-C5-C6	6.22	120.11	117.00
1	A	437	U	O4'-C1'-N1	6.22	113.18	108.20
1	A	1090	U	N3-C2-O2	-6.22	117.84	122.20
1	A	1410	A	C8-N9-C1'	6.22	138.90	127.70
1	A	354	G	C8-N9-C1'	6.22	135.09	127.00
1	A	591	U	C6-N1-C1'	6.22	129.91	121.20
1	A	1331	G	C6-C5-N7	-6.22	126.67	130.40
1	A	1342	C	O5'-C5'-C4'	-6.22	99.88	111.70
1	A	398	U	C2-N3-C4	-6.22	123.27	127.00
1	A	578	C	C1'-O4'-C4'	-6.22	104.92	109.90
1	A	1477	U	C5'-C4'-C3'	-6.22	106.05	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	65	A	C4'-C3'-C2'	-6.22	96.38	102.60
1	A	255	G	C5-C6-O6	-6.22	124.87	128.60
1	A	459	A	C5-C6-N1	-6.22	114.59	117.70
1	A	849	G	C8-N9-C4	-6.22	103.91	106.40
1	A	1191	A	C8-N9-C4	-6.22	103.31	105.80
1	A	1204	A	C4-C5-C6	6.22	120.11	117.00
1	A	1494	G	N9-C4-C5	-6.22	102.91	105.40
8	H	17	GLN	N-CA-CB	6.22	121.80	110.60
1	A	486	U	P-O3'-C3'	-6.22	112.24	119.70
1	A	1184	G	N1-C6-O6	6.22	123.63	119.90
1	A	1291	U	C2-N3-C4	-6.22	123.27	127.00
1	A	36	C	C6-N1-C2	-6.22	117.81	120.30
1	A	80	A	C5'-C4'-O4'	6.22	116.56	109.10
1	A	703	G	C8-N9-C1'	-6.22	118.92	127.00
1	A	876	C	O4'-C1'-N1	6.22	113.17	108.20
1	A	1026	G	N1-C2-N3	-6.22	120.17	123.90
1	A	1047	G	O4'-C1'-N9	6.22	113.17	108.20
1	A	1192	C	C5'-C4'-C3'	-6.22	106.05	116.00
1	A	341	C	N3-C4-N4	6.21	122.35	118.00
1	A	403	C	P-O3'-C3'	-6.21	112.24	119.70
1	A	880	C	C1'-O4'-C4'	-6.21	104.93	109.90
1	A	1039	G	O3'-P-O5'	-6.21	92.19	104.00
1	A	1303	C	N1-C1'-C2'	-6.21	105.17	112.00
1	A	315	A	O4'-C1'-C2'	6.21	113.19	107.60
1	A	945	G	O4'-C1'-N9	6.21	113.17	108.20
1	A	1298	U	C2-N1-C1'	-6.21	110.25	117.70
8	H	64	TYR	CA-CB-CG	-6.21	101.60	113.40
1	A	485	U	O3'-P-O5'	-6.21	92.20	104.00
1	A	702	A	C5-C6-N6	-6.21	118.73	123.70
1	A	1070	U	C1'-O4'-C4'	-6.21	104.93	109.90
12	L	25	ALA	N-CA-CB	6.21	118.80	110.10
1	A	187	G	O4'-C4'-C3'	-6.21	97.79	104.00
1	A	1457	G	C5'-C4'-O4'	6.21	116.55	109.10
6	F	2	ARG	N-CA-C	-6.21	94.23	111.00
1	A	683	G	C6-C5-N7	-6.21	126.67	130.40
1	A	1205	U	C5'-C4'-C3'	-6.21	106.07	116.00
1	A	1331	G	N9-C4-C5	-6.21	102.92	105.40
1	A	1481	U	C1'-O4'-C4'	-6.21	104.93	109.90
8	H	91	LEU	CB-CG-CD2	-6.21	100.45	111.00
1	A	470	C	C5'-C4'-C3'	-6.21	106.07	116.00
1	A	477	C	N3-C4-N4	6.21	122.34	118.00
1	A	531	U	O3'-P-O5'	-6.21	92.21	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	649	A	C8-N9-C4	-6.21	103.32	105.80
1	A	1217	C	C5'-C4'-C3'	-6.21	106.07	116.00
1	A	1320	C	N3-C4-N4	6.21	122.34	118.00
1	A	215	C	C2-N3-C4	6.20	123.00	119.90
1	A	245	U	N3-C2-O2	-6.20	117.86	122.20
1	A	253	A	C5-N7-C8	6.20	107.00	103.90
1	A	625	U	O4'-C1'-N1	6.20	113.16	108.20
1	A	1181	G	C4-N9-C1'	-6.20	118.44	126.50
1	A	353	A	P-O3'-C3'	6.20	127.14	119.70
1	A	1378	C	C5-C6-N1	6.20	124.10	121.00
1	A	346	G	C4'-C3'-C2'	6.20	108.80	102.60
1	A	581	G	C5-N7-C8	-6.20	101.20	104.30
1	A	791	G	C3'-C2'-C1'	-6.20	96.54	101.50
1	A	872	A	C3'-C2'-C1'	-6.20	96.54	101.50
1	A	905	U	C6-N1-C1'	6.20	129.88	121.20
1	A	1395	C	C5'-C4'-O4'	-6.20	101.66	109.10
11	K	105	ARG	N-CA-C	-6.20	94.26	111.00
1	A	679	C	N3-C4-C5	-6.20	119.42	121.90
1	A	707	U	C2-N1-C1'	-6.20	110.26	117.70
1	A	937	A	C5-C6-N6	-6.20	118.74	123.70
1	A	1270	G	C5'-C4'-C3'	-6.20	106.08	116.00
1	A	1367	C	C5'-C4'-O4'	6.20	116.54	109.10
1	A	1395	C	C4'-C3'-O3'	-6.20	96.38	109.40
1	A	886	G	N1-C6-O6	6.20	123.62	119.90
1	A	1047	G	C5-C6-O6	-6.20	124.88	128.60
1	A	23	C	C3'-C2'-C1'	-6.20	96.54	101.50
1	A	869	G	C6-N1-C2	-6.20	121.38	125.10
1	A	1480	A	C5-C6-N1	-6.20	114.60	117.70
1	A	505	G	C2'-C3'-O3'	6.19	123.61	113.70
1	A	612	C	C2-N1-C1'	6.19	125.61	118.80
1	A	702	A	O4'-C4'-C3'	-6.19	97.81	104.00
1	A	1499	A	C4'-C3'-C2'	6.19	108.79	102.60
1	A	236	A	C5-C6-N6	-6.19	118.75	123.70
1	A	407	U	C3'-C2'-C1'	-6.19	96.55	101.50
1	A	184	G	O3'-P-O5'	-6.19	92.24	104.00
1	A	605	U	C6-N1-C1'	6.19	129.87	121.20
1	A	1271	A	C5-N7-C8	6.19	107.00	103.90
3	C	58	ARG	N-CA-C	-6.19	94.29	111.00
5	E	38	VAL	N-CA-C	-6.19	94.28	111.00
1	A	265	G	C2'-C3'-O3'	6.19	123.60	113.70
1	A	368	U	P-O3'-C3'	6.19	127.13	119.70
1	A	869	G	O4'-C1'-N9	6.19	113.15	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	886	G	O4'-C1'-N9	6.19	113.15	108.20
1	A	31	G	O4'-C1'-C2'	-6.19	99.61	105.80
1	A	359	G	C3'-C2'-C1'	-6.19	96.55	101.50
1	A	491	G	P-O3'-C3'	6.19	127.12	119.70
1	A	601	G	C4-C5-C6	-6.19	115.09	118.80
1	A	656	G	C5'-C4'-O4'	6.19	116.53	109.10
1	A	1086	U	P-O5'-C5'	-6.19	111.00	120.90
1	A	1491	G	O4'-C1'-N9	6.19	113.15	108.20
1	A	28	A	C5-C6-N6	-6.19	118.75	123.70
1	A	80	A	N7-C8-N9	6.19	116.89	113.80
1	A	130	A	O4'-C4'-C3'	-6.19	97.81	104.00
1	A	853	C	N3-C4-N4	6.19	122.33	118.00
1	A	1087	G	C5'-C4'-C3'	-6.19	106.10	116.00
1	A	1495	U	O4'-C1'-N1	6.19	113.15	108.20
1	A	131	A	O5'-C5'-C4'	-6.18	99.95	111.70
1	A	416	G	C2'-C3'-O3'	6.18	123.60	113.70
1	A	1134	G	C5'-C4'-C3'	-6.18	106.11	116.00
1	A	712	A	C5'-C4'-C3'	6.18	125.89	116.00
1	A	1015	G	P-O3'-C3'	-6.18	112.28	119.70
1	A	1094	G	C8-N9-C1'	6.18	135.04	127.00
1	A	1311	A	O4'-C1'-N9	6.18	113.15	108.20
1	A	1472	U	C2'-C3'-O3'	6.18	123.59	113.70
1	A	368	U	O4'-C1'-C2'	6.18	113.16	107.60
1	A	599	C	O4'-C1'-N1	6.18	113.14	108.20
1	A	1192	C	O5'-C5'-C4'	-6.18	99.96	111.70
1	A	1460	C	N1-C2-N3	6.18	123.53	119.20
4	D	98	ASP	N-CA-CB	6.18	121.72	110.60
1	A	240	G	N3-C2-N2	6.18	124.22	119.90
1	A	1246	A	C4-N9-C1'	-6.18	115.18	126.30
1	A	1523	G	N1-C2-N3	-6.18	120.19	123.90
1	A	191	G	C4'-C3'-C2'	-6.18	96.42	102.60
1	A	224	U	O4'-C1'-N1	6.18	113.14	108.20
1	A	478	A	C6-N1-C2	-6.18	114.89	118.60
1	A	890	G	N3-C4-N9	-6.18	122.29	126.00
1	A	937	A	C4-N9-C1'	-6.18	115.18	126.30
1	A	1404	C	N3-C4-N4	6.18	122.32	118.00
1	A	633	G	N3-C2-N2	-6.17	115.58	119.90
1	A	1207	G	C1'-O4'-C4'	-6.17	104.96	109.90
10	J	72	ARG	N-CA-C	-6.17	94.33	111.00
1	A	145	G	N3-C2-N2	6.17	124.22	119.90
1	A	146	G	N1-C2-N2	6.17	121.76	116.20
1	A	761	G	O5'-C5'-C4'	-6.17	99.97	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	799	G	N9-C1'-C2'	-6.17	105.21	112.00
1	A	815	A	C5-N7-C8	6.17	106.99	103.90
1	A	1266	G	N9-C4-C5	6.17	107.87	105.40
1	A	69	G	O4'-C1'-N9	-6.17	103.26	108.20
1	A	527	G	P-O3'-C3'	-6.17	112.29	119.70
1	A	803	G	C5-N7-C8	6.17	107.39	104.30
1	A	944	G	C5-C6-O6	-6.17	124.90	128.60
1	A	1168	U	C5'-C4'-O4'	6.17	116.50	109.10
1	A	1247	U	C3'-C2'-C1'	-6.17	96.56	101.50
1	A	1455	G	C8-N9-C4	-6.17	103.93	106.40
1	A	1374	A	O4'-C4'-C3'	-6.17	97.83	104.00
1	A	256	U	C5-C6-N1	6.17	125.78	122.70
1	A	297	G	N1-C2-N2	6.17	121.75	116.20
1	A	501	C	C3'-C2'-C1'	-6.17	96.56	101.50
1	A	1007	U	C4'-C3'-C2'	6.17	108.77	102.60
1	A	1123	U	C5-C6-N1	6.17	125.78	122.70
1	A	1455	G	C2'-C3'-O3'	6.17	123.57	113.70
1	A	20	U	O4'-C1'-N1	6.17	113.13	108.20
1	A	105	G	N3-C2-N2	6.17	124.22	119.90
1	A	464	U	O3'-P-O5'	-6.17	92.29	104.00
1	A	575	G	N1-C2-N2	6.17	121.75	116.20
1	A	1132	C	N3-C4-C5	-6.17	119.43	121.90
1	A	191	G	N9-C4-C5	6.16	107.86	105.40
1	A	329	A	O4'-C1'-N9	6.16	113.13	108.20
1	A	554	A	C4-N9-C1'	-6.16	115.20	126.30
1	A	804	U	P-O3'-C3'	-6.16	112.30	119.70
1	A	1082	A	C5-C6-N1	-6.16	114.62	117.70
1	A	1220	G	N1-C2-N3	-6.16	120.20	123.90
1	A	1482	G	C6-C5-N7	-6.16	126.70	130.40
1	A	669	G	C4'-C3'-C2'	-6.16	96.44	102.60
1	A	777	A	N1-C2-N3	6.16	132.38	129.30
1	A	593	U	N3-C2-O2	-6.16	117.89	122.20
1	A	808	C	C2-N3-C4	6.16	122.98	119.90
1	A	873	A	N9-C1'-C2'	-6.16	105.22	112.00
1	A	1052	U	P-O3'-C3'	6.16	127.09	119.70
1	A	1089	G	O3'-P-O5'	6.16	115.70	104.00
1	A	1367	C	N3-C4-N4	6.16	122.31	118.00
1	A	1416	G	O4'-C1'-N9	6.16	113.13	108.20
16	P	24	SER	N-CA-CB	6.16	119.74	110.50
1	A	477	C	C6-N1-C2	-6.16	117.84	120.30
1	A	1219	A	C5'-C4'-C3'	-6.16	106.15	116.00
1	A	1360	A	C4-C5-C6	6.16	120.08	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1386	G	C3'-C2'-C1'	-6.16	96.57	101.50
1	A	37	U	C5'-C4'-O4'	6.16	116.49	109.10
1	A	453	G	P-O5'-C5'	-6.16	111.05	120.90
1	A	1288	A	N3-C4-C5	-6.16	122.49	126.80
1	A	1534	A	O4'-C1'-N9	6.16	113.13	108.20
1	A	648	A	C8-N9-C1'	6.16	138.78	127.70
1	A	931	C	N3-C4-N4	6.16	122.31	118.00
1	A	1257	A	C4-C5-C6	6.16	120.08	117.00
1	A	1312	G	C5-C6-O6	-6.16	124.91	128.60
1	A	1342	C	O3'-P-O5'	-6.16	92.30	104.00
1	A	565	U	C6-N1-C1'	6.15	129.82	121.20
1	A	946	A	N9-C1'-C2'	-6.15	105.23	112.00
1	A	1280	A	OP2-P-O3'	6.15	118.74	105.20
1	A	148	G	N3-C4-C5	-6.15	125.52	128.60
1	A	152	A	C4-C5-N7	-6.15	107.62	110.70
1	A	169	C	P-O3'-C3'	-6.15	112.32	119.70
1	A	464	U	O5'-C5'-C4'	-6.15	100.01	111.70
1	A	518	C	C6-N1-C1'	-6.15	113.42	120.80
1	A	901	A	C5-C6-N6	-6.15	118.78	123.70
1	A	1236	A	O4'-C4'-C3'	6.15	111.02	106.10
1	A	649	A	C4-C5-C6	6.15	120.08	117.00
1	A	845	A	O4'-C1'-N9	6.15	113.12	108.20
1	A	1418	A	O5'-C5'-C4'	-6.15	100.02	111.70
1	A	846	G	N1-C6-O6	6.15	123.59	119.90
1	A	1223	C	P-O3'-C3'	6.15	127.08	119.70
1	A	71	A	P-O5'-C5'	6.15	130.74	120.90
1	A	555	U	O3'-P-O5'	6.15	115.68	104.00
1	A	1096	C	C6-N1-C1'	6.15	128.18	120.80
1	A	1157	A	C5-C6-N6	-6.15	118.78	123.70
1	A	180	U	O4'-C1'-C2'	6.15	113.13	107.60
1	A	339	C	N1-C2-N3	6.15	123.50	119.20
1	A	550	G	N9-C1'-C2'	-6.15	105.24	112.00
1	A	971	G	O4'-C1'-N9	6.15	113.12	108.20
1	A	1243	C	C5'-C4'-C3'	-6.15	106.17	116.00
1	A	1312	G	P-O3'-C3'	6.15	127.08	119.70
1	A	155	A	C4-C5-C6	6.14	120.07	117.00
1	A	343	U	C6-N1-C1'	6.14	129.80	121.20
1	A	498	A	C5-C6-N1	-6.14	114.63	117.70
1	A	1005	A	C3'-C2'-C1'	6.14	106.42	101.50
1	A	1414	U	C5'-C4'-O4'	6.14	116.47	109.10
2	B	155	GLY	C-N-CA	6.14	137.06	121.70
1	A	738	C	O3'-P-O5'	-6.14	92.33	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	822	U	C2'-C3'-O3'	6.14	123.53	113.70
1	A	845	A	C4-C5-C6	6.14	120.07	117.00
1	A	1244	G	C1'-O4'-C4'	-6.14	104.98	109.90
1	A	1394	A	C5'-C4'-O4'	6.14	116.47	109.10
1	A	34	C	C3'-C2'-C1'	-6.14	96.59	101.50
1	A	43	C	O4'-C1'-N1	6.14	113.11	108.20
1	A	375	U	P-O5'-C5'	6.14	130.73	120.90
1	A	452	A	N3-C4-C5	-6.14	122.50	126.80
1	A	466	A	C3'-C2'-C1'	-6.14	96.59	101.50
1	A	825	A	C6-C5-N7	-6.14	128.00	132.30
1	A	1034	G	C5'-C4'-C3'	-6.14	106.17	116.00
1	A	1039	G	N1-C6-O6	6.14	123.58	119.90
1	A	70	U	C1'-O4'-C4'	-6.14	104.99	109.90
1	A	244	U	C5'-C4'-O4'	6.14	116.47	109.10
1	A	541	G	C5-C6-O6	-6.14	124.92	128.60
1	A	737	C	N3-C4-N4	6.14	122.30	118.00
1	A	772	U	N1-C1'-C2'	-6.14	105.25	112.00
1	A	986	U	O4'-C4'-C3'	-6.14	97.86	104.00
1	A	283	U	C3'-C2'-C1'	-6.14	96.59	101.50
1	A	647	C	N3-C4-C5	-6.14	119.44	121.90
1	A	107	G	N1-C2-N3	-6.14	120.22	123.90
1	A	407	U	C2-N1-C1'	-6.14	110.34	117.70
1	A	695	A	C5'-C4'-O4'	6.14	116.47	109.10
1	A	893	C	C5'-C4'-C3'	-6.14	106.18	116.00
1	A	1007	U	C5'-C4'-C3'	-6.14	106.18	116.00
1	A	1161	C	O4'-C1'-N1	6.14	113.11	108.20
1	A	1448	C	C2-N1-C1'	6.14	125.55	118.80
1	A	81	A	C4-C5-N7	-6.13	107.63	110.70
1	A	238	A	C5'-C4'-O4'	6.13	116.46	109.10
1	A	352	C	N1-C2-O2	6.13	122.58	118.90
1	A	1259	C	C2'-C3'-O3'	6.13	123.51	113.70
1	A	83	C	N1-C1'-C2'	-6.13	105.25	112.00
1	A	245	U	O4'-C1'-N1	6.13	113.11	108.20
1	A	1442	G	O4'-C1'-N9	-6.13	103.29	108.20
1	A	1471	U	C3'-C2'-C1'	-6.13	96.59	101.50
1	A	215	C	P-O5'-C5'	6.13	130.71	120.90
1	A	462	G	C2-N3-C4	-6.13	108.83	111.90
1	A	903	G	O4'-C1'-N9	6.13	113.11	108.20
1	A	964	A	C4'-C3'-C2'	6.13	108.73	102.60
1	A	1278	G	C4'-C3'-C2'	-6.13	96.47	102.60
1	A	1383	C	O5'-C5'-C4'	-6.13	100.05	111.70
1	A	133	U	C5'-C4'-C3'	6.13	125.81	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	750	C	O4'-C1'-N1	6.13	113.10	108.20
1	A	918	A	C5-C6-N6	-6.13	118.80	123.70
1	A	437	U	C5-C4-O4	-6.13	122.22	125.90
1	A	1227	A	C8-N9-C4	-6.13	103.35	105.80
1	A	1271	A	N1-C6-N6	6.13	122.28	118.60
1	A	1298	U	C5-C4-O4	-6.13	122.22	125.90
1	A	1307	U	P-O5'-C5'	6.13	130.70	120.90
1	A	856	C	P-O3'-C3'	6.13	127.05	119.70
1	A	823	C	C5'-C4'-C3'	-6.12	106.20	116.00
1	A	247	G	C3'-C2'-C1'	-6.12	96.60	101.50
1	A	302	G	C3'-C2'-C1'	-6.12	96.60	101.50
1	A	866	C	C4'-C3'-O3'	-6.12	96.54	109.40
1	A	878	A	P-O5'-C5'	6.12	130.70	120.90
1	A	181	A	P-O5'-C5'	-6.12	111.11	120.90
1	A	337	G	C3'-C2'-C1'	-6.12	96.60	101.50
1	A	523	A	C4-N9-C1'	-6.12	115.28	126.30
1	A	745	G	N7-C8-N9	6.12	116.16	113.10
1	A	868	C	N3-C4-N4	6.12	122.28	118.00
1	A	1107	C	N3-C4-N4	6.12	122.28	118.00
1	A	1236	A	C8-N9-C4	-6.12	103.35	105.80
1	A	1510	C	C5'-C4'-O4'	6.12	116.45	109.10
6	F	91	ARG	NE-CZ-NH2	-6.12	117.24	120.30
14	N	54	SER	N-CA-CB	6.12	119.68	110.50
1	A	11	G	N3-C2-N2	6.12	124.18	119.90
1	A	1020	G	N1-C2-N3	-6.12	120.23	123.90
1	A	1287	A	C4-C5-C6	6.12	120.06	117.00
1	A	166	U	C6-N1-C1'	6.12	129.77	121.20
1	A	185	U	N3-C4-O4	6.12	123.68	119.40
1	A	237	G	N9-C1'-C2'	-6.12	105.27	112.00
1	A	603	U	O4'-C1'-N1	6.12	113.09	108.20
1	A	724	G	C8-N9-C4	-6.12	103.95	106.40
1	A	843	U	C5'-C4'-O4'	6.12	116.44	109.10
1	A	1299	A	C4-C5-C6	6.12	120.06	117.00
1	A	281	G	N1-C2-N3	-6.12	120.23	123.90
1	A	352	C	C1'-O4'-C4'	-6.12	105.01	109.90
1	A	584	G	C6-C5-N7	-6.12	126.73	130.40
1	A	1241	G	N1-C2-N2	-6.12	110.70	116.20
6	F	78	PHE	CB-CG-CD2	-6.12	116.52	120.80
1	A	105	G	C2'-C3'-O3'	6.11	123.48	113.70
1	A	497	G	C8-N9-C4	-6.11	103.95	106.40
1	A	535	A	O4'-C1'-N9	6.11	113.09	108.20
1	A	846	G	C4'-C3'-C2'	6.11	108.71	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1016	A	N1-C2-N3	6.11	132.36	129.30
1	A	1384	C	C3'-C2'-C1'	-6.11	96.61	101.50
1	A	1177	G	C5-C6-N1	-6.11	108.44	111.50
1	A	178	C	C5-C4-N4	-6.11	115.92	120.20
1	A	846	G	N7-C8-N9	6.11	116.16	113.10
1	A	1074	G	N7-C8-N9	6.11	116.16	113.10
9	I	117	LEU	N-CA-C	-6.11	94.50	111.00
15	O	44	GLU	CA-CB-CG	6.11	126.84	113.40
1	A	947	G	P-O5'-C5'	6.11	130.68	120.90
1	A	1279	G	N1-C2-N3	-6.11	120.23	123.90
1	A	580	C	N3-C4-N4	6.11	122.28	118.00
1	A	704	A	O4'-C1'-N9	6.11	113.09	108.20
1	A	1058	G	P-O3'-C3'	-6.11	112.37	119.70
2	B	53	LEU	CB-CA-C	-6.11	98.60	110.20
3	C	4	VAL	N-CA-C	-6.11	94.51	111.00
12	L	45	ASN	C-N-CA	6.11	136.97	121.70
16	P	16	PHE	CB-CG-CD2	-6.11	116.53	120.80
1	A	212	G	C5'-C4'-C3'	6.11	125.77	116.00
1	A	731	G	C8-N9-C1'	6.11	134.94	127.00
1	A	792	A	C5-C6-N6	-6.11	118.82	123.70
6	F	10	VAL	N-CA-C	-6.11	94.52	111.00
1	A	1128	C	N3-C4-C5	-6.10	119.46	121.90
1	A	1398	A	C1'-O4'-C4'	-6.10	105.02	109.90
1	A	147	G	C3'-C2'-C1'	-6.10	96.62	101.50
1	A	187	G	C3'-C2'-C1'	-6.10	96.62	101.50
1	A	347	G	N3-C2-N2	6.10	124.17	119.90
1	A	567	G	C4-N9-C1'	-6.10	118.57	126.50
1	A	807	A	O4'-C1'-N9	6.10	113.08	108.20
1	A	1461	G	P-O3'-C3'	-6.10	112.38	119.70
1	A	1496	C	N3-C4-C5	-6.10	119.46	121.90
1	A	1245	C	C2-N1-C1'	-6.10	112.09	118.80
1	A	1299	A	C2-N3-C4	6.10	113.65	110.60
1	A	86	G	C5'-C4'-O4'	6.10	116.42	109.10
1	A	155	A	C8-N9-C1'	6.10	138.68	127.70
1	A	189	A	C5-C6-N1	-6.10	114.65	117.70
1	A	785	G	C5-C6-N1	-6.10	108.45	111.50
1	A	825	A	C1'-O4'-C4'	-6.10	105.02	109.90
1	A	934	C	C6-N1-C2	-6.10	117.86	120.30
1	A	1130	A	C4-N9-C1'	6.10	137.28	126.30
1	A	437	U	C5'-C4'-C3'	6.10	125.76	116.00
1	A	1147	C	C5'-C4'-O4'	6.10	116.42	109.10
1	A	1281	C	C5'-C4'-C3'	-6.10	106.24	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1321	U	C5'-C4'-C3'	-6.10	106.24	116.00
1	A	1515	G	N3-C2-N2	6.10	124.17	119.90
9	I	121	ARG	N-CA-C	-6.10	94.53	111.00
1	A	114	U	O4'-C1'-N1	6.10	113.08	108.20
1	A	196	A	C4-C5-N7	-6.10	107.65	110.70
1	A	323	U	C6-N1-C2	-6.10	117.34	121.00
1	A	892	A	C5'-C4'-O4'	6.10	116.42	109.10
10	J	69	THR	N-CA-CB	6.10	121.88	110.30
1	A	42	G	C4-N9-C1'	-6.09	118.58	126.50
1	A	365	U	O4'-C4'-C3'	-6.09	97.91	104.00
1	A	1308	U	C5'-C4'-O4'	6.09	116.41	109.10
1	A	444	G	C3'-C2'-C1'	-6.09	96.62	101.50
1	A	838	G	C4-C5-C6	6.09	122.46	118.80
1	A	1090	U	N1-C1'-C2'	-6.09	105.30	112.00
1	A	1434	A	C4'-C3'-C2'	6.09	108.69	102.60
1	A	469	C	C4-C5-C6	6.09	120.45	117.40
1	A	575	G	O5'-C5'-C4'	6.09	123.27	111.70
1	A	599	C	C2-N1-C1'	-6.09	112.10	118.80
1	A	737	C	P-O3'-C3'	-6.09	112.39	119.70
1	A	941	G	C1'-O4'-C4'	-6.09	105.03	109.90
1	A	677	U	C6-N1-C2	-6.09	117.35	121.00
1	A	860	A	C5-C6-N6	-6.09	118.83	123.70
1	A	905	U	C5-C6-N1	-6.09	119.66	122.70
1	A	981	U	N3-C2-O2	6.09	126.46	122.20
1	A	168	G	C5-C6-N1	-6.09	108.46	111.50
1	A	182	A	C5'-C4'-O4'	6.09	116.40	109.10
1	A	272	C	C1'-O4'-C4'	-6.09	105.03	109.90
1	A	419	C	C6-N1-C2	-6.09	117.86	120.30
1	A	501	C	N3-C4-N4	6.09	122.26	118.00
1	A	686	U	N1-C2-O2	6.09	127.06	122.80
1	A	918	A	C5-C6-N1	-6.09	114.66	117.70
1	A	960	U	O4'-C1'-N1	6.09	113.07	108.20
1	A	1190	G	O4'-C1'-N9	6.09	113.07	108.20
1	A	723	U	N3-C4-O4	6.08	123.66	119.40
1	A	233	C	C6-N1-C1'	6.08	128.10	120.80
1	A	581	G	C1'-O4'-C4'	-6.08	105.03	109.90
1	A	735	C	P-O3'-C3'	6.08	127.00	119.70
1	A	395	C	N3-C4-C5	-6.08	119.47	121.90
1	A	1131	G	C5-C6-O6	-6.08	124.95	128.60
1	A	1321	U	C4'-C3'-C2'	6.08	108.68	102.60
2	B	75	ALA	N-CA-CB	6.08	118.61	110.10
1	A	811	C	C3'-C2'-C1'	6.08	106.36	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1187	G	C6-N1-C2	-6.08	121.45	125.10
1	A	445	G	N9-C1'-C2'	-6.08	105.31	112.00
1	A	953	G	C5'-C4'-O4'	6.08	116.39	109.10
1	A	1488	G	P-O3'-C3'	6.08	126.99	119.70
3	C	94	ALA	CB-CA-C	-6.08	100.98	110.10
4	D	49	ASP	N-CA-CB	6.08	121.54	110.60
1	A	202	G	O3'-P-O5'	-6.08	92.46	104.00
1	A	1094	G	O5'-C5'-C4'	-6.08	100.16	111.70
1	A	1324	A	C4-C5-C6	6.08	120.04	117.00
1	A	52	C	N1-C1'-C2'	-6.07	105.32	112.00
1	A	90	C	C5'-C4'-O4'	-6.07	101.81	109.10
1	A	147	G	C5'-C4'-O4'	6.07	116.39	109.10
1	A	190	A	C3'-C2'-C1'	-6.07	96.64	101.50
1	A	246	A	C1'-O4'-C4'	6.07	114.76	109.90
1	A	501	C	C5'-C4'-C3'	-6.07	106.28	116.00
1	A	561	U	N3-C4-C5	-6.07	110.96	114.60
1	A	979	C	C6-N1-C2	-6.07	117.87	120.30
1	A	401	C	O4'-C1'-N1	6.07	113.06	108.20
1	A	1006	G	C5-N7-C8	6.07	107.33	104.30
1	A	1208	C	N3-C4-N4	6.07	122.25	118.00
1	A	1217	C	C5'-C4'-O4'	6.07	116.38	109.10
1	A	1239	A	O4'-C1'-N9	6.07	113.06	108.20
1	A	1257	A	C5-C6-N6	-6.07	118.84	123.70
1	A	1353	G	C6-C5-N7	-6.07	126.76	130.40
1	A	1428	A	C5'-C4'-O4'	6.07	116.39	109.10
15	O	46	LYS	CB-CA-C	-6.07	98.26	110.40
1	A	423	G	C2-N3-C4	6.07	114.94	111.90
1	A	957	U	O5'-C5'-C4'	-6.07	100.17	111.70
1	A	61	G	C8-N9-C4	-6.07	103.97	106.40
1	A	247	G	P-O3'-C3'	-6.07	112.42	119.70
1	A	315	A	C8-N9-C1'	6.07	138.62	127.70
1	A	356	A	C8-N9-C1'	6.07	138.62	127.70
1	A	426	U	C1'-O4'-C4'	-6.07	105.05	109.90
1	A	595	A	C4-C5-N7	-6.07	107.67	110.70
1	A	647	C	P-O3'-C3'	-6.07	112.42	119.70
1	A	738	C	C5-C6-N1	6.07	124.03	121.00
1	A	756	C	C3'-C2'-C1'	-6.07	96.65	101.50
1	A	1027	C	O4'-C1'-N1	6.07	113.06	108.20
1	A	1434	A	C5'-C4'-O4'	6.07	116.38	109.10
1	A	1439	G	P-O5'-C5'	6.07	130.61	120.90
1	A	1470	U	C3'-C2'-C1'	-6.07	96.65	101.50
1	A	678	U	O5'-C5'-C4'	-6.07	100.18	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	733	G	C4-N9-C1'	-6.07	118.61	126.50
1	A	852	G	C4-N9-C1'	-6.07	118.61	126.50
1	A	885	G	O4'-C1'-N9	6.07	113.05	108.20
1	A	1084	G	N1-C2-N3	-6.07	120.26	123.90
12	L	58	ASN	CA-CB-CG	-6.07	100.06	113.40
1	A	816	A	O5'-C5'-C4'	-6.06	100.18	111.70
11	K	41	LEU	CB-CG-CD2	6.06	121.31	111.00
17	Q	30	HIS	N-CA-C	-6.06	94.63	111.00
1	A	48	C	P-O3'-C3'	6.06	126.98	119.70
1	A	340	U	C6-N1-C1'	6.06	129.69	121.20
1	A	628	G	C1'-O4'-C4'	-6.06	105.05	109.90
1	A	749	A	N3-C4-C5	-6.06	122.56	126.80
1	A	752	G	O4'-C1'-C2'	6.06	113.06	107.60
1	A	800	G	N3-C2-N2	6.06	124.14	119.90
1	A	802	A	O4'-C1'-N9	6.06	113.05	108.20
1	A	1292	G	N3-C2-N2	6.06	124.14	119.90
1	A	1392	G	C4-N9-C1'	-6.06	118.62	126.50
4	D	25	ARG	N-CA-CB	6.06	121.51	110.60
1	A	29	U	C3'-C2'-C1'	-6.06	96.65	101.50
1	A	446	G	C3'-C2'-C1'	-6.06	96.65	101.50
1	A	713	G	P-O5'-C5'	6.06	130.60	120.90
1	A	479	U	C6-N1-C2	-6.06	117.36	121.00
1	A	848	C	C6-N1-C1'	6.06	128.07	120.80
1	A	1457	G	N3-C2-N2	6.06	124.14	119.90
1	A	168	G	C5'-C4'-C3'	-6.06	106.31	116.00
1	A	189	A	C5-N7-C8	6.06	106.93	103.90
1	A	310	G	P-O3'-C3'	-6.06	112.43	119.70
1	A	855	U	C3'-C2'-C1'	-6.06	96.65	101.50
1	A	1207	G	P-O3'-C3'	-6.06	112.43	119.70
1	A	1459	G	C5'-C4'-O4'	6.06	116.37	109.10
1	A	1271	A	C8-N9-C1'	6.06	138.60	127.70
1	A	220	G	C1'-O4'-C4'	-6.05	105.06	109.90
1	A	372	C	P-O5'-C5'	-6.05	111.21	120.90
1	A	541	G	C2-N3-C4	6.05	114.93	111.90
1	A	1130	A	C8-N9-C1'	-6.05	116.80	127.70
1	A	79	G	N3-C2-N2	-6.05	115.66	119.90
1	A	6	G	C3'-C2'-C1'	-6.05	96.66	101.50
1	A	330	C	C2-N3-C4	6.05	122.93	119.90
1	A	351	G	O4'-C1'-N9	6.05	113.04	108.20
1	A	719	C	C6-N1-C2	-6.05	117.88	120.30
1	A	957	U	C5'-C4'-O4'	6.05	116.36	109.10
2	B	205	ALA	CB-CA-C	-6.05	101.02	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	169	C	N3-C4-N4	-6.05	113.77	118.00
1	A	445	G	C3'-C2'-C1'	-6.05	96.66	101.50
1	A	851	G	O3'-P-O5'	-6.05	92.50	104.00
1	A	1500	A	C5'-C4'-C3'	-6.05	106.32	116.00
8	H	109	VAL	CB-CA-C	-6.05	99.91	111.40
1	A	1168	U	C4'-C3'-C2'	-6.05	96.55	102.60
1	A	118	U	C2-N3-C4	-6.05	123.37	127.00
1	A	254	G	O3'-P-O5'	-6.05	92.51	104.00
1	A	467	U	C6-N1-C2	-6.05	117.37	121.00
1	A	482	A	C5-C6-N6	-6.05	118.86	123.70
1	A	485	U	C5'-C4'-C3'	-6.05	106.33	116.00
1	A	582	C	C5'-C4'-C3'	-6.05	106.33	116.00
1	A	859	G	C4'-C3'-C2'	-6.05	96.55	102.60
1	A	885	G	C5-C6-O6	-6.05	124.97	128.60
1	A	917	G	N1-C2-N3	-6.05	120.27	123.90
1	A	1096	C	N3-C2-O2	-6.05	117.67	121.90
8	H	91	LEU	N-CA-C	-6.05	94.68	111.00
1	A	1436	U	N1-C1'-C2'	-6.04	105.35	112.00
1	A	123	U	O5'-P-OP1	-6.04	100.26	105.70
1	A	395	C	C5'-C4'-C3'	-6.04	106.33	116.00
1	A	468	A	C3'-C2'-C1'	-6.04	96.67	101.50
1	A	817	C	C5'-C4'-O4'	6.04	116.35	109.10
1	A	1324	A	C8-N9-C4	-6.04	103.38	105.80
1	A	1437	A	C5-C6-N1	-6.04	114.68	117.70
9	I	129	ARG	NE-CZ-NH2	-6.04	117.28	120.30
1	A	436	C	C6-N1-C2	-6.04	117.88	120.30
1	A	722	G	C4'-C3'-C2'	6.04	108.64	102.60
1	A	476	U	N3-C2-O2	-6.04	117.97	122.20
1	A	730	G	C8-N9-C4	-6.04	103.98	106.40
1	A	1426	G	C3'-C2'-C1'	-6.04	96.67	101.50
1	A	322	C	C5'-C4'-O4'	6.04	116.35	109.10
1	A	326	G	N3-C2-N2	6.04	124.13	119.90
1	A	327	A	C5'-C4'-C3'	-6.04	106.34	116.00
1	A	899	C	O4'-C1'-N1	6.04	113.03	108.20
1	A	1004	A	O4'-C4'-C3'	-6.04	97.96	104.00
1	A	1005	A	O5'-P-OP2	6.04	117.95	110.70
1	A	1155	A	C4-C5-C6	6.04	120.02	117.00
1	A	1182	G	C5-N7-C8	6.04	107.32	104.30
1	A	1498	U	P-O3'-C3'	6.04	126.95	119.70
1	A	329	A	C6-C5-N7	-6.04	128.07	132.30
1	A	558	G	C5-C6-O6	-6.04	124.98	128.60
1	A	997	U	P-O3'-C3'	-6.04	112.46	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1131	G	O4'-C4'-C3'	-6.04	97.96	104.00
1	A	1175	G	C5'-C4'-O4'	6.04	116.34	109.10
1	A	1195	C	C2-N1-C1'	6.04	125.44	118.80
1	A	1407	C	C3'-C2'-C1'	-6.04	96.67	101.50
1	A	4	U	O4'-C1'-N1	6.03	113.03	108.20
1	A	428	G	C5-C6-N1	-6.03	108.48	111.50
1	A	1248	A	O4'-C4'-C3'	-6.03	97.97	104.00
1	A	697	U	N3-C2-O2	6.03	126.42	122.20
1	A	392	C	C5'-C4'-C3'	6.03	125.65	116.00
1	A	435	A	C5-C6-N6	-6.03	118.88	123.70
1	A	806	C	C3'-C2'-C1'	-6.03	96.67	101.50
1	A	850	U	C3'-C2'-C1'	-6.03	96.68	101.50
1	A	1145	A	O4'-C4'-C3'	-6.03	97.97	104.00
1	A	1238	A	C5'-C4'-O4'	6.03	116.34	109.10
1	A	1496	C	C6-N1-C1'	6.03	128.04	120.80
1	A	34	C	O4'-C1'-N1	6.03	113.02	108.20
1	A	658	C	O4'-C4'-C3'	-6.03	97.97	104.00
1	A	1102	A	C5'-C4'-C3'	-6.03	106.35	116.00
1	A	1196	A	C5-C6-N1	-6.03	114.69	117.70
1	A	1241	G	N3-C4-N9	6.03	129.62	126.00
1	A	94	G	O4'-C4'-C3'	6.03	110.92	106.10
1	A	201	G	O4'-C1'-C2'	6.03	113.02	107.60
1	A	222	C	O4'-C4'-C3'	-6.03	97.97	104.00
1	A	306	A	C2'-C3'-O3'	6.03	123.34	113.70
1	A	668	G	O5'-P-OP2	-6.03	100.28	105.70
1	A	865	A	C5-C6-N6	-6.03	118.88	123.70
1	A	1009	U	C5-C4-O4	6.03	129.52	125.90
1	A	1013	G	C3'-C2'-C1'	-6.03	96.68	101.50
1	A	1140	C	N3-C4-C5	-6.03	119.49	121.90
1	A	1471	U	C1'-O4'-C4'	-6.03	105.08	109.90
1	A	1475	G	C5-C6-O6	-6.03	124.98	128.60
1	A	1495	U	C3'-C2'-C1'	-6.03	96.68	101.50
1	A	590	U	C5'-C4'-C3'	-6.03	106.36	116.00
1	A	886	G	C4-N9-C1'	-6.03	118.67	126.50
1	A	1448	C	C3'-C2'-C1'	6.03	106.32	101.50
16	P	38	PHE	CB-CG-CD2	-6.03	116.58	120.80
1	A	1006	G	O4'-C1'-N9	6.02	113.02	108.20
1	A	1418	A	C2'-C3'-O3'	6.02	123.34	113.70
1	A	1474	U	C6-N1-C2	-6.02	117.39	121.00
1	A	617	G	C5-N7-C8	-6.02	101.29	104.30
1	A	584	G	C2'-C3'-O3'	6.02	123.33	113.70
1	A	881	G	C6-C5-N7	-6.02	126.79	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	100	G	C5'-C4'-O4'	6.02	116.32	109.10
1	A	451	A	C3'-C2'-C1'	-6.02	96.69	101.50
1	A	565	U	O4'-C1'-N1	6.02	113.02	108.20
1	A	683	G	N7-C8-N9	6.02	116.11	113.10
1	A	1102	A	C6-C5-N7	-6.02	128.09	132.30
1	A	1146	A	P-O5'-C5'	-6.02	111.27	120.90
1	A	1221	G	N1-C2-N2	-6.02	110.78	116.20
1	A	1449	C	C5'-C4'-O4'	-6.02	101.88	109.10
1	A	1454	G	O3'-P-O5'	-6.02	92.56	104.00
9	I	63	TYR	CA-CB-CG	-6.02	101.96	113.40
1	A	564	C	N3-C4-N4	6.02	122.21	118.00
1	A	848	C	N3-C4-C5	-6.02	119.49	121.90
1	A	1087	G	O4'-C1'-N9	6.02	113.01	108.20
1	A	1115	U	O4'-C4'-C3'	-6.02	97.98	104.00
1	A	1433	A	C6-C5-N7	-6.02	128.09	132.30
1	A	1504	G	O3'-P-O5'	-6.02	92.57	104.00
1	A	95	C	C5-C4-N4	-6.01	115.99	120.20
1	A	450	G	C1'-O4'-C4'	-6.01	105.09	109.90
1	A	1059	C	C4'-C3'-C2'	-6.01	96.59	102.60
1	A	1091	U	C5'-C4'-O4'	6.01	116.32	109.10
1	A	1093	A	O4'-C1'-N9	6.01	113.01	108.20
1	A	1343	G	C1'-O4'-C4'	-6.01	105.09	109.90
1	A	1447	A	C4'-C3'-O3'	6.01	125.03	113.00
12	L	26	CYS	N-CA-C	-6.01	94.76	111.00
1	A	44	A	C4-C5-C6	6.01	120.01	117.00
1	A	903	G	OP1-P-OP2	-6.01	110.58	119.60
1	A	1255	G	C5'-C4'-C3'	6.01	125.62	116.00
1	A	410	G	C5-N7-C8	-6.01	101.29	104.30
1	A	1021	A	N7-C8-N9	6.01	116.81	113.80
1	A	122	G	C6-C5-N7	-6.01	126.79	130.40
1	A	369	G	O4'-C1'-N9	6.01	113.01	108.20
1	A	394	G	C6-C5-N7	-6.01	126.79	130.40
1	A	402	G	N1-C2-N3	-6.01	120.29	123.90
1	A	442	G	C4-N9-C1'	-6.01	118.69	126.50
1	A	546	A	C5-C6-N6	-6.01	118.89	123.70
1	A	1164	G	C4'-C3'-C2'	-6.01	96.59	102.60
1	A	1327	C	C2-N3-C4	6.01	122.91	119.90
1	A	803	G	N3-C4-C5	-6.01	125.60	128.60
1	A	1010	U	O5'-P-OP2	-6.01	100.29	105.70
18	R	69	TYR	N-CA-C	-6.01	94.78	111.00
1	A	79	G	C5'-C4'-C3'	-6.01	106.39	116.00
1	A	184	G	C4'-C3'-C2'	-6.01	96.59	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1056	U	N1-C2-N3	-6.01	111.30	114.90
1	A	1066	C	C3'-C2'-C1'	6.01	106.31	101.50
1	A	1084	G	P-O5'-C5'	-6.01	111.29	120.90
1	A	41	G	N1-C2-N3	-6.00	120.30	123.90
1	A	313	A	N3-C4-C5	-6.00	122.60	126.80
1	A	475	C	N3-C4-N4	6.00	122.20	118.00
1	A	541	G	P-O3'-C3'	-6.00	112.49	119.70
1	A	764	C	C5-C6-N1	6.00	124.00	121.00
1	A	1007	U	O4'-C1'-N1	6.00	113.00	108.20
1	A	56	U	C5'-C4'-O4'	6.00	116.31	109.10
1	A	600	A	O4'-C1'-N9	6.00	113.00	108.20
1	A	713	G	C5-C6-N1	-6.00	108.50	111.50
1	A	895	G	C6-N1-C2	6.00	128.70	125.10
1	A	1040	U	P-O3'-C3'	6.00	126.91	119.70
1	A	1040	U	N3-C4-O4	6.00	123.60	119.40
1	A	1043	G	N3-C2-N2	6.00	124.10	119.90
1	A	1043	G	O5'-C5'-C4'	-6.00	100.29	111.70
1	A	1090	U	P-O5'-C5'	6.00	130.50	120.90
1	A	1230	C	C5'-C4'-O4'	6.00	116.31	109.10
1	A	1354	U	C1'-O4'-C4'	-6.00	105.10	109.90
1	A	57	G	C6-C5-N7	-6.00	126.80	130.40
1	A	434	U	P-O5'-C5'	6.00	130.50	120.90
1	A	481	G	C5-C6-O6	-6.00	125.00	128.60
1	A	781	A	O3'-P-O5'	-6.00	92.60	104.00
1	A	1129	C	C1'-O4'-C4'	-6.00	105.10	109.90
1	A	1435	G	C4-N9-C1'	-6.00	118.70	126.50
1	A	152	A	N1-C6-N6	6.00	122.20	118.60
1	A	537	G	N1-C2-N3	-6.00	120.30	123.90
1	A	1405	G	C8-N9-C4	-6.00	104.00	106.40
17	Q	64	ARG	CB-CA-C	-6.00	98.40	110.40
1	A	72	A	P-O5'-C5'	-6.00	111.30	120.90
1	A	168	G	C8-N9-C1'	6.00	134.80	127.00
1	A	641	U	N3-C4-O4	6.00	123.60	119.40
1	A	862	C	C2'-C3'-O3'	6.00	123.30	113.70
1	A	1127	G	C6-N1-C2	6.00	128.70	125.10
1	A	428	G	O5'-C5'-C4'	-6.00	100.31	111.70
1	A	562	U	C5'-C4'-O4'	6.00	116.30	109.10
1	A	929	G	C3'-C2'-C1'	-6.00	96.70	101.50
1	A	1098	C	O5'-C5'-C4'	-6.00	100.31	111.70
1	A	1507	A	C4-C5-C6	6.00	120.00	117.00
1	A	1525	G	C2-N3-C4	6.00	114.90	111.90
1	A	3	A	C5'-C4'-C3'	6.00	125.59	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1041	G	N3-C2-N2	6.00	124.10	119.90
1	A	1513	A	O4'-C1'-N9	6.00	113.00	108.20
1	A	275	G	C1'-O4'-C4'	-5.99	105.10	109.90
1	A	352	C	N1-C2-N3	-5.99	115.00	119.20
1	A	599	C	C5'-C4'-C3'	-5.99	106.41	116.00
1	A	1033	G	C2'-C3'-O3'	5.99	123.29	113.70
1	A	1054	C	C6-N1-C1'	-5.99	113.61	120.80
1	A	1293	C	C1'-O4'-C4'	-5.99	105.11	109.90
1	A	144	G	C5'-C4'-C3'	-5.99	106.41	116.00
1	A	453	G	N1-C2-N3	-5.99	120.31	123.90
1	A	667	G	C8-N9-C4	-5.99	104.00	106.40
1	A	884	U	O5'-C5'-C4'	-5.99	100.31	111.70
1	A	1106	G	N3-C2-N2	5.99	124.09	119.90
1	A	1141	C	C3'-C2'-C1'	-5.99	96.71	101.50
1	A	269	C	P-O3'-C3'	-5.99	112.51	119.70
1	A	1270	G	O5'-C5'-C4'	-5.99	100.32	111.70
17	Q	70	LYS	CB-CA-C	5.99	122.38	110.40
1	A	852	G	O5'-C5'-C4'	-5.99	100.32	111.70
1	A	984	C	O4'-C1'-C2'	5.99	112.99	107.60
1	A	1354	U	P-O5'-C5'	5.99	130.48	120.90
1	A	69	G	O3'-P-O5'	-5.99	92.63	104.00
1	A	160	A	C1'-O4'-C4'	-5.99	105.11	109.90
1	A	615	G	C3'-C2'-C1'	-5.99	96.71	101.50
1	A	891	U	C2-N1-C1'	-5.99	110.52	117.70
1	A	1231	G	C4-N9-C1'	-5.99	118.72	126.50
1	A	1248	A	P-O3'-C3'	-5.99	112.52	119.70
1	A	1435	G	C3'-C2'-C1'	-5.99	96.71	101.50
1	A	459	A	C8-N9-C4	-5.98	103.41	105.80
1	A	465	A	O3'-P-O5'	-5.98	92.63	104.00
1	A	602	A	C6-C5-N7	-5.98	128.11	132.30
1	A	620	C	P-O3'-C3'	-5.98	112.52	119.70
1	A	1202	U	C5'-C4'-C3'	5.98	125.57	116.00
1	A	371	A	C6-C5-N7	-5.98	128.11	132.30
1	A	811	C	C4'-C3'-C2'	-5.98	96.62	102.60
1	A	11	G	C5-C6-O6	-5.98	125.01	128.60
1	A	501	C	C6-N1-C1'	5.98	127.98	120.80
1	A	609	A	C4-C5-C6	5.98	119.99	117.00
1	A	795	C	C5-C6-N1	5.98	123.99	121.00
1	A	1290	G	N3-C4-N9	5.98	129.59	126.00
1	A	250	A	C4-C5-C6	5.98	119.99	117.00
1	A	260	G	C4-N9-C1'	-5.98	118.73	126.50
1	A	451	A	N7-C8-N9	-5.98	110.81	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1352	C	N3-C4-N4	5.98	122.19	118.00
1	A	191	G	C6-C5-N7	-5.98	126.81	130.40
1	A	289	G	C2-N3-C4	5.98	114.89	111.90
1	A	329	A	C5-C6-N6	-5.98	118.92	123.70
1	A	356	A	C5-C6-N1	-5.98	114.71	117.70
1	A	499	A	C2'-C3'-O3'	5.98	123.26	113.70
1	A	890	G	N3-C2-N2	5.98	124.08	119.90
1	A	964	A	O3'-P-O5'	-5.98	92.64	104.00
1	A	51	A	C5'-C4'-O4'	-5.97	101.93	109.10
1	A	544	G	C5'-C4'-C3'	-5.97	106.44	116.00
1	A	1171	A	N7-C8-N9	-5.97	110.81	113.80
1	A	25	C	N3-C4-C5	-5.97	119.51	121.90
1	A	112	G	C8-N9-C4	-5.97	104.01	106.40
1	A	340	U	C2-N1-C1'	-5.97	110.53	117.70
1	A	345	C	O4'-C1'-C2'	-5.97	99.83	105.80
1	A	1117	A	C5-C6-N6	-5.97	118.92	123.70
15	O	45	HIS	N-CA-CB	5.97	121.35	110.60
1	A	29	U	C5'-C4'-C3'	-5.97	106.45	116.00
1	A	94	G	O3'-P-O5'	5.97	115.34	104.00
1	A	483	C	N3-C4-C5	-5.97	119.51	121.90
1	A	1521	C	C3'-C2'-C1'	-5.97	96.72	101.50
1	A	401	C	N3-C4-C5	-5.97	119.51	121.90
1	A	625	U	C3'-C2'-C1'	-5.97	96.72	101.50
1	A	1446	A	C4-C5-C6	5.97	119.98	117.00
1	A	106	C	N3-C4-N4	5.97	122.18	118.00
1	A	604	G	C8-N9-C4	-5.97	104.01	106.40
1	A	1504	G	C8-N9-C4	-5.97	104.01	106.40
1	A	489	C	C4'-C3'-C2'	-5.97	96.63	102.60
1	A	938	A	O4'-C1'-N9	5.97	112.97	108.20
1	A	1241	G	N1-C2-N3	-5.97	120.32	123.90
1	A	1329	A	O4'-C1'-N9	5.97	112.97	108.20
1	A	399	G	C4-N9-C1'	-5.96	118.75	126.50
1	A	421	U	P-O5'-C5'	-5.96	111.36	120.90
1	A	581	G	N1-C2-N3	-5.96	120.32	123.90
1	A	637	C	C5-C6-N1	5.96	123.98	121.00
1	A	830	G	N9-C1'-C2'	-5.96	105.44	112.00
1	A	1261	A	C4'-C3'-C2'	-5.96	96.64	102.60
1	A	1306	A	P-O3'-C3'	-5.96	112.54	119.70
1	A	1354	U	O5'-C5'-C4'	-5.96	100.37	111.70
1	A	1385	G	N3-C2-N2	5.96	124.08	119.90
3	C	99	GLN	N-CA-C	-5.96	94.89	111.00
1	A	70	U	O4'-C1'-N1	5.96	112.97	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	751	U	O5'-P-OP2	5.96	117.86	110.70
1	A	912	C	C6-N1-C2	-5.96	117.92	120.30
1	A	1276	G	N3-C4-N9	5.96	129.58	126.00
1	A	1413	A	C5-C6-N1	-5.96	114.72	117.70
17	Q	72	TRP	CB-CG-CD2	-5.96	118.85	126.60
1	A	213	G	C6-C5-N7	-5.96	126.82	130.40
1	A	298	A	C5-C6-N6	-5.96	118.93	123.70
1	A	779	C	C5'-C4'-C3'	5.96	125.54	116.00
1	A	1087	G	C6-C5-N7	-5.96	126.82	130.40
1	A	1257	A	P-O5'-C5'	-5.96	111.36	120.90
1	A	1446	A	C5-C6-N6	-5.96	118.93	123.70
1	A	1484	C	N3-C4-N4	5.96	122.17	118.00
1	A	1247	U	C5-C4-O4	-5.96	122.32	125.90
1	A	1319	A	C6-C5-N7	-5.96	128.13	132.30
1	A	1412	C	P-O5'-C5'	-5.96	111.36	120.90
1	A	66	A	C5-C6-N6	-5.96	118.93	123.70
1	A	209	U	C5'-C4'-C3'	-5.96	106.47	116.00
1	A	861	G	O5'-P-OP2	-5.96	100.34	105.70
1	A	985	C	C1'-O4'-C4'	-5.96	105.13	109.90
1	A	299	G	C5-C6-N1	-5.96	108.52	111.50
1	A	802	A	N9-C4-C5	5.96	108.18	105.80
1	A	951	G	C5'-C4'-O4'	5.96	116.25	109.10
1	A	1187	G	C2'-C3'-O3'	5.96	123.23	113.70
1	A	1404	C	C6-N1-C1'	5.96	127.95	120.80
1	A	627	G	C8-N9-C1'	5.96	134.74	127.00
1	A	819	A	C5'-C4'-C3'	-5.96	106.47	116.00
16	P	5	ARG	NE-CZ-NH2	-5.96	117.32	120.30
1	A	546	A	C3'-C2'-C1'	5.95	106.26	101.50
1	A	851	G	N1-C2-N3	-5.95	120.33	123.90
1	A	895	G	P-O5'-C5'	-5.95	111.37	120.90
1	A	1177	G	C5-C6-O6	-5.95	125.03	128.60
1	A	13	U	O4'-C1'-N1	5.95	112.96	108.20
1	A	1195	C	N3-C4-C5	-5.95	119.52	121.90
1	A	76	G	C1'-O4'-C4'	-5.95	105.14	109.90
1	A	188	C	N3-C4-N4	5.95	122.17	118.00
1	A	255	G	C8-N9-C1'	5.95	134.74	127.00
1	A	851	G	C5'-C4'-O4'	5.95	116.24	109.10
1	A	857	C	C2'-C3'-O3'	5.95	123.22	113.70
1	A	1401	G	C5'-C4'-O4'	5.95	116.24	109.10
1	A	1459	G	C5-C6-O6	-5.95	125.03	128.60
1	A	452	A	O4'-C1'-C2'	5.95	112.95	107.60
1	A	528	C	C3'-C2'-C1'	-5.95	96.74	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1177	G	C5'-C4'-C3'	-5.95	106.48	116.00
1	A	1414	U	C4'-C3'-C2'	5.95	108.55	102.60
1	A	1439	G	C5'-C4'-O4'	5.95	116.24	109.10
1	A	1445	U	O4'-C1'-N1	5.95	112.96	108.20
1	A	1518	A	O5'-C5'-C4'	-5.95	100.40	111.70
1	A	879	C	P-O3'-C3'	-5.95	112.56	119.70
1	A	96	U	C4'-C3'-C2'	5.95	108.55	102.60
1	A	607	A	O3'-P-O5'	-5.95	92.70	104.00
1	A	996	A	N3-C4-N9	-5.95	122.64	127.40
1	A	1268	G	C8-N9-C4	-5.95	104.02	106.40
1	A	1503	A	C5-C6-N1	-5.95	114.73	117.70
1	A	223	A	C3'-C2'-C1'	-5.94	96.75	101.50
1	A	241	G	P-O3'-C3'	-5.94	112.57	119.70
1	A	456	A	C4'-C3'-C2'	5.94	108.54	102.60
1	A	613	C	O5'-C5'-C4'	-5.94	100.41	111.70
1	A	703	G	C5-C6-O6	-5.94	125.03	128.60
1	A	880	C	O5'-P-OP2	-5.94	100.35	105.70
1	A	1288	A	C5-C6-N1	-5.94	114.73	117.70
1	A	1371	G	C4-N9-C1'	-5.94	118.77	126.50
1	A	56	U	C6-N1-C2	-5.94	117.44	121.00
1	A	143	A	C5'-C4'-C3'	-5.94	106.50	116.00
1	A	193	C	C6-N1-C2	5.94	122.68	120.30
1	A	218	U	O4'-C1'-N1	5.94	112.95	108.20
1	A	276	G	C8-N9-C4	-5.94	104.02	106.40
1	A	429	U	O5'-C5'-C4'	-5.94	100.41	111.70
1	A	1079	G	N1-C6-O6	5.94	123.46	119.90
1	A	146	G	O5'-C5'-C4'	-5.94	100.42	111.70
1	A	877	G	C6-C5-N7	-5.94	126.84	130.40
1	A	1132	C	C5'-C4'-C3'	-5.94	106.50	116.00
1	A	41	G	C8-N9-C1'	5.94	134.72	127.00
1	A	95	C	C4'-C3'-C2'	5.94	108.54	102.60
1	A	316	C	N3-C2-O2	-5.94	117.74	121.90
1	A	366	A	C4'-C3'-C2'	5.94	108.54	102.60
1	A	482	A	P-O5'-C5'	-5.94	111.40	120.90
1	A	644	U	C1'-O4'-C4'	-5.94	105.15	109.90
1	A	685	G	C5'-C4'-C3'	-5.94	106.50	116.00
1	A	805	C	O5'-C5'-C4'	-5.94	100.42	111.70
1	A	1295	U	C5'-C4'-C3'	-5.94	106.50	116.00
2	B	199	ILE	N-CA-C	-5.94	94.97	111.00
3	C	98	ALA	CB-CA-C	-5.94	101.19	110.10
1	A	1287	A	C5-C6-N6	-5.94	118.95	123.70
1	A	649	A	N9-C4-C5	-5.93	103.43	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	822	U	C5-C4-O4	-5.93	122.34	125.90
1	A	861	G	C6-C5-N7	-5.93	126.84	130.40
1	A	1304	G	C5-C6-N1	-5.93	108.53	111.50
20	T	2	ASN	C-N-CA	5.93	136.54	121.70
1	A	226	G	O4'-C4'-C3'	-5.93	98.07	104.00
1	A	235	C	C5-C4-N4	-5.93	116.05	120.20
1	A	256	U	O3'-P-O5'	-5.93	92.73	104.00
1	A	289	G	N1-C2-N3	-5.93	120.34	123.90
1	A	978	A	P-O3'-C3'	5.93	126.82	119.70
1	A	1138	G	C5'-C4'-O4'	5.93	116.22	109.10
1	A	1321	U	P-O5'-C5'	5.93	130.39	120.90
1	A	276	G	N1-C2-N2	5.93	121.54	116.20
1	A	564	C	C5'-C4'-C3'	-5.93	106.51	116.00
20	T	8	LYS	CB-CA-C	5.93	122.26	110.40
1	A	5	U	O4'-C4'-C3'	-5.93	98.07	104.00
1	A	1050	G	C1'-O4'-C4'	-5.93	105.16	109.90
1	A	1187	G	O3'-P-O5'	5.93	115.26	104.00
1	A	1441	A	C5-C6-N6	-5.93	118.96	123.70
1	A	146	G	N3-C2-N2	-5.93	115.75	119.90
1	A	484	G	C4-N9-C1'	-5.93	118.79	126.50
1	A	557	G	P-O5'-C5'	5.93	130.38	120.90
1	A	1365	G	C5'-C4'-O4'	-5.93	101.99	109.10
1	A	1011	C	C6-N1-C1'	5.93	127.91	120.80
1	A	1157	A	C4'-C3'-C2'	-5.93	96.67	102.60
2	B	59	ILE	CA-C-N	-5.93	104.16	117.20
1	A	470	C	O4'-C1'-N1	5.92	112.94	108.20
1	A	759	A	C5-C6-N6	-5.92	118.96	123.70
1	A	1055	A	N3-C4-C5	-5.92	122.65	126.80
1	A	1434	A	N3-C4-C5	-5.92	122.65	126.80
12	L	77	SER	N-CA-CB	5.92	119.39	110.50
5	E	127	TYR	CB-CG-CD2	-5.92	117.45	121.00
1	A	1259	C	N3-C4-C5	-5.92	119.53	121.90
1	A	1361	G	P-O3'-C3'	-5.92	112.59	119.70
1	A	1516	G	C6-C5-N7	-5.92	126.85	130.40
1	A	165	G	O4'-C1'-N9	5.92	112.94	108.20
1	A	165	G	C5-C6-O6	-5.92	125.05	128.60
1	A	91	U	C6-N1-C1'	-5.92	112.92	121.20
1	A	310	G	C5'-C4'-O4'	5.92	116.20	109.10
1	A	431	A	O4'-C4'-C3'	-5.92	98.08	104.00
1	A	946	A	C5'-C4'-C3'	-5.92	106.53	116.00
1	A	1060	U	O4'-C1'-N1	5.92	112.93	108.20
1	A	1097	C	C2-N1-C1'	-5.92	112.29	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1337	G	C4-N9-C1'	-5.92	118.81	126.50
1	A	461	A	O4'-C1'-N9	5.92	112.93	108.20
1	A	1001	C	C6-N1-C1'	5.92	127.90	120.80
1	A	182	A	C6-C5-N7	-5.91	128.16	132.30
1	A	245	U	C6-N1-C1'	5.91	129.48	121.20
1	A	613	C	O4'-C1'-C2'	5.91	112.92	107.60
1	A	829	G	P-O3'-C3'	-5.91	112.61	119.70
1	A	1190	G	N1-C6-O6	5.91	123.45	119.90
1	A	1194	U	O4'-C1'-N1	5.91	112.93	108.20
1	A	213	G	N3-C2-N2	5.91	124.04	119.90
1	A	558	G	C4-C5-C6	5.91	122.35	118.80
1	A	812	G	O3'-P-O5'	-5.91	92.77	104.00
1	A	952	U	C3'-C2'-C1'	-5.91	96.77	101.50
1	A	1090	U	C5-C6-N1	-5.91	119.75	122.70
1	A	1313	U	O5'-C5'-C4'	-5.91	100.47	111.70
1	A	149	A	C4-C5-C6	5.91	119.95	117.00
1	A	239	U	C3'-C2'-C1'	-5.91	96.77	101.50
1	A	240	G	N3-C4-C5	-5.91	125.65	128.60
1	A	357	G	C6-C5-N7	-5.91	126.86	130.40
1	A	530	G	C4'-C3'-C2'	5.91	108.51	102.60
1	A	720	C	P-O5'-C5'	5.91	130.35	120.90
1	A	930	C	C6-N1-C2	5.91	122.66	120.30
1	A	986	U	O5'-C5'-C4'	-5.91	100.47	111.70
1	A	1348	U	C6-N1-C2	-5.91	117.45	121.00
1	A	378	G	N3-C2-N2	5.91	124.03	119.90
1	A	537	G	P-O3'-C3'	-5.91	112.61	119.70
14	N	79	SER	C-N-CA	5.91	136.47	121.70
1	A	735	C	N3-C4-N4	5.91	122.13	118.00
1	A	1209	C	N3-C4-N4	5.91	122.13	118.00
1	A	1415	G	O4'-C1'-N9	5.91	112.92	108.20
1	A	1497	G	C5-C6-O6	-5.91	125.06	128.60
1	A	1525	G	C4-N9-C1'	-5.91	118.82	126.50
22	W	156	ILE	N-CA-C	-5.91	95.06	111.00
1	A	238	A	C3'-C2'-C1'	-5.90	96.78	101.50
1	A	1106	G	P-O3'-C3'	-5.90	112.62	119.70
1	A	1179	A	P-O3'-C3'	-5.90	112.62	119.70
1	A	1204	A	C5'-C4'-O4'	5.90	116.18	109.10
1	A	1419	G	N1-C2-N3	-5.90	120.36	123.90
1	A	1420	U	P-O5'-C5'	5.90	130.35	120.90
6	F	55	HIS	CA-CB-CG	-5.90	103.56	113.60
11	K	49	SER	N-CA-C	-5.90	95.06	111.00
1	A	27	G	O5'-C5'-C4'	5.90	122.92	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	355	C	C2-N1-C1'	-5.90	112.31	118.80
1	A	595	A	C5-N7-C8	5.90	106.85	103.90
1	A	823	C	C3'-C2'-C1'	-5.90	96.78	101.50
1	A	1166	G	N9-C4-C5	5.90	107.76	105.40
1	A	196	A	C5'-C4'-C3'	5.90	125.44	116.00
1	A	356	A	C2-N3-C4	-5.90	107.65	110.60
2	B	184	ALA	CB-CA-C	-5.90	101.25	110.10
1	A	917	G	C8-N9-C4	-5.90	104.04	106.40
1	A	1275	A	C4-N9-C1'	5.90	136.92	126.30
1	A	1282	C	C5'-C4'-O4'	-5.90	102.02	109.10
16	P	26	ASN	CA-CB-CG	-5.90	100.42	113.40
1	A	64	G	O3'-P-O5'	-5.90	92.79	104.00
1	A	104	G	P-O3'-C3'	-5.90	112.62	119.70
1	A	198	G	N1-C6-O6	5.90	123.44	119.90
1	A	577	G	C5-C6-O6	-5.90	125.06	128.60
1	A	644	U	O4'-C1'-N1	5.90	112.92	108.20
1	A	1455	G	C4-N9-C1'	5.90	134.17	126.50
1	A	1493	A	C2'-C3'-O3'	5.90	123.14	113.70
10	J	86	ALA	CB-CA-C	-5.90	101.25	110.10
13	M	10	ASP	C-N-CA	5.90	136.44	121.70
1	A	26	A	O3'-P-O5'	5.89	115.20	104.00
1	A	27	G	N9-C1'-C2'	-5.89	105.52	112.00
1	A	322	C	O4'-C4'-C3'	-5.89	98.11	104.00
1	A	604	G	C5'-C4'-O4'	5.89	116.17	109.10
1	A	985	C	P-O3'-C3'	5.89	126.77	119.70
1	A	1453	G	C5-C6-O6	-5.89	125.06	128.60
1	A	887	G	P-O5'-C5'	-5.89	111.47	120.90
1	A	915	A	C5-N7-C8	5.89	106.85	103.90
1	A	986	U	C6-N1-C1'	5.89	129.45	121.20
1	A	996	A	O5'-P-OP1	-5.89	100.40	105.70
1	A	1043	G	C8-N9-C4	-5.89	104.04	106.40
1	A	1074	G	C5-C6-O6	-5.89	125.06	128.60
1	A	253	A	C5-C6-N1	-5.89	114.75	117.70
1	A	888	G	O4'-C1'-C2'	5.89	112.90	107.60
5	E	135	VAL	CA-CB-CG2	5.89	119.74	110.90
1	A	742	G	N1-C6-O6	5.89	123.43	119.90
1	A	1080	A	C5'-C4'-C3'	-5.89	106.58	116.00
1	A	1485	U	C3'-C2'-C1'	-5.89	96.79	101.50
1	A	118	U	C5'-C4'-O4'	5.89	116.17	109.10
1	A	350	G	N1-C6-O6	5.89	123.43	119.90
1	A	370	C	C5'-C4'-O4'	5.89	116.17	109.10
1	A	418	C	O4'-C1'-C2'	-5.89	99.91	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	L	102	ASP	CB-CA-C	-5.89	98.62	110.40
1	A	95	C	C6-N1-C1'	-5.89	113.73	120.80
1	A	948	C	C1'-O4'-C4'	-5.89	105.19	109.90
1	A	38	G	C8-N9-C4	5.88	108.75	106.40
1	A	404	G	N1-C2-N2	-5.88	110.90	116.20
1	A	745	G	C4-C5-C6	5.88	122.33	118.80
1	A	936	C	O4'-C4'-C3'	-5.88	98.11	104.00
1	A	1116	U	P-O3'-C3'	-5.88	112.64	119.70
1	A	1328	C	C3'-C2'-C1'	-5.88	96.79	101.50
1	A	247	G	N9-C4-C5	-5.88	103.05	105.40
1	A	378	G	O4'-C1'-N9	5.88	112.91	108.20
1	A	704	A	C8-N9-C4	-5.88	103.45	105.80
1	A	1128	C	C6-N1-C2	-5.88	117.95	120.30
1	A	582	C	N3-C4-N4	5.88	122.12	118.00
1	A	729	A	O5'-P-OP2	-5.88	100.41	105.70
1	A	1034	G	C6-N1-C2	5.88	128.63	125.10
8	H	58	LEU	N-CA-C	-5.88	95.12	111.00
1	A	492	C	C2-N3-C4	5.88	122.84	119.90
1	A	648	A	C2'-C3'-O3'	5.88	123.11	113.70
1	A	651	C	O3'-P-O5'	-5.88	92.83	104.00
1	A	1036	A	C4-C5-C6	5.88	119.94	117.00
1	A	298	A	P-O5'-C5'	-5.88	111.50	120.90
1	A	386	C	N3-C4-C5	-5.88	119.55	121.90
1	A	635	A	N3-C4-C5	-5.88	122.69	126.80
1	A	697	U	N3-C4-O4	5.88	123.52	119.40
1	A	816	A	C6-C5-N7	-5.88	128.19	132.30
4	D	48	SER	N-CA-C	-5.88	95.13	111.00
1	A	248	C	P-O3'-C3'	-5.88	112.65	119.70
1	A	490	C	N3-C4-N4	5.88	122.11	118.00
1	A	772	U	O3'-P-O5'	-5.88	92.83	104.00
1	A	1131	G	C5'-C4'-C3'	-5.88	106.60	116.00
1	A	184	G	C8-N9-C4	-5.88	104.05	106.40
1	A	511	C	C2'-C3'-O3'	5.88	123.10	113.70
1	A	1389	C	C6-N1-C1'	5.88	127.85	120.80
1	A	297	G	C2-N3-C4	5.87	114.84	111.90
1	A	310	G	C5-C6-O6	-5.87	125.08	128.60
1	A	652	U	C6-N1-C2	-5.87	117.48	121.00
1	A	1103	C	C2-N1-C1'	5.87	125.26	118.80
1	A	1376	U	C2-N1-C1'	-5.87	110.65	117.70
1	A	76	G	N9-C4-C5	-5.87	103.05	105.40
1	A	81	A	N9-C1'-C2'	5.87	121.63	114.00
1	A	107	G	C8-N9-C4	-5.87	104.05	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	233	C	N1-C2-N3	5.87	123.31	119.20
1	A	269	C	C2'-C3'-O3'	5.87	123.09	113.70
1	A	405	U	P-O3'-C3'	-5.87	112.65	119.70
1	A	575	G	N1-C6-O6	5.87	123.42	119.90
1	A	28	A	C4-N9-C1'	-5.87	115.73	126.30
1	A	410	G	OP2-P-O3'	5.87	118.11	105.20
1	A	482	A	N1-C6-N6	5.87	122.12	118.60
1	A	501	C	C5-C6-N1	5.87	123.94	121.00
1	A	667	G	C3'-C2'-C1'	-5.87	96.80	101.50
1	A	959	A	O3'-P-O5'	5.87	115.15	104.00
1	A	1338	G	C8-N9-C4	-5.87	104.05	106.40
1	A	197	A	C5'-C4'-O4'	5.87	116.14	109.10
1	A	633	G	P-O3'-C3'	5.87	126.74	119.70
1	A	1041	G	C5'-C4'-C3'	-5.87	106.61	116.00
19	S	56	HIS	CA-CB-CG	-5.87	103.62	113.60
1	A	121	U	N3-C4-O4	5.87	123.50	119.40
1	A	270	A	C5'-C4'-C3'	-5.87	106.62	116.00
1	A	341	C	P-O5'-C5'	5.87	130.29	120.90
1	A	356	A	O5'-C5'-C4'	-5.87	100.56	111.70
1	A	514	C	N3-C4-N4	5.87	122.11	118.00
1	A	519	C	C6-N1-C1'	5.87	127.84	120.80
1	A	742	G	N9-C1'-C2'	-5.87	105.55	112.00
1	A	873	A	P-O5'-C5'	5.87	130.28	120.90
1	A	924	C	P-O3'-C3'	5.87	126.74	119.70
1	A	1364	U	C6-N1-C2	-5.87	117.48	121.00
4	D	187	ARG	NE-CZ-NH2	-5.87	117.37	120.30
1	A	77	A	N3-C4-C5	-5.86	122.69	126.80
1	A	146	G	C5'-C4'-O4'	5.86	116.14	109.10
1	A	192	A	C5'-C4'-O4'	5.86	116.14	109.10
1	A	529	G	C3'-C2'-C1'	-5.86	96.81	101.50
1	A	906	A	C1'-O4'-C4'	-5.86	105.21	109.90
1	A	948	C	C5-C4-N4	-5.86	116.10	120.20
1	A	1378	C	C3'-C2'-C1'	-5.86	96.81	101.50
4	D	64	TYR	CB-CG-CD2	-5.86	117.48	121.00
1	A	77	A	N7-C8-N9	5.86	116.73	113.80
1	A	94	G	O5'-P-OP2	-5.86	100.42	105.70
1	A	282	A	N1-C2-N3	5.86	132.23	129.30
1	A	1217	C	C1'-O4'-C4'	-5.86	105.21	109.90
1	A	1421	G	P-O5'-C5'	5.86	130.28	120.90
1	A	271	C	C5'-C4'-O4'	5.86	116.13	109.10
1	A	336	A	C5'-C4'-O4'	5.86	116.13	109.10
1	A	495	A	C5'-C4'-O4'	5.86	116.13	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	537	G	C8-N9-C1'	5.86	134.62	127.00
1	A	22	G	C6-C5-N7	-5.86	126.88	130.40
1	A	644	U	C5'-C4'-C3'	-5.86	106.62	116.00
1	A	1179	A	C5-C6-N1	-5.86	114.77	117.70
1	A	1268	G	C6-C5-N7	-5.86	126.89	130.40
6	F	66	ALA	N-CA-CB	5.86	118.30	110.10
1	A	303	A	P-O3'-C3'	-5.86	112.67	119.70
1	A	383	A	C5-C6-N1	-5.86	114.77	117.70
1	A	415	A	C5'-C4'-O4'	5.86	116.13	109.10
1	A	423	G	N3-C4-C5	-5.86	125.67	128.60
1	A	643	C	O4'-C1'-N1	5.86	112.89	108.20
1	A	1334	G	C2-N3-C4	-5.86	108.97	111.90
1	A	1375	A	C5-C6-N1	-5.86	114.77	117.70
1	A	135	C	P-O3'-C3'	-5.86	112.67	119.70
1	A	220	G	C8-N9-C4	-5.86	104.06	106.40
1	A	715	A	C5-C6-N1	-5.86	114.77	117.70
1	A	1299	A	N3-C4-C5	-5.86	122.70	126.80
1	A	1485	U	P-O5'-C5'	5.86	130.27	120.90
1	A	459	A	C5-N7-C8	5.85	106.83	103.90
1	A	134	G	N3-C2-N2	5.85	124.00	119.90
1	A	808	C	N1-C1'-C2'	-5.85	105.56	112.00
1	A	914	A	C5'-C4'-C3'	-5.85	106.64	116.00
1	A	1434	A	N1-C6-N6	5.85	122.11	118.60
1	A	360	G	N1-C6-O6	5.85	123.41	119.90
1	A	372	C	C6-N1-C1'	5.85	127.82	120.80
1	A	624	C	C6-N1-C2	-5.85	117.96	120.30
1	A	964	A	P-O5'-C5'	5.85	130.26	120.90
1	A	1046	A	O4'-C1'-N9	5.85	112.88	108.20
1	A	1061	G	C1'-O4'-C4'	-5.85	105.22	109.90
1	A	1200	C	N3-C4-C5	-5.85	119.56	121.90
17	Q	72	TRP	CA-CB-CG	-5.85	102.58	113.70
1	A	577	G	C5'-C4'-O4'	-5.85	102.08	109.10
1	A	625	U	C1'-O4'-C4'	-5.85	105.22	109.90
1	A	648	A	C4-C5-C6	5.85	119.92	117.00
1	A	668	G	P-O3'-C3'	-5.85	112.68	119.70
1	A	816	A	O5'-P-OP2	-5.85	100.44	105.70
1	A	881	G	N1-C2-N3	-5.85	120.39	123.90
1	A	978	A	C8-N9-C4	-5.85	103.46	105.80
13	M	21	ILE	C-N-CA	5.85	136.32	121.70
15	O	64	LYS	N-CA-CB	5.85	121.13	110.60
1	A	242	G	N3-C2-N2	5.85	123.99	119.90
1	A	483	C	O5'-C5'-C4'	-5.85	100.59	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	629	A	C5-C6-N1	-5.85	114.78	117.70
1	A	641	U	C5'-C4'-C3'	-5.85	106.64	116.00
1	A	679	C	O4'-C4'-C3'	-5.85	98.15	104.00
1	A	786	G	C6-C5-N7	-5.85	126.89	130.40
1	A	837	U	O3'-P-O5'	-5.85	92.89	104.00
1	A	1365	G	N9-C4-C5	5.85	107.74	105.40
1	A	1433	A	C4'-C3'-C2'	5.85	108.45	102.60
1	A	1434	A	P-O5'-C5'	5.85	130.26	120.90
17	Q	72	TRP	CB-CG-CD1	5.85	134.60	127.00
1	A	1500	A	O4'-C1'-N9	5.85	112.88	108.20
1	A	563	A	C5-C6-N6	-5.84	119.03	123.70
1	A	601	G	O3'-P-O5'	-5.84	92.90	104.00
1	A	650	G	C6-C5-N7	-5.84	126.89	130.40
1	A	813	U	C6-N1-C2	-5.84	117.49	121.00
1	A	846	G	C4-C5-N7	-5.84	108.46	110.80
1	A	1058	G	N3-C4-N9	5.84	129.51	126.00
1	A	1480	A	P-O5'-C5'	5.84	130.25	120.90
2	B	40	ILE	CA-CB-CG1	5.84	122.10	111.00
1	A	320	A	O3'-P-O5'	5.84	115.10	104.00
1	A	1237	C	O5'-C5'-C4'	-5.84	100.60	111.70
1	A	462	G	C8-N9-C4	-5.84	104.06	106.40
1	A	807	A	C8-N9-C1'	5.84	138.22	127.70
1	A	856	C	OP2-P-O3'	5.84	118.05	105.20
1	A	1000	A	C4-C5-C6	5.84	119.92	117.00
3	C	176	THR	N-CA-C	-5.84	95.23	111.00
8	H	45	ILE	N-CA-C	-5.84	95.23	111.00
1	A	432	A	N7-C8-N9	5.84	116.72	113.80
1	A	547	A	C6-C5-N7	-5.84	128.21	132.30
1	A	647	C	C6-N1-C2	-5.84	117.96	120.30
5	E	110	MET	CG-SD-CE	5.84	109.54	100.20
16	P	81	ALA	N-CA-C	-5.84	95.24	111.00
1	A	259	G	P-O5'-C5'	5.84	130.24	120.90
1	A	297	G	C6-N1-C2	-5.84	121.60	125.10
1	A	638	U	C5'-C4'-O4'	5.84	116.10	109.10
1	A	645	G	O4'-C1'-N9	5.84	112.87	108.20
1	A	664	G	N1-C6-O6	5.84	123.40	119.90
1	A	730	G	N3-C2-N2	5.84	123.98	119.90
1	A	769	G	N3-C2-N2	5.84	123.99	119.90
1	A	801	U	N3-C4-C5	-5.84	111.10	114.60
1	A	1433	A	C5'-C4'-O4'	5.84	116.10	109.10
1	A	1477	U	O4'-C1'-N1	5.84	112.87	108.20
1	A	1532	U	O3'-P-O5'	-5.84	92.91	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
8	H	4	ASP	N-CA-CB	5.84	121.11	110.60
16	P	1	MET	CG-SD-CE	-5.83	90.86	100.20
17	Q	34	GLY	N-CA-C	5.83	127.69	113.10
1	A	466	A	C2-N3-C4	5.83	113.52	110.60
1	A	527	G	C5-C6-O6	-5.83	125.10	128.60
1	A	528	C	N3-C4-N4	5.83	122.08	118.00
1	A	705	G	P-O3'-C3'	-5.83	112.70	119.70
1	A	897	C	C5'-C4'-O4'	5.83	116.10	109.10
1	A	984	C	N3-C4-C5	-5.83	119.57	121.90
1	A	1185	G	O3'-P-O5'	-5.83	92.92	104.00
1	A	1238	A	O3'-P-O5'	-5.83	92.92	104.00
1	A	1314	C	C6-N1-C2	-5.83	117.97	120.30
1	A	1448	C	N3-C4-C5	-5.83	119.57	121.90
1	A	38	G	C6-C5-N7	-5.83	126.90	130.40
1	A	334	C	N3-C4-C5	-5.83	119.57	121.90
1	A	344	A	C3'-C2'-C1'	5.83	106.17	101.50
1	A	1349	A	C5-C6-N1	-5.83	114.78	117.70
1	A	276	G	C6-N1-C2	-5.83	121.60	125.10
1	A	453	G	C2'-C3'-O3'	5.83	123.03	113.70
1	A	675	A	C3'-C2'-C1'	-5.83	96.84	101.50
1	A	689	C	P-O5'-C5'	5.83	130.23	120.90
1	A	1488	G	C8-N9-C1'	5.83	134.58	127.00
1	A	140	U	C5'-C4'-C3'	-5.83	106.67	116.00
1	A	436	C	C4'-C3'-C2'	5.83	108.43	102.60
1	A	586	C	P-O3'-C3'	-5.83	112.70	119.70
1	A	607	A	C5-C6-N1	-5.83	114.79	117.70
1	A	732	C	O4'-C4'-C3'	-5.83	98.17	104.00
1	A	784	A	C5'-C4'-C3'	5.83	125.33	116.00
1	A	1508	A	C4-N9-C1'	-5.83	115.81	126.30
1	A	593	U	P-O3'-C3'	5.83	126.69	119.70
1	A	725	G	P-O3'-C3'	-5.83	112.71	119.70
1	A	1114	C	C5-C6-N1	5.83	123.91	121.00
1	A	1171	A	C5-N7-C8	5.83	106.81	103.90
1	A	1492	A	C8-N9-C4	-5.83	103.47	105.80
1	A	19	A	P-O3'-C3'	-5.82	112.71	119.70
1	A	142	G	C2-N3-C4	5.82	114.81	111.90
1	A	166	U	P-O3'-C3'	5.82	126.69	119.70
1	A	459	A	C5-C6-N6	-5.82	119.04	123.70
1	A	583	A	P-O5'-C5'	5.82	130.22	120.90
1	A	602	A	C1'-O4'-C4'	-5.82	105.24	109.90
1	A	753	A	C5-C6-N1	-5.82	114.79	117.70
1	A	769	G	C5-C6-O6	-5.82	125.11	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	784	A	C5'-C4'-O4'	-5.82	102.11	109.10
1	A	499	A	C1'-O4'-C4'	5.82	114.56	109.90
1	A	1096	C	C5-C6-N1	5.82	123.91	121.00
1	A	515	G	C1'-O4'-C4'	-5.82	105.24	109.90
9	I	87	MET	CG-SD-CE	-5.82	90.89	100.20
1	A	54	C	C6-N1-C1'	5.82	127.78	120.80
1	A	1008	U	N3-C4-O4	5.82	123.47	119.40
1	A	1072	G	O4'-C1'-N9	5.82	112.85	108.20
1	A	1327	C	C3'-C2'-C1'	-5.82	96.85	101.50
1	A	1379	G	N7-C8-N9	-5.82	110.19	113.10
1	A	1473	G	C1'-O4'-C4'	-5.82	105.25	109.90
1	A	41	G	C5-C6-O6	-5.82	125.11	128.60
1	A	756	C	N3-C4-C5	-5.82	119.57	121.90
1	A	1020	G	P-O5'-C5'	-5.82	111.59	120.90
1	A	1335	U	C2'-C3'-O3'	5.82	123.01	113.70
6	F	38	ARG	N-CA-CB	5.82	121.07	110.60
1	A	616	G	N3-C2-N2	5.81	123.97	119.90
1	A	401	C	C2-N1-C1'	-5.81	112.41	118.80
1	A	945	G	C5-C6-N1	5.81	114.41	111.50
1	A	1320	C	N3-C4-C5	-5.81	119.58	121.90
1	A	1433	A	C3'-C2'-C1'	-5.81	96.85	101.50
1	A	1520	C	C3'-C2'-C1'	-5.81	96.85	101.50
8	H	70	VAL	CA-CB-CG1	-5.81	102.18	110.90
20	T	35	TYR	CB-CG-CD2	-5.81	117.51	121.00
1	A	170	U	O3'-P-O5'	-5.81	92.96	104.00
1	A	669	G	N9-C1'-C2'	-5.81	105.61	112.00
1	A	1180	A	C5-C6-N1	-5.81	114.79	117.70
1	A	78	A	C5-N7-C8	5.81	106.80	103.90
1	A	404	G	C3'-C2'-C1'	-5.81	96.85	101.50
1	A	540	G	C8-N9-C1'	5.81	134.55	127.00
1	A	608	A	C5-C6-N1	-5.81	114.80	117.70
1	A	787	A	C4-C5-C6	5.81	119.91	117.00
1	A	1048	G	N1-C6-O6	5.81	123.39	119.90
1	A	1060	U	C1'-O4'-C4'	-5.81	105.25	109.90
1	A	263	A	N9-C4-C5	-5.81	103.48	105.80
1	A	404	G	C4-C5-N7	-5.81	108.48	110.80
1	A	685	G	N9-C4-C5	-5.81	103.08	105.40
1	A	1075	U	C5'-C4'-O4'	5.81	116.07	109.10
3	C	41	TYR	CB-CG-CD2	-5.81	117.52	121.00
1	A	153	C	C2-N3-C4	5.81	122.80	119.90
1	A	390	U	P-O3'-C3'	5.81	126.67	119.70
1	A	1347	G	C5-C6-N1	-5.81	108.60	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1432	G	O4'-C4'-C3'	-5.81	98.19	104.00
1	A	84	U	N1-C2-N3	-5.80	111.42	114.90
1	A	168	G	N9-C1'-C2'	-5.80	105.61	112.00
1	A	189	A	O4'-C4'-C3'	-5.80	98.19	104.00
1	A	553	A	C8-N9-C4	-5.80	103.48	105.80
1	A	847	G	O4'-C1'-N9	5.80	112.84	108.20
2	B	133	ALA	N-CA-CB	5.80	118.23	110.10
1	A	291	U	C1'-O4'-C4'	-5.80	105.26	109.90
1	A	1525	G	C5-N7-C8	5.80	107.20	104.30
1	A	74	A	C4-C5-C6	5.80	119.90	117.00
1	A	199	A	C5-C6-N1	-5.80	114.80	117.70
1	A	293	G	O4'-C4'-C3'	-5.80	98.20	104.00
1	A	498	A	N3-C4-N9	-5.80	122.76	127.40
1	A	928	G	C5-C6-O6	-5.80	125.12	128.60
1	A	1360	A	N3-C4-C5	-5.80	122.74	126.80
1	A	4	U	C5'-C4'-C3'	-5.80	106.72	116.00
1	A	332	G	C3'-C2'-C1'	-5.80	96.86	101.50
1	A	684	U	C6-N1-C2	-5.80	117.52	121.00
1	A	896	C	C1'-O4'-C4'	-5.80	105.26	109.90
1	A	1174	G	C5'-C4'-C3'	-5.80	106.72	116.00
1	A	760	G	P-O3'-C3'	-5.80	112.74	119.70
1	A	891	U	C6-N1-C1'	5.80	129.31	121.20
1	A	1053	G	C5-N7-C8	5.80	107.20	104.30
1	A	1198	G	C4-C5-C6	5.80	122.28	118.80
1	A	447	G	N1-C2-N3	-5.79	120.42	123.90
1	A	1237	C	O4'-C1'-N1	5.79	112.84	108.20
1	A	131	A	C4-C5-N7	-5.79	107.80	110.70
1	A	593	U	C3'-C2'-C1'	-5.79	96.86	101.50
1	A	864	A	C3'-C2'-C1'	-5.79	96.86	101.50
1	A	879	C	C1'-O4'-C4'	-5.79	105.27	109.90
1	A	977	A	C5'-C4'-C3'	-5.79	106.73	116.00
1	A	1009	U	C2-N3-C4	-5.79	123.52	127.00
1	A	94	G	C4'-C3'-C2'	-5.79	96.81	102.60
1	A	217	C	N3-C2-O2	-5.79	117.85	121.90
1	A	324	G	C5-C6-O6	-5.79	125.12	128.60
1	A	282	A	C5-C6-N6	-5.79	119.07	123.70
1	A	1154	G	N1-C6-O6	5.79	123.37	119.90
1	A	1363	A	C8-N9-C1'	5.79	138.12	127.70
1	A	44	A	C5-C6-N1	-5.79	114.81	117.70
1	A	101	A	C5-C6-N6	-5.79	119.07	123.70
1	A	203	G	C1'-O4'-C4'	-5.79	105.27	109.90
1	A	642	A	C5'-C4'-C3'	-5.79	106.74	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	678	U	O4'-C4'-C3'	-5.79	98.21	104.00
1	A	212	G	N1-C6-O6	5.79	123.37	119.90
1	A	411	A	C6-C5-N7	-5.79	128.25	132.30
1	A	627	G	N3-C4-N9	5.79	129.47	126.00
1	A	685	G	N1-C2-N3	-5.79	120.43	123.90
1	A	1340	A	C8-N9-C1'	5.79	138.12	127.70
1	A	7	A	C4-C5-C6	5.79	119.89	117.00
1	A	227	G	N3-C2-N2	-5.79	115.85	119.90
1	A	774	G	C3'-C2'-C1'	-5.79	96.87	101.50
1	A	1534	A	C5-C6-N6	-5.79	119.07	123.70
1	A	1324	A	P-O5'-C5'	5.78	130.16	120.90
1	A	1373	G	C5'-C4'-C3'	5.78	125.25	116.00
1	A	1402	C	O3'-P-O5'	-5.78	93.01	104.00
1	A	1413	A	C5-C6-N6	-5.78	119.07	123.70
1	A	1516	G	N1-C6-O6	5.78	123.37	119.90
1	A	146	G	P-O3'-C3'	-5.78	112.76	119.70
1	A	910	C	C5-C6-N1	5.78	123.89	121.00
1	A	1061	G	C3'-C2'-C1'	-5.78	96.88	101.50
1	A	75	G	N3-C2-N2	5.78	123.95	119.90
1	A	328	C	N1-C1'-C2'	-5.78	105.64	112.00
1	A	577	G	C3'-C2'-C1'	-5.78	96.88	101.50
1	A	1032	G	C6-C5-N7	-5.78	126.93	130.40
1	A	1326	U	O5'-P-OP2	-5.78	100.50	105.70
1	A	1531	A	O3'-P-O5'	-5.78	93.02	104.00
5	E	131	ASN	CB-CA-C	-5.78	98.84	110.40
11	K	49	SER	C-N-CA	5.78	134.44	122.30
20	T	8	LYS	N-CA-CB	5.78	121.00	110.60
1	A	156	C	C6-N1-C1'	5.78	127.73	120.80
1	A	431	A	C8-N9-C4	-5.78	103.49	105.80
1	A	583	A	C3'-C2'-C1'	-5.78	96.88	101.50
1	A	851	G	N1-C2-N2	-5.78	111.00	116.20
1	A	515	G	C4-N9-C1'	5.78	134.01	126.50
1	A	1125	U	P-O5'-C5'	-5.78	111.66	120.90
9	I	118	ARG	C-N-CA	5.78	136.14	121.70
1	A	404	G	C1'-O4'-C4'	-5.78	105.28	109.90
1	A	749	A	C5'-C4'-C3'	-5.78	106.76	116.00
1	A	1028	C	C5'-C4'-O4'	5.78	116.03	109.10
1	A	1145	A	C1'-O4'-C4'	-5.78	105.28	109.90
1	A	1492	A	C4-N9-C1'	-5.78	115.90	126.30
3	C	148	ILE	N-CA-C	-5.78	95.41	111.00
1	A	61	G	N1-C2-N2	-5.77	111.00	116.20
1	A	355	C	C6-N1-C1'	5.77	127.73	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
8	H	79	ARG	NE-CZ-NH1	5.77	123.19	120.30
1	A	45	G	C4'-C3'-C2'	5.77	108.37	102.60
1	A	166	U	O5'-C5'-C4'	-5.77	100.73	111.70
1	A	170	U	C3'-C2'-C1'	-5.77	96.88	101.50
1	A	389	A	N9-C1'-C2'	-5.77	105.65	112.00
1	A	469	C	C6-N1-C2	-5.77	117.99	120.30
1	A	877	G	C1'-O4'-C4'	-5.77	105.28	109.90
1	A	995	C	OP1-P-O3'	5.77	117.90	105.20
1	A	1094	G	C4-N9-C1'	-5.77	119.00	126.50
1	A	1195	C	C4'-C3'-C2'	5.77	108.37	102.60
1	A	1208	C	C6-N1-C2	-5.77	117.99	120.30
1	A	1494	G	C6-N1-C2	-5.77	121.64	125.10
1	A	960	U	C6-N1-C1'	-5.77	113.12	121.20
1	A	1043	G	C6-C5-N7	-5.77	126.94	130.40
1	A	1216	A	C8-N9-C4	5.77	108.11	105.80
1	A	1251	A	N9-C1'-C2'	-5.77	105.65	112.00
1	A	16	A	C5'-C4'-C3'	5.77	125.23	116.00
1	A	139	A	C5-C6-N1	-5.77	114.82	117.70
1	A	177	G	C2-N3-C4	5.77	114.78	111.90
1	A	400	C	O4'-C1'-N1	5.77	112.81	108.20
1	A	830	G	P-O3'-C3'	-5.77	112.78	119.70
1	A	1048	G	N9-C4-C5	-5.77	103.09	105.40
1	A	1118	U	O4'-C1'-N1	5.77	112.81	108.20
1	A	1153	G	P-O3'-C3'	-5.77	112.78	119.70
1	A	1507	A	O4'-C4'-C3'	-5.77	98.23	104.00
1	A	223	A	P-O3'-C3'	-5.77	112.78	119.70
1	A	489	C	C3'-C2'-C1'	-5.77	96.89	101.50
1	A	584	G	C5'-C4'-O4'	5.77	116.02	109.10
1	A	858	G	P-O3'-C3'	-5.77	112.78	119.70
1	A	943	U	N3-C2-O2	-5.77	118.16	122.20
1	A	1026	G	C3'-C2'-C1'	-5.77	96.89	101.50
1	A	1076	U	N1-C1'-C2'	-5.77	105.66	112.00
1	A	836	G	C8-N9-C4	-5.77	104.09	106.40
1	A	922	G	P-O5'-C5'	-5.77	111.67	120.90
7	G	2	ARG	NE-CZ-NH1	5.77	123.18	120.30
1	A	263	A	N7-C8-N9	-5.76	110.92	113.80
1	A	378	G	N1-C2-N3	-5.76	120.44	123.90
1	A	685	G	N3-C2-N2	5.76	123.94	119.90
1	A	1279	G	C4-N9-C1'	5.76	133.99	126.50
1	A	189	A	N9-C1'-C2'	-5.76	105.66	112.00
1	A	535	A	C4-C5-N7	-5.76	107.82	110.70
1	A	1321	U	O5'-C5'-C4'	-5.76	100.75	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1333	A	C6-C5-N7	-5.76	128.27	132.30
1	A	1514	G	C4'-C3'-C2'	-5.76	96.84	102.60
1	A	30	U	C2-N3-C4	-5.76	123.54	127.00
1	A	66	A	C8-N9-C1'	5.76	138.07	127.70
1	A	151	A	C5-C6-N6	-5.76	119.09	123.70
1	A	977	A	C4-C5-C6	5.76	119.88	117.00
1	A	1004	A	O4'-C1'-N9	5.76	112.81	108.20
1	A	1268	G	N3-C4-C5	-5.76	125.72	128.60
1	A	1447	A	P-O5'-C5'	-5.76	111.68	120.90
13	M	96	VAL	CA-CB-CG2	-5.76	102.26	110.90
1	A	515	G	C6-C5-N7	-5.76	126.94	130.40
1	A	667	G	C5'-C4'-C3'	5.76	125.22	116.00
1	A	932	C	C5'-C4'-C3'	-5.76	106.78	116.00
1	A	1239	A	C5'-C4'-C3'	-5.76	106.78	116.00
1	A	1476	A	C4-C5-C6	5.76	119.88	117.00
1	A	1487	G	C8-N9-C4	-5.76	104.10	106.40
1	A	903	G	C5-C6-O6	-5.76	125.14	128.60
1	A	1105	A	C4-C5-C6	5.76	119.88	117.00
1	A	1392	G	P-O3'-C3'	-5.76	112.79	119.70
1	A	553	A	C5-C6-N1	-5.76	114.82	117.70
1	A	600	A	C8-N9-C1'	5.76	138.06	127.70
1	A	768	A	O4'-C1'-C2'	-5.76	100.04	105.80
1	A	958	A	C4-C5-C6	5.76	119.88	117.00
1	A	1434	A	P-O3'-C3'	-5.76	112.79	119.70
1	A	1509	C	C3'-C2'-C1'	-5.76	96.89	101.50
1	A	716	A	C3'-C2'-C1'	-5.75	96.90	101.50
5	E	14	LEU	N-CA-C	-5.75	95.46	111.00
22	W	255	LEU	CB-CG-CD1	5.75	120.78	111.00
1	A	175	C	C6-N1-C2	-5.75	118.00	120.30
1	A	204	G	C2'-C3'-O3'	5.75	122.91	113.70
1	A	881	G	C8-N9-C4	5.75	108.70	106.40
1	A	927	G	C1'-O4'-C4'	-5.75	105.30	109.90
14	N	50	LEU	CB-CG-CD1	5.75	120.78	111.00
1	A	37	U	O5'-C5'-C4'	-5.75	100.77	111.70
1	A	867	G	C2'-C3'-O3'	5.75	122.90	113.70
1	A	1039	G	C5'-C4'-C3'	5.75	125.20	116.00
1	A	948	C	C5'-C4'-O4'	5.75	116.00	109.10
1	A	990	C	N1-C1'-C2'	-5.75	105.67	112.00
1	A	1472	U	C3'-C2'-C1'	-5.75	96.90	101.50
1	A	24	U	O5'-C5'-C4'	-5.75	100.78	111.70
1	A	57	G	N3-C2-N2	5.75	123.92	119.90
1	A	200	G	C6-N1-C2	-5.75	121.65	125.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	816	A	O3'-P-O5'	5.75	114.92	104.00
1	A	1083	U	C6-N1-C2	-5.75	117.55	121.00
1	A	1116	U	O3'-P-O5'	-5.75	93.08	104.00
1	A	46	G	C8-N9-C4	-5.75	104.10	106.40
1	A	83	C	C2'-C3'-O3'	5.75	122.89	113.70
1	A	242	G	O4'-C1'-N9	5.75	112.80	108.20
1	A	336	A	C6-C5-N7	-5.75	128.28	132.30
1	A	501	C	C2-N1-C1'	-5.75	112.48	118.80
1	A	566	G	O5'-C5'-C4'	-5.75	100.78	111.70
1	A	1304	G	C4-N9-C1'	-5.75	119.03	126.50
1	A	204	G	P-O3'-C3'	-5.75	112.81	119.70
1	A	215	C	C5-C6-N1	5.75	123.87	121.00
1	A	359	G	O4'-C1'-N9	5.75	112.80	108.20
1	A	733	G	C8-N9-C1'	5.75	134.47	127.00
12	L	19	ASN	CA-CB-CG	5.75	126.04	113.40
17	Q	39	ARG	N-CA-C	-5.75	95.49	111.00
1	A	428	G	C6-N1-C2	5.74	128.55	125.10
1	A	458	U	C4'-C3'-C2'	-5.74	96.86	102.60
1	A	608	A	C4-C5-C6	5.74	119.87	117.00
1	A	942	G	P-O3'-C3'	5.74	126.59	119.70
1	A	1156	G	C5'-C4'-O4'	-5.74	102.21	109.10
1	A	1464	U	P-O3'-C3'	-5.74	112.81	119.70
1	A	699	C	N3-C4-N4	5.74	122.02	118.00
1	A	770	C	C6-N1-C1'	5.74	127.69	120.80
1	A	905	U	C3'-C2'-C1'	-5.74	96.91	101.50
1	A	1305	G	C3'-C2'-C1'	-5.74	96.91	101.50
1	A	1485	U	C5'-C4'-O4'	5.74	115.99	109.10
1	A	570	G	C5-C6-O6	-5.74	125.16	128.60
1	A	848	C	N3-C2-O2	-5.74	117.88	121.90
1	A	1236	A	O4'-C1'-N9	5.74	112.79	108.20
2	B	59	ILE	C-N-CA	5.74	136.05	121.70
1	A	416	G	O3'-P-O5'	-5.74	93.10	104.00
1	A	642	A	O4'-C1'-N9	5.74	112.79	108.20
1	A	750	C	C2-N1-C1'	-5.74	112.49	118.80
1	A	968	A	C5-C6-N1	-5.74	114.83	117.70
1	A	1457	G	C4-C5-C6	5.74	122.24	118.80
1	A	94	G	C4-N9-C1'	-5.74	119.04	126.50
1	A	230	G	C5'-C4'-C3'	-5.74	106.82	116.00
1	A	631	C	C5'-C4'-O4'	5.74	115.98	109.10
1	A	1006	G	C8-N9-C1'	5.74	134.46	127.00
1	A	1082	A	C5'-C4'-C3'	-5.74	106.82	116.00
1	A	1108	G	C4-N9-C1'	-5.74	119.04	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1246	A	C5-C6-N6	-5.74	119.11	123.70
1	A	1481	U	N3-C2-O2	-5.74	118.18	122.20
1	A	245	U	OP2-P-O3'	5.74	117.82	105.20
1	A	429	U	C2-N3-C4	-5.74	123.56	127.00
1	A	444	G	C6-C5-N7	-5.74	126.96	130.40
1	A	529	G	N7-C8-N9	-5.74	110.23	113.10
1	A	560	A	C8-N9-C4	5.74	108.09	105.80
1	A	890	G	O4'-C1'-C2'	-5.74	100.06	105.80
1	A	945	G	C5'-C4'-C3'	5.74	125.18	116.00
1	A	1140	C	O4'-C1'-C2'	-5.74	100.06	105.80
1	A	1144	G	C5'-C4'-O4'	5.74	115.98	109.10
1	A	1408	A	N7-C8-N9	5.74	116.67	113.80
13	M	45	SER	N-CA-CB	5.74	119.10	110.50
1	A	513	C	C1'-O4'-C4'	-5.73	105.31	109.90
1	A	523	A	C5-C6-N1	-5.73	114.83	117.70
1	A	1089	G	N1-C2-N2	-5.73	111.04	116.20
1	A	1108	G	O4'-C1'-N9	5.73	112.79	108.20
1	A	1225	A	C4-C5-N7	-5.73	107.83	110.70
1	A	1524	C	N1-C1'-C2'	-5.73	105.69	112.00
1	A	221	C	N3-C4-N4	5.73	122.01	118.00
1	A	315	A	C4-N9-C1'	-5.73	115.98	126.30
1	A	703	G	O3'-P-O5'	-5.73	93.11	104.00
1	A	824	G	O3'-P-O5'	-5.73	93.11	104.00
1	A	1422	G	C4-N9-C1'	-5.73	119.05	126.50
1	A	54	C	N3-C2-O2	-5.73	117.89	121.90
1	A	471	U	N1-C1'-C2'	5.73	121.45	114.00
1	A	648	A	C6-C5-N7	-5.73	128.29	132.30
1	A	1304	G	C4-C5-C6	5.73	122.24	118.80
1	A	1368	A	C5'-C4'-O4'	5.73	115.98	109.10
1	A	1414	U	O4'-C1'-N1	5.73	112.78	108.20
1	A	798	U	C2-N1-C1'	-5.73	110.83	117.70
1	A	1139	G	N1-C2-N2	-5.73	111.04	116.20
4	D	67	LEU	CB-CA-C	-5.73	99.32	110.20
1	A	6	G	N9-C1'-C2'	-5.73	105.70	112.00
1	A	128	G	C4-N9-C1'	-5.73	119.05	126.50
1	A	148	G	C3'-C2'-C1'	-5.73	96.92	101.50
1	A	462	G	N3-C2-N2	5.73	123.91	119.90
1	A	646	G	C4-C5-C6	5.73	122.24	118.80
1	A	648	A	C4'-C3'-C2'	-5.73	96.87	102.60
1	A	1067	A	C5-C6-N1	-5.73	114.84	117.70
1	A	1151	A	C8-N9-C1'	5.73	138.01	127.70
1	A	1504	G	N3-C4-C5	-5.73	125.74	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1038	C	P-O3'-C3'	5.73	126.57	119.70
1	A	526	C	O4'-C1'-N1	5.72	112.78	108.20
1	A	584	G	C4-C5-C6	5.72	122.23	118.80
1	A	872	A	C1'-O4'-C4'	-5.72	105.32	109.90
1	A	1275	A	C6-N1-C2	5.72	122.03	118.60
1	A	1417	G	N1-C2-N2	-5.72	111.05	116.20
1	A	43	C	C2-N1-C1'	-5.72	112.51	118.80
1	A	275	G	C5'-C4'-C3'	-5.72	106.84	116.00
1	A	404	G	N3-C4-N9	5.72	129.43	126.00
1	A	755	G	C5-C6-O6	-5.72	125.17	128.60
1	A	761	G	C8-N9-C1'	5.72	134.44	127.00
1	A	768	A	C5-C6-N1	-5.72	114.84	117.70
1	A	1248	A	C6-N1-C2	-5.72	115.17	118.60
17	Q	75	VAL	N-CA-C	-5.72	95.55	111.00
1	A	234	C	O4'-C1'-N1	5.72	112.78	108.20
1	A	433	G	O3'-P-O5'	-5.72	93.13	104.00
1	A	523	A	O3'-P-O5'	5.72	114.87	104.00
1	A	868	C	N3-C2-O2	-5.72	117.90	121.90
1	A	995	C	C5'-C4'-O4'	5.72	115.96	109.10
1	A	1377	A	C5'-C4'-C3'	-5.72	106.85	116.00
1	A	1529	G	C2-N3-C4	5.72	114.76	111.90
4	D	125	ASN	N-CA-C	-5.72	95.56	111.00
1	A	69	G	C5-N7-C8	5.72	107.16	104.30
1	A	274	A	O5'-C5'-C4'	-5.72	100.84	111.70
1	A	295	C	C2-N1-C1'	-5.72	112.51	118.80
1	A	680	C	C6-N1-C2	-5.72	118.01	120.30
1	A	1194	U	C4'-C3'-C2'	-5.72	96.88	102.60
1	A	1319	A	O5'-P-OP2	5.72	117.56	110.70
4	D	36	ALA	N-CA-CB	5.72	118.11	110.10
12	L	116	TYR	CB-CG-CD1	5.72	124.43	121.00
1	A	290	C	P-O3'-C3'	-5.72	112.84	119.70
1	A	940	C	C6-N1-C2	-5.72	118.01	120.30
1	A	1403	C	O4'-C4'-C3'	-5.72	98.28	104.00
1	A	83	C	C5-C6-N1	5.71	123.86	121.00
1	A	177	G	C3'-C2'-C1'	-5.71	96.93	101.50
1	A	294	U	C6-N1-C2	-5.71	117.57	121.00
1	A	299	G	C4-C5-C6	5.71	122.23	118.80
1	A	664	G	C1'-O4'-C4'	-5.71	105.33	109.90
1	A	709	U	O4'-C1'-N1	5.71	112.77	108.20
1	A	1210	C	N3-C4-C5	-5.71	119.61	121.90
9	I	43	ALA	N-CA-CB	5.71	118.10	110.10
11	K	34	THR	N-CA-C	-5.71	95.57	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	544	G	N9-C1'-C2'	-5.71	105.72	112.00
1	A	1233	G	N1-C2-N2	-5.71	111.06	116.20
13	M	43	LYS	N-CA-C	5.71	126.43	111.00
1	A	97	G	N9-C1'-C2'	-5.71	105.72	112.00
1	A	799	G	N3-C2-N2	5.71	123.90	119.90
1	A	921	U	C6-N1-C1'	5.71	129.19	121.20
2	B	170	ILE	N-CA-CB	5.71	123.94	110.80
1	A	1444	U	N3-C4-C5	-5.71	111.17	114.60
1	A	1513	A	C3'-C2'-C1'	-5.71	96.93	101.50
1	A	70	U	C6-N1-C2	-5.71	117.58	121.00
1	A	156	C	C2-N1-C1'	-5.71	112.52	118.80
1	A	755	G	N3-C4-C5	-5.71	125.75	128.60
1	A	826	C	C5-C6-N1	5.71	123.86	121.00
1	A	1054	C	C1'-O4'-C4'	-5.71	105.33	109.90
1	A	1061	G	N3-C2-N2	5.71	123.90	119.90
1	A	1312	G	O5'-P-OP2	-5.71	100.56	105.70
1	A	1357	A	C6-C5-N7	-5.71	128.30	132.30
1	A	1477	U	C5'-C4'-O4'	5.71	115.95	109.10
16	P	27	ALA	CA-C-N	-5.71	104.64	117.20
1	A	981	U	C2-N3-C4	-5.71	123.58	127.00
1	A	1182	G	N7-C8-N9	5.71	115.95	113.10
1	A	1333	A	C5'-C4'-C3'	-5.71	106.87	116.00
11	K	40	ALA	N-CA-C	-5.71	95.59	111.00
1	A	1288	A	O4'-C1'-N9	5.71	112.76	108.20
1	A	1398	A	C5'-C4'-C3'	-5.71	106.87	116.00
1	A	931	C	C5'-C4'-C3'	5.70	125.12	116.00
1	A	1242	G	N3-C2-N2	5.70	123.89	119.90
1	A	1396	A	C4-N9-C1'	-5.70	116.03	126.30
1	A	864	A	C5-C6-N1	-5.70	114.85	117.70
1	A	1059	C	C2-N1-C1'	-5.70	112.53	118.80
1	A	64	G	C4'-C3'-C2'	-5.70	96.90	102.60
1	A	192	A	C6-C5-N7	-5.70	128.31	132.30
1	A	1005	A	C5-N7-C8	5.70	106.75	103.90
1	A	1104	G	N1-C2-N3	-5.70	120.48	123.90
1	A	1272	G	C1'-O4'-C4'	-5.70	105.34	109.90
1	A	27	G	C4-C5-C6	5.70	122.22	118.80
1	A	203	G	C5-N7-C8	5.70	107.15	104.30
1	A	363	A	C5-C6-N1	-5.70	114.85	117.70
1	A	609	A	C5-C6-N6	-5.70	119.14	123.70
1	A	613	C	N3-C4-N4	5.70	121.99	118.00
4	D	25	ARG	N-CA-C	-5.70	95.61	111.00
1	A	46	G	C3'-C2'-C1'	-5.70	96.94	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	333	U	C2-N3-C4	-5.70	123.58	127.00
11	K	52	ARG	CB-CA-C	5.70	121.79	110.40
1	A	45	G	C2'-C3'-O3'	5.70	122.81	113.70
1	A	107	G	C4-N9-C1'	5.70	133.90	126.50
1	A	265	G	C8-N9-C1'	5.70	134.41	127.00
1	A	426	U	C6-N1-C2	-5.70	117.58	121.00
1	A	586	C	C2'-C3'-O3'	5.70	122.81	113.70
1	A	904	U	N3-C4-C5	-5.70	111.18	114.60
1	A	1259	C	C4'-C3'-O3'	-5.70	97.44	109.40
1	A	1357	A	C8-N9-C4	-5.70	103.52	105.80
1	A	1437	A	C8-N9-C4	-5.70	103.52	105.80
3	C	18	ASN	N-CA-CB	5.70	120.85	110.60
11	K	45	THR	C-N-CA	5.70	135.94	121.70
1	A	940	C	C2-N1-C1'	-5.69	112.54	118.80
13	M	24	VAL	N-CA-C	-5.69	95.63	111.00
1	A	116	A	C6-C5-N7	-5.69	128.32	132.30
1	A	255	G	N9-C1'-C2'	-5.69	105.74	112.00
1	A	481	G	N1-C2-N3	-5.69	120.48	123.90
1	A	746	A	C1'-O4'-C4'	-5.69	105.35	109.90
1	A	784	A	C4-N9-C1'	-5.69	116.05	126.30
1	A	919	A	C5-C6-N6	-5.69	119.14	123.70
1	A	1264	U	C2'-C3'-O3'	5.69	122.81	113.70
1	A	1283	U	C6-N1-C1'	5.69	129.17	121.20
1	A	1301	U	O5'-P-OP1	5.69	117.53	110.70
1	A	1471	U	C5'-C4'-O4'	5.69	115.93	109.10
22	W	109	ARG	NE-CZ-NH1	5.69	123.15	120.30
1	A	200	G	P-O3'-C3'	5.69	126.53	119.70
1	A	327	A	C5'-C4'-O4'	5.69	115.93	109.10
1	A	377	G	C3'-C2'-C1'	-5.69	96.95	101.50
1	A	711	G	C4-N9-C1'	-5.69	119.10	126.50
1	A	791	G	C8-N9-C1'	5.69	134.40	127.00
1	A	996	A	C6-N1-C2	-5.69	115.19	118.60
1	A	1120	C	N1-C1'-C2'	-5.69	105.74	112.00
1	A	1288	A	C3'-C2'-C1'	-5.69	96.95	101.50
1	A	1343	G	C8-N9-C4	-5.69	104.12	106.40
1	A	192	A	C4'-C3'-C2'	-5.69	96.91	102.60
1	A	269	C	N3-C4-C5	-5.69	119.62	121.90
1	A	567	G	N3-C2-N2	5.69	123.88	119.90
1	A	1331	G	C4'-C3'-C2'	-5.69	96.91	102.60
1	A	1396	A	C5-C6-N6	-5.69	119.15	123.70
1	A	395	C	N3-C4-N4	5.69	121.98	118.00
1	A	1017	U	O4'-C4'-C3'	-5.69	98.31	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1359	C	N3-C4-C5	-5.69	119.62	121.90
1	A	1368	A	C5-C6-N1	-5.69	114.86	117.70
1	A	1429	A	P-O5'-C5'	-5.69	111.80	120.90
1	A	1458	G	C6-C5-N7	-5.69	126.99	130.40
2	B	73	ARG	NE-CZ-NH1	5.69	123.14	120.30
17	Q	33	TYR	C-N-CA	5.69	134.24	122.30
1	A	606	G	N1-C6-O6	5.69	123.31	119.90
1	A	936	C	P-O3'-C3'	-5.69	112.88	119.70
1	A	1446	A	N1-C2-N3	5.69	132.14	129.30
5	E	68	ARG	N-CA-CB	5.69	120.83	110.60
1	A	191	G	N3-C2-N2	5.68	123.88	119.90
1	A	437	U	C3'-C2'-C1'	-5.68	96.95	101.50
1	A	866	C	C2'-C3'-O3'	5.68	122.80	113.70
9	I	5	TYR	CB-CG-CD1	5.68	124.41	121.00
1	A	224	U	C2-N1-C1'	-5.68	110.88	117.70
1	A	824	G	C2'-C3'-O3'	5.68	122.79	113.70
1	A	835	U	P-O5'-C5'	5.68	129.99	120.90
1	A	912	C	C6-N1-C1'	5.68	127.62	120.80
1	A	1124	G	O4'-C1'-N9	5.68	112.75	108.20
1	A	1261	A	C2-N3-C4	5.68	113.44	110.60
1	A	1419	G	O4'-C1'-C2'	-5.68	100.12	105.80
1	A	1442	G	C4'-C3'-O3'	-5.68	97.47	109.40
1	A	1523	G	C8-N9-C4	5.68	108.67	106.40
1	A	635	A	C1'-O4'-C4'	-5.68	105.36	109.90
1	A	1346	A	O5'-C5'-C4'	-5.68	100.91	111.70
1	A	582	C	P-O3'-C3'	-5.68	112.89	119.70
1	A	822	U	C2-N3-C4	-5.68	123.59	127.00
1	A	963	G	C8-N9-C4	-5.68	104.13	106.40
1	A	1287	A	O5'-C5'-C4'	-5.68	100.91	111.70
1	A	1259	C	C4'-C3'-C2'	-5.68	96.92	102.60
1	A	46	G	O3'-P-O5'	-5.68	93.22	104.00
1	A	172	A	C4'-C3'-O3'	-5.68	97.48	109.40
1	A	486	U	C1'-O4'-C4'	-5.68	105.36	109.90
1	A	664	G	C5'-C4'-O4'	5.68	115.91	109.10
1	A	863	U	C5'-C4'-O4'	5.68	115.91	109.10
1	A	955	U	C1'-O4'-C4'	-5.68	105.36	109.90
1	A	1003	G	C5'-C4'-O4'	5.68	115.91	109.10
1	A	1070	U	C4'-C3'-C2'	-5.68	96.92	102.60
1	A	1477	U	C2-N1-C1'	-5.68	110.89	117.70
1	A	1289	A	O4'-C1'-N9	5.67	112.74	108.20
11	K	52	ARG	NE-CZ-NH2	-5.67	117.46	120.30
1	A	481	G	C8-N9-C4	5.67	108.67	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1013	G	C1'-O4'-C4'	-5.67	105.36	109.90
1	A	1271	A	C4-N9-C1'	-5.67	116.09	126.30
1	A	187	G	C5'-C4'-C3'	-5.67	106.93	116.00
1	A	498	A	C5'-C4'-O4'	-5.67	102.29	109.10
1	A	632	U	O4'-C1'-N1	5.67	112.74	108.20
1	A	694	A	C5'-C4'-O4'	5.67	115.91	109.10
1	A	919	A	C5'-C4'-C3'	-5.67	106.92	116.00
1	A	1338	G	O4'-C4'-C3'	-5.67	98.33	104.00
1	A	68	G	C2-N3-C4	-5.67	109.06	111.90
1	A	346	G	C8-N9-C1'	5.67	134.37	127.00
1	A	861	G	O4'-C1'-N9	5.67	112.74	108.20
1	A	1522	U	O4'-C4'-C3'	-5.67	98.33	104.00
1	A	198	G	N1-C2-N3	-5.67	120.50	123.90
1	A	635	A	C4-C5-N7	-5.67	107.87	110.70
1	A	1108	G	C5'-C4'-C3'	-5.67	106.93	116.00
1	A	1301	U	C6-N1-C1'	5.67	129.14	121.20
1	A	1412	C	O4'-C1'-N1	5.67	112.73	108.20
1	A	74	A	C4'-C3'-O3'	-5.67	97.50	109.40
1	A	210	C	O3'-P-O5'	-5.67	93.23	104.00
1	A	219	U	C5-C6-N1	5.67	125.53	122.70
1	A	359	G	C4-N9-C1'	-5.67	119.13	126.50
1	A	1181	G	C4'-C3'-C2'	-5.67	96.93	102.60
1	A	1242	G	O5'-C5'-C4'	-5.67	100.93	111.70
1	A	1313	U	C5-C4-O4	5.67	129.30	125.90
1	A	1356	G	C3'-C2'-C1'	-5.67	96.97	101.50
1	A	282	A	C6-C5-N7	-5.67	128.34	132.30
1	A	966	G	C4'-C3'-C2'	-5.67	96.94	102.60
1	A	1293	C	N1-C1'-C2'	-5.67	105.77	112.00
1	A	126	G	P-O3'-C3'	5.66	126.50	119.70
1	A	424	G	C5'-C4'-O4'	5.66	115.90	109.10
1	A	776	G	O5'-C5'-C4'	-5.66	100.94	111.70
1	A	854	U	C1'-O4'-C4'	-5.66	105.37	109.90
1	A	72	A	N9-C4-C5	5.66	108.06	105.80
1	A	1008	U	C2-N1-C1'	-5.66	110.91	117.70
1	A	110	C	O4'-C1'-N1	5.66	112.73	108.20
1	A	279	A	C5'-C4'-C3'	5.66	125.06	116.00
1	A	401	C	N1-C1'-C2'	-5.66	105.77	112.00
1	A	724	G	P-O3'-C3'	5.66	126.49	119.70
1	A	829	G	O4'-C1'-N9	5.66	112.73	108.20
5	E	46	GLY	N-CA-C	-5.66	98.95	113.10
1	A	160	A	P-O5'-C5'	-5.66	111.85	120.90
1	A	424	G	C6-C5-N7	-5.66	127.00	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	509	A	P-O5'-C5'	-5.66	111.84	120.90
1	A	731	G	C4-N9-C1'	-5.66	119.14	126.50
1	A	747	A	O4'-C4'-C3'	-5.66	98.34	104.00
1	A	984	C	N3-C4-N4	5.66	121.96	118.00
1	A	1268	G	C5-N7-C8	5.66	107.13	104.30
4	D	129	VAL	CA-C-N	-5.66	104.75	117.20
1	A	580	C	C6-N1-C2	-5.66	118.04	120.30
1	A	1196	A	C1'-O4'-C4'	-5.66	105.37	109.90
1	A	303	A	O4'-C1'-N9	5.66	112.72	108.20
1	A	578	C	C6-N1-C1'	5.66	127.59	120.80
1	A	968	A	C4-C5-C6	5.66	119.83	117.00
1	A	1054	C	O4'-C1'-N1	5.66	112.72	108.20
1	A	1111	A	O5'-C5'-C4'	-5.66	100.95	111.70
1	A	1518	A	O4'-C4'-C3'	-5.66	98.34	104.00
1	A	1039	G	C5-C6-O6	-5.65	125.21	128.60
1	A	1488	G	C5'-C4'-C3'	-5.65	106.95	116.00
1	A	94	G	N3-C4-C5	-5.65	125.77	128.60
1	A	213	G	C4-N9-C1'	5.65	133.85	126.50
1	A	446	G	N9-C1'-C2'	-5.65	105.78	112.00
1	A	1169	A	C6-C5-N7	-5.65	128.34	132.30
1	A	1336	C	C4'-C3'-C2'	5.65	108.25	102.60
1	A	1404	C	C3'-C2'-C1'	-5.65	96.98	101.50
1	A	1457	G	O5'-C5'-C4'	-5.65	100.96	111.70
1	A	1490	U	O5'-C5'-C4'	5.65	122.44	111.70
1	A	244	U	C3'-C2'-C1'	5.65	106.02	101.50
1	A	517	G	C4'-C3'-C2'	-5.65	96.95	102.60
1	A	953	G	N3-C2-N2	5.65	123.86	119.90
1	A	1061	G	N1-C2-N3	-5.65	120.51	123.90
1	A	1117	A	OP1-P-O3'	5.65	117.63	105.20
1	A	1173	U	O4'-C4'-C3'	-5.65	98.35	104.00
1	A	1201	A	C5-C6-N6	-5.65	119.18	123.70
5	E	137	ARG	N-CA-C	-5.65	95.75	111.00
1	A	94	G	N9-C4-C5	5.65	107.66	105.40
1	A	223	A	C6-C5-N7	-5.65	128.34	132.30
1	A	1007	U	C5'-C4'-O4'	5.65	115.88	109.10
1	A	1181	G	C8-N9-C1'	5.65	134.34	127.00
1	A	1339	A	C4-C5-C6	5.65	119.83	117.00
1	A	100	G	C5'-C4'-C3'	-5.65	106.97	116.00
1	A	214	C	O4'-C4'-C3'	-5.65	98.35	104.00
1	A	281	G	C2-N3-C4	5.65	114.72	111.90
1	A	440	C	C1'-O4'-C4'	-5.65	105.38	109.90
1	A	455	G	C2-N3-C4	-5.65	109.08	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	606	G	O5'-P-OP1	-5.65	100.62	105.70
1	A	650	G	N3-C2-N2	5.65	123.85	119.90
1	A	816	A	O4'-C1'-C2'	-5.65	100.15	105.80
13	M	10	ASP	CB-CG-OD1	5.65	123.38	118.30
1	A	65	A	C1'-O4'-C4'	-5.65	105.38	109.90
1	A	1516	G	N9-C1'-C2'	-5.65	105.79	112.00
1	A	163	C	N3-C4-C5	-5.64	119.64	121.90
1	A	637	C	O3'-P-O5'	-5.64	93.28	104.00
1	A	874	G	P-O3'-C3'	-5.64	112.93	119.70
1	A	33	A	C4-C5-C6	5.64	119.82	117.00
1	A	694	A	C4-C5-C6	5.64	119.82	117.00
1	A	1001	C	C3'-C2'-C1'	-5.64	96.99	101.50
1	A	1497	G	C2'-C3'-O3'	5.64	122.73	113.70
1	A	982	U	C5-C4-O4	-5.64	122.52	125.90
12	L	85	ARG	N-CA-CB	5.64	120.75	110.60
1	A	83	C	C1'-O4'-C4'	5.64	114.41	109.90
1	A	217	C	P-O5'-C5'	-5.64	111.88	120.90
1	A	368	U	C2-N1-C1'	-5.64	110.93	117.70
1	A	388	G	N1-C2-N3	-5.64	120.52	123.90
1	A	448	A	N9-C1'-C2'	-5.64	105.80	112.00
1	A	882	C	N3-C4-C5	-5.64	119.64	121.90
1	A	1071	C	C5'-C4'-C3'	5.64	125.02	116.00
1	A	682	G	C4-N9-C1'	5.64	133.83	126.50
17	Q	47	ASP	N-CA-CB	5.64	120.75	110.60
1	A	35	G	P-O3'-C3'	-5.64	112.94	119.70
1	A	90	C	N3-C4-N4	5.64	121.95	118.00
1	A	144	G	C4-C5-N7	5.64	113.06	110.80
1	A	490	C	P-O5'-C5'	-5.64	111.88	120.90
1	A	704	A	C5-C6-N1	-5.64	114.88	117.70
1	A	912	C	P-O3'-C3'	5.64	126.47	119.70
1	A	961	U	C6-N1-C1'	5.64	129.09	121.20
1	A	1088	G	C5-C6-N1	-5.64	108.68	111.50
1	A	23	C	C5-C4-N4	-5.63	116.26	120.20
1	A	76	G	C4'-C3'-C2'	5.63	108.23	102.60
1	A	311	C	N3-C4-C5	-5.63	119.65	121.90
1	A	688	G	C4-C5-C6	5.63	122.18	118.80
1	A	695	A	C5-N7-C8	5.63	106.72	103.90
1	A	730	G	C4-N9-C1'	-5.63	119.18	126.50
1	A	1397	C	C3'-C2'-C1'	-5.63	96.99	101.50
16	P	32	PHE	CB-CG-CD2	-5.63	116.86	120.80
1	A	78	A	N1-C2-N3	5.63	132.12	129.30
1	A	688	G	O3'-P-O5'	-5.63	93.30	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1324	A	C5-C6-N1	-5.63	114.88	117.70
22	W	65	ASN	CA-CB-CG	-5.63	101.01	113.40
1	A	184	G	N1-C2-N3	-5.63	120.52	123.90
1	A	685	G	C3'-C2'-C1'	-5.63	96.99	101.50
12	L	109	ARG	N-CA-CB	5.63	120.74	110.60
1	A	308	C	O4'-C1'-N1	5.63	112.70	108.20
1	A	1356	G	C8-N9-C1'	5.63	134.32	127.00
1	A	246	A	P-O3'-C3'	5.63	126.45	119.70
1	A	679	C	N3-C4-N4	5.63	121.94	118.00
1	A	829	G	N3-C4-C5	-5.63	125.79	128.60
1	A	897	C	C1'-O4'-C4'	-5.63	105.40	109.90
3	C	180	ASP	N-CA-CB	5.63	120.73	110.60
4	D	139	ASN	N-CA-CB	5.63	120.73	110.60
1	A	307	C	N3-C4-N4	5.63	121.94	118.00
1	A	659	U	O4'-C1'-N1	5.63	112.70	108.20
1	A	866	C	N3-C4-C5	-5.63	119.65	121.90
1	A	541	G	C8-N9-C1'	5.62	134.31	127.00
1	A	115	G	O4'-C1'-C2'	5.62	112.66	107.60
1	A	151	A	N9-C4-C5	5.62	108.05	105.80
1	A	536	C	P-O3'-C3'	-5.62	112.95	119.70
1	A	819	A	O4'-C1'-N9	5.62	112.70	108.20
1	A	981	U	C5-C4-O4	-5.62	122.53	125.90
1	A	142	G	C8-N9-C4	-5.62	104.15	106.40
1	A	257	G	C2'-C3'-O3'	5.62	122.69	113.70
1	A	408	A	N3-C4-C5	-5.62	122.86	126.80
1	A	577	G	P-O3'-C3'	-5.62	112.95	119.70
1	A	600	A	O5'-P-OP2	-5.62	100.64	105.70
1	A	711	G	C8-N9-C1'	5.62	134.31	127.00
1	A	846	G	C2'-C3'-O3'	5.62	122.69	113.70
1	A	1299	A	N9-C4-C5	5.62	108.05	105.80
1	A	643	C	N3-C4-C5	-5.62	119.65	121.90
1	A	1231	G	N1-C2-N2	5.62	121.26	116.20
1	A	417	G	O3'-P-O5'	-5.62	93.33	104.00
1	A	928	G	C6-C5-N7	-5.62	127.03	130.40
1	A	1026	G	C5-C6-O6	-5.62	125.23	128.60
1	A	1281	C	C2-N1-C1'	5.62	124.98	118.80
1	A	273	U	C2'-C3'-O3'	5.62	122.69	113.70
1	A	460	A	C4-C5-N7	-5.62	107.89	110.70
1	A	735	C	C5'-C4'-C3'	5.62	124.99	116.00
1	A	1453	G	N1-C6-O6	5.62	123.27	119.90
11	K	81	LEU	CB-CA-C	-5.62	99.53	110.20
1	A	59	A	C2-N3-C4	-5.62	107.79	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	264	C	C5'-C4'-O4'	5.62	115.84	109.10
1	A	395	C	C5-C6-N1	5.62	123.81	121.00
1	A	402	G	N3-C2-N2	5.62	123.83	119.90
1	A	413	G	C5'-C4'-O4'	5.62	115.84	109.10
1	A	1067	A	C6-C5-N7	-5.62	128.37	132.30
2	B	49	PHE	CB-CG-CD1	5.62	124.73	120.80
1	A	266	G	C8-N9-C1'	5.61	134.30	127.00
1	A	280	C	O4'-C1'-N1	5.61	112.69	108.20
1	A	316	C	C5'-C4'-O4'	5.61	115.84	109.10
1	A	1170	A	C5'-C4'-O4'	5.61	115.84	109.10
1	A	1229	A	C4'-C3'-C2'	-5.61	96.99	102.60
1	A	1368	A	C4-C5-N7	-5.61	107.89	110.70
1	A	1460	C	O4'-C1'-N1	5.61	112.69	108.20
19	S	45	GLY	N-CA-C	-5.61	99.07	113.10
1	A	155	A	N9-C1'-C2'	-5.61	105.83	112.00
1	A	636	U	C4'-C3'-C2'	-5.61	96.99	102.60
1	A	817	C	O5'-C5'-C4'	5.61	122.36	111.70
1	A	925	G	O5'-C5'-C4'	-5.61	101.04	111.70
1	A	1464	U	O4'-C1'-N1	5.61	112.69	108.20
1	A	132	C	C5-C6-N1	5.61	123.81	121.00
1	A	133	U	C2-N3-C4	-5.61	123.63	127.00
1	A	325	A	P-O5'-C5'	-5.61	111.92	120.90
1	A	369	G	C4'-C3'-C2'	-5.61	96.99	102.60
1	A	510	A	C2-N3-C4	-5.61	107.80	110.60
1	A	777	A	C5-N7-C8	5.61	106.71	103.90
1	A	1231	G	N3-C4-N9	-5.61	122.63	126.00
1	A	1351	U	C3'-C2'-C1'	-5.61	97.01	101.50
1	A	1354	U	C3'-C2'-C1'	-5.61	97.01	101.50
1	A	1401	G	N3-C4-C5	-5.61	125.79	128.60
1	A	1509	C	C6-N1-C1'	5.61	127.53	120.80
16	P	14	ARG	N-CA-C	-5.61	95.85	111.00
1	A	214	C	C5-C6-N1	-5.61	118.20	121.00
1	A	498	A	C5-C6-N6	-5.61	119.21	123.70
1	A	532	A	C4-C5-C6	5.61	119.80	117.00
1	A	75	G	C3'-C2'-C1'	-5.61	97.02	101.50
1	A	112	G	P-O3'-C3'	-5.61	112.97	119.70
1	A	198	G	P-O3'-C3'	-5.61	112.97	119.70
1	A	569	C	C4'-C3'-C2'	5.61	108.21	102.60
1	A	1100	C	N3-C4-C5	-5.61	119.66	121.90
5	E	76	ASN	N-CA-CB	5.61	120.69	110.60
1	A	257	G	C4-N9-C1'	-5.61	119.21	126.50
1	A	719	C	O4'-C4'-C3'	-5.61	98.39	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	879	C	C5-C6-N1	5.61	123.80	121.00
1	A	915	A	C5-C6-N6	-5.61	119.22	123.70
1	A	1288	A	O4'-C4'-C3'	-5.61	98.39	104.00
16	P	15	PRO	N-CA-C	-5.61	97.53	112.10
1	A	778	G	C5-C6-N1	-5.60	108.70	111.50
1	A	904	U	C5'-C4'-O4'	5.60	115.82	109.10
1	A	67	C	C5-C6-N1	5.60	123.80	121.00
1	A	246	A	C8-N9-C4	5.60	108.04	105.80
1	A	654	G	C4-N9-C1'	5.60	133.78	126.50
1	A	802	A	C6-C5-N7	-5.60	128.38	132.30
1	A	1066	C	C5-C4-N4	-5.60	116.28	120.20
1	A	109	A	O4'-C1'-N9	5.60	112.68	108.20
1	A	139	A	C8-N9-C1'	5.60	137.78	127.70
1	A	185	U	OP1-P-O3'	5.60	117.52	105.20
1	A	757	U	O5'-C5'-C4'	-5.60	101.06	111.70
1	A	1197	A	C1'-O4'-C4'	-5.60	105.42	109.90
1	A	1417	G	OP2-P-O3'	5.60	117.52	105.20
1	A	179	A	C3'-C2'-C1'	-5.60	97.02	101.50
1	A	404	G	N9-C4-C5	5.60	107.64	105.40
1	A	592	G	C4-N9-C1'	-5.60	119.22	126.50
1	A	1047	G	N1-C6-O6	5.60	123.26	119.90
1	A	1434	A	N1-C2-N3	5.60	132.10	129.30
17	Q	71	SER	C-N-CA	5.60	135.70	121.70
1	A	44	A	O4'-C1'-N9	5.60	112.68	108.20
1	A	310	G	N1-C6-O6	5.60	123.26	119.90
1	A	374	A	C4-C5-C6	5.60	119.80	117.00
1	A	630	A	C5-C6-N6	-5.60	119.22	123.70
1	A	792	A	C5-C6-N1	-5.60	114.90	117.70
1	A	907	A	C3'-C2'-C1'	-5.60	97.02	101.50
1	A	931	C	N3-C4-C5	-5.60	119.66	121.90
1	A	1140	C	OP2-P-O3'	5.60	117.52	105.20
19	S	51	HIS	CB-CA-C	-5.60	99.20	110.40
20	T	5	SER	CA-C-N	-5.60	104.89	117.20
1	A	1280	A	N7-C8-N9	5.60	116.60	113.80
1	A	108	G	N1-C2-N2	-5.59	111.16	116.20
1	A	188	C	O4'-C1'-N1	5.59	112.68	108.20
1	A	193	C	C2-N1-C1'	-5.59	112.65	118.80
1	A	744	C	N3-C4-C5	-5.59	119.66	121.90
1	A	874	G	C4-N9-C1'	-5.59	119.23	126.50
1	A	1158	C	C2-N1-C1'	-5.59	112.65	118.80
1	A	92	U	N1-C2-N3	5.59	118.25	114.90
1	A	1090	U	O5'-C5'-C4'	-5.59	101.08	111.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1200	C	C6-N1-C2	-5.59	118.06	120.30
1	A	1035	A	C5-C6-N1	-5.59	114.91	117.70
1	A	1068	G	N7-C8-N9	5.59	115.89	113.10
1	A	1187	G	C3'-C2'-C1'	-5.59	97.03	101.50
1	A	1211	U	P-O5'-C5'	5.59	129.84	120.90
1	A	1235	U	P-O5'-C5'	-5.59	111.96	120.90
1	A	1409	C	C5-C4-N4	-5.59	116.29	120.20
1	A	136	C	N3-C4-N4	5.59	121.91	118.00
1	A	725	G	N1-C2-N2	-5.59	111.17	116.20
1	A	779	C	C5-C4-N4	-5.59	116.29	120.20
1	A	1230	C	C5-C4-N4	-5.59	116.29	120.20
1	A	1529	G	C8-N9-C4	-5.59	104.17	106.40
4	D	54	LEU	CB-CG-CD2	5.59	120.50	111.00
22	W	307	ASP	N-CA-C	-5.59	95.91	111.00
1	A	458	U	C3'-C2'-C1'	-5.59	97.03	101.50
1	A	751	U	C2-N1-C1'	-5.59	111.00	117.70
8	H	101	ALA	N-CA-CB	5.59	117.92	110.10
1	A	252	U	P-O5'-C5'	-5.58	111.96	120.90
1	A	331	G	C6-C5-N7	-5.58	127.05	130.40
1	A	911	U	C2-N3-C4	-5.58	123.65	127.00
1	A	1133	G	N7-C8-N9	5.58	115.89	113.10
1	A	282	A	C5'-C4'-C3'	-5.58	107.07	116.00
1	A	759	A	C4-C5-C6	5.58	119.79	117.00
1	A	1007	U	C2'-C3'-O3'	5.58	122.63	113.70
1	A	1134	G	C4'-C3'-C2'	-5.58	97.02	102.60
1	A	1417	G	N3-C4-N9	5.58	129.35	126.00
1	A	138	G	C6-N1-C2	-5.58	121.75	125.10
1	A	364	A	O4'-C1'-N9	5.58	112.67	108.20
1	A	1406	U	C1'-O4'-C4'	-5.58	105.44	109.90
1	A	1494	G	O4'-C1'-N9	5.58	112.67	108.20
5	E	23	THR	CA-CB-CG2	-5.58	104.58	112.40
1	A	431	A	OP1-P-OP2	-5.58	111.23	119.60
1	A	1391	U	N3-C4-C5	-5.58	111.25	114.60
13	M	29	SER	CB-CA-C	-5.58	99.50	110.10
1	A	80	A	C4-N9-C1'	5.58	136.34	126.30
1	A	208	U	C2-N3-C4	-5.58	123.65	127.00
1	A	621	A	O4'-C4'-C3'	-5.58	98.42	104.00
1	A	1310	G	O5'-P-OP1	5.58	117.39	110.70
1	A	246	A	O4'-C1'-N9	-5.58	103.74	108.20
1	A	376	G	C8-N9-C1'	5.58	134.25	127.00
1	A	1088	G	C8-N9-C1'	5.58	134.25	127.00
1	A	1496	C	P-O5'-C5'	5.58	129.82	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	380	G	N3-C2-N2	-5.58	116.00	119.90
1	A	878	A	C6-N1-C2	-5.58	115.25	118.60
1	A	925	G	C5-N7-C8	-5.58	101.51	104.30
1	A	342	C	N3-C2-O2	-5.57	118.00	121.90
1	A	611	C	C6-N1-C1'	-5.57	114.11	120.80
1	A	948	C	N1-C1'-C2'	-5.57	105.87	112.00
1	A	469	C	C3'-C2'-C1'	-5.57	97.04	101.50
1	A	946	A	C6-C5-N7	-5.57	128.40	132.30
1	A	125	U	C6-N1-C2	-5.57	117.66	121.00
1	A	430	A	C4-N9-C1'	5.57	136.33	126.30
1	A	1363	A	C6-N1-C2	-5.57	115.26	118.60
1	A	1529	G	N1-C2-N3	-5.57	120.56	123.90
1	A	21	G	C8-N9-C4	-5.57	104.17	106.40
1	A	258	G	C4-C5-C6	5.57	122.14	118.80
1	A	358	U	O3'-P-O5'	-5.57	93.42	104.00
1	A	632	U	C2-N1-C1'	5.57	124.38	117.70
1	A	714	G	C5-C6-N1	-5.57	108.72	111.50
1	A	1512	U	C5'-C4'-C3'	5.57	124.91	116.00
8	H	105	THR	C-N-CA	5.57	135.62	121.70
1	A	951	G	C6-C5-N7	-5.57	127.06	130.40
1	A	1028	C	C5-C4-N4	-5.57	116.31	120.20
1	A	1244	G	N1-C2-N3	-5.57	120.56	123.90
1	A	1258	G	P-O5'-C5'	5.57	129.80	120.90
1	A	1343	G	C5'-C4'-O4'	5.57	115.78	109.10
1	A	1369	C	C6-N1-C2	-5.57	118.07	120.30
19	S	76	THR	CA-CB-OG1	5.57	120.69	109.00
1	A	193	C	O4'-C1'-N1	5.56	112.65	108.20
1	A	286	C	C5-C6-N1	5.56	123.78	121.00
1	A	1006	G	N7-C8-N9	-5.56	110.32	113.10
1	A	102	G	C3'-C2'-C1'	-5.56	97.05	101.50
1	A	268	U	N3-C4-C5	-5.56	111.26	114.60
1	A	320	A	C6-N1-C2	-5.56	115.26	118.60
1	A	379	C	C1'-O4'-C4'	-5.56	105.45	109.90
1	A	384	G	C1'-O4'-C4'	-5.56	105.45	109.90
1	A	724	G	N1-C2-N3	-5.56	120.56	123.90
1	A	1172	C	N3-C4-N4	5.56	121.89	118.00
1	A	1237	C	C2'-C3'-O3'	5.56	122.60	113.70
1	A	1395	C	N1-C2-N3	-5.56	115.31	119.20
1	A	1473	G	C4-C5-C6	5.56	122.14	118.80
3	C	37	LYS	N-CA-CB	5.56	120.61	110.60
8	H	37	ASN	CB-CA-C	-5.56	99.27	110.40
11	K	50	GLY	C-N-CA	5.56	135.61	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	242	G	N1-C2-N3	-5.56	120.56	123.90
1	A	434	U	C2-N3-C4	-5.56	123.66	127.00
1	A	454	G	N7-C8-N9	5.56	115.88	113.10
1	A	1247	U	C1'-O4'-C4'	-5.56	105.45	109.90
1	A	1298	U	C5-C6-N1	-5.56	119.92	122.70
1	A	1342	C	P-O5'-C5'	5.56	129.80	120.90
9	I	12	LYS	C-N-CA	5.56	135.60	121.70
22	W	235	LEU	N-CA-C	-5.56	95.98	111.00
1	A	444	G	C1'-O4'-C4'	-5.56	105.45	109.90
1	A	582	C	O5'-C5'-C4'	-5.56	101.14	111.70
1	A	674	G	P-O3'-C3'	-5.56	113.03	119.70
1	A	952	U	C5-C4-O4	-5.56	122.56	125.90
1	A	1106	G	O4'-C1'-N9	5.56	112.65	108.20
1	A	1350	A	C5-C6-N6	-5.56	119.25	123.70
1	A	1374	A	C5'-C4'-C3'	-5.56	107.11	116.00
1	A	1461	G	N9-C4-C5	5.56	107.62	105.40
1	A	1525	G	C1'-O4'-C4'	-5.56	105.45	109.90
1	A	428	G	N1-C2-N3	-5.56	120.56	123.90
1	A	561	U	C6-N1-C2	-5.56	117.67	121.00
1	A	961	U	C2-N3-C4	-5.56	123.67	127.00
1	A	1093	A	OP1-P-O3'	5.56	117.43	105.20
1	A	1204	A	C8-N9-C4	-5.56	103.58	105.80
1	A	916	U	N1-C2-O2	5.56	126.69	122.80
1	A	1196	A	C4-C5-C6	5.56	119.78	117.00
1	A	1229	A	C6-C5-N7	-5.56	128.41	132.30
1	A	88	U	C6-N1-C2	-5.55	117.67	121.00
1	A	700	G	N3-C2-N2	5.55	123.79	119.90
1	A	947	G	C5'-C4'-C3'	-5.55	107.11	116.00
1	A	1224	U	C2-N1-C1'	5.55	124.36	117.70
1	A	1233	G	C3'-C2'-C1'	-5.55	97.06	101.50
1	A	393	A	O4'-C1'-N9	5.55	112.64	108.20
1	A	1115	U	C1'-O4'-C4'	-5.55	105.46	109.90
5	E	44	ARG	NE-CZ-NH1	5.55	123.08	120.30
1	A	254	G	C5'-C4'-C3'	-5.55	107.12	116.00
1	A	286	C	P-O5'-C5'	-5.55	112.02	120.90
1	A	838	G	C6-C5-N7	-5.55	127.07	130.40
1	A	861	G	C8-N9-C4	-5.55	104.18	106.40
1	A	1161	C	C5'-C4'-O4'	-5.55	102.44	109.10
1	A	1408	A	C1'-O4'-C4'	-5.55	105.46	109.90
1	A	729	A	N7-C8-N9	5.55	116.58	113.80
1	A	888	G	O4'-C1'-N9	5.55	112.64	108.20
1	A	937	A	C8-N9-C1'	5.55	137.69	127.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1034	G	C4'-C3'-C2'	-5.55	97.05	102.60
3	C	64	ARG	N-CA-C	-5.55	96.01	111.00
13	M	15	VAL	CB-CA-C	-5.55	100.86	111.40
1	A	181	A	C4'-C3'-C2'	-5.55	97.05	102.60
1	A	321	A	OP1-P-OP2	-5.55	111.28	119.60
1	A	974	A	C3'-C2'-C1'	5.55	105.94	101.50
3	C	183	TYR	CB-CG-CD2	-5.55	117.67	121.00
1	A	370	C	C5-C4-N4	-5.55	116.32	120.20
1	A	617	G	C4'-C3'-O3'	-5.55	97.75	109.40
1	A	1329	A	C1'-O4'-C4'	-5.55	105.46	109.90
1	A	1359	C	O3'-P-O5'	-5.55	93.46	104.00
1	A	1374	A	N9-C4-C5	5.55	108.02	105.80
1	A	1474	U	C5'-C4'-O4'	5.55	115.76	109.10
1	A	1529	G	O3'-P-O5'	5.55	114.54	104.00
5	E	42	ASN	N-CA-C	-5.55	96.02	111.00
1	A	662	U	C3'-C2'-C1'	-5.54	97.06	101.50
1	A	739	C	P-O3'-C3'	-5.54	113.05	119.70
1	A	132	C	N1-C1'-C2'	-5.54	105.90	112.00
1	A	318	G	C6-C5-N7	-5.54	127.07	130.40
1	A	361	G	N1-C6-O6	5.54	123.23	119.90
1	A	396	C	C2-N1-C1'	-5.54	112.70	118.80
1	A	614	C	C4'-C3'-C2'	5.54	108.14	102.60
1	A	725	G	C5-C6-O6	-5.54	125.27	128.60
1	A	862	C	N3-C4-N4	5.54	121.88	118.00
1	A	1019	A	C4-C5-C6	5.54	119.77	117.00
1	A	1367	C	O4'-C1'-C2'	5.54	112.59	107.60
1	A	1529	G	C5'-C4'-C3'	5.54	124.87	116.00
1	A	704	A	C4-C5-C6	5.54	119.77	117.00
1	A	1041	G	C8-N9-C4	-5.54	104.18	106.40
1	A	1082	A	O4'-C1'-N9	5.54	112.63	108.20
18	R	28	LEU	CB-CA-C	-5.54	99.67	110.20
1	A	1439	G	N9-C1'-C2'	-5.54	105.91	112.00
1	A	115	G	C6-C5-N7	-5.54	127.08	130.40
1	A	178	C	C4-C5-C6	-5.54	114.63	117.40
1	A	237	G	N3-C2-N2	5.54	123.78	119.90
1	A	635	A	C5-C6-N1	-5.54	114.93	117.70
1	A	1012	A	C3'-C2'-C1'	-5.54	97.07	101.50
1	A	1168	U	C2-N1-C1'	5.54	124.35	117.70
1	A	1475	G	N3-C2-N2	5.54	123.78	119.90
15	O	82	GLU	CB-CG-CD	-5.54	99.25	114.20
17	Q	46	HIS	CA-C-N	-5.54	105.02	117.20
1	A	274	A	P-O5'-C5'	5.54	129.76	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	195	A	C8-N9-C1'	-5.54	117.74	127.70
1	A	818	G	C5-C6-O6	-5.54	125.28	128.60
1	A	854	U	C3'-C2'-C1'	-5.54	97.07	101.50
1	A	995	C	C3'-C2'-C1'	-5.54	97.07	101.50
1	A	1021	A	C3'-C2'-C1'	-5.54	97.07	101.50
1	A	1121	U	O4'-C4'-C3'	-5.54	98.46	104.00
16	P	42	ILE	C-N-CA	5.54	135.54	121.70
1	A	62	U	O4'-C1'-N1	5.53	112.63	108.20
1	A	570	G	C4-C5-C6	5.53	122.12	118.80
1	A	1006	G	C6-N1-C2	-5.53	121.78	125.10
1	A	1027	C	C3'-C2'-C1'	-5.53	97.07	101.50
1	A	1256	A	C3'-C2'-C1'	-5.53	97.07	101.50
1	A	1340	A	N3-C4-C5	-5.53	122.93	126.80
1	A	64	G	C5-C6-N1	-5.53	108.73	111.50
1	A	688	G	C4-N9-C1'	-5.53	119.31	126.50
1	A	116	A	O4'-C1'-N9	5.53	112.62	108.20
1	A	563	A	P-O5'-C5'	-5.53	112.05	120.90
1	A	666	G	C4-N9-C1'	5.53	133.69	126.50
1	A	687	A	C4-N9-C1'	-5.53	116.34	126.30
1	A	1304	G	C3'-C2'-C1'	-5.53	97.08	101.50
1	A	1431	A	C5-C6-N6	-5.53	119.28	123.70
1	A	1501	C	OP2-P-O3'	5.53	117.37	105.20
3	C	197	VAL	N-CA-C	-5.53	96.07	111.00
1	A	228	A	O4'-C1'-N9	5.53	112.62	108.20
1	A	1163	A	C5-C6-N6	-5.53	119.28	123.70
15	O	64	LYS	CB-CA-C	-5.53	99.34	110.40
1	A	566	G	P-O5'-C5'	-5.53	112.06	120.90
1	A	1347	G	N1-C2-N2	-5.53	111.23	116.20
12	L	30	ARG	CB-CG-CD	5.53	125.97	111.60
17	Q	28	VAL	N-CA-CB	5.53	123.66	111.50
1	A	43	C	C6-N1-C1'	5.53	127.43	120.80
1	A	276	G	P-O3'-C3'	-5.53	113.07	119.70
1	A	313	A	C6-C5-N7	-5.53	128.43	132.30
1	A	651	C	C5'-C4'-O4'	5.53	115.73	109.10
13	M	86	ARG	NE-CZ-NH1	-5.53	117.54	120.30
17	Q	73	THR	N-CA-C	-5.53	96.08	111.00
1	A	26	A	C3'-C2'-C1'	-5.52	97.08	101.50
1	A	219	U	C6-N1-C2	-5.52	117.69	121.00
1	A	1174	G	O5'-C5'-C4'	5.52	122.19	111.70
1	A	1245	C	N3-C4-N4	5.52	121.87	118.00
1	A	1346	A	N9-C1'-C2'	-5.52	105.92	112.00
1	A	187	G	N7-C8-N9	-5.52	110.34	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	391	G	O5'-C5'-C4'	-5.52	101.21	111.70
1	A	608	A	C5'-C4'-O4'	5.52	115.73	109.10
1	A	1390	U	C2-N1-C1'	-5.52	111.07	117.70
12	L	80	LEU	N-CA-C	-5.52	96.09	111.00
1	A	212	G	C5'-C4'-O4'	-5.52	102.47	109.10
1	A	331	G	N1-C2-N2	-5.52	111.23	116.20
1	A	354	G	C4-N9-C1'	-5.52	119.32	126.50
1	A	493	A	C6-C5-N7	-5.52	128.44	132.30
1	A	1115	U	P-O5'-C5'	5.52	129.73	120.90
1	A	1345	U	C1'-O4'-C4'	-5.52	105.48	109.90
1	A	1377	A	C4-C5-C6	5.52	119.76	117.00
15	O	44	GLU	N-CA-CB	5.52	120.54	110.60
1	A	361	G	N9-C4-C5	5.52	107.61	105.40
1	A	479	U	C3'-C2'-C1'	-5.52	97.08	101.50
1	A	618	C	N3-C2-O2	-5.52	118.04	121.90
1	A	730	G	C3'-C2'-C1'	-5.52	97.08	101.50
1	A	1075	U	C6-N1-C2	-5.52	117.69	121.00
1	A	1298	U	C5'-C4'-O4'	5.52	115.72	109.10
1	A	359	G	C1'-O4'-C4'	-5.52	105.49	109.90
1	A	729	A	C4-C5-C6	5.52	119.76	117.00
1	A	834	U	C4'-C3'-C2'	5.52	108.12	102.60
1	A	1199	U	C6-N1-C2	-5.52	117.69	121.00
1	A	1203	C	C3'-C2'-C1'	-5.52	97.09	101.50
1	A	1418	A	C8-N9-C4	-5.52	103.59	105.80
1	A	1437	A	C6-C5-N7	-5.52	128.44	132.30
12	L	99	GLY	C-N-CA	5.52	135.49	121.70
1	A	209	U	O4'-C1'-N1	5.52	112.61	108.20
1	A	582	C	P-O5'-C5'	5.52	129.73	120.90
1	A	804	U	C6-N1-C1'	5.52	128.92	121.20
1	A	1216	A	C5-C6-N6	-5.52	119.29	123.70
1	A	1355	G	P-O5'-C5'	-5.52	112.07	120.90
1	A	32	A	O4'-C1'-N9	5.51	112.61	108.20
1	A	151	A	C5-N7-C8	5.51	106.66	103.90
1	A	640	A	C4-C5-N7	-5.51	107.94	110.70
1	A	815	A	C4-C5-C6	5.51	119.76	117.00
1	A	847	G	N7-C8-N9	5.51	115.86	113.10
1	A	955	U	O4'-C1'-N1	5.51	112.61	108.20
1	A	1144	G	N3-C4-C5	-5.51	125.84	128.60
1	A	1309	G	C5'-C4'-O4'	5.51	115.72	109.10
1	A	1441	A	N3-C4-C5	-5.51	122.94	126.80
14	N	18	LYS	CB-CA-C	5.51	121.43	110.40
1	A	411	A	C4-C5-C6	5.51	119.76	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	652	U	C3'-C2'-C1'	5.51	105.91	101.50
1	A	808	C	C3'-C2'-C1'	-5.51	97.09	101.50
1	A	880	C	C2-N1-C1'	-5.51	112.74	118.80
1	A	1498	U	P-O5'-C5'	-5.51	112.08	120.90
1	A	10	A	P-O3'-C3'	-5.51	113.09	119.70
1	A	165	G	C2'-C3'-O3'	5.51	122.52	113.70
1	A	925	G	N9-C4-C5	-5.51	103.20	105.40
1	A	1044	A	C8-N9-C1'	5.51	137.62	127.70
1	A	1512	U	C3'-C2'-C1'	5.51	105.91	101.50
1	A	136	C	C3'-C2'-C1'	-5.51	97.09	101.50
1	A	761	G	C4-N9-C1'	-5.51	119.34	126.50
1	A	952	U	O3'-P-O5'	-5.51	93.53	104.00
1	A	1068	G	C4-C5-C6	5.51	122.11	118.80
1	A	1221	G	C5-C6-O6	-5.51	125.30	128.60
1	A	1282	C	O4'-C4'-C3'	-5.51	98.49	104.00
1	A	1366	C	C2-N1-C1'	-5.51	112.74	118.80
1	A	1398	A	O4'-C4'-C3'	-5.51	98.49	104.00
1	A	1312	G	C8-N9-C4	-5.51	104.20	106.40
1	A	1405	G	C6-C5-N7	-5.51	127.09	130.40
1	A	1448	C	C5'-C4'-O4'	5.51	115.71	109.10
14	N	84	ARG	CB-CA-C	-5.51	99.38	110.40
1	A	32	A	O3'-P-O5'	-5.51	93.54	104.00
1	A	252	U	C2-N1-C1'	-5.51	111.09	117.70
1	A	324	G	O5'-C5'-C4'	-5.51	101.24	111.70
1	A	1374	A	C1'-O4'-C4'	-5.51	105.50	109.90
1	A	143	A	O4'-C1'-C2'	5.50	112.56	107.60
1	A	754	C	C3'-C2'-C1'	5.50	105.90	101.50
1	A	1171	A	O5'-C5'-C4'	-5.50	101.24	111.70
5	E	33	THR	N-CA-C	-5.50	96.14	111.00
11	K	82	GLU	N-CA-CB	5.50	120.51	110.60
1	A	428	G	C6-C5-N7	-5.50	127.10	130.40
1	A	462	G	P-O3'-C3'	-5.50	113.10	119.70
1	A	528	C	N1-C2-N3	-5.50	115.35	119.20
1	A	549	C	P-O3'-C3'	-5.50	113.10	119.70
1	A	610	U	N1-C1'-C2'	-5.50	105.94	112.00
1	A	678	U	C5'-C4'-C3'	5.50	124.81	116.00
1	A	736	C	C5-C4-N4	-5.50	116.35	120.20
1	A	1228	C	P-O3'-C3'	5.50	126.30	119.70
1	A	69	G	C4-N9-C1'	-5.50	119.35	126.50
1	A	241	G	C3'-C2'-C1'	-5.50	97.10	101.50
1	A	999	C	C3'-C2'-C1'	-5.50	97.10	101.50
1	A	254	G	N9-C1'-C2'	-5.50	105.95	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	380	G	C2-N3-C4	5.50	114.65	111.90
1	A	764	C	C2-N1-C1'	-5.50	112.75	118.80
1	A	771	G	C4'-C3'-C2'	-5.50	97.10	102.60
1	A	845	A	C5'-C4'-C3'	5.50	124.80	116.00
1	A	1089	G	C5'-C4'-C3'	-5.50	107.20	116.00
1	A	1303	C	P-O3'-C3'	-5.50	113.10	119.70
1	A	1450	U	P-O5'-C5'	5.50	129.70	120.90
1	A	1500	A	C5-C6-N1	-5.50	114.95	117.70
1	A	44	A	P-O5'-C5'	-5.50	112.11	120.90
1	A	183	C	C6-N1-C2	-5.50	118.10	120.30
1	A	201	G	C5'-C4'-C3'	-5.50	107.21	116.00
1	A	314	C	N3-C4-N4	5.50	121.85	118.00
1	A	547	A	C4-C5-C6	5.50	119.75	117.00
1	A	664	G	O3'-P-O5'	-5.50	93.56	104.00
1	A	766	A	C4-N9-C1'	-5.50	116.41	126.30
1	A	819	A	C8-N9-C4	-5.50	103.60	105.80
1	A	875	U	N1-C1'-C2'	-5.50	105.95	112.00
1	A	1291	U	C2-N1-C1'	-5.50	111.10	117.70
2	B	26	MET	N-CA-CB	5.50	120.49	110.60
11	K	98	ALA	N-CA-CB	-5.50	102.41	110.10
1	A	521	G	N1-C2-N3	-5.50	120.60	123.90
1	A	614	C	C6-N1-C2	-5.50	118.10	120.30
1	A	633	G	N7-C8-N9	5.50	115.85	113.10
1	A	950	U	C5-C6-N1	5.50	125.45	122.70
1	A	1219	A	C8-N9-C1'	5.50	137.59	127.70
20	T	7	LYS	N-CA-C	5.50	125.84	111.00
1	A	339	C	N3-C2-O2	-5.49	118.06	121.90
1	A	446	G	C1'-O4'-C4'	-5.49	105.50	109.90
1	A	604	G	N1-C2-N3	-5.49	120.60	123.90
1	A	649	A	N9-C1'-C2'	-5.49	105.96	112.00
1	A	690	G	C8-N9-C1'	5.49	134.14	127.00
1	A	753	A	P-O5'-C5'	-5.49	112.11	120.90
1	A	1223	C	N3-C4-N4	5.49	121.84	118.00
1	A	1528	U	C1'-O4'-C4'	-5.49	105.51	109.90
14	N	14	ALA	N-CA-C	5.49	125.83	111.00
15	O	70	LYS	N-CA-CB	5.49	120.49	110.60
1	A	151	A	C5'-C4'-O4'	5.49	115.69	109.10
1	A	1190	G	C5-C6-O6	-5.49	125.31	128.60
1	A	546	A	C4-C5-C6	5.49	119.75	117.00
1	A	663	A	C8-N9-C4	-5.49	103.60	105.80
1	A	932	C	C6-N1-C1'	5.49	127.39	120.80
1	A	935	A	N3-C4-C5	-5.49	122.96	126.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1160	G	O5'-P-OP1	5.49	117.29	110.70
1	A	1349	A	C5'-C4'-C3'	-5.49	107.21	116.00
1	A	970	C	P-O5'-C5'	5.49	129.68	120.90
1	A	1402	C	N3-C4-C5	-5.49	119.70	121.90
3	C	194	VAL	CG1-CB-CG2	5.49	119.68	110.90
5	E	63	MET	CG-SD-CE	-5.49	91.42	100.20
16	P	73	ALA	N-CA-CB	5.49	117.78	110.10
1	A	567	G	N3-C4-C5	-5.49	125.86	128.60
1	A	1526	G	P-O5'-C5'	5.49	129.68	120.90
1	A	347	G	N1-C2-N2	-5.49	111.26	116.20
1	A	504	C	O3'-P-O5'	-5.49	93.58	104.00
1	A	713	G	C4-C5-C6	5.49	122.09	118.80
1	A	782	A	O5'-C5'-C4'	-5.49	101.28	111.70
1	A	905	U	N1-C2-N3	5.49	118.19	114.90
1	A	1068	G	C2-N3-C4	-5.49	109.16	111.90
2	B	81	ASP	N-CA-C	-5.49	96.19	111.00
9	I	117	LEU	C-N-CA	5.49	135.41	121.70
19	S	33	TRP	CB-CG-CD2	5.49	133.73	126.60
1	A	245	U	C1'-O4'-C4'	-5.48	105.51	109.90
1	A	280	C	C4'-C3'-C2'	-5.48	97.12	102.60
1	A	1010	U	C1'-O4'-C4'	-5.48	105.51	109.90
1	A	1121	U	C5'-C4'-C3'	-5.48	107.22	116.00
1	A	1263	C	O3'-P-O5'	-5.48	93.58	104.00
1	A	1310	G	C5'-C4'-O4'	5.48	115.68	109.10
6	F	4	TYR	CA-CB-CG	-5.48	102.98	113.40
1	A	270	A	C6-C5-N7	-5.48	128.46	132.30
1	A	389	A	C8-N9-C4	-5.48	103.61	105.80
1	A	856	C	C4'-C3'-C2'	-5.48	97.12	102.60
1	A	1117	A	O4'-C1'-N9	-5.48	103.81	108.20
1	A	1141	C	C5-C6-N1	5.48	123.74	121.00
1	A	1501	C	O3'-P-O5'	-5.48	93.58	104.00
1	A	145	G	C8-N9-C1'	5.48	134.12	127.00
1	A	467	U	N1-C2-N3	-5.48	111.61	114.90
1	A	495	A	C1'-O4'-C4'	-5.48	105.52	109.90
1	A	500	G	C5'-C4'-O4'	5.48	115.67	109.10
1	A	964	A	C3'-C2'-C1'	-5.48	97.12	101.50
1	A	1024	G	P-O3'-C3'	-5.48	113.12	119.70
1	A	1426	G	N1-C6-O6	5.48	123.19	119.90
1	A	343	U	P-O3'-C3'	-5.48	113.13	119.70
1	A	662	U	C5-C6-N1	5.48	125.44	122.70
1	A	712	A	N7-C8-N9	5.48	116.54	113.80
1	A	962	C	N3-C4-C5	-5.48	119.71	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1020	G	C3'-C2'-C1'	-5.48	97.12	101.50
1	A	1040	U	C4'-C3'-O3'	-5.48	97.90	109.40
1	A	40	C	N1-C1'-C2'	-5.48	105.98	112.00
1	A	489	C	C2-N1-C1'	-5.48	112.78	118.80
7	G	133	ALA	CB-CA-C	5.48	118.31	110.10
17	Q	41	THR	CA-CB-CG2	-5.48	104.73	112.40
1	A	23	C	N3-C4-C5	-5.47	119.71	121.90
1	A	206	C	C5'-C4'-C3'	-5.47	107.24	116.00
1	A	336	A	C5-C6-N1	-5.47	114.96	117.70
1	A	840	C	C5'-C4'-O4'	5.47	115.67	109.10
1	A	939	G	C5-C6-O6	-5.47	125.31	128.60
1	A	994	A	C4'-C3'-C2'	-5.47	97.13	102.60
1	A	1164	G	N9-C1'-C2'	-5.47	105.98	112.00
1	A	1219	A	N7-C8-N9	5.47	116.54	113.80
1	A	1492	A	P-O5'-C5'	5.47	129.66	120.90
1	A	1504	G	C2-N3-C4	5.47	114.64	111.90
1	A	1533	C	O4'-C1'-C2'	-5.47	100.33	105.80
2	B	175	ALA	C-N-CA	5.47	135.38	121.70
1	A	307	C	N3-C4-C5	-5.47	119.71	121.90
1	A	601	G	P-O5'-C5'	-5.47	112.14	120.90
1	A	748	G	C5'-C4'-O4'	5.47	115.67	109.10
1	A	855	U	C1'-O4'-C4'	-5.47	105.52	109.90
1	A	987	G	C6-C5-N7	-5.47	127.12	130.40
1	A	1087	G	C5-C6-O6	-5.47	125.32	128.60
1	A	1102	A	O3'-P-O5'	-5.47	93.60	104.00
1	A	1182	G	N1-C2-N2	-5.47	111.27	116.20
1	A	1222	G	C5'-C4'-C3'	-5.47	107.25	116.00
1	A	134	G	C6-C5-N7	-5.47	127.12	130.40
1	A	374	A	C3'-C2'-C1'	-5.47	97.12	101.50
1	A	866	C	C3'-C2'-C1'	-5.47	97.12	101.50
1	A	1009	U	N3-C2-O2	-5.47	118.37	122.20
1	A	1355	G	N1-C2-N2	5.47	121.12	116.20
1	A	1391	U	N1-C2-N3	5.47	118.18	114.90
1	A	149	A	C3'-C2'-C1'	-5.47	97.12	101.50
1	A	245	U	N1-C2-N3	5.47	118.18	114.90
1	A	513	C	P-O3'-C3'	-5.47	113.14	119.70
1	A	569	C	O3'-P-O5'	-5.47	93.61	104.00
1	A	869	G	C4-N9-C1'	-5.47	119.39	126.50
1	A	1058	G	N3-C4-C5	-5.47	125.86	128.60
1	A	635	A	C8-N9-C4	-5.47	103.61	105.80
1	A	1131	G	N1-C2-N3	-5.47	120.62	123.90
1	A	149	A	C8-N9-C4	-5.47	103.61	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	538	G	C8-N9-C1'	5.47	134.11	127.00
1	A	626	G	N7-C8-N9	5.47	115.83	113.10
1	A	842	U	C1'-O4'-C4'	5.47	114.27	109.90
1	A	970	C	C2-N1-C1'	5.47	124.81	118.80
1	A	1042	A	N7-C8-N9	5.47	116.53	113.80
1	A	1151	A	C5-C6-N6	-5.47	119.33	123.70
1	A	1250	A	O4'-C1'-N9	5.47	112.57	108.20
1	A	410	G	O4'-C1'-N9	5.46	112.57	108.20
1	A	482	A	N9-C4-C5	5.46	107.98	105.80
1	A	1228	C	C6-N1-C1'	5.46	127.36	120.80
1	A	1241	G	C8-N9-C1'	-5.46	119.90	127.00
1	A	1507	A	C4'-C3'-C2'	5.46	108.06	102.60
2	B	130	LYS	CB-CA-C	-5.46	99.47	110.40
2	B	135	MET	CB-CA-C	-5.46	99.47	110.40
7	G	4	ARG	C-N-CA	5.46	135.36	121.70
1	A	143	A	N3-C4-C5	-5.46	122.98	126.80
1	A	733	G	N3-C2-N2	5.46	123.72	119.90
1	A	743	A	C3'-C2'-C1'	-5.46	97.13	101.50
1	A	801	U	P-O5'-C5'	-5.46	112.16	120.90
1	A	1407	C	C6-N1-C2	-5.46	118.11	120.30
1	A	1464	U	C2-N1-C1'	-5.46	111.15	117.70
1	A	52	C	C5-C4-N4	-5.46	116.38	120.20
1	A	423	G	C8-N9-C4	-5.46	104.22	106.40
1	A	457	G	N1-C6-O6	5.46	123.18	119.90
1	A	864	A	N1-C2-N3	5.46	132.03	129.30
1	A	439	U	N1-C2-N3	-5.46	111.62	114.90
1	A	860	A	C3'-C2'-C1'	-5.46	97.13	101.50
1	A	1238	A	C8-N9-C1'	5.46	137.53	127.70
1	A	1303	C	C5'-C4'-C3'	-5.46	107.27	116.00
1	A	1322	C	N3-C4-C5	-5.46	119.72	121.90
9	I	127	SER	N-CA-CB	5.46	118.69	110.50
20	T	7	LYS	CA-C-N	5.46	129.21	117.20
1	A	97	G	C8-N9-C4	-5.46	104.22	106.40
1	A	149	A	C2'-C3'-O3'	5.46	122.43	113.70
1	A	1303	C	O3'-P-O5'	-5.46	93.63	104.00
1	A	324	G	N3-C4-N9	-5.46	122.73	126.00
1	A	144	G	N7-C8-N9	-5.45	110.37	113.10
1	A	271	C	C4'-C3'-C2'	-5.45	97.15	102.60
1	A	684	U	O4'-C1'-N1	5.45	112.56	108.20
1	A	939	G	N1-C6-O6	5.45	123.17	119.90
1	A	953	G	C3'-C2'-C1'	-5.45	97.14	101.50
1	A	1107	C	C6-N1-C2	-5.45	118.12	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1425	U	P-O3'-C3'	-5.45	113.16	119.70
1	A	1432	G	O3'-P-O5'	-5.45	93.64	104.00
1	A	1450	U	C5'-C4'-O4'	5.45	115.64	109.10
1	A	287	U	O4'-C1'-N1	5.45	112.56	108.20
1	A	1029	U	O4'-C4'-C3'	-5.45	98.55	104.00
1	A	102	G	O5'-P-OP1	5.45	117.24	110.70
1	A	373	A	N9-C1'-C2'	-5.45	106.00	112.00
1	A	407	U	C1'-O4'-C4'	-5.45	105.54	109.90
1	A	622	A	C4-C5-C6	5.45	119.73	117.00
1	A	693	G	C6-C5-N7	-5.45	127.13	130.40
1	A	1119	C	N1-C2-N3	5.45	123.02	119.20
1	A	1382	C	N1-C2-O2	5.45	122.17	118.90
20	T	16	ALA	N-CA-C	5.45	125.72	111.00
1	A	107	G	N1-C6-O6	5.45	123.17	119.90
1	A	232	G	C5'-C4'-C3'	5.45	124.72	116.00
1	A	337	G	P-O3'-C3'	-5.45	113.16	119.70
1	A	442	G	C3'-C2'-C1'	-5.45	97.14	101.50
1	A	532	A	C5-C6-N1	-5.45	114.98	117.70
1	A	618	C	P-O5'-C5'	5.45	129.62	120.90
1	A	815	A	O5'-C5'-C4'	-5.45	101.35	111.70
1	A	1000	A	O4'-C1'-N9	5.45	112.56	108.20
10	J	42	LEU	CB-CA-C	-5.45	99.85	110.20
16	P	45	GLU	CB-CA-C	-5.45	99.50	110.40
1	A	113	G	N1-C6-O6	5.45	123.17	119.90
1	A	452	A	C3'-C2'-C1'	-5.45	97.14	101.50
1	A	526	C	C5-C4-N4	-5.45	116.39	120.20
1	A	602	A	P-O5'-C5'	5.45	129.62	120.90
1	A	794	A	C4-C5-C6	5.45	119.72	117.00
1	A	1026	G	N3-C2-N2	5.45	123.71	119.90
1	A	172	A	N1-C2-N3	5.45	132.02	129.30
1	A	263	A	P-O5'-C5'	-5.45	112.19	120.90
1	A	528	C	C4'-C3'-C2'	-5.45	97.16	102.60
1	A	821	G	N3-C4-N9	5.45	129.27	126.00
1	A	1329	A	C4-C5-C6	5.45	119.72	117.00
1	A	1363	A	C4'-C3'-C2'	-5.45	97.15	102.60
1	A	1502	A	P-O3'-C3'	5.45	126.24	119.70
1	A	1524	C	N3-C4-C5	-5.45	119.72	121.90
2	B	130	LYS	N-CA-CB	5.45	120.40	110.60
1	A	8	A	C5-C6-N6	-5.44	119.34	123.70
1	A	336	A	N7-C8-N9	5.44	116.52	113.80
1	A	452	A	N7-C8-N9	5.44	116.52	113.80
1	A	761	G	O4'-C1'-N9	5.44	112.56	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	931	C	OP2-P-O3'	5.44	117.18	105.20
1	A	1012	A	C5-C6-N1	-5.44	114.98	117.70
1	A	236	A	N9-C1'-C2'	-5.44	106.01	112.00
1	A	432	A	C4-C5-C6	5.44	119.72	117.00
1	A	1066	C	O5'-C5'-C4'	-5.44	101.36	111.70
1	A	1149	C	O4'-C1'-N1	5.44	112.56	108.20
1	A	1283	U	P-O5'-C5'	5.44	129.61	120.90
1	A	1363	A	O4'-C1'-N9	-5.44	103.85	108.20
1	A	64	G	C4-C5-C6	5.44	122.06	118.80
1	A	527	G	C3'-C2'-C1'	-5.44	97.15	101.50
1	A	606	G	N9-C4-C5	5.44	107.58	105.40
1	A	679	C	C6-N1-C2	-5.44	118.12	120.30
1	A	882	C	C1'-O4'-C4'	-5.44	105.55	109.90
1	A	999	C	C6-N1-C2	-5.44	118.12	120.30
1	A	1272	G	P-O5'-C5'	-5.44	112.19	120.90
1	A	1338	G	N1-C2-N3	-5.44	120.64	123.90
1	A	894	G	C5'-C4'-C3'	-5.44	107.30	116.00
1	A	1147	C	C2'-C3'-O3'	5.44	122.40	113.70
1	A	1329	A	C5-N7-C8	5.44	106.62	103.90
5	E	111	ARG	N-CA-CB	5.44	120.39	110.60
1	A	267	C	O4'-C1'-N1	5.44	112.55	108.20
1	A	886	G	O4'-C4'-C3'	-5.44	98.56	104.00
1	A	1152	A	C5-C6-N6	-5.44	119.35	123.70
2	B	85	SER	CA-C-N	-5.44	105.24	117.20
12	L	6	LEU	CB-CA-C	-5.44	99.87	110.20
1	A	1523	G	C1'-O4'-C4'	-5.44	105.55	109.90
1	A	251	G	C5'-C4'-O4'	5.43	115.62	109.10
1	A	790	A	C5-C6-N6	-5.43	119.35	123.70
1	A	872	A	C4-C5-C6	5.43	119.72	117.00
1	A	1158	C	C4'-C3'-C2'	-5.43	97.17	102.60
1	A	1255	G	C5-C6-N1	-5.43	108.78	111.50
1	A	1459	G	C4-N9-C1'	-5.43	119.44	126.50
1	A	337	G	O5'-C5'-C4'	-5.43	101.38	111.70
1	A	366	A	C8-N9-C4	-5.43	103.63	105.80
1	A	666	G	C3'-C2'-C1'	-5.43	97.15	101.50
1	A	854	U	C5'-C4'-O4'	5.43	115.62	109.10
1	A	1211	U	C5'-C4'-O4'	5.43	115.62	109.10
1	A	1303	C	C6-N1-C1'	5.43	127.32	120.80
1	A	238	A	N9-C4-C5	5.43	107.97	105.80
1	A	353	A	C4-C5-C6	5.43	119.72	117.00
1	A	487	A	C4-C5-C6	5.43	119.72	117.00
1	A	948	C	C3'-C2'-C1'	-5.43	97.16	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1089	G	C4-N9-C1'	-5.43	119.44	126.50
1	A	1096	C	N3-C4-N4	5.43	121.80	118.00
1	A	1234	C	C4'-C3'-C2'	-5.43	97.17	102.60
1	A	301	G	C5-C6-N1	-5.43	108.78	111.50
1	A	334	C	C2-N1-C1'	-5.43	112.83	118.80
1	A	577	G	C2-N3-C4	-5.43	109.19	111.90
1	A	783	C	C2-N3-C4	-5.43	117.19	119.90
1	A	1252	A	C4-N9-C1'	-5.43	116.53	126.30
13	M	26	LYS	N-CA-CB	-5.43	100.83	110.60
1	A	1149	C	C2-N1-C1'	-5.43	112.83	118.80
1	A	309	A	C5-C6-N1	-5.43	114.99	117.70
1	A	480	U	N3-C2-O2	-5.43	118.40	122.20
1	A	911	U	N1-C1'-C2'	-5.43	106.03	112.00
1	A	1397	C	O4'-C1'-N1	5.43	112.54	108.20
1	A	368	U	C5'-C4'-C3'	5.42	124.68	116.00
1	A	651	C	C2'-C3'-O3'	5.42	122.38	113.70
1	A	821	G	C6-C5-N7	-5.42	127.15	130.40
1	A	1042	A	O3'-P-O5'	-5.42	93.69	104.00
1	A	1080	A	C5-C6-N1	-5.42	114.99	117.70
1	A	739	C	C3'-C2'-C1'	-5.42	97.16	101.50
1	A	802	A	C3'-C2'-C1'	5.42	105.84	101.50
1	A	995	C	O3'-P-O5'	-5.42	93.70	104.00
1	A	1398	A	C4-C5-C6	5.42	119.71	117.00
1	A	1442	G	N3-C4-C5	-5.42	125.89	128.60
1	A	1458	G	O4'-C1'-C2'	-5.42	100.38	105.80
1	A	1461	G	N3-C4-C5	-5.42	125.89	128.60
1	A	591	U	O4'-C1'-N1	5.42	112.54	108.20
1	A	711	G	N9-C1'-C2'	-5.42	106.04	112.00
1	A	898	G	O5'-C5'-C4'	-5.42	101.40	111.70
1	A	1187	G	C4'-C3'-C2'	-5.42	97.18	102.60
2	B	71	THR	N-CA-C	-5.42	96.36	111.00
1	A	903	G	N1-C2-N3	-5.42	120.65	123.90
1	A	196	A	C8-N9-C1'	-5.42	117.95	127.70
1	A	329	A	C5'-C4'-O4'	-5.42	102.60	109.10
1	A	746	A	C5-C6-N6	-5.42	119.36	123.70
7	G	107	ALA	C-N-CA	5.42	135.25	121.70
20	T	3	ILE	C-N-CA	5.42	135.25	121.70
1	A	53	A	C4-C5-C6	5.42	119.71	117.00
1	A	164	G	C1'-O4'-C4'	-5.42	105.57	109.90
1	A	428	G	N1-C6-O6	5.42	123.15	119.90
1	A	527	G	N1-C2-N3	-5.42	120.65	123.90
1	A	600	A	C1'-O4'-C4'	-5.42	105.57	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	670	G	C3'-C2'-C1'	-5.42	97.17	101.50
1	A	689	C	C5-C6-N1	5.42	123.71	121.00
1	A	1300	G	N1-C2-N2	5.42	121.07	116.20
1	A	1405	G	C5'-C4'-O4'	-5.42	102.60	109.10
1	A	1419	G	C6-C5-N7	-5.42	127.15	130.40
1	A	882	C	P-O5'-C5'	-5.42	112.23	120.90
1	A	1090	U	C5'-C4'-C3'	-5.42	107.34	116.00
1	A	50	A	C3'-C2'-C1'	-5.41	97.17	101.50
1	A	349	A	C1'-O4'-C4'	-5.41	105.57	109.90
1	A	443	C	C1'-O4'-C4'	-5.41	105.57	109.90
1	A	1363	A	C4-C5-N7	-5.41	107.99	110.70
4	D	43	ARG	NE-CZ-NH2	-5.41	117.59	120.30
11	K	86	LYS	N-CA-C	-5.41	96.38	111.00
1	A	88	U	C2-N3-C4	-5.41	123.75	127.00
1	A	108	G	C5'-C4'-O4'	5.41	115.59	109.10
1	A	434	U	C2'-C3'-O3'	5.41	122.36	113.70
1	A	1072	G	O5'-C5'-C4'	-5.41	101.42	111.70
1	A	1408	A	P-O3'-C3'	5.41	126.19	119.70
1	A	1484	C	C5'-C4'-C3'	-5.41	107.34	116.00
3	C	114	LEU	N-CA-CB	5.41	121.22	110.40
1	A	74	A	C5-C6-N1	-5.41	114.99	117.70
1	A	124	C	P-O3'-C3'	5.41	126.19	119.70
1	A	248	C	P-O5'-C5'	-5.41	112.24	120.90
1	A	692	U	N3-C2-O2	5.41	125.99	122.20
1	A	845	A	C5-C6-N6	-5.41	119.37	123.70
1	A	1171	A	C4-C5-C6	5.41	119.70	117.00
4	D	25	ARG	NE-CZ-NH2	-5.41	117.59	120.30
1	A	71	A	C4-N9-C1'	5.41	136.03	126.30
1	A	191	G	P-O5'-C5'	-5.41	112.25	120.90
1	A	219	U	P-O3'-C3'	-5.41	113.21	119.70
1	A	793	U	C5-C6-N1	5.41	125.40	122.70
1	A	958	A	C5'-C4'-C3'	-5.41	107.35	116.00
1	A	1068	G	C5'-C4'-O4'	5.41	115.59	109.10
1	A	1119	C	N3-C4-N4	5.41	121.79	118.00
1	A	1327	C	O4'-C4'-C3'	-5.41	98.59	104.00
1	A	532	A	C5-C6-N6	-5.41	119.37	123.70
1	A	791	G	C8-N9-C4	-5.41	104.24	106.40
1	A	53	A	O3'-P-O5'	-5.41	93.73	104.00
1	A	160	A	C8-N9-C1'	5.41	137.43	127.70
1	A	491	G	C2'-C3'-O3'	5.41	122.35	113.70
1	A	1199	U	C2-N3-C4	-5.41	123.76	127.00
1	A	1276	G	C1'-O4'-C4'	-5.41	105.58	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1472	U	C6-N1-C1'	5.41	128.77	121.20
1	A	1487	G	P-O3'-C3'	5.41	126.19	119.70
1	A	1019	A	P-O5'-C5'	-5.40	112.25	120.90
1	A	1421	G	C6-C5-N7	-5.40	127.16	130.40
7	G	84	TYR	CB-CG-CD2	-5.40	117.76	121.00
1	A	554	A	C5-C6-N6	-5.40	119.38	123.70
1	A	786	G	C4-C5-C6	5.40	122.04	118.80
1	A	806	C	N3-C2-O2	-5.40	118.12	121.90
1	A	912	C	C5-C4-N4	-5.40	116.42	120.20
1	A	933	G	C1'-O4'-C4'	-5.40	105.58	109.90
1	A	1243	C	C1'-O4'-C4'	-5.40	105.58	109.90
1	A	1404	C	C2-N3-C4	-5.40	117.20	119.90
1	A	1477	U	P-O3'-C3'	-5.40	113.22	119.70
9	I	105	ARG	N-CA-C	-5.40	96.42	111.00
1	A	128	G	P-O3'-C3'	-5.40	113.22	119.70
1	A	479	U	N3-C2-O2	-5.40	118.42	122.20
1	A	511	C	O4'-C1'-N1	5.40	112.52	108.20
1	A	623	C	O3'-P-O5'	5.40	114.26	104.00
1	A	639	G	C8-N9-C4	-5.40	104.24	106.40
1	A	1155	A	C5-C6-N6	-5.40	119.38	123.70
1	A	1429	A	C5'-C4'-O4'	5.40	115.58	109.10
6	F	6	ILE	N-CA-C	-5.40	96.42	111.00
1	A	40	C	C2-N3-C4	5.40	122.60	119.90
1	A	127	G	C8-N9-C4	-5.40	104.24	106.40
1	A	516	U	C1'-O4'-C4'	-5.40	105.58	109.90
1	A	816	A	C4'-C3'-C2'	-5.40	97.20	102.60
1	A	924	C	C4'-C3'-C2'	-5.40	97.20	102.60
1	A	1051	C	C2-N1-C1'	-5.40	112.86	118.80
1	A	1084	G	N7-C8-N9	-5.40	110.40	113.10
1	A	1126	U	C6-N1-C2	-5.40	117.76	121.00
1	A	1365	G	O4'-C4'-C3'	-5.40	98.60	104.00
1	A	1431	A	C5'-C4'-C3'	-5.40	107.36	116.00
1	A	20	U	N3-C2-O2	-5.40	118.42	122.20
1	A	400	C	O4'-C4'-C3'	-5.40	98.60	104.00
1	A	692	U	C2-N3-C4	-5.40	123.76	127.00
1	A	905	U	N3-C2-O2	-5.40	118.42	122.20
1	A	1270	G	C1'-O4'-C4'	-5.40	105.58	109.90
1	A	1318	A	P-O5'-C5'	5.40	129.53	120.90
3	C	164	THR	C-N-CA	5.40	135.19	121.70
9	I	65	THR	N-CA-C	-5.40	96.43	111.00
1	A	410	G	C1'-O4'-C4'	-5.39	105.58	109.90
1	A	631	C	N3-C4-N4	5.39	121.78	118.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	65	A	P-O3'-C3'	5.39	126.17	119.70
1	A	65	A	C5'-C4'-O4'	5.39	115.57	109.10
1	A	268	U	OP1-P-OP2	-5.39	111.51	119.60
1	A	673	A	C5-C6-N1	-5.39	115.00	117.70
1	A	1041	G	N1-C6-O6	5.39	123.14	119.90
1	A	1063	C	C5'-C4'-O4'	-5.39	102.63	109.10
1	A	1197	A	C6-C5-N7	-5.39	128.53	132.30
1	A	1203	C	C6-N1-C2	-5.39	118.14	120.30
1	A	1271	A	C4-C5-C6	5.39	119.70	117.00
1	A	1329	A	C8-N9-C1'	5.39	137.41	127.70
1	A	1333	A	C8-N9-C1'	-5.39	118.00	127.70
1	A	1503	A	C5'-C4'-C3'	-5.39	107.37	116.00
22	W	185	TYR	CB-CG-CD1	5.39	124.24	121.00
1	A	205	A	O3'-P-O5'	-5.39	93.76	104.00
1	A	1033	G	O4'-C1'-N9	5.39	112.51	108.20
17	Q	80	LYS	N-CA-C	-5.39	96.44	111.00
1	A	514	C	O4'-C1'-N1	5.39	112.51	108.20
1	A	588	G	O3'-P-O5'	-5.39	93.76	104.00
1	A	772	U	C3'-C2'-C1'	-5.39	97.19	101.50
1	A	943	U	O5'-C5'-C4'	-5.39	101.46	111.70
1	A	215	C	N1-C2-O2	5.39	122.13	118.90
1	A	1035	A	C5-N7-C8	5.39	106.59	103.90
6	F	57	ALA	N-CA-C	-5.39	96.45	111.00
1	A	426	U	C5-C4-O4	-5.39	122.67	125.90
1	A	582	C	O3'-P-O5'	-5.39	93.77	104.00
1	A	939	G	N3-C4-C5	-5.39	125.91	128.60
1	A	1040	U	C5'-C4'-O4'	5.39	115.56	109.10
1	A	1136	C	C4'-C3'-C2'	5.39	107.99	102.60
1	A	1139	G	N9-C4-C5	5.39	107.56	105.40
1	A	1322	C	C6-N1-C1'	-5.39	114.34	120.80
1	A	1342	C	C2-N1-C1'	-5.39	112.88	118.80
1	A	1345	U	C2'-C3'-O3'	5.39	122.32	113.70
1	A	1389	C	O4'-C4'-C3'	-5.39	98.61	104.00
1	A	1447	A	C1'-O4'-C4'	-5.39	105.59	109.90
1	A	58	C	C6-N1-C2	-5.38	118.15	120.30
1	A	497	G	N3-C4-C5	-5.38	125.91	128.60
1	A	660	C	C6-N1-C1'	5.38	127.26	120.80
1	A	1406	U	C5'-C4'-O4'	5.38	115.56	109.10
1	A	585	G	O5'-C5'-C4'	-5.38	101.47	111.70
1	A	689	C	N3-C4-C5	-5.38	119.75	121.90
1	A	850	U	C5'-C4'-O4'	5.38	115.56	109.10
1	A	1153	G	N1-C2-N3	-5.38	120.67	123.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1396	A	C8-N9-C1'	5.38	137.39	127.70
1	A	1527	U	C5'-C4'-C3'	-5.38	107.39	116.00
1	A	187	G	P-O3'-C3'	-5.38	113.24	119.70
1	A	341	C	O4'-C4'-C3'	-5.38	98.62	104.00
1	A	390	U	C4'-C3'-C2'	-5.38	97.22	102.60
1	A	416	G	N3-C2-N2	5.38	123.67	119.90
1	A	497	G	N1-C2-N3	-5.38	120.67	123.90
1	A	1032	G	N3-C4-C5	-5.38	125.91	128.60
1	A	1052	U	C1'-O4'-C4'	-5.38	105.59	109.90
1	A	1310	G	C4-N9-C1'	-5.38	119.50	126.50
1	A	1320	C	P-O3'-C3'	-5.38	113.24	119.70
1	A	1513	A	C5'-C4'-O4'	5.38	115.56	109.10
22	W	48	PHE	CB-CG-CD2	-5.38	117.03	120.80
1	A	104	G	C4'-C3'-C2'	-5.38	97.22	102.60
1	A	350	G	C3'-C2'-C1'	-5.38	97.20	101.50
1	A	374	A	C8-N9-C1'	5.38	137.38	127.70
1	A	988	G	C5-C6-O6	-5.38	125.37	128.60
1	A	1488	G	C4-N9-C1'	-5.38	119.51	126.50
1	A	166	U	C5'-C4'-O4'	5.38	115.55	109.10
1	A	284	C	C5-C4-N4	-5.38	116.44	120.20
1	A	558	G	C2-N3-C4	-5.38	109.21	111.90
1	A	764	C	N1-C1'-C2'	-5.38	106.08	112.00
1	A	1342	C	C6-N1-C1'	5.38	127.25	120.80
1	A	1344	C	C2-N3-C4	5.38	122.59	119.90
1	A	1444	U	C1'-O4'-C4'	-5.38	105.60	109.90
1	A	251	G	O4'-C1'-N9	-5.38	103.90	108.20
1	A	417	G	C5-C6-O6	-5.38	125.37	128.60
1	A	437	U	N3-C4-O4	5.38	123.16	119.40
1	A	603	U	C2-N1-C1'	-5.38	111.25	117.70
1	A	628	G	C6-C5-N7	-5.38	127.17	130.40
1	A	703	G	N3-C2-N2	5.38	123.66	119.90
1	A	892	A	C5-C6-N1	-5.38	115.01	117.70
1	A	999	C	N1-C1'-C2'	-5.38	106.09	112.00
1	A	1249	C	C4'-C3'-O3'	5.38	123.75	113.00
1	A	1493	A	O3'-P-O5'	-5.38	93.79	104.00
10	J	57	VAL	C-N-CA	5.38	135.14	121.70
10	J	58	ASN	N-CA-CB	5.38	120.28	110.60
22	W	66	ILE	N-CA-C	-5.38	96.48	111.00
1	A	55	A	C3'-C2'-C1'	-5.38	97.20	101.50
1	A	758	C	C6-N1-C1'	5.38	127.25	120.80
1	A	925	G	C8-N9-C1'	5.38	133.99	127.00
1	A	1304	G	C5-N7-C8	5.38	106.99	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	24	U	P-O3'-C3'	-5.37	113.25	119.70
1	A	75	G	OP2-P-O3'	5.37	117.02	105.20
1	A	669	G	O5'-C5'-C4'	-5.37	101.49	111.70
1	A	751	U	N3-C4-O4	-5.37	115.64	119.40
1	A	883	C	N3-C4-C5	-5.37	119.75	121.90
1	A	897	C	C5'-C4'-C3'	-5.37	107.40	116.00
1	A	1039	G	P-O5'-C5'	-5.37	112.30	120.90
1	A	1057	G	C5'-C4'-O4'	5.37	115.55	109.10
1	A	1347	G	C2-N3-C4	-5.37	109.21	111.90
1	A	1511	G	C8-N9-C1'	5.37	133.99	127.00
14	N	24	ALA	N-CA-C	5.37	125.51	111.00
22	W	254	ARG	NE-CZ-NH1	5.37	122.99	120.30
1	A	386	C	C6-N1-C1'	5.37	127.25	120.80
1	A	1083	U	C5'-C4'-C3'	-5.37	107.41	116.00
1	A	1097	C	N3-C4-N4	5.37	121.76	118.00
1	A	1334	G	O4'-C1'-C2'	5.37	112.43	107.60
1	A	1356	G	C4-N9-C1'	-5.37	119.52	126.50
1	A	1497	G	C4'-C3'-C2'	5.37	107.97	102.60
6	F	70	VAL	N-CA-CB	5.37	123.32	111.50
17	Q	46	HIS	N-CA-CB	5.37	120.27	110.60
1	A	223	A	C8-N9-C1'	5.37	137.37	127.70
1	A	514	C	C1'-O4'-C4'	-5.37	105.60	109.90
1	A	1391	U	O4'-C1'-C2'	-5.37	100.43	105.80
1	A	326	G	N3-C4-N9	5.37	129.22	126.00
1	A	710	G	N9-C1'-C2'	-5.37	106.09	112.00
1	A	737	C	O5'-P-OP1	-5.37	100.87	105.70
1	A	1156	G	C5'-C4'-C3'	5.37	124.59	116.00
1	A	1365	G	P-O5'-C5'	-5.37	112.31	120.90
6	F	91	ARG	NE-CZ-NH1	5.37	122.98	120.30
22	W	95	GLY	N-CA-C	-5.37	99.68	113.10
1	A	75	G	C2'-C3'-O3'	5.37	122.29	113.70
1	A	176	C	C4'-C3'-C2'	-5.37	97.23	102.60
1	A	290	C	C3'-C2'-C1'	-5.37	97.21	101.50
1	A	386	C	C1'-O4'-C4'	-5.37	105.61	109.90
1	A	463	U	N1-C1'-C2'	-5.37	106.10	112.00
1	A	810	C	C6-N1-C1'	5.37	127.24	120.80
1	A	202	G	N7-C8-N9	-5.37	110.42	113.10
1	A	328	C	C2'-C3'-O3'	5.37	122.28	113.70
1	A	898	G	C5-C6-O6	-5.37	125.38	128.60
1	A	1218	C	C5-C6-N1	5.37	123.68	121.00
1	A	1486	G	C3'-C2'-C1'	-5.37	97.21	101.50
1	A	1528	U	C3'-C2'-C1'	-5.37	97.21	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	D	67	LEU	N-CA-CB	5.37	121.13	110.40
1	A	294	U	C1'-O4'-C4'	-5.36	105.61	109.90
1	A	696	A	N3-C4-C5	-5.36	123.05	126.80
1	A	710	G	P-O5'-C5'	-5.36	112.32	120.90
1	A	911	U	C5'-C4'-O4'	5.36	115.54	109.10
1	A	1109	C	N3-C4-C5	-5.36	119.75	121.90
1	A	1131	G	N3-C4-N9	-5.36	122.78	126.00
1	A	1198	G	C6-N1-C2	5.36	128.32	125.10
16	P	26	ASN	N-CA-CB	5.36	120.25	110.60
1	A	87	C	N3-C4-N4	5.36	121.75	118.00
1	A	398	U	O5'-C5'-C4'	-5.36	101.51	111.70
1	A	428	G	O4'-C1'-N9	5.36	112.49	108.20
1	A	489	C	C2'-C3'-O3'	5.36	122.28	113.70
1	A	940	C	O4'-C4'-C3'	-5.36	98.64	104.00
1	A	968	A	C5-C6-N6	-5.36	119.41	123.70
1	A	287	U	O3'-P-O5'	-5.36	93.82	104.00
1	A	367	U	P-O3'-C3'	-5.36	113.27	119.70
1	A	388	G	N9-C4-C5	-5.36	103.26	105.40
1	A	593	U	O3'-P-O5'	5.36	114.19	104.00
1	A	612	C	C5-C6-N1	5.36	123.68	121.00
1	A	670	G	N9-C1'-C2'	-5.36	106.10	112.00
1	A	38	G	N7-C8-N9	-5.36	110.42	113.10
1	A	96	U	C2-N3-C4	-5.36	123.78	127.00
1	A	194	C	C2-N1-C1'	-5.36	112.91	118.80
1	A	356	A	C4-N9-C1'	-5.36	116.66	126.30
1	A	481	G	C3'-C2'-C1'	-5.36	97.21	101.50
1	A	1048	G	N1-C2-N2	-5.36	111.38	116.20
1	A	1066	C	N3-C4-N4	5.36	121.75	118.00
1	A	1174	G	N3-C4-C5	-5.36	125.92	128.60
1	A	1453	G	N3-C4-C5	-5.36	125.92	128.60
1	A	198	G	C8-N9-C4	-5.36	104.26	106.40
1	A	202	G	C2-N3-C4	5.36	114.58	111.90
1	A	215	C	P-O3'-C3'	-5.36	113.27	119.70
1	A	373	A	O4'-C1'-N9	5.36	112.49	108.20
1	A	581	G	C5'-C4'-C3'	-5.36	107.43	116.00
1	A	628	G	C5-N7-C8	-5.36	101.62	104.30
1	A	793	U	O4'-C4'-C3'	-5.36	98.64	104.00
1	A	1002	G	C8-N9-C1'	5.36	133.96	127.00
1	A	1008	U	C2'-C3'-O3'	5.36	122.27	113.70
1	A	1183	U	C1'-O4'-C4'	-5.36	105.61	109.90
1	A	1338	G	N3-C2-N2	5.36	123.65	119.90
1	A	1492	A	C4-C5-C6	5.36	119.68	117.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	F	90	MET	CG-SD-CE	-5.36	91.63	100.20
8	H	64	TYR	N-CA-C	-5.36	96.54	111.00
1	A	102	G	C6-N1-C2	5.36	128.31	125.10
1	A	162	A	P-O3'-C3'	5.36	126.13	119.70
1	A	675	A	C8-N9-C1'	5.36	137.34	127.70
1	A	1069	C	N1-C1'-C2'	-5.36	106.11	112.00
1	A	1086	U	O5'-C5'-C4'	5.36	121.87	111.70
1	A	1342	C	C4'-C3'-C2'	-5.36	97.25	102.60
1	A	1510	C	C5'-C4'-C3'	-5.36	107.43	116.00
2	B	202	ASN	CA-C-N	-5.36	105.42	117.20
3	C	87	ARG	NE-CZ-NH1	5.36	122.98	120.30
1	A	667	G	N1-C2-N3	-5.35	120.69	123.90
1	A	1260	G	N1-C2-N3	-5.35	120.69	123.90
1	A	108	G	N3-C4-N9	5.35	129.21	126.00
1	A	662	U	C2-N3-C4	-5.35	123.79	127.00
1	A	667	G	O4'-C4'-C3'	-5.35	98.65	104.00
1	A	782	A	P-O3'-C3'	-5.35	113.28	119.70
1	A	947	G	C1'-O4'-C4'	-5.35	105.62	109.90
1	A	1242	G	N7-C8-N9	5.35	115.78	113.10
1	A	1437	A	N9-C1'-C2'	-5.35	106.11	112.00
1	A	719	C	N3-C4-C5	-5.35	119.76	121.90
1	A	764	C	C6-N1-C2	-5.35	118.16	120.30
1	A	1205	U	N3-C2-O2	5.35	125.95	122.20
8	H	100	ILE	CA-CB-CG2	-5.35	100.20	110.90
1	A	30	U	N3-C4-O4	5.35	123.14	119.40
1	A	63	C	C5'-C4'-O4'	5.35	115.52	109.10
1	A	167	A	O4'-C4'-C3'	-5.35	98.65	104.00
1	A	263	A	O4'-C4'-C3'	-5.35	98.65	104.00
1	A	528	C	O4'-C1'-N1	5.35	112.48	108.20
1	A	572	A	N3-C4-N9	5.35	131.68	127.40
1	A	626	G	N1-C2-N2	-5.35	111.39	116.20
1	A	666	G	C6-C5-N7	-5.35	127.19	130.40
1	A	695	A	P-O3'-C3'	5.35	126.12	119.70
1	A	765	G	C2'-C3'-O3'	5.35	122.26	113.70
2	B	29	PHE	C-N-CA	5.35	135.07	121.70
2	B	140	LEU	N-CA-C	5.35	125.44	111.00
1	A	160	A	C4-N9-C1'	-5.35	116.67	126.30
1	A	260	G	N1-C2-N3	-5.35	120.69	123.90
1	A	474	G	C8-N9-C4	-5.35	104.26	106.40
1	A	492	C	C1'-O4'-C4'	-5.35	105.62	109.90
1	A	778	G	C6-C5-N7	-5.35	127.19	130.40
1	A	873	A	C8-N9-C4	-5.35	103.66	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1005	A	OP2-P-O3'	5.35	116.96	105.20
1	A	1483	A	C5-C6-N1	-5.35	115.03	117.70
1	A	1504	G	C3'-C2'-C1'	-5.35	97.22	101.50
1	A	51	A	C4-C5-C6	5.35	119.67	117.00
1	A	495	A	C3'-C2'-C1'	-5.35	97.22	101.50
1	A	639	G	N7-C8-N9	5.35	115.77	113.10
1	A	787	A	C5-C6-N1	-5.35	115.03	117.70
1	A	971	G	C5-C6-O6	-5.35	125.39	128.60
1	A	1160	G	O4'-C1'-N9	5.35	112.48	108.20
1	A	1280	A	C4-C5-N7	-5.35	108.03	110.70
1	A	345	C	C6-N1-C2	-5.34	118.16	120.30
1	A	370	C	P-O3'-C3'	-5.34	113.29	119.70
1	A	394	G	N1-C2-N2	-5.34	111.39	116.20
1	A	736	C	O4'-C1'-N1	5.34	112.48	108.20
1	A	1067	A	N1-C2-N3	-5.34	126.63	129.30
1	A	1099	G	N3-C2-N2	5.34	123.64	119.90
2	B	11	ALA	N-CA-CB	5.34	117.58	110.10
2	B	133	ALA	CA-C-N	-5.34	105.44	117.20
1	A	335	C	C5-C4-N4	-5.34	116.46	120.20
1	A	780	A	C5'-C4'-O4'	5.34	115.51	109.10
1	A	1072	G	C6-N1-C2	5.34	128.31	125.10
5	E	73	VAL	C-N-CA	5.34	135.06	121.70
14	N	21	ALA	N-CA-CB	5.34	117.58	110.10
1	A	6	G	C5-C6-N1	-5.34	108.83	111.50
1	A	254	G	O5'-C5'-C4'	-5.34	101.55	111.70
1	A	324	G	N3-C2-N2	-5.34	116.16	119.90
1	A	359	G	C8-N9-C1'	5.34	133.94	127.00
1	A	684	U	C5'-C4'-C3'	-5.34	107.45	116.00
1	A	688	G	N3-C2-N2	5.34	123.64	119.90
1	A	724	G	N3-C4-C5	-5.34	125.93	128.60
1	A	812	G	C8-N9-C1'	5.34	133.94	127.00
1	A	963	G	C3'-C2'-C1'	-5.34	97.23	101.50
1	A	1104	G	C5'-C4'-O4'	5.34	115.51	109.10
1	A	1239	A	C4'-C3'-C2'	-5.34	97.26	102.60
1	A	1248	A	O4'-C1'-N9	5.34	112.47	108.20
1	A	1457	G	P-O5'-C5'	5.34	129.44	120.90
19	S	12	LEU	N-CA-CB	5.34	121.08	110.40
1	A	146	G	C4-N9-C1'	-5.34	119.56	126.50
1	A	314	C	C5'-C4'-C3'	-5.34	107.46	116.00
1	A	876	C	C5'-C4'-O4'	5.34	115.51	109.10
1	A	997	U	O4'-C4'-C3'	-5.34	98.66	104.00
1	A	1341	U	P-O3'-C3'	-5.34	113.29	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
15	O	23	SER	N-CA-C	-5.34	96.58	111.00
1	A	1186	G	C5'-C4'-O4'	-5.34	102.69	109.10
1	A	1245	C	C1'-O4'-C4'	-5.34	105.63	109.90
1	A	123	U	P-O3'-C3'	-5.34	113.30	119.70
1	A	156	C	N3-C4-N4	5.34	121.74	118.00
1	A	326	G	N9-C4-C5	-5.34	103.27	105.40
1	A	380	G	C1'-O4'-C4'	-5.34	105.63	109.90
1	A	950	U	P-O3'-C3'	-5.34	113.30	119.70
1	A	1177	G	O4'-C1'-N9	5.34	112.47	108.20
1	A	1304	G	O4'-C1'-C2'	5.34	112.40	107.60
1	A	230	G	C4-N9-C1'	-5.33	119.56	126.50
1	A	602	A	C5'-C4'-O4'	5.33	115.50	109.10
1	A	170	U	C5'-C4'-C3'	-5.33	107.47	116.00
1	A	194	C	C2-N3-C4	5.33	122.57	119.90
1	A	682	G	C4-C5-C6	5.33	122.00	118.80
1	A	807	A	C5-N7-C8	5.33	106.57	103.90
1	A	5	U	C5'-C4'-C3'	5.33	124.53	116.00
1	A	64	G	C4-C5-N7	-5.33	108.67	110.80
1	A	418	C	O3'-P-O5'	-5.33	93.87	104.00
1	A	1260	G	C3'-C2'-C1'	-5.33	97.23	101.50
1	A	1264	U	C5'-C4'-O4'	5.33	115.50	109.10
1	A	1533	C	O3'-P-O5'	-5.33	93.87	104.00
1	A	640	A	C5'-C4'-C3'	-5.33	107.47	116.00
1	A	811	C	N3-C4-N4	5.33	121.73	118.00
14	N	99	SER	CB-CA-C	-5.33	99.97	110.10
1	A	79	G	C8-N9-C1'	5.33	133.93	127.00
1	A	196	A	N9-C1'-C2'	-5.33	106.14	112.00
1	A	213	G	N3-C4-N9	5.33	129.20	126.00
1	A	241	G	N3-C2-N2	5.33	123.63	119.90
1	A	403	C	C6-N1-C1'	-5.33	114.41	120.80
1	A	437	U	O3'-P-O5'	5.33	114.12	104.00
1	A	582	C	C1'-O4'-C4'	-5.33	105.64	109.90
1	A	594	U	N3-C4-O4	5.33	123.13	119.40
1	A	1109	C	O4'-C1'-N1	5.33	112.46	108.20
1	A	1188	A	C8-N9-C4	-5.33	103.67	105.80
1	A	1329	A	C4-N9-C1'	-5.33	116.71	126.30
1	A	1372	U	C2-N3-C4	-5.33	123.80	127.00
1	A	66	A	C4'-C3'-O3'	-5.33	98.21	109.40
1	A	464	U	C2-N1-C1'	5.33	124.09	117.70
1	A	552	U	N1-C1'-C2'	-5.33	106.14	112.00
1	A	1159	U	C4'-C3'-C2'	5.33	107.93	102.60
1	A	1452	C	C6-N1-C2	-5.33	118.17	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	E	144	GLU	C-N-CA	5.33	135.02	121.70
1	A	24	U	P-O5'-C5'	5.33	129.42	120.90
1	A	151	A	N3-C4-C5	-5.33	123.07	126.80
1	A	363	A	C4-C5-C6	5.33	119.66	117.00
1	A	545	C	P-O5'-C5'	5.33	129.42	120.90
1	A	838	G	C4'-C3'-C2'	-5.33	97.27	102.60
1	A	1084	G	C3'-C2'-C1'	-5.33	97.24	101.50
1	A	1128	C	P-O5'-C5'	-5.33	112.38	120.90
1	A	1138	G	C2-N3-C4	5.33	114.56	111.90
1	A	164	G	C6-C5-N7	-5.32	127.21	130.40
1	A	220	G	N1-C2-N3	-5.32	120.71	123.90
1	A	385	C	C5-C4-N4	-5.32	116.47	120.20
1	A	386	C	C2'-C3'-O3'	5.32	122.22	113.70
1	A	531	U	N1-C2-N3	-5.32	111.71	114.90
1	A	768	A	C4'-C3'-C2'	-5.32	97.28	102.60
1	A	851	G	C2'-C3'-O3'	5.32	122.22	113.70
1	A	914	A	C5-C6-N1	-5.32	115.04	117.70
1	A	921	U	C3'-C2'-C1'	-5.32	97.24	101.50
1	A	948	C	O3'-P-O5'	-5.32	93.89	104.00
1	A	1216	A	C4-N9-C1'	-5.32	116.72	126.30
1	A	1306	A	C6-C5-N7	-5.32	128.57	132.30
1	A	1415	G	C8-N9-C4	-5.32	104.27	106.40
1	A	509	A	O5'-C5'-C4'	-5.32	101.59	111.70
1	A	809	G	C3'-C2'-C1'	-5.32	97.24	101.50
1	A	895	G	O5'-C5'-C4'	-5.32	101.59	111.70
1	A	922	G	C5-C6-O6	-5.32	125.41	128.60
1	A	1459	G	N7-C8-N9	5.32	115.76	113.10
1	A	1522	U	C5'-C4'-C3'	-5.32	107.48	116.00
1	A	48	C	O4'-C1'-N1	5.32	112.46	108.20
1	A	332	G	N9-C1'-C2'	-5.32	106.15	112.00
1	A	524	G	C6-C5-N7	-5.32	127.21	130.40
1	A	1178	G	C3'-C2'-C1'	-5.32	97.24	101.50
1	A	1204	A	C5-N7-C8	5.32	106.56	103.90
1	A	1353	G	C4-C5-C6	5.32	121.99	118.80
1	A	213	G	C4'-C3'-C2'	-5.32	97.28	102.60
1	A	331	G	N3-C4-N9	5.32	129.19	126.00
1	A	654	G	C3'-C2'-C1'	-5.32	97.25	101.50
1	A	1053	G	N3-C4-C5	-5.32	125.94	128.60
13	M	82	LEU	CB-CG-CD2	-5.32	101.96	111.00
1	A	122	G	C6-N1-C2	-5.32	121.91	125.10
1	A	460	A	O3'-P-O5'	5.32	114.10	104.00
1	A	705	G	C1'-O4'-C4'	-5.32	105.65	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	724	G	N1-C6-O6	5.32	123.09	119.90
1	A	769	G	P-O5'-C5'	-5.32	112.39	120.90
1	A	1017	U	C4'-C3'-C2'	5.32	107.92	102.60
1	A	1117	A	C2'-C3'-O3'	5.32	122.21	113.70
1	A	1233	G	C5'-C4'-C3'	-5.32	107.49	116.00
1	A	1293	C	P-O5'-C5'	-5.32	112.39	120.90
1	A	55	A	C5-C6-N1	-5.32	115.04	117.70
1	A	172	A	C4-C5-C6	5.32	119.66	117.00
1	A	457	G	P-O3'-C3'	-5.32	113.32	119.70
1	A	518	C	C3'-C2'-C1'	-5.32	97.25	101.50
1	A	589	U	O4'-C1'-C2'	5.32	112.38	107.60
1	A	676	A	C3'-C2'-C1'	-5.32	97.25	101.50
1	A	1004	A	OP2-P-O3'	5.32	116.89	105.20
1	A	1039	G	N3-C4-C5	-5.32	125.94	128.60
1	A	1197	A	C5'-C4'-O4'	5.32	115.48	109.10
1	A	1525	G	N3-C4-C5	-5.32	125.94	128.60
13	M	41	ASP	N-CA-C	-5.32	96.65	111.00
1	A	854	U	O4'-C4'-C3'	-5.31	98.69	104.00
1	A	56	U	C1'-O4'-C4'	-5.31	105.65	109.90
1	A	65	A	OP1-P-O3'	5.31	116.89	105.20
1	A	68	G	N3-C4-C5	-5.31	125.94	128.60
1	A	138	G	O4'-C4'-C3'	-5.31	98.69	104.00
1	A	329	A	C3'-C2'-C1'	5.31	105.75	101.50
1	A	561	U	C3'-C2'-C1'	5.31	105.75	101.50
1	A	700	G	O5'-C5'-C4'	-5.31	101.61	111.70
1	A	832	G	C6-C5-N7	-5.31	127.21	130.40
1	A	865	A	N7-C8-N9	5.31	116.46	113.80
1	A	1368	A	N9-C1'-C2'	-5.31	106.16	112.00
1	A	121	U	C2-N1-C1'	5.31	124.07	117.70
1	A	154	U	C2-N3-C4	-5.31	123.81	127.00
1	A	285	C	C6-N1-C2	-5.31	118.18	120.30
1	A	520	A	N9-C1'-C2'	-5.31	106.16	112.00
1	A	1263	C	C5-C4-N4	-5.31	116.48	120.20
1	A	1319	A	C5'-C4'-O4'	5.31	115.47	109.10
1	A	1408	A	C4'-C3'-C2'	-5.31	97.29	102.60
1	A	1454	G	C8-N9-C1'	5.31	133.90	127.00
1	A	1472	U	C1'-O4'-C4'	-5.31	105.65	109.90
1	A	1526	G	C8-N9-C1'	5.31	133.90	127.00
1	A	39	G	C3'-C2'-C1'	-5.31	97.25	101.50
1	A	447	G	C4'-C3'-C2'	-5.31	97.29	102.60
1	A	654	G	C5'-C4'-C3'	-5.31	107.51	116.00
1	A	868	C	C2-N3-C4	5.31	122.55	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1145	A	C5'-C4'-O4'	-5.31	102.73	109.10
1	A	1277	C	N3-C4-N4	5.31	121.72	118.00
1	A	1321	U	O4'-C1'-N1	5.31	112.44	108.20
3	C	165	GLU	N-CA-C	-5.31	96.67	111.00
1	A	107	G	O4'-C4'-C3'	-5.31	98.69	104.00
1	A	355	C	O4'-C1'-N1	5.31	112.44	108.20
1	A	883	C	C5'-C4'-O4'	5.31	115.47	109.10
1	A	1211	U	C5'-C4'-C3'	-5.31	107.51	116.00
1	A	1297	G	C1'-O4'-C4'	5.31	114.14	109.90
1	A	1399	C	C4'-C3'-C2'	5.31	107.91	102.60
1	A	11	G	C6-C5-N7	-5.30	127.22	130.40
1	A	386	C	P-O3'-C3'	5.30	126.06	119.70
1	A	1161	C	N3-C4-N4	5.30	121.71	118.00
1	A	1453	G	N1-C2-N3	-5.30	120.72	123.90
1	A	1477	U	C1'-O4'-C4'	-5.30	105.66	109.90
9	I	121	ARG	N-CA-CB	5.30	120.15	110.60
12	L	2	THR	CA-CB-CG2	-5.30	104.97	112.40
1	A	282	A	C5'-C4'-O4'	5.30	115.46	109.10
1	A	848	C	N1-C2-O2	5.30	122.08	118.90
1	A	1126	U	O3'-P-O5'	-5.30	93.92	104.00
1	A	131	A	C2'-C3'-O3'	5.30	122.18	113.70
1	A	289	G	P-O5'-C5'	-5.30	112.42	120.90
1	A	464	U	O4'-C1'-N1	5.30	112.44	108.20
1	A	618	C	O4'-C1'-N1	5.30	112.44	108.20
1	A	893	C	C5'-C4'-O4'	5.30	115.46	109.10
1	A	1123	U	O5'-C5'-C4'	-5.30	101.63	111.70
1	A	1244	G	N9-C1'-C2'	-5.30	106.17	112.00
1	A	1458	G	C5-C6-O6	-5.30	125.42	128.60
13	M	59	VAL	CA-CB-CG2	-5.30	102.95	110.90
16	P	14	ARG	CB-CA-C	-5.30	99.80	110.40
1	A	42	G	C3'-C2'-C1'	-5.30	97.26	101.50
1	A	67	C	C3'-C2'-C1'	-5.30	97.26	101.50
1	A	679	C	C1'-O4'-C4'	-5.30	105.66	109.90
1	A	836	G	C6-C5-N7	-5.30	127.22	130.40
1	A	1006	G	C4'-C3'-C2'	-5.30	97.30	102.60
1	A	1268	G	O4'-C4'-C3'	-5.30	98.70	104.00
1	A	1281	C	C5-C6-N1	5.30	123.65	121.00
1	A	1306	A	C5-C6-N1	-5.30	115.05	117.70
1	A	393	A	C5-C6-N6	-5.30	119.46	123.70
1	A	661	G	N1-C2-N3	-5.30	120.72	123.90
1	A	940	C	C1'-O4'-C4'	-5.30	105.66	109.90
1	A	940	C	N1-C1'-C2'	-5.30	106.17	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	9	G	P-O5'-C5'	-5.30	112.42	120.90
1	A	116	A	OP2-P-O3'	5.30	116.85	105.20
1	A	246	A	N7-C8-N9	-5.30	111.15	113.80
1	A	312	C	O3'-P-O5'	-5.30	93.94	104.00
1	A	368	U	C3'-C2'-C1'	-5.30	97.26	101.50
1	A	432	A	C2'-C3'-O3'	5.30	122.17	113.70
1	A	605	U	O4'-C1'-N1	5.30	112.44	108.20
1	A	625	U	O3'-P-O5'	-5.30	93.94	104.00
1	A	708	C	N3-C4-C5	-5.30	119.78	121.90
1	A	934	C	C6-N1-C1'	5.30	127.16	120.80
1	A	1416	G	C4-N9-C1'	-5.30	119.61	126.50
1	A	1516	G	P-O3'-C3'	-5.30	113.34	119.70
13	M	11	HIS	CB-CA-C	5.30	120.99	110.40
1	A	323	U	C5'-C4'-C3'	-5.29	107.53	116.00
1	A	370	C	C1'-O4'-C4'	-5.29	105.66	109.90
1	A	770	C	C2-N1-C1'	-5.29	112.97	118.80
1	A	1265	C	C1'-O4'-C4'	-5.29	105.66	109.90
1	A	1340	A	C5-C6-N1	-5.29	115.05	117.70
1	A	1359	C	C5-C6-N1	5.29	123.65	121.00
1	A	143	A	C4-C5-C6	5.29	119.65	117.00
1	A	337	G	N7-C8-N9	5.29	115.75	113.10
1	A	615	G	N1-C6-O6	5.29	123.08	119.90
1	A	656	G	O5'-C5'-C4'	-5.29	101.64	111.70
1	A	851	G	C6-N1-C2	5.29	128.28	125.10
1	A	902	G	N3-C2-N2	5.29	123.61	119.90
1	A	1296	C	N1-C2-N3	5.29	122.91	119.20
1	A	1352	C	O4'-C1'-N1	5.29	112.44	108.20
12	L	98	ARG	NE-CZ-NH1	5.29	122.95	120.30
1	A	138	G	O4'-C1'-N9	5.29	112.43	108.20
1	A	197	A	O5'-C5'-C4'	5.29	121.75	111.70
1	A	1485	U	C2-N3-C4	-5.29	123.83	127.00
1	A	654	G	N1-C6-O6	5.29	123.07	119.90
1	A	1373	G	C4-N9-C1'	-5.29	119.62	126.50
8	H	79	ARG	NE-CZ-NH2	-5.29	117.66	120.30
1	A	51	A	C1'-O4'-C4'	5.29	114.13	109.90
1	A	79	G	N9-C1'-C2'	5.29	120.88	114.00
1	A	507	C	N3-C4-N4	5.29	121.70	118.00
1	A	521	G	C5-C6-O6	-5.29	125.43	128.60
1	A	527	G	O4'-C1'-N9	5.29	112.43	108.20
1	A	594	U	C2-N1-C1'	-5.29	111.35	117.70
1	A	637	C	P-O5'-C5'	-5.29	112.44	120.90
1	A	681	A	C4'-C3'-C2'	-5.29	97.31	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	906	A	C5-C6-N1	-5.29	115.06	117.70
1	A	942	G	C3'-C2'-C1'	-5.29	97.27	101.50
1	A	1167	A	C5-N7-C8	5.29	106.55	103.90
1	A	1534	A	C4-C5-C6	5.29	119.64	117.00
1	A	641	U	C2-N1-C1'	-5.29	111.36	117.70
1	A	975	A	C5-N7-C8	5.29	106.54	103.90
1	A	46	G	N1-C2-N3	-5.29	120.73	123.90
1	A	217	C	P-O3'-C3'	-5.29	113.36	119.70
1	A	339	C	P-O3'-C3'	-5.29	113.36	119.70
1	A	354	G	O3'-P-O5'	-5.29	93.96	104.00
1	A	380	G	N1-C2-N3	-5.29	120.73	123.90
1	A	434	U	C6-N1-C2	-5.29	117.83	121.00
1	A	450	G	OP1-P-O3'	5.29	116.83	105.20
1	A	483	C	C6-N1-C1'	-5.29	114.46	120.80
1	A	922	G	C6-C5-N7	-5.29	127.23	130.40
1	A	1076	U	C5'-C4'-C3'	5.29	124.45	116.00
1	A	1229	A	P-O3'-C3'	-5.29	113.36	119.70
1	A	1348	U	N1-C2-O2	5.29	126.50	122.80
1	A	1379	G	N9-C1'-C2'	-5.29	106.19	112.00
1	A	244	U	C2-N3-C4	-5.28	123.83	127.00
1	A	291	U	C3'-C2'-C1'	-5.28	97.27	101.50
1	A	490	C	N1-C1'-C2'	-5.28	106.19	112.00
1	A	867	G	C4-C5-C6	5.28	121.97	118.80
1	A	904	U	O5'-C5'-C4'	-5.28	101.66	111.70
1	A	1376	U	OP2-P-O3'	5.28	116.82	105.20
1	A	1416	G	C3'-C2'-C1'	-5.28	97.27	101.50
1	A	1499	A	C6-C5-N7	-5.28	128.60	132.30
1	A	185	U	O3'-P-O5'	-5.28	93.96	104.00
1	A	405	U	O5'-C5'-C4'	-5.28	101.66	111.70
1	A	841	C	N3-C4-C5	-5.28	119.79	121.90
1	A	1217	C	N3-C4-N4	5.28	121.70	118.00
1	A	1260	G	C4'-C3'-C2'	-5.28	97.32	102.60
13	M	82	LEU	CB-CA-C	-5.28	100.16	110.20
1	A	100	G	O3'-P-O5'	-5.28	93.97	104.00
1	A	165	G	O5'-C5'-C4'	-5.28	101.67	111.70
1	A	175	C	N3-C2-O2	-5.28	118.20	121.90
1	A	338	A	C1'-O4'-C4'	-5.28	105.67	109.90
1	A	443	C	P-O3'-C3'	-5.28	113.36	119.70
1	A	617	G	N1-C2-N3	-5.28	120.73	123.90
1	A	716	A	C4-C5-C6	5.28	119.64	117.00
1	A	830	G	O5'-C5'-C4'	-5.28	101.67	111.70
1	A	851	G	C6-C5-N7	-5.28	127.23	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	963	G	C4'-C3'-C2'	-5.28	97.32	102.60
1	A	1094	G	C3'-C2'-C1'	-5.28	97.28	101.50
1	A	1257	A	C5-C6-N1	-5.28	115.06	117.70
1	A	1304	G	C8-N9-C1'	5.28	133.86	127.00
1	A	1389	C	C6-N1-C2	-5.28	118.19	120.30
1	A	1430	A	C4-C5-C6	5.28	119.64	117.00
1	A	1478	U	C1'-O4'-C4'	-5.28	105.68	109.90
9	I	4	GLN	N-CA-C	-5.28	96.74	111.00
9	I	126	PHE	CB-CG-CD1	5.28	124.50	120.80
1	A	1147	C	N1-C2-O2	-5.28	115.73	118.90
4	D	84	ASN	N-CA-C	-5.28	96.75	111.00
1	A	259	G	P-O3'-C3'	-5.28	113.37	119.70
1	A	417	G	C5'-C4'-O4'	5.28	115.43	109.10
1	A	1188	A	C5-C6-N1	-5.28	115.06	117.70
1	A	1248	A	C3'-C2'-C1'	-5.28	97.28	101.50
1	A	1353	G	N1-C2-N2	-5.28	111.45	116.20
1	A	1416	G	C8-N9-C1'	5.28	133.86	127.00
1	A	1425	U	C5'-C4'-C3'	-5.28	107.56	116.00
1	A	102	G	P-O5'-C5'	5.28	129.34	120.90
1	A	176	C	C1'-O4'-C4'	-5.28	105.68	109.90
1	A	361	G	C2'-C3'-O3'	5.28	122.14	113.70
1	A	597	G	C5-C6-O6	-5.28	125.44	128.60
1	A	913	A	C4-C5-C6	5.28	119.64	117.00
1	A	970	C	O4'-C1'-N1	5.28	112.42	108.20
1	A	1153	G	C3'-C2'-C1'	-5.28	97.28	101.50
1	A	1242	G	O4'-C1'-N9	5.28	112.42	108.20
17	Q	70	LYS	N-CA-CB	-5.28	101.10	110.60
20	T	18	LYS	N-CA-C	5.28	125.24	111.00
1	A	573	A	C4-C5-C6	5.27	119.64	117.00
1	A	1080	A	C4-C5-C6	5.27	119.64	117.00
1	A	1130	A	N3-C4-N9	5.27	131.62	127.40
1	A	1384	C	O4'-C1'-N1	5.27	112.42	108.20
1	A	1501	C	C6-N1-C1'	5.27	127.13	120.80
1	A	20	U	C6-N1-C2	-5.27	117.84	121.00
1	A	208	U	C5'-C4'-C3'	-5.27	107.56	116.00
1	A	245	U	C3'-C2'-C1'	-5.27	97.28	101.50
1	A	669	G	O4'-C4'-C3'	-5.27	98.73	104.00
1	A	1087	G	O5'-C5'-C4'	-5.27	101.68	111.70
1	A	1184	G	C5-C6-O6	-5.27	125.44	128.60
1	A	1279	G	C6-C5-N7	-5.27	127.24	130.40
1	A	444	G	N3-C2-N2	5.27	123.59	119.90
1	A	589	U	C1'-O4'-C4'	-5.27	105.68	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	733	G	C5-C6-N1	-5.27	108.86	111.50
1	A	512	U	N3-C4-O4	5.27	123.09	119.40
1	A	1226	C	C5'-C4'-C3'	-5.27	107.57	116.00
1	A	1253	G	O5'-C5'-C4'	-5.27	101.69	111.70
1	A	1367	C	C6-N1-C1'	5.27	127.12	120.80
1	A	1465	A	C5-C6-N1	-5.27	115.06	117.70
3	C	112	ALA	N-CA-CB	-5.27	102.72	110.10
9	I	98	ARG	N-CA-C	-5.27	96.77	111.00
1	A	46	G	C6-C5-N7	-5.27	127.24	130.40
1	A	373	A	C4-C5-C6	5.27	119.63	117.00
1	A	1347	G	C1'-O4'-C4'	-5.27	105.69	109.90
1	A	1464	U	C1'-O4'-C4'	-5.27	105.69	109.90
1	A	82	G	C1'-O4'-C4'	-5.27	105.69	109.90
1	A	90	C	O3'-P-O5'	-5.27	93.99	104.00
1	A	430	A	C6-C5-N7	-5.27	128.61	132.30
1	A	492	C	C4'-C3'-O3'	-5.27	98.34	109.40
1	A	1143	G	C2-N3-C4	5.27	114.53	111.90
1	A	226	G	C5'-C4'-C3'	-5.26	107.58	116.00
1	A	245	U	C5-C6-N1	-5.26	120.07	122.70
1	A	347	G	N9-C4-C5	5.26	107.51	105.40
1	A	1313	U	O4'-C4'-C3'	-5.26	98.73	104.00
1	A	1509	C	O4'-C1'-N1	5.26	112.41	108.20
1	A	80	A	N1-C6-N6	5.26	121.76	118.60
1	A	170	U	C1'-O4'-C4'	-5.26	105.69	109.90
1	A	1024	G	C5'-C4'-C3'	5.26	124.42	116.00
1	A	87	C	C2-N1-C1'	-5.26	113.01	118.80
1	A	165	G	P-O3'-C3'	-5.26	113.39	119.70
1	A	244	U	O5'-C5'-C4'	5.26	121.69	111.70
1	A	571	U	P-O3'-C3'	5.26	126.01	119.70
1	A	574	A	C4-C5-C6	5.26	119.63	117.00
1	A	814	A	C4-C5-C6	5.26	119.63	117.00
1	A	974	A	C8-N9-C4	-5.26	103.70	105.80
1	A	1012	A	C4-C5-C6	5.26	119.63	117.00
1	A	1060	U	C5-C4-O4	5.26	129.06	125.90
1	A	1128	C	N3-C4-N4	5.26	121.68	118.00
1	A	1368	A	O4'-C1'-N9	5.26	112.41	108.20
1	A	1460	C	C5-C6-N1	5.26	123.63	121.00
1	A	87	C	C6-N1-C1'	5.26	127.11	120.80
1	A	277	C	C4'-C3'-C2'	5.26	107.86	102.60
1	A	628	G	C5-C6-N1	-5.26	108.87	111.50
1	A	844	G	C4-N9-C1'	5.26	133.34	126.50
1	A	1453	G	P-O3'-C3'	-5.26	113.39	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	190	SER	N-CA-C	-5.26	96.80	111.00
1	A	34	C	O4'-C4'-C3'	-5.26	98.74	104.00
1	A	385	C	C5'-C4'-C3'	-5.26	107.59	116.00
1	A	538	G	C4-C5-C6	5.26	121.95	118.80
1	A	1120	C	C5-C4-N4	-5.26	116.52	120.20
1	A	1267	C	C3'-C2'-C1'	-5.26	97.29	101.50
1	A	1349	A	N7-C8-N9	-5.26	111.17	113.80
1	A	32	A	C5-C6-N1	-5.26	115.07	117.70
1	A	40	C	N3-C4-C5	-5.26	119.80	121.90
1	A	77	A	C5'-C4'-C3'	-5.26	107.59	116.00
1	A	182	A	O4'-C4'-C3'	-5.26	98.74	104.00
1	A	279	A	C5-C6-N1	-5.26	115.07	117.70
1	A	301	G	C5'-C4'-C3'	-5.26	107.59	116.00
1	A	381	C	N3-C4-N4	5.26	121.68	118.00
1	A	724	G	C5-C6-O6	-5.26	125.45	128.60
1	A	959	A	C4-C5-C6	5.26	119.63	117.00
1	A	1141	C	C2-N3-C4	5.26	122.53	119.90
1	A	1305	G	P-O3'-C3'	5.26	126.01	119.70
1	A	305	G	O4'-C1'-C2'	5.25	112.33	107.60
1	A	693	G	N1-C2-N3	-5.25	120.75	123.90
1	A	738	C	C2-N1-C1'	-5.25	113.02	118.80
1	A	1303	C	C5-C4-N4	-5.25	116.52	120.20
1	A	46	G	P-O5'-C5'	-5.25	112.49	120.90
1	A	81	A	C5-C6-N6	-5.25	119.50	123.70
1	A	153	C	N1-C1'-C2'	-5.25	106.22	112.00
1	A	538	G	C1'-O4'-C4'	-5.25	105.70	109.90
1	A	609	A	N7-C8-N9	5.25	116.43	113.80
1	A	723	U	C6-N1-C1'	-5.25	113.84	121.20
1	A	817	C	N3-C4-C5	-5.25	119.80	121.90
1	A	856	C	C6-N1-C2	-5.25	118.20	120.30
1	A	1017	U	P-O3'-C3'	-5.25	113.40	119.70
1	A	1471	U	O4'-C1'-N1	5.25	112.40	108.20
6	F	57	ALA	N-CA-CB	5.25	117.45	110.10
1	A	128	G	N1-C6-O6	5.25	123.05	119.90
1	A	430	A	N3-C4-C5	-5.25	123.12	126.80
1	A	439	U	O4'-C1'-C2'	-5.25	100.55	105.80
1	A	450	G	C4'-C3'-C2'	-5.25	97.35	102.60
1	A	972	C	C2-N3-C4	-5.25	117.27	119.90
1	A	1188	A	C4-C5-C6	5.25	119.62	117.00
1	A	479	U	C2-N1-C1'	-5.25	111.40	117.70
1	A	740	U	N1-C1'-C2'	-5.25	106.22	112.00
1	A	860	A	C1'-O4'-C4'	-5.25	105.70	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1186	G	N1-C2-N3	5.25	127.05	123.90
1	A	3	A	C4'-C3'-C2'	-5.25	97.35	102.60
1	A	106	C	C5'-C4'-O4'	5.25	115.40	109.10
1	A	148	G	N9-C1'-C2'	-5.25	106.23	112.00
1	A	186	C	C5'-C4'-O4'	5.25	115.40	109.10
1	A	237	G	C1'-O4'-C4'	-5.25	105.70	109.90
1	A	286	C	C5-C4-N4	-5.25	116.53	120.20
1	A	315	A	C6-C5-N7	-5.25	128.63	132.30
1	A	472	U	P-O5'-C5'	-5.25	112.50	120.90
1	A	683	G	C4-C5-C6	5.25	121.95	118.80
1	A	785	G	C1'-O4'-C4'	-5.25	105.70	109.90
1	A	1084	G	N3-C2-N2	5.25	123.57	119.90
1	A	1131	G	C8-N9-C4	-5.25	104.30	106.40
1	A	1137	C	O4'-C1'-N1	5.25	112.40	108.20
1	A	1150	A	C5-C6-N1	-5.25	115.08	117.70
1	A	1210	C	O4'-C1'-N1	5.25	112.40	108.20
1	A	1259	C	C5'-C4'-C3'	-5.25	107.60	116.00
1	A	1398	A	C5-C6-N6	-5.25	119.50	123.70
1	A	1500	A	O3'-P-O5'	-5.25	94.03	104.00
12	L	12	ALA	N-CA-C	5.25	125.17	111.00
1	A	342	C	N3-C4-N4	5.25	121.67	118.00
1	A	408	A	C5-N7-C8	5.25	106.52	103.90
1	A	659	U	P-O5'-C5'	-5.25	112.51	120.90
1	A	1454	G	N1-C6-O6	5.25	123.05	119.90
1	A	77	A	C8-N9-C1'	-5.25	118.26	127.70
1	A	627	G	P-O3'-C3'	-5.25	113.41	119.70
1	A	361	G	N3-C4-C5	-5.24	125.98	128.60
1	A	383	A	OP1-P-OP2	-5.24	111.73	119.60
1	A	552	U	C1'-O4'-C4'	-5.24	105.71	109.90
1	A	772	U	C2'-C3'-O3'	5.24	122.09	113.70
1	A	812	G	C2'-C3'-O3'	5.24	122.09	113.70
1	A	827	U	C3'-C2'-C1'	-5.24	97.31	101.50
1	A	1375	A	N3-C4-N9	5.24	131.59	127.40
1	A	538	G	O4'-C1'-N9	5.24	112.39	108.20
1	A	943	U	P-O3'-C3'	5.24	125.99	119.70
1	A	1406	U	N1-C2-O2	-5.24	119.13	122.80
1	A	1478	U	P-O3'-C3'	5.24	125.99	119.70
1	A	87	C	C4-C5-C6	5.24	120.02	117.40
1	A	219	U	P-O5'-C5'	-5.24	112.52	120.90
1	A	512	U	C3'-C2'-C1'	-5.24	97.31	101.50
1	A	771	G	OP2-P-O3'	5.24	116.73	105.20
1	A	1452	C	N3-C4-C5	-5.24	119.80	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	55	A	N7-C8-N9	-5.24	111.18	113.80
1	A	386	C	O4'-C1'-N1	5.24	112.39	108.20
1	A	542	G	C2-N3-C4	5.24	114.52	111.90
1	A	568	G	C2-N3-C4	-5.24	109.28	111.90
1	A	645	G	C8-N9-C4	-5.24	104.31	106.40
1	A	775	G	N3-C4-N9	-5.24	122.86	126.00
1	A	1067	A	O3'-P-O5'	-5.24	94.05	104.00
1	A	1280	A	C8-N9-C1'	5.24	137.13	127.70
1	A	310	G	N9-C1'-C2'	-5.24	106.24	112.00
1	A	603	U	C5-C6-N1	5.24	125.32	122.70
1	A	923	A	C1'-O4'-C4'	-5.24	105.71	109.90
15	O	48	ASP	N-CA-C	-5.24	96.86	111.00
1	A	120	A	C8-N9-C4	5.24	107.89	105.80
1	A	189	A	O4'-C1'-N9	5.24	112.39	108.20
1	A	396	C	C2-N3-C4	-5.24	117.28	119.90
1	A	600	A	C4-N9-C1'	-5.24	116.88	126.30
1	A	1334	G	N3-C2-N2	5.24	123.56	119.90
1	A	1408	A	C4-C5-N7	-5.24	108.08	110.70
1	A	1460	C	C2-N1-C1'	-5.24	113.04	118.80
1	A	11	G	N1-C2-N3	-5.23	120.76	123.90
1	A	254	G	C5'-C4'-O4'	5.23	115.38	109.10
1	A	1131	G	N3-C2-N2	-5.23	116.24	119.90
1	A	1261	A	C8-N9-C4	-5.23	103.71	105.80
1	A	1437	A	C5'-C4'-C3'	5.23	124.37	116.00
1	A	103	U	N3-C4-O4	5.23	123.06	119.40
1	A	342	C	N1-C2-O2	5.23	122.04	118.90
1	A	481	G	C4'-C3'-C2'	-5.23	97.37	102.60
1	A	514	C	N1-C1'-C2'	-5.23	106.25	112.00
1	A	552	U	C5'-C4'-O4'	5.23	115.38	109.10
1	A	659	U	C1'-O4'-C4'	-5.23	105.71	109.90
1	A	726	C	N3-C4-N4	5.23	121.66	118.00
1	A	807	A	P-O5'-C5'	-5.23	112.53	120.90
1	A	877	G	C5'-C4'-O4'	5.23	115.38	109.10
1	A	1088	G	N1-C2-N3	-5.23	120.76	123.90
1	A	1119	C	C3'-C2'-C1'	-5.23	97.31	101.50
1	A	1179	A	C6-C5-N7	-5.23	128.64	132.30
1	A	1478	U	C2-N1-C1'	-5.23	111.42	117.70
1	A	235	C	C3'-C2'-C1'	-5.23	97.31	101.50
1	A	806	C	C5'-C4'-O4'	-5.23	102.82	109.10
1	A	880	C	C5'-C4'-O4'	5.23	115.38	109.10
1	A	1077	G	P-O5'-C5'	-5.23	112.53	120.90
1	A	1095	U	P-O5'-C5'	-5.23	112.53	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1217	C	C5-C6-N1	5.23	123.62	121.00
1	A	1313	U	C2-N1-C1'	-5.23	111.42	117.70
1	A	378	G	P-O5'-C5'	-5.23	112.53	120.90
1	A	1250	A	C6-C5-N7	-5.23	128.64	132.30
2	B	152	ASP	CB-CA-C	-5.23	99.94	110.40
1	A	529	G	N1-C2-N3	-5.23	120.76	123.90
1	A	799	G	C4'-C3'-C2'	-5.23	97.37	102.60
1	A	1035	A	C6-C5-N7	-5.23	128.64	132.30
1	A	1065	U	P-O3'-C3'	-5.23	113.43	119.70
1	A	1368	A	N1-C6-N6	5.23	121.74	118.60
1	A	1422	G	P-O3'-C3'	-5.23	113.43	119.70
1	A	1444	U	C5-C4-O4	5.23	129.04	125.90
14	N	52	ARG	NE-CZ-NH2	-5.23	117.69	120.30
1	A	695	A	O5'-C5'-C4'	-5.23	101.77	111.70
1	A	187	G	N9-C4-C5	-5.22	103.31	105.40
1	A	323	U	C5-C4-O4	5.22	129.03	125.90
1	A	1129	C	P-O3'-C3'	-5.22	113.43	119.70
1	A	1300	G	N3-C2-N2	-5.22	116.24	119.90
1	A	59	A	C4-C5-C6	5.22	119.61	117.00
1	A	201	G	C5-N7-C8	5.22	106.91	104.30
1	A	1076	U	C6-N1-C1'	5.22	128.51	121.20
1	A	1081	A	C3'-C2'-C1'	-5.22	97.32	101.50
1	A	1510	C	C1'-O4'-C4'	-5.22	105.72	109.90
7	G	99	ALA	CB-CA-C	-5.22	102.27	110.10
1	A	768	A	C5-C6-N6	-5.22	119.52	123.70
1	A	780	A	N7-C8-N9	-5.22	111.19	113.80
1	A	103	U	C6-N1-C2	-5.22	117.87	121.00
1	A	305	G	C6-C5-N7	-5.22	127.27	130.40
1	A	380	G	C5'-C4'-C3'	-5.22	107.65	116.00
1	A	717	U	O4'-C1'-N1	5.22	112.38	108.20
1	A	1116	U	N1-C1'-C2'	-5.22	106.26	112.00
2	B	161	PHE	N-CA-C	-5.22	96.91	111.00
22	W	189	MET	CG-SD-CE	-5.22	91.85	100.20
1	A	251	G	C8-N9-C4	-5.22	104.31	106.40
1	A	379	C	C6-N1-C2	-5.22	118.21	120.30
1	A	721	G	N1-C2-N3	-5.22	120.77	123.90
1	A	876	C	N3-C4-N4	5.22	121.65	118.00
1	A	1307	U	C5-C6-N1	5.22	125.31	122.70
1	A	1515	G	C4-C5-N7	5.22	112.89	110.80
1	A	695	A	N3-C4-N9	5.22	131.57	127.40
1	A	700	G	C4-C5-C6	5.22	121.93	118.80
1	A	1164	G	C5-C6-O6	-5.22	125.47	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	C	2	GLN	N-CA-CB	5.22	119.99	110.60
9	I	37	TYR	C-N-CA	5.22	134.74	121.70
10	J	92	LEU	C-N-CA	5.22	134.74	121.70
1	A	230	G	N3-C4-C5	-5.21	125.99	128.60
1	A	458	U	P-O3'-C3'	5.21	125.96	119.70
1	A	555	U	C2'-C3'-O3'	5.21	122.04	113.70
1	A	681	A	C5'-C4'-C3'	5.21	124.34	116.00
1	A	699	C	C2'-C3'-O3'	5.21	122.04	113.70
1	A	811	C	C1'-O4'-C4'	-5.21	105.73	109.90
1	A	811	C	N3-C4-C5	-5.21	119.81	121.90
1	A	1147	C	C4'-C3'-O3'	-5.21	98.45	109.40
1	A	1245	C	N3-C4-C5	-5.21	119.81	121.90
1	A	1281	C	C4'-C3'-C2'	5.21	107.81	102.60
1	A	1363	A	C1'-C2'-O2'	5.21	126.24	110.60
1	A	399	G	C6-N1-C2	-5.21	121.97	125.10
1	A	478	A	C4-N9-C1'	-5.21	116.92	126.30
1	A	417	G	C4'-C3'-C2'	-5.21	97.39	102.60
1	A	1254	A	C5-N7-C8	5.21	106.51	103.90
1	A	1361	G	C6-C5-N7	-5.21	127.27	130.40
1	A	181	A	C5'-C4'-C3'	5.21	124.34	116.00
1	A	753	A	C4-C5-C6	5.21	119.61	117.00
1	A	167	A	N3-C4-C5	-5.21	123.15	126.80
1	A	272	C	N3-C4-N4	5.21	121.65	118.00
1	A	754	C	N3-C2-O2	-5.21	118.25	121.90
1	A	906	A	C5-N7-C8	5.21	106.50	103.90
1	A	1078	U	C2-N1-C1'	5.21	123.95	117.70
1	A	1166	G	C6-C5-N7	-5.21	127.28	130.40
1	A	204	G	C6-C5-N7	-5.21	127.28	130.40
1	A	315	A	O3'-P-O5'	5.21	113.89	104.00
1	A	726	C	N1-C2-O2	5.21	122.02	118.90
1	A	971	G	C4-N9-C1'	5.21	133.27	126.50
1	A	1345	U	C2-N3-C4	-5.21	123.88	127.00
1	A	467	U	C1'-O4'-C4'	-5.21	105.74	109.90
1	A	1127	G	C6-C5-N7	-5.21	127.28	130.40
1	A	1217	C	N3-C4-C5	-5.21	119.82	121.90
1	A	1411	C	N3-C4-N4	5.21	121.64	118.00
1	A	103	U	C3'-C2'-C1'	-5.20	97.34	101.50
1	A	184	G	O5'-C5'-C4'	-5.20	101.81	111.70
1	A	529	G	C4-N9-C1'	-5.20	119.74	126.50
1	A	643	C	OP2-P-O3'	5.20	116.65	105.20
1	A	818	G	C3'-C2'-C1'	-5.20	97.34	101.50
1	A	842	U	C6-N1-C1'	-5.20	113.91	121.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	983	A	C4-C5-C6	5.20	119.60	117.00
1	A	1000	A	C6-N1-C2	-5.20	115.48	118.60
1	A	1185	G	C5'-C4'-C3'	5.20	124.33	116.00
1	A	22	G	C8-N9-C1'	5.20	133.76	127.00
1	A	30	U	P-O5'-C5'	-5.20	112.58	120.90
1	A	351	G	C4-C5-N7	5.20	112.88	110.80
1	A	589	U	C2-N1-C1'	-5.20	111.46	117.70
1	A	914	A	C8-N9-C1'	5.20	137.06	127.70
12	L	41	PRO	N-CA-C	-5.20	98.58	112.10
14	N	97	LYS	N-CA-C	-5.20	96.95	111.00
22	W	96	ILE	N-CA-C	-5.20	96.95	111.00
1	A	10	A	C4-C5-C6	5.20	119.60	117.00
1	A	497	G	C2-N3-C4	5.20	114.50	111.90
1	A	617	G	C8-N9-C1'	5.20	133.76	127.00
1	A	946	A	C4-C5-C6	5.20	119.60	117.00
1	A	1111	A	C4-C5-C6	5.20	119.60	117.00
1	A	1207	G	C3'-C2'-C1'	-5.20	97.34	101.50
1	A	1335	U	N1-C2-O2	-5.20	119.16	122.80
22	W	80	VAL	N-CA-C	-5.20	96.96	111.00
1	A	1318	A	C5'-C4'-O4'	5.20	115.34	109.10
1	A	1342	C	N3-C4-N4	5.20	121.64	118.00
22	W	134	PRO	C-N-CA	5.20	134.70	121.70
1	A	828	U	C5'-C4'-C3'	5.20	124.32	116.00
1	A	46	G	C1'-O4'-C4'	-5.20	105.74	109.90
1	A	266	G	C2-N3-C4	5.20	114.50	111.90
1	A	308	C	C3'-C2'-C1'	-5.20	97.34	101.50
1	A	333	U	N3-C2-O2	-5.20	118.56	122.20
1	A	459	A	N3-C4-C5	-5.20	123.16	126.80
1	A	511	C	C1'-O4'-C4'	-5.20	105.74	109.90
1	A	645	G	N9-C1'-C2'	-5.20	106.28	112.00
1	A	713	G	C5-N7-C8	-5.20	101.70	104.30
1	A	1004	A	C5-C6-N6	-5.20	119.54	123.70
1	A	1190	G	O4'-C4'-C3'	-5.20	98.81	104.00
1	A	1379	G	C2-N3-C4	5.20	114.50	111.90
1	A	1382	C	O3'-P-O5'	-5.20	94.13	104.00
1	A	1487	G	O4'-C1'-N9	5.20	112.36	108.20
1	A	172	A	O4'-C1'-N9	-5.19	104.05	108.20
1	A	1077	G	C4'-C3'-C2'	-5.19	97.41	102.60
8	H	38	VAL	CA-CB-CG1	-5.19	103.11	110.90
1	A	237	G	C4'-C3'-C2'	-5.19	97.41	102.60
1	A	435	A	N3-C4-C5	-5.19	123.17	126.80
1	A	1038	C	C4'-C3'-C2'	-5.19	97.41	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1220	G	C6-N1-C2	5.19	128.22	125.10
1	A	1359	C	N1-C2-N3	5.19	122.83	119.20
4	D	170	LEU	N-CA-C	-5.19	96.98	111.00
1	A	75	G	O5'-P-OP2	5.19	116.93	110.70
1	A	96	U	N1-C1'-C2'	-5.19	106.29	112.00
1	A	146	G	C8-N9-C1'	5.19	133.75	127.00
1	A	372	C	C2-N3-C4	5.19	122.50	119.90
1	A	779	C	O3'-P-O5'	5.19	113.86	104.00
1	A	821	G	P-O3'-C3'	-5.19	113.47	119.70
1	A	1023	U	P-O3'-C3'	-5.19	113.47	119.70
1	A	1495	U	C6-N1-C1'	5.19	128.47	121.20
1	A	1529	G	N9-C1'-C2'	5.19	120.75	114.00
3	C	150	VAL	N-CA-C	-5.19	96.98	111.00
1	A	54	C	N3-C4-C5	-5.19	119.82	121.90
1	A	63	C	O5'-C5'-C4'	-5.19	101.84	111.70
1	A	97	G	C4-C5-C6	5.19	121.91	118.80
1	A	274	A	C5'-C4'-O4'	5.19	115.33	109.10
1	A	331	G	C4-N9-C1'	5.19	133.25	126.50
1	A	525	C	C5-C6-N1	5.19	123.59	121.00
5	E	59	ILE	N-CA-CB	5.19	122.73	110.80
20	T	61	ALA	N-CA-CB	5.19	117.36	110.10
1	A	83	C	N3-C4-N4	5.19	121.63	118.00
1	A	265	G	N3-C4-N9	-5.19	122.89	126.00
1	A	587	G	N3-C2-N2	5.19	123.53	119.90
1	A	737	C	C6-N1-C2	-5.19	118.22	120.30
1	A	749	A	O5'-C5'-C4'	-5.19	101.84	111.70
1	A	1044	A	N9-C4-C5	5.19	107.88	105.80
1	A	1335	U	C2-N3-C4	-5.19	123.89	127.00
1	A	169	C	C4'-C3'-C2'	-5.19	97.41	102.60
1	A	521	G	O5'-C5'-C4'	-5.19	101.85	111.70
1	A	609	A	C6-C5-N7	-5.19	128.67	132.30
1	A	644	U	O5'-C5'-C4'	-5.19	101.85	111.70
1	A	1401	G	C4-C5-C6	5.19	121.91	118.80
1	A	73	C	P-O3'-C3'	-5.18	113.48	119.70
1	A	145	G	C3'-C2'-C1'	-5.18	97.35	101.50
1	A	351	G	C2'-C3'-O3'	5.18	122.00	113.70
1	A	791	G	P-O3'-C3'	-5.18	113.48	119.70
1	A	805	C	C4'-C3'-C2'	-5.18	97.42	102.60
1	A	814	A	C5'-C4'-O4'	5.18	115.32	109.10
1	A	1267	C	P-O3'-C3'	-5.18	113.48	119.70
1	A	1334	G	O5'-C5'-C4'	-5.18	101.85	111.70
1	A	4	U	N3-C4-C5	-5.18	111.49	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	47	C	C5-C6-N1	5.18	123.59	121.00
1	A	236	A	C5-C6-N1	-5.18	115.11	117.70
1	A	382	A	OP2-P-O3'	5.18	116.60	105.20
1	A	460	A	C2-N3-C4	5.18	113.19	110.60
1	A	502	A	N9-C1'-C2'	-5.18	106.30	112.00
1	A	574	A	C5-C6-N1	-5.18	115.11	117.70
1	A	645	G	C5'-C4'-C3'	5.18	124.29	116.00
1	A	1468	A	C5'-C4'-C3'	-5.18	107.71	116.00
1	A	264	C	C6-N1-C1'	-5.18	114.58	120.80
1	A	272	C	C3'-C2'-C1'	-5.18	97.36	101.50
1	A	12	U	C2-N1-C1'	-5.18	111.49	117.70
1	A	13	U	C3'-C2'-C1'	5.18	105.64	101.50
1	A	204	G	N1-C2-N3	-5.18	120.79	123.90
1	A	223	A	C4-C5-N7	-5.18	108.11	110.70
1	A	441	A	C5-C6-N6	-5.18	119.56	123.70
1	A	444	G	C5'-C4'-O4'	5.18	115.31	109.10
1	A	952	U	C5'-C4'-O4'	5.18	115.31	109.10
1	A	1236	A	N3-C4-C5	-5.18	123.17	126.80
1	A	1345	U	C5'-C4'-C3'	-5.18	107.71	116.00
1	A	398	U	C3'-C2'-C1'	-5.18	97.36	101.50
1	A	471	U	C2-N1-C1'	-5.18	111.49	117.70
1	A	525	C	P-O3'-C3'	-5.18	113.49	119.70
1	A	538	G	N9-C1'-C2'	-5.18	106.30	112.00
1	A	540	G	C4-N9-C1'	-5.18	119.77	126.50
8	H	21	LYS	N-CA-C	-5.18	97.02	111.00
8	H	48	PHE	CB-CG-CD1	-5.18	117.17	120.80
1	A	249	U	O4'-C4'-C3'	-5.18	98.82	104.00
1	A	252	U	N3-C2-O2	-5.18	118.58	122.20
1	A	255	G	C3'-C2'-C1'	-5.18	97.36	101.50
1	A	504	C	C5'-C4'-O4'	5.18	115.31	109.10
1	A	648	A	O5'-C5'-C4'	-5.18	101.86	111.70
1	A	792	A	N7-C8-N9	-5.18	111.21	113.80
1	A	1047	G	C5'-C4'-C3'	-5.18	107.72	116.00
1	A	1303	C	O4'-C1'-N1	5.18	112.34	108.20
3	C	57	GLU	N-CA-C	-5.18	97.02	111.00
1	A	285	C	C5-C6-N1	5.17	123.59	121.00
1	A	396	C	O3'-P-O5'	5.17	113.83	104.00
1	A	443	C	N3-C4-N4	5.17	121.62	118.00
1	A	491	G	N3-C2-N2	5.17	123.52	119.90
1	A	858	G	O4'-C1'-C2'	-5.17	100.62	105.80
1	A	1185	G	C8-N9-C1'	5.17	133.73	127.00
1	A	366	A	O3'-P-O5'	5.17	113.83	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	385	C	C1'-O4'-C4'	-5.17	105.76	109.90
1	A	585	G	P-O3'-C3'	-5.17	113.49	119.70
1	A	624	C	O4'-C1'-N1	5.17	112.34	108.20
1	A	635	A	C5'-C4'-C3'	-5.17	107.72	116.00
10	J	16	ARG	NE-CZ-NH2	-5.17	117.71	120.30
1	A	68	G	C4-C5-C6	5.17	121.90	118.80
1	A	151	A	O4'-C1'-N9	5.17	112.34	108.20
1	A	271	C	C5'-C4'-C3'	-5.17	107.72	116.00
1	A	463	U	O4'-C1'-C2'	-5.17	100.63	105.80
1	A	823	C	C1'-O4'-C4'	-5.17	105.76	109.90
1	A	867	G	C6-C5-N7	-5.17	127.30	130.40
1	A	939	G	O4'-C1'-N9	5.17	112.34	108.20
1	A	1102	A	N1-C6-N6	5.17	121.70	118.60
1	A	1417	G	N9-C4-C5	-5.17	103.33	105.40
1	A	100	G	C4'-C3'-C2'	-5.17	97.43	102.60
1	A	293	G	C4-N9-C1'	-5.17	119.78	126.50
1	A	1297	G	O4'-C1'-N9	5.17	112.34	108.20
1	A	23	C	O5'-P-OP1	5.17	116.90	110.70
1	A	330	C	P-O5'-C5'	-5.17	112.63	120.90
1	A	485	U	C6-N1-C1'	-5.17	113.97	121.20
1	A	514	C	C5-C4-N4	-5.17	116.58	120.20
1	A	695	A	C6-N1-C2	-5.17	115.50	118.60
1	A	1102	A	C8-N9-C4	-5.17	103.73	105.80
1	A	1410	A	C5-C6-N1	-5.17	115.11	117.70
4	D	203	TYR	CB-CG-CD1	5.17	124.10	121.00
1	A	75	G	O4'-C4'-C3'	-5.17	98.83	104.00
1	A	257	G	C4-C5-C6	5.17	121.90	118.80
1	A	444	G	P-O3'-C3'	-5.17	113.50	119.70
12	L	26	CYS	N-CA-CB	5.17	119.90	110.60
12	L	57	THR	N-CA-CB	5.17	120.11	110.30
16	P	45	GLU	C-N-CA	5.17	134.62	121.70
1	A	657	U	P-O3'-C3'	-5.17	113.50	119.70
1	A	1121	U	N1-C1'-C2'	-5.17	106.32	112.00
1	A	1258	G	C4-C5-C6	5.17	121.90	118.80
1	A	980	C	C5'-C4'-C3'	-5.16	107.74	116.00
1	A	1156	G	N1-C2-N2	5.16	120.85	116.20
1	A	1423	G	N1-C2-N3	-5.16	120.80	123.90
7	G	36	SER	N-CA-CB	5.16	118.25	110.50
1	A	57	G	C1'-O4'-C4'	-5.16	105.77	109.90
1	A	1474	U	P-O3'-C3'	-5.16	113.51	119.70
1	A	142	G	N1-C2-N2	-5.16	111.56	116.20
1	A	205	A	C5'-C4'-O4'	5.16	115.29	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	623	C	C1'-O4'-C4'	-5.16	105.77	109.90
1	A	740	U	C2-N1-C1'	-5.16	111.51	117.70
1	A	1060	U	O5'-C5'-C4'	-5.16	101.89	111.70
1	A	1207	G	P-O5'-C5'	5.16	129.16	120.90
1	A	1365	G	C5'-C4'-C3'	5.16	124.26	116.00
1	A	1476	A	O3'-P-O5'	-5.16	94.19	104.00
6	F	66	ALA	N-CA-C	-5.16	97.07	111.00
1	A	368	U	N1-C2-O2	-5.16	119.19	122.80
1	A	537	G	N9-C1'-C2'	-5.16	106.33	112.00
1	A	751	U	C6-N1-C1'	5.16	128.42	121.20
1	A	818	G	C6-C5-N7	-5.16	127.31	130.40
1	A	902	G	O3'-P-O5'	-5.16	94.20	104.00
1	A	1171	A	OP1-P-O3'	5.16	116.55	105.20
1	A	1349	A	C4-N9-C1'	-5.16	117.02	126.30
13	M	106	ARG	N-CA-C	5.16	124.93	111.00
20	T	73	ARG	CA-CB-CG	5.16	124.75	113.40
1	A	816	A	N1-C2-N3	5.16	131.88	129.30
1	A	1357	A	C5'-C4'-O4'	5.16	115.29	109.10
1	A	121	U	C2'-C3'-O3'	5.16	121.95	113.70
1	A	324	G	C5'-C4'-O4'	5.16	115.29	109.10
1	A	848	C	C2-N1-C1'	-5.16	113.13	118.80
1	A	1389	C	C2-N1-C1'	-5.16	113.13	118.80
1	A	1396	A	O4'-C1'-C2'	5.16	112.24	107.60
19	S	47	THR	N-CA-C	-5.16	97.08	111.00
1	A	47	C	N3-C4-N4	5.15	121.61	118.00
1	A	295	C	C5'-C4'-O4'	5.15	115.28	109.10
1	A	578	C	N3-C4-N4	5.15	121.61	118.00
1	A	843	U	C2-N1-C1'	5.15	123.89	117.70
1	A	153	C	N3-C4-C5	-5.15	119.84	121.90
1	A	253	A	O4'-C1'-N9	5.15	112.32	108.20
1	A	257	G	C5'-C4'-C3'	-5.15	107.76	116.00
1	A	526	C	C4'-C3'-C2'	-5.15	97.45	102.60
1	A	655	A	C6-C5-N7	-5.15	128.69	132.30
1	A	861	G	N1-C2-N2	-5.15	111.56	116.20
1	A	1256	A	P-O5'-C5'	-5.15	112.66	120.90
1	A	1275	A	C2-N3-C4	-5.15	108.02	110.60
1	A	1450	U	C2-N1-C1'	-5.15	111.52	117.70
1	A	103	U	C5'-C4'-O4'	5.15	115.28	109.10
1	A	433	G	C4-C5-C6	5.15	121.89	118.80
1	A	690	G	C5-C6-O6	-5.15	125.51	128.60
1	A	720	C	N3-C4-C5	-5.15	119.84	121.90
1	A	838	G	C5'-C4'-O4'	5.15	115.28	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	998	C	P-O5'-C5'	-5.15	112.66	120.90
1	A	1082	A	C5-C6-N6	-5.15	119.58	123.70
1	A	1318	A	O4'-C1'-N9	5.15	112.32	108.20
1	A	1331	G	C1'-O4'-C4'	-5.15	105.78	109.90
5	E	122	VAL	CB-CA-C	-5.15	101.61	111.40
1	A	15	G	O4'-C1'-N9	5.15	112.32	108.20
1	A	408	A	C5-C6-N6	-5.15	119.58	123.70
1	A	763	G	N1-C6-O6	5.15	122.99	119.90
1	A	832	G	N7-C8-N9	-5.15	110.53	113.10
1	A	1256	A	P-O3'-C3'	-5.15	113.52	119.70
1	A	1373	G	C4'-C3'-C2'	5.15	107.75	102.60
1	A	43	C	N3-C4-N4	5.15	121.60	118.00
1	A	228	A	C4-C5-C6	5.15	119.57	117.00
1	A	297	G	N3-C4-N9	-5.15	122.91	126.00
1	A	304	U	C5'-C4'-O4'	5.15	115.28	109.10
1	A	306	A	O5'-C5'-C4'	-5.15	101.92	111.70
1	A	399	G	O4'-C1'-N9	5.15	112.32	108.20
1	A	1204	A	N3-C4-C5	-5.15	123.20	126.80
1	A	1316	G	C5'-C4'-O4'	5.15	115.28	109.10
1	A	1394	A	O4'-C1'-N9	5.15	112.32	108.20
1	A	1426	G	C8-N9-C4	-5.15	104.34	106.40
1	A	1429	A	C5-C6-N1	-5.15	115.13	117.70
1	A	1468	A	C4'-C3'-C2'	5.15	107.75	102.60
1	A	121	U	C5-C4-O4	-5.15	122.81	125.90
1	A	1311	A	C4-C5-C6	5.15	119.57	117.00
1	A	251	G	N1-C2-N3	-5.14	120.81	123.90
1	A	830	G	N1-C2-N3	-5.14	120.81	123.90
1	A	964	A	C5-C6-N6	-5.14	119.58	123.70
1	A	1227	A	O3'-P-O5'	-5.14	94.23	104.00
1	A	1347	G	P-O5'-C5'	-5.14	112.67	120.90
19	S	2	ARG	NE-CZ-NH1	5.14	122.87	120.30
1	A	46	G	C4'-C3'-C2'	-5.14	97.46	102.60
1	A	251	G	C1'-O4'-C4'	-5.14	105.79	109.90
1	A	386	C	O5'-C5'-C4'	-5.14	101.93	111.70
1	A	1017	U	C5'-C4'-C3'	-5.14	107.77	116.00
1	A	1267	C	C2-N3-C4	5.14	122.47	119.90
15	O	69	LEU	CA-C-N	5.14	128.51	117.20
1	A	112	G	N3-C4-C5	-5.14	126.03	128.60
1	A	357	G	O3'-P-O5'	-5.14	94.23	104.00
1	A	743	A	O4'-C1'-N9	5.14	112.31	108.20
1	A	1005	A	C5'-C4'-O4'	5.14	115.27	109.10
1	A	1405	G	N1-C6-O6	5.14	122.98	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	D	146	GLU	N-CA-C	5.14	124.88	111.00
1	A	121	U	O4'-C4'-C3'	-5.14	98.86	104.00
1	A	252	U	OP2-P-O3'	5.14	116.51	105.20
1	A	275	G	P-O3'-C3'	-5.14	113.53	119.70
1	A	471	U	O5'-C5'-C4'	-5.14	101.94	111.70
1	A	959	A	N1-C2-N3	-5.14	126.73	129.30
1	A	1249	C	O4'-C1'-N1	5.14	112.31	108.20
1	A	1392	G	N1-C2-N3	-5.14	120.82	123.90
4	D	195	ASN	CA-CB-CG	-5.14	102.09	113.40
1	A	11	G	C5'-C4'-O4'	5.14	115.27	109.10
1	A	232	G	O4'-C1'-N9	5.14	112.31	108.20
1	A	494	G	P-O3'-C3'	-5.14	113.53	119.70
1	A	610	U	P-O3'-C3'	5.14	125.86	119.70
1	A	1479	C	O4'-C1'-N1	5.14	112.31	108.20
1	A	27	G	N3-C4-C5	-5.14	126.03	128.60
1	A	376	G	N1-C6-O6	5.14	122.98	119.90
1	A	914	A	C4-C5-C6	5.14	119.57	117.00
5	E	157	GLY	N-CA-C	-5.14	100.26	113.10
9	I	7	GLY	N-CA-C	-5.14	100.26	113.10
1	A	247	G	C6-C5-N7	-5.13	127.32	130.40
1	A	272	C	O3'-P-O5'	-5.13	94.24	104.00
1	A	306	A	C5-N7-C8	5.13	106.47	103.90
1	A	311	C	O4'-C4'-C3'	-5.13	98.86	104.00
1	A	652	U	C4'-C3'-C2'	5.13	107.73	102.60
1	A	656	G	N1-C2-N2	-5.13	111.58	116.20
1	A	1122	U	C6-N1-C2	-5.13	117.92	121.00
1	A	1419	G	O5'-C5'-C4'	-5.13	101.94	111.70
1	A	518	C	N3-C4-N4	5.13	121.59	118.00
1	A	639	G	C1'-O4'-C4'	-5.13	105.79	109.90
1	A	1001	C	C2-N1-C1'	-5.13	113.15	118.80
1	A	1347	G	N1-C6-O6	5.13	122.98	119.90
1	A	1483	A	C3'-C2'-C1'	-5.13	97.39	101.50
1	A	213	G	P-O3'-C3'	-5.13	113.54	119.70
1	A	241	G	C5'-C4'-O4'	5.13	115.26	109.10
1	A	1384	C	P-O5'-C5'	5.13	129.11	120.90
22	W	234	ILE	N-CA-C	-5.13	97.14	111.00
1	A	82	G	C5-C6-N1	-5.13	108.94	111.50
1	A	414	A	O4'-C1'-N9	5.13	112.30	108.20
1	A	1181	G	O5'-C5'-C4'	-5.13	101.95	111.70
1	A	1186	G	OP2-P-O3'	5.13	116.49	105.20
1	A	185	U	N3-C4-C5	-5.13	111.52	114.60
1	A	859	G	C5'-C4'-O4'	5.13	115.25	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1162	C	C6-N1-C2	-5.13	118.25	120.30
1	A	108	G	C5-C6-O6	-5.13	125.52	128.60
1	A	270	A	P-O3'-C3'	-5.13	113.55	119.70
1	A	310	G	C5'-C4'-C3'	-5.13	107.80	116.00
1	A	361	G	C4'-C3'-O3'	-5.13	98.63	109.40
1	A	376	G	C4-N9-C1'	-5.13	119.83	126.50
1	A	588	G	O4'-C1'-N9	5.13	112.30	108.20
1	A	1244	G	C4'-C3'-C2'	-5.13	97.47	102.60
4	D	44	LYS	CA-CB-CG	5.13	124.68	113.40
12	L	73	LEU	CB-CA-C	-5.13	100.46	110.20
1	A	438	U	C1'-O4'-C4'	-5.12	105.80	109.90
1	A	499	A	C5-C6-N1	-5.12	115.14	117.70
1	A	667	G	O4'-C1'-N9	5.12	112.30	108.20
1	A	1018	G	C5-N7-C8	5.12	106.86	104.30
3	C	189	HIS	N-CA-C	-5.12	97.16	111.00
1	A	371	A	O3'-P-O5'	-5.12	94.27	104.00
1	A	836	G	C6-N1-C2	5.12	128.17	125.10
1	A	1069	C	C1'-O4'-C4'	-5.12	105.80	109.90
1	A	1125	U	C6-N1-C2	-5.12	117.93	121.00
1	A	1231	G	P-O5'-C5'	-5.12	112.70	120.90
11	K	76	TYR	CB-CG-CD2	-5.12	117.93	121.00
1	A	196	A	C6-C5-N7	-5.12	128.72	132.30
1	A	285	C	C1'-O4'-C4'	-5.12	105.80	109.90
1	A	474	G	O5'-C5'-C4'	-5.12	101.97	111.70
1	A	570	G	C6-C5-N7	-5.12	127.33	130.40
1	A	589	U	C5'-C4'-O4'	5.12	115.25	109.10
1	A	823	C	C5-C6-N1	5.12	123.56	121.00
1	A	876	C	P-O3'-C3'	-5.12	113.55	119.70
1	A	1022	A	C8-N9-C1'	5.12	136.92	127.70
22	W	131	ALA	N-CA-CB	5.12	117.27	110.10
1	A	35	G	C3'-C2'-C1'	-5.12	97.40	101.50
1	A	50	A	C5-C6-N1	-5.12	115.14	117.70
1	A	205	A	C5-C6-N1	-5.12	115.14	117.70
1	A	515	G	C8-N9-C1'	-5.12	120.34	127.00
1	A	593	U	C5-C6-N1	5.12	125.26	122.70
1	A	1294	G	C8-N9-C4	-5.12	104.35	106.40
13	M	109	LYS	C-N-CA	5.12	133.05	122.30
1	A	409	U	C6-N1-C1'	5.12	128.36	121.20
1	A	194	C	C4-C5-C6	5.12	119.96	117.40
1	A	361	G	P-O3'-C3'	5.12	125.84	119.70
1	A	770	C	C6-N1-C2	-5.12	118.25	120.30
1	A	791	G	OP2-P-O3'	5.12	116.46	105.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	807	A	C4-C5-C6	5.12	119.56	117.00
1	A	826	C	N3-C4-N4	5.12	121.58	118.00
1	A	1140	C	C3'-C2'-C1'	5.12	105.59	101.50
1	A	1270	G	O3'-P-O5'	-5.12	94.28	104.00
22	W	276	TRP	CA-CB-CG	5.12	123.42	113.70
1	A	66	A	O4'-C1'-N9	5.11	112.29	108.20
1	A	139	A	C1'-O4'-C4'	-5.11	105.81	109.90
1	A	208	U	O5'-C5'-C4'	-5.11	101.99	111.70
1	A	432	A	C5'-C4'-O4'	5.11	115.24	109.10
1	A	632	U	OP1-P-OP2	-5.11	111.93	119.60
1	A	651	C	C5-C4-N4	-5.11	116.62	120.20
1	A	661	G	C6-C5-N7	-5.11	127.33	130.40
1	A	711	G	P-O3'-C3'	5.11	125.84	119.70
1	A	762	U	O4'-C1'-N1	5.11	112.29	108.20
1	A	832	G	O4'-C1'-C2'	-5.11	100.69	105.80
1	A	1086	U	OP2-P-O3'	5.11	116.45	105.20
1	A	1103	C	O4'-C1'-N1	5.11	112.29	108.20
17	Q	18	LYS	N-CA-CB	-5.11	101.40	110.60
1	A	183	C	N3-C4-C5	-5.11	119.86	121.90
1	A	814	A	C1'-O4'-C4'	-5.11	105.81	109.90
1	A	41	G	C4-N9-C1'	-5.11	119.86	126.50
1	A	223	A	O4'-C4'-C3'	-5.11	98.89	104.00
1	A	324	G	C5-C6-N1	-5.11	108.94	111.50
1	A	489	C	C6-N1-C1'	5.11	126.93	120.80
1	A	759	A	OP1-P-O3'	5.11	116.44	105.20
1	A	823	C	O5'-C5'-C4'	-5.11	101.99	111.70
1	A	893	C	P-O5'-C5'	5.11	129.08	120.90
1	A	894	G	O4'-C4'-C3'	-5.11	98.89	104.00
1	A	1057	G	N3-C4-C5	-5.11	126.05	128.60
1	A	1220	G	N3-C2-N2	5.11	123.48	119.90
1	A	1357	A	O4'-C1'-N9	5.11	112.29	108.20
1	A	1413	A	C6-C5-N7	-5.11	128.72	132.30
1	A	272	C	C4'-C3'-C2'	-5.11	97.49	102.60
1	A	441	A	O3'-P-O5'	-5.11	94.29	104.00
1	A	1262	C	C5-C4-N4	5.11	123.78	120.20
1	A	1508	A	C1'-O4'-C4'	-5.11	105.81	109.90
2	B	122	ASP	C-N-CA	5.11	133.03	122.30
20	T	17	ARG	N-CA-C	5.11	124.80	111.00
1	A	3	A	C5-C6-N6	-5.11	119.61	123.70
1	A	111	G	O4'-C1'-N9	5.11	112.28	108.20
1	A	176	C	O5'-C5'-C4'	-5.11	102.00	111.70
1	A	240	G	C5-N7-C8	5.11	106.85	104.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	734	G	C6-C5-N7	-5.11	127.34	130.40
1	A	1219	A	O4'-C1'-N9	5.11	112.29	108.20
2	B	68	PHE	N-CA-C	-5.11	97.21	111.00
1	A	254	G	C8-N9-C1'	5.11	133.64	127.00
1	A	576	C	N3-C4-N4	5.11	121.57	118.00
1	A	582	C	C3'-C2'-C1'	-5.11	97.42	101.50
10	J	62	ARG	CB-CA-C	5.11	120.61	110.40
1	A	117	G	O4'-C1'-N9	5.10	112.28	108.20
1	A	826	C	P-O3'-C3'	-5.10	113.58	119.70
1	A	963	G	C6-N1-C2	-5.10	122.04	125.10
1	A	1374	A	N9-C1'-C2'	-5.10	106.39	112.00
1	A	1510	C	C3'-C2'-C1'	-5.10	97.42	101.50
1	A	147	G	C8-N9-C4	-5.10	104.36	106.40
1	A	614	C	C2-N1-C1'	-5.10	113.19	118.80
1	A	923	A	C3'-C2'-C1'	-5.10	97.42	101.50
1	A	1328	C	C6-N1-C1'	5.10	126.92	120.80
22	W	297	CYS	N-CA-CB	5.10	119.78	110.60
1	A	116	A	C4-C5-C6	5.10	119.55	117.00
1	A	868	C	N1-C2-O2	5.10	121.96	118.90
1	A	1072	G	C4'-C3'-C2'	-5.10	97.50	102.60
1	A	1368	A	C1'-O4'-C4'	-5.10	105.82	109.90
1	A	1408	A	C5'-C4'-C3'	-5.10	107.84	116.00
8	H	123	GLU	N-CA-CB	-5.10	101.42	110.60
1	A	452	A	C5'-C4'-O4'	5.10	115.22	109.10
1	A	486	U	C5-C6-N1	5.10	125.25	122.70
1	A	529	G	O4'-C4'-C3'	-5.10	98.90	104.00
1	A	613	C	C2-N3-C4	5.10	122.45	119.90
1	A	643	C	C1'-O4'-C4'	-5.10	105.82	109.90
1	A	673	A	O4'-C4'-C3'	-5.10	98.90	104.00
1	A	881	G	O4'-C1'-N9	5.10	112.28	108.20
1	A	1018	G	N9-C1'-C2'	-5.10	106.39	112.00
1	A	1475	G	P-O5'-C5'	-5.10	112.74	120.90
1	A	147	G	N1-C2-N3	-5.10	120.84	123.90
1	A	156	C	C5'-C4'-C3'	-5.10	107.84	116.00
1	A	202	G	C8-N9-C4	5.10	108.44	106.40
1	A	420	U	P-O3'-C3'	5.10	125.82	119.70
1	A	533	A	O3'-P-O5'	-5.10	94.32	104.00
1	A	922	G	O4'-C1'-N9	5.10	112.28	108.20
1	A	1063	C	O4'-C1'-N1	5.10	112.28	108.20
1	A	1071	C	C4-C5-C6	5.10	119.95	117.40
1	A	1248	A	C4-C5-C6	5.10	119.55	117.00
1	A	1339	A	O3'-P-O5'	-5.10	94.31	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	43	C	C1'-O4'-C4'	-5.10	105.82	109.90
1	A	638	U	C1'-O4'-C4'	-5.10	105.82	109.90
1	A	96	U	N3-C4-C5	-5.09	111.54	114.60
1	A	164	G	C6-N1-C2	5.09	128.16	125.10
1	A	976	G	C6-C5-N7	-5.09	127.34	130.40
1	A	1056	U	C2-N1-C1'	-5.09	111.59	117.70
1	A	1337	G	O4'-C1'-N9	5.09	112.28	108.20
22	W	304	HIS	N-CA-CB	5.09	119.77	110.60
1	A	78	A	C4-C5-N7	-5.09	108.15	110.70
1	A	409	U	N1-C2-N3	5.09	117.96	114.90
1	A	605	U	C5'-C4'-O4'	-5.09	102.99	109.10
1	A	1410	A	C2'-C3'-O3'	5.09	121.85	113.70
1	A	97	G	C1'-O4'-C4'	-5.09	105.83	109.90
1	A	465	A	N1-C2-N3	-5.09	126.75	129.30
1	A	533	A	C3'-C2'-C1'	-5.09	97.43	101.50
1	A	592	G	O4'-C1'-N9	5.09	112.27	108.20
1	A	640	A	P-O3'-C3'	-5.09	113.59	119.70
1	A	840	C	P-O5'-C5'	5.09	129.05	120.90
1	A	961	U	O5'-P-OP1	-5.09	101.12	105.70
1	A	1039	G	C4'-C3'-C2'	-5.09	97.51	102.60
1	A	1104	G	N1-C6-O6	5.09	122.95	119.90
1	A	1143	G	N1-C2-N3	-5.09	120.85	123.90
1	A	1520	C	C4'-C3'-O3'	5.09	123.19	113.00
3	C	190	THR	CA-CB-CG2	-5.09	105.27	112.40
1	A	104	G	C1'-O4'-C4'	-5.09	105.83	109.90
1	A	127	G	O3'-P-O5'	5.09	113.67	104.00
1	A	145	G	O3'-P-O5'	-5.09	94.33	104.00
1	A	339	C	C2-N3-C4	-5.09	117.36	119.90
1	A	711	G	O4'-C1'-N9	5.09	112.27	108.20
1	A	807	A	C4-N9-C1'	-5.09	117.14	126.30
1	A	816	A	C5-N7-C8	5.09	106.44	103.90
1	A	1274	A	O4'-C4'-C3'	-5.09	98.91	104.00
1	A	1475	G	C1'-O4'-C4'	-5.09	105.83	109.90
2	B	30	ILE	CB-CA-C	-5.09	101.42	111.60
1	A	83	C	C4'-C3'-C2'	5.09	107.69	102.60
1	A	129	A	C5-C6-N6	-5.09	119.63	123.70
1	A	680	C	N1-C1'-C2'	-5.09	106.40	112.00
1	A	895	G	O3'-P-O5'	-5.09	94.33	104.00
1	A	1268	G	N3-C4-N9	5.09	129.05	126.00
5	E	51	LYS	N-CA-C	-5.09	97.26	111.00
1	A	19	A	N1-C6-N6	5.09	121.65	118.60
1	A	669	G	C2'-C3'-O3'	5.09	121.84	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1492	A	C4'-C3'-C2'	-5.09	97.51	102.60
11	K	71	ASP	N-CA-C	-5.09	97.27	111.00
1	A	131	A	C5'-C4'-C3'	-5.08	107.86	116.00
1	A	441	A	C5'-C4'-O4'	5.08	115.20	109.10
1	A	924	C	N1-C2-N3	-5.08	115.64	119.20
1	A	1435	G	N3-C2-N2	5.08	123.46	119.90
3	C	155	ARG	CD-NE-CZ	5.08	130.72	123.60
15	O	46	LYS	N-CA-CB	5.08	119.75	110.60
1	A	270	A	O5'-C5'-C4'	-5.08	102.04	111.70
1	A	481	G	C4-C5-N7	5.08	112.83	110.80
1	A	1258	G	N3-C4-C5	-5.08	126.06	128.60
1	A	1340	A	P-O3'-C3'	5.08	125.80	119.70
1	A	1507	A	C5-C6-N6	-5.08	119.63	123.70
18	R	24	ASP	N-CA-CB	5.08	119.75	110.60
1	A	29	U	C5'-C4'-O4'	5.08	115.20	109.10
1	A	134	G	P-O5'-C5'	5.08	129.03	120.90
1	A	184	G	C5-C6-O6	-5.08	125.55	128.60
1	A	418	C	C5-C6-N1	5.08	123.54	121.00
1	A	520	A	O5'-P-OP2	-5.08	101.13	105.70
1	A	742	G	C5-C6-O6	-5.08	125.55	128.60
1	A	749	A	C6-C5-N7	-5.08	128.74	132.30
1	A	893	C	C2-N1-C1'	5.08	124.39	118.80
1	A	914	A	C4-N9-C1'	-5.08	117.16	126.30
1	A	974	A	C5-C6-N1	-5.08	115.16	117.70
1	A	1356	G	C6-C5-N7	-5.08	127.35	130.40
11	K	84	MET	N-CA-C	-5.08	97.28	111.00
1	A	33	A	O4'-C1'-N9	5.08	112.26	108.20
1	A	314	C	N3-C4-C5	-5.08	119.87	121.90
1	A	380	G	C5-C6-O6	-5.08	125.55	128.60
1	A	452	A	C1'-O4'-C4'	-5.08	105.84	109.90
1	A	614	C	N3-C4-N4	5.08	121.56	118.00
1	A	1211	U	C3'-C2'-C1'	-5.08	97.44	101.50
1	A	424	G	C4-C5-C6	5.08	121.85	118.80
1	A	521	G	C1'-O4'-C4'	-5.08	105.84	109.90
1	A	813	U	C3'-C2'-C1'	-5.08	97.44	101.50
1	A	901	A	N1-C2-N3	5.08	131.84	129.30
1	A	1128	C	P-O3'-C3'	5.08	125.79	119.70
1	A	1266	G	C5-C6-O6	-5.08	125.55	128.60
1	A	423	G	N1-C2-N3	-5.08	120.85	123.90
1	A	1014	A	C5-C6-N1	-5.08	115.16	117.70
1	A	1140	C	C2-N3-C4	5.08	122.44	119.90
1	A	1367	C	C3'-C2'-C1'	-5.08	97.44	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	226	G	O4'-C1'-N9	5.08	112.26	108.20
1	A	287	U	OP2-P-O3'	5.08	116.36	105.20
1	A	372	C	C4-C5-C6	-5.08	114.86	117.40
1	A	581	G	C5-C6-N1	-5.08	108.96	111.50
1	A	1018	G	C8-N9-C4	-5.08	104.37	106.40
1	A	1130	A	C5-N7-C8	5.08	106.44	103.90
2	B	85	SER	C-N-CA	5.08	134.39	121.70
1	A	51	A	C3'-C2'-C1'	5.07	105.56	101.50
1	A	148	G	C2-N3-C4	5.07	114.44	111.90
1	A	524	G	N3-C2-N2	5.07	123.45	119.90
1	A	686	U	N3-C4-C5	-5.07	111.56	114.60
1	A	742	G	C5'-C4'-C3'	-5.07	107.88	116.00
1	A	869	G	OP2-P-O3'	5.07	116.36	105.20
1	A	1163	A	P-O5'-C5'	5.07	129.02	120.90
1	A	1323	G	C5-C6-O6	-5.07	125.56	128.60
1	A	29	U	C2'-C3'-O3'	5.07	121.82	113.70
1	A	166	U	C1'-O4'-C4'	-5.07	105.84	109.90
1	A	677	U	C5-C4-O4	-5.07	122.86	125.90
1	A	808	C	N1-C2-O2	5.07	121.94	118.90
1	A	1052	U	C6-N1-C1'	5.07	128.30	121.20
1	A	159	G	N1-C2-N2	5.07	120.76	116.20
1	A	192	A	C5-C6-N6	-5.07	119.64	123.70
1	A	371	A	C5'-C4'-O4'	5.07	115.19	109.10
1	A	981	U	O3'-P-O5'	-5.07	94.37	104.00
1	A	1048	G	P-O5'-C5'	-5.07	112.79	120.90
1	A	1452	C	C1'-O4'-C4'	-5.07	105.84	109.90
1	A	264	C	P-O3'-C3'	5.07	125.78	119.70
1	A	500	G	O3'-P-O5'	-5.07	94.37	104.00
1	A	781	A	OP1-P-OP2	-5.07	112.00	119.60
1	A	892	A	C5-C6-N6	-5.07	119.64	123.70
1	A	896	C	C5-C6-N1	5.07	123.53	121.00
1	A	918	A	C8-N9-C1'	5.07	136.82	127.70
1	A	22	G	C4-C5-C6	5.07	121.84	118.80
1	A	174	A	P-O3'-C3'	5.07	125.78	119.70
1	A	264	C	C2'-C3'-O3'	5.07	121.81	113.70
1	A	564	C	C2-N1-C1'	-5.07	113.23	118.80
1	A	705	G	C3'-C2'-C1'	-5.07	97.45	101.50
1	A	1199	U	C5'-C4'-C3'	-5.07	107.89	116.00
1	A	1303	C	O5'-C5'-C4'	5.07	121.33	111.70
1	A	1309	G	C8-N9-C1'	5.07	133.59	127.00
1	A	1394	A	C3'-C2'-C1'	-5.07	97.45	101.50
1	A	1523	G	N7-C8-N9	-5.07	110.57	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	W	299	TYR	CB-CG-CD2	5.07	124.04	121.00
1	A	7	A	O4'-C1'-C2'	-5.07	100.73	105.80
1	A	167	A	C4-C5-N7	-5.07	108.17	110.70
1	A	461	A	C5-C6-N6	-5.07	119.65	123.70
1	A	867	G	C5'-C4'-C3'	-5.07	107.89	116.00
1	A	958	A	O5'-C5'-C4'	-5.07	102.08	111.70
1	A	1444	U	C3'-C2'-C1'	-5.07	97.45	101.50
1	A	616	G	C2'-C3'-O3'	5.06	121.80	113.70
1	A	825	A	C8-N9-C4	5.06	107.83	105.80
1	A	1299	A	C5'-C4'-O4'	5.06	115.18	109.10
1	A	174	A	C5-C6-N1	-5.06	115.17	117.70
1	A	179	A	O5'-P-OP2	-5.06	101.14	105.70
1	A	379	C	C6-N1-C1'	5.06	126.88	120.80
1	A	445	G	P-O5'-C5'	-5.06	112.80	120.90
1	A	494	G	N3-C2-N2	5.06	123.44	119.90
1	A	646	G	N9-C1'-C2'	-5.06	106.43	112.00
1	A	933	G	C6-N1-C2	5.06	128.14	125.10
1	A	1233	G	O4'-C1'-N9	5.06	112.25	108.20
11	K	83	VAL	N-CA-C	-5.06	97.33	111.00
16	P	71	VAL	N-CA-CB	5.06	122.64	111.50
1	A	81	A	C1'-O4'-C4'	-5.06	105.85	109.90
1	A	273	U	O4'-C1'-N1	5.06	112.25	108.20
1	A	479	U	C2-N3-C4	-5.06	123.96	127.00
1	A	831	A	O4'-C1'-N9	5.06	112.25	108.20
2	B	96	LEU	CB-CG-CD2	5.06	119.60	111.00
17	Q	30	HIS	CA-CB-CG	5.06	122.20	113.60
1	A	135	C	O4'-C4'-C3'	-5.06	98.94	104.00
1	A	221	C	N3-C4-C5	-5.06	119.88	121.90
1	A	248	C	C5'-C4'-C3'	-5.06	107.90	116.00
1	A	1167	A	P-O3'-C3'	-5.06	113.63	119.70
1	A	1226	C	O5'-C5'-C4'	-5.06	102.09	111.70
1	A	1236	A	O3'-P-O5'	-5.06	94.39	104.00
1	A	1370	G	N1-C2-N3	-5.06	120.86	123.90
1	A	1454	G	N3-C4-C5	-5.06	126.07	128.60
9	I	5	TYR	CB-CG-CD2	-5.06	117.96	121.00
1	A	136	C	C5'-C4'-C3'	-5.06	107.91	116.00
1	A	360	G	C5-C6-O6	-5.06	125.57	128.60
1	A	399	G	C4'-C3'-C2'	-5.06	97.54	102.60
1	A	466	A	O4'-C1'-N9	5.06	112.25	108.20
1	A	1232	U	C1'-O4'-C4'	-5.06	105.85	109.90
1	A	1317	C	N3-C4-C5	-5.06	119.88	121.90
1	A	1332	A	C4-C5-N7	-5.06	108.17	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1338	G	N1-C6-O6	5.06	122.93	119.90
1	A	1403	C	C5-C4-N4	-5.06	116.66	120.20
1	A	1508	A	C8-N9-C1'	5.06	136.81	127.70
17	Q	39	ARG	N-CA-CB	5.06	119.70	110.60
1	A	5	U	C4'-C3'-C2'	-5.06	97.54	102.60
1	A	306	A	C5-C6-N6	-5.06	119.66	123.70
1	A	824	G	O4'-C1'-N9	5.06	112.25	108.20
1	A	913	A	C5-C6-N1	-5.06	115.17	117.70
1	A	1306	A	C8-N9-C1'	-5.06	118.60	127.70
1	A	1478	U	N1-C1'-C2'	-5.06	106.44	112.00
1	A	276	G	C3'-C2'-C1'	-5.05	97.46	101.50
1	A	385	C	C3'-C2'-C1'	-5.05	97.46	101.50
1	A	478	A	P-O5'-C5'	5.05	128.99	120.90
1	A	528	C	N1-C2-O2	5.05	121.93	118.90
1	A	530	G	N1-C6-O6	5.05	122.93	119.90
1	A	681	A	C6-C5-N7	-5.05	128.76	132.30
1	A	894	G	C3'-C2'-C1'	-5.05	97.46	101.50
7	G	34	LYS	N-CA-CB	5.05	119.70	110.60
1	A	666	G	O4'-C4'-C3'	-5.05	98.95	104.00
1	A	1318	A	O3'-P-O5'	-5.05	94.40	104.00
6	F	36	ILE	N-CA-C	-5.05	97.36	111.00
1	A	218	U	C2-N1-C1'	-5.05	111.64	117.70
1	A	351	G	C8-N9-C4	-5.05	104.38	106.40
1	A	409	U	C6-N1-C2	-5.05	117.97	121.00
1	A	495	A	C4-N9-C1'	-5.05	117.21	126.30
1	A	799	G	O4'-C1'-N9	5.05	112.24	108.20
1	A	1055	A	C8-N9-C1'	5.05	136.79	127.70
1	A	1056	U	C4-C5-C6	-5.05	116.67	119.70
1	A	1151	A	C5-N7-C8	5.05	106.43	103.90
1	A	1252	A	C8-N9-C4	5.05	107.82	105.80
1	A	50	A	P-O5'-C5'	5.05	128.98	120.90
1	A	116	A	C5'-C4'-C3'	-5.05	107.92	116.00
1	A	232	G	N1-C6-O6	5.05	122.93	119.90
1	A	534	U	O4'-C1'-N1	-5.05	104.16	108.20
1	A	945	G	C3'-C2'-C1'	5.05	105.54	101.50
1	A	106	C	N3-C4-C5	-5.05	119.88	121.90
1	A	530	G	N1-C2-N3	-5.05	120.87	123.90
1	A	541	G	C4-N9-C1'	-5.05	119.94	126.50
1	A	1053	G	C2'-C3'-O3'	5.05	121.78	113.70
1	A	1297	G	N3-C2-N2	5.05	123.43	119.90
1	A	32	A	C4-C5-C6	5.05	119.52	117.00
1	A	52	C	C5-C6-N1	5.05	123.52	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	84	U	P-O3'-C3'	-5.05	113.64	119.70
1	A	206	C	C6-N1-C1'	-5.05	114.74	120.80
1	A	213	G	C5-C6-N1	5.05	114.02	111.50
1	A	557	G	C6-C5-N7	-5.05	127.37	130.40
1	A	1150	A	O4'-C1'-C2'	5.05	112.14	107.60
1	A	215	C	O4'-C1'-N1	5.04	112.24	108.20
1	A	1108	G	O4'-C4'-C3'	-5.04	98.95	104.00
17	Q	22	VAL	CB-CA-C	-5.04	101.81	111.40
1	A	106	C	C2'-C3'-O3'	5.04	121.77	113.70
1	A	316	C	C5-C4-N4	5.04	123.73	120.20
1	A	729	A	O5'-C5'-C4'	-5.04	102.12	111.70
1	A	945	G	C6-N1-C2	-5.04	122.07	125.10
1	A	994	A	C5-C6-N1	-5.04	115.18	117.70
1	A	1430	A	C5'-C4'-O4'	5.04	115.15	109.10
1	A	287	U	C4-C5-C6	-5.04	116.68	119.70
1	A	324	G	N1-C2-N2	5.04	120.74	116.20
1	A	559	A	C4'-C3'-C2'	5.04	107.64	102.60
1	A	937	A	C5-C6-N1	-5.04	115.18	117.70
1	A	1120	C	O4'-C4'-C3'	-5.04	98.96	104.00
1	A	15	G	C3'-C2'-C1'	-5.04	97.47	101.50
1	A	980	C	C2-N3-C4	-5.04	117.38	119.90
1	A	1353	G	C3'-C2'-C1'	-5.04	97.47	101.50
1	A	953	G	C6-C5-N7	-5.04	127.38	130.40
1	A	1242	G	C4-N9-C1'	5.04	133.05	126.50
1	A	1268	G	N1-C2-N3	-5.04	120.88	123.90
1	A	1485	U	O3'-P-O5'	-5.04	94.43	104.00
1	A	1486	G	O5'-C5'-C4'	-5.04	102.13	111.70
1	A	191	G	O5'-C5'-C4'	-5.04	102.13	111.70
1	A	482	A	C4-C5-C6	5.04	119.52	117.00
1	A	845	A	C5-C6-N1	-5.04	115.18	117.70
1	A	1292	G	N1-C6-O6	5.04	122.92	119.90
1	A	253	A	C5-C6-N6	-5.04	119.67	123.70
1	A	611	C	O4'-C1'-N1	5.04	112.23	108.20
1	A	901	A	C8-N9-C1'	-5.04	118.64	127.70
1	A	940	C	C5-C6-N1	5.04	123.52	121.00
1	A	1014	A	C4'-C3'-C2'	-5.04	97.56	102.60
1	A	1015	G	C6-C5-N7	-5.04	127.38	130.40
1	A	1193	G	C4'-C3'-C2'	-5.04	97.56	102.60
4	D	127	ARG	NE-CZ-NH1	5.04	122.82	120.30
7	G	77	ARG	N-CA-CB	-5.04	101.54	110.60
8	H	73	SER	N-CA-CB	5.04	118.05	110.50
1	A	123	U	C4'-C3'-C2'	-5.03	97.57	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	814	A	C5'-C4'-C3'	-5.03	107.95	116.00
1	A	940	C	N3-C4-N4	5.03	121.52	118.00
1	A	1233	G	N3-C4-C5	-5.03	126.08	128.60
6	F	87	SER	N-CA-C	-5.03	97.41	111.00
9	I	129	ARG	NE-CZ-NH1	5.03	122.82	120.30
1	A	81	A	C5-C6-N1	-5.03	115.18	117.70
1	A	567	G	N9-C1'-C2'	-5.03	106.47	112.00
1	A	689	C	C6-N1-C1'	5.03	126.84	120.80
1	A	1139	G	C4-N9-C1'	-5.03	119.96	126.50
1	A	1270	G	C6-C5-N7	-5.03	127.38	130.40
1	A	1331	G	N1-C6-O6	5.03	122.92	119.90
10	J	16	ARG	CB-CA-C	-5.03	100.34	110.40
19	S	13	HIS	N-CA-CB	5.03	119.66	110.60
1	A	140	U	C6-N1-C2	-5.03	117.98	121.00
1	A	224	U	O4'-C4'-C3'	-5.03	98.97	104.00
1	A	278	G	C8-N9-C4	5.03	108.41	106.40
1	A	283	U	C2-N1-C1'	5.03	123.74	117.70
1	A	589	U	C2'-C3'-O3'	5.03	121.75	113.70
1	A	725	G	O4'-C1'-N9	5.03	112.22	108.20
1	A	767	A	N1-C2-N3	5.03	131.82	129.30
1	A	819	A	C3'-C2'-C1'	5.03	105.52	101.50
1	A	848	C	C4'-C3'-C2'	-5.03	97.57	102.60
1	A	1112	C	P-O5'-C5'	-5.03	112.85	120.90
1	A	786	G	N7-C8-N9	5.03	115.61	113.10
1	A	930	C	O3'-P-O5'	5.03	113.55	104.00
1	A	128	G	C4'-C3'-C2'	5.03	107.63	102.60
1	A	505	G	C8-N9-C1'	5.03	133.53	127.00
1	A	824	G	O5'-C5'-C4'	-5.03	102.15	111.70
1	A	1040	U	C6-N1-C2	-5.03	117.98	121.00
1	A	1312	G	C1'-O4'-C4'	-5.03	105.88	109.90
1	A	1456	A	C4-N9-C1'	-5.03	117.25	126.30
3	C	147	GLY	N-CA-C	-5.03	100.53	113.10
1	A	24	U	C5-C4-O4	-5.03	122.88	125.90
1	A	278	G	C4'-C3'-C2'	5.03	107.62	102.60
1	A	509	A	OP1-P-OP2	-5.03	112.06	119.60
1	A	974	A	N1-C2-N3	5.03	131.81	129.30
22	W	43	ILE	N-CA-C	-5.03	97.43	111.00
1	A	467	U	C3'-C2'-C1'	-5.02	97.48	101.50
1	A	558	G	O5'-C5'-C4'	-5.02	102.15	111.70
1	A	724	G	C2-N3-C4	5.02	114.41	111.90
1	A	810	C	C5'-C4'-C3'	-5.02	107.96	116.00
1	A	955	U	C5'-C4'-C3'	-5.02	107.96	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1374	A	C5'-C4'-O4'	5.02	115.13	109.10
2	B	60	ALA	N-CA-C	-5.02	97.44	111.00
14	N	8	ARG	NE-CZ-NH2	-5.02	117.79	120.30
1	A	122	G	OP1-P-O3'	5.02	116.25	105.20
1	A	573	A	P-O5'-C5'	-5.02	112.86	120.90
1	A	607	A	P-O5'-C5'	5.02	128.94	120.90
1	A	773	G	O4'-C1'-N9	5.02	112.22	108.20
1	A	793	U	C5'-C4'-O4'	5.02	115.13	109.10
1	A	803	G	P-O3'-C3'	-5.02	113.67	119.70
1	A	959	A	P-O3'-C3'	5.02	125.73	119.70
1	A	27	G	N3-C4-N9	5.02	129.01	126.00
1	A	284	C	O3'-P-O5'	-5.02	94.46	104.00
1	A	320	A	C5'-C4'-O4'	5.02	115.12	109.10
1	A	336	A	C5'-C4'-C3'	-5.02	107.97	116.00
1	A	407	U	O4'-C1'-C2'	5.02	112.12	107.60
1	A	1000	A	O3'-P-O5'	-5.02	94.46	104.00
1	A	1111	A	C5-C6-N1	-5.02	115.19	117.70
1	A	1309	G	C4-C5-C6	5.02	121.81	118.80
1	A	1334	G	N9-C4-C5	-5.02	103.39	105.40
1	A	1391	U	N1-C2-O2	-5.02	119.29	122.80
1	A	1488	G	C2-N3-C4	5.02	114.41	111.90
1	A	1511	G	N1-C2-N2	-5.02	111.68	116.20
22	W	81	TRP	N-CA-C	-5.02	97.45	111.00
1	A	578	C	C2-N1-C1'	-5.02	113.28	118.80
1	A	601	G	N3-C2-N2	5.02	123.41	119.90
1	A	955	U	C5-C6-N1	5.02	125.21	122.70
1	A	1265	C	P-O5'-C5'	-5.02	112.87	120.90
1	A	1344	C	C5'-C4'-O4'	5.02	115.12	109.10
4	D	134	TYR	CA-CB-CG	-5.02	103.86	113.40
1	A	47	C	C2-N1-C1'	-5.02	113.28	118.80
1	A	419	C	N3-C4-C5	-5.02	119.89	121.90
3	C	183	TYR	N-CA-C	-5.02	97.45	111.00
1	A	36	C	N3-C4-N4	5.01	121.51	118.00
1	A	636	U	C5'-C4'-C3'	5.01	124.03	116.00
1	A	650	G	O4'-C1'-N9	-5.01	104.19	108.20
1	A	1252	A	P-O3'-C3'	-5.01	113.68	119.70
5	E	39	GLY	N-CA-C	-5.01	100.56	113.10
11	K	45	THR	N-CA-CB	5.01	119.83	110.30
13	M	19	THR	CA-C-N	-5.01	106.17	117.20
22	W	50	MET	CA-CB-CG	5.01	121.82	113.30
1	A	196	A	C5-C6-N6	-5.01	119.69	123.70
1	A	453	G	N3-C4-C5	-5.01	126.09	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	475	C	O3'-P-O5'	-5.01	94.48	104.00
1	A	614	C	C2'-C3'-O3'	5.01	121.72	113.70
1	A	691	G	C2'-C3'-O3'	5.01	121.72	113.70
1	A	1261	A	O4'-C1'-C2'	-5.01	100.79	105.80
1	A	78	A	P-O5'-C5'	-5.01	112.88	120.90
1	A	197	A	O4'-C4'-C3'	-5.01	98.99	104.00
1	A	467	U	N1-C2-O2	5.01	126.31	122.80
1	A	832	G	O5'-C5'-C4'	-5.01	102.18	111.70
1	A	858	G	C8-N9-C1'	-5.01	120.48	127.00
1	A	972	C	N1-C2-N3	5.01	122.71	119.20
1	A	1242	G	C6-C5-N7	-5.01	127.39	130.40
1	A	1343	G	O3'-P-O5'	-5.01	94.48	104.00
1	A	1494	G	N9-C1'-C2'	-5.01	106.49	112.00
1	A	67	C	C4'-C3'-O3'	-5.01	98.88	109.40
1	A	133	U	C4'-C3'-C2'	5.01	107.61	102.60
1	A	333	U	O3'-P-O5'	5.01	113.52	104.00
1	A	438	U	O3'-P-O5'	-5.01	94.48	104.00
1	A	647	C	O4'-C4'-C3'	-5.01	98.99	104.00
1	A	795	C	C5'-C4'-O4'	5.01	115.11	109.10
1	A	924	C	C3'-C2'-C1'	-5.01	97.49	101.50
1	A	943	U	N3-C4-O4	5.01	122.91	119.40
1	A	1202	U	C4'-C3'-C2'	-5.01	97.59	102.60
1	A	1252	A	N9-C4-C5	-5.01	103.80	105.80
1	A	1344	C	C6-N1-C1'	5.01	126.81	120.80
1	A	1506	U	C4'-C3'-C2'	-5.01	97.59	102.60
5	E	19	ARG	CA-C-N	-5.01	106.18	117.20
1	A	107	G	C5-C6-O6	-5.01	125.59	128.60
1	A	327	A	C4-N9-C1'	5.01	135.31	126.30
1	A	452	A	C4-C5-C6	5.01	119.50	117.00
1	A	818	G	C4-C5-C6	5.01	121.81	118.80
1	A	934	C	C2-N1-C1'	-5.01	113.29	118.80
1	A	1216	A	C5-C6-N1	-5.01	115.20	117.70
4	D	81	LEU	C-N-CA	5.01	134.22	121.70
1	A	97	G	C8-N9-C1'	-5.01	120.49	127.00
1	A	100	G	C4-C5-C6	5.01	121.80	118.80
1	A	185	U	P-O5'-C5'	5.01	128.91	120.90
1	A	312	C	C6-N1-C2	-5.01	118.30	120.30
1	A	341	C	C5'-C4'-C3'	5.01	124.01	116.00
1	A	579	A	C8-N9-C4	-5.01	103.80	105.80
1	A	606	G	OP1-P-OP2	-5.01	112.09	119.60
1	A	839	C	O3'-P-O5'	5.01	113.51	104.00
1	A	872	A	C8-N9-C4	-5.01	103.80	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	1052	U	C2-N3-C4	5.01	130.00	127.00
1	A	1241	G	C6-N1-C2	5.01	128.10	125.10
1	A	1430	A	C3'-C2'-C1'	-5.01	97.50	101.50
1	A	1483	A	N1-C2-N3	5.01	131.80	129.30
1	A	1494	G	C2'-C3'-O3'	5.01	121.71	113.70
2	B	184	ALA	N-CA-CB	5.01	117.11	110.10
3	C	53	ARG	N-CA-CB	5.01	119.61	110.60
6	F	44	ARG	NE-CZ-NH1	5.01	122.80	120.30
10	J	46	LYS	C-N-CA	5.01	134.22	121.70
1	A	27	G	C3'-C2'-C1'	-5.00	97.50	101.50
1	A	143	A	C1'-O4'-C4'	-5.00	105.90	109.90
1	A	815	A	C5-C6-N6	-5.00	119.70	123.70
1	A	293	G	P-O3'-C3'	-5.00	113.70	119.70
1	A	575	G	C4-C5-C6	5.00	121.80	118.80
1	A	947	G	C3'-C2'-C1'	-5.00	97.50	101.50
1	A	967	C	N3-C4-C5	-5.00	119.90	121.90
1	A	1401	G	O3'-P-O5'	-5.00	94.49	104.00
1	A	1510	C	C2-N3-C4	5.00	122.40	119.90
1	A	30	U	N3-C4-C5	-5.00	111.60	114.60
1	A	185	U	C2-N3-C4	5.00	130.00	127.00
1	A	524	G	C4-C5-C6	5.00	121.80	118.80
1	A	576	C	C1'-O4'-C4'	5.00	113.90	109.90
1	A	810	C	N3-C4-N4	5.00	121.50	118.00
1	A	1165	U	C6-N1-C2	-5.00	118.00	121.00
1	A	1263	C	C6-N1-C1'	5.00	126.80	120.80

There are no chirality outliers.

All (1419) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	10	A	Sidechain
1	A	100	G	Sidechain
1	A	1001	C	Sidechain
1	A	1002	G	Sidechain
1	A	1003	G	Sidechain
1	A	1004	A	Sidechain
1	A	1005	A	Sidechain
1	A	1006	G	Sidechain
1	A	1007	U	Sidechain
1	A	1008	U	Sidechain
1	A	1009	U	Sidechain
1	A	1010	U	Sidechain

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Mol	Chain	Res	Type	Group
1	A	1012	A	Sidechain
1	A	1013	G	Sidechain
1	A	1014	A	Sidechain
1	A	1016	A	Sidechain
1	A	1017	U	Sidechain
1	A	1018	G	Sidechain
1	A	1019	A	Sidechain
1	A	102	G	Sidechain
1	A	1020	G	Sidechain
1	A	1021	A	Sidechain
1	A	1022	A	Sidechain
1	A	1023	U	Sidechain
1	A	1024	G	Sidechain
1	A	1025	U	Sidechain
1	A	1026	G	Sidechain
1	A	1029	U	Sidechain
1	A	1030	U	Sidechain
1	A	1032	G	Sidechain
1	A	1033	G	Sidechain
1	A	1035	A	Sidechain
1	A	1036	A	Sidechain
1	A	1037	C	Sidechain
1	A	1038	C	Sidechain
1	A	1039	G	Sidechain
1	A	104	G	Sidechain
1	A	1040	U	Sidechain
1	A	1041	G	Sidechain
1	A	1043	G	Sidechain
1	A	1044	A	Sidechain
1	A	1045	C	Sidechain
1	A	1047	G	Sidechain
1	A	1048	G	Sidechain
1	A	1049	U	Sidechain
1	A	105	G	Sidechain
1	A	1050	G	Sidechain
1	A	1052	U	Sidechain
1	A	1053	G	Sidechain
1	A	1054	C	Sidechain
1	A	1055	A	Sidechain
1	A	1056	U	Sidechain
1	A	1058	G	Sidechain
1	A	1059	C	Sidechain

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Mol	Chain	Res	Type	Group
1	A	106	C	Sidechain
1	A	1060	U	Sidechain
1	A	1061	G	Sidechain
1	A	1062	U	Sidechain
1	A	1063	C	Sidechain
1	A	1064	G	Sidechain
1	A	1065	U	Sidechain
1	A	1066	C	Sidechain
1	A	1067	A	Sidechain
1	A	1068	G	Sidechain
1	A	1069	C	Sidechain
1	A	107	G	Sidechain
1	A	1070	U	Sidechain
1	A	1072	G	Sidechain
1	A	1073	U	Sidechain
1	A	1074	G	Sidechain
1	A	1075	U	Sidechain
1	A	1076	U	Sidechain
1	A	1077	G	Sidechain
1	A	1079	G	Sidechain
1	A	108	G	Sidechain
1	A	1080	A	Sidechain
1	A	1081	A	Sidechain
1	A	1083	U	Sidechain
1	A	1084	G	Sidechain
1	A	1085	U	Sidechain
1	A	1086	U	Sidechain
1	A	1087	G	Sidechain
1	A	1088	G	Sidechain
1	A	1089	G	Sidechain
1	A	109	A	Sidechain
1	A	1090	U	Sidechain
1	A	1091	U	Sidechain
1	A	1092	A	Sidechain
1	A	1093	A	Sidechain
1	A	1094	G	Sidechain
1	A	1095	U	Sidechain
1	A	1096	C	Sidechain
1	A	1098	C	Sidechain
1	A	1099	G	Sidechain
1	A	11	G	Sidechain
1	A	1100	C	Sidechain

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Mol	Chain	Res	Type	Group
1	A	1101	A	Sidechain
1	A	1102	A	Sidechain
1	A	1103	C	Sidechain
1	A	1104	G	Sidechain
1	A	1106	G	Sidechain
1	A	1108	G	Sidechain
1	A	111	G	Sidechain
1	A	1110	A	Sidechain
1	A	1113	C	Sidechain
1	A	1114	C	Sidechain
1	A	1115	U	Sidechain
1	A	1116	U	Sidechain
1	A	1117	A	Sidechain
1	A	1118	U	Sidechain
1	A	1119	C	Sidechain
1	A	112	G	Sidechain
1	A	1120	C	Sidechain
1	A	1121	U	Sidechain
1	A	1122	U	Sidechain
1	A	1123	U	Sidechain
1	A	1124	G	Sidechain
1	A	1126	U	Sidechain
1	A	1127	G	Sidechain
1	A	1129	C	Sidechain
1	A	1130	A	Sidechain
1	A	1131	G	Sidechain
1	A	1133	G	Sidechain
1	A	1134	G	Sidechain
1	A	1136	C	Sidechain
1	A	1138	G	Sidechain
1	A	1139	G	Sidechain
1	A	114	U	Sidechain
1	A	1140	C	Sidechain
1	A	1141	C	Sidechain
1	A	1142	G	Sidechain
1	A	1144	G	Sidechain
1	A	1145	A	Sidechain
1	A	1146	A	Sidechain
1	A	1147	C	Sidechain
1	A	1148	U	Sidechain
1	A	1149	C	Sidechain
1	A	1150	A	Sidechain

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Mol	Chain	Res	Type	Group
1	A	1151	A	Sidechain
1	A	1152	A	Sidechain
1	A	1153	G	Sidechain
1	A	1156	G	Sidechain
1	A	1157	A	Sidechain
1	A	1159	U	Sidechain
1	A	116	A	Sidechain
1	A	1160	G	Sidechain
1	A	1161	C	Sidechain
1	A	1162	C	Sidechain
1	A	1163	A	Sidechain
1	A	1164	G	Sidechain
1	A	1165	U	Sidechain
1	A	1166	G	Sidechain
1	A	1167	A	Sidechain
1	A	1168	U	Sidechain
1	A	117	G	Sidechain
1	A	1171	A	Sidechain
1	A	1173	U	Sidechain
1	A	1174	G	Sidechain
1	A	1175	G	Sidechain
1	A	1177	G	Sidechain
1	A	1178	G	Sidechain
1	A	1179	A	Sidechain
1	A	118	U	Sidechain
1	A	1180	A	Sidechain
1	A	1181	G	Sidechain
1	A	1182	G	Sidechain
1	A	1183	U	Sidechain
1	A	1184	G	Sidechain
1	A	1185	G	Sidechain
1	A	1186	G	Sidechain
1	A	1187	G	Sidechain
1	A	1188	A	Sidechain
1	A	1189	U	Sidechain
1	A	119	A	Sidechain
1	A	1190	G	Sidechain
1	A	1191	A	Sidechain
1	A	1192	C	Sidechain
1	A	1193	G	Sidechain
1	A	1194	U	Sidechain
1	A	1195	C	Sidechain

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Mol	Chain	Res	Type	Group
1	A	1196	A	Sidechain
1	A	1197	A	Sidechain
1	A	1199	U	Sidechain
1	A	12	U	Sidechain
1	A	120	A	Sidechain
1	A	1201	A	Sidechain
1	A	1204	A	Sidechain
1	A	1205	U	Sidechain
1	A	1206	G	Sidechain
1	A	1207	G	Sidechain
1	A	1209	C	Sidechain
1	A	121	U	Sidechain
1	A	1210	C	Sidechain
1	A	1211	U	Sidechain
1	A	1212	U	Sidechain
1	A	1213	A	Sidechain
1	A	1214	C	Sidechain
1	A	1215	G	Sidechain
1	A	1219	A	Sidechain
1	A	122	G	Sidechain
1	A	1221	G	Sidechain
1	A	1222	G	Sidechain
1	A	1223	C	Sidechain
1	A	1224	U	Sidechain
1	A	1226	C	Sidechain
1	A	1227	A	Sidechain
1	A	1228	C	Sidechain
1	A	1229	A	Sidechain
1	A	123	U	Sidechain
1	A	1231	G	Sidechain
1	A	1232	U	Sidechain
1	A	1233	G	Sidechain
1	A	1234	C	Sidechain
1	A	1235	U	Sidechain
1	A	1236	A	Sidechain
1	A	1237	C	Sidechain
1	A	1238	A	Sidechain
1	A	1239	A	Sidechain
1	A	124	C	Sidechain
1	A	1240	U	Sidechain
1	A	1241	G	Sidechain
1	A	1242	G	Sidechain

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Mol	Chain	Res	Type	Group
1	A	1244	G	Sidechain
1	A	1245	C	Sidechain
1	A	1246	A	Sidechain
1	A	1247	U	Sidechain
1	A	1248	A	Sidechain
1	A	1249	C	Sidechain
1	A	125	U	Sidechain
1	A	1250	A	Sidechain
1	A	1251	A	Sidechain
1	A	1252	A	Sidechain
1	A	1253	G	Sidechain
1	A	1254	A	Sidechain
1	A	1256	A	Sidechain
1	A	1257	A	Sidechain
1	A	1258	G	Sidechain
1	A	1259	C	Sidechain
1	A	126	G	Sidechain
1	A	1262	C	Sidechain
1	A	1263	C	Sidechain
1	A	1264	U	Sidechain
1	A	1265	C	Sidechain
1	A	1266	G	Sidechain
1	A	1267	C	Sidechain
1	A	1268	G	Sidechain
1	A	1269	A	Sidechain
1	A	127	G	Sidechain
1	A	1270	G	Sidechain
1	A	1272	G	Sidechain
1	A	1273	C	Sidechain
1	A	1274	A	Sidechain
1	A	1275	A	Sidechain
1	A	1276	G	Sidechain
1	A	1277	C	Sidechain
1	A	1278	G	Sidechain
1	A	1279	G	Sidechain
1	A	128	G	Sidechain
1	A	1280	A	Sidechain
1	A	1281	C	Sidechain
1	A	1282	C	Sidechain
1	A	1283	U	Sidechain
1	A	1284	C	Sidechain
1	A	1285	A	Sidechain

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Mol	Chain	Res	Type	Group
1	A	1286	U	Sidechain
1	A	1288	A	Sidechain
1	A	1289	A	Sidechain
1	A	129	A	Sidechain
1	A	1290	G	Sidechain
1	A	1291	U	Sidechain
1	A	1292	G	Sidechain
1	A	1293	C	Sidechain
1	A	1294	G	Sidechain
1	A	1295	U	Sidechain
1	A	1296	C	Sidechain
1	A	1297	G	Sidechain
1	A	1298	U	Sidechain
1	A	1299	A	Sidechain
1	A	13	U	Sidechain
1	A	130	A	Sidechain
1	A	1300	G	Sidechain
1	A	1302	C	Sidechain
1	A	1303	C	Sidechain
1	A	1304	G	Sidechain
1	A	1305	G	Sidechain
1	A	1306	A	Sidechain
1	A	1308	U	Sidechain
1	A	1309	G	Sidechain
1	A	131	A	Sidechain
1	A	1310	G	Sidechain
1	A	1311	A	Sidechain
1	A	1312	G	Sidechain
1	A	1313	U	Sidechain
1	A	1314	C	Sidechain
1	A	1315	U	Sidechain
1	A	1316	G	Sidechain
1	A	1317	C	Sidechain
1	A	1318	A	Sidechain
1	A	1319	A	Sidechain
1	A	132	C	Sidechain
1	A	1321	U	Sidechain
1	A	1323	G	Sidechain
1	A	1324	A	Sidechain
1	A	1325	C	Sidechain
1	A	1326	U	Sidechain
1	A	1328	C	Sidechain

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Mol	Chain	Res	Type	Group
1	A	133	U	Sidechain
1	A	1331	G	Sidechain
1	A	1332	A	Sidechain
1	A	1334	G	Sidechain
1	A	1335	U	Sidechain
1	A	1336	C	Sidechain
1	A	1337	G	Sidechain
1	A	1338	G	Sidechain
1	A	134	G	Sidechain
1	A	1340	A	Sidechain
1	A	1342	C	Sidechain
1	A	1345	U	Sidechain
1	A	1346	A	Sidechain
1	A	1347	G	Sidechain
1	A	1349	A	Sidechain
1	A	135	C	Sidechain
1	A	1350	A	Sidechain
1	A	1351	U	Sidechain
1	A	1352	C	Sidechain
1	A	1353	G	Sidechain
1	A	1355	G	Sidechain
1	A	1356	G	Sidechain
1	A	1357	A	Sidechain
1	A	1358	U	Sidechain
1	A	1359	C	Sidechain
1	A	136	C	Sidechain
1	A	1360	A	Sidechain
1	A	1361	G	Sidechain
1	A	1362	A	Sidechain
1	A	1363	A	Sidechain
1	A	1364	U	Sidechain
1	A	1365	G	Sidechain
1	A	1366	C	Sidechain
1	A	1367	C	Sidechain
1	A	1368	A	Sidechain
1	A	1369	C	Sidechain
1	A	1370	G	Sidechain
1	A	1371	G	Sidechain
1	A	1372	U	Sidechain
1	A	1373	G	Sidechain
1	A	1374	A	Sidechain
1	A	1375	A	Sidechain

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Mol	Chain	Res	Type	Group
1	A	1376	U	Sidechain
1	A	1377	A	Sidechain
1	A	1379	G	Sidechain
1	A	1380	U	Sidechain
1	A	1382	C	Sidechain
1	A	1383	C	Sidechain
1	A	1384	C	Sidechain
1	A	1385	G	Sidechain
1	A	1386	G	Sidechain
1	A	139	A	Sidechain
1	A	1390	U	Sidechain
1	A	1391	U	Sidechain
1	A	1392	G	Sidechain
1	A	1393	U	Sidechain
1	A	1394	A	Sidechain
1	A	1395	C	Sidechain
1	A	1399	C	Sidechain
1	A	14	U	Sidechain
1	A	140	U	Sidechain
1	A	1401	G	Sidechain
1	A	1402	C	Sidechain
1	A	1403	C	Sidechain
1	A	1404	C	Sidechain
1	A	1405	G	Sidechain
1	A	1406	U	Sidechain
1	A	1407	C	Sidechain
1	A	1408	A	Sidechain
1	A	1409	C	Sidechain
1	A	141	G	Sidechain
1	A	1410	A	Sidechain
1	A	1413	A	Sidechain
1	A	1414	U	Sidechain
1	A	1415	G	Sidechain
1	A	1416	G	Sidechain
1	A	1417	G	Sidechain
1	A	1418	A	Sidechain
1	A	1419	G	Sidechain
1	A	142	G	Sidechain
1	A	1421	G	Sidechain
1	A	1422	G	Sidechain
1	A	1425	U	Sidechain
1	A	1427	C	Sidechain

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Mol	Chain	Res	Type	Group
1	A	1428	A	Sidechain
1	A	143	A	Sidechain
1	A	1430	A	Sidechain
1	A	1431	A	Sidechain
1	A	1432	G	Sidechain
1	A	1433	A	Sidechain
1	A	1435	G	Sidechain
1	A	1436	U	Sidechain
1	A	1437	A	Sidechain
1	A	1438	G	Sidechain
1	A	1439	G	Sidechain
1	A	144	G	Sidechain
1	A	1441	A	Sidechain
1	A	1442	G	Sidechain
1	A	1443	C	Sidechain
1	A	1444	U	Sidechain
1	A	1445	U	Sidechain
1	A	1446	A	Sidechain
1	A	1448	C	Sidechain
1	A	145	G	Sidechain
1	A	1450	U	Sidechain
1	A	1451	U	Sidechain
1	A	1452	C	Sidechain
1	A	1453	G	Sidechain
1	A	1454	G	Sidechain
1	A	1455	G	Sidechain
1	A	1456	A	Sidechain
1	A	1458	G	Sidechain
1	A	1459	G	Sidechain
1	A	146	G	Sidechain
1	A	1460	C	Sidechain
1	A	1461	G	Sidechain
1	A	1462	C	Sidechain
1	A	1463	U	Sidechain
1	A	1464	U	Sidechain
1	A	1465	A	Sidechain
1	A	1468	A	Sidechain
1	A	1469	C	Sidechain
1	A	147	G	Sidechain
1	A	1470	U	Sidechain
1	A	1471	U	Sidechain
1	A	1472	U	Sidechain

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Mol	Chain	Res	Type	Group
1	A	1473	G	Sidechain
1	A	1474	U	Sidechain
1	A	1476	A	Sidechain
1	A	1477	U	Sidechain
1	A	1479	C	Sidechain
1	A	148	G	Sidechain
1	A	1480	A	Sidechain
1	A	1481	U	Sidechain
1	A	1482	G	Sidechain
1	A	1483	A	Sidechain
1	A	1485	U	Sidechain
1	A	1486	G	Sidechain
1	A	1487	G	Sidechain
1	A	1489	G	Sidechain
1	A	1491	G	Sidechain
1	A	1493	A	Sidechain
1	A	1494	G	Sidechain
1	A	1497	G	Sidechain
1	A	1499	A	Sidechain
1	A	15	G	Sidechain
1	A	150	U	Sidechain
1	A	1500	A	Sidechain
1	A	1501	C	Sidechain
1	A	1502	A	Sidechain
1	A	1503	A	Sidechain
1	A	1504	G	Sidechain
1	A	1506	U	Sidechain
1	A	151	A	Sidechain
1	A	1510	C	Sidechain
1	A	1513	A	Sidechain
1	A	1514	G	Sidechain
1	A	1515	G	Sidechain
1	A	1516	G	Sidechain
1	A	1519	A	Sidechain
1	A	152	A	Sidechain
1	A	1520	C	Sidechain
1	A	1522	U	Sidechain
1	A	1523	G	Sidechain
1	A	1524	C	Sidechain
1	A	1525	G	Sidechain
1	A	1526	G	Sidechain
1	A	1527	U	Sidechain

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Mol	Chain	Res	Type	Group
1	A	1529	G	Sidechain
1	A	153	C	Sidechain
1	A	1531	A	Sidechain
1	A	1533	C	Sidechain
1	A	1534	A	Sidechain
1	A	154	U	Sidechain
1	A	155	A	Sidechain
1	A	157	U	Sidechain
1	A	158	G	Sidechain
1	A	159	G	Sidechain
1	A	16	A	Sidechain
1	A	160	A	Sidechain
1	A	161	A	Sidechain
1	A	162	A	Sidechain
1	A	163	C	Sidechain
1	A	167	A	Sidechain
1	A	168	G	Sidechain
1	A	169	C	Sidechain
1	A	17	U	Sidechain
1	A	170	U	Sidechain
1	A	172	A	Sidechain
1	A	174	A	Sidechain
1	A	176	C	Sidechain
1	A	177	G	Sidechain
1	A	178	C	Sidechain
1	A	180	U	Sidechain
1	A	181	A	Sidechain
1	A	182	A	Sidechain
1	A	183	C	Sidechain
1	A	184	G	Sidechain
1	A	185	U	Sidechain
1	A	186	C	Sidechain
1	A	187	G	Sidechain
1	A	188	C	Sidechain
1	A	190	A	Sidechain
1	A	191	G	Sidechain
1	A	192	A	Sidechain
1	A	193	C	Sidechain
1	A	194	C	Sidechain
1	A	195	A	Sidechain
1	A	196	A	Sidechain
1	A	197	A	Sidechain

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Mol	Chain	Res	Type	Group
1	A	2	A	Sidechain
1	A	200	G	Sidechain
1	A	201	G	Sidechain
1	A	203	G	Sidechain
1	A	204	G	Sidechain
1	A	207	C	Sidechain
1	A	208	U	Sidechain
1	A	21	G	Sidechain
1	A	210	C	Sidechain
1	A	211	G	Sidechain
1	A	212	G	Sidechain
1	A	213	G	Sidechain
1	A	214	C	Sidechain
1	A	215	C	Sidechain
1	A	216	U	Sidechain
1	A	218	U	Sidechain
1	A	219	U	Sidechain
1	A	220	G	Sidechain
1	A	221	C	Sidechain
1	A	222	C	Sidechain
1	A	223	A	Sidechain
1	A	225	C	Sidechain
1	A	226	G	Sidechain
1	A	227	G	Sidechain
1	A	228	A	Sidechain
1	A	229	U	Sidechain
1	A	231	U	Sidechain
1	A	232	G	Sidechain
1	A	233	C	Sidechain
1	A	234	C	Sidechain
1	A	235	C	Sidechain
1	A	237	G	Sidechain
1	A	239	U	Sidechain
1	A	24	U	Sidechain
1	A	240	G	Sidechain
1	A	242	G	Sidechain
1	A	243	A	Sidechain
1	A	244	U	Sidechain
1	A	246	A	Sidechain
1	A	247	G	Sidechain
1	A	249	U	Sidechain
1	A	25	C	Sidechain

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Mol	Chain	Res	Type	Group
1	A	251	G	Sidechain
1	A	254	G	Sidechain
1	A	255	G	Sidechain
1	A	256	U	Sidechain
1	A	257	G	Sidechain
1	A	258	G	Sidechain
1	A	259	G	Sidechain
1	A	261	U	Sidechain
1	A	262	A	Sidechain
1	A	263	A	Sidechain
1	A	264	C	Sidechain
1	A	265	G	Sidechain
1	A	266	G	Sidechain
1	A	267	C	Sidechain
1	A	268	U	Sidechain
1	A	269	C	Sidechain
1	A	270	A	Sidechain
1	A	271	C	Sidechain
1	A	272	C	Sidechain
1	A	273	U	Sidechain
1	A	274	A	Sidechain
1	A	275	G	Sidechain
1	A	276	G	Sidechain
1	A	278	G	Sidechain
1	A	28	A	Sidechain
1	A	281	G	Sidechain
1	A	282	A	Sidechain
1	A	283	U	Sidechain
1	A	284	C	Sidechain
1	A	286	C	Sidechain
1	A	287	U	Sidechain
1	A	288	A	Sidechain
1	A	289	G	Sidechain
1	A	29	U	Sidechain
1	A	291	U	Sidechain
1	A	292	G	Sidechain
1	A	293	G	Sidechain
1	A	294	U	Sidechain
1	A	295	C	Sidechain
1	A	296	U	Sidechain
1	A	297	G	Sidechain
1	A	298	A	Sidechain

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Mol	Chain	Res	Type	Group
1	A	3	A	Sidechain
1	A	30	U	Sidechain
1	A	301	G	Sidechain
1	A	303	A	Sidechain
1	A	304	U	Sidechain
1	A	305	G	Sidechain
1	A	306	A	Sidechain
1	A	308	C	Sidechain
1	A	309	A	Sidechain
1	A	31	G	Sidechain
1	A	310	G	Sidechain
1	A	312	C	Sidechain
1	A	314	C	Sidechain
1	A	315	A	Sidechain
1	A	316	C	Sidechain
1	A	317	U	Sidechain
1	A	318	G	Sidechain
1	A	319	G	Sidechain
1	A	32	A	Sidechain
1	A	320	A	Sidechain
1	A	321	A	Sidechain
1	A	322	C	Sidechain
1	A	323	U	Sidechain
1	A	324	G	Sidechain
1	A	325	A	Sidechain
1	A	326	G	Sidechain
1	A	328	C	Sidechain
1	A	329	A	Sidechain
1	A	33	A	Sidechain
1	A	330	C	Sidechain
1	A	331	G	Sidechain
1	A	332	G	Sidechain
1	A	333	U	Sidechain
1	A	334	C	Sidechain
1	A	335	C	Sidechain
1	A	337	G	Sidechain
1	A	338	A	Sidechain
1	A	339	C	Sidechain
1	A	34	C	Sidechain
1	A	340	U	Sidechain
1	A	341	C	Sidechain
1	A	342	C	Sidechain

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Mol	Chain	Res	Type	Group
1	A	343	U	Sidechain
1	A	345	C	Sidechain
1	A	346	G	Sidechain
1	A	347	G	Sidechain
1	A	348	G	Sidechain
1	A	349	A	Sidechain
1	A	35	G	Sidechain
1	A	350	G	Sidechain
1	A	351	G	Sidechain
1	A	352	C	Sidechain
1	A	353	A	Sidechain
1	A	356	A	Sidechain
1	A	357	G	Sidechain
1	A	358	U	Sidechain
1	A	359	G	Sidechain
1	A	360	G	Sidechain
1	A	361	G	Sidechain
1	A	362	G	Sidechain
1	A	363	A	Sidechain
1	A	365	U	Sidechain
1	A	366	A	Sidechain
1	A	368	U	Sidechain
1	A	369	G	Sidechain
1	A	370	C	Sidechain
1	A	371	A	Sidechain
1	A	372	C	Sidechain
1	A	373	A	Sidechain
1	A	374	A	Sidechain
1	A	376	G	Sidechain
1	A	377	G	Sidechain
1	A	378	G	Sidechain
1	A	38	G	Sidechain
1	A	380	G	Sidechain
1	A	381	C	Sidechain
1	A	382	A	Sidechain
1	A	384	G	Sidechain
1	A	388	G	Sidechain
1	A	389	A	Sidechain
1	A	39	G	Sidechain
1	A	391	G	Sidechain
1	A	393	A	Sidechain
1	A	394	G	Sidechain

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Mol	Chain	Res	Type	Group
1	A	396	C	Sidechain
1	A	397	A	Sidechain
1	A	398	U	Sidechain
1	A	399	G	Sidechain
1	A	4	U	Sidechain
1	A	401	C	Sidechain
1	A	403	C	Sidechain
1	A	404	G	Sidechain
1	A	405	U	Sidechain
1	A	406	G	Sidechain
1	A	408	A	Sidechain
1	A	409	U	Sidechain
1	A	410	G	Sidechain
1	A	411	A	Sidechain
1	A	412	A	Sidechain
1	A	413	G	Sidechain
1	A	418	C	Sidechain
1	A	42	G	Sidechain
1	A	420	U	Sidechain
1	A	421	U	Sidechain
1	A	422	C	Sidechain
1	A	423	G	Sidechain
1	A	424	G	Sidechain
1	A	425	G	Sidechain
1	A	426	U	Sidechain
1	A	427	U	Sidechain
1	A	428	G	Sidechain
1	A	429	U	Sidechain
1	A	43	C	Sidechain
1	A	430	A	Sidechain
1	A	431	A	Sidechain
1	A	432	A	Sidechain
1	A	433	G	Sidechain
1	A	434	U	Sidechain
1	A	435	A	Sidechain
1	A	436	C	Sidechain
1	A	437	U	Sidechain
1	A	438	U	Sidechain
1	A	439	U	Sidechain
1	A	440	C	Sidechain
1	A	441	A	Sidechain
1	A	442	G	Sidechain

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Mol	Chain	Res	Type	Group
1	A	443	C	Sidechain
1	A	444	G	Sidechain
1	A	446	G	Sidechain
1	A	447	G	Sidechain
1	A	448	A	Sidechain
1	A	449	G	Sidechain
1	A	45	G	Sidechain
1	A	450	G	Sidechain
1	A	451	A	Sidechain
1	A	452	A	Sidechain
1	A	453	G	Sidechain
1	A	454	G	Sidechain
1	A	455	G	Sidechain
1	A	456	A	Sidechain
1	A	457	G	Sidechain
1	A	458	U	Sidechain
1	A	459	A	Sidechain
1	A	46	G	Sidechain
1	A	460	A	Sidechain
1	A	461	A	Sidechain
1	A	462	G	Sidechain
1	A	463	U	Sidechain
1	A	464	U	Sidechain
1	A	465	A	Sidechain
1	A	466	A	Sidechain
1	A	467	U	Sidechain
1	A	468	A	Sidechain
1	A	469	C	Sidechain
1	A	47	C	Sidechain
1	A	470	C	Sidechain
1	A	471	U	Sidechain
1	A	472	U	Sidechain
1	A	473	U	Sidechain
1	A	474	G	Sidechain
1	A	476	U	Sidechain
1	A	477	C	Sidechain
1	A	478	A	Sidechain
1	A	479	U	Sidechain
1	A	480	U	Sidechain
1	A	481	G	Sidechain
1	A	482	A	Sidechain
1	A	483	C	Sidechain

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Mol	Chain	Res	Type	Group
1	A	484	G	Sidechain
1	A	485	U	Sidechain
1	A	486	U	Sidechain
1	A	49	U	Sidechain
1	A	490	C	Sidechain
1	A	491	G	Sidechain
1	A	492	C	Sidechain
1	A	494	G	Sidechain
1	A	495	A	Sidechain
1	A	496	A	Sidechain
1	A	497	G	Sidechain
1	A	498	A	Sidechain
1	A	499	A	Sidechain
1	A	5	U	Sidechain
1	A	50	A	Sidechain
1	A	500	G	Sidechain
1	A	501	C	Sidechain
1	A	502	A	Sidechain
1	A	503	C	Sidechain
1	A	505	G	Sidechain
1	A	506	G	Sidechain
1	A	507	C	Sidechain
1	A	508	U	Sidechain
1	A	509	A	Sidechain
1	A	51	A	Sidechain
1	A	510	A	Sidechain
1	A	511	C	Sidechain
1	A	512	U	Sidechain
1	A	514	C	Sidechain
1	A	515	G	Sidechain
1	A	516	U	Sidechain
1	A	517	G	Sidechain
1	A	518	C	Sidechain
1	A	519	C	Sidechain
1	A	52	C	Sidechain
1	A	520	A	Sidechain
1	A	521	G	Sidechain
1	A	522	C	Sidechain
1	A	524	G	Sidechain
1	A	525	C	Sidechain
1	A	526	C	Sidechain
1	A	527	G	Sidechain

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Mol	Chain	Res	Type	Group
1	A	528	C	Sidechain
1	A	529	G	Sidechain
1	A	53	A	Sidechain
1	A	530	G	Sidechain
1	A	531	U	Sidechain
1	A	532	A	Sidechain
1	A	533	A	Sidechain
1	A	534	U	Sidechain
1	A	535	A	Sidechain
1	A	536	C	Sidechain
1	A	537	G	Sidechain
1	A	538	G	Sidechain
1	A	54	C	Sidechain
1	A	543	U	Sidechain
1	A	545	C	Sidechain
1	A	546	A	Sidechain
1	A	547	A	Sidechain
1	A	548	G	Sidechain
1	A	549	C	Sidechain
1	A	55	A	Sidechain
1	A	550	G	Sidechain
1	A	554	A	Sidechain
1	A	555	U	Sidechain
1	A	556	C	Sidechain
1	A	558	G	Sidechain
1	A	559	A	Sidechain
1	A	56	U	Sidechain
1	A	561	U	Sidechain
1	A	562	U	Sidechain
1	A	564	C	Sidechain
1	A	566	G	Sidechain
1	A	568	G	Sidechain
1	A	569	C	Sidechain
1	A	57	G	Sidechain
1	A	572	A	Sidechain
1	A	573	A	Sidechain
1	A	575	G	Sidechain
1	A	576	C	Sidechain
1	A	577	G	Sidechain
1	A	579	A	Sidechain
1	A	58	C	Sidechain
1	A	580	C	Sidechain

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Mol	Chain	Res	Type	Group
1	A	581	G	Sidechain
1	A	582	C	Sidechain
1	A	583	A	Sidechain
1	A	584	G	Sidechain
1	A	585	G	Sidechain
1	A	586	C	Sidechain
1	A	587	G	Sidechain
1	A	588	G	Sidechain
1	A	589	U	Sidechain
1	A	592	G	Sidechain
1	A	593	U	Sidechain
1	A	594	U	Sidechain
1	A	595	A	Sidechain
1	A	596	A	Sidechain
1	A	597	G	Sidechain
1	A	6	G	Sidechain
1	A	60	A	Sidechain
1	A	600	A	Sidechain
1	A	601	G	Sidechain
1	A	602	A	Sidechain
1	A	603	U	Sidechain
1	A	604	G	Sidechain
1	A	606	G	Sidechain
1	A	608	A	Sidechain
1	A	609	A	Sidechain
1	A	61	G	Sidechain
1	A	610	U	Sidechain
1	A	611	C	Sidechain
1	A	613	C	Sidechain
1	A	614	C	Sidechain
1	A	615	G	Sidechain
1	A	616	G	Sidechain
1	A	617	G	Sidechain
1	A	618	C	Sidechain
1	A	619	U	Sidechain
1	A	62	U	Sidechain
1	A	620	C	Sidechain
1	A	621	A	Sidechain
1	A	622	A	Sidechain
1	A	623	C	Sidechain
1	A	624	C	Sidechain
1	A	625	U	Sidechain

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Mol	Chain	Res	Type	Group
1	A	628	G	Sidechain
1	A	629	A	Sidechain
1	A	63	C	Sidechain
1	A	630	A	Sidechain
1	A	631	C	Sidechain
1	A	632	U	Sidechain
1	A	633	G	Sidechain
1	A	634	C	Sidechain
1	A	635	A	Sidechain
1	A	636	U	Sidechain
1	A	637	C	Sidechain
1	A	638	U	Sidechain
1	A	639	G	Sidechain
1	A	64	G	Sidechain
1	A	640	A	Sidechain
1	A	641	U	Sidechain
1	A	643	C	Sidechain
1	A	645	G	Sidechain
1	A	646	G	Sidechain
1	A	647	C	Sidechain
1	A	648	A	Sidechain
1	A	649	A	Sidechain
1	A	650	G	Sidechain
1	A	651	C	Sidechain
1	A	652	U	Sidechain
1	A	653	U	Sidechain
1	A	654	G	Sidechain
1	A	655	A	Sidechain
1	A	656	G	Sidechain
1	A	657	U	Sidechain
1	A	658	C	Sidechain
1	A	659	U	Sidechain
1	A	66	A	Sidechain
1	A	660	C	Sidechain
1	A	661	G	Sidechain
1	A	662	U	Sidechain
1	A	667	G	Sidechain
1	A	668	G	Sidechain
1	A	67	C	Sidechain
1	A	670	G	Sidechain
1	A	671	G	Sidechain
1	A	672	U	Sidechain

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Mol	Chain	Res	Type	Group
1	A	673	A	Sidechain
1	A	676	A	Sidechain
1	A	678	U	Sidechain
1	A	679	C	Sidechain
1	A	68	G	Sidechain
1	A	680	C	Sidechain
1	A	681	A	Sidechain
1	A	682	G	Sidechain
1	A	684	U	Sidechain
1	A	685	G	Sidechain
1	A	686	U	Sidechain
1	A	687	A	Sidechain
1	A	688	G	Sidechain
1	A	69	G	Sidechain
1	A	690	G	Sidechain
1	A	691	G	Sidechain
1	A	692	U	Sidechain
1	A	693	G	Sidechain
1	A	694	A	Sidechain
1	A	695	A	Sidechain
1	A	696	A	Sidechain
1	A	697	U	Sidechain
1	A	698	G	Sidechain
1	A	699	C	Sidechain
1	A	7	A	Sidechain
1	A	70	U	Sidechain
1	A	700	G	Sidechain
1	A	701	U	Sidechain
1	A	702	A	Sidechain
1	A	703	G	Sidechain
1	A	704	A	Sidechain
1	A	705	G	Sidechain
1	A	706	A	Sidechain
1	A	707	U	Sidechain
1	A	708	C	Sidechain
1	A	709	U	Sidechain
1	A	71	A	Sidechain
1	A	710	G	Sidechain
1	A	711	G	Sidechain
1	A	712	A	Sidechain
1	A	713	G	Sidechain
1	A	714	G	Sidechain

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Mol	Chain	Res	Type	Group
1	A	715	A	Sidechain
1	A	716	A	Sidechain
1	A	717	U	Sidechain
1	A	719	C	Sidechain
1	A	72	A	Sidechain
1	A	721	G	Sidechain
1	A	722	G	Sidechain
1	A	723	U	Sidechain
1	A	724	G	Sidechain
1	A	725	G	Sidechain
1	A	727	G	Sidechain
1	A	728	A	Sidechain
1	A	729	A	Sidechain
1	A	73	C	Sidechain
1	A	730	G	Sidechain
1	A	732	C	Sidechain
1	A	733	G	Sidechain
1	A	734	G	Sidechain
1	A	735	C	Sidechain
1	A	736	C	Sidechain
1	A	737	C	Sidechain
1	A	739	C	Sidechain
1	A	74	A	Sidechain
1	A	740	U	Sidechain
1	A	743	A	Sidechain
1	A	745	G	Sidechain
1	A	746	A	Sidechain
1	A	747	A	Sidechain
1	A	748	G	Sidechain
1	A	749	A	Sidechain
1	A	75	G	Sidechain
1	A	750	C	Sidechain
1	A	751	U	Sidechain
1	A	752	G	Sidechain
1	A	753	A	Sidechain
1	A	754	C	Sidechain
1	A	755	G	Sidechain
1	A	756	C	Sidechain
1	A	757	U	Sidechain
1	A	758	C	Sidechain
1	A	759	A	Sidechain
1	A	76	G	Sidechain

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Mol	Chain	Res	Type	Group
1	A	760	G	Sidechain
1	A	765	G	Sidechain
1	A	766	A	Sidechain
1	A	767	A	Sidechain
1	A	769	G	Sidechain
1	A	77	A	Sidechain
1	A	770	C	Sidechain
1	A	771	G	Sidechain
1	A	772	U	Sidechain
1	A	773	G	Sidechain
1	A	774	G	Sidechain
1	A	775	G	Sidechain
1	A	776	G	Sidechain
1	A	777	A	Sidechain
1	A	778	G	Sidechain
1	A	779	C	Sidechain
1	A	78	A	Sidechain
1	A	780	A	Sidechain
1	A	781	A	Sidechain
1	A	782	A	Sidechain
1	A	783	C	Sidechain
1	A	784	A	Sidechain
1	A	785	G	Sidechain
1	A	786	G	Sidechain
1	A	787	A	Sidechain
1	A	788	U	Sidechain
1	A	789	U	Sidechain
1	A	79	G	Sidechain
1	A	790	A	Sidechain
1	A	794	A	Sidechain
1	A	795	C	Sidechain
1	A	796	C	Sidechain
1	A	797	C	Sidechain
1	A	798	U	Sidechain
1	A	799	G	Sidechain
1	A	8	A	Sidechain
1	A	80	A	Sidechain
1	A	800	G	Sidechain
1	A	801	U	Sidechain
1	A	802	A	Sidechain
1	A	803	G	Sidechain
1	A	804	U	Sidechain

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Mol	Chain	Res	Type	Group
1	A	805	C	Sidechain
1	A	806	C	Sidechain
1	A	807	A	Sidechain
1	A	808	C	Sidechain
1	A	809	G	Sidechain
1	A	81	A	Sidechain
1	A	810	C	Sidechain
1	A	811	C	Sidechain
1	A	812	G	Sidechain
1	A	813	U	Sidechain
1	A	814	A	Sidechain
1	A	815	A	Sidechain
1	A	816	A	Sidechain
1	A	817	C	Sidechain
1	A	818	G	Sidechain
1	A	819	A	Sidechain
1	A	82	G	Sidechain
1	A	822	U	Sidechain
1	A	823	C	Sidechain
1	A	824	G	Sidechain
1	A	825	A	Sidechain
1	A	827	U	Sidechain
1	A	828	U	Sidechain
1	A	829	G	Sidechain
1	A	83	C	Sidechain
1	A	830	G	Sidechain
1	A	831	A	Sidechain
1	A	832	G	Sidechain
1	A	835	U	Sidechain
1	A	837	U	Sidechain
1	A	838	G	Sidechain
1	A	839	C	Sidechain
1	A	84	U	Sidechain
1	A	840	C	Sidechain
1	A	841	C	Sidechain
1	A	842	U	Sidechain
1	A	844	G	Sidechain
1	A	845	A	Sidechain
1	A	846	G	Sidechain
1	A	847	G	Sidechain
1	A	848	C	Sidechain
1	A	849	G	Sidechain

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Mol	Chain	Res	Type	Group
1	A	85	U	Sidechain
1	A	850	U	Sidechain
1	A	851	G	Sidechain
1	A	855	U	Sidechain
1	A	856	C	Sidechain
1	A	857	C	Sidechain
1	A	858	G	Sidechain
1	A	859	G	Sidechain
1	A	860	A	Sidechain
1	A	861	G	Sidechain
1	A	864	A	Sidechain
1	A	868	C	Sidechain
1	A	869	G	Sidechain
1	A	87	C	Sidechain
1	A	870	U	Sidechain
1	A	871	U	Sidechain
1	A	872	A	Sidechain
1	A	873	A	Sidechain
1	A	874	G	Sidechain
1	A	875	U	Sidechain
1	A	876	C	Sidechain
1	A	877	G	Sidechain
1	A	879	C	Sidechain
1	A	88	U	Sidechain
1	A	880	C	Sidechain
1	A	881	G	Sidechain
1	A	882	C	Sidechain
1	A	883	C	Sidechain
1	A	884	U	Sidechain
1	A	885	G	Sidechain
1	A	886	G	Sidechain
1	A	887	G	Sidechain
1	A	888	G	Sidechain
1	A	889	A	Sidechain
1	A	890	G	Sidechain
1	A	891	U	Sidechain
1	A	892	A	Sidechain
1	A	894	G	Sidechain
1	A	895	G	Sidechain
1	A	897	C	Sidechain
1	A	898	G	Sidechain
1	A	899	C	Sidechain

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Mol	Chain	Res	Type	Group
1	A	9	G	Sidechain
1	A	90	C	Sidechain
1	A	900	A	Sidechain
1	A	902	G	Sidechain
1	A	903	G	Sidechain
1	A	904	U	Sidechain
1	A	905	U	Sidechain
1	A	906	A	Sidechain
1	A	907	A	Sidechain
1	A	908	A	Sidechain
1	A	909	A	Sidechain
1	A	91	U	Sidechain
1	A	910	C	Sidechain
1	A	911	U	Sidechain
1	A	913	A	Sidechain
1	A	914	A	Sidechain
1	A	915	A	Sidechain
1	A	916	U	Sidechain
1	A	917	G	Sidechain
1	A	919	A	Sidechain
1	A	92	U	Sidechain
1	A	920	U	Sidechain
1	A	921	U	Sidechain
1	A	922	G	Sidechain
1	A	923	A	Sidechain
1	A	924	C	Sidechain
1	A	925	G	Sidechain
1	A	927	G	Sidechain
1	A	928	G	Sidechain
1	A	929	G	Sidechain
1	A	93	U	Sidechain
1	A	931	C	Sidechain
1	A	933	G	Sidechain
1	A	934	C	Sidechain
1	A	935	A	Sidechain
1	A	936	C	Sidechain
1	A	937	A	Sidechain
1	A	938	A	Sidechain
1	A	939	G	Sidechain
1	A	94	G	Sidechain
1	A	941	G	Sidechain
1	A	942	G	Sidechain

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Mol	Chain	Res	Type	Group
1	A	943	U	Sidechain
1	A	944	G	Sidechain
1	A	945	G	Sidechain
1	A	946	A	Sidechain
1	A	947	G	Sidechain
1	A	95	C	Sidechain
1	A	950	U	Sidechain
1	A	953	G	Sidechain
1	A	954	G	Sidechain
1	A	955	U	Sidechain
1	A	957	U	Sidechain
1	A	958	A	Sidechain
1	A	959	A	Sidechain
1	A	96	U	Sidechain
1	A	960	U	Sidechain
1	A	961	U	Sidechain
1	A	962	C	Sidechain
1	A	963	G	Sidechain
1	A	964	A	Sidechain
1	A	965	U	Sidechain
1	A	967	C	Sidechain
1	A	968	A	Sidechain
1	A	97	G	Sidechain
1	A	970	C	Sidechain
1	A	971	G	Sidechain
1	A	973	G	Sidechain
1	A	974	A	Sidechain
1	A	975	A	Sidechain
1	A	976	G	Sidechain
1	A	977	A	Sidechain
1	A	978	A	Sidechain
1	A	98	A	Sidechain
1	A	980	C	Sidechain
1	A	981	U	Sidechain
1	A	982	U	Sidechain
1	A	984	C	Sidechain
1	A	985	C	Sidechain
1	A	986	U	Sidechain
1	A	987	G	Sidechain
1	A	989	U	Sidechain
1	A	990	C	Sidechain
1	A	991	U	Sidechain

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Mol	Chain	Res	Type	Group
1	A	992	U	Sidechain
1	A	993	G	Sidechain
1	A	994	A	Sidechain
1	A	995	C	Sidechain
1	A	996	A	Sidechain
1	A	997	U	Sidechain
1	A	998	C	Sidechain
1	A	999	C	Sidechain
2	B	107	ARG	Sidechain
2	B	133	ALA	Mainchain
2	B	136	ARG	Sidechain
2	B	167	HIS	Sidechain
2	B	197	PHE	Sidechain
2	B	20	ARG	Sidechain
2	B	207	ARG	Sidechain
2	B	21	TYR	Sidechain
2	B	212	TYR	Sidechain
2	B	94	ARG	Peptide,Mainchain,Sidechain
2	B	95	TRP	Peptide,Mainchain
3	C	106	ARG	Sidechain
3	C	129	PHE	Sidechain
3	C	130	ARG	Sidechain
3	C	131	ARG	Sidechain
3	C	163	ARG	Sidechain
3	C	168	ARG	Sidechain
3	C	171	ARG	Sidechain
3	C	176	THR	Peptide,Mainchain
3	C	192	TYR	Sidechain
3	C	202	PHE	Sidechain
3	C	53	ARG	Sidechain
3	C	58	ARG	Sidechain
3	C	64	ARG	Sidechain
3	C	68	HIS	Sidechain
3	C	96	VAL	Mainchain
4	D	114	ARG	Sidechain
4	D	127	ARG	Sidechain
4	D	134	TYR	Sidechain
4	D	138	PRO	Peptide,Mainchain
4	D	181	PHE	Sidechain
4	D	25	ARG	Sidechain
4	D	3	TYR	Sidechain
4	D	40	HIS	Sidechain

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Mol	Chain	Res	Type	Group
4	D	43	ARG	Sidechain
4	D	50	TYR	Sidechain
4	D	55	ARG	Sidechain
4	D	61	ARG	Sidechain
4	D	62	ARG	Sidechain
4	D	74	TYR	Sidechain
5	E	111	ARG	Sidechain
5	E	137	ARG	Sidechain
5	E	19	ARG	Sidechain
5	E	28	ARG	Sidechain
5	E	47	PHE	Sidechain
5	E	94	PHE	Sidechain
6	F	24	ARG	Sidechain
6	F	25	TYR	Sidechain
6	F	33	GLU	Peptide
6	F	45	ARG	Sidechain
6	F	49	TYR	Sidechain
6	F	55	HIS	Sidechain
6	F	94	HIS	Sidechain
7	G	118	ARG	Sidechain
7	G	78	ARG	Sidechain
7	G	84	TYR	Sidechain
7	G	94	ARG	Sidechain
8	H	106	SER	Mainchain
8	H	113	ARG	Sidechain
8	H	116	ARG	Sidechain
8	H	127	TYR	Sidechain
8	H	47	ASP	Peptide
8	H	48	PHE	Sidechain
8	H	64	TYR	Sidechain
8	H	76	ARG	Sidechain
8	H	79	ARG	Sidechain
8	H	83	ARG	Sidechain
8	H	85	TYR	Sidechain
8	H	87	ARG	Sidechain
9	I	10	ARG	Sidechain
9	I	11	ARG	Sidechain
9	I	118	ARG	Sidechain
9	I	122	ARG	Sidechain
9	I	124	PRO	Mainchain
9	I	129	ARG	Sidechain
9	I	19	PHE	Sidechain

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Mol	Chain	Res	Type	Group
9	I	44	ARG	Sidechain
9	I	49	GLN	Mainchain
9	I	5	TYR	Sidechain
9	I	6	TYR	Sidechain
9	I	63	TYR	Sidechain
9	I	89	TYR	Sidechain
9	I	94	ARG	Sidechain
9	I	98	ARG	Sidechain
10	J	48	ARG	Sidechain
10	J	56	HIS	Mainchain
10	J	65	TYR	Sidechain
10	J	7	ARG	Sidechain
10	J	70	HIS	Sidechain
10	J	72	ARG	Sidechain
11	K	105	ARG	Sidechain
11	K	12	ARG	Sidechain
11	K	121	ARG	Sidechain
11	K	126	ARG	Sidechain
11	K	127	ARG	Sidechain
11	K	23	HIS	Sidechain
11	K	51	PHE	Sidechain
11	K	52	ARG	Sidechain
11	K	60	PHE	Sidechain
11	K	68	ARG	Sidechain
12	L	116	TYR	Sidechain
12	L	120	ARG	Sidechain
12	L	13	ARG	Sidechain
12	L	22	ALA	Peptide
12	L	30	ARG	Sidechain
12	L	49	ARG	Sidechain
12	L	82	ARG	Sidechain
13	M	100	ARG	Sidechain
13	M	106	ARG	Sidechain
13	M	111	PRO	Mainchain
13	M	112	ARG	Sidechain
13	M	13	HIS	Peptide,Mainchain
13	M	22	TYR	Sidechain
13	M	78	ARG	Sidechain
13	M	86	ARG	Sidechain
13	M	90	HIS	Sidechain
13	M	91	ARG	Sidechain
13	M	96	VAL	Mainchain

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Mol	Chain	Res	Type	Group
13	M	97	ARG	Sidechain
14	N	23	ARG	Sidechain
14	N	32	ASP	Mainchain
14	N	34	ASN	Mainchain
14	N	52	ARG	Sidechain
14	N	60	ARG	Sidechain
14	N	62	ARG	Sidechain
14	N	68	ARG	Sidechain
14	N	8	ARG	Sidechain
14	N	89	ARG	Sidechain
15	O	16	ARG	Sidechain
15	O	21	THR	Mainchain
15	O	46	LYS	Mainchain
15	O	50	HIS	Sidechain
15	O	57	ARG	Sidechain
15	O	68	TYR	Sidechain
15	O	71	ARG	Sidechain
15	O	83	ARG	Sidechain
15	O	87	ARG	Sidechain
16	P	25	ARG	Sidechain
16	P	27	ALA	Mainchain
16	P	28	ARG	Sidechain
16	P	38	PHE	Sidechain
16	P	39	PHE	Sidechain
17	Q	27	PHE	Peptide
17	Q	39	ARG	Mainchain
17	Q	44	HIS	Peptide,Mainchain
17	Q	46	HIS	Mainchain
17	Q	61	ARG	Sidechain
17	Q	64	ARG	Sidechain
18	R	50	TYR	Sidechain
18	R	63	TYR	Sidechain
18	R	65	SER	Peptide
18	R	69	TYR	Sidechain
19	S	13	HIS	Sidechain
19	S	35	ARG	Sidechain
19	S	47	THR	Mainchain
19	S	51	HIS	Sidechain
19	S	54	ARG	Sidechain
19	S	62	THR	Mainchain
19	S	73	PHE	Sidechain
19	S	77	ARG	Sidechain

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Mol	Chain	Res	Type	Group
20	T	28	ARG	Sidechain
20	T	35	TYR	Sidechain
20	T	5	SER	Peptide,Mainchain
20	T	50	PHE	Sidechain
21	U	34	ARG	Sidechain
21	U	46	ARG	Mainchain
22	W	103	ARG	Sidechain
22	W	186	ARG	Sidechain
22	W	256	TYR	Sidechain
22	W	300	ARG	Sidechain
22	W	326	PHE	Sidechain
22	W	48	PHE	Sidechain
22	W	67	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	A	32892	0	16464	9848	0
2	B	1705	0	1732	204	0
3	C	1625	0	1699	204	0
4	D	1643	0	1710	176	0
5	E	1106	0	1148	142	0
6	F	818	0	808	110	0
7	G	1182	0	1239	124	0
8	H	979	0	1034	139	0
9	I	1022	0	1070	132	0
10	J	787	0	828	130	0
11	K	877	0	887	165	0
12	L	955	0	1019	106	0
13	M	884	0	944	126	0
14	N	775	0	827	111	0
15	O	714	0	737	111	0
16	P	649	0	666	67	0
17	Q	649	0	690	143	0
18	R	456	0	478	57	0
19	S	638	0	665	75	0
20	T	665	0	714	109	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
21	U	426	0	449	19	0
22	W	2186	0	2180	107	0
All	All	53633	0	37988	11504	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 126.

All (11504) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:429:U:H5'	4:D:8:LEU:HD13	1.45	0.99
1:A:688:G:H5"	1:A:688:G:C8	1.99	0.98
1:A:82:G:H22	1:A:84:U:H3	1.11	0.95
1:A:450:G:H1	1:A:483:C:H42	1.13	0.95
1:A:1469:C:H5'	1:A:1469:C:C6	2.02	0.94
1:A:996:A:H1'	1:A:1046:A:H4'	1.49	0.93
1:A:73:C:H3'	1:A:74:A:H5"	1.51	0.92
1:A:121:U:C5	1:A:122:G:C8	2.57	0.92
1:A:1066:C:C6	1:A:1066:C:H5"	2.05	0.92
1:A:37:U:H3	1:A:397:A:H61	1.12	0.92
1:A:94:G:H4'	1:A:95:C:C5'	2.00	0.91
1:A:650:G:H5"	1:A:650:G:C8	2.04	0.91
8:H:103:VAL:HG22	8:H:112:ASP:HA	1.52	0.90
1:A:1022:A:H5'	1:A:1022:A:C8	2.06	0.90
1:A:151:A:C2	1:A:152:A:H1'	2.07	0.90
1:A:54:C:C6	1:A:54:C:H5"	2.07	0.89
1:A:1135:U:H3	1:A:1138:G:H22	1.14	0.89
1:A:862:C:H1'	1:A:874:G:H5"	1.54	0.89
1:A:80:A:C6	1:A:81:A:H1'	2.08	0.89
1:A:1068:G:C6	1:A:1069:C:C5	2.61	0.89
1:A:512:U:C5	1:A:534:U:H4'	2.08	0.88
1:A:577:G:C8	1:A:816:A:C2	2.61	0.88
11:K:33:ILE:HB	11:K:73:VAL:HG11	1.55	0.88
1:A:67:C:H2'	1:A:68:G:C8	2.09	0.88
3:C:63:ILE:HB	3:C:96:VAL:HG23	1.57	0.87
1:A:533:A:C2	1:A:535:A:C8	2.62	0.87
1:A:664:G:H22	1:A:741:G:H1	1.20	0.87
1:A:780:A:H3'	1:A:800:G:H1	1.41	0.86
11:K:45:THR:HG22	11:K:46:ALA:H	1.38	0.86
1:A:486:U:C6	1:A:486:U:H5"	2.11	0.86
1:A:94:G:H4'	1:A:95:C:H5"	1.58	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1090:U:H2'	1:A:1091:U:C6	2.11	0.86
1:A:453:G:C6	1:A:480:U:C4	2.64	0.85
1:A:896:C:H2'	1:A:897:C:H6	1.40	0.85
1:A:594:U:H3'	1:A:595:A:C8	2.12	0.85
1:A:1439:G:C2	1:A:1440:U:H1'	2.11	0.85
17:Q:11:VAL:HG13	17:Q:58:VAL:HG11	1.57	0.85
1:A:1098:C:H4'	1:A:1168:U:C5	2.12	0.84
1:A:861:G:H21	1:A:874:G:H5'	1.39	0.84
1:A:813:U:C4	1:A:816:A:C2	2.65	0.84
8:H:103:VAL:HG21	8:H:115:ALA:HB3	1.60	0.84
1:A:74:A:C2	1:A:97:G:C5	2.65	0.84
1:A:66:A:C2	1:A:104:G:C4	2.67	0.83
1:A:1033:G:H2'	1:A:1034:G:H5'	1.58	0.83
1:A:1144:G:C4	1:A:1145:A:H1'	2.12	0.83
1:A:1090:U:H5'	1:A:1170:A:C2	2.13	0.83
17:Q:22:VAL:HG11	17:Q:60:ILE:HD13	1.61	0.83
1:A:275:G:H5"	1:A:275:G:C8	2.14	0.83
1:A:1231:G:H3'	1:A:1232:U:C6	2.14	0.83
1:A:256:U:H3	1:A:270:A:H61	1.27	0.82
1:A:1057:G:H3'	1:A:1058:G:C8	2.13	0.82
1:A:1408:A:C2	1:A:1494:G:C5	2.68	0.82
1:A:1008:U:C5	1:A:1022:A:C2	2.66	0.82
1:A:10:A:C2	1:A:25:C:C2	2.68	0.82
1:A:1502:A:H5'	1:A:1504:G:N7	1.95	0.82
1:A:77:A:H61	1:A:92:U:H3	1.25	0.82
1:A:811:C:H2'	1:A:812:G:H5'	1.62	0.82
1:A:1069:C:C5	1:A:1094:G:C6	2.68	0.82
1:A:1230:C:H2'	1:A:1231:G:C8	2.14	0.82
1:A:847:G:C2	1:A:848:C:H1'	2.14	0.82
1:A:1502:A:H3'	1:A:1503:A:C5'	2.10	0.82
1:A:411:A:H61	1:A:428:G:H1'	1.43	0.81
1:A:1142:G:H5"	1:A:1142:G:C8	2.15	0.81
1:A:449:G:H21	16:P:13:LYS:HA	1.44	0.81
1:A:896:C:H2'	1:A:897:C:C6	2.15	0.81
1:A:1098:C:H4'	1:A:1168:U:C4	2.14	0.81
1:A:1483:A:C8	1:A:1484:C:C6	2.68	0.81
1:A:664:G:H1'	1:A:726:C:H5'	1.62	0.81
1:A:904:U:C4	1:A:905:U:C4	2.67	0.81
1:A:79:G:H2'	1:A:80:A:C8	2.16	0.81
1:A:1528:U:C6	21:U:42:THR:HA	2.15	0.81
1:A:1420:U:C2	1:A:1421:G:C8	2.69	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:69:G:H2'	1:A:70:U:C6	2.16	0.81
1:A:396:C:H2'	1:A:398:U:H5	1.46	0.81
1:A:751:U:H5	1:A:752:G:C6	1.98	0.81
1:A:563:A:C2	1:A:567:G:C6	2.68	0.81
2:B:149:GLY:H	2:B:152:ASP:H	1.23	0.81
1:A:1198:G:C5	1:A:1199:U:C5	2.69	0.80
22:W:205:LEU:HD13	22:W:258:PHE:CZ	2.16	0.80
1:A:466:A:H2'	1:A:467:U:C2	2.16	0.80
1:A:695:A:C2	1:A:696:A:C4	2.69	0.80
1:A:1141:C:C2	1:A:1142:G:C8	2.69	0.80
1:A:66:A:C2	1:A:67:C:C4	2.69	0.80
1:A:141:G:C6	1:A:142:G:C8	2.70	0.80
1:A:1142:G:C5	1:A:1143:G:H1'	2.16	0.80
1:A:405:U:H4'	1:A:498:A:C5	2.16	0.80
6:F:54:LEU:HD23	6:F:85:ILE:HD11	1.61	0.80
1:A:79:G:C6	1:A:80:A:C6	2.69	0.80
1:A:136:C:C2	1:A:228:A:C2	2.69	0.80
1:A:1186:G:H2'	1:A:1187:G:H8	1.45	0.80
3:C:127:VAL:HG21	3:C:135:ARG:HH22	1.46	0.80
1:A:50:A:H1'	1:A:52:C:C6	2.17	0.80
1:A:1527:U:C2	1:A:1528:U:C5	2.70	0.80
1:A:118:U:H2'	1:A:121:U:C5	2.17	0.80
1:A:64:G:C2	1:A:67:C:C4	2.70	0.80
1:A:340:U:H1'	1:A:350:G:N2	1.96	0.80
1:A:393:A:C2	1:A:394:G:C8	2.70	0.80
1:A:564:C:C6	1:A:565:U:C5	2.70	0.80
1:A:604:G:H3'	1:A:605:U:C6	2.17	0.80
1:A:979:C:C5	1:A:980:C:C6	2.70	0.80
1:A:1043:G:C6	1:A:1044:A:C6	2.70	0.80
1:A:780:A:C2	1:A:801:U:C5	2.69	0.79
1:A:1095:U:C5	1:A:1096:C:C5	2.69	0.79
1:A:1187:G:C2	1:A:1188:A:C8	2.70	0.79
1:A:1223:C:H5"	1:A:1225:A:C8	2.16	0.79
1:A:37:U:H3	1:A:397:A:N6	1.80	0.79
1:A:857:C:C5	1:A:858:G:C8	2.69	0.79
1:A:300:A:C5	1:A:301:G:H1'	2.17	0.79
1:A:606:G:H3'	1:A:607:A:C5'	2.12	0.79
1:A:1255:G:C6	1:A:1279:G:C5	2.69	0.79
15:O:41:HIS:CE1	15:O:45:HIS:CE1	2.70	0.79
1:A:465:A:C2	1:A:466:A:C4	2.70	0.79
1:A:626:G:C2	1:A:627:G:C4	2.70	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1132:C:H3'	1:A:1133:G:H8	1.46	0.79
1:A:1306:A:H61	1:A:1331:G:H1'	1.46	0.79
1:A:181:A:H1'	1:A:194:C:C4	2.17	0.79
1:A:1047:G:H1	1:A:1210:C:H42	1.31	0.79
1:A:19:A:C2	1:A:917:G:C5	2.70	0.79
1:A:12:U:H4'	1:A:526:C:H4'	1.65	0.79
1:A:729:A:H61	15:O:49:HIS:CD2	2.01	0.79
1:A:1329:A:O2'	13:M:68:LEU:HD21	1.84	0.79
3:C:148:ILE:HD12	3:C:201:ILE:CD1	2.12	0.79
1:A:141:G:C6	1:A:223:A:C6	2.71	0.78
1:A:1072:G:H21	2:B:105:THR:HG21	1.45	0.78
1:A:238:A:C2	1:A:239:U:C2	2.71	0.78
1:A:1149:C:H2'	1:A:1150:A:C8	2.18	0.78
1:A:1299:A:C2	1:A:1301:U:C2	2.72	0.78
1:A:1419:G:H5"	1:A:1419:G:C8	2.18	0.78
1:A:212:G:H2'	1:A:214:C:C5	2.19	0.78
1:A:606:G:H3'	1:A:607:A:H5'	1.64	0.78
1:A:1127:G:C6	1:A:1128:C:C5	2.72	0.78
1:A:685:G:C2	1:A:686:U:C4	2.71	0.78
1:A:946:A:H2'	1:A:947:G:C8	2.18	0.78
1:A:80:A:C5	1:A:81:A:H1'	2.18	0.78
1:A:976:G:H5"	14:N:60:ARG:HH22	1.48	0.78
1:A:1128:C:C2	1:A:1129:C:C5	2.72	0.78
1:A:451:A:C4	1:A:480:U:C5	2.72	0.78
1:A:450:G:H2'	1:A:481:G:H1	1.49	0.78
1:A:668:G:H1'	15:O:45:HIS:CD2	2.19	0.78
1:A:1163:A:C2	1:A:1174:G:C5	2.72	0.78
1:A:1176:A:C6	1:A:1177:G:C6	2.71	0.78
1:A:181:A:H1'	1:A:194:C:C5	2.19	0.78
15:O:48:ASP:HB3	15:O:51:SER:H	1.46	0.78
1:A:133:U:H4'	1:A:325:A:H1'	1.66	0.78
1:A:1102:A:C2	1:A:1103:C:C2	2.72	0.78
1:A:21:G:H1'	1:A:914:A:H61	1.49	0.77
1:A:182:A:H5"	1:A:193:C:N4	1.99	0.77
1:A:413:G:H3'	1:A:414:A:C5'	2.14	0.77
1:A:563:A:C2	1:A:567:G:C5	2.72	0.77
1:A:946:A:C2	1:A:1236:A:C2	2.72	0.77
1:A:74:A:C2	1:A:75:G:C4	2.72	0.77
13:M:23:GLY:HA2	13:M:68:LEU:HD23	1.66	0.77
21:U:37:TYR:O	21:U:41:THR:HG21	1.84	0.77
1:A:3:A:C4	1:A:628:G:H1'	2.20	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:301:G:C6	1:A:302:G:C5	2.73	0.77
1:A:1494:G:H1'	22:W:254:ARG:HH22	1.48	0.77
11:K:20:ALA:HB1	11:K:99:LEU:HD22	1.65	0.77
1:A:214:C:C5	1:A:215:C:C5	2.73	0.77
1:A:1301:U:C4	1:A:1303:C:C2	2.72	0.77
11:K:66:ALA:HB3	11:K:98:ALA:HB3	1.66	0.77
1:A:72:A:H2'	1:A:73:C:C6	2.18	0.77
1:A:160:A:H1'	1:A:344:A:H2'	1.65	0.77
1:A:668:G:C6	1:A:669:G:C6	2.73	0.77
1:A:978:A:C8	1:A:979:C:C5	2.73	0.77
1:A:1502:A:H3'	1:A:1503:A:H5'	1.65	0.77
1:A:1256:A:H2'	1:A:1278:G:C6	2.19	0.77
1:A:1526:G:C5	1:A:1527:U:C5	2.73	0.77
18:R:46:THR:HG21	18:R:50:TYR:CD1	2.20	0.77
1:A:1055:A:C6	1:A:1206:G:C5	2.71	0.77
1:A:1433:A:H3'	1:A:1434:A:C8	2.20	0.77
3:C:51:VAL:HG21	3:C:54:ILE:HG23	1.66	0.77
1:A:167:A:C2	1:A:168:G:C5	2.73	0.77
1:A:589:U:H2'	1:A:590:U:C6	2.20	0.77
1:A:1513:A:C2	1:A:1523:G:C5	2.73	0.77
9:I:18:VAL:HG11	9:I:82:ILE:HA	1.66	0.77
1:A:594:U:C4	1:A:595:A:C6	2.73	0.76
1:A:652:U:H2'	1:A:752:G:C2	2.19	0.76
1:A:655:A:C2	1:A:656:G:H1'	2.20	0.76
1:A:1166:G:C2'	1:A:1170:A:H61	1.98	0.76
1:A:1419:G:C6	1:A:1420:U:C5	2.73	0.76
1:A:68:G:C5	1:A:69:G:H1'	2.21	0.76
1:A:1067:A:H1'	1:A:1068:G:C8	2.20	0.76
1:A:1306:A:H2'	1:A:1307:U:H5'	1.65	0.76
4:D:115:GLN:HG2	4:D:153:ARG:HH12	1.51	0.76
1:A:72:A:C4	1:A:73:C:C5	2.73	0.76
1:A:828:U:C2	1:A:858:G:H2'	2.20	0.76
13:M:90:HIS:CG	13:M:96:VAL:HG21	2.20	0.76
15:O:78:THR:O	15:O:82:GLU:HB2	1.86	0.76
22:W:195:GLN:CD	22:W:226:ALA:HB2	2.06	0.76
1:A:1306:A:H1'	1:A:1332:A:C5	2.20	0.76
8:H:42:GLU:HG3	8:H:100:ILE:HG21	1.68	0.76
1:A:169:C:C4	1:A:170:U:C4	2.73	0.76
1:A:323:U:C5	1:A:324:G:C5	2.73	0.76
1:A:413:G:H3'	1:A:414:A:H5"	1.67	0.76
1:A:698:G:H1'	1:A:798:U:H4'	1.66	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1095:U:C5	1:A:1096:C:C6	2.72	0.76
1:A:517:G:H2'	1:A:530:G:H4'	1.68	0.76
1:A:1053:G:H2'	1:A:1199:U:C5	2.20	0.76
1:A:1093:A:H2'	1:A:1095:U:H5'	1.68	0.76
1:A:1158:C:C2	1:A:1160:G:C8	2.74	0.76
1:A:1262:C:C5	1:A:1263:C:C6	2.73	0.76
1:A:1312:G:C8	1:A:1312:G:H5"	2.21	0.76
1:A:1439:G:C5	1:A:1440:U:C6	2.74	0.76
2:B:185:ILE:HG23	2:B:199:ILE:HG22	1.67	0.76
1:A:953:G:H3'	1:A:954:G:H8	1.50	0.76
10:J:16:ARG:HA	10:J:16:ARG:HE	1.49	0.76
1:A:59:A:C2	1:A:331:G:C5	2.74	0.76
1:A:597:G:C2	1:A:598:U:H1'	2.21	0.76
1:A:720:C:C5	1:A:733:G:C5	2.74	0.76
1:A:1478:U:H2'	1:A:1479:C:C6	2.21	0.76
1:A:155:A:C2	1:A:156:C:C2	2.74	0.75
1:A:253:A:C2	1:A:254:G:C4	2.73	0.75
1:A:1408:A:C2	1:A:1494:G:C6	2.73	0.75
17:Q:11:VAL:HG21	17:Q:53:GLY:H	1.51	0.75
22:W:161:LYS:HA	22:W:193:HIS:CE1	2.22	0.75
1:A:600:A:C2	1:A:601:G:C4	2.75	0.75
1:A:857:C:C6	1:A:858:G:C8	2.73	0.75
1:A:1006:G:C6	1:A:1024:G:C2	2.75	0.75
1:A:1239:A:H3'	7:G:115:MET:SD	2.27	0.75
1:A:198:G:H2'	1:A:199:A:C8	2.22	0.75
1:A:454:G:C4	1:A:455:G:C8	2.75	0.75
1:A:606:G:C8	1:A:631:C:C6	2.74	0.75
1:A:616:G:H21	16:P:48:GLU:CG	1.99	0.75
1:A:627:G:C6	1:A:628:G:C6	2.75	0.75
1:A:779:C:H2'	1:A:780:A:C8	2.21	0.75
1:A:1262:C:C5	1:A:1274:A:C2	2.74	0.75
1:A:192:A:C2	1:A:193:C:C5	2.75	0.75
10:J:12:ALA:HB2	10:J:96:VAL:HG13	1.69	0.75
17:Q:10:ARG:HA	17:Q:58:VAL:H	1.52	0.75
1:A:771:G:C6	1:A:809:G:C6	2.74	0.75
1:A:831:A:C6	1:A:832:G:C8	2.75	0.75
1:A:1055:A:C5	1:A:1056:U:C6	2.74	0.75
1:A:1275:A:C4	1:A:1276:G:C8	2.75	0.75
1:A:1478:U:H2'	1:A:1479:C:H6	1.52	0.75
1:A:1501:C:H2'	1:A:1504:G:C6	2.21	0.75
14:N:52:ARG:HH22	19:S:13:HIS:CE1	2.02	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:R:32:ILE:HG22	18:R:37:LYS:H	1.52	0.75
1:A:804:U:C5	1:A:805:C:C4	2.74	0.75
1:A:900:A:C2	1:A:901:A:C4	2.75	0.75
1:A:1472:U:H2'	1:A:1473:G:C8	2.22	0.75
3:C:122:GLN:O	3:C:127:VAL:HG22	1.87	0.75
1:A:142:G:N2	1:A:143:A:H1'	2.01	0.75
1:A:521:G:C6	1:A:529:G:H1'	2.22	0.75
1:A:695:A:C2	1:A:787:A:H4'	2.21	0.75
1:A:1346:A:N1	1:A:1374:A:H5"	2.02	0.75
1:A:78:A:H3'	1:A:79:G:C8	2.21	0.75
1:A:81:A:C8	1:A:83:C:C2	2.75	0.75
1:A:120:A:H61	1:A:239:U:H3'	1.52	0.75
1:A:987:G:H21	1:A:1014:A:H2	1.33	0.75
17:Q:11:VAL:HG11	17:Q:52:CYS:HB3	1.67	0.75
1:A:90:C:C2	1:A:91:U:C5	2.75	0.74
1:A:559:A:H1'	1:A:561:U:H2'	1.69	0.74
1:A:1044:A:C6	1:A:1045:C:H1'	2.22	0.74
1:A:1375:A:H3'	1:A:1376:U:C6	2.22	0.74
1:A:198:G:C2	1:A:220:G:H1'	2.22	0.74
1:A:648:A:H2'	1:A:649:A:C8	2.22	0.74
1:A:1014:A:C5	1:A:1015:G:C6	2.74	0.74
1:A:32:A:H4'	1:A:48:C:H42	1.52	0.74
1:A:469:C:C5	1:A:470:C:C4	2.76	0.74
1:A:228:A:C2	1:A:229:U:H1'	2.21	0.74
3:C:127:VAL:HG21	3:C:135:ARG:NH2	2.03	0.74
1:A:595:A:C6	1:A:641:U:H2'	2.21	0.74
1:A:1253:G:H4'	10:J:48:ARG:HH11	1.52	0.74
1:A:1266:G:H1'	1:A:1270:G:C2	2.23	0.74
1:A:84:U:H3'	1:A:86:G:H21	1.52	0.74
1:A:215:C:C4	1:A:216:U:C2	2.75	0.74
1:A:603:U:H2'	1:A:604:G:C8	2.23	0.74
1:A:1261:A:C4	1:A:1275:A:C5	2.75	0.74
1:A:322:C:C2	1:A:323:U:C5	2.75	0.74
1:A:528:C:C6	1:A:528:C:H5"	2.23	0.74
1:A:755:G:H21	8:H:3:GLN:HE22	1.35	0.74
1:A:1044:A:C5	1:A:1045:C:H1'	2.23	0.74
1:A:1111:A:H5"	2:B:129:THR:HG23	1.68	0.74
1:A:1125:U:C5	1:A:1127:G:C4	2.75	0.74
1:A:181:A:H4'	1:A:182:A:O5'	1.88	0.74
1:A:466:A:C2	1:A:468:A:C4	2.75	0.74
1:A:1287:A:N1	1:A:1371:G:H1'	2.01	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1346:A:C6	1:A:1374:A:C8	2.76	0.74
8:H:42:GLU:HG3	8:H:100:ILE:HD13	1.70	0.74
13:M:82:LEU:HD13	19:S:65:MET:HG2	1.70	0.74
1:A:118:U:C4	1:A:288:A:C5	2.76	0.74
1:A:679:C:C2	1:A:712:A:C2	2.75	0.74
1:A:1376:U:H4'	7:G:101:ARG:HH21	1.52	0.74
1:A:440:C:H42	1:A:496:A:N6	1.86	0.74
1:A:704:A:C6	1:A:705:G:C4	2.76	0.74
1:A:858:G:H22	1:A:869:G:H2'	1.51	0.74
1:A:1022:A:C2	1:A:1023:U:C6	2.75	0.74
1:A:198:G:H5"	1:A:198:G:C8	2.23	0.73
1:A:1206:G:C6	1:A:1207:G:C5	2.76	0.73
8:H:38:VAL:HG11	8:H:111:THR:HA	1.69	0.73
1:A:1069:C:H5	1:A:1094:G:C5	2.07	0.73
1:A:1162:C:C2	1:A:1175:G:C4	2.76	0.73
1:A:1278:G:H4'	1:A:1279:G:C5	2.22	0.73
1:A:1461:G:C5	1:A:1462:C:C5	2.77	0.73
1:A:666:G:H5'	1:A:726:C:H1'	1.70	0.73
1:A:687:A:C6	1:A:701:U:H4'	2.23	0.73
1:A:700:G:H2'	1:A:701:U:C6	2.22	0.73
1:A:1287:A:C6	1:A:1288:A:C6	2.76	0.73
1:A:1332:A:C6	1:A:1333:A:C5	2.76	0.73
1:A:1419:G:H3'	1:A:1420:U:C5	2.23	0.73
3:C:137:VAL:HA	3:C:148:ILE:HD13	1.70	0.73
1:A:121:U:C6	1:A:122:G:C8	2.77	0.73
1:A:237:G:C2	1:A:238:A:H1'	2.24	0.73
1:A:766:A:C8	1:A:814:A:C5	2.77	0.73
1:A:1527:U:H2'	1:A:1528:U:C6	2.23	0.73
1:A:57:G:C6	1:A:58:C:C4	2.77	0.73
1:A:454:G:H22	1:A:479:U:H1'	1.53	0.73
1:A:459:A:H61	1:A:472:U:H3	1.37	0.73
1:A:675:A:C2	11:K:117:HIS:HB2	2.22	0.73
1:A:1056:U:C6	1:A:1056:U:H5"	2.23	0.73
1:A:1309:G:C4	1:A:1329:A:C2	2.77	0.73
1:A:380:G:C2	1:A:384:G:C6	2.76	0.73
1:A:396:C:H2'	1:A:398:U:C5	2.24	0.73
1:A:1191:A:H5'	1:A:1191:A:C8	2.23	0.73
1:A:1531:A:H2'	1:A:1532:U:C5	2.23	0.73
1:A:260:G:H2'	1:A:261:U:C6	2.23	0.73
1:A:473:U:H2'	1:A:474:G:C8	2.23	0.73
1:A:1269:A:C5	1:A:1270:G:H1'	2.24	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1391:U:H2'	1:A:1392:G:C8	2.24	0.73
1:A:1408:A:H1'	1:A:1494:G:C2	2.22	0.73
1:A:335:C:H1'	1:A:1434:A:H1'	1.69	0.73
1:A:1143:G:C4	1:A:1144:G:C8	2.77	0.73
1:A:1239:A:H2'	1:A:1298:U:C4	2.23	0.73
1:A:1319:A:C6	1:A:1323:G:H1'	2.24	0.73
1:A:289:G:C8	1:A:289:G:H5"	2.24	0.73
1:A:381:C:C5	1:A:382:A:C4	2.76	0.73
1:A:509:A:C4	1:A:510:A:C2	2.77	0.73
1:A:979:C:C5	1:A:980:C:C5	2.77	0.73
1:A:1140:C:C2	1:A:1141:C:C6	2.77	0.73
1:A:1355:G:H1'	1:A:1368:A:C2	2.24	0.73
1:A:69:G:C2	1:A:70:U:C2	2.76	0.73
1:A:252:U:H6	1:A:252:U:H5"	1.53	0.73
1:A:558:G:H2'	1:A:559:A:C2	2.24	0.73
4:D:97:LEU:O	4:D:101:VAL:HG23	1.89	0.73
1:A:334:C:H1'	1:A:1435:G:C5'	2.19	0.72
5:E:15:ILE:HD11	5:E:37:VAL:HB	1.70	0.72
1:A:582:C:C2	1:A:583:A:C8	2.78	0.72
1:A:662:U:H2'	1:A:663:A:C8	2.23	0.72
1:A:703:G:H3'	1:A:704:A:H5'	1.69	0.72
1:A:838:G:H22	2:B:34:ARG:HH12	1.36	0.72
1:A:838:G:C4	1:A:849:G:C2	2.77	0.72
1:A:1096:C:C6	1:A:1096:C:H3'	2.24	0.72
1:A:1405:G:H1'	1:A:1519:A:H4'	1.72	0.72
1:A:1483:A:C5	1:A:1484:C:H1'	2.24	0.72
1:A:160:A:H4'	1:A:344:A:C6	2.24	0.72
1:A:1004:A:N6	1:A:1027:C:H41	1.87	0.72
1:A:1238:A:C2	1:A:1241:G:H2'	2.24	0.72
2:B:22:TRP:CG	2:B:30:ILE:HG23	2.24	0.72
17:Q:46:HIS:ND1	17:Q:66:LEU:HD13	2.04	0.72
1:A:540:G:H21	4:D:40:HIS:HB3	1.55	0.72
1:A:1244:G:C6	1:A:1245:C:C4	2.78	0.72
1:A:1356:G:C2	1:A:1367:C:C2	2.77	0.72
13:M:15:VAL:HG12	13:M:33:LEU:HD13	1.70	0.72
1:A:253:A:C2	1:A:275:G:H1'	2.25	0.72
1:A:648:A:C2	1:A:649:A:C5	2.78	0.72
1:A:802:A:C8	1:A:803:G:C5	2.78	0.72
1:A:1072:G:C2	1:A:1073:U:C2	2.77	0.72
3:C:110:LEU:HA	3:C:201:ILE:HG21	1.71	0.72
18:R:32:ILE:HG21	18:R:58:ILE:HG21	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:704:A:C4	1:A:705:G:C8	2.77	0.72
1:A:903:G:C6	1:A:904:U:C4	2.77	0.72
1:A:1073:U:C2	1:A:1074:G:C8	2.77	0.72
1:A:1159:U:H5"	1:A:1181:G:H21	1.54	0.72
1:A:124:C:C2	1:A:238:A:C2	2.77	0.72
1:A:143:A:H5'	1:A:144:G:H5'	1.72	0.72
1:A:410:G:C2	1:A:429:U:C2	2.77	0.72
1:A:468:A:C5	1:A:469:C:H5	2.07	0.72
1:A:588:G:C4	1:A:753:A:C5	2.78	0.72
1:A:706:A:C6	1:A:707:U:C2	2.78	0.72
1:A:717:U:H2'	1:A:734:G:C8	2.24	0.72
1:A:1068:G:C8	1:A:1068:G:H5"	2.25	0.72
1:A:1366:C:C4	1:A:1367:C:C4	2.77	0.72
1:A:685:G:C6	1:A:686:U:C5	2.78	0.72
1:A:951:G:C6	1:A:1231:G:C6	2.78	0.72
1:A:1423:G:C6	1:A:1424:U:C4	2.78	0.72
1:A:1441:A:H8	1:A:1441:A:H5"	1.55	0.72
20:T:38:ILE:HA	20:T:86:ALA:HB2	1.72	0.72
1:A:839:C:C2	1:A:840:C:C5	2.78	0.72
1:A:1462:C:H3'	1:A:1463:U:H6	1.54	0.72
1:A:1515:G:C8	1:A:1515:G:H3'	2.23	0.72
1:A:601:G:N1	1:A:602:A:C8	2.58	0.72
1:A:606:G:C8	1:A:631:C:C5	2.78	0.72
1:A:872:A:C5	1:A:874:G:C8	2.77	0.72
1:A:958:A:C5	1:A:959:A:C6	2.77	0.72
1:A:977:A:OP1	14:N:70:HIS:CE1	2.42	0.72
3:C:63:ILE:HD12	3:C:94:ALA:CB	2.20	0.72
1:A:1093:A:H2'	1:A:1095:U:C5'	2.19	0.71
1:A:1306:A:C2'	1:A:1307:U:H5'	2.18	0.71
1:A:1511:G:C6	1:A:1525:G:C6	2.77	0.71
13:M:33:LEU:HD11	13:M:44:ILE:HG21	1.71	0.71
1:A:147:G:H21	1:A:1447:A:H2'	1.55	0.71
1:A:511:C:C2	1:A:512:U:C5	2.77	0.71
1:A:1157:A:H2'	1:A:1180:A:C2	2.25	0.71
1:A:1332:A:C5	1:A:1333:A:C8	2.78	0.71
1:A:1368:A:C2	1:A:1369:C:C6	2.79	0.71
1:A:1479:C:H2'	1:A:1480:A:C8	2.26	0.71
1:A:693:G:H1	1:A:788:U:H4'	1.54	0.71
1:A:1184:G:C5	1:A:1185:G:C8	2.77	0.71
1:A:1515:G:C4	1:A:1521:C:C2	2.79	0.71
1:A:1527:U:H2'	1:A:1528:U:H6	1.55	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:107:G:H1'	1:A:379:C:H5'	1.70	0.71
1:A:1015:G:H4'	14:N:52:ARG:H	1.54	0.71
1:A:1466:C:H3'	1:A:1467:C:C6	2.26	0.71
14:N:69:PRO:HG2	14:N:70:HIS:CD2	2.24	0.71
19:S:47:THR:HG21	19:S:60:PHE:CZ	2.25	0.71
22:W:48:PHE:H	22:W:52:ALA:HA	1.56	0.71
1:A:238:A:C2	1:A:239:U:H1'	2.26	0.71
1:A:439:U:C5	1:A:440:C:C5	2.78	0.71
1:A:913:A:C2	1:A:914:A:H1'	2.26	0.71
1:A:1128:C:H2'	1:A:1129:C:C6	2.25	0.71
1:A:1130:A:H1'	1:A:1146:A:C2	2.25	0.71
1:A:1502:A:C8	1:A:1504:G:C5	2.79	0.71
1:A:36:C:C4	1:A:37:U:C5	2.79	0.71
1:A:69:G:C5	1:A:70:U:C5	2.79	0.71
1:A:177:G:H2'	1:A:178:C:H5'	1.73	0.71
1:A:925:G:H2'	1:A:927:G:C8	2.25	0.71
1:A:1309:G:C5	1:A:1329:A:C2	2.78	0.71
1:A:1513:A:C2	1:A:1514:G:C4	2.79	0.71
1:A:342:C:C4	1:A:343:U:C4	2.79	0.71
1:A:404:G:H2'	1:A:498:A:C2	2.25	0.71
1:A:505:G:H2'	1:A:506:G:C8	2.26	0.71
1:A:620:C:C5	1:A:621:A:C5	2.79	0.71
1:A:654:G:C4	1:A:655:A:C8	2.78	0.71
1:A:1394:A:H3'	1:A:1395:C:H5'	1.73	0.71
2:B:126:ASP:HA	2:B:130:LYS:HB2	1.72	0.71
1:A:512:U:C6	1:A:534:U:H5'	2.25	0.71
1:A:217:C:H1'	1:A:469:C:H42	1.56	0.71
1:A:298:A:H3'	1:A:299:G:C8	2.26	0.71
1:A:455:G:C2	1:A:478:A:C2	2.79	0.71
1:A:859:G:C6	1:A:860:A:C6	2.79	0.71
1:A:1223:C:H5"	1:A:1225:A:H8	1.55	0.71
1:A:1239:A:H2'	1:A:1298:U:N3	2.05	0.71
1:A:1457:G:H5"	20:T:29:THR:HB	1.71	0.71
20:T:34:VAL:HA	20:T:49:ALA:CB	2.21	0.71
1:A:116:A:C4	1:A:117:G:C8	2.79	0.71
1:A:600:A:C5	1:A:639:G:C6	2.79	0.71
1:A:1314:C:C2	1:A:1324:A:C2	2.79	0.71
1:A:1433:A:C6	1:A:1434:A:C6	2.79	0.71
1:A:1439:G:C6	1:A:1440:U:C2	2.79	0.71
19:S:33:TRP:CD1	19:S:51:HIS:CD2	2.78	0.71
1:A:595:A:C8	1:A:641:U:C4	2.79	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:615:G:C2	1:A:616:G:C4	2.79	0.70
1:A:658:C:H1'	15:O:21:THR:HA	1.73	0.70
1:A:857:C:H5	1:A:871:U:O4	1.73	0.70
1:A:1324:A:C2	1:A:1325:C:C5	2.78	0.70
1:A:1434:A:C5	1:A:1435:G:C5	2.79	0.70
1:A:341:C:C2	1:A:342:C:C6	2.79	0.70
1:A:369:G:H22	1:A:393:A:H1'	1.56	0.70
1:A:687:A:N1	1:A:704:A:C5	2.59	0.70
1:A:744:C:H2'	1:A:745:G:C8	2.26	0.70
1:A:1256:A:H1'	1:A:1258:G:C4	2.26	0.70
5:E:38:VAL:HG22	5:E:46:GLY:O	1.91	0.70
1:A:59:A:H4'	1:A:388:G:H3'	1.73	0.70
1:A:151:A:C6	1:A:171:A:C6	2.79	0.70
1:A:203:G:H21	1:A:215:C:C1'	2.03	0.70
1:A:384:G:C6	1:A:385:C:C4	2.79	0.70
1:A:403:C:N4	1:A:547:A:H5"	2.07	0.70
1:A:771:G:C4	1:A:809:G:C2	2.80	0.70
1:A:928:G:C2	1:A:929:G:C5	2.79	0.70
1:A:1134:G:C4	1:A:1135:U:H1'	2.26	0.70
1:A:1304:G:C6	1:A:1305:G:C6	2.79	0.70
1:A:1349:A:H1'	1:A:1374:A:C6	2.25	0.70
5:E:109:ALA:HB1	5:E:139:THR:HG21	1.71	0.70
17:Q:60:ILE:HD12	17:Q:72:TRP:CD2	2.26	0.70
1:A:240:G:C8	1:A:240:G:H3'	2.26	0.70
1:A:240:G:C6	1:A:241:G:C5	2.79	0.70
1:A:760:G:C6	1:A:761:G:C4	2.79	0.70
1:A:942:G:C4	1:A:943:U:C5	2.79	0.70
1:A:1134:G:C2	1:A:1141:C:C2	2.78	0.70
1:A:1421:G:C2	1:A:1422:G:C8	2.80	0.70
13:M:82:LEU:HD11	19:S:64:GLU:HB2	1.74	0.70
1:A:214:C:C5	1:A:215:C:C4	2.78	0.70
1:A:425:G:C5	1:A:426:U:C5	2.79	0.70
1:A:595:A:N1	1:A:641:U:H2'	2.06	0.70
1:A:694:A:C6	1:A:695:A:C4	2.79	0.70
1:A:807:A:C2	1:A:808:C:C2	2.79	0.70
1:A:68:G:C4	1:A:69:G:H1'	2.26	0.70
1:A:186:C:C2	1:A:192:A:C2	2.79	0.70
1:A:348:G:N2	1:A:349:A:H1'	2.06	0.70
1:A:429:U:H2'	4:D:25:ARG:HH22	1.56	0.70
1:A:654:G:H3'	1:A:655:A:C8	2.26	0.70
1:A:776:G:H4'	1:A:777:A:N7	2.07	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:780:A:C3’	1:A:800:G:H1	2.04	0.70
1:A:1220:G:H21	19:S:53:GLY:HA2	1.56	0.70
1:A:1287:A:C5	1:A:1288:A:C6	2.79	0.70
1:A:1301:U:C6	1:A:1303:C:C5	2.80	0.70
1:A:1418:A:C6	1:A:1483:A:C5	2.79	0.70
1:A:83:C:C6	1:A:83:C:H3’	2.27	0.70
1:A:408:A:C2	1:A:435:A:C4	2.79	0.70
1:A:1288:A:H3’	1:A:1288:A:C8	2.27	0.70
1:A:1371:G:C8	9:I:110:VAL:HG21	2.27	0.70
1:A:1464:U:O5’	1:A:1464:U:H6	1.75	0.70
1:A:112:G:C2	1:A:330:C:C5	2.79	0.70
1:A:124:C:N3	1:A:238:A:C2	2.60	0.70
1:A:457:G:N2	1:A:458:U:C2	2.60	0.70
1:A:559:A:H4’	1:A:560:A:H3’	1.74	0.70
1:A:627:G:H2’	1:A:628:G:C8	2.26	0.70
1:A:849:G:C5	1:A:850:U:C5	2.79	0.70
1:A:1034:G:C5	1:A:1035:A:C5	2.79	0.70
1:A:1198:G:C6	1:A:1199:U:C4	2.80	0.70
1:A:1244:G:C6	1:A:1294:G:C6	2.80	0.70
1:A:179:A:C5	1:A:180:U:C4	2.79	0.70
1:A:302:G:C5	1:A:303:A:C8	2.80	0.70
1:A:408:A:C2	1:A:409:U:C6	2.80	0.70
1:A:533:A:C2	1:A:536:C:C6	2.80	0.70
1:A:933:G:N1	1:A:935:A:H1’	2.07	0.70
1:A:953:G:H3’	1:A:954:G:C8	2.26	0.70
1:A:1480:A:C5	1:A:1481:U:C5	2.80	0.70
3:C:185:THR:HA	3:C:198:LYS:HA	1.74	0.70
1:A:342:C:H3’	1:A:343:U:C6	2.27	0.69
1:A:1087:G:C2	1:A:1099:G:H1’	2.27	0.69
1:A:1115:U:C2	1:A:1186:G:C2	2.80	0.69
1:A:1514:G:C2	1:A:1522:U:C2	2.80	0.69
3:C:145:ALA:HB1	3:C:147:GLY:O	1.90	0.69
1:A:39:G:C2	1:A:498:A:C2	2.80	0.69
1:A:441:A:C4	1:A:442:G:C8	2.80	0.69
1:A:1020:G:H5”	1:A:1020:G:C8	2.27	0.69
1:A:1304:G:H22	1:A:1332:A:H5’	1.57	0.69
4:D:78:ALA:HB1	4:D:85:THR:O	1.92	0.69
13:M:2:ARG:HH11	13:M:6:ILE:HG22	1.56	0.69
14:N:20:PHE:CZ	14:N:50:LEU:HD13	2.28	0.69
1:A:65:A:C6	1:A:200:G:H1’	2.27	0.69
1:A:184:G:C6	1:A:185:U:C4	2.79	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:295:C:C2	1:A:303:A:C2	2.80	0.69
1:A:300:A:C8	1:A:301:G:H1'	2.27	0.69
1:A:356:A:C6	1:A:357:G:C4	2.79	0.69
1:A:511:C:C2	1:A:512:U:C6	2.80	0.69
1:A:567:G:C6	1:A:568:G:C5	2.80	0.69
1:A:603:U:C2	1:A:604:G:C5	2.80	0.69
1:A:687:A:N6	1:A:701:U:H4'	2.07	0.69
1:A:817:C:C2	1:A:819:A:C8	2.80	0.69
1:A:1117:A:H3'	1:A:1118:U:C6	2.27	0.69
16:P:6:LEU:HD12	16:P:17:TYR:HB3	1.73	0.69
20:T:35:TYR:HA	20:T:38:ILE:HD12	1.75	0.69
1:A:184:G:C6	1:A:185:U:C5	2.80	0.69
1:A:185:U:C4	1:A:186:C:C5	2.80	0.69
1:A:247:G:H1'	1:A:282:A:C2	2.27	0.69
1:A:363:A:C5'	12:L:30:ARG:HG3	2.21	0.69
1:A:432:A:H3'	1:A:433:G:H8	1.58	0.69
1:A:452:A:C5	1:A:453:G:H1'	2.27	0.69
1:A:994:A:H61	1:A:1047:G:H1'	1.56	0.69
1:A:1043:G:H2'	1:A:1044:A:C8	2.28	0.69
1:A:1301:U:C2	1:A:1303:C:C6	2.80	0.69
1:A:1440:U:H2'	1:A:1441:A:N7	2.07	0.69
2:B:67:LEU:HD11	2:B:150:ILE:HB	1.72	0.69
1:A:103:U:H1'	1:A:151:A:C2	2.27	0.69
1:A:130:A:C8	1:A:264:C:H1'	2.27	0.69
1:A:252:U:H2'	1:A:253:A:C8	2.27	0.69
1:A:465:A:C6	1:A:466:A:C6	2.80	0.69
1:A:897:C:C2	1:A:903:G:C2	2.80	0.69
1:A:1228:C:H6	1:A:1228:C:C5'	2.05	0.69
1:A:109:A:C6	1:A:327:A:C6	2.81	0.69
1:A:168:G:C6	1:A:169:C:C5	2.81	0.69
1:A:537:G:C6	1:A:538:G:C5	2.81	0.69
1:A:579:A:C6	1:A:580:C:C4	2.81	0.69
1:A:905:U:C4	1:A:906:A:C5	2.81	0.69
1:A:1256:A:H2'	1:A:1278:G:C5	2.27	0.69
1:A:1261:A:C2	1:A:1274:A:C2	2.81	0.69
1:A:1279:G:H1'	1:A:1281:C:C5	2.27	0.69
11:K:30:ILE:HD13	11:K:43:TRP:CE3	2.27	0.69
1:A:121:U:C6	1:A:122:G:H8	2.10	0.69
1:A:138:G:H1'	1:A:226:G:C2	2.26	0.69
1:A:201:G:H1'	1:A:469:C:C1'	2.23	0.69
1:A:451:A:C8	1:A:480:U:H2'	2.27	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:528:C:H2'	1:A:535:A:C8	2.28	0.69
1:A:541:G:H4'	4:D:39:GLN:HE21	1.57	0.69
1:A:583:A:C5	1:A:584:G:C8	2.81	0.69
1:A:839:C:C2	1:A:840:C:H5	2.10	0.69
1:A:1054:C:C6	1:A:1196:A:C5	2.81	0.69
1:A:1165:U:C4	1:A:1166:G:C6	2.81	0.69
1:A:1196:A:OP1	1:A:1197:A:H5"	1.92	0.69
1:A:1234:C:H1'	1:A:1364:U:C5	2.27	0.69
1:A:1500:A:C5	1:A:1501:C:C5	2.80	0.69
1:A:109:A:C5	1:A:326:G:C5	2.80	0.69
1:A:126:G:H4'	1:A:634:C:O2	1.91	0.69
1:A:202:G:H1'	1:A:468:A:C8	2.27	0.69
1:A:240:G:C5	1:A:241:G:C8	2.81	0.69
1:A:335:C:H1'	1:A:1434:A:C1'	2.22	0.69
1:A:341:C:C2	1:A:349:A:C2	2.81	0.69
1:A:362:G:H3'	12:L:30:ARG:HD2	1.75	0.69
1:A:583:A:H3'	1:A:584:G:H8	1.58	0.69
1:A:589:U:H2'	1:A:590:U:H6	1.55	0.69
1:A:604:G:C2	1:A:635:A:C2	2.81	0.69
1:A:679:C:H1'	1:A:712:A:C2	2.28	0.69
1:A:712:A:C2	1:A:713:G:C5	2.81	0.69
1:A:838:G:C6	1:A:849:G:C5	2.81	0.69
1:A:903:G:N2	1:A:904:U:H1'	2.07	0.69
1:A:982:U:H4'	1:A:983:A:O5'	1.93	0.69
1:A:1116:U:H2'	1:A:1117:A:C8	2.27	0.69
1:A:1218:C:H2'	1:A:1219:A:C8	2.27	0.69
1:A:1298:U:H4'	1:A:1299:A:C2	2.27	0.69
1:A:1355:G:C4	1:A:1368:A:C2	2.81	0.69
1:A:1428:A:C4	1:A:1473:G:C2	2.81	0.69
13:M:78:ARG:HH21	13:M:79:LEU:HD21	1.57	0.69
15:O:41:HIS:CE1	15:O:45:HIS:NE2	2.61	0.69
1:A:11:G:C2	1:A:24:U:H1'	2.27	0.69
1:A:64:G:C2	1:A:67:C:C5	2.80	0.69
1:A:122:G:H22	1:A:239:U:H2'	1.58	0.69
1:A:581:G:N2	1:A:761:G:C6	2.61	0.69
1:A:592:G:H3'	1:A:593:U:H6	1.58	0.69
1:A:638:U:H2'	1:A:639:G:H8	1.58	0.69
1:A:903:G:C5	1:A:904:U:C4	2.81	0.69
1:A:1064:G:C4	1:A:1066:C:C5	2.81	0.69
1:A:1164:G:C6	1:A:1165:U:C4	2.81	0.69
1:A:1213:A:C6	1:A:1215:G:H1'	2.27	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1304:G:H2'	1:A:1305:G:H1'	1.75	0.69
1:A:64:G:N1	1:A:69:G:C2	2.61	0.69
1:A:66:A:C2	1:A:104:G:C5	2.81	0.69
1:A:275:G:C2	1:A:276:G:H1'	2.28	0.69
1:A:363:A:H5"	12:L:30:ARG:HG3	1.75	0.69
1:A:562:U:H4'	1:A:563:A:C4	2.28	0.69
1:A:838:G:C2	1:A:839:C:C6	2.80	0.69
1:A:1074:G:C4	1:A:1102:A:C2	2.81	0.69
1:A:1238:A:N6	1:A:1241:G:H21	1.91	0.69
1:A:1375:A:H3'	1:A:1376:U:H6	1.56	0.69
15:O:44:GLU:O	15:O:45:HIS:CD2	2.46	0.69
17:Q:48:GLU:H	17:Q:50:ASN:H	1.39	0.69
17:Q:60:ILE:HD12	17:Q:72:TRP:CE3	2.27	0.69
1:A:46:G:H4'	1:A:48:C:H41	1.57	0.68
1:A:69:G:C6	1:A:70:U:C4	2.81	0.68
1:A:473:U:C2	1:A:474:G:C5	2.81	0.68
1:A:495:A:H1'	1:A:496:A:C5	2.28	0.68
1:A:655:A:H1'	1:A:755:G:H5'	1.75	0.68
1:A:656:G:H21	15:O:22:GLY:HA3	1.58	0.68
1:A:903:G:C2	1:A:904:U:C2	2.81	0.68
1:A:960:U:H2'	1:A:1223:C:H4'	1.75	0.68
1:A:1406:U:H2'	1:A:1407:C:H5'	1.75	0.68
1:A:64:G:H2'	1:A:99:C:H41	1.57	0.68
1:A:419:C:H5'	4:D:40:HIS:CE1	2.28	0.68
1:A:603:U:O5'	1:A:603:U:H6	1.75	0.68
1:A:616:G:H2'	1:A:617:G:H8	1.57	0.68
1:A:628:G:C6	1:A:629:A:C5	2.81	0.68
1:A:639:G:C2	1:A:640:A:C8	2.81	0.68
1:A:695:A:H61	1:A:797:C:H4'	1.59	0.68
1:A:700:G:C5	1:A:701:U:C4	2.80	0.68
1:A:1060:U:O2	10:J:57:VAL:HG11	1.92	0.68
1:A:1068:G:H5"	1:A:1068:G:H8	1.58	0.68
1:A:1095:U:N3	1:A:1096:C:C2	2.60	0.68
1:A:1133:G:N2	1:A:1142:G:C4	2.61	0.68
1:A:1194:U:H2'	1:A:1195:C:C6	2.28	0.68
1:A:1238:A:H4'	1:A:1336:C:N4	2.08	0.68
1:A:1248:A:C2	1:A:1249:C:C2	2.81	0.68
1:A:1461:G:C4	1:A:1462:C:C6	2.81	0.68
1:A:452:A:H5"	1:A:452:A:H8	1.59	0.68
1:A:512:U:C6	1:A:534:U:H4'	2.28	0.68
1:A:827:U:C2	1:A:874:G:C2	2.81	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:907:A:H5"	1:A:907:A:C8	2.29	0.68
1:A:1011:C:C2	1:A:1019:A:C2	2.82	0.68
1:A:1060:U:C4	3:C:2:GLN:HA	2.26	0.68
1:A:1083:U:H3'	1:A:1084:G:C8	2.28	0.68
1:A:1169:A:C5	1:A:1170:A:C5	2.81	0.68
1:A:1231:G:H3'	1:A:1232:U:C5	2.29	0.68
1:A:173:U:H3	1:A:198:G:H21	1.42	0.68
1:A:203:G:H1'	1:A:465:A:H61	1.57	0.68
1:A:397:A:H5"	1:A:398:U:C4	2.29	0.68
1:A:633:G:C6	1:A:634:C:C4	2.81	0.68
1:A:939:G:C2	1:A:940:C:C2	2.82	0.68
1:A:1343:G:C5	1:A:1344:C:C4	2.81	0.68
1:A:1526:G:C6	1:A:1527:U:C5	2.82	0.68
11:K:30:ILE:HD12	11:K:31:VAL:N	2.08	0.68
13:M:18:LEU:HB2	13:M:29:SER:HB3	1.75	0.68
1:A:380:G:C2	1:A:382:A:H3'	2.28	0.68
1:A:529:G:H4'	1:A:533:A:N1	2.08	0.68
1:A:654:G:C4	1:A:753:A:C6	2.81	0.68
1:A:667:G:N2	15:O:41:HIS:HE1	1.92	0.68
1:A:1104:G:C6	1:A:1105:A:C6	2.81	0.68
1:A:1177:G:C6	1:A:1178:G:C2	2.82	0.68
1:A:1236:A:H3'	1:A:1237:C:C6	2.27	0.68
1:A:1250:A:H2'	1:A:1251:A:O4'	1.93	0.68
1:A:1358:U:H5"	14:N:74:ARG:H	1.59	0.68
1:A:218:U:H4'	1:A:470:C:H1'	1.75	0.68
1:A:299:G:C4	1:A:300:A:C8	2.82	0.68
1:A:568:G:C8	1:A:568:G:H5"	2.28	0.68
1:A:596:A:H61	1:A:644:U:H3	1.41	0.68
1:A:1241:G:C2	1:A:1242:G:C5	2.82	0.68
1:A:178:C:H3'	1:A:178:C:C6	2.29	0.68
1:A:185:U:H3'	1:A:186:C:C6	2.29	0.68
1:A:289:G:H5"	1:A:289:G:H8	1.57	0.68
1:A:301:G:C6	1:A:302:G:C6	2.82	0.68
1:A:821:G:C6	1:A:822:U:C4	2.82	0.68
1:A:861:G:C5	1:A:862:C:C4	2.81	0.68
1:A:945:G:H2'	1:A:946:A:C8	2.29	0.68
1:A:1059:C:C4	1:A:1060:U:C5	2.82	0.68
1:A:1197:A:C5'	1:A:1197:A:C8	2.77	0.68
1:A:1422:G:C2	1:A:1479:C:C2	2.82	0.68
13:M:15:VAL:HA	13:M:33:LEU:HD13	1.75	0.68
17:Q:11:VAL:HG13	17:Q:58:VAL:CG1	2.23	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:73:C:C3’	1:A:74:A:H5”	2.23	0.68
1:A:231:U:H5’	1:A:325:A:C2	2.27	0.68
1:A:454:G:N1	1:A:455:G:C4	2.62	0.68
1:A:723:U:H3	1:A:832:G:N2	1.92	0.68
1:A:763:G:H1’	15:O:56:LEU:HD21	1.75	0.68
1:A:867:G:C5	1:A:868:C:C5	2.82	0.68
1:A:923:A:C2	1:A:924:C:C5	2.81	0.68
1:A:977:A:H4’	1:A:981:U:H3	1.57	0.68
1:A:1061:G:C4	1:A:1197:A:C2	2.82	0.68
1:A:1095:U:C4	1:A:1096:C:C4	2.81	0.68
1:A:1146:A:C6	1:A:1147:C:C2	2.81	0.68
1:A:1239:A:C8	1:A:1241:G:C4	2.82	0.68
1:A:1285:A:H61	1:A:1355:G:H4’	1.58	0.68
1:A:1329:A:C2	1:A:1330:U:H1’	2.29	0.68
1:A:1421:G:C2	1:A:1480:A:C6	2.82	0.68
2:B:19:THR:HG23	2:B:38:HIS:CD2	2.29	0.68
3:C:51:VAL:HG23	3:C:67:ILE:HG23	1.74	0.68
1:A:249:U:C2	1:A:276:G:C2	2.81	0.68
1:A:478:A:C2	1:A:479:U:C4	2.82	0.68
1:A:506:G:H3’	1:A:507:C:C6	2.28	0.68
1:A:780:A:H3’	1:A:800:G:N1	2.09	0.68
1:A:1158:C:H3’	1:A:1181:G:N2	2.08	0.68
1:A:1168:U:C5	1:A:1169:A:C4	2.82	0.68
1:A:1239:A:H2’	1:A:1298:U:H3	1.58	0.68
1:A:1285:A:C2	1:A:1286:U:C5	2.82	0.68
1:A:1349:A:C2	7:G:31:VAL:HA	2.29	0.68
1:A:1433:A:H3’	1:A:1434:A:H8	1.55	0.68
11:K:30:ILE:HD12	11:K:31:VAL:H	1.58	0.68
1:A:139:A:C2	1:A:225:C:H1’	2.28	0.68
1:A:585:G:C2	1:A:586:C:C2	2.83	0.68
1:A:824:G:H1’	8:H:2:MET:HB2	1.74	0.68
3:C:63:ILE:HD12	3:C:94:ALA:HB2	1.75	0.68
1:A:19:A:C2	1:A:20:U:C2	2.82	0.67
1:A:111:G:H22	1:A:330:C:H41	1.41	0.67
1:A:119:A:N6	1:A:288:A:H1’	2.09	0.67
1:A:159:G:H5’	1:A:159:G:C8	2.29	0.67
1:A:287:U:C2	1:A:288:A:C8	2.82	0.67
1:A:342:C:C5	1:A:343:U:C4	2.82	0.67
1:A:599:C:C2	1:A:640:A:C2	2.81	0.67
1:A:780:A:C8	1:A:780:A:O5’	2.46	0.67
1:A:979:C:C6	1:A:980:C:C6	2.81	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:984:C:H2'	1:A:985:C:C6	2.29	0.67
1:A:1240:U:H6	1:A:1241:G:H5'	1.58	0.67
1:A:1402:C:C5	1:A:1403:C:C5	2.82	0.67
1:A:1417:G:H2'	1:A:1418:A:C8	2.29	0.67
1:A:1419:G:N1	1:A:1482:G:H1'	2.09	0.67
17:Q:11:VAL:HG11	17:Q:52:CYS:CB	2.24	0.67
1:A:49:U:C4	1:A:361:G:C2	2.82	0.67
1:A:151:A:N1	1:A:152:A:H1'	2.08	0.67
1:A:159:G:C2	1:A:163:C:C2	2.83	0.67
1:A:160:A:C2	1:A:161:A:C4	2.82	0.67
1:A:424:G:C6	1:A:425:G:C6	2.82	0.67
1:A:438:U:C4	1:A:494:G:C8	2.82	0.67
1:A:1090:U:O2'	1:A:1171:A:H4'	1.94	0.67
1:A:1239:A:C8	1:A:1298:U:N3	2.62	0.67
17:Q:64:ARG:HD3	17:Q:66:LEU:HD23	1.75	0.67
1:A:69:G:C4	1:A:70:U:C5	2.82	0.67
1:A:103:U:C2	1:A:104:G:C8	2.82	0.67
1:A:218:U:H3'	1:A:219:U:C6	2.30	0.67
1:A:669:G:C6	1:A:670:G:C5	2.82	0.67
1:A:1242:G:C1'	1:A:1303:C:H4'	2.24	0.67
1:A:1442:G:H3'	1:A:1443:C:C5	2.29	0.67
1:A:1469:C:H5'	1:A:1469:C:H6	1.56	0.67
1:A:1483:A:H3'	1:A:1484:C:H6	1.59	0.67
2:B:125:PHE:HA	2:B:129:THR:HB	1.77	0.67
8:H:103:VAL:HG13	8:H:112:ASP:HB3	1.76	0.67
17:Q:22:VAL:CG1	17:Q:60:ILE:HD13	2.24	0.67
1:A:87:C:C5	1:A:88:U:C5	2.83	0.67
1:A:126:G:O2'	1:A:635:A:H4'	1.94	0.67
1:A:171:A:N1	1:A:172:A:C2	2.63	0.67
1:A:250:A:C4	1:A:252:U:C2	2.83	0.67
1:A:251:G:C5	1:A:252:U:C5	2.82	0.67
1:A:655:A:C2	1:A:754:C:C4	2.82	0.67
1:A:1008:U:O2	1:A:1022:A:H1'	1.93	0.67
1:A:1095:U:H5	1:A:1096:C:C5	2.09	0.67
1:A:1126:U:O2	10:J:42:LEU:HD22	1.94	0.67
1:A:1129:C:C5	1:A:1139:G:C2'	2.78	0.67
1:A:1300:G:H1'	1:A:1334:G:O6	1.95	0.67
2:B:68:PHE:CD2	2:B:83:ALA:HA	2.29	0.67
2:B:68:PHE:H	2:B:90:PHE:HA	1.59	0.67
2:B:95:TRP:CE3	2:B:99:MET:HG2	2.29	0.67
1:A:628:G:C2	1:A:629:A:C8	2.82	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:670:G:C2	1:A:671:G:C8	2.82	0.67
1:A:781:A:H1'	1:A:1523:G:H1'	1.76	0.67
1:A:832:G:C5	1:A:855:U:N3	2.63	0.67
1:A:889:A:C2	1:A:907:A:H5'	2.30	0.67
1:A:961:U:OP1	1:A:1223:C:H1'	1.94	0.67
1:A:1092:A:H3'	1:A:1093:A:C8	2.28	0.67
1:A:105:G:H2'	1:A:106:C:C6	2.30	0.67
1:A:356:A:C2	1:A:368:U:O2	2.48	0.67
1:A:638:U:H2'	1:A:639:G:C8	2.30	0.67
1:A:696:A:C2	1:A:697:U:C5	2.83	0.67
1:A:704:A:C5	1:A:705:G:C5	2.82	0.67
1:A:1128:C:C2	1:A:1129:C:H5	2.12	0.67
1:A:1206:G:H4'	3:C:191:THR:HA	1.76	0.67
1:A:1277:C:H1'	1:A:1282:C:C2	2.29	0.67
2:B:11:ALA:HA	2:B:14:HIS:CE1	2.29	0.67
2:B:80:LYS:HA	2:B:83:ALA:HB3	1.77	0.67
2:B:84:LEU:HA	2:B:90:PHE:CD1	2.30	0.67
19:S:65:MET:SD	19:S:68:HIS:CG	2.87	0.67
1:A:583:A:H3'	1:A:584:G:C8	2.30	0.67
1:A:956:U:C5	1:A:957:U:C5	2.83	0.67
1:A:1019:A:C6	1:A:1020:G:C8	2.82	0.67
1:A:1279:G:H1'	1:A:1281:C:H5	1.58	0.67
1:A:1355:G:H21	10:J:48:ARG:HH21	1.42	0.67
2:B:49:PHE:CE1	2:B:199:ILE:HG23	2.30	0.67
5:E:43:GLY:H	5:E:73:VAL:HG23	1.57	0.67
6:F:52:ASN:H	18:R:73:HIS:HB3	1.58	0.67
1:A:19:A:C2	1:A:917:G:C6	2.83	0.67
1:A:46:G:C2	1:A:366:A:C8	2.82	0.67
1:A:75:G:H2'	1:A:76:G:C8	2.29	0.67
1:A:119:A:H61	1:A:288:A:H1'	1.60	0.67
1:A:208:U:C6	1:A:210:C:C6	2.82	0.67
1:A:298:A:C6	1:A:299:G:C2	2.82	0.67
1:A:336:A:C2	1:A:337:G:H1'	2.29	0.67
1:A:778:G:H21	11:K:121:ARG:HG3	1.60	0.67
1:A:953:G:C6	1:A:954:G:C4	2.83	0.67
1:A:1066:C:C4	1:A:1067:A:C2	2.83	0.67
1:A:1205:U:O4'	3:C:189:HIS:CE1	2.48	0.67
1:A:1261:A:C8	1:A:1275:A:C4	2.82	0.67
1:A:1268:G:H2'	1:A:1269:A:O4'	1.95	0.67
1:A:1306:A:C4	1:A:1332:A:C4	2.82	0.67
1:A:1380:U:C2	7:G:2:ARG:HG2	2.30	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:18:ASN:HB2	14:N:91:GLU:HA	1.77	0.67
6:F:3:HIS:HA	6:F:65:GLU:HA	1.74	0.67
1:A:66:A:C6	1:A:67:C:N4	2.63	0.67
1:A:173:U:C5'	1:A:199:A:H5'	2.25	0.67
1:A:297:G:C2	1:A:301:G:C6	2.83	0.67
1:A:406:G:C8	1:A:495:A:H3'	2.30	0.67
1:A:532:A:H4'	1:A:533:A:OP2	1.94	0.67
1:A:600:A:C2	1:A:639:G:C4	2.82	0.67
1:A:712:A:C2	1:A:713:G:C8	2.83	0.67
1:A:723:U:C4	1:A:855:U:H1'	2.30	0.67
1:A:770:C:H2'	1:A:771:G:C8	2.30	0.67
1:A:825:A:C2	1:A:876:C:C2	2.82	0.67
1:A:843:U:H2'	1:A:846:G:H21	1.60	0.67
1:A:1239:A:C5	1:A:1241:G:C2	2.83	0.67
15:O:7:THR:HA	15:O:30:LEU:HD21	1.76	0.67
22:W:231:GLN:HG3	22:W:233:GLU:H	1.59	0.67
1:A:49:U:C2	1:A:362:G:H1'	2.30	0.67
1:A:100:G:C6	1:A:101:A:C6	2.83	0.67
1:A:321:A:C8	1:A:328:C:C2	2.83	0.67
1:A:337:G:H2'	1:A:338:A:C8	2.29	0.67
1:A:410:G:H1'	1:A:433:G:C2	2.30	0.67
1:A:450:G:O6	1:A:481:G:H1'	1.95	0.67
1:A:468:A:N7	1:A:469:C:C5	2.63	0.67
1:A:584:G:C6	1:A:585:G:C6	2.83	0.67
1:A:815:A:C2	1:A:1528:U:H4'	2.30	0.67
5:E:93:VAL:HG11	5:E:139:THR:HA	1.77	0.67
13:M:15:VAL:CG1	13:M:33:LEU:HD13	2.24	0.67
19:S:31:ARG:CZ	19:S:56:HIS:CD2	2.78	0.67
1:A:145:G:C6	1:A:178:C:N4	2.63	0.66
1:A:286:C:C2	1:A:287:U:C6	2.83	0.66
1:A:429:U:OP2	4:D:8:LEU:HD22	1.94	0.66
1:A:676:A:C2	1:A:677:U:C4	2.83	0.66
1:A:811:C:C2'	1:A:812:G:H5'	2.24	0.66
1:A:818:G:H3'	1:A:818:G:C8	2.30	0.66
1:A:1033:G:H2'	1:A:1034:G:C5'	2.25	0.66
1:A:1068:G:C6	1:A:1108:G:C4	2.83	0.66
1:A:1315:U:C2	1:A:1323:G:C2	2.83	0.66
1:A:1485:U:H2'	1:A:1486:G:C8	2.30	0.66
2:B:185:ILE:HD12	2:B:209:VAL:HG22	1.76	0.66
1:A:27:G:C6	1:A:557:G:C6	2.84	0.66
1:A:102:G:C6	1:A:103:U:C4	2.83	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:184:G:N1	1:A:194:C:C5	2.63	0.66
1:A:207:C:H2'	1:A:208:U:C2	2.30	0.66
1:A:383:A:C5	1:A:384:G:H1'	2.30	0.66
1:A:410:G:H1	1:A:430:A:C5'	2.07	0.66
1:A:652:U:C5	1:A:752:G:H2'	2.29	0.66
1:A:668:G:C5	1:A:669:G:C5	2.83	0.66
1:A:695:A:H2'	1:A:696:A:C8	2.31	0.66
1:A:720:C:H2'	1:A:733:G:C2	2.31	0.66
1:A:779:C:H1'	11:K:121:ARG:HE	1.60	0.66
1:A:1142:G:C4	1:A:1143:G:H1'	2.30	0.66
1:A:1401:G:C2	1:A:1402:C:H1'	2.31	0.66
1:A:80:A:OP2	1:A:81:A:C8	2.48	0.66
1:A:102:G:OP1	20:T:11:ILE:HD11	1.96	0.66
1:A:133:U:O5'	1:A:133:U:H6	1.79	0.66
1:A:484:G:C2	1:A:486:U:H6	2.13	0.66
1:A:659:U:H1'	1:A:747:A:C2	2.30	0.66
1:A:796:C:C5	1:A:797:C:C5	2.83	0.66
1:A:1131:G:C5	1:A:1132:C:C5	2.84	0.66
1:A:1142:G:C2	1:A:1143:G:H1'	2.30	0.66
6:F:75:GLU:CG	6:F:89:VAL:HG22	2.26	0.66
8:H:103:VAL:HG23	8:H:110:MET:SD	2.35	0.66
1:A:272:C:H2'	1:A:273:U:C6	2.30	0.66
1:A:455:G:C2	1:A:456:A:C8	2.84	0.66
1:A:626:G:H1'	16:P:47:GLU:HB3	1.77	0.66
1:A:868:C:H1'	1:A:873:A:C4	2.29	0.66
1:A:917:G:C6	1:A:918:A:C5	2.83	0.66
1:A:1089:G:C2	1:A:1090:U:H1'	2.30	0.66
1:A:1144:G:C6	1:A:1145:A:C4	2.82	0.66
1:A:1494:G:C6	1:A:1495:U:C6	2.82	0.66
1:A:35:G:H21	12:L:114:SER:HB2	1.61	0.66
1:A:90:C:H2'	1:A:92:U:C4	2.30	0.66
1:A:160:A:C6	1:A:346:G:C5	2.83	0.66
1:A:380:G:N2	1:A:382:A:H3'	2.10	0.66
1:A:519:C:C4	1:A:520:A:C6	2.84	0.66
1:A:825:A:C2	1:A:826:C:C6	2.83	0.66
1:A:861:G:N2	1:A:874:G:H5'	2.11	0.66
1:A:1250:A:H61	1:A:1354:U:C4'	2.08	0.66
1:A:1343:G:C6	1:A:1344:C:C4	2.84	0.66
1:A:1410:A:H5"	22:W:48:PHE:CD2	2.31	0.66
11:K:44:ALA:HB3	11:K:65:ALA:O	1.95	0.66
20:T:42:ASP:O	20:T:86:ALA:HB1	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:582:C:C2	1:A:760:G:C6	2.83	0.66
1:A:911:U:H2'	1:A:912:C:C5	2.30	0.66
1:A:1276:G:C6	1:A:1277:C:C4	2.83	0.66
1:A:1306:A:C4	1:A:1307:U:C6	2.84	0.66
1:A:1421:G:N2	1:A:1480:A:C5	2.63	0.66
8:H:103:VAL:CG2	8:H:115:ALA:HB3	2.25	0.66
1:A:19:A:C2	1:A:20:U:H1'	2.30	0.66
1:A:244:U:C2	1:A:894:G:H1'	2.31	0.66
1:A:592:G:H3'	1:A:593:U:C6	2.30	0.66
1:A:600:A:C5	1:A:601:G:C8	2.84	0.66
1:A:1366:C:H5"	9:I:118:ARG:HE	1.60	0.66
1:A:1501:C:H3'	1:A:1504:G:C8	2.31	0.66
1:A:55:A:C4	1:A:56:U:H6	2.14	0.66
1:A:115:G:C2	1:A:313:A:C4	2.83	0.66
1:A:450:G:H1	1:A:483:C:N4	1.90	0.66
1:A:560:A:C2	1:A:567:G:H4'	2.31	0.66
1:A:588:G:H1'	1:A:753:A:C6	2.29	0.66
1:A:727:G:C5	1:A:731:G:C6	2.83	0.66
1:A:911:U:H2'	1:A:912:C:C6	2.31	0.66
1:A:1074:G:H4'	2:B:101:THR:C	2.16	0.66
1:A:1167:A:H1'	1:A:1168:U:C2	2.31	0.66
1:A:1242:G:C5	1:A:1243:C:C5	2.84	0.66
1:A:1383:C:C4	1:A:1384:C:C4	2.84	0.66
1:A:1408:A:C2	1:A:1409:C:C4	2.83	0.66
5:E:39:GLY:HA2	5:E:45:VAL:HA	1.77	0.66
1:A:15:G:C5	1:A:1396:A:C2	2.84	0.66
1:A:55:A:C4	1:A:56:U:C6	2.83	0.66
1:A:59:A:C5	1:A:354:G:C6	2.84	0.66
1:A:205:A:H3'	1:A:206:C:C5	2.31	0.66
1:A:253:A:C6	1:A:254:G:C6	2.84	0.66
1:A:342:C:C2	1:A:348:G:N2	2.64	0.66
1:A:410:G:C6	1:A:430:A:H5'	2.31	0.66
1:A:597:G:N2	1:A:644:U:C2	2.64	0.66
1:A:849:G:C5	1:A:850:U:C6	2.84	0.66
1:A:1242:G:C5	1:A:1243:C:C6	2.84	0.66
1:A:1301:U:OP2	1:A:1304:G:C6	2.49	0.66
1:A:1370:G:C2	1:A:1371:G:C8	2.84	0.66
1:A:1421:G:H1'	1:A:1480:A:C2	2.31	0.66
2:B:51:GLU:HG3	2:B:197:PHE:CD1	2.31	0.66
14:N:61:ASN:HB3	14:N:72:PHE:CD1	2.31	0.66
1:A:53:A:C5	1:A:54:C:C6	2.84	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:181:A:C2'	1:A:194:C:C5	2.79	0.66
1:A:187:G:H21	1:A:190:A:P	2.18	0.66
1:A:352:C:H42	1:A:357:G:N2	1.94	0.66
1:A:482:A:C6	1:A:483:C:C2	2.84	0.66
1:A:632:U:H3'	1:A:633:G:C8	2.31	0.66
1:A:654:G:C2	1:A:753:A:C4	2.84	0.66
1:A:687:A:C2	1:A:704:A:C6	2.84	0.66
1:A:728:A:C5	1:A:729:A:C5	2.83	0.66
1:A:1246:A:C2	1:A:1292:G:C4	2.84	0.66
1:A:1266:G:N2	1:A:1269:A:C8	2.64	0.66
1:A:1283:U:H2'	1:A:1284:C:C6	2.31	0.66
1:A:1407:C:C2	1:A:1408:A:C8	2.83	0.66
1:A:1417:G:C8	1:A:1417:G:H3'	2.31	0.66
1:A:22:G:C6	1:A:23:C:C4	2.84	0.65
1:A:610:U:C6	1:A:610:U:H3'	2.31	0.65
1:A:621:A:C2	1:A:622:A:C4	2.84	0.65
1:A:626:G:C4	1:A:627:G:C8	2.84	0.65
1:A:773:G:C2	1:A:807:A:C2	2.84	0.65
1:A:961:U:H1'	1:A:984:C:H1'	1.78	0.65
1:A:986:U:H2'	1:A:987:G:C8	2.31	0.65
1:A:1033:G:C2'	1:A:1034:G:H5'	2.26	0.65
1:A:1114:C:H4'	14:N:100:TRP:CE2	2.30	0.65
1:A:1250:A:C2	1:A:1287:A:C2	2.84	0.65
1:A:1433:A:C2	1:A:1434:A:C4	2.83	0.65
1:A:1472:U:H2'	1:A:1473:G:H8	1.59	0.65
4:D:8:LEU:HD23	4:D:8:LEU:O	1.96	0.65
12:L:30:ARG:HB2	12:L:57:THR:HG22	1.79	0.65
1:A:22:G:C5	1:A:23:C:C5	2.85	0.65
1:A:80:A:N7	1:A:81:A:C8	2.64	0.65
1:A:201:G:H1'	1:A:469:C:H1'	1.78	0.65
1:A:347:G:C2	1:A:348:G:H1'	2.31	0.65
1:A:382:A:C2	1:A:383:A:C4	2.84	0.65
1:A:457:G:C2	1:A:476:U:C2	2.84	0.65
1:A:564:C:C5	1:A:565:U:C4	2.84	0.65
1:A:663:A:N7	6:F:94:HIS:CE1	2.64	0.65
1:A:693:G:C6	1:A:694:A:C6	2.84	0.65
1:A:706:A:H4'	11:K:23:HIS:CD2	2.30	0.65
1:A:762:U:H2'	1:A:763:G:C8	2.32	0.65
1:A:829:G:C6	1:A:858:G:H1'	2.30	0.65
1:A:836:G:C6	1:A:851:G:C6	2.85	0.65
1:A:895:G:C2	1:A:896:C:H1'	2.31	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1114:C:C5	1:A:1187:G:C2	2.83	0.65
1:A:1132:C:H3'	1:A:1133:G:C8	2.31	0.65
1:A:1343:G:H4'	9:I:123:ARG:CG	2.27	0.65
1:A:1365:G:C6	1:A:1366:C:N3	2.64	0.65
11:K:30:ILE:CB	11:K:45:THR:HG23	2.26	0.65
1:A:342:C:N3	1:A:348:G:C2	2.64	0.65
1:A:464:U:O2	1:A:468:A:C2	2.49	0.65
1:A:654:G:C2	1:A:655:A:H1'	2.31	0.65
1:A:685:G:C5	1:A:686:U:C5	2.84	0.65
1:A:1184:G:C6	1:A:1185:G:C5	2.85	0.65
1:A:1186:G:N2	1:A:1187:G:C8	2.64	0.65
1:A:1238:A:H4'	1:A:1336:C:H41	1.59	0.65
1:A:1258:G:C6	1:A:1259:C:C4	2.84	0.65
1:A:70:U:C5	1:A:94:G:H1'	2.32	0.65
1:A:499:A:C2	1:A:547:A:C2	2.84	0.65
1:A:953:G:C5	1:A:954:G:C8	2.84	0.65
1:A:976:G:C8	1:A:1362:A:C6	2.84	0.65
1:A:994:A:C4	1:A:995:C:C6	2.85	0.65
1:A:1175:G:C4	1:A:1176:A:C8	2.85	0.65
1:A:1301:U:OP2	1:A:1303:C:H5	1.79	0.65
1:A:1303:C:N4	1:A:1304:G:C4	2.65	0.65
1:A:1329:A:C2	1:A:1330:U:C1'	2.79	0.65
5:E:76:ASN:O	5:E:79:THR:HG22	1.95	0.65
1:A:155:A:C2	1:A:167:A:C4	2.84	0.65
1:A:188:C:C4	1:A:189:A:C4	2.84	0.65
1:A:214:C:C6	1:A:215:C:C5	2.84	0.65
1:A:605:U:H3'	1:A:606:G:C6	2.32	0.65
1:A:1005:A:H4'	1:A:1036:A:H1'	1.78	0.65
1:A:1058:G:C6	1:A:1059:C:C4	2.84	0.65
1:A:1072:G:C2	1:A:1104:G:C2	2.84	0.65
1:A:1258:G:C4	1:A:1259:C:C6	2.85	0.65
1:A:1312:G:C6	1:A:1313:U:C6	2.84	0.65
1:A:1324:A:C2	1:A:1325:C:C6	2.85	0.65
1:A:118:U:C2'	1:A:121:U:C5	2.79	0.65
1:A:254:G:N2	1:A:273:U:H1'	2.11	0.65
1:A:337:G:C2	1:A:338:A:C5	2.85	0.65
1:A:373:A:C2	1:A:374:A:C4	2.85	0.65
1:A:628:G:C8	1:A:628:G:O5'	2.50	0.65
1:A:713:G:C5	1:A:714:G:C6	2.85	0.65
1:A:1057:G:C5'	3:C:154:GLY:HA3	2.27	0.65
1:A:1087:G:H2'	1:A:1088:G:C8	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1146:A:C2	1:A:1147:C:H1'	2.31	0.65
4:D:170:LEU:HB2	4:D:181:PHE:HA	1.79	0.65
11:K:30:ILE:HB	11:K:45:THR:HG23	1.79	0.65
15:O:41:HIS:CE1	15:O:45:HIS:HE2	2.15	0.65
22:W:296:LEU:HD23	22:W:311:ALA:HB1	1.76	0.65
1:A:57:G:C5	1:A:58:C:C5	2.84	0.65
1:A:77:A:N6	1:A:92:U:H3	1.93	0.65
1:A:371:A:H1'	1:A:391:G:C2	2.30	0.65
1:A:1140:C:C2	1:A:1141:C:C5	2.84	0.65
1:A:1240:U:C6	1:A:1241:G:H5'	2.32	0.65
1:A:1294:G:C5	1:A:1295:U:C5	2.85	0.65
1:A:1343:G:C2	1:A:1344:C:C2	2.84	0.65
17:Q:44:HIS:CE1	17:Q:70:LYS:HZ1	2.15	0.65
1:A:118:U:C2	1:A:288:A:C6	2.85	0.65
1:A:256:U:H3	1:A:270:A:N6	1.94	0.65
1:A:302:G:C6	1:A:303:A:C5	2.85	0.65
1:A:481:G:H21	1:A:482:A:N6	1.95	0.65
1:A:761:G:C6	1:A:762:U:C4	2.84	0.65
1:A:985:C:C2	1:A:1221:G:C2	2.84	0.65
1:A:994:A:C4	1:A:1216:A:H4'	2.31	0.65
1:A:1006:G:C6	1:A:1007:U:C6	2.85	0.65
1:A:1244:G:C6	1:A:1294:G:C5	2.85	0.65
1:A:1295:U:H2'	1:A:1296:C:C6	2.32	0.65
8:H:10:LEU:HD12	8:H:75:GLN:C	2.17	0.65
16:P:6:LEU:HD12	16:P:17:TYR:CB	2.27	0.65
1:A:97:G:H3'	1:A:98:A:C8	2.31	0.65
1:A:107:G:C6	20:T:6:ALA:HA	2.31	0.65
1:A:134:G:C8	1:A:325:A:C5	2.85	0.65
1:A:142:G:H21	1:A:143:A:H1'	1.59	0.65
1:A:193:C:H4'	20:T:55:PRO:HA	1.79	0.65
1:A:302:G:N2	1:A:303:A:H1'	2.12	0.65
1:A:424:G:C6	1:A:425:G:C5	2.85	0.65
1:A:812:G:H5"	1:A:903:G:H2'	1.79	0.65
1:A:935:A:C2	1:A:936:C:C2	2.85	0.65
1:A:942:G:C8	1:A:942:G:O5'	2.49	0.65
1:A:959:A:H61	19:S:77:ARG:HA	1.61	0.65
1:A:1017:U:C2	1:A:1018:G:C8	2.85	0.65
1:A:1115:U:H1'	1:A:1186:G:N2	2.12	0.65
1:A:1161:C:H2'	1:A:1162:C:C6	2.31	0.65
1:A:1527:U:C5	21:U:41:THR:HB	2.32	0.65
1:A:1532:U:C5	1:A:1534:A:C2	2.85	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:111:THR:HG23	8:H:114:ALA:H	1.60	0.65
14:N:42:ASN:HA	14:N:45:LEU:HD12	1.79	0.65
18:R:31:TYR:CD1	18:R:44:THR:HA	2.31	0.65
1:A:191:G:H2'	1:A:192:A:C8	2.32	0.65
1:A:313:A:C4	1:A:314:C:C6	2.85	0.65
1:A:456:A:C2	1:A:477:C:C2	2.85	0.65
1:A:512:U:H3	1:A:539:A:H61	1.43	0.65
1:A:521:G:N1	1:A:529:G:H1'	2.11	0.65
1:A:530:G:H3'	1:A:531:U:C5'	2.25	0.65
1:A:613:C:C4	1:A:614:C:C4	2.85	0.65
1:A:676:A:H1'	11:K:117:HIS:H	1.62	0.65
1:A:688:G:C6	1:A:689:C:C5	2.85	0.65
1:A:813:U:C5	1:A:816:A:C2	2.84	0.65
1:A:946:A:H1'	1:A:1334:G:C5'	2.27	0.65
1:A:981:U:C2	1:A:982:U:C5	2.85	0.65
1:A:1130:A:N7	1:A:1131:G:C5	2.65	0.65
1:A:1205:U:H2'	1:A:1206:G:C8	2.31	0.65
1:A:1288:A:C6	1:A:1289:A:C5	2.84	0.65
2:B:162:VAL:HG21	2:B:165:ALA:HA	1.79	0.65
16:P:25:ARG:HE	16:P:25:ARG:HA	1.61	0.65
1:A:35:G:C6	1:A:36:C:C4	2.85	0.64
1:A:155:A:C6	1:A:167:A:C2	2.85	0.64
1:A:217:C:H5'	1:A:463:U:H5	1.61	0.64
1:A:257:G:C2	1:A:270:A:C4	2.86	0.64
1:A:384:G:C5	1:A:385:C:C5	2.85	0.64
1:A:512:U:O2	4:D:40:HIS:CE1	2.50	0.64
1:A:547:A:H4'	1:A:548:G:O5'	1.96	0.64
1:A:557:G:C2	1:A:558:G:C2	2.84	0.64
1:A:582:C:N3	1:A:583:A:C8	2.65	0.64
1:A:594:U:C4	1:A:646:G:C6	2.85	0.64
1:A:599:C:H41	8:H:87:ARG:HD3	1.62	0.64
1:A:1107:C:C4	1:A:1108:G:C8	2.85	0.64
1:A:1129:C:C5	1:A:1139:G:H2'	2.33	0.64
1:A:1130:A:C5	1:A:1131:G:C4	2.85	0.64
1:A:1309:G:N2	1:A:1329:A:H1'	2.12	0.64
1:A:1410:A:C2	1:A:1411:C:C2	2.86	0.64
1:A:1439:G:N1	1:A:1463:U:H1'	2.12	0.64
1:A:1526:G:C6	1:A:1527:U:C4	2.84	0.64
2:B:216:VAL:O	2:B:220:VAL:HG23	1.98	0.64
3:C:137:VAL:HG12	3:C:169:GLU:OE1	1.97	0.64
13:M:11:HIS:H	13:M:43:LYS:HA	1.61	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:53:A:C2	1:A:54:C:H1'	2.31	0.64
1:A:91:U:C5	1:A:92:U:C2	2.85	0.64
1:A:152:A:C6	1:A:153:C:H1'	2.32	0.64
1:A:430:A:C5	1:A:431:A:C8	2.85	0.64
1:A:626:G:C6	1:A:627:G:C6	2.84	0.64
1:A:944:G:H1'	1:A:1340:A:C2	2.32	0.64
1:A:1084:G:C8	1:A:1085:U:C6	2.86	0.64
1:A:1501:C:H2'	1:A:1504:G:C5	2.32	0.64
4:D:99:ASN:HA	4:D:102:TYR:CE2	2.33	0.64
1:A:59:A:C6	1:A:354:G:C6	2.85	0.64
1:A:265:G:H3'	1:A:267:C:C5	2.32	0.64
1:A:334:C:H1'	1:A:1435:G:H5'	1.79	0.64
1:A:597:G:C6	1:A:598:U:C2	2.84	0.64
1:A:602:A:H8	1:A:602:A:O5'	1.79	0.64
1:A:923:A:H2'	1:A:924:C:H6	1.63	0.64
1:A:980:C:C5	1:A:981:U:C2	2.85	0.64
1:A:1057:G:H3'	1:A:1058:G:H8	1.58	0.64
1:A:1114:C:C6	1:A:1187:G:N2	2.65	0.64
2:B:94:ARG:HE	2:B:168:GLU:HA	1.62	0.64
4:D:167:PRO:HB2	4:D:170:LEU:HG	1.79	0.64
1:A:8:A:H4'	5:E:110:MET:SD	2.38	0.64
1:A:44:A:C2	1:A:399:G:C4	2.85	0.64
1:A:122:G:C2	1:A:123:U:H1'	2.32	0.64
1:A:127:G:N2	1:A:235:C:H1'	2.12	0.64
1:A:155:A:C4	1:A:167:A:C2	2.85	0.64
1:A:469:C:C4	1:A:470:C:C2	2.86	0.64
1:A:627:G:C2	1:A:628:G:C5	2.84	0.64
1:A:635:A:C2	1:A:636:U:C2	2.86	0.64
1:A:688:G:C6	1:A:700:G:C6	2.86	0.64
1:A:714:G:H1'	1:A:777:A:H1'	1.79	0.64
1:A:907:A:C8	1:A:907:A:C5'	2.80	0.64
1:A:1009:U:C2	1:A:1021:A:C2	2.85	0.64
1:A:1073:U:H2'	1:A:1074:G:C8	2.33	0.64
1:A:1170:A:C8	1:A:1170:A:O5'	2.50	0.64
1:A:1268:G:O2'	1:A:1326:U:H4'	1.97	0.64
1:A:1421:G:H1	1:A:1479:C:H42	1.45	0.64
3:C:189:HIS:ND1	3:C:194:VAL:HG13	2.13	0.64
10:J:53:ILE:HG22	10:J:58:ASN:HD22	1.63	0.64
14:N:2:LYS:HG3	14:N:5:MET:H	1.63	0.64
17:Q:45:VAL:HG21	17:Q:60:ILE:CG2	2.27	0.64
1:A:133:U:H4'	1:A:325:A:C1'	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:203:G:H21	1:A:215:C:H1'	1.60	0.64
1:A:302:G:C2	1:A:303:A:H1'	2.32	0.64
1:A:809:G:N2	1:A:810:C:H1'	2.13	0.64
1:A:851:G:H5"	1:A:851:G:C8	2.32	0.64
1:A:1112:C:H3'	1:A:1113:C:C5	2.33	0.64
1:A:1133:G:C2	1:A:1134:G:C8	2.86	0.64
1:A:1255:G:C5	1:A:1279:G:C6	2.86	0.64
1:A:1436:U:H2'	1:A:1437:A:C8	2.32	0.64
1:A:1438:G:C2	1:A:1464:U:C2	2.85	0.64
17:Q:12:VAL:HA	17:Q:55:GLY:H	1.63	0.64
17:Q:66:LEU:HD12	17:Q:70:LYS:C	2.17	0.64
1:A:104:G:C6	1:A:105:G:C5	2.86	0.64
1:A:228:A:C6	1:A:229:U:C2	2.85	0.64
1:A:453:G:H2'	1:A:454:G:C8	2.33	0.64
1:A:689:C:OP1	11:K:45:THR:HG21	1.98	0.64
1:A:849:G:C2	1:A:850:U:H1'	2.32	0.64
1:A:857:C:C4	1:A:858:G:C8	2.84	0.64
1:A:864:A:H2'	1:A:865:A:C1'	2.28	0.64
1:A:1262:C:C5	1:A:1274:A:H2	2.15	0.64
1:A:1309:G:OP1	13:M:90:HIS:CE1	2.51	0.64
4:D:53:GLN:HA	4:D:56:GLU:HB2	1.80	0.64
4:D:101:VAL:HG21	4:D:117:VAL:CG2	2.28	0.64
15:O:25:GLU:H	15:O:25:GLU:CD	1.99	0.64
1:A:39:G:N3	1:A:498:A:C2	2.66	0.64
1:A:109:A:C6	1:A:326:G:C6	2.85	0.64
1:A:111:G:H4'	16:P:27:ALA:HB3	1.80	0.64
1:A:321:A:C8	1:A:321:A:C3'	2.81	0.64
1:A:453:G:C6	1:A:480:U:C5	2.86	0.64
1:A:453:G:C6	1:A:454:G:C5	2.86	0.64
1:A:564:C:H2'	1:A:565:U:C6	2.32	0.64
1:A:581:G:C2	1:A:761:G:C6	2.86	0.64
1:A:598:U:C2	1:A:599:C:C5	2.86	0.64
1:A:604:G:C2	1:A:605:U:C2	2.86	0.64
1:A:686:U:C5	1:A:703:G:C2	2.85	0.64
1:A:924:C:C6	1:A:924:C:O5'	2.50	0.64
1:A:925:G:C6	1:A:927:G:C6	2.85	0.64
1:A:1272:G:C5	1:A:1273:C:C6	2.86	0.64
1:A:1323:G:C2	1:A:1324:A:C8	2.86	0.64
1:A:1418:A:C8	1:A:1419:G:C8	2.86	0.64
8:H:109:VAL:HG13	8:H:125:ILE:HD11	1.79	0.64
1:A:66:A:C4	1:A:67:C:C5	2.86	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:70:U:H2'	1:A:94:G:C4	2.32	0.64
1:A:155:A:C5	1:A:167:A:C2	2.86	0.64
1:A:600:A:C4	1:A:601:G:C8	2.86	0.64
1:A:632:U:C5	1:A:633:G:C5	2.86	0.64
1:A:829:G:C6	1:A:830:G:C5	2.86	0.64
1:A:903:G:C2	1:A:904:U:H1'	2.32	0.64
1:A:939:G:N3	1:A:1375:A:C2	2.66	0.64
1:A:949:A:H1'	1:A:1364:U:C4	2.32	0.64
1:A:953:G:C4	1:A:954:G:C8	2.86	0.64
1:A:960:U:C4	19:S:78:THR:O	2.51	0.64
1:A:984:C:H2'	1:A:985:C:H6	1.62	0.64
1:A:1273:C:C4	1:A:1274:A:C4	2.85	0.64
1:A:44:A:C2	1:A:45:G:C4	2.86	0.64
1:A:610:U:C5	1:A:627:G:OP2	2.51	0.64
1:A:679:C:C2	1:A:680:C:C6	2.85	0.64
1:A:688:G:N2	1:A:689:C:H1'	2.12	0.64
1:A:712:A:C2	1:A:713:G:C4	2.86	0.64
1:A:838:G:C2	1:A:849:G:C4	2.86	0.64
1:A:1223:C:C5'	1:A:1225:A:C8	2.80	0.64
1:A:1415:G:N2	1:A:1486:G:H1'	2.13	0.64
3:C:116:ALA:CB	3:C:184:ASN:HD21	2.10	0.64
20:T:59:ARG:HD3	20:T:60:GLN:HE21	1.63	0.64
1:A:109:A:C5	1:A:327:A:C5	2.86	0.64
1:A:218:U:H4'	1:A:470:C:C1'	2.28	0.64
1:A:346:G:N2	1:A:346:G:H5"	2.13	0.64
1:A:411:A:OP2	1:A:429:U:C6	2.50	0.64
1:A:469:C:H3'	1:A:470:C:C6	2.33	0.64
1:A:579:A:C6	1:A:763:G:C6	2.86	0.64
1:A:587:G:C2	1:A:755:G:C8	2.86	0.64
1:A:598:U:C2	1:A:599:C:C6	2.86	0.64
1:A:654:G:H21	1:A:755:G:C4'	2.10	0.64
1:A:902:G:H2'	1:A:903:G:H8	1.61	0.64
1:A:1152:A:OP1	10:J:70:HIS:CG	2.51	0.64
1:A:1371:G:C8	9:I:110:VAL:HG11	2.31	0.64
18:R:32:ILE:HG23	18:R:58:ILE:HD13	1.80	0.64
1:A:139:A:C2	1:A:140:U:C2	2.86	0.63
1:A:142:G:C2	1:A:143:A:H1'	2.34	0.63
1:A:184:G:C4	1:A:224:U:H5"	2.32	0.63
1:A:249:U:H3'	1:A:249:U:C6	2.33	0.63
1:A:335:C:H2'	1:A:336:A:C8	2.33	0.63
1:A:363:A:H3'	1:A:364:A:C8	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:380:G:H2'	1:A:382:A:C8	2.33	0.63
1:A:451:A:H1'	1:A:480:U:C4	2.33	0.63
1:A:579:A:C2	1:A:763:G:C4	2.86	0.63
1:A:857:C:H3'	1:A:858:G:C8	2.32	0.63
1:A:942:G:H3'	1:A:943:U:C5	2.33	0.63
1:A:1059:C:H2'	1:A:1060:U:H6	1.63	0.63
1:A:1071:C:H2'	1:A:1072:G:C8	2.33	0.63
1:A:1250:A:C8	1:A:1287:A:C8	2.86	0.63
1:A:1255:G:C4	1:A:1279:G:C6	2.87	0.63
1:A:1312:G:C6	1:A:1326:U:C4	2.86	0.63
1:A:1385:G:C6	1:A:1386:G:C6	2.85	0.63
3:C:148:ILE:HD12	3:C:201:ILE:HD12	1.80	0.63
8:H:93:LYS:HZ2	8:H:116:ARG:HE	1.45	0.63
13:M:9:PRO:HG3	13:M:18:LEU:HD11	1.79	0.63
17:Q:45:VAL:HG21	17:Q:60:ILE:HG22	1.78	0.63
1:A:177:G:N7	1:A:178:C:C6	2.66	0.63
1:A:347:G:C4	1:A:348:G:H1'	2.33	0.63
1:A:615:G:C2	1:A:626:G:C2	2.86	0.63
1:A:657:U:H4'	15:O:27:GLN:HB3	1.80	0.63
1:A:809:G:C5	1:A:810:C:C5	2.86	0.63
1:A:903:G:C4	1:A:904:U:C6	2.87	0.63
1:A:942:G:C2	1:A:943:U:C6	2.86	0.63
1:A:1055:A:C6	1:A:1056:U:C6	2.85	0.63
1:A:1068:G:C6	1:A:1108:G:C5	2.86	0.63
1:A:1299:A:C2	1:A:1301:U:N3	2.67	0.63
1:A:1371:G:C6	1:A:1372:U:C4	2.87	0.63
5:E:42:ASN:OD1	5:E:119:VAL:HG21	1.98	0.63
1:A:92:U:C4	1:A:93:U:N3	2.67	0.63
1:A:98:A:C6	1:A:99:C:C2	2.86	0.63
1:A:149:A:H5"	1:A:149:A:C8	2.33	0.63
1:A:463:U:C5	1:A:464:U:O4'	2.51	0.63
1:A:951:G:C2	1:A:1231:G:C2	2.86	0.63
1:A:1513:A:C2	1:A:1523:G:C4	2.86	0.63
4:D:91:ALA:HB2	4:D:187:ARG:HH22	1.62	0.63
9:I:38:PHE:CE2	9:I:75:ALA:HA	2.32	0.63
15:O:53:ARG:HH12	15:O:57:ARG:HG3	1.64	0.63
1:A:73:C:C6	1:A:73:C:H5"	2.33	0.63
1:A:220:G:C2	1:A:221:C:C6	2.87	0.63
1:A:318:G:C2	1:A:336:A:C2	2.86	0.63
1:A:495:A:C6	4:D:119:HIS:CE1	2.86	0.63
1:A:530:G:H3'	1:A:531:U:H5'	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:600:A:C8	1:A:600:A:H3'	2.33	0.63
1:A:639:G:C8	1:A:639:G:H5"	2.33	0.63
1:A:943:U:C2	1:A:944:G:C8	2.86	0.63
1:A:1095:U:C5	1:A:1096:C:C4	2.87	0.63
1:A:1242:G:H1'	1:A:1303:C:H4'	1.79	0.63
1:A:57:G:C6	1:A:356:A:N1	2.66	0.63
1:A:151:A:C6	1:A:152:A:C4	2.86	0.63
1:A:160:A:C2	1:A:346:G:C6	2.87	0.63
1:A:432:A:H3'	1:A:433:G:C8	2.33	0.63
1:A:499:A:C5'	1:A:547:A:H61	2.12	0.63
1:A:929:G:C6	1:A:930:C:C4	2.87	0.63
1:A:946:A:C2	1:A:947:G:C5	2.87	0.63
1:A:1117:A:C6	1:A:1156:G:C2	2.87	0.63
1:A:1206:G:C5	1:A:1207:G:C8	2.87	0.63
1:A:1374:A:C4	1:A:1375:A:C8	2.87	0.63
1:A:1462:C:H3'	1:A:1463:U:C6	2.34	0.63
10:J:70:HIS:H	10:J:70:HIS:CD2	2.17	0.63
11:K:75:GLU:HG3	11:K:76:TYR:CD2	2.34	0.63
12:L:15:VAL:HG12	12:L:17:LYS:HZ2	1.64	0.63
15:O:45:HIS:HB3	15:O:47:LYS:H	1.63	0.63
1:A:124:C:H2'	1:A:125:U:C6	2.34	0.63
1:A:148:G:C8	1:A:1447:A:O2'	2.52	0.63
1:A:160:A:C6	1:A:161:A:C6	2.86	0.63
1:A:253:A:H2'	1:A:254:G:C8	2.33	0.63
1:A:327:A:H2'	1:A:329:A:C8	2.33	0.63
1:A:391:G:C6	1:A:392:C:C4	2.87	0.63
1:A:397:A:N6	1:A:548:G:C5	2.66	0.63
1:A:580:C:C4	1:A:581:G:C6	2.87	0.63
1:A:668:G:C1'	15:O:45:HIS:CD2	2.81	0.63
1:A:693:G:H1	1:A:788:U:C4'	2.11	0.63
1:A:1012:A:C6	1:A:1018:G:C6	2.86	0.63
1:A:1088:G:C2	1:A:1098:C:C2	2.87	0.63
1:A:1089:G:H2'	1:A:1170:A:C2	2.34	0.63
1:A:1091:U:C2	1:A:1095:U:N3	2.66	0.63
1:A:1306:A:N6	1:A:1307:U:C4	2.66	0.63
1:A:1317:C:C5	1:A:1318:A:C6	2.85	0.63
1:A:1343:G:H4'	9:I:123:ARG:HG2	1.81	0.63
1:A:1355:G:N2	1:A:1356:G:C4	2.66	0.63
4:D:117:VAL:HG21	4:D:132:ALA:HB2	1.80	0.63
17:Q:60:ILE:HA	17:Q:74:LEU:HA	1.81	0.63
1:A:61:G:H1	1:A:105:G:H22	1.47	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:78:A:O5’	1:A:78:A:H8	1.81	0.63
1:A:113:G:O4’	1:A:354:G:H4’	1.99	0.63
1:A:146:G:C6	1:A:177:G:C5	2.86	0.63
1:A:319:G:C5	1:A:320:A:C8	2.86	0.63
1:A:348:G:N2	1:A:349:A:C4	2.66	0.63
1:A:690:G:C6	1:A:691:G:C4	2.86	0.63
1:A:941:G:N2	1:A:1343:G:C4	2.67	0.63
1:A:1021:A:C2	1:A:1022:A:C8	2.86	0.63
1:A:1068:G:O6	1:A:1108:G:C6	2.52	0.63
1:A:1091:U:H4’	1:A:1172:C:H5’	1.80	0.63
1:A:1098:C:C4	1:A:1099:G:C5	2.87	0.63
1:A:1228:C:C5’	1:A:1228:C:C6	2.82	0.63
1:A:1306:A:C8	1:A:1332:A:C2	2.87	0.63
1:A:1355:G:C2	1:A:1368:A:C4	2.87	0.63
1:A:1395:C:H1’	1:A:1399:C:C6	2.33	0.63
1:A:1418:A:C5	1:A:1483:A:C6	2.87	0.63
1:A:1532:U:C6	1:A:1534:A:C2	2.87	0.63
2:B:23:ASN:HD22	2:B:188:THR:HA	1.62	0.63
1:A:51:A:C6	1:A:116:A:C8	2.87	0.63
1:A:72:A:H2’	1:A:73:C:C5	2.33	0.63
1:A:92:U:C5	1:A:93:U:C4	2.87	0.63
1:A:161:A:C6	1:A:162:A:C5	2.87	0.63
1:A:373:A:C4	1:A:374:A:C8	2.87	0.63
1:A:704:A:C5	1:A:705:G:C8	2.86	0.63
1:A:840:C:H1’	1:A:843:U:H3	1.64	0.63
1:A:915:A:C8	1:A:915:A:H3’	2.34	0.63
1:A:1239:A:C4	1:A:1241:G:C5	2.87	0.63
1:A:1261:A:C6	1:A:1275:A:C8	2.86	0.63
1:A:1262:C:H2’	1:A:1263:C:H5’	1.79	0.63
1:A:1276:G:C8	1:A:1276:G:O5’	2.52	0.63
1:A:1304:G:H1’	1:A:1334:G:C2	2.34	0.63
1:A:1333:A:H3’	1:A:1334:G:C8	2.33	0.63
1:A:1429:A:C2	1:A:1472:U:C2	2.86	0.63
3:C:132:ALA:HA	3:C:135:ARG:HH21	1.62	0.63
8:H:103:VAL:HG13	8:H:112:ASP:CB	2.29	0.63
8:H:103:VAL:HG12	8:H:124:ILE:HA	1.80	0.63
1:A:64:G:H2’	1:A:99:C:N4	2.14	0.63
1:A:78:A:C8	1:A:79:G:C5	2.87	0.63
1:A:138:G:H1’	1:A:226:G:N2	2.14	0.63
1:A:138:G:C2	1:A:139:A:C8	2.87	0.63
1:A:211:G:N2	1:A:213:G:C8	2.67	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:213:G:C6	1:A:214:C:H1'	2.33	0.63
1:A:347:G:O5'	1:A:347:G:C8	2.52	0.63
1:A:378:G:C6	1:A:379:C:C4	2.87	0.63
1:A:438:U:C5	1:A:494:G:OP2	2.52	0.63
1:A:466:A:C6	1:A:468:A:C6	2.87	0.63
1:A:592:G:C5	1:A:648:A:C2	2.86	0.63
1:A:656:G:C6	1:A:657:U:C4	2.87	0.63
1:A:750:C:C2	1:A:751:U:C5	2.87	0.63
1:A:804:U:C6	1:A:805:C:C5	2.87	0.63
1:A:1004:A:H8	1:A:1005:A:C8	2.16	0.63
1:A:1129:C:C2	1:A:1144:G:C2	2.87	0.63
1:A:1131:G:H22	1:A:1144:G:H4'	1.63	0.63
1:A:1193:G:C8	1:A:1193:G:H3'	2.34	0.63
1:A:1312:G:C2	1:A:1326:U:C2	2.87	0.63
1:A:1332:A:N3	1:A:1332:A:H5"	2.14	0.63
6:F:38:ARG:HH22	6:F:61:LEU:HD23	1.63	0.63
8:H:126:CYS:HA	8:H:127:TYR:CE2	2.33	0.63
13:M:10:ASP:HB2	13:M:11:HIS:CD2	2.33	0.63
17:Q:22:VAL:HG21	17:Q:60:ILE:HG21	1.81	0.63
17:Q:58:VAL:HA	17:Q:77:VAL:HA	1.80	0.63
1:A:38:G:H4'	1:A:547:A:N6	2.14	0.62
1:A:321:A:C4'	1:A:1436:U:H4'	2.28	0.62
1:A:444:G:C5	1:A:491:G:C6	2.86	0.62
1:A:579:A:C5	1:A:580:C:C5	2.87	0.62
1:A:581:G:C6	1:A:758:C:H3'	2.34	0.62
1:A:596:A:C2	1:A:597:G:C4	2.87	0.62
1:A:627:G:H2'	1:A:628:G:H8	1.62	0.62
1:A:695:A:H2	1:A:787:A:C4'	2.11	0.62
1:A:904:U:C5	1:A:905:U:C5	2.86	0.62
1:A:942:G:C2	1:A:1342:C:C2	2.87	0.62
1:A:976:G:C4	1:A:1359:C:H1'	2.34	0.62
1:A:1108:G:C6	1:A:1109:C:C4	2.86	0.62
1:A:1163:A:C2	1:A:1164:G:C4	2.87	0.62
1:A:1238:A:C8	1:A:1298:U:O2	2.52	0.62
1:A:1374:A:C6	1:A:1375:A:C5	2.86	0.62
1:A:1394:A:C2	1:A:1501:C:H4'	2.34	0.62
1:A:1395:C:C2	1:A:1399:C:C5	2.87	0.62
1:A:1406:U:C5	1:A:1407:C:C5	2.86	0.62
2:B:40:ILE:HG21	2:B:201:GLY:H	1.64	0.62
11:K:31:VAL:CG1	11:K:99:LEU:HD21	2.29	0.62
17:Q:8:GLN:HA	17:Q:59:GLU:HA	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:64:G:C4	1:A:99:C:C4	2.86	0.62
1:A:145:G:C2	1:A:178:C:C2	2.87	0.62
1:A:245:U:O2	1:A:284:C:C2	2.52	0.62
1:A:251:G:C2	1:A:266:G:C5	2.87	0.62
1:A:253:A:H1'	1:A:276:G:C4'	2.29	0.62
1:A:296:U:H1'	1:A:302:G:N2	2.13	0.62
1:A:411:A:C2	1:A:428:G:N2	2.67	0.62
1:A:448:A:C5	1:A:449:G:C8	2.87	0.62
1:A:449:G:C6	1:A:450:G:C6	2.87	0.62
1:A:615:G:N2	16:P:47:GLU:HB3	2.14	0.62
1:A:858:G:N2	1:A:869:G:H2'	2.14	0.62
1:A:929:G:C5	1:A:930:C:C5	2.87	0.62
1:A:933:G:C2	1:A:1385:G:C2	2.86	0.62
1:A:941:G:C2	1:A:942:G:C8	2.87	0.62
1:A:952:U:C2	1:A:953:G:C8	2.87	0.62
1:A:1033:G:C5	1:A:1034:G:N7	2.67	0.62
1:A:1057:G:C1'	3:C:194:VAL:HG11	2.28	0.62
1:A:1059:C:H2'	1:A:1060:U:C6	2.34	0.62
1:A:1083:U:H1'	1:A:1101:A:C8	2.34	0.62
1:A:1165:U:H3'	1:A:1166:G:C8	2.33	0.62
1:A:1179:A:C4	1:A:1180:A:C8	2.88	0.62
1:A:1198:G:C4	1:A:1199:U:C6	2.87	0.62
1:A:1219:A:C6	1:A:1220:G:C6	2.87	0.62
1:A:1300:G:C4	1:A:1334:G:C6	2.88	0.62
1:A:1350:A:N3	7:G:33:GLY:HA3	2.14	0.62
1:A:1406:U:C6	1:A:1406:U:H5"	2.34	0.62
1:A:1421:G:H21	1:A:1422:G:H1'	1.62	0.62
2:B:79:VAL:HG23	2:B:92:ASN:HA	1.79	0.62
2:B:80:LYS:CA	2:B:83:ALA:HB3	2.29	0.62
8:H:39:LEU:HD23	8:H:100:ILE:HD11	1.82	0.62
1:A:80:A:C8	1:A:81:A:C8	2.88	0.62
1:A:94:G:O4'	1:A:96:U:C5	2.52	0.62
1:A:195:A:H2'	1:A:196:A:C8	2.35	0.62
1:A:237:G:C6	1:A:238:A:C4	2.87	0.62
1:A:509:A:C5	1:A:510:A:C2	2.88	0.62
1:A:597:G:C2	1:A:644:U:C2	2.86	0.62
1:A:656:G:C2	1:A:751:U:N3	2.67	0.62
1:A:865:A:H3'	1:A:865:A:C8	2.33	0.62
1:A:867:G:C6	1:A:868:C:C4	2.87	0.62
1:A:895:G:C6	1:A:896:C:C2	2.87	0.62
1:A:941:G:C4	1:A:942:G:C8	2.87	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:953:G:C2	1:A:954:G:H1’	2.34	0.62
1:A:1015:G:C6	1:A:1016:A:C5	2.87	0.62
1:A:1048:G:H5”	14:N:3:GLN:H	1.63	0.62
1:A:1082:A:C5	1:A:1083:U:C4	2.88	0.62
1:A:1233:G:H21	1:A:1364:U:H5	1.47	0.62
1:A:1235:U:H2’	1:A:1236:A:C8	2.35	0.62
1:A:1270:G:H4’	1:A:1314:C:H5’	1.82	0.62
1:A:1307:U:H5”	13:M:99:GLN:HE22	1.62	0.62
1:A:1333:A:C6	1:A:1334:G:C4	2.87	0.62
1:A:1402:C:H2’	1:A:1403:C:O4’	2.00	0.62
1:A:1530:G:C4	1:A:1531:A:C2	2.87	0.62
3:C:155:ARG:HB2	3:C:194:VAL:H	1.65	0.62
13:M:84:CYS:HB2	13:M:87:GLY:H	1.63	0.62
1:A:162:A:C8	1:A:163:C:H1’	2.34	0.62
1:A:300:A:N7	1:A:301:G:H1’	2.14	0.62
1:A:464:U:O5’	1:A:464:U:H6	1.83	0.62
1:A:654:G:C4	1:A:753:A:C5	2.87	0.62
1:A:676:A:H2’	1:A:677:U:C6	2.33	0.62
1:A:703:G:H4’	1:A:704:A:C8	2.35	0.62
1:A:838:G:C5	1:A:849:G:C6	2.87	0.62
1:A:847:G:C5	1:A:848:C:C6	2.86	0.62
1:A:904:U:C5	1:A:905:U:C4	2.87	0.62
1:A:974:A:C2	14:N:70:HIS:CD2	2.87	0.62
1:A:1014:A:H3’	1:A:1015:G:C8	2.35	0.62
1:A:1022:A:C8	1:A:1022:A:C5’	2.81	0.62
1:A:1063:C:H41	1:A:1190:G:H1’	1.64	0.62
1:A:1153:G:C6	1:A:1154:G:C8	2.87	0.62
1:A:1183:U:H2’	2:B:131:LYS:HB3	1.79	0.62
1:A:1195:C:H6	1:A:1195:C:O5’	1.81	0.62
1:A:1209:C:H2’	1:A:1210:C:C6	2.34	0.62
1:A:1356:G:C2	1:A:1357:A:C4	2.86	0.62
10:J:42:LEU:HD21	10:J:73:LEU:HG	1.82	0.62
1:A:207:C:H3’	1:A:208:U:C5	2.34	0.62
1:A:270:A:C6	1:A:271:C:C4	2.88	0.62
1:A:500:G:H2’	1:A:501:C:C6	2.34	0.62
1:A:626:G:H2’	1:A:627:G:C8	2.34	0.62
1:A:771:G:C6	1:A:772:U:N3	2.67	0.62
1:A:908:A:C2	1:A:909:A:C6	2.88	0.62
1:A:1091:U:H2’	1:A:1093:A:N7	2.14	0.62
1:A:1129:C:C2	1:A:1139:G:C4	2.87	0.62
1:A:1294:G:C6	1:A:1295:U:C4	2.87	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1309:G:H5”	13:M:76:ILE:CG1	2.29	0.62
1:A:1315:U:H2’	1:A:1316:G:C8	2.35	0.62
8:H:7:ALA:HB2	8:H:76:ARG:HD2	1.79	0.62
10:J:68:ARG:HE	10:J:70:HIS:CE1	2.17	0.62
1:A:10:A:C2	1:A:11:G:N7	2.67	0.62
1:A:161:A:C5	1:A:162:A:C8	2.87	0.62
1:A:220:G:C2	1:A:221:C:C5	2.87	0.62
1:A:248:C:C2	1:A:277:C:C2	2.88	0.62
1:A:413:G:O2’	1:A:426:U:C5	2.52	0.62
1:A:458:U:H2’	1:A:459:A:C8	2.34	0.62
1:A:606:G:C4	1:A:631:C:H1’	2.33	0.62
1:A:655:A:N6	1:A:656:G:C6	2.67	0.62
1:A:932:C:C5	7:G:2:ARG:CZ	2.82	0.62
1:A:946:A:H1’	1:A:1334:G:H5’	1.81	0.62
1:A:1030:U:H3’	1:A:1032:G:C5	2.35	0.62
1:A:1064:G:O6	1:A:1191:A:C6	2.52	0.62
1:A:1088:G:C2	1:A:1089:G:C5	2.88	0.62
1:A:1114:C:C2	1:A:1115:U:C6	2.87	0.62
1:A:1185:G:N1	1:A:1186:G:C4	2.67	0.62
1:A:1313:U:C6	1:A:1313:U:OP2	2.53	0.62
1:A:1319:A:C8	1:A:1323:G:C5	2.88	0.62
2:B:185:ILE:HD13	2:B:209:VAL:HA	1.82	0.62
12:L:35:ARG:HB3	12:L:37:TYR:CE1	2.34	0.62
17:Q:11:VAL:HG12	17:Q:21:VAL:O	1.99	0.62
1:A:201:G:C6	1:A:202:G:C6	2.88	0.62
1:A:255:G:C6	1:A:256:U:C2	2.88	0.62
1:A:394:G:C5	1:A:395:C:C5	2.88	0.62
1:A:425:G:C4	1:A:426:U:C6	2.86	0.62
1:A:444:G:C6	1:A:491:G:C6	2.88	0.62
1:A:449:G:C6	1:A:450:G:O6	2.53	0.62
1:A:450:G:C6	1:A:481:G:H1’	2.35	0.62
1:A:600:A:C6	1:A:639:G:C5	2.88	0.62
1:A:929:G:H1’	1:A:1533:C:C4	2.34	0.62
1:A:1033:G:C8	1:A:1036:A:N1	2.68	0.62
1:A:1055:A:C2	1:A:1056:U:H1’	2.34	0.62
1:A:1186:G:H2’	1:A:1187:G:C8	2.32	0.62
1:A:1237:C:H4’	1:A:1303:C:O2	1.99	0.62
1:A:1279:G:H8	1:A:1281:C:C5	2.18	0.62
1:A:1298:U:C4’	1:A:1299:A:C2	2.83	0.62
1:A:1454:G:C2	1:A:1455:G:H1’	2.34	0.62
5:E:82:HIS:CE1	5:E:147:ASN:H	2.17	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:160:A:C1'	1:A:344:A:H2'	2.29	0.62
1:A:167:A:N3	1:A:168:G:C8	2.68	0.62
1:A:246:A:C4	1:A:279:A:C5	2.88	0.62
1:A:292:G:C5	1:A:293:G:H1'	2.35	0.62
1:A:448:A:C8	1:A:487:A:C6	2.88	0.62
1:A:559:A:H4'	1:A:560:A:H5"	1.82	0.62
1:A:585:G:C6	1:A:586:C:C4	2.87	0.62
1:A:656:G:C2	1:A:657:U:C2	2.88	0.62
1:A:693:G:C6	1:A:694:A:C5	2.88	0.62
1:A:1024:G:C2	1:A:1025:U:C6	2.86	0.62
1:A:1379:G:N1	1:A:1380:U:C4	2.68	0.62
1:A:1408:A:C2	1:A:1409:C:N3	2.67	0.62
1:A:1438:G:N2	1:A:1439:G:C5	2.68	0.62
6:F:24:ARG:HH21	6:F:77:THR:HB	1.65	0.62
8:H:103:VAL:HG11	8:H:116:ARG:HH21	1.64	0.62
12:L:98:ARG:HH11	12:L:104:SER:HB2	1.65	0.62
1:A:94:G:C4'	1:A:95:C:H5"	2.28	0.62
1:A:301:G:C2	1:A:302:G:C4	2.87	0.62
1:A:496:A:C2	1:A:497:G:C5	2.88	0.62
1:A:522:C:H1'	1:A:536:C:H5"	1.81	0.62
1:A:525:C:C4	1:A:526:C:C4	2.88	0.62
1:A:675:A:C2	1:A:676:A:H1'	2.35	0.62
1:A:677:U:H1'	11:K:119:GLY:H	1.65	0.62
1:A:864:A:C6	1:A:865:A:C6	2.88	0.62
1:A:1160:G:H5'	2:B:134:LEU:HB3	1.82	0.62
1:A:1170:A:C6	1:A:1171:A:C4	2.87	0.62
1:A:1206:G:H4'	3:C:191:THR:CA	2.29	0.62
1:A:1244:G:C5	1:A:1245:C:C5	2.88	0.62
1:A:1301:U:C5	1:A:1303:C:C4	2.88	0.62
1:A:1310:G:C4	1:A:1311:A:C8	2.87	0.62
1:A:1392:G:H4'	1:A:1532:U:OP1	1.99	0.62
1:A:1403:C:H1'	1:A:1500:A:C2	2.35	0.62
1:A:1420:U:H3'	1:A:1421:G:H8	1.65	0.62
1:A:1433:A:C5	1:A:1434:A:C5	2.87	0.62
3:C:115:VAL:HG13	3:C:136:ALA:HB1	1.80	0.62
6:F:4:TYR:CG	6:F:71:ILE:HD13	2.35	0.62
13:M:6:ILE:HG23	13:M:65:GLU:OE2	2.00	0.62
1:A:55:A:C6	1:A:56:U:C6	2.88	0.62
1:A:118:U:H2'	1:A:121:U:C4	2.35	0.62
1:A:160:A:C2	1:A:346:G:N1	2.68	0.62
1:A:198:G:C2	1:A:199:A:C4	2.88	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:232:G:N2	1:A:233:C:H1'	2.14	0.62
1:A:302:G:C4	1:A:303:A:C8	2.88	0.62
1:A:515:G:C6	1:A:516:U:C4	2.88	0.62
1:A:633:G:C5	1:A:634:C:C5	2.87	0.62
1:A:661:G:H1'	1:A:745:G:C2	2.35	0.62
1:A:688:G:O5'	11:K:48:GLY:HA2	2.00	0.62
1:A:713:G:C2	1:A:714:G:C2	2.87	0.62
1:A:785:G:C2	1:A:786:G:C8	2.87	0.62
1:A:840:C:C2	1:A:847:G:C2	2.88	0.62
1:A:849:G:C4	1:A:850:U:C6	2.88	0.62
1:A:936:C:H4'	1:A:1383:C:C2	2.35	0.62
1:A:963:G:C6	1:A:973:G:C6	2.88	0.62
1:A:1069:C:C5	1:A:1094:G:C5	2.87	0.62
1:A:1088:G:N2	1:A:1089:G:C4	2.68	0.62
1:A:1091:U:H2'	1:A:1091:U:O2	2.00	0.62
1:A:1153:G:OP1	10:J:15:HIS:CE1	2.53	0.62
1:A:1304:G:N2	1:A:1332:A:C2	2.68	0.62
1:A:1444:U:C2	1:A:1459:G:C2	2.88	0.62
1:A:1445:U:O5'	1:A:1445:U:H6	1.82	0.62
1:A:1468:A:H3'	1:A:1469:C:C5	2.34	0.62
9:I:14:SER:HB2	9:I:77:ALA:HB2	1.82	0.62
1:A:9:G:N2	1:A:10:A:H1'	2.15	0.61
1:A:30:U:O3'	1:A:399:G:H4'	2.00	0.61
1:A:35:G:C5	1:A:36:C:C5	2.88	0.61
1:A:144:G:C6	1:A:145:G:N7	2.68	0.61
1:A:174:A:C5	1:A:175:C:C5	2.88	0.61
1:A:282:A:H3'	1:A:283:U:C5	2.35	0.61
1:A:299:G:C6	1:A:300:A:C5	2.88	0.61
1:A:437:U:C4	1:A:438:U:C5	2.88	0.61
1:A:620:C:C4	1:A:621:A:C4	2.88	0.61
1:A:700:G:O2'	1:A:704:A:C4	2.53	0.61
1:A:771:G:C6	1:A:772:U:C2	2.88	0.61
1:A:996:A:C2	1:A:1046:A:H5'	2.35	0.61
1:A:1170:A:C5	1:A:1171:A:C4	2.87	0.61
1:A:1419:G:H3'	1:A:1420:U:C6	2.35	0.61
9:I:42:THR:N	9:I:71:ILE:HG21	2.15	0.61
13:M:11:HIS:H	13:M:43:LYS:CA	2.12	0.61
1:A:27:G:H21	1:A:297:G:H5'	1.64	0.61
1:A:28:A:C5	1:A:29:U:C5	2.88	0.61
1:A:60:A:H3'	20:T:4:LYS:HA	1.81	0.61
1:A:145:G:C6	1:A:146:G:C8	2.88	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:295:C:N3	1:A:303:A:C2	2.68	0.61
1:A:296:U:H1'	1:A:302:G:H22	1.63	0.61
1:A:468:A:C5	1:A:469:C:C5	2.88	0.61
1:A:559:A:H4'	1:A:560:A:C5'	2.29	0.61
1:A:565:U:C4	1:A:566:G:C5	2.88	0.61
1:A:652:U:H1'	1:A:653:U:C6	2.34	0.61
1:A:811:C:H2'	1:A:812:G:C5'	2.31	0.61
1:A:838:G:C6	1:A:839:C:C5	2.88	0.61
1:A:1221:G:C4	1:A:1222:G:C8	2.88	0.61
1:A:1272:G:C6	1:A:1273:C:C5	2.88	0.61
1:A:1305:G:C8	1:A:1305:G:OP2	2.53	0.61
1:A:1414:U:H3	1:A:1486:G:H22	1.47	0.61
20:T:34:VAL:HA	20:T:49:ALA:HB1	1.82	0.61
1:A:10:A:C2	1:A:11:G:C8	2.87	0.61
1:A:39:G:C5	1:A:40:C:C5	2.88	0.61
1:A:58:C:H2'	1:A:59:A:H8	1.65	0.61
1:A:62:U:H5"	1:A:385:C:C2'	2.30	0.61
1:A:77:A:C8	1:A:77:A:OP2	2.53	0.61
1:A:83:C:H2'	1:A:86:G:H22	1.65	0.61
1:A:208:U:C5	1:A:210:C:H1'	2.35	0.61
1:A:439:U:C5	4:D:119:HIS:CE1	2.88	0.61
1:A:446:G:C2	1:A:489:C:C2	2.88	0.61
1:A:466:A:H5"	1:A:466:A:C8	2.35	0.61
1:A:577:G:H5'	1:A:816:A:C8	2.35	0.61
1:A:605:U:H2'	1:A:606:G:C2	2.34	0.61
1:A:656:G:C5	1:A:657:U:C4	2.88	0.61
1:A:673:A:C2	1:A:674:G:C2	2.89	0.61
1:A:790:A:C6	1:A:791:G:C6	2.88	0.61
1:A:923:A:C4	1:A:924:C:C5	2.88	0.61
1:A:938:A:C2	1:A:939:G:H1'	2.35	0.61
1:A:976:G:C6	1:A:1359:C:C6	2.88	0.61
1:A:1131:G:C6	1:A:1132:C:C4	2.89	0.61
1:A:1161:C:H3'	1:A:1161:C:H6	1.66	0.61
1:A:1251:A:C6	1:A:1252:A:C5	2.88	0.61
1:A:1405:G:H2'	1:A:1406:U:H6	1.65	0.61
1:A:1406:U:H1'	1:A:1518:A:O4'	2.00	0.61
1:A:1428:A:C6	1:A:1429:A:C5	2.88	0.61
1:A:1462:C:C4	1:A:1463:U:C4	2.89	0.61
1:A:1498:U:H4'	1:A:1519:A:C2	2.35	0.61
19:S:33:TRP:CD2	19:S:56:HIS:CE1	2.88	0.61
22:W:57:ALA:HA	22:W:78:ARG:HH22	1.65	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:45:G:H2'	1:A:46:G:H8	1.65	0.61
1:A:55:A:C5	1:A:56:U:C6	2.88	0.61
1:A:102:G:C5	1:A:103:U:C5	2.89	0.61
1:A:158:G:H2'	1:A:159:G:H5"	1.83	0.61
1:A:160:A:H4'	1:A:344:A:C5	2.35	0.61
1:A:182:A:C2	1:A:183:C:C6	2.88	0.61
1:A:184:G:C8	1:A:224:U:H4'	2.34	0.61
1:A:223:A:C2	1:A:224:U:H1'	2.36	0.61
1:A:230:G:N2	1:A:231:U:H1'	2.15	0.61
1:A:455:G:C2	1:A:478:A:N3	2.68	0.61
1:A:634:C:C4	1:A:635:A:C5	2.88	0.61
1:A:806:C:H42	1:A:807:A:H62	1.48	0.61
1:A:1507:A:C2	1:A:1508:A:C4	2.89	0.61
1:A:1523:G:C6	1:A:1524:C:C4	2.87	0.61
2:B:56:LEU:HD13	2:B:216:VAL:HG22	1.81	0.61
3:C:22:PHE:H	10:J:94:ALA:HB1	1.64	0.61
5:E:110:MET:SD	5:E:124:ALA:HB3	2.40	0.61
1:A:3:A:C8	1:A:3:A:H3'	2.36	0.61
1:A:22:G:C2	1:A:914:A:C8	2.88	0.61
1:A:27:G:C6	1:A:28:A:C5	2.89	0.61
1:A:70:U:H2'	1:A:94:G:N9	2.15	0.61
1:A:134:G:H5'	1:A:325:A:OP1	2.00	0.61
1:A:206:C:C4	1:A:207:C:C2	2.89	0.61
1:A:275:G:C8	1:A:275:G:C5'	2.83	0.61
1:A:354:G:C6	1:A:355:C:C5	2.88	0.61
1:A:369:G:C2	1:A:393:A:C2	2.89	0.61
1:A:385:C:C4	1:A:386:C:C5	2.89	0.61
1:A:448:A:H3'	1:A:449:G:C8	2.36	0.61
1:A:474:G:C6	1:A:475:C:C2	2.88	0.61
1:A:482:A:C2	1:A:483:C:H1'	2.35	0.61
1:A:495:A:H1'	1:A:496:A:C6	2.36	0.61
1:A:592:G:C6	1:A:648:A:C6	2.89	0.61
1:A:610:U:C5	1:A:627:G:N7	2.69	0.61
1:A:745:G:H5'	1:A:852:G:H1'	1.81	0.61
1:A:759:A:C5	1:A:760:G:C8	2.88	0.61
1:A:766:A:H1'	1:A:814:A:C2	2.35	0.61
1:A:859:G:C4	1:A:860:A:C8	2.88	0.61
1:A:917:G:C6	1:A:918:A:C6	2.89	0.61
1:A:941:G:C2	1:A:1343:G:C2	2.87	0.61
1:A:1133:G:C8	1:A:1133:G:H5"	2.35	0.61
1:A:1139:G:N2	1:A:1141:C:C5	2.69	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1176:A:H3'	1:A:1177:G:C8	2.35	0.61
1:A:1365:G:C6	1:A:1366:C:C4	2.89	0.61
1:A:1399:C:H1'	1:A:1401:G:C4	2.35	0.61
9:I:124:PRO:HA	9:I:125:GLN:HG2	1.82	0.61
17:Q:18:LYS:HB3	17:Q:49:ASN:H	1.66	0.61
1:A:76:G:H3'	1:A:77:A:C8	2.36	0.61
1:A:184:G:C2	1:A:185:U:C6	2.88	0.61
1:A:316:C:O2	1:A:338:A:C2	2.53	0.61
1:A:323:U:C5	1:A:324:G:C6	2.88	0.61
1:A:429:U:OP2	4:D:31:CYS:HB3	2.00	0.61
1:A:583:A:C8	1:A:583:A:O5'	2.54	0.61
1:A:674:G:C2	1:A:675:A:C4	2.89	0.61
1:A:688:G:C2	1:A:700:G:C4	2.88	0.61
1:A:766:A:C4	1:A:814:A:C4	2.88	0.61
1:A:1005:A:N7	1:A:1006:G:C4	2.69	0.61
1:A:1191:A:H3'	1:A:1192:C:C6	2.35	0.61
13:M:106:ARG:HG3	13:M:112:ARG:HA	1.83	0.61
14:N:31:SER:HB3	14:N:45:LEU:HD21	1.82	0.61
1:A:141:G:C5	1:A:142:G:C8	2.89	0.61
1:A:202:G:H1	1:A:215:C:H42	1.48	0.61
1:A:291:U:H3'	1:A:305:G:H22	1.65	0.61
1:A:373:A:N1	1:A:391:G:H1'	2.16	0.61
1:A:406:G:C6	1:A:407:U:C4	2.88	0.61
1:A:575:G:C6	1:A:881:G:C5	2.89	0.61
1:A:595:A:C6	1:A:641:U:C6	2.88	0.61
1:A:615:G:C4	1:A:616:G:C8	2.88	0.61
1:A:1020:G:C6	1:A:1021:A:C5	2.89	0.61
1:A:1058:G:C5	1:A:1059:C:C5	2.89	0.61
1:A:1169:A:C4	1:A:1170:A:C8	2.89	0.61
1:A:1309:G:C2	1:A:1310:G:C4	2.89	0.61
1:A:1312:G:C8	1:A:1312:G:C5'	2.84	0.61
1:A:1369:C:H2'	1:A:1370:G:C8	2.35	0.61
1:A:1418:A:H2'	1:A:1419:G:O4'	2.00	0.61
3:C:12:GLY:HA2	3:C:15:LYS:HD2	1.81	0.61
4:D:101:VAL:HG21	4:D:117:VAL:HG21	1.81	0.61
5:E:34:ALA:O	5:E:62:ALA:HB2	2.01	0.61
16:P:15:PRO:HG2	16:P:17:TYR:CE1	2.35	0.61
1:A:116:A:C6	1:A:117:G:C6	2.89	0.61
1:A:141:G:C2	1:A:142:G:H1'	2.36	0.61
1:A:503:C:O2	1:A:510:A:H2	1.84	0.61
1:A:518:C:H5"	1:A:519:C:C6	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:669:G:C2	1:A:670:G:C4	2.88	0.61
1:A:1253:G:H4'	10:J:48:ARG:NH1	2.16	0.61
4:D:96:ARG:HH12	4:D:98:ASP:HB3	1.65	0.61
4:D:105:GLY:HA3	4:D:161:ALA:HB2	1.83	0.61
14:N:33:VAL:HA	14:N:41:TRP:CZ2	2.36	0.61
17:Q:27:PHE:HA	17:Q:38:LYS:HZ2	1.66	0.61
1:A:15:G:C6	1:A:16:A:C5	2.89	0.61
1:A:71:A:H5'	1:A:71:A:H8	1.65	0.61
1:A:100:G:C2	1:A:101:A:C4	2.89	0.61
1:A:105:G:H2'	1:A:106:C:H6	1.64	0.61
1:A:118:U:O5'	1:A:118:U:H6	1.83	0.61
1:A:120:A:C2	1:A:122:G:C5	2.89	0.61
1:A:191:G:H8	1:A:191:G:H5"	1.64	0.61
1:A:199:A:C2	1:A:200:G:C4	2.88	0.61
1:A:382:A:C4	1:A:383:A:C8	2.89	0.61
1:A:632:U:C6	1:A:633:G:C4	2.89	0.61
1:A:807:A:C6	1:A:808:C:C4	2.89	0.61
1:A:895:G:H1	1:A:905:U:H1'	1.65	0.61
1:A:1003:G:C4	1:A:1005:A:OP1	2.54	0.61
1:A:1068:G:C2	1:A:1108:G:H1'	2.34	0.61
1:A:1074:G:C5	1:A:1075:U:C4	2.88	0.61
1:A:1275:A:C5	1:A:1276:G:C8	2.88	0.61
1:A:1299:A:OP2	1:A:1301:U:C4	2.53	0.61
1:A:1492:A:C2	1:A:1494:G:C8	2.89	0.61
2:B:56:LEU:HD13	2:B:216:VAL:HG13	1.83	0.61
4:D:94:GLU:HB3	4:D:103:ARG:HH12	1.65	0.61
22:W:132:ILE:H	22:W:132:ILE:HD13	1.65	0.61
1:A:15:G:C4	1:A:16:A:C8	2.89	0.61
1:A:127:G:C2	1:A:235:C:C2	2.89	0.61
1:A:206:C:C2	1:A:207:C:H1'	2.36	0.61
1:A:580:C:C4	1:A:581:G:C5	2.89	0.61
1:A:591:U:O5'	1:A:591:U:H6	1.84	0.61
1:A:595:A:H4'	1:A:596:A:H5'	1.82	0.61
1:A:713:G:C8	1:A:713:G:O5'	2.54	0.61
1:A:1014:A:C6	19:S:33:TRP:CZ2	2.88	0.61
1:A:1032:G:C5	1:A:1033:G:H1'	2.36	0.61
1:A:1111:A:C5'	2:B:129:THR:HG23	2.30	0.61
1:A:1114:C:C2	1:A:1187:G:N3	2.69	0.61
1:A:1131:G:H5'	9:I:4:GLN:HB2	1.82	0.61
1:A:1473:G:C6	1:A:1474:U:C6	2.89	0.61
3:C:112:ALA:HB1	3:C:199:VAL:O	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:73:C:C5	1:A:73:C:H5”	2.36	0.60
1:A:101:A:C6	1:A:102:G:C5	2.89	0.60
1:A:160:A:C5	1:A:161:A:C5	2.89	0.60
1:A:179:A:C6	1:A:180:U:C4	2.89	0.60
1:A:263:A:H2’	1:A:264:C:C6	2.37	0.60
1:A:295:C:C4	1:A:296:U:C4	2.89	0.60
1:A:362:G:H22	1:A:365:U:H5	1.49	0.60
1:A:390:U:H5”	16:P:28:ARG:HE	1.65	0.60
1:A:663:A:N1	1:A:743:A:C2	2.69	0.60
1:A:773:G:C2	1:A:774:G:H1’	2.34	0.60
1:A:842:U:H5’	1:A:846:G:N2	2.16	0.60
1:A:986:U:H3	1:A:1219:A:H61	1.46	0.60
1:A:1054:C:C2	1:A:1196:A:H2’	2.36	0.60
1:A:1083:U:C4	1:A:1084:G:C2	2.89	0.60
1:A:1161:C:H2’	1:A:1162:C:C5	2.36	0.60
1:A:1250:A:C5	1:A:1251:A:C5	2.89	0.60
1:A:1256:A:O4’	1:A:1258:G:H1’	2.01	0.60
1:A:1406:U:C4	1:A:1407:C:C6	2.89	0.60
1:A:1462:C:C5	1:A:1463:U:C5	2.89	0.60
1:A:1524:C:H3’	1:A:1524:C:C6	2.35	0.60
1:A:38:G:H1’	1:A:547:A:C4	2.36	0.60
1:A:80:A:N6	1:A:81:A:C4	2.69	0.60
1:A:604:G:H1	1:A:634:C:H42	1.49	0.60
1:A:683:G:C2	1:A:684:U:C2	2.88	0.60
1:A:777:A:C8	1:A:777:A:H3’	2.36	0.60
1:A:821:G:C5	1:A:822:U:C5	2.89	0.60
1:A:842:U:H5’	1:A:846:G:C2	2.36	0.60
1:A:953:G:C2	1:A:1229:A:C5	2.89	0.60
1:A:956:U:C4	1:A:957:U:C4	2.88	0.60
1:A:1032:G:C2	1:A:1033:G:N7	2.69	0.60
1:A:1061:G:C6	1:A:1197:A:C5	2.89	0.60
1:A:1103:C:H4’	2:B:96:LEU:HD22	1.84	0.60
1:A:1114:C:C6	1:A:1187:G:C2	2.89	0.60
1:A:1262:C:C5	1:A:1274:A:N3	2.69	0.60
1:A:1438:G:C2	1:A:1439:G:C5	2.90	0.60
1:A:1480:A:H3’	1:A:1481:U:C6	2.36	0.60
10:J:16:ARG:HE	10:J:16:ARG:CA	2.13	0.60
16:P:39:PHE:HA	16:P:50:THR:HG23	1.83	0.60
17:Q:22:VAL:HG12	17:Q:45:VAL:HB	1.83	0.60
1:A:142:G:C2	1:A:222:C:C6	2.90	0.60
1:A:251:G:C4	1:A:252:U:C5	2.90	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:257:G:C2	1:A:258:G:C4	2.88	0.60
1:A:565:U:C6	1:A:566:G:H2'	2.36	0.60
1:A:671:G:C4	1:A:736:C:C2	2.89	0.60
1:A:690:G:C6	1:A:691:G:C5	2.89	0.60
1:A:717:U:H1'	11:K:117:HIS:HB3	1.82	0.60
1:A:717:U:H1'	11:K:117:HIS:CD2	2.37	0.60
1:A:727:G:C2	1:A:731:G:C4	2.90	0.60
1:A:755:G:C6	1:A:756:C:C5	2.90	0.60
1:A:801:U:H2'	1:A:802:A:C8	2.36	0.60
1:A:926:G:C6	1:A:1505:G:C6	2.89	0.60
1:A:959:A:N3	1:A:985:C:H1'	2.16	0.60
1:A:991:U:O2'	1:A:993:G:C8	2.54	0.60
1:A:1066:C:H3'	1:A:1067:A:C8	2.36	0.60
1:A:1080:A:C5'	5:E:20:VAL:HB	2.30	0.60
1:A:1094:G:OP2	1:A:1095:U:C6	2.55	0.60
1:A:1159:U:C5'	1:A:1181:G:H21	2.13	0.60
1:A:1356:G:H2'	1:A:1357:A:C8	2.36	0.60
1:A:1416:G:C2	1:A:1485:U:H1'	2.36	0.60
1:A:1428:A:C6	1:A:1473:G:C6	2.88	0.60
1:A:1495:U:C2	1:A:1496:C:C6	2.90	0.60
8:H:42:GLU:CG	8:H:100:ILE:HG21	2.31	0.60
8:H:105:THR:HG22	8:H:106:SER:H	1.66	0.60
17:Q:28:VAL:HG13	17:Q:39:ARG:HB2	1.83	0.60
1:A:21:G:H2'	1:A:22:G:C8	2.37	0.60
1:A:98:A:H8	1:A:98:A:O5'	1.85	0.60
1:A:141:G:N1	1:A:142:G:H1'	2.16	0.60
1:A:184:G:C6	1:A:194:C:C5	2.89	0.60
1:A:212:G:C4	1:A:214:C:C4	2.90	0.60
1:A:410:G:H1	1:A:430:A:H5'	1.66	0.60
1:A:514:C:H41	1:A:533:A:H2'	1.67	0.60
1:A:592:G:C3'	1:A:593:U:H6	2.14	0.60
1:A:615:G:C6	1:A:626:G:C6	2.89	0.60
1:A:674:G:C2	1:A:675:A:C5	2.89	0.60
1:A:738:C:H2'	1:A:739:C:C6	2.36	0.60
1:A:757:U:H4'	1:A:822:U:O2	2.01	0.60
1:A:776:G:H4'	1:A:777:A:C8	2.35	0.60
1:A:907:A:H2'	1:A:908:A:C8	2.36	0.60
1:A:908:A:C2	1:A:909:A:C5	2.89	0.60
1:A:953:G:C4	1:A:1229:A:C6	2.90	0.60
1:A:1009:U:O2	1:A:1021:A:C2	2.54	0.60
1:A:1010:U:C2	1:A:1020:G:C2	2.89	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1108:G:C5	1:A:1109:C:C5	2.88	0.60
1:A:1146:A:C2	1:A:1147:C:C1'	2.84	0.60
1:A:1240:U:H3'	1:A:1241:G:N7	2.15	0.60
1:A:1315:U:C4	1:A:1316:G:C6	2.89	0.60
1:A:1333:A:H3'	1:A:1334:G:H8	1.66	0.60
1:A:1405:G:H1'	1:A:1519:A:C4'	2.31	0.60
3:C:133:MET:O	3:C:137:VAL:HG23	2.01	0.60
5:E:106:ALA:HB1	5:E:111:ARG:HB2	1.83	0.60
6:F:4:TYR:CE2	6:F:71:ILE:HB	2.36	0.60
1:A:10:A:C2	1:A:11:G:C5	2.89	0.60
1:A:105:G:N2	1:A:380:G:H5'	2.15	0.60
1:A:117:G:C4	1:A:118:U:C6	2.90	0.60
1:A:127:G:C2	1:A:128:G:C8	2.89	0.60
1:A:218:U:C2	1:A:219:U:C2	2.90	0.60
1:A:223:A:N1	1:A:224:U:C2	2.70	0.60
1:A:270:A:C5	1:A:271:C:C5	2.90	0.60
1:A:327:A:C2'	1:A:329:A:C8	2.85	0.60
1:A:346:G:N2	1:A:347:G:C5	2.69	0.60
1:A:346:G:H5"	1:A:346:G:C2	2.37	0.60
1:A:515:G:C5	1:A:537:G:C2	2.90	0.60
1:A:645:G:C2	1:A:646:G:C8	2.90	0.60
1:A:761:G:N1	1:A:762:U:C2	2.70	0.60
1:A:909:A:H1'	1:A:1414:U:H4'	1.82	0.60
1:A:914:A:C8	1:A:914:A:H3'	2.36	0.60
1:A:942:G:H3'	1:A:943:U:C6	2.37	0.60
1:A:953:G:C5	1:A:1229:A:C6	2.89	0.60
1:A:1014:A:OP2	19:S:13:HIS:CD2	2.55	0.60
1:A:1258:G:C4	1:A:1259:C:C5	2.90	0.60
1:A:1310:G:C2	1:A:1311:A:C4	2.88	0.60
1:A:1379:G:C6	1:A:1380:U:C4	2.89	0.60
1:A:1423:G:C5	1:A:1424:U:C4	2.89	0.60
1:A:1501:C:C4	1:A:1504:G:N3	2.70	0.60
1:A:1522:U:O5'	1:A:1522:U:H6	1.83	0.60
17:Q:6:THR:HA	17:Q:61:ARG:HA	1.84	0.60
18:R:31:TYR:CG	18:R:44:THR:HG23	2.36	0.60
1:A:59:A:C2	1:A:354:G:C5	2.90	0.60
1:A:68:G:C1'	1:A:171:A:H1'	2.32	0.60
1:A:200:G:C2	1:A:218:U:O2	2.55	0.60
1:A:241:G:C6	1:A:242:G:C5	2.90	0.60
1:A:338:A:C5	1:A:339:C:C2	2.90	0.60
1:A:582:C:N3	1:A:760:G:C6	2.70	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:594:U:H3'	1:A:595:A:H8	1.65	0.60
1:A:595:A:C2	1:A:596:A:N6	2.68	0.60
1:A:602:A:C8	1:A:602:A:O5'	2.54	0.60
1:A:611:C:H3'	1:A:612:C:C6	2.37	0.60
1:A:687:A:N1	1:A:704:A:C6	2.70	0.60
1:A:749:A:H2'	1:A:750:C:C6	2.35	0.60
1:A:782:A:C8	1:A:783:C:C6	2.90	0.60
1:A:886:G:C6	1:A:887:G:C5	2.89	0.60
1:A:907:A:H2'	1:A:908:A:H8	1.67	0.60
1:A:935:A:C2	7:G:2:ARG:NH1	2.70	0.60
1:A:942:G:C4	1:A:943:U:H5	2.17	0.60
1:A:955:U:H3	1:A:1225:A:H2	1.48	0.60
1:A:994:A:C2	1:A:1216:A:H5"	2.37	0.60
1:A:1096:C:H3'	1:A:1096:C:H6	1.65	0.60
1:A:1345:U:H5'	1:A:1348:U:O2	2.01	0.60
1:A:1389:C:H2'	1:A:1390:U:O4'	2.02	0.60
1:A:1399:C:C2	1:A:1401:G:C2	2.89	0.60
1:A:1482:G:C8	1:A:1482:G:H3'	2.36	0.60
11:K:46:ALA:HB1	11:K:61:ALA:HB1	1.84	0.60
15:O:82:GLU:HA	15:O:88:ARG:HH21	1.67	0.60
1:A:32:A:H2'	1:A:33:A:C8	2.36	0.60
1:A:67:C:C2'	1:A:68:G:C8	2.84	0.60
1:A:134:G:C8	1:A:325:A:N7	2.70	0.60
1:A:191:G:C8	1:A:191:G:OP2	2.53	0.60
1:A:266:G:H1'	1:A:267:C:H3'	1.82	0.60
1:A:282:A:C4	1:A:283:U:C6	2.90	0.60
1:A:291:U:C2	1:A:310:G:C2	2.90	0.60
1:A:348:G:H3'	1:A:349:A:H8	1.67	0.60
1:A:475:C:H2'	1:A:476:U:H6	1.66	0.60
1:A:544:G:C6	1:A:545:C:C4	2.90	0.60
1:A:583:A:C4	1:A:584:G:C8	2.90	0.60
1:A:605:U:P	1:A:605:U:H6	2.24	0.60
1:A:616:G:C2	1:A:617:G:C8	2.89	0.60
1:A:720:C:C2	1:A:733:G:H2'	2.36	0.60
1:A:1131:G:C6	1:A:1132:C:C5	2.90	0.60
1:A:1435:G:C5	1:A:1436:U:C5	2.89	0.60
3:C:180:ASP:H	3:C:205:GLU:HA	1.65	0.60
1:A:28:A:C6	1:A:29:U:C4	2.89	0.60
1:A:71:A:C8	1:A:100:G:C6	2.89	0.60
1:A:104:G:C5	1:A:105:G:N7	2.69	0.60
1:A:257:G:H2'	1:A:258:G:C8	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:266:G:H4'	1:A:267:C:H6	1.67	0.60
1:A:369:G:C6	1:A:370:C:C4	2.90	0.60
1:A:592:G:C4	1:A:648:A:C2	2.89	0.60
1:A:695:A:H61	1:A:797:C:C4'	2.15	0.60
1:A:749:A:C6	1:A:750:C:N4	2.69	0.60
1:A:1014:A:H5"	19:S:13:HIS:CD2	2.37	0.60
1:A:1057:G:O4'	3:C:194:VAL:HG11	2.02	0.60
1:A:1059:C:P	3:C:1:GLY:H1	2.25	0.60
1:A:1096:C:C4	1:A:1097:C:C5	2.89	0.60
1:A:1117:A:N3	1:A:1180:A:H1'	2.17	0.60
1:A:1139:G:C2	1:A:1143:G:N1	2.70	0.60
2:B:93:HIS:CD2	2:B:94:ARG:H	2.20	0.60
3:C:174:LEU:O	3:C:175:HIS:CD2	2.55	0.60
5:E:47:PHE:C	5:E:66:ALA:HA	2.22	0.60
8:H:38:VAL:CG1	8:H:111:THR:HB	2.32	0.60
10:J:7:ARG:HA	10:J:75:ASP:HA	1.83	0.60
17:Q:43:LEU:HD23	17:Q:44:HIS:O	2.02	0.60
1:A:68:G:N1	1:A:102:G:C2	2.70	0.60
1:A:78:A:C2	1:A:79:G:C2	2.89	0.60
1:A:91:U:C6	1:A:92:U:H1'	2.37	0.60
1:A:198:G:C6	1:A:199:A:C6	2.89	0.60
1:A:269:C:H2'	1:A:270:A:C8	2.36	0.60
1:A:271:C:C4	1:A:272:C:C5	2.89	0.60
1:A:329:A:C6	1:A:332:G:C4	2.90	0.60
1:A:379:C:H2'	1:A:380:G:C8	2.37	0.60
1:A:439:U:C5	4:D:119:HIS:NE2	2.70	0.60
1:A:509:A:OP2	4:D:47:LEU:HA	2.02	0.60
1:A:695:A:C2	1:A:787:A:C4'	2.85	0.60
1:A:705:G:H22	11:K:30:ILE:HD13	1.64	0.60
1:A:759:A:N7	1:A:760:G:C8	2.70	0.60
1:A:779:C:H2'	11:K:121:ARG:HH21	1.67	0.60
1:A:949:A:C2	1:A:950:U:C2	2.90	0.60
1:A:1117:A:C2	1:A:1184:G:C2	2.90	0.60
1:A:1162:C:C2	1:A:1163:A:C8	2.90	0.60
1:A:1223:C:H3'	1:A:1224:U:C2	2.36	0.60
1:A:1268:G:C2	1:A:1269:A:C4	2.90	0.60
1:A:1306:A:C8	1:A:1306:A:O5'	2.55	0.60
1:A:1353:G:C2	1:A:1370:G:C2	2.90	0.60
2:B:20:ARG:HD3	2:B:37:VAL:HA	1.83	0.60
8:H:34:ALA:HB1	8:H:109:VAL:HB	1.84	0.60
8:H:89:ASP:HA	8:H:121:GLY:HA2	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:35:GLN:HE22	10:J:78:GLU:HB3	1.66	0.60
11:K:41:LEU:HD22	11:K:76:TYR:CD2	2.37	0.60
1:A:79:G:C5	1:A:80:A:C5	2.89	0.60
1:A:105:G:N2	1:A:380:G:C5'	2.65	0.60
1:A:165:G:N1	1:A:166:U:C2	2.70	0.60
1:A:193:C:H4'	20:T:55:PRO:CA	2.32	0.60
1:A:253:A:H2	1:A:275:G:H1'	1.64	0.60
1:A:254:G:P	1:A:266:G:H3'	2.42	0.60
1:A:684:U:H3	1:A:706:A:H61	1.48	0.60
1:A:904:U:OP2	1:A:905:U:C5	2.55	0.60
1:A:1010:U:H3	1:A:1019:A:H61	1.49	0.60
1:A:1043:G:C5	1:A:1044:A:C5	2.90	0.60
1:A:1057:G:C8	1:A:1204:A:C2	2.90	0.60
1:A:1090:U:C5'	1:A:1170:A:C2	2.84	0.60
1:A:1238:A:C4'	1:A:1336:C:H41	2.15	0.60
1:A:1296:C:C5'	13:M:12:LYS:HA	2.32	0.60
1:A:1327:C:C4	1:A:1328:C:C5	2.89	0.60
1:A:1455:G:H5"	1:A:1455:G:C8	2.37	0.60
1:A:1514:G:N1	1:A:1515:G:C8	2.70	0.60
1:A:57:G:C6	1:A:356:A:C2	2.90	0.59
1:A:66:A:N1	1:A:104:G:C6	2.70	0.59
1:A:68:G:O4'	1:A:171:A:H1'	2.03	0.59
1:A:130:A:H2	1:A:232:G:H22	1.50	0.59
1:A:141:G:N1	1:A:223:A:C5	2.69	0.59
1:A:247:G:C5	1:A:278:G:C2	2.90	0.59
1:A:370:C:C2	1:A:371:A:C8	2.90	0.59
1:A:410:G:H1	1:A:430:A:H3'	1.66	0.59
1:A:520:A:N6	1:A:521:G:C4	2.70	0.59
1:A:773:G:C6	1:A:807:A:C6	2.90	0.59
1:A:856:C:H2'	1:A:857:C:C6	2.37	0.59
1:A:857:C:C5	1:A:871:U:O4	2.54	0.59
1:A:861:G:H2'	1:A:862:C:O4'	2.01	0.59
1:A:905:U:C2	1:A:906:A:C4	2.89	0.59
1:A:915:A:C6	1:A:916:U:C6	2.90	0.59
1:A:1086:U:C6	1:A:1086:U:H5"	2.37	0.59
1:A:1098:C:H5"	2:B:73:ARG:HH22	1.66	0.59
1:A:1142:G:C6	1:A:1143:G:H1'	2.36	0.59
1:A:1306:A:C2	1:A:1307:U:H1'	2.35	0.59
1:A:1312:G:C6	1:A:1313:U:C5	2.90	0.59
1:A:1439:G:C8	1:A:1439:G:O5'	2.55	0.59
3:C:83:VAL:HG21	3:C:102:ILE:HD11	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:J:5:ARG:HD2	10:J:78:GLU:H	1.67	0.59
1:A:35:G:C4	1:A:550:G:C2	2.90	0.59
1:A:53:A:C6	1:A:54:C:C6	2.89	0.59
1:A:53:A:C8	1:A:53:A:H3'	2.37	0.59
1:A:199:A:N1	1:A:200:G:C5	2.70	0.59
1:A:201:G:H2'	1:A:202:G:C8	2.37	0.59
1:A:240:G:N1	1:A:287:U:C2	2.70	0.59
1:A:266:G:C5	1:A:269:C:N4	2.68	0.59
1:A:392:C:O2'	1:A:483:C:H2'	2.02	0.59
1:A:1095:U:H6	1:A:1096:C:OP2	1.84	0.59
1:A:1117:A:C2	1:A:1180:A:H1'	2.37	0.59
1:A:1164:G:C5	1:A:1165:U:C5	2.90	0.59
1:A:1191:A:C2	1:A:1192:C:C4	2.90	0.59
1:A:1224:U:H2'	19:S:77:ARG:HH22	1.66	0.59
1:A:1279:G:C8	1:A:1281:C:C5	2.90	0.59
1:A:1306:A:H2'	1:A:1307:U:C5'	2.32	0.59
1:A:1308:U:C6	13:M:97:ARG:HG3	2.37	0.59
1:A:1390:U:H2'	1:A:1391:U:C1'	2.31	0.59
1:A:1416:G:C6	1:A:1417:G:C4	2.90	0.59
1:A:1429:A:C2	1:A:1430:A:C8	2.90	0.59
1:A:1488:G:O2'	1:A:1489:G:H5'	2.02	0.59
1:A:1499:A:C4	1:A:1500:A:C8	2.90	0.59
1:A:46:G:C2	1:A:396:C:C2	2.90	0.59
1:A:66:A:H2'	1:A:67:C:C6	2.37	0.59
1:A:128:G:C2	1:A:234:C:C6	2.90	0.59
1:A:133:U:C6	1:A:230:G:N2	2.70	0.59
1:A:139:A:C2	1:A:225:C:C2	2.90	0.59
1:A:155:A:C2	1:A:167:A:H1'	2.37	0.59
1:A:208:U:C4	1:A:210:C:H1'	2.37	0.59
1:A:329:A:C5	1:A:332:G:C5	2.90	0.59
1:A:371:A:H1'	1:A:391:G:N2	2.17	0.59
1:A:595:A:C5	1:A:641:U:C6	2.89	0.59
1:A:621:A:C4	1:A:622:A:C8	2.90	0.59
1:A:815:A:OP2	1:A:816:A:C8	2.55	0.59
1:A:1023:U:C2	1:A:1024:G:C8	2.89	0.59
1:A:1049:U:C6	14:N:1:ALA:HB1	2.37	0.59
1:A:1097:C:C4	1:A:1098:C:C4	2.90	0.59
1:A:1148:U:N3	1:A:1149:C:C2	2.71	0.59
1:A:1288:A:N1	1:A:1289:A:C5	2.70	0.59
1:A:1405:G:N1	1:A:1406:U:C5	2.70	0.59
1:A:1407:C:H3'	1:A:1408:A:C8	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1433:A:N6	1:A:1468:A:C8	2.70	0.59
10:J:19:ASP:HB3	10:J:72:ARG:HH22	1.67	0.59
11:K:115:ILE:HB	18:R:69:TYR:CE1	2.36	0.59
1:A:11:G:N1	1:A:12:U:C2	2.70	0.59
1:A:101:A:C4	1:A:102:G:C8	2.91	0.59
1:A:113:G:C4	1:A:114:U:C6	2.90	0.59
1:A:146:G:C6	1:A:147:G:C8	2.90	0.59
1:A:457:G:N2	1:A:476:U:H1'	2.18	0.59
1:A:524:G:H3'	1:A:525:C:C6	2.37	0.59
1:A:570:G:O5'	1:A:570:G:C8	2.55	0.59
1:A:654:G:H3'	1:A:655:A:H8	1.66	0.59
1:A:749:A:C2	15:O:21:THR:O	2.55	0.59
1:A:1033:G:C6	1:A:1034:G:C5	2.90	0.59
1:A:1055:A:C6	1:A:1206:G:C6	2.90	0.59
1:A:1068:G:C5	1:A:1108:G:C2	2.91	0.59
1:A:1242:G:O4'	1:A:1303:C:H4'	2.02	0.59
1:A:1262:C:N4	1:A:1274:A:H1'	2.17	0.59
1:A:1279:G:H8	1:A:1281:C:H5	1.50	0.59
1:A:1333:A:C5	1:A:1334:G:C4	2.90	0.59
1:A:1368:A:C5	1:A:1369:C:C5	2.91	0.59
15:O:81:ILE:CD1	15:O:88:ARG:HA	2.32	0.59
20:T:34:VAL:HA	20:T:49:ALA:HB3	1.83	0.59
20:T:57:VAL:HG21	20:T:75:LYS:HB2	1.83	0.59
1:A:35:G:C6	1:A:550:G:C6	2.91	0.59
1:A:64:G:C5	1:A:99:C:N3	2.71	0.59
1:A:82:G:OP1	1:A:91:U:H5'	2.02	0.59
1:A:102:G:C2	1:A:103:U:C2	2.91	0.59
1:A:173:U:H5'	1:A:199:A:H5'	1.83	0.59
1:A:251:G:N2	1:A:253:A:C8	2.70	0.59
1:A:282:A:C5	1:A:283:U:C5	2.90	0.59
1:A:369:G:C6	1:A:370:C:C5	2.91	0.59
1:A:438:U:O4	1:A:494:G:H3'	2.02	0.59
1:A:454:G:C2	1:A:455:G:N9	2.71	0.59
1:A:460:A:H1'	1:A:472:U:O2	2.02	0.59
1:A:465:A:C4	1:A:466:A:C8	2.91	0.59
1:A:509:A:OP1	4:D:50:TYR:HB2	2.03	0.59
1:A:577:G:C8	1:A:577:G:O5'	2.55	0.59
1:A:581:G:H1	1:A:759:A:P	2.25	0.59
1:A:666:G:H4'	1:A:731:G:H22	1.67	0.59
1:A:751:U:C4	1:A:752:G:C2	2.91	0.59
1:A:849:G:C8	1:A:849:G:H5"	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:912:C:H5”	12:L:90:PRO:HB3	1.83	0.59
1:A:1097:C:H1’	1:A:1170:A:C1’	2.33	0.59
1:A:1206:G:C6	1:A:1207:G:C4	2.91	0.59
1:A:1258:G:C5	1:A:1259:C:C5	2.91	0.59
1:A:1424:U:H6	1:A:1424:U:O5’	1.85	0.59
1:A:1514:G:C2	1:A:1515:G:C8	2.91	0.59
11:K:127:ARG:HE	21:U:34:ARG:HH12	1.50	0.59
1:A:68:G:C6	1:A:102:G:N1	2.70	0.59
1:A:70:U:C6	1:A:94:G:C2’	2.86	0.59
1:A:72:A:H62	1:A:98:A:H2	1.51	0.59
1:A:134:G:C5	1:A:325:A:N6	2.71	0.59
1:A:141:G:C2	1:A:223:A:C2	2.91	0.59
1:A:157:U:C2	1:A:165:G:N1	2.70	0.59
1:A:195:A:C5	1:A:196:A:C6	2.90	0.59
1:A:318:G:H2’	1:A:1468:A:H4’	1.85	0.59
1:A:348:G:H2’	1:A:349:A:C8	2.37	0.59
1:A:385:C:C2	1:A:386:C:C6	2.91	0.59
1:A:411:A:C5	1:A:429:U:C5	2.91	0.59
1:A:640:A:H1’	8:H:106:SER:HB3	1.84	0.59
1:A:687:A:C6	1:A:701:U:C4’	2.85	0.59
1:A:777:A:C2	11:K:120:CYS:SG	2.86	0.59
1:A:795:C:OP2	1:A:796:C:C5	2.55	0.59
1:A:860:A:C5	1:A:861:G:C4	2.91	0.59
1:A:1005:A:H2’	1:A:1006:G:O4’	2.02	0.59
1:A:1008:U:C4	1:A:1022:A:C2	2.91	0.59
1:A:1057:G:C6	1:A:1204:A:C4	2.91	0.59
1:A:1097:C:C2	1:A:1098:C:C6	2.90	0.59
1:A:1144:G:C8	1:A:1144:G:OP2	2.56	0.59
1:A:1244:G:C4	1:A:1294:G:C2	2.89	0.59
1:A:1302:C:H3’	1:A:1303:C:C5’	2.32	0.59
1:A:1303:C:H2’	1:A:1304:G:H5’	1.83	0.59
1:A:1483:A:H3’	1:A:1484:C:C6	2.37	0.59
10:J:68:ARG:HB3	10:J:70:HIS:CE1	2.36	0.59
1:A:39:G:C4	1:A:40:C:C6	2.90	0.59
1:A:90:C:O2	1:A:91:U:C5	2.55	0.59
1:A:130:A:H61	1:A:234:C:H6	1.51	0.59
1:A:237:G:H2’	1:A:238:A:O4’	2.02	0.59
1:A:468:A:OP2	1:A:471:U:C4	2.56	0.59
1:A:516:U:C4	1:A:517:G:C8	2.91	0.59
1:A:524:G:C2	1:A:525:C:C2	2.90	0.59
1:A:712:A:H2’	1:A:713:G:H8	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:728:A:C6	1:A:729:A:C6	2.90	0.59
1:A:846:G:N1	1:A:847:G:C5	2.71	0.59
1:A:851:G:C2	1:A:852:G:C5	2.90	0.59
1:A:939:G:C5	1:A:940:C:C4	2.91	0.59
1:A:1074:G:N3	1:A:1102:A:C2	2.71	0.59
1:A:1135:U:H3'	1:A:1137:C:N3	2.16	0.59
1:A:1143:G:C6	1:A:1144:G:C5	2.90	0.59
1:A:54:C:O2	1:A:358:U:C2	2.55	0.59
1:A:226:G:C4	1:A:227:G:C8	2.91	0.59
1:A:441:A:C6	1:A:442:G:C5	2.91	0.59
1:A:521:G:H21	1:A:536:C:C5'	2.16	0.59
1:A:537:G:O6	1:A:538:G:C6	2.55	0.59
1:A:587:G:C8	1:A:755:G:C2	2.90	0.59
1:A:591:U:O5'	1:A:591:U:C6	2.56	0.59
1:A:738:C:C4	1:A:739:C:C4	2.91	0.59
1:A:1021:A:N1	1:A:1022:A:C8	2.70	0.59
1:A:1042:A:C6	1:A:1043:G:O6	2.55	0.59
1:A:1074:G:N7	1:A:1075:U:C4	2.71	0.59
1:A:1252:A:C6	1:A:1253:G:C8	2.91	0.59
1:A:1275:A:C8	1:A:1275:A:H3'	2.36	0.59
1:A:1306:A:H61	1:A:1331:G:C1'	2.16	0.59
1:A:1350:A:C2	7:G:33:GLY:HA3	2.36	0.59
1:A:1356:G:C4	1:A:1357:A:C8	2.90	0.59
1:A:1483:A:C6	1:A:1484:C:H1'	2.37	0.59
1:A:1527:U:OP2	21:U:41:THR:HG22	2.01	0.59
2:B:204:ASP:HA	2:B:209:VAL:HG21	1.83	0.59
10:J:12:ALA:HB1	10:J:17:LEU:HB3	1.84	0.59
22:W:43:ILE:HB	22:W:78:ARG:HH11	1.68	0.59
1:A:146:G:N1	1:A:177:G:C5	2.71	0.59
1:A:155:A:C6	1:A:156:C:C4	2.91	0.59
1:A:203:G:H1	1:A:206:C:H41	1.51	0.59
1:A:226:G:C2	1:A:227:G:C4	2.91	0.59
1:A:254:G:C4	1:A:255:G:C8	2.90	0.59
1:A:323:U:C4	1:A:324:G:C4	2.90	0.59
1:A:504:C:C2	1:A:542:G:C2	2.91	0.59
1:A:570:G:H5"	1:A:820:U:H5'	1.84	0.59
1:A:676:A:C2	1:A:715:A:C2	2.91	0.59
1:A:800:G:C8	1:A:800:G:O5'	2.56	0.59
1:A:811:C:H4'	1:A:901:A:H61	1.67	0.59
1:A:860:A:N6	1:A:861:G:C2	2.71	0.59
1:A:924:C:C2	1:A:925:G:C8	2.91	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:963:G:H21	10:J:56:HIS:CD2	2.20	0.59
1:A:1064:G:C5	1:A:1066:C:C4	2.91	0.59
1:A:1068:G:N7	1:A:1094:G:C8	2.70	0.59
1:A:1232:U:H5'	9:I:127:SER:HA	1.84	0.59
1:A:1236:A:C8	1:A:1236:A:H5"	2.38	0.59
1:A:1244:G:C2	1:A:1245:C:C2	2.91	0.59
1:A:1298:U:H5	7:G:112:ASP:N	2.01	0.59
1:A:1301:U:H2'	1:A:1303:C:C6	2.38	0.59
1:A:1365:G:C5	1:A:1366:C:C4	2.91	0.59
4:D:18:LEU:HD23	4:D:63:ILE:HG12	1.85	0.59
11:K:62:ALA:CB	11:K:91:GLY:HA3	2.33	0.59
15:O:25:GLU:HA	15:O:80:LEU:HD13	1.84	0.59
22:W:191:SER:H	22:W:196:ASP:H	1.51	0.59
22:W:205:LEU:HB2	22:W:260:HIS:CE1	2.38	0.59
1:A:146:G:C6	1:A:177:G:C6	2.91	0.59
1:A:161:A:H2'	1:A:162:A:H5'	1.85	0.59
1:A:185:U:C2	1:A:186:C:C6	2.91	0.59
1:A:318:G:N2	1:A:1433:A:C2	2.71	0.59
1:A:354:G:C6	1:A:355:C:C4	2.91	0.59
1:A:410:G:H1'	1:A:433:G:N1	2.18	0.59
1:A:439:U:C5	1:A:440:C:C6	2.91	0.59
1:A:479:U:H6	1:A:479:U:O5'	1.86	0.59
1:A:522:C:O4'	1:A:536:C:H4'	2.02	0.59
1:A:580:C:H2'	1:A:581:G:O4'	2.02	0.59
1:A:648:A:N1	1:A:649:A:C5	2.71	0.59
1:A:748:G:N2	15:O:21:THR:HG21	2.18	0.59
1:A:865:A:C5	1:A:866:C:C5	2.90	0.59
1:A:866:C:O5'	1:A:866:C:H6	1.85	0.59
1:A:925:G:H1'	1:A:1502:A:H1'	1.85	0.59
1:A:1034:G:C6	1:A:1035:A:C6	2.90	0.59
1:A:1133:G:N3	1:A:1142:G:C2	2.71	0.59
1:A:1225:A:H2'	1:A:1226:C:C5	2.38	0.59
1:A:1258:G:C2	1:A:1259:C:C2	2.91	0.59
1:A:1259:C:C4	1:A:1260:G:C5	2.91	0.59
1:A:1266:G:H2'	1:A:1268:G:N7	2.17	0.59
1:A:1296:C:H2'	1:A:1297:G:O4'	2.03	0.59
1:A:1343:G:C5	1:A:1344:C:C5	2.90	0.59
1:A:1357:A:C5	1:A:1358:U:N3	2.71	0.59
1:A:1406:U:H1'	1:A:1518:A:C4'	2.33	0.59
1:A:1428:A:C2	1:A:1473:G:C4	2.91	0.59
5:E:52:ALA:HB1	5:E:57:ALA:HB1	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:41:HIS:NE2	15:O:45:HIS:CE1	2.71	0.59
1:A:188:C:C2	1:A:189:A:H1'	2.38	0.58
1:A:272:C:C2	1:A:273:U:C6	2.91	0.58
1:A:300:A:C4	1:A:301:G:H1'	2.38	0.58
1:A:332:G:C6	1:A:333:U:C5	2.91	0.58
1:A:420:U:H1'	1:A:424:G:C2	2.38	0.58
1:A:483:C:C4	1:A:484:G:C6	2.91	0.58
1:A:705:G:N7	1:A:706:A:C8	2.71	0.58
1:A:760:G:C8	1:A:760:G:O5'	2.55	0.58
1:A:788:U:C6	1:A:789:U:C5	2.90	0.58
1:A:846:G:H2'	1:A:847:G:C8	2.38	0.58
1:A:879:C:H2'	1:A:880:C:H6	1.68	0.58
1:A:923:A:C2	1:A:924:C:C6	2.91	0.58
1:A:934:C:C4	1:A:1345:U:C6	2.91	0.58
1:A:952:U:H3	1:A:1229:A:H61	1.51	0.58
1:A:980:C:C5	1:A:981:U:N3	2.71	0.58
1:A:1032:G:C4	1:A:1033:G:C8	2.91	0.58
1:A:1165:U:H3'	1:A:1166:G:H8	1.68	0.58
1:A:1185:G:C5	1:A:1186:G:C8	2.90	0.58
1:A:1197:A:C8	1:A:1197:A:H5'	2.38	0.58
1:A:1228:C:H2'	1:A:1229:A:C8	2.37	0.58
1:A:1434:A:C6	1:A:1435:G:C6	2.91	0.58
10:J:28:THR:HB	10:J:86:ALA:HB2	1.85	0.58
1:A:10:A:C2	1:A:25:C:N3	2.71	0.58
1:A:26:A:H61	1:A:558:G:C2'	2.16	0.58
1:A:50:A:C2	1:A:52:C:C4	2.91	0.58
1:A:64:G:C2	1:A:69:G:C6	2.90	0.58
1:A:111:G:H22	1:A:330:C:N4	2.01	0.58
1:A:119:A:C8	1:A:240:G:N7	2.71	0.58
1:A:204:G:O4'	1:A:465:A:C2	2.56	0.58
1:A:238:A:C5	1:A:239:U:C5	2.90	0.58
1:A:271:C:H2'	1:A:272:C:H6	1.68	0.58
1:A:404:G:N3	1:A:498:A:C2	2.71	0.58
1:A:457:G:H21	1:A:476:U:H1'	1.68	0.58
1:A:514:C:H2'	1:A:515:G:C8	2.38	0.58
1:A:655:A:C4	1:A:656:G:C8	2.91	0.58
1:A:714:G:C2	1:A:715:A:C4	2.90	0.58
1:A:792:A:C8	1:A:794:A:C8	2.90	0.58
1:A:894:G:C5	1:A:895:G:N7	2.71	0.58
1:A:941:G:N2	1:A:942:G:H1'	2.18	0.58
1:A:959:A:C6	1:A:1222:G:H4'	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:978:A:C6	1:A:1318:A:C6	2.91	0.58
1:A:1130:A:C1'	1:A:1146:A:C2	2.86	0.58
1:A:1169:A:H2'	1:A:1170:A:O4'	2.03	0.58
1:A:1249:C:H42	1:A:1287:A:H8	1.47	0.58
1:A:1395:C:H1'	1:A:1399:C:C5	2.38	0.58
1:A:1406:U:C4	1:A:1407:C:C5	2.90	0.58
1:A:1480:A:C6	1:A:1481:U:C4	2.91	0.58
1:A:1501:C:H6	1:A:1504:G:HO2'	1.51	0.58
3:C:185:THR:HB	3:C:198:LYS:HA	1.84	0.58
7:G:12:LEU:H	7:G:27:ASN:HD21	1.49	0.58
15:O:45:HIS:CE1	15:O:48:ASP:CG	2.76	0.58
1:A:3:A:H5'	1:A:614:C:C5'	2.33	0.58
1:A:90:C:C2	1:A:91:U:H5	2.20	0.58
1:A:105:G:C2	1:A:380:G:H5"	2.37	0.58
1:A:115:G:C2	1:A:289:G:C4	2.92	0.58
1:A:151:A:C2	1:A:152:A:C1'	2.84	0.58
1:A:205:A:C5	1:A:206:C:C4	2.91	0.58
1:A:294:U:C2	1:A:304:U:O2	2.56	0.58
1:A:393:A:H5'	1:A:484:G:C8	2.37	0.58
1:A:577:G:C6	1:A:765:G:H1'	2.39	0.58
1:A:602:A:C6	1:A:603:U:N3	2.71	0.58
1:A:627:G:C4	1:A:628:G:N7	2.71	0.58
1:A:655:A:N6	1:A:752:G:H22	2.01	0.58
1:A:688:G:C5	1:A:700:G:C2	2.91	0.58
1:A:791:G:C6	1:A:792:A:N7	2.71	0.58
1:A:1125:U:H2'	1:A:1126:U:H2'	1.86	0.58
1:A:1266:G:N2	1:A:1268:G:H3'	2.18	0.58
1:A:1293:C:C6	1:A:1293:C:H3'	2.38	0.58
1:A:1367:C:C4	1:A:1368:A:N7	2.70	0.58
1:A:1392:G:H1'	1:A:1503:A:P	2.43	0.58
2:B:27:LYS:H	2:B:28:PRO:CD	2.15	0.58
14:N:52:ARG:NH2	19:S:13:HIS:CE1	2.70	0.58
15:O:44:GLU:O	15:O:45:HIS:CG	2.55	0.58
1:A:46:G:C4'	1:A:48:C:H41	2.15	0.58
1:A:91:U:C5	1:A:92:U:H1'	2.37	0.58
1:A:161:A:C4	1:A:162:A:C8	2.92	0.58
1:A:227:G:C6	1:A:228:A:C5	2.91	0.58
1:A:282:A:N1	1:A:283:U:C2	2.71	0.58
1:A:383:A:N7	1:A:384:G:H1'	2.18	0.58
1:A:476:U:C2	1:A:477:C:C6	2.92	0.58
1:A:570:G:C8	1:A:873:A:C8	2.91	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:865:A:C6	1:A:866:C:C4	2.91	0.58
1:A:917:G:C2	1:A:918:A:C4	2.92	0.58
1:A:945:G:C4	1:A:1337:G:H1'	2.38	0.58
1:A:960:U:C2'	1:A:1223:C:H4'	2.33	0.58
1:A:983:A:H5'	14:N:8:ARG:HH22	1.68	0.58
1:A:1084:G:H2'	1:A:1085:U:C5	2.39	0.58
1:A:1213:A:C8	1:A:1215:G:C5	2.91	0.58
1:A:1238:A:H2'	1:A:1241:G:H1'	1.85	0.58
1:A:1264:U:C2	1:A:1272:G:N1	2.71	0.58
1:A:1373:G:O4'	7:G:34:LYS:HA	2.03	0.58
1:A:1375:A:H4'	7:G:28:ILE:HA	1.86	0.58
8:H:29:SER:H	8:H:32:LYS:HB2	1.69	0.58
11:K:51:PHE:CD1	11:K:55:ARG:HB3	2.38	0.58
16:P:16:PHE:HA	16:P:40:ASN:HA	1.85	0.58
22:W:38:GLU:H	22:W:83:PRO:HD2	1.68	0.58
1:A:38:G:H4'	1:A:547:A:C6	2.38	0.58
1:A:207:C:H2'	1:A:208:U:C5	2.38	0.58
1:A:227:G:C5	1:A:228:A:C8	2.91	0.58
1:A:262:A:C2	1:A:263:A:C5	2.91	0.58
1:A:369:G:C5	1:A:370:C:C5	2.90	0.58
1:A:435:A:C8	1:A:435:A:OP2	2.56	0.58
1:A:512:U:H3	1:A:539:A:N6	2.01	0.58
1:A:691:G:H1	11:K:53:GLY:HA2	1.69	0.58
1:A:711:G:H2'	1:A:712:A:H8	1.69	0.58
1:A:720:C:C6	1:A:733:G:C6	2.91	0.58
1:A:779:C:C4	1:A:801:U:OP2	2.57	0.58
1:A:856:C:H2'	1:A:857:C:O4'	2.04	0.58
1:A:903:G:H3'	1:A:904:U:C6	2.39	0.58
1:A:1053:G:C4	1:A:1199:U:C4	2.91	0.58
1:A:1053:G:C8	1:A:1053:G:H3'	2.38	0.58
1:A:1055:A:C6	1:A:1056:U:C2	2.92	0.58
1:A:1124:G:C2	1:A:1127:G:N2	2.71	0.58
1:A:1154:G:C8	1:A:1154:G:H5"	2.38	0.58
1:A:1197:A:C2	1:A:1198:G:C4	2.91	0.58
1:A:1239:A:C2	1:A:1241:G:C6	2.90	0.58
1:A:1296:C:C4	1:A:1297:G:C2	2.92	0.58
1:A:1373:G:C4'	7:G:34:LYS:HA	2.33	0.58
3:C:145:ALA:HB2	3:C:201:ILE:CG2	2.33	0.58
4:D:115:GLN:HE22	4:D:119:HIS:CD2	2.20	0.58
5:E:79:THR:HG23	5:E:97:PRO:CB	2.33	0.58
11:K:62:ALA:HB2	11:K:91:GLY:HA3	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:38:ILE:HA	20:T:46:ALA:HB2	1.84	0.58
1:A:33:A:C2	1:A:552:U:C2	2.91	0.58
1:A:53:A:C2	1:A:359:G:C4	2.92	0.58
1:A:61:G:C8	20:T:5:SER:HB3	2.38	0.58
1:A:153:C:H2'	1:A:154:U:H5'	1.86	0.58
1:A:255:G:C2	1:A:272:C:O2	2.57	0.58
1:A:394:G:C4	1:A:395:C:C6	2.91	0.58
1:A:756:C:C4	1:A:757:U:C4	2.92	0.58
1:A:780:A:C2	1:A:803:G:N1	2.71	0.58
1:A:868:C:H3'	1:A:869:G:H8	1.69	0.58
1:A:941:G:N1	1:A:1343:G:C6	2.71	0.58
1:A:947:G:H1'	1:A:1332:A:H62	1.67	0.58
1:A:1006:G:C6	1:A:1007:U:C5	2.92	0.58
1:A:1056:U:C4	1:A:1200:C:C2	2.91	0.58
1:A:1059:C:N3	1:A:1060:U:C5	2.72	0.58
1:A:1062:U:H3'	1:A:1062:U:C6	2.38	0.58
1:A:1130:A:C5	1:A:1146:A:C6	2.91	0.58
1:A:1170:A:H5"	2:B:138:ARG:CZ	2.33	0.58
1:A:1203:C:H4'	14:N:66:THR:HG22	1.85	0.58
1:A:1275:A:H8	1:A:1275:A:O5'	1.85	0.58
1:A:1516:G:C2	1:A:1520:C:C2	2.91	0.58
4:D:100:VAL:HG11	4:D:136:VAL:HG11	1.85	0.58
11:K:30:ILE:HA	11:K:45:THR:HA	1.86	0.58
17:Q:22:VAL:HB	17:Q:45:VAL:HG11	1.85	0.58
1:A:185:U:H3'	1:A:186:C:C5	2.37	0.58
1:A:198:G:C6	1:A:220:G:C4	2.91	0.58
1:A:200:G:N1	1:A:218:U:C2	2.72	0.58
1:A:203:G:H2'	1:A:203:G:C5	2.38	0.58
1:A:451:A:OP2	1:A:452:A:C5	2.57	0.58
1:A:602:A:C6	1:A:637:C:C4	2.92	0.58
1:A:615:G:N3	1:A:626:G:C2	2.71	0.58
1:A:681:A:H2'	1:A:682:G:C8	2.39	0.58
1:A:831:A:C5	1:A:832:G:C8	2.91	0.58
1:A:836:G:C2	1:A:837:U:C2	2.92	0.58
1:A:869:G:H4'	1:A:872:A:C8	2.38	0.58
1:A:922:G:C6	1:A:923:A:C6	2.92	0.58
1:A:924:C:H1'	1:A:1399:C:C6	2.38	0.58
1:A:1082:A:H2'	1:A:1083:U:C6	2.39	0.58
1:A:1266:G:N2	1:A:1269:A:H8	1.99	0.58
1:A:1287:A:H2'	1:A:1288:A:C8	2.39	0.58
1:A:1377:A:OP1	7:G:94:ARG:HA	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1379:G:H2'	1:A:1380:U:C6	2.38	0.58
1:A:1428:A:C5	1:A:1473:G:C2	2.92	0.58
2:B:16:GLY:HA3	2:B:40:ILE:HG12	1.85	0.58
4:D:99:ASN:HA	4:D:102:TYR:CZ	2.38	0.58
12:L:8:ARG:HB2	12:L:9:LYS:HZ3	1.69	0.58
12:L:82:ARG:HH11	12:L:100:ALA:HB2	1.69	0.58
17:Q:10:ARG:HB3	17:Q:57:VAL:HA	1.84	0.58
1:A:35:G:C2	1:A:36:C:C2	2.91	0.58
1:A:104:G:O4'	1:A:172:A:C2	2.57	0.58
1:A:109:A:C5	1:A:326:G:C6	2.91	0.58
1:A:119:A:H4'	1:A:120:A:C4'	2.34	0.58
1:A:119:A:C5	1:A:240:G:C8	2.91	0.58
1:A:364:A:C2	1:A:365:U:N3	2.72	0.58
1:A:410:G:N1	1:A:430:A:H5'	2.19	0.58
1:A:447:G:O5'	1:A:447:G:C8	2.57	0.58
1:A:468:A:C2	1:A:470:C:N4	2.72	0.58
1:A:469:C:C6	1:A:470:C:C5	2.91	0.58
1:A:649:A:N1	1:A:650:G:C4	2.72	0.58
1:A:650:G:C8	1:A:650:G:C5'	2.83	0.58
1:A:686:U:C4	1:A:703:G:H1'	2.39	0.58
1:A:700:G:C4	1:A:701:U:C5	2.91	0.58
1:A:729:A:H2'	1:A:730:G:C8	2.39	0.58
1:A:904:U:OP2	1:A:905:U:H5	1.87	0.58
1:A:934:C:C5	1:A:1344:C:H2'	2.39	0.58
1:A:1144:G:C6	1:A:1145:A:C5	2.91	0.58
1:A:1263:C:C4	1:A:1264:U:C4	2.92	0.58
1:A:1279:G:C8	1:A:1281:C:H5	2.22	0.58
1:A:1289:A:N6	9:I:71:ILE:HD11	2.18	0.58
1:A:1500:A:N1	1:A:1501:C:C4	2.71	0.58
1:A:1510:C:C2	1:A:1526:G:C2	2.91	0.58
2:B:40:ILE:HD13	2:B:200:PRO:HB2	1.86	0.58
5:E:12:GLU:HA	5:E:38:VAL:HA	1.85	0.58
6:F:1:MET:HA	6:F:67:PRO:HA	1.86	0.58
6:F:11:HIS:CD2	6:F:14:GLN:HB2	2.38	0.58
7:G:45:ALA:HB1	7:G:123:LEU:HD12	1.86	0.58
1:A:61:G:C8	20:T:5:SER:CB	2.86	0.58
1:A:230:G:C5	1:A:231:U:C5	2.92	0.58
1:A:301:G:H2'	1:A:302:G:O4'	2.04	0.58
1:A:320:A:H1'	1:A:1435:G:H1'	1.86	0.58
1:A:329:A:H8	1:A:329:A:H5"	1.69	0.58
1:A:381:C:C5	1:A:382:A:C5	2.92	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:409:U:C2	1:A:410:G:C8	2.92	0.58
1:A:648:A:C2	1:A:649:A:C4	2.92	0.58
1:A:656:G:N2	15:O:22:GLY:HA3	2.18	0.58
1:A:763:G:C2	1:A:764:C:C2	2.92	0.58
1:A:880:C:OP2	12:L:2:THR:HG21	2.04	0.58
1:A:978:A:H4'	1:A:1322:C:C6	2.39	0.58
1:A:1046:A:C5	1:A:1047:G:C8	2.90	0.58
1:A:1075:U:H4'	2:B:170:ILE:HG23	1.86	0.58
1:A:1091:U:O2	1:A:1095:U:C2	2.57	0.58
1:A:1213:A:C5	1:A:1215:G:C4	2.91	0.58
1:A:1246:A:C4	1:A:1292:G:C2	2.91	0.58
1:A:1343:G:H2'	1:A:1344:C:C6	2.39	0.58
2:B:19:THR:HG21	2:B:189:ASN:HD21	1.68	0.58
2:B:204:ASP:CA	2:B:209:VAL:HG21	2.34	0.58
4:D:97:LEU:HA	4:D:136:VAL:CG2	2.33	0.58
17:Q:23:ALA:HB1	17:Q:25:GLU:CG	2.34	0.58
20:T:46:ALA:HB1	20:T:82:ILE:HA	1.86	0.58
1:A:57:G:N1	1:A:58:C:C2	2.71	0.58
1:A:272:C:C4	1:A:273:U:C4	2.92	0.58
1:A:280:C:H42	17:Q:38:LYS:H	1.51	0.58
1:A:313:A:C5	1:A:314:C:C5	2.92	0.58
1:A:410:G:H2'	1:A:429:U:C4	2.38	0.58
1:A:442:G:C5	1:A:443:C:C5	2.92	0.58
1:A:661:G:C6	1:A:662:U:C2	2.92	0.58
1:A:668:G:C6	1:A:669:G:C5	2.92	0.58
1:A:678:U:O2	1:A:713:G:C2	2.57	0.58
1:A:748:G:C6	1:A:749:A:C4	2.92	0.58
1:A:762:U:H2'	1:A:763:G:H8	1.68	0.58
1:A:1034:G:C6	1:A:1035:A:C5	2.92	0.58
1:A:1256:A:C4	1:A:1278:G:C2	2.92	0.58
1:A:1263:C:C5	1:A:1264:U:C5	2.92	0.58
1:A:1419:G:C2	1:A:1420:U:C6	2.92	0.58
4:D:107:GLY:HA3	4:D:113:ALA:HA	1.84	0.58
20:T:21:ALA:HA	20:T:24:ARG:HE	1.69	0.58
22:W:177:MET:HB3	22:W:187:VAL:HG21	1.86	0.58
1:A:35:G:C4	1:A:36:C:C5	2.92	0.57
1:A:64:G:C8	1:A:99:C:C5	2.91	0.57
1:A:70:U:C5	1:A:96:U:OP2	2.57	0.57
1:A:121:U:C5	1:A:122:G:H8	2.19	0.57
1:A:142:G:N2	1:A:222:C:C6	2.72	0.57
1:A:196:A:C8	1:A:196:A:H3'	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:253:A:C6	1:A:274:A:C2	2.92	0.57
1:A:254:G:OP1	1:A:266:G:H3'	2.03	0.57
1:A:258:G:C6	1:A:259:G:C5	2.92	0.57
1:A:282:A:H3'	1:A:283:U:C6	2.39	0.57
1:A:297:G:N2	1:A:299:G:C8	2.72	0.57
1:A:303:A:C4	1:A:304:U:C6	2.92	0.57
1:A:341:C:C2	1:A:342:C:C5	2.92	0.57
1:A:439:U:H2'	1:A:440:C:H5'	1.86	0.57
1:A:541:G:N3	4:D:41:GLY:HA3	2.19	0.57
1:A:632:U:C6	1:A:633:G:C5	2.92	0.57
1:A:689:C:H2'	1:A:690:G:H5'	1.86	0.57
1:A:695:A:C2	1:A:696:A:C5	2.92	0.57
1:A:700:G:C2	1:A:701:U:C2	2.92	0.57
1:A:715:A:C2	1:A:716:A:C5	2.92	0.57
1:A:729:A:H2'	1:A:730:G:O4'	2.04	0.57
1:A:828:U:C4	1:A:858:G:N3	2.72	0.57
1:A:846:G:C2	1:A:847:G:C4	2.92	0.57
1:A:951:G:C6	1:A:952:U:C4	2.92	0.57
1:A:957:U:H3'	1:A:959:A:OP2	2.04	0.57
1:A:958:A:H1'	1:A:986:U:H5'	1.86	0.57
1:A:980:C:H3'	1:A:981:U:C6	2.39	0.57
1:A:1031:C:H1'	1:A:1032:G:H21	1.68	0.57
1:A:1062:U:C5	1:A:1062:U:OP2	2.57	0.57
1:A:1142:G:H5'	1:A:1143:G:OP2	2.01	0.57
1:A:1375:A:C2	1:A:1376:U:C2	2.92	0.57
1:A:1438:G:C2	1:A:1439:G:N7	2.72	0.57
1:A:1440:U:H2'	1:A:1441:A:C8	2.39	0.57
8:H:103:VAL:HG11	8:H:116:ARG:NH2	2.19	0.57
10:J:12:ALA:O	10:J:70:HIS:CD2	2.57	0.57
13:M:3:ILE:HD11	13:M:33:LEU:HD12	1.85	0.57
17:Q:66:LEU:HD11	17:Q:73:THR:HA	1.86	0.57
20:T:5:SER:HA	20:T:7:LYS:H	1.69	0.57
1:A:64:G:C6	1:A:67:C:N4	2.72	0.57
1:A:95:C:C2	1:A:96:U:C5	2.92	0.57
1:A:98:A:H2'	1:A:99:C:O4'	2.04	0.57
1:A:303:A:C2	1:A:304:U:N1	2.72	0.57
1:A:398:U:H2'	1:A:399:G:C8	2.39	0.57
1:A:404:G:N7	4:D:1:ALA:HA	2.19	0.57
1:A:466:A:N1	1:A:468:A:C5	2.72	0.57
1:A:509:A:C5	1:A:510:A:N1	2.72	0.57
1:A:801:U:H2'	1:A:802:A:H8	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:822:U:C4	1:A:823:C:C4	2.92	0.57
1:A:960:U:H3	1:A:1225:A:H1'	1.67	0.57
1:A:1053:G:H5"	1:A:1200:C:C5	2.39	0.57
1:A:1289:A:H61	9:I:71:ILE:CD1	2.17	0.57
1:A:1356:G:C6	1:A:1357:A:C6	2.93	0.57
1:A:1376:U:H5'	7:G:101:ARG:HE	1.68	0.57
1:A:1419:G:C6	1:A:1420:U:C4	2.92	0.57
1:A:1438:G:N3	1:A:1464:U:H1'	2.19	0.57
1:A:1440:U:C6	1:A:1440:U:H3'	2.39	0.57
1:A:1494:G:C6	1:A:1495:U:C5	2.92	0.57
2:B:70:GLY:HA2	2:B:79:VAL:HG21	1.86	0.57
3:C:17:TRP:HB3	14:N:93:PRO:HA	1.85	0.57
3:C:128:MET:H	3:C:131:ARG:HE	1.50	0.57
3:C:189:HIS:CE1	3:C:194:VAL:CG2	2.87	0.57
6:F:15:SER:HB3	6:F:58:HIS:CB	2.35	0.57
13:M:32:ILE:O	13:M:55:LEU:HD13	2.04	0.57
1:A:64:G:N3	1:A:67:C:C5	2.73	0.57
1:A:94:G:H4'	1:A:95:C:O5'	2.00	0.57
1:A:434:U:C2	1:A:435:A:C8	2.92	0.57
1:A:484:G:H21	1:A:485:U:H4'	1.69	0.57
1:A:562:U:H4'	1:A:563:A:C2	2.40	0.57
1:A:580:C:H1'	15:O:56:LEU:HD22	1.86	0.57
1:A:685:G:N1	1:A:686:U:C4	2.72	0.57
1:A:695:A:H2'	1:A:696:A:H8	1.68	0.57
1:A:786:G:H3'	1:A:787:A:C8	2.39	0.57
1:A:937:A:H1'	1:A:1379:G:N1	2.19	0.57
1:A:1128:C:H2'	1:A:1129:C:C5	2.40	0.57
1:A:1242:G:C4	1:A:1243:C:C6	2.91	0.57
1:A:1251:A:H5'	9:I:69:GLY:H	1.69	0.57
1:A:1273:C:C6	1:A:1273:C:H3'	2.40	0.57
1:A:1349:A:C5	1:A:1350:A:H1'	2.39	0.57
1:A:1370:G:H3'	9:I:110:VAL:HB	1.86	0.57
2:B:85:SER:HB3	2:B:88:GLN:HE21	1.69	0.57
4:D:8:LEU:HD21	4:D:28:ASP:HA	1.86	0.57
4:D:53:GLN:HB3	4:D:202:LEU:HD13	1.85	0.57
7:G:49:LEU:HD13	7:G:124:SER:HA	1.85	0.57
15:O:45:HIS:CB	15:O:47:LYS:H	2.17	0.57
1:A:49:U:O4	1:A:361:G:C4	2.56	0.57
1:A:78:A:N7	1:A:79:G:C6	2.72	0.57
1:A:177:G:H3'	1:A:177:G:C4	2.40	0.57
1:A:377:G:C6	1:A:378:G:C5	2.93	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:647:C:C2	1:A:648:A:C8	2.92	0.57
1:A:669:G:C6	1:A:670:G:C6	2.92	0.57
1:A:715:A:H2'	1:A:716:A:C8	2.38	0.57
1:A:938:A:H1'	1:A:1377:A:O4'	2.05	0.57
1:A:994:A:H61	1:A:1047:G:C1'	2.17	0.57
1:A:1033:G:C6	1:A:1034:G:C6	2.92	0.57
1:A:1080:A:H5"	5:E:20:VAL:HB	1.86	0.57
1:A:1146:A:C5	1:A:1147:C:C6	2.93	0.57
1:A:1234:C:H4'	1:A:1364:U:H1'	1.85	0.57
1:A:1281:C:N4	10:J:9:ARG:HH12	2.01	0.57
1:A:1300:G:C8	1:A:1333:A:OP1	2.58	0.57
1:A:1375:A:H5'	7:G:28:ILE:HA	1.84	0.57
1:A:1433:A:C8	1:A:1468:A:C4	2.91	0.57
1:A:1466:C:H3'	1:A:1467:C:H6	1.67	0.57
13:M:28:ARG:CZ	13:M:32:ILE:HD11	2.34	0.57
1:A:59:A:C2	1:A:354:G:C8	2.92	0.57
1:A:105:G:H21	1:A:380:G:C5'	2.17	0.57
1:A:223:A:C8	1:A:223:A:O5'	2.57	0.57
1:A:240:G:N1	1:A:241:G:C4	2.72	0.57
1:A:258:G:C4	1:A:259:G:C8	2.92	0.57
1:A:405:U:H4'	1:A:498:A:C4	2.40	0.57
1:A:424:G:C4	1:A:425:G:C8	2.92	0.57
1:A:446:G:C2	1:A:447:G:H1'	2.40	0.57
1:A:591:U:C6	1:A:591:U:H3'	2.40	0.57
1:A:597:G:H21	8:H:83:ARG:HH12	1.53	0.57
1:A:603:U:H3'	1:A:603:U:C6	2.38	0.57
1:A:655:A:C6	1:A:656:G:C5	2.92	0.57
1:A:696:A:C2	1:A:786:G:N3	2.73	0.57
1:A:833:G:C4	1:A:854:U:C2	2.93	0.57
1:A:954:G:C6	1:A:955:U:C4	2.93	0.57
1:A:1074:G:H21	2:B:97:GLY:HA3	1.69	0.57
1:A:1089:G:C5	1:A:1090:U:C6	2.92	0.57
1:A:1154:G:C2	1:A:1155:A:C8	2.92	0.57
1:A:1185:G:C6	1:A:1186:G:C5	2.93	0.57
1:A:1194:U:H3'	1:A:1195:C:H5	1.69	0.57
1:A:1373:G:H4'	7:G:35:LYS:H	1.70	0.57
1:A:1391:U:H2'	1:A:1392:G:N7	2.20	0.57
1:A:1442:G:C6	1:A:1461:G:C2	2.92	0.57
6:F:35:LYS:O	6:F:64:VAL:HA	2.04	0.57
11:K:33:ILE:HD12	11:K:70:ALA:HA	1.85	0.57
12:L:34:THR:HA	12:L:76:HIS:CE1	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:19:A:C4	1:A:20:U:C6	2.92	0.57
1:A:191:G:H5”	1:A:191:G:C8	2.39	0.57
1:A:251:G:H2’	1:A:269:C:OP1	2.04	0.57
1:A:253:A:H61	1:A:273:U:H3	1.52	0.57
1:A:499:A:C5	1:A:546:A:C5	2.93	0.57
1:A:581:G:H2’	1:A:582:C:C6	2.39	0.57
1:A:849:G:C2	1:A:850:U:C1’	2.88	0.57
1:A:858:G:H22	1:A:869:G:C2’	2.17	0.57
1:A:898:G:N2	1:A:900:A:H3’	2.20	0.57
1:A:925:G:H5’	1:A:1502:A:N1	2.20	0.57
1:A:939:G:C2	1:A:1375:A:C2	2.93	0.57
1:A:941:G:H21	9:I:122:ARG:HH12	1.51	0.57
1:A:976:G:C8	1:A:1362:A:C5	2.91	0.57
1:A:1084:G:H5’	1:A:1102:A:H5”	1.87	0.57
1:A:1084:G:C5	1:A:1085:U:C4	2.92	0.57
1:A:1148:U:C4	1:A:1149:C:N3	2.73	0.57
1:A:1175:G:C6	1:A:1176:A:C5	2.92	0.57
1:A:1256:A:H61	1:A:1277:C:H2’	1.70	0.57
1:A:1353:G:C6	1:A:1354:U:C5	2.93	0.57
1:A:1360:A:C5	1:A:1361:G:C5	2.93	0.57
1:A:1507:A:C8	1:A:1531:A:C2	2.93	0.57
8:H:70:VAL:HG23	8:H:71:VAL:H	1.70	0.57
10:J:42:LEU:HD11	10:J:73:LEU:HD23	1.86	0.57
13:M:24:VAL:CG1	13:M:59:VAL:HG21	2.35	0.57
1:A:9:G:C2	1:A:26:A:C4	2.92	0.57
1:A:70:U:C6	1:A:94:G:O2’	2.56	0.57
1:A:104:G:C4	1:A:105:G:C8	2.93	0.57
1:A:127:G:H4’	17:Q:3:LYS:N	2.20	0.57
1:A:218:U:C5	1:A:219:U:C4	2.93	0.57
1:A:261:U:H3	1:A:264:C:P	2.27	0.57
1:A:300:A:H2’	1:A:564:C:N3	2.20	0.57
1:A:327:A:C5	1:A:329:A:C5	2.92	0.57
1:A:369:G:C2	1:A:393:A:N3	2.72	0.57
1:A:450:G:C8	1:A:481:G:C6	2.92	0.57
1:A:521:G:H21	1:A:536:C:C4’	2.17	0.57
1:A:570:G:C5	1:A:873:A:C4	2.92	0.57
1:A:579:A:C2	1:A:580:C:C2	2.92	0.57
1:A:657:U:H4’	15:O:27:GLN:CB	2.35	0.57
1:A:671:G:C2	1:A:736:C:C6	2.92	0.57
1:A:851:G:N1	1:A:852:G:C6	2.73	0.57
1:A:875:U:C4	1:A:876:C:C6	2.93	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:894:G:C4	1:A:895:G:C8	2.92	0.57
1:A:1021:A:C6	1:A:1022:A:C8	2.91	0.57
1:A:1057:G:H1'	3:C:194:VAL:HG11	1.85	0.57
1:A:1089:G:N2	1:A:1170:A:H1'	2.19	0.57
1:A:1127:G:O4'	1:A:1280:A:C5	2.56	0.57
1:A:1193:G:C8	1:A:1193:G:C3'	2.88	0.57
1:A:1221:G:C2	1:A:1222:G:C4	2.92	0.57
1:A:1304:G:H2'	1:A:1305:G:C1'	2.35	0.57
1:A:1500:A:C6	1:A:1501:C:C4	2.92	0.57
2:B:95:TRP:CZ3	2:B:171:ALA:HA	2.40	0.57
5:E:106:ALA:HB1	5:E:111:ARG:CD	2.34	0.57
1:A:3:A:C2	1:A:627:G:H2'	2.39	0.57
1:A:72:A:C5	1:A:73:C:C5	2.92	0.57
1:A:144:G:C6	1:A:179:A:N6	2.73	0.57
1:A:196:A:C8	1:A:196:A:C3'	2.88	0.57
1:A:403:C:N4	1:A:547:A:C5'	2.66	0.57
1:A:455:G:C8	1:A:455:G:O5'	2.58	0.57
1:A:701:U:C5	1:A:702:A:C6	2.92	0.57
1:A:714:G:C6	1:A:715:A:C6	2.93	0.57
1:A:761:G:C6	1:A:762:U:N3	2.72	0.57
1:A:804:U:H3'	1:A:805:C:C6	2.40	0.57
1:A:839:C:C6	1:A:839:C:O5'	2.57	0.57
1:A:869:G:C8	1:A:869:G:O5'	2.57	0.57
1:A:1118:U:H1'	1:A:1179:A:C4	2.40	0.57
1:A:1176:A:H3'	1:A:1177:G:H8	1.70	0.57
1:A:1269:A:H1'	1:A:1312:G:N2	2.20	0.57
1:A:1366:C:C2	1:A:1367:C:C6	2.93	0.57
1:A:1371:G:C5	1:A:1372:U:C4	2.93	0.57
1:A:1414:U:H1'	1:A:1487:G:H22	1.70	0.57
1:A:1511:G:N1	1:A:1512:U:C2	2.73	0.57
1:A:1513:A:C2	1:A:1514:G:C5	2.92	0.57
3:C:4:VAL:HG13	3:C:8:GLY:HA3	1.85	0.57
3:C:194:VAL:HG12	3:C:195:ILE:N	2.19	0.57
4:D:97:LEU:HD13	4:D:124:VAL:CG1	2.35	0.57
13:M:4:ALA:HB3	13:M:59:VAL:HG13	1.87	0.57
17:Q:44:HIS:CE1	17:Q:70:LYS:NZ	2.73	0.57
1:A:19:A:H1'	1:A:864:A:H1'	1.86	0.57
1:A:74:A:N6	1:A:94:G:C6	2.73	0.57
1:A:321:A:C2	1:A:333:U:C2	2.92	0.57
1:A:452:A:C2	1:A:453:G:H1'	2.39	0.57
1:A:459:A:H3'	1:A:460:A:C8	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:474:G:N7	1:A:475:C:C5	2.73	0.57
1:A:580:C:H3'	1:A:581:G:H8	1.69	0.57
1:A:585:G:C5	1:A:586:C:C5	2.92	0.57
1:A:630:A:H3'	1:A:631:C:O2	2.04	0.57
1:A:645:G:C6	1:A:646:G:N7	2.72	0.57
1:A:774:G:H3'	1:A:775:G:C8	2.39	0.57
1:A:956:U:O5'	1:A:956:U:H6	1.88	0.57
1:A:1040:U:H2'	1:A:1041:G:C8	2.39	0.57
1:A:1045:C:N3	1:A:1046:A:C8	2.73	0.57
1:A:1066:C:C6	1:A:1066:C:C5'	2.83	0.57
1:A:1068:G:C5	1:A:1069:C:C5	2.93	0.57
1:A:1264:U:H1'	1:A:1272:G:C2	2.40	0.57
1:A:1327:C:C2	1:A:1328:C:C6	2.92	0.57
1:A:1479:C:H2'	1:A:1480:A:H8	1.67	0.57
1:A:1501:C:C5	1:A:1504:G:H1'	2.40	0.57
3:C:2:GLN:HE21	3:C:3:LYS:HB3	1.70	0.57
13:M:2:ARG:NH1	13:M:6:ILE:HG22	2.19	0.57
15:O:14:PHE:CE2	15:O:83:ARG:HB3	2.40	0.57
18:R:21:ASP:HA	18:R:57:ALA:CB	2.35	0.57
1:A:12:U:H4'	1:A:526:C:C4'	2.35	0.57
1:A:98:A:N7	1:A:99:C:C5	2.73	0.57
1:A:141:G:H3'	1:A:142:G:C8	2.40	0.57
1:A:217:C:H4'	1:A:463:U:C5	2.40	0.57
1:A:291:U:H3	1:A:309:A:H61	1.53	0.57
1:A:292:G:C6	1:A:309:A:C6	2.93	0.57
1:A:410:G:H2'	1:A:429:U:C5	2.40	0.57
1:A:541:G:C4'	4:D:39:GLN:HE21	2.17	0.57
1:A:867:G:C2	1:A:868:C:C2	2.92	0.57
1:A:941:G:C2	1:A:942:G:N9	2.73	0.57
1:A:1012:A:C5	14:N:49:THR:O	2.58	0.57
1:A:1057:G:C6	1:A:1058:G:C4	2.93	0.57
1:A:1058:G:C5	1:A:1059:C:C6	2.93	0.57
1:A:1072:G:C5	1:A:1073:U:C4	2.93	0.57
1:A:1157:A:C8	1:A:1181:G:O6	2.58	0.57
1:A:1239:A:H62	1:A:1299:A:H61	1.53	0.57
1:A:1352:C:C2	1:A:1371:G:C2	2.93	0.57
1:A:1451:U:C6	1:A:1453:G:N7	2.73	0.57
9:I:12:LYS:HA	9:I:109:GLN:HA	1.87	0.57
1:A:98:A:C8	1:A:99:C:C6	2.93	0.56
1:A:120:A:C2	1:A:122:G:C6	2.92	0.56
1:A:153:C:C5	1:A:154:U:C6	2.94	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:168:G:C8	1:A:168:G:H3'	2.39	0.56
1:A:247:G:C8	1:A:247:G:H3'	2.39	0.56
1:A:262:A:C2	1:A:263:A:C4	2.93	0.56
1:A:531:U:C5	1:A:535:A:N6	2.73	0.56
1:A:539:A:C6	1:A:540:G:C4	2.93	0.56
1:A:613:C:C2	1:A:628:G:C2	2.93	0.56
1:A:761:G:C4	1:A:762:U:C6	2.93	0.56
1:A:773:G:H3'	1:A:773:G:C8	2.40	0.56
1:A:865:A:C2	1:A:918:A:H4'	2.40	0.56
1:A:916:U:C6	1:A:916:U:O5'	2.58	0.56
1:A:949:A:H1'	1:A:1364:U:C5	2.39	0.56
1:A:954:G:C8	1:A:954:G:O5'	2.58	0.56
1:A:1035:A:C8	1:A:1035:A:H3'	2.40	0.56
1:A:1060:U:OP2	3:C:5:HIS:CE1	2.58	0.56
1:A:1096:C:C5	1:A:1097:C:C5	2.92	0.56
1:A:1300:G:C6	1:A:1335:U:C5	2.92	0.56
1:A:1306:A:C2	1:A:1307:U:C1'	2.87	0.56
1:A:1381:U:C5	7:G:78:ARG:O	2.58	0.56
3:C:18:ASN:HB3	3:C:55:VAL:HA	1.87	0.56
11:K:47:GLY:HA2	11:K:56:LYS:HB3	1.86	0.56
12:L:79:ILE:HB	12:L:96:THR:HG23	1.87	0.56
15:O:78:THR:HA	15:O:81:ILE:HD11	1.85	0.56
20:T:57:VAL:O	20:T:61:ALA:HB3	2.04	0.56
1:A:32:A:P	1:A:398:U:H1'	2.45	0.56
1:A:52:C:H3'	1:A:52:C:H6	1.68	0.56
1:A:105:G:N2	1:A:106:C:C4	2.73	0.56
1:A:159:G:H5'	1:A:159:G:H8	1.70	0.56
1:A:214:C:C4	1:A:215:C:C4	2.93	0.56
1:A:312:C:H2'	1:A:313:A:H8	1.70	0.56
1:A:346:G:N2	1:A:347:G:C6	2.73	0.56
1:A:404:G:N3	1:A:498:A:H2	2.03	0.56
1:A:405:U:C4	4:D:4:LEU:HG	2.39	0.56
1:A:526:C:C4	1:A:527:G:H1'	2.40	0.56
1:A:705:G:N1	11:K:43:TRP:CE2	2.72	0.56
1:A:803:G:C6	1:A:804:U:C4	2.93	0.56
1:A:872:A:H1'	1:A:873:A:C2'	2.35	0.56
1:A:890:G:C8	1:A:904:U:OP1	2.59	0.56
1:A:1056:U:H3	1:A:1204:A:N6	2.02	0.56
1:A:1088:G:C2	1:A:1098:C:O2	2.58	0.56
1:A:1094:G:O5'	1:A:1095:U:C5	2.58	0.56
1:A:1125:U:C4	1:A:1127:G:C4	2.93	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1166:G:H2'	1:A:1170:A:H61	1.70	0.56
1:A:1188:A:C8	1:A:1188:A:OP2	2.58	0.56
1:A:1207:G:C5	1:A:1208:C:C5	2.93	0.56
1:A:1268:G:C4	1:A:1269:A:C8	2.93	0.56
1:A:1348:U:C4	1:A:1349:A:N7	2.74	0.56
1:A:1382:C:H2'	1:A:1383:C:C6	2.39	0.56
1:A:1394:A:H5'	1:A:1395:C:C6	2.40	0.56
1:A:1420:U:H3'	1:A:1421:G:C8	2.40	0.56
1:A:1434:A:C4	1:A:1435:G:C8	2.92	0.56
1:A:1484:C:H2'	1:A:1485:U:O4'	2.05	0.56
9:I:51:LEU:HB3	9:I:55:ASP:HA	1.86	0.56
1:A:37:U:C5	12:L:123:ALA:N	2.73	0.56
1:A:42:G:C5	1:A:43:C:C5	2.94	0.56
1:A:42:G:H21	1:A:622:A:H1'	1.68	0.56
1:A:68:G:N2	1:A:152:A:H2'	2.21	0.56
1:A:78:A:H2'	1:A:79:G:C1'	2.35	0.56
1:A:81:A:OP2	1:A:83:C:C6	2.59	0.56
1:A:101:A:C5	1:A:102:G:C5	2.93	0.56
1:A:155:A:C2	1:A:167:A:N3	2.73	0.56
1:A:181:A:HO2'	1:A:194:C:H5	1.52	0.56
1:A:209:U:H5"	1:A:210:C:C5	2.41	0.56
1:A:237:G:C6	1:A:238:A:C5	2.93	0.56
1:A:252:U:H5"	1:A:252:U:C6	2.38	0.56
1:A:300:A:H1'	1:A:565:U:H3	1.71	0.56
1:A:317:U:C4	1:A:337:G:N2	2.73	0.56
1:A:346:G:N2	1:A:347:G:C4	2.73	0.56
1:A:411:A:OP2	1:A:429:U:H6	1.87	0.56
1:A:425:G:C6	1:A:426:U:C4	2.93	0.56
1:A:439:U:C6	1:A:440:C:C6	2.93	0.56
1:A:464:U:H2'	1:A:466:A:OP2	2.06	0.56
1:A:500:G:C8	1:A:500:G:H5"	2.41	0.56
1:A:500:G:H5"	1:A:500:G:H8	1.70	0.56
1:A:527:G:C6	1:A:528:C:C5	2.93	0.56
1:A:547:A:N3	1:A:548:G:H1'	2.20	0.56
1:A:567:G:C5	1:A:568:G:N7	2.73	0.56
1:A:577:G:N2	1:A:578:C:H1'	2.21	0.56
1:A:592:G:C5	1:A:593:U:C5	2.93	0.56
1:A:599:C:C5	8:H:87:ARG:HG2	2.40	0.56
1:A:631:C:H4'	1:A:632:U:C6	2.41	0.56
1:A:654:G:C6	1:A:753:A:C8	2.93	0.56
1:A:668:G:C2	1:A:669:G:C4	2.94	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:687:A:H5'	11:K:68:ARG:HH12	1.69	0.56
1:A:714:G:H2'	1:A:715:A:C8	2.38	0.56
1:A:863:U:H2'	1:A:865:A:N7	2.20	0.56
1:A:865:A:C2	1:A:866:C:C2	2.94	0.56
1:A:908:A:H2'	1:A:909:A:C8	2.40	0.56
1:A:941:G:N3	1:A:1343:G:C2	2.73	0.56
1:A:1020:G:C6	1:A:1021:A:N7	2.73	0.56
1:A:1022:A:H5'	1:A:1022:A:N9	2.20	0.56
1:A:1032:G:C2	1:A:1033:G:C8	2.94	0.56
1:A:1095:U:C4	1:A:1096:C:N3	2.73	0.56
1:A:1126:U:C2	1:A:1280:A:H3'	2.41	0.56
1:A:1127:G:C6	1:A:1128:C:C4	2.94	0.56
1:A:1165:U:H2'	1:A:1166:G:O4'	2.06	0.56
1:A:1195:C:C6	1:A:1195:C:O5'	2.59	0.56
1:A:1202:U:C5	1:A:1203:C:C4	2.93	0.56
1:A:1215:G:C5	1:A:1216:A:C8	2.93	0.56
1:A:1228:C:H2'	1:A:1229:A:H8	1.71	0.56
1:A:1239:A:H1'	1:A:1241:G:N7	2.20	0.56
1:A:1256:A:C2	1:A:1258:G:C6	2.93	0.56
1:A:1299:A:OP2	1:A:1301:U:C5	2.57	0.56
1:A:1305:G:HO2'	1:A:1306:A:H8	1.53	0.56
1:A:1307:U:H5"	13:M:99:GLN:NE2	2.19	0.56
1:A:1315:U:C2	1:A:1316:G:C4	2.93	0.56
1:A:1319:A:H4'	1:A:1320:C:OP1	2.05	0.56
1:A:1473:G:C5	1:A:1474:U:C5	2.93	0.56
3:C:125:ARG:HH21	3:C:127:VAL:HG11	1.70	0.56
4:D:170:LEU:HA	4:D:182:LYS:H	1.68	0.56
5:E:88:HIS:CE1	5:E:137:ARG:CD	2.89	0.56
9:I:51:LEU:HD23	9:I:86:LEU:HD21	1.87	0.56
10:J:68:ARG:HH21	10:J:70:HIS:HD1	1.53	0.56
11:K:51:PHE:HB3	11:K:56:LYS:N	2.21	0.56
15:O:38:LEU:HD12	15:O:41:HIS:CD2	2.39	0.56
22:W:80:VAL:HB	22:W:99:ALA:HB3	1.87	0.56
1:A:94:G:H5"	1:A:95:C:C6	2.40	0.56
1:A:293:G:C6	1:A:294:U:C5	2.94	0.56
1:A:478:A:N3	1:A:479:U:C6	2.72	0.56
1:A:496:A:N1	1:A:497:G:C6	2.73	0.56
1:A:533:A:C2	1:A:535:A:H8	2.22	0.56
1:A:536:C:C5	1:A:537:G:N7	2.74	0.56
1:A:582:C:C2	1:A:760:G:N1	2.73	0.56
1:A:633:G:C8	1:A:634:C:C5	2.93	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:712:A:N1	1:A:713:G:C6	2.74	0.56
1:A:829:G:C5	1:A:830:G:C8	2.94	0.56
1:A:877:G:H21	8:H:3:GLN:HG3	1.70	0.56
1:A:903:G:C5	1:A:904:U:C5	2.94	0.56
1:A:914:A:H5"	1:A:914:A:H8	1.70	0.56
1:A:978:A:C5	1:A:1319:A:C2	2.92	0.56
1:A:1159:U:H5'	1:A:1182:G:H1'	1.87	0.56
1:A:1179:A:H5"	9:I:98:ARG:HA	1.88	0.56
1:A:1211:U:H1'	1:A:1213:A:C2	2.39	0.56
1:A:1237:C:C5'	1:A:1303:C:O2	2.53	0.56
1:A:1266:G:C2	1:A:1270:G:C5	2.93	0.56
1:A:1346:A:C2	1:A:1347:G:N2	2.74	0.56
1:A:1352:C:C4	1:A:1371:G:C6	2.94	0.56
1:A:1381:U:H2'	7:G:80:GLY:H	1.68	0.56
1:A:1406:U:C6	1:A:1406:U:C5'	2.88	0.56
1:A:1418:A:C6	1:A:1419:G:C4	2.93	0.56
4:D:100:VAL:HB	4:D:136:VAL:HG21	1.88	0.56
5:E:45:VAL:HG13	5:E:73:VAL:HG21	1.87	0.56
11:K:41:LEU:HD22	11:K:76:TYR:CE2	2.40	0.56
1:A:39:G:C5	1:A:404:G:C2	2.94	0.56
1:A:50:A:C2	1:A:361:G:N3	2.74	0.56
1:A:177:G:H5'	20:T:60:GLN:HE22	1.69	0.56
1:A:323:U:O4	1:A:327:A:C8	2.59	0.56
1:A:404:G:O6	4:D:1:ALA:HB2	2.04	0.56
1:A:590:U:C2	1:A:650:G:C2	2.93	0.56
1:A:639:G:H3'	1:A:640:A:C8	2.40	0.56
1:A:649:A:C8	1:A:649:A:H3'	2.40	0.56
1:A:670:G:N2	1:A:737:C:C2	2.73	0.56
1:A:767:A:H2'	1:A:768:A:C8	2.41	0.56
1:A:956:U:N3	1:A:1225:A:C2	2.74	0.56
1:A:994:A:C6	1:A:995:C:C5	2.93	0.56
1:A:1012:A:C2	1:A:1018:G:C4	2.93	0.56
1:A:1013:G:N2	1:A:1015:G:C8	2.74	0.56
1:A:1147:C:H2'	1:A:1148:U:C6	2.41	0.56
1:A:1173:U:H2'	1:A:1174:G:C8	2.40	0.56
1:A:1244:G:N1	1:A:1294:G:C4	2.73	0.56
1:A:1251:A:O3'	1:A:1370:G:H4'	2.06	0.56
1:A:1306:A:C8	1:A:1332:A:N1	2.74	0.56
1:A:1306:A:N3	13:M:107:THR:HG21	2.19	0.56
1:A:1410:A:C5	1:A:1411:C:C5	2.93	0.56
1:A:1426:G:N2	1:A:1475:G:H1'	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1493:A:C6	22:W:66:ILE:HB	2.41	0.56
22:W:51:HIS:CE1	22:W:63:ARG:HE	2.23	0.56
1:A:35:G:C4	1:A:36:C:C6	2.93	0.56
1:A:70:U:H3	1:A:98:A:H61	1.52	0.56
1:A:119:A:C6	1:A:288:A:C4	2.94	0.56
1:A:155:A:C5	1:A:156:C:C5	2.93	0.56
1:A:168:G:N1	1:A:169:C:C4	2.74	0.56
1:A:384:G:C5	1:A:385:C:C4	2.93	0.56
1:A:404:G:H2'	1:A:498:A:N1	2.20	0.56
1:A:452:A:C4	16:P:70:ARG:CZ	2.89	0.56
1:A:593:U:H2'	1:A:594:U:C5	2.40	0.56
1:A:594:U:C5	1:A:595:A:N6	2.73	0.56
1:A:629:A:C8	1:A:629:A:OP2	2.58	0.56
1:A:712:A:N3	1:A:713:G:C8	2.73	0.56
1:A:727:G:H22	1:A:729:A:H3'	1.71	0.56
1:A:840:C:C2'	1:A:843:U:H3	2.19	0.56
1:A:894:G:C2	1:A:895:G:C4	2.93	0.56
1:A:927:G:C2	1:A:928:G:C4	2.93	0.56
1:A:960:U:O2	1:A:1225:A:C5	2.59	0.56
1:A:1000:A:C6	1:A:1001:C:C2	2.94	0.56
1:A:1053:G:C5'	1:A:1200:C:C5	2.89	0.56
1:A:1120:C:C6	1:A:1154:G:C2	2.94	0.56
1:A:1263:C:C2	1:A:1264:U:C6	2.93	0.56
1:A:1399:C:C4	1:A:1502:A:N3	2.74	0.56
1:A:1503:A:H3'	1:A:1504:G:H5'	1.87	0.56
1:A:1527:U:C6	21:U:41:THR:HB	2.40	0.56
4:D:79:ALA:HA	4:D:85:THR:HG23	1.88	0.56
7:G:129:ASN:HA	7:G:134:VAL:HG21	1.87	0.56
22:W:79:VAL:HG12	22:W:100:VAL:HA	1.87	0.56
1:A:136:C:C2	1:A:137:U:C6	2.94	0.56
1:A:208:U:C2	1:A:209:U:C4	2.94	0.56
1:A:209:U:H2'	1:A:210:C:H5'	1.88	0.56
1:A:301:G:N1	1:A:302:G:C4	2.73	0.56
1:A:324:G:N2	1:A:327:A:C8	2.74	0.56
1:A:369:G:C2	1:A:370:C:C6	2.93	0.56
1:A:412:A:C2	4:D:30:LYS:HA	2.41	0.56
1:A:425:G:N7	1:A:426:U:C5	2.74	0.56
1:A:462:G:OP1	1:A:462:G:C8	2.59	0.56
1:A:577:G:O4'	1:A:816:A:H2'	2.05	0.56
1:A:588:G:O6	1:A:753:A:H2'	2.06	0.56
1:A:644:U:H2'	1:A:645:G:C8	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:675:A:C4	1:A:676:A:C8	2.94	0.56
1:A:720:C:C5	1:A:733:G:C6	2.94	0.56
1:A:740:U:H4'	15:O:41:HIS:CG	2.41	0.56
1:A:751:U:C5	1:A:752:G:N1	2.74	0.56
1:A:753:A:H5"	15:O:68:TYR:CE1	2.41	0.56
1:A:845:A:H3'	1:A:846:G:C8	2.41	0.56
1:A:905:U:H3'	1:A:906:A:C8	2.41	0.56
1:A:1010:U:C5	14:N:19:TYR:O	2.58	0.56
1:A:1012:A:C2	1:A:1013:G:C5	2.94	0.56
1:A:1056:U:H3	1:A:1204:A:H61	1.51	0.56
1:A:1100:C:H5"	1:A:1101:A:H4'	1.88	0.56
1:A:1183:U:C2'	2:B:131:LYS:HB3	2.35	0.56
1:A:1256:A:C1'	1:A:1258:G:C4	2.89	0.56
1:A:1276:G:C2	1:A:1277:C:C2	2.93	0.56
1:A:1310:G:C5	1:A:1311:A:N7	2.74	0.56
1:A:1333:A:C5	1:A:1334:G:C5	2.93	0.56
1:A:1442:G:C2	1:A:1443:C:C5	2.94	0.56
1:A:1521:C:H3'	1:A:1521:C:C6	2.41	0.56
3:C:116:ALA:HB2	3:C:184:ASN:HD21	1.70	0.56
5:E:80:LEU:HD13	5:E:84:VAL:HG22	1.87	0.56
7:G:68:VAL:HA	7:G:134:VAL:HA	1.88	0.56
17:Q:52:CYS:HG	17:Q:74:LEU:HB3	1.70	0.56
18:R:28:LEU:HD22	18:R:58:ILE:HG13	1.87	0.56
1:A:66:A:N3	1:A:67:C:C5	2.73	0.56
1:A:106:C:C6	1:A:106:C:O5'	2.59	0.56
1:A:111:G:N2	1:A:330:C:H41	2.03	0.56
1:A:118:U:H3'	1:A:288:A:N6	2.20	0.56
1:A:119:A:C6	1:A:288:A:N3	2.74	0.56
1:A:165:G:N2	1:A:166:U:H1'	2.20	0.56
1:A:202:G:O2'	1:A:468:A:C8	2.58	0.56
1:A:238:A:H2	1:A:239:U:H1'	1.71	0.56
1:A:294:U:O2	1:A:304:U:H1'	2.05	0.56
1:A:339:C:C4	1:A:340:U:C4	2.93	0.56
1:A:424:G:C2	1:A:425:G:C4	2.94	0.56
1:A:457:G:C2	1:A:458:U:C6	2.93	0.56
1:A:582:C:C4	1:A:583:A:N7	2.74	0.56
1:A:657:U:H4'	15:O:27:GLN:CG	2.36	0.56
1:A:681:A:C6	1:A:710:G:C6	2.94	0.56
1:A:686:U:O4	1:A:703:G:H1'	2.06	0.56
1:A:787:A:H2'	1:A:795:C:H42	1.71	0.56
1:A:941:G:C2	1:A:942:G:C4	2.93	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:960:U:C4	1:A:1223:C:OP1	2.59	0.56
1:A:975:A:C8	1:A:1358:U:O4'	2.58	0.56
1:A:1118:U:H5'	9:I:105:ARG:CZ	2.35	0.56
1:A:1134:G:N3	1:A:1135:U:H1'	2.20	0.56
1:A:1197:A:H5'	3:C:163:ARG:HH22	1.71	0.56
1:A:1212:U:H5"	1:A:1213:A:C5	2.41	0.56
1:A:1261:A:C5	1:A:1275:A:C8	2.93	0.56
1:A:1278:G:H4'	1:A:1279:G:C4	2.40	0.56
1:A:1333:A:C8	1:A:1333:A:O5'	2.58	0.56
1:A:1379:G:H2'	1:A:1380:U:H6	1.71	0.56
1:A:1468:A:C8	1:A:1468:A:O5'	2.58	0.56
2:B:66:ILE:HD11	2:B:220:VAL:HG21	1.86	0.56
10:J:8:ILE:HG13	10:J:75:ASP:H	1.69	0.56
22:W:44:VAL:HG21	22:W:73:LEU:HD11	1.86	0.56
22:W:146:VAL:CG2	22:W:287:PHE:CZ	2.88	0.56
1:A:21:G:C1'	1:A:914:A:H61	2.18	0.56
1:A:165:G:C2	1:A:166:U:H1'	2.40	0.56
1:A:186:C:O2	1:A:192:A:C2	2.58	0.56
1:A:234:C:H4'	17:Q:65:PRO:HD3	1.88	0.56
1:A:262:A:H2	1:A:263:A:C4	2.24	0.56
1:A:422:C:H4'	1:A:423:G:C4	2.41	0.56
1:A:468:A:H5"	1:A:470:C:N4	2.21	0.56
1:A:689:C:C4	1:A:690:G:C8	2.94	0.56
1:A:692:U:H1'	1:A:695:A:N7	2.20	0.56
1:A:750:C:C2	15:O:21:THR:O	2.58	0.56
1:A:817:C:H42	1:A:1529:G:H1	1.53	0.56
1:A:897:C:C6	1:A:897:C:O5'	2.59	0.56
1:A:1215:G:C6	1:A:1216:A:C4	2.93	0.56
1:A:1222:G:H5'	19:S:77:ARG:HA	1.87	0.56
1:A:1367:C:C4	1:A:1368:A:C8	2.94	0.56
1:A:1375:A:C8	1:A:1376:U:C5	2.94	0.56
1:A:1415:G:H21	1:A:1486:G:H1'	1.71	0.56
5:E:39:GLY:HA2	5:E:70:MET:HE1	1.88	0.56
8:H:34:ALA:HA	8:H:37:ASN:HD22	1.70	0.56
20:T:50:PHE:CB	20:T:82:ILE:HD13	2.35	0.56
1:A:27:G:H2'	1:A:28:A:C8	2.41	0.56
1:A:33:A:C2	1:A:552:U:N3	2.74	0.56
1:A:473:U:H3'	1:A:473:U:H6	1.71	0.56
1:A:502:A:C5	1:A:503:C:C5	2.93	0.56
1:A:512:U:H2'	1:A:513:C:C6	2.41	0.56
1:A:556:C:H3'	1:A:556:C:H6	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:675:A:N1	1:A:716:A:C2	2.74	0.56
1:A:727:G:C4	1:A:731:G:C2	2.93	0.56
1:A:755:G:C8	1:A:755:G:O5'	2.58	0.56
1:A:858:G:C6	1:A:869:G:H3'	2.41	0.56
1:A:924:C:H2'	1:A:1502:A:C2	2.41	0.56
1:A:933:G:N1	1:A:1385:G:C6	2.74	0.56
1:A:1007:U:O2	1:A:1007:U:H2'	2.06	0.56
1:A:1130:A:C6	1:A:1146:A:C5	2.94	0.56
1:A:1202:U:C5	10:J:55:PRO:HG3	2.40	0.56
1:A:1231:G:C6	1:A:1232:U:N3	2.74	0.56
1:A:1347:G:C2	1:A:1373:G:H2'	2.41	0.56
1:A:1353:G:C5	1:A:1354:U:C5	2.94	0.56
1:A:1368:A:C2	1:A:1369:C:N1	2.74	0.56
1:A:1513:A:H1'	1:A:1523:G:C2	2.41	0.56
1:A:1525:G:C2	1:A:1526:G:C8	2.93	0.56
9:I:29:ILE:HD12	9:I:38:PHE:CE2	2.41	0.56
11:K:20:ALA:HA	11:K:33:ILE:HG12	1.88	0.56
13:M:18:LEU:HB2	13:M:29:SER:CB	2.36	0.56
20:T:34:VAL:HG22	20:T:49:ALA:C	2.27	0.56
1:A:37:U:H4'	1:A:500:G:C4'	2.36	0.55
1:A:47:C:OP2	1:A:366:A:C8	2.59	0.55
1:A:74:A:C2	1:A:97:G:C6	2.95	0.55
1:A:146:G:C5	1:A:147:G:C8	2.93	0.55
1:A:151:A:C5	1:A:152:A:C8	2.94	0.55
1:A:204:G:H3'	1:A:204:G:C8	2.42	0.55
1:A:216:U:H4'	1:A:464:U:C4'	2.36	0.55
1:A:241:G:C4	1:A:242:G:C8	2.94	0.55
1:A:254:G:H22	1:A:273:U:H1'	1.70	0.55
1:A:273:U:C4	1:A:274:A:C5	2.94	0.55
1:A:274:A:N3	1:A:275:G:C4	2.74	0.55
1:A:301:G:C4	1:A:302:G:C8	2.94	0.55
1:A:456:A:C8	1:A:456:A:OP2	2.59	0.55
1:A:603:U:O5'	1:A:603:U:C6	2.59	0.55
1:A:617:G:C6	1:A:618:C:C5	2.94	0.55
1:A:645:G:N1	1:A:646:G:C8	2.74	0.55
1:A:719:C:OP1	1:A:721:G:C8	2.60	0.55
1:A:1074:G:C6	1:A:1075:U:N3	2.74	0.55
1:A:1222:G:H5"	19:S:77:ARG:HB3	1.87	0.55
1:A:1262:C:N4	1:A:1263:C:C2	2.74	0.55
1:A:1289:A:H61	9:I:71:ILE:HD11	1.71	0.55
1:A:1299:A:H2'	1:A:1301:U:C6	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1333:A:C4	1:A:1334:G:C8	2.93	0.55
1:A:1412:C:H2'	1:A:1413:A:C8	2.40	0.55
2:B:16:GLY:HA3	2:B:40:ILE:CG1	2.35	0.55
17:Q:59:GLU:C	17:Q:60:ILE:HG23	2.27	0.55
19:S:30:LEU:O	19:S:49:ALA:HB3	2.06	0.55
1:A:22:G:H1'	1:A:914:A:C6	2.41	0.55
1:A:46:G:H3'	1:A:366:A:H62	1.70	0.55
1:A:73:C:H5'	1:A:74:A:C8	2.41	0.55
1:A:111:G:C5'	16:P:27:ALA:H	2.19	0.55
1:A:140:U:H3'	1:A:140:U:C6	2.41	0.55
1:A:179:A:H3'	1:A:180:U:C6	2.41	0.55
1:A:371:A:C8	1:A:371:A:H3'	2.41	0.55
1:A:511:C:O2	4:D:41:GLY:HA2	2.06	0.55
1:A:531:U:H5"	1:A:532:A:C2	2.41	0.55
1:A:603:U:N3	1:A:604:G:C5	2.74	0.55
1:A:616:G:O2'	1:A:617:G:H5'	2.06	0.55
1:A:657:U:H2'	1:A:658:C:C6	2.42	0.55
1:A:692:U:H4'	1:A:797:C:H5'	1.88	0.55
1:A:751:U:H5	1:A:752:G:N1	2.04	0.55
1:A:788:U:H2'	1:A:789:U:C6	2.41	0.55
1:A:807:A:C5	1:A:808:C:C5	2.94	0.55
1:A:890:G:C5	1:A:905:U:OP2	2.59	0.55
1:A:959:A:O2'	1:A:961:U:H5'	2.05	0.55
1:A:987:G:N2	1:A:988:G:H1'	2.21	0.55
1:A:1005:A:C8	1:A:1006:G:C4	2.93	0.55
1:A:1014:A:H2'	1:A:1015:G:C1'	2.36	0.55
1:A:1088:G:H1	1:A:1097:C:H42	1.54	0.55
1:A:1090:U:C4'	1:A:1170:A:C2	2.90	0.55
1:A:1133:G:C2	1:A:1142:G:C2	2.94	0.55
1:A:1164:G:C2	1:A:1165:U:C2	2.94	0.55
1:A:1254:A:C2	1:A:1255:G:C4	2.95	0.55
1:A:1360:A:H3'	1:A:1361:G:C8	2.41	0.55
1:A:1431:A:H2'	1:A:1468:A:H61	1.71	0.55
1:A:1482:G:H2'	1:A:1483:A:C8	2.41	0.55
2:B:43:GLU:HA	2:B:46:VAL:HG23	1.86	0.55
4:D:115:GLN:NE2	4:D:119:HIS:CD2	2.74	0.55
9:I:29:ILE:HD12	9:I:38:PHE:CZ	2.40	0.55
17:Q:46:HIS:CB	17:Q:74:LEU:H	2.20	0.55
1:A:45:G:H2'	1:A:46:G:C8	2.41	0.55
1:A:130:A:OP1	17:Q:64:ARG:HD2	2.07	0.55
1:A:209:U:C4	1:A:211:G:N1	2.74	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:296:U:H2'	1:A:297:G:C8	2.41	0.55
1:A:357:G:C2	1:A:358:U:C6	2.94	0.55
1:A:360:G:H2'	1:A:361:G:C4	2.42	0.55
1:A:440:C:H3'	1:A:441:A:C8	2.41	0.55
1:A:556:C:C5	1:A:557:G:N7	2.75	0.55
1:A:620:C:H5"	1:A:621:A:OP2	2.05	0.55
1:A:661:G:O6	1:A:744:C:C4	2.59	0.55
1:A:691:G:H22	1:A:695:A:H5"	1.70	0.55
1:A:779:C:H2'	1:A:780:A:H8	1.67	0.55
1:A:965:U:H4'	1:A:968:A:H1'	1.89	0.55
1:A:977:A:H5"	1:A:980:C:H41	1.69	0.55
1:A:987:G:C6	1:A:988:G:C5	2.94	0.55
1:A:1015:G:H5"	14:N:51:PRO:HA	1.89	0.55
1:A:1033:G:C2'	1:A:1034:G:C5'	2.85	0.55
1:A:1057:G:C2	1:A:1204:A:H1'	2.41	0.55
1:A:1088:G:N2	1:A:1098:C:C2	2.74	0.55
1:A:1219:A:C6	1:A:1220:G:C5	2.95	0.55
1:A:1401:G:C6	1:A:1402:C:C2	2.94	0.55
2:B:193:ASP:H	2:B:195:VAL:HG23	1.71	0.55
3:C:58:ARG:HA	3:C:63:ILE:HA	1.88	0.55
3:C:63:ILE:CG2	3:C:90:VAL:HG12	2.36	0.55
4:D:169:TRP:CD2	4:D:185:PRO:HA	2.41	0.55
1:A:3:A:C8	1:A:3:A:C3'	2.89	0.55
1:A:19:A:C2	1:A:917:G:N7	2.74	0.55
1:A:122:G:H22	1:A:239:U:C2'	2.19	0.55
1:A:254:G:C6	1:A:255:G:C5	2.94	0.55
1:A:274:A:H1'	1:A:275:G:C8	2.41	0.55
1:A:378:G:C2	1:A:386:C:C2	2.95	0.55
1:A:533:A:C4	1:A:536:C:C4	2.94	0.55
1:A:582:C:N3	1:A:760:G:C5	2.75	0.55
1:A:592:G:C2	1:A:648:A:C4	2.94	0.55
1:A:602:A:C6	1:A:603:U:C4	2.94	0.55
1:A:644:U:C2	1:A:645:G:C8	2.93	0.55
1:A:688:G:C2	1:A:689:C:C6	2.94	0.55
1:A:781:A:H3'	1:A:782:A:C8	2.41	0.55
1:A:864:A:C2	1:A:917:G:N3	2.75	0.55
1:A:914:A:C8	1:A:914:A:H5"	2.42	0.55
1:A:952:U:O2	1:A:969:A:C2	2.59	0.55
1:A:955:U:C2	1:A:956:U:C6	2.95	0.55
1:A:998:C:H42	1:A:1042:A:N6	2.04	0.55
1:A:1012:A:C4	1:A:1018:G:C2	2.94	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1021:A:C8	1:A:1021:A:O5'	2.60	0.55
1:A:1131:G:N2	1:A:1144:G:H4'	2.21	0.55
1:A:1185:G:C2	1:A:1186:G:C4	2.95	0.55
1:A:1231:G:H4'	9:I:129:ARG:H	1.70	0.55
1:A:1301:U:OP2	1:A:1303:C:C5	2.59	0.55
1:A:1358:U:H3'	14:N:74:ARG:HG3	1.88	0.55
1:A:1406:U:H5"	1:A:1407:C:H5	1.70	0.55
1:A:1407:C:N3	1:A:1495:U:C2	2.74	0.55
1:A:1410:A:C6	1:A:1411:C:C4	2.94	0.55
4:D:161:ALA:HB1	4:D:172:VAL:HG23	1.88	0.55
7:G:64:ALA:O	7:G:68:VAL:HG23	2.07	0.55
11:K:19:VAL:HG11	11:K:21:HIS:CE1	2.40	0.55
14:N:1:ALA:H1	14:N:66:THR:HG22	1.72	0.55
17:Q:8:GLN:HE22	17:Q:57:VAL:C	2.10	0.55
18:R:30:ASN:HB2	18:R:31:TYR:CE1	2.41	0.55
1:A:116:A:C5	1:A:117:G:C5	2.94	0.55
1:A:240:G:C6	1:A:287:U:C2	2.94	0.55
1:A:255:G:N1	1:A:272:C:C2	2.75	0.55
1:A:415:A:H3'	1:A:416:G:C8	2.41	0.55
1:A:427:U:O5'	1:A:427:U:C6	2.59	0.55
1:A:640:A:C2	1:A:642:A:N6	2.75	0.55
1:A:684:U:O2	11:K:40:ALA:HB3	2.07	0.55
1:A:727:G:H2'	1:A:729:A:OP2	2.07	0.55
1:A:988:G:C2	1:A:1218:C:C2	2.94	0.55
1:A:1008:U:C5	14:N:17:ASP:OD1	2.59	0.55
1:A:1099:G:C5	1:A:1100:C:O4'	2.60	0.55
1:A:1133:G:C4	1:A:1142:G:C2	2.93	0.55
1:A:1209:C:H2'	1:A:1210:C:H6	1.71	0.55
1:A:1269:A:C8	1:A:1270:G:H1'	2.42	0.55
1:A:1289:A:H61	9:I:71:ILE:CG1	2.19	0.55
1:A:1483:A:C4	1:A:1484:C:H1'	2.40	0.55
1:A:1500:A:C4	1:A:1501:C:C5	2.95	0.55
1:A:1518:A:C4	1:A:1519:A:C8	2.94	0.55
2:B:27:LYS:H	2:B:28:PRO:HD2	1.72	0.55
4:D:8:LEU:HD11	4:D:28:ASP:O	2.06	0.55
10:J:20:GLN:HE22	10:J:93:ALA:CB	2.19	0.55
11:K:28:ASN:HB2	11:K:46:ALA:HB3	1.89	0.55
13:M:22:TYR:CD1	13:M:23:GLY:N	2.74	0.55
17:Q:61:ARG:CZ	17:Q:63:CYS:HB3	2.36	0.55
1:A:25:C:H5"	1:A:524:G:H2'	1.88	0.55
1:A:100:G:C6	1:A:101:A:C5	2.94	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:134:G:H1'	1:A:326:G:O6	2.06	0.55
1:A:241:G:C5	1:A:242:G:C8	2.95	0.55
1:A:283:U:C6	1:A:283:U:O5'	2.59	0.55
1:A:604:G:H3'	1:A:605:U:C5	2.41	0.55
1:A:604:G:C5	1:A:605:U:C4	2.95	0.55
1:A:715:A:C2	1:A:716:A:C6	2.95	0.55
1:A:1044:A:C8	1:A:1044:A:H5"	2.41	0.55
1:A:1146:A:H2	9:I:19:PHE:CE1	2.25	0.55
1:A:1197:A:C6	1:A:1198:G:C5	2.94	0.55
1:A:1366:C:N3	1:A:1367:C:C4	2.75	0.55
1:A:1380:U:C6	7:G:2:ARG:HA	2.42	0.55
1:A:1460:C:H3'	1:A:1461:G:C8	2.41	0.55
1:A:1513:A:C4	1:A:1514:G:C8	2.94	0.55
3:C:4:VAL:HG13	3:C:8:GLY:CA	2.37	0.55
3:C:106:ARG:HE	3:C:110:LEU:HB3	1.71	0.55
3:C:113:LYS:HA	3:C:184:ASN:CG	2.27	0.55
15:O:23:SER:H	15:O:27:GLN:HE21	1.54	0.55
1:A:27:G:C4	1:A:28:A:C8	2.95	0.55
1:A:28:A:N1	1:A:29:U:C2	2.75	0.55
1:A:32:A:C2	1:A:33:A:C4	2.94	0.55
1:A:57:G:H3'	1:A:58:C:H6	1.70	0.55
1:A:78:A:O5'	1:A:78:A:C8	2.58	0.55
1:A:181:A:C1'	1:A:194:C:C5	2.90	0.55
1:A:195:A:H1'	1:A:223:A:H5'	1.87	0.55
1:A:272:C:N3	1:A:273:U:C4	2.75	0.55
1:A:302:G:H4'	12:L:14:LYS:HA	1.88	0.55
1:A:418:C:H2'	1:A:419:C:C6	2.42	0.55
1:A:430:A:H5"	1:A:430:A:H8	1.72	0.55
1:A:458:U:C2	1:A:459:A:N7	2.74	0.55
1:A:461:A:C5	1:A:463:U:OP2	2.59	0.55
1:A:482:A:C5	1:A:483:C:C2	2.94	0.55
1:A:499:A:C4	1:A:547:A:C6	2.94	0.55
1:A:594:U:C6	1:A:646:G:C2	2.95	0.55
1:A:597:G:C2	1:A:598:U:C1'	2.90	0.55
1:A:608:A:C5	1:A:609:A:C8	2.95	0.55
1:A:610:U:H5	1:A:627:G:N7	2.05	0.55
1:A:688:G:C5'	11:K:48:GLY:HA2	2.36	0.55
1:A:724:G:C4	1:A:725:G:C8	2.94	0.55
1:A:738:C:C2	1:A:739:C:C6	2.95	0.55
1:A:836:G:N1	1:A:837:U:C2	2.75	0.55
1:A:920:U:H2'	1:A:921:U:C6	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:931:C:C4	1:A:932:C:C5	2.94	0.55
1:A:980:C:C6	1:A:981:U:C4	2.94	0.55
1:A:1039:G:H2'	1:A:1040:U:C6	2.42	0.55
1:A:1160:G:C6	1:A:1161:C:N3	2.74	0.55
1:A:1283:U:O5'	1:A:1283:U:H6	1.90	0.55
1:A:1309:G:C2	1:A:1329:A:C4	2.95	0.55
1:A:1355:G:N2	1:A:1368:A:C4	2.75	0.55
1:A:1438:G:N2	1:A:1439:G:C4	2.75	0.55
1:A:1457:G:C5'	20:T:29:THR:HB	2.37	0.55
1:A:1513:A:C2	1:A:1523:G:C6	2.95	0.55
2:B:19:THR:HG23	2:B:38:HIS:HD2	1.72	0.55
4:D:9:LYS:HA	4:D:12:ARG:NH2	2.22	0.55
8:H:1:SER:H3	8:H:8:ASP:HB2	1.71	0.55
11:K:46:ALA:HB1	11:K:61:ALA:CB	2.37	0.55
1:A:15:G:N3	5:E:23:THR:HG21	2.22	0.55
1:A:41:G:C2	1:A:402:G:C2	2.95	0.55
1:A:131:A:H1'	1:A:232:G:N2	2.22	0.55
1:A:142:G:H2'	1:A:196:A:H2	1.72	0.55
1:A:145:G:N1	1:A:146:G:C4	2.75	0.55
1:A:150:U:C4	1:A:170:U:C4	2.95	0.55
1:A:157:U:H1'	1:A:165:G:C2	2.42	0.55
1:A:194:C:H4'	20:T:59:ARG:HB2	1.89	0.55
1:A:204:G:N7	1:A:205:A:C8	2.75	0.55
1:A:251:G:C6	1:A:252:U:C5	2.94	0.55
1:A:253:A:C1'	1:A:275:G:H21	2.19	0.55
1:A:431:A:C4	1:A:432:A:C8	2.95	0.55
1:A:440:C:H42	1:A:496:A:H62	1.54	0.55
1:A:444:G:C6	1:A:445:G:C5	2.95	0.55
1:A:453:G:C6	1:A:454:G:C4	2.95	0.55
1:A:462:G:H1'	1:A:471:U:O2	2.07	0.55
1:A:554:A:H2'	1:A:555:U:C5	2.42	0.55
1:A:672:U:H4'	6:F:86:ARG:HH21	1.72	0.55
1:A:699:C:H2'	1:A:700:G:H8	1.72	0.55
1:A:703:G:C3'	1:A:704:A:H5'	2.36	0.55
1:A:934:C:C2	1:A:1344:C:C4	2.95	0.55
1:A:1001:C:H2'	1:A:1002:G:C8	2.42	0.55
1:A:1038:C:H2'	1:A:1039:G:C8	2.42	0.55
1:A:1055:A:H2	3:C:193:GLY:HA2	1.72	0.55
1:A:1068:G:C6	1:A:1108:G:C6	2.95	0.55
1:A:1083:U:H5"	1:A:1086:U:C4	2.42	0.55
1:A:1131:G:H1	1:A:1144:G:H1'	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1164:G:N1	1:A:1173:U:C2	2.74	0.55
1:A:1219:A:C2	1:A:1220:G:C4	2.95	0.55
1:A:1288:A:C2	1:A:1289:A:C4	2.95	0.55
1:A:1296:C:H4'	13:M:12:LYS:HA	1.88	0.55
1:A:1309:G:H5"	13:M:76:ILE:HG13	1.89	0.55
1:A:1365:G:N1	1:A:1366:C:C2	2.75	0.55
1:A:1403:C:H1'	1:A:1500:A:N1	2.21	0.55
2:B:40:ILE:HD12	2:B:41:ASN:O	2.07	0.55
5:E:109:ALA:HB3	5:E:110:MET:HE3	1.89	0.55
6:F:11:HIS:CD2	6:F:11:HIS:N	2.74	0.55
6:F:49:TYR:CD1	18:R:68:PRO:HA	2.41	0.55
1:A:11:G:N1	1:A:24:U:H1'	2.22	0.55
1:A:113:G:C5	1:A:114:U:C5	2.94	0.55
1:A:115:G:C4	1:A:313:A:C2	2.95	0.55
1:A:185:U:N3	1:A:186:C:C5	2.75	0.55
1:A:217:C:H5'	1:A:463:U:C5	2.41	0.55
1:A:373:A:C8	1:A:482:A:C2	2.95	0.55
1:A:420:U:O2	1:A:424:G:C6	2.60	0.55
1:A:569:C:C6	1:A:574:A:H2'	2.42	0.55
1:A:683:G:H3'	1:A:684:U:C5	2.42	0.55
1:A:683:G:C5	1:A:684:U:C4	2.95	0.55
1:A:840:C:O5'	1:A:840:C:C6	2.60	0.55
1:A:860:A:C8	1:A:860:A:O5'	2.59	0.55
1:A:922:G:C5	1:A:923:A:C5	2.95	0.55
1:A:987:G:N2	1:A:1219:A:C4	2.75	0.55
1:A:1068:G:C6	1:A:1069:C:C4	2.95	0.55
1:A:1097:C:H2'	1:A:1098:C:C6	2.41	0.55
1:A:1179:A:H5"	9:I:98:ARG:HG3	1.88	0.55
1:A:1207:G:C6	1:A:1208:C:C4	2.95	0.55
1:A:1256:A:C5	1:A:1258:G:C2	2.95	0.55
1:A:1303:C:C4	1:A:1304:G:C4	2.95	0.55
1:A:1385:G:C6	1:A:1386:G:C5	2.94	0.55
1:A:1420:U:C2	1:A:1481:U:O2	2.59	0.55
1:A:1447:A:H61	20:T:19:HIS:CE1	2.24	0.55
10:J:9:ARG:HE	10:J:42:LEU:CD1	2.20	0.55
1:A:76:G:N1	1:A:95:C:C4	2.74	0.55
1:A:79:G:C2	1:A:80:A:C4	2.94	0.55
1:A:131:A:C2	1:A:132:C:N3	2.75	0.55
1:A:144:G:C6	1:A:179:A:C6	2.95	0.55
1:A:173:U:H5'	1:A:173:U:C6	2.42	0.55
1:A:292:G:C4	1:A:309:A:C2	2.95	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:322:C:H2'	1:A:323:U:C6	2.42	0.55
1:A:562:U:H4'	1:A:563:A:C5	2.41	0.55
1:A:642:A:C6	1:A:643:C:C4	2.95	0.55
1:A:652:U:H2'	1:A:752:G:N3	2.21	0.55
1:A:760:G:C5	1:A:761:G:N9	2.75	0.55
1:A:815:A:C2	1:A:1529:G:C2	2.95	0.55
1:A:815:A:H61	1:A:1529:G:H2'	1.72	0.55
1:A:852:G:C6	1:A:853:C:C4	2.95	0.55
1:A:898:G:C2	1:A:902:G:C5	2.94	0.55
1:A:961:U:H2'	1:A:962:C:C6	2.42	0.55
1:A:980:C:N3	14:N:60:ARG:HD3	2.22	0.55
1:A:1008:U:C6	1:A:1022:A:C2	2.95	0.55
1:A:1057:G:C5	1:A:1058:G:C4	2.95	0.55
1:A:1131:G:C2	1:A:1144:G:O2'	2.57	0.55
1:A:1152:A:C6	1:A:1153:G:C5	2.95	0.55
1:A:1176:A:C8	1:A:1176:A:O5'	2.60	0.55
1:A:1206:G:C4	1:A:1207:G:C8	2.95	0.55
1:A:1222:G:C2	1:A:1223:C:C5	2.95	0.55
1:A:1234:C:C2	1:A:1235:U:C6	2.95	0.55
1:A:1239:A:C8	1:A:1241:G:N3	2.75	0.55
1:A:1241:G:C6	1:A:1241:G:OP2	2.60	0.55
1:A:1282:C:O5'	1:A:1282:C:C6	2.60	0.55
1:A:1304:G:H1'	1:A:1334:G:N1	2.22	0.55
1:A:1379:G:C6	1:A:1380:U:C5	2.95	0.55
1:A:1410:A:C2	1:A:1491:G:N2	2.75	0.55
1:A:1515:G:N1	1:A:1516:G:C8	2.75	0.55
1:A:1517:G:C2	1:A:1518:A:C4	2.94	0.55
2:B:14:HIS:HB2	2:B:17:HIS:CE1	2.41	0.55
3:C:63:ILE:HD12	3:C:94:ALA:HB1	1.89	0.55
11:K:47:GLY:HA3	11:K:56:LYS:HZ2	1.72	0.55
13:M:79:LEU:HA	13:M:82:LEU:HD12	1.89	0.55
1:A:42:G:C2	1:A:401:C:C2	2.94	0.54
1:A:84:U:H2'	1:A:87:C:C2	2.42	0.54
1:A:98:A:C2	1:A:99:C:H1'	2.42	0.54
1:A:103:U:C1'	1:A:151:A:C2	2.89	0.54
1:A:116:A:H61	1:A:313:A:C2'	2.21	0.54
1:A:133:U:C4'	1:A:325:A:H1'	2.36	0.54
1:A:161:A:C6	1:A:162:A:C4	2.95	0.54
1:A:171:A:C6	1:A:172:A:C6	2.95	0.54
1:A:179:A:C5	1:A:180:U:C5	2.94	0.54
1:A:179:A:C4	1:A:180:U:C6	2.95	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:181:A:H3'	1:A:181:A:OP2	2.07	0.54
1:A:425:G:C5	1:A:426:U:C4	2.95	0.54
1:A:523:A:H1'	1:A:527:G:N1	2.22	0.54
1:A:622:A:H3'	1:A:623:C:C6	2.42	0.54
1:A:659:U:C2	1:A:747:A:C6	2.95	0.54
1:A:772:U:H2'	1:A:773:G:C8	2.42	0.54
1:A:860:A:O5'	1:A:860:A:H8	1.90	0.54
1:A:894:G:C2	1:A:895:G:C5	2.95	0.54
1:A:928:G:H2'	1:A:929:G:C8	2.42	0.54
1:A:981:U:C4	1:A:982:U:C2	2.95	0.54
1:A:1194:U:H3'	1:A:1195:C:C5	2.43	0.54
1:A:1297:G:H5'	1:A:1299:A:N7	2.22	0.54
1:A:1338:G:H8	22:W:298:LYS:HZ2	1.55	0.54
1:A:1368:A:N3	1:A:1369:C:C6	2.75	0.54
1:A:1382:C:H1'	7:G:78:ARG:HB2	1.89	0.54
1:A:1433:A:C8	1:A:1433:A:O5'	2.60	0.54
8:H:27:PRO:HA	8:H:57:GLU:H	1.72	0.54
10:J:7:ARG:HD3	10:J:73:LEU:HD21	1.88	0.54
10:J:15:HIS:CE1	10:J:16:ARG:NE	2.75	0.54
1:A:18:C:H4'	1:A:1078:U:C6	2.42	0.54
1:A:181:A:H2'	1:A:194:C:C6	2.41	0.54
1:A:217:C:H2'	1:A:218:U:O4'	2.07	0.54
1:A:321:A:C8	1:A:328:C:C6	2.95	0.54
1:A:406:G:H2'	1:A:407:U:C6	2.42	0.54
1:A:441:A:H1'	1:A:497:G:C2	2.42	0.54
1:A:575:G:C6	1:A:821:G:C8	2.95	0.54
1:A:577:G:C4	1:A:578:C:C6	2.96	0.54
1:A:599:C:H41	8:H:87:ARG:CD	2.19	0.54
1:A:646:G:C8	1:A:646:G:O5'	2.60	0.54
1:A:764:C:O2'	15:O:49:HIS:CE1	2.60	0.54
1:A:845:A:H3'	1:A:846:G:H8	1.70	0.54
1:A:979:C:H41	1:A:1360:A:N6	2.04	0.54
1:A:1097:C:H1'	1:A:1170:A:H1'	1.90	0.54
1:A:1269:A:N7	1:A:1270:G:H1'	2.23	0.54
1:A:1313:U:O2	1:A:1325:C:C2	2.59	0.54
1:A:1371:G:H5'	9:I:70:GLY:H	1.71	0.54
4:D:97:LEU:HA	4:D:136:VAL:HG23	1.90	0.54
6:F:4:TYR:CD2	6:F:71:ILE:HD13	2.42	0.54
10:J:37:ARG:HG2	10:J:40:ILE:HD11	1.88	0.54
17:Q:14:ASP:HA	17:Q:20:ILE:HD11	1.89	0.54
22:W:306:THR:HA	22:W:313:ARG:HD3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:50:A:C2	1:A:361:G:H1'	2.42	0.54
1:A:56:U:C6	1:A:56:U:O5'	2.59	0.54
1:A:191:G:H2'	1:A:192:A:H8	1.72	0.54
1:A:195:A:C4	1:A:196:A:C2	2.96	0.54
1:A:267:C:OP1	17:Q:68:LYS:HA	2.07	0.54
1:A:318:G:N1	1:A:319:G:C4	2.75	0.54
1:A:411:A:C4	1:A:429:U:C5	2.96	0.54
1:A:457:G:C4	1:A:476:U:O2	2.60	0.54
1:A:579:A:H61	1:A:762:U:H3	1.54	0.54
1:A:628:G:H3'	1:A:629:A:C8	2.42	0.54
1:A:771:G:C5	1:A:772:U:C2	2.95	0.54
1:A:781:A:H1'	1:A:1523:G:C1'	2.37	0.54
1:A:781:A:H3'	1:A:782:A:H8	1.71	0.54
1:A:784:A:C6	1:A:799:G:C5	2.96	0.54
1:A:809:G:C6	1:A:810:C:C4	2.95	0.54
1:A:850:U:C6	1:A:850:U:O5'	2.60	0.54
1:A:895:G:C5	1:A:896:C:C6	2.95	0.54
1:A:897:C:H1'	1:A:903:G:N2	2.23	0.54
1:A:941:G:C6	1:A:1343:G:C6	2.95	0.54
1:A:953:G:C5	1:A:1229:A:N6	2.74	0.54
1:A:1026:G:C2	1:A:1027:C:C5	2.96	0.54
1:A:1032:G:C5	1:A:1033:G:C1'	2.90	0.54
1:A:1041:G:C6	1:A:1042:A:C6	2.95	0.54
1:A:1148:U:H1'	9:I:17:ARG:CZ	2.36	0.54
1:A:1181:G:C4	1:A:1182:G:C2	2.95	0.54
1:A:1186:G:C2	1:A:1187:G:C8	2.96	0.54
1:A:1237:C:C6	1:A:1336:C:N4	2.75	0.54
1:A:1296:C:O2'	1:A:1302:C:C4	2.59	0.54
1:A:1348:U:C5	1:A:1373:G:N2	2.76	0.54
1:A:1420:U:C5	1:A:1420:U:OP2	2.61	0.54
1:A:1433:A:C6	1:A:1434:A:C5	2.95	0.54
1:A:1499:A:C2	1:A:1500:A:C4	2.95	0.54
18:R:44:THR:HG21	18:R:46:THR:HG22	1.89	0.54
20:T:53:MET:HA	20:T:56:ILE:HB	1.89	0.54
1:A:2:A:H61	1:A:626:G:N2	2.04	0.54
1:A:49:U:H1'	1:A:362:G:H1'	1.90	0.54
1:A:55:A:C5	1:A:56:U:C5	2.96	0.54
1:A:79:G:C5	1:A:80:A:C6	2.95	0.54
1:A:128:G:N3	1:A:128:G:H2'	2.22	0.54
1:A:194:C:H4'	20:T:59:ARG:CA	2.37	0.54
1:A:297:G:C4	1:A:299:G:OP2	2.61	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:318:G:H21	1:A:1468:A:H1'	1.72	0.54
1:A:378:G:C2	1:A:379:C:C2	2.95	0.54
1:A:445:G:C5	1:A:446:G:C8	2.96	0.54
1:A:569:C:C1'	1:A:574:A:H2'	2.37	0.54
1:A:772:U:H3'	1:A:772:U:C6	2.43	0.54
1:A:846:G:N1	1:A:847:G:C6	2.75	0.54
1:A:905:U:C5	1:A:906:A:C5	2.95	0.54
1:A:1157:A:C4	1:A:1181:G:C6	2.95	0.54
1:A:1307:U:C6	1:A:1307:U:O5'	2.61	0.54
1:A:1319:A:N7	1:A:1323:G:C4	2.75	0.54
1:A:1344:C:C5'	9:I:121:ARG:HB3	2.38	0.54
1:A:1437:A:C2	1:A:1465:A:C4	2.94	0.54
1:A:1462:C:C6	1:A:1463:U:C5	2.95	0.54
15:O:11:VAL:O	15:O:15:GLY:HA3	2.07	0.54
17:Q:57:VAL:HB	17:Q:78:VAL:O	2.08	0.54
17:Q:60:ILE:HG22	17:Q:74:LEU:HA	1.90	0.54
17:Q:66:LEU:HD12	17:Q:70:LYS:O	2.07	0.54
18:R:31:TYR:CD2	18:R:44:THR:HG23	2.42	0.54
1:A:3:A:H5'	1:A:614:C:H4'	1.89	0.54
1:A:32:A:C4'	1:A:48:C:H42	2.21	0.54
1:A:66:A:C4	1:A:104:G:C2	2.96	0.54
1:A:81:A:OP2	1:A:83:C:C5	2.60	0.54
1:A:147:G:C8	1:A:147:G:O5'	2.60	0.54
1:A:184:G:C6	1:A:194:C:N4	2.76	0.54
1:A:207:C:H2'	1:A:208:U:C4	2.43	0.54
1:A:258:G:C5	1:A:259:G:C8	2.95	0.54
1:A:282:A:C6	1:A:283:U:C4	2.95	0.54
1:A:301:G:C8	1:A:301:G:H3'	2.43	0.54
1:A:303:A:C5	1:A:304:U:C5	2.95	0.54
1:A:369:G:N1	1:A:370:C:C2	2.75	0.54
1:A:449:G:C6	1:A:486:U:C2	2.95	0.54
1:A:453:G:O6	1:A:480:U:C5	2.61	0.54
1:A:539:A:C6	1:A:540:G:C5	2.95	0.54
1:A:594:U:C4	1:A:595:A:N6	2.76	0.54
1:A:596:A:C6	1:A:645:G:C2	2.95	0.54
1:A:597:G:C4	1:A:598:U:C6	2.95	0.54
1:A:675:A:C6	1:A:676:A:C5	2.94	0.54
1:A:783:C:H2'	1:A:784:A:C8	2.43	0.54
1:A:804:U:C6	1:A:805:C:C4	2.95	0.54
1:A:843:U:C2'	1:A:846:G:H21	2.20	0.54
1:A:858:G:H1	1:A:869:G:H2'	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1009:U:C2	14:N:20:PHE:O	2.61	0.54
1:A:1032:G:N3	1:A:1033:G:C8	2.75	0.54
1:A:1102:A:C6	1:A:1103:C:C4	2.96	0.54
1:A:1107:C:O2	1:A:1191:A:H1'	2.07	0.54
1:A:1118:U:H2'	1:A:1119:C:C6	2.43	0.54
1:A:1133:G:N1	1:A:1142:G:C6	2.75	0.54
1:A:1186:G:C8	1:A:1186:G:O5'	2.61	0.54
1:A:1198:G:N1	1:A:1199:U:C2	2.76	0.54
1:A:1289:A:H61	9:I:71:ILE:HG12	1.72	0.54
1:A:1304:G:C5	1:A:1305:G:C5	2.96	0.54
1:A:1384:C:H2'	1:A:1385:G:C8	2.43	0.54
1:A:1423:G:N1	1:A:1478:U:C2	2.75	0.54
6:F:43:GLY:HA2	6:F:58:HIS:CD2	2.43	0.54
11:K:32:THR:HG22	11:K:34:THR:HG23	1.89	0.54
11:K:55:ARG:H	11:K:55:ARG:HD3	1.72	0.54
13:M:24:VAL:HG11	13:M:59:VAL:HG21	1.90	0.54
1:A:2:A:C8	1:A:614:C:H4'	2.42	0.54
1:A:23:C:OP1	12:L:17:LYS:HA	2.08	0.54
1:A:69:G:N2	1:A:70:U:C2	2.76	0.54
1:A:111:G:H1	1:A:330:C:H5	1.55	0.54
1:A:130:A:C8	1:A:264:C:C1'	2.90	0.54
1:A:247:G:C4	1:A:278:G:C2	2.96	0.54
1:A:254:G:H5'	17:Q:44:HIS:CE1	2.42	0.54
1:A:321:A:C8	1:A:321:A:H3'	2.41	0.54
1:A:355:C:H2'	1:A:356:A:C8	2.43	0.54
1:A:438:U:H5	1:A:494:G:OP2	1.91	0.54
1:A:452:A:C6	1:A:453:G:N3	2.76	0.54
1:A:455:G:N1	1:A:456:A:C8	2.75	0.54
1:A:573:A:N1	1:A:915:A:C2	2.75	0.54
1:A:594:U:C5	1:A:646:G:N1	2.76	0.54
1:A:729:A:H61	15:O:49:HIS:CG	2.26	0.54
1:A:864:A:C5	1:A:865:A:C5	2.95	0.54
1:A:928:G:N1	1:A:929:G:C6	2.76	0.54
1:A:954:G:C5	1:A:955:U:C5	2.95	0.54
1:A:960:U:O2	1:A:1225:A:C4	2.61	0.54
1:A:1017:U:O4	14:N:15:LEU:HD21	2.07	0.54
1:A:1036:A:N7	1:A:1037:C:C4	2.76	0.54
1:A:1070:U:C5	1:A:1085:U:C4	2.95	0.54
1:A:1088:G:N2	1:A:1098:C:H1'	2.23	0.54
1:A:1248:A:H2	9:I:71:ILE:HD11	1.73	0.54
1:A:1275:A:C8	1:A:1275:A:C3'	2.91	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1360:A:H3'	1:A:1361:G:H8	1.73	0.54
1:A:1394:A:C6	1:A:1501:C:H4'	2.43	0.54
1:A:1416:G:H2'	1:A:1417:G:H5'	1.89	0.54
1:A:1502:A:C4	1:A:1504:G:C6	2.96	0.54
4:D:116:LEU:CD2	4:D:153:ARG:HH21	2.21	0.54
10:J:8:ILE:HB	10:J:98:VAL:HG13	1.89	0.54
1:A:71:A:H61	1:A:99:C:H1'	1.72	0.54
1:A:160:A:H2'	1:A:161:A:C8	2.42	0.54
1:A:177:G:H2'	1:A:178:C:C5'	2.38	0.54
1:A:221:C:C6	1:A:221:C:O5'	2.60	0.54
1:A:223:A:C5	1:A:224:U:C5	2.96	0.54
1:A:238:A:C6	1:A:239:U:C4	2.95	0.54
1:A:340:U:O5'	1:A:340:U:H6	1.90	0.54
1:A:361:G:H3'	1:A:362:G:C8	2.43	0.54
1:A:370:C:C6	1:A:370:C:O5'	2.60	0.54
1:A:441:A:C4	1:A:497:G:C6	2.96	0.54
1:A:577:G:C2	1:A:578:C:C2	2.96	0.54
1:A:612:C:C5	1:A:613:C:C4	2.96	0.54
1:A:641:U:C5	1:A:641:U:OP2	2.60	0.54
1:A:663:A:C6	1:A:743:A:C2	2.95	0.54
1:A:755:G:C6	1:A:756:C:C4	2.96	0.54
1:A:766:A:C5	1:A:814:A:C4	2.96	0.54
1:A:946:A:O2'	1:A:1333:A:H2'	2.08	0.54
1:A:1054:C:C6	1:A:1196:A:C4	2.95	0.54
1:A:1140:C:O2'	1:A:1141:C:C5	2.60	0.54
1:A:1152:A:C2	1:A:1153:G:C4	2.96	0.54
1:A:1175:G:C8	1:A:1175:G:O5'	2.61	0.54
1:A:1181:G:O2'	1:A:1182:G:C4	2.59	0.54
1:A:1256:A:C5	1:A:1278:G:N3	2.76	0.54
1:A:1299:A:C5	1:A:1301:U:H1'	2.42	0.54
1:A:1309:G:C2	1:A:1329:A:N3	2.76	0.54
1:A:1385:G:C2	1:A:1386:G:C4	2.95	0.54
1:A:1408:A:C2	1:A:1409:C:C2	2.95	0.54
1:A:1433:A:C8	1:A:1468:A:C2	2.96	0.54
1:A:1434:A:C6	1:A:1435:G:C5	2.95	0.54
1:A:1434:A:C2	1:A:1435:G:H1'	2.43	0.54
1:A:1458:G:H2'	1:A:1459:G:O4'	2.08	0.54
4:D:115:GLN:HG3	4:D:153:ARG:HH22	1.71	0.54
5:E:88:HIS:CE1	5:E:137:ARG:HD2	2.43	0.54
7:G:49:LEU:HB2	7:G:52:ARG:HH21	1.73	0.54
20:T:38:ILE:HD13	20:T:81:GLN:HB3	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:38:ILE:CA	20:T:86:ALA:HB2	2.37	0.54
20:T:59:ARG:CD	20:T:60:GLN:HE21	2.20	0.54
1:A:21:G:C8	1:A:21:G:O5'	2.61	0.54
1:A:91:U:OP2	1:A:92:U:C5	2.60	0.54
1:A:115:G:N2	1:A:313:A:H1'	2.23	0.54
1:A:131:A:C4	1:A:232:G:C2	2.96	0.54
1:A:141:G:H3'	1:A:142:G:H8	1.73	0.54
1:A:142:G:N3	1:A:222:C:C2	2.76	0.54
1:A:160:A:C6	1:A:346:G:C6	2.95	0.54
1:A:190:A:OP2	1:A:191:G:C4	2.61	0.54
1:A:217:C:C5'	1:A:463:U:H5	2.21	0.54
1:A:252:U:H2'	1:A:275:G:N2	2.22	0.54
1:A:300:A:OP2	1:A:301:G:C5	2.61	0.54
1:A:349:A:C2	1:A:350:G:C5	2.96	0.54
1:A:381:C:C4	1:A:382:A:C2	2.95	0.54
1:A:433:G:C5	1:A:434:U:C6	2.96	0.54
1:A:439:U:H2'	1:A:440:C:C5'	2.38	0.54
1:A:502:A:C6	1:A:503:C:C4	2.96	0.54
1:A:617:G:C8	1:A:617:G:O5'	2.61	0.54
1:A:621:A:C6	1:A:622:A:C6	2.95	0.54
1:A:639:G:C6	1:A:640:A:N7	2.76	0.54
1:A:639:G:C6	1:A:640:A:C5	2.96	0.54
1:A:675:A:N1	1:A:676:A:C4	2.75	0.54
1:A:696:A:H2	1:A:786:G:N3	2.06	0.54
1:A:707:U:H5"	11:K:21:HIS:HB3	1.89	0.54
1:A:823:C:H2'	1:A:824:G:C8	2.43	0.54
1:A:824:G:N2	8:H:1:SER:HA	2.23	0.54
1:A:830:G:H5'	2:B:24:PRO:HA	1.90	0.54
1:A:864:A:H3'	1:A:865:A:C8	2.43	0.54
1:A:864:A:N3	1:A:865:A:C4	2.76	0.54
1:A:923:A:C2	1:A:1395:C:N3	2.76	0.54
1:A:925:G:H22	1:A:1391:U:H2'	1.73	0.54
1:A:931:C:C4	1:A:932:C:C4	2.96	0.54
1:A:935:A:H2	1:A:1382:C:N4	2.06	0.54
1:A:1055:A:N6	1:A:1206:G:C6	2.76	0.54
1:A:1092:A:C2	1:A:1093:A:C5	2.96	0.54
1:A:1100:C:C4	2:B:72:LYS:HE2	2.43	0.54
1:A:1117:A:H3'	1:A:1118:U:C5	2.43	0.54
1:A:1140:C:O2	1:A:1141:C:C6	2.61	0.54
1:A:1142:G:C6	1:A:1143:G:N3	2.75	0.54
1:A:1216:A:H2'	1:A:1217:C:C6	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1277:C:O2'	1:A:1279:G:C8	2.61	0.54
1:A:1300:G:C2	1:A:1334:G:C2	2.95	0.54
1:A:1306:A:C8	1:A:1332:A:C6	2.95	0.54
1:A:1348:U:C2	1:A:1349:A:C8	2.96	0.54
1:A:1408:A:H2'	1:A:1409:C:C6	2.42	0.54
1:A:1419:G:C8	1:A:1419:G:C5'	2.89	0.54
2:B:107:ARG:CZ	2:B:107:ARG:HA	2.38	0.54
7:G:11:ILE:HG23	7:G:27:ASN:ND2	2.23	0.54
13:M:3:ILE:HG13	13:M:18:LEU:HD21	1.90	0.54
22:W:64:CYS:HA	22:W:95:GLY:H	1.73	0.54
22:W:162:ILE:HG23	22:W:190:VAL:O	2.08	0.54
1:A:44:A:C2	1:A:399:G:H1'	2.43	0.54
1:A:73:C:C4	1:A:74:A:C8	2.96	0.54
1:A:84:U:C2	1:A:87:C:O2	2.61	0.54
1:A:165:G:C2	1:A:166:U:C2	2.96	0.54
1:A:272:C:C2	1:A:273:U:C5	2.96	0.54
1:A:322:C:C4	1:A:323:U:O4	2.61	0.54
1:A:377:G:H5"	16:P:24:SER:CA	2.38	0.54
1:A:452:A:C4	1:A:453:G:H1'	2.43	0.54
1:A:462:G:C2	1:A:463:U:N3	2.72	0.54
1:A:475:C:C5	1:A:476:U:C5	2.96	0.54
1:A:610:U:C6	1:A:610:U:C3'	2.91	0.54
1:A:613:C:O2	1:A:628:G:C2	2.61	0.54
1:A:621:A:C6	1:A:622:A:C5	2.95	0.54
1:A:686:U:C4	1:A:687:A:N6	2.76	0.54
1:A:720:C:C6	1:A:733:G:C5	2.96	0.54
1:A:761:G:C5	1:A:762:U:C5	2.95	0.54
1:A:803:G:N7	1:A:804:U:C5	2.75	0.54
1:A:808:C:C2	1:A:809:G:C8	2.95	0.54
1:A:943:U:C2	1:A:1341:U:N3	2.75	0.54
1:A:1000:A:C6	1:A:1041:G:C6	2.95	0.54
1:A:1000:A:C5	1:A:1001:C:C6	2.95	0.54
1:A:1084:G:OP1	1:A:1086:U:H5"	2.08	0.54
1:A:1103:C:N3	1:A:1104:G:C5	2.76	0.54
1:A:1108:G:C5	1:A:1109:C:C4	2.95	0.54
1:A:1117:A:C6	1:A:1184:G:C6	2.96	0.54
1:A:1126:U:H3	10:J:9:ARG:HH21	1.56	0.54
1:A:1219:A:C5	1:A:1220:G:C5	2.95	0.54
1:A:1252:A:O2'	1:A:1369:C:H4'	2.08	0.54
1:A:1304:G:H1'	1:A:1334:G:N2	2.23	0.54
1:A:1380:U:O2	1:A:1382:C:N4	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1459:G:C5	1:A:1460:C:C5	2.96	0.54
1:A:1461:G:N2	1:A:1462:C:H1'	2.23	0.54
1:A:1473:G:C5	1:A:1474:U:C6	2.96	0.54
5:E:114:LEU:CD2	5:E:119:VAL:HG23	2.38	0.54
17:Q:45:VAL:HA	17:Q:72:TRP:O	2.08	0.54
22:W:128:ILE:HD11	22:W:148:CYS:SG	2.48	0.54
1:A:27:G:C5	1:A:557:G:C2	2.96	0.54
1:A:62:U:H4'	1:A:384:G:H22	1.72	0.54
1:A:75:G:C8	1:A:75:G:H3'	2.43	0.54
1:A:94:G:N2	1:A:96:U:C2	2.76	0.54
1:A:187:G:C2	1:A:191:G:C6	2.96	0.54
1:A:191:G:C6	1:A:192:A:C5	2.96	0.54
1:A:232:G:C6	1:A:233:C:C5	2.95	0.54
1:A:297:G:N2	1:A:299:G:H3'	2.23	0.54
1:A:451:A:C2	1:A:480:U:H5	2.26	0.54
1:A:513:C:H2'	1:A:514:C:C6	2.43	0.54
1:A:587:G:H22	1:A:754:C:H5'	1.73	0.54
1:A:597:G:H3'	1:A:598:U:C6	2.43	0.54
1:A:751:U:C5	1:A:752:G:C2	2.95	0.54
1:A:782:A:H5'	1:A:1514:G:H2'	1.90	0.54
1:A:821:G:C8	1:A:821:G:H3'	2.43	0.54
1:A:857:C:OP2	1:A:871:U:C5	2.60	0.54
1:A:895:G:N1	1:A:896:C:C2	2.75	0.54
1:A:943:U:H2'	1:A:943:U:O2	2.07	0.54
1:A:1053:G:H5"	1:A:1200:C:C4	2.43	0.54
1:A:1091:U:C2	1:A:1095:U:C2	2.96	0.54
1:A:1100:C:H4'	1:A:1102:A:H4'	1.89	0.54
1:A:1125:U:C6	1:A:1127:G:C5	2.95	0.54
1:A:1142:G:H5"	1:A:1142:G:H8	1.71	0.54
1:A:1179:A:H5"	9:I:98:ARG:CB	2.37	0.54
1:A:1301:U:H2'	1:A:1303:C:C5	2.43	0.54
1:A:1355:G:C2	1:A:1356:G:C5	2.96	0.54
1:A:1397:C:H5"	5:E:28:ARG:HH12	1.72	0.54
1:A:1407:C:H3'	1:A:1408:A:H8	1.72	0.54
1:A:1408:A:N3	1:A:1494:G:C6	2.75	0.54
1:A:1434:A:H3'	1:A:1435:G:H8	1.72	0.54
1:A:1495:U:C6	1:A:1495:U:O5'	2.61	0.54
1:A:1510:C:O5'	1:A:1510:C:C6	2.61	0.54
2:B:125:PHE:O	2:B:130:LYS:HA	2.08	0.54
3:C:189:HIS:CE1	3:C:194:VAL:HG22	2.43	0.54
10:J:15:HIS:HA	10:J:18:ILE:HG22	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:N:81:ILE:O	14:N:85:GLU:HB2	2.08	0.54
16:P:18:GLN:HA	16:P:38:PHE:HA	1.89	0.54
22:W:41:GLU:HB3	22:W:78:ARG:HH21	1.73	0.54
22:W:293:TYR:HB2	22:W:312:ILE:HG13	1.89	0.54
1:A:27:G:C6	1:A:28:A:C6	2.96	0.53
1:A:27:G:C8	1:A:27:G:H3'	2.43	0.53
1:A:52:C:C4	1:A:53:A:C8	2.96	0.53
1:A:275:G:C6	1:A:276:G:C4	2.96	0.53
1:A:439:U:C5	1:A:440:C:C4	2.96	0.53
1:A:474:G:C6	1:A:475:C:N3	2.76	0.53
1:A:643:C:C5	1:A:644:U:C5	2.96	0.53
1:A:668:G:H2'	1:A:669:G:C8	2.44	0.53
1:A:697:U:C4	1:A:698:G:C8	2.95	0.53
1:A:739:C:C4	1:A:740:U:C6	2.96	0.53
1:A:787:A:C6	1:A:793:U:OP1	2.61	0.53
1:A:849:G:C8	1:A:849:G:C5'	2.90	0.53
1:A:922:G:H2'	1:A:923:A:C8	2.43	0.53
1:A:953:G:C3'	1:A:954:G:H8	2.21	0.53
1:A:989:U:H4'	1:A:1016:A:C2	2.44	0.53
1:A:1004:A:C2	1:A:1033:G:O6	2.60	0.53
1:A:1020:G:H3'	1:A:1021:A:H8	1.72	0.53
1:A:1043:G:C5	1:A:1044:A:C6	2.96	0.53
1:A:1070:U:C4	1:A:1085:U:C5	2.95	0.53
1:A:1181:G:N2	1:A:1182:G:H21	2.06	0.53
1:A:1261:A:C8	1:A:1262:C:O4'	2.62	0.53
1:A:1287:A:C5	1:A:1288:A:C5	2.96	0.53
1:A:1357:A:C4	1:A:1358:U:C2	2.95	0.53
1:A:1375:A:C5	1:A:1376:U:C4	2.96	0.53
1:A:1433:A:C8	1:A:1468:A:C5	2.95	0.53
1:A:1462:C:C3'	1:A:1463:U:H6	2.19	0.53
1:A:1530:G:C8	1:A:1531:A:H3'	2.43	0.53
2:B:71:THR:HA	2:B:167:HIS:CG	2.43	0.53
3:C:56:ILE:CG2	3:C:63:ILE:HD11	2.39	0.53
4:D:169:TRP:HA	4:D:183:ARG:HE	1.74	0.53
8:H:38:VAL:HG11	8:H:111:THR:CA	2.37	0.53
10:J:36:VAL:HG23	10:J:76:ILE:HG22	1.89	0.53
12:L:2:THR:HG22	12:L:5:GLN:H	1.72	0.53
15:O:41:HIS:CE1	15:O:45:HIS:HE1	2.26	0.53
1:A:15:G:C5	1:A:16:A:N7	2.77	0.53
1:A:59:A:N1	1:A:331:G:C4	2.76	0.53
1:A:122:G:C8	1:A:122:G:O5'	2.61	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:138:G:N2	1:A:226:G:C8	2.76	0.53
1:A:143:A:H4'	1:A:196:A:C6	2.43	0.53
1:A:148:G:H1'	1:A:1447:A:H1'	1.89	0.53
1:A:162:A:H4'	1:A:349:A:H5'	1.88	0.53
1:A:201:G:H2'	1:A:202:G:N9	2.24	0.53
1:A:211:G:H3'	1:A:212:G:O4'	2.09	0.53
1:A:245:U:C2	1:A:284:C:C2	2.96	0.53
1:A:319:G:H21	1:A:1434:A:H1'	1.73	0.53
1:A:326:G:H5"	1:A:327:A:OP2	2.08	0.53
1:A:347:G:C5	1:A:348:G:H1'	2.43	0.53
1:A:413:G:H5'	4:D:31:CYS:SG	2.48	0.53
1:A:461:A:C8	1:A:467:U:OP1	2.62	0.53
1:A:522:C:H3'	1:A:523:A:C8	2.43	0.53
1:A:560:A:H5'	1:A:566:G:N2	2.23	0.53
1:A:634:C:C5	1:A:634:C:OP2	2.61	0.53
1:A:745:G:H4'	1:A:851:G:C2	2.44	0.53
1:A:770:C:H2'	1:A:771:G:H8	1.73	0.53
1:A:777:A:N1	11:K:120:CYS:HA	2.23	0.53
1:A:857:C:C5	1:A:858:G:N7	2.77	0.53
1:A:951:G:N1	1:A:1231:G:C5	2.77	0.53
1:A:1019:A:C8	1:A:1019:A:H3'	2.42	0.53
1:A:1020:G:C2	1:A:1021:A:C4	2.96	0.53
1:A:1053:G:O4'	1:A:1056:U:C5	2.61	0.53
1:A:1067:A:H2'	1:A:1093:A:H4'	1.90	0.53
1:A:1083:U:C5'	1:A:1086:U:C4	2.92	0.53
1:A:1167:A:H2'	1:A:1169:A:N6	2.24	0.53
1:A:1289:A:C5	1:A:1290:G:O4'	2.61	0.53
1:A:1296:C:C6	1:A:1297:G:C5	2.97	0.53
1:A:1302:C:C3'	1:A:1303:C:C5'	2.86	0.53
1:A:1326:U:H2'	1:A:1327:C:C6	2.43	0.53
1:A:1346:A:C5	7:G:9:ARG:HG2	2.43	0.53
1:A:1410:A:C2	1:A:1491:G:C2	2.97	0.53
1:A:1488:G:N2	1:A:1489:G:H1'	2.23	0.53
2:B:65:LYS:HD2	2:B:89:PHE:HB2	1.90	0.53
3:C:189:HIS:CE1	3:C:194:VAL:CG1	2.91	0.53
4:D:117:VAL:CG2	4:D:132:ALA:HB2	2.37	0.53
13:M:9:PRO:HB3	13:M:18:LEU:HG	1.89	0.53
1:A:22:G:C4	1:A:23:C:C5	2.96	0.53
1:A:39:G:C6	1:A:40:C:C4	2.96	0.53
1:A:86:G:H1'	1:A:87:C:C6	2.43	0.53
1:A:107:G:H1'	1:A:379:C:C5'	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:160:A:H2	1:A:347:G:C2	2.26	0.53
1:A:185:U:C6	1:A:185:U:O5'	2.62	0.53
1:A:209:U:H5"	1:A:210:C:H5	1.71	0.53
1:A:291:U:C2	1:A:292:G:C8	2.96	0.53
1:A:313:A:N1	1:A:314:C:C2	2.76	0.53
1:A:396:C:O5'	1:A:396:C:C6	2.62	0.53
1:A:409:U:H1'	1:A:434:U:O2	2.09	0.53
1:A:450:G:C4	1:A:481:G:C2	2.96	0.53
1:A:506:G:H3'	1:A:507:C:C5	2.43	0.53
1:A:537:G:N1	1:A:538:G:C4	2.77	0.53
1:A:584:G:C6	1:A:585:G:C5	2.96	0.53
1:A:679:C:C2	1:A:712:A:N1	2.77	0.53
1:A:711:G:H2'	1:A:712:A:C8	2.43	0.53
1:A:838:G:O5'	1:A:838:G:C8	2.61	0.53
1:A:867:G:H2'	1:A:868:C:O4'	2.07	0.53
1:A:892:A:C6	1:A:907:A:C8	2.97	0.53
1:A:900:A:C6	1:A:901:A:C6	2.96	0.53
1:A:938:A:O2'	1:A:1377:A:H5'	2.08	0.53
1:A:963:G:C5	1:A:973:G:C6	2.97	0.53
1:A:1049:U:H4'	1:A:1050:G:H5'	1.89	0.53
1:A:1058:G:N7	1:A:1059:C:C5	2.77	0.53
1:A:1177:G:H3'	1:A:1178:G:C8	2.44	0.53
1:A:1178:G:H2'	1:A:1180:A:OP2	2.08	0.53
1:A:1199:U:C6	1:A:1199:U:OP2	2.61	0.53
1:A:1206:G:H4'	3:C:191:THR:C	2.28	0.53
1:A:1246:A:C6	1:A:1292:G:C6	2.95	0.53
1:A:1282:C:N3	1:A:1283:U:C4	2.76	0.53
1:A:1299:A:H62	1:A:1302:C:H41	1.55	0.53
1:A:1396:A:H5'	1:A:1398:A:H5'	1.90	0.53
1:A:1415:G:N2	1:A:1416:G:C4	2.76	0.53
1:A:1480:A:H3'	1:A:1481:U:C5	2.43	0.53
1:A:1503:A:P	1:A:1503:A:H8	2.32	0.53
1:A:1525:G:N1	1:A:1526:G:C5	2.77	0.53
1:A:1526:G:C2	1:A:1527:U:C6	2.96	0.53
2:B:186:VAL:HA	2:B:190:SER:HB2	1.90	0.53
4:D:89:LEU:HA	4:D:92:LEU:HD12	1.90	0.53
5:E:119:VAL:O	5:E:120:HIS:CD2	2.61	0.53
5:E:158:LYS:CE	8:H:70:VAL:HG12	2.39	0.53
22:W:51:HIS:HB3	22:W:64:CYS:O	2.08	0.53
1:A:31:G:H4'	1:A:45:G:O2'	2.08	0.53
1:A:129:A:C2	1:A:130:A:C2	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:241:G:C2	1:A:242:G:C4	2.96	0.53
1:A:251:G:N1	1:A:266:G:C6	2.76	0.53
1:A:261:U:C6	1:A:263:A:OP2	2.61	0.53
1:A:272:C:O5'	1:A:272:C:C6	2.61	0.53
1:A:293:G:C5	1:A:294:U:C5	2.97	0.53
1:A:299:G:C5	1:A:300:A:N7	2.77	0.53
1:A:301:G:C5	1:A:302:G:C8	2.96	0.53
1:A:365:U:O5'	1:A:365:U:H6	1.92	0.53
1:A:431:A:H5"	1:A:432:A:P	2.48	0.53
1:A:484:G:C2	1:A:486:U:C6	2.95	0.53
1:A:507:C:H3'	1:A:508:U:H5"	1.89	0.53
1:A:548:G:C6	1:A:549:C:C2	2.96	0.53
1:A:596:A:C2	1:A:645:G:C2	2.96	0.53
1:A:625:U:H1'	16:P:48:GLU:HG2	1.90	0.53
1:A:675:A:C2	1:A:676:A:C4	2.96	0.53
1:A:675:A:H4'	18:R:71:ASP:HB3	1.90	0.53
1:A:714:G:C8	1:A:714:G:OP2	2.61	0.53
1:A:858:G:N1	1:A:869:G:H3'	2.24	0.53
1:A:862:C:C1'	1:A:874:G:H5"	2.32	0.53
1:A:920:U:O5'	1:A:920:U:H6	1.91	0.53
1:A:951:G:C2	1:A:952:U:C2	2.96	0.53
1:A:982:U:H5	14:N:70:HIS:HE2	1.57	0.53
1:A:996:A:C2	1:A:997:U:C2	2.96	0.53
1:A:1074:G:C6	1:A:1102:A:C6	2.96	0.53
1:A:1081:A:C8	1:A:1081:A:H5"	2.43	0.53
1:A:1102:A:C6	1:A:1103:C:N4	2.76	0.53
1:A:1148:U:O4'	9:I:17:ARG:HG2	2.08	0.53
1:A:1157:A:C2	1:A:1181:G:C5	2.97	0.53
1:A:1250:A:H61	1:A:1354:U:H4'	1.73	0.53
1:A:1285:A:H61	1:A:1355:G:C4'	2.22	0.53
1:A:1309:G:N1	1:A:1329:A:C4	2.76	0.53
1:A:1377:A:H61	7:G:9:ARG:NE	2.05	0.53
1:A:1419:G:C5	1:A:1420:U:C5	2.96	0.53
1:A:1428:A:C6	1:A:1473:G:C5	2.97	0.53
2:B:185:ILE:CD1	2:B:209:VAL:HG22	2.39	0.53
3:C:11:LEU:HD11	10:J:65:TYR:CD1	2.43	0.53
8:H:6:ILE:HB	8:H:76:ARG:HH12	1.74	0.53
8:H:36:ALA:O	8:H:45:ILE:HD11	2.08	0.53
1:A:27:G:C4	1:A:557:G:C2	2.96	0.53
1:A:77:A:H2'	1:A:78:A:C5	2.44	0.53
1:A:139:A:C5	1:A:140:U:C5	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:187:G:H4'	1:A:190:A:H61	1.74	0.53
1:A:229:U:C2	1:A:230:G:C8	2.96	0.53
1:A:270:A:C2	1:A:271:C:C2	2.97	0.53
1:A:300:A:H2'	1:A:564:C:C4	2.43	0.53
1:A:323:U:C4	1:A:324:G:C5	2.97	0.53
1:A:433:G:N7	1:A:434:U:C5	2.77	0.53
1:A:442:G:C6	1:A:443:C:C4	2.96	0.53
1:A:459:A:C6	1:A:460:A:C8	2.96	0.53
1:A:464:U:C2	1:A:468:A:C2	2.96	0.53
1:A:500:G:C6	1:A:501:C:C4	2.96	0.53
1:A:577:G:H5'	1:A:816:A:C5	2.42	0.53
1:A:579:A:H1'	1:A:763:G:N2	2.24	0.53
1:A:584:G:C8	1:A:584:G:O5'	2.61	0.53
1:A:656:G:H2'	1:A:657:U:O4'	2.08	0.53
1:A:694:A:C5	1:A:695:A:C8	2.97	0.53
1:A:824:G:N2	1:A:877:G:C4	2.77	0.53
1:A:829:G:H5"	1:A:829:G:C8	2.44	0.53
1:A:881:G:C6	1:A:882:C:C6	2.96	0.53
1:A:949:A:C4	1:A:1233:G:C2	2.97	0.53
1:A:993:G:H5'	1:A:995:C:H41	1.73	0.53
1:A:994:A:C5	1:A:995:C:C5	2.96	0.53
1:A:1006:G:O6	1:A:1007:U:C4	2.61	0.53
1:A:1009:U:C2	1:A:1021:A:N1	2.77	0.53
1:A:1009:U:H5"	14:N:21:ALA:HA	1.90	0.53
1:A:1010:U:C4	14:N:19:TYR:O	2.62	0.53
1:A:1024:G:C2	1:A:1025:U:C5	2.96	0.53
1:A:1055:A:N6	1:A:1056:U:C2	2.77	0.53
1:A:1130:A:H4'	9:I:19:PHE:CD2	2.44	0.53
1:A:1160:G:O6	1:A:1181:G:C6	2.61	0.53
1:A:1252:A:C8	1:A:1252:A:H3'	2.44	0.53
1:A:1287:A:H61	1:A:1371:G:C4'	2.22	0.53
1:A:1300:G:C5	1:A:1335:U:C4	2.96	0.53
1:A:1380:U:H3'	7:G:2:ARG:HB3	1.90	0.53
1:A:1408:A:H1'	1:A:1494:G:N2	2.24	0.53
1:A:1469:C:H2'	1:A:1470:U:H5'	1.91	0.53
1:A:1491:G:N2	1:A:1492:A:C2	2.76	0.53
1:A:1527:U:C5	21:U:41:THR:CB	2.92	0.53
3:C:22:PHE:CG	10:J:12:ALA:HA	2.44	0.53
3:C:189:HIS:HE1	3:C:194:VAL:CG2	2.22	0.53
12:L:92:VAL:HG11	12:L:95:HIS:HE1	1.73	0.53
13:M:22:TYR:CB	13:M:69:ARG:HH21	2.22	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2:A:H2'	1:A:614:C:H4'	1.90	0.53
1:A:32:A:H4'	1:A:48:C:N4	2.21	0.53
1:A:74:A:C2	1:A:97:G:C4	2.97	0.53
1:A:148:G:C8	1:A:148:G:O5'	2.62	0.53
1:A:296:U:N3	1:A:297:G:C5	2.77	0.53
1:A:340:U:C2	1:A:350:G:C2	2.97	0.53
1:A:365:U:O5'	1:A:365:U:C6	2.61	0.53
1:A:382:A:C5	1:A:383:A:C5	2.96	0.53
1:A:469:C:C5	1:A:470:C:C5	2.96	0.53
1:A:508:U:OP1	1:A:508:U:C6	2.62	0.53
1:A:539:A:N6	1:A:540:G:C6	2.76	0.53
1:A:544:G:C2	1:A:545:C:C2	2.96	0.53
1:A:550:G:C2	1:A:551:U:C6	2.97	0.53
1:A:559:A:H1'	1:A:561:U:C2'	2.38	0.53
1:A:587:G:N2	1:A:753:A:H1'	2.24	0.53
1:A:649:A:C6	1:A:650:G:N7	2.76	0.53
1:A:665:A:N3	1:A:732:C:H2'	2.23	0.53
1:A:737:C:C4	1:A:738:C:C4	2.96	0.53
1:A:755:G:H21	8:H:3:GLN:NE2	2.04	0.53
1:A:877:G:H21	8:H:3:GLN:CG	2.21	0.53
1:A:903:G:H21	1:A:904:U:H1'	1.73	0.53
1:A:987:G:C6	1:A:1219:A:C6	2.96	0.53
1:A:1193:G:O6	1:A:1194:U:C5	2.62	0.53
1:A:1240:U:OP1	1:A:1240:U:C4	2.62	0.53
1:A:1244:G:C5	1:A:1294:G:C2	2.96	0.53
1:A:1307:U:C5	1:A:1307:U:OP2	2.62	0.53
1:A:1329:A:C6	1:A:1330:U:C6	2.97	0.53
1:A:1365:G:C6	1:A:1366:C:C2	2.96	0.53
1:A:1454:G:H2'	1:A:1455:G:O4'	2.09	0.53
2:B:68:PHE:HB2	2:B:83:ALA:HB1	1.89	0.53
2:B:80:LYS:HG3	2:B:90:PHE:CZ	2.44	0.53
3:C:176:THR:HG22	3:C:178:ARG:HH12	1.73	0.53
4:D:102:TYR:CZ	4:D:110:ARG:NH2	2.76	0.53
5:E:38:VAL:HG23	5:E:70:MET:SD	2.48	0.53
5:E:109:ALA:HB3	5:E:110:MET:CE	2.38	0.53
9:I:18:VAL:HG13	9:I:64:ILE:HG22	1.91	0.53
22:W:195:GLN:CG	22:W:226:ALA:HB2	2.39	0.53
1:A:72:A:C6	1:A:73:C:C4	2.97	0.53
1:A:80:A:C2	1:A:90:C:O2	2.62	0.53
1:A:93:U:C6	1:A:93:U:H3'	2.43	0.53
1:A:216:U:H5"	1:A:464:U:H4'	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:250:A:O4'	1:A:252:U:C6	2.61	0.53
1:A:252:U:O2	1:A:275:G:C2	2.61	0.53
1:A:428:G:C6	1:A:430:A:C6	2.97	0.53
1:A:465:A:C5	1:A:466:A:N7	2.77	0.53
1:A:516:U:O4	1:A:533:A:C8	2.62	0.53
1:A:600:A:H1'	1:A:639:G:C2	2.44	0.53
1:A:622:A:C5	1:A:623:C:C6	2.97	0.53
1:A:652:U:H3'	1:A:752:G:N1	2.24	0.53
1:A:659:U:C2	1:A:660:C:C6	2.96	0.53
1:A:666:G:OP2	1:A:726:C:H1'	2.08	0.53
1:A:773:G:C5	1:A:774:G:C8	2.96	0.53
1:A:788:U:C5	1:A:789:U:C4	2.97	0.53
1:A:899:C:N3	1:A:900:A:C5	2.76	0.53
1:A:901:A:C8	1:A:902:G:H1'	2.44	0.53
1:A:982:U:H5'	1:A:983:A:C8	2.44	0.53
1:A:1004:A:H2'	1:A:1036:A:N3	2.23	0.53
1:A:1083:U:H2'	1:A:1084:G:O4'	2.08	0.53
1:A:1091:U:H1'	1:A:1171:A:H5"	1.90	0.53
1:A:1276:G:N2	1:A:1283:U:H1'	2.24	0.53
1:A:1345:U:C2	1:A:1377:A:C6	2.96	0.53
1:A:1355:G:H2'	1:A:1355:G:N3	2.23	0.53
1:A:1406:U:C2'	1:A:1407:C:H5'	2.39	0.53
1:A:1428:A:C4	1:A:1429:A:C8	2.97	0.53
1:A:1433:A:C3'	1:A:1434:A:H8	2.21	0.53
1:A:1460:C:C4	1:A:1461:G:C6	2.97	0.53
1:A:1532:U:C4	1:A:1534:A:C4	2.96	0.53
2:B:83:ALA:HB2	2:B:213:LEU:HD21	1.91	0.53
8:H:116:ARG:HH12	8:H:121:GLY:HA2	1.73	0.53
13:M:2:ARG:HE	13:M:56:ARG:HD3	1.74	0.53
17:Q:66:LEU:HB2	17:Q:70:LYS:HB3	1.91	0.53
1:A:11:G:H21	1:A:525:C:H4'	1.74	0.53
1:A:45:G:C2	1:A:46:G:C8	2.97	0.53
1:A:64:G:C5	1:A:99:C:C2	2.96	0.53
1:A:74:A:C6	1:A:75:G:C5	2.96	0.53
1:A:171:A:C2	1:A:172:A:C2	2.96	0.53
1:A:234:C:C6	1:A:234:C:O5'	2.62	0.53
1:A:260:G:H2'	1:A:261:U:C5	2.44	0.53
1:A:357:G:H1'	1:A:368:U:C2	2.43	0.53
1:A:367:U:O2	1:A:394:G:H1'	2.08	0.53
1:A:384:G:C4	1:A:385:C:C6	2.96	0.53
1:A:419:C:H5"	1:A:513:C:C1'	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:502:A:H5'	12:L:114:SER:HB3	1.91	0.53
1:A:505:G:C8	1:A:535:A:H1'	2.43	0.53
1:A:555:U:H2'	1:A:556:C:C4	2.43	0.53
1:A:583:A:C2	1:A:759:A:C8	2.97	0.53
1:A:595:A:C8	1:A:641:U:O4	2.62	0.53
1:A:617:G:H4'	16:P:45:GLU:N	2.23	0.53
1:A:640:A:C6	1:A:641:U:O2	2.62	0.53
1:A:650:G:C2	1:A:651:C:C6	2.97	0.53
1:A:654:G:C5	1:A:753:A:N7	2.77	0.53
1:A:768:A:H2'	1:A:1513:A:H4'	1.90	0.53
1:A:786:G:C2	1:A:797:C:H1'	2.43	0.53
1:A:795:C:OP2	1:A:795:C:C5	2.61	0.53
1:A:865:A:C4	1:A:866:C:C5	2.96	0.53
1:A:928:G:H21	1:A:1533:C:N4	2.07	0.53
1:A:1006:G:C5	1:A:1024:G:N2	2.77	0.53
1:A:1047:G:C2	1:A:1213:A:C2	2.97	0.53
1:A:1058:G:C4	1:A:1059:C:C6	2.97	0.53
1:A:1107:C:H2'	1:A:1108:G:H5'	1.91	0.53
1:A:1120:C:C4	1:A:1121:U:C5	2.96	0.53
1:A:1175:G:C2	1:A:1176:A:C4	2.97	0.53
1:A:1202:U:C5	1:A:1203:C:C5	2.97	0.53
1:A:1210:C:C5	1:A:1211:U:C4	2.96	0.53
1:A:1304:G:C6	1:A:1305:G:N1	2.76	0.53
1:A:1326:U:H6	1:A:1326:U:O5'	1.91	0.53
1:A:1353:G:C6	1:A:1354:U:C4	2.97	0.53
1:A:1355:G:H1'	1:A:1368:A:H2	1.73	0.53
1:A:1407:C:C5	1:A:1408:A:N7	2.77	0.53
1:A:1468:A:H2'	1:A:1469:C:C6	2.44	0.53
1:A:1521:C:N3	1:A:1522:U:C6	2.77	0.53
2:B:202:ASN:O	2:B:208:ALA:HB3	2.08	0.53
7:G:49:LEU:HB3	7:G:60:ALA:HB1	1.91	0.53
12:L:36:VAL:HG21	12:L:73:LEU:O	2.08	0.53
13:M:65:GLU:HA	13:M:69:ARG:CZ	2.39	0.53
22:W:235:LEU:HB2	22:W:271:ARG:HH21	1.74	0.53
1:A:38:G:C6	1:A:397:A:N6	2.77	0.53
1:A:42:G:C6	1:A:43:C:C5	2.96	0.53
1:A:57:G:N1	1:A:356:A:C2	2.76	0.53
1:A:59:A:C2	1:A:331:G:C4	2.97	0.53
1:A:65:A:H2'	1:A:381:C:C4	2.44	0.53
1:A:81:A:C8	1:A:83:C:N3	2.77	0.53
1:A:106:C:C6	1:A:380:G:OP1	2.62	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:113:G:C2	1:A:315:A:N3	2.76	0.53
1:A:123:U:H2'	1:A:124:C:C6	2.44	0.53
1:A:223:A:C6	1:A:224:U:C4	2.97	0.53
1:A:254:G:C5'	17:Q:44:HIS:HE1	2.22	0.53
1:A:341:C:N3	1:A:342:C:C5	2.77	0.53
1:A:369:G:C6	1:A:393:A:C2	2.97	0.53
1:A:390:U:H2'	1:A:391:G:C8	2.44	0.53
1:A:424:G:H2'	1:A:425:G:O4'	2.09	0.53
1:A:433:G:C5	1:A:434:U:C5	2.97	0.53
1:A:462:G:C2	1:A:471:U:C6	2.97	0.53
1:A:688:G:C4	1:A:700:G:C2	2.97	0.53
1:A:718:A:C2	21:U:22:CYS:HB2	2.44	0.53
1:A:767:A:H2'	1:A:768:A:O4'	2.09	0.53
1:A:775:G:O2'	1:A:776:G:H5'	2.08	0.53
1:A:780:A:H2'	1:A:800:G:C2	2.44	0.53
1:A:934:C:C4	1:A:1344:C:C2	2.97	0.53
1:A:976:G:H8	1:A:1361:G:C6	2.27	0.53
1:A:1049:U:C4	1:A:1202:U:H4'	2.44	0.53
1:A:1053:G:O6	1:A:1199:U:H2'	2.09	0.53
1:A:1191:A:H3'	1:A:1192:C:H6	1.74	0.53
1:A:1228:C:C6	1:A:1228:C:H5"	2.43	0.53
1:A:1263:C:C4	1:A:1264:U:C5	2.97	0.53
1:A:1274:A:C8	1:A:1274:A:H3'	2.44	0.53
1:A:1343:G:C6	1:A:1344:C:N3	2.77	0.53
1:A:1380:U:O2'	1:A:1381:U:C5	2.59	0.53
1:A:1441:A:H8	1:A:1441:A:C5'	2.21	0.53
1:A:1497:G:H1'	1:A:1518:A:C2	2.43	0.53
2:B:23:ASN:O	2:B:30:ILE:HD11	2.09	0.53
2:B:72:LYS:H	2:B:167:HIS:CE1	2.27	0.53
6:F:47:LEU:HD22	18:R:65:SER:O	2.09	0.53
10:J:18:ILE:HG23	10:J:19:ASP:N	2.24	0.53
17:Q:11:VAL:HG12	17:Q:21:VAL:C	2.30	0.53
17:Q:63:CYS:SG	17:Q:66:LEU:HD11	2.49	0.53
1:A:19:A:C5	1:A:20:U:C5	2.96	0.53
1:A:133:U:O5'	1:A:133:U:C6	2.61	0.53
1:A:187:G:C2	1:A:191:G:O6	2.61	0.53
1:A:200:G:N2	1:A:218:U:H1'	2.24	0.53
1:A:216:U:H4'	1:A:464:U:O2'	2.09	0.53
1:A:319:G:H5'	1:A:1468:A:H5'	1.91	0.53
1:A:428:G:H4'	1:A:429:U:OP1	2.09	0.53
1:A:439:U:C2'	1:A:440:C:H5'	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:627:G:C2	1:A:628:G:C4	2.97	0.53
1:A:655:A:C2	1:A:754:C:N4	2.77	0.53
1:A:728:A:H2'	1:A:729:A:O4'	2.09	0.53
1:A:729:A:C6	1:A:730:G:C5	2.97	0.53
1:A:775:G:N2	1:A:776:G:C2	2.77	0.53
1:A:816:A:OP2	1:A:1527:U:H4'	2.09	0.53
1:A:838:G:C5	1:A:839:C:C5	2.96	0.53
1:A:875:U:H3'	1:A:875:U:C6	2.43	0.53
1:A:927:G:N1	1:A:928:G:C6	2.77	0.53
1:A:939:G:H1'	1:A:1376:U:H1'	1.90	0.53
1:A:949:A:C2	1:A:971:G:C6	2.97	0.53
1:A:976:G:C8	1:A:1361:G:C5	2.96	0.53
1:A:1008:U:C6	1:A:1008:U:H5'	2.44	0.53
1:A:1144:G:N1	1:A:1145:A:C4	2.77	0.53
1:A:1166:G:C2	1:A:1171:A:N6	2.77	0.53
1:A:1238:A:H61	1:A:1241:G:H21	1.57	0.53
1:A:1250:A:C8	1:A:1250:A:H3'	2.43	0.53
1:A:1296:C:C5	1:A:1297:G:C2	2.97	0.53
1:A:1306:A:C5	1:A:1307:U:C6	2.96	0.53
1:A:1342:C:C2	1:A:1343:G:C8	2.97	0.53
1:A:1363:A:C8	1:A:1365:G:C2	2.97	0.53
1:A:1373:G:H3'	7:G:12:LEU:HD12	1.91	0.53
1:A:1394:A:H5'	1:A:1395:C:C5	2.45	0.53
1:A:1416:G:C2	1:A:1417:G:O4'	2.62	0.53
1:A:1523:G:C5	1:A:1524:C:C5	2.97	0.53
2:B:41:ASN:HD22	2:B:44:LYS:HB2	1.74	0.53
2:B:185:ILE:CD1	2:B:209:VAL:HA	2.39	0.53
4:D:115:GLN:CG	4:D:153:ARG:HH22	2.22	0.53
5:E:79:THR:HG1	5:E:98:ALA:H	1.56	0.53
6:F:75:GLU:HB3	6:F:86:ARG:HH12	1.74	0.53
9:I:117:LEU:C	9:I:119:LYS:H	2.12	0.53
10:J:18:ILE:HD12	10:J:70:HIS:HB2	1.90	0.53
15:O:14:PHE:CD2	15:O:29:ALA:HB2	2.44	0.53
1:A:27:G:C5	1:A:28:A:N7	2.77	0.52
1:A:39:G:H1'	1:A:498:A:C4	2.44	0.52
1:A:46:G:H4'	1:A:48:C:C5	2.44	0.52
1:A:64:G:C5	1:A:67:C:N4	2.76	0.52
1:A:80:A:C2	1:A:81:A:O3'	2.61	0.52
1:A:146:G:C8	1:A:146:G:H5"	2.44	0.52
1:A:173:U:H1'	1:A:197:A:C6	2.43	0.52
1:A:195:A:N3	1:A:196:A:C2	2.77	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:327:A:C4	1:A:329:A:C4	2.97	0.52
1:A:432:A:C6	1:A:433:G:C4	2.96	0.52
1:A:464:U:H2'	1:A:466:A:N7	2.24	0.52
1:A:570:G:C6	1:A:571:U:C4	2.97	0.52
1:A:582:C:C5	1:A:760:G:O6	2.62	0.52
1:A:646:G:C5	1:A:647:C:C6	2.96	0.52
1:A:701:U:OP2	1:A:702:A:C5	2.63	0.52
1:A:774:G:C2	1:A:775:G:C8	2.96	0.52
1:A:822:U:C5	1:A:823:C:C5	2.97	0.52
1:A:824:G:H21	8:H:2:MET:N	2.07	0.52
1:A:955:U:N3	1:A:956:U:C5	2.77	0.52
1:A:1008:U:C2	1:A:1009:U:C6	2.97	0.52
1:A:1033:G:C4	1:A:1034:G:C8	2.97	0.52
1:A:1069:C:N4	1:A:1094:G:C2	2.77	0.52
1:A:1095:U:H6	1:A:1095:U:H3'	1.74	0.52
1:A:1161:C:H3'	1:A:1161:C:C6	2.45	0.52
1:A:1175:G:N3	1:A:1176:A:C8	2.77	0.52
1:A:1231:G:H2'	1:A:1232:U:C6	2.44	0.52
1:A:1234:C:C1'	1:A:1364:U:C5	2.92	0.52
1:A:1287:A:C2	1:A:1353:G:H1'	2.44	0.52
1:A:1307:U:C2	1:A:1308:U:C6	2.97	0.52
1:A:1326:U:C2	1:A:1327:C:C6	2.97	0.52
1:A:1343:G:H2'	1:A:1344:C:O4'	2.08	0.52
1:A:1363:A:N9	1:A:1365:G:C6	2.77	0.52
1:A:1532:U:H3'	1:A:1534:A:OP2	2.09	0.52
22:W:203:GLU:HA	22:W:206:THR:HG23	1.91	0.52
22:W:294:LEU:HA	22:W:312:ILE:HD11	1.91	0.52
1:A:36:C:O2'	1:A:501:C:H5"	2.09	0.52
1:A:58:C:C6	20:T:2:ASN:N	2.77	0.52
1:A:65:A:H3'	1:A:381:C:C5	2.43	0.52
1:A:105:G:C8	1:A:105:G:O5'	2.62	0.52
1:A:107:G:H2'	1:A:108:G:C4'	2.39	0.52
1:A:259:G:C4	1:A:260:G:C8	2.97	0.52
1:A:428:G:C8	1:A:430:A:C4	2.98	0.52
1:A:511:C:O2	1:A:512:U:C6	2.62	0.52
1:A:592:G:C2'	1:A:593:U:H6	2.22	0.52
1:A:656:G:C5	1:A:657:U:C5	2.97	0.52
1:A:763:G:H3'	1:A:764:C:C6	2.43	0.52
1:A:843:U:C6	1:A:847:G:H1'	2.44	0.52
1:A:894:G:N1	1:A:895:G:C6	2.77	0.52
1:A:946:A:C2	1:A:947:G:C4	2.96	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1000:A:N6	1:A:1040:U:H3	2.06	0.52
1:A:1014:A:C2	19:S:33:TRP:NE1	2.77	0.52
1:A:1349:A:C5	1:A:1374:A:C8	2.98	0.52
1:A:1389:C:N3	1:A:1390:U:C2	2.77	0.52
1:A:1473:G:C6	1:A:1474:U:C5	2.97	0.52
1:A:1494:G:C2	1:A:1494:G:H2'	2.44	0.52
1:A:1524:C:C4	1:A:1525:G:N7	2.77	0.52
5:E:54:GLU:CD	5:E:55:VAL:H	2.13	0.52
5:E:98:ALA:CB	5:E:123:LEU:HD11	2.39	0.52
10:J:65:TYR:HB3	14:N:95:LEU:HD11	1.90	0.52
22:W:310:CYS:HB3	22:W:313:ARG:HB3	1.91	0.52
1:A:41:G:N1	1:A:42:G:C5	2.78	0.52
1:A:78:A:C6	1:A:79:G:N1	2.78	0.52
1:A:139:A:C6	1:A:140:U:C4	2.97	0.52
1:A:223:A:C6	1:A:224:U:N3	2.77	0.52
1:A:338:A:C2	1:A:339:C:H1'	2.44	0.52
1:A:341:C:N3	1:A:349:A:C2	2.78	0.52
1:A:344:A:H5"	1:A:345:C:C6	2.44	0.52
1:A:454:G:C5	1:A:455:G:C8	2.97	0.52
1:A:474:G:C8	1:A:475:C:C5	2.97	0.52
1:A:477:C:C2	1:A:478:A:C8	2.98	0.52
1:A:627:G:C8	1:A:627:G:O5'	2.62	0.52
1:A:668:G:N1	1:A:739:C:C2	2.77	0.52
1:A:701:U:H5"	1:A:703:G:H5'	1.92	0.52
1:A:710:G:N1	1:A:711:G:C5	2.78	0.52
1:A:789:U:O2	1:A:792:A:H2'	2.10	0.52
1:A:951:G:N2	1:A:969:A:C4	2.77	0.52
1:A:956:U:C5	1:A:957:U:C4	2.97	0.52
1:A:975:A:C2	1:A:1365:G:N2	2.77	0.52
1:A:1048:G:H5'	14:N:3:GLN:HB3	1.91	0.52
1:A:1058:G:C6	1:A:1059:C:N3	2.78	0.52
1:A:1067:A:C8	1:A:1093:A:O2'	2.63	0.52
1:A:1168:U:C5	1:A:1169:A:N9	2.78	0.52
1:A:1191:A:H4'	3:C:175:HIS:CE1	2.45	0.52
1:A:1227:A:H3'	1:A:1228:C:H5"	1.92	0.52
1:A:1327:C:C4	1:A:1328:C:C4	2.98	0.52
2:B:65:LYS:HB2	2:B:149:GLY:HA2	1.90	0.52
3:C:137:VAL:HG13	3:C:148:ILE:HG12	1.91	0.52
10:J:12:ALA:HB1	10:J:17:LEU:CB	2.39	0.52
10:J:18:ILE:HG22	10:J:70:HIS:CD2	2.44	0.52
12:L:53:ARG:HA	12:L:63:THR:HA	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:46:G:H4'	1:A:48:C:N4	2.24	0.52
1:A:60:A:H62	1:A:378:G:H1'	1.73	0.52
1:A:76:G:H3'	1:A:77:A:H8	1.72	0.52
1:A:116:A:C6	1:A:117:G:C5	2.98	0.52
1:A:122:G:C5	1:A:122:G:OP2	2.62	0.52
1:A:203:G:C4	1:A:214:C:N4	2.76	0.52
1:A:236:A:C6	1:A:237:G:C5	2.98	0.52
1:A:313:A:C5	1:A:314:C:C6	2.97	0.52
1:A:451:A:N3	1:A:480:U:C5	2.77	0.52
1:A:595:A:C5	1:A:641:U:C5	2.97	0.52
1:A:597:G:H3'	1:A:598:U:H6	1.75	0.52
1:A:611:C:C6	1:A:612:C:C5	2.98	0.52
1:A:615:G:C2	1:A:616:G:N9	2.77	0.52
1:A:626:G:C2	1:A:627:G:C5	2.98	0.52
1:A:679:C:H1'	1:A:712:A:H2	1.72	0.52
1:A:686:U:C6	1:A:703:G:C2	2.97	0.52
1:A:705:G:C5	1:A:706:A:C8	2.97	0.52
1:A:708:C:OP1	11:K:21:HIS:CE1	2.63	0.52
1:A:748:G:O6	1:A:749:A:C2	2.63	0.52
1:A:830:G:N1	1:A:831:A:C5	2.77	0.52
1:A:880:C:C2	1:A:881:G:C8	2.97	0.52
1:A:959:A:C6	1:A:1222:G:C4'	2.92	0.52
1:A:1031:C:OP1	1:A:1032:G:C2	2.62	0.52
1:A:1129:C:C5	1:A:1139:G:O2'	2.62	0.52
1:A:1198:G:C2	1:A:1199:U:C2	2.97	0.52
1:A:1213:A:H2'	1:A:1215:G:C8	2.44	0.52
1:A:1255:G:C5	1:A:1279:G:C5	2.98	0.52
1:A:1266:G:N3	1:A:1270:G:C6	2.78	0.52
1:A:1304:G:C5	1:A:1305:G:C6	2.97	0.52
1:A:1323:G:N2	1:A:1324:A:H1'	2.25	0.52
1:A:1357:A:C2	1:A:1363:A:C6	2.98	0.52
1:A:1462:C:C5	1:A:1463:U:C4	2.97	0.52
1:A:1508:A:C2	1:A:1509:C:C6	2.98	0.52
3:C:111:ASP:HB3	3:C:114:LEU:H	1.74	0.52
14:N:20:PHE:CE2	14:N:50:LEU:HD13	2.45	0.52
14:N:33:VAL:HG12	14:N:41:TRP:CH2	2.44	0.52
15:O:24:THR:OG1	15:O:69:LEU:HD21	2.10	0.52
1:A:46:G:H2'	1:A:365:U:H2'	1.90	0.52
1:A:79:G:C4	1:A:80:A:C5	2.97	0.52
1:A:116:A:P	1:A:116:A:H3'	2.49	0.52
1:A:132:C:H3'	1:A:132:C:C6	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:145:G:C2	1:A:178:C:N3	2.78	0.52
1:A:208:U:H5	1:A:210:C:C2	2.28	0.52
1:A:222:C:C6	1:A:222:C:O5'	2.63	0.52
1:A:273:U:C6	1:A:273:U:OP2	2.62	0.52
1:A:288:A:C8	1:A:288:A:O5'	2.63	0.52
1:A:347:G:C8	1:A:348:G:C8	2.98	0.52
1:A:410:G:C2	1:A:431:A:OP2	2.63	0.52
1:A:411:A:N7	4:D:31:CYS:SG	2.83	0.52
1:A:424:G:C5	1:A:425:G:C5	2.97	0.52
1:A:513:C:C2	1:A:539:A:C2	2.97	0.52
1:A:598:U:C6	1:A:598:U:O5'	2.62	0.52
1:A:644:U:N3	1:A:645:G:C5	2.78	0.52
1:A:724:G:C6	1:A:725:G:C5	2.98	0.52
1:A:751:U:C5	1:A:752:G:C6	2.89	0.52
1:A:771:G:H1'	1:A:809:G:N2	2.24	0.52
1:A:786:G:C2	1:A:787:A:C1'	2.92	0.52
1:A:813:U:N3	1:A:814:A:C8	2.76	0.52
1:A:857:C:C2	1:A:858:G:C8	2.98	0.52
1:A:878:A:C5	1:A:879:C:C5	2.98	0.52
1:A:927:G:OP2	1:A:1503:A:C8	2.62	0.52
1:A:940:C:H2'	1:A:941:G:C8	2.44	0.52
1:A:947:G:O4'	1:A:1333:A:H1'	2.10	0.52
1:A:1029:U:H1'	1:A:1033:G:N1	2.25	0.52
1:A:1095:U:C4	1:A:1096:C:C2	2.97	0.52
1:A:1104:G:C5	1:A:1105:A:C5	2.98	0.52
1:A:1182:G:H4'	1:A:1183:U:H5'	1.92	0.52
1:A:1256:A:H1'	1:A:1258:G:C5	2.44	0.52
1:A:1256:A:H4'	1:A:1257:A:N6	2.25	0.52
1:A:1305:G:H3'	1:A:1331:G:N2	2.25	0.52
1:A:1309:G:C4	1:A:1310:G:C8	2.98	0.52
1:A:1313:U:C2	1:A:1325:C:C2	2.98	0.52
1:A:1434:A:C6	1:A:1435:G:C4	2.98	0.52
1:A:1503:A:H3'	1:A:1504:G:C5'	2.39	0.52
3:C:122:GLN:C	3:C:127:VAL:HG22	2.29	0.52
3:C:183:TYR:HA	3:C:200:TRP:HA	1.91	0.52
6:F:75:GLU:HG2	6:F:89:VAL:HG22	1.91	0.52
6:F:76:THR:HB	6:F:80:PHE:CZ	2.45	0.52
13:M:82:LEU:HD21	19:S:64:GLU:H	1.74	0.52
17:Q:66:LEU:HD12	17:Q:70:LYS:CA	2.39	0.52
18:R:20:ILE:O	18:R:28:LEU:HD23	2.09	0.52
20:T:57:VAL:HG23	20:T:58:ASP:H	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:W:205:LEU:HB2	22:W:260:HIS:HE1	1.74	0.52
1:A:11:G:C6	1:A:24:U:C2	2.97	0.52
1:A:16:A:C2	1:A:920:U:O2	2.63	0.52
1:A:33:A:C5'	1:A:364:A:H1'	2.40	0.52
1:A:104:G:C6	1:A:105:G:C6	2.98	0.52
1:A:107:G:C8	1:A:108:G:H1'	2.44	0.52
1:A:130:A:C8	17:Q:64:ARG:HB3	2.45	0.52
1:A:189:A:C5	1:A:190:A:N7	2.78	0.52
1:A:199:A:C2	1:A:219:U:O2	2.63	0.52
1:A:240:G:C8	1:A:240:G:C3'	2.88	0.52
1:A:246:A:C2	1:A:279:A:C8	2.97	0.52
1:A:294:U:O5'	1:A:294:U:C6	2.63	0.52
1:A:317:U:C5	1:A:337:G:N2	2.77	0.52
1:A:338:A:N1	1:A:351:G:O6	2.41	0.52
1:A:365:U:C6	1:A:365:U:H3'	2.44	0.52
1:A:527:G:C2	1:A:528:C:C6	2.97	0.52
1:A:563:A:H5'	1:A:566:G:N2	2.25	0.52
1:A:596:A:C6	1:A:597:G:C5	2.98	0.52
1:A:604:G:H1	1:A:634:C:N4	2.08	0.52
1:A:654:G:C2	1:A:655:A:C1'	2.92	0.52
1:A:666:G:H5"	1:A:732:C:O2	2.10	0.52
1:A:671:G:N3	1:A:736:C:C2	2.78	0.52
1:A:702:A:H3'	1:A:703:G:C5'	2.40	0.52
1:A:829:G:C5'	1:A:829:G:H8	2.22	0.52
1:A:861:G:C6	1:A:862:C:C4	2.97	0.52
1:A:867:G:C4	1:A:868:C:C6	2.98	0.52
1:A:941:G:H2'	1:A:942:G:O4'	2.10	0.52
1:A:962:C:C2	1:A:1201:A:C4	2.98	0.52
1:A:1070:U:C2	1:A:1071:C:C5	2.97	0.52
1:A:1116:U:H1'	1:A:1185:G:N2	2.25	0.52
1:A:1144:G:C2	1:A:1145:A:H1'	2.45	0.52
1:A:1144:G:OP2	1:A:1144:G:H8	1.92	0.52
1:A:1159:U:C5	1:A:1162:C:N4	2.77	0.52
1:A:1255:G:C6	1:A:1279:G:C4	2.97	0.52
1:A:1257:A:H3'	1:A:1258:G:C5'	2.40	0.52
1:A:1289:A:H5'	1:A:1290:G:OP2	2.09	0.52
1:A:1430:A:C2	1:A:1471:U:C6	2.98	0.52
1:A:1450:U:H2'	1:A:1453:G:H1	1.74	0.52
1:A:1476:A:C5	1:A:1477:U:C4	2.97	0.52
11:K:45:THR:HB	11:K:48:GLY:HA3	1.91	0.52
13:M:18:LEU:HA	13:M:21:ILE:HG13	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:T:82:ILE:O	20:T:86:ALA:HB3	2.09	0.52
1:A:116:A:C5	1:A:117:G:N7	2.78	0.52
1:A:120:A:H61	1:A:239:U:C3'	2.22	0.52
1:A:138:G:C1'	1:A:226:G:N2	2.73	0.52
1:A:144:G:H1	1:A:178:C:N4	2.07	0.52
1:A:150:U:C5	1:A:170:U:C5	2.98	0.52
1:A:161:A:H2'	1:A:162:A:C5'	2.40	0.52
1:A:162:A:H3'	1:A:163:C:C4'	2.40	0.52
1:A:183:C:C4	1:A:223:A:H2	2.27	0.52
1:A:243:A:H1'	1:A:245:U:H3'	1.91	0.52
1:A:253:A:N6	1:A:273:U:H3	2.08	0.52
1:A:342:C:H3'	1:A:343:U:H6	1.71	0.52
1:A:451:A:C2	1:A:480:U:C5	2.97	0.52
1:A:455:G:N1	1:A:478:A:C2	2.78	0.52
1:A:665:A:C8	1:A:733:G:C2	2.98	0.52
1:A:677:U:O5'	1:A:677:U:H6	1.93	0.52
1:A:713:G:C6	1:A:714:G:C6	2.97	0.52
1:A:750:C:O5'	1:A:750:C:H6	1.92	0.52
1:A:761:G:C5	1:A:762:U:C6	2.98	0.52
1:A:771:G:C5	1:A:809:G:N1	2.78	0.52
1:A:792:A:O3'	22:W:135:GLU:HG3	2.09	0.52
1:A:821:G:C4	1:A:822:U:C6	2.98	0.52
1:A:925:G:C2	1:A:1392:G:C5	2.97	0.52
1:A:946:A:N1	1:A:947:G:C5	2.78	0.52
1:A:947:G:C6	1:A:948:C:C4	2.98	0.52
1:A:979:C:N4	1:A:1318:A:H61	2.08	0.52
1:A:987:G:C2	1:A:1219:A:C4	2.97	0.52
1:A:1095:U:C6	1:A:1095:U:C3'	2.90	0.52
1:A:1178:G:N2	1:A:1181:G:C8	2.78	0.52
1:A:1206:G:H3'	1:A:1207:G:H8	1.75	0.52
1:A:1250:A:C2	1:A:1353:G:N2	2.78	0.52
1:A:1306:A:C2	1:A:1332:A:O4'	2.63	0.52
1:A:1345:U:C2	1:A:1375:A:N1	2.78	0.52
1:A:1380:U:H3'	7:G:2:ARG:CB	2.39	0.52
1:A:1393:U:C4'	1:A:1502:A:H5"	2.40	0.52
1:A:1399:C:H2'	1:A:1502:A:N1	2.24	0.52
1:A:1401:G:OP2	1:A:1402:C:C5	2.63	0.52
1:A:1504:G:C3'	1:A:1505:G:H5'	2.40	0.52
5:E:96:GLN:O	5:E:122:VAL:HG13	2.10	0.52
6:F:77:THR:HA	6:F:80:PHE:CD2	2.45	0.52
1:A:19:A:C2	1:A:20:U:C1'	2.93	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:20:U:C2	1:A:21:G:C8	2.97	0.52
1:A:30:U:H2'	1:A:32:A:C8	2.45	0.52
1:A:44:A:C4	1:A:399:G:C2	2.97	0.52
1:A:101:A:H3'	1:A:102:G:H8	1.75	0.52
1:A:157:U:H1'	1:A:165:G:N2	2.25	0.52
1:A:160:A:C4	1:A:346:G:O6	2.62	0.52
1:A:232:G:C5	1:A:233:C:C5	2.98	0.52
1:A:360:G:C8	1:A:360:G:OP2	2.63	0.52
1:A:493:A:C8	1:A:494:G:N7	2.78	0.52
1:A:560:A:C2	5:E:92:ARG:HG3	2.44	0.52
1:A:560:A:H5'	1:A:566:G:H22	1.75	0.52
1:A:564:C:C5	1:A:565:U:C5	2.98	0.52
1:A:579:A:C4	1:A:580:C:C6	2.98	0.52
1:A:582:C:C5	1:A:582:C:OP2	2.63	0.52
1:A:587:G:H21	1:A:753:A:H1'	1.75	0.52
1:A:642:A:C5	1:A:643:C:C5	2.98	0.52
1:A:664:G:N3	1:A:726:C:H4'	2.25	0.52
1:A:684:U:C4	1:A:685:G:C6	2.98	0.52
1:A:696:A:C8	1:A:696:A:O5'	2.63	0.52
1:A:794:A:C8	1:A:794:A:H5"	2.44	0.52
1:A:842:U:O4'	1:A:846:G:C5	2.63	0.52
1:A:864:A:C4	1:A:865:A:C5	2.97	0.52
1:A:905:U:C4	1:A:906:A:C6	2.98	0.52
1:A:1070:U:H5	1:A:1094:G:H1	1.57	0.52
1:A:1084:G:H2'	1:A:1085:U:C6	2.45	0.52
1:A:1100:C:C5	2:B:72:LYS:HE2	2.45	0.52
1:A:1356:G:C4	1:A:1357:A:N7	2.78	0.52
1:A:1375:A:C5'	7:G:28:ILE:HA	2.40	0.52
1:A:1428:A:H61	1:A:1472:U:H3	1.56	0.52
1:A:1463:U:H2'	1:A:1464:U:C6	2.45	0.52
1:A:1464:U:O5'	1:A:1464:U:C6	2.62	0.52
1:A:1494:G:C8	1:A:1494:G:H3'	2.45	0.52
1:A:1526:G:N2	1:A:1527:U:H1'	2.25	0.52
2:B:29:PHE:CD2	2:B:187:ASP:HA	2.44	0.52
6:F:4:TYR:CE2	6:F:66:ALA:HB3	2.45	0.52
13:M:77:LYS:HA	13:M:80:MET:HE1	1.91	0.52
1:A:70:U:O4	1:A:96:U:H2'	2.09	0.52
1:A:140:U:H3	1:A:223:A:H61	1.57	0.52
1:A:144:G:C6	1:A:145:G:C8	2.98	0.52
1:A:180:U:C5	1:A:195:A:OP2	2.63	0.52
1:A:187:G:H4'	1:A:190:A:N6	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:244:U:N3	1:A:894:G:H1’	2.25	0.52
1:A:270:A:C5	1:A:271:C:C4	2.98	0.52
1:A:301:G:C5	1:A:302:G:N7	2.78	0.52
1:A:303:A:C8	1:A:303:A:O5’	2.63	0.52
1:A:373:A:O2’	1:A:481:G:C2	2.60	0.52
1:A:426:U:O5’	1:A:426:U:H6	1.93	0.52
1:A:452:A:H5”	1:A:452:A:C8	2.43	0.52
1:A:454:G:H1	1:A:478:A:H2	1.56	0.52
1:A:456:A:C2	1:A:457:G:N7	2.78	0.52
1:A:524:G:C5	1:A:525:C:C4	2.98	0.52
1:A:668:G:C4	1:A:669:G:C8	2.97	0.52
1:A:669:G:C5	1:A:670:G:N7	2.78	0.52
1:A:704:A:C5	1:A:705:G:C4	2.98	0.52
1:A:759:A:C8	1:A:759:A:H3’	2.45	0.52
1:A:975:A:C4	1:A:1363:A:N6	2.78	0.52
1:A:978:A:H2’	1:A:979:C:C6	2.44	0.52
1:A:1008:U:C6	1:A:1008:U:C5’	2.93	0.52
1:A:1072:G:C6	1:A:1073:U:N3	2.78	0.52
1:A:1074:G:C2	1:A:1102:A:C2	2.98	0.52
1:A:1237:C:H2’	1:A:1336:C:C5	2.44	0.52
1:A:1241:G:C8	1:A:1241:G:O5’	2.63	0.52
1:A:1500:A:C6	1:A:1501:C:C5	2.98	0.52
2:B:29:PHE:HA	2:B:38:HIS:HE1	1.74	0.52
2:B:129:THR:O	2:B:129:THR:HG22	2.09	0.52
2:B:149:GLY:H	2:B:152:ASP:N	2.01	0.52
3:C:111:ASP:CB	3:C:114:LEU:H	2.23	0.52
5:E:9:GLU:HB3	5:E:11:GLN:H	1.75	0.52
16:P:52:LEU:HB2	16:P:74:LEU:HB3	1.91	0.52
1:A:44:A:C6	1:A:45:G:C5	2.98	0.52
1:A:71:A:N6	1:A:98:A:C2	2.77	0.52
1:A:95:C:C4	1:A:96:U:C5	2.98	0.52
1:A:115:G:N1	1:A:313:A:C4	2.78	0.52
1:A:115:G:C6	1:A:289:G:C6	2.97	0.52
1:A:128:G:C8	1:A:128:G:O5’	2.63	0.52
1:A:253:A:H4’	17:Q:68:LYS:CE	2.40	0.52
1:A:271:C:N3	1:A:272:C:C5	2.78	0.52
1:A:291:U:H3	1:A:309:A:N6	2.08	0.52
1:A:294:U:H3	1:A:303:A:H2	1.56	0.52
1:A:297:G:N1	1:A:301:G:C6	2.78	0.52
1:A:300:A:H1’	1:A:565:U:N3	2.25	0.52
1:A:361:G:C8	1:A:362:G:N7	2.78	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:376:G:H1'	16:P:28:ARG:H	1.75	0.52
1:A:405:U:H5'	1:A:498:A:C6	2.45	0.52
1:A:420:U:C2	1:A:424:G:C6	2.97	0.52
1:A:538:G:N1	1:A:539:A:C5	2.77	0.52
1:A:621:A:C5	1:A:622:A:N7	2.78	0.52
1:A:626:G:C6	1:A:627:G:C5	2.98	0.52
1:A:630:A:C8	1:A:631:C:N3	2.78	0.52
1:A:651:C:N3	1:A:652:U:C4	2.77	0.52
1:A:688:G:H2'	1:A:689:C:O4'	2.10	0.52
1:A:722:G:C8	18:R:48:ALA:HB1	2.45	0.52
1:A:794:A:N6	1:A:795:C:C2	2.78	0.52
1:A:808:C:H3'	1:A:808:C:C6	2.44	0.52
1:A:838:G:N1	1:A:849:G:C8	2.78	0.52
1:A:847:G:C6	1:A:848:C:C2	2.98	0.52
1:A:857:C:C2'	1:A:858:G:H5'	2.41	0.52
1:A:866:C:O5'	1:A:866:C:C6	2.63	0.52
1:A:905:U:H2'	1:A:906:A:C8	2.45	0.52
1:A:925:G:H4'	1:A:1502:A:C5	2.45	0.52
1:A:935:A:C2	1:A:936:C:N1	2.78	0.52
1:A:945:G:N1	1:A:1337:G:C2	2.78	0.52
1:A:963:G:O6	1:A:964:A:C2	2.63	0.52
1:A:1000:A:H61	1:A:1040:U:H3	1.58	0.52
1:A:1014:A:H1'	19:S:33:TRP:CG	2.45	0.52
1:A:1163:A:C2	1:A:1164:G:C5	2.98	0.52
1:A:1165:U:H2'	1:A:1166:G:C8	2.45	0.52
1:A:1263:C:N4	1:A:1273:C:H42	2.08	0.52
1:A:1282:C:H2'	1:A:1283:U:C6	2.45	0.52
1:A:1300:G:C2	1:A:1335:U:C2	2.98	0.52
1:A:1321:U:H2'	1:A:1322:C:H2'	1.91	0.52
1:A:1390:U:C4	1:A:1391:U:N3	2.76	0.52
1:A:1432:G:C2	1:A:1467:C:C5	2.98	0.52
1:A:1502:A:C8	1:A:1505:G:N1	2.75	0.52
4:D:96:ARG:HH22	4:D:98:ASP:HB2	1.74	0.52
5:E:106:ALA:HB1	5:E:111:ARG:CB	2.40	0.52
8:H:65:PHE:CD2	8:H:66:GLN:HB2	2.44	0.52
10:J:52:LEU:HD13	14:N:80:ARG:HD3	1.92	0.52
10:J:55:PRO:HA	14:N:80:ARG:HH22	1.74	0.52
11:K:30:ILE:HG22	11:K:45:THR:HG23	1.91	0.52
11:K:58:THR:O	11:K:61:ALA:HB3	2.09	0.52
17:Q:44:HIS:HE1	17:Q:70:LYS:NZ	2.08	0.52
1:A:28:A:C8	1:A:28:A:O5'	2.63	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:65:A:H4'	1:A:66:A:H5'	1.92	0.51
1:A:68:G:H8	1:A:68:G:O5'	1.93	0.51
1:A:189:A:C4	1:A:190:A:C8	2.97	0.51
1:A:217:C:C4	1:A:218:U:C5	2.97	0.51
1:A:253:A:C4	1:A:254:G:C8	2.97	0.51
1:A:362:G:C4	1:A:364:A:OP2	2.63	0.51
1:A:366:A:H1'	1:A:395:C:O2	2.09	0.51
1:A:381:C:N4	1:A:382:A:C2	2.78	0.51
1:A:436:C:H2'	1:A:437:U:C6	2.44	0.51
1:A:444:G:C6	1:A:491:G:C5	2.98	0.51
1:A:454:G:C2	1:A:455:G:C4	2.98	0.51
1:A:597:G:N2	1:A:598:U:H1'	2.25	0.51
1:A:601:G:C6	1:A:602:A:C8	2.98	0.51
1:A:648:A:N1	1:A:649:A:C6	2.78	0.51
1:A:649:A:C6	1:A:650:G:C8	2.98	0.51
1:A:740:U:H4'	15:O:41:HIS:CD2	2.45	0.51
1:A:749:A:H2'	1:A:750:C:O4'	2.10	0.51
1:A:778:G:H21	11:K:121:ARG:CG	2.22	0.51
1:A:838:G:C2	1:A:839:C:C2	2.98	0.51
1:A:861:G:H2'	1:A:862:C:C6	2.45	0.51
1:A:895:G:H2'	1:A:896:C:O4'	2.09	0.51
1:A:895:G:N2	1:A:896:C:H1'	2.25	0.51
1:A:903:G:C8	1:A:903:G:O5'	2.64	0.51
1:A:905:U:C5	1:A:906:A:N7	2.78	0.51
1:A:949:A:N3	1:A:971:G:C6	2.78	0.51
1:A:951:G:N2	1:A:969:A:C5	2.78	0.51
1:A:953:G:C4	1:A:1229:A:N1	2.78	0.51
1:A:1010:U:C2	1:A:1020:G:N3	2.77	0.51
1:A:1010:U:C6	1:A:1020:G:C2	2.98	0.51
1:A:1117:A:N3	1:A:1184:G:C2	2.78	0.51
1:A:1117:A:C2	1:A:1180:A:N3	2.78	0.51
1:A:1170:A:N6	1:A:1171:A:C2	2.78	0.51
1:A:1241:G:C2	1:A:1242:G:N7	2.78	0.51
1:A:1304:G:C2	1:A:1305:G:N3	2.78	0.51
1:A:1375:A:H5"	7:G:28:ILE:HG12	1.91	0.51
1:A:1419:G:H2'	1:A:1420:U:H6	1.75	0.51
1:A:1438:G:C2	1:A:1439:G:C8	2.98	0.51
1:A:1486:G:C2	1:A:1487:G:C5	2.99	0.51
1:A:1510:C:H1'	1:A:1526:G:N2	2.25	0.51
2:B:29:PHE:HA	2:B:38:HIS:CE1	2.45	0.51
2:B:67:LEU:HD22	2:B:91:VAL:HG13	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:144:ILE:CD1	4:D:154:VAL:HG11	2.40	0.51
5:E:43:GLY:HA2	5:E:72:ASN:HA	1.92	0.51
7:G:36:SER:HA	9:I:42:THR:HG21	1.92	0.51
7:G:71:THR:H	7:G:141:HIS:CE1	2.27	0.51
12:L:33:CYS:O	12:L:76:HIS:CG	2.63	0.51
12:L:85:ARG:HA	12:L:92:VAL:HB	1.92	0.51
15:O:41:HIS:NE2	15:O:45:HIS:HE1	2.07	0.51
1:A:2:A:C5	1:A:614:C:O2'	2.62	0.51
1:A:43:C:H4'	1:A:623:C:O4'	2.08	0.51
1:A:58:C:H2'	1:A:59:A:C8	2.43	0.51
1:A:119:A:C5	1:A:288:A:C6	2.98	0.51
1:A:169:C:C5	1:A:170:U:C5	2.97	0.51
1:A:198:G:N2	1:A:220:G:H1'	2.25	0.51
1:A:223:A:C5	1:A:224:U:C6	2.99	0.51
1:A:343:U:C4	1:A:345:C:N3	2.79	0.51
1:A:376:G:H21	16:P:27:ALA:HB1	1.74	0.51
1:A:381:C:C5	1:A:382:A:C2	2.98	0.51
1:A:382:A:C6	1:A:383:A:C5	2.98	0.51
1:A:453:G:N1	1:A:454:G:C2	2.78	0.51
1:A:507:C:C5	1:A:508:U:C2	2.98	0.51
1:A:510:A:H1'	1:A:542:G:H21	1.75	0.51
1:A:596:A:C6	1:A:645:G:N1	2.78	0.51
1:A:667:G:C6	1:A:740:U:O2	2.63	0.51
1:A:679:C:C4	1:A:680:C:C5	2.98	0.51
1:A:729:A:C4	1:A:730:G:C8	2.98	0.51
1:A:745:G:C5'	1:A:852:G:H1'	2.39	0.51
1:A:749:A:C2	1:A:750:C:N3	2.78	0.51
1:A:795:C:C4	1:A:796:C:C2	2.98	0.51
1:A:898:G:C4	1:A:900:A:OP2	2.62	0.51
1:A:950:U:O5'	1:A:950:U:H6	1.93	0.51
1:A:1047:G:H21	1:A:1215:G:C4'	2.23	0.51
1:A:1053:G:N1	1:A:1058:G:C6	2.78	0.51
1:A:1138:G:C6	1:A:1140:C:O2	2.64	0.51
1:A:1428:A:N1	1:A:1429:A:C4	2.78	0.51
1:A:1442:G:O6	1:A:1461:G:C2	2.63	0.51
1:A:1478:U:H2'	1:A:1479:C:C5	2.45	0.51
1:A:1500:A:H5"	1:A:1508:A:C5'	2.40	0.51
1:A:1503:A:C6	1:A:1532:U:H1'	2.44	0.51
3:C:90:VAL:HB	3:C:100:ILE:HD11	1.92	0.51
4:D:131:ILE:HG13	4:D:134:TYR:HB2	1.92	0.51
5:E:46:GLY:HA3	5:E:69:ASN:O	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:13:PRO:HB3	7:G:23:ALA:HB2	1.92	0.51
7:G:107:ALA:HA	7:G:110:ARG:HH21	1.75	0.51
8:H:93:LYS:HZ1	8:H:103:VAL:CG1	2.23	0.51
9:I:5:TYR:CD1	9:I:20:ILE:O	2.63	0.51
10:J:18:ILE:CG2	10:J:70:HIS:CD2	2.93	0.51
20:T:57:VAL:HG21	20:T:75:LYS:CB	2.41	0.51
1:A:22:G:H1'	1:A:914:A:C5	2.45	0.51
1:A:338:A:C6	1:A:339:C:C2	2.99	0.51
1:A:363:A:H5"	12:L:30:ARG:CG	2.41	0.51
1:A:430:A:OP1	4:D:8:LEU:HB3	2.10	0.51
1:A:482:A:C6	1:A:483:C:O2	2.63	0.51
1:A:499:A:C4	1:A:546:A:C6	2.98	0.51
1:A:521:G:N1	1:A:522:C:C4	2.79	0.51
1:A:595:A:H2	1:A:643:C:N4	2.09	0.51
1:A:616:G:H21	16:P:48:GLU:HG2	1.72	0.51
1:A:616:G:C2	1:A:625:U:C2	2.98	0.51
1:A:621:A:C5	1:A:622:A:C5	2.98	0.51
1:A:652:U:H3'	1:A:752:G:C6	2.45	0.51
1:A:763:G:H3'	1:A:764:C:H6	1.75	0.51
1:A:771:G:C4	1:A:809:G:N2	2.78	0.51
1:A:896:C:C2	1:A:897:C:C5	2.98	0.51
1:A:940:C:H3'	1:A:940:C:C6	2.44	0.51
1:A:958:A:C6	1:A:959:A:N1	2.79	0.51
1:A:996:A:N3	1:A:997:U:C6	2.79	0.51
1:A:1061:G:OP2	3:C:3:LYS:HA	2.09	0.51
1:A:1113:C:H3'	1:A:1114:C:C5	2.45	0.51
1:A:1118:U:C6	1:A:1118:U:O5'	2.64	0.51
1:A:1194:U:C2	1:A:1195:C:C4	2.99	0.51
1:A:1316:G:N2	1:A:1319:A:C8	2.78	0.51
1:A:1357:A:C6	1:A:1363:A:C2	2.99	0.51
1:A:1381:U:O4	7:G:77:ARG:HB2	2.10	0.51
1:A:1390:U:C2	1:A:1391:U:O2	2.64	0.51
1:A:1457:G:H5"	20:T:29:THR:CB	2.38	0.51
4:D:197:HIS:CE1	5:E:100:GLU:HB2	2.46	0.51
5:E:151:MET:C	5:E:153:ALA:H	2.12	0.51
12:L:65:TYR:H	12:L:95:HIS:CG	2.28	0.51
20:T:4:LYS:CG	20:T:5:SER:H	2.23	0.51
22:W:217:GLY:HA3	22:W:235:LEU:C	2.31	0.51
1:A:33:A:H1'	12:L:27:PRO:HB2	1.90	0.51
1:A:177:G:C2'	1:A:178:C:H5'	2.41	0.51
1:A:205:A:H3'	1:A:206:C:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:379:C:H3'	1:A:380:G:H8	1.74	0.51
1:A:380:G:N2	1:A:384:G:C5	2.79	0.51
1:A:433:G:H3'	1:A:434:U:H6	1.74	0.51
1:A:464:U:C2'	1:A:466:A:N7	2.73	0.51
1:A:474:G:H2'	1:A:475:C:O4'	2.10	0.51
1:A:502:A:C8	1:A:502:A:H3'	2.46	0.51
1:A:513:C:C4	1:A:514:C:C4	2.98	0.51
1:A:633:G:H2'	1:A:634:C:H6	1.74	0.51
1:A:640:A:N3	8:H:106:SER:HA	2.25	0.51
1:A:654:G:C6	1:A:655:A:C4	2.98	0.51
1:A:687:A:C5'	11:K:68:ARG:HH12	2.23	0.51
1:A:787:A:C2'	1:A:795:C:H42	2.24	0.51
1:A:824:G:H21	8:H:1:SER:CA	2.24	0.51
1:A:829:G:C8	1:A:829:G:C5'	2.93	0.51
1:A:839:C:C5	1:A:839:C:OP2	2.63	0.51
1:A:942:G:N3	1:A:943:U:C6	2.79	0.51
1:A:959:A:C5	1:A:1222:G:H4'	2.46	0.51
1:A:998:C:H42	1:A:1042:A:H61	1.57	0.51
1:A:998:C:N4	1:A:1042:A:H61	2.09	0.51
1:A:1004:A:C2'	1:A:1036:A:C2	2.93	0.51
1:A:1008:U:C2	1:A:1009:U:C5	2.98	0.51
1:A:1014:A:H2'	1:A:1015:G:N9	2.26	0.51
1:A:1053:G:H21	1:A:1056:U:H3'	1.76	0.51
1:A:1083:U:C6	1:A:1084:G:C5	2.99	0.51
1:A:1127:G:C5	1:A:1128:C:C5	2.97	0.51
1:A:1176:A:C5	1:A:1177:G:C6	2.99	0.51
1:A:1255:G:C2	1:A:1279:G:O6	2.62	0.51
1:A:1266:G:H2'	1:A:1266:G:N3	2.25	0.51
1:A:1268:G:C6	1:A:1269:A:C5	2.99	0.51
1:A:1308:U:OP2	13:M:97:ARG:HB2	2.11	0.51
1:A:1309:G:OP2	13:M:97:ARG:HG2	2.11	0.51
1:A:1312:G:N1	1:A:1313:U:C6	2.79	0.51
1:A:1359:C:OP2	14:N:74:ARG:HG3	2.10	0.51
1:A:1500:A:C5'	1:A:1508:A:OP1	2.59	0.51
3:C:36:PHE:HA	3:C:39:ARG:HB2	1.92	0.51
5:E:61:LYS:HA	5:E:64:GLU:CD	2.31	0.51
9:I:29:ILE:CD1	9:I:38:PHE:CE2	2.93	0.51
10:J:22:THR:HG23	10:J:74:VAL:HG22	1.92	0.51
1:A:74:A:H61	1:A:96:U:H3	1.58	0.51
1:A:102:G:C5	1:A:103:U:C4	2.98	0.51
1:A:116:A:N6	1:A:117:G:C6	2.79	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:151:A:N6	1:A:171:A:C5	2.78	0.51
1:A:253:A:H2'	1:A:254:G:O4'	2.10	0.51
1:A:296:U:C2	1:A:297:G:C8	2.99	0.51
1:A:389:A:N3	16:P:27:ALA:HB1	2.25	0.51
1:A:406:G:C5	1:A:495:A:H5"	2.45	0.51
1:A:590:U:H3	1:A:649:A:H61	1.59	0.51
1:A:616:G:H2'	1:A:617:G:C8	2.42	0.51
1:A:634:C:C4	1:A:635:A:N7	2.78	0.51
1:A:667:G:N2	15:O:41:HIS:CE1	2.76	0.51
1:A:673:A:C2	1:A:734:G:C2	2.99	0.51
1:A:710:G:C2	1:A:711:G:C4	2.98	0.51
1:A:761:G:C2	1:A:762:U:C2	2.98	0.51
1:A:812:G:H3'	1:A:904:U:H4'	1.91	0.51
1:A:926:G:C5	1:A:1505:G:C5	2.99	0.51
1:A:939:G:C6	1:A:940:C:C4	2.98	0.51
1:A:942:G:C2	1:A:1342:C:N3	2.79	0.51
1:A:942:G:N1	1:A:1341:U:C4	2.78	0.51
1:A:978:A:N6	1:A:1319:A:C6	2.79	0.51
1:A:1057:G:H5'	3:C:154:GLY:HA3	1.93	0.51
1:A:1089:G:H5"	1:A:1089:G:C8	2.46	0.51
1:A:1134:G:N2	1:A:1141:C:C2	2.79	0.51
1:A:1143:G:C6	1:A:1144:G:N7	2.78	0.51
1:A:1144:G:H22	1:A:1147:C:N4	2.08	0.51
1:A:1151:A:H5'	10:J:42:LEU:O	2.11	0.51
1:A:1197:A:N1	1:A:1198:G:C4	2.79	0.51
1:A:1295:U:C2	1:A:1296:C:C5	2.98	0.51
1:A:1298:U:C5	7:G:118:ARG:NH2	2.79	0.51
1:A:1314:C:C5	19:S:5:LYS:HA	2.46	0.51
1:A:1356:G:N2	1:A:1367:C:H1'	2.26	0.51
1:A:1406:U:H2'	1:A:1407:C:C5'	2.41	0.51
1:A:1421:G:H1'	1:A:1480:A:H2	1.75	0.51
1:A:1522:U:C6	1:A:1522:U:H3'	2.45	0.51
3:C:22:PHE:HA	10:J:13:PHE:CD2	2.45	0.51
9:I:38:PHE:HA	9:I:41:GLU:HB2	1.90	0.51
10:J:11:LYS:HA	10:J:70:HIS:O	2.11	0.51
15:O:73:ASP:HB2	15:O:76:ARG:H	1.75	0.51
16:P:16:PHE:CE1	16:P:38:PHE:CD2	2.98	0.51
17:Q:21:VAL:HA	17:Q:44:HIS:HA	1.92	0.51
17:Q:59:GLU:HG2	17:Q:60:ILE:H	1.74	0.51
18:R:44:THR:HG21	18:R:46:THR:CG2	2.41	0.51
1:A:91:U:C4	1:A:92:U:O2	2.64	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:134:G:C8	1:A:134:G:H3'	2.45	0.51
1:A:165:G:C5	1:A:166:U:C5	2.99	0.51
1:A:180:U:O5'	1:A:180:U:H6	1.92	0.51
1:A:185:U:C2	1:A:186:C:H6	2.28	0.51
1:A:197:A:C2	1:A:198:G:C4	2.98	0.51
1:A:252:U:C2	1:A:253:A:N7	2.78	0.51
1:A:254:G:C5'	17:Q:44:HIS:CE1	2.93	0.51
1:A:377:G:OP1	16:P:3:THR:HG21	2.11	0.51
1:A:409:U:C5'	4:D:23:GLY:HA3	2.40	0.51
1:A:447:G:C5	1:A:485:U:C6	2.98	0.51
1:A:459:A:N1	1:A:460:A:C8	2.79	0.51
1:A:464:U:C6	1:A:466:A:OP2	2.64	0.51
1:A:500:G:C2	1:A:546:A:C2	2.99	0.51
1:A:534:U:C2	1:A:535:A:C2	2.98	0.51
1:A:563:A:C4	1:A:567:G:C8	2.99	0.51
1:A:596:A:N6	1:A:644:U:H3	2.09	0.51
1:A:596:A:C6	1:A:597:G:C6	2.99	0.51
1:A:599:C:O2	1:A:640:A:C2	2.63	0.51
1:A:685:G:C6	1:A:686:U:H5	2.26	0.51
1:A:707:U:H2'	1:A:708:C:C6	2.46	0.51
1:A:773:G:C6	1:A:774:G:C8	2.98	0.51
1:A:807:A:C5	1:A:808:C:C4	2.98	0.51
1:A:810:C:H1'	1:A:899:C:H41	1.75	0.51
1:A:815:A:H62	1:A:1508:A:H2	1.58	0.51
1:A:864:A:C2	1:A:865:A:C2	2.99	0.51
1:A:865:A:C2	1:A:918:A:C4'	2.93	0.51
1:A:923:A:C6	1:A:924:C:C4	2.99	0.51
1:A:928:G:N2	1:A:929:G:C4	2.79	0.51
1:A:937:A:C2	1:A:1379:G:O6	2.64	0.51
1:A:945:G:H1'	1:A:1338:G:C2	2.46	0.51
1:A:1029:U:H1'	1:A:1033:G:H1	1.76	0.51
1:A:1060:U:C6	3:C:2:GLN:O	2.63	0.51
1:A:1083:U:O2'	1:A:1101:A:C8	2.63	0.51
1:A:1139:G:N2	1:A:1141:C:C4	2.78	0.51
1:A:1239:A:H1'	1:A:1241:G:C8	2.46	0.51
1:A:1241:G:N1	1:A:1242:G:C6	2.79	0.51
1:A:1242:G:C6	1:A:1243:C:C4	2.99	0.51
1:A:1291:U:H5'	9:I:41:GLU:HG2	1.93	0.51
1:A:1314:C:N3	1:A:1315:U:C5	2.78	0.51
1:A:1367:C:H5"	9:I:115:VAL:HG12	1.91	0.51
1:A:1391:U:C5	1:A:1393:U:O4	2.64	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1449:C:C5	1:A:1450:U:C6	2.99	0.51
1:A:1473:G:C8	1:A:1473:G:O5'	2.64	0.51
15:O:17:ASP:HB2	15:O:20:ASP:HA	1.92	0.51
1:A:13:U:O4	1:A:21:G:C4	2.64	0.51
1:A:39:G:N1	1:A:404:G:H1'	2.26	0.51
1:A:51:A:N6	1:A:314:C:H1'	2.25	0.51
1:A:52:C:C6	1:A:52:C:H3'	2.45	0.51
1:A:160:A:H2'	1:A:161:A:O4'	2.11	0.51
1:A:246:A:C4	1:A:279:A:C6	2.98	0.51
1:A:435:A:C2	1:A:436:C:C6	2.99	0.51
1:A:448:A:C4	1:A:487:A:C2	2.98	0.51
1:A:475:C:H3'	1:A:476:U:C6	2.46	0.51
1:A:601:G:C2	1:A:638:U:N3	2.77	0.51
1:A:642:A:C4	1:A:643:C:C6	2.99	0.51
1:A:655:A:H2'	1:A:656:G:O4'	2.11	0.51
1:A:771:G:C8	1:A:772:U:C6	2.98	0.51
1:A:776:G:H21	1:A:779:C:N4	2.08	0.51
1:A:858:G:H1	1:A:869:G:C2'	2.23	0.51
1:A:859:G:C2	1:A:860:A:C4	2.99	0.51
1:A:867:G:C5	1:A:868:C:C4	2.98	0.51
1:A:917:G:C8	1:A:917:G:O5'	2.63	0.51
1:A:938:A:H5'	7:G:75:LYS:HZ1	1.75	0.51
1:A:953:G:C6	1:A:1229:A:N6	2.79	0.51
1:A:959:A:H5"	1:A:960:U:OP2	2.11	0.51
1:A:1006:G:C5	1:A:1007:U:C6	2.99	0.51
1:A:1051:C:H2'	1:A:1052:U:C6	2.46	0.51
1:A:1067:A:H5"	1:A:1093:A:H5"	1.93	0.51
1:A:1089:G:C6	1:A:1090:U:C2	2.98	0.51
1:A:1126:U:O2	1:A:1280:A:H5'	2.11	0.51
1:A:1128:C:C5	1:A:1139:G:O2'	2.63	0.51
1:A:1170:A:C5	1:A:1171:A:N9	2.79	0.51
1:A:1239:A:C5	1:A:1298:U:O4	2.64	0.51
1:A:1267:C:N3	1:A:1327:C:H5'	2.25	0.51
1:A:1289:A:C6	1:A:1290:G:O4'	2.64	0.51
1:A:1328:C:C2	1:A:1329:A:C8	2.99	0.51
1:A:1392:G:H21	1:A:1502:A:C1'	2.24	0.51
1:A:1409:C:N3	1:A:1410:A:C5	2.79	0.51
2:B:51:GLU:HG3	2:B:197:PHE:CE1	2.46	0.51
2:B:82:ALA:HB3	2:B:214:GLY:HA2	1.93	0.51
3:C:18:ASN:CB	14:N:91:GLU:HA	2.40	0.51
5:E:79:THR:HA	5:E:122:VAL:HG23	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:4:TYR:CB	6:F:71:ILE:HD13	2.40	0.51
17:Q:52:CYS:SG	17:Q:74:LEU:HB3	2.51	0.51
1:A:107:G:H5"	1:A:134:G:H21	1.75	0.51
1:A:108:G:H4'	1:A:110:C:C2	2.45	0.51
1:A:109:A:N7	1:A:326:G:C5	2.78	0.51
1:A:117:G:C8	1:A:118:U:C5	2.99	0.51
1:A:140:U:H2'	1:A:141:G:C8	2.46	0.51
1:A:145:G:C8	1:A:145:G:H3'	2.46	0.51
1:A:170:U:O5'	1:A:170:U:H6	1.94	0.51
1:A:190:A:C8	1:A:190:A:O5'	2.64	0.51
1:A:236:A:H5"	17:Q:41:THR:HG21	1.93	0.51
1:A:325:A:N6	1:A:326:G:C2	2.79	0.51
1:A:344:A:H5"	1:A:345:C:H6	1.76	0.51
1:A:360:G:H2'	1:A:361:G:C5	2.45	0.51
1:A:381:C:C4	1:A:382:A:N3	2.79	0.51
1:A:405:U:C6	4:D:4:LEU:HD21	2.46	0.51
1:A:408:A:C4	1:A:435:A:C2	2.99	0.51
1:A:409:U:N3	1:A:410:G:C5	2.79	0.51
1:A:428:G:H4'	1:A:429:U:H4'	1.91	0.51
1:A:438:U:O4	1:A:495:A:C8	2.64	0.51
1:A:473:U:H2'	1:A:474:G:N9	2.25	0.51
1:A:537:G:C6	1:A:538:G:C6	2.99	0.51
1:A:579:A:C5	1:A:763:G:C6	2.98	0.51
1:A:656:G:C4	1:A:657:U:C6	2.99	0.51
1:A:815:A:C2	1:A:1528:U:C4'	2.94	0.51
1:A:824:G:H2'	1:A:825:A:C8	2.46	0.51
1:A:830:G:C2	1:A:831:A:C4	2.99	0.51
1:A:851:G:H5"	1:A:851:G:H8	1.74	0.51
1:A:927:G:N2	1:A:1391:U:H1'	2.26	0.51
1:A:1042:A:H3'	1:A:1042:A:C8	2.46	0.51
1:A:1126:U:H3'	1:A:1127:G:H8	1.75	0.51
1:A:1133:G:H1'	1:A:1142:G:N2	2.26	0.51
1:A:1159:U:OP2	1:A:1184:G:H5"	2.10	0.51
1:A:1206:G:C8	1:A:1206:G:O5'	2.63	0.51
1:A:1207:G:C6	1:A:1208:C:C5	2.99	0.51
1:A:1210:C:H2'	1:A:1213:A:H1'	1.93	0.51
1:A:1256:A:N6	1:A:1277:C:C2	2.79	0.51
1:A:1287:A:C4	1:A:1288:A:C5	2.98	0.51
1:A:1332:A:C4	1:A:1333:A:C8	2.99	0.51
1:A:1346:A:O4'	1:A:1348:U:C5	2.64	0.51
1:A:1349:A:N1	1:A:1374:A:H1'	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1360:A:C8	14:N:57:SER:HA	2.46	0.51
1:A:1374:A:C6	1:A:1375:A:C6	2.99	0.51
1:A:1423:G:C6	1:A:1424:U:N3	2.79	0.51
1:A:1445:U:O4	1:A:1455:G:H5'	2.11	0.51
1:A:1458:G:C6	1:A:1459:G:C5	2.99	0.51
1:A:1473:G:C2	1:A:1474:U:C1'	2.93	0.51
1:A:1483:A:C8	1:A:1484:C:C5	2.99	0.51
2:B:56:LEU:HB3	2:B:220:VAL:HG22	1.93	0.51
12:L:98:ARG:NH2	12:L:107:LYS:H	2.09	0.51
17:Q:11:VAL:HG11	17:Q:52:CYS:SG	2.51	0.51
18:R:44:THR:CG2	18:R:46:THR:HG22	2.41	0.51
22:W:62:HIS:HE1	22:W:94:LYS:O	1.93	0.51
1:A:29:U:O5'	1:A:29:U:C6	2.63	0.51
1:A:254:G:C2	1:A:255:G:C4	2.99	0.51
1:A:257:G:N2	1:A:270:A:C4	2.79	0.51
1:A:378:G:C5	1:A:379:C:C5	2.99	0.51
1:A:430:A:N6	1:A:431:A:C5	2.79	0.51
1:A:519:C:H5'	22:W:68:ARG:HH21	1.75	0.51
1:A:570:G:C4	1:A:873:A:C5	2.98	0.51
1:A:599:C:N3	1:A:600:A:C8	2.79	0.51
1:A:615:G:H1'	1:A:626:G:N2	2.26	0.51
1:A:626:G:H1'	16:P:47:GLU:CA	2.41	0.51
1:A:649:A:C8	1:A:649:A:C3'	2.94	0.51
1:A:653:U:P	1:A:750:C:H41	2.33	0.51
1:A:656:G:N2	1:A:657:U:H1'	2.26	0.51
1:A:691:G:C2	1:A:696:A:OP2	2.64	0.51
1:A:769:G:H2'	1:A:770:C:O4'	2.11	0.51
1:A:803:G:C5	1:A:804:U:C5	2.98	0.51
1:A:838:G:N2	1:A:839:C:H1'	2.25	0.51
1:A:840:C:C1'	1:A:843:U:H3	2.22	0.51
1:A:904:U:C2	1:A:905:U:C6	2.99	0.51
1:A:924:C:O2	1:A:1399:C:C5	2.64	0.51
1:A:929:G:C2	1:A:1389:C:O2	2.64	0.51
1:A:1013:G:N2	1:A:1017:U:H1'	2.26	0.51
1:A:1018:G:C8	1:A:1018:G:H3'	2.45	0.51
1:A:1163:A:H1'	1:A:1174:G:C2	2.46	0.51
1:A:1196:A:H3'	1:A:1197:A:H5"	1.93	0.51
1:A:1310:G:C6	1:A:1311:A:N7	2.79	0.51
1:A:1349:A:OP2	1:A:1350:A:C8	2.64	0.51
1:A:1357:A:N1	1:A:1363:A:C6	2.79	0.51
1:A:1416:G:C2	1:A:1417:G:C1'	2.94	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1420:U:C6	1:A:1420:U:O5'	2.64	0.51
1:A:1421:G:N2	1:A:1480:A:C6	2.78	0.51
1:A:1467:C:H2'	1:A:1468:A:C8	2.46	0.51
1:A:1509:C:N3	1:A:1510:C:C5	2.79	0.51
1:A:1518:A:H2'	1:A:1519:A:O4'	2.11	0.51
1:A:1521:C:C4	1:A:1522:U:C5	2.98	0.51
4:D:201:GLU:HB2	5:E:106:ALA:HB3	1.92	0.51
8:H:40:LYS:HA	8:H:45:ILE:HG13	1.93	0.51
1:A:47:C:H4'	1:A:48:C:C6	2.46	0.51
1:A:70:U:H1'	1:A:100:G:O6	2.10	0.51
1:A:128:G:N2	1:A:234:C:C6	2.79	0.51
1:A:129:A:C2	1:A:131:A:N7	2.79	0.51
1:A:132:C:H5'	1:A:262:A:C1'	2.41	0.51
1:A:146:G:C2	1:A:177:G:C8	2.99	0.51
1:A:195:A:C2	1:A:223:A:C1'	2.94	0.51
1:A:226:G:C2	1:A:227:G:N9	2.79	0.51
1:A:246:A:C2	1:A:282:A:C4	2.98	0.51
1:A:265:G:C3'	1:A:266:G:H5'	2.40	0.51
1:A:323:U:C6	1:A:324:G:C8	2.99	0.51
1:A:349:A:C2	1:A:350:G:C4	2.99	0.51
1:A:413:G:C8	1:A:426:U:OP2	2.64	0.51
1:A:553:A:C1'	12:L:27:PRO:HA	2.40	0.51
1:A:560:A:C8	5:E:127:TYR:CD2	2.99	0.51
1:A:592:G:C6	1:A:593:U:C4	2.98	0.51
1:A:592:G:N1	1:A:593:U:C2	2.78	0.51
1:A:697:U:H6	1:A:786:G:HO2'	1.59	0.51
1:A:698:G:H3'	1:A:699:C:H6	1.76	0.51
1:A:750:C:N3	1:A:751:U:C4	2.79	0.51
1:A:781:A:OP1	1:A:1523:G:H5'	2.11	0.51
1:A:809:G:C5	1:A:810:C:C6	2.98	0.51
1:A:832:G:C6	1:A:833:G:C8	2.99	0.51
1:A:880:C:P	12:L:2:THR:HG21	2.51	0.51
1:A:901:A:H3'	1:A:902:G:O4'	2.11	0.51
1:A:917:G:N1	1:A:918:A:C4	2.79	0.51
1:A:945:G:C6	1:A:1337:G:C4	2.99	0.51
1:A:1091:U:C2	1:A:1093:A:P	3.05	0.51
1:A:1124:G:H2'	1:A:1125:U:OP2	2.11	0.51
1:A:1181:G:N3	1:A:1184:G:H4'	2.26	0.51
1:A:1184:G:N1	1:A:1185:G:C4	2.78	0.51
1:A:1245:C:C2	1:A:1246:A:C8	2.99	0.51
1:A:1266:G:C2	1:A:1268:G:H3'	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1309:G:C6	1:A:1329:A:C6	2.98	0.51
1:A:1330:U:H4'	13:M:22:TYR:CE2	2.46	0.51
1:A:1370:G:H5"	9:I:109:GLN:NE2	2.26	0.51
1:A:1473:G:C2	1:A:1474:U:H1'	2.45	0.51
1:A:1514:G:H1	1:A:1521:C:H42	1.58	0.51
1:A:1523:G:N1	1:A:1524:C:C2	2.79	0.51
2:B:27:LYS:HG2	2:B:30:ILE:HD12	1.93	0.51
7:G:11:ILE:HG21	7:G:20:GLU:OE2	2.10	0.51
1:A:19:A:C6	1:A:20:U:C4	2.99	0.50
1:A:119:A:C6	1:A:288:A:C2	2.99	0.50
1:A:143:A:H5'	1:A:144:G:C5'	2.38	0.50
1:A:197:A:C2	1:A:198:G:H1'	2.46	0.50
1:A:236:A:C2	1:A:237:G:C4	2.99	0.50
1:A:241:G:C5	1:A:242:G:N7	2.79	0.50
1:A:297:G:H2'	1:A:299:G:N7	2.26	0.50
1:A:301:G:O6	1:A:302:G:C6	2.64	0.50
1:A:349:A:C2	1:A:350:G:C6	2.99	0.50
1:A:352:C:C2	1:A:355:C:N4	2.78	0.50
1:A:414:A:H2'	1:A:415:A:C8	2.46	0.50
1:A:461:A:H3'	1:A:462:G:C5'	2.40	0.50
1:A:521:G:C6	1:A:522:C:C4	2.98	0.50
1:A:538:G:C2	1:A:539:A:C4	2.99	0.50
1:A:551:U:H1'	12:L:82:ARG:HE	1.75	0.50
1:A:587:G:O2'	1:A:588:G:H5'	2.11	0.50
1:A:592:G:C6	1:A:648:A:C5	2.99	0.50
1:A:613:C:C5	1:A:614:C:C5	2.99	0.50
1:A:632:U:O4	1:A:633:G:C2	2.64	0.50
1:A:666:G:C4	1:A:741:G:C2	2.99	0.50
1:A:683:G:N1	1:A:708:C:C2	2.78	0.50
1:A:771:G:C2	1:A:809:G:N3	2.79	0.50
1:A:778:G:C6	1:A:805:C:H1'	2.46	0.50
1:A:824:G:N1	1:A:877:G:C6	2.79	0.50
1:A:860:A:H3'	1:A:861:G:C8	2.46	0.50
1:A:877:G:H2'	1:A:878:A:C8	2.47	0.50
1:A:915:A:C5	1:A:916:U:C6	2.99	0.50
1:A:952:U:H3	1:A:1229:A:N6	2.08	0.50
1:A:959:A:C2	1:A:1221:G:N3	2.79	0.50
1:A:1010:U:C4	1:A:1011:C:C5	2.99	0.50
1:A:1025:U:N3	1:A:1031:C:C2	2.79	0.50
1:A:1089:G:N2	1:A:1170:A:C2'	2.74	0.50
1:A:1104:G:H3'	1:A:1105:A:H8	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1166:G:H2'	1:A:1170:A:N6	2.25	0.50
1:A:1174:G:P	1:A:1182:G:C8	3.04	0.50
1:A:1256:A:N3	1:A:1258:G:C6	2.79	0.50
1:A:1295:U:C4	1:A:1296:C:N4	2.79	0.50
1:A:1301:U:OP2	1:A:1304:G:C5	2.64	0.50
1:A:1350:A:N1	1:A:1373:G:C2	2.80	0.50
1:A:1374:A:H2'	1:A:1375:A:H8	1.76	0.50
1:A:1433:A:C5	1:A:1468:A:C4	2.99	0.50
1:A:1527:U:N3	1:A:1528:U:C5	2.79	0.50
2:B:49:PHE:CE1	2:B:200:PRO:HD2	2.46	0.50
3:C:3:LYS:HD3	3:C:5:HIS:CD2	2.46	0.50
4:D:8:LEU:HD11	4:D:28:ASP:C	2.31	0.50
6:F:38:ARG:NH2	6:F:61:LEU:HD23	2.26	0.50
13:M:13:HIS:CD2	13:M:41:ASP:HA	2.46	0.50
1:A:57:G:C4	1:A:58:C:C6	3.00	0.50
1:A:75:G:C6	1:A:76:G:O6	2.65	0.50
1:A:83:C:H3'	1:A:83:C:H6	1.74	0.50
1:A:123:U:C5	1:A:124:C:C5	2.98	0.50
1:A:195:A:C2	1:A:196:A:C2	2.99	0.50
1:A:243:A:O4'	1:A:245:U:H5"	2.11	0.50
1:A:294:U:C4	1:A:295:C:C5	2.99	0.50
1:A:300:A:H3'	1:A:301:G:O4'	2.11	0.50
1:A:301:G:C5	1:A:302:G:C5	2.99	0.50
1:A:363:A:C6	12:L:27:PRO:HD2	2.46	0.50
1:A:409:U:C2	1:A:410:G:N7	2.79	0.50
1:A:431:A:H3'	1:A:432:A:H8	1.75	0.50
1:A:479:U:O2	1:A:480:U:C6	2.64	0.50
1:A:532:A:H3'	1:A:533:A:H5'	1.93	0.50
1:A:544:G:C5	1:A:545:C:C5	2.99	0.50
1:A:561:U:H1'	12:L:16:ALA:HB3	1.94	0.50
1:A:579:A:N6	1:A:762:U:H3	2.08	0.50
1:A:635:A:C6	1:A:636:U:C4	2.99	0.50
1:A:654:G:C6	1:A:655:A:C5	2.99	0.50
1:A:686:U:C5	1:A:703:G:H1'	2.47	0.50
1:A:710:G:C6	1:A:711:G:C5	2.99	0.50
1:A:846:G:H2'	1:A:847:G:H8	1.76	0.50
1:A:846:G:C6	1:A:847:G:C6	2.99	0.50
1:A:858:G:H3'	1:A:858:G:C4	2.47	0.50
1:A:909:A:O5'	1:A:909:A:H8	1.95	0.50
1:A:946:A:H1'	1:A:1334:G:H4'	1.92	0.50
1:A:976:G:N2	1:A:1363:A:C6	2.79	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:996:A:C1’	1:A:1046:A:H4’	2.31	0.50
1:A:1053:G:H2’	1:A:1199:U:H5	1.75	0.50
1:A:1055:A:C8	1:A:1055:A:O5’	2.64	0.50
1:A:1125:U:O2	1:A:1126:U:H2’	2.11	0.50
1:A:1134:G:C2	1:A:1141:C:N3	2.80	0.50
1:A:1141:C:N3	1:A:1142:G:C5	2.79	0.50
1:A:1246:A:H1’	1:A:1292:G:N2	2.26	0.50
1:A:1250:A:C4	1:A:1287:A:C5	2.99	0.50
1:A:1258:G:C8	1:A:1258:G:O5’	2.64	0.50
1:A:1317:C:C6	1:A:1318:A:C5	2.99	0.50
1:A:1332:A:N3	1:A:1332:A:C5’	2.73	0.50
1:A:1376:U:H2’	1:A:1377:A:C8	2.47	0.50
1:A:1385:G:C4	1:A:1386:G:C8	2.99	0.50
1:A:1499:A:H1’	1:A:1520:C:OP1	2.11	0.50
2:B:19:THR:CG2	2:B:38:HIS:CD2	2.94	0.50
2:B:75:ALA:C	2:B:79:VAL:HG22	2.32	0.50
2:B:95:TRP:CD2	2:B:99:MET:HG2	2.46	0.50
3:C:31:ASN:O	3:C:35:ASP:HB2	2.11	0.50
3:C:132:ALA:CA	3:C:135:ARG:HH21	2.24	0.50
15:O:69:LEU:HD12	15:O:80:LEU:CD2	2.41	0.50
20:T:38:ILE:O	20:T:86:ALA:HB2	2.11	0.50
1:A:19:A:C2	1:A:20:U:N1	2.78	0.50
1:A:50:A:C6	1:A:361:G:O4’	2.65	0.50
1:A:117:G:H2’	1:A:118:U:O4’	2.10	0.50
1:A:118:U:O5’	1:A:118:U:C6	2.64	0.50
1:A:122:G:OP2	1:A:123:U:C5	2.65	0.50
1:A:125:U:O5’	1:A:125:U:H6	1.95	0.50
1:A:142:G:C2	1:A:143:A:C8	2.99	0.50
1:A:160:A:C5	1:A:161:A:C6	3.00	0.50
1:A:198:G:C5	1:A:220:G:C2	3.00	0.50
1:A:201:G:N2	1:A:469:C:C4	2.79	0.50
1:A:212:G:C2’	1:A:214:C:C5	2.93	0.50
1:A:216:U:O5’	1:A:216:U:H6	1.94	0.50
1:A:232:G:C6	1:A:233:C:C4	2.99	0.50
1:A:336:A:N1	1:A:337:G:H1’	2.26	0.50
1:A:392:C:C2	1:A:393:A:C8	2.99	0.50
1:A:450:G:O6	1:A:481:G:C1’	2.60	0.50
1:A:457:G:C2	1:A:458:U:C5	3.00	0.50
1:A:557:G:C5	1:A:558:G:C6	2.99	0.50
1:A:564:C:H2’	1:A:565:U:O4’	2.10	0.50
1:A:674:G:H4’	6:F:49:TYR:OH	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:704:A:C6	1:A:705:G:C5	2.99	0.50
1:A:747:A:C6	1:A:748:G:C6	3.00	0.50
1:A:781:A:OP2	1:A:800:G:N1	2.45	0.50
1:A:786:G:C2	1:A:787:A:H1'	2.45	0.50
1:A:829:G:N1	1:A:830:G:C4	2.80	0.50
1:A:925:G:N2	1:A:1392:G:C8	2.80	0.50
1:A:939:G:H2'	1:A:940:C:C6	2.46	0.50
1:A:994:A:C6	1:A:995:C:C6	2.99	0.50
1:A:1041:G:C6	1:A:1042:A:N1	2.80	0.50
1:A:1062:U:O2	1:A:1195:C:N3	2.44	0.50
1:A:1067:A:C4	1:A:1108:G:N2	2.78	0.50
1:A:1138:G:C5	1:A:1140:C:O2	2.65	0.50
1:A:1206:G:N1	1:A:1207:G:C4	2.78	0.50
1:A:1210:C:O4'	1:A:1214:C:C4	2.65	0.50
1:A:1271:A:N1	1:A:1272:G:C5	2.79	0.50
1:A:1371:G:C2	1:A:1372:U:C2	2.99	0.50
1:A:1392:G:C6	1:A:1393:U:N3	2.78	0.50
1:A:1416:G:C5	1:A:1417:G:C8	3.00	0.50
1:A:1424:U:H2'	1:A:1425:U:C6	2.46	0.50
1:A:1496:C:N3	1:A:1497:G:C5	2.79	0.50
1:A:1501:C:H3'	1:A:1504:G:N7	2.26	0.50
2:B:8:MET:SD	2:B:49:PHE:HB2	2.51	0.50
9:I:17:ARG:HB3	9:I:19:PHE:CZ	2.47	0.50
11:K:31:VAL:HG11	11:K:99:LEU:HD21	1.92	0.50
12:L:47:ALA:HB3	12:L:49:ARG:HH21	1.75	0.50
14:N:15:LEU:HD11	14:N:19:TYR:CE2	2.46	0.50
16:P:39:PHE:CE2	16:P:41:PRO:HD3	2.47	0.50
17:Q:24:ILE:HG23	17:Q:60:ILE:HD11	1.93	0.50
17:Q:43:LEU:CD2	17:Q:71:SER:H	2.24	0.50
1:A:39:G:N2	1:A:404:G:H1'	2.26	0.50
1:A:93:U:C6	1:A:94:G:OP2	2.65	0.50
1:A:112:G:C2	1:A:330:C:C4	3.00	0.50
1:A:139:A:C4	1:A:140:U:C6	2.99	0.50
1:A:142:G:H2'	1:A:196:A:C2	2.46	0.50
1:A:164:G:C2	1:A:165:G:N9	2.80	0.50
1:A:192:A:C8	1:A:192:A:OP2	2.65	0.50
1:A:200:G:H2'	1:A:200:G:N3	2.26	0.50
1:A:202:G:N2	1:A:466:A:H61	2.09	0.50
1:A:208:U:C2	1:A:209:U:C5	2.99	0.50
1:A:304:U:O5'	1:A:304:U:H6	1.94	0.50
1:A:427:U:H5'	4:D:37:PRO:HA	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:433:G:H3'	1:A:434:U:C6	2.47	0.50
1:A:469:C:C6	1:A:470:C:C6	2.99	0.50
1:A:575:G:N1	1:A:881:G:C4	2.80	0.50
1:A:581:G:H2'	1:A:582:C:C5	2.47	0.50
1:A:664:G:H4'	1:A:725:G:H1'	1.93	0.50
1:A:715:A:O4'	1:A:777:A:C2	2.65	0.50
1:A:809:G:C4	1:A:810:C:C6	3.00	0.50
1:A:815:A:C2	1:A:1529:G:C4	3.00	0.50
1:A:847:G:N2	1:A:848:C:H1'	2.25	0.50
1:A:864:A:H5'	5:E:89:THR:HB	1.93	0.50
1:A:914:A:N1	1:A:915:A:C8	2.80	0.50
1:A:923:A:H1'	1:A:1398:A:H2'	1.92	0.50
1:A:925:G:C1'	1:A:1502:A:H1'	2.41	0.50
1:A:976:G:C5	1:A:1362:A:C4	2.99	0.50
1:A:986:U:H4'	19:S:54:ARG:HD3	1.93	0.50
1:A:987:G:N3	1:A:1219:A:C2	2.80	0.50
1:A:1010:U:C5	14:N:20:PHE:HA	2.45	0.50
1:A:1019:A:N1	1:A:1020:G:C8	2.79	0.50
1:A:1037:C:H2'	1:A:1038:C:C6	2.46	0.50
1:A:1120:C:C4	1:A:1154:G:C4	2.99	0.50
1:A:1142:G:N1	1:A:1143:G:H1'	2.27	0.50
1:A:1170:A:O5'	1:A:1170:A:H8	1.94	0.50
1:A:1204:A:C4	1:A:1205:U:C6	3.00	0.50
1:A:1262:C:H5	1:A:1274:A:C2	2.26	0.50
1:A:1295:U:N3	1:A:1296:C:C4	2.80	0.50
1:A:1313:U:H5	19:S:4:LEU:H	1.60	0.50
1:A:1316:G:C4	1:A:1318:A:OP2	2.64	0.50
1:A:1328:C:C5	13:M:26:LYS:NZ	2.80	0.50
1:A:1353:G:H5"	1:A:1353:G:C8	2.46	0.50
1:A:1358:U:H5"	14:N:74:ARG:N	2.25	0.50
1:A:1377:A:H4'	7:G:94:ARG:HH12	1.77	0.50
1:A:1509:C:C2	1:A:1510:C:C5	2.99	0.50
1:A:1530:G:C6	1:A:1531:A:C6	2.99	0.50
8:H:42:GLU:CD	8:H:100:ILE:HG21	2.31	0.50
13:M:28:ARG:HE	13:M:62:PHE:HB2	1.77	0.50
17:Q:59:GLU:HB3	17:Q:76:ARG:H	1.77	0.50
22:W:157:ILE:HB	22:W:187:VAL:HG22	1.93	0.50
1:A:3:A:C5'	1:A:614:C:C5'	2.90	0.50
1:A:105:G:H21	1:A:380:G:H5'	1.74	0.50
1:A:114:U:C6	1:A:114:U:O5'	2.65	0.50
1:A:218:U:H2'	1:A:219:U:C6	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:227:G:C4	1:A:228:A:C8	2.99	0.50
1:A:264:C:H4'	17:Q:64:ARG:HH12	1.75	0.50
1:A:438:U:N3	1:A:494:G:C8	2.79	0.50
1:A:454:G:C6	1:A:455:G:C5	2.99	0.50
1:A:572:A:H2	1:A:917:G:N3	2.09	0.50
1:A:600:A:N1	1:A:601:G:C4	2.79	0.50
1:A:613:C:H2'	1:A:614:C:O4'	2.12	0.50
1:A:633:G:C8	1:A:633:G:H3'	2.45	0.50
1:A:677:U:C4	1:A:678:U:C4	3.00	0.50
1:A:678:U:H1'	1:A:713:G:H22	1.76	0.50
1:A:682:G:N1	1:A:709:U:C2	2.79	0.50
1:A:832:G:O6	1:A:833:G:C8	2.65	0.50
1:A:902:G:H2'	1:A:903:G:C8	2.45	0.50
1:A:902:G:N1	1:A:903:G:C5	2.80	0.50
1:A:941:G:N1	1:A:942:G:C5	2.80	0.50
1:A:950:U:H1'	1:A:971:G:C4	2.47	0.50
1:A:963:G:C8	1:A:963:G:O5'	2.64	0.50
1:A:1010:U:C6	1:A:1010:U:O5'	2.64	0.50
1:A:1095:U:C6	1:A:1095:U:H3'	2.46	0.50
1:A:1220:G:H1'	19:S:51:HIS:CD2	2.47	0.50
1:A:1239:A:N7	1:A:1241:G:C2	2.79	0.50
1:A:1281:C:H3'	1:A:1282:C:H5	1.77	0.50
1:A:1288:A:C8	1:A:1288:A:C3'	2.94	0.50
1:A:1290:G:O2'	9:I:41:GLU:HB3	2.12	0.50
1:A:1392:G:C4'	1:A:1532:U:H5'	2.40	0.50
1:A:1407:C:C2	1:A:1495:U:O2	2.65	0.50
1:A:1428:A:N1	1:A:1473:G:C5	2.80	0.50
1:A:1434:A:H2'	1:A:1435:G:O4'	2.11	0.50
1:A:1474:U:C5	1:A:1474:U:OP2	2.64	0.50
2:B:38:HIS:CG	2:B:188:THR:CG2	2.95	0.50
2:B:80:LYS:HG3	2:B:90:PHE:CE2	2.47	0.50
11:K:23:HIS:CD2	11:K:30:ILE:HG23	2.46	0.50
11:K:81:LEU:HG	11:K:104:PHE:CD2	2.46	0.50
13:M:73:SER:HA	13:M:76:ILE:HD12	1.92	0.50
19:S:33:TRP:CD2	19:S:56:HIS:HE1	2.29	0.50
1:A:22:G:H1'	1:A:914:A:C4	2.47	0.50
1:A:82:G:P	1:A:91:U:H5'	2.52	0.50
1:A:94:G:C4	1:A:96:U:C4	3.00	0.50
1:A:199:A:C2	1:A:200:G:N9	2.80	0.50
1:A:208:U:C5	1:A:210:C:C1'	2.95	0.50
1:A:257:G:C6	1:A:258:G:C6	2.99	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:272:C:H2'	1:A:273:U:O4'	2.11	0.50
1:A:303:A:C6	1:A:304:U:C4	2.99	0.50
1:A:322:C:N3	1:A:323:U:C4	2.79	0.50
1:A:367:U:OP1	1:A:395:C:H1'	2.11	0.50
1:A:387:U:O5'	1:A:387:U:H6	1.95	0.50
1:A:407:U:O2	1:A:436:C:H1'	2.12	0.50
1:A:411:A:C2	1:A:429:U:C4	2.99	0.50
1:A:439:U:C6	1:A:440:C:C5	2.99	0.50
1:A:595:A:N7	1:A:641:U:C5	2.80	0.50
1:A:599:C:H5	8:H:87:ARG:HG2	1.74	0.50
1:A:705:G:C8	1:A:705:G:H3'	2.46	0.50
1:A:752:G:H1'	1:A:754:C:N4	2.27	0.50
1:A:788:U:C5	1:A:788:U:OP2	2.65	0.50
1:A:868:C:C1'	1:A:873:A:C4	2.94	0.50
1:A:894:G:C6	1:A:895:G:C5	3.00	0.50
1:A:903:G:H3'	1:A:904:U:H6	1.74	0.50
1:A:936:C:H3'	1:A:937:A:H8	1.76	0.50
1:A:975:A:C5'	1:A:1359:C:O2	2.59	0.50
1:A:1072:G:H21	2:B:105:THR:CG2	2.20	0.50
1:A:1087:G:N1	1:A:1099:G:H1'	2.27	0.50
1:A:1097:C:O2'	1:A:1169:A:H1'	2.12	0.50
1:A:1127:G:N2	1:A:1128:C:C2	2.79	0.50
1:A:1143:G:N1	1:A:1144:G:C5	2.79	0.50
1:A:1143:G:C2	1:A:1144:G:C4	2.99	0.50
1:A:1150:A:N3	10:J:41:PRO:HG2	2.27	0.50
1:A:1172:C:H2'	1:A:1173:U:O4'	2.11	0.50
1:A:1202:U:H1'	14:N:81:ILE:HD13	1.93	0.50
1:A:1239:A:C4	1:A:1241:G:C6	2.99	0.50
1:A:1309:G:H5"	13:M:76:ILE:HG12	1.92	0.50
1:A:1419:G:C6	1:A:1482:G:N3	2.80	0.50
4:D:18:LEU:HA	4:D:63:ILE:HA	1.94	0.50
5:E:93:VAL:HG11	5:E:139:THR:HG22	1.94	0.50
6:F:55:HIS:CD2	6:F:56:LYS:H	2.30	0.50
8:H:96:ALA:HB1	8:H:113:ARG:HH12	1.77	0.50
10:J:83:THR:O	10:J:86:ALA:HB3	2.12	0.50
11:K:20:ALA:HB2	11:K:81:LEU:HD13	1.92	0.50
15:O:16:ARG:HE	15:O:25:GLU:CD	2.15	0.50
15:O:33:ALA:O	15:O:37:HIS:CE1	2.65	0.50
1:A:27:G:C5	1:A:28:A:C5	3.00	0.50
1:A:59:A:H5'	1:A:388:G:H2'	1.94	0.50
1:A:100:G:C4	1:A:101:A:C8	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:107:G:H3'	1:A:108:G:O4'	2.12	0.50
1:A:138:G:C1'	1:A:226:G:C2	2.94	0.50
1:A:148:G:N3	1:A:1446:A:C2	2.80	0.50
1:A:160:A:H4'	1:A:344:A:C2	2.47	0.50
1:A:193:C:H1'	20:T:58:ASP:OD1	2.11	0.50
1:A:195:A:N3	1:A:222:C:H2'	2.27	0.50
1:A:237:G:H4'	17:Q:26:ARG:CZ	2.42	0.50
1:A:340:U:H2'	1:A:341:C:C6	2.47	0.50
1:A:441:A:C4	1:A:497:G:O6	2.65	0.50
1:A:444:G:C5	1:A:445:G:C8	2.99	0.50
1:A:461:A:H3'	1:A:462:G:H5"	1.93	0.50
1:A:489:C:OP1	4:D:128:VAL:HG21	2.12	0.50
1:A:570:G:H5'	1:A:820:U:H4'	1.94	0.50
1:A:622:A:C8	1:A:623:C:C5	3.00	0.50
1:A:628:G:C4	1:A:629:A:C8	3.00	0.50
1:A:747:A:C6	1:A:748:G:C5	2.99	0.50
1:A:925:G:O4'	1:A:1502:A:H1'	2.11	0.50
1:A:938:A:N1	1:A:939:G:C4	2.80	0.50
1:A:966:G:H2'	1:A:967:C:H5'	1.94	0.50
1:A:1098:C:C4'	1:A:1168:U:C5	2.92	0.50
1:A:1104:G:C6	1:A:1105:A:C5	2.99	0.50
1:A:1232:U:OP1	9:I:125:GLN:HB2	2.12	0.50
1:A:1266:G:N3	1:A:1266:G:C2'	2.69	0.50
1:A:1294:G:C4	1:A:1295:U:C6	3.00	0.50
1:A:1327:C:C6	1:A:1327:C:H3'	2.47	0.50
1:A:1349:A:C2	1:A:1374:A:C4	2.99	0.50
1:A:1371:G:C5	1:A:1372:U:C5	3.00	0.50
1:A:1375:A:C4'	7:G:28:ILE:HA	2.40	0.50
1:A:1419:G:H3'	1:A:1420:U:H5	1.73	0.50
11:K:12:ARG:N	11:K:76:TYR:HH	2.10	0.50
18:R:30:ASN:HB2	18:R:31:TYR:CZ	2.47	0.50
1:A:37:U:H4'	1:A:500:G:C3'	2.42	0.50
1:A:57:G:H3'	1:A:58:C:C6	2.46	0.50
1:A:92:U:H2'	1:A:93:U:C6	2.47	0.50
1:A:133:U:C2	1:A:230:G:N3	2.80	0.50
1:A:144:G:N1	1:A:179:A:C6	2.80	0.50
1:A:154:U:H1'	1:A:168:G:C2	2.47	0.50
1:A:168:G:C6	1:A:169:C:C4	2.99	0.50
1:A:184:G:H2'	1:A:185:U:H6	1.76	0.50
1:A:198:G:H5"	1:A:198:G:H8	1.72	0.50
1:A:255:G:C5	1:A:256:U:C6	3.00	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:259:G:C2	1:A:268:U:C2	3.00	0.50
1:A:272:C:H3'	1:A:273:U:C5	2.46	0.50
1:A:354:G:C2	1:A:355:C:N1	2.80	0.50
1:A:419:C:H1'	4:D:39:GLN:OE1	2.11	0.50
1:A:461:A:C8	1:A:466:A:H5'	2.47	0.50
1:A:570:G:C5'	1:A:820:U:H4'	2.42	0.50
1:A:590:U:C4	1:A:650:G:C6	3.00	0.50
1:A:592:G:N1	1:A:648:A:C4	2.80	0.50
1:A:605:U:C2	1:A:606:G:N2	2.80	0.50
1:A:608:A:C4	1:A:609:A:C8	3.00	0.50
1:A:669:G:C4	1:A:670:G:C8	3.00	0.50
1:A:673:A:N1	1:A:674:G:C2	2.80	0.50
1:A:682:G:C8	1:A:682:G:O5'	2.64	0.50
1:A:748:G:C5	1:A:749:A:C8	3.00	0.50
1:A:768:A:H4'	1:A:1524:C:H1'	1.94	0.50
1:A:838:G:C6	1:A:839:C:C4	3.00	0.50
1:A:1008:U:C4	14:N:17:ASP:O	2.65	0.50
1:A:1053:G:C6	1:A:1199:U:H2'	2.47	0.50
1:A:1093:A:H2'	1:A:1095:U:O5'	2.12	0.50
1:A:1132:C:C6	1:A:1132:C:H5"	2.47	0.50
1:A:1158:C:C3'	1:A:1158:C:O2	2.60	0.50
1:A:1256:A:H1'	1:A:1258:G:C8	2.47	0.50
1:A:1262:C:C4	1:A:1274:A:N3	2.80	0.50
1:A:1264:U:C2	1:A:1272:G:C6	3.00	0.50
1:A:1306:A:C1'	1:A:1332:A:C5	2.93	0.50
1:A:1319:A:C5	1:A:1323:G:C4	3.00	0.50
1:A:1440:U:C2'	1:A:1441:A:C8	2.95	0.50
1:A:1442:G:C2	1:A:1443:C:H5	2.29	0.50
1:A:1466:C:H3'	1:A:1467:C:C5	2.47	0.50
1:A:1499:A:H3'	1:A:1505:G:OP1	2.12	0.50
1:A:1511:G:C6	1:A:1512:U:C4	2.99	0.50
1:A:1530:G:H1'	1:A:1531:A:H3'	1.94	0.50
2:B:49:PHE:HA	2:B:52:ALA:HB3	1.94	0.50
2:B:67:LEU:HD11	2:B:150:ILE:CB	2.42	0.50
3:C:56:ILE:HG21	3:C:58:ARG:NH2	2.27	0.50
6:F:29:ILE:HD12	6:F:66:ALA:HB2	1.94	0.50
6:F:49:TYR:CE2	6:F:51:ILE:HG13	2.46	0.50
9:I:20:ILE:HD12	9:I:60:LEU:HD13	1.92	0.50
13:M:10:ASP:CB	13:M:11:HIS:CD2	2.95	0.50
17:Q:67:SER:HB2	17:Q:70:LYS:HD2	1.94	0.50
22:W:126:ILE:HG21	22:W:148:CYS:SG	2.51	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:6:G:N1	5:E:102:THR:HG21	2.27	0.50
1:A:39:G:C6	1:A:404:G:C2	3.00	0.50
1:A:73:C:N4	1:A:74:A:C5	2.80	0.50
1:A:103:U:H1'	1:A:151:A:H2	1.75	0.50
1:A:119:A:C4	1:A:240:G:C8	2.99	0.50
1:A:145:G:C6	1:A:146:G:N7	2.80	0.50
1:A:192:A:N1	1:A:193:C:C5	2.80	0.50
1:A:299:G:O2'	1:A:300:A:H5'	2.12	0.50
1:A:409:U:H5"	4:D:24:VAL:H	1.77	0.50
1:A:414:A:H2'	1:A:415:A:O4'	2.11	0.50
1:A:427:U:H2'	1:A:428:G:C8	2.46	0.50
1:A:453:G:C6	1:A:454:G:C2	3.00	0.50
1:A:615:G:C2	1:A:626:G:C4	3.00	0.50
1:A:655:A:C2	1:A:656:G:C4	3.00	0.50
1:A:737:C:C4	1:A:738:C:C5	3.00	0.50
1:A:815:A:N1	1:A:1529:G:C4	2.80	0.50
1:A:839:C:H2'	1:A:840:C:C5	2.46	0.50
1:A:1071:C:C5	1:A:1071:C:OP2	2.65	0.50
1:A:1102:A:C5	1:A:1103:C:C4	2.99	0.50
1:A:1115:U:C1'	1:A:1186:G:N2	2.75	0.50
1:A:1202:U:C6	10:J:55:PRO:HG3	2.47	0.50
1:A:1296:C:O2	1:A:1296:C:C2'	2.56	0.50
1:A:1369:C:C6	1:A:1369:C:OP2	2.65	0.50
1:A:1392:G:C5	1:A:1393:U:C4	3.00	0.50
1:A:1392:G:N1	1:A:1393:U:C2	2.80	0.50
1:A:1394:A:H3'	1:A:1401:G:H21	1.76	0.50
1:A:1447:A:H3'	1:A:1448:C:C5'	2.41	0.50
1:A:1469:C:H2'	1:A:1470:U:C5'	2.41	0.50
2:B:14:HIS:CD2	2:B:16:GLY:H	2.28	0.50
3:C:140:ALA:O	3:C:145:ALA:HB3	2.11	0.50
6:F:49:TYR:CE1	18:R:68:PRO:HA	2.46	0.50
9:I:51:LEU:CD2	9:I:60:LEU:HD21	2.42	0.50
9:I:51:LEU:HD22	9:I:60:LEU:HD21	1.94	0.50
17:Q:45:VAL:HG13	17:Q:52:CYS:SG	2.52	0.50
22:W:50:MET:O	22:W:66:ILE:HD11	2.12	0.50
22:W:181:ARG:CZ	22:W:187:VAL:HB	2.42	0.50
1:A:22:G:C4	1:A:23:C:C6	3.00	0.49
1:A:45:G:H4'	1:A:307:C:H1'	1.93	0.49
1:A:45:G:C6	1:A:46:G:C5	3.00	0.49
1:A:46:G:C5	1:A:366:A:C6	3.00	0.49
1:A:56:U:C4	1:A:352:C:N4	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:98:A:C6	1:A:99:C:N3	2.80	0.49
1:A:127:G:N1	1:A:128:G:C8	2.80	0.49
1:A:153:C:N4	1:A:154:U:C2	2.80	0.49
1:A:184:G:C6	1:A:194:C:C4	3.00	0.49
1:A:184:G:C5	1:A:185:U:C5	3.00	0.49
1:A:297:G:C2	1:A:301:G:N1	2.79	0.49
1:A:363:A:C6	1:A:364:A:C6	3.00	0.49
1:A:397:A:H5"	1:A:398:U:C5	2.47	0.49
1:A:432:A:C5	1:A:433:G:C5	2.99	0.49
1:A:446:G:C6	1:A:447:G:C8	3.00	0.49
1:A:461:A:N6	1:A:463:U:H5'	2.27	0.49
1:A:533:A:H2	1:A:535:A:H3'	1.78	0.49
1:A:541:G:H1'	4:D:40:HIS:HB2	1.94	0.49
1:A:595:A:N6	1:A:641:U:H2'	2.27	0.49
1:A:612:C:C6	1:A:613:C:C5	3.00	0.49
1:A:672:U:H4'	6:F:86:ARG:HE	1.77	0.49
1:A:692:U:H3	11:K:54:SER:N	2.10	0.49
1:A:716:A:H2'	1:A:717:U:C6	2.47	0.49
1:A:718:A:H3'	1:A:719:C:C5	2.46	0.49
1:A:840:C:O2	1:A:843:U:C2	2.65	0.49
1:A:858:G:N1	1:A:869:G:H2'	2.27	0.49
1:A:860:A:C6	1:A:861:G:C4	3.00	0.49
1:A:914:A:C6	1:A:915:A:C8	3.00	0.49
1:A:945:G:H2'	1:A:945:G:N3	2.26	0.49
1:A:976:G:H5"	14:N:60:ARG:NH2	2.24	0.49
1:A:1000:A:C2	1:A:1001:C:H1'	2.46	0.49
1:A:1004:A:C5'	1:A:1024:G:N2	2.74	0.49
1:A:1013:G:C2	1:A:1017:U:O2	2.65	0.49
1:A:1042:A:C2	1:A:1043:G:N1	2.80	0.49
1:A:1117:A:C5	1:A:1156:G:N2	2.79	0.49
1:A:1128:C:C2'	1:A:1129:C:C6	2.95	0.49
1:A:1129:C:OP2	1:A:1139:G:H2'	2.11	0.49
1:A:1142:G:C8	1:A:1142:G:C5'	2.93	0.49
1:A:1174:G:P	1:A:1182:G:H8	2.35	0.49
1:A:1204:A:C2	1:A:1205:U:H1'	2.47	0.49
1:A:1225:A:H1'	19:S:79:TYR:HB3	1.94	0.49
1:A:1256:A:N6	1:A:1277:C:H2'	2.26	0.49
1:A:1264:U:C4	1:A:1265:C:C5	3.00	0.49
1:A:1343:G:N1	1:A:1344:C:C2	2.80	0.49
1:A:1346:A:N1	1:A:1374:A:C5'	2.74	0.49
1:A:1426:G:C2	1:A:1475:G:C4	2.99	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1444:U:C4	1:A:1459:G:C6	3.00	0.49
2:B:65:LYS:CB	2:B:149:GLY:HA2	2.43	0.49
6:F:3:HIS:CE1	6:F:37:HIS:NE2	2.80	0.49
6:F:9:MET:HG2	6:F:59:TYR:CZ	2.47	0.49
6:F:11:HIS:CD2	6:F:11:HIS:H	2.30	0.49
7:G:79:VAL:HG21	7:G:84:TYR:CZ	2.46	0.49
10:J:18:ILE:HG21	10:J:70:HIS:CG	2.47	0.49
1:A:26:A:H61	1:A:558:G:H2'	1.77	0.49
1:A:37:U:H1'	1:A:548:G:C2	2.46	0.49
1:A:61:G:C8	20:T:5:SER:HB2	2.48	0.49
1:A:64:G:C2	1:A:69:G:N1	2.80	0.49
1:A:160:A:C2	1:A:161:A:H1'	2.48	0.49
1:A:203:G:N3	1:A:215:C:C2	2.80	0.49
1:A:246:A:C4	1:A:282:A:C6	3.01	0.49
1:A:254:G:C5	1:A:255:G:N7	2.80	0.49
1:A:296:U:O2	1:A:302:G:C2	2.65	0.49
1:A:369:G:H8	1:A:388:G:H22	1.60	0.49
1:A:376:G:H2'	1:A:377:G:C8	2.47	0.49
1:A:382:A:C4	1:A:383:A:N7	2.80	0.49
1:A:514:C:C2	1:A:538:G:N2	2.79	0.49
1:A:536:C:C4	1:A:537:G:N7	2.80	0.49
1:A:555:U:O5'	1:A:555:U:C6	2.65	0.49
1:A:579:A:C4	1:A:763:G:C2	3.00	0.49
1:A:633:G:O6	1:A:634:C:C4	2.65	0.49
1:A:693:G:C5	1:A:694:A:C5	3.00	0.49
1:A:840:C:C6	1:A:847:G:N2	2.80	0.49
1:A:861:G:C2	1:A:862:C:C2	3.00	0.49
1:A:867:G:C8	1:A:867:G:H3'	2.48	0.49
1:A:923:A:C2	1:A:1395:C:O2	2.64	0.49
1:A:923:A:C2	1:A:924:C:C2	3.01	0.49
1:A:1067:A:O5'	1:A:1093:A:H4'	2.11	0.49
1:A:1086:U:C5'	1:A:1087:G:C8	2.95	0.49
1:A:1133:G:C2	1:A:1134:G:N9	2.79	0.49
1:A:1133:G:C2	1:A:1142:G:C6	3.00	0.49
1:A:1134:G:N1	1:A:1135:U:C2	2.80	0.49
1:A:1158:C:O2	1:A:1181:G:N1	2.44	0.49
1:A:1197:A:C2	1:A:1198:G:N9	2.80	0.49
1:A:1252:A:N1	1:A:1355:G:H4'	2.27	0.49
1:A:1277:C:H1'	1:A:1282:C:H1'	1.93	0.49
1:A:1309:G:N2	1:A:1310:G:C4	2.80	0.49
1:A:1374:A:O3'	7:G:27:ASN:HB3	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1380:U:C5	7:G:1:PRO:C	2.85	0.49
1:A:1394:A:H3'	1:A:1395:C:C5'	2.41	0.49
1:A:1442:G:N2	1:A:1443:C:C5	2.81	0.49
1:A:1451:U:H5"	1:A:1452:C:OP2	2.12	0.49
1:A:1513:A:C4	1:A:1523:G:C6	3.00	0.49
1:A:1522:U:O5'	1:A:1522:U:C6	2.64	0.49
2:B:21:TYR:CG	2:B:22:TRP:N	2.81	0.49
2:B:27:LYS:HA	2:B:30:ILE:HG13	1.94	0.49
2:B:45:THR:HG23	2:B:49:PHE:CE2	2.48	0.49
6:F:10:VAL:HB	6:F:58:HIS:HB3	1.94	0.49
10:J:15:HIS:CE1	10:J:16:ARG:CD	2.95	0.49
11:K:117:HIS:CE1	18:R:69:TYR:OH	2.65	0.49
1:A:27:G:C6	1:A:557:G:C5	3.01	0.49
1:A:74:A:C4	1:A:75:G:C8	3.01	0.49
1:A:106:C:C2	20:T:9:ARG:HD3	2.47	0.49
1:A:122:G:N1	1:A:123:U:C2	2.79	0.49
1:A:128:G:N3	1:A:234:C:C2	2.79	0.49
1:A:194:C:H4'	20:T:59:ARG:CB	2.41	0.49
1:A:197:A:H2	1:A:220:G:N3	2.09	0.49
1:A:251:G:C4	1:A:266:G:N7	2.81	0.49
1:A:255:G:N1	1:A:256:U:C2	2.80	0.49
1:A:288:A:N3	1:A:288:A:H2'	2.27	0.49
1:A:295:C:C2	1:A:303:A:N3	2.80	0.49
1:A:426:U:C6	1:A:426:U:O5'	2.65	0.49
1:A:454:G:N3	1:A:455:G:C8	2.79	0.49
1:A:459:A:C2	1:A:460:A:C8	3.00	0.49
1:A:473:U:H3'	1:A:473:U:C6	2.48	0.49
1:A:496:A:C6	1:A:497:G:O6	2.65	0.49
1:A:536:C:C6	1:A:536:C:C3'	2.94	0.49
1:A:539:A:C5	1:A:540:G:C5	2.99	0.49
1:A:567:G:C6	1:A:568:G:N7	2.80	0.49
1:A:596:A:N1	1:A:645:G:C2	2.80	0.49
1:A:611:C:H3'	1:A:612:C:H6	1.77	0.49
1:A:660:C:O2	1:A:746:A:C2	2.65	0.49
1:A:684:U:O5'	1:A:684:U:C6	2.66	0.49
1:A:714:G:H1'	1:A:777:A:C1'	2.42	0.49
1:A:770:C:O4'	1:A:900:A:C2	2.65	0.49
1:A:807:A:C6	1:A:808:C:N3	2.80	0.49
1:A:813:U:H5'	1:A:904:U:H5"	1.94	0.49
1:A:824:G:H21	8:H:1:SER:C	2.16	0.49
1:A:886:G:C6	1:A:887:G:N7	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:889:A:C2	1:A:907:A:C5'	2.94	0.49
1:A:893:C:C4	1:A:894:G:C5	3.01	0.49
1:A:938:A:C2	1:A:939:G:C1'	2.95	0.49
1:A:958:A:C2	1:A:959:A:C2	3.00	0.49
1:A:1055:A:C8	1:A:1206:G:C2	3.01	0.49
1:A:1086:U:H3'	1:A:1087:G:C5'	2.40	0.49
1:A:1118:U:C2	1:A:1156:G:N2	2.81	0.49
1:A:1129:C:N3	1:A:1144:G:C6	2.80	0.49
1:A:1143:G:C2	1:A:1144:G:N9	2.81	0.49
1:A:1170:A:H5"	2:B:138:ARG:NE	2.27	0.49
1:A:1186:G:O5'	1:A:1186:G:H8	1.96	0.49
1:A:1229:A:C6	1:A:1230:C:C4	3.00	0.49
1:A:1237:C:H2'	1:A:1335:U:H4'	1.93	0.49
1:A:1239:A:N9	1:A:1241:G:C4	2.80	0.49
1:A:1245:C:H2'	1:A:1246:A:H8	1.77	0.49
1:A:1250:A:C8	1:A:1250:A:C3'	2.95	0.49
1:A:1256:A:C4'	1:A:1258:G:H1'	2.41	0.49
1:A:1307:U:C4	1:A:1308:U:C4	3.00	0.49
1:A:1393:U:O4'	1:A:1502:A:H5"	2.13	0.49
1:A:1435:G:C6	1:A:1436:U:C4	2.99	0.49
1:A:1453:G:C2	1:A:1454:G:C8	3.01	0.49
1:A:1476:A:C6	1:A:1477:U:C4	3.01	0.49
6:F:47:LEU:HD12	6:F:51:ILE:H	1.76	0.49
6:F:66:ALA:HB1	6:F:70:VAL:HG23	1.95	0.49
9:I:38:PHE:CZ	9:I:75:ALA:HA	2.47	0.49
10:J:37:ARG:HB3	10:J:75:ASP:HB3	1.94	0.49
12:L:2:THR:CG2	12:L:4:ASN:HB3	2.42	0.49
17:Q:22:VAL:HG11	17:Q:60:ILE:HG21	1.93	0.49
1:A:31:G:H21	1:A:46:G:H5"	1.77	0.49
1:A:107:G:H8	20:T:9:ARG:NH1	2.10	0.49
1:A:178:C:C6	1:A:178:C:C3'	2.95	0.49
1:A:216:U:H4'	1:A:464:U:H4'	1.94	0.49
1:A:217:C:H1'	1:A:469:C:N4	2.25	0.49
1:A:223:A:C6	1:A:224:U:C2	3.00	0.49
1:A:260:G:C2	1:A:261:U:C4	3.01	0.49
1:A:369:G:N2	1:A:370:C:H1'	2.27	0.49
1:A:414:A:H8	1:A:428:G:H22	1.60	0.49
1:A:439:U:O4	1:A:495:A:C2	2.65	0.49
1:A:538:G:N2	1:A:539:A:C4	2.80	0.49
1:A:579:A:C2	1:A:580:C:N1	2.80	0.49
1:A:598:U:N3	1:A:599:C:C5	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:600:A:C4	1:A:639:G:C6	3.00	0.49
1:A:602:A:C8	1:A:602:A:OP2	2.65	0.49
1:A:667:G:C2	1:A:668:G:C8	3.00	0.49
1:A:667:G:C2	1:A:740:U:H1'	2.48	0.49
1:A:707:U:C4	1:A:708:C:C4	3.00	0.49
1:A:730:G:OP2	1:A:731:G:C8	2.65	0.49
1:A:794:A:H5"	1:A:794:A:H8	1.76	0.49
1:A:838:G:H22	2:B:34:ARG:NH1	2.08	0.49
1:A:849:G:C6	1:A:850:U:C4	3.01	0.49
1:A:963:G:H1'	10:J:56:HIS:CE1	2.48	0.49
1:A:969:A:N7	1:A:1231:G:H1'	2.28	0.49
1:A:1000:A:C2	1:A:1041:G:C2	3.01	0.49
1:A:1032:G:N7	1:A:1033:G:H1'	2.28	0.49
1:A:1033:G:N1	1:A:1034:G:C5	2.80	0.49
1:A:1047:G:N2	1:A:1048:G:C4	2.80	0.49
1:A:1053:G:C2'	1:A:1054:C:OP2	2.60	0.49
1:A:1074:G:O5'	1:A:1074:G:H8	1.95	0.49
1:A:1127:G:C2	1:A:1128:C:C6	3.00	0.49
1:A:1134:G:N1	1:A:1141:C:C4	2.80	0.49
1:A:1236:A:C8	1:A:1236:A:C5'	2.95	0.49
1:A:1240:U:P	7:G:115:MET:H	2.35	0.49
1:A:1251:A:OP1	9:I:68:GLY:HA2	2.12	0.49
1:A:1262:C:C2'	1:A:1263:C:H5'	2.43	0.49
1:A:1392:G:H1'	1:A:1502:A:O3'	2.12	0.49
1:A:1392:G:C6	1:A:1393:U:C4	3.00	0.49
1:A:1403:C:H2'	1:A:1404:C:H6	1.78	0.49
1:A:1428:A:C2	1:A:1429:A:C4	2.99	0.49
1:A:1461:G:C6	1:A:1462:C:C4	3.00	0.49
4:D:8:LEU:HD12	4:D:26:ALA:O	2.12	0.49
5:E:79:THR:HA	5:E:122:VAL:CG2	2.43	0.49
5:E:81:GLN:H	5:E:146:MET:CG	2.24	0.49
6:F:10:VAL:HG13	6:F:84:VAL:HA	1.94	0.49
6:F:15:SER:HB3	6:F:58:HIS:HB2	1.93	0.49
7:G:49:LEU:HD12	7:G:52:ARG:HB2	1.94	0.49
8:H:73:SER:HB2	8:H:129:ALA:HB3	1.93	0.49
10:J:27:GLU:HG3	10:J:31:ARG:HE	1.77	0.49
15:O:24:THR:HG1	15:O:69:LEU:HD21	1.78	0.49
17:Q:11:VAL:CG1	17:Q:58:VAL:HG11	2.36	0.49
17:Q:19:SER:O	17:Q:44:HIS:CG	2.65	0.49
1:A:70:U:C4	1:A:94:G:H1'	2.47	0.49
1:A:108:G:C2	1:A:109:A:N1	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:123:U:N3	1:A:239:U:O2	2.46	0.49
1:A:136:C:C4	1:A:228:A:N1	2.81	0.49
1:A:158:G:N2	1:A:159:G:C1'	2.75	0.49
1:A:186:C:C2	1:A:192:A:N1	2.80	0.49
1:A:196:A:N3	1:A:222:C:H1'	2.28	0.49
1:A:208:U:H2'	1:A:209:U:C6	2.47	0.49
1:A:254:G:N1	1:A:255:G:C5	2.80	0.49
1:A:405:U:H3	1:A:499:A:H62	1.59	0.49
1:A:412:A:N7	4:D:32:LYS:HG3	2.27	0.49
1:A:516:U:N3	1:A:517:G:C8	2.81	0.49
1:A:537:G:C5	1:A:538:G:C8	3.01	0.49
1:A:554:A:H2'	1:A:555:U:C6	2.48	0.49
1:A:599:C:O2	1:A:599:C:H2'	2.11	0.49
1:A:612:C:H3'	1:A:613:C:C6	2.47	0.49
1:A:649:A:C6	1:A:650:G:C5	3.01	0.49
1:A:655:A:H2	1:A:754:C:C4	2.28	0.49
1:A:683:G:H3'	1:A:684:U:C6	2.47	0.49
1:A:731:G:C6	1:A:732:C:C6	3.01	0.49
1:A:737:C:C2	1:A:738:C:C6	3.00	0.49
1:A:778:G:C5	1:A:779:C:C5	3.01	0.49
1:A:788:U:C2	1:A:795:C:N4	2.80	0.49
1:A:836:G:C6	1:A:837:U:C2	3.00	0.49
1:A:838:G:N2	1:A:849:G:H1'	2.27	0.49
1:A:864:A:C8	1:A:864:A:O5'	2.66	0.49
1:A:869:G:OP1	1:A:871:U:C5	2.66	0.49
1:A:923:A:H1'	1:A:1398:A:C2'	2.42	0.49
1:A:923:A:N3	1:A:924:C:C6	2.81	0.49
1:A:925:G:H4'	1:A:1502:A:C4	2.47	0.49
1:A:934:C:HO2'	1:A:1344:C:H5	1.60	0.49
1:A:941:G:C2	1:A:1343:G:C4	3.00	0.49
1:A:942:G:C5	1:A:943:U:C5	3.00	0.49
1:A:974:A:C4	14:N:70:HIS:CB	2.95	0.49
1:A:978:A:H3'	1:A:979:C:C6	2.48	0.49
1:A:1005:A:H4'	1:A:1036:A:C1'	2.43	0.49
1:A:1042:A:H2'	1:A:1043:G:N9	2.27	0.49
1:A:1072:G:N1	1:A:1073:U:C2	2.80	0.49
1:A:1114:C:C2	1:A:1187:G:C4	3.00	0.49
1:A:1117:A:H2	1:A:1180:A:N3	2.09	0.49
1:A:1133:G:N2	1:A:1134:G:H1'	2.28	0.49
1:A:1152:A:C5	1:A:1153:G:C5	3.01	0.49
1:A:1158:C:H4'	2:B:130:LYS:C	2.33	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1168:U:O4	1:A:1169:A:C2	2.65	0.49
1:A:1288:A:O5'	1:A:1288:A:H8	1.93	0.49
1:A:1348:U:H4'	9:I:120:ALA:O	2.12	0.49
1:A:1366:C:C4	1:A:1367:C:C5	3.00	0.49
1:A:1426:G:C4	1:A:1475:G:C2	3.01	0.49
1:A:1439:G:H1	1:A:1463:U:H1'	1.77	0.49
1:A:1473:G:H3'	1:A:1474:U:C6	2.47	0.49
1:A:1477:U:C4	1:A:1478:U:C5	3.00	0.49
2:B:67:LEU:HD22	2:B:91:VAL:HG22	1.94	0.49
3:C:137:VAL:HB	3:C:167:TYR:CE2	2.47	0.49
5:E:59:ILE:O	5:E:62:ALA:HB3	2.12	0.49
5:E:96:GLN:CD	5:E:123:LEU:HD12	2.32	0.49
6:F:67:PRO:C	6:F:69:GLU:H	2.15	0.49
7:G:11:ILE:HG23	7:G:27:ASN:HD21	1.78	0.49
7:G:36:SER:HA	9:I:42:THR:CG2	2.43	0.49
12:L:9:LYS:H	12:L:9:LYS:HD2	1.77	0.49
12:L:25:ALA:H	12:L:29:LYS:HZ1	1.60	0.49
16:P:75:ILE:HG23	16:P:81:ALA:HB3	1.95	0.49
17:Q:11:VAL:CG2	17:Q:53:GLY:H	2.23	0.49
22:W:143:ARG:HA	22:W:332:ILE:HD11	1.94	0.49
1:A:23:C:C2	1:A:24:U:C6	3.00	0.49
1:A:51:A:C2	1:A:116:A:C4	3.01	0.49
1:A:66:A:H2	1:A:103:U:H3	1.59	0.49
1:A:130:A:C8	1:A:130:A:O5'	2.65	0.49
1:A:144:G:N1	1:A:145:G:C4	2.81	0.49
1:A:156:C:C4	1:A:157:U:C5	3.00	0.49
1:A:159:G:C2	1:A:161:A:OP2	2.65	0.49
1:A:258:G:C8	1:A:258:G:O5'	2.65	0.49
1:A:434:U:C6	1:A:434:U:O5'	2.66	0.49
1:A:439:U:C4	1:A:440:C:C2	3.01	0.49
1:A:533:A:C2	1:A:536:C:C5	3.01	0.49
1:A:577:G:C5	1:A:578:C:C5	3.01	0.49
1:A:594:U:C6	1:A:594:U:O5'	2.66	0.49
1:A:597:G:N2	8:H:83:ARG:HH12	2.08	0.49
1:A:639:G:H3'	1:A:640:A:H8	1.78	0.49
1:A:642:A:H1'	8:H:108:GLY:H	1.77	0.49
1:A:691:G:N7	11:K:56:LYS:HE2	2.27	0.49
1:A:748:G:H1	15:O:21:THR:HB	1.77	0.49
1:A:749:A:C6	1:A:750:C:C4	3.00	0.49
1:A:760:G:N1	1:A:761:G:H1'	2.28	0.49
1:A:846:G:N2	1:A:847:G:C4	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:850:U:C2	1:A:851:G:C8	3.00	0.49
1:A:857:C:C2	1:A:858:G:H8	2.30	0.49
1:A:878:A:O4'	8:H:3:GLN:HB2	2.12	0.49
1:A:892:A:C6	1:A:893:C:C5	3.00	0.49
1:A:935:A:H2'	1:A:936:C:H6	1.76	0.49
1:A:1075:U:N3	1:A:1076:U:C2	2.80	0.49
1:A:1091:U:H3'	1:A:1093:A:OP2	2.13	0.49
1:A:1098:C:O2	1:A:1098:C:H2'	2.12	0.49
1:A:1120:C:C6	1:A:1120:C:H3'	2.48	0.49
1:A:1146:A:H3'	1:A:1147:C:C6	2.47	0.49
1:A:1161:C:C6	1:A:1161:C:C3'	2.94	0.49
1:A:1228:C:C6	1:A:1228:C:C3'	2.95	0.49
1:A:1231:G:C5'	9:I:129:ARG:H	2.26	0.49
1:A:1406:U:O4	1:A:1496:C:C2	2.65	0.49
1:A:1432:G:C2	1:A:1467:C:C4	3.01	0.49
1:A:1495:U:C5	1:A:1495:U:OP2	2.65	0.49
1:A:1503:A:C5	1:A:1532:U:O4'	2.66	0.49
1:A:1528:U:C6	21:U:42:THR:CA	2.93	0.49
1:A:1532:U:C6	1:A:1534:A:N3	2.81	0.49
4:D:129:VAL:HG12	4:D:134:TYR:CG	2.48	0.49
13:M:104:ASN:HA	13:M:106:ARG:HG2	1.93	0.49
16:P:74:LEU:HD23	16:P:77:GLU:OE1	2.11	0.49
22:W:296:LEU:HB3	22:W:311:ALA:HB1	1.93	0.49
22:W:312:ILE:H	22:W:312:ILE:HD12	1.76	0.49
1:A:11:G:C6	1:A:12:U:N3	2.81	0.49
1:A:22:G:N3	1:A:23:C:C6	2.81	0.49
1:A:36:C:N4	1:A:37:U:C4	2.81	0.49
1:A:141:G:C8	1:A:141:G:C4'	2.95	0.49
1:A:192:A:C6	1:A:193:C:C5	3.01	0.49
1:A:213:G:C8	1:A:214:C:C6	3.01	0.49
1:A:242:G:C2	1:A:285:C:C2	3.01	0.49
1:A:257:G:H2'	1:A:258:G:H8	1.75	0.49
1:A:301:G:H4'	1:A:564:C:N3	2.27	0.49
1:A:323:U:O4	1:A:324:G:C2	2.66	0.49
1:A:330:C:H42	1:A:354:G:H1'	1.77	0.49
1:A:377:G:C2	1:A:378:G:C4	3.00	0.49
1:A:404:G:H4'	1:A:439:U:H3	1.78	0.49
1:A:409:U:C2	1:A:410:G:C5	3.01	0.49
1:A:413:G:H4'	1:A:428:G:N2	2.28	0.49
1:A:441:A:C8	1:A:441:A:OP2	2.65	0.49
1:A:454:G:H22	1:A:479:U:C1'	2.25	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:475:C:H3'	1:A:476:U:C5	2.47	0.49
1:A:528:C:C6	1:A:528:C:C5'	2.92	0.49
1:A:553:A:H1'	12:L:27:PRO:HA	1.95	0.49
1:A:560:A:C8	1:A:566:G:N3	2.81	0.49
1:A:615:G:C6	1:A:616:G:C5	3.00	0.49
1:A:669:G:H2'	1:A:670:G:O4'	2.13	0.49
1:A:690:G:H2'	1:A:691:G:O4'	2.12	0.49
1:A:693:G:O6	1:A:694:A:C6	2.66	0.49
1:A:719:C:OP1	1:A:720:C:C4	2.65	0.49
1:A:740:U:C4'	15:O:41:HIS:CE1	2.96	0.49
1:A:838:G:N3	1:A:839:C:C6	2.81	0.49
1:A:947:G:H4'	1:A:1332:A:N7	2.28	0.49
1:A:1042:A:H2'	1:A:1043:G:C8	2.47	0.49
1:A:1066:C:N4	1:A:1067:A:C2	2.80	0.49
1:A:1116:U:C2	1:A:1185:G:C2	3.01	0.49
1:A:1129:C:H2'	1:A:1139:G:N7	2.28	0.49
1:A:1140:C:N3	1:A:1141:C:C5	2.81	0.49
1:A:1179:A:C2	1:A:1180:A:N9	2.80	0.49
1:A:1204:A:C4	1:A:1205:U:H6	2.29	0.49
1:A:1228:C:H6	1:A:1228:C:H5'	1.76	0.49
1:A:1263:C:H42	1:A:1273:C:H42	1.61	0.49
1:A:1269:A:C8	1:A:1270:G:C1'	2.96	0.49
1:A:1288:A:H3'	1:A:1288:A:H8	1.72	0.49
1:A:1294:G:C5	1:A:1295:U:C6	3.00	0.49
1:A:1299:A:H2'	1:A:1299:A:N3	2.28	0.49
1:A:1306:A:N7	1:A:1332:A:C2	2.81	0.49
1:A:1352:C:H2'	1:A:1353:G:C1'	2.43	0.49
1:A:1383:C:C2	1:A:1384:C:C6	3.00	0.49
1:A:1431:A:C2	1:A:1468:A:OP2	2.66	0.49
1:A:1439:G:C6	1:A:1440:U:N1	2.81	0.49
1:A:1494:G:N1	1:A:1495:U:C6	2.81	0.49
2:B:23:ASN:HB2	2:B:188:THR:HB	1.93	0.49
3:C:22:PHE:N	10:J:94:ALA:HB1	2.26	0.49
3:C:36:PHE:CG	3:C:39:ARG:HD2	2.47	0.49
3:C:181:ILE:HG23	3:C:200:TRP:CD1	2.47	0.49
4:D:98:ASP:HA	4:D:132:ALA:HB1	1.95	0.49
5:E:137:ARG:HB2	5:E:137:ARG:HH11	1.78	0.49
9:I:20:ILE:HG23	9:I:60:LEU:HD13	1.95	0.49
1:A:45:G:N2	1:A:398:U:C4	2.81	0.49
1:A:101:A:C5	1:A:102:G:N7	2.81	0.49
1:A:189:A:C5	1:A:190:A:C8	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:191:G:C6	1:A:192:A:C6	3.01	0.49
1:A:217:C:C2	1:A:218:U:C6	3.01	0.49
1:A:232:G:H2'	1:A:232:G:N3	2.27	0.49
1:A:251:G:C2	1:A:253:A:C8	3.01	0.49
1:A:302:G:C5	1:A:303:A:N7	2.80	0.49
1:A:360:G:H2'	1:A:361:G:C8	2.48	0.49
1:A:374:A:H4'	1:A:452:A:N6	2.28	0.49
1:A:376:G:C6	1:A:377:G:C6	3.01	0.49
1:A:419:C:H2'	1:A:420:U:C6	2.47	0.49
1:A:459:A:N6	1:A:472:U:H3	2.09	0.49
1:A:522:C:C1'	1:A:536:C:H4'	2.42	0.49
1:A:528:C:H41	12:L:45:ASN:CG	2.16	0.49
1:A:727:G:N2	1:A:729:A:C8	2.80	0.49
1:A:739:C:C6	1:A:739:C:H3'	2.48	0.49
1:A:780:A:C8	1:A:780:A:C5'	2.96	0.49
1:A:781:A:C2	1:A:802:A:C2	3.01	0.49
1:A:821:G:C6	1:A:880:C:N3	2.81	0.49
1:A:864:A:C5	1:A:865:A:C6	3.00	0.49
1:A:890:G:C2	1:A:906:A:N7	2.81	0.49
1:A:895:G:N7	1:A:896:C:C5	2.81	0.49
1:A:905:U:C6	1:A:906:A:N7	2.80	0.49
1:A:921:U:C6	1:A:921:U:H3'	2.48	0.49
1:A:937:A:C2'	1:A:1378:C:H42	2.26	0.49
1:A:993:G:C2	1:A:1046:A:C4	3.01	0.49
1:A:1014:A:C2	1:A:1015:G:C2	3.01	0.49
1:A:1068:G:N1	1:A:1108:G:C4	2.80	0.49
1:A:1075:U:C4	1:A:1076:U:C6	3.01	0.49
1:A:1084:G:C8	1:A:1085:U:C5	3.01	0.49
1:A:1129:C:H2'	1:A:1139:G:C5	2.48	0.49
1:A:1133:G:N1	1:A:1134:G:C5	2.81	0.49
1:A:1158:C:C4	1:A:1160:G:C4	3.01	0.49
1:A:1237:C:H3'	1:A:1336:C:H41	1.78	0.49
1:A:1409:C:O2'	1:A:1410:A:H5'	2.12	0.49
1:A:1435:G:H2'	1:A:1436:U:O4'	2.11	0.49
1:A:1438:G:C2	1:A:1464:U:H1'	2.48	0.49
1:A:1469:C:C5	1:A:1470:U:C6	3.00	0.49
1:A:1501:C:C5	1:A:1504:G:C1'	2.96	0.49
6:F:28:ALA:O	6:F:32:ALA:HB3	2.11	0.49
7:G:8:GLN:N	7:G:8:GLN:HE21	2.10	0.49
10:J:84:VAL:HA	10:J:87:LEU:HD12	1.93	0.49
12:L:7:VAL:HG13	17:Q:30:HIS:CD2	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:O:14:PHE:HA	15:O:83:ARG:HD2	1.95	0.49
1:A:2:A:N6	1:A:3:A:C2	2.81	0.49
1:A:39:G:C2	1:A:40:C:H1'	2.48	0.49
1:A:78:A:N6	1:A:90:C:C4	2.81	0.49
1:A:140:U:C4	1:A:141:G:N7	2.81	0.49
1:A:161:A:C2'	1:A:162:A:H5'	2.42	0.49
1:A:171:A:C6	1:A:172:A:N1	2.81	0.49
1:A:182:A:OP2	1:A:193:C:H5	1.96	0.49
1:A:262:A:H4'	20:T:69:ASN:HB2	1.94	0.49
1:A:266:G:O4'	1:A:268:U:C5	2.66	0.49
1:A:348:G:H2'	1:A:349:A:O4'	2.12	0.49
1:A:373:A:N7	1:A:482:A:C2	2.81	0.49
1:A:374:A:C5	1:A:375:U:C5	3.01	0.49
1:A:475:C:C2'	1:A:476:U:H6	2.26	0.49
1:A:542:G:C2	1:A:543:U:C6	3.00	0.49
1:A:573:A:H3'	1:A:573:A:C8	2.48	0.49
1:A:577:G:C6	1:A:578:C:C4	3.00	0.49
1:A:684:U:O5'	1:A:684:U:H6	1.96	0.49
1:A:722:G:N1	1:A:724:G:C6	2.81	0.49
1:A:727:G:C4	1:A:731:G:N1	2.81	0.49
1:A:838:G:C5	1:A:849:G:C5	3.00	0.49
1:A:856:C:C2	1:A:857:C:C6	3.00	0.49
1:A:1004:A:H5"	1:A:1024:G:N2	2.27	0.49
1:A:1039:G:C5	1:A:1040:U:C4	3.01	0.49
1:A:1054:C:C5	1:A:1196:A:C4	3.00	0.49
1:A:1056:U:C6	1:A:1056:U:C5'	2.93	0.49
1:A:1064:G:C4	1:A:1066:C:C4	3.00	0.49
1:A:1086:U:H5"	1:A:1086:U:H6	1.78	0.49
1:A:1126:U:H3'	1:A:1127:G:C8	2.48	0.49
1:A:1128:C:O2	1:A:1145:A:C2	2.66	0.49
1:A:1144:G:N3	1:A:1145:A:H1'	2.27	0.49
1:A:1170:A:C6	1:A:1171:A:N3	2.80	0.49
1:A:1224:U:C2'	19:S:77:ARG:HH22	2.25	0.49
1:A:1288:A:N6	1:A:1289:A:N6	2.60	0.49
1:A:1310:G:N1	1:A:1311:A:C5	2.80	0.49
1:A:1343:G:C4	1:A:1344:C:C6	3.00	0.49
1:A:1364:U:H3'	1:A:1365:G:C5'	2.43	0.49
1:A:1371:G:N7	9:I:110:VAL:HG11	2.28	0.49
2:B:47:PRO:O	2:B:51:GLU:HG2	2.13	0.49
3:C:139:ASN:HA	3:C:142:ARG:HB2	1.95	0.49
7:G:45:ALA:CB	7:G:119:LEU:HB3	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:62:ALA:CB	11:K:91:GLY:CA	2.91	0.49
15:O:29:ALA:HA	15:O:84:LEU:HD21	1.95	0.49
1:A:19:A:C4	1:A:917:G:C6	3.01	0.49
1:A:39:G:C4	1:A:498:A:C2	3.01	0.49
1:A:64:G:N2	1:A:69:G:C5	2.80	0.49
1:A:76:G:C2	1:A:77:A:C5	3.01	0.49
1:A:107:G:C5'	1:A:134:G:H21	2.25	0.49
1:A:119:A:H4'	1:A:120:A:O5'	2.12	0.49
1:A:144:G:N7	1:A:196:A:C8	2.81	0.49
1:A:161:A:C5	1:A:162:A:N7	2.81	0.49
1:A:165:G:C5	1:A:166:U:C6	3.01	0.49
1:A:165:G:C4	1:A:166:U:C6	3.01	0.49
1:A:215:C:N3	1:A:216:U:C2	2.81	0.49
1:A:216:U:C5'	1:A:464:U:O3'	2.60	0.49
1:A:251:G:C6	1:A:252:U:C4	3.00	0.49
1:A:275:G:N2	1:A:276:G:H1'	2.28	0.49
1:A:347:G:C5'	1:A:347:G:H8	2.26	0.49
1:A:500:G:C8	1:A:500:G:C5'	2.95	0.49
1:A:592:G:C5	1:A:648:A:N1	2.81	0.49
1:A:615:G:C4	1:A:626:G:C2	3.01	0.49
1:A:651:C:C6	1:A:651:C:O5'	2.66	0.49
1:A:745:G:C4'	1:A:851:G:H21	2.26	0.49
1:A:761:G:C6	1:A:762:U:C2	3.01	0.49
1:A:818:G:C2	1:A:820:U:C5	3.01	0.49
1:A:903:G:C2	1:A:904:U:N1	2.81	0.49
1:A:919:A:N1	1:A:920:U:C4	2.81	0.49
1:A:929:G:C6	1:A:930:C:C5	3.01	0.49
1:A:938:A:C6	1:A:939:G:C5	3.01	0.49
1:A:979:C:H2'	1:A:980:C:H5'	1.94	0.49
1:A:987:G:C2	1:A:1219:A:C2	3.00	0.49
1:A:1011:C:C5	14:N:50:LEU:CD2	2.95	0.49
1:A:1048:G:H1'	1:A:1215:G:H4'	1.94	0.49
1:A:1073:U:C2	1:A:1074:G:N7	2.81	0.49
1:A:1090:U:H2'	1:A:1091:U:C5	2.46	0.49
1:A:1143:G:N2	1:A:1144:G:H1'	2.28	0.49
1:A:1158:C:H5'	1:A:1184:G:OP2	2.12	0.49
1:A:1162:C:C4	1:A:1175:G:C5	3.01	0.49
1:A:1179:A:H2'	1:A:1180:A:O4'	2.13	0.49
1:A:1198:G:N7	1:A:1199:U:C5	2.81	0.49
1:A:1200:C:H1'	1:A:1204:A:N6	2.27	0.49
1:A:1242:G:N3	1:A:1302:C:C6	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1269:A:H4'	1:A:1326:U:H5'	1.94	0.49
1:A:1305:G:N2	1:A:1331:G:H2'	2.28	0.49
1:A:1338:G:H2'	1:A:1339:A:O4'	2.12	0.49
1:A:1343:G:C4	1:A:1344:C:C5	3.00	0.49
1:A:1349:A:N3	1:A:1374:A:C4	2.80	0.49
1:A:1415:G:C2	1:A:1416:G:C5	3.00	0.49
3:C:20:THR:HG23	3:C:57:GLU:HG2	1.94	0.49
6:F:52:ASN:H	18:R:73:HIS:CB	2.26	0.49
8:H:63:LYS:H	8:H:70:VAL:HG11	1.78	0.49
10:J:28:THR:HB	10:J:86:ALA:CB	2.43	0.49
1:A:11:G:N2	1:A:12:U:H1'	2.27	0.48
1:A:39:G:C6	1:A:404:G:N3	2.81	0.48
1:A:44:A:N1	1:A:45:G:C4	2.81	0.48
1:A:64:G:H1'	1:A:67:C:OP2	2.13	0.48
1:A:67:C:H2'	1:A:68:G:N7	2.28	0.48
1:A:68:G:C8	1:A:69:G:H1'	2.48	0.48
1:A:79:G:C2'	1:A:80:A:C8	2.93	0.48
1:A:107:G:H2'	1:A:108:G:H4'	1.94	0.48
1:A:208:U:C5	1:A:210:C:C2	3.01	0.48
1:A:255:G:C2	1:A:256:U:H1'	2.48	0.48
1:A:256:U:H2'	1:A:257:G:C8	2.47	0.48
1:A:312:C:C2	1:A:313:A:C8	3.01	0.48
1:A:324:G:H2'	1:A:326:G:N7	2.28	0.48
1:A:327:A:C5	1:A:329:A:C6	3.01	0.48
1:A:379:C:H2'	1:A:380:G:O4'	2.12	0.48
1:A:470:C:C5	1:A:471:U:H5	2.31	0.48
1:A:539:A:C4	1:A:540:G:C8	3.00	0.48
1:A:563:A:N3	1:A:563:A:H2'	2.28	0.48
1:A:654:G:C3'	1:A:655:A:H8	2.26	0.48
1:A:680:C:C6	1:A:680:C:H3'	2.48	0.48
1:A:719:C:H3'	1:A:719:C:C6	2.48	0.48
1:A:771:G:H1'	1:A:809:G:H22	1.78	0.48
1:A:780:A:N6	1:A:800:G:H3'	2.27	0.48
1:A:809:G:C2	1:A:810:C:C1'	2.95	0.48
1:A:830:G:C4'	2:B:24:PRO:HA	2.43	0.48
1:A:866:C:C5	1:A:866:C:OP2	2.66	0.48
1:A:888:G:H2'	1:A:908:A:N6	2.28	0.48
1:A:923:A:C5	1:A:924:C:C5	3.01	0.48
1:A:940:C:C2	1:A:941:G:C8	3.00	0.48
1:A:947:G:H5'	13:M:111:PRO:HB3	1.93	0.48
1:A:1201:A:H4'	1:A:1202:U:O5'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1216:A:H5”	14:N:4:SER:HB3	1.94	0.48
1:A:1277:C:C1’	1:A:1282:C:H1’	2.43	0.48
1:A:1294:G:C6	1:A:1295:U:C5	3.00	0.48
1:A:1296:C:H3’	1:A:1297:G:C8	2.48	0.48
1:A:1345:U:O2	1:A:1377:A:C6	2.66	0.48
1:A:1356:G:N2	1:A:1367:C:C2	2.81	0.48
1:A:1379:G:H3’	7:G:5:VAL:HG11	1.94	0.48
1:A:1428:A:C5	1:A:1473:G:N1	2.81	0.48
1:A:1433:A:C4	1:A:1434:A:C8	3.01	0.48
1:A:1434:A:C8	1:A:1434:A:O5’	2.66	0.48
1:A:1438:G:N3	1:A:1439:G:C8	2.82	0.48
1:A:1439:G:C2	1:A:1463:U:H1’	2.48	0.48
1:A:1500:A:H5”	1:A:1508:A:OP1	2.12	0.48
1:A:1502:A:C8	1:A:1504:G:C4	3.01	0.48
3:C:143:LEU:C	3:C:145:ALA:H	2.16	0.48
5:E:36:THR:O	5:E:47:PHE:HA	2.13	0.48
10:J:19:ASP:CB	10:J:72:ARG:HH22	2.25	0.48
13:M:9:PRO:CG	13:M:18:LEU:HD11	2.43	0.48
16:P:22:ALA:HB1	16:P:31:ARG:O	2.13	0.48
17:Q:64:ARG:HE	17:Q:66:LEU:HA	1.78	0.48
1:A:47:C:H5”	1:A:48:C:C5	2.47	0.48
1:A:124:C:H2’	1:A:125:U:C5	2.47	0.48
1:A:147:G:H21	1:A:1447:A:C2’	2.26	0.48
1:A:257:G:C8	1:A:257:G:O5’	2.66	0.48
1:A:271:C:C2	1:A:272:C:C6	3.00	0.48
1:A:425:G:C6	1:A:426:U:N3	2.81	0.48
1:A:464:U:O2	1:A:466:A:C8	2.66	0.48
1:A:522:C:H1’	1:A:536:C:H4’	1.94	0.48
1:A:557:G:C6	1:A:558:G:N1	2.81	0.48
1:A:558:G:C8	1:A:559:A:N3	2.81	0.48
1:A:563:A:OP1	12:L:13:ARG:HA	2.13	0.48
1:A:580:C:N4	1:A:581:G:C6	2.81	0.48
1:A:594:U:N3	1:A:595:A:C6	2.81	0.48
1:A:670:G:C8	1:A:670:G:H3’	2.48	0.48
1:A:677:U:C6	1:A:677:U:O5’	2.66	0.48
1:A:678:U:O2	1:A:679:C:C6	2.66	0.48
1:A:687:A:N1	1:A:700:G:O2’	2.45	0.48
1:A:697:U:C6	1:A:697:U:O5’	2.66	0.48
1:A:789:U:C2	1:A:791:G:OP2	2.67	0.48
1:A:849:G:C6	1:A:850:U:C2	3.01	0.48
1:A:872:A:H1’	1:A:873:A:H3’	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1159:U:OP2	1:A:1184:G:C5'	2.61	0.48
1:A:1187:G:C8	1:A:1187:G:P	3.06	0.48
1:A:1229:A:N1	1:A:1230:C:C2	2.81	0.48
1:A:1303:C:H2'	1:A:1304:G:C5'	2.42	0.48
1:A:1346:A:C8	1:A:1348:U:N3	2.81	0.48
1:A:1394:A:C5'	1:A:1395:C:C6	2.96	0.48
1:A:1419:G:N1	1:A:1420:U:C6	2.81	0.48
1:A:1423:G:C5	1:A:1424:U:C5	3.01	0.48
1:A:1484:C:H3'	1:A:1485:U:C5	2.48	0.48
3:C:32:LEU:HA	3:C:35:ASP:HB3	1.95	0.48
4:D:53:GLN:CB	4:D:202:LEU:HD13	2.43	0.48
7:G:45:ALA:CB	7:G:123:LEU:HD12	2.43	0.48
14:N:15:LEU:HG	14:N:19:TYR:CD2	2.47	0.48
20:T:38:ILE:HG21	20:T:81:GLN:HB3	1.94	0.48
1:A:3:A:C5'	1:A:614:C:H5'	2.43	0.48
1:A:50:A:H1'	1:A:52:C:N1	2.28	0.48
1:A:51:A:N1	1:A:116:A:C4	2.81	0.48
1:A:115:G:C2	1:A:289:G:C5	3.01	0.48
1:A:117:G:N7	1:A:118:U:C4	2.82	0.48
1:A:117:G:H3'	1:A:118:U:C6	2.48	0.48
1:A:126:G:H5'	1:A:633:G:N2	2.29	0.48
1:A:144:G:C8	1:A:144:G:H3'	2.49	0.48
1:A:162:A:H4'	1:A:348:G:O3'	2.13	0.48
1:A:189:A:H2'	1:A:190:A:H5'	1.94	0.48
1:A:230:G:C4	1:A:231:U:C6	3.01	0.48
1:A:246:A:C6	1:A:282:A:N7	2.80	0.48
1:A:266:G:C4	1:A:268:U:H5	2.31	0.48
1:A:297:G:N2	1:A:300:A:OP2	2.46	0.48
1:A:299:G:C2	1:A:300:A:C4	3.01	0.48
1:A:303:A:H2'	1:A:304:U:O4'	2.13	0.48
1:A:319:G:H4'	1:A:1468:A:H5'	1.94	0.48
1:A:329:A:N7	1:A:332:G:C6	2.81	0.48
1:A:356:A:C2	1:A:368:U:H1'	2.48	0.48
1:A:391:G:H2'	1:A:392:C:C6	2.48	0.48
1:A:470:C:C6	1:A:470:C:H3'	2.49	0.48
1:A:568:G:C8	1:A:568:G:C5'	2.96	0.48
1:A:577:G:C2	1:A:578:C:N1	2.82	0.48
1:A:606:G:N7	1:A:631:C:C6	2.81	0.48
1:A:606:G:H5"	1:A:607:A:H5'	1.95	0.48
1:A:613:C:C2	1:A:614:C:N1	2.81	0.48
1:A:617:G:O4'	16:P:48:GLU:HG3	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:652:U:C2'	1:A:752:G:C2	2.92	0.48
1:A:656:G:C4	1:A:657:U:C5	3.00	0.48
1:A:716:A:C2	1:A:717:U:N3	2.80	0.48
1:A:717:U:C6	1:A:717:U:OP2	2.66	0.48
1:A:740:U:H4'	15:O:41:HIS:CE1	2.48	0.48
1:A:766:A:C6	1:A:767:A:C4	3.00	0.48
1:A:773:G:N2	1:A:774:G:H1'	2.29	0.48
1:A:792:A:H5'	1:A:793:U:C6	2.49	0.48
1:A:862:C:C4	1:A:863:U:C4	3.00	0.48
1:A:877:G:C2	1:A:878:A:C5	3.01	0.48
1:A:928:G:C2	1:A:929:G:C4	3.00	0.48
1:A:960:U:N3	1:A:1225:A:H1'	2.28	0.48
1:A:1010:U:N1	1:A:1020:G:C2	2.82	0.48
1:A:1052:U:O2	1:A:1207:G:C2	2.66	0.48
1:A:1074:G:H3'	1:A:1075:U:C6	2.49	0.48
1:A:1118:U:O5'	1:A:1118:U:H6	1.95	0.48
1:A:1123:U:O2	1:A:1124:G:H1'	2.12	0.48
1:A:1127:G:H1'	1:A:1280:A:N6	2.27	0.48
1:A:1129:C:C2	1:A:1139:G:C5	3.01	0.48
1:A:1153:G:N1	1:A:1154:G:C8	2.82	0.48
1:A:1238:A:H5"	7:G:109:LYS:HZ3	1.78	0.48
1:A:1239:A:C1'	1:A:1241:G:C8	2.96	0.48
1:A:1251:A:C2	1:A:1369:C:O2'	2.66	0.48
1:A:1253:G:N3	1:A:1253:G:H2'	2.28	0.48
1:A:1272:G:C6	1:A:1273:C:C4	3.01	0.48
1:A:1277:C:O2'	1:A:1282:C:C5	2.66	0.48
1:A:1288:A:C6	1:A:1289:A:C6	3.00	0.48
1:A:1303:C:C6	1:A:1303:C:O5'	2.65	0.48
1:A:1433:A:C6	1:A:1468:A:C1'	2.96	0.48
1:A:1466:C:C5	1:A:1467:C:C4	3.01	0.48
2:B:23:ASN:HB3	2:B:30:ILE:HG13	1.95	0.48
2:B:31:PHE:CD1	2:B:38:HIS:CE1	3.01	0.48
2:B:165:ALA:O	2:B:172:ILE:HD12	2.13	0.48
3:C:49:ALA:HB1	3:C:75:VAL:HA	1.95	0.48
4:D:25:ARG:HD2	4:D:29:THR:HB	1.94	0.48
5:E:42:ASN:HA	5:E:73:VAL:HB	1.96	0.48
6:F:3:HIS:CG	6:F:4:TYR:N	2.81	0.48
11:K:43:TRP:CE3	11:K:44:ALA:HA	2.48	0.48
13:M:18:LEU:HD13	13:M:29:SER:HB3	1.94	0.48
15:O:78:THR:HA	15:O:81:ILE:CD1	2.43	0.48
17:Q:20:ILE:O	17:Q:44:HIS:HA	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:W:161:LYS:H	22:W:192:SER:H	1.61	0.48
1:A:11:G:N2	1:A:24:U:H1'	2.28	0.48
1:A:21:G:N2	1:A:22:G:C6	2.82	0.48
1:A:25:C:H5"	1:A:524:G:C2'	2.43	0.48
1:A:39:G:C5	1:A:40:C:C6	3.01	0.48
1:A:59:A:C4	1:A:331:G:C2	3.01	0.48
1:A:74:A:C2	1:A:75:G:C5	3.02	0.48
1:A:77:A:N6	1:A:90:C:C6	2.81	0.48
1:A:78:A:C5	1:A:79:G:C6	3.01	0.48
1:A:107:G:O6	20:T:6:ALA:HA	2.13	0.48
1:A:109:A:C6	1:A:327:A:C5	3.01	0.48
1:A:114:U:H1'	1:A:353:A:N3	2.28	0.48
1:A:116:A:C5	1:A:117:G:C8	3.02	0.48
1:A:160:A:N1	1:A:346:G:C6	2.81	0.48
1:A:222:C:H42	1:A:223:A:H62	1.61	0.48
1:A:245:U:O2	1:A:284:C:C6	2.66	0.48
1:A:298:A:N3	1:A:299:G:H1'	2.29	0.48
1:A:445:G:C6	1:A:446:G:C8	3.02	0.48
1:A:446:G:C6	1:A:447:G:C4	3.02	0.48
1:A:453:G:H4'	16:P:73:ALA:HB2	1.94	0.48
1:A:455:G:C6	1:A:478:A:C2	3.01	0.48
1:A:473:U:C6	1:A:474:G:N7	2.81	0.48
1:A:560:A:C8	1:A:566:G:C4	3.01	0.48
1:A:579:A:N1	1:A:763:G:C5	2.82	0.48
1:A:581:G:H1'	1:A:761:G:H22	1.78	0.48
1:A:602:A:C8	1:A:602:A:H3'	2.48	0.48
1:A:622:A:H3'	1:A:623:C:H6	1.79	0.48
1:A:643:C:C4	1:A:644:U:C4	3.01	0.48
1:A:678:U:H1'	1:A:713:G:N2	2.28	0.48
1:A:794:A:H2'	1:A:795:C:H5'	1.95	0.48
1:A:874:G:C2	1:A:875:U:C6	3.01	0.48
1:A:932:C:H5"	7:G:2:ARG:HB2	1.96	0.48
1:A:933:G:C5	1:A:935:A:C4	3.01	0.48
1:A:999:C:H3'	1:A:999:C:C6	2.47	0.48
1:A:1003:G:C6	1:A:1005:A:OP1	2.66	0.48
1:A:1008:U:O2	1:A:1009:U:C6	2.66	0.48
1:A:1090:U:H5'	1:A:1170:A:N1	2.27	0.48
1:A:1118:U:C6	1:A:1119:C:C5	3.01	0.48
1:A:1134:G:C2	1:A:1135:U:O2	2.66	0.48
1:A:1165:U:C4	1:A:1166:G:C5	3.02	0.48
1:A:1183:U:H2'	2:B:131:LYS:HD3	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1237:C:H5'	1:A:1303:C:H2'	1.95	0.48
1:A:1244:G:C6	1:A:1245:C:C5	3.02	0.48
1:A:1256:A:C4	1:A:1258:G:C2	3.01	0.48
1:A:1279:G:C8	1:A:1282:C:C4	3.02	0.48
1:A:1300:G:H1'	1:A:1303:C:N4	2.29	0.48
1:A:1306:A:C4	1:A:1332:A:N3	2.81	0.48
1:A:1315:U:H1'	1:A:1323:G:N2	2.28	0.48
1:A:1327:C:C5	1:A:1328:C:C5	3.02	0.48
1:A:1402:C:C5	1:A:1403:C:C6	3.02	0.48
1:A:1410:A:N1	1:A:1491:G:C2	2.82	0.48
1:A:1416:G:C2	1:A:1417:G:H1'	2.49	0.48
1:A:1430:A:N3	1:A:1471:U:C2	2.82	0.48
2:B:103:TRP:HA	2:B:106:VAL:HB	1.95	0.48
3:C:119:ILE:HG12	3:C:133:MET:HA	1.96	0.48
6:F:34:GLY:HA2	6:F:65:GLU:O	2.13	0.48
16:P:25:ARG:HA	16:P:25:ARG:NE	2.28	0.48
1:A:52:C:C4	1:A:53:A:N7	2.81	0.48
1:A:66:A:C6	1:A:104:G:C6	3.01	0.48
1:A:106:C:N4	20:T:9:ARG:HA	2.27	0.48
1:A:107:G:C8	20:T:9:ARG:NH1	2.82	0.48
1:A:192:A:C2	1:A:193:C:C6	3.02	0.48
1:A:206:C:C6	1:A:206:C:O5'	2.66	0.48
1:A:217:C:C4'	1:A:463:U:C5	2.97	0.48
1:A:342:C:C4	1:A:343:U:N3	2.82	0.48
1:A:370:C:N3	1:A:371:A:C8	2.82	0.48
1:A:413:G:C4	1:A:426:U:OP1	2.67	0.48
1:A:419:C:C4	1:A:420:U:C4	3.01	0.48
1:A:437:U:N3	1:A:438:U:C5	2.81	0.48
1:A:465:A:C6	1:A:466:A:N6	2.82	0.48
1:A:512:U:C2	1:A:513:C:C5	3.02	0.48
1:A:577:G:N2	1:A:729:A:C2	2.81	0.48
1:A:617:G:C2	1:A:618:C:C6	3.02	0.48
1:A:623:C:C6	1:A:623:C:O5'	2.67	0.48
1:A:661:G:C2	1:A:662:U:H1'	2.48	0.48
1:A:667:G:N1	1:A:668:G:C5	2.81	0.48
1:A:759:A:C6	1:A:760:G:H1'	2.48	0.48
1:A:790:A:C5	1:A:791:G:C5	3.02	0.48
1:A:822:U:C4	1:A:823:C:C5	3.02	0.48
1:A:947:G:C5	1:A:948:C:C5	3.02	0.48
1:A:1004:A:H1'	1:A:1031:C:O2'	2.14	0.48
1:A:1007:U:O2	1:A:1023:U:H1'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1087:G:C6	1:A:1099:G:N3	2.82	0.48
1:A:1165:U:N3	1:A:1166:G:C4	2.82	0.48
1:A:1184:G:OP2	2:B:131:LYS:HG2	2.13	0.48
1:A:1187:G:C8	1:A:1187:G:OP2	2.66	0.48
1:A:1207:G:N1	1:A:1208:C:C2	2.82	0.48
1:A:1223:C:H5	1:A:1322:C:H41	1.59	0.48
1:A:1228:C:O3'	13:M:114:PRO:HA	2.13	0.48
1:A:1251:A:O2'	1:A:1252:A:C8	2.62	0.48
1:A:1252:A:C2	1:A:1355:G:H4'	2.47	0.48
1:A:1266:G:C4	1:A:1270:G:C6	3.02	0.48
1:A:1311:A:C2	1:A:1312:G:C8	3.00	0.48
1:A:1345:U:C4'	1:A:1375:A:H61	2.27	0.48
1:A:1371:G:H2'	1:A:1372:U:C6	2.49	0.48
1:A:1496:C:C2	1:A:1497:G:C5	3.01	0.48
1:A:1502:A:C5	1:A:1504:G:C2	3.01	0.48
1:A:1517:G:C6	1:A:1518:A:C5	3.01	0.48
4:D:100:VAL:O	4:D:100:VAL:HG12	2.13	0.48
7:G:68:VAL:HG13	7:G:133:ALA:HB1	1.96	0.48
10:J:18:ILE:HD11	10:J:72:ARG:HG2	1.96	0.48
11:K:52:ARG:HA	11:K:56:LYS:CD	2.43	0.48
22:W:47:ARG:HG3	22:W:49:GLY:H	1.78	0.48
1:A:19:A:N1	1:A:20:U:C2	2.81	0.48
1:A:19:A:N3	1:A:917:G:C6	2.82	0.48
1:A:22:G:N2	1:A:23:C:H1'	2.28	0.48
1:A:24:U:O2	1:A:25:C:C6	2.67	0.48
1:A:111:G:C5'	16:P:26:ASN:HA	2.44	0.48
1:A:192:A:C6	1:A:193:C:N4	2.81	0.48
1:A:218:U:H4'	1:A:470:C:O4'	2.14	0.48
1:A:223:A:C4	1:A:224:U:C6	3.01	0.48
1:A:234:C:C2	1:A:235:C:C5	3.01	0.48
1:A:253:A:C6	1:A:254:G:C5	3.01	0.48
1:A:257:G:C6	1:A:258:G:C5	3.01	0.48
1:A:465:A:C2	1:A:466:A:C5	3.02	0.48
1:A:478:A:C2	1:A:479:U:N3	2.81	0.48
1:A:538:G:C8	1:A:538:G:O5'	2.65	0.48
1:A:554:A:C6	1:A:555:U:C4	3.01	0.48
1:A:584:G:C2	1:A:585:G:C4	3.02	0.48
1:A:585:G:C4	1:A:586:C:C6	3.02	0.48
1:A:585:G:H2'	1:A:586:C:O4'	2.14	0.48
1:A:653:U:H2'	1:A:654:G:C8	2.48	0.48
1:A:660:C:C2	1:A:746:A:N1	2.82	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:681:A:C5	1:A:710:G:N1	2.82	0.48
1:A:765:G:C5	1:A:812:G:C2	3.01	0.48
1:A:796:C:H3'	1:A:796:C:C6	2.49	0.48
1:A:830:G:N1	1:A:857:C:C2	2.81	0.48
1:A:927:G:H2'	1:A:928:G:C8	2.48	0.48
1:A:988:G:C6	1:A:989:U:C5	3.01	0.48
1:A:1010:U:C2	1:A:1011:C:C6	3.01	0.48
1:A:1092:A:C4	1:A:1093:A:C4	3.02	0.48
1:A:1102:A:H2'	1:A:1103:C:C6	2.48	0.48
1:A:1115:U:N1	1:A:1186:G:N2	2.61	0.48
1:A:1142:G:C4	1:A:1143:G:C1'	2.96	0.48
1:A:1187:G:N2	1:A:1188:A:C8	2.82	0.48
1:A:1192:C:C4	1:A:1193:G:H1'	2.48	0.48
1:A:1250:A:C6	1:A:1251:A:C6	3.02	0.48
1:A:1315:U:C2	1:A:1323:G:N2	2.81	0.48
1:A:1447:A:OP2	1:A:1448:C:C6	2.66	0.48
1:A:1480:A:C6	1:A:1481:U:C5	3.02	0.48
1:A:1481:U:C5	1:A:1481:U:OP2	2.67	0.48
2:B:95:TRP:CE3	2:B:171:ALA:HA	2.49	0.48
2:B:162:VAL:CG2	2:B:184:ALA:HB2	2.44	0.48
3:C:9:ILE:HD12	14:N:97:LYS:HG2	1.95	0.48
5:E:77:ASN:HB2	5:E:79:THR:HB	1.96	0.48
5:E:114:LEU:HD22	5:E:119:VAL:HG23	1.94	0.48
7:G:115:MET:HB3	7:G:119:LEU:HD23	1.95	0.48
13:M:76:ILE:HG23	13:M:90:HIS:CE1	2.49	0.48
22:W:47:ARG:H	22:W:254:ARG:HG3	1.77	0.48
1:A:11:G:C6	1:A:12:U:C4	3.02	0.48
1:A:37:U:H4'	1:A:500:G:O3'	2.14	0.48
1:A:37:U:OP2	12:L:122:LYS:HA	2.14	0.48
1:A:39:G:C2	1:A:40:C:N1	2.81	0.48
1:A:52:C:C6	1:A:52:C:C3'	2.96	0.48
1:A:71:A:C5	1:A:72:A:N7	2.81	0.48
1:A:130:A:N7	1:A:264:C:H1'	2.28	0.48
1:A:186:C:C5	1:A:186:C:OP2	2.67	0.48
1:A:199:A:C8	1:A:199:A:H3'	2.49	0.48
1:A:208:U:H3	1:A:212:G:N2	2.11	0.48
1:A:215:C:C4	1:A:216:U:N3	2.81	0.48
1:A:257:G:C6	1:A:270:A:C6	3.01	0.48
1:A:282:A:C2	1:A:283:U:C6	3.00	0.48
1:A:321:A:H62	1:A:328:C:H1'	1.79	0.48
1:A:425:G:C5	1:A:426:U:C6	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:439:U:OP1	1:A:492:C:C5	2.66	0.48
1:A:454:G:N2	1:A:455:G:H1'	2.29	0.48
1:A:475:C:C6	1:A:476:U:H5	2.32	0.48
1:A:490:C:H2'	1:A:491:G:H8	1.78	0.48
1:A:502:A:C6	1:A:503:C:C5	3.01	0.48
1:A:570:G:C2	1:A:571:U:C2	3.02	0.48
1:A:587:G:N1	1:A:755:G:C8	2.82	0.48
1:A:656:G:H21	1:A:657:U:H1'	1.79	0.48
1:A:693:G:H3'	1:A:694:A:H8	1.77	0.48
1:A:694:A:C6	1:A:695:A:C5	3.01	0.48
1:A:774:G:N3	1:A:775:G:C8	2.82	0.48
1:A:850:U:C5	1:A:850:U:OP2	2.67	0.48
1:A:922:G:C6	1:A:923:A:C5	3.02	0.48
1:A:927:G:C4	1:A:928:G:C8	3.02	0.48
1:A:933:G:C6	1:A:1385:G:C6	3.02	0.48
1:A:958:A:H61	19:S:55:GLN:HE22	1.60	0.48
1:A:995:C:H2'	1:A:996:A:H5'	1.95	0.48
1:A:1012:A:C2	1:A:1013:G:C4	3.01	0.48
1:A:1101:A:H1'	1:A:1102:A:O4'	2.14	0.48
1:A:1104:G:H3'	1:A:1105:A:C8	2.48	0.48
1:A:1121:U:H2'	1:A:1122:U:O4'	2.13	0.48
1:A:1164:G:H2'	1:A:1165:U:O4'	2.13	0.48
1:A:1222:G:H5"	1:A:1223:C:OP2	2.14	0.48
1:A:1239:A:C2	7:G:113:LYS:CB	2.96	0.48
1:A:1261:A:C5	1:A:1262:C:C6	3.01	0.48
1:A:1270:G:N1	1:A:1271:A:C5	2.82	0.48
1:A:1283:U:H2'	1:A:1284:C:C5	2.49	0.48
1:A:1297:G:H1'	7:G:113:LYS:HB3	1.96	0.48
1:A:1316:G:C2	1:A:1319:A:C8	3.01	0.48
1:A:1332:A:C6	1:A:1333:A:C6	3.01	0.48
1:A:1356:G:C2	1:A:1357:A:C5	3.01	0.48
1:A:1367:C:H2'	1:A:1368:A:O4'	2.13	0.48
1:A:1418:A:C6	1:A:1483:A:C6	3.01	0.48
1:A:1445:U:O4	1:A:1455:G:C5'	2.62	0.48
1:A:1457:G:H4'	20:T:29:THR:HB	1.95	0.48
1:A:1486:G:H2'	1:A:1487:G:C8	2.48	0.48
2:B:94:ARG:HG2	2:B:167:HIS:CE1	2.49	0.48
3:C:62:SER:HA	3:C:97:PRO:HD2	1.96	0.48
4:D:87:GLU:CD	4:D:87:GLU:H	2.17	0.48
6:F:29:ILE:HG21	6:F:64:VAL:CG1	2.43	0.48
10:J:20:GLN:HE22	10:J:93:ALA:HB1	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:L:34:THR:H	12:L:54:VAL:HA	1.78	0.48
12:L:77:SER:HB3	12:L:79:ILE:HG23	1.95	0.48
1:A:14:U:N3	1:A:16:A:H3'	2.29	0.48
1:A:42:G:N2	1:A:622:A:H1'	2.28	0.48
1:A:61:G:H4'	1:A:386:C:O2'	2.14	0.48
1:A:70:U:C6	1:A:94:G:H1'	2.49	0.48
1:A:90:C:C2'	1:A:92:U:C4	2.95	0.48
1:A:166:U:C2	1:A:167:A:C8	3.01	0.48
1:A:197:A:C2	1:A:198:G:N9	2.82	0.48
1:A:202:G:H1	1:A:215:C:N4	2.11	0.48
1:A:203:G:H4'	1:A:465:A:N1	2.29	0.48
1:A:292:G:OP2	1:A:293:G:C4	2.67	0.48
1:A:294:U:C2	1:A:295:C:C6	3.02	0.48
1:A:329:A:C8	1:A:329:A:H5"	2.49	0.48
1:A:367:U:C2	1:A:394:G:C4	3.02	0.48
1:A:402:G:H5'	4:D:70:GLN:HG2	1.96	0.48
1:A:411:A:C5	1:A:429:U:C6	3.01	0.48
1:A:431:A:C5	1:A:432:A:C5	3.02	0.48
1:A:455:G:C6	1:A:456:A:C5	3.02	0.48
1:A:500:G:N1	1:A:546:A:C2	2.82	0.48
1:A:514:C:H41	1:A:533:A:C2'	2.26	0.48
1:A:563:A:H4'	1:A:564:C:H5	1.78	0.48
1:A:583:A:H1'	1:A:759:A:N6	2.29	0.48
1:A:593:U:C6	1:A:593:U:OP2	2.67	0.48
1:A:639:G:C8	1:A:639:G:C5'	2.97	0.48
1:A:642:A:C1'	8:H:108:GLY:H	2.26	0.48
1:A:676:A:C2	1:A:715:A:H2	2.32	0.48
1:A:722:G:C2	1:A:724:G:C5	3.02	0.48
1:A:728:A:C8	15:O:53:ARG:HG2	2.48	0.48
1:A:770:C:N3	1:A:771:G:N7	2.61	0.48
1:A:791:G:C8	1:A:791:G:H3'	2.48	0.48
1:A:850:U:O5'	1:A:850:U:H6	1.97	0.48
1:A:858:G:C2	1:A:870:U:OP2	2.67	0.48
1:A:886:G:C5	1:A:887:G:C8	3.02	0.48
1:A:904:U:C2	1:A:905:U:N1	2.81	0.48
1:A:955:U:C6	1:A:955:U:O5'	2.66	0.48
1:A:959:A:C8	1:A:959:A:C3'	2.97	0.48
1:A:1053:G:N7	1:A:1199:U:H3'	2.29	0.48
1:A:1062:U:C2'	1:A:1194:U:H3	2.26	0.48
1:A:1099:G:H3'	1:A:1100:C:C6	2.49	0.48
1:A:1145:A:C2'	1:A:1145:A:N3	2.75	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1148:U:C5	1:A:1149:C:C4	3.02	0.48
1:A:1171:A:N1	1:A:1172:C:C2	2.82	0.48
1:A:1176:A:N6	1:A:1182:G:H1	2.12	0.48
1:A:1179:A:C2	1:A:1180:A:H1'	2.48	0.48
1:A:1186:G:C2'	1:A:1187:G:H8	2.20	0.48
1:A:1246:A:C6	1:A:1247:U:C4	3.01	0.48
1:A:1267:C:N4	1:A:1268:G:C2	2.82	0.48
1:A:1306:A:C6	1:A:1307:U:C6	3.01	0.48
1:A:1342:C:H2'	1:A:1343:G:C8	2.47	0.48
1:A:1355:G:N3	1:A:1355:G:C2'	2.75	0.48
1:A:1409:C:O5'	1:A:1409:C:H6	1.95	0.48
1:A:1421:G:H1'	1:A:1480:A:N1	2.28	0.48
1:A:1443:C:N3	1:A:1460:C:O2	2.47	0.48
1:A:1447:A:OP1	1:A:1449:C:C5	2.66	0.48
1:A:1460:C:C4	1:A:1461:G:C5	3.01	0.48
1:A:1480:A:C5	1:A:1481:U:C6	3.02	0.48
1:A:1484:C:H3'	1:A:1485:U:C6	2.48	0.48
1:A:1501:C:H5	1:A:1504:G:HO2'	1.58	0.48
2:B:56:LEU:CD1	2:B:216:VAL:HG22	2.43	0.48
2:B:94:ARG:HG3	2:B:95:TRP:H	1.79	0.48
4:D:125:ASN:ND2	4:D:141:VAL:H	2.12	0.48
6:F:52:ASN:N	18:R:73:HIS:HB3	2.24	0.48
8:H:40:LYS:HZ3	8:H:47:ASP:HB2	1.77	0.48
12:L:29:LYS:HE3	12:L:94:TYR:CE2	2.49	0.48
17:Q:45:VAL:HG22	17:Q:46:HIS:N	2.29	0.48
20:T:38:ILE:HA	20:T:46:ALA:CB	2.42	0.48
1:A:98:A:H8	1:A:98:A:P	2.36	0.48
1:A:116:A:H2'	1:A:117:G:O4'	2.14	0.48
1:A:126:G:C5'	1:A:633:G:H22	2.27	0.48
1:A:147:G:H2'	1:A:1447:A:O2'	2.13	0.48
1:A:180:U:C5	1:A:180:U:OP2	2.67	0.48
1:A:219:U:H2'	1:A:220:G:C8	2.48	0.48
1:A:251:G:C6	1:A:266:G:C6	3.02	0.48
1:A:268:U:C5	1:A:269:C:N4	2.81	0.48
1:A:363:A:C3'	1:A:364:A:C8	2.97	0.48
1:A:379:C:C4	1:A:380:G:C5	3.02	0.48
1:A:411:A:C6	1:A:429:U:C6	3.02	0.48
1:A:429:U:O2	1:A:430:A:C8	2.66	0.48
1:A:447:G:N7	1:A:485:U:C4	2.82	0.48
1:A:498:A:OP2	1:A:498:A:C8	2.67	0.48
1:A:539:A:H2	4:D:40:HIS:HE2	1.59	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:562:U:H4'	1:A:563:A:N3	2.28	0.48
1:A:570:G:C6	1:A:873:A:N3	2.81	0.48
1:A:606:G:C4	1:A:606:G:O5'	2.66	0.48
1:A:683:G:C6	1:A:684:U:C4	3.02	0.48
1:A:688:G:N1	1:A:700:G:C5	2.82	0.48
1:A:715:A:C1'	1:A:777:A:C2	2.97	0.48
1:A:730:G:N7	1:A:731:G:H1'	2.28	0.48
1:A:745:G:H4'	1:A:851:G:N2	2.29	0.48
1:A:860:A:OP2	1:A:869:G:N2	2.47	0.48
1:A:868:C:N4	1:A:869:G:C6	2.82	0.48
1:A:902:G:C2	1:A:903:G:C8	3.01	0.48
1:A:959:A:O3'	1:A:960:U:H4'	2.13	0.48
1:A:961:U:P	1:A:1223:C:H1'	2.53	0.48
1:A:977:A:C5'	1:A:981:U:O2	2.62	0.48
1:A:995:C:C6	1:A:995:C:O5'	2.66	0.48
1:A:1009:U:C6	1:A:1009:U:OP2	2.67	0.48
1:A:1059:C:C2'	1:A:1060:U:H6	2.27	0.48
1:A:1268:G:C2	1:A:1269:A:N3	2.82	0.48
1:A:1299:A:H62	1:A:1302:C:N4	2.12	0.48
1:A:1343:G:H4'	9:I:123:ARG:HG3	1.95	0.48
1:A:1443:C:C4	1:A:1443:C:OP2	2.67	0.48
1:A:1494:G:O6	1:A:1495:U:C5	2.67	0.48
1:A:1515:G:C8	1:A:1515:G:C3'	2.92	0.48
4:D:19:PHE:CD1	4:D:110:ARG:NH2	2.82	0.48
10:J:10:LEU:HD21	10:J:25:ILE:HD12	1.95	0.48
22:W:207:GLY:H	22:W:261:GLY:C	2.17	0.48
1:A:34:C:O2	1:A:551:U:C2	2.67	0.48
1:A:39:G:C2	1:A:498:A:H2	2.30	0.48
1:A:59:A:C8	1:A:354:G:C2	3.02	0.48
1:A:98:A:C8	1:A:98:A:O5'	2.64	0.48
1:A:146:G:C8	1:A:146:G:C5'	2.97	0.48
1:A:152:A:C5	1:A:153:C:H1'	2.49	0.48
1:A:153:C:C4	1:A:154:U:C6	3.01	0.48
1:A:181:A:O4'	1:A:182:A:C8	2.67	0.48
1:A:191:G:C8	1:A:191:G:H3'	2.48	0.48
1:A:216:U:H3'	1:A:216:U:C6	2.49	0.48
1:A:244:U:C4	1:A:894:G:N3	2.82	0.48
1:A:249:U:C2	1:A:250:A:H2	2.32	0.48
1:A:269:C:C6	1:A:269:C:H3'	2.49	0.48
1:A:297:G:C2	1:A:299:G:C8	3.02	0.48
1:A:440:C:H3'	1:A:441:A:H8	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:457:G:N2	1:A:476:U:C1’	2.77	0.48
1:A:534:U:C5	1:A:534:U:OP1	2.67	0.48
1:A:568:G:C2	1:A:883:C:C6	3.01	0.48
1:A:620:C:H3’	1:A:621:A:C8	2.49	0.48
1:A:626:G:C5	1:A:627:G:N7	2.82	0.48
1:A:673:A:C6	1:A:674:G:N1	2.82	0.48
1:A:709:U:H3’	1:A:709:U:C6	2.49	0.48
1:A:719:C:H2’	18:R:38:ILE:O	2.13	0.48
1:A:809:G:C2	1:A:810:C:H1’	2.48	0.48
1:A:924:C:C6	1:A:1399:C:OP2	2.67	0.48
1:A:941:G:N3	1:A:942:G:C8	2.82	0.48
1:A:976:G:C8	1:A:1361:G:C6	3.01	0.48
1:A:978:A:C6	1:A:1318:A:C5	3.02	0.48
1:A:996:A:H2	1:A:1045:C:O2’	1.97	0.48
1:A:1044:A:C5’	1:A:1044:A:H8	2.27	0.48
1:A:1058:G:N1	1:A:1059:C:C2	2.82	0.48
1:A:1083:U:H3	1:A:1102:A:N6	2.12	0.48
1:A:1126:U:C6	10:J:73:LEU:HD21	2.49	0.48
1:A:1139:G:N2	1:A:1143:G:N1	2.61	0.48
1:A:1198:G:H1’	10:J:57:VAL:HG21	1.95	0.48
1:A:1249:C:H4’	9:I:37:TYR:HD2	1.79	0.48
1:A:1260:G:H4’	1:A:1284:C:H5’	1.95	0.48
1:A:1329:A:C5	1:A:1330:U:C6	3.02	0.48
1:A:1378:C:N4	1:A:1379:G:C5	2.82	0.48
1:A:1394:A:N1	1:A:1501:C:H4’	2.28	0.48
1:A:1461:G:H2’	1:A:1462:C:O4’	2.14	0.48
1:A:1464:U:H6	1:A:1464:U:P	2.37	0.48
1:A:1501:C:H6	1:A:1504:G:O2’	1.97	0.48
1:A:1516:G:C8	1:A:1516:G:H3’	2.49	0.48
8:H:48:PHE:CD2	8:H:58:LEU:HD13	2.49	0.48
9:I:11:ARG:HD3	9:I:76:GLY:HA3	1.95	0.48
10:J:12:ALA:HB3	10:J:18:ILE:N	2.29	0.48
10:J:51:VAL:HB	14:N:84:ARG:HB2	1.96	0.48
13:M:9:PRO:HD2	13:M:44:ILE:HG12	1.95	0.48
16:P:47:GLU:HA	16:P:51:ARG:HH22	1.78	0.48
19:S:57:VAL:HG11	19:S:75:PRO:HD2	1.95	0.48
20:T:50:PHE:HB2	20:T:82:ILE:HD13	1.95	0.48
1:A:14:U:O2	1:A:16:A:C5	2.67	0.47
1:A:41:G:C2	1:A:42:G:C4	3.02	0.47
1:A:106:C:C4	20:T:9:ARG:HD2	2.48	0.47
1:A:129:A:H5”	17:Q:63:CYS:HA	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:155:A:C8	1:A:155:A:H3'	2.48	0.47
1:A:160:A:N1	1:A:347:G:N3	2.62	0.47
1:A:238:A:N1	1:A:239:U:C2	2.81	0.47
1:A:250:A:C8	1:A:252:U:C4	3.02	0.47
1:A:255:G:H4'	17:Q:18:LYS:HB3	1.96	0.47
1:A:257:G:N1	1:A:258:G:C5	2.82	0.47
1:A:269:C:H2'	1:A:270:A:H8	1.78	0.47
1:A:367:U:C6	1:A:394:G:C2	3.02	0.47
1:A:405:U:H5"	1:A:495:A:C2	2.49	0.47
1:A:446:G:N1	1:A:447:G:H1'	2.29	0.47
1:A:461:A:H2'	1:A:467:U:H5'	1.96	0.47
1:A:547:A:OP2	4:D:1:ALA:HB3	2.14	0.47
1:A:602:A:H8	1:A:602:A:P	2.37	0.47
1:A:626:G:H1'	16:P:47:GLU:CB	2.42	0.47
1:A:641:U:H5"	8:H:107:LYS:HD2	1.95	0.47
1:A:645:G:C6	1:A:646:G:C8	3.02	0.47
1:A:655:A:C2	1:A:656:G:C1'	2.96	0.47
1:A:655:A:H3'	1:A:656:G:H8	1.78	0.47
1:A:669:G:C5	1:A:670:G:C5	3.02	0.47
1:A:687:A:N3	1:A:688:G:H1'	2.29	0.47
1:A:858:G:C8	1:A:858:G:O5'	2.67	0.47
1:A:889:A:H1'	1:A:891:U:C4	2.49	0.47
1:A:895:G:C6	1:A:896:C:N3	2.82	0.47
1:A:897:C:C6	1:A:903:G:N2	2.82	0.47
1:A:925:G:C8	1:A:925:G:O5'	2.67	0.47
1:A:938:A:C5'	7:G:75:LYS:HZ1	2.27	0.47
1:A:988:G:H21	1:A:1016:A:H1'	1.79	0.47
1:A:1008:U:C5	14:N:17:ASP:CG	2.87	0.47
1:A:1052:U:C3'	1:A:1200:C:H41	2.27	0.47
1:A:1062:U:O2	1:A:1194:U:C4	2.67	0.47
1:A:1072:G:C6	1:A:1104:G:C6	3.01	0.47
1:A:1075:U:O2	1:A:1101:A:C6	2.67	0.47
1:A:1089:G:C2	1:A:1097:C:C2	3.02	0.47
1:A:1126:U:C6	10:J:102:LEU:O	2.67	0.47
1:A:1135:U:H2'	1:A:1136:C:O2	2.14	0.47
1:A:1159:U:C5'	1:A:1182:G:H1'	2.44	0.47
1:A:1163:A:C2	1:A:1174:G:C6	3.01	0.47
1:A:1163:A:N3	1:A:1174:G:C5	2.81	0.47
1:A:1256:A:N7	1:A:1279:G:C6	2.81	0.47
1:A:1306:A:C5	1:A:1307:U:C5	3.02	0.47
1:A:1377:A:H61	7:G:9:ARG:CZ	2.27	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1391:U:O5'	1:A:1391:U:C6	2.67	0.47
1:A:1425:U:H6	1:A:1425:U:O5'	1.97	0.47
1:A:1481:U:H2'	1:A:1482:G:H5'	1.95	0.47
1:A:1500:A:C4	1:A:1501:C:C6	3.02	0.47
6:F:76:THR:HB	6:F:80:PHE:CE1	2.49	0.47
7:G:137:ARG:HG3	7:G:141:HIS:CE1	2.49	0.47
10:J:10:LEU:H	10:J:72:ARG:HB2	1.79	0.47
10:J:18:ILE:CD1	10:J:70:HIS:HB2	2.42	0.47
17:Q:46:HIS:HB3	17:Q:74:LEU:HD22	1.95	0.47
19:S:49:ALA:HB1	19:S:56:HIS:HB3	1.96	0.47
1:A:9:G:C2	1:A:10:A:H1'	2.49	0.47
1:A:104:G:C2	1:A:105:G:C8	3.02	0.47
1:A:123:U:C2	1:A:239:U:O2	2.67	0.47
1:A:144:G:C2	1:A:179:A:C5	3.02	0.47
1:A:200:G:C6	1:A:218:U:N3	2.82	0.47
1:A:302:G:C2	1:A:303:A:C1'	2.97	0.47
1:A:313:A:C8	1:A:313:A:O5'	2.67	0.47
1:A:321:A:H61	1:A:332:G:H1	1.62	0.47
1:A:338:A:OP2	1:A:339:C:C5	2.67	0.47
1:A:347:G:O5'	1:A:347:G:H8	1.97	0.47
1:A:411:A:N6	1:A:428:G:H1'	2.19	0.47
1:A:489:C:H2'	1:A:490:C:C6	2.49	0.47
1:A:521:G:H1'	1:A:536:C:O2'	2.13	0.47
1:A:533:A:C6	1:A:536:C:N1	2.82	0.47
1:A:536:C:C6	1:A:536:C:H3'	2.49	0.47
1:A:588:G:N2	1:A:653:U:C4	2.81	0.47
1:A:590:U:H3	1:A:649:A:N6	2.11	0.47
1:A:606:G:H3'	1:A:606:G:C8	2.49	0.47
1:A:614:C:H1'	1:A:627:G:N2	2.29	0.47
1:A:655:A:H2'	1:A:656:G:C8	2.48	0.47
1:A:692:U:O4	11:K:54:SER:HA	2.14	0.47
1:A:714:G:N2	11:K:119:GLY:HA3	2.29	0.47
1:A:728:A:H2'	1:A:729:A:C8	2.49	0.47
1:A:736:C:H4'	6:F:90:MET:HA	1.96	0.47
1:A:771:G:N3	1:A:809:G:C2	2.82	0.47
1:A:822:U:H6	1:A:822:U:O5'	1.97	0.47
1:A:866:C:OP2	1:A:867:G:C5	2.66	0.47
1:A:910:C:C4	1:A:911:U:C4	3.02	0.47
1:A:937:A:N1	1:A:1345:U:O4	2.47	0.47
1:A:959:A:N6	19:S:77:ARG:HA	2.27	0.47
1:A:1015:G:N1	1:A:1016:A:C4	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1044:A:H5”	1:A:1044:A:H8	1.79	0.47
1:A:1049:U:H3’	14:N:2:LYS:HB3	1.95	0.47
1:A:1058:G:C5	1:A:1059:C:C4	3.01	0.47
1:A:1112:C:C5’	2:B:128:LEU:HB3	2.44	0.47
1:A:1133:G:N2	1:A:1134:G:C4	2.82	0.47
1:A:1161:C:C4	1:A:1175:G:O6	2.68	0.47
1:A:1171:A:C6	1:A:1172:C:N3	2.82	0.47
1:A:1172:C:C4	1:A:1173:U:C5	3.01	0.47
1:A:1188:A:O5’	14:N:99:SER:HA	2.13	0.47
1:A:1191:A:H2’	1:A:1192:C:C6	2.49	0.47
1:A:1300:G:N2	1:A:1334:G:N2	2.62	0.47
1:A:1330:U:C4	1:A:1331:G:C4	3.03	0.47
1:A:1368:A:N3	10:J:48:ARG:NH2	2.62	0.47
3:C:106:ARG:HE	3:C:110:LEU:CB	2.27	0.47
6:F:3:HIS:CE1	6:F:37:HIS:CE1	3.02	0.47
6:F:36:ILE:HD12	6:F:62:MET:SD	2.54	0.47
6:F:75:GLU:HG3	6:F:89:VAL:HG22	1.96	0.47
8:H:105:THR:CG2	8:H:106:SER:H	2.23	0.47
10:J:7:ARG:O	10:J:100:ILE:HA	2.13	0.47
13:M:9:PRO:O	13:M:17:ALA:HB3	2.14	0.47
14:N:69:PRO:HG2	14:N:70:HIS:CG	2.49	0.47
14:N:75:LYS:HB2	14:N:76:PHE:CE2	2.49	0.47
15:O:44:GLU:C	15:O:45:HIS:CD2	2.88	0.47
16:P:52:LEU:HD23	16:P:54:LEU:HG	1.95	0.47
22:W:131:ALA:HB3	22:W:218:VAL:HB	1.95	0.47
1:A:57:G:O6	1:A:58:C:C4	2.66	0.47
1:A:74:A:C5	1:A:75:G:N7	2.82	0.47
1:A:86:G:H1’	1:A:87:C:C5	2.49	0.47
1:A:104:G:H5’	1:A:172:A:N1	2.29	0.47
1:A:123:U:H5”	1:A:311:C:O2	2.15	0.47
1:A:148:G:C2	1:A:175:C:O2	2.67	0.47
1:A:152:A:N6	1:A:170:U:C2	2.82	0.47
1:A:160:A:N1	1:A:346:G:C2	2.83	0.47
1:A:182:A:H2’	1:A:184:G:O6	2.14	0.47
1:A:251:G:C6	1:A:266:G:O6	2.66	0.47
1:A:269:C:C6	1:A:269:C:O5’	2.67	0.47
1:A:274:A:H1’	1:A:275:G:C1’	2.44	0.47
1:A:275:G:C2	1:A:276:G:C1’	2.97	0.47
1:A:321:A:H62	1:A:328:C:C1’	2.27	0.47
1:A:341:C:N3	1:A:348:G:N2	2.62	0.47
1:A:426:U:H5”	4:D:36:ALA:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:469:C:H2'	1:A:470:C:C5'	2.43	0.47
1:A:478:A:C2	1:A:479:U:C2	3.02	0.47
1:A:526:C:N3	1:A:527:G:H1'	2.28	0.47
1:A:588:G:C6	1:A:753:A:C8	3.01	0.47
1:A:595:A:C4'	1:A:596:A:H5'	2.43	0.47
1:A:595:A:C4	1:A:641:U:C2	3.01	0.47
1:A:601:G:C8	1:A:601:G:O5'	2.67	0.47
1:A:611:C:C5	1:A:612:C:C4	3.03	0.47
1:A:673:A:O2'	18:R:63:TYR:CD1	2.66	0.47
1:A:685:G:N1	1:A:686:U:C5	2.82	0.47
1:A:686:U:C6	1:A:703:G:N1	2.82	0.47
1:A:707:U:H1'	11:K:40:ALA:HB2	1.96	0.47
1:A:721:G:H4'	1:A:722:G:H5"	1.97	0.47
1:A:782:A:H4'	1:A:1515:G:H5'	1.95	0.47
1:A:838:G:C2	1:A:849:G:N9	2.82	0.47
1:A:867:G:C8	1:A:867:G:C3'	2.97	0.47
1:A:996:A:C2	1:A:1045:C:H2'	2.49	0.47
1:A:1035:A:H2'	1:A:1036:A:C5'	2.45	0.47
1:A:1061:G:C6	1:A:1062:U:C2	3.02	0.47
1:A:1088:G:C2	1:A:1089:G:C4	3.02	0.47
1:A:1130:A:C6	1:A:1144:G:O2'	2.67	0.47
1:A:1242:G:OP2	1:A:1242:G:C8	2.68	0.47
1:A:1244:G:C5	1:A:1294:G:N1	2.81	0.47
1:A:1256:A:C2'	1:A:1278:G:C6	2.96	0.47
1:A:1288:A:C5	1:A:1289:A:N7	2.82	0.47
1:A:1304:G:C2	1:A:1334:G:O6	2.67	0.47
1:A:1310:G:C2	1:A:1311:A:C5	3.02	0.47
1:A:1311:A:C8	1:A:1311:A:H3'	2.49	0.47
1:A:1368:A:C6	1:A:1369:C:C5	3.03	0.47
1:A:1369:C:O2	1:A:1369:C:C2'	2.58	0.47
1:A:1395:C:O2	1:A:1399:C:C5	2.68	0.47
1:A:1459:G:H3'	1:A:1460:C:C6	2.49	0.47
1:A:1499:A:H1'	1:A:1520:C:O5'	2.14	0.47
1:A:1515:G:N2	1:A:1521:C:H1'	2.28	0.47
2:B:65:LYS:HB3	2:B:89:PHE:H	1.78	0.47
6:F:37:HIS:CD2	6:F:37:HIS:N	2.82	0.47
8:H:89:ASP:C	8:H:91:LEU:H	2.16	0.47
10:J:10:LEU:HD22	10:J:22:THR:HA	1.95	0.47
11:K:28:ASN:C	11:K:46:ALA:HB3	2.34	0.47
13:M:11:HIS:H	13:M:43:LYS:CB	2.26	0.47
15:O:4:THR:HA	15:O:7:THR:HG23	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:11:VAL:HG21	17:Q:53:GLY:N	2.24	0.47
18:R:38:ILE:HG21	18:R:55:ALA:HB1	1.96	0.47
19:S:50:VAL:HG23	19:S:52:ASN:HD21	1.78	0.47
22:W:205:LEU:HD13	22:W:258:PHE:CE2	2.49	0.47
1:A:6:G:C6	5:E:102:THR:HG21	2.49	0.47
1:A:8:A:H5'	5:E:110:MET:HG3	1.96	0.47
1:A:32:A:C5'	1:A:398:U:H1'	2.44	0.47
1:A:71:A:P	1:A:71:A:H3'	2.53	0.47
1:A:79:G:C6	1:A:80:A:C5	3.02	0.47
1:A:120:A:N6	1:A:239:U:H3'	2.23	0.47
1:A:124:C:C2	1:A:238:A:H2	2.32	0.47
1:A:133:U:C5	1:A:230:G:N2	2.82	0.47
1:A:137:U:O2	1:A:137:U:H2'	2.12	0.47
1:A:144:G:C6	1:A:145:G:C5	3.03	0.47
1:A:217:C:C4'	1:A:463:U:H5	2.27	0.47
1:A:419:C:H2'	1:A:420:U:O4'	2.14	0.47
1:A:539:A:C5	1:A:540:G:C8	3.02	0.47
1:A:574:A:C4	1:A:574:A:OP2	2.68	0.47
1:A:575:G:C2	1:A:881:G:C4	3.03	0.47
1:A:696:A:H2'	1:A:697:U:H6	1.80	0.47
1:A:716:A:C5	1:A:717:U:C4	3.02	0.47
1:A:724:G:C2	1:A:725:G:C4	3.02	0.47
1:A:765:G:C2	1:A:812:G:H1'	2.49	0.47
1:A:785:G:H3'	1:A:786:G:C8	2.49	0.47
1:A:796:C:C6	1:A:796:C:C3'	2.98	0.47
1:A:852:G:C6	1:A:853:C:N3	2.83	0.47
1:A:879:C:C2	1:A:880:C:C6	3.02	0.47
1:A:895:G:C5	1:A:896:C:C5	3.02	0.47
1:A:1043:G:C8	1:A:1044:A:N7	2.82	0.47
1:A:1053:G:C2	1:A:1057:G:OP2	2.68	0.47
1:A:1068:G:C6	1:A:1069:C:C6	3.02	0.47
1:A:1107:C:H2'	1:A:1108:G:C5'	2.45	0.47
1:A:1127:G:N1	1:A:1128:C:C5	2.82	0.47
1:A:1144:G:C5	1:A:1145:A:H1'	2.49	0.47
1:A:1145:A:H2'	1:A:1146:A:OP2	2.12	0.47
1:A:1163:A:C4	1:A:1174:G:C6	3.01	0.47
1:A:1176:A:C5	1:A:1177:G:C5	3.02	0.47
1:A:1181:G:C1'	1:A:1184:G:H4'	2.45	0.47
1:A:1210:C:H3'	1:A:1211:U:H6	1.78	0.47
1:A:1283:U:H2'	1:A:1284:C:H6	1.77	0.47
1:A:1310:G:H2'	1:A:1311:A:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1346:A:O4'	1:A:1348:U:C6	2.68	0.47
1:A:1368:A:C4	1:A:1369:C:C6	3.03	0.47
1:A:1423:G:C6	1:A:1478:U:N3	2.82	0.47
1:A:1441:A:C5	1:A:1442:G:N7	2.82	0.47
1:A:1518:A:C2	1:A:1519:A:C8	3.03	0.47
5:E:17:VAL:HG12	5:E:34:ALA:HB2	1.96	0.47
6:F:34:GLY:HA3	6:F:66:ALA:HA	1.96	0.47
6:F:77:THR:HG22	6:F:80:PHE:CD2	2.49	0.47
9:I:25:GLY:HA3	9:I:57:VAL:H	1.79	0.47
11:K:59:PRO:O	11:K:62:ALA:HB3	2.14	0.47
14:N:72:PHE:HA	14:N:79:SER:HA	1.96	0.47
15:O:70:LYS:HA	15:O:77:TYR:CB	2.45	0.47
1:A:98:A:C8	1:A:99:C:C5	3.02	0.47
1:A:98:A:N1	1:A:99:C:C2	2.83	0.47
1:A:104:G:C4'	1:A:172:A:C2	2.97	0.47
1:A:109:A:C2	1:A:327:A:N1	2.82	0.47
1:A:158:G:C8	1:A:164:G:N1	2.83	0.47
1:A:162:A:N7	1:A:163:C:H1'	2.30	0.47
1:A:174:A:C6	1:A:175:C:C5	3.03	0.47
1:A:180:U:C4	1:A:181:A:N6	2.82	0.47
1:A:230:G:C6	1:A:231:U:C4	3.01	0.47
1:A:258:G:C2	1:A:269:C:O2	2.68	0.47
1:A:273:U:C4	1:A:274:A:C6	3.02	0.47
1:A:322:C:H42	1:A:327:A:H2'	1.79	0.47
1:A:408:A:N3	1:A:409:U:C6	2.82	0.47
1:A:441:A:C2	1:A:442:G:C4	3.03	0.47
1:A:475:C:C6	1:A:476:U:C5	3.02	0.47
1:A:514:C:C6	1:A:514:C:O5'	2.67	0.47
1:A:537:G:C8	1:A:537:G:H3'	2.49	0.47
1:A:602:A:C5	1:A:603:U:C4	3.03	0.47
1:A:628:G:C6	1:A:629:A:C4	3.03	0.47
1:A:633:G:N7	1:A:634:C:C5	2.83	0.47
1:A:646:G:C5	1:A:647:C:C5	3.02	0.47
1:A:782:A:C5'	1:A:1514:G:H2'	2.43	0.47
1:A:923:A:C8	1:A:923:A:O5'	2.67	0.47
1:A:1000:A:N7	1:A:1001:C:C5	2.82	0.47
1:A:1006:G:N2	1:A:1024:G:H1'	2.29	0.47
1:A:1010:U:C2	1:A:1020:G:C4	3.02	0.47
1:A:1011:C:N3	1:A:1019:A:C6	2.83	0.47
1:A:1042:A:C6	1:A:1043:G:C6	3.02	0.47
1:A:1052:U:C2	1:A:1207:G:C2	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1094:G:OP2	1:A:1095:U:C4	2.67	0.47
1:A:1157:A:N6	1:A:1178:G:H1'	2.28	0.47
1:A:1157:A:N7	1:A:1180:A:C6	2.83	0.47
1:A:1176:A:N6	1:A:1177:G:C6	2.83	0.47
1:A:1208:C:H2'	1:A:1209:C:H6	1.79	0.47
1:A:1246:A:C5	1:A:1247:U:C4	3.01	0.47
1:A:1256:A:N7	1:A:1279:G:O6	2.47	0.47
1:A:1277:C:H4'	1:A:1281:C:H2'	1.96	0.47
1:A:1296:C:C5	1:A:1297:G:C6	3.01	0.47
1:A:1332:A:C5	1:A:1333:A:N7	2.83	0.47
1:A:1343:G:H21	1:A:1349:A:H4'	1.79	0.47
1:A:1356:G:H2'	1:A:1357:A:O4'	2.14	0.47
1:A:1379:G:C6	1:A:1380:U:O4	2.68	0.47
1:A:1499:A:H1'	1:A:1520:C:P	2.55	0.47
3:C:35:ASP:CG	3:C:39:ARG:HE	2.17	0.47
3:C:56:ILE:HG23	3:C:63:ILE:HD11	1.94	0.47
4:D:101:VAL:HG11	4:D:113:ALA:O	2.13	0.47
4:D:122:ILE:HD13	4:D:144:ILE:HA	1.96	0.47
5:E:93:VAL:HG12	5:E:94:PHE:N	2.29	0.47
6:F:47:LEU:CD1	6:F:51:ILE:HG22	2.44	0.47
7:G:49:LEU:HD22	7:G:123:LEU:HB3	1.96	0.47
7:G:94:ARG:HH21	7:G:98:LEU:HD11	1.79	0.47
15:O:50:HIS:H	15:O:50:HIS:CD2	2.32	0.47
20:T:58:ASP:OD1	20:T:75:LYS:HD2	2.15	0.47
22:W:224:LEU:HD13	22:W:233:GLU:HG3	1.96	0.47
1:A:49:U:N3	1:A:362:G:C2	2.83	0.47
1:A:101:A:H3'	1:A:102:G:C8	2.50	0.47
1:A:248:C:C6	1:A:248:C:H3'	2.50	0.47
1:A:254:G:C6	1:A:255:G:N7	2.83	0.47
1:A:295:C:H2'	1:A:296:U:O4'	2.15	0.47
1:A:314:C:H2'	1:A:315:A:O5'	2.15	0.47
1:A:321:A:C2	1:A:322:C:H1'	2.50	0.47
1:A:327:A:C6	1:A:329:A:C2	3.02	0.47
1:A:403:C:C4	1:A:404:G:C8	3.02	0.47
1:A:431:A:H3'	1:A:432:A:C8	2.49	0.47
1:A:517:G:C2'	1:A:530:G:H4'	2.42	0.47
1:A:527:G:C8	1:A:527:G:H3'	2.49	0.47
1:A:532:A:C4'	1:A:533:A:OP2	2.62	0.47
1:A:559:A:C8	12:L:17:LYS:HE3	2.49	0.47
1:A:581:G:O5'	1:A:581:G:C8	2.68	0.47
1:A:600:A:C5	1:A:601:G:N7	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:608:A:H3'	1:A:609:A:H8	1.78	0.47
1:A:612:C:C4	1:A:613:C:C4	3.02	0.47
1:A:619:U:H2'	1:A:620:C:C6	2.50	0.47
1:A:626:G:N3	1:A:627:G:C8	2.83	0.47
1:A:632:U:C5	1:A:633:G:C6	3.01	0.47
1:A:666:G:C2	1:A:741:G:C4	3.02	0.47
1:A:668:G:H1'	15:O:45:HIS:NE2	2.30	0.47
1:A:691:G:N1	11:K:53:GLY:HA2	2.29	0.47
1:A:705:G:N2	11:K:30:ILE:HD13	2.28	0.47
1:A:720:C:H3'	1:A:720:C:OP2	2.14	0.47
1:A:728:A:C2	1:A:763:G:N2	2.83	0.47
1:A:743:A:C2	1:A:744:C:O2	2.68	0.47
1:A:784:A:H2'	1:A:785:G:C8	2.49	0.47
1:A:857:C:C6	1:A:858:G:H8	2.31	0.47
1:A:859:G:C6	1:A:860:A:C5	3.03	0.47
1:A:878:A:C6	1:A:879:C:C4	3.03	0.47
1:A:938:A:H4'	7:G:75:LYS:HZ2	1.79	0.47
1:A:1004:A:C4	1:A:1036:A:H2	2.33	0.47
1:A:1010:U:N3	1:A:1011:C:C5	2.82	0.47
1:A:1025:U:C2	1:A:1031:C:C2	3.02	0.47
1:A:1051:C:OP1	1:A:1201:A:C8	2.68	0.47
1:A:1125:U:H2'	1:A:1127:G:N7	2.30	0.47
1:A:1129:C:C4	1:A:1144:G:C6	3.02	0.47
1:A:1197:A:N1	1:A:1198:G:C5	2.83	0.47
1:A:1223:C:C5	1:A:1322:C:N4	2.83	0.47
1:A:1298:U:C6	7:G:110:ARG:O	2.67	0.47
1:A:1346:A:C8	1:A:1348:U:C2	3.02	0.47
1:A:1378:C:C4	1:A:1379:G:C5	3.03	0.47
1:A:1381:U:C6	7:G:79:VAL:HA	2.49	0.47
1:A:1406:U:C2	1:A:1518:A:H1'	2.48	0.47
1:A:1451:U:H2'	1:A:1453:G:N7	2.29	0.47
1:A:1457:G:H2'	1:A:1458:G:O4'	2.14	0.47
1:A:1480:A:C2	1:A:1481:U:C1'	2.98	0.47
1:A:1523:G:C6	1:A:1524:C:N3	2.83	0.47
10:J:44:THR:HG23	10:J:70:HIS:HA	1.95	0.47
11:K:52:ARG:HA	11:K:56:LYS:HD3	1.97	0.47
12:L:30:ARG:HB2	12:L:57:THR:CG2	2.44	0.47
16:P:52:LEU:HD22	16:P:74:LEU:C	2.35	0.47
17:Q:45:VAL:CG2	17:Q:60:ILE:HG22	2.42	0.47
17:Q:46:HIS:CE1	17:Q:70:LYS:HD3	2.50	0.47
22:W:108:THR:HG1	22:W:116:VAL:N	2.12	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:7:A:O5’	5:E:123:LEU:HD13	2.14	0.47
1:A:10:A:N3	1:A:11:G:C8	2.83	0.47
1:A:25:C:H5”	1:A:524:G:O2’	2.15	0.47
1:A:31:G:C2	1:A:48:C:C5	3.03	0.47
1:A:37:U:H3’	12:L:123:ALA:CB	2.44	0.47
1:A:37:U:H3’	12:L:123:ALA:HB3	1.96	0.47
1:A:51:A:C6	1:A:353:A:N1	2.83	0.47
1:A:53:A:C6	1:A:359:G:C6	3.03	0.47
1:A:55:A:H61	1:A:368:U:H3	1.62	0.47
1:A:55:A:C2	1:A:56:U:C6	3.02	0.47
1:A:57:G:N7	1:A:58:C:C5	2.82	0.47
1:A:69:G:C5	1:A:70:U:C4	3.03	0.47
1:A:69:G:C4	1:A:70:U:C6	3.03	0.47
1:A:69:G:N1	1:A:70:U:C4	2.83	0.47
1:A:92:U:N3	1:A:93:U:C2	2.82	0.47
1:A:101:A:C6	1:A:102:G:C6	3.02	0.47
1:A:115:G:C2	1:A:313:A:N3	2.83	0.47
1:A:123:U:C2	1:A:124:C:C6	3.02	0.47
1:A:158:G:N9	1:A:164:G:C2	2.82	0.47
1:A:162:A:C1’	1:A:348:G:H4’	2.45	0.47
1:A:180:U:C6	1:A:180:U:O5’	2.66	0.47
1:A:187:G:H1’	1:A:191:G:N1	2.30	0.47
1:A:214:C:C5	1:A:215:C:N4	2.83	0.47
1:A:311:C:C4	1:A:312:C:C5	3.02	0.47
1:A:340:U:C2	1:A:350:G:N2	2.83	0.47
1:A:340:U:O2	1:A:350:G:C2	2.67	0.47
1:A:362:G:N2	1:A:365:U:H5	2.12	0.47
1:A:369:G:C4	1:A:370:C:C6	3.03	0.47
1:A:378:G:C5	1:A:379:C:C4	3.03	0.47
1:A:405:U:C5’	1:A:498:A:C6	2.97	0.47
1:A:407:U:H5”	4:D:111:ALA:HB1	1.95	0.47
1:A:425:G:H2’	1:A:426:U:O4’	2.14	0.47
1:A:430:A:C6	1:A:431:A:C8	3.02	0.47
1:A:448:A:H3’	1:A:449:G:H8	1.79	0.47
1:A:449:G:C8	1:A:449:G:O5’	2.68	0.47
1:A:461:A:H2’	1:A:467:U:C5’	2.44	0.47
1:A:474:G:N1	1:A:475:C:C2	2.83	0.47
1:A:475:C:C4	1:A:476:U:C5	3.02	0.47
1:A:476:U:O2	1:A:477:C:C6	2.68	0.47
1:A:491:G:C6	1:A:492:C:N4	2.83	0.47
1:A:493:A:H3’	1:A:494:G:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:551:U:C1’	12:L:82:ARG:HH21	2.27	0.47
1:A:557:G:H2’	1:A:558:G:C4	2.49	0.47
1:A:593:U:C5	1:A:593:U:OP2	2.67	0.47
1:A:600:A:C6	1:A:601:G:N7	2.82	0.47
1:A:613:C:H1’	1:A:628:G:N2	2.29	0.47
1:A:633:G:C4	1:A:634:C:C6	3.03	0.47
1:A:640:A:C8	1:A:640:A:O5’	2.68	0.47
1:A:654:G:C8	1:A:654:G:O5’	2.67	0.47
1:A:674:G:H3’	18:R:73:HIS:CE1	2.49	0.47
1:A:686:U:C2	11:K:43:TRP:NE1	2.70	0.47
1:A:704:A:C5	1:A:705:G:N7	2.83	0.47
1:A:706:A:C5’	11:K:23:HIS:CD2	2.96	0.47
1:A:712:A:H2’	1:A:713:G:C8	2.49	0.47
1:A:727:G:N2	1:A:731:G:H1’	2.30	0.47
1:A:779:C:H3’	1:A:780:A:N7	2.29	0.47
1:A:780:A:C2’	1:A:800:G:H1	2.26	0.47
1:A:812:G:OP1	1:A:903:G:N3	2.47	0.47
1:A:813:U:C5	1:A:816:A:N1	2.83	0.47
1:A:825:A:N1	1:A:876:C:C2	2.82	0.47
1:A:831:A:H2’	1:A:832:G:O4’	2.14	0.47
1:A:865:A:N3	1:A:918:A:H4’	2.30	0.47
1:A:879:C:H5”	12:L:4:ASN:HD22	1.78	0.47
1:A:899:C:C2	1:A:900:A:C8	3.03	0.47
1:A:925:G:C4	1:A:1392:G:C2	3.03	0.47
1:A:935:A:H2’	1:A:936:C:O4’	2.13	0.47
1:A:940:C:C4’	1:A:1375:A:H1’	2.45	0.47
1:A:941:G:H21	9:I:122:ARG:NH1	2.12	0.47
1:A:1012:A:N7	14:N:50:LEU:HD23	2.29	0.47
1:A:1013:G:C2	1:A:1015:G:C8	3.02	0.47
1:A:1067:A:C8	1:A:1067:A:O5’	2.68	0.47
1:A:1088:G:N1	1:A:1089:G:C6	2.82	0.47
1:A:1106:G:H5”	3:C:171:ARG:HH11	1.77	0.47
1:A:1113:C:H2’	1:A:1114:C:H6	1.80	0.47
1:A:1158:C:H4’	2:B:130:LYS:O	2.14	0.47
1:A:1170:A:H2’	1:A:1171:A:O4’	2.15	0.47
1:A:1179:A:C2	1:A:1180:A:C4	3.03	0.47
1:A:1203:C:H5’	14:N:1:ALA:HA	1.97	0.47
1:A:1206:G:H5’	3:C:190:THR:O	2.15	0.47
1:A:1206:G:H1’	3:C:192:TYR:O	2.15	0.47
1:A:1220:G:H1’	19:S:51:HIS:HD2	1.79	0.47
1:A:1244:G:C4	1:A:1245:C:C6	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1268:G:N3	1:A:1269:A:C4	2.83	0.47
1:A:1273:C:N4	1:A:1274:A:C5	2.82	0.47
1:A:1288:A:C4	1:A:1289:A:C8	3.03	0.47
1:A:1306:A:C6	1:A:1307:U:C5	3.03	0.47
1:A:1310:G:C5	1:A:1311:A:C8	3.03	0.47
1:A:1332:A:H1'	13:M:107:THR:CG2	2.45	0.47
1:A:1349:A:C4	1:A:1374:A:C8	3.03	0.47
1:A:1370:G:N3	1:A:1370:G:C2'	2.74	0.47
1:A:1375:A:H2'	1:A:1376:U:O4'	2.15	0.47
1:A:1392:G:C8	1:A:1392:G:P	3.08	0.47
1:A:1408:A:N3	1:A:1409:C:C6	2.83	0.47
1:A:1409:C:C2	1:A:1410:A:C8	3.02	0.47
1:A:1410:A:C2	1:A:1411:C:N1	2.83	0.47
1:A:1413:A:C2	1:A:1488:G:N3	2.82	0.47
1:A:1421:G:C8	1:A:1421:G:O5'	2.68	0.47
1:A:1426:G:C2	1:A:1427:C:C2	3.02	0.47
1:A:1447:A:H3'	1:A:1448:C:H5'	1.96	0.47
1:A:1462:C:H2'	1:A:1463:U:O4'	2.14	0.47
1:A:1494:G:H4'	22:W:47:ARG:HG2	1.96	0.47
1:A:1514:G:C8	1:A:1514:G:H3'	2.50	0.47
1:A:1527:U:C5	21:U:41:THR:OG1	2.64	0.47
3:C:35:ASP:HA	3:C:58:ARG:HH22	1.80	0.47
3:C:35:ASP:OD1	3:C:56:ILE:HB	2.14	0.47
3:C:91:ALA:HB2	3:C:98:ALA:H	1.79	0.47
3:C:128:MET:H	3:C:131:ARG:NE	2.12	0.47
4:D:162:GLU:HA	4:D:172:VAL:HG21	1.96	0.47
5:E:15:ILE:H	5:E:36:THR:HA	1.79	0.47
6:F:4:TYR:CG	6:F:71:ILE:CD1	2.98	0.47
7:G:93:VAL:O	7:G:97:ALA:HB2	2.15	0.47
8:H:105:THR:H	8:H:110:MET:HE1	1.80	0.47
9:I:12:LYS:O	9:I:69:GLY:CA	2.63	0.47
9:I:27:ILE:H	9:I:62:LEU:HD21	1.79	0.47
11:K:27:ASN:O	11:K:56:LYS:HG3	2.14	0.47
12:L:83:GLY:C	12:L:95:HIS:H	2.17	0.47
13:M:18:LEU:C	13:M:21:ILE:H	2.17	0.47
13:M:55:LEU:HA	13:M:58:GLU:HB3	1.97	0.47
13:M:82:LEU:HD13	19:S:65:MET:HE3	1.96	0.47
15:O:23:SER:O	15:O:27:GLN:HG3	2.15	0.47
15:O:51:SER:O	15:O:55:LEU:HB2	2.15	0.47
16:P:78:VAL:HG12	16:P:80:LYS:HA	1.96	0.47
17:Q:11:VAL:HA	17:Q:21:VAL:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:12:U:H4'	1:A:526:C:C5'	2.45	0.47
1:A:32:A:C8	1:A:398:U:H4'	2.49	0.47
1:A:72:A:C2	1:A:73:C:C6	3.03	0.47
1:A:78:A:N7	1:A:79:G:C5	2.83	0.47
1:A:79:G:C4	1:A:80:A:N7	2.82	0.47
1:A:97:G:O6	1:A:98:A:C2	2.68	0.47
1:A:119:A:C8	1:A:119:A:OP2	2.68	0.47
1:A:130:A:N1	1:A:233:C:O2	2.48	0.47
1:A:138:G:C4	1:A:226:G:C2	3.02	0.47
1:A:175:C:C6	1:A:175:C:O5'	2.68	0.47
1:A:181:A:O2'	1:A:193:C:C4	2.68	0.47
1:A:203:G:C2	1:A:204:G:N7	2.83	0.47
1:A:238:A:H2'	1:A:239:U:C6	2.50	0.47
1:A:246:A:N6	1:A:281:G:H1'	2.30	0.47
1:A:256:U:C6	1:A:256:U:H3'	2.49	0.47
1:A:345:C:H4'	1:A:346:G:C6	2.49	0.47
1:A:357:G:C6	1:A:358:U:C5	3.03	0.47
1:A:373:A:H2'	1:A:374:A:O4'	2.15	0.47
1:A:408:A:H4'	4:D:22:SER:O	2.14	0.47
1:A:445:G:N1	1:A:446:G:C4	2.83	0.47
1:A:463:U:C6	1:A:464:U:C6	3.03	0.47
1:A:577:G:C8	1:A:816:A:N3	2.83	0.47
1:A:579:A:C2	1:A:763:G:C5	3.03	0.47
1:A:584:G:N2	1:A:880:C:H5'	2.30	0.47
1:A:607:A:C4	1:A:608:A:C8	3.03	0.47
1:A:627:G:C6	1:A:628:G:C5	3.03	0.47
1:A:712:A:C8	1:A:712:A:O5'	2.68	0.47
1:A:727:G:H1'	1:A:731:G:N2	2.29	0.47
1:A:748:G:C6	1:A:749:A:C2	3.03	0.47
1:A:751:U:C5	1:A:752:G:C5	3.03	0.47
1:A:879:C:C4	1:A:880:C:C5	3.02	0.47
1:A:902:G:C6	1:A:903:G:C5	3.03	0.47
1:A:977:A:H3'	1:A:977:A:C8	2.48	0.47
1:A:994:A:C5	1:A:995:C:C6	3.02	0.47
1:A:1007:U:O2	1:A:1023:U:C2	2.67	0.47
1:A:1044:A:C8	1:A:1044:A:C5'	2.97	0.47
1:A:1074:G:C2	1:A:1102:A:C4	3.02	0.47
1:A:1098:C:C2	1:A:1099:G:C8	3.03	0.47
1:A:1160:G:C6	1:A:1181:G:O6	2.68	0.47
1:A:1236:A:C3'	1:A:1304:G:H4'	2.45	0.47
1:A:1301:U:C6	1:A:1303:C:C4	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1372:U:H5”	9:I:71:ILE:HB	1.97	0.47
1:A:1382:C:C6	1:A:1383:C:H5	2.32	0.47
1:A:1494:G:C8	1:A:1494:G:C3’	2.98	0.47
3:C:106:ARG:HH21	3:C:110:LEU:C	2.18	0.47
8:H:34:ALA:O	8:H:38:VAL:HG23	2.14	0.47
8:H:41:GLU:O	8:H:42:GLU:HG2	2.15	0.47
11:K:21:HIS:CD2	11:K:86:LYS:NZ	2.83	0.47
11:K:46:ALA:HB1	11:K:61:ALA:C	2.35	0.47
13:M:100:ARG:HD3	13:M:102:LYS:HB3	1.97	0.47
15:O:70:LYS:HA	15:O:77:TYR:CG	2.50	0.47
17:Q:20:ILE:H	17:Q:50:ASN:ND2	2.13	0.47
19:S:13:HIS:CD2	19:S:14:LEU:N	2.83	0.47
1:A:21:G:C2’	1:A:914:A:H61	2.28	0.47
1:A:57:G:O6	1:A:356:A:C6	2.68	0.47
1:A:57:G:C8	1:A:57:G:O5’	2.67	0.47
1:A:69:G:C6	1:A:70:U:O4	2.67	0.47
1:A:94:G:N2	1:A:98:A:C6	2.83	0.47
1:A:104:G:N3	1:A:105:G:C8	2.83	0.47
1:A:115:G:N2	1:A:289:G:C4	2.83	0.47
1:A:154:U:C2	1:A:155:A:C8	3.03	0.47
1:A:243:A:H61	1:A:246:A:N6	2.12	0.47
1:A:253:A:H4’	17:Q:68:LYS:HE2	1.97	0.47
1:A:260:G:C2	1:A:267:C:N3	2.83	0.47
1:A:262:A:H4’	20:T:69:ASN:C	2.36	0.47
1:A:348:G:C3’	1:A:349:A:H8	2.27	0.47
1:A:401:C:H1’	1:A:622:A:H1’	1.95	0.47
1:A:450:G:C8	1:A:450:G:H3’	2.50	0.47
1:A:451:A:C8	1:A:480:U:H3’	2.50	0.47
1:A:453:G:O6	1:A:454:G:C6	2.67	0.47
1:A:460:A:C2	1:A:462:G:H8	2.33	0.47
1:A:538:G:C4	1:A:539:A:C8	3.03	0.47
1:A:593:U:H2’	1:A:594:U:C6	2.49	0.47
1:A:615:G:N1	1:A:616:G:C4	2.83	0.47
1:A:628:G:C5	1:A:629:A:N7	2.83	0.47
1:A:632:U:C4	1:A:633:G:C2	3.03	0.47
1:A:641:U:C6	1:A:641:U:O5’	2.68	0.47
1:A:685:G:C2	1:A:706:A:N6	2.82	0.47
1:A:786:G:H3’	1:A:787:A:H8	1.77	0.47
1:A:790:A:H2’	1:A:791:G:O4’	2.14	0.47
1:A:818:G:C2	1:A:820:U:C4	3.03	0.47
1:A:847:G:C2	1:A:848:C:C1’	2.93	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:938:A:N1	1:A:1345:U:C4	2.82	0.47
1:A:957:U:H4'	19:S:78:THR:C	2.35	0.47
1:A:993:G:H2'	1:A:993:G:N3	2.30	0.47
1:A:996:A:C4	1:A:1046:A:H4'	2.49	0.47
1:A:1002:G:C2	1:A:1003:G:C4	3.03	0.47
1:A:1004:A:C8	1:A:1005:A:N9	2.83	0.47
1:A:1068:G:C2	1:A:1069:C:C6	3.03	0.47
1:A:1081:A:H5'	5:E:22:LYS:HG3	1.97	0.47
1:A:1083:U:C5	1:A:1084:G:N1	2.83	0.47
1:A:1088:G:N3	1:A:1089:G:C8	2.83	0.47
1:A:1099:G:P	1:A:1100:C:C5	3.08	0.47
1:A:1212:U:C5'	1:A:1213:A:C5	2.98	0.47
1:A:1225:A:C2	1:A:1226:C:N3	2.83	0.47
1:A:1244:G:O6	1:A:1294:G:C6	2.68	0.47
1:A:1273:C:C6	1:A:1273:C:C3'	2.96	0.47
1:A:1300:G:C4	1:A:1335:U:C4	3.03	0.47
1:A:1333:A:C4	1:A:1334:G:N9	2.82	0.47
1:A:1352:C:H2'	1:A:1353:G:O4'	2.14	0.47
1:A:1453:G:H3'	1:A:1453:G:N3	2.30	0.47
1:A:1481:U:C4	1:A:1482:G:C5	3.02	0.47
1:A:1527:U:H5"	21:U:44:ARG:HD3	1.97	0.47
3:C:116:ALA:HB3	3:C:184:ASN:HD21	1.80	0.47
6:F:52:ASN:H	18:R:73:HIS:CG	2.33	0.47
7:G:69:ARG:HA	7:G:99:ALA:HB2	1.97	0.47
9:I:6:TYR:OH	9:I:17:ARG:HA	2.15	0.47
16:P:4:ILE:HA	16:P:21:VAL:HA	1.97	0.47
20:T:34:VAL:HG22	20:T:49:ALA:O	2.15	0.47
1:A:11:G:N7	1:A:12:U:C5	2.82	0.47
1:A:31:G:C2	1:A:48:C:C6	3.03	0.47
1:A:36:C:C5	12:L:122:LYS:HG3	2.50	0.47
1:A:55:A:N6	1:A:368:U:H3	2.13	0.47
1:A:59:A:N3	1:A:354:G:C4	2.82	0.47
1:A:64:G:N1	1:A:67:C:N4	2.62	0.47
1:A:64:G:N7	1:A:99:C:H3'	2.30	0.47
1:A:121:U:H3'	1:A:122:G:C8	2.50	0.47
1:A:143:A:H2'	1:A:143:A:N3	2.29	0.47
1:A:155:A:C2	1:A:156:C:N1	2.83	0.47
1:A:158:G:H1'	1:A:164:G:C2	2.50	0.47
1:A:179:A:C2'	1:A:180:U:H5'	2.44	0.47
1:A:197:A:O2'	1:A:221:C:H1'	2.15	0.47
1:A:295:C:C2	1:A:296:U:C6	3.04	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:347:G:C6	1:A:348:G:C4	3.03	0.47
1:A:411:A:N1	1:A:429:U:C2	2.83	0.47
1:A:440:C:C6	1:A:440:C:O5'	2.68	0.47
1:A:444:G:C2	1:A:491:G:C4	3.03	0.47
1:A:453:G:C6	1:A:454:G:C6	3.03	0.47
1:A:483:C:C6	1:A:484:G:H2'	2.50	0.47
1:A:515:G:C6	1:A:537:G:N1	2.83	0.47
1:A:540:G:N3	4:D:40:HIS:CD2	2.82	0.47
1:A:581:G:N2	1:A:759:A:OP2	2.47	0.47
1:A:585:G:H21	1:A:879:C:H4'	1.80	0.47
1:A:597:G:H21	8:H:83:ARG:HH22	1.61	0.47
1:A:641:U:H4'	1:A:642:A:C8	2.50	0.47
1:A:645:G:C8	1:A:645:G:H3'	2.50	0.47
1:A:651:C:C2	1:A:652:U:C6	3.03	0.47
1:A:750:C:C4	1:A:751:U:O4	2.68	0.47
1:A:760:G:H5"	1:A:761:G:OP2	2.15	0.47
1:A:811:C:N3	1:A:813:U:C5	2.83	0.47
1:A:822:U:H3'	1:A:823:C:C6	2.50	0.47
1:A:825:A:H1'	8:H:1:SER:O	2.15	0.47
1:A:878:A:C4	1:A:879:C:C6	3.03	0.47
1:A:941:G:C5	1:A:942:G:C8	3.03	0.47
1:A:971:G:N1	1:A:1364:U:C6	2.83	0.47
1:A:993:G:C5'	1:A:995:C:H41	2.28	0.47
1:A:1004:A:C1'	1:A:1032:G:OP2	2.62	0.47
1:A:1070:U:O4	1:A:1085:U:C5	2.68	0.47
1:A:1073:U:H2'	1:A:1074:G:O4'	2.15	0.47
1:A:1119:C:O2	1:A:1155:A:C4	2.67	0.47
1:A:1130:A:H1'	9:I:3:ASN:HA	1.96	0.47
1:A:1149:C:C2'	1:A:1150:A:C8	2.96	0.47
1:A:1181:G:C4	1:A:1184:G:H4'	2.49	0.47
1:A:1266:G:N1	1:A:1269:A:OP2	2.48	0.47
1:A:1268:G:H21	1:A:1326:U:H1'	1.79	0.47
1:A:1272:G:C6	1:A:1273:C:C6	3.03	0.47
1:A:1276:G:C5	1:A:1277:C:C5	3.03	0.47
1:A:1291:U:C5'	9:I:41:GLU:HG2	2.45	0.47
1:A:1292:G:C2	1:A:1293:C:C2	3.03	0.47
1:A:1305:G:C2	1:A:1332:A:OP2	2.67	0.47
1:A:1333:A:C5	1:A:1334:G:C8	3.02	0.47
1:A:1347:G:H1'	1:A:1373:G:N1	2.30	0.47
1:A:1355:G:C2	1:A:1356:G:C8	3.03	0.47
1:A:1356:G:C1'	10:J:48:ARG:HH21	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1413:A:C2	1:A:1488:G:C2	3.03	0.47
1:A:1421:G:N2	1:A:1422:G:N9	2.62	0.47
1:A:1423:G:C6	1:A:1478:U:C2	3.02	0.47
1:A:1461:G:H21	1:A:1462:C:H1'	1.80	0.47
1:A:1500:A:OP2	1:A:1504:G:H3'	2.15	0.47
2:B:88:GLN:HG2	2:B:217:ALA:HA	1.97	0.47
3:C:5:HIS:HB3	3:C:6:PRO:HD2	1.95	0.47
3:C:115:VAL:HG11	3:C:148:ILE:HD11	1.96	0.47
4:D:66:VAL:HG22	4:D:70:GLN:HB2	1.97	0.47
5:E:73:VAL:HG12	5:E:74:ALA:H	1.80	0.47
5:E:94:PHE:O	5:E:124:ALA:HB1	2.14	0.47
9:I:17:ARG:H	9:I:65:THR:HB	1.80	0.47
10:J:29:ALA:HA	10:J:33:GLY:HA3	1.97	0.47
18:R:55:ALA:HA	18:R:58:ILE:HD12	1.95	0.47
19:S:39:ILE:HD11	19:S:73:PHE:HB2	1.97	0.47
19:S:65:MET:SD	19:S:68:HIS:CD2	3.08	0.47
1:A:2:A:N6	1:A:626:G:N2	2.63	0.46
1:A:56:U:O4	1:A:352:C:N4	2.48	0.46
1:A:60:A:C3'	20:T:4:LYS:HA	2.45	0.46
1:A:86:G:H4'	1:A:87:C:O4'	2.15	0.46
1:A:128:G:C2	1:A:129:A:C8	3.03	0.46
1:A:151:A:C5	1:A:171:A:N6	2.83	0.46
1:A:165:G:C6	1:A:166:U:C4	3.03	0.46
1:A:165:G:H2'	1:A:166:U:O4'	2.14	0.46
1:A:186:C:H5"	20:T:76:ALA:HA	1.96	0.46
1:A:197:A:C2	1:A:198:G:C1'	2.98	0.46
1:A:257:G:C4	1:A:270:A:N1	2.83	0.46
1:A:337:G:H4'	1:A:1469:C:O2'	2.15	0.46
1:A:337:G:O4'	1:A:1469:C:H4'	2.14	0.46
1:A:444:G:N1	1:A:445:G:C4	2.83	0.46
1:A:494:G:C4	1:A:496:A:C8	3.04	0.46
1:A:509:A:H5"	4:D:51:GLY:HA2	1.97	0.46
1:A:513:C:H2'	1:A:514:C:H6	1.78	0.46
1:A:579:A:C4	1:A:763:G:N1	2.83	0.46
1:A:600:A:N3	1:A:639:G:C4	2.83	0.46
1:A:663:A:H2	1:A:742:G:H22	1.61	0.46
1:A:686:U:C5	1:A:703:G:N3	2.84	0.46
1:A:717:U:H1'	11:K:117:HIS:CG	2.50	0.46
1:A:811:C:C5	1:A:812:G:C2	3.03	0.46
1:A:816:A:C8	1:A:816:A:H5"	2.51	0.46
1:A:838:G:C4	1:A:839:C:C6	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:878:A:H1'	8:H:3:GLN:CG	2.45	0.46
1:A:878:A:H1'	8:H:3:GLN:HG3	1.97	0.46
1:A:894:G:H2'	1:A:895:G:O4'	2.15	0.46
1:A:899:C:N3	1:A:900:A:C4	2.83	0.46
1:A:954:G:C6	1:A:955:U:C5	3.04	0.46
1:A:994:A:N6	1:A:1047:G:H1'	2.26	0.46
1:A:1049:U:C5	1:A:1202:U:H4'	2.50	0.46
1:A:1087:G:C2	1:A:1088:G:C8	3.04	0.46
1:A:1091:U:O2	1:A:1094:G:OP2	2.32	0.46
1:A:1263:C:C6	1:A:1263:C:H3'	2.50	0.46
1:A:1263:C:H2'	1:A:1264:U:O4'	2.14	0.46
1:A:1268:G:C2	1:A:1269:A:C2	3.02	0.46
1:A:1326:U:H2'	1:A:1327:C:H6	1.80	0.46
1:A:1344:C:H4'	9:I:121:ARG:HB3	1.97	0.46
1:A:1369:C:H2'	1:A:1369:C:O2	2.15	0.46
1:A:1380:U:H2'	7:G:2:ARG:HG2	1.97	0.46
1:A:1488:G:C2	1:A:1489:G:C4	3.03	0.46
2:B:161:PHE:CE1	2:B:185:ILE:HD11	2.50	0.46
3:C:59:PRO:HD2	3:C:62:SER:O	2.16	0.46
5:E:11:GLN:HB2	5:E:116:VAL:HA	1.96	0.46
5:E:70:MET:HA	5:E:70:MET:HE3	1.96	0.46
6:F:34:GLY:CA	6:F:66:ALA:HA	2.45	0.46
7:G:49:LEU:HA	7:G:52:ARG:HE	1.79	0.46
14:N:81:ILE:HG13	14:N:82:LYS:H	1.80	0.46
16:P:15:PRO:CG	16:P:17:TYR:CE1	2.98	0.46
17:Q:60:ILE:HA	17:Q:73:THR:O	2.15	0.46
1:A:11:G:C6	1:A:24:U:O2	2.68	0.46
1:A:23:C:C5	1:A:23:C:OP2	2.69	0.46
1:A:63:C:H2'	1:A:66:A:N7	2.30	0.46
1:A:70:U:H3	1:A:98:A:N6	2.14	0.46
1:A:73:C:C3'	1:A:74:A:C5'	2.92	0.46
1:A:166:U:H3'	1:A:167:A:H8	1.79	0.46
1:A:184:G:C4	1:A:185:U:C5	3.03	0.46
1:A:217:C:C4	1:A:218:U:C4	3.03	0.46
1:A:255:G:C2	1:A:272:C:C2	3.03	0.46
1:A:368:U:H3'	1:A:369:G:H5'	1.97	0.46
1:A:373:A:H1'	1:A:481:G:N2	2.30	0.46
1:A:374:A:C5	1:A:375:U:C6	3.03	0.46
1:A:414:A:OP2	1:A:428:G:C6	2.67	0.46
1:A:415:A:C4	1:A:416:G:C8	3.03	0.46
1:A:471:U:C6	1:A:471:U:OP2	2.69	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:502:A:N6	1:A:544:G:C6	2.83	0.46
1:A:527:G:C2	1:A:528:C:N1	2.83	0.46
1:A:563:A:C5	1:A:567:G:C4	3.03	0.46
1:A:589:U:H2'	1:A:590:U:C5	2.50	0.46
1:A:599:C:C6	1:A:599:C:H3'	2.50	0.46
1:A:661:G:H3'	1:A:662:U:C6	2.51	0.46
1:A:663:A:N1	1:A:664:G:C6	2.83	0.46
1:A:674:G:C5'	6:F:51:ILE:HD11	2.45	0.46
1:A:695:A:C2'	1:A:696:A:H8	2.26	0.46
1:A:701:U:C6	1:A:702:A:C2	3.03	0.46
1:A:705:G:O6	11:K:43:TRP:NE1	2.49	0.46
1:A:749:A:C5	1:A:750:C:C4	3.03	0.46
1:A:905:U:H2'	1:A:905:U:O2	2.15	0.46
1:A:918:A:C2	1:A:919:A:C4	3.03	0.46
1:A:925:G:N1	1:A:1392:G:C6	2.83	0.46
1:A:933:G:C6	1:A:935:A:C4	3.03	0.46
1:A:937:A:H1'	1:A:1379:G:H1	1.79	0.46
1:A:946:A:O2'	1:A:1333:A:C2'	2.64	0.46
1:A:1013:G:H22	1:A:1015:G:H3'	1.81	0.46
1:A:1055:A:N3	3:C:155:ARG:HD3	2.30	0.46
1:A:1114:C:C5	1:A:1114:C:OP2	2.68	0.46
1:A:1130:A:C8	1:A:1131:G:C8	3.03	0.46
1:A:1144:G:N7	1:A:1145:A:C8	2.83	0.46
1:A:1200:C:O2	1:A:1205:U:C2	2.68	0.46
1:A:1227:A:C6	1:A:1228:C:C2	3.04	0.46
1:A:1258:G:N3	1:A:1259:C:C6	2.84	0.46
1:A:1275:A:C6	1:A:1276:G:C4	3.04	0.46
1:A:1287:A:C6	1:A:1288:A:N1	2.83	0.46
1:A:1379:G:C2	1:A:1380:U:C2	3.03	0.46
1:A:1385:G:H2'	1:A:1386:G:O4'	2.14	0.46
1:A:1448:C:H1'	20:T:23:ARG:HH12	1.80	0.46
1:A:1454:G:H5"	1:A:1454:G:H8	1.80	0.46
1:A:1457:G:C6	1:A:1458:G:C5	3.03	0.46
1:A:1460:C:H3'	1:A:1461:G:H8	1.80	0.46
1:A:1521:C:C2	1:A:1522:U:C6	3.04	0.46
3:C:36:PHE:CZ	14:N:91:GLU:HB2	2.50	0.46
4:D:127:ARG:O	4:D:134:TYR:CD1	2.68	0.46
5:E:20:VAL:O	5:E:30:PHE:HA	2.16	0.46
5:E:104:ILE:HG21	5:E:120:HIS:HB3	1.97	0.46
5:E:158:LYS:HE3	8:H:70:VAL:HG12	1.97	0.46
6:F:29:ILE:HD12	6:F:64:VAL:HG21	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:37:HIS:CE1	6:F:65:GLU:OE1	2.68	0.46
8:H:38:VAL:HB	8:H:102:VAL:HG11	1.96	0.46
9:I:89:TYR:HB2	9:I:93:LEU:CD1	2.45	0.46
10:J:21:ALA:CB	10:J:96:VAL:HG11	2.44	0.46
11:K:99:LEU:O	11:K:104:PHE:CD1	2.68	0.46
15:O:61:GLN:OE1	15:O:65:LEU:HD11	2.15	0.46
1:A:39:G:N1	1:A:40:C:C2	2.83	0.46
1:A:65:A:C2	1:A:199:A:N3	2.83	0.46
1:A:66:A:C2	1:A:67:C:N3	2.82	0.46
1:A:111:G:H5'	16:P:26:ASN:HA	1.97	0.46
1:A:125:U:H2'	1:A:126:G:O4'	2.15	0.46
1:A:138:G:H2'	1:A:139:A:C5'	2.45	0.46
1:A:144:G:N7	1:A:196:A:N7	2.63	0.46
1:A:145:G:C8	1:A:145:G:C3'	2.99	0.46
1:A:160:A:N1	1:A:161:A:C2	2.84	0.46
1:A:162:A:H4'	1:A:348:G:O2'	2.16	0.46
1:A:179:A:H3'	1:A:180:U:H6	1.81	0.46
1:A:213:G:N7	1:A:214:C:C6	2.84	0.46
1:A:255:G:H1'	17:Q:18:LYS:HZ2	1.80	0.46
1:A:257:G:C2	1:A:270:A:C5	3.03	0.46
1:A:258:G:C2	1:A:259:G:C1'	2.97	0.46
1:A:293:G:N2	1:A:306:A:C2	2.79	0.46
1:A:300:A:C8	1:A:301:G:C1'	2.98	0.46
1:A:362:G:N2	1:A:364:A:H3'	2.31	0.46
1:A:466:A:C2	1:A:468:A:C5	3.03	0.46
1:A:545:C:H2'	1:A:549:C:H5"	1.97	0.46
1:A:660:C:C6	1:A:660:C:H3'	2.49	0.46
1:A:676:A:C4	1:A:677:U:C5	3.03	0.46
1:A:682:G:H2'	1:A:683:G:H8	1.79	0.46
1:A:688:G:C8	1:A:700:G:N2	2.83	0.46
1:A:701:U:C6	1:A:702:A:N1	2.83	0.46
1:A:814:A:C6	1:A:816:A:H1'	2.50	0.46
1:A:819:A:C8	1:A:819:A:P	3.09	0.46
1:A:830:G:C6	1:A:857:C:N3	2.83	0.46
1:A:879:C:P	12:L:2:THR:HG23	2.55	0.46
1:A:895:G:C6	1:A:896:C:C4	3.04	0.46
1:A:969:A:C6	1:A:1230:C:O2	2.68	0.46
1:A:971:G:C6	1:A:1364:U:C6	3.03	0.46
1:A:981:U:O2'	14:N:70:HIS:CE1	2.68	0.46
1:A:1006:G:C6	1:A:1024:G:N2	2.83	0.46
1:A:1013:G:C2	1:A:1017:U:C2	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1048:G:H1'	1:A:1215:G:H5"	1.98	0.46
1:A:1088:G:C8	1:A:1088:G:O5'	2.69	0.46
1:A:1101:A:C1'	1:A:1102:A:O4'	2.63	0.46
1:A:1115:U:C2	1:A:1186:G:N2	2.83	0.46
1:A:1169:A:N6	1:A:1170:A:C6	2.82	0.46
1:A:1238:A:C2	1:A:1242:G:O4'	2.69	0.46
1:A:1269:A:H2	1:A:1312:G:HO2'	1.64	0.46
1:A:1287:A:H61	1:A:1371:G:C1'	2.28	0.46
1:A:1288:A:C2	1:A:1352:C:O2	2.69	0.46
1:A:1356:G:C2	1:A:1367:C:O2	2.68	0.46
1:A:1356:G:H1'	10:J:48:ARG:HH21	1.80	0.46
1:A:1397:C:C5'	5:E:28:ARG:HH12	2.29	0.46
1:A:1421:G:N2	1:A:1422:G:H1'	2.29	0.46
1:A:1484:C:H2'	1:A:1485:U:C6	2.50	0.46
1:A:1522:U:N3	1:A:1523:G:C8	2.83	0.46
8:H:100:ILE:HD12	8:H:102:VAL:HG12	1.97	0.46
10:J:21:ALA:HB2	10:J:96:VAL:HG11	1.98	0.46
12:L:26:CYS:SG	12:L:58:ASN:CG	2.93	0.46
13:M:22:TYR:CE1	13:M:69:ARG:HG3	2.51	0.46
14:N:28:ALA:C	14:N:30:ILE:H	2.18	0.46
15:O:14:PHE:HA	15:O:83:ARG:CD	2.45	0.46
15:O:41:HIS:O	15:O:44:GLU:HG3	2.15	0.46
15:O:78:THR:O	15:O:81:ILE:HG12	2.15	0.46
22:W:42:GLY:O	22:W:78:ARG:HA	2.16	0.46
1:A:35:G:C6	1:A:36:C:N4	2.84	0.46
1:A:46:G:C6	1:A:366:A:C2	3.04	0.46
1:A:72:A:N6	1:A:98:A:C2	2.84	0.46
1:A:138:G:C2	1:A:226:G:C4	3.03	0.46
1:A:160:A:C2	1:A:347:G:C2	3.03	0.46
1:A:174:A:C2	1:A:175:C:C6	3.04	0.46
1:A:192:A:H2'	20:T:54:GLN:CD	2.36	0.46
1:A:199:A:C6	1:A:200:G:N7	2.84	0.46
1:A:200:G:C6	1:A:201:G:C5	3.04	0.46
1:A:230:G:C5	1:A:231:U:C6	3.04	0.46
1:A:253:A:C5	1:A:254:G:C5	3.03	0.46
1:A:259:G:C2	1:A:260:G:C4	3.03	0.46
1:A:275:G:C4'	17:Q:17:GLU:HB3	2.45	0.46
1:A:287:U:C4	1:A:288:A:N7	2.84	0.46
1:A:293:G:C2	1:A:294:U:C6	3.03	0.46
1:A:299:G:C6	1:A:300:A:C6	3.03	0.46
1:A:323:U:C4	1:A:324:G:C6	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:325:A:C8	1:A:326:G:C8	3.03	0.46
1:A:342:C:C2	1:A:343:U:C6	3.04	0.46
1:A:357:G:C8	1:A:357:G:H3'	2.49	0.46
1:A:378:G:H2'	1:A:379:C:C6	2.50	0.46
1:A:392:C:H1'	1:A:483:C:C2'	2.46	0.46
1:A:409:U:H3'	1:A:410:G:C8	2.49	0.46
1:A:415:A:C6	1:A:416:G:C4	3.04	0.46
1:A:453:G:N1	1:A:480:U:C2	2.83	0.46
1:A:522:C:H5'	1:A:537:G:OP1	2.15	0.46
1:A:600:A:C2	1:A:639:G:C5	3.04	0.46
1:A:604:G:C8	1:A:605:U:C5	3.04	0.46
1:A:674:G:N1	1:A:675:A:C6	2.84	0.46
1:A:689:C:C5	1:A:689:C:OP2	2.69	0.46
1:A:696:A:N1	1:A:697:U:C4	2.83	0.46
1:A:737:C:P	6:F:91:ARG:HG2	2.56	0.46
1:A:751:U:H5	1:A:752:G:C5	2.33	0.46
1:A:830:G:C2	1:A:857:C:O2	2.68	0.46
1:A:837:U:H2'	1:A:838:G:H8	1.80	0.46
1:A:864:A:C4	1:A:865:A:C4	3.03	0.46
1:A:887:G:N1	1:A:911:U:C2	2.84	0.46
1:A:893:C:O5'	1:A:893:C:C6	2.68	0.46
1:A:933:G:N7	7:G:2:ARG:HD2	2.31	0.46
1:A:938:A:H4'	7:G:75:LYS:NZ	2.30	0.46
1:A:1010:U:H3	1:A:1019:A:N6	2.13	0.46
1:A:1090:U:H4'	1:A:1171:A:H1'	1.97	0.46
1:A:1114:C:H1'	14:N:99:SER:HB2	1.96	0.46
1:A:1141:C:OP2	1:A:1143:G:C6	2.68	0.46
1:A:1241:G:N2	1:A:1242:G:C4	2.84	0.46
1:A:1260:G:C2	1:A:1276:G:O6	2.68	0.46
1:A:1270:G:H4'	1:A:1313:U:O2'	2.14	0.46
1:A:1332:A:N7	1:A:1333:A:C8	2.84	0.46
1:A:1349:A:C6	1:A:1374:A:C8	3.03	0.46
1:A:1365:G:C2	1:A:1366:C:H1'	2.50	0.46
1:A:1367:C:C6	1:A:1367:C:H3'	2.50	0.46
1:A:1379:G:C5	1:A:1380:U:C5	3.03	0.46
1:A:1379:G:N2	1:A:1380:U:H1'	2.30	0.46
1:A:1437:A:C8	1:A:1437:A:H3'	2.50	0.46
1:A:1457:G:H5"	20:T:29:THR:CG2	2.45	0.46
1:A:1460:C:C2	1:A:1461:G:N9	2.84	0.46
1:A:1469:C:C5	1:A:1470:U:N1	2.83	0.46
1:A:1479:C:C2'	1:A:1480:A:C8	2.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1499:A:C6	1:A:1500:A:C5	3.04	0.46
3:C:39:ARG:HG2	3:C:54:ILE:HD12	1.98	0.46
3:C:87:ARG:HA	3:C:98:ALA:CB	2.46	0.46
5:E:9:GLU:HG3	5:E:115:GLU:O	2.15	0.46
9:I:20:ILE:HD11	9:I:82:ILE:HG12	1.98	0.46
11:K:44:ALA:HB1	11:K:68:ARG:NE	2.30	0.46
11:K:45:THR:H	11:K:68:ARG:NH2	2.12	0.46
15:O:45:HIS:CE1	15:O:48:ASP:OD1	2.69	0.46
20:T:64:GLY:C	20:T:65:LEU:HD13	2.36	0.46
1:A:18:C:N3	1:A:918:A:C2	2.83	0.46
1:A:39:G:C2	1:A:404:G:H1'	2.50	0.46
1:A:40:C:C6	1:A:40:C:H5"	2.50	0.46
1:A:63:C:H42	20:T:8:LYS:HE3	1.80	0.46
1:A:66:A:OP1	1:A:381:C:C5	2.68	0.46
1:A:69:G:H2'	1:A:69:G:N3	2.30	0.46
1:A:74:A:N6	1:A:96:U:H3	2.13	0.46
1:A:75:G:H2'	1:A:76:G:N7	2.31	0.46
1:A:80:A:C4	1:A:81:A:H1'	2.49	0.46
1:A:82:G:OP1	1:A:90:C:H1'	2.15	0.46
1:A:100:G:H2'	1:A:101:A:H8	1.81	0.46
1:A:128:G:O2'	1:A:129:A:H5'	2.15	0.46
1:A:181:A:C2'	1:A:194:C:C6	2.99	0.46
1:A:186:C:H1'	20:T:75:LYS:HZ3	1.81	0.46
1:A:203:G:H1	1:A:206:C:N4	2.12	0.46
1:A:246:A:C6	1:A:282:A:C5	3.03	0.46
1:A:258:G:C5	1:A:259:G:N7	2.84	0.46
1:A:312:C:O2	1:A:313:A:C8	2.68	0.46
1:A:399:G:C2	1:A:400:C:C6	3.03	0.46
1:A:453:G:N1	1:A:480:U:C4	2.83	0.46
1:A:457:G:C2	1:A:458:U:C4	3.04	0.46
1:A:525:C:C4	1:A:526:C:C5	3.03	0.46
1:A:568:G:C6	1:A:883:C:C4	3.03	0.46
1:A:572:A:N3	1:A:917:G:H1'	2.29	0.46
1:A:577:G:N1	1:A:578:C:C2	2.83	0.46
1:A:582:C:C4	1:A:760:G:C6	3.04	0.46
1:A:607:A:C6	1:A:608:A:C5	3.04	0.46
1:A:609:A:C8	1:A:609:A:O5'	2.69	0.46
1:A:646:G:N1	1:A:647:C:C2	2.84	0.46
1:A:675:A:C5	1:A:676:A:C8	3.04	0.46
1:A:686:U:O2	11:K:43:TRP:CZ2	2.68	0.46
1:A:698:G:C6	1:A:699:C:C4	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:701:U:OP1	1:A:703:G:H5'	2.14	0.46
1:A:719:C:H3'	1:A:719:C:H6	1.81	0.46
1:A:745:G:C2	1:A:746:A:C4	3.03	0.46
1:A:765:G:C4	1:A:812:G:C2	3.03	0.46
1:A:771:G:N7	1:A:772:U:C5	2.83	0.46
1:A:777:A:N7	1:A:778:G:C8	2.83	0.46
1:A:797:C:C2	1:A:798:U:C5	3.03	0.46
1:A:832:G:C8	1:A:832:G:C3'	2.99	0.46
1:A:846:G:C2	1:A:847:G:C5	3.03	0.46
1:A:852:G:C5	1:A:853:C:C5	3.03	0.46
1:A:898:G:H22	1:A:900:A:H3'	1.80	0.46
1:A:925:G:C2	1:A:927:G:C4	3.04	0.46
1:A:932:C:C5	7:G:2:ARG:NE	2.84	0.46
1:A:939:G:C4	1:A:940:C:C6	3.04	0.46
1:A:975:A:H5'	1:A:1363:A:N6	2.31	0.46
1:A:996:A:N3	1:A:1046:A:H5'	2.30	0.46
1:A:1027:C:C4	1:A:1028:C:C4	3.03	0.46
1:A:1052:U:H3'	1:A:1200:C:C5	2.51	0.46
1:A:1063:C:O5'	1:A:1063:C:H6	1.99	0.46
1:A:1084:G:C5'	1:A:1102:A:C5'	2.94	0.46
1:A:1127:G:N2	1:A:1128:C:H1'	2.30	0.46
1:A:1153:G:H3'	1:A:1153:G:C8	2.50	0.46
1:A:1220:G:H21	19:S:53:GLY:CA	2.26	0.46
1:A:1257:A:H3'	1:A:1258:G:H5'	1.96	0.46
1:A:1274:A:C8	1:A:1274:A:O5'	2.69	0.46
1:A:1355:G:H21	10:J:48:ARG:NH2	2.10	0.46
1:A:1364:U:C3'	1:A:1365:G:H5'	2.45	0.46
1:A:1374:A:C5	1:A:1375:A:N7	2.84	0.46
1:A:1439:G:C6	1:A:1463:U:O2	2.69	0.46
1:A:1469:C:C6	1:A:1469:C:H3'	2.51	0.46
1:A:1526:G:OP2	21:U:37:TYR:O	2.33	0.46
2:B:11:ALA:HA	2:B:14:HIS:HE1	1.77	0.46
2:B:99:MET:HA	2:B:102:ASN:HB3	1.98	0.46
3:C:38:VAL:HG11	3:C:90:VAL:HA	1.97	0.46
4:D:97:LEU:HD13	4:D:124:VAL:HG13	1.98	0.46
4:D:195:ASN:H	4:D:198:LEU:HB3	1.81	0.46
5:E:73:VAL:HG21	5:E:117:ALA:HB2	1.97	0.46
9:I:47:VAL:HB	9:I:82:ILE:HD12	1.98	0.46
11:K:28:ASN:HD22	11:K:45:THR:CG2	2.28	0.46
17:Q:28:VAL:CG1	17:Q:39:ARG:HB2	2.45	0.46
22:W:132:ILE:H	22:W:132:ILE:CD1	2.27	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:22:G:H21	1:A:913:A:H1'	1.81	0.46
1:A:36:C:H41	12:L:122:LYS:HE2	1.81	0.46
1:A:41:G:C2	1:A:402:G:N3	2.84	0.46
1:A:71:A:C5	1:A:100:G:C5	3.03	0.46
1:A:80:A:OP2	1:A:81:A:H8	1.95	0.46
1:A:112:G:N1	1:A:113:G:C8	2.84	0.46
1:A:161:A:N1	1:A:162:A:C4	2.84	0.46
1:A:163:C:OP2	1:A:349:A:H5"	2.15	0.46
1:A:179:A:C6	1:A:180:U:N3	2.83	0.46
1:A:191:G:C4	1:A:192:A:C8	3.03	0.46
1:A:219:U:C6	1:A:219:U:H3'	2.49	0.46
1:A:303:A:H5"	12:L:14:LYS:HE3	1.98	0.46
1:A:335:C:H1'	1:A:1434:A:O4'	2.16	0.46
1:A:381:C:H3'	1:A:382:A:C8	2.50	0.46
1:A:410:G:C8	1:A:410:G:O5'	2.69	0.46
1:A:514:C:H2'	1:A:515:G:H8	1.80	0.46
1:A:521:G:H1	1:A:528:C:H42	1.63	0.46
1:A:544:G:N1	1:A:545:C:C2	2.83	0.46
1:A:559:A:H5"	5:E:127:TYR:CE1	2.50	0.46
1:A:575:G:C5	1:A:821:G:C8	3.04	0.46
1:A:596:A:C2	1:A:645:G:N3	2.84	0.46
1:A:600:A:C6	1:A:639:G:C6	3.04	0.46
1:A:667:G:N1	1:A:668:G:C6	2.83	0.46
1:A:668:G:O4'	15:O:45:HIS:CG	2.68	0.46
1:A:672:U:C4'	6:F:86:ARG:HH21	2.29	0.46
1:A:675:A:H2'	1:A:676:A:O4'	2.15	0.46
1:A:782:A:C8	1:A:783:C:C5	3.04	0.46
1:A:815:A:N7	1:A:1509:C:O2	2.49	0.46
1:A:856:C:C5	1:A:871:U:O4	2.69	0.46
1:A:867:G:H2'	1:A:868:C:C6	2.50	0.46
1:A:883:C:C5	1:A:883:C:OP2	2.69	0.46
1:A:1003:G:C2	1:A:1005:A:OP1	2.69	0.46
1:A:1004:A:C8	1:A:1005:A:C8	3.01	0.46
1:A:1009:U:O2	1:A:1009:U:H2'	2.14	0.46
1:A:1020:G:C6	14:N:19:TYR:O	2.68	0.46
1:A:1092:A:C8	1:A:1093:A:H1'	2.51	0.46
1:A:1125:U:H3'	1:A:1127:G:C6	2.50	0.46
1:A:1136:C:H5"	1:A:1137:C:OP2	2.16	0.46
1:A:1171:A:H2'	1:A:1172:C:O4'	2.16	0.46
1:A:1215:G:C6	1:A:1216:A:C5	3.04	0.46
1:A:1238:A:C2	1:A:1241:G:N3	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1263:C:H42	1:A:1273:C:N4	2.14	0.46
1:A:1267:C:C4	1:A:1268:G:C4	3.04	0.46
1:A:1287:A:H8	1:A:1287:A:H5"	1.81	0.46
1:A:1303:C:H3'	1:A:1304:G:H8	1.80	0.46
1:A:1305:G:N2	1:A:1306:A:N7	2.63	0.46
1:A:1348:U:H4'	9:I:121:ARG:HB2	1.98	0.46
1:A:1374:A:H2'	1:A:1375:A:C8	2.51	0.46
1:A:1374:A:N6	1:A:1375:A:C6	2.84	0.46
1:A:1392:G:H21	1:A:1502:A:H1'	1.80	0.46
1:A:1421:G:H1	1:A:1479:C:N4	2.13	0.46
1:A:1463:U:C2	1:A:1464:U:C5	3.03	0.46
2:B:31:PHE:HB2	2:B:38:HIS:HA	1.97	0.46
2:B:69:VAL:HA	2:B:91:VAL:HG23	1.98	0.46
4:D:98:ASP:CA	4:D:132:ALA:HB1	2.46	0.46
6:F:42:TRP:CZ2	6:F:61:LEU:HD22	2.51	0.46
8:H:9:MET:HA	8:H:26:MET:SD	2.56	0.46
8:H:33:VAL:HG22	8:H:48:PHE:CE2	2.50	0.46
8:H:33:VAL:HG21	8:H:50:VAL:HG21	1.98	0.46
8:H:63:LYS:HB2	8:H:70:VAL:HG11	1.98	0.46
10:J:28:THR:HG21	10:J:86:ALA:HA	1.97	0.46
11:K:30:ILE:CG2	11:K:45:THR:HG23	2.45	0.46
11:K:96:ILE:HA	11:K:99:LEU:HD12	1.97	0.46
15:O:68:TYR:CE1	15:O:71:ARG:NH1	2.84	0.46
22:W:48:PHE:HB3	22:W:51:HIS:HB2	1.98	0.46
22:W:312:ILE:HD12	22:W:312:ILE:N	2.30	0.46
1:A:123:U:C4'	1:A:290:C:H1'	2.45	0.46
1:A:159:G:N3	1:A:163:C:C2	2.83	0.46
1:A:181:A:C4'	1:A:182:A:O5'	2.63	0.46
1:A:218:U:C4	1:A:219:U:N3	2.84	0.46
1:A:240:G:C2	1:A:287:U:O2	2.69	0.46
1:A:277:C:H2'	1:A:278:G:H8	1.81	0.46
1:A:350:G:N2	1:A:351:G:O6	2.48	0.46
1:A:368:U:C3'	1:A:369:G:H5'	2.46	0.46
1:A:372:C:H4'	1:A:373:A:OP1	2.16	0.46
1:A:427:U:H3'	1:A:428:G:C8	2.50	0.46
1:A:450:G:OP2	1:A:451:A:H3'	2.16	0.46
1:A:455:G:N2	1:A:478:A:H2'	2.31	0.46
1:A:474:G:H2'	1:A:475:C:C6	2.50	0.46
1:A:614:C:H6	4:D:80:ARG:HH22	1.63	0.46
1:A:742:G:C2	1:A:743:A:C4	3.03	0.46
1:A:747:A:C2	1:A:748:G:C4	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:766:A:C8	1:A:814:A:C6	3.04	0.46
1:A:910:C:H5”	12:L:93:ARG:HH22	1.80	0.46
1:A:923:A:C2	1:A:1395:C:C2	3.03	0.46
1:A:932:C:H2’	1:A:933:G:C8	2.50	0.46
1:A:1025:U:O3’	1:A:1026:G:C8	2.69	0.46
1:A:1028:C:C4	1:A:1029:U:C4	3.04	0.46
1:A:1048:G:C6	1:A:1210:C:N4	2.83	0.46
1:A:1064:G:N9	1:A:1066:C:C6	2.84	0.46
1:A:1075:U:H4’	2:B:170:ILE:CG2	2.45	0.46
1:A:1087:G:N1	1:A:1088:G:C5	2.84	0.46
1:A:1151:A:H4’	10:J:71:LEU:O	2.16	0.46
1:A:1152:A:C6	1:A:1153:G:C6	3.03	0.46
1:A:1248:A:C2	1:A:1290:G:H1’	2.51	0.46
1:A:1261:A:H2’	1:A:1262:C:H5’	1.97	0.46
1:A:1262:C:N4	1:A:1263:C:H1’	2.30	0.46
1:A:1304:G:H1’	1:A:1334:G:H1	1.80	0.46
1:A:1378:C:N4	1:A:1379:G:C6	2.83	0.46
1:A:1495:U:N3	1:A:1496:C:C4	2.84	0.46
1:A:1500:A:H5”	1:A:1508:A:P	2.56	0.46
4:D:150:LYS:NZ	4:D:154:VAL:HG12	2.31	0.46
5:E:88:HIS:ND1	5:E:134:ASN:HA	2.30	0.46
6:F:29:ILE:CD1	6:F:66:ALA:HB2	2.46	0.46
8:H:93:LYS:HG2	8:H:116:ARG:HG2	1.97	0.46
8:H:104:SER:HA	8:H:108:GLY:O	2.16	0.46
8:H:113:ARG:HA	8:H:113:ARG:NE	2.31	0.46
10:J:11:LYS:O	10:J:96:VAL:HG13	2.16	0.46
11:K:21:HIS:ND1	11:K:34:THR:HG21	2.30	0.46
11:K:33:ILE:CB	11:K:73:VAL:HG11	2.36	0.46
1:A:9:G:C2	1:A:10:A:N9	2.84	0.46
1:A:9:G:C6	1:A:26:A:C6	3.04	0.46
1:A:22:G:H2’	1:A:913:A:C2	2.51	0.46
1:A:64:G:O5’	1:A:64:G:H8	1.98	0.46
1:A:72:A:C2	1:A:73:C:C5	3.04	0.46
1:A:113:G:C4’	1:A:354:G:H4’	2.45	0.46
1:A:119:A:H2’	1:A:240:G:N7	2.31	0.46
1:A:157:U:O2	1:A:165:G:C2	2.69	0.46
1:A:160:A:C4’	1:A:344:A:C5	2.98	0.46
1:A:238:A:C4	1:A:239:U:C6	3.03	0.46
1:A:264:C:C5	1:A:264:C:OP2	2.68	0.46
1:A:279:A:H5”	1:A:281:G:O4’	2.16	0.46
1:A:320:A:C2’	1:A:328:C:H41	2.29	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:329:A:C8	1:A:329:A:C5'	2.99	0.46
1:A:409:U:O2	1:A:409:U:H2'	2.16	0.46
1:A:454:G:C2	1:A:455:G:C8	3.03	0.46
1:A:474:G:N7	1:A:475:C:C4	2.84	0.46
1:A:513:C:C4	1:A:514:C:C5	3.04	0.46
1:A:528:C:H41	12:L:45:ASN:ND2	2.14	0.46
1:A:604:G:C6	1:A:605:U:N3	2.84	0.46
1:A:632:U:C5	1:A:633:G:C4	3.03	0.46
1:A:640:A:C5	1:A:641:U:N3	2.83	0.46
1:A:642:A:C8	8:H:107:LYS:HA	2.51	0.46
1:A:712:A:C2'	1:A:713:G:H8	2.28	0.46
1:A:765:G:C6	1:A:812:G:C4	3.03	0.46
1:A:780:A:C2	1:A:803:G:C6	3.04	0.46
1:A:878:A:C5	1:A:879:C:C4	3.04	0.46
1:A:879:C:H2'	1:A:880:C:C6	2.50	0.46
1:A:914:A:H8	1:A:914:A:C5'	2.28	0.46
1:A:962:C:H1'	1:A:1201:A:C5	2.50	0.46
1:A:1053:G:H2'	1:A:1054:C:OP2	2.15	0.46
1:A:1058:G:C2	1:A:1059:C:C2	3.03	0.46
1:A:1070:U:C6	1:A:1070:U:H5"	2.51	0.46
1:A:1143:G:H2'	1:A:1144:G:O4'	2.16	0.46
1:A:1165:U:C5	1:A:1166:G:C6	3.04	0.46
1:A:1184:G:C6	1:A:1185:G:C4	3.04	0.46
1:A:1201:A:H5"	1:A:1203:C:OP2	2.16	0.46
1:A:1238:A:N7	1:A:1303:C:H1'	2.30	0.46
1:A:1257:A:OP1	1:A:1257:A:C2	2.69	0.46
1:A:1261:A:C5	1:A:1275:A:C4	3.04	0.46
1:A:1261:A:N6	1:A:1262:C:C2	2.84	0.46
1:A:1277:C:H1'	1:A:1282:C:O2	2.15	0.46
1:A:1291:U:H4'	9:I:41:GLU:HG2	1.98	0.46
1:A:1344:C:H1'	1:A:1349:A:H4'	1.98	0.46
1:A:1346:A:C5	1:A:1374:A:C8	3.03	0.46
4:D:106:PHE:CD1	4:D:174:ALA:HB1	2.50	0.46
11:K:120:CYS:HB3	21:U:32:ARG:HH12	1.80	0.46
12:L:29:LYS:HG3	12:L:56:LEU:HD13	1.97	0.46
13:M:10:ASP:HA	13:M:44:ILE:HG23	1.97	0.46
13:M:22:TYR:HB3	13:M:69:ARG:HH21	1.81	0.46
1:A:9:G:C4	1:A:26:A:C2	3.04	0.46
1:A:32:A:H5"	1:A:398:U:O4'	2.15	0.46
1:A:35:G:C2	1:A:550:G:C4	3.04	0.46
1:A:57:G:C5	1:A:58:C:C6	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:61:G:C2	1:A:107:G:O6	2.69	0.46
1:A:72:A:H2'	1:A:73:C:H6	1.76	0.46
1:A:158:G:N2	1:A:159:G:H1'	2.31	0.46
1:A:200:G:N1	1:A:201:G:C5	2.84	0.46
1:A:205:A:H3'	1:A:206:C:H5	1.78	0.46
1:A:237:G:O6	1:A:238:A:C6	2.69	0.46
1:A:320:A:H2'	1:A:328:C:H41	1.80	0.46
1:A:397:A:H4'	1:A:398:U:C4	2.51	0.46
1:A:424:G:N1	1:A:425:G:C4	2.83	0.46
1:A:461:A:C8	1:A:466:A:C5'	2.98	0.46
1:A:468:A:N6	1:A:469:C:H41	2.14	0.46
1:A:595:A:H5"	1:A:596:A:H5'	1.97	0.46
1:A:596:A:N1	1:A:597:G:C4	2.83	0.46
1:A:616:G:H4'	16:P:46:LYS:HD3	1.97	0.46
1:A:628:G:H3'	1:A:629:A:N7	2.30	0.46
1:A:639:G:C5	1:A:640:A:N7	2.84	0.46
1:A:722:G:C6	1:A:724:G:C4	3.04	0.46
1:A:739:C:H5	6:F:2:ARG:HH22	1.63	0.46
1:A:775:G:C2	1:A:776:G:C6	3.03	0.46
1:A:788:U:H1'	1:A:795:C:N3	2.31	0.46
1:A:858:G:C2	1:A:859:G:OP2	2.69	0.46
1:A:865:A:C6	1:A:866:C:N4	2.84	0.46
1:A:895:G:N1	1:A:905:U:H1'	2.29	0.46
1:A:907:A:C8	1:A:907:A:C4'	2.99	0.46
1:A:923:A:H2'	1:A:924:C:C6	2.46	0.46
1:A:1042:A:C2	1:A:1043:G:C6	3.04	0.46
1:A:1082:A:C4	1:A:1083:U:C5	3.04	0.46
1:A:1091:U:H1'	1:A:1095:U:O2	2.16	0.46
1:A:1098:C:O2'	1:A:1167:A:C5	2.69	0.46
1:A:1130:A:N7	1:A:1131:G:C4	2.84	0.46
1:A:1157:A:C5	1:A:1180:A:C6	3.04	0.46
1:A:1204:A:H2	3:C:189:HIS:CE1	2.33	0.46
1:A:1266:G:H1'	1:A:1270:G:N2	2.30	0.46
1:A:1333:A:C5	1:A:1334:G:N9	2.84	0.46
1:A:1438:G:C4	1:A:1464:U:O2	2.69	0.46
1:A:1514:G:N2	1:A:1522:U:H1'	2.31	0.46
3:C:63:ILE:CD1	3:C:94:ALA:HB2	2.44	0.46
3:C:200:TRP:O	3:C:201:ILE:HD13	2.16	0.46
5:E:21:SER:HA	5:E:30:PHE:HA	1.96	0.46
11:K:41:LEU:HB2	11:K:73:VAL:HG12	1.98	0.46
15:O:44:GLU:O	15:O:45:HIS:CB	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:P:16:PHE:CE1	16:P:38:PHE:CE2	3.04	0.46
17:Q:39:ARG:CZ	17:Q:39:ARG:HA	2.45	0.46
18:R:20:ILE:HG21	18:R:50:TYR:CE1	2.51	0.46
22:W:62:HIS:CE1	22:W:94:LYS:O	2.68	0.46
1:A:45:G:N1	1:A:46:G:C5	2.84	0.46
1:A:46:G:O2'	1:A:365:U:H2'	2.16	0.46
1:A:57:G:C6	1:A:356:A:C6	3.04	0.46
1:A:57:G:N2	1:A:58:C:H1'	2.31	0.46
1:A:97:G:C5	1:A:98:A:C4	3.04	0.46
1:A:117:G:C5	1:A:118:U:C4	3.04	0.46
1:A:118:U:C2	1:A:288:A:N1	2.84	0.46
1:A:144:G:C5	1:A:145:G:C8	3.03	0.46
1:A:178:C:N4	1:A:196:A:P	2.89	0.46
1:A:205:A:C5	1:A:206:C:C5	3.04	0.46
1:A:214:C:H2'	1:A:215:C:H6	1.80	0.46
1:A:234:C:C4'	17:Q:65:PRO:HD3	2.46	0.46
1:A:246:A:C2	1:A:279:A:N7	2.84	0.46
1:A:248:C:H1'	1:A:277:C:O2	2.16	0.46
1:A:262:A:H2'	1:A:263:A:O4'	2.16	0.46
1:A:299:G:C2'	1:A:300:A:H5'	2.46	0.46
1:A:311:C:H2'	1:A:312:C:O4'	2.16	0.46
1:A:319:G:N2	1:A:335:C:C2	2.84	0.46
1:A:337:G:C2	1:A:338:A:C6	3.04	0.46
1:A:342:C:N3	1:A:348:G:N2	2.64	0.46
1:A:410:G:O5'	1:A:410:G:H8	1.99	0.46
1:A:425:G:C2	1:A:426:U:C2	3.04	0.46
1:A:448:A:H2'	1:A:449:G:H5'	1.98	0.46
1:A:449:G:N2	1:A:450:G:C2	2.84	0.46
1:A:455:G:N3	1:A:478:A:C2	2.84	0.46
1:A:466:A:N3	1:A:467:U:N3	2.64	0.46
1:A:688:G:N2	1:A:700:G:C1'	2.79	0.46
1:A:780:A:H3'	1:A:800:G:C6	2.51	0.46
1:A:794:A:C5	1:A:795:C:C6	3.03	0.46
1:A:799:G:C5	1:A:800:G:C8	3.03	0.46
1:A:836:G:C4	1:A:837:U:C6	3.04	0.46
1:A:905:U:C2	1:A:906:A:C5	3.03	0.46
1:A:909:A:H3'	1:A:910:C:H6	1.81	0.46
1:A:946:A:C2'	1:A:947:G:C8	2.96	0.46
1:A:1020:G:C8	1:A:1020:G:C5'	2.98	0.46
1:A:1063:C:O5'	1:A:1063:C:C6	2.69	0.46
1:A:1092:A:C2	1:A:1093:A:C4	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1136:C:C4	1:A:1138:G:O6	2.69	0.46
1:A:1173:U:H2'	1:A:1174:G:H8	1.81	0.46
1:A:1231:G:H4'	9:I:129:ARG:N	2.30	0.46
1:A:1292:G:C6	1:A:1293:C:C4	3.04	0.46
1:A:1479:C:C2'	1:A:1480:A:H8	2.27	0.46
1:A:1496:C:H6	1:A:1496:C:O5'	1.99	0.46
1:A:1500:A:C2	1:A:1501:C:C4	3.04	0.46
2:B:84:LEU:HA	2:B:90:PHE:CE1	2.50	0.46
4:D:116:LEU:HG	4:D:153:ARG:HH21	1.80	0.46
5:E:34:ALA:HB3	5:E:58:ALA:C	2.36	0.46
9:I:12:LYS:O	9:I:69:GLY:HA2	2.16	0.46
14:N:33:VAL:HG23	14:N:33:VAL:O	2.16	0.46
17:Q:22:VAL:O	17:Q:22:VAL:HG13	2.16	0.46
1:A:17:U:C2	1:A:919:A:C2	3.05	0.45
1:A:112:G:C2	1:A:113:G:C8	3.04	0.45
1:A:138:G:N2	1:A:139:A:C4	2.85	0.45
1:A:145:G:N2	1:A:178:C:C2	2.84	0.45
1:A:161:A:H2	1:A:347:G:H2'	1.81	0.45
1:A:254:G:N2	1:A:255:G:C4	2.84	0.45
1:A:254:G:H4'	17:Q:44:HIS:CE1	2.52	0.45
1:A:263:A:O2'	1:A:264:C:H5'	2.16	0.45
1:A:325:A:N7	1:A:326:G:C5	2.84	0.45
1:A:342:C:C2	1:A:343:U:N1	2.84	0.45
1:A:343:U:N3	1:A:345:C:C2	2.84	0.45
1:A:363:A:OP1	1:A:363:A:C8	2.69	0.45
1:A:367:U:C2	1:A:369:G:C8	3.03	0.45
1:A:408:A:C2	1:A:409:U:C5	3.04	0.45
1:A:409:U:C6	1:A:409:U:OP2	2.69	0.45
1:A:419:C:H5"	1:A:513:C:H1'	1.98	0.45
1:A:428:G:C1'	1:A:430:A:C8	2.99	0.45
1:A:469:C:H3'	1:A:470:C:C5	2.51	0.45
1:A:474:G:H3'	1:A:475:C:C6	2.51	0.45
1:A:506:G:C8	1:A:506:G:O5'	2.68	0.45
1:A:548:G:C6	1:A:549:C:N3	2.85	0.45
1:A:564:C:C5	1:A:565:U:O4	2.68	0.45
1:A:633:G:C5	1:A:634:C:C4	3.04	0.45
1:A:650:G:N1	1:A:651:C:C5	2.85	0.45
1:A:653:U:O2'	1:A:654:G:H5'	2.17	0.45
1:A:678:U:O2'	1:A:777:A:H2'	2.16	0.45
1:A:692:U:H1'	1:A:695:A:H62	1.80	0.45
1:A:727:G:C6	1:A:731:G:C5	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:756:C:C4	1:A:757:U:C5	3.04	0.45
1:A:808:C:H2'	1:A:809:G:C8	2.51	0.45
1:A:809:G:N3	1:A:809:G:H2'	2.30	0.45
1:A:842:U:O4'	1:A:846:G:C6	2.69	0.45
1:A:892:A:OP2	1:A:906:A:C2	2.69	0.45
1:A:895:G:C8	1:A:895:G:H3'	2.50	0.45
1:A:961:U:H2'	1:A:962:C:C5	2.51	0.45
1:A:974:A:C2	1:A:977:A:C2	3.03	0.45
1:A:989:U:C4'	1:A:1016:A:C2	3.00	0.45
1:A:1013:G:N2	1:A:1015:G:H3'	2.31	0.45
1:A:1028:C:C5	1:A:1029:U:C5	3.04	0.45
1:A:1048:G:H1'	1:A:1215:G:C5'	2.46	0.45
1:A:1085:U:O4'	1:A:1094:G:C2	2.69	0.45
1:A:1148:U:H5'	9:I:6:TYR:OH	2.16	0.45
1:A:1152:A:H2'	1:A:1153:G:C8	2.50	0.45
1:A:1171:A:C2	1:A:1172:C:C2	3.04	0.45
1:A:1176:A:C3'	1:A:1177:G:H8	2.29	0.45
1:A:1219:A:H3'	1:A:1220:G:H8	1.81	0.45
1:A:1238:A:N1	1:A:1241:G:N3	2.64	0.45
1:A:1247:U:H6	1:A:1247:U:O5'	1.99	0.45
1:A:1304:G:C2'	1:A:1333:A:H61	2.29	0.45
1:A:1356:G:N2	1:A:1357:A:C2	2.85	0.45
1:A:1375:A:N7	1:A:1376:U:C4	2.84	0.45
1:A:1383:C:C6	7:G:78:ARG:NH2	2.84	0.45
1:A:1392:G:N3	1:A:1502:A:H4'	2.31	0.45
1:A:1399:C:H2'	1:A:1502:A:C2	2.50	0.45
1:A:1441:A:C8	1:A:1441:A:C3'	2.99	0.45
1:A:1524:C:C2	1:A:1525:G:C8	3.04	0.45
4:D:194:ILE:HG22	4:D:198:LEU:HD12	1.97	0.45
6:F:37:HIS:CE1	6:F:98:GLU:OE2	2.69	0.45
6:F:62:MET:HG2	6:F:64:VAL:HG13	1.97	0.45
7:G:67:ASN:O	7:G:134:VAL:HG23	2.15	0.45
8:H:38:VAL:HG12	8:H:42:GLU:HG3	1.97	0.45
9:I:97:LEU:N	9:I:100:ALA:HB2	2.31	0.45
11:K:18:GLY:HA2	11:K:36:ARG:N	2.31	0.45
15:O:73:ASP:CB	15:O:76:ARG:H	2.28	0.45
18:R:62:ARG:HB3	18:R:69:TYR:HB2	1.98	0.45
22:W:214:GLY:O	22:W:273:PHE:CD1	2.69	0.45
1:A:57:G:C2	1:A:356:A:C2	3.03	0.45
1:A:59:A:C2	1:A:354:G:C4	3.04	0.45
1:A:135:C:H2'	1:A:136:C:H6	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:137:U:H1'	1:A:227:G:N2	2.31	0.45
1:A:139:A:C2	1:A:140:U:N1	2.84	0.45
1:A:175:C:O2	1:A:175:C:H2'	2.16	0.45
1:A:184:G:C6	1:A:194:C:H5	2.33	0.45
1:A:206:C:C4	1:A:207:C:N3	2.85	0.45
1:A:215:C:H2'	1:A:216:U:O4'	2.17	0.45
1:A:216:U:O5'	1:A:216:U:C6	2.69	0.45
1:A:230:G:C2	1:A:231:U:H1'	2.51	0.45
1:A:433:G:C4	1:A:434:U:C6	3.04	0.45
1:A:450:G:N2	1:A:483:C:N3	2.64	0.45
1:A:462:G:N3	1:A:471:U:H1'	2.31	0.45
1:A:519:C:C6	1:A:529:G:N2	2.84	0.45
1:A:596:A:C4	1:A:645:G:N2	2.84	0.45
1:A:596:A:H2'	1:A:597:G:C8	2.51	0.45
1:A:617:G:N1	1:A:618:C:C5	2.84	0.45
1:A:626:G:C4	1:A:627:G:N7	2.83	0.45
1:A:676:A:C2	1:A:677:U:N3	2.84	0.45
1:A:678:U:H3	1:A:712:A:H61	1.63	0.45
1:A:686:U:O2	11:K:43:TRP:HZ2	1.99	0.45
1:A:779:C:H4'	11:K:123:PRO:HD3	1.97	0.45
1:A:822:U:H3	1:A:878:A:N6	2.14	0.45
1:A:837:U:H2'	1:A:838:G:C8	2.51	0.45
1:A:865:A:N3	1:A:866:C:C6	2.84	0.45
1:A:932:C:H42	1:A:1384:C:H42	1.64	0.45
1:A:935:A:C2	1:A:936:C:H1'	2.51	0.45
1:A:975:A:H5"	1:A:1359:C:O2	2.16	0.45
1:A:987:G:N1	1:A:988:G:C4	2.84	0.45
1:A:1005:A:C6	1:A:1025:U:H4'	2.52	0.45
1:A:1007:U:H2'	1:A:1008:U:H5"	1.98	0.45
1:A:1017:U:C4	1:A:1018:G:N7	2.85	0.45
1:A:1030:U:H2'	1:A:1032:G:C8	2.52	0.45
1:A:1043:G:C8	1:A:1043:G:OP2	2.69	0.45
1:A:1074:G:H4'	2:B:102:ASN:N	2.31	0.45
1:A:1096:C:O2'	1:A:1170:A:H4'	2.16	0.45
1:A:1107:C:H3'	1:A:1107:C:C6	2.51	0.45
1:A:1114:C:OP2	1:A:1114:C:C4	2.68	0.45
1:A:1175:G:C6	1:A:1176:A:C6	3.05	0.45
1:A:1206:G:C5	1:A:1207:G:N7	2.84	0.45
1:A:1220:G:N1	1:A:1221:G:C5	2.84	0.45
1:A:1234:C:H1'	1:A:1364:U:C4	2.51	0.45
1:A:1242:G:C6	1:A:1243:C:C5	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1244:G:N1	1:A:1245:C:C2	2.84	0.45
1:A:1254:A:C2	1:A:1284:C:C2	3.04	0.45
1:A:1342:C:H1'	9:I:125:GLN:CD	2.36	0.45
1:A:1381:U:H2'	7:G:80:GLY:N	2.30	0.45
1:A:1420:U:H3	1:A:1480:A:H61	1.64	0.45
1:A:1426:G:N2	1:A:1427:C:C2	2.84	0.45
1:A:1433:A:C6	1:A:1468:A:H1'	2.50	0.45
1:A:1449:C:C5	1:A:1450:U:C5	3.03	0.45
2:B:126:ASP:CA	2:B:130:LYS:HB2	2.44	0.45
3:C:116:ALA:HB2	3:C:199:VAL:HB	1.99	0.45
11:K:14:GLN:HB3	11:K:76:TYR:HA	1.98	0.45
12:L:52:CYS:SG	12:L:66:ILE:HD11	2.55	0.45
13:M:22:TYR:CZ	13:M:69:ARG:HG3	2.51	0.45
13:M:84:CYS:HB3	19:S:65:MET:SD	2.55	0.45
16:P:17:TYR:CE1	16:P:70:ARG:CZ	2.99	0.45
16:P:21:VAL:HB	16:P:34:GLU:HG2	1.97	0.45
17:Q:46:HIS:HB2	17:Q:74:LEU:H	1.81	0.45
22:W:44:VAL:HB	22:W:75:THR:HA	1.98	0.45
22:W:140:ILE:HG21	22:W:215:GLN:HE21	1.81	0.45
1:A:41:G:C2	1:A:42:G:C5	3.03	0.45
1:A:49:U:C6	1:A:49:U:H3'	2.51	0.45
1:A:59:A:OP2	20:T:3:ILE:HG13	2.15	0.45
1:A:93:U:C2	1:A:95:C:N4	2.84	0.45
1:A:112:G:N3	1:A:112:G:H2'	2.31	0.45
1:A:119:A:C6	1:A:240:G:C8	3.04	0.45
1:A:155:A:C4	1:A:167:A:N3	2.84	0.45
1:A:178:C:C2	1:A:179:A:C8	3.05	0.45
1:A:194:C:C5'	20:T:59:ARG:HB2	2.47	0.45
1:A:201:G:C5	1:A:202:G:C6	3.04	0.45
1:A:208:U:C5	1:A:210:C:C6	3.05	0.45
1:A:218:U:H3'	1:A:219:U:C5	2.52	0.45
1:A:254:G:C2	1:A:273:U:C2	3.04	0.45
1:A:308:C:H2'	1:A:309:A:C8	2.52	0.45
1:A:323:U:H3'	1:A:324:G:H8	1.82	0.45
1:A:359:G:C6	1:A:360:G:H1'	2.51	0.45
1:A:373:A:C6	1:A:391:G:H1'	2.51	0.45
1:A:410:G:O6	1:A:430:A:H5'	2.16	0.45
1:A:442:G:N2	1:A:443:C:H1'	2.32	0.45
1:A:445:G:C6	1:A:446:G:C5	3.04	0.45
1:A:445:G:C6	1:A:446:G:N7	2.84	0.45
1:A:448:A:C8	1:A:448:A:H5"	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:453:G:N1	1:A:480:U:N3	2.64	0.45
1:A:465:A:N3	1:A:466:A:C8	2.85	0.45
1:A:501:C:H2'	1:A:502:A:C8	2.51	0.45
1:A:503:C:H42	1:A:542:G:H1	1.63	0.45
1:A:512:U:C2	1:A:540:G:N2	2.85	0.45
1:A:521:G:C2	1:A:522:C:C2	3.05	0.45
1:A:525:C:H2'	1:A:526:C:C6	2.52	0.45
1:A:597:G:C8	1:A:598:U:C5	3.05	0.45
1:A:603:U:H2'	1:A:604:G:N9	2.32	0.45
1:A:626:G:N1	1:A:627:G:C5	2.84	0.45
1:A:633:G:H8	1:A:633:G:O5'	2.00	0.45
1:A:655:A:C8	1:A:655:A:O5'	2.69	0.45
1:A:713:G:N2	1:A:714:G:C2	2.84	0.45
1:A:795:C:OP2	1:A:796:C:C4	2.69	0.45
1:A:836:G:C4	1:A:851:G:C2	3.04	0.45
1:A:840:C:C2	1:A:842:U:OP2	2.70	0.45
1:A:910:C:O2	1:A:1489:G:H5"	2.16	0.45
1:A:927:G:H2'	1:A:928:G:O4'	2.16	0.45
1:A:938:A:H1'	1:A:1377:A:C4'	2.47	0.45
1:A:988:G:N2	1:A:1218:C:H1'	2.31	0.45
1:A:1005:A:H5"	1:A:1006:G:OP2	2.16	0.45
1:A:1014:A:H1'	19:S:33:TRP:HB2	1.98	0.45
1:A:1251:A:N3	1:A:1370:G:H1'	2.31	0.45
1:A:1275:A:C2	1:A:1276:G:H1'	2.52	0.45
1:A:1281:C:C4	10:J:9:ARG:NH2	2.84	0.45
1:A:1288:A:H1'	1:A:1353:G:O4'	2.15	0.45
1:A:1291:U:C4'	9:I:41:GLU:HG2	2.47	0.45
1:A:1304:G:C4	1:A:1305:G:C4	3.04	0.45
1:A:1336:C:H4'	1:A:1337:G:H5'	1.98	0.45
1:A:1437:A:C2	1:A:1465:A:C5	3.04	0.45
1:A:1488:G:C8	1:A:1488:G:OP2	2.69	0.45
1:A:1497:G:C6	1:A:1498:U:C4	3.03	0.45
2:B:61:SER:HA	2:B:225:SER:CA	2.47	0.45
2:B:125:PHE:O	2:B:125:PHE:CD2	2.69	0.45
2:B:185:ILE:HA	2:B:199:ILE:HB	1.99	0.45
6:F:6:ILE:CG1	6:F:64:VAL:HG22	2.46	0.45
7:G:68:VAL:HG21	7:G:103:ILE:HG12	1.98	0.45
9:I:17:ARG:HE	9:I:65:THR:HG21	1.81	0.45
9:I:66:VAL:CG1	9:I:78:ILE:HD11	2.45	0.45
13:M:1:ALA:O	13:M:8:ILE:HA	2.16	0.45
13:M:5:GLY:HA3	13:M:21:ILE:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:M:79:LEU:HD21	13:M:86:ARG:HE	1.82	0.45
22:W:48:PHE:CG	22:W:53:ASP:HB2	2.51	0.45
1:A:51:A:N1	1:A:116:A:C5	2.84	0.45
1:A:66:A:N1	1:A:67:C:C4	2.84	0.45
1:A:78:A:H2'	1:A:79:G:N9	2.30	0.45
1:A:117:G:C8	1:A:117:G:O5'	2.70	0.45
1:A:127:G:N2	1:A:235:C:C2	2.85	0.45
1:A:144:G:C8	1:A:144:G:C3'	2.99	0.45
1:A:158:G:C2	1:A:164:G:C8	3.05	0.45
1:A:191:G:C2	1:A:192:A:C4	3.05	0.45
1:A:246:A:C5	1:A:279:A:C4	3.04	0.45
1:A:258:G:H3'	1:A:259:G:H8	1.81	0.45
1:A:337:G:C6	1:A:338:A:N6	2.84	0.45
1:A:389:A:N3	1:A:389:A:H2'	2.31	0.45
1:A:404:G:C6	1:A:405:U:C4	3.05	0.45
1:A:406:G:N2	1:A:437:U:C2	2.84	0.45
1:A:409:U:H5"	4:D:24:VAL:N	2.31	0.45
1:A:446:G:C2	1:A:447:G:C1'	2.99	0.45
1:A:500:G:H22	1:A:549:C:C4'	2.30	0.45
1:A:556:C:H3'	1:A:556:C:C6	2.50	0.45
1:A:565:U:P	1:A:566:G:H3'	2.56	0.45
1:A:595:A:O4'	1:A:596:A:C8	2.70	0.45
1:A:602:A:C4	1:A:637:C:N3	2.84	0.45
1:A:605:U:C6	1:A:605:U:OP2	2.70	0.45
1:A:628:G:H22	1:A:629:A:H1'	1.81	0.45
1:A:651:C:H3'	1:A:652:U:H6	1.82	0.45
1:A:660:C:C2	1:A:746:A:C2	3.04	0.45
1:A:746:A:N1	1:A:747:A:C8	2.85	0.45
1:A:760:G:C2	1:A:761:G:H1'	2.52	0.45
1:A:770:C:C2	1:A:771:G:N7	2.84	0.45
1:A:794:A:H3'	1:A:795:C:C6	2.51	0.45
1:A:826:C:N3	1:A:827:U:C5	2.84	0.45
1:A:851:G:H2'	1:A:852:G:C8	2.52	0.45
1:A:859:G:O6	1:A:870:U:C5	2.69	0.45
1:A:863:U:O2	1:A:867:G:C2	2.69	0.45
1:A:868:C:H3'	1:A:869:G:C8	2.51	0.45
1:A:941:G:H2'	1:A:942:G:H8	1.81	0.45
1:A:959:A:H8	1:A:959:A:H3'	1.80	0.45
1:A:961:U:C1'	1:A:984:C:H1'	2.46	0.45
1:A:1009:U:C6	14:N:21:ALA:HA	2.52	0.45
1:A:1035:A:C6	1:A:1036:A:O4'	2.69	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1053:G:H21	1:A:1056:U:H2'	1.81	0.45
1:A:1082:A:C6	1:A:1083:U:C4	3.05	0.45
1:A:1150:A:H1'	1:A:1280:A:N6	2.32	0.45
1:A:1168:U:H5	1:A:1169:A:H1'	1.81	0.45
1:A:1234:C:O4'	1:A:1364:U:C6	2.69	0.45
1:A:1261:A:N7	1:A:1275:A:C4	2.84	0.45
1:A:1405:G:H21	1:A:1518:A:C2'	2.30	0.45
1:A:1461:G:C2	1:A:1462:C:N1	2.84	0.45
1:A:1501:C:C4	1:A:1504:G:C2	3.05	0.45
1:A:1510:C:C2	1:A:1526:G:N1	2.85	0.45
1:A:1510:C:C1'	1:A:1526:G:N2	2.80	0.45
2:B:169:HIS:CG	2:B:170:ILE:N	2.84	0.45
4:D:101:VAL:HB	4:D:113:ALA:HB1	1.98	0.45
5:E:41:GLY:HA3	5:E:44:ARG:CZ	2.47	0.45
6:F:12:PRO:HA	6:F:44:ARG:HG2	1.98	0.45
6:F:42:TRP:CH2	6:F:61:LEU:HB2	2.51	0.45
12:L:8:ARG:CB	12:L:9:LYS:HZ3	2.29	0.45
15:O:10:ILE:HG22	15:O:26:VAL:HA	1.97	0.45
17:Q:19:SER:HB3	17:Q:44:HIS:CE1	2.52	0.45
22:W:162:ILE:HB	22:W:170:MET:HE1	1.98	0.45
1:A:38:G:C4'	1:A:547:A:C6	3.00	0.45
1:A:77:A:C4	1:A:78:A:N6	2.85	0.45
1:A:118:U:O2'	1:A:121:U:C6	2.62	0.45
1:A:121:U:H3'	1:A:122:G:N7	2.31	0.45
1:A:178:C:H2'	1:A:179:A:O4'	2.16	0.45
1:A:188:C:C5	1:A:189:A:C5	3.05	0.45
1:A:191:G:N1	1:A:192:A:C5	2.85	0.45
1:A:193:C:O2	1:A:194:C:C6	2.69	0.45
1:A:208:U:C5	1:A:210:C:N1	2.85	0.45
1:A:226:G:H22	1:A:227:G:N2	2.15	0.45
1:A:254:G:H4'	17:Q:19:SER:HB3	1.98	0.45
1:A:270:A:C4	1:A:271:C:C6	3.04	0.45
1:A:282:A:C8	1:A:282:A:O5'	2.70	0.45
1:A:297:G:C2'	1:A:297:G:N3	2.74	0.45
1:A:302:G:O6	1:A:303:A:C6	2.70	0.45
1:A:303:A:C2	1:A:304:U:H1'	2.52	0.45
1:A:323:U:O4	1:A:327:A:H8	1.99	0.45
1:A:324:G:C5	1:A:326:G:P	3.10	0.45
1:A:347:G:N3	1:A:348:G:H1'	2.32	0.45
1:A:367:U:C5'	1:A:394:G:H21	2.30	0.45
1:A:411:A:C8	1:A:411:A:C3'	2.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:420:U:H5'	4:D:43:ARG:HH22	1.81	0.45
1:A:494:G:C2	1:A:496:A:C8	3.05	0.45
1:A:499:A:H1'	1:A:500:G:C4	2.52	0.45
1:A:515:G:C6	1:A:537:G:C6	3.04	0.45
1:A:559:A:C4'	1:A:560:A:H3'	2.46	0.45
1:A:567:G:C8	1:A:567:G:H3'	2.50	0.45
1:A:569:C:H1'	1:A:574:A:H2'	1.97	0.45
1:A:640:A:C5	1:A:641:U:C2	3.03	0.45
1:A:671:G:C2	1:A:672:U:O4'	2.70	0.45
1:A:676:A:C8	1:A:676:A:O5'	2.69	0.45
1:A:678:U:C2	1:A:679:C:C6	3.04	0.45
1:A:681:A:C6	1:A:710:G:C5	3.04	0.45
1:A:690:G:H1'	1:A:698:G:C2	2.51	0.45
1:A:734:G:H2'	1:A:735:C:C6	2.52	0.45
1:A:737:C:H2'	1:A:738:C:O4'	2.16	0.45
1:A:825:A:C6	1:A:826:C:C5	3.05	0.45
1:A:887:G:C2	1:A:1489:G:OP1	2.69	0.45
1:A:914:A:C8	1:A:914:A:C5'	2.99	0.45
1:A:928:G:H21	1:A:1533:C:H42	1.64	0.45
1:A:946:A:H1'	1:A:1334:G:C4'	2.45	0.45
1:A:976:G:C4	1:A:1362:A:C5	3.04	0.45
1:A:1007:U:O2	1:A:1007:U:C2'	2.61	0.45
1:A:1021:A:C2	1:A:1022:A:C1'	2.99	0.45
1:A:1042:A:C5	1:A:1043:G:C6	3.04	0.45
1:A:1053:G:C8	1:A:1053:G:C3'	2.99	0.45
1:A:1059:C:C2	1:A:1060:U:C5	3.04	0.45
1:A:1061:G:C5	1:A:1197:A:C6	3.04	0.45
1:A:1125:U:H4'	10:J:7:ARG:HE	1.80	0.45
1:A:1145:A:N3	1:A:1145:A:H2'	2.32	0.45
1:A:1166:G:C2'	1:A:1170:A:N6	2.74	0.45
1:A:1169:A:H2'	1:A:1170:A:C5'	2.47	0.45
1:A:1238:A:C2	1:A:1242:G:C8	3.05	0.45
1:A:1253:G:H1'	1:A:1355:G:O2'	2.17	0.45
1:A:1275:A:C5	1:A:1276:G:N7	2.85	0.45
1:A:1279:G:C1'	1:A:1281:C:H41	2.30	0.45
1:A:1330:U:OP2	13:M:25:GLY:HA3	2.16	0.45
1:A:1349:A:C6	1:A:1350:A:H1'	2.51	0.45
1:A:1376:U:C5'	7:G:97:ALA:HB1	2.46	0.45
1:A:1434:A:C5	1:A:1435:G:C4	3.04	0.45
1:A:1466:C:C3'	1:A:1467:C:H6	2.29	0.45
1:A:1483:A:H2'	1:A:1484:C:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1511:G:C4	1:A:1525:G:C2	3.04	0.45
3:C:63:ILE:HG21	3:C:90:VAL:CG1	2.46	0.45
5:E:38:VAL:HG23	5:E:67:ARG:NH1	2.31	0.45
7:G:50:ALA:HA	7:G:60:ALA:HB2	1.99	0.45
8:H:2:MET:C	8:H:3:GLN:HG2	2.37	0.45
11:K:45:THR:CG2	11:K:46:ALA:H	2.14	0.45
14:N:80:ARG:CZ	14:N:81:ILE:HG23	2.46	0.45
1:A:10:A:H2	1:A:25:C:C2	2.29	0.45
1:A:62:U:H2'	1:A:63:C:C6	2.52	0.45
1:A:111:G:H4'	16:P:27:ALA:H	1.82	0.45
1:A:181:A:O2'	1:A:194:C:C5	2.69	0.45
1:A:186:C:N4	1:A:187:G:C6	2.85	0.45
1:A:249:U:C6	1:A:249:U:C3'	3.00	0.45
1:A:250:A:N1	1:A:275:G:C6	2.84	0.45
1:A:257:G:C4	1:A:270:A:C2	3.05	0.45
1:A:296:U:C2	1:A:302:G:N1	2.85	0.45
1:A:460:A:N3	1:A:472:U:H1'	2.32	0.45
1:A:468:A:C4	1:A:470:C:N4	2.84	0.45
1:A:499:A:C6	1:A:547:A:C5	3.05	0.45
1:A:541:G:C1'	4:D:40:HIS:HB2	2.46	0.45
1:A:553:A:C6	1:A:554:A:C4	3.05	0.45
1:A:556:C:C6	1:A:556:C:O5'	2.70	0.45
1:A:587:G:C8	1:A:755:G:N1	2.84	0.45
1:A:602:A:N6	1:A:636:U:H3	2.15	0.45
1:A:665:A:H61	1:A:721:G:H1	1.64	0.45
1:A:667:G:H21	15:O:45:HIS:CE1	2.34	0.45
1:A:683:G:N2	1:A:708:C:H1'	2.32	0.45
1:A:729:A:H2'	1:A:730:G:H8	1.81	0.45
1:A:738:C:H6	1:A:738:C:O5'	2.00	0.45
1:A:774:G:N3	1:A:806:C:C2	2.84	0.45
1:A:774:G:C4	1:A:775:G:C8	3.05	0.45
1:A:777:A:C2	11:K:120:CYS:HA	2.52	0.45
1:A:814:A:O5'	1:A:1511:G:H4'	2.17	0.45
1:A:909:A:C1'	1:A:1414:U:H4'	2.46	0.45
1:A:913:A:N3	1:A:914:A:C1'	2.79	0.45
1:A:940:C:C4	1:A:941:G:N7	2.85	0.45
1:A:1014:A:C6	1:A:1015:G:C6	3.05	0.45
1:A:1027:C:O5'	1:A:1027:C:C6	2.70	0.45
1:A:1075:U:C4	1:A:1076:U:C5	3.05	0.45
1:A:1150:A:H8	1:A:1150:A:O5'	2.00	0.45
1:A:1157:A:C2'	2:B:127:LYS:HZ1	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1167:A:H1'	1:A:1168:U:N3	2.32	0.45
1:A:1172:C:C6	1:A:1172:C:H3'	2.52	0.45
1:A:1225:A:N3	1:A:1225:A:C2'	2.80	0.45
1:A:1230:C:C2'	1:A:1231:G:C8	2.95	0.45
1:A:1239:A:H62	1:A:1299:A:N6	2.15	0.45
1:A:1244:G:C4	1:A:1294:G:N2	2.85	0.45
1:A:1250:A:H4'	9:I:69:GLY:C	2.37	0.45
1:A:1273:C:H2'	1:A:1274:A:O4'	2.17	0.45
1:A:1296:C:C5	1:A:1297:G:N1	2.84	0.45
1:A:1310:G:C6	1:A:1311:A:C5	3.05	0.45
1:A:1316:G:N2	1:A:1318:A:C8	2.85	0.45
1:A:1333:A:O5'	1:A:1333:A:H8	2.00	0.45
1:A:1390:U:H2'	1:A:1391:U:C2	2.51	0.45
1:A:1409:C:C5	1:A:1409:C:OP2	2.70	0.45
1:A:1421:G:N2	1:A:1480:A:C4	2.85	0.45
1:A:1433:A:C5	1:A:1468:A:N9	2.85	0.45
1:A:1480:A:H3'	1:A:1481:U:H6	1.81	0.45
3:C:86:LEU:HD12	3:C:100:ILE:HG21	1.99	0.45
3:C:112:ALA:N	3:C:201:ILE:HG12	2.31	0.45
3:C:127:VAL:HG23	3:C:128:MET:O	2.16	0.45
3:C:176:THR:HG22	3:C:178:ARG:NH1	2.32	0.45
4:D:107:GLY:HA3	4:D:113:ALA:CA	2.46	0.45
12:L:109:ARG:HH21	12:L:111:GLN:HB3	1.82	0.45
13:M:106:ARG:O	13:M:110:GLY:C	2.54	0.45
1:A:31:G:N3	1:A:46:G:H5"	2.31	0.45
1:A:62:U:H5"	1:A:385:C:H2'	1.98	0.45
1:A:113:G:C4	1:A:315:A:C2	3.05	0.45
1:A:129:A:H1'	1:A:130:A:C6	2.52	0.45
1:A:132:C:P	1:A:262:A:H1'	2.57	0.45
1:A:146:G:N1	1:A:147:G:C8	2.84	0.45
1:A:348:G:H3'	1:A:349:A:C8	2.49	0.45
1:A:365:U:H6	1:A:365:U:H3'	1.80	0.45
1:A:374:A:C2	1:A:375:U:C1'	2.99	0.45
1:A:428:G:C5'	4:D:9:LYS:HB2	2.47	0.45
1:A:441:A:H1'	1:A:497:G:N1	2.31	0.45
1:A:462:G:C4	1:A:464:U:O4	2.70	0.45
1:A:509:A:H5"	4:D:51:GLY:CA	2.47	0.45
1:A:512:U:H5'	1:A:534:U:O5'	2.17	0.45
1:A:522:C:C4	1:A:523:A:C2	3.05	0.45
1:A:541:G:H1'	4:D:40:HIS:CB	2.47	0.45
1:A:617:G:H5'	16:P:45:GLU:HB2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:675:A:OP1	18:R:70:THR:HA	2.15	0.45
1:A:688:G:C6	1:A:689:C:C4	3.04	0.45
1:A:688:G:H21	1:A:689:C:H1'	1.78	0.45
1:A:826:C:C6	1:A:826:C:O5'	2.70	0.45
1:A:859:G:C5	1:A:860:A:N7	2.85	0.45
1:A:869:G:H4'	1:A:872:A:N9	2.32	0.45
1:A:901:A:N7	1:A:902:G:H1'	2.32	0.45
1:A:902:G:C8	1:A:902:G:H3'	2.52	0.45
1:A:903:G:N2	1:A:904:U:C2	2.84	0.45
1:A:909:A:H3'	1:A:910:C:C6	2.52	0.45
1:A:954:G:C2	1:A:955:U:C6	3.04	0.45
1:A:954:G:N2	1:A:955:U:H1'	2.31	0.45
1:A:957:U:H4'	19:S:78:THR:HG22	1.99	0.45
1:A:977:A:H5"	1:A:981:U:O2	2.17	0.45
1:A:1003:G:C5	1:A:1005:A:OP1	2.70	0.45
1:A:1004:A:C4'	1:A:1032:G:OP2	2.65	0.45
1:A:1006:G:C8	1:A:1006:G:H3'	2.51	0.45
1:A:1042:A:C4	1:A:1043:G:C5	3.05	0.45
1:A:1073:U:N3	1:A:1074:G:C5	2.85	0.45
1:A:1118:U:H5"	9:I:80:HIS:CD2	2.51	0.45
1:A:1133:G:C2	1:A:1142:G:N1	2.84	0.45
1:A:1171:A:C6	1:A:1172:C:C4	3.05	0.45
1:A:1246:A:H2'	1:A:1246:A:N3	2.32	0.45
1:A:1270:G:H5'	1:A:1314:C:H5'	1.99	0.45
1:A:1305:G:H2'	1:A:1306:A:N7	2.32	0.45
1:A:1309:G:C6	1:A:1310:G:C6	3.05	0.45
1:A:1311:A:C6	1:A:1312:G:N7	2.85	0.45
1:A:1347:G:N2	1:A:1373:G:H2'	2.32	0.45
1:A:1366:C:C4	1:A:1367:C:N4	2.85	0.45
1:A:1502:A:N7	1:A:1504:G:C2	2.84	0.45
3:C:115:VAL:HG12	3:C:119:ILE:CD1	2.46	0.45
7:G:137:ARG:HE	7:G:138:GLU:HG3	1.80	0.45
8:H:79:ARG:HH12	12:L:3:VAL:H	1.65	0.45
11:K:115:ILE:O	11:K:117:HIS:CE1	2.69	0.45
13:M:59:VAL:C	13:M:61:LYS:H	2.20	0.45
20:T:66:ILE:C	20:T:67:HIS:CG	2.90	0.45
22:W:81:TRP:HA	22:W:97:VAL:HA	1.99	0.45
1:A:23:C:C4	1:A:24:U:C5	3.04	0.45
1:A:87:C:H2'	1:A:88:U:O4'	2.17	0.45
1:A:100:G:C5	1:A:101:A:C5	3.05	0.45
1:A:131:A:C2	1:A:132:C:C4	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:131:A:C2	1:A:232:G:C5	3.05	0.45
1:A:146:G:N2	1:A:177:G:C8	2.85	0.45
1:A:152:A:C6	1:A:170:U:O2	2.70	0.45
1:A:243:A:C2	1:A:246:A:OP2	2.69	0.45
1:A:261:U:H2'	1:A:262:A:H3'	1.99	0.45
1:A:272:C:C2'	1:A:273:U:C6	2.98	0.45
1:A:356:A:H4'	1:A:367:U:H6	1.82	0.45
1:A:358:U:C6	1:A:358:U:H3'	2.52	0.45
1:A:377:G:H5"	16:P:24:SER:HA	1.98	0.45
1:A:381:C:H5	1:A:382:A:C6	2.34	0.45
1:A:395:C:C6	1:A:395:C:O5'	2.70	0.45
1:A:454:G:C6	1:A:455:G:N7	2.84	0.45
1:A:462:G:N2	1:A:471:U:C6	2.85	0.45
1:A:473:U:C6	1:A:474:G:C8	3.05	0.45
1:A:515:G:C8	1:A:515:G:O5'	2.70	0.45
1:A:578:C:C6	1:A:578:C:OP2	2.69	0.45
1:A:583:A:C4	1:A:759:A:N7	2.84	0.45
1:A:614:C:O2	1:A:627:G:C2	2.69	0.45
1:A:619:U:H3'	1:A:619:U:C6	2.52	0.45
1:A:642:A:C2	8:H:105:THR:O	2.69	0.45
1:A:668:G:C5	1:A:669:G:N7	2.85	0.45
1:A:738:C:N3	1:A:739:C:C4	2.85	0.45
1:A:771:G:C5	1:A:772:U:N1	2.85	0.45
1:A:784:A:H2'	1:A:785:G:N7	2.32	0.45
1:A:861:G:O6	1:A:869:G:C2	2.70	0.45
1:A:865:A:C8	1:A:865:A:C3'	3.00	0.45
1:A:893:C:H2'	1:A:894:G:H5'	1.99	0.45
1:A:1033:G:N7	1:A:1036:A:N1	2.65	0.45
1:A:1044:A:N7	1:A:1045:C:H1'	2.31	0.45
1:A:1068:G:C8	1:A:1094:G:C8	3.04	0.45
1:A:1072:G:C6	1:A:1073:U:C4	3.05	0.45
1:A:1120:C:C2	1:A:1154:G:N3	2.85	0.45
1:A:1133:G:C4	1:A:1142:G:N1	2.85	0.45
1:A:1159:U:C2	1:A:1182:G:C4	3.05	0.45
1:A:1165:U:C2	1:A:1166:G:C4	3.05	0.45
1:A:1166:G:N1	1:A:1169:A:OP2	2.49	0.45
1:A:1213:A:N7	1:A:1215:G:C5	2.85	0.45
1:A:1231:G:H3'	1:A:1232:U:H6	1.73	0.45
1:A:1261:A:C8	1:A:1275:A:N3	2.85	0.45
1:A:1265:C:O2	1:A:1271:A:C2	2.70	0.45
1:A:1269:A:H2'	1:A:1313:U:O2'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1309:G:C6	1:A:1329:A:C2	3.04	0.45
1:A:1345:U:C4	1:A:1377:A:C2	3.05	0.45
1:A:1390:U:H2'	1:A:1391:U:H1'	1.98	0.45
1:A:1391:U:C2'	1:A:1392:G:C8	2.99	0.45
1:A:1480:A:N7	1:A:1481:U:C5	2.85	0.45
2:B:19:THR:CG2	2:B:189:ASN:HD21	2.28	0.45
3:C:187:GLU:HB2	3:C:195:ILE:O	2.17	0.45
4:D:8:LEU:HD22	4:D:12:ARG:HH12	1.82	0.45
4:D:94:GLU:HG2	4:D:103:ARG:HH22	1.82	0.45
9:I:16:ALA:HA	9:I:66:VAL:HA	1.99	0.45
9:I:51:LEU:HA	9:I:86:LEU:HD21	1.98	0.45
9:I:94:ARG:O	9:I:98:ARG:HB3	2.17	0.45
15:O:41:HIS:CD2	15:O:42:PHE:N	2.85	0.45
1:A:39:G:C6	1:A:404:G:C4	3.05	0.45
1:A:46:G:C2'	1:A:365:U:H2'	2.46	0.45
1:A:49:U:C5	1:A:361:G:H1'	2.51	0.45
1:A:115:G:C6	1:A:313:A:C6	3.05	0.45
1:A:115:G:N3	1:A:289:G:C8	2.85	0.45
1:A:116:A:C8	1:A:116:A:OP2	2.70	0.45
1:A:132:C:C6	1:A:132:C:C3'	3.00	0.45
1:A:141:G:N1	1:A:223:A:C6	2.84	0.45
1:A:158:G:C2	1:A:159:G:C8	3.05	0.45
1:A:200:G:C6	1:A:201:G:N7	2.85	0.45
1:A:223:A:N6	1:A:224:U:C4	2.85	0.45
1:A:226:G:N2	1:A:227:G:C2	2.85	0.45
1:A:251:G:C5	1:A:252:U:H5	2.32	0.45
1:A:264:C:H3'	1:A:265:G:C8	2.51	0.45
1:A:282:A:C2	1:A:283:U:N1	2.85	0.45
1:A:337:G:C4	1:A:338:A:N7	2.85	0.45
1:A:367:U:C2	1:A:394:G:N3	2.85	0.45
1:A:374:A:H5"	1:A:480:U:O2	2.17	0.45
1:A:380:G:H2'	1:A:382:A:N7	2.31	0.45
1:A:397:A:O3'	1:A:398:U:C6	2.70	0.45
1:A:465:A:C2	1:A:466:A:N9	2.85	0.45
1:A:496:A:C6	1:A:497:G:C6	3.05	0.45
1:A:522:C:H1'	1:A:536:C:C5'	2.46	0.45
1:A:540:G:C2	1:A:541:G:C4	3.05	0.45
1:A:558:G:C8	1:A:558:G:P	3.10	0.45
1:A:601:G:C2	1:A:638:U:C2	3.04	0.45
1:A:602:A:C6	1:A:637:C:N4	2.84	0.45
1:A:604:G:C8	1:A:604:G:OP2	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:604:G:C3'	1:A:605:U:C6	2.94	0.45
1:A:663:A:C2	1:A:664:G:C5	3.05	0.45
1:A:675:A:C2	1:A:676:A:N9	2.85	0.45
1:A:677:U:C5	1:A:678:U:C4	3.05	0.45
1:A:704:A:N7	1:A:705:G:N7	2.65	0.45
1:A:760:G:C5	1:A:761:G:C8	3.04	0.45
1:A:766:A:H2	1:A:1525:G:N3	2.15	0.45
1:A:795:C:N3	1:A:796:C:C2	2.84	0.45
1:A:803:G:C5	1:A:804:U:C4	3.05	0.45
1:A:836:G:C5	1:A:851:G:N1	2.85	0.45
1:A:860:A:C4	1:A:861:G:C1'	3.00	0.45
1:A:877:G:C8	1:A:877:G:H3'	2.52	0.45
1:A:975:A:C5	1:A:1357:A:N3	2.85	0.45
1:A:1043:G:C2'	1:A:1044:A:C8	2.98	0.45
1:A:1057:G:N7	1:A:1058:G:C5	2.85	0.45
1:A:1068:G:C5	1:A:1108:G:N3	2.85	0.45
1:A:1089:G:N2	1:A:1090:U:H1'	2.31	0.45
1:A:1116:U:C2	1:A:1185:G:N1	2.84	0.45
1:A:1116:U:O5'	1:A:1116:U:H6	1.99	0.45
1:A:1150:A:H8	1:A:1150:A:P	2.40	0.45
1:A:1172:C:C4	1:A:1173:U:C4	3.04	0.45
1:A:1176:A:C2	1:A:1177:G:C4	3.05	0.45
1:A:1242:G:C2'	1:A:1302:C:H2'	2.47	0.45
1:A:1254:A:N1	1:A:1255:G:C5	2.85	0.45
1:A:1259:C:H2'	1:A:1260:G:O4'	2.17	0.45
1:A:1317:C:C4	1:A:1318:A:C2	3.05	0.45
1:A:1350:A:OP2	9:I:122:ARG:HG2	2.16	0.45
1:A:1381:U:N3	7:G:79:VAL:HG22	2.31	0.45
1:A:1401:G:H2'	1:A:1402:C:O4'	2.17	0.45
1:A:1404:C:C6	1:A:1404:C:O5'	2.70	0.45
1:A:1423:G:C2	1:A:1424:U:C2	3.05	0.45
1:A:1479:C:C6	1:A:1479:C:O5'	2.70	0.45
2:B:53:LEU:HA	2:B:56:LEU:HD12	1.98	0.45
2:B:68:PHE:N	2:B:90:PHE:HA	2.28	0.45
8:H:76:ARG:CB	8:H:76:ARG:HH11	2.29	0.45
11:K:51:PHE:HB3	11:K:56:LYS:CA	2.47	0.45
13:M:23:GLY:CA	13:M:64:VAL:HA	2.46	0.45
13:M:112:ARG:HD3	13:M:113:LYS:H	1.82	0.45
17:Q:67:SER:CB	17:Q:70:LYS:HD2	2.47	0.45
1:A:44:A:C6	1:A:399:G:C6	3.05	0.45
1:A:49:U:H1'	1:A:362:G:C1'	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:53:A:C2	1:A:54:C:C1'	2.99	0.45
1:A:109:A:C8	1:A:326:G:C4	3.05	0.45
1:A:136:C:N3	1:A:137:U:C6	2.85	0.45
1:A:203:G:C3'	1:A:203:G:C8	3.00	0.45
1:A:243:A:H4'	1:A:244:U:H5"	1.97	0.45
1:A:356:A:H2	1:A:368:U:O2	1.98	0.45
1:A:413:G:H4'	1:A:428:G:C2	2.51	0.45
1:A:413:G:N2	4:D:12:ARG:CZ	2.80	0.45
1:A:421:U:C4	1:A:423:G:O6	2.70	0.45
1:A:450:G:C6	1:A:481:G:C4	3.05	0.45
1:A:451:A:N9	1:A:480:U:H2'	2.31	0.45
1:A:452:A:H8	1:A:452:A:C5'	2.27	0.45
1:A:455:G:C6	1:A:478:A:N1	2.85	0.45
1:A:457:G:C8	1:A:457:G:H5"	2.52	0.45
1:A:457:G:N1	1:A:458:U:C4	2.85	0.45
1:A:468:A:H5"	1:A:468:A:N3	2.32	0.45
1:A:469:C:N4	1:A:470:C:C2	2.85	0.45
1:A:498:A:OP2	1:A:498:A:H8	2.00	0.45
1:A:553:A:C5	1:A:554:A:C8	3.05	0.45
1:A:567:G:C5	1:A:568:G:C8	3.05	0.45
1:A:592:G:H2'	1:A:593:U:H6	1.81	0.45
1:A:613:C:C2	1:A:628:G:N2	2.84	0.45
1:A:665:A:C5	1:A:733:G:C5	3.05	0.45
1:A:814:A:C6	1:A:816:A:C1'	3.00	0.45
1:A:827:U:H1'	1:A:874:G:H21	1.81	0.45
1:A:893:C:N4	1:A:894:G:C6	2.85	0.45
1:A:942:G:N3	1:A:942:G:H2'	2.32	0.45
1:A:948:C:C5	13:M:104:ASN:ND2	2.85	0.45
1:A:959:A:C8	1:A:959:A:H3'	2.52	0.45
1:A:1004:A:H8	1:A:1005:A:N9	2.15	0.45
1:A:1014:A:C4	1:A:1015:G:C5	3.04	0.45
1:A:1053:G:H21	1:A:1056:U:C2'	2.30	0.45
1:A:1055:A:H2	3:C:193:GLY:CA	2.30	0.45
1:A:1057:G:H5"	3:C:154:GLY:HA3	1.99	0.45
1:A:1085:U:H1'	1:A:1094:G:C6	2.52	0.45
1:A:1107:C:C2'	1:A:1108:G:H5'	2.46	0.45
1:A:1134:G:N2	1:A:1141:C:H1'	2.32	0.45
1:A:1152:A:OP1	10:J:18:ILE:HG21	2.17	0.45
1:A:1160:G:C2	1:A:1161:C:C2	3.05	0.45
1:A:1166:G:H21	1:A:1170:A:H62	1.65	0.45
1:A:1222:G:C8	1:A:1322:C:N4	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1239:A:N9	1:A:1241:G:C5	2.85	0.45
1:A:1243:C:HO2'	13:M:13:HIS:CE1	2.34	0.45
1:A:1264:U:H2'	1:A:1265:C:O4'	2.17	0.45
1:A:1290:G:C2	1:A:1291:U:H1'	2.51	0.45
1:A:1355:G:N1	1:A:1356:G:C6	2.85	0.45
1:A:1434:A:H3'	1:A:1435:G:C8	2.49	0.45
1:A:1443:C:N3	1:A:1460:C:C2	2.85	0.45
1:A:1461:G:C6	1:A:1462:C:C5	3.05	0.45
2:B:65:LYS:H	2:B:153:MET:HB2	1.81	0.45
2:B:148:GLY:HA2	2:B:152:ASP:OD1	2.17	0.45
3:C:64:ARG:HA	3:C:99:GLN:HB2	1.99	0.45
8:H:85:TYR:HB3	8:H:91:LEU:HD21	1.98	0.45
11:K:27:ASN:O	11:K:56:LYS:HB2	2.17	0.45
12:L:30:ARG:HD3	12:L:57:THR:HG21	1.99	0.45
22:W:220:LYS:HD3	22:W:271:ARG:HB3	1.98	0.45
1:A:19:A:C1'	1:A:864:A:H1'	2.46	0.44
1:A:49:U:C5	1:A:361:G:C2	3.05	0.44
1:A:56:U:C2	1:A:57:G:C8	3.06	0.44
1:A:57:G:C6	1:A:58:C:N3	2.85	0.44
1:A:68:G:H3'	1:A:69:G:O4'	2.17	0.44
1:A:145:G:N1	1:A:146:G:C5	2.85	0.44
1:A:146:G:C2	1:A:177:G:N7	2.85	0.44
1:A:151:A:C6	1:A:152:A:N9	2.85	0.44
1:A:161:A:H1'	1:A:347:G:N2	2.32	0.44
1:A:266:G:C6	1:A:269:C:N4	2.71	0.44
1:A:313:A:C6	1:A:314:C:C5	3.05	0.44
1:A:319:G:C5'	1:A:1468:A:H5'	2.47	0.44
1:A:321:A:C6	1:A:322:C:N1	2.85	0.44
1:A:347:G:C8	1:A:347:G:C5'	2.99	0.44
1:A:354:G:C2	1:A:355:C:C2	3.05	0.44
1:A:362:G:H2'	1:A:364:A:OP2	2.17	0.44
1:A:371:A:H5'	1:A:483:C:H4'	1.99	0.44
1:A:373:A:H4'	1:A:480:U:H4'	1.99	0.44
1:A:391:G:H3'	16:P:12:LYS:HD2	1.99	0.44
1:A:500:G:H8	1:A:500:G:C5'	2.30	0.44
1:A:500:G:N1	1:A:501:C:C2	2.86	0.44
1:A:529:G:C5	12:L:45:ASN:HA	2.53	0.44
1:A:529:G:H5"	1:A:535:A:N7	2.31	0.44
1:A:537:G:C4	1:A:538:G:C8	3.05	0.44
1:A:543:U:C5'	4:D:13:ARG:HH21	2.30	0.44
1:A:609:A:C5	1:A:630:A:H2	2.35	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:613:C:C2	1:A:614:C:C6	3.05	0.44
1:A:616:G:H21	16:P:48:GLU:CD	2.19	0.44
1:A:628:G:N2	1:A:629:A:H1'	2.32	0.44
1:A:668:G:H5'	15:O:48:ASP:HA	1.99	0.44
1:A:696:A:OP1	11:K:52:ARG:HB3	2.17	0.44
1:A:698:G:H3'	1:A:699:C:C6	2.51	0.44
1:A:725:G:C4'	18:R:52:ARG:HH12	2.30	0.44
1:A:728:A:C4	15:O:53:ARG:HD3	2.52	0.44
1:A:741:G:C2	1:A:742:G:C4	3.05	0.44
1:A:765:G:C8	1:A:765:G:O5'	2.71	0.44
1:A:786:G:C2	1:A:797:C:C2	3.05	0.44
1:A:796:C:C4	1:A:797:C:C5	3.05	0.44
1:A:836:G:C5	1:A:837:U:C6	3.05	0.44
1:A:860:A:C5	1:A:861:G:N9	2.85	0.44
1:A:954:G:C4	1:A:955:U:C6	3.06	0.44
1:A:960:U:C2	1:A:1225:A:C4	3.05	0.44
1:A:1053:G:H3'	1:A:1199:U:OP2	2.18	0.44
1:A:1114:C:H4'	14:N:100:TRP:CZ2	2.52	0.44
1:A:1119:C:H1'	1:A:1155:A:C2	2.52	0.44
1:A:1125:U:C4'	10:J:7:ARG:HE	2.31	0.44
1:A:1127:G:H4'	1:A:1280:A:C2	2.51	0.44
1:A:1144:G:O6	1:A:1145:A:C6	2.70	0.44
1:A:1179:A:C8	1:A:1179:A:O5'	2.69	0.44
1:A:1183:U:C6	2:B:131:LYS:HD3	2.52	0.44
1:A:1213:A:C5	1:A:1215:G:H1'	2.51	0.44
1:A:1225:A:H2'	1:A:1226:C:C6	2.51	0.44
1:A:1254:A:N1	1:A:1255:G:C6	2.84	0.44
1:A:1271:A:H5'	19:S:6:LYS:HZ3	1.81	0.44
1:A:1277:C:O4'	1:A:1282:C:H1'	2.17	0.44
1:A:1300:G:C4	1:A:1334:G:C5	3.04	0.44
1:A:1302:C:H3'	1:A:1303:C:H5'	1.99	0.44
1:A:1304:G:N7	1:A:1305:G:C5	2.85	0.44
1:A:1305:G:H2'	1:A:1306:A:C8	2.52	0.44
1:A:1307:U:C4	1:A:1308:U:C5	3.05	0.44
1:A:1308:U:H5'	13:M:108:ARG:HH21	1.82	0.44
1:A:1392:G:C2	1:A:1393:U:C2	3.05	0.44
1:A:1514:G:N2	1:A:1515:G:C8	2.85	0.44
1:A:1521:C:C6	1:A:1521:C:C3'	3.01	0.44
1:A:1529:G:N3	1:A:1529:G:H5"	2.32	0.44
4:D:32:LYS:HB3	4:D:33:ILE:H	1.47	0.44
4:D:105:GLY:CA	4:D:161:ALA:HB2	2.45	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:167:PRO:CB	4:D:170:LEU:HG	2.47	0.44
6:F:3:HIS:O	6:F:4:TYR:CD1	2.69	0.44
9:I:50:PRO:HD3	9:I:79:ARG:HG3	1.98	0.44
12:L:33:CYS:HA	12:L:54:VAL:HA	1.98	0.44
12:L:82:ARG:NH1	12:L:100:ALA:HB2	2.31	0.44
16:P:14:ARG:HB2	16:P:42:ILE:HD12	1.99	0.44
17:Q:28:VAL:HG22	17:Q:39:ARG:HB2	2.00	0.44
17:Q:60:ILE:HG13	17:Q:72:TRP:CZ3	2.51	0.44
18:R:70:THR:O	18:R:71:ASP:HB2	2.17	0.44
1:A:68:G:C6	1:A:102:G:C2	3.05	0.44
1:A:80:A:N3	1:A:91:U:C2	2.85	0.44
1:A:80:A:N1	1:A:90:C:O2	2.50	0.44
1:A:91:U:C5	1:A:92:U:O2	2.70	0.44
1:A:112:G:H22	1:A:315:A:H2	1.64	0.44
1:A:123:U:H2'	1:A:124:C:O4'	2.17	0.44
1:A:127:G:C6	1:A:128:G:N7	2.85	0.44
1:A:138:G:N9	1:A:226:G:C2	2.86	0.44
1:A:161:A:C2	1:A:162:A:C1'	3.00	0.44
1:A:179:A:H3'	1:A:180:U:C5	2.53	0.44
1:A:200:G:N2	1:A:469:C:H1'	2.32	0.44
1:A:200:G:N2	1:A:469:C:O2	2.50	0.44
1:A:245:U:O2'	1:A:246:A:H5'	2.17	0.44
1:A:321:A:C8	1:A:328:C:N1	2.85	0.44
1:A:348:G:C2	1:A:349:A:C4	3.05	0.44
1:A:405:U:O2	1:A:498:A:H2'	2.18	0.44
1:A:410:G:N1	1:A:429:U:H1'	2.33	0.44
1:A:450:G:OP2	1:A:451:A:H5"	2.17	0.44
1:A:462:G:O6	1:A:467:U:OP2	2.35	0.44
1:A:473:U:N3	1:A:474:G:C6	2.85	0.44
1:A:488:C:C4	1:A:489:C:C5	3.05	0.44
1:A:499:A:C6	1:A:546:A:C4	3.05	0.44
1:A:503:C:O2	1:A:510:A:C2	2.69	0.44
1:A:538:G:C2	1:A:539:A:C5	3.05	0.44
1:A:562:U:H5"	1:A:563:A:C4	2.53	0.44
1:A:578:C:C2	1:A:579:A:C8	3.05	0.44
1:A:591:U:H2'	1:A:592:G:H8	1.82	0.44
1:A:640:A:H2	1:A:642:A:N6	2.14	0.44
1:A:665:A:C8	1:A:725:G:C2	3.06	0.44
1:A:669:G:C8	1:A:669:G:H3'	2.52	0.44
1:A:692:U:C1'	1:A:695:A:H62	2.30	0.44
1:A:730:G:C2'	1:A:814:A:H61	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:751:U:OP2	1:A:752:G:N7	2.50	0.44
1:A:751:U:H5'	15:O:17:ASP:CG	2.38	0.44
1:A:757:U:H5"	1:A:822:U:O2	2.17	0.44
1:A:782:A:OP2	1:A:783:C:H5	2.00	0.44
1:A:822:U:H3'	1:A:823:C:H6	1.82	0.44
1:A:827:U:H1'	1:A:874:G:N2	2.33	0.44
1:A:917:G:O6	1:A:918:A:C6	2.70	0.44
1:A:1005:A:C2	1:A:1026:G:N7	2.85	0.44
1:A:1005:A:OP2	1:A:1006:G:N7	2.51	0.44
1:A:1060:U:C2	1:A:1198:G:C2	3.04	0.44
1:A:1061:G:C5	1:A:1197:A:C2	3.05	0.44
1:A:1128:C:O2'	1:A:1147:C:N3	2.50	0.44
1:A:1163:A:C2	1:A:1174:G:N7	2.84	0.44
1:A:1163:A:N1	1:A:1164:G:C5	2.85	0.44
1:A:1203:C:C4	1:A:1204:A:C8	3.05	0.44
1:A:1236:A:C2	1:A:1334:G:O2'	2.64	0.44
1:A:1261:A:H1'	1:A:1275:A:C2	2.52	0.44
1:A:1366:C:H4'	10:J:62:ARG:HH12	1.81	0.44
1:A:1371:G:C4	1:A:1372:U:C5	3.05	0.44
1:A:1399:C:C5	1:A:1502:A:C2	3.05	0.44
1:A:1400:C:H3'	1:A:1401:G:C5'	2.46	0.44
1:A:1523:G:P	11:K:127:ARG:HB2	2.57	0.44
1:A:1525:G:C6	1:A:1526:G:C5	3.06	0.44
2:B:49:PHE:HE1	2:B:199:ILE:HG23	1.79	0.44
2:B:162:VAL:HG21	2:B:165:ALA:CA	2.45	0.44
3:C:140:ALA:HB3	3:C:148:ILE:HG21	1.99	0.44
4:D:101:VAL:HG22	4:D:122:ILE:HG21	1.99	0.44
5:E:52:ALA:HB2	5:E:61:LYS:HZ2	1.82	0.44
6:F:10:VAL:HG11	6:F:18:VAL:CG2	2.47	0.44
8:H:85:TYR:HA	8:H:91:LEU:HD23	1.99	0.44
11:K:24:ALA:HA	11:K:29:THR:HG23	1.98	0.44
11:K:31:VAL:O	11:K:43:TRP:HA	2.18	0.44
19:S:47:THR:HG21	19:S:60:PHE:CE2	2.50	0.44
20:T:49:ALA:HA	20:T:52:GLU:HB2	1.98	0.44
20:T:78:LEU:HD13	20:T:81:GLN:OE1	2.18	0.44
1:A:35:G:C5	1:A:36:C:C4	3.05	0.44
1:A:37:U:N3	1:A:38:G:C5	2.85	0.44
1:A:42:G:C2	1:A:43:C:C6	3.05	0.44
1:A:59:A:C8	20:T:2:ASN:O	2.71	0.44
1:A:134:G:C8	1:A:134:G:O5'	2.71	0.44
1:A:139:A:C2	1:A:225:C:N1	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:158:G:N2	1:A:164:G:C1’	2.81	0.44
1:A:200:G:C5	1:A:201:G:N7	2.85	0.44
1:A:201:G:N7	1:A:212:G:H5”	2.32	0.44
1:A:266:G:C1’	1:A:267:C:H3’	2.48	0.44
1:A:279:A:H1’	1:A:281:G:C6	2.53	0.44
1:A:284:C:C2	1:A:285:C:C6	3.05	0.44
1:A:347:G:C6	1:A:348:G:N3	2.85	0.44
1:A:380:G:H22	1:A:383:A:P	2.41	0.44
1:A:381:C:C5	1:A:382:A:C6	3.05	0.44
1:A:390:U:H2’	1:A:391:G:N9	2.33	0.44
1:A:409:U:O2	1:A:409:U:C2’	2.64	0.44
1:A:442:G:C4	1:A:443:C:C6	3.05	0.44
1:A:457:G:N2	1:A:476:U:N1	2.66	0.44
1:A:460:A:C4	1:A:472:U:C2	3.06	0.44
1:A:493:A:H8	1:A:493:A:O5’	1.99	0.44
1:A:525:C:C2	1:A:526:C:C6	3.05	0.44
1:A:632:U:OP2	1:A:633:G:O6	2.36	0.44
1:A:664:G:N2	1:A:741:G:H22	2.14	0.44
1:A:689:C:C6	1:A:689:C:OP2	2.70	0.44
1:A:696:A:N6	1:A:797:C:H4’	2.32	0.44
1:A:780:A:H5”	11:K:124:LYS:H	1.82	0.44
1:A:783:C:C6	1:A:783:C:H3’	2.52	0.44
1:A:794:A:N7	1:A:795:C:C5	2.86	0.44
1:A:807:A:C4	1:A:808:C:C6	3.05	0.44
1:A:836:G:C6	1:A:837:U:N3	2.85	0.44
1:A:862:C:H2’	1:A:863:U:C6	2.52	0.44
1:A:938:A:C2	1:A:1345:U:N3	2.82	0.44
1:A:996:A:C2	1:A:1045:C:O2’	2.70	0.44
1:A:1033:G:C2	1:A:1034:G:C4	3.05	0.44
1:A:1097:C:O2	1:A:1169:A:H2	2.00	0.44
1:A:1110:A:N7	1:A:1111:A:C4	2.84	0.44
1:A:1118:U:H2’	1:A:1119:C:O4’	2.18	0.44
1:A:1125:U:O2	10:J:42:LEU:HD21	2.18	0.44
1:A:1133:G:N2	1:A:1134:G:C1’	2.80	0.44
1:A:1136:C:C2	1:A:1138:G:O6	2.71	0.44
1:A:1206:G:C5’	3:C:191:THR:HA	2.48	0.44
1:A:1245:C:C6	1:A:1245:C:O5’	2.71	0.44
1:A:1271:A:C2	1:A:1272:G:C5	3.05	0.44
1:A:1300:G:N1	1:A:1334:G:H2’	2.32	0.44
1:A:1401:G:C8	1:A:1401:G:O5’	2.71	0.44
1:A:1440:U:O3’	1:A:1441:A:C8	2.71	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1466:C:H2'	1:A:1467:C:O4'	2.18	0.44
1:A:1474:U:C2	1:A:1475:G:C8	3.05	0.44
1:A:1530:G:H1'	1:A:1531:A:O5'	2.17	0.44
2:B:68:PHE:CE2	2:B:83:ALA:HA	2.51	0.44
2:B:80:LYS:N	2:B:83:ALA:HB3	2.32	0.44
3:C:22:PHE:CD2	10:J:96:VAL:HA	2.53	0.44
7:G:98:LEU:HD22	7:G:101:ARG:HH22	1.82	0.44
8:H:76:ARG:NE	8:H:78:SER:H	2.15	0.44
8:H:93:LYS:HE2	8:H:112:ASP:OD2	2.17	0.44
9:I:38:PHE:HB3	9:I:71:ILE:HG22	1.98	0.44
11:K:29:THR:O	11:K:46:ALA:HB2	2.18	0.44
13:M:19:THR:HG22	13:M:26:LYS:HA	1.99	0.44
13:M:36:ALA:HB2	13:M:55:LEU:HD11	2.00	0.44
16:P:54:LEU:H	16:P:54:LEU:HD12	1.82	0.44
18:R:62:ARG:HB3	18:R:69:TYR:CB	2.47	0.44
1:A:27:G:H2'	1:A:28:A:H8	1.83	0.44
1:A:36:C:O3'	12:L:120:ARG:HB3	2.17	0.44
1:A:57:G:C6	1:A:58:C:C5	3.05	0.44
1:A:66:A:N1	1:A:67:C:N4	2.65	0.44
1:A:70:U:N3	1:A:94:G:N3	2.64	0.44
1:A:131:A:N3	1:A:131:A:C2'	2.77	0.44
1:A:141:G:C8	1:A:141:G:C3'	3.01	0.44
1:A:164:G:C2	1:A:165:G:C8	3.06	0.44
1:A:218:U:C6	1:A:219:U:C4	3.05	0.44
1:A:238:A:C2	1:A:239:U:N1	2.84	0.44
1:A:250:A:H5'	1:A:252:U:O5'	2.16	0.44
1:A:302:G:C6	1:A:303:A:C4	3.05	0.44
1:A:320:A:H3'	1:A:328:C:H41	1.82	0.44
1:A:325:A:N7	1:A:326:G:C8	2.86	0.44
1:A:329:A:C4	1:A:332:G:C8	3.05	0.44
1:A:341:C:H2'	1:A:342:C:H6	1.81	0.44
1:A:352:C:C6	1:A:355:C:N4	2.81	0.44
1:A:354:G:H2'	1:A:354:G:N3	2.32	0.44
1:A:402:G:H5'	4:D:70:GLN:CG	2.48	0.44
1:A:416:G:C5	1:A:417:G:N7	2.85	0.44
1:A:449:G:OP1	1:A:451:A:H2'	2.18	0.44
1:A:565:U:H5	1:A:566:G:O2'	1.99	0.44
1:A:570:G:C5'	1:A:820:U:C4'	2.95	0.44
1:A:677:U:H3	1:A:714:G:N2	2.14	0.44
1:A:695:A:C2'	1:A:696:A:C8	3.00	0.44
1:A:715:A:H5"	1:A:805:C:O2'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:831:A:N1	1:A:832:G:C4	2.84	0.44
1:A:858:G:N1	1:A:869:G:C2'	2.81	0.44
1:A:858:G:C2	1:A:869:G:H2'	2.52	0.44
1:A:866:C:C4	1:A:873:A:C2	3.05	0.44
1:A:867:G:N3	1:A:873:A:C2	2.85	0.44
1:A:872:A:C6	1:A:874:G:C8	3.06	0.44
1:A:886:G:N1	1:A:887:G:C4	2.86	0.44
1:A:896:C:C2'	1:A:897:C:H6	2.20	0.44
1:A:917:G:C4	1:A:918:A:C8	3.05	0.44
1:A:923:A:N3	1:A:924:C:C5	2.86	0.44
1:A:941:G:C6	1:A:942:G:N7	2.85	0.44
1:A:942:G:C5	1:A:943:U:H5	2.35	0.44
1:A:994:A:C2	1:A:995:C:C6	3.05	0.44
1:A:1004:A:H2'	1:A:1036:A:C2	2.52	0.44
1:A:1020:G:C2	1:A:1021:A:C8	3.06	0.44
1:A:1067:A:O2'	1:A:1094:G:H3'	2.18	0.44
1:A:1087:G:N1	1:A:1088:G:C6	2.85	0.44
1:A:1089:G:HO2'	1:A:1167:A:H8	1.62	0.44
1:A:1097:C:O2	1:A:1169:A:C2	2.71	0.44
1:A:1112:C:N4	3:C:177:LEU:H	2.15	0.44
1:A:1120:C:C4	1:A:1121:U:C6	3.05	0.44
1:A:1136:C:C2	1:A:1138:G:C6	3.06	0.44
1:A:1142:G:H2'	1:A:1142:G:N3	2.31	0.44
1:A:1164:G:C2	1:A:1173:U:O2	2.71	0.44
1:A:1248:A:C2	9:I:71:ILE:HD11	2.51	0.44
1:A:1379:G:C2	1:A:1380:U:C6	3.05	0.44
1:A:1482:G:C2'	1:A:1483:A:C8	3.00	0.44
2:B:98:GLY:CA	2:B:170:ILE:HG21	2.48	0.44
3:C:25:THR:HA	3:C:28:PHE:HB2	1.98	0.44
5:E:99:SER:HB2	5:E:102:THR:HG23	1.98	0.44
5:E:158:LYS:HE2	8:H:70:VAL:HG12	1.99	0.44
7:G:42:VAL:O	7:G:45:ALA:HB3	2.17	0.44
9:I:18:VAL:HG22	9:I:64:ILE:HG22	1.99	0.44
10:J:36:VAL:HA	10:J:76:ILE:HA	1.99	0.44
13:M:88:LEU:HA	13:M:91:ARG:HG2	1.99	0.44
15:O:14:PHE:CE2	15:O:83:ARG:CB	2.99	0.44
15:O:31:LEU:HB3	15:O:62:ARG:HD3	2.00	0.44
20:T:34:VAL:HG13	20:T:50:PHE:N	2.32	0.44
20:T:82:ILE:C	20:T:86:ALA:HB3	2.38	0.44
22:W:146:VAL:CG1	22:W:283:ILE:HA	2.48	0.44
22:W:233:GLU:HB2	22:W:271:ARG:HH22	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2:A:N7	1:A:3:A:C4	2.85	0.44
1:A:11:G:H8	1:A:11:G:O5'	2.00	0.44
1:A:49:U:O4	1:A:362:G:C4	2.70	0.44
1:A:61:G:C6	1:A:62:U:C2	3.05	0.44
1:A:119:A:OP2	1:A:287:U:O4	2.36	0.44
1:A:161:A:H1'	1:A:347:G:H21	1.83	0.44
1:A:188:C:C2	1:A:189:A:C1'	3.00	0.44
1:A:217:C:H2'	1:A:218:U:C6	2.53	0.44
1:A:230:G:C2	1:A:231:U:C1'	3.01	0.44
1:A:297:G:H2'	1:A:297:G:N3	2.33	0.44
1:A:310:G:C5	1:A:311:C:C6	3.06	0.44
1:A:312:C:O5'	1:A:312:C:C6	2.70	0.44
1:A:335:C:C2	1:A:336:A:C8	3.05	0.44
1:A:337:G:C4	1:A:338:A:C8	3.05	0.44
1:A:402:G:C2	1:A:403:C:C5	3.06	0.44
1:A:409:U:H3'	1:A:410:G:H8	1.82	0.44
1:A:454:G:N1	1:A:455:G:C5	2.85	0.44
1:A:455:G:H22	1:A:456:A:H1'	1.82	0.44
1:A:499:A:C6	1:A:546:A:C8	3.05	0.44
1:A:507:C:C3'	1:A:508:U:H5"	2.46	0.44
1:A:529:G:H5'	1:A:535:A:C8	2.52	0.44
1:A:543:U:H2'	1:A:544:G:C8	2.52	0.44
1:A:558:G:C8	1:A:558:G:O5'	2.70	0.44
1:A:577:G:H5'	1:A:816:A:N7	2.32	0.44
1:A:603:U:N3	1:A:604:G:C6	2.85	0.44
1:A:611:C:H3'	1:A:612:C:C5	2.52	0.44
1:A:627:G:O5'	1:A:627:G:H8	2.01	0.44
1:A:655:A:C2	1:A:754:C:N3	2.85	0.44
1:A:668:G:O6	1:A:669:G:C6	2.71	0.44
1:A:685:G:C2	1:A:706:A:C6	3.05	0.44
1:A:686:U:O4	1:A:687:A:N6	2.51	0.44
1:A:697:U:C2	1:A:785:G:N2	2.79	0.44
1:A:700:G:H2'	1:A:701:U:O4'	2.17	0.44
1:A:794:A:C8	1:A:795:C:C5	3.05	0.44
1:A:824:G:H21	8:H:1:SER:HA	1.80	0.44
1:A:865:A:C4	1:A:866:C:C6	3.06	0.44
1:A:878:A:H5'	8:H:80:PRO:HD2	1.99	0.44
1:A:879:C:C6	1:A:879:C:H3'	2.52	0.44
1:A:888:G:H22	1:A:908:A:H3'	1.81	0.44
1:A:903:G:C4	1:A:904:U:C5	3.06	0.44
1:A:905:U:H3'	1:A:906:A:H8	1.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:925:G:N1	1:A:1391:U:O2	2.50	0.44
1:A:934:C:C2'	1:A:1344:C:C5	3.01	0.44
1:A:947:G:N7	1:A:948:C:C5	2.86	0.44
1:A:984:C:H2'	1:A:985:C:C5	2.51	0.44
1:A:985:C:C4	1:A:986:U:C4	3.06	0.44
1:A:987:G:N1	1:A:1219:A:C6	2.85	0.44
1:A:1097:C:H2'	1:A:1098:C:O4'	2.17	0.44
1:A:1134:G:C2	1:A:1135:U:C2	3.05	0.44
1:A:1198:G:C5	1:A:1199:U:C4	3.04	0.44
1:A:1209:C:H2'	1:A:1210:C:C5	2.53	0.44
1:A:1221:G:H5'	19:S:52:ASN:HA	1.98	0.44
1:A:1227:A:N3	1:A:1227:A:H5"	2.33	0.44
1:A:1246:A:C2	1:A:1247:U:H1'	2.52	0.44
1:A:1261:A:C2	1:A:1275:A:N7	2.86	0.44
1:A:1300:G:C5	1:A:1334:G:N7	2.86	0.44
1:A:1368:A:C6	1:A:1369:C:C4	3.05	0.44
1:A:1392:G:P	1:A:1392:G:H8	2.39	0.44
1:A:1433:A:N7	1:A:1468:A:C5	2.84	0.44
2:B:22:TRP:CD1	2:B:30:ILE:HG23	2.53	0.44
2:B:67:LEU:HA	2:B:67:LEU:HD23	1.72	0.44
3:C:22:PHE:H	10:J:94:ALA:CB	2.29	0.44
4:D:12:ARG:HG3	4:D:34:GLU:H	1.82	0.44
4:D:104:MET:CE	4:D:170:LEU:HD13	2.47	0.44
5:E:48:GLY:N	5:E:66:ALA:HB2	2.32	0.44
8:H:48:PHE:CD2	8:H:58:LEU:CD1	3.01	0.44
11:K:41:LEU:HB3	11:K:76:TYR:CD2	2.52	0.44
12:L:13:ARG:HH11	12:L:13:ARG:CG	2.30	0.44
12:L:25:ALA:H	12:L:29:LYS:NZ	2.16	0.44
13:M:11:HIS:ND1	13:M:43:LYS:HB3	2.33	0.44
13:M:68:LEU:HD12	13:M:71:GLU:OE1	2.18	0.44
17:Q:58:VAL:HG22	17:Q:74:LEU:HB2	1.98	0.44
19:S:77:ARG:HG3	19:S:79:TYR:CE2	2.52	0.44
1:A:21:G:H4'	1:A:573:A:N1	2.33	0.44
1:A:35:G:C5	1:A:550:G:C2	3.06	0.44
1:A:50:A:O3'	1:A:52:C:H5'	2.18	0.44
1:A:59:A:C2	1:A:354:G:N7	2.86	0.44
1:A:144:G:N1	1:A:145:G:C5	2.85	0.44
1:A:160:A:H4'	1:A:344:A:C4	2.53	0.44
1:A:160:A:C2	1:A:161:A:N3	2.86	0.44
1:A:193:C:O2	1:A:194:C:H6	1.99	0.44
1:A:203:G:C5	1:A:212:G:C6	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:251:G:C2	1:A:253:A:N7	2.86	0.44
1:A:286:C:H2'	1:A:287:U:H6	1.83	0.44
1:A:292:G:C8	1:A:293:G:H1'	2.52	0.44
1:A:309:A:C5	1:A:310:G:C8	3.05	0.44
1:A:323:U:H3'	1:A:324:G:C8	2.53	0.44
1:A:324:G:C4	1:A:326:G:OP2	2.70	0.44
1:A:404:G:N2	1:A:405:U:H1'	2.32	0.44
1:A:410:G:C5	1:A:429:U:O2'	2.66	0.44
1:A:440:C:C5	1:A:441:A:N7	2.85	0.44
1:A:460:A:C4	1:A:472:U:O2	2.71	0.44
1:A:502:A:N1	1:A:544:G:C4	2.86	0.44
1:A:567:G:C4	1:A:568:G:C8	3.06	0.44
1:A:574:A:H1'	1:A:882:C:O2	2.18	0.44
1:A:581:G:N7	1:A:758:C:C5	2.86	0.44
1:A:585:G:C5	1:A:586:C:C4	3.05	0.44
1:A:592:G:N2	1:A:593:U:H1'	2.32	0.44
1:A:602:A:H61	1:A:636:U:H3	1.66	0.44
1:A:615:G:N1	1:A:616:G:C5	2.86	0.44
1:A:627:G:N1	1:A:628:G:C5	2.85	0.44
1:A:628:G:C6	1:A:629:A:N7	2.85	0.44
1:A:628:G:N2	1:A:629:A:C1'	2.81	0.44
1:A:679:C:O2	1:A:712:A:C2	2.70	0.44
1:A:687:A:C5	1:A:701:U:H4'	2.53	0.44
1:A:721:G:N3	1:A:722:G:N2	2.66	0.44
1:A:771:G:N7	1:A:772:U:C6	2.86	0.44
1:A:780:A:H8	11:K:121:ARG:NH2	2.16	0.44
1:A:821:G:N1	1:A:822:U:C2	2.86	0.44
1:A:868:C:C5	1:A:869:G:N7	2.86	0.44
1:A:874:G:N3	1:A:874:G:H2'	2.32	0.44
1:A:898:G:N2	1:A:902:G:C4	2.85	0.44
1:A:917:G:C5	1:A:918:A:C5	3.05	0.44
1:A:941:G:H21	1:A:942:G:H1'	1.82	0.44
1:A:998:C:H2'	1:A:999:C:H6	1.83	0.44
1:A:1018:G:C6	1:A:1019:A:C8	3.04	0.44
1:A:1032:G:N1	1:A:1033:G:C5	2.86	0.44
1:A:1060:U:C4	1:A:1198:G:N1	2.86	0.44
1:A:1066:C:C4	1:A:1067:A:N1	2.86	0.44
1:A:1099:G:N3	1:A:1100:C:H5'	2.33	0.44
1:A:1117:A:C4'	9:I:106:ASP:HA	2.48	0.44
1:A:1165:U:O5'	1:A:1165:U:H6	2.01	0.44
1:A:1205:U:H2'	1:A:1206:G:H8	1.78	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1213:A:N7	1:A:1215:G:C4	2.86	0.44
1:A:1262:C:O5'	1:A:1262:C:H6	2.00	0.44
1:A:1270:G:C5'	1:A:1314:C:H5'	2.47	0.44
1:A:1309:G:C2	1:A:1310:G:C5	3.06	0.44
1:A:1333:A:OP2	1:A:1334:G:O6	2.36	0.44
1:A:1390:U:C2	1:A:1391:U:C2	3.06	0.44
1:A:1399:C:C6	1:A:1502:A:C2	3.06	0.44
1:A:1429:A:H2	1:A:1471:U:H3	1.59	0.44
1:A:1483:A:C4	1:A:1484:C:C1'	3.00	0.44
2:B:89:PHE:CG	2:B:152:ASP:OD2	2.71	0.44
3:C:19:SER:HB3	3:C:21:TRP:CE2	2.52	0.44
3:C:57:GLU:HB3	3:C:59:PRO:HD3	1.99	0.44
5:E:85:LYS:HZ1	5:E:92:ARG:HA	1.82	0.44
5:E:85:LYS:HZ3	5:E:93:VAL:H	1.65	0.44
7:G:30:MET:HE2	7:G:35:LYS:HB3	2.00	0.44
13:M:1:ALA:HB3	13:M:3:ILE:HG23	2.00	0.44
15:O:63:ARG:HA	15:O:87:ARG:HH22	1.82	0.44
15:O:68:TYR:CD1	15:O:71:ARG:NH1	2.86	0.44
17:Q:20:ILE:HD12	17:Q:50:ASN:CG	2.38	0.44
19:S:5:LYS:HD3	19:S:7:GLY:H	1.83	0.44
1:A:31:G:H1'	1:A:46:G:H5'	1.99	0.44
1:A:36:C:C6	1:A:36:C:H3'	2.52	0.44
1:A:49:U:C6	1:A:49:U:C3'	2.99	0.44
1:A:61:G:N2	1:A:379:C:H4'	2.33	0.44
1:A:86:G:C4	1:A:87:C:C5	3.06	0.44
1:A:130:A:N6	1:A:234:C:O4'	2.50	0.44
1:A:131:A:C2	1:A:232:G:C4	3.05	0.44
1:A:135:C:H3'	1:A:135:C:H6	1.82	0.44
1:A:180:U:C6	1:A:180:U:C3'	2.98	0.44
1:A:205:A:C4	1:A:206:C:C6	3.06	0.44
1:A:214:C:H2'	1:A:215:C:C6	2.52	0.44
1:A:226:G:N2	1:A:227:G:C4	2.86	0.44
1:A:254:G:H8	1:A:254:G:O5'	1.99	0.44
1:A:371:A:N3	1:A:391:G:N3	2.66	0.44
1:A:411:A:C6	1:A:429:U:C2	3.06	0.44
1:A:465:A:C4	1:A:466:A:N7	2.86	0.44
1:A:521:G:C2	1:A:529:G:H1'	2.53	0.44
1:A:562:U:C5'	1:A:563:A:C5	3.00	0.44
1:A:580:C:C5	1:A:581:G:N7	2.86	0.44
1:A:592:G:C2	1:A:593:U:H1'	2.52	0.44
1:A:646:G:N2	1:A:647:C:H1'	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:688:G:H5'	11:K:48:GLY:HA2	1.99	0.44
1:A:737:C:H5'	6:F:89:VAL:HG23	2.00	0.44
1:A:815:A:C4	1:A:1527:U:O2'	2.67	0.44
1:A:824:G:N1	1:A:825:A:C5	2.85	0.44
1:A:850:U:C2'	1:A:851:G:O5'	2.66	0.44
1:A:888:G:N2	1:A:908:A:C5	2.85	0.44
1:A:910:C:C4	1:A:911:U:C5	3.05	0.44
1:A:913:A:C6	12:L:19:ASN:HB3	2.53	0.44
1:A:931:C:H42	1:A:1386:G:H1	1.66	0.44
1:A:933:G:OP2	7:G:2:ARG:CG	2.66	0.44
1:A:1020:G:C4	1:A:1021:A:C8	3.05	0.44
1:A:1083:U:C6	1:A:1084:G:C4	3.05	0.44
1:A:1120:C:C6	1:A:1154:G:N2	2.85	0.44
1:A:1123:U:O2	1:A:1123:U:H2'	2.16	0.44
1:A:1138:G:C6	1:A:1140:C:C2	3.05	0.44
1:A:1146:A:H3'	1:A:1147:C:H6	1.82	0.44
1:A:1147:C:H6	1:A:1147:C:O5'	2.00	0.44
1:A:1148:U:H2'	1:A:1149:C:O4'	2.18	0.44
1:A:1225:A:C2	1:A:1226:C:C4	3.06	0.44
1:A:1239:A:C2	7:G:113:LYS:HB2	2.53	0.44
1:A:1239:A:N3	1:A:1241:G:C6	2.85	0.44
1:A:1265:C:H2'	1:A:1266:G:C8	2.53	0.44
1:A:1272:G:C8	1:A:1272:G:H3'	2.53	0.44
1:A:1324:A:C8	1:A:1324:A:O5'	2.71	0.44
1:A:1350:A:C6	1:A:1351:U:C2	3.05	0.44
1:A:1394:A:H2'	1:A:1501:C:O2	2.17	0.44
1:A:1405:G:C1'	1:A:1519:A:H4'	2.46	0.44
1:A:1428:A:C8	1:A:1428:A:O5'	2.71	0.44
1:A:1432:G:N2	1:A:1467:C:C6	2.86	0.44
1:A:1457:G:C5'	20:T:33:LYS:HZ1	2.31	0.44
1:A:1457:G:H2'	1:A:1458:G:C8	2.53	0.44
1:A:1488:G:C2	1:A:1489:G:H1'	2.52	0.44
5:E:78:GLY:HA2	5:E:119:VAL:HG11	1.99	0.44
6:F:15:SER:HA	6:F:18:VAL:HG23	2.00	0.44
8:H:39:LEU:CD2	8:H:100:ILE:HD11	2.45	0.44
13:M:9:PRO:HG2	13:M:44:ILE:HG21	1.99	0.44
13:M:52:ILE:HA	13:M:55:LEU:HD12	2.00	0.44
16:P:69:ASP:HA	16:P:72:ALA:HB3	1.98	0.44
17:Q:22:VAL:HG21	17:Q:60:ILE:CG2	2.45	0.44
18:R:63:TYR:CE1	18:R:69:TYR:CD2	3.05	0.44
22:W:149:GLU:HB2	22:W:286:GLY:HA2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:W:293:TYR:O	22:W:311:ALA:HB3	2.18	0.44
1:A:36:C:H2'	1:A:501:C:H5'	2.00	0.44
1:A:68:G:C6	1:A:69:G:H1'	2.53	0.44
1:A:76:G:H5'	1:A:77:A:P	2.58	0.44
1:A:102:G:C4	1:A:103:U:C6	3.06	0.44
1:A:115:G:H2'	1:A:289:G:C8	2.53	0.44
1:A:122:G:C2	1:A:123:U:C1'	3.00	0.44
1:A:145:G:N1	1:A:178:C:C4	2.86	0.44
1:A:158:G:C4	1:A:164:G:C4	3.06	0.44
1:A:166:U:C6	1:A:166:U:H5"	2.53	0.44
1:A:292:G:C2	1:A:309:A:C4	3.05	0.44
1:A:323:U:O4	1:A:324:G:N1	2.51	0.44
1:A:341:C:O5'	1:A:341:C:H6	2.00	0.44
1:A:369:G:N1	1:A:393:A:C2	2.86	0.44
1:A:371:A:N1	1:A:372:C:C5	2.86	0.44
1:A:402:G:N1	1:A:403:C:C4	2.86	0.44
1:A:410:G:N1	1:A:431:A:OP2	2.50	0.44
1:A:411:A:C4	1:A:429:U:C4	3.06	0.44
1:A:474:G:H3'	1:A:475:C:H6	1.83	0.44
1:A:517:G:H2'	1:A:530:G:C4'	2.44	0.44
1:A:558:G:C8	1:A:559:A:C4	3.06	0.44
1:A:563:A:C6	1:A:567:G:C4	3.06	0.44
1:A:569:C:C6	1:A:574:A:C2'	2.99	0.44
1:A:583:A:N3	1:A:759:A:C5	2.85	0.44
1:A:606:G:C8	1:A:607:A:H5'	2.53	0.44
1:A:648:A:C8	1:A:648:A:O5'	2.71	0.44
1:A:685:G:C2	1:A:686:U:C5	3.06	0.44
1:A:690:G:C6	11:K:52:ARG:NE	2.83	0.44
1:A:764:C:O3'	15:O:49:HIS:HE1	2.01	0.44
1:A:771:G:C6	1:A:809:G:N1	2.86	0.44
1:A:780:A:H8	11:K:121:ARG:HH21	1.64	0.44
1:A:807:A:H2'	1:A:808:C:O4'	2.18	0.44
1:A:824:G:N3	8:H:2:MET:HB3	2.33	0.44
1:A:838:G:H2'	1:A:839:C:H6	1.83	0.44
1:A:856:C:OP2	1:A:871:U:C2	2.71	0.44
1:A:861:G:H8	1:A:861:G:O5'	2.01	0.44
1:A:872:A:H1'	1:A:873:A:C3'	2.48	0.44
1:A:894:G:C5	1:A:895:G:C8	3.05	0.44
1:A:925:G:C2	1:A:1392:G:C4	3.06	0.44
1:A:932:C:C4	7:G:2:ARG:CZ	3.01	0.44
1:A:946:A:H2	1:A:1333:A:H2	1.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:970:C:H3'	1:A:971:G:H5"	1.99	0.44
1:A:1004:A:H4'	1:A:1032:G:OP2	2.18	0.44
1:A:1018:G:C6	1:A:1019:A:N7	2.86	0.44
1:A:1024:G:H2'	1:A:1024:G:N3	2.32	0.44
1:A:1047:G:C2	1:A:1213:A:H2	2.36	0.44
1:A:1048:G:H4'	14:N:2:LYS:CB	2.47	0.44
1:A:1067:A:N3	1:A:1068:G:H1'	2.33	0.44
1:A:1083:U:O2'	1:A:1101:A:H8	2.01	0.44
1:A:1104:G:C2	1:A:1105:A:C4	3.05	0.44
1:A:1125:U:H3'	1:A:1127:G:O6	2.18	0.44
1:A:1143:G:C5	1:A:1144:G:N7	2.86	0.44
1:A:1148:U:H5'	9:I:6:TYR:CZ	2.53	0.44
1:A:1168:U:C5	1:A:1169:A:C1'	3.00	0.44
1:A:1181:G:O2'	1:A:1182:G:C8	2.71	0.44
1:A:1202:U:OP1	10:J:56:HIS:HE1	2.01	0.44
1:A:1213:A:N1	1:A:1215:G:H1'	2.33	0.44
1:A:1238:A:H3'	1:A:1298:U:C2	2.53	0.44
1:A:1248:A:C4	1:A:1249:C:C6	3.06	0.44
1:A:1285:A:H61	1:A:1355:G:C5'	2.31	0.44
1:A:1345:U:H5"	1:A:1348:U:H1'	2.00	0.44
1:A:1348:U:N3	1:A:1349:A:C8	2.86	0.44
1:A:1394:A:C3'	1:A:1395:C:H5'	2.40	0.44
1:A:1408:A:H1'	1:A:1494:G:N1	2.31	0.44
1:A:1413:A:C6	1:A:1488:G:C2	3.05	0.44
1:A:1440:U:O2	1:A:1462:C:C2	2.71	0.44
11:K:30:ILE:HD13	11:K:43:TRP:HE3	1.78	0.44
12:L:116:TYR:HB3	12:L:117:GLY:H	1.65	0.44
13:M:15:VAL:HG22	13:M:40:GLU:HB3	2.00	0.44
18:R:32:ILE:HG21	18:R:58:ILE:CG2	2.45	0.44
22:W:157:ILE:HD11	22:W:185:TYR:HB2	2.00	0.44
1:A:14:U:C6	1:A:16:A:OP2	2.71	0.44
1:A:19:A:OP1	5:E:134:ASN:HB2	2.18	0.44
1:A:36:C:N3	1:A:37:U:C6	2.85	0.44
1:A:39:G:H22	1:A:404:G:H1'	1.82	0.44
1:A:47:C:C5	1:A:366:A:OP1	2.71	0.44
1:A:106:C:N3	20:T:9:ARG:HB2	2.33	0.44
1:A:115:G:N1	1:A:313:A:C5	2.86	0.44
1:A:144:G:C2	1:A:179:A:C6	3.06	0.44
1:A:160:A:H4'	1:A:344:A:N1	2.33	0.44
1:A:203:G:H1'	1:A:465:A:N6	2.30	0.44
1:A:223:A:C2	1:A:224:U:C2	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:253:A:C1’	1:A:276:G:H4’	2.48	0.44
1:A:310:G:C6	1:A:311:C:C5	3.06	0.44
1:A:317:U:C6	1:A:317:U:O5’	2.71	0.44
1:A:335:C:H2’	1:A:336:A:O4’	2.18	0.44
1:A:380:G:N2	1:A:384:G:C4	2.86	0.44
1:A:399:G:H2’	1:A:399:G:N3	2.32	0.44
1:A:404:G:C2’	1:A:498:A:N1	2.81	0.44
1:A:410:G:C2	1:A:429:U:O2	2.71	0.44
1:A:415:A:C5	1:A:416:G:C4	3.06	0.44
1:A:439:U:C1’	4:D:119:HIS:HA	2.48	0.44
1:A:481:G:H21	1:A:482:A:H62	1.66	0.44
1:A:539:A:C8	1:A:539:A:O5’	2.71	0.44
1:A:582:C:N4	1:A:583:A:C5	2.85	0.44
1:A:612:C:C5	1:A:613:C:N4	2.85	0.44
1:A:614:C:C2	1:A:615:G:C8	3.06	0.44
1:A:656:G:N2	1:A:657:U:C2	2.86	0.44
1:A:663:A:H5”	18:R:49:LYS:HD2	2.00	0.44
1:A:674:G:H2’	1:A:675:A:C8	2.52	0.44
1:A:706:A:N6	1:A:707:U:N3	2.66	0.44
1:A:723:U:O4	1:A:832:G:C2	2.71	0.44
1:A:728:A:C5	1:A:729:A:C6	3.06	0.44
1:A:738:C:H2’	1:A:739:C:O4’	2.17	0.44
1:A:742:G:C5	1:A:743:A:C8	3.06	0.44
1:A:774:G:H3’	1:A:775:G:H8	1.81	0.44
1:A:775:G:C8	1:A:775:G:OP2	2.71	0.44
1:A:783:C:C6	1:A:783:C:C3’	3.01	0.44
1:A:865:A:H2’	1:A:866:C:C5’	2.48	0.44
1:A:892:A:N6	1:A:907:A:C8	2.86	0.44
1:A:946:A:N1	1:A:1236:A:C6	2.86	0.44
1:A:947:G:N1	1:A:1235:U:C2	2.86	0.44
1:A:949:A:H61	1:A:1232:U:H3	1.66	0.44
1:A:1062:U:H3’	1:A:1062:U:H6	1.82	0.44
1:A:1082:A:C8	1:A:1082:A:O5’	2.71	0.44
1:A:1089:G:H2’	1:A:1169:A:N1	2.33	0.44
1:A:1093:A:C8	1:A:1093:A:H3’	2.52	0.44
1:A:1106:G:C6	1:A:1107:C:C4	3.06	0.44
1:A:1109:C:H3’	1:A:1110:A:C8	2.53	0.44
1:A:1123:U:O2	1:A:1150:A:N1	2.51	0.44
1:A:1126:U:O2	1:A:1280:A:H3’	2.18	0.44
1:A:1128:C:N3	1:A:1129:C:C4	2.86	0.44
1:A:1129:C:N3	1:A:1144:G:C2	2.86	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1142:G:C5	1:A:1143:G:C1’	2.97	0.44
1:A:1148:U:C2	1:A:1149:C:C2	3.06	0.44
1:A:1153:G:N2	1:A:1154:G:H1’	2.33	0.44
1:A:1160:G:H5’	2:B:134:LEU:CB	2.46	0.44
1:A:1162:C:C2	1:A:1175:G:N3	2.86	0.44
1:A:1177:G:C6	1:A:1178:G:N2	2.86	0.44
1:A:1255:G:C6	1:A:1279:G:C6	3.06	0.44
1:A:1268:G:N1	1:A:1269:A:C2	2.86	0.44
1:A:1279:G:C8	1:A:1282:C:N4	2.86	0.44
1:A:1294:G:C2	1:A:1295:U:H1’	2.53	0.44
1:A:1319:A:C8	1:A:1319:A:C3’	3.00	0.44
1:A:1358:U:OP2	1:A:1358:U:C6	2.71	0.44
1:A:1375:A:H4’	7:G:28:ILE:HG23	1.99	0.44
1:A:1404:C:O4’	1:A:1499:A:C2	2.71	0.44
1:A:1405:G:C4	1:A:1519:A:O2’	2.70	0.44
1:A:1421:G:C2	1:A:1422:G:N9	2.86	0.44
1:A:1449:C:H2’	1:A:1450:U:C5’	2.48	0.44
1:A:1469:C:H6	1:A:1469:C:H3’	1.83	0.44
2:B:169:HIS:CE1	2:B:173:LYS:HG3	2.53	0.44
3:C:39:ARG:HG2	3:C:39:ARG:HH11	1.83	0.44
3:C:57:GLU:CD	10:J:94:ALA:HA	2.37	0.44
8:H:38:VAL:O	8:H:42:GLU:HG2	2.18	0.44
11:K:42:GLY:N	11:K:73:VAL:HG12	2.32	0.44
20:T:23:ARG:HB2	20:T:65:LEU:HD12	2.00	0.44
1:A:28:A:C6	1:A:29:U:C5	3.06	0.43
1:A:47:C:H4’	1:A:48:C:H6	1.83	0.43
1:A:66:A:N3	1:A:104:G:C4	2.84	0.43
1:A:74:A:C6	1:A:75:G:C6	3.05	0.43
1:A:83:C:C6	1:A:83:C:C3’	2.92	0.43
1:A:109:A:H5’	1:A:110:C:H5’	2.00	0.43
1:A:113:G:C2	1:A:315:A:C4	3.05	0.43
1:A:116:A:C8	1:A:116:A:O5’	2.71	0.43
1:A:132:C:H5’	1:A:262:A:H1’	2.00	0.43
1:A:203:G:C8	1:A:203:G:H3’	2.53	0.43
1:A:297:G:N3	1:A:301:G:N1	2.66	0.43
1:A:298:A:H2’	1:A:299:G:O4’	2.18	0.43
1:A:323:U:C5	1:A:324:G:N7	2.85	0.43
1:A:369:G:C5	1:A:393:A:C2	3.06	0.43
1:A:397:A:H5”	1:A:398:U:O4	2.17	0.43
1:A:448:A:C8	1:A:448:A:C5’	3.01	0.43
1:A:453:G:C2	1:A:454:G:N3	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:499:A:H1'	1:A:500:G:N9	2.33	0.43
1:A:538:G:OP1	12:L:109:ARG:HA	2.17	0.43
1:A:569:C:N1	1:A:574:A:H2'	2.33	0.43
1:A:655:A:C1'	1:A:755:G:H5'	2.44	0.43
1:A:712:A:H2	1:A:713:G:C4	2.36	0.43
1:A:741:G:C6	1:A:742:G:C5	3.06	0.43
1:A:756:C:N4	1:A:757:U:C4	2.86	0.43
1:A:801:U:C2	1:A:802:A:C8	3.06	0.43
1:A:832:G:N2	1:A:832:G:H2'	2.33	0.43
1:A:840:C:O2	1:A:847:G:C2	2.70	0.43
1:A:849:G:C6	1:A:850:U:C6	3.05	0.43
1:A:857:C:H2'	1:A:858:G:H5'	1.99	0.43
1:A:875:U:C6	1:A:875:U:C3'	3.01	0.43
1:A:877:G:H4'	8:H:4:ASP:HB2	1.99	0.43
1:A:917:G:H2'	1:A:918:A:O4'	2.17	0.43
1:A:928:G:C2	1:A:1390:U:O2	2.71	0.43
1:A:941:G:C2	1:A:1343:G:C6	3.06	0.43
1:A:946:A:H2	1:A:1333:A:C2	2.36	0.43
1:A:997:U:N3	1:A:998:C:C4	2.85	0.43
1:A:1053:G:H21	1:A:1056:U:C3'	2.30	0.43
1:A:1063:C:H3'	1:A:1064:G:H3'	2.00	0.43
1:A:1063:C:H5	1:A:1190:G:C8	2.35	0.43
1:A:1072:G:H2'	1:A:1073:U:O4'	2.18	0.43
1:A:1074:G:C2	1:A:1075:U:C2	3.06	0.43
1:A:1091:U:C2	1:A:1093:A:OP2	2.71	0.43
1:A:1115:U:C6	1:A:1115:U:H3'	2.53	0.43
1:A:1139:G:N2	1:A:1143:G:C2	2.86	0.43
1:A:1171:A:C6	1:A:1172:C:C2	3.06	0.43
1:A:1179:A:H5"	9:I:98:ARG:CG	2.47	0.43
1:A:1231:G:C4'	9:I:129:ARG:H	2.31	0.43
1:A:1245:C:C4	1:A:1246:A:N7	2.86	0.43
1:A:1248:A:C6	1:A:1290:G:C4	3.06	0.43
1:A:1309:G:C2	1:A:1310:G:N9	2.86	0.43
1:A:1355:G:H21	1:A:1356:G:H1'	1.83	0.43
1:A:1406:U:C2	1:A:1407:C:C6	3.06	0.43
1:A:1432:G:N2	1:A:1467:C:H3'	2.33	0.43
1:A:1497:G:H2'	1:A:1498:U:C5	2.53	0.43
1:A:1501:C:C5	1:A:1504:G:C4	3.05	0.43
1:A:1502:A:OP2	1:A:1504:G:C8	2.71	0.43
1:A:1526:G:C8	1:A:1526:G:OP2	2.71	0.43
1:A:1532:U:OP2	1:A:1532:U:H6	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:91:VAL:HG21	2:B:95:TRP:HE1	1.83	0.43
2:B:165:ALA:HB2	2:B:184:ALA:HB2	1.99	0.43
3:C:19:SER:H	14:N:91:GLU:C	2.21	0.43
4:D:43:ARG:O	4:D:44:LYS:HB2	2.18	0.43
5:E:56:PRO:HA	5:E:59:ILE:HG12	2.00	0.43
5:E:151:MET:SD	5:E:153:ALA:HB3	2.58	0.43
8:H:38:VAL:HG11	8:H:111:THR:CB	2.47	0.43
9:I:18:VAL:HG11	9:I:82:ILE:CA	2.41	0.43
9:I:35:GLU:H	9:I:37:TYR:HE1	1.62	0.43
15:O:14:PHE:CZ	15:O:84:LEU:HD23	2.53	0.43
15:O:81:ILE:HD12	15:O:88:ARG:HA	1.99	0.43
17:Q:22:VAL:CG2	17:Q:60:ILE:HG21	2.46	0.43
18:R:49:LYS:HA	18:R:52:ARG:HE	1.83	0.43
19:S:27:LYS:HG3	19:S:28:LYS:H	1.83	0.43
20:T:61:ALA:HB1	20:T:66:ILE:O	2.18	0.43
1:A:6:G:C8	5:E:123:LEU:CD1	3.02	0.43
1:A:11:G:C8	1:A:11:G:O5’	2.71	0.43
1:A:16:A:O4’	5:E:21:SER:HB2	2.18	0.43
1:A:39:G:C8	1:A:404:G:N2	2.86	0.43
1:A:47:C:OP2	1:A:366:A:N7	2.51	0.43
1:A:63:C:H1’	1:A:380:G:O3’	2.18	0.43
1:A:101:A:N6	1:A:102:G:C6	2.86	0.43
1:A:134:G:N7	1:A:325:A:C6	2.86	0.43
1:A:144:G:C6	1:A:178:C:N4	2.86	0.43
1:A:147:G:H1’	1:A:1448:C:P	2.58	0.43
1:A:217:C:C1’	1:A:469:C:H42	2.25	0.43
1:A:231:U:O2	1:A:232:G:C8	2.71	0.43
1:A:234:C:O2’	1:A:235:C:H5’	2.19	0.43
1:A:247:G:C8	1:A:247:G:C3’	2.98	0.43
1:A:247:G:C6	1:A:278:G:C6	3.06	0.43
1:A:261:U:N3	1:A:263:A:H3’	2.33	0.43
1:A:263:A:C2	1:A:264:C:C6	3.06	0.43
1:A:316:C:C5	1:A:351:G:C2	3.06	0.43
1:A:320:A:C1’	1:A:1434:A:H2	2.31	0.43
1:A:363:A:H3’	1:A:364:A:H8	1.82	0.43
1:A:442:G:H1	1:A:492:C:H42	1.65	0.43
1:A:464:U:O2’	1:A:466:A:N7	2.50	0.43
1:A:519:C:H5”	1:A:519:C:H6	1.84	0.43
1:A:549:C:N3	1:A:550:G:C8	2.86	0.43
1:A:588:G:C5	1:A:589:U:C5	3.06	0.43
1:A:612:C:H3’	1:A:613:C:H6	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:615:G:C2	1:A:626:G:N3	2.86	0.43
1:A:642:A:C2	8:H:123:GLU:OE1	2.71	0.43
1:A:665:A:C6	1:A:733:G:N7	2.86	0.43
1:A:668:G:H4'	15:O:45:HIS:HB3	2.00	0.43
1:A:690:G:O6	1:A:691:G:C5	2.71	0.43
1:A:711:G:N1	1:A:712:A:C4	2.86	0.43
1:A:714:G:H21	11:K:119:GLY:HA3	1.83	0.43
1:A:751:U:C5	1:A:752:G:C4	3.06	0.43
1:A:766:A:N6	1:A:767:A:C2	2.85	0.43
1:A:773:G:C8	1:A:773:G:C3'	3.02	0.43
1:A:838:G:N2	2:B:34:ARG:HH12	2.09	0.43
1:A:877:G:C2	8:H:2:MET:HB3	2.53	0.43
1:A:902:G:C6	1:A:903:G:N7	2.86	0.43
1:A:925:G:C4	1:A:1392:G:N1	2.86	0.43
1:A:935:A:H2'	1:A:936:C:C6	2.53	0.43
1:A:956:U:O5'	1:A:956:U:C6	2.70	0.43
1:A:962:C:C2	1:A:1201:A:C2	3.06	0.43
1:A:988:G:O2'	1:A:1016:A:C2	2.69	0.43
1:A:1004:A:H1'	1:A:1032:G:OP2	2.18	0.43
1:A:1009:U:O2	1:A:1009:U:C2'	2.62	0.43
1:A:1043:G:C6	1:A:1044:A:N1	2.86	0.43
1:A:1043:G:O6	1:A:1044:A:C6	2.71	0.43
1:A:1109:C:H2'	1:A:1110:A:C4	2.54	0.43
1:A:1118:U:C5	1:A:1119:C:C5	3.06	0.43
1:A:1185:G:C6	1:A:1186:G:C4	3.06	0.43
1:A:1187:G:OP2	1:A:1187:G:N7	2.51	0.43
1:A:1203:C:C4	1:A:1204:A:N7	2.86	0.43
1:A:1218:C:H2'	1:A:1219:A:H8	1.80	0.43
1:A:1240:U:OP1	1:A:1240:U:C2	2.71	0.43
1:A:1244:G:H2'	1:A:1245:C:O4'	2.18	0.43
1:A:1292:G:C6	1:A:1293:C:C5	3.06	0.43
1:A:1298:U:H6	7:G:110:ARG:O	2.01	0.43
1:A:1300:G:N2	1:A:1335:U:C2	2.86	0.43
1:A:1323:G:N2	1:A:1324:A:C1'	2.82	0.43
1:A:1367:C:C2	1:A:1368:A:C8	3.07	0.43
1:A:1405:G:C8	1:A:1405:G:H3'	2.52	0.43
1:A:1410:A:C4	1:A:1411:C:C6	3.06	0.43
1:A:1422:G:C2	1:A:1423:G:N9	2.86	0.43
1:A:1434:A:N6	1:A:1435:G:C6	2.87	0.43
1:A:1461:G:C5	1:A:1462:C:C6	3.05	0.43
1:A:1468:A:O2'	1:A:1469:C:H5"	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1525:G:C6	1:A:1526:G:N7	2.85	0.43
2:B:184:ALA:CB	2:B:195:VAL:HG21	2.48	0.43
2:B:185:ILE:HB	2:B:203:ASP:HA	2.00	0.43
3:C:59:PRO:HG2	3:C:99:GLN:HE22	1.82	0.43
3:C:91:ALA:HA	3:C:98:ALA:N	2.32	0.43
3:C:107:LYS:HG3	3:C:109:GLU:H	1.83	0.43
3:C:149:LYS:HA	3:C:168:ARG:HA	2.00	0.43
3:C:183:TYR:CD1	3:C:200:TRP:CD2	3.06	0.43
4:D:54:LEU:HD13	4:D:55:ARG:NE	2.33	0.43
4:D:129:VAL:CG1	4:D:134:TYR:CG	3.00	0.43
5:E:44:ARG:HG3	5:E:44:ARG:HH11	1.83	0.43
6:F:50:PRO:HA	6:F:55:HIS:HA	1.98	0.43
9:I:80:HIS:CE1	9:I:103:VAL:HG12	2.53	0.43
14:N:96:LYS:HE2	14:N:100:TRP:HE1	1.82	0.43
15:O:23:SER:N	15:O:27:GLN:HE21	2.17	0.43
17:Q:64:ARG:O	17:Q:71:SER:HA	2.17	0.43
20:T:60:GLN:O	20:T:65:LEU:HD22	2.18	0.43
22:W:235:LEU:CB	22:W:271:ARG:HH21	2.31	0.43
1:A:64:G:N1	1:A:67:C:C4	2.86	0.43
1:A:105:G:N2	1:A:380:G:H5”	2.33	0.43
1:A:117:G:O5’	1:A:117:G:H8	2.01	0.43
1:A:122:G:OP2	1:A:123:U:C6	2.71	0.43
1:A:126:G:C2	1:A:236:A:C2	3.06	0.43
1:A:128:G:N1	1:A:234:C:C4	2.86	0.43
1:A:138:G:H2’	1:A:139:A:H5’	2.01	0.43
1:A:152:A:OP2	1:A:153:C:N4	2.51	0.43
1:A:153:C:C5	1:A:154:U:C5	3.07	0.43
1:A:158:G:H21	1:A:164:G:H1’	1.83	0.43
1:A:181:A:N6	1:A:195:A:C8	2.87	0.43
1:A:187:G:C5’	20:T:79:THR:HG21	2.48	0.43
1:A:195:A:C2	1:A:223:A:O4’	2.70	0.43
1:A:207:C:C3’	1:A:208:U:C5	3.01	0.43
1:A:216:U:H5”	1:A:464:U:O3’	2.18	0.43
1:A:275:G:H3’	1:A:276:G:H8	1.82	0.43
1:A:275:G:H4’	17:Q:17:GLU:HB3	2.00	0.43
1:A:289:G:C2	1:A:312:C:O2	2.72	0.43
1:A:299:G:N2	1:A:300:A:H1’	2.33	0.43
1:A:319:G:C6	1:A:320:A:C4	3.06	0.43
1:A:373:A:C6	1:A:374:A:C5	3.06	0.43
1:A:378:G:N1	1:A:379:C:C2	2.85	0.43
1:A:383:A:C8	1:A:384:G:H1’	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:428:G:C2	1:A:430:A:N6	2.86	0.43
1:A:516:U:O5’	1:A:516:U:C6	2.71	0.43
1:A:548:G:N7	1:A:549:C:C5	2.86	0.43
1:A:608:A:H3’	1:A:609:A:C8	2.53	0.43
1:A:641:U:H3’	1:A:641:U:H6	1.82	0.43
1:A:645:G:C6	1:A:646:G:C5	3.06	0.43
1:A:771:G:C4	1:A:772:U:N1	2.86	0.43
1:A:851:G:C2	1:A:852:G:C4	3.06	0.43
1:A:868:C:O5’	1:A:868:C:H6	2.01	0.43
1:A:904:U:C6	1:A:904:U:OP2	2.72	0.43
1:A:938:A:C2	1:A:1345:U:O4	2.71	0.43
1:A:954:G:C6	13:M:102:LYS:HE3	2.53	0.43
1:A:987:G:C2	1:A:988:G:C4	3.06	0.43
1:A:1004:A:O4’	1:A:1025:U:C2	2.70	0.43
1:A:1040:U:C4	1:A:1041:G:O6	2.71	0.43
1:A:1055:A:C5	1:A:1206:G:C6	3.06	0.43
1:A:1058:G:H8	1:A:1058:G:O5’	2.01	0.43
1:A:1095:U:H2’	1:A:1096:C:O4’	2.18	0.43
1:A:1098:C:O5’	1:A:1098:C:H6	2.00	0.43
1:A:1180:A:C8	1:A:1180:A:O5’	2.71	0.43
1:A:1239:A:C5	1:A:1241:G:N1	2.86	0.43
1:A:1254:A:C2	1:A:1255:G:C5	3.06	0.43
1:A:1303:C:O5’	1:A:1303:C:H6	2.00	0.43
1:A:1306:A:C6	1:A:1331:G:O2’	2.67	0.43
1:A:1332:A:C8	1:A:1333:A:C8	3.06	0.43
1:A:1368:A:H1’	10:J:48:ARG:NH2	2.34	0.43
1:A:1406:U:H5”	1:A:1407:C:C5	2.51	0.43
1:A:1438:G:N2	1:A:1464:U:C1’	2.81	0.43
1:A:1522:U:C2	1:A:1523:G:C8	3.07	0.43
1:A:1526:G:N2	1:A:1527:U:C1’	2.82	0.43
2:B:56:LEU:HD11	2:B:183:PHE:CE2	2.52	0.43
4:D:126:GLY:HA3	4:D:134:TYR:CE2	2.53	0.43
5:E:52:ALA:HB1	5:E:57:ALA:CB	2.47	0.43
6:F:11:HIS:HB2	6:F:14:GLN:HB2	1.99	0.43
6:F:11:HIS:CG	6:F:14:GLN:HB2	2.53	0.43
7:G:141:HIS:N	7:G:141:HIS:CD2	2.83	0.43
8:H:50:VAL:HG23	8:H:57:GLU:O	2.18	0.43
11:K:23:HIS:HD2	11:K:30:ILE:HG23	1.82	0.43
14:N:60:ARG:HE	14:N:70:HIS:CE1	2.36	0.43
19:S:33:TRP:HA	19:S:51:HIS:H	1.84	0.43
1:A:51:A:H61	1:A:314:C:H1’	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:87:C:C5	1:A:88:U:C4	3.06	0.43
1:A:128:G:N3	1:A:128:G:C2'	2.81	0.43
1:A:146:G:C4	1:A:147:G:C8	3.07	0.43
1:A:155:A:C4	1:A:156:C:C6	3.06	0.43
1:A:159:G:N3	1:A:161:A:OP2	2.50	0.43
1:A:173:U:C5'	1:A:173:U:C6	3.02	0.43
1:A:181:A:N1	1:A:195:A:C5	2.86	0.43
1:A:187:G:C5	1:A:189:A:OP1	2.71	0.43
1:A:292:G:H2'	1:A:292:G:N3	2.33	0.43
1:A:297:G:H1'	1:A:301:G:N2	2.34	0.43
1:A:303:A:N3	1:A:304:U:C6	2.87	0.43
1:A:318:G:C5	1:A:336:A:N1	2.87	0.43
1:A:430:A:H2'	1:A:431:A:C5'	2.48	0.43
1:A:445:G:C8	1:A:445:G:H3'	2.52	0.43
1:A:457:G:C2	1:A:476:U:H1'	2.54	0.43
1:A:494:G:C6	1:A:496:A:N7	2.85	0.43
1:A:514:C:H42	1:A:536:C:N4	2.16	0.43
1:A:522:C:H3'	1:A:523:A:H8	1.82	0.43
1:A:570:G:C5	1:A:571:U:C5	3.06	0.43
1:A:585:G:H2'	1:A:586:C:C6	2.52	0.43
1:A:606:G:H1'	1:A:632:U:C4	2.52	0.43
1:A:618:C:C4	1:A:620:C:OP1	2.72	0.43
1:A:654:G:N2	1:A:755:G:H5'	2.33	0.43
1:A:689:C:P	11:K:45:THR:HG21	2.59	0.43
1:A:701:U:C5	1:A:702:A:N1	2.86	0.43
1:A:773:G:O5'	1:A:773:G:H8	2.02	0.43
1:A:809:G:C8	1:A:809:G:O5'	2.71	0.43
1:A:832:G:C8	1:A:832:G:H3'	2.53	0.43
1:A:859:G:C5	1:A:860:A:C5	3.06	0.43
1:A:859:G:N1	1:A:860:A:C2	2.86	0.43
1:A:861:G:C5	1:A:862:C:C5	3.07	0.43
1:A:891:U:OP1	1:A:903:G:H5"	2.17	0.43
1:A:904:U:H2'	1:A:905:U:O4'	2.18	0.43
1:A:915:A:C2	1:A:916:U:H1'	2.54	0.43
1:A:964:A:C8	1:A:965:U:O4	2.71	0.43
1:A:1037:C:C4	1:A:1038:C:N4	2.86	0.43
1:A:1054:C:H1'	1:A:1196:A:C8	2.54	0.43
1:A:1057:G:C5	1:A:1204:A:N3	2.86	0.43
1:A:1117:A:C5	1:A:1156:G:C2	3.06	0.43
1:A:1175:G:H3'	1:A:1176:A:H8	1.83	0.43
1:A:1190:G:H5'	3:C:175:HIS:NE2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1207:G:N2	1:A:1208:C:H1'	2.32	0.43
1:A:1300:G:N3	1:A:1334:G:C6	2.86	0.43
1:A:1305:G:O2'	1:A:1306:A:H8	2.01	0.43
1:A:1308:U:H2'	1:A:1309:G:H8	1.84	0.43
1:A:1458:G:N1	1:A:1459:G:C4	2.87	0.43
1:A:1472:U:O5'	1:A:1472:U:C6	2.72	0.43
1:A:1473:G:H3'	1:A:1474:U:C5	2.53	0.43
1:A:1508:A:C2	1:A:1509:C:N1	2.86	0.43
2:B:40:ILE:HD13	2:B:200:PRO:CB	2.48	0.43
3:C:28:PHE:CE1	10:J:13:PHE:CZ	3.05	0.43
3:C:115:VAL:HG21	3:C:201:ILE:HD11	2.00	0.43
5:E:75:LEU:H	5:E:146:MET:CE	2.31	0.43
5:E:113:VAL:HA	5:E:116:VAL:HG22	2.00	0.43
8:H:40:LYS:HD2	8:H:48:PHE:H	1.84	0.43
8:H:91:LEU:HD22	8:H:122:GLY:O	2.18	0.43
15:O:2:LEU:HA	15:O:37:HIS:CE1	2.54	0.43
17:Q:22:VAL:CB	17:Q:60:ILE:HG21	2.49	0.43
17:Q:44:HIS:CE1	17:Q:68:LYS:O	2.71	0.43
17:Q:46:HIS:HB2	17:Q:73:THR:HA	2.00	0.43
1:A:27:G:C5	1:A:557:G:N1	2.87	0.43
1:A:51:A:H4'	1:A:52:C:O5'	2.18	0.43
1:A:95:C:N4	1:A:96:U:C4	2.87	0.43
1:A:96:U:H2'	1:A:98:A:N6	2.33	0.43
1:A:97:G:OP2	1:A:99:C:N4	2.51	0.43
1:A:115:G:H2'	1:A:289:G:H8	1.84	0.43
1:A:118:U:C5	1:A:288:A:N7	2.87	0.43
1:A:148:G:N3	1:A:1446:A:H2	2.16	0.43
1:A:200:G:C2	1:A:201:G:C8	3.07	0.43
1:A:208:U:H3	1:A:212:G:H21	1.66	0.43
1:A:264:C:C4	1:A:265:G:C5	3.06	0.43
1:A:272:C:C5	1:A:272:C:OP2	2.71	0.43
1:A:284:C:N3	1:A:285:C:C5	2.87	0.43
1:A:292:G:N7	1:A:293:G:H1'	2.33	0.43
1:A:313:A:C2	1:A:314:C:H1'	2.53	0.43
1:A:319:G:H4'	1:A:1467:C:O2'	2.19	0.43
1:A:350:G:C2	1:A:351:G:C6	3.07	0.43
1:A:359:G:C5	1:A:360:G:H1'	2.54	0.43
1:A:414:A:C6	1:A:431:A:C2	3.07	0.43
1:A:441:A:C5	1:A:442:G:N7	2.87	0.43
1:A:451:A:C5	1:A:480:U:C6	3.07	0.43
1:A:455:G:C8	1:A:455:G:OP2	2.71	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:457:G:C8	1:A:457:G:OP2	2.71	0.43
1:A:497:G:C2	1:A:498:A:C6	3.06	0.43
1:A:527:G:C2	1:A:528:C:C2	3.07	0.43
1:A:568:G:N3	1:A:883:C:C2	2.87	0.43
1:A:588:G:C6	1:A:589:U:C4	3.06	0.43
1:A:592:G:C4	1:A:593:U:C6	3.06	0.43
1:A:620:C:C5	1:A:621:A:C6	3.05	0.43
1:A:626:G:N1	1:A:627:G:C6	2.87	0.43
1:A:627:G:C6	1:A:628:G:O6	2.71	0.43
1:A:673:A:C2	1:A:674:G:N3	2.86	0.43
1:A:718:A:H3'	1:A:719:C:C6	2.53	0.43
1:A:729:A:C5	1:A:730:G:N7	2.86	0.43
1:A:745:G:H1'	1:A:836:G:O2'	2.19	0.43
1:A:751:U:O5'	1:A:751:U:H6	2.01	0.43
1:A:769:G:C4'	1:A:1513:A:H4'	2.48	0.43
1:A:775:G:H1	1:A:802:A:P	2.41	0.43
1:A:857:C:OP2	1:A:871:U:H5	2.00	0.43
1:A:868:C:H1'	1:A:873:A:N3	2.33	0.43
1:A:913:A:C5	12:L:19:ASN:HB3	2.53	0.43
1:A:923:A:N1	1:A:924:C:C4	2.86	0.43
1:A:987:G:H1'	19:S:51:HIS:NE2	2.33	0.43
1:A:991:U:C2	1:A:1212:U:H4'	2.53	0.43
1:A:992:U:C5	1:A:1043:G:H5"	2.53	0.43
1:A:993:G:C8	1:A:1212:U:H5'	2.53	0.43
1:A:1004:A:C8	1:A:1005:A:C1'	3.01	0.43
1:A:1009:U:OP2	1:A:1009:U:H6	2.01	0.43
1:A:1041:G:C5	1:A:1042:A:C6	3.07	0.43
1:A:1064:G:H4'	1:A:1065:U:H4'	2.00	0.43
1:A:1074:G:N1	1:A:1102:A:C6	2.86	0.43
1:A:1086:U:H5"	1:A:1087:G:C8	2.53	0.43
1:A:1089:G:C5	1:A:1090:U:C5	3.06	0.43
1:A:1116:U:O2	1:A:1117:A:C5	2.70	0.43
1:A:1120:C:N3	1:A:1154:G:C4	2.87	0.43
1:A:1134:G:H21	1:A:1141:C:H1'	1.84	0.43
1:A:1176:A:C4	1:A:1177:G:C8	3.06	0.43
1:A:1192:C:H42	5:E:25:LYS:HE2	1.84	0.43
1:A:1213:A:C4	1:A:1215:G:C8	3.06	0.43
1:A:1221:G:C5	1:A:1222:G:N7	2.86	0.43
1:A:1246:A:C5	1:A:1247:U:C5	3.06	0.43
1:A:1255:G:H3'	1:A:1279:G:H1	1.82	0.43
1:A:1341:U:H2'	1:A:1342:C:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1405:G:C6	1:A:1497:G:C6	3.07	0.43
1:A:1406:U:H3'	1:A:1407:C:H6	1.84	0.43
1:A:1480:A:C4	1:A:1481:U:C6	3.06	0.43
1:A:1507:A:C4	1:A:1531:A:H2	2.36	0.43
1:A:1515:G:C2	1:A:1521:C:N1	2.86	0.43
1:A:1517:G:H2'	1:A:1518:A:O4'	2.18	0.43
3:C:115:VAL:HG13	3:C:136:ALA:CB	2.45	0.43
5:E:17:VAL:HG11	5:E:55:VAL:HA	1.99	0.43
5:E:51:LYS:O	5:E:58:ALA:HA	2.18	0.43
6:F:47:LEU:HD21	6:F:57:ALA:HB3	2.00	0.43
9:I:3:ASN:ND2	9:I:6:TYR:CD1	2.87	0.43
11:K:43:TRP:CE3	11:K:44:ALA:CA	3.01	0.43
13:M:6:ILE:HG23	13:M:65:GLU:HG3	2.00	0.43
15:O:22:GLY:HA2	15:O:27:GLN:HE21	1.83	0.43
17:Q:64:ARG:O	17:Q:64:ARG:HG3	2.19	0.43
1:A:22:G:N3	1:A:914:A:C8	2.87	0.43
1:A:41:G:N2	1:A:42:G:C4	2.86	0.43
1:A:116:A:H61	1:A:313:A:H2'	1.82	0.43
1:A:126:G:N1	1:A:127:G:C4	2.86	0.43
1:A:148:G:C6	1:A:175:C:N3	2.87	0.43
1:A:156:C:C4	1:A:157:U:C4	3.06	0.43
1:A:171:A:C5	1:A:172:A:C6	3.06	0.43
1:A:171:A:C5	1:A:172:A:C5	3.06	0.43
1:A:195:A:C5	1:A:196:A:N1	2.87	0.43
1:A:253:A:H1'	1:A:276:G:H4'	1.98	0.43
1:A:282:A:C2	1:A:283:U:H1'	2.53	0.43
1:A:318:G:C2	1:A:319:G:N9	2.86	0.43
1:A:319:G:H21	1:A:1434:A:C1'	2.32	0.43
1:A:321:A:C2	1:A:333:U:O2	2.71	0.43
1:A:371:A:C4'	1:A:483:C:H4'	2.49	0.43
1:A:412:A:C8	1:A:413:G:C5	3.07	0.43
1:A:413:G:O3'	1:A:428:G:C2	2.72	0.43
1:A:433:G:C6	1:A:434:U:C4	3.06	0.43
1:A:439:U:H3'	1:A:440:C:C5	2.53	0.43
1:A:450:G:H1'	16:P:8:ARG:HH22	1.83	0.43
1:A:465:A:H2'	1:A:466:A:C8	2.53	0.43
1:A:475:C:C4	1:A:476:U:C4	3.07	0.43
1:A:503:C:O5'	1:A:503:C:C6	2.72	0.43
1:A:504:C:O2	1:A:542:G:C2	2.72	0.43
1:A:516:U:H2'	1:A:519:C:N3	2.34	0.43
1:A:538:G:C2	1:A:539:A:C8	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:550:G:N2	1:A:551:U:H1'	2.32	0.43
1:A:564:C:H41	12:L:13:ARG:HG3	1.84	0.43
1:A:579:A:N1	1:A:580:C:C2	2.87	0.43
1:A:582:C:N4	1:A:759:A:OP2	2.52	0.43
1:A:587:G:H22	1:A:754:C:C5'	2.32	0.43
1:A:651:C:H3'	1:A:652:U:C6	2.54	0.43
1:A:662:U:C5	1:A:662:U:OP2	2.72	0.43
1:A:689:C:H41	11:K:52:ARG:HD2	1.84	0.43
1:A:712:A:H3'	1:A:713:G:C8	2.54	0.43
1:A:720:C:C6	1:A:720:C:H3'	2.54	0.43
1:A:721:G:H5'	1:A:722:G:C4	2.54	0.43
1:A:722:G:C8	1:A:724:G:H1'	2.54	0.43
1:A:739:C:O5'	1:A:739:C:H6	2.01	0.43
1:A:752:G:H5'	15:O:76:ARG:HH22	1.83	0.43
1:A:770:C:O2'	1:A:899:C:N3	2.52	0.43
1:A:877:G:C8	1:A:877:G:C3'	3.02	0.43
1:A:918:A:C2	1:A:919:A:N9	2.87	0.43
1:A:927:G:C2	1:A:928:G:C5	3.07	0.43
1:A:941:G:H2'	1:A:942:G:C8	2.53	0.43
1:A:951:G:C2	1:A:952:U:N1	2.87	0.43
1:A:961:U:H2'	1:A:962:C:H6	1.82	0.43
1:A:979:C:H42	1:A:1318:A:H61	1.67	0.43
1:A:1034:G:O6	1:A:1035:A:C6	2.72	0.43
1:A:1073:U:N3	1:A:1074:G:N7	2.67	0.43
1:A:1089:G:H2'	1:A:1170:A:H2	1.81	0.43
1:A:1143:G:C5	1:A:1144:G:C8	3.06	0.43
1:A:1163:A:N3	1:A:1174:G:C6	2.87	0.43
1:A:1252:A:C8	1:A:1252:A:C3'	3.01	0.43
1:A:1276:G:C4	1:A:1277:C:C6	3.06	0.43
1:A:1281:C:H6	1:A:1282:C:H5	1.67	0.43
1:A:1294:G:C2	1:A:1295:U:C1'	3.02	0.43
1:A:1310:G:C2	1:A:1328:C:O2	2.71	0.43
1:A:1310:G:C8	1:A:1310:G:H3'	2.53	0.43
1:A:1310:G:H5"	13:M:75:SER:HB3	2.00	0.43
1:A:1346:A:H61	1:A:1374:A:H3'	1.84	0.43
1:A:1354:U:O2	1:A:1354:U:H2'	2.18	0.43
1:A:1405:G:C2	1:A:1406:U:C5	3.06	0.43
1:A:1408:A:C1'	1:A:1494:G:C2	2.96	0.43
1:A:1442:G:C6	1:A:1461:G:N2	2.86	0.43
1:A:1453:G:N2	1:A:1454:G:C8	2.87	0.43
1:A:1515:G:C5	1:A:1521:C:C4	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:68:PHE:CD2	2:B:89:PHE:O	2.72	0.43
3:C:122:GLN:HB2	3:C:132:ALA:HB1	2.01	0.43
4:D:197:HIS:CE1	5:E:104:ILE:CG2	3.01	0.43
5:E:36:THR:HG23	5:E:62:ALA:CB	2.49	0.43
9:I:46:VAL:HG21	9:I:75:ALA:HB1	2.01	0.43
10:J:42:LEU:HD21	10:J:73:LEU:CG	2.47	0.43
13:M:92:ARG:HB3	13:M:94:LEU:HG	2.01	0.43
19:S:13:HIS:CG	19:S:14:LEU:N	2.87	0.43
22:W:214:GLY:CA	22:W:220:LYS:HZ1	2.31	0.43
1:A:9:G:N2	1:A:26:A:C4	2.86	0.43
1:A:36:C:H41	12:L:122:LYS:CE	2.32	0.43
1:A:41:G:C6	1:A:402:G:N1	2.86	0.43
1:A:80:A:N1	1:A:81:A:H1'	2.34	0.43
1:A:137:U:O2	1:A:138:G:C8	2.71	0.43
1:A:152:A:OP2	1:A:153:C:C4	2.72	0.43
1:A:184:G:C4	1:A:224:U:C5'	2.99	0.43
1:A:193:C:H4'	20:T:55:PRO:N	2.34	0.43
1:A:227:G:C5	1:A:228:A:N7	2.86	0.43
1:A:257:G:N3	1:A:270:A:C2	2.86	0.43
1:A:271:C:H2'	1:A:272:C:C6	2.52	0.43
1:A:316:C:O2	1:A:316:C:C2'	2.64	0.43
1:A:321:A:N6	1:A:332:G:H1	2.17	0.43
1:A:324:G:N3	1:A:326:G:C8	2.86	0.43
1:A:357:G:O2'	1:A:368:U:C4	2.70	0.43
1:A:405:U:O2'	1:A:498:A:H3'	2.17	0.43
1:A:410:G:H1'	1:A:433:G:N2	2.34	0.43
1:A:420:U:C2	1:A:422:C:N3	2.87	0.43
1:A:439:U:H1'	4:D:118:SER:O	2.19	0.43
1:A:452:A:H1'	16:P:39:PHE:CE2	2.54	0.43
1:A:453:G:C5'	16:P:73:ALA:HA	2.49	0.43
1:A:466:A:C6	1:A:468:A:N6	2.87	0.43
1:A:502:A:C5'	12:L:114:SER:HB3	2.49	0.43
1:A:504:C:C2	1:A:542:G:N2	2.87	0.43
1:A:596:A:C2	1:A:597:G:N9	2.87	0.43
1:A:707:U:O2'	11:K:34:THR:HG22	2.18	0.43
1:A:717:U:C1'	11:K:117:HIS:HB3	2.47	0.43
1:A:738:C:H5"	6:F:68:GLN:HG2	2.01	0.43
1:A:780:A:C5'	11:K:124:LYS:H	2.31	0.43
1:A:829:G:H5"	1:A:829:G:H8	1.83	0.43
1:A:830:G:C6	1:A:831:A:C5	3.06	0.43
1:A:918:A:C4	1:A:919:A:C8	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:925:G:N1	1:A:1391:U:C2	2.86	0.43
1:A:933:G:H3'	1:A:935:A:N7	2.34	0.43
1:A:935:A:C4	1:A:936:C:C6	3.06	0.43
1:A:962:C:H42	1:A:973:G:H1	1.66	0.43
1:A:996:A:C8	1:A:996:A:OP2	2.71	0.43
1:A:1011:C:C2	1:A:1012:A:C8	3.06	0.43
1:A:1032:G:C2	1:A:1033:G:C5	3.07	0.43
1:A:1048:G:C2	1:A:1050:G:C8	3.06	0.43
1:A:1072:G:H2'	1:A:1073:U:C6	2.53	0.43
1:A:1083:U:H2'	1:A:1102:A:C8	2.54	0.43
1:A:1085:U:O3'	1:A:1086:U:H4'	2.18	0.43
1:A:1086:U:C5'	1:A:1087:G:N7	2.82	0.43
1:A:1095:U:O2	1:A:1171:A:C5'	2.66	0.43
1:A:1140:C:H1'	1:A:1141:C:H5'	1.99	0.43
1:A:1147:C:H4'	9:I:3:ASN:HD21	1.83	0.43
1:A:1158:C:O2	1:A:1158:C:H5"	2.19	0.43
1:A:1165:U:C3'	1:A:1166:G:H8	2.32	0.43
1:A:1185:G:C8	1:A:1185:G:H3'	2.54	0.43
1:A:1192:C:OP2	1:A:1193:G:C8	2.72	0.43
1:A:1345:U:O2	1:A:1375:A:N1	2.51	0.43
1:A:1358:U:H2'	14:N:74:ARG:CZ	2.49	0.43
1:A:1442:G:C6	1:A:1443:C:N4	2.86	0.43
1:A:1476:A:C5	1:A:1477:U:C5	3.06	0.43
1:A:1476:A:C2	1:A:1477:U:C2	3.06	0.43
1:A:1499:A:C6	1:A:1500:A:C6	3.07	0.43
2:B:129:THR:O	2:B:133:ALA:HB3	2.18	0.43
2:B:138:ARG:H	2:B:138:ARG:HD2	1.83	0.43
3:C:21:TRP:HA	3:C:57:GLU:OE1	2.19	0.43
5:E:104:ILE:HG23	5:E:104:ILE:O	2.19	0.43
6:F:61:LEU:HD21	18:R:23:LYS:HE3	2.00	0.43
8:H:100:ILE:HD12	8:H:102:VAL:CG1	2.48	0.43
10:J:19:ASP:CA	10:J:72:ARG:HH22	2.32	0.43
11:K:43:TRP:HZ3	11:K:45:THR:HG1	1.64	0.43
12:L:26:CYS:HB3	12:L:28:GLN:O	2.18	0.43
12:L:72:ASN:CG	12:L:79:ILE:HG22	2.39	0.43
14:N:48:GLN:HB3	19:S:13:HIS:H	1.84	0.43
14:N:98:ALA:H	14:N:100:TRP:HD1	1.65	0.43
22:W:146:VAL:HG11	22:W:332:ILE:HD13	1.99	0.43
1:A:14:U:C2'	1:A:16:A:N7	2.81	0.43
1:A:19:A:C5	1:A:20:U:C6	3.07	0.43
1:A:104:G:C8	1:A:104:G:O5'	2.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:108:G:O5'	1:A:109:A:C2	2.72	0.43
1:A:134:G:C8	1:A:325:A:C6	3.06	0.43
1:A:179:A:C2	1:A:180:U:C2	3.06	0.43
1:A:246:A:C8	1:A:279:A:C2	3.07	0.43
1:A:297:G:N2	1:A:300:A:C8	2.87	0.43
1:A:298:A:H3'	1:A:299:G:H8	1.81	0.43
1:A:361:G:C8	1:A:361:G:OP2	2.71	0.43
1:A:373:A:C6	1:A:374:A:C6	3.07	0.43
1:A:384:G:C6	1:A:385:C:N3	2.86	0.43
1:A:392:C:O2'	1:A:484:G:C8	2.71	0.43
1:A:394:G:C6	1:A:395:C:C4	3.07	0.43
1:A:402:G:H1'	1:A:620:C:H42	1.84	0.43
1:A:428:G:H5"	4:D:9:LYS:HB2	2.01	0.43
1:A:469:C:H3'	1:A:470:C:H6	1.79	0.43
1:A:500:G:N1	1:A:546:A:H2	2.17	0.43
1:A:515:G:C6	1:A:537:G:C2	3.07	0.43
1:A:580:C:C6	1:A:581:G:C8	3.06	0.43
1:A:591:U:H6	1:A:591:U:H3'	1.83	0.43
1:A:619:U:H4'	4:D:127:ARG:HB3	2.01	0.43
1:A:673:A:C6	1:A:674:G:C6	3.07	0.43
1:A:675:A:H5'	18:R:71:ASP:C	2.38	0.43
1:A:688:G:C2	1:A:689:C:N1	2.86	0.43
1:A:734:G:N2	1:A:735:C:C2	2.86	0.43
1:A:769:G:OP1	1:A:802:A:C2	2.71	0.43
1:A:833:G:C2	1:A:854:U:N1	2.87	0.43
1:A:903:G:N7	1:A:903:G:OP2	2.52	0.43
1:A:907:A:C5'	1:A:907:A:H8	2.32	0.43
1:A:924:C:C5	1:A:924:C:OP2	2.71	0.43
1:A:971:G:N1	1:A:1364:U:C5	2.87	0.43
1:A:1006:G:C2	1:A:1007:U:H1'	2.53	0.43
1:A:1018:G:O6	14:N:19:TYR:CE2	2.71	0.43
1:A:1053:G:C4	1:A:1056:U:O4	2.72	0.43
1:A:1066:C:C2	1:A:1068:G:H1'	2.53	0.43
1:A:1133:G:C2	1:A:1134:G:C4	3.06	0.43
1:A:1250:A:C5	1:A:1251:A:C4	3.07	0.43
1:A:1253:G:C8	1:A:1253:G:OP2	2.72	0.43
1:A:1267:C:C4	1:A:1268:G:C5	3.07	0.43
1:A:1268:G:C6	1:A:1269:A:C6	3.06	0.43
1:A:1306:A:N7	1:A:1306:A:OP2	2.52	0.43
1:A:1380:U:H2'	7:G:2:ARG:CZ	2.49	0.43
1:A:1396:A:C2	1:A:1398:A:H2	2.37	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1454:G:C8	1:A:1454:G:H5”	2.54	0.43
1:A:1475:G:C2	1:A:1476:A:C8	3.07	0.43
1:A:1493:A:C4	22:W:66:ILE:HD12	2.54	0.43
1:A:1499:A:C2	1:A:1500:A:N9	2.86	0.43
2:B:23:ASN:HA	2:B:24:PRO:HD3	1.90	0.43
2:B:71:THR:HG23	2:B:167:HIS:CG	2.53	0.43
5:E:12:GLU:HG2	5:E:38:VAL:HB	2.01	0.43
5:E:17:VAL:HA	5:E:34:ALA:HB2	2.00	0.43
6:F:67:PRO:HD2	6:F:70:VAL:HG23	2.01	0.43
8:H:89:ASP:HA	8:H:91:LEU:HD12	2.01	0.43
9:I:51:LEU:CD2	9:I:86:LEU:HD11	2.49	0.43
11:K:14:GLN:HB3	11:K:76:TYR:CA	2.48	0.43
11:K:27:ASN:O	11:K:56:LYS:CG	2.67	0.43
13:M:15:VAL:HG12	13:M:33:LEU:CD1	2.45	0.43
13:M:84:CYS:SG	19:S:65:MET:SD	3.16	0.43
14:N:97:LYS:HA	14:N:100:TRP:C	2.39	0.43
16:P:17:TYR:CZ	16:P:70:ARG:CZ	3.02	0.43
18:R:61:ALA:HB3	18:R:67:LEU:HD12	2.01	0.43
1:A:9:G:N1	1:A:10:A:C4	2.86	0.43
1:A:21:G:H2’	1:A:22:G:H8	1.83	0.43
1:A:36:C:H5”	12:L:120:ARG:O	2.19	0.43
1:A:39:G:C2	1:A:40:C:C2	3.07	0.43
1:A:60:A:C4’	1:A:387:U:H4’	2.49	0.43
1:A:75:G:C2	1:A:76:G:N7	2.87	0.43
1:A:76:G:H5”	1:A:77:A:N7	2.33	0.43
1:A:77:A:C2	1:A:93:U:H1’	2.53	0.43
1:A:167:A:C2	1:A:168:G:N7	2.86	0.43
1:A:202:G:O2’	1:A:203:G:H5’	2.19	0.43
1:A:216:U:N3	1:A:217:C:C4	2.87	0.43
1:A:242:G:C6	1:A:245:U:C4	3.07	0.43
1:A:282:A:C2	1:A:283:U:C1’	3.02	0.43
1:A:324:G:C2’	1:A:326:G:N7	2.82	0.43
1:A:338:A:N7	1:A:339:C:C4	2.86	0.43
1:A:343:U:N3	1:A:345:C:O2	2.51	0.43
1:A:433:G:N2	1:A:434:U:H1’	2.33	0.43
1:A:451:A:C4	1:A:480:U:C6	3.05	0.43
1:A:461:A:C6	1:A:463:U:C5’	3.02	0.43
1:A:599:C:C2	1:A:640:A:N1	2.86	0.43
1:A:606:G:N2	1:A:633:G:C6	2.87	0.43
1:A:606:G:C5	1:A:606:G:OP2	2.71	0.43
1:A:610:U:O2’	1:A:611:C:C6	2.65	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:687:A:C6	1:A:704:A:N7	2.87	0.43
1:A:687:A:C2	1:A:700:G:N3	2.87	0.43
1:A:721:G:H1'	1:A:722:G:OP2	2.18	0.43
1:A:776:G:N2	1:A:801:U:H5"	2.33	0.43
1:A:821:G:C5	1:A:822:U:C6	3.07	0.43
1:A:865:A:H2'	1:A:866:C:H6	1.83	0.43
1:A:893:C:O4'	1:A:1416:G:H5"	2.19	0.43
1:A:924:C:C2'	1:A:1502:A:C2	3.01	0.43
1:A:925:G:C8	1:A:925:G:OP2	2.72	0.43
1:A:976:G:C2	1:A:1362:A:C8	3.07	0.43
1:A:1012:A:C2	1:A:1018:G:N3	2.86	0.43
1:A:1057:G:O4'	3:C:194:VAL:CG1	2.67	0.43
1:A:1068:G:C5	1:A:1069:C:C6	3.07	0.43
1:A:1072:G:C2	1:A:1104:G:N3	2.87	0.43
1:A:1127:G:N1	1:A:1128:C:C4	2.86	0.43
1:A:1146:A:C4	1:A:1147:C:C6	3.07	0.43
1:A:1156:G:N2	1:A:1179:A:C2	2.74	0.43
1:A:1238:A:N1	1:A:1242:G:C8	2.86	0.43
1:A:1295:U:C6	1:A:1295:U:OP2	2.72	0.43
1:A:1455:G:C8	1:A:1455:G:C5'	3.01	0.43
1:A:1476:A:N1	1:A:1477:U:C2	2.86	0.43
1:A:1489:G:O2'	1:A:1490:U:H5'	2.19	0.43
1:A:1516:G:N2	1:A:1520:C:H1'	2.33	0.43
2:B:163:ILE:HD12	2:B:209:VAL:HG11	2.00	0.43
3:C:63:ILE:H	3:C:96:VAL:HB	1.84	0.43
3:C:91:ALA:N	3:C:98:ALA:HB2	2.33	0.43
3:C:110:LEU:HD22	3:C:203:LYS:HA	2.01	0.43
3:C:115:VAL:HG12	3:C:119:ILE:HD12	2.01	0.43
8:H:79:ARG:NH1	12:L:3:VAL:H	2.17	0.43
9:I:51:LEU:HD21	9:I:86:LEU:HD11	2.01	0.43
10:J:12:ALA:CB	10:J:17:LEU:HB3	2.47	0.43
11:K:117:HIS:HE1	18:R:69:TYR:CZ	2.35	0.43
13:M:106:ARG:HB3	13:M:110:GLY:O	2.17	0.43
14:N:49:THR:HG22	19:S:16:LYS:NZ	2.34	0.43
14:N:63:CYS:HB3	14:N:68:ARG:H	1.83	0.43
17:Q:44:HIS:CG	17:Q:69:THR:OG1	2.72	0.43
19:S:75:PRO:C	19:S:76:THR:CG2	2.87	0.43
22:W:65:ASN:O	22:W:97:VAL:HG23	2.19	0.43
1:A:5:U:O4	1:A:613:C:H4'	2.19	0.43
1:A:20:U:C6	1:A:20:U:O5'	2.72	0.43
1:A:49:U:O4	1:A:361:G:C5	2.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:77:A:N1	1:A:93:U:H1'	2.34	0.43
1:A:103:U:N3	1:A:104:G:C8	2.86	0.43
1:A:108:G:P	1:A:326:G:H1	2.42	0.43
1:A:111:G:H5'	16:P:27:ALA:H	1.83	0.43
1:A:142:G:H2'	1:A:142:G:N3	2.34	0.43
1:A:161:A:OP2	1:A:161:A:H8	2.02	0.43
1:A:297:G:H4'	1:A:557:G:C4'	2.49	0.43
1:A:339:C:N3	1:A:340:U:C4	2.87	0.43
1:A:448:A:C5	1:A:487:A:C4	3.06	0.43
1:A:459:A:C2	1:A:473:U:O2	2.72	0.43
1:A:558:G:C8	1:A:559:A:H2'	2.54	0.43
1:A:560:A:OP1	5:E:127:TYR:CE1	2.72	0.43
1:A:570:G:C6	1:A:873:A:C4	3.06	0.43
1:A:581:G:H2'	1:A:582:C:H6	1.79	0.43
1:A:609:A:C6	1:A:630:A:H2	2.37	0.43
1:A:689:C:OP1	11:K:45:THR:CG2	2.66	0.43
1:A:696:A:C4	1:A:697:U:C5	3.07	0.43
1:A:727:G:C6	1:A:731:G:C6	3.06	0.43
1:A:780:A:H2'	1:A:800:G:N1	2.34	0.43
1:A:821:G:N1	1:A:880:C:C2	2.86	0.43
1:A:851:G:C6	1:A:852:G:O6	2.72	0.43
1:A:931:C:C2	1:A:932:C:C6	3.06	0.43
1:A:936:C:O2	1:A:1380:U:O2	2.37	0.43
1:A:943:U:C5	1:A:943:U:OP2	2.72	0.43
1:A:967:C:H4'	9:I:126:PHE:CG	2.54	0.43
1:A:975:A:N3	1:A:975:A:H2'	2.33	0.43
1:A:995:C:C2'	1:A:996:A:H5'	2.49	0.43
1:A:1014:A:OP2	19:S:13:HIS:CG	2.72	0.43
1:A:1052:U:N3	1:A:1207:G:C6	2.84	0.43
1:A:1067:A:C2	1:A:1108:G:N3	2.86	0.43
1:A:1112:C:H5"	2:B:128:LEU:HB3	2.00	0.43
1:A:1119:C:C2	1:A:1155:A:C6	3.07	0.43
1:A:1126:U:C5	10:J:101:SER:OG	2.68	0.43
1:A:1204:A:C2	3:C:189:HIS:CE1	3.07	0.43
1:A:1221:G:N3	1:A:1222:G:C8	2.87	0.43
1:A:1229:A:C5	1:A:1230:C:C5	3.07	0.43
1:A:1239:A:C4	1:A:1298:U:O4	2.72	0.43
1:A:1251:A:C2	1:A:1353:G:N2	2.87	0.43
1:A:1292:G:N2	1:A:1293:C:C2	2.87	0.43
1:A:1309:G:N1	1:A:1310:G:C5	2.86	0.43
1:A:1309:G:C8	13:M:97:ARG:NE	2.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1355:G:N3	1:A:1356:G:C8	2.87	0.43
1:A:1413:A:C2	1:A:1414:U:H1'	2.53	0.43
1:A:1418:A:C8	1:A:1418:A:H3'	2.53	0.43
2:B:13:VAL:HG21	2:B:211:LEU:CD1	2.49	0.43
2:B:70:GLY:HA2	2:B:79:VAL:CG2	2.49	0.43
2:B:90:PHE:HE2	2:B:92:ASN:HD22	1.63	0.43
5:E:23:THR:HG22	5:E:28:ARG:HB3	2.01	0.43
5:E:41:GLY:O	5:E:117:ALA:HA	2.19	0.43
8:H:19:ALA:HB3	8:H:21:LYS:HE3	2.00	0.43
8:H:91:LEU:CD2	8:H:122:GLY:O	2.66	0.43
9:I:117:LEU:HD23	9:I:117:LEU:HA	1.89	0.43
10:J:5:ARG:CD	10:J:78:GLU:H	2.32	0.43
22:W:48:PHE:CB	22:W:51:HIS:HB2	2.49	0.43
22:W:198:LEU:HD21	22:W:226:ALA:HB1	2.00	0.43
1:A:18:C:H4'	1:A:1078:U:C5	2.53	0.42
1:A:76:G:H5'	1:A:77:A:OP2	2.19	0.42
1:A:92:U:C4	1:A:93:U:C2	3.07	0.42
1:A:144:G:N1	1:A:179:A:C5	2.87	0.42
1:A:191:G:C2'	1:A:192:A:H8	2.32	0.42
1:A:203:G:N2	1:A:214:C:O2	2.52	0.42
1:A:277:C:H2'	1:A:278:G:C8	2.54	0.42
1:A:289:G:C5	1:A:290:C:C5	3.07	0.42
1:A:310:G:C6	1:A:311:C:C4	3.08	0.42
1:A:318:G:C2'	1:A:1468:A:H4'	2.48	0.42
1:A:342:C:C6	1:A:342:C:O5'	2.73	0.42
1:A:344:A:C5'	1:A:345:C:C6	3.03	0.42
1:A:356:A:H1'	1:A:369:G:OP2	2.20	0.42
1:A:392:C:H2'	1:A:393:A:C8	2.54	0.42
1:A:458:U:O2	1:A:475:C:O2	2.37	0.42
1:A:515:G:N1	1:A:537:G:C4	2.87	0.42
1:A:559:A:C8	12:L:17:LYS:CE	3.02	0.42
1:A:577:G:N1	1:A:765:G:H1'	2.34	0.42
1:A:602:A:C8	1:A:602:A:C3'	3.01	0.42
1:A:620:C:H3'	1:A:621:A:H8	1.83	0.42
1:A:648:A:C8	1:A:648:A:H3'	2.54	0.42
1:A:657:U:N3	1:A:658:C:C4	2.87	0.42
1:A:691:G:N2	1:A:692:U:H1'	2.34	0.42
1:A:737:C:OP2	6:F:91:ARG:CZ	2.66	0.42
1:A:756:C:C5	1:A:757:U:C5	3.07	0.42
1:A:803:G:H2'	1:A:804:U:O4'	2.19	0.42
1:A:809:G:N1	1:A:810:C:C2	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:839:C:H3'	1:A:840:C:C5	2.54	0.42
1:A:855:U:N3	1:A:856:C:C5	2.87	0.42
1:A:933:G:N2	1:A:1385:G:C4	2.87	0.42
1:A:978:A:H3'	1:A:979:C:H6	1.83	0.42
1:A:984:C:O2	1:A:1222:G:C2	2.72	0.42
1:A:1011:C:H2'	1:A:1012:A:C8	2.54	0.42
1:A:1015:G:O6	1:A:1016:A:C6	2.72	0.42
1:A:1028:C:C2	1:A:1029:U:H1'	2.54	0.42
1:A:1039:G:C2	1:A:1040:U:C2	3.07	0.42
1:A:1057:G:O2'	3:C:196:GLY:HA2	2.18	0.42
1:A:1063:C:C5	1:A:1190:G:C8	3.07	0.42
1:A:1159:U:H5	1:A:1163:A:C6	2.37	0.42
1:A:1166:G:H8	1:A:1166:G:P	2.42	0.42
1:A:1210:C:H3'	1:A:1211:U:C6	2.54	0.42
1:A:1213:A:C2	1:A:1215:G:H1'	2.54	0.42
1:A:1261:A:N1	1:A:1274:A:H2'	2.33	0.42
1:A:1269:A:C2	1:A:1313:U:H5'	2.53	0.42
1:A:1275:A:N1	1:A:1283:U:H5'	2.34	0.42
1:A:1301:U:N3	1:A:1303:C:C2	2.87	0.42
1:A:1302:C:C3'	1:A:1303:C:H5"	2.49	0.42
1:A:1306:A:H3'	1:A:1307:U:C6	2.54	0.42
1:A:1349:A:N7	1:A:1350:A:C4	2.87	0.42
1:A:1382:C:H2'	1:A:1383:C:H6	1.84	0.42
1:A:1396:A:H4'	1:A:1397:C:O5'	2.19	0.42
1:A:1408:A:C8	1:A:1408:A:OP2	2.72	0.42
1:A:1427:C:H2'	1:A:1428:A:H8	1.84	0.42
1:A:1474:U:C6	1:A:1474:U:OP2	2.72	0.42
1:A:1510:C:C2	1:A:1511:G:C8	3.07	0.42
1:A:1516:G:N2	1:A:1518:A:C8	2.87	0.42
2:B:70:GLY:N	2:B:91:VAL:O	2.52	0.42
2:B:125:PHE:HB2	2:B:133:ALA:CB	2.49	0.42
3:C:59:PRO:HB2	10:J:92:LEU:HD22	2.01	0.42
3:C:63:ILE:HG21	3:C:90:VAL:HG12	2.00	0.42
6:F:45:ARG:HB2	6:F:59:TYR:CD1	2.54	0.42
7:G:68:VAL:HA	7:G:134:VAL:CA	2.49	0.42
8:H:6:ILE:HG13	8:H:76:ARG:HH22	1.84	0.42
8:H:48:PHE:HA	8:H:60:LEU:HA	2.00	0.42
8:H:79:ARG:HH21	8:H:81:GLY:HA3	1.84	0.42
11:K:33:ILE:HG21	11:K:73:VAL:HG21	2.00	0.42
13:M:28:ARG:HG2	13:M:62:PHE:CD2	2.54	0.42
16:P:4:ILE:HG12	16:P:21:VAL:HG22	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:Q:50:ASN:HD22	17:Q:50:ASN:HA	1.61	0.42
19:S:44:ILE:CG1	19:S:61:VAL:HB	2.49	0.42
22:W:201:LEU:O	22:W:205:LEU:HG	2.19	0.42
1:A:72:A:H2'	1:A:73:C:H5"	2.02	0.42
1:A:78:A:N1	1:A:91:U:O4	2.52	0.42
1:A:94:G:C5'	1:A:95:C:H5"	2.49	0.42
1:A:169:C:H2'	1:A:170:U:O4'	2.19	0.42
1:A:200:G:C6	1:A:201:G:C6	3.07	0.42
1:A:202:G:N2	1:A:468:A:H62	2.17	0.42
1:A:217:C:O2	1:A:469:C:N3	2.52	0.42
1:A:253:A:HO2'	1:A:276:G:H5"	1.84	0.42
1:A:255:G:N7	1:A:256:U:C5	2.87	0.42
1:A:303:A:C2	1:A:304:U:C6	3.08	0.42
1:A:363:A:C2	12:L:27:PRO:HG2	2.53	0.42
1:A:380:G:N3	1:A:380:G:C2'	2.78	0.42
1:A:400:C:O2	1:A:400:C:H2'	2.19	0.42
1:A:403:C:C2'	1:A:404:G:H5'	2.49	0.42
1:A:449:G:N1	1:A:450:G:C6	2.87	0.42
1:A:505:G:H1'	1:A:535:A:C2	2.54	0.42
1:A:511:C:N3	1:A:512:U:C5	2.87	0.42
1:A:654:G:N1	1:A:655:A:C4	2.87	0.42
1:A:668:G:O2'	15:O:45:HIS:CD2	2.72	0.42
1:A:676:A:N3	1:A:677:U:C5	2.87	0.42
1:A:705:G:C8	1:A:705:G:C3'	3.01	0.42
1:A:708:C:C4	1:A:709:U:C5	3.07	0.42
1:A:717:U:OP2	1:A:717:U:H6	2.01	0.42
1:A:724:G:C5	1:A:725:G:N7	2.87	0.42
1:A:768:A:H8	1:A:768:A:O5'	2.03	0.42
1:A:771:G:C2	1:A:809:G:C2	3.07	0.42
1:A:773:G:N1	1:A:774:G:H1'	2.34	0.42
1:A:797:C:H2'	1:A:798:U:C6	2.54	0.42
1:A:829:G:H1'	2:B:25:LYS:HA	2.01	0.42
1:A:851:G:C6	1:A:852:G:C6	3.06	0.42
1:A:877:G:C6	1:A:878:A:N6	2.87	0.42
1:A:893:C:C4'	1:A:1416:G:H5"	2.49	0.42
1:A:915:A:N1	1:A:916:U:H1'	2.34	0.42
1:A:941:G:C8	1:A:941:G:H3'	2.54	0.42
1:A:1002:G:OP2	1:A:1032:G:H1'	2.19	0.42
1:A:1018:G:N3	1:A:1018:G:H2'	2.32	0.42
1:A:1031:C:C1'	1:A:1032:G:H21	2.32	0.42
1:A:1057:G:N7	1:A:1204:A:C2	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1059:C:C4	1:A:1060:U:C4	3.07	0.42
1:A:1074:G:C6	1:A:1102:A:N1	2.87	0.42
1:A:1083:U:N3	1:A:1102:A:N6	2.67	0.42
1:A:1084:G:C5'	1:A:1102:A:H5"	2.49	0.42
1:A:1091:U:N3	1:A:1095:U:C4	2.88	0.42
1:A:1094:G:OP2	1:A:1095:U:C5	2.72	0.42
1:A:1104:G:N3	1:A:1104:G:H2'	2.33	0.42
1:A:1117:A:N6	1:A:1156:G:C6	2.87	0.42
1:A:1184:G:C6	1:A:1185:G:C8	3.07	0.42
1:A:1189:U:H1'	3:C:177:LEU:HD21	2.01	0.42
1:A:1250:A:C6	1:A:1251:A:C5	3.07	0.42
1:A:1349:A:C2	1:A:1374:A:H1'	2.54	0.42
1:A:1403:C:C6	1:A:1403:C:O5'	2.72	0.42
1:A:1452:C:H1'	1:A:1453:G:C2	2.54	0.42
1:A:1458:G:H2'	1:A:1459:G:C8	2.55	0.42
1:A:1459:G:C6	1:A:1460:C:C5	3.06	0.42
1:A:1473:G:N1	1:A:1474:U:H1'	2.34	0.42
1:A:1525:G:N7	21:U:38:GLU:CD	2.72	0.42
1:A:1534:A:H2'	21:U:53:LYS:HB3	2.00	0.42
2:B:8:MET:O	2:B:46:VAL:HG22	2.19	0.42
2:B:64:GLY:C	2:B:153:MET:SD	2.97	0.42
3:C:3:LYS:O	3:C:5:HIS:CG	2.72	0.42
3:C:108:PRO:HB3	3:C:114:LEU:HD22	2.01	0.42
4:D:97:LEU:HD13	4:D:124:VAL:HG11	2.01	0.42
5:E:38:VAL:HG11	5:E:66:ALA:HB3	2.00	0.42
6:F:71:ILE:CD1	6:F:89:VAL:HG21	2.49	0.42
10:J:9:ARG:HA	10:J:72:ARG:O	2.18	0.42
10:J:18:ILE:HG21	10:J:70:HIS:CB	2.49	0.42
11:K:27:ASN:O	11:K:56:LYS:CB	2.66	0.42
13:M:18:LEU:CB	13:M:29:SER:HB3	2.47	0.42
13:M:80:MET:N	13:M:80:MET:SD	2.92	0.42
17:Q:58:VAL:CG2	17:Q:74:LEU:HD12	2.48	0.42
20:T:23:ARG:HB2	20:T:65:LEU:CD1	2.49	0.42
22:W:107:LEU:CD2	22:W:211:ILE:HD13	2.49	0.42
1:A:3:A:C2	1:A:627:G:N3	2.88	0.42
1:A:19:A:H2	1:A:20:U:H1'	1.83	0.42
1:A:32:A:C5'	1:A:398:U:C1'	2.97	0.42
1:A:48:C:C4	1:A:365:U:O2	2.72	0.42
1:A:49:U:H3'	1:A:49:U:H6	1.84	0.42
1:A:59:A:H1'	1:A:354:G:N3	2.35	0.42
1:A:66:A:C2	1:A:67:C:C5	3.06	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:76:G:H5”	1:A:76:G:C4	2.54	0.42
1:A:92:U:O2	1:A:92:U:C2’	2.61	0.42
1:A:104:G:C2	1:A:105:G:C4	3.07	0.42
1:A:106:C:H3’	20:T:9:ARG:NH1	2.34	0.42
1:A:162:A:C4’	1:A:349:A:H5’	2.49	0.42
1:A:181:A:H3’	1:A:181:A:P	2.59	0.42
1:A:183:C:H2’	1:A:184:G:C8	2.54	0.42
1:A:214:C:N4	1:A:215:C:C4	2.87	0.42
1:A:215:C:H6	1:A:215:C:O5’	2.03	0.42
1:A:215:C:C6	1:A:215:C:O5’	2.72	0.42
1:A:243:A:C2	1:A:283:U:O4	2.73	0.42
1:A:260:G:C2’	1:A:261:U:C6	3.00	0.42
1:A:261:U:C2	1:A:263:A:H3’	2.54	0.42
1:A:271:C:C6	1:A:271:C:O5’	2.72	0.42
1:A:296:U:C4	1:A:297:G:N7	2.87	0.42
1:A:321:A:N1	1:A:333:U:C2	2.86	0.42
1:A:424:G:C2	1:A:425:G:H1’	2.54	0.42
1:A:424:G:O6	1:A:425:G:C6	2.72	0.42
1:A:450:G:H3’	1:A:451:A:H5”	2.00	0.42
1:A:450:G:OP2	1:A:451:A:C3’	2.68	0.42
1:A:452:A:N7	1:A:453:G:C4	2.87	0.42
1:A:499:A:N1	1:A:546:A:H1’	2.34	0.42
1:A:521:G:H21	1:A:536:C:H5”	1.84	0.42
1:A:538:G:N3	1:A:539:A:C8	2.88	0.42
1:A:556:C:C6	1:A:556:C:C3’	3.03	0.42
1:A:557:G:N1	1:A:558:G:C2	2.87	0.42
1:A:581:G:C5	1:A:758:C:C5	3.07	0.42
1:A:600:A:H1’	1:A:639:G:N2	2.34	0.42
1:A:615:G:N2	1:A:626:G:C4	2.88	0.42
1:A:693:G:C6	1:A:795:C:O2	2.72	0.42
1:A:697:U:O4	1:A:798:U:H5’	2.20	0.42
1:A:708:C:C2	1:A:709:U:C6	3.07	0.42
1:A:762:U:O5’	1:A:762:U:H6	2.02	0.42
1:A:769:G:C2’	1:A:770:C:H5’	2.49	0.42
1:A:770:C:H1’	1:A:900:A:N1	2.35	0.42
1:A:838:G:N2	1:A:849:G:C1’	2.83	0.42
1:A:854:U:H3’	1:A:854:U:C6	2.54	0.42
1:A:857:C:N1	1:A:858:G:H8	2.17	0.42
1:A:886:G:H3’	1:A:886:G:C8	2.55	0.42
1:A:900:A:C2	1:A:901:A:C5	3.07	0.42
1:A:924:C:N3	1:A:925:G:C8	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:957:U:O4'	19:S:79:TYR:HA	2.19	0.42
1:A:958:A:N6	19:S:55:GLN:HE22	2.16	0.42
1:A:962:C:C6	1:A:962:C:O5'	2.71	0.42
1:A:976:G:N7	1:A:1361:G:C5	2.88	0.42
1:A:1024:G:N1	1:A:1025:U:C5	2.88	0.42
1:A:1039:G:O2'	1:A:1040:U:H5'	2.19	0.42
1:A:1048:G:H1'	1:A:1215:G:C4'	2.49	0.42
1:A:1067:A:H3'	1:A:1094:G:P	2.59	0.42
1:A:1086:U:H3'	1:A:1087:G:H5'	2.01	0.42
1:A:1091:U:H3	1:A:1094:G:P	2.43	0.42
1:A:1130:A:H2'	1:A:1131:G:O4'	2.19	0.42
1:A:1133:G:C2	1:A:1142:G:C4	3.07	0.42
1:A:1204:A:H2	3:C:189:HIS:HE1	1.67	0.42
1:A:1252:A:H1'	1:A:1369:C:O3'	2.18	0.42
1:A:1261:A:N7	1:A:1262:C:C1'	2.81	0.42
1:A:1268:G:C5	1:A:1269:A:C5	3.07	0.42
1:A:1309:G:N1	1:A:1310:G:C6	2.87	0.42
1:A:1354:U:H2'	1:A:1355:G:O4'	2.19	0.42
1:A:1376:U:O5'	7:G:97:ALA:HB1	2.18	0.42
1:A:1390:U:H2'	1:A:1391:U:N1	2.34	0.42
1:A:1418:A:C5	1:A:1419:G:C4	3.08	0.42
1:A:1419:G:O6	1:A:1482:G:C2	2.72	0.42
1:A:1431:A:C6	1:A:1432:G:C2	3.07	0.42
1:A:1433:A:N1	1:A:1434:A:C2	2.87	0.42
1:A:1444:U:C5	1:A:1444:U:OP2	2.73	0.42
1:A:1461:G:C2	1:A:1462:C:C2	3.08	0.42
1:A:1469:C:OP2	1:A:1470:U:C5	2.73	0.42
1:A:1480:A:C8	1:A:1481:U:C5	3.08	0.42
1:A:1501:C:C6	1:A:1504:G:O2'	2.63	0.42
1:A:1504:G:H4'	1:A:1505:G:C4	2.54	0.42
1:A:1523:G:C5	1:A:1524:C:C6	3.07	0.42
4:D:12:ARG:HB2	4:D:33:ILE:HA	2.01	0.42
4:D:115:GLN:HE22	4:D:119:HIS:CE1	2.36	0.42
4:D:198:LEU:HD13	4:D:198:LEU:O	2.19	0.42
5:E:9:GLU:CB	5:E:11:GLN:H	2.32	0.42
5:E:150:GLU:OE2	8:H:65:PHE:CD1	2.72	0.42
5:E:155:LYS:HB3	8:H:44:PHE:CE1	2.54	0.42
5:E:155:LYS:HE2	8:H:72:GLU:HG2	2.01	0.42
6:F:67:PRO:HD2	6:F:70:VAL:CG2	2.49	0.42
7:G:27:ASN:O	7:G:30:MET:HE3	2.19	0.42
10:J:7:ARG:HD3	10:J:73:LEU:HD11	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:20:ALA:HB3	11:K:83:VAL:HG22	2.00	0.42
13:M:48:SER:HB2	13:M:51:GLN:HE21	1.85	0.42
13:M:95:PRO:HB2	13:M:98:GLY:HA2	2.01	0.42
17:Q:61:ARG:HG3	17:Q:73:THR:HB	2.00	0.42
17:Q:66:LEU:CD1	17:Q:73:THR:HA	2.49	0.42
18:R:31:TYR:O	18:R:39:VAL:HG22	2.19	0.42
20:T:60:GLN:HA	20:T:63:LYS:HB2	2.01	0.42
22:W:162:ILE:HG21	22:W:189:MET:HB3	2.00	0.42
1:A:27:G:C8	1:A:27:G:C3'	3.02	0.42
1:A:34:C:O2	1:A:34:C:H2'	2.20	0.42
1:A:46:G:C4	1:A:366:A:N7	2.87	0.42
1:A:60:A:H62	1:A:378:G:C1'	2.32	0.42
1:A:64:G:C8	1:A:99:C:C4	3.08	0.42
1:A:131:A:H1'	1:A:232:G:H21	1.81	0.42
1:A:193:C:O2'	20:T:55:PRO:HA	2.20	0.42
1:A:205:A:C6	1:A:206:C:C4	3.07	0.42
1:A:215:C:C5	1:A:216:U:C4	3.07	0.42
1:A:227:G:C6	1:A:228:A:N7	2.87	0.42
1:A:259:G:C6	1:A:260:G:C6	3.08	0.42
1:A:293:G:C6	1:A:294:U:C4	3.07	0.42
1:A:347:G:C4	1:A:348:G:C1'	3.02	0.42
1:A:403:C:N3	1:A:404:G:C8	2.88	0.42
1:A:417:G:C8	1:A:417:G:O5'	2.72	0.42
1:A:453:G:H8	1:A:453:G:OP2	2.03	0.42
1:A:454:G:H3'	1:A:455:G:H8	1.84	0.42
1:A:457:G:N3	1:A:458:U:C6	2.87	0.42
1:A:512:U:N3	1:A:513:C:C4	2.87	0.42
1:A:579:A:H2'	1:A:580:C:C6	2.54	0.42
1:A:582:C:C6	1:A:760:G:O6	2.72	0.42
1:A:607:A:C5	1:A:608:A:C8	3.07	0.42
1:A:633:G:C8	1:A:633:G:C3'	3.03	0.42
1:A:650:G:C2	1:A:651:C:C5	3.07	0.42
1:A:663:A:C6	1:A:743:A:N1	2.87	0.42
1:A:673:A:C6	1:A:734:G:C6	3.08	0.42
1:A:677:U:H3	1:A:714:G:H22	1.67	0.42
1:A:684:U:C5	1:A:684:U:OP2	2.73	0.42
1:A:738:C:C2	1:A:739:C:C5	3.08	0.42
1:A:742:G:N1	1:A:743:A:C4	2.87	0.42
1:A:758:C:H3'	1:A:758:C:C6	2.54	0.42
1:A:758:C:H2'	1:A:759:A:OP2	2.19	0.42
1:A:777:A:N3	11:K:120:CYS:SG	2.91	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:791:G:C5	1:A:792:A:N7	2.88	0.42
1:A:841:C:C4	1:A:843:U:C2	3.08	0.42
1:A:851:G:C8	1:A:851:G:C5'	3.03	0.42
1:A:888:G:C6	1:A:889:A:N6	2.87	0.42
1:A:897:C:C4	1:A:903:G:N1	2.87	0.42
1:A:925:G:C6	1:A:1391:U:O2	2.73	0.42
1:A:962:C:C2	1:A:963:G:C8	3.06	0.42
1:A:1002:G:O6	1:A:1033:G:OP1	2.37	0.42
1:A:1053:G:C5	1:A:1199:U:H2'	2.54	0.42
1:A:1055:A:N7	1:A:1206:G:N1	2.66	0.42
1:A:1061:G:C6	1:A:1062:U:N3	2.88	0.42
1:A:1114:C:N3	1:A:1186:G:N2	2.68	0.42
1:A:1146:A:N7	1:A:1147:C:C5	2.87	0.42
1:A:1163:A:C2	1:A:1164:G:C8	3.07	0.42
1:A:1239:A:C6	1:A:1241:G:N1	2.88	0.42
1:A:1350:A:C2	1:A:1373:G:C2	3.07	0.42
1:A:1376:U:C6	7:G:8:GLN:NE2	2.88	0.42
1:A:1380:U:C5	7:G:1:PRO:O	2.72	0.42
1:A:1380:U:H4'	1:A:1381:U:C2	2.54	0.42
1:A:1405:G:C2	1:A:1406:U:C6	3.07	0.42
1:A:1428:A:N1	1:A:1473:G:C4	2.87	0.42
2:B:92:ASN:HD21	2:B:145:ASN:HB3	1.83	0.42
2:B:126:ASP:HA	2:B:130:LYS:CB	2.48	0.42
3:C:21:TRP:O	3:C:21:TRP:CE3	2.72	0.42
3:C:22:PHE:CD1	10:J:12:ALA:HA	2.54	0.42
3:C:128:MET:HB2	3:C:131:ARG:H	1.83	0.42
5:E:52:ALA:HB2	5:E:61:LYS:NZ	2.35	0.42
5:E:62:ALA:O	5:E:66:ALA:N	2.52	0.42
6:F:2:ARG:NE	6:F:68:GLN:HE21	2.18	0.42
6:F:3:HIS:HE1	6:F:64:VAL:N	2.17	0.42
10:J:37:ARG:HE	10:J:75:ASP:CG	2.22	0.42
11:K:43:TRP:CZ3	11:K:44:ALA:HA	2.54	0.42
13:M:19:THR:HA	13:M:25:GLY:O	2.19	0.42
13:M:86:ARG:HH22	13:M:97:ARG:HH12	1.68	0.42
14:N:81:ILE:HD12	14:N:82:LYS:HE2	2.01	0.42
16:P:10:GLY:HA3	16:P:16:PHE:HB3	2.01	0.42
17:Q:23:ALA:HB1	17:Q:25:GLU:HG3	2.01	0.42
22:W:47:ARG:NH1	22:W:66:ILE:HD13	2.35	0.42
1:A:38:G:H1'	1:A:547:A:N3	2.34	0.42
1:A:66:A:N1	1:A:104:G:C5	2.87	0.42
1:A:162:A:H1'	1:A:348:G:H4'	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:202:G:H21	1:A:466:A:H61	1.65	0.42
1:A:207:C:C3'	1:A:208:U:C6	3.02	0.42
1:A:226:G:N2	1:A:227:G:H1'	2.35	0.42
1:A:287:U:H2'	1:A:288:A:O4'	2.20	0.42
1:A:330:C:N3	1:A:354:G:C8	2.88	0.42
1:A:337:G:C4'	1:A:1469:C:H4'	2.49	0.42
1:A:337:G:N1	1:A:338:A:C6	2.87	0.42
1:A:362:G:C2	1:A:364:A:H3'	2.54	0.42
1:A:398:U:H2'	1:A:398:U:O2	2.18	0.42
1:A:455:G:N2	1:A:478:A:C2'	2.82	0.42
1:A:502:A:C6	1:A:544:G:C2	3.06	0.42
1:A:595:A:H4'	1:A:596:A:C5'	2.49	0.42
1:A:598:U:H6	1:A:598:U:O5'	2.01	0.42
1:A:604:G:N7	1:A:605:U:C4	2.87	0.42
1:A:626:G:N2	1:A:627:G:C4	2.88	0.42
1:A:640:A:N7	1:A:640:A:OP2	2.53	0.42
1:A:675:A:C8	1:A:675:A:H5"	2.54	0.42
1:A:677:U:H2'	11:K:120:CYS:HB2	2.01	0.42
1:A:695:A:N1	1:A:696:A:C5	2.87	0.42
1:A:708:C:C4	1:A:709:U:C4	3.08	0.42
1:A:723:U:H2'	1:A:854:U:O2	2.19	0.42
1:A:790:A:H2'	1:A:791:G:C8	2.55	0.42
1:A:894:G:C6	1:A:895:G:C6	3.07	0.42
1:A:910:C:C5	1:A:911:U:C5	3.07	0.42
1:A:936:C:C6	1:A:937:A:C8	3.08	0.42
1:A:958:A:C6	1:A:959:A:C6	3.07	0.42
1:A:976:G:N9	1:A:1362:A:C5	2.88	0.42
1:A:981:U:C6	1:A:982:U:H2'	2.54	0.42
1:A:1006:G:H22	1:A:1024:G:H1'	1.84	0.42
1:A:1041:G:N1	1:A:1042:A:C2	2.87	0.42
1:A:1068:G:C2	1:A:1069:C:N1	2.88	0.42
1:A:1108:G:O4'	1:A:1191:A:C8	2.73	0.42
1:A:1141:C:C2	1:A:1142:G:N7	2.86	0.42
1:A:1184:G:O6	1:A:1185:G:C5	2.73	0.42
1:A:1185:G:N2	1:A:1186:G:H1'	2.34	0.42
1:A:1196:A:OP1	1:A:1197:A:C5'	2.66	0.42
1:A:1232:U:C6	1:A:1232:U:H3'	2.54	0.42
1:A:1281:C:C6	1:A:1282:C:C5	3.08	0.42
1:A:1311:A:H61	1:A:1326:U:H3	1.68	0.42
1:A:1332:A:C6	1:A:1333:A:N7	2.87	0.42
1:A:1344:C:H5"	9:I:121:ARG:HB3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1377:A:OP1	7:G:94:ARG:CA	2.68	0.42
1:A:1408:A:N3	1:A:1409:C:C5	2.87	0.42
1:A:1414:U:O2	1:A:1414:U:H2'	2.19	0.42
1:A:1447:A:N6	20:T:19:HIS:CE1	2.87	0.42
1:A:1477:U:H2'	1:A:1478:U:O4'	2.20	0.42
1:A:1532:U:C6	1:A:1532:U:OP2	2.72	0.42
3:C:49:ALA:HA	3:C:74:ILE:CG2	2.50	0.42
3:C:112:ALA:CA	3:C:201:ILE:HG12	2.49	0.42
3:C:139:ASN:HA	3:C:142:ARG:CB	2.49	0.42
5:E:39:GLY:CA	5:E:45:VAL:HA	2.47	0.42
5:E:118:GLY:O	5:E:120:HIS:CE1	2.73	0.42
6:F:3:HIS:CE1	6:F:64:VAL:N	2.87	0.42
6:F:21:MET:HE3	6:F:84:VAL:HB	2.02	0.42
6:F:29:ILE:CD1	6:F:64:VAL:HG21	2.50	0.42
11:K:28:ASN:HB3	11:K:56:LYS:HE3	2.02	0.42
11:K:28:ASN:ND2	11:K:29:THR:H	2.17	0.42
13:M:104:ASN:C	13:M:106:ARG:H	2.23	0.42
16:P:16:PHE:CZ	16:P:38:PHE:CE2	3.06	0.42
20:T:78:LEU:O	20:T:82:ILE:HG23	2.19	0.42
22:W:146:VAL:HG21	22:W:287:PHE:CZ	2.54	0.42
1:A:13:U:C4	1:A:21:G:C2	3.07	0.42
1:A:22:G:C2	1:A:23:C:C6	3.07	0.42
1:A:53:A:N1	1:A:359:G:C4	2.88	0.42
1:A:59:A:N9	1:A:354:G:C2	2.88	0.42
1:A:81:A:H5'	1:A:83:C:OP2	2.19	0.42
1:A:133:U:C5'	1:A:325:A:H1'	2.49	0.42
1:A:146:G:O6	1:A:177:G:C6	2.72	0.42
1:A:180:U:C6	1:A:180:U:H3'	2.54	0.42
1:A:200:G:C2	1:A:218:U:C2	3.07	0.42
1:A:209:U:O4	1:A:213:G:C4	2.72	0.42
1:A:240:G:C6	1:A:241:G:C6	3.08	0.42
1:A:251:G:N2	1:A:266:G:C4	2.88	0.42
1:A:265:G:C2'	1:A:266:G:H5'	2.50	0.42
1:A:289:G:C4	1:A:290:C:C5	3.07	0.42
1:A:303:A:C4	1:A:304:U:C5	3.08	0.42
1:A:311:C:C2	1:A:312:C:C6	3.07	0.42
1:A:313:A:C6	1:A:314:C:C4	3.07	0.42
1:A:318:G:C6	1:A:319:G:C5	3.07	0.42
1:A:343:U:O2	1:A:345:C:H1'	2.19	0.42
1:A:370:C:H2'	1:A:371:A:H5'	2.01	0.42
1:A:373:A:H61	1:A:391:G:H1'	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:402:G:C2	1:A:403:C:C4	3.08	0.42
1:A:410:G:H8	1:A:410:G:P	2.42	0.42
1:A:416:G:C8	1:A:416:G:O5'	2.73	0.42
1:A:416:G:C8	1:A:416:G:H3'	2.55	0.42
1:A:448:A:N7	1:A:487:A:C5	2.86	0.42
1:A:453:G:H2'	1:A:454:G:O4'	2.20	0.42
1:A:502:A:H2'	1:A:503:C:O4'	2.20	0.42
1:A:521:G:C6	1:A:522:C:C5	3.07	0.42
1:A:591:U:C6	1:A:591:U:C3'	3.02	0.42
1:A:600:A:C5	1:A:639:G:C5	3.06	0.42
1:A:610:U:C4	1:A:627:G:N7	2.88	0.42
1:A:627:G:N2	1:A:628:G:C4	2.88	0.42
1:A:652:U:O2'	1:A:653:U:H3'	2.20	0.42
1:A:664:G:H5'	18:R:52:ARG:CZ	2.49	0.42
1:A:723:U:O2	1:A:833:G:H1'	2.20	0.42
1:A:745:G:H4'	1:A:851:G:N3	2.35	0.42
1:A:760:G:O6	1:A:761:G:C2	2.73	0.42
1:A:760:G:O6	1:A:761:G:C4	2.72	0.42
1:A:763:G:C6	1:A:764:C:C4	3.07	0.42
1:A:768:A:H2'	1:A:769:G:O4'	2.19	0.42
1:A:785:G:C6	1:A:798:U:N3	2.88	0.42
1:A:839:C:C2'	1:A:840:C:H5	2.33	0.42
1:A:851:G:C5	1:A:852:G:N7	2.88	0.42
1:A:912:C:C5	12:L:20:VAL:HG12	2.54	0.42
1:A:917:G:C2	1:A:918:A:H1'	2.55	0.42
1:A:923:A:O5'	1:A:923:A:H8	2.02	0.42
1:A:929:G:N1	1:A:1389:C:C2	2.87	0.42
1:A:939:G:O2'	1:A:1375:A:H2'	2.19	0.42
1:A:961:U:C6	1:A:1222:G:N2	2.88	0.42
1:A:962:C:C2	1:A:1201:A:N3	2.88	0.42
1:A:976:G:C4	1:A:1362:A:C8	3.08	0.42
1:A:1006:G:H2'	1:A:1007:U:O4'	2.19	0.42
1:A:1022:A:C2	1:A:1023:U:C5	3.07	0.42
1:A:1066:C:H2'	1:A:1067:A:O4'	2.20	0.42
1:A:1070:U:H2'	1:A:1071:C:C6	2.54	0.42
1:A:1087:G:H2'	1:A:1087:G:N3	2.34	0.42
1:A:1087:G:N2	1:A:1099:G:H1'	2.34	0.42
1:A:1117:A:C6	1:A:1184:G:N1	2.87	0.42
1:A:1158:C:C5'	1:A:1184:G:OP2	2.68	0.42
1:A:1165:U:H3	1:A:1171:A:H61	1.68	0.42
1:A:1206:G:H1'	3:C:193:GLY:HA2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1266:G:C4	1:A:1270:G:N1	2.88	0.42
1:A:1287:A:C8	1:A:1287:A:C3'	3.02	0.42
1:A:1289:A:H2'	7:G:34:LYS:HE3	2.01	0.42
1:A:1310:G:C2	1:A:1328:C:C2	3.08	0.42
1:A:1321:U:H1'	19:S:76:THR:CB	2.49	0.42
1:A:1330:U:C6	1:A:1330:U:H3'	2.53	0.42
1:A:1366:C:N3	1:A:1367:C:C5	2.88	0.42
1:A:1406:U:H3	1:A:1517:G:H21	1.64	0.42
1:A:1460:C:C5	1:A:1460:C:OP2	2.73	0.42
2:B:67:LEU:CD2	2:B:91:VAL:HG13	2.50	0.42
2:B:91:VAL:HG12	2:B:147:LEU:C	2.40	0.42
3:C:32:LEU:HA	3:C:35:ASP:CB	2.49	0.42
4:D:199:ILE:CD1	4:D:202:LEU:HD23	2.49	0.42
5:E:88:HIS:CE1	5:E:137:ARG:HD3	2.53	0.42
6:F:15:SER:HB2	6:F:58:HIS:CD2	2.55	0.42
13:M:32:ILE:HD12	13:M:59:VAL:HB	2.01	0.42
15:O:81:ILE:HB	15:O:86:LEU:O	2.19	0.42
17:Q:45:VAL:CG2	17:Q:46:HIS:N	2.82	0.42
18:R:49:LYS:CA	18:R:52:ARG:HH21	2.31	0.42
19:S:38:THR:HB	19:S:40:PHE:CZ	2.55	0.42
20:T:37:ALA:HB1	20:T:45:ALA:C	2.39	0.42
1:A:43:C:C2	1:A:400:C:C2	3.07	0.42
1:A:68:G:N3	1:A:152:A:N3	2.68	0.42
1:A:97:G:N7	1:A:98:A:C4	2.88	0.42
1:A:117:G:C2	1:A:118:U:C2	3.08	0.42
1:A:126:G:P	1:A:633:G:H22	2.43	0.42
1:A:132:C:C6	1:A:132:C:O5'	2.73	0.42
1:A:182:A:OP2	1:A:193:C:C5	2.72	0.42
1:A:197:A:C6	1:A:221:C:O4'	2.72	0.42
1:A:217:C:C5'	1:A:463:U:C5	3.01	0.42
1:A:247:G:C2	1:A:278:G:H1'	2.54	0.42
1:A:253:A:C2	1:A:275:G:C1'	2.97	0.42
1:A:256:U:C6	1:A:256:U:O5'	2.73	0.42
1:A:266:G:H1'	1:A:268:U:OP2	2.20	0.42
1:A:321:A:H3'	1:A:321:A:H8	1.84	0.42
1:A:349:A:C6	1:A:350:G:C6	3.08	0.42
1:A:389:A:C6	1:A:390:U:H1'	2.54	0.42
1:A:420:U:H2'	1:A:422:C:C2	2.55	0.42
1:A:427:U:OP1	4:D:12:ARG:NH2	2.53	0.42
1:A:442:G:C2	1:A:443:C:C2	3.07	0.42
1:A:444:G:C6	1:A:445:G:C8	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:455:G:N2	1:A:456:A:H1'	2.34	0.42
1:A:475:C:C6	1:A:475:C:O5'	2.73	0.42
1:A:495:A:C6	4:D:119:HIS:HE1	2.35	0.42
1:A:501:C:N4	1:A:502:A:H62	2.18	0.42
1:A:518:C:C6	1:A:529:G:O6	2.73	0.42
1:A:565:U:C5	1:A:566:G:O2'	2.73	0.42
1:A:575:G:C5	1:A:881:G:C2	3.08	0.42
1:A:580:C:H2'	1:A:581:G:C8	2.54	0.42
1:A:594:U:C5	1:A:595:A:C6	3.07	0.42
1:A:603:U:C5	1:A:603:U:OP2	2.72	0.42
1:A:652:U:H5	1:A:752:G:H2'	1.82	0.42
1:A:659:U:N3	1:A:660:C:C6	2.88	0.42
1:A:674:G:N1	1:A:675:A:C5	2.88	0.42
1:A:773:G:C2	1:A:774:G:C1'	3.02	0.42
1:A:775:G:H2'	1:A:776:G:C8	2.53	0.42
1:A:786:G:C8	1:A:786:G:O5'	2.72	0.42
1:A:814:A:H2	1:A:1526:G:HO2'	1.58	0.42
1:A:856:C:H2'	1:A:857:C:H6	1.82	0.42
1:A:905:U:N3	1:A:906:A:C5	2.88	0.42
1:A:977:A:C8	1:A:977:A:C3'	2.98	0.42
1:A:989:U:O4'	1:A:1016:A:C2	2.73	0.42
1:A:1024:G:N1	1:A:1025:U:C4	2.88	0.42
1:A:1061:G:N3	1:A:1061:G:H2'	2.34	0.42
1:A:1091:U:C5	1:A:1093:A:OP1	2.72	0.42
1:A:1129:C:O4'	1:A:1146:A:N6	2.53	0.42
1:A:1135:U:C2	1:A:1137:C:O2	2.72	0.42
1:A:1213:A:C8	1:A:1215:G:C6	3.06	0.42
1:A:1236:A:N3	1:A:1334:G:H1'	2.34	0.42
1:A:1248:A:H2'	1:A:1249:C:H6	1.85	0.42
1:A:1252:A:H1'	1:A:1369:C:H4'	2.00	0.42
1:A:1256:A:OP2	1:A:1256:A:C8	2.73	0.42
1:A:1272:G:C5	1:A:1273:C:C5	3.07	0.42
1:A:1294:G:N2	1:A:1295:U:H1'	2.34	0.42
1:A:1313:U:O2	1:A:1313:U:C2'	2.62	0.42
1:A:1370:G:C2	1:A:1371:G:N7	2.88	0.42
1:A:1382:C:H2'	7:G:78:ARG:HH21	1.85	0.42
1:A:1409:C:H2'	1:A:1410:A:C8	2.54	0.42
1:A:1500:A:C8	1:A:1500:A:OP2	2.73	0.42
2:B:45:THR:HA	2:B:200:PRO:HG2	2.02	0.42
2:B:103:TRP:CZ2	2:B:154:GLY:HA3	2.54	0.42
3:C:150:VAL:O	3:C:166:TRP:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:174:ALA:HA	4:D:178:GLU:O	2.19	0.42
4:D:197:HIS:CE1	5:E:104:ILE:HG22	2.54	0.42
5:E:75:LEU:H	5:E:146:MET:HE1	1.85	0.42
10:J:10:LEU:HD23	10:J:21:ALA:O	2.20	0.42
10:J:52:LEU:HB2	14:N:80:ARG:HD3	2.02	0.42
12:L:30:ARG:CB	12:L:57:THR:HG22	2.49	0.42
13:M:82:LEU:O	19:S:73:PHE:CZ	2.72	0.42
16:P:56:ARG:O	16:P:59:HIS:CD2	2.73	0.42
17:Q:28:VAL:HG13	17:Q:39:ARG:CB	2.49	0.42
19:S:68:HIS:HB3	19:S:72:GLU:HG2	2.01	0.42
22:W:161:LYS:H	22:W:192:SER:N	2.17	0.42
1:A:22:G:C4	1:A:914:A:C5	3.08	0.42
1:A:54:C:C6	1:A:54:C:C5'	2.92	0.42
1:A:66:A:C8	1:A:66:A:O5'	2.73	0.42
1:A:79:G:C2	1:A:80:A:C5	3.07	0.42
1:A:129:A:C5'	17:Q:63:CYS:HA	2.49	0.42
1:A:186:C:N3	1:A:187:G:C4	2.87	0.42
1:A:192:A:C8	1:A:192:A:H5"	2.54	0.42
1:A:246:A:C6	1:A:279:A:O4'	2.73	0.42
1:A:255:G:C6	1:A:256:U:N3	2.88	0.42
1:A:262:A:N3	1:A:263:A:C8	2.87	0.42
1:A:269:C:C6	1:A:270:A:N7	2.88	0.42
1:A:274:A:C2	1:A:275:G:C4	3.08	0.42
1:A:282:A:C5	1:A:283:U:C6	3.08	0.42
1:A:283:U:H2'	1:A:284:C:H5'	2.01	0.42
1:A:284:C:C6	1:A:284:C:O5'	2.72	0.42
1:A:294:U:N3	1:A:295:C:C5	2.88	0.42
1:A:297:G:H4'	1:A:557:G:H4'	2.01	0.42
1:A:299:G:N2	1:A:565:U:H3	2.18	0.42
1:A:320:A:O4'	1:A:1434:A:H2	2.03	0.42
1:A:323:U:C4	1:A:324:G:C2	3.08	0.42
1:A:350:G:N2	1:A:351:G:C6	2.88	0.42
1:A:363:A:H2'	1:A:364:A:C8	2.55	0.42
1:A:381:C:C5	1:A:382:A:N3	2.87	0.42
1:A:384:G:C4	1:A:385:C:C5	3.08	0.42
1:A:404:G:C2	1:A:405:U:C2	3.08	0.42
1:A:429:U:P	4:D:8:LEU:HD22	2.60	0.42
1:A:448:A:C8	1:A:448:A:C4'	3.03	0.42
1:A:516:U:H2'	1:A:519:C:C2	2.55	0.42
1:A:518:C:H5'	1:A:530:G:H21	1.85	0.42
1:A:520:A:OP2	12:L:47:ALA:HA	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:543:U:O5'	1:A:543:U:H6	2.03	0.42
1:A:565:U:C4	1:A:566:G:C4	3.07	0.42
1:A:570:G:H4'	1:A:820:U:H5'	2.02	0.42
1:A:588:G:N2	1:A:652:U:C2	2.87	0.42
1:A:600:A:H4'	8:H:120:LEU:HD23	2.02	0.42
1:A:603:U:H6	1:A:603:U:P	2.43	0.42
1:A:613:C:O2'	1:A:614:C:H5'	2.20	0.42
1:A:669:G:H2'	1:A:670:G:C8	2.55	0.42
1:A:675:A:C2	1:A:676:A:C1'	3.03	0.42
1:A:677:U:C5	1:A:678:U:C5	3.07	0.42
1:A:678:U:O2	1:A:678:U:H2'	2.20	0.42
1:A:685:G:H2'	1:A:686:U:O4'	2.20	0.42
1:A:730:G:H1'	1:A:765:G:H4'	2.01	0.42
1:A:781:A:O2'	1:A:1514:G:H1'	2.19	0.42
1:A:813:U:O4	1:A:816:A:C2	2.72	0.42
1:A:833:G:C2	1:A:834:U:N1	2.88	0.42
1:A:843:U:C2	1:A:846:G:N2	2.88	0.42
1:A:854:U:N3	1:A:855:U:C6	2.87	0.42
1:A:857:C:C6	1:A:858:G:N7	2.88	0.42
1:A:866:C:N4	1:A:873:A:C2	2.88	0.42
1:A:876:C:C6	1:A:876:C:H3'	2.55	0.42
1:A:925:G:C6	1:A:1391:U:C2	3.07	0.42
1:A:941:G:C2	1:A:1343:G:N1	2.88	0.42
1:A:944:G:H5'	1:A:1231:G:OP1	2.19	0.42
1:A:996:A:C2	1:A:997:U:N1	2.87	0.42
1:A:1102:A:C2	1:A:1103:C:N3	2.87	0.42
1:A:1103:C:N4	1:A:1104:G:O6	2.53	0.42
1:A:1114:C:O2	1:A:1187:G:H1'	2.19	0.42
1:A:1129:C:N3	1:A:1144:G:N1	2.68	0.42
1:A:1131:G:C8	1:A:1131:G:H3'	2.54	0.42
1:A:1132:C:C4	1:A:1133:G:N7	2.88	0.42
1:A:1143:G:N1	1:A:1144:G:C4	2.88	0.42
1:A:1158:C:H3'	1:A:1158:C:O2	2.20	0.42
1:A:1161:C:C6	1:A:1161:C:O5'	2.73	0.42
1:A:1174:G:C6	1:A:1175:G:C8	3.08	0.42
1:A:1242:G:N2	1:A:1243:C:H1'	2.34	0.42
1:A:1261:A:H61	1:A:1274:A:H2'	1.84	0.42
1:A:1266:G:C2'	1:A:1268:G:N7	2.81	0.42
1:A:1306:A:N6	1:A:1331:G:C2'	2.83	0.42
1:A:1354:U:C2	1:A:1355:G:C8	3.08	0.42
1:A:1357:A:C2	1:A:1363:A:N6	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1372:U:C4	1:A:1373:G:C6	3.08	0.42
1:A:1426:G:C6	1:A:1475:G:C6	3.08	0.42
1:A:1433:A:N6	1:A:1434:A:C6	2.88	0.42
1:A:1447:A:H61	20:T:19:HIS:CD2	2.37	0.42
1:A:1504:G:H4'	1:A:1505:G:O4'	2.20	0.42
1:A:1510:C:N3	1:A:1526:G:C6	2.88	0.42
1:A:1511:G:C6	1:A:1512:U:C2	3.08	0.42
2:B:82:ALA:HB3	2:B:214:GLY:CA	2.50	0.42
3:C:137:VAL:HG22	3:C:148:ILE:HD11	2.02	0.42
4:D:12:ARG:HE	4:D:37:PRO:HB3	1.85	0.42
10:J:65:TYR:CE2	14:N:87:ALA:CB	3.03	0.42
11:K:46:ALA:HA	11:K:61:ALA:O	2.20	0.42
12:L:85:ARG:CZ	12:L:90:PRO:HA	2.49	0.42
15:O:38:LEU:CD1	15:O:41:HIS:CD2	3.02	0.42
17:Q:18:LYS:H	17:Q:50:ASN:CG	2.23	0.42
18:R:63:TYR:CE1	18:R:69:TYR:CE2	3.07	0.42
19:S:65:MET:HA	19:S:65:MET:HE2	2.01	0.42
20:T:46:ALA:CB	20:T:82:ILE:HA	2.48	0.42
22:W:191:SER:HB2	22:W:194:THR:HB	2.01	0.42
1:A:39:G:C4	1:A:498:A:N3	2.88	0.42
1:A:45:G:C6	1:A:46:G:N7	2.87	0.42
1:A:68:G:C8	1:A:69:G:C1'	3.02	0.42
1:A:94:G:H5"	1:A:95:C:H5"	2.02	0.42
1:A:131:A:H4'	1:A:263:A:H1'	2.00	0.42
1:A:150:U:O2	1:A:151:A:C8	2.73	0.42
1:A:158:G:H1'	1:A:164:G:N3	2.35	0.42
1:A:189:A:H2'	1:A:190:A:C5'	2.49	0.42
1:A:201:G:O2'	1:A:469:C:C6	2.66	0.42
1:A:226:G:C5	1:A:227:G:C8	3.08	0.42
1:A:234:C:H2'	1:A:235:C:H6	1.84	0.42
1:A:255:G:C6	1:A:272:C:N3	2.87	0.42
1:A:286:C:N3	1:A:287:U:C5	2.88	0.42
1:A:295:C:N3	1:A:296:U:C4	2.88	0.42
1:A:343:U:H1'	1:A:347:G:C2	2.54	0.42
1:A:376:G:C2	1:A:377:G:C4	3.08	0.42
1:A:392:C:H1'	1:A:483:C:H2'	2.01	0.42
1:A:411:A:C2	1:A:431:A:N6	2.87	0.42
1:A:441:A:C6	1:A:442:G:C6	3.08	0.42
1:A:450:G:H2'	1:A:481:G:N1	2.25	0.42
1:A:473:U:C5	1:A:474:G:N7	2.88	0.42
1:A:487:A:H3'	1:A:488:C:H6	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:502:A:C8	1:A:502:A:C3'	3.02	0.42
1:A:521:G:C2	1:A:522:C:C6	3.08	0.42
1:A:531:U:O4	1:A:534:U:C5	2.73	0.42
1:A:533:A:C6	1:A:536:C:C2	3.08	0.42
1:A:550:G:N3	1:A:550:G:H2'	2.35	0.42
1:A:577:G:H8	1:A:816:A:C2	2.32	0.42
1:A:580:C:C2	1:A:581:G:C8	3.08	0.42
1:A:601:G:O2'	1:A:602:A:H5'	2.20	0.42
1:A:634:C:C4	1:A:635:A:C8	3.07	0.42
1:A:643:C:C4	1:A:644:U:C5	3.08	0.42
1:A:644:U:C2	1:A:645:G:C5	3.07	0.42
1:A:657:U:C2	1:A:658:C:C5	3.08	0.42
1:A:727:G:N2	1:A:729:A:H3'	2.35	0.42
1:A:772:U:N3	1:A:773:G:C5	2.88	0.42
1:A:778:G:C4	1:A:779:C:C5	3.08	0.42
1:A:820:U:H5"	1:A:821:G:OP2	2.20	0.42
1:A:839:C:H2'	1:A:840:C:C6	2.55	0.42
1:A:865:A:H2'	1:A:866:C:O5'	2.20	0.42
1:A:876:C:H4'	8:H:14:ARG:HH12	1.84	0.42
1:A:898:G:C6	1:A:902:G:C6	3.08	0.42
1:A:947:G:H1'	1:A:1333:A:N3	2.34	0.42
1:A:947:G:C2	1:A:1235:U:O2	2.73	0.42
1:A:949:A:C2	1:A:971:G:O6	2.72	0.42
1:A:965:U:C6	1:A:965:U:O5'	2.72	0.42
1:A:990:C:N3	1:A:1216:A:C2	2.87	0.42
1:A:1001:C:C2	1:A:1002:G:N7	2.88	0.42
1:A:1019:A:N6	14:N:19:TYR:CG	2.79	0.42
1:A:1062:U:C6	1:A:1194:U:O4	2.73	0.42
1:A:1067:A:H8	1:A:1093:A:O2'	2.03	0.42
1:A:1090:U:O2'	1:A:1171:A:C4'	2.67	0.42
1:A:1143:G:N3	1:A:1144:G:C8	2.87	0.42
1:A:1181:G:O2'	1:A:1182:G:C5	2.66	0.42
1:A:1186:G:C2	1:A:1187:G:N7	2.87	0.42
1:A:1219:A:N6	1:A:1220:G:C6	2.87	0.42
1:A:1236:A:H2'	1:A:1237:C:C1'	2.49	0.42
1:A:1250:A:H61	1:A:1354:U:C5'	2.33	0.42
1:A:1259:C:C4	1:A:1260:G:C4	3.08	0.42
1:A:1270:G:C2	1:A:1271:A:C4	3.08	0.42
1:A:1302:C:H2'	1:A:1303:C:H5"	2.02	0.42
1:A:1342:C:H4'	9:I:123:ARG:NH2	2.34	0.42
1:A:1350:A:N1	1:A:1351:U:C2	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1449:C:C6	1:A:1450:U:C6	3.08	0.42
1:A:1450:U:C6	1:A:1450:U:O5'	2.73	0.42
1:A:1515:G:C5	1:A:1521:C:N3	2.88	0.42
2:B:90:PHE:CD1	2:B:90:PHE:N	2.88	0.42
2:B:182:VAL:O	2:B:195:VAL:HA	2.20	0.42
3:C:37:LYS:O	3:C:41:TYR:CD1	2.73	0.42
3:C:90:VAL:O	3:C:94:ALA:HB3	2.20	0.42
6:F:35:LYS:NZ	6:F:37:HIS:CG	2.88	0.42
8:H:37:ASN:HA	8:H:48:PHE:HE1	1.84	0.42
9:I:54:VAL:HG22	9:I:93:LEU:CD1	2.50	0.42
12:L:55:ARG:NH1	12:L:56:LEU:H	2.16	0.42
17:Q:45:VAL:CG1	17:Q:52:CYS:SG	3.08	0.42
18:R:39:VAL:HB	18:R:43:ILE:HB	2.02	0.42
22:W:110:PRO:HA	22:W:116:VAL:HB	2.02	0.42
1:A:3:A:C2	1:A:628:G:C8	3.08	0.42
1:A:9:G:C2	1:A:26:A:N3	2.88	0.42
1:A:20:U:O4'	1:A:572:A:C2	2.73	0.42
1:A:51:A:C5	1:A:353:A:N1	2.88	0.42
1:A:64:G:C4	1:A:99:C:N3	2.88	0.42
1:A:64:G:N2	1:A:69:G:C6	2.88	0.42
1:A:105:G:C2'	1:A:106:C:H6	2.31	0.42
1:A:164:G:C2	1:A:165:G:C4	3.07	0.42
1:A:167:A:C2	1:A:168:G:C4	3.08	0.42
1:A:190:A:C4	1:A:191:G:H1'	2.55	0.42
1:A:204:G:N3	1:A:465:A:C8	2.88	0.42
1:A:226:G:N1	1:A:227:G:C6	2.88	0.42
1:A:271:C:C6	1:A:271:C:H3'	2.54	0.42
1:A:297:G:N1	1:A:299:G:H5"	2.34	0.42
1:A:319:G:N1	1:A:335:C:C4	2.88	0.42
1:A:352:C:H1'	1:A:355:C:C5	2.55	0.42
1:A:363:A:H5'	12:L:29:LYS:C	2.40	0.42
1:A:364:A:C2	1:A:365:U:C4	3.07	0.42
1:A:392:C:H2'	1:A:393:A:H8	1.85	0.42
1:A:415:A:C8	1:A:416:G:N7	2.88	0.42
1:A:456:A:H2	1:A:476:U:H3	1.64	0.42
1:A:465:A:N1	1:A:466:A:C6	2.88	0.42
1:A:482:A:N7	1:A:483:C:C4	2.88	0.42
1:A:499:A:C6	1:A:547:A:C4	3.08	0.42
1:A:533:A:C2	1:A:535:A:H3'	2.55	0.42
1:A:579:A:C6	1:A:763:G:C5	3.08	0.42
1:A:602:A:N6	1:A:603:U:C4	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:639:G:C6	1:A:640:A:C6	3.07	0.42
1:A:654:G:N2	1:A:655:A:H1'	2.34	0.42
1:A:743:A:C2	1:A:744:C:N3	2.88	0.42
1:A:747:A:N1	1:A:748:G:C2	2.87	0.42
1:A:809:G:N7	1:A:810:C:C5	2.88	0.42
1:A:817:C:N4	1:A:1529:G:H1	2.16	0.42
1:A:862:C:H1'	1:A:874:G:C5'	2.36	0.42
1:A:872:A:N7	1:A:874:G:C8	2.88	0.42
1:A:903:G:H3'	1:A:904:U:C5	2.55	0.42
1:A:925:G:H22	1:A:1391:U:C2'	2.33	0.42
1:A:938:A:C2	1:A:1345:U:C4	3.08	0.42
1:A:986:U:H3	1:A:1219:A:N6	2.14	0.42
1:A:1030:U:C2	1:A:1032:G:N7	2.88	0.42
1:A:1057:G:H3'	1:A:1058:G:N7	2.32	0.42
1:A:1169:A:N9	1:A:1170:A:C8	2.88	0.42
1:A:1219:A:H2	19:S:51:HIS:CD2	2.37	0.42
1:A:1240:U:OP2	7:G:114:SER:HA	2.20	0.42
1:A:1259:C:N4	1:A:1260:G:C6	2.87	0.42
1:A:1283:U:O5'	1:A:1283:U:C6	2.72	0.42
1:A:1309:G:C6	1:A:1329:A:N1	2.88	0.42
1:A:1356:G:N1	1:A:1357:A:C6	2.88	0.42
1:A:1399:C:H1'	1:A:1401:G:C5	2.54	0.42
1:A:1400:C:H2'	1:A:1401:G:H5'	2.01	0.42
1:A:1475:G:C2	1:A:1476:A:C4	3.08	0.42
1:A:1527:U:H3'	21:U:41:THR:O	2.19	0.42
2:B:121:GLN:C	2:B:123:GLY:H	2.23	0.42
3:C:22:PHE:CD1	3:C:23:ALA:O	2.72	0.42
3:C:58:ARG:HD3	3:C:96:VAL:HG21	2.01	0.42
4:D:110:ARG:H	4:D:110:ARG:HD2	1.85	0.42
5:E:132:PRO:HA	5:E:136:VAL:H	1.85	0.42
8:H:38:VAL:HG13	8:H:111:THR:HB	1.99	0.42
11:K:20:ALA:HB3	11:K:83:VAL:HA	2.02	0.42
15:O:7:THR:O	15:O:11:VAL:HG23	2.20	0.42
18:R:49:LYS:N	18:R:52:ARG:HH21	2.18	0.42
22:W:312:ILE:H	22:W:312:ILE:CD1	2.33	0.42
1:A:27:G:C2	1:A:28:A:C4	3.08	0.41
1:A:44:A:C2	1:A:45:G:N9	2.88	0.41
1:A:51:A:C5	1:A:353:A:C2	3.09	0.41
1:A:65:A:C3'	1:A:381:C:C5	3.03	0.41
1:A:66:A:N3	1:A:67:C:C6	2.88	0.41
1:A:81:A:N3	1:A:82:G:N7	2.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:115:G:C5	1:A:313:A:C2	3.08	0.41
1:A:124:C:O2	1:A:238:A:C2	2.73	0.41
1:A:126:G:N3	1:A:635:A:H5'	2.35	0.41
1:A:129:A:N3	1:A:130:A:C2	2.88	0.41
1:A:130:A:C5	1:A:264:C:H1'	2.55	0.41
1:A:139:A:C5	1:A:140:U:C6	3.08	0.41
1:A:151:A:N6	1:A:152:A:C4	2.87	0.41
1:A:158:G:C1'	1:A:164:G:C2	3.02	0.41
1:A:162:A:C4	1:A:163:C:O2'	2.71	0.41
1:A:241:G:C8	1:A:241:G:H3'	2.54	0.41
1:A:282:A:H3'	1:A:283:U:H5	1.81	0.41
1:A:294:U:O2	1:A:294:U:H2'	2.19	0.41
1:A:314:C:C5	1:A:314:C:OP2	2.73	0.41
1:A:361:G:C8	1:A:361:G:O5'	2.73	0.41
1:A:366:A:C4'	1:A:367:U:OP1	2.67	0.41
1:A:378:G:C2	1:A:386:C:O2	2.73	0.41
1:A:405:U:C5'	1:A:495:A:C2	3.03	0.41
1:A:420:U:C2	1:A:422:C:C2	3.08	0.41
1:A:447:G:N7	1:A:485:U:C5	2.88	0.41
1:A:479:U:O2	1:A:480:U:C5	2.73	0.41
1:A:500:G:N2	1:A:549:C:C4'	2.83	0.41
1:A:506:G:N1	1:A:526:C:C2	2.88	0.41
1:A:515:G:C6	1:A:516:U:O4	2.73	0.41
1:A:525:C:N3	1:A:526:C:C4	2.87	0.41
1:A:575:G:N1	1:A:881:G:C5	2.88	0.41
1:A:595:A:C4'	1:A:596:A:C8	3.03	0.41
1:A:600:A:C4	1:A:639:G:C2	3.08	0.41
1:A:600:A:OP2	8:H:87:ARG:HA	2.19	0.41
1:A:601:G:OP1	8:H:88:LYS:HA	2.21	0.41
1:A:628:G:C6	1:A:629:A:C8	3.07	0.41
1:A:666:G:C2	1:A:667:G:C8	3.08	0.41
1:A:671:G:H3'	1:A:672:U:H6	1.85	0.41
1:A:679:C:C4	1:A:680:C:C4	3.07	0.41
1:A:697:U:H1'	1:A:786:G:O4'	2.19	0.41
1:A:698:G:C3'	1:A:699:C:H6	2.33	0.41
1:A:700:G:O2'	1:A:701:U:H5'	2.20	0.41
1:A:728:A:C1'	15:O:53:ARG:HE	2.33	0.41
1:A:740:U:C6	1:A:740:U:H3'	2.55	0.41
1:A:742:G:C6	1:A:743:A:C5	3.07	0.41
1:A:809:G:O5'	1:A:809:G:H8	2.02	0.41
1:A:815:A:C2	1:A:1529:G:C5	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:837:U:C6	1:A:837:U:H3'	2.54	0.41
1:A:840:C:H1'	1:A:847:G:N2	2.35	0.41
1:A:852:G:N7	1:A:853:C:C5	2.88	0.41
1:A:856:C:H3'	1:A:871:U:O4	2.20	0.41
1:A:949:A:C4	1:A:950:U:C6	3.08	0.41
1:A:953:G:C2	1:A:1229:A:C4	3.08	0.41
1:A:1055:A:O3'	1:A:1196:A:C8	2.72	0.41
1:A:1096:C:C4	1:A:1097:C:C4	3.08	0.41
1:A:1110:A:H2	2:B:136:ARG:HH21	1.68	0.41
1:A:1158:C:C2	1:A:1160:G:N7	2.87	0.41
1:A:1198:G:C5	1:A:1199:U:C6	3.05	0.41
1:A:1220:G:C2	1:A:1221:G:C8	3.08	0.41
1:A:1288:A:C2	1:A:1289:A:C5	3.08	0.41
1:A:1386:G:C2	1:A:1387:G:C8	3.08	0.41
1:A:1397:C:H3'	1:A:1397:C:C6	2.55	0.41
1:A:1400:C:H3'	1:A:1401:G:H5'	2.02	0.41
1:A:1401:G:N1	1:A:1402:C:C2	2.88	0.41
1:A:1409:C:H6	1:A:1409:C:P	2.43	0.41
1:A:1427:C:H2'	1:A:1428:A:C8	2.55	0.41
1:A:1447:A:H61	20:T:19:HIS:CG	2.38	0.41
1:A:1473:G:C2	1:A:1474:U:O4'	2.72	0.41
1:A:1511:G:N1	1:A:1525:G:C5	2.88	0.41
1:A:1513:A:N3	1:A:1514:G:C8	2.88	0.41
3:C:19:SER:HB2	14:N:92:ILE:C	2.40	0.41
3:C:71:ARG:NE	3:C:74:ILE:HG21	2.34	0.41
4:D:169:TRP:CE2	4:D:185:PRO:HA	2.54	0.41
7:G:99:ALA:HA	7:G:102:TRP:CE3	2.55	0.41
8:H:63:LYS:CB	8:H:70:VAL:CG1	2.98	0.41
8:H:91:LEU:HD13	8:H:116:ARG:HH12	1.85	0.41
12:L:33:CYS:O	12:L:76:HIS:HA	2.20	0.41
13:M:24:VAL:HG12	13:M:59:VAL:HG21	2.02	0.41
17:Q:20:ILE:H	17:Q:50:ASN:HD21	1.67	0.41
17:Q:61:ARG:CZ	17:Q:63:CYS:CB	2.97	0.41
19:S:40:PHE:HA	19:S:66:VAL:HG12	2.02	0.41
22:W:206:THR:HG22	22:W:260:HIS:ND1	2.35	0.41
1:A:35:G:N7	12:L:122:LYS:HE2	2.34	0.41
1:A:46:G:C6	1:A:396:C:C4	3.08	0.41
1:A:53:A:C8	1:A:53:A:C3'	3.00	0.41
1:A:108:G:H5"	1:A:110:C:O4'	2.20	0.41
1:A:131:A:N1	1:A:232:G:C6	2.88	0.41
1:A:185:U:O2	1:A:193:C:C2	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:191:G:O6	1:A:192:A:N6	2.53	0.41
1:A:192:A:H5'	1:A:193:C:P	2.60	0.41
1:A:238:A:C2	1:A:239:U:C1'	3.00	0.41
1:A:320:A:H4'	1:A:1435:G:N3	2.35	0.41
1:A:337:G:N2	1:A:338:A:C4	2.88	0.41
1:A:369:G:C2	1:A:370:C:N1	2.88	0.41
1:A:369:G:C6	1:A:393:A:N1	2.88	0.41
1:A:372:C:C5'	1:A:372:C:H6	2.34	0.41
1:A:398:U:H2'	1:A:399:G:H8	1.85	0.41
1:A:410:G:H1	1:A:430:A:C3'	2.31	0.41
1:A:428:G:C5	1:A:430:A:C6	3.09	0.41
1:A:451:A:H5"	1:A:481:G:O6	2.19	0.41
1:A:506:G:C2	1:A:507:C:C2	3.09	0.41
1:A:519:C:C4	1:A:520:A:C5	3.08	0.41
1:A:529:G:C6	1:A:530:G:N2	2.88	0.41
1:A:537:G:C2	1:A:538:G:C4	3.08	0.41
1:A:597:G:H21	8:H:83:ARG:NH1	2.19	0.41
1:A:605:U:N3	1:A:606:G:N2	2.68	0.41
1:A:618:C:C5	1:A:620:C:OP1	2.73	0.41
1:A:639:G:H5'	1:A:640:A:P	2.61	0.41
1:A:640:A:C8	1:A:640:A:OP2	2.72	0.41
1:A:665:A:C8	1:A:725:G:N2	2.88	0.41
1:A:685:G:H4'	11:K:41:LEU:N	2.34	0.41
1:A:706:A:N7	1:A:707:U:C4	2.88	0.41
1:A:794:A:C6	1:A:795:C:H1'	2.55	0.41
1:A:802:A:N7	1:A:803:G:C5	2.88	0.41
1:A:821:G:C8	1:A:821:G:C3'	3.03	0.41
1:A:874:G:N2	1:A:875:U:C1'	2.83	0.41
1:A:892:A:C6	1:A:907:A:N9	2.88	0.41
1:A:941:G:O5'	1:A:941:G:H8	2.03	0.41
1:A:942:G:C2	1:A:943:U:C5	3.07	0.41
1:A:987:G:C5	1:A:988:G:C8	3.07	0.41
1:A:998:C:C5	1:A:999:C:C5	3.08	0.41
1:A:1053:G:N1	1:A:1204:A:N6	2.68	0.41
1:A:1062:U:C6	1:A:1062:U:O5'	2.73	0.41
1:A:1168:U:C5	1:A:1169:A:H1'	2.55	0.41
1:A:1170:A:C4	1:A:1171:A:C1'	3.03	0.41
1:A:1191:A:OP2	1:A:1193:G:C2	2.73	0.41
1:A:1198:G:C6	1:A:1199:U:N3	2.88	0.41
1:A:1202:U:C6	1:A:1203:C:C5	3.07	0.41
1:A:1222:G:H3'	1:A:1322:C:H42	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1229:A:H2'	1:A:1230:C:H6	1.86	0.41
1:A:1239:A:C2'	1:A:1298:U:H3	2.29	0.41
1:A:1249:C:O4'	9:I:37:TYR:HA	2.20	0.41
1:A:1260:G:C8	1:A:1260:G:H5"	2.56	0.41
1:A:1296:C:H5"	13:M:12:LYS:HA	2.01	0.41
1:A:1305:G:N2	1:A:1332:A:OP2	2.53	0.41
1:A:1332:A:H1'	13:M:107:THR:HG23	2.02	0.41
1:A:1355:G:N2	1:A:1367:C:N3	2.66	0.41
1:A:1371:G:H4'	9:I:70:GLY:H	1.85	0.41
1:A:1374:A:C2	1:A:1375:A:N9	2.88	0.41
1:A:1399:C:C2	1:A:1502:A:C2	3.07	0.41
1:A:1416:G:N1	1:A:1417:G:H1'	2.35	0.41
1:A:1472:U:C2'	1:A:1473:G:H8	2.31	0.41
1:A:1513:A:H1'	1:A:1523:G:N1	2.35	0.41
1:A:1514:G:H1	1:A:1521:C:N4	2.17	0.41
2:B:107:ARG:HH22	2:B:110:ILE:HD11	1.84	0.41
4:D:74:TYR:CD2	4:D:93:LEU:HD23	2.55	0.41
5:E:45:VAL:HG22	5:E:73:VAL:HG22	2.03	0.41
5:E:153:ALA:HA	5:E:156:ARG:CZ	2.50	0.41
6:F:71:ILE:HD11	6:F:89:VAL:CG2	2.51	0.41
7:G:1:PRO:O	7:G:5:VAL:HG13	2.20	0.41
7:G:52:ARG:HH12	7:G:120:ALA:HB1	1.85	0.41
9:I:37:TYR:CD1	9:I:37:TYR:N	2.86	0.41
15:O:7:THR:CA	15:O:30:LEU:HD21	2.48	0.41
20:T:7:LYS:HD3	20:T:10:ALA:CB	2.50	0.41
20:T:42:ASP:C	20:T:86:ALA:HB1	2.40	0.41
20:T:46:ALA:HB1	20:T:82:ILE:HG22	2.01	0.41
20:T:57:VAL:HG23	20:T:58:ASP:N	2.35	0.41
1:A:20:U:C4	1:A:21:G:N7	2.88	0.41
1:A:32:A:H5"	1:A:398:U:C1'	2.51	0.41
1:A:36:C:O4'	12:L:114:SER:HA	2.20	0.41
1:A:41:G:C6	1:A:402:G:C6	3.08	0.41
1:A:46:G:H2'	1:A:366:A:N7	2.35	0.41
1:A:116:A:O5'	1:A:116:A:H8	2.03	0.41
1:A:128:G:O2'	17:Q:62:GLU:HG3	2.21	0.41
1:A:146:G:N1	1:A:177:G:C4	2.89	0.41
1:A:147:G:N2	1:A:176:C:C6	2.89	0.41
1:A:169:C:C5	1:A:170:U:C4	3.08	0.41
1:A:177:G:H5"	20:T:63:LYS:HD3	2.02	0.41
1:A:341:C:H42	1:A:348:G:H1	1.69	0.41
1:A:342:C:C2	1:A:348:G:C2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:380:G:H1'	1:A:384:G:N2	2.35	0.41
1:A:384:G:N1	1:A:385:C:C2	2.89	0.41
1:A:414:A:C2	1:A:415:A:C4	3.09	0.41
1:A:462:G:C6	1:A:468:A:OP2	2.73	0.41
1:A:496:A:N3	1:A:496:A:H5"	2.34	0.41
1:A:527:G:N2	1:A:528:C:C2	2.89	0.41
1:A:560:A:H4'	1:A:561:U:H3'	2.02	0.41
1:A:673:A:O2'	18:R:63:TYR:CG	2.73	0.41
1:A:688:G:C5	1:A:700:G:N1	2.88	0.41
1:A:718:A:H2'	1:A:719:C:C6	2.55	0.41
1:A:724:G:OP1	1:A:833:G:H1'	2.19	0.41
1:A:780:A:H2'	1:A:800:G:H1	1.84	0.41
1:A:815:A:N6	1:A:1508:A:H2	2.18	0.41
1:A:822:U:C6	1:A:822:U:O5'	2.73	0.41
1:A:845:A:C3'	1:A:846:G:C8	3.03	0.41
1:A:945:G:N3	1:A:1337:G:H1'	2.35	0.41
1:A:978:A:C5	1:A:1318:A:C6	3.08	0.41
1:A:979:C:H5"	1:A:1221:G:N7	2.35	0.41
1:A:980:C:H2'	1:A:981:U:O4'	2.21	0.41
1:A:992:U:O4	1:A:1045:C:C4	2.73	0.41
1:A:1053:G:C4	1:A:1199:U:N3	2.88	0.41
1:A:1053:G:C6	1:A:1199:U:C2	3.08	0.41
1:A:1061:G:C5	1:A:1197:A:C5	3.08	0.41
1:A:1067:A:H1'	1:A:1068:G:N9	2.34	0.41
1:A:1095:U:P	1:A:1108:G:H1	2.43	0.41
1:A:1128:C:O2'	1:A:1148:U:C4	2.57	0.41
1:A:1130:A:C5	1:A:1146:A:C5	3.08	0.41
1:A:1148:U:C2	9:I:17:ARG:NH1	2.88	0.41
1:A:1184:G:C2	1:A:1185:G:C1'	3.03	0.41
1:A:1185:G:C4	1:A:1186:G:C8	3.08	0.41
1:A:1221:G:C6	1:A:1222:G:C5	3.08	0.41
1:A:1231:G:C6	1:A:1232:U:C2	3.09	0.41
1:A:1242:G:H1'	1:A:1303:C:C4'	2.50	0.41
1:A:1249:C:H42	1:A:1287:A:H3'	1.85	0.41
1:A:1252:A:H1'	1:A:1369:C:O2'	2.19	0.41
1:A:1349:A:H1'	1:A:1374:A:C5	2.54	0.41
1:A:1379:G:C8	7:G:5:VAL:HG11	2.55	0.41
1:A:1392:G:C8	1:A:1392:G:O5'	2.73	0.41
1:A:1408:A:N3	1:A:1409:C:C4	2.88	0.41
1:A:1435:G:C5	1:A:1436:U:C4	3.08	0.41
1:A:1441:A:C4	1:A:1442:G:N7	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1442:G:H22	1:A:1461:G:H1'	1.84	0.41
1:A:1480:A:C6	1:A:1481:U:C6	3.08	0.41
1:A:1485:U:O5'	1:A:1485:U:H6	2.03	0.41
1:A:1505:G:C8	1:A:1505:G:O5'	2.73	0.41
1:A:1527:U:OP2	21:U:41:THR:CG2	2.68	0.41
1:A:1530:G:C5	1:A:1531:A:C6	3.08	0.41
3:C:63:ILE:CG2	3:C:90:VAL:CG1	2.98	0.41
3:C:122:GLN:HA	3:C:125:ARG:CZ	2.50	0.41
3:C:142:ARG:HG2	3:C:143:LEU:HD22	2.02	0.41
4:D:8:LEU:HG	4:D:27:ILE:HA	2.03	0.41
4:D:18:LEU:HD23	4:D:63:ILE:CG1	2.50	0.41
4:D:18:LEU:HD22	4:D:62:ARG:HB2	2.02	0.41
4:D:77:GLU:HB2	4:D:92:LEU:HD13	2.02	0.41
4:D:79:ALA:CA	4:D:85:THR:HG23	2.49	0.41
4:D:105:GLY:HA3	4:D:158:LEU:HA	2.02	0.41
4:D:136:VAL:HG23	4:D:136:VAL:H	1.51	0.41
5:E:38:VAL:HG22	5:E:46:GLY:C	2.41	0.41
6:F:2:ARG:O	6:F:4:TYR:CE2	2.74	0.41
9:I:41:GLU:HB3	9:I:71:ILE:HD12	2.02	0.41
9:I:124:PRO:C	9:I:125:GLN:HG2	2.40	0.41
13:M:15:VAL:CG1	13:M:30:LYS:HA	2.50	0.41
14:N:97:LYS:HA	14:N:100:TRP:O	2.20	0.41
17:Q:22:VAL:HG23	17:Q:58:VAL:HG12	2.02	0.41
18:R:32:ILE:CG2	18:R:58:ILE:HD13	2.48	0.41
19:S:35:ARG:HH22	19:S:76:THR:CG2	2.34	0.41
19:S:65:MET:HG3	19:S:73:PHE:CD2	2.56	0.41
22:W:39:PRO:HA	22:W:82:ARG:HG2	2.02	0.41
22:W:163:ASP:OD1	22:W:193:HIS:CE1	2.73	0.41
1:A:33:A:N3	1:A:33:A:H2'	2.34	0.41
1:A:39:G:H1'	1:A:497:G:H21	1.85	0.41
1:A:102:G:N2	1:A:103:U:C2	2.87	0.41
1:A:103:U:N3	1:A:104:G:N7	2.69	0.41
1:A:143:A:O4'	1:A:196:A:C2	2.74	0.41
1:A:150:U:C5	1:A:170:U:C4	3.09	0.41
1:A:173:U:H3'	1:A:174:A:C5'	2.50	0.41
1:A:234:C:O2	1:A:235:C:C6	2.73	0.41
1:A:238:A:C5	1:A:239:U:C4	3.08	0.41
1:A:241:G:C6	1:A:242:G:N7	2.88	0.41
1:A:272:C:H3'	1:A:273:U:C6	2.55	0.41
1:A:292:G:C4	1:A:293:G:H1'	2.55	0.41
1:A:301:G:N1	1:A:302:G:C5	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:373:A:N1	1:A:391:G:C1’	2.83	0.41
1:A:404:G:O6	1:A:405:U:C4	2.74	0.41
1:A:409:U:C6	1:A:409:U:P	3.13	0.41
1:A:430:A:C6	1:A:431:A:N9	2.89	0.41
1:A:447:G:H2’	1:A:487:A:N6	2.35	0.41
1:A:451:A:N7	1:A:480:U:H3’	2.35	0.41
1:A:499:A:C4’	1:A:547:A:H61	2.33	0.41
1:A:531:U:C5	1:A:534:U:H5	2.38	0.41
1:A:545:C:C2’	1:A:549:C:H5”	2.50	0.41
1:A:558:G:C2’	1:A:559:A:C2	3.00	0.41
1:A:559:A:N7	12:L:17:LYS:HG3	2.36	0.41
1:A:572:A:H2’	1:A:573:A:H62	1.86	0.41
1:A:659:U:N3	1:A:660:C:C5	2.88	0.41
1:A:693:G:H2’	1:A:694:A:O4’	2.19	0.41
1:A:695:A:C3’	1:A:696:A:H8	2.33	0.41
1:A:740:U:C5	6:F:2:ARG:NH2	2.89	0.41
1:A:747:A:N1	1:A:748:G:C5	2.89	0.41
1:A:766:A:C1’	1:A:814:A:C6	3.03	0.41
1:A:781:A:C3’	1:A:782:A:C5’	2.98	0.41
1:A:827:U:C4	1:A:870:U:O2	2.73	0.41
1:A:849:G:C8	1:A:849:G:C4’	3.04	0.41
1:A:918:A:C2	1:A:919:A:C8	3.09	0.41
1:A:923:A:H8	1:A:923:A:P	2.44	0.41
1:A:929:G:C2	1:A:930:C:C2	3.08	0.41
1:A:939:G:C5	1:A:940:C:C5	3.09	0.41
1:A:941:G:N2	1:A:942:G:C4	2.89	0.41
1:A:941:G:C2	1:A:1343:G:C5	3.08	0.41
1:A:988:G:H4’	1:A:1014:A:H61	1.85	0.41
1:A:1020:G:O6	14:N:19:TYR:HA	2.20	0.41
1:A:1048:G:H2’	1:A:1050:G:C8	2.55	0.41
1:A:1057:G:C5	1:A:1058:G:C5	3.08	0.41
1:A:1072:G:C6	1:A:1104:G:N1	2.88	0.41
1:A:1174:G:OP2	1:A:1182:G:C8	2.74	0.41
1:A:1183:U:O2’	2:B:131:LYS:HB3	2.21	0.41
1:A:1185:G:H2’	1:A:1186:G:C8	2.55	0.41
1:A:1221:G:C6	1:A:1222:G:C6	3.08	0.41
1:A:1228:C:H41	13:M:102:LYS:HA	1.85	0.41
1:A:1273:C:N3	1:A:1274:A:C4	2.87	0.41
1:A:1285:A:N6	1:A:1355:G:C5’	2.83	0.41
1:A:1287:A:C8	1:A:1287:A:H3’	2.55	0.41
1:A:1307:U:H2’	1:A:1308:U:O4’	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1313:U:C2	1:A:1314:C:C6	3.08	0.41
1:A:1353:G:C4	1:A:1354:U:C6	3.08	0.41
1:A:1376:U:H5"	7:G:97:ALA:C	2.41	0.41
1:A:1413:A:N1	1:A:1488:G:C2	2.88	0.41
1:A:1468:A:C2	1:A:1469:C:N3	2.89	0.41
1:A:1472:U:C6	1:A:1472:U:H3'	2.55	0.41
1:A:1494:G:C1'	22:W:49:GLY:HA2	2.50	0.41
3:C:87:ARG:HG2	3:C:87:ARG:HH11	1.84	0.41
3:C:127:VAL:HA	3:C:131:ARG:CZ	2.51	0.41
3:C:141:MET:SD	3:C:170:GLY:HA3	2.60	0.41
6:F:3:HIS:HA	6:F:65:GLU:HG3	2.01	0.41
10:J:28:THR:O	10:J:28:THR:HG22	2.19	0.41
11:K:12:ARG:HD3	11:K:39:ASN:HD22	1.85	0.41
13:M:9:PRO:CB	13:M:18:LEU:HD11	2.51	0.41
13:M:58:GLU:HA	13:M:61:LYS:HD2	2.01	0.41
15:O:69:LEU:HD12	15:O:80:LEU:HD22	2.02	0.41
16:P:6:LEU:HD12	16:P:17:TYR:HB2	2.02	0.41
17:Q:10:ARG:N	17:Q:22:VAL:HG23	2.35	0.41
17:Q:44:HIS:CD2	17:Q:68:LYS:NZ	2.88	0.41
20:T:5:SER:CA	20:T:7:LYS:H	2.30	0.41
1:A:4:U:O2	1:A:613:C:H1'	2.21	0.41
1:A:33:A:C2	1:A:34:C:N1	2.88	0.41
1:A:35:G:OP1	12:L:101:LEU:HD12	2.21	0.41
1:A:39:G:H1	1:A:404:G:H1'	1.84	0.41
1:A:100:G:C5	1:A:101:A:N7	2.88	0.41
1:A:104:G:C8	1:A:104:G:H3'	2.56	0.41
1:A:119:A:N6	1:A:240:G:N9	2.68	0.41
1:A:123:U:H5'	1:A:290:C:H1'	2.01	0.41
1:A:202:G:O6	1:A:212:G:C8	2.74	0.41
1:A:240:G:C4	1:A:241:G:C8	3.08	0.41
1:A:241:G:N1	1:A:242:G:C4	2.88	0.41
1:A:253:A:C2	1:A:275:G:C2'	3.03	0.41
1:A:254:G:N2	1:A:273:U:C2	2.88	0.41
1:A:263:A:C6	1:A:264:C:C4	3.08	0.41
1:A:270:A:H2'	1:A:271:C:H6	1.84	0.41
1:A:303:A:C2	1:A:304:U:C1'	3.03	0.41
1:A:310:G:C5	1:A:311:C:C5	3.09	0.41
1:A:314:C:C6	1:A:314:C:O5'	2.74	0.41
1:A:342:C:H2'	1:A:342:C:O2	2.19	0.41
1:A:356:A:H4'	1:A:367:U:C6	2.54	0.41
1:A:362:G:C2	1:A:364:A:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:371:A:C2	1:A:390:U:O2	2.74	0.41
1:A:373:A:H2'	1:A:374:A:C8	2.56	0.41
1:A:402:G:N2	1:A:403:C:C2	2.89	0.41
1:A:408:A:N3	1:A:408:A:H2'	2.35	0.41
1:A:439:U:H3'	1:A:440:C:C6	2.56	0.41
1:A:470:C:C6	1:A:470:C:C3'	3.00	0.41
1:A:483:C:C5	1:A:484:G:O2'	2.73	0.41
1:A:512:U:H3'	1:A:534:U:H5'	2.01	0.41
1:A:530:G:C3'	1:A:531:U:H5'	2.50	0.41
1:A:537:G:C5	1:A:538:G:N7	2.89	0.41
1:A:559:A:C5'	1:A:560:A:H3'	2.51	0.41
1:A:627:G:N1	1:A:628:G:C6	2.88	0.41
1:A:640:A:C8	1:A:640:A:P	3.13	0.41
1:A:666:G:N2	1:A:667:G:C4	2.88	0.41
1:A:701:U:C5'	1:A:703:G:H5'	2.50	0.41
1:A:710:G:C6	1:A:711:G:N7	2.87	0.41
1:A:717:U:H1'	11:K:117:HIS:CB	2.48	0.41
1:A:796:C:C5	1:A:797:C:H5	2.38	0.41
1:A:804:U:H3'	1:A:805:C:C5	2.55	0.41
1:A:810:C:O3'	1:A:898:G:H4'	2.20	0.41
1:A:830:G:C5'	2:B:24:PRO:HA	2.50	0.41
1:A:832:G:C5	1:A:855:U:C4	3.08	0.41
1:A:836:G:C2	1:A:851:G:C4	3.09	0.41
1:A:843:U:H2'	1:A:847:G:H1'	2.01	0.41
1:A:845:A:C3'	1:A:846:G:H8	2.33	0.41
1:A:856:C:C4	1:A:857:C:C5	3.09	0.41
1:A:856:C:C6	1:A:871:U:O4	2.73	0.41
1:A:866:C:C4	1:A:873:A:H2	2.38	0.41
1:A:880:C:C6	12:L:5:GLN:OE1	2.73	0.41
1:A:888:G:H3'	1:A:889:A:C8	2.55	0.41
1:A:996:A:C8	1:A:1046:A:O2'	2.73	0.41
1:A:1002:G:C6	1:A:1003:G:C5	3.08	0.41
1:A:1019:A:N7	14:N:19:TYR:CZ	2.89	0.41
1:A:1048:G:H5'	14:N:3:GLN:CB	2.50	0.41
1:A:1062:U:O2	1:A:1195:C:C4	2.73	0.41
1:A:1084:G:C6	1:A:1085:U:C4	3.09	0.41
1:A:1086:U:H5'	1:A:1087:G:C8	2.54	0.41
1:A:1124:G:C5	1:A:1145:A:C2	3.08	0.41
1:A:1125:U:H3'	1:A:1127:G:C5	2.55	0.41
1:A:1133:G:H1	1:A:1141:C:H42	1.67	0.41
1:A:1147:C:C5	1:A:1147:C:OP2	2.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1152:A:H2'	1:A:1153:G:O4'	2.21	0.41
1:A:1155:A:C2	1:A:1156:G:H1'	2.55	0.41
1:A:1177:G:H3'	1:A:1178:G:H8	1.84	0.41
1:A:1187:G:N3	1:A:1187:G:C2'	2.83	0.41
1:A:1194:U:N1	1:A:1195:C:C5	2.89	0.41
1:A:1228:C:C6	1:A:1228:C:C4'	3.02	0.41
1:A:1236:A:C5'	1:A:1236:A:H8	2.32	0.41
1:A:1261:A:C4	1:A:1275:A:C4	3.09	0.41
1:A:1264:U:O5'	1:A:1264:U:H6	2.04	0.41
1:A:1272:G:N1	1:A:1273:C:C2	2.89	0.41
1:A:1315:U:C2	1:A:1316:G:C5	3.08	0.41
1:A:1346:A:C2	7:G:10:LYS:O	2.74	0.41
1:A:1358:U:C6	14:N:74:ARG:NH1	2.89	0.41
1:A:1382:C:C6	1:A:1382:C:H3'	2.56	0.41
1:A:1421:G:C2	1:A:1480:A:N1	2.89	0.41
1:A:1425:U:H2'	1:A:1426:G:C8	2.56	0.41
1:A:1441:A:C8	1:A:1441:A:C4'	3.03	0.41
2:B:92:ASN:ND2	2:B:92:ASN:H	2.18	0.41
2:B:186:VAL:CG2	2:B:198:VAL:HG23	2.51	0.41
3:C:110:LEU:CD2	3:C:145:ALA:HA	2.51	0.41
5:E:83:PRO:N	5:E:97:PRO:HD3	2.35	0.41
6:F:10:VAL:O	6:F:57:ALA:HB1	2.21	0.41
6:F:21:MET:HB3	6:F:25:TYR:CE2	2.55	0.41
10:J:35:GLN:HB2	10:J:77:VAL:HB	2.02	0.41
20:T:29:THR:HA	20:T:32:LYS:HG2	2.02	0.41
20:T:38:ILE:HD11	20:T:78:LEU:HD12	2.02	0.41
1:A:8:A:H5"	5:E:110:MET:SD	2.61	0.41
1:A:57:G:C3'	1:A:58:C:H6	2.32	0.41
1:A:61:G:C2	1:A:107:G:C6	3.09	0.41
1:A:66:A:H2'	1:A:66:A:N3	2.36	0.41
1:A:69:G:C2	1:A:70:U:N1	2.88	0.41
1:A:70:U:H3'	1:A:94:G:C8	2.56	0.41
1:A:102:G:C2	1:A:103:U:N1	2.89	0.41
1:A:103:U:C1'	1:A:151:A:H2	2.31	0.41
1:A:116:A:C8	1:A:116:A:P	3.14	0.41
1:A:134:G:OP2	1:A:135:C:C5	2.74	0.41
1:A:146:G:C6	1:A:147:G:N7	2.89	0.41
1:A:158:G:C8	1:A:164:G:C2	3.08	0.41
1:A:184:G:N1	1:A:185:U:C2	2.89	0.41
1:A:203:G:C2	1:A:214:C:N3	2.88	0.41
1:A:226:G:N1	1:A:227:G:C5	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:241:G:N1	1:A:286:C:C2	2.89	0.41
1:A:256:U:O5’	1:A:256:U:H6	2.03	0.41
1:A:262:A:C2	1:A:263:A:C8	3.09	0.41
1:A:287:U:O2	1:A:288:A:C8	2.73	0.41
1:A:336:A:H3’	1:A:337:G:H8	1.86	0.41
1:A:358:U:C6	1:A:358:U:O5’	2.74	0.41
1:A:404:G:OP1	4:D:2:ARG:HG2	2.20	0.41
1:A:424:G:C5	1:A:425:G:N7	2.89	0.41
1:A:453:G:C2	1:A:480:U:C2	3.09	0.41
1:A:468:A:C8	1:A:469:C:C5	3.08	0.41
1:A:515:G:O6	1:A:537:G:C6	2.74	0.41
1:A:563:A:N3	1:A:567:G:C5	2.89	0.41
1:A:570:G:C2	1:A:873:A:N1	2.88	0.41
1:A:596:A:N6	1:A:645:G:C6	2.88	0.41
1:A:622:A:C8	1:A:622:A:O5’	2.73	0.41
1:A:622:A:H3’	1:A:623:C:C5	2.55	0.41
1:A:642:A:H2’	1:A:643:C:O4’	2.20	0.41
1:A:665:A:C5	1:A:725:G:N1	2.88	0.41
1:A:669:G:C5	1:A:670:G:C8	3.09	0.41
1:A:727:G:H5’	1:A:741:G:H21	1.86	0.41
1:A:738:C:OP1	6:F:2:ARG:HD2	2.20	0.41
1:A:751:U:O4	1:A:752:G:N2	2.54	0.41
1:A:782:A:N7	1:A:783:C:C4	2.88	0.41
1:A:822:U:H3	1:A:878:A:H61	1.68	0.41
1:A:829:G:N1	1:A:858:G:H1’	2.36	0.41
1:A:836:G:N1	1:A:851:G:C6	2.89	0.41
1:A:895:G:N2	1:A:905:U:H1’	2.36	0.41
1:A:899:C:H2’	1:A:900:A:O4’	2.21	0.41
1:A:915:A:C8	1:A:915:A:C3’	3.03	0.41
1:A:1005:A:N7	1:A:1025:U:H1’	2.35	0.41
1:A:1008:U:O4	1:A:1022:A:C6	2.73	0.41
1:A:1010:U:H5	14:N:20:PHE:HA	1.85	0.41
1:A:1049:U:C5	14:N:1:ALA:HB1	2.55	0.41
1:A:1049:U:C5	1:A:1202:U:O3’	2.74	0.41
1:A:1084:G:H5”	1:A:1099:G:N2	2.36	0.41
1:A:1088:G:C4	1:A:1089:G:C8	3.09	0.41
1:A:1089:G:O6	1:A:1090:U:C4	2.74	0.41
1:A:1093:A:C8	1:A:1093:A:C3’	3.03	0.41
1:A:1114:C:O2	1:A:1114:C:H2’	2.21	0.41
1:A:1127:G:N3	1:A:1127:G:H2’	2.35	0.41
1:A:1218:C:C2	1:A:1219:A:C8	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1234:C:H4'	1:A:1364:U:C6	2.55	0.41
1:A:1239:A:C2'	1:A:1298:U:C4	2.99	0.41
1:A:1250:A:H4'	9:I:69:GLY:O	2.20	0.41
1:A:1283:U:H6	1:A:1283:U:P	2.43	0.41
1:A:1288:A:N1	1:A:1289:A:C6	2.88	0.41
1:A:1303:C:P	1:A:1304:G:N7	2.93	0.41
1:A:1356:G:C6	1:A:1357:A:N6	2.89	0.41
1:A:1376:U:H3'	7:G:8:GLN:HE22	1.85	0.41
1:A:1391:U:C6	1:A:1391:U:H3'	2.56	0.41
1:A:1424:U:C4	1:A:1425:U:C4	3.08	0.41
1:A:1441:A:C8	1:A:1442:G:N7	2.88	0.41
1:A:1516:G:C2	1:A:1518:A:P	3.14	0.41
1:A:1531:A:H2'	1:A:1532:U:H5	1.77	0.41
3:C:22:PHE:CD2	10:J:12:ALA:HA	2.56	0.41
3:C:86:LEU:O	3:C:90:VAL:HB	2.21	0.41
5:E:17:VAL:CG1	5:E:59:ILE:HG23	2.50	0.41
5:E:38:VAL:HG13	5:E:66:ALA:CB	2.51	0.41
5:E:45:VAL:HG11	5:E:113:VAL:O	2.20	0.41
5:E:155:LYS:HB3	8:H:44:PHE:CZ	2.56	0.41
6:F:25:TYR:N	6:F:25:TYR:CD1	2.88	0.41
8:H:103:VAL:HA	8:H:123:GLU:O	2.21	0.41
9:I:6:TYR:HH	9:I:17:ARG:HA	1.86	0.41
9:I:71:ILE:HD12	9:I:71:ILE:HG23	1.82	0.41
11:K:25:SER:N	11:K:29:THR:HA	2.36	0.41
13:M:15:VAL:HG12	13:M:33:LEU:CB	2.51	0.41
14:N:33:VAL:O	14:N:36:SER:N	2.54	0.41
14:N:61:ASN:HB3	14:N:72:PHE:CG	2.55	0.41
14:N:70:HIS:C	14:N:72:PHE:H	2.22	0.41
21:U:40:PRO:C	21:U:41:THR:HG23	2.40	0.41
1:A:12:U:C5'	1:A:526:C:H4'	2.51	0.41
1:A:17:U:H1'	1:A:1080:A:N3	2.35	0.41
1:A:80:A:OP2	1:A:81:A:N7	2.54	0.41
1:A:97:G:OP2	1:A:98:A:N7	2.54	0.41
1:A:109:A:C6	1:A:326:G:C5	3.08	0.41
1:A:122:G:C6	1:A:122:G:OP2	2.73	0.41
1:A:129:A:C2	1:A:130:A:H2	2.38	0.41
1:A:129:A:H4'	17:Q:64:ARG:CA	2.50	0.41
1:A:141:G:C2	1:A:223:A:C4	3.08	0.41
1:A:180:U:C4	1:A:195:A:OP2	2.73	0.41
1:A:243:A:H1'	1:A:246:A:OP2	2.20	0.41
1:A:246:A:C6	1:A:282:A:C8	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:246:A:H4'	1:A:247:G:OP1	2.21	0.41
1:A:250:A:N6	1:A:274:A:C2	2.89	0.41
1:A:253:A:O2'	1:A:276:G:C5'	2.68	0.41
1:A:285:C:C6	1:A:285:C:H3'	2.55	0.41
1:A:419:C:C5'	4:D:40:HIS:CE1	3.02	0.41
1:A:439:U:C5	4:D:119:HIS:CD2	3.08	0.41
1:A:449:G:OP1	1:A:451:A:C2'	2.68	0.41
1:A:453:G:C5	1:A:480:U:C4	3.07	0.41
1:A:466:A:H5'	1:A:467:U:OP1	2.21	0.41
1:A:486:U:H5'	1:A:487:A:OP2	2.21	0.41
1:A:530:G:P	1:A:531:U:C2	3.13	0.41
1:A:553:A:H2'	1:A:554:A:H5'	2.02	0.41
1:A:590:U:N3	1:A:591:U:C4	2.89	0.41
1:A:613:C:C6	1:A:613:C:OP2	2.73	0.41
1:A:619:U:C4	1:A:621:A:N6	2.80	0.41
1:A:694:A:N6	1:A:695:A:C5	2.88	0.41
1:A:707:U:C4'	11:K:32:THR:HB	2.50	0.41
1:A:727:G:H5'	1:A:741:G:N2	2.36	0.41
1:A:737:C:H4'	6:F:71:ILE:HG13	2.03	0.41
1:A:747:A:N1	1:A:748:G:C6	2.89	0.41
1:A:770:C:C2	1:A:771:G:C8	3.08	0.41
1:A:770:C:OP2	1:A:803:G:H5'	2.20	0.41
1:A:788:U:H2'	1:A:789:U:O4'	2.21	0.41
1:A:803:G:C6	1:A:804:U:N3	2.88	0.41
1:A:822:U:H2'	1:A:823:C:C6	2.55	0.41
1:A:832:G:C8	1:A:832:G:C4'	3.02	0.41
1:A:836:G:H3'	1:A:837:U:H6	1.86	0.41
1:A:865:A:N3	1:A:918:A:C4'	2.84	0.41
1:A:905:U:H2'	1:A:906:A:N9	2.35	0.41
1:A:905:U:C2'	1:A:906:A:C8	3.03	0.41
1:A:931:C:C5	1:A:932:C:C5	3.09	0.41
1:A:933:G:C2	1:A:935:A:C1'	3.04	0.41
1:A:937:A:O2'	7:G:77:ARG:HA	2.21	0.41
1:A:955:U:H2'	1:A:956:U:O4'	2.20	0.41
1:A:1009:U:H2'	1:A:1010:U:H6	1.86	0.41
1:A:1020:G:C3'	1:A:1021:A:H8	2.31	0.41
1:A:1034:G:H2'	1:A:1035:A:O4'	2.20	0.41
1:A:1056:U:C2'	1:A:1057:G:H5'	2.50	0.41
1:A:1089:G:H2'	1:A:1089:G:N3	2.35	0.41
1:A:1128:C:H4'	1:A:1148:U:C2	2.56	0.41
1:A:1129:C:H5'	9:I:17:ARG:NH1	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1145:A:O2'	1:A:1146:A:C8	2.65	0.41
1:A:1174:G:OP1	1:A:1182:G:H8	2.03	0.41
1:A:1215:G:C5	1:A:1216:A:N9	2.89	0.41
1:A:1256:A:C2	1:A:1278:G:N2	2.88	0.41
1:A:1261:A:N7	1:A:1262:C:H1'	2.36	0.41
1:A:1314:C:N3	1:A:1315:U:C4	2.89	0.41
1:A:1335:U:H5"	1:A:1337:G:N2	2.34	0.41
1:A:1385:G:C2	1:A:1386:G:H1'	2.55	0.41
1:A:1476:A:C6	1:A:1477:U:N3	2.88	0.41
1:A:1483:A:C5	1:A:1484:C:C1'	3.01	0.41
1:A:1492:A:C6	1:A:1494:G:N7	2.89	0.41
1:A:1525:G:C2	1:A:1526:G:N9	2.89	0.41
2:B:64:GLY:H	2:B:224:ARG:HH12	1.69	0.41
2:B:185:ILE:HG23	2:B:199:ILE:CG2	2.46	0.41
3:C:23:ALA:O	10:J:13:PHE:CZ	2.74	0.41
8:H:38:VAL:HB	8:H:102:VAL:CG1	2.51	0.41
8:H:38:VAL:HG21	8:H:102:VAL:HB	2.03	0.41
9:I:6:TYR:OH	9:I:8:THR:HA	2.20	0.41
10:J:66:GLU:HG3	14:N:96:LYS:HB3	2.01	0.41
11:K:21:HIS:CD2	11:K:84:MET:HB2	2.56	0.41
13:M:5:GLY:HA3	13:M:24:VAL:CG2	2.51	0.41
14:N:63:CYS:HA	14:N:72:PHE:CE2	2.56	0.41
15:O:66:LEU:HD13	15:O:87:ARG:CZ	2.50	0.41
16:P:79:ASN:HA	16:P:82:ALA:HB3	2.01	0.41
17:Q:46:HIS:O	17:Q:74:LEU:HD22	2.21	0.41
18:R:31:TYR:O	18:R:38:ILE:HA	2.21	0.41
19:S:67:GLY:H	19:S:68:HIS:CD2	2.39	0.41
20:T:42:ASP:O	20:T:46:ALA:CB	2.69	0.41
22:W:74:VAL:HG21	22:W:120:ALA:HA	2.02	0.41
1:A:24:U:H2'	1:A:25:C:C6	2.55	0.41
1:A:45:G:C2	1:A:398:U:N3	2.88	0.41
1:A:68:G:N3	1:A:152:A:C2	2.89	0.41
1:A:73:C:H2'	1:A:74:A:C5'	2.51	0.41
1:A:115:G:H21	1:A:289:G:H1'	1.86	0.41
1:A:138:G:N2	1:A:139:A:N9	2.69	0.41
1:A:187:G:C8	1:A:189:A:OP2	2.74	0.41
1:A:207:C:H2'	1:A:208:U:C6	2.55	0.41
1:A:240:G:C6	1:A:287:U:N3	2.88	0.41
1:A:253:A:O2'	1:A:276:G:H5"	2.20	0.41
1:A:287:U:H2'	1:A:288:A:H8	1.85	0.41
1:A:321:A:N1	1:A:322:C:H1'	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:349:A:N1	1:A:350:G:C6	2.89	0.41
1:A:380:G:N1	1:A:383:A:OP2	2.51	0.41
1:A:382:A:C5	1:A:383:A:N7	2.88	0.41
1:A:401:C:H2'	1:A:402:G:O4'	2.20	0.41
1:A:405:U:O4	1:A:546:A:C8	2.74	0.41
1:A:419:C:C2	1:A:420:U:C6	3.08	0.41
1:A:424:G:N2	1:A:425:G:H1'	2.36	0.41
1:A:428:G:O5'	4:D:9:LYS:HB2	2.21	0.41
1:A:444:G:N1	1:A:491:G:C5	2.89	0.41
1:A:453:G:N1	1:A:480:U:C5	2.89	0.41
1:A:455:G:N3	1:A:455:G:H2'	2.35	0.41
1:A:476:U:C2	1:A:477:C:C5	3.09	0.41
1:A:509:A:C2'	1:A:543:U:O2'	2.69	0.41
1:A:536:C:N4	1:A:537:G:O6	2.54	0.41
1:A:545:C:C2	4:D:3:TYR:OH	2.74	0.41
1:A:582:C:OP2	1:A:758:C:N3	2.54	0.41
1:A:607:A:H3'	1:A:608:A:H8	1.86	0.41
1:A:616:G:O2'	1:A:617:G:C5'	2.68	0.41
1:A:635:A:C6	1:A:636:U:N3	2.89	0.41
1:A:646:G:C8	1:A:646:G:H3'	2.56	0.41
1:A:646:G:H3'	1:A:647:C:H6	1.85	0.41
1:A:699:C:C5	1:A:699:C:OP2	2.73	0.41
1:A:706:A:C6	1:A:707:U:N3	2.88	0.41
1:A:750:C:O2	1:A:751:U:C6	2.74	0.41
1:A:751:U:HO2'	15:O:24:THR:H	1.69	0.41
1:A:812:G:H5"	1:A:903:G:C2'	2.49	0.41
1:A:838:G:N2	1:A:839:C:C2	2.88	0.41
1:A:844:G:C6	1:A:846:G:O2'	2.71	0.41
1:A:858:G:N1	1:A:859:G:OP2	2.54	0.41
1:A:879:C:C2	1:A:880:C:C5	3.08	0.41
1:A:892:A:N6	1:A:893:C:C4	2.89	0.41
1:A:903:G:C2	1:A:904:U:C1'	3.03	0.41
1:A:932:C:H3'	7:G:2:ARG:HD3	2.02	0.41
1:A:947:G:C1'	1:A:1333:A:N3	2.84	0.41
1:A:949:A:C8	1:A:949:A:O5'	2.73	0.41
1:A:987:G:C8	1:A:987:G:H3'	2.55	0.41
1:A:994:A:N9	1:A:1216:A:H4'	2.36	0.41
1:A:1000:A:H3'	1:A:1001:C:H6	1.86	0.41
1:A:1114:C:O2	1:A:1114:C:C2'	2.68	0.41
1:A:1116:U:C2	1:A:1117:A:N7	2.89	0.41
1:A:1118:U:O4'	1:A:1179:A:H1'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1157:A:C8	1:A:1180:A:N1	2.89	0.41
1:A:1157:A:O3'	1:A:1184:G:C8	2.73	0.41
1:A:1161:C:O2	1:A:1176:A:N1	2.54	0.41
1:A:1205:U:H2'	1:A:1206:G:N7	2.35	0.41
1:A:1210:C:O2	1:A:1213:A:H1'	2.21	0.41
1:A:1212:U:C5'	1:A:1213:A:N7	2.84	0.41
1:A:1215:G:C2	1:A:1216:A:H1'	2.55	0.41
1:A:1237:C:HO2'	1:A:1335:U:C1'	2.34	0.41
1:A:1240:U:C6	1:A:1240:U:OP1	2.74	0.41
1:A:1241:G:N2	1:A:1242:G:C5	2.88	0.41
1:A:1246:A:C2	1:A:1292:G:C5	3.08	0.41
1:A:1305:G:H5"	1:A:1305:G:H8	1.86	0.41
1:A:1338:G:N7	1:A:1339:A:C4	2.88	0.41
1:A:1352:C:C2	1:A:1353:G:C8	3.08	0.41
1:A:1439:G:C5	1:A:1440:U:N1	2.88	0.41
1:A:1450:U:H1'	1:A:1454:G:N1	2.36	0.41
1:A:1503:A:C1'	1:A:1531:A:H4'	2.50	0.41
1:A:1515:G:C2	1:A:1521:C:H1'	2.56	0.41
3:C:58:ARG:HB3	3:C:61:LYS:HA	2.02	0.41
3:C:59:PRO:HG2	3:C:99:GLN:NE2	2.36	0.41
4:D:102:TYR:CE2	4:D:110:ARG:CZ	3.04	0.41
11:K:41:LEU:HD13	11:K:76:TYR:HB2	2.03	0.41
20:T:57:VAL:O	20:T:61:ALA:CB	2.69	0.41
22:W:145:LEU:HD22	22:W:185:TYR:CD2	2.56	0.41
22:W:151:LEU:HB2	22:W:153:ILE:HG22	2.01	0.41
1:A:15:G:C6	1:A:1396:A:C2	3.08	0.41
1:A:18:C:H5"	5:E:133:ILE:HG21	2.02	0.41
1:A:77:A:N6	1:A:90:C:C5	2.88	0.41
1:A:78:A:C6	1:A:79:G:C6	3.08	0.41
1:A:95:C:C4	1:A:96:U:H5	2.38	0.41
1:A:99:C:O2	1:A:99:C:H2'	2.20	0.41
1:A:113:G:H2'	1:A:114:U:H6	1.86	0.41
1:A:115:G:N1	1:A:289:G:C6	2.89	0.41
1:A:119:A:N6	1:A:288:A:C4	2.89	0.41
1:A:133:U:C2	1:A:230:G:C2	3.09	0.41
1:A:138:G:C2	1:A:226:G:C5	3.09	0.41
1:A:138:G:C2'	1:A:139:A:H5'	2.51	0.41
1:A:149:A:C6	1:A:174:A:N1	2.89	0.41
1:A:161:A:C8	1:A:161:A:OP2	2.74	0.41
1:A:162:A:H3'	1:A:163:C:O4'	2.20	0.41
1:A:186:C:OP2	1:A:187:G:N7	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:186:C:H4'	20:T:75:LYS:C	2.41	0.41
1:A:187:G:C4	1:A:189:A:P	3.13	0.41
1:A:215:C:N4	1:A:216:U:N3	2.69	0.41
1:A:218:U:C2'	1:A:219:U:C6	3.04	0.41
1:A:255:G:H2'	1:A:256:U:O4'	2.21	0.41
1:A:287:U:C6	1:A:287:U:H3'	2.56	0.41
1:A:318:G:N1	1:A:319:G:C5	2.89	0.41
1:A:318:G:C6	1:A:336:A:C6	3.09	0.41
1:A:319:G:C6	1:A:320:A:C5	3.09	0.41
1:A:321:A:N6	1:A:328:C:H1'	2.36	0.41
1:A:322:C:N3	1:A:323:U:O4	2.54	0.41
1:A:336:A:C6	1:A:337:G:C4	3.09	0.41
1:A:344:A:C2	1:A:344:A:OP1	2.74	0.41
1:A:344:A:OP2	1:A:345:C:C5	2.73	0.41
1:A:396:C:H2'	1:A:396:C:O2	2.21	0.41
1:A:404:G:N7	4:D:1:ALA:CA	2.84	0.41
1:A:451:A:OP1	1:A:481:G:N1	2.54	0.41
1:A:455:G:C8	1:A:455:G:P	3.13	0.41
1:A:455:G:H22	1:A:478:A:C2'	2.33	0.41
1:A:472:U:O2	1:A:472:U:H2'	2.21	0.41
1:A:478:A:N3	1:A:479:U:C5	2.89	0.41
1:A:508:U:OP1	1:A:508:U:H6	2.04	0.41
1:A:518:C:C5'	1:A:519:C:C6	3.03	0.41
1:A:538:G:O5'	1:A:538:G:H8	2.04	0.41
1:A:539:A:O5'	1:A:539:A:H8	2.04	0.41
1:A:558:G:N7	1:A:559:A:H2'	2.36	0.41
1:A:573:A:C8	1:A:573:A:C3'	3.03	0.41
1:A:577:G:C6	1:A:578:C:C5	3.09	0.41
1:A:578:C:C4'	1:A:729:A:HO2'	2.32	0.41
1:A:584:G:H2'	1:A:585:G:O4'	2.21	0.41
1:A:594:U:C6	1:A:646:G:N2	2.89	0.41
1:A:597:G:C5	1:A:598:U:C6	3.09	0.41
1:A:602:A:H61	1:A:635:A:N6	2.18	0.41
1:A:603:U:H2'	1:A:604:G:O4'	2.21	0.41
1:A:608:A:C2'	1:A:609:A:H5'	2.51	0.41
1:A:618:C:N4	1:A:621:A:OP2	2.54	0.41
1:A:631:C:H4'	1:A:632:U:O4'	2.21	0.41
1:A:634:C:C6	1:A:634:C:O5'	2.73	0.41
1:A:639:G:N1	1:A:640:A:C5	2.89	0.41
1:A:641:U:C6	1:A:641:U:H3'	2.56	0.41
1:A:646:G:C6	1:A:647:C:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:647:C:H2'	1:A:648:A:H8	1.86	0.41
1:A:654:G:OP2	1:A:655:A:N6	2.54	0.41
1:A:659:U:C4	1:A:660:C:C5	3.09	0.41
1:A:667:G:H2'	15:O:48:ASP:OD1	2.21	0.41
1:A:678:U:C2	1:A:679:C:C5	3.09	0.41
1:A:684:U:C5	1:A:685:G:C6	3.08	0.41
1:A:688:G:C8	1:A:688:G:C5'	2.87	0.41
1:A:696:A:N3	1:A:786:G:H2'	2.36	0.41
1:A:703:G:C2'	1:A:703:G:O5'	2.69	0.41
1:A:727:G:C5'	1:A:741:G:H21	2.34	0.41
1:A:751:U:O4	1:A:752:G:C2	2.74	0.41
1:A:763:G:N1	1:A:764:C:C2	2.89	0.41
1:A:764:C:H5'	15:O:52:ARG:CZ	2.50	0.41
1:A:765:G:C2'	1:A:765:G:N3	2.81	0.41
1:A:771:G:O4'	1:A:899:C:C4	2.74	0.41
1:A:814:A:H2'	1:A:816:A:O5'	2.20	0.41
1:A:832:G:C6	1:A:855:U:C2	3.09	0.41
1:A:880:C:OP2	1:A:880:C:C6	2.74	0.41
1:A:924:C:N3	1:A:925:G:N7	2.69	0.41
1:A:925:G:C6	1:A:1392:G:C6	3.08	0.41
1:A:938:A:H1'	1:A:1377:A:C1'	2.51	0.41
1:A:947:G:H1'	1:A:1333:A:C2	2.56	0.41
1:A:968:A:H4'	1:A:970:C:H1'	2.03	0.41
1:A:993:G:N3	1:A:1046:A:C2	2.89	0.41
1:A:1007:U:C5	1:A:1007:U:OP2	2.73	0.41
1:A:1007:U:C2'	1:A:1008:U:H5"	2.51	0.41
1:A:1034:G:C5	1:A:1035:A:C4	3.09	0.41
1:A:1055:A:N1	1:A:1206:G:C8	2.88	0.41
1:A:1058:G:OP2	1:A:1059:C:H5	2.04	0.41
1:A:1067:A:C8	1:A:1067:A:OP2	2.74	0.41
1:A:1067:A:H5"	1:A:1093:A:C5'	2.51	0.41
1:A:1075:U:C6	1:A:1075:U:H3'	2.56	0.41
1:A:1082:A:C2	1:A:1083:U:C2	3.08	0.41
1:A:1086:U:H5'	1:A:1087:G:OP2	2.21	0.41
1:A:1089:G:H1'	1:A:1167:A:N7	2.36	0.41
1:A:1114:C:O3'	14:N:100:TRP:CH2	2.74	0.41
1:A:1121:U:C6	1:A:1121:U:H3'	2.56	0.41
1:A:1131:G:N1	1:A:1132:C:C4	2.89	0.41
1:A:1142:G:C5	1:A:1143:G:C4	3.08	0.41
1:A:1146:A:C8	1:A:1146:A:O5'	2.74	0.41
1:A:1161:C:N4	1:A:1175:G:O6	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1162:C:N3	1:A:1175:G:C5	2.89	0.41
1:A:1192:C:H5'	3:C:174:LEU:HD21	2.03	0.41
1:A:1207:G:C4	1:A:1208:C:C6	3.09	0.41
1:A:1210:C:H2'	1:A:1213:A:C1'	2.51	0.41
1:A:1213:A:H2'	1:A:1215:G:N7	2.36	0.41
1:A:1228:C:C6	1:A:1228:C:H3'	2.55	0.41
1:A:1238:A:C6	1:A:1303:C:O4'	2.74	0.41
1:A:1256:A:O3'	1:A:1258:G:C8	2.74	0.41
1:A:1262:C:C6	1:A:1262:C:O5'	2.74	0.41
1:A:1281:C:H3'	1:A:1281:C:H6	1.86	0.41
1:A:1301:U:C4	1:A:1303:C:N3	2.88	0.41
1:A:1301:U:O2'	1:A:1303:C:H5'	2.21	0.41
1:A:1306:A:N3	1:A:1332:A:C4	2.89	0.41
1:A:1312:G:OP2	19:S:3:SER:HA	2.21	0.41
1:A:1333:A:C8	1:A:1334:G:C8	3.09	0.41
1:A:1333:A:N7	1:A:1334:G:C5	2.89	0.41
1:A:1334:G:H8	1:A:1334:G:O5'	2.04	0.41
1:A:1380:U:C2'	7:G:2:ARG:HG2	2.50	0.41
1:A:1406:U:H3'	1:A:1407:C:C6	2.56	0.41
1:A:1407:C:C5	1:A:1407:C:OP2	2.73	0.41
1:A:1433:A:C1'	1:A:1468:A:C2	3.04	0.41
1:A:1456:A:H3'	1:A:1457:G:H8	1.86	0.41
1:A:1459:G:C6	1:A:1460:C:C4	3.09	0.41
1:A:1470:U:C6	1:A:1470:U:H3'	2.56	0.41
1:A:1471:U:C4	1:A:1472:U:C5	3.08	0.41
1:A:1480:A:N6	1:A:1481:U:C4	2.88	0.41
1:A:1481:U:O4	1:A:1482:G:C6	2.73	0.41
1:A:1502:A:C3'	1:A:1503:A:C5'	2.91	0.41
2:B:17:HIS:HA	2:B:39:ILE:HA	2.03	0.41
3:C:17:TRP:HB3	3:C:19:SER:O	2.20	0.41
3:C:42:LEU:CD1	3:C:65:VAL:HG11	2.51	0.41
5:E:155:LYS:HG3	8:H:98:LEU:HG	2.03	0.41
6:F:9:MET:HE1	6:F:51:ILE:HG21	2.03	0.41
6:F:71:ILE:HD11	6:F:89:VAL:HB	2.01	0.41
8:H:104:SER:HB2	8:H:125:ILE:HD13	2.03	0.41
9:I:20:ILE:HD13	9:I:62:LEU:CB	2.51	0.41
9:I:66:VAL:HB	9:I:78:ILE:HG13	2.03	0.41
10:J:43:PRO:O	10:J:71:LEU:HB2	2.21	0.41
10:J:51:VAL:CG2	14:N:84:ARG:HB2	2.51	0.41
10:J:81:GLU:O	10:J:84:VAL:HB	2.21	0.41
11:K:30:ILE:CA	11:K:45:THR:HG23	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:33:ILE:HD13	11:K:104:PHE:CZ	2.55	0.41
11:K:41:LEU:C	11:K:73:VAL:HG12	2.41	0.41
11:K:100:ASN:HB3	21:U:11:PHE:CD2	2.56	0.41
12:L:48:LEU:HD12	22:W:35:LEU:N	2.36	0.41
12:L:75:GLU:HG3	12:L:76:HIS:H	1.85	0.41
13:M:1:ALA:HB2	13:M:52:ILE:HB	2.03	0.41
13:M:18:LEU:HA	13:M:21:ILE:CG1	2.50	0.41
17:Q:45:VAL:O	17:Q:70:LYS:HG2	2.21	0.41
17:Q:47:ASP:O	17:Q:70:LYS:HE3	2.21	0.41
17:Q:60:ILE:HA	17:Q:74:LEU:CA	2.49	0.41
20:T:21:ALA:N	20:T:24:ARG:HH21	2.19	0.41
20:T:34:VAL:O	20:T:38:ILE:HG13	2.20	0.41
20:T:66:ILE:HG12	20:T:74:HIS:CE1	2.56	0.41
22:W:80:VAL:CB	22:W:99:ALA:HB3	2.51	0.41
22:W:110:PRO:HA	22:W:116:VAL:CG1	2.51	0.41
22:W:255:LEU:HD12	22:W:255:LEU:O	2.20	0.41
22:W:294:LEU:HD11	22:W:304:HIS:CE1	2.56	0.41
1:A:11:G:C6	1:A:12:U:C2	3.09	0.41
1:A:56:U:C5	1:A:352:C:N4	2.89	0.41
1:A:59:A:OP2	20:T:3:ILE:CG1	2.68	0.41
1:A:62:U:OP1	1:A:386:C:H5'	2.21	0.41
1:A:85:U:C4	1:A:86:G:C6	3.09	0.41
1:A:94:G:N2	1:A:98:A:N1	2.69	0.41
1:A:102:G:H3'	1:A:103:U:C6	2.56	0.41
1:A:112:G:N2	1:A:113:G:C1'	2.84	0.41
1:A:136:C:O2	1:A:137:U:H1'	2.20	0.41
1:A:144:G:C2	1:A:145:G:C4	3.09	0.41
1:A:162:A:O2'	1:A:348:G:H4'	2.21	0.41
1:A:164:G:C4	1:A:165:G:C8	3.09	0.41
1:A:166:U:O2	1:A:166:U:H2'	2.20	0.41
1:A:168:G:N1	1:A:169:C:C5	2.89	0.41
1:A:172:A:OP2	1:A:172:A:C8	2.74	0.41
1:A:178:C:C4	1:A:179:A:N7	2.89	0.41
1:A:181:A:H5'	1:A:182:A:H8	1.86	0.41
1:A:195:A:H8	1:A:195:A:H3'	1.86	0.41
1:A:197:A:C2'	1:A:221:C:H1'	2.51	0.41
1:A:208:U:H6	1:A:210:C:C6	2.36	0.41
1:A:216:U:C6	1:A:216:U:C3'	3.04	0.41
1:A:270:A:C8	1:A:270:A:H3'	2.56	0.41
1:A:296:U:C2	1:A:302:G:N2	2.89	0.41
1:A:314:C:O2	1:A:353:A:C2	2.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:324:G:C8	1:A:326:G:OP2	2.74	0.41
1:A:342:C:C6	1:A:343:U:C5	3.09	0.41
1:A:370:C:C2'	1:A:371:A:H5'	2.51	0.41
1:A:384:G:C2	1:A:385:C:C2	3.09	0.41
1:A:403:C:H5'	4:D:133:SER:HB2	2.03	0.41
1:A:408:A:C2	1:A:435:A:H1'	2.56	0.41
1:A:413:G:C6	4:D:35:GLN:OE1	2.74	0.41
1:A:414:A:OP2	1:A:416:G:O6	2.39	0.41
1:A:420:U:H1'	1:A:424:G:N1	2.35	0.41
1:A:434:U:H2'	1:A:435:A:O4'	2.21	0.41
1:A:440:C:N4	1:A:496:A:N6	2.62	0.41
1:A:444:G:C4	1:A:491:G:C2	3.08	0.41
1:A:465:A:C6	1:A:466:A:C5	3.08	0.41
1:A:487:A:C2	1:A:488:C:H1'	2.56	0.41
1:A:529:G:C5'	1:A:535:A:N7	2.84	0.41
1:A:534:U:C6	1:A:535:A:C4	3.09	0.41
1:A:560:A:OP1	5:E:127:TYR:CZ	2.74	0.41
1:A:572:A:C2	1:A:917:G:N3	2.89	0.41
1:A:579:A:N3	1:A:763:G:C2	2.89	0.41
1:A:582:C:C4	1:A:583:A:C8	3.09	0.41
1:A:583:A:N6	1:A:584:G:C6	2.89	0.41
1:A:584:G:O6	1:A:585:G:C6	2.74	0.41
1:A:595:A:N9	1:A:641:U:C4	2.88	0.41
1:A:606:G:N3	1:A:632:U:O4	2.54	0.41
1:A:614:C:C2	1:A:627:G:N2	2.89	0.41
1:A:615:G:C4	1:A:626:G:N1	2.89	0.41
1:A:622:A:N7	1:A:623:C:C5	2.89	0.41
1:A:666:G:C2	1:A:667:G:N9	2.89	0.41
1:A:686:U:H5'	11:K:43:TRP:N	2.35	0.41
1:A:692:U:H5'	1:A:797:C:H5"	2.03	0.41
1:A:700:G:C4	1:A:701:U:C4	3.08	0.41
1:A:715:A:H1'	1:A:777:A:C2	2.56	0.41
1:A:727:G:N3	1:A:731:G:C2	2.88	0.41
1:A:730:G:C2	1:A:765:G:H5"	2.56	0.41
1:A:756:C:O3'	1:A:823:C:H1'	2.21	0.41
1:A:759:A:C8	1:A:759:A:C3'	3.04	0.41
1:A:761:G:H2'	1:A:762:U:O4'	2.21	0.41
1:A:785:G:C6	1:A:798:U:C4	3.09	0.41
1:A:794:A:N6	1:A:795:C:H1'	2.35	0.41
1:A:821:G:C2	1:A:822:U:C2	3.09	0.41
1:A:826:C:O2	1:A:875:U:C2	2.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:860:A:H3'	1:A:861:G:H8	1.85	0.41
1:A:908:A:C8	1:A:908:A:O5'	2.74	0.41
1:A:910:C:H4'	1:A:1413:A:O2'	2.21	0.41
1:A:937:A:H1'	1:A:1379:G:C2	2.56	0.41
1:A:945:G:H2'	1:A:946:A:H8	1.79	0.41
1:A:956:U:C4	1:A:957:U:C5	3.08	0.41
1:A:957:U:O2	1:A:959:A:C8	2.74	0.41
1:A:970:C:H5'	1:A:972:C:C6	2.56	0.41
1:A:1005:A:C8	1:A:1006:G:N9	2.89	0.41
1:A:1015:G:C4'	14:N:52:ARG:H	2.29	0.41
1:A:1073:U:H2'	1:A:1074:G:H8	1.80	0.41
1:A:1074:G:C8	1:A:1074:G:O5'	2.73	0.41
1:A:1208:C:C6	1:A:1208:C:O5'	2.74	0.41
1:A:1236:A:O2'	1:A:1334:G:N2	2.54	0.41
1:A:1244:G:H2'	1:A:1245:C:C6	2.56	0.41
1:A:1335:U:C5'	1:A:1337:G:N2	2.84	0.41
1:A:1409:C:H2'	1:A:1410:A:O4'	2.21	0.41
1:A:1438:G:N2	1:A:1439:G:C6	2.89	0.41
1:A:1480:A:C8	1:A:1480:A:O5'	2.74	0.41
1:A:1504:G:C4'	1:A:1505:G:C4	3.04	0.41
1:A:1518:A:H2'	1:A:1518:A:N3	2.36	0.41
2:B:89:PHE:CE2	2:B:90:PHE:CE1	3.08	0.41
3:C:22:PHE:CD1	10:J:13:PHE:N	2.89	0.41
5:E:11:GLN:HE22	5:E:115:GLU:HG3	1.86	0.41
8:H:48:PHE:HA	8:H:59:GLU:O	2.21	0.41
9:I:17:ARG:HB2	9:I:19:PHE:CE2	2.56	0.41
11:K:23:HIS:O	11:K:23:HIS:CG	2.74	0.41
11:K:43:TRP:CE3	11:K:43:TRP:C	2.94	0.41
11:K:114:PRO:HB3	18:R:71:ASP:OD2	2.21	0.41
19:S:38:THR:HA	19:S:69:LYS:HA	2.03	0.41
20:T:56:ILE:O	20:T:60:GLN:N	2.55	0.41
22:W:287:PHE:CZ	22:W:325:ARG:O	2.74	0.41
1:A:27:G:C2	1:A:557:G:C4	3.09	0.40
1:A:57:G:C6	1:A:58:C:C2	3.09	0.40
1:A:72:A:C4	1:A:73:C:H5	2.34	0.40
1:A:82:G:C5	1:A:83:C:H1'	2.56	0.40
1:A:98:A:H8	1:A:98:A:OP2	2.03	0.40
1:A:142:G:C8	1:A:142:G:OP2	2.74	0.40
1:A:153:C:C4	1:A:154:U:N1	2.89	0.40
1:A:175:C:O2	1:A:175:C:C2'	2.67	0.40
1:A:179:A:C8	1:A:180:U:C5	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:197:A:C5	1:A:221:C:O4'	2.75	0.40
1:A:203:G:N7	1:A:212:G:C6	2.89	0.40
1:A:220:G:N2	1:A:221:C:C6	2.89	0.40
1:A:225:C:O2	1:A:225:C:H2'	2.20	0.40
1:A:229:U:C6	1:A:229:U:O5'	2.74	0.40
1:A:240:G:C2	1:A:241:G:C4	3.08	0.40
1:A:240:G:N2	1:A:287:U:H1'	2.37	0.40
1:A:242:G:H2'	1:A:245:U:C5	2.56	0.40
1:A:246:A:N6	1:A:282:A:N7	2.69	0.40
1:A:257:G:C4	1:A:258:G:C8	3.09	0.40
1:A:258:G:O6	1:A:259:G:C6	2.75	0.40
1:A:276:G:C2'	1:A:276:G:N3	2.79	0.40
1:A:304:U:C6	1:A:304:U:O5'	2.73	0.40
1:A:329:A:N7	1:A:332:G:C5	2.89	0.40
1:A:341:C:H2'	1:A:342:C:C6	2.55	0.40
1:A:347:G:H2'	1:A:348:G:O4'	2.21	0.40
1:A:357:G:H1'	1:A:368:U:O2	2.20	0.40
1:A:442:G:C8	1:A:442:G:O5'	2.74	0.40
1:A:446:G:C2	1:A:489:C:N3	2.90	0.40
1:A:456:A:C2	1:A:477:C:N3	2.89	0.40
1:A:464:U:HO2'	1:A:466:A:H62	1.68	0.40
1:A:469:C:H2'	1:A:470:C:H5'	2.03	0.40
1:A:482:A:P	1:A:483:C:H41	2.43	0.40
1:A:537:G:C6	1:A:538:G:C4	3.09	0.40
1:A:538:G:C6	1:A:539:A:N7	2.89	0.40
1:A:550:G:N2	1:A:551:U:C1'	2.83	0.40
1:A:572:A:N1	1:A:864:A:C4	2.89	0.40
1:A:581:G:N2	1:A:582:C:C4	2.89	0.40
1:A:581:G:C2	1:A:761:G:O6	2.74	0.40
1:A:597:G:N7	1:A:598:U:C4	2.89	0.40
1:A:605:U:H6	1:A:605:U:OP2	2.04	0.40
1:A:606:G:H8	1:A:607:A:H5"	1.86	0.40
1:A:656:G:C8	1:A:656:G:OP2	2.74	0.40
1:A:665:A:N7	1:A:725:G:C2	2.89	0.40
1:A:676:A:N1	1:A:715:A:C2	2.90	0.40
1:A:684:U:C4	1:A:685:G:C5	3.10	0.40
1:A:693:G:C5	1:A:795:C:O2	2.74	0.40
1:A:705:G:H2'	1:A:706:A:H5'	2.02	0.40
1:A:736:C:C5	6:F:91:ARG:NH2	2.89	0.40
1:A:749:A:C4	1:A:750:C:C5	3.09	0.40
1:A:754:C:O2	1:A:754:C:H5"	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:758:C:C6	1:A:758:C:C3'	3.04	0.40
1:A:760:G:C6	1:A:761:G:N9	2.89	0.40
1:A:762:U:C6	1:A:762:U:O5'	2.73	0.40
1:A:804:U:H5	1:A:805:C:C4	2.36	0.40
1:A:808:C:C4	1:A:809:G:N7	2.90	0.40
1:A:819:A:C8	1:A:819:A:O5'	2.74	0.40
1:A:820:U:C5	1:A:872:A:OP1	2.75	0.40
1:A:858:G:N2	1:A:859:G:N7	2.68	0.40
1:A:917:G:H2'	1:A:918:A:C8	2.56	0.40
1:A:917:G:N2	1:A:918:A:H1'	2.36	0.40
1:A:944:G:C4'	9:I:128:LYS:HZ1	2.34	0.40
1:A:962:C:O2	1:A:1201:A:C4	2.74	0.40
1:A:981:U:C2	1:A:982:U:C6	3.09	0.40
1:A:1084:G:H5"	1:A:1099:G:H22	1.85	0.40
1:A:1084:G:N9	1:A:1085:U:C5	2.89	0.40
1:A:1113:C:N3	1:A:1188:A:H1'	2.36	0.40
1:A:1132:C:C6	1:A:1132:C:C5'	3.04	0.40
1:A:1157:A:C2'	1:A:1180:A:C2	3.00	0.40
1:A:1165:U:C2'	1:A:1166:G:C8	3.04	0.40
1:A:1169:A:C6	1:A:1170:A:C2	3.09	0.40
1:A:1204:A:C5	1:A:1205:U:C6	3.09	0.40
1:A:1219:A:H5'	14:N:53:ASP:OD1	2.20	0.40
1:A:1220:G:N2	19:S:53:GLY:HA2	2.30	0.40
1:A:1233:G:C2	1:A:1234:C:C6	3.09	0.40
1:A:1239:A:O2'	7:G:113:LYS:HA	2.21	0.40
1:A:1240:U:P	7:G:114:SER:HA	2.61	0.40
1:A:1250:A:C5	1:A:1287:A:C4	3.08	0.40
1:A:1260:G:N3	1:A:1260:G:H2'	2.36	0.40
1:A:1264:U:C6	1:A:1264:U:H3'	2.57	0.40
1:A:1270:G:C2	1:A:1271:A:N9	2.89	0.40
1:A:1289:A:C5'	1:A:1290:G:OP2	2.69	0.40
1:A:1300:G:C5	1:A:1334:G:C5	3.09	0.40
1:A:1309:G:C6	1:A:1310:G:C5	3.09	0.40
1:A:1313:U:N3	1:A:1314:C:C5	2.90	0.40
1:A:1353:G:N2	1:A:1354:U:H1'	2.37	0.40
1:A:1405:G:H22	1:A:1517:G:N2	2.19	0.40
1:A:1428:A:N6	1:A:1473:G:C6	2.89	0.40
1:A:1457:G:O2'	20:T:26:MET:HA	2.22	0.40
1:A:1460:C:N3	1:A:1461:G:C4	2.88	0.40
1:A:1467:C:H2'	1:A:1468:A:N7	2.36	0.40
1:A:1479:C:C2	1:A:1480:A:N7	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1511:G:C2	1:A:1525:G:C2	3.10	0.40
1:A:1516:G:C6	1:A:1520:C:C5	3.08	0.40
2:B:71:THR:HB	2:B:75:ALA:HB3	2.02	0.40
2:B:163:ILE:CD1	2:B:209:VAL:HG11	2.52	0.40
3:C:23:ALA:HB2	3:C:61:LYS:HZ1	1.86	0.40
3:C:150:VAL:HA	3:C:198:LYS:O	2.21	0.40
5:E:155:LYS:HD3	5:E:158:LYS:HZ1	1.86	0.40
6:F:35:LYS:HZ3	6:F:37:HIS:CG	2.39	0.40
9:I:47:VAL:HA	9:I:79:ARG:HA	2.02	0.40
10:J:42:LEU:CD2	10:J:73:LEU:HB2	2.51	0.40
11:K:24:ALA:HA	11:K:29:THR:HA	2.03	0.40
11:K:27:ASN:O	11:K:56:LYS:HE3	2.21	0.40
11:K:46:ALA:C	11:K:49:SER:H	2.25	0.40
15:O:10:ILE:HG23	15:O:14:PHE:CD1	2.56	0.40
15:O:82:GLU:CA	15:O:88:ARG:HE	2.33	0.40
17:Q:11:VAL:HG23	17:Q:56:ASP:HB2	2.03	0.40
17:Q:45:VAL:HG13	17:Q:47:ASP:OD1	2.21	0.40
17:Q:46:HIS:CG	17:Q:66:LEU:HD13	2.55	0.40
1:A:8:A:N1	4:D:201:GLU:O	2.54	0.40
1:A:9:G:C2	1:A:10:A:C1’	3.04	0.40
1:A:9:G:C2	1:A:10:A:C4	3.09	0.40
1:A:28:A:H1’	1:A:297:G:P	2.60	0.40
1:A:108:G:OP2	1:A:109:A:C2	2.75	0.40
1:A:126:G:H5’	1:A:633:G:H22	1.86	0.40
1:A:158:G:C2	1:A:164:G:N9	2.90	0.40
1:A:189:A:C2	1:A:190:A:O4’	2.75	0.40
1:A:189:A:H62	1:A:190:A:H62	1.68	0.40
1:A:206:C:O5’	1:A:206:C:H6	2.04	0.40
1:A:258:G:N3	1:A:258:G:H2’	2.36	0.40
1:A:318:G:C4	1:A:336:A:C2	3.10	0.40
1:A:403:C:H2’	1:A:404:G:O4’	2.22	0.40
1:A:409:U:O2	1:A:434:U:O2	2.38	0.40
1:A:420:U:H3’	1:A:422:C:C4	2.56	0.40
1:A:451:A:H5’	1:A:452:A:C8	2.56	0.40
1:A:500:G:H22	1:A:549:C:H5’	1.87	0.40
1:A:674:G:C4	1:A:675:A:C8	3.09	0.40
1:A:761:G:C5	1:A:762:U:C4	3.09	0.40
1:A:774:G:C6	1:A:775:G:C6	3.09	0.40
1:A:802:A:H2’	1:A:803:G:O4’	2.21	0.40
1:A:825:A:H1’	8:H:1:SER:N	2.37	0.40
1:A:849:G:C6	1:A:850:U:C5	3.08	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:894:G:C6	1:A:895:G:N7	2.88	0.40
1:A:895:G:C6	1:A:905:U:O2	2.74	0.40
1:A:903:G:N3	1:A:904:U:H1'	2.36	0.40
1:A:925:G:C8	1:A:925:G:P	3.14	0.40
1:A:941:G:N2	9:I:122:ARG:HH22	2.20	0.40
1:A:950:U:O4'	1:A:971:G:C2	2.75	0.40
1:A:960:U:H1'	1:A:1222:G:HO2'	1.87	0.40
1:A:969:A:H2'	1:A:970:C:O4'	2.22	0.40
1:A:974:A:N1	14:N:70:HIS:CD2	2.90	0.40
1:A:979:C:H41	1:A:1360:A:H61	1.70	0.40
1:A:1032:G:H2'	1:A:1033:G:C4'	2.51	0.40
1:A:1045:C:H2'	1:A:1045:C:O2	2.21	0.40
1:A:1052:U:H3'	1:A:1200:C:H41	1.84	0.40
1:A:1057:G:OP2	1:A:1058:G:O6	2.39	0.40
1:A:1064:G:N2	1:A:1190:G:O3'	2.54	0.40
1:A:1080:A:H5'	5:E:20:VAL:CG1	2.52	0.40
1:A:1092:A:C4	1:A:1093:A:N9	2.90	0.40
1:A:1128:C:C3'	1:A:1129:C:H6	2.34	0.40
1:A:1130:A:O2'	9:I:19:PHE:HB3	2.21	0.40
1:A:1143:G:H2'	1:A:1144:G:C8	2.57	0.40
1:A:1151:A:H2'	1:A:1152:A:C8	2.56	0.40
1:A:1159:U:C6	1:A:1162:C:N4	2.89	0.40
1:A:1181:G:N2	1:A:1182:G:N2	2.68	0.40
1:A:1184:G:OP2	2:B:131:LYS:HA	2.21	0.40
1:A:1189:U:C6	3:C:177:LEU:HD11	2.56	0.40
1:A:1231:G:N1	1:A:1232:U:C2	2.89	0.40
1:A:1234:C:C4	1:A:1235:U:C5	3.09	0.40
1:A:1255:G:N2	1:A:1276:G:N2	2.70	0.40
1:A:1276:G:H2'	1:A:1277:C:O4'	2.20	0.40
1:A:1303:C:C5	1:A:1304:G:C8	3.09	0.40
1:A:1317:C:H2'	1:A:1318:A:C8	2.56	0.40
1:A:1319:A:C6	1:A:1323:G:C1'	3.02	0.40
1:A:1342:C:H2'	1:A:1343:G:H8	1.86	0.40
1:A:1353:G:N1	1:A:1370:G:C6	2.89	0.40
1:A:1355:G:C2	1:A:1356:G:C4	3.09	0.40
1:A:1407:C:C2	1:A:1495:U:C2	3.10	0.40
1:A:1420:U:H3	1:A:1480:A:N6	2.19	0.40
1:A:1420:U:O2	1:A:1481:U:O2	2.40	0.40
1:A:1423:G:C8	1:A:1423:G:H3'	2.56	0.40
1:A:1433:A:C5	1:A:1434:A:N7	2.89	0.40
1:A:1503:A:O4'	1:A:1531:A:H4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:D:124:VAL:CG2	4:D:129:VAL:HG11	2.51	0.40
8:H:36:ALA:HA	8:H:39:LEU:HD12	2.03	0.40
11:K:27:ASN:HB3	11:K:56:LYS:HG3	2.04	0.40
12:L:66:ILE:HG22	12:L:98:ARG:HG3	2.02	0.40
12:L:98:ARG:HH22	12:L:107:LYS:HG2	1.85	0.40
13:M:74:MET:O	13:M:77:LYS:HB3	2.22	0.40
17:Q:46:HIS:H	17:Q:74:LEU:N	2.19	0.40
22:W:162:ILE:HG13	22:W:163:ASP:N	2.37	0.40
22:W:195:GLN:CB	22:W:226:ALA:HB2	2.51	0.40
22:W:221:SER:HB2	22:W:234:ILE:HA	2.03	0.40
22:W:258:PHE:CZ	22:W:264:VAL:HB	2.56	0.40
1:A:4:U:OP2	1:A:4:U:C5	2.74	0.40
1:A:62:U:O2'	1:A:380:G:H4'	2.20	0.40
1:A:69:G:N7	1:A:96:U:OP1	2.54	0.40
1:A:82:G:H5'	1:A:89:U:H1'	2.03	0.40
1:A:100:G:H2'	1:A:101:A:C8	2.56	0.40
1:A:117:G:C2	1:A:118:U:H1'	2.56	0.40
1:A:185:U:C5	1:A:185:U:OP2	2.75	0.40
1:A:201:G:N2	1:A:468:A:H62	2.20	0.40
1:A:217:C:H2'	1:A:218:U:H6	1.87	0.40
1:A:251:G:C4	1:A:252:U:C6	3.09	0.40
1:A:264:C:H2'	17:Q:65:PRO:HG2	2.03	0.40
1:A:265:G:C8	1:A:265:G:OP2	2.74	0.40
1:A:266:G:C1'	1:A:268:U:OP2	2.70	0.40
1:A:302:G:H2'	1:A:303:A:O4'	2.22	0.40
1:A:311:C:C6	1:A:311:C:H3'	2.56	0.40
1:A:337:G:H4'	1:A:1469:C:C4'	2.51	0.40
1:A:363:A:C8	1:A:364:A:N7	2.89	0.40
1:A:409:U:H5'	4:D:23:GLY:HA3	2.02	0.40
1:A:441:A:N3	1:A:442:G:C8	2.89	0.40
1:A:442:G:H1	1:A:492:C:N4	2.19	0.40
1:A:455:G:N2	1:A:456:A:C1'	2.85	0.40
1:A:501:C:C6	1:A:501:C:H3'	2.56	0.40
1:A:529:G:N2	12:L:47:ALA:HB2	2.36	0.40
1:A:531:U:OP2	1:A:532:A:H5'	2.22	0.40
1:A:575:G:C6	1:A:881:G:C6	3.09	0.40
1:A:580:C:C4'	15:O:56:LEU:HB3	2.51	0.40
1:A:581:G:N1	1:A:759:A:P	2.92	0.40
1:A:591:U:O4	1:A:648:A:N1	2.54	0.40
1:A:595:A:C2	1:A:643:C:N4	2.89	0.40
1:A:622:A:O5'	1:A:622:A:H8	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:656:G:H21	15:O:22:GLY:CA	2.31	0.40
1:A:668:G:H2'	1:A:669:G:O4'	2.21	0.40
1:A:680:C:C2	1:A:711:G:N1	2.90	0.40
1:A:705:G:H8	1:A:705:G:O5'	2.04	0.40
1:A:720:C:H5"	18:R:38:ILE:HG22	2.04	0.40
1:A:782:A:OP1	1:A:1522:U:H1'	2.21	0.40
1:A:799:G:C6	1:A:800:G:C5	3.10	0.40
1:A:803:G:N1	1:A:804:U:C2	2.90	0.40
1:A:808:C:N3	1:A:809:G:N7	2.70	0.40
1:A:814:A:H5'	1:A:815:A:P	2.60	0.40
1:A:860:A:C6	1:A:861:G:N3	2.89	0.40
1:A:863:U:C2	1:A:867:G:N1	2.89	0.40
1:A:894:G:N1	1:A:895:G:C5	2.89	0.40
1:A:923:A:C2	1:A:924:C:C4	3.09	0.40
1:A:928:G:C2	1:A:929:G:C6	3.09	0.40
1:A:958:A:C5	1:A:959:A:N1	2.89	0.40
1:A:965:U:N3	1:A:969:A:H4'	2.36	0.40
1:A:987:G:C4	1:A:988:G:C8	3.09	0.40
1:A:990:C:C2	1:A:1216:A:C2	3.09	0.40
1:A:991:U:N3	1:A:1212:U:H4'	2.36	0.40
1:A:1008:U:O4	14:N:17:ASP:O	2.40	0.40
1:A:1032:G:C6	1:A:1033:G:N9	2.89	0.40
1:A:1058:G:O6	1:A:1059:C:C4	2.74	0.40
1:A:1133:G:N3	1:A:1133:G:H2'	2.36	0.40
1:A:1266:G:C2	1:A:1270:G:C6	3.08	0.40
1:A:1287:A:C2	1:A:1288:A:C2	3.09	0.40
1:A:1333:A:N9	1:A:1334:G:C8	2.89	0.40
1:A:1348:U:C4	1:A:1373:G:N2	2.89	0.40
1:A:1349:A:C2	7:G:31:VAL:CA	3.02	0.40
1:A:1374:A:N3	1:A:1375:A:C8	2.90	0.40
1:A:1377:A:C5'	7:G:94:ARG:NH1	2.85	0.40
1:A:1382:C:N4	7:G:2:ARG:NH1	2.70	0.40
1:A:1532:U:C4	1:A:1534:A:C5	3.09	0.40
2:B:167:HIS:C	2:B:169:HIS:H	2.23	0.40
2:B:172:ILE:HD13	2:B:193:ASP:HB2	2.02	0.40
2:B:192:PRO:CB	2:B:195:VAL:HB	2.51	0.40
3:C:38:VAL:HG21	3:C:63:ILE:CD1	2.51	0.40
4:D:170:LEU:CB	4:D:181:PHE:HA	2.49	0.40
6:F:55:HIS:CD2	6:F:56:LYS:N	2.89	0.40
8:H:16:GLY:HA3	8:H:24:VAL:HG11	2.03	0.40
9:I:26:LYS:H	9:I:62:LEU:CD2	2.34	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:K:43:TRP:CE3	11:K:44:ALA:N	2.90	0.40
11:K:46:ALA:CB	11:K:61:ALA:C	2.90	0.40
16:P:69:ASP:HA	16:P:72:ALA:CB	2.51	0.40
17:Q:54:ILE:O	17:Q:54:ILE:HG23	2.21	0.40
1:A:6:G:OP2	1:A:6:G:C2	2.75	0.40
1:A:35:G:C2	1:A:550:G:N3	2.89	0.40
1:A:36:C:C2	1:A:37:U:C6	3.10	0.40
1:A:46:G:N7	1:A:366:A:C6	2.90	0.40
1:A:51:A:C2	1:A:116:A:N9	2.90	0.40
1:A:102:G:C8	1:A:102:G:O5'	2.75	0.40
1:A:104:G:N1	1:A:105:G:C5	2.89	0.40
1:A:115:G:C8	1:A:115:G:O5'	2.75	0.40
1:A:117:G:C5	1:A:118:U:N3	2.90	0.40
1:A:119:A:OP2	1:A:119:A:H8	2.04	0.40
1:A:133:U:C4	1:A:230:G:N2	2.89	0.40
1:A:137:U:O2	1:A:137:U:C2'	2.69	0.40
1:A:153:C:N4	1:A:154:U:N3	2.70	0.40
1:A:154:U:O2	1:A:155:A:C8	2.75	0.40
1:A:155:A:C5	1:A:156:C:C4	3.10	0.40
1:A:250:A:C8	1:A:252:U:N3	2.90	0.40
1:A:253:A:O2'	1:A:276:G:H4'	2.22	0.40
1:A:253:A:N3	1:A:275:G:H2'	2.37	0.40
1:A:271:C:C6	1:A:271:C:C3'	3.04	0.40
1:A:293:G:H22	1:A:305:G:C1'	2.34	0.40
1:A:297:G:N2	1:A:301:G:C4	2.90	0.40
1:A:322:C:C6	1:A:322:C:H3'	2.57	0.40
1:A:341:C:C4	1:A:342:C:C5	3.10	0.40
1:A:345:C:H4'	1:A:346:G:N1	2.36	0.40
1:A:378:G:N1	1:A:386:C:C2	2.90	0.40
1:A:380:G:H2'	1:A:380:G:N3	2.37	0.40
1:A:409:U:C5	1:A:409:U:OP2	2.75	0.40
1:A:429:U:H3'	4:D:21:LYS:HE2	2.03	0.40
1:A:454:G:N2	1:A:479:U:H1'	2.29	0.40
1:A:465:A:C5	1:A:466:A:C5	3.09	0.40
1:A:544:G:C5'	4:D:54:LEU:HD11	2.51	0.40
1:A:549:C:C2	1:A:550:G:C8	3.10	0.40
1:A:568:G:N3	1:A:568:G:H2'	2.36	0.40
1:A:583:A:C2	1:A:584:G:H1'	2.56	0.40
1:A:600:A:N1	1:A:639:G:C5	2.90	0.40
1:A:633:G:C6	1:A:634:C:N3	2.89	0.40
1:A:654:G:C5	1:A:655:A:C8	3.08	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:717:U:C2	11:K:117:HIS:HB3	2.57	0.40
1:A:725:G:C2	1:A:726:C:C5	3.09	0.40
1:A:730:G:O2'	1:A:814:A:N6	2.54	0.40
1:A:736:C:C2	1:A:737:C:C6	3.09	0.40
1:A:748:G:C2	1:A:749:A:H1'	2.56	0.40
1:A:759:A:N6	1:A:760:G:C4	2.89	0.40
1:A:779:C:C2	1:A:780:A:C6	3.09	0.40
1:A:792:A:C4	1:A:794:A:O4'	2.74	0.40
1:A:832:G:C6	1:A:855:U:C4	3.10	0.40
1:A:891:U:OP2	1:A:904:U:OP2	2.40	0.40
1:A:929:G:H1'	1:A:1533:C:C5	2.57	0.40
1:A:942:G:C4	1:A:943:U:C6	3.09	0.40
1:A:1004:A:H2'	1:A:1005:A:H5'	2.02	0.40
1:A:1043:G:H3'	1:A:1044:A:C8	2.56	0.40
1:A:1069:C:C6	1:A:1069:C:H3'	2.57	0.40
1:A:1100:C:C6	1:A:1100:C:O5'	2.74	0.40
1:A:1117:A:C8	1:A:1156:G:N2	2.83	0.40
1:A:1169:A:C6	1:A:1170:A:C6	3.09	0.40
1:A:1269:A:H3'	1:A:1270:G:C8	2.56	0.40
1:A:1287:A:C5	1:A:1288:A:N6	2.89	0.40
1:A:1295:U:H2'	1:A:1296:C:O4'	2.20	0.40
1:A:1328:C:H5"	13:M:27:THR:CB	2.52	0.40
1:A:1355:G:C4	1:A:1368:A:N1	2.90	0.40
1:A:1377:A:H3'	7:G:6:ILE:O	2.22	0.40
1:A:1382:C:C6	1:A:1382:C:C3'	3.04	0.40
1:A:1389:C:O2	1:A:1390:U:H1'	2.21	0.40
1:A:1393:U:H5'	1:A:1502:A:O5'	2.21	0.40
1:A:1438:G:O5'	1:A:1438:G:C8	2.75	0.40
1:A:1484:C:H6	1:A:1484:C:O5'	2.03	0.40
1:A:1527:U:C2	1:A:1528:U:C6	3.09	0.40
2:B:22:TRP:CD2	2:B:36:LYS:NZ	2.89	0.40
2:B:127:LYS:HB3	2:B:128:LEU:HD22	2.03	0.40
3:C:28:PHE:CD1	10:J:13:PHE:CZ	3.09	0.40
3:C:89:VAL:HG13	3:C:93:ILE:HD12	2.03	0.40
3:C:123:LEU:HG	3:C:129:PHE:HA	2.03	0.40
4:D:125:ASN:H	4:D:140:ASP:CG	2.25	0.40
4:D:137:SER:O	4:D:140:ASP:HB2	2.21	0.40
5:E:55:VAL:HB	5:E:56:PRO:CD	2.51	0.40
5:E:85:LYS:HG2	5:E:93:VAL:O	2.21	0.40
6:F:44:ARG:HA	6:F:58:HIS:HA	2.03	0.40
7:G:11:ILE:HA	7:G:27:ASN:ND2	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:H:104:SER:HA	8:H:109:VAL:HA	2.02	0.40
10:J:28:THR:CG2	10:J:86:ALA:HB2	2.51	0.40
11:K:33:ILE:N	11:K:69:CYS:SG	2.94	0.40
11:K:45:THR:HG22	11:K:46:ALA:N	2.20	0.40
12:L:15:VAL:HB	12:L:17:LYS:HD2	2.04	0.40
12:L:36:VAL:HA	12:L:52:CYS:CB	2.52	0.40
12:L:81:ILE:HA	12:L:96:THR:HA	2.03	0.40
14:N:1:ALA:CB	14:N:5:MET:SD	3.10	0.40
14:N:72:PHE:CD1	14:N:73:LEU:N	2.89	0.40
18:R:35:SER:HB3	18:R:69:TYR:HA	2.02	0.40
19:S:31:ARG:HG3	19:S:56:HIS:ND1	2.35	0.40
20:T:18:LYS:H	20:T:18:LYS:HG3	1.56	0.40
20:T:34:VAL:CG1	20:T:78:LEU:HD12	2.51	0.40
20:T:50:PHE:HB3	20:T:82:ILE:HD13	2.03	0.40
22:W:202:GLU:HB3	22:W:260:HIS:CD2	2.57	0.40
1:A:9:G:OP2	5:E:125:LYS:HA	2.20	0.40
1:A:12:U:C4'	1:A:526:C:H4'	2.43	0.40
1:A:15:G:C2	1:A:16:A:C4	3.09	0.40
1:A:32:A:HO2'	1:A:364:A:H2	1.68	0.40
1:A:37:U:H5"	12:L:120:ARG:CZ	2.52	0.40
1:A:45:G:C2	1:A:46:G:C4	3.09	0.40
1:A:51:A:C2	1:A:116:A:H1'	2.56	0.40
1:A:103:U:C6	1:A:103:U:O5'	2.74	0.40
1:A:118:U:H3	1:A:289:G:C4'	2.34	0.40
1:A:129:A:H4'	17:Q:64:ARG:HA	2.02	0.40
1:A:141:G:N1	1:A:223:A:C4	2.90	0.40
1:A:144:G:OP2	1:A:197:A:H3'	2.21	0.40
1:A:147:G:C2	1:A:176:C:C5	3.10	0.40
1:A:148:G:C8	1:A:148:G:H3'	2.55	0.40
1:A:176:C:O4'	1:A:1447:A:C5	2.75	0.40
1:A:189:A:H3'	1:A:189:A:C8	2.56	0.40
1:A:208:U:C2	1:A:209:U:O4	2.75	0.40
1:A:240:G:O6	1:A:241:G:C6	2.75	0.40
1:A:257:G:N1	1:A:270:A:C5	2.89	0.40
1:A:301:G:C8	1:A:301:G:C3'	3.05	0.40
1:A:315:A:O5'	1:A:315:A:C8	2.74	0.40
1:A:339:C:H2'	1:A:340:U:C6	2.56	0.40
1:A:359:G:C6	1:A:360:G:N3	2.90	0.40
1:A:386:C:O5'	1:A:386:C:H6	2.04	0.40
1:A:404:G:N1	1:A:405:U:C2	2.90	0.40
1:A:420:U:H5'	4:D:43:ARG:HH12	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:432:A:C8	1:A:433:G:N7	2.90	0.40
1:A:434:U:C2	1:A:435:A:H8	2.36	0.40
1:A:469:C:C5	1:A:470:C:N3	2.90	0.40
1:A:499:A:C8	1:A:499:A:O5'	2.75	0.40
1:A:523:A:H1'	1:A:527:G:C2	2.57	0.40
1:A:543:U:H5'	4:D:13:ARG:HH21	1.87	0.40
1:A:562:U:H3'	12:L:12:ALA:O	2.21	0.40
1:A:571:U:OP1	1:A:819:A:H2'	2.22	0.40
1:A:583:A:O5'	1:A:583:A:H8	2.02	0.40
1:A:592:G:C6	1:A:593:U:N3	2.90	0.40
1:A:605:U:C6	1:A:606:G:N1	2.85	0.40
1:A:607:A:C6	1:A:608:A:C4	3.10	0.40
1:A:607:A:H2'	1:A:608:A:O4'	2.21	0.40
1:A:626:G:H4'	16:P:51:ARG:CZ	2.51	0.40
1:A:685:G:H4'	11:K:41:LEU:C	2.41	0.40
1:A:745:G:H5'	1:A:851:G:H21	1.87	0.40
1:A:814:A:C5	1:A:816:A:O4'	2.75	0.40
1:A:839:C:O2	1:A:840:C:C5	2.74	0.40
1:A:847:G:C8	1:A:847:G:H3'	2.56	0.40
1:A:859:G:OP2	1:A:869:G:C2	2.74	0.40
1:A:898:G:H2'	1:A:900:A:N7	2.37	0.40
1:A:913:A:C2	1:A:914:A:C1'	3.01	0.40
1:A:913:A:N3	1:A:914:A:H1'	2.37	0.40
1:A:914:A:C8	1:A:914:A:C3'	3.04	0.40
1:A:936:C:C2	1:A:1380:U:O2	2.74	0.40
1:A:937:A:H2'	1:A:1378:C:H42	1.87	0.40
1:A:939:G:N2	1:A:1375:A:C2	2.89	0.40
1:A:947:G:C6	1:A:948:C:C5	3.10	0.40
1:A:969:A:H62	1:A:1231:G:H1'	1.86	0.40
1:A:976:G:C8	1:A:1359:C:O2'	2.65	0.40
1:A:977:A:H5'	1:A:981:U:O2	2.21	0.40
1:A:980:C:O2	14:N:58:ARG:HA	2.22	0.40
1:A:1015:G:H5'	14:N:52:ARG:HB2	2.03	0.40
1:A:1024:G:C6	1:A:1025:U:C5	3.10	0.40
1:A:1026:G:H2'	1:A:1026:G:N3	2.36	0.40
1:A:1068:G:N1	1:A:1069:C:C6	2.89	0.40
1:A:1068:G:C4	1:A:1069:C:C6	3.10	0.40
1:A:1070:U:C5	1:A:1085:U:C5	3.09	0.40
1:A:1081:A:H2'	1:A:1082:A:H8	1.86	0.40
1:A:1089:G:N2	1:A:1170:A:C1'	2.83	0.40
1:A:1089:G:C2'	1:A:1169:A:N1	2.84	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1091:U:C1'	1:A:1171:A:H5"	2.51	0.40
1:A:1116:U:C2	1:A:1117:A:C5	3.10	0.40
1:A:1123:U:H4'	10:J:39:PRO:HD2	2.04	0.40
1:A:1126:U:O4	10:J:101:SER:HB2	2.21	0.40
1:A:1129:C:C4	1:A:1144:G:N1	2.90	0.40
1:A:1202:U:H2'	1:A:1203:C:O4'	2.21	0.40
1:A:1239:A:C2	1:A:1241:G:O6	2.75	0.40
1:A:1240:U:OP1	1:A:1240:U:C5	2.75	0.40
1:A:1278:G:N3	1:A:1278:G:H5"	2.36	0.40
1:A:1285:A:C2	1:A:1286:U:C4	3.09	0.40
1:A:1301:U:C2	1:A:1303:C:N1	2.89	0.40
1:A:1304:G:O6	1:A:1305:G:C6	2.73	0.40
1:A:1304:G:N1	1:A:1332:A:OP2	2.54	0.40
1:A:1323:G:C8	1:A:1323:G:H3'	2.57	0.40
1:A:1375:A:C5'	7:G:28:ILE:HG12	2.51	0.40
1:A:1399:C:H1'	1:A:1401:G:C8	2.57	0.40
1:A:1434:A:H2'	1:A:1435:G:C8	2.57	0.40
1:A:1492:A:H2'	1:A:1493:A:H3'	2.04	0.40
1:A:1502:A:N9	1:A:1504:G:C6	2.90	0.40
2:B:22:TRP:CA	2:B:30:ILE:HG12	2.51	0.40
3:C:36:PHE:CD2	3:C:39:ARG:HD2	2.57	0.40
5:E:50:GLY:HA3	5:E:61:LYS:C	2.42	0.40
6:F:4:TYR:CD1	6:F:71:ILE:HG12	2.57	0.40
7:G:115:MET:HA	7:G:118:ARG:HD2	2.03	0.40
8:H:93:LYS:HZ3	8:H:116:ARG:HB2	1.87	0.40
9:I:5:TYR:O	9:I:19:PHE:HA	2.21	0.40
10:J:8:ILE:O	10:J:74:VAL:HB	2.21	0.40
10:J:34:ALA:HB3	10:J:80:THR:HG23	2.03	0.40
11:K:28:ASN:HA	11:K:56:LYS:O	2.21	0.40
13:M:112:ARG:HD3	13:M:113:LYS:N	2.37	0.40
15:O:41:HIS:O	15:O:45:HIS:CD2	2.75	0.40
17:Q:61:ARG:HG2	17:Q:75:VAL:HG13	2.04	0.40
17:Q:62:GLU:OE1	17:Q:72:TRP:CE2	2.75	0.40
22:W:103:ARG:H	22:W:103:ARG:NE	2.20	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	B	216/218 (99%)	149 (69%)	41 (19%)	26 (12%)	0	6
3	C	204/206 (99%)	158 (78%)	28 (14%)	18 (9%)	1	11
4	D	203/205 (99%)	139 (68%)	41 (20%)	23 (11%)	0	7
5	E	148/150 (99%)	104 (70%)	25 (17%)	19 (13%)	0	5
6	F	98/100 (98%)	75 (76%)	16 (16%)	7 (7%)	1	14
7	G	149/151 (99%)	118 (79%)	20 (13%)	11 (7%)	1	14
8	H	127/129 (98%)	90 (71%)	26 (20%)	11 (9%)	1	11
9	I	125/127 (98%)	83 (66%)	25 (20%)	17 (14%)	0	4
10	J	96/98 (98%)	74 (77%)	10 (10%)	12 (12%)	0	5
11	K	115/117 (98%)	81 (70%)	20 (17%)	14 (12%)	0	6
12	L	121/123 (98%)	85 (70%)	22 (18%)	14 (12%)	0	6
13	M	112/114 (98%)	82 (73%)	16 (14%)	14 (12%)	0	5
14	N	93/100 (93%)	61 (66%)	21 (23%)	11 (12%)	0	6
15	O	86/88 (98%)	65 (76%)	16 (19%)	5 (6%)	1	18
16	P	80/82 (98%)	58 (72%)	13 (16%)	9 (11%)	0	7
17	Q	78/80 (98%)	55 (70%)	16 (20%)	7 (9%)	1	11
18	R	53/55 (96%)	33 (62%)	12 (23%)	8 (15%)	0	3
19	S	77/79 (98%)	61 (79%)	12 (16%)	4 (5%)	2	19
20	T	83/85 (98%)	64 (77%)	14 (17%)	5 (6%)	1	17
21	U	49/51 (96%)	28 (57%)	11 (22%)	10 (20%)	0	2
22	W	274/350 (78%)	236 (86%)	25 (9%)	13 (5%)	2	21
All	All	2587/2708 (96%)	1899 (73%)	430 (17%)	258 (10%)	1	9

All (258) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	B	11	ALA
2	B	18	GLN
2	B	23	ASN
2	B	27	LYS
2	B	30	ILE
2	B	38	HIS
2	B	134	LEU
2	B	156	LEU
2	B	159	ALA
2	B	169	HIS
3	C	5	HIS
3	C	105	VAL
3	C	126	ARG
3	C	145	ALA
3	C	155	ARG
4	D	31	CYS
4	D	32	LYS
4	D	36	ALA
4	D	37	PRO
4	D	39	GLN
4	D	44	LYS
4	D	128	VAL
4	D	130	ASN
4	D	146	GLU
4	D	148	ALA
4	D	191	SER
5	E	23	THR
5	E	24	VAL
5	E	52	ALA
5	E	72	ASN
5	E	74	ALA
5	E	110	MET
5	E	111	ARG
5	E	129	SER
5	E	137	ARG
5	E	151	MET
6	F	38	ARG
6	F	88	MET
7	G	13	PRO
7	G	31	VAL
7	G	108	ARG
8	H	57	GLU
8	H	73	SER

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Mol	Chain	Res	Type
8	H	74	ILE
8	H	77	VAL
8	H	92	PRO
8	H	101	ALA
9	I	33	SER
9	I	43	ALA
9	I	71	ILE
9	I	97	LEU
9	I	98	ARG
9	I	111	GLU
9	I	121	ARG
9	I	126	PHE
10	J	35	GLN
10	J	54	SER
10	J	58	ASN
10	J	62	ARG
10	J	89	ARG
11	K	15	VAL
11	K	29	THR
11	K	51	PHE
11	K	72	ALA
11	K	102	ALA
12	L	15	VAL
12	L	16	ALA
12	L	25	ALA
12	L	26	CYS
12	L	60	PHE
12	L	101	LEU
12	L	102	ASP
12	L	103	CYS
12	L	112	ALA
12	L	122	LYS
13	M	4	ALA
13	M	6	ILE
13	M	10	ASP
13	M	12	LYS
13	M	22	TYR
13	M	99	GLN
13	M	112	ARG
14	N	48	GLN
14	N	61	ASN
14	N	91	GLU

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Mol	Chain	Res	Type
14	N	99	SER
15	O	45	HIS
15	O	86	LEU
16	P	12	LYS
16	P	48	GLU
17	Q	17	GLU
17	Q	31	PRO
17	Q	48	GLU
18	R	38	ILE
18	R	39	VAL
18	R	71	ASP
20	T	3	ILE
20	T	5	SER
20	T	66	ILE
20	T	85	LEU
21	U	11	PHE
21	U	44	ARG
21	U	51	ALA
22	W	117	LYS
22	W	216	SER
22	W	303	LYS
22	W	307	ASP
2	B	35	ASN
2	B	40	ILE
2	B	66	ILE
3	C	50	SER
3	C	143	LEU
3	C	187	GLU
4	D	3	TYR
4	D	28	ASP
4	D	29	THR
4	D	127	ARG
4	D	139	ASN
4	D	152	SER
4	D	159	GLU
4	D	174	ALA
5	E	76	ASN
5	E	147	ASN
5	E	150	GLU
5	E	154	ALA
6	F	57	ALA
7	G	5	VAL

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Mol	Chain	Res	Type
7	G	10	LYS
7	G	34	LYS
7	G	114	SER
8	H	84	ILE
8	H	102	VAL
9	I	128	LYS
10	J	57	VAL
10	J	74	VAL
10	J	75	ASP
11	K	50	GLY
11	K	114	PRO
12	L	41	PRO
12	L	46	SER
13	M	46	GLU
13	M	65	GLU
13	M	110	GLY
14	N	54	SER
15	O	23	SER
15	O	46	LYS
16	P	43	ALA
16	P	46	LYS
17	Q	69	THR
17	Q	75	VAL
18	R	47	ARG
19	S	8	PRO
21	U	9	GLU
21	U	21	SER
21	U	22	CYS
21	U	24	LYS
22	W	106	VAL
22	W	275	LEU
22	W	302	CYS
2	B	120	SER
2	B	194	GLY
2	B	205	ALA
3	C	12	GLY
4	D	40	HIS
4	D	204	SER
5	E	10	LEU
7	G	95	ARG
7	G	146	ALA
8	H	76	ARG

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Mol	Chain	Res	Type
9	I	4	GLN
9	I	42	THR
9	I	58	GLU
9	I	109	GLN
10	J	39	PRO
10	J	59	LYS
10	J	90	LEU
10	J	94	ALA
11	K	28	ASN
11	K	88	PRO
11	K	91	GLY
11	K	127	ARG
12	L	116	TYR
13	M	18	LEU
14	N	16	ALA
14	N	21	ALA
14	N	23	ARG
14	N	24	ALA
16	P	13	LYS
16	P	25	ARG
18	R	33	THR
18	R	72	ARG
22	W	110	PRO
22	W	120	ALA
22	W	121	ALA
2	B	76	SER
2	B	81	ASP
2	B	127	LYS
2	B	140	LEU
2	B	211	LEU
2	B	219	THR
3	C	48	LYS
6	F	13	ASP
6	F	56	LYS
7	G	77	ARG
7	G	148	LYS
12	L	74	GLN
13	M	36	ALA
16	P	10	GLY
16	P	36	VAL
19	S	22	VAL
20	T	84	LYS

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Mol	Chain	Res	Type
21	U	36	PHE
21	U	40	PRO
22	W	218	VAL
22	W	301	ASP
2	B	33	ALA
3	C	88	LYS
3	C	93	ILE
3	C	148	ILE
3	C	173	PRO
4	D	166	LYS
5	E	146	MET
8	H	100	ILE
9	I	114	LYS
9	I	124	PRO
11	K	120	CYS
11	K	123	PRO
14	N	20	PHE
15	O	72	LYS
17	Q	12	VAL
21	U	39	LYS
22	W	104	THR
2	B	67	LEU
2	B	74	ALA
3	C	4	VAL
3	C	175	HIS
5	E	157	GLY
9	I	49	GLN
13	M	111	PRO
19	S	46	LEU
19	S	66	VAL
2	B	209	VAL
3	C	9	ILE
8	H	56	PRO
11	K	73	VAL
13	M	3	ILE
17	Q	4	ILE
18	R	25	ILE
4	D	167	PRO
5	E	104	ILE
6	F	49	TYR
6	F	12	PRO
9	I	69	GLY

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Mol	Chain	Res	Type
16	P	49	GLY
5	E	152	VAL
14	N	29	ILE
3	C	107	LYS
18	R	32	ILE

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
2	B	180/180 (100%)	156 (87%)	24 (13%)	4 18
3	C	170/170 (100%)	146 (86%)	24 (14%)	3 16
4	D	172/172 (100%)	147 (86%)	25 (14%)	3 15
5	E	113/113 (100%)	94 (83%)	19 (17%)	2 12
6	F	87/87 (100%)	74 (85%)	13 (15%)	3 15
7	G	124/124 (100%)	113 (91%)	11 (9%)	9 30
8	H	104/104 (100%)	84 (81%)	20 (19%)	1 8
9	I	105/105 (100%)	91 (87%)	14 (13%)	4 18
10	J	86/86 (100%)	71 (83%)	15 (17%)	2 11
11	K	90/90 (100%)	75 (83%)	15 (17%)	2 12
12	L	103/103 (100%)	88 (85%)	15 (15%)	3 15
13	M	92/92 (100%)	74 (80%)	18 (20%)	1 8
14	N	79/83 (95%)	67 (85%)	12 (15%)	3 14
15	O	76/76 (100%)	68 (90%)	8 (10%)	7 24
16	P	65/65 (100%)	57 (88%)	8 (12%)	4 19
17	Q	74/74 (100%)	52 (70%)	22 (30%)	0 2
18	R	48/48 (100%)	44 (92%)	4 (8%)	11 34
19	S	70/70 (100%)	58 (83%)	12 (17%)	2 11
20	T	65/65 (100%)	56 (86%)	9 (14%)	3 17
21	U	44/44 (100%)	40 (91%)	4 (9%)	9 29

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
22	W	238/302 (79%)	215 (90%)	23 (10%)	8 27
All	All	2185/2253 (97%)	1870 (86%)	315 (14%)	6 16

All (315) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	B	17	HIS
2	B	19	THR
2	B	34	ARG
2	B	77	GLU
2	B	81	ASP
2	B	85	SER
2	B	88	GLN
2	B	89	PHE
2	B	91	VAL
2	B	100	LEU
2	B	101	THR
2	B	105	THR
2	B	119	GLN
2	B	122	ASP
2	B	128	LEU
2	B	138	ARG
2	B	150	ILE
2	B	168	GLU
2	B	187	ASP
2	B	188	THR
2	B	189	ASN
2	B	198	VAL
2	B	202	ASN
2	B	219	THR
3	C	3	LYS
3	C	13	ILE
3	C	18	ASN
3	C	57	GLU
3	C	69	THR
3	C	71	ARG
3	C	79	LYS
3	C	99	GLN
3	C	114	LEU
3	C	117	ASP
3	C	123	LEU
3	C	124	GLU

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Mol	Chain	Res	Type
3	C	139	ASN
3	C	148	ILE
3	C	149	LYS
3	C	153	SER
3	C	166	TRP
3	C	172	VAL
3	C	174	LEU
3	C	178	ARG
3	C	181	ILE
3	C	184	ASN
3	C	185	THR
3	C	200	TRP
4	D	11	SER
4	D	19	PHE
4	D	25	ARG
4	D	46	ARG
4	D	49	ASP
4	D	54	LEU
4	D	55	ARG
4	D	56	GLU
4	D	69	ARG
4	D	82	LYS
4	D	88	ASN
4	D	89	LEU
4	D	110	ARG
4	D	117	VAL
4	D	122	ILE
4	D	123	MET
4	D	124	VAL
4	D	146	GLU
4	D	158	LEU
4	D	163	GLN
4	D	165	GLU
4	D	166	LYS
4	D	172	VAL
4	D	173	ASP
4	D	187	ARG
5	E	14	LEU
5	E	19	ARG
5	E	31	SER
5	E	40	ASP
5	E	47	PHE

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Mol	Chain	Res	Type
5	E	53	ARG
5	E	54	GLU
5	E	59	ILE
5	E	63	MET
5	E	77	ASN
5	E	79	THR
5	E	84	VAL
5	E	95	MET
5	E	104	ILE
5	E	110	MET
5	E	115	GLU
5	E	123	LEU
5	E	127	TYR
5	E	145	ASN
6	F	5	GLU
6	F	13	ASP
6	F	15	SER
6	F	38	ARG
6	F	41	ASP
6	F	56	LYS
6	F	67	PRO
6	F	70	VAL
6	F	73	GLU
6	F	81	ASN
6	F	84	VAL
6	F	88	MET
6	F	94	HIS
7	G	8	GLN
7	G	9	ARG
7	G	14	ASP
7	G	30	MET
7	G	31	VAL
7	G	35	LYS
7	G	37	THR
7	G	75	LYS
7	G	113	LYS
7	G	124	SER
7	G	135	LYS
8	H	6	ILE
8	H	8	ASP
8	H	10	LEU
8	H	11	THR

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Mol	Chain	Res	Type
8	H	12	ARG
8	H	17	GLN
8	H	40	LYS
8	H	49	LYS
8	H	53	ASP
8	H	58	LEU
8	H	59	GLU
8	H	70	VAL
8	H	76	ARG
8	H	78	SER
8	H	89	ASP
8	H	91	LEU
8	H	102	VAL
8	H	104	SER
8	H	110	MET
8	H	126	CYS
9	I	36	GLN
9	I	45	MET
9	I	60	LEU
9	I	72	SER
9	I	90	ASP
9	I	91	GLU
9	I	105	ARG
9	I	106	ASP
9	I	115	VAL
9	I	122	ARG
9	I	123	ARG
9	I	124	PRO
9	I	126	PHE
9	I	128	LYS
10	J	8	ILE
10	J	11	LYS
10	J	16	ARG
10	J	18	ILE
10	J	20	GLN
10	J	35	GLN
10	J	48	ARG
10	J	59	LYS
10	J	60	ASP
10	J	63	ASP
10	J	71	LEU
10	J	72	ARG

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Mol	Chain	Res	Type
10	J	73	LEU
10	J	78	GLU
10	J	88	MET
11	K	17	ASP
11	K	22	ILE
11	K	25	SER
11	K	30	ILE
11	K	39	ASN
11	K	45	THR
11	K	54	SER
11	K	55	ARG
11	K	56	LYS
11	K	79	LYS
11	K	86	LYS
11	K	93	GLU
11	K	95	THR
11	K	111	ASP
11	K	123	PRO
12	L	5	GLN
12	L	9	LYS
12	L	11	ARG
12	L	13	ARG
12	L	15	VAL
12	L	19	ASN
12	L	32	VAL
12	L	33	CYS
12	L	46	SER
12	L	58	ASN
12	L	60	PHE
12	L	77	SER
12	L	102	ASP
12	L	119	LYS
12	L	120	ARG
13	M	10	ASP
13	M	15	VAL
13	M	26	LYS
13	M	27	THR
13	M	33	LEU
13	M	38	ILE
13	M	43	LYS
13	M	44	ILE
13	M	52	ILE

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Mol	Chain	Res	Type
13	M	59	VAL
13	M	71	GLU
13	M	85	TYR
13	M	92	ARG
13	M	99	GLN
13	M	100	ARG
13	M	111	PRO
13	M	112	ARG
13	M	113	LYS
14	N	20	PHE
14	N	46	LYS
14	N	48	GLN
14	N	49	THR
14	N	51	PRO
14	N	58	ARG
14	N	62	ARG
14	N	68	ARG
14	N	81	ILE
14	N	84	ARG
14	N	85	GLU
14	N	100	TRP
15	O	2	LEU
15	O	13	GLU
15	O	49	HIS
15	O	60	SER
15	O	61	GLN
15	O	77	TYR
15	O	79	GLN
15	O	81	ILE
16	P	25	ARG
16	P	31	ARG
16	P	35	ARG
16	P	46	LYS
16	P	55	ASP
16	P	59	HIS
16	P	60	TRP
16	P	68	SER
17	Q	5	ARG
17	Q	8	GLN
17	Q	16	MET
17	Q	19	SER
17	Q	24	ILE

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Mol	Chain	Res	Type
17	Q	26	ARG
17	Q	28	VAL
17	Q	38	LYS
17	Q	40	THR
17	Q	41	THR
17	Q	43	LEU
17	Q	44	HIS
17	Q	45	VAL
17	Q	46	HIS
17	Q	47	ASP
17	Q	56	ASP
17	Q	61	ARG
17	Q	64	ARG
17	Q	66	LEU
17	Q	70	LYS
17	Q	75	VAL
17	Q	80	LYS
18	R	51	GLN
18	R	53	GLN
18	R	56	ARG
18	R	69	TYR
19	S	5	LYS
19	S	9	PHE
19	S	26	ASP
19	S	33	TRP
19	S	34	SER
19	S	46	LEU
19	S	52	ASN
19	S	60	PHE
19	S	64	GLU
19	S	66	VAL
19	S	73	PHE
19	S	79	TYR
20	T	22	SER
20	T	26	MET
20	T	29	THR
20	T	56	ILE
20	T	58	ASP
20	T	59	ARG
20	T	65	LEU
20	T	69	ASN
20	T	79	THR

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Mol	Chain	Res	Type
21	U	6	ARG
21	U	11	PHE
21	U	35	GLU
21	U	45	LYS
22	W	45	ILE
22	W	55	GLU
22	W	68	ARG
22	W	93	VAL
22	W	103	ARG
22	W	106	VAL
22	W	109	ARG
22	W	110	PRO
22	W	116	VAL
22	W	126	ILE
22	W	132	ILE
22	W	141	ILE
22	W	149	GLU
22	W	175	GLU
22	W	193	HIS
22	W	194	THR
22	W	220	LYS
22	W	221	SER
22	W	223	LEU
22	W	255	LEU
22	W	284	THR
22	W	307	ASP
22	W	321	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (53) such sidechains are listed below:

Mol	Chain	Res	Type
2	B	23	ASN
2	B	41	ASN
2	B	169	HIS
2	B	189	ASN
3	C	5	HIS
3	C	18	ASN
3	C	122	GLN
3	C	139	ASN
3	C	184	ASN
4	D	135	GLN
4	D	163	GLN

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Mol	Chain	Res	Type
5	E	131	ASN
6	F	14	GLN
6	F	46	GLN
6	F	58	HIS
7	G	27	ASN
7	G	141	HIS
8	H	17	GLN
8	H	37	ASN
9	I	30	ASN
9	I	31	GLN
10	J	15	HIS
10	J	20	GLN
10	J	35	GLN
10	J	56	HIS
10	J	58	ASN
11	K	21	HIS
11	K	23	HIS
11	K	28	ASN
11	K	117	HIS
12	L	4	ASN
13	M	51	GLN
14	N	70	HIS
15	O	37	HIS
15	O	45	HIS
15	O	49	HIS
15	O	50	HIS
17	Q	8	GLN
17	Q	44	HIS
17	Q	50	ASN
18	R	73	HIS
19	S	13	HIS
20	T	60	GLN
20	T	67	HIS
20	T	74	HIS
22	W	51	HIS
22	W	62	HIS
22	W	125	GLN
22	W	193	HIS
22	W	215	GLN
22	W	237	ASN
22	W	257	HIS
22	W	291	HIS

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	A	1532/1533 (99%)	479 (31%)	200 (13%)

All (479) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	A	3	A
1	A	4	U
1	A	5	U
1	A	6	G
1	A	7	A
1	A	8	A
1	A	9	G
1	A	13	U
1	A	14	U
1	A	22	G
1	A	31	G
1	A	32	A
1	A	39	G
1	A	47	C
1	A	48	C
1	A	49	U
1	A	50	A
1	A	51	A
1	A	52	C
1	A	60	A
1	A	61	G
1	A	65	A
1	A	66	A
1	A	70	U
1	A	71	A
1	A	72	A
1	A	73	C
1	A	74	A
1	A	75	G
1	A	76	G
1	A	77	A
1	A	79	G
1	A	81	A
1	A	82	G
1	A	83	C
1	A	84	U

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Mol	Chain	Res	Type
1	A	85	U
1	A	86	G
1	A	87	C
1	A	88	U
1	A	89	U
1	A	90	C
1	A	91	U
1	A	92	U
1	A	94	G
1	A	95	C
1	A	97	G
1	A	107	G
1	A	108	G
1	A	109	A
1	A	110	C
1	A	115	G
1	A	116	A
1	A	119	A
1	A	120	A
1	A	121	U
1	A	127	G
1	A	129	A
1	A	130	A
1	A	131	A
1	A	132	C
1	A	134	G
1	A	135	C
1	A	138	G
1	A	141	G
1	A	142	G
1	A	143	A
1	A	159	G
1	A	160	A
1	A	161	A
1	A	163	C
1	A	164	G
1	A	168	G
1	A	173	U
1	A	174	A
1	A	177	G
1	A	181	A
1	A	182	A

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Mol	Chain	Res	Type
1	A	183	C
1	A	195	A
1	A	197	A
1	A	198	G
1	A	199	A
1	A	202	G
1	A	204	G
1	A	205	A
1	A	208	U
1	A	209	U
1	A	210	C
1	A	211	G
1	A	212	G
1	A	214	C
1	A	219	U
1	A	232	G
1	A	240	G
1	A	243	A
1	A	244	U
1	A	245	U
1	A	247	G
1	A	251	G
1	A	252	U
1	A	258	G
1	A	266	G
1	A	267	C
1	A	268	U
1	A	273	U
1	A	274	A
1	A	275	G
1	A	280	C
1	A	281	G
1	A	285	C
1	A	289	G
1	A	299	G
1	A	305	G
1	A	306	A
1	A	307	C
1	A	315	A
1	A	316	C
1	A	320	A
1	A	321	A

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Mol	Chain	Res	Type
1	A	328	C
1	A	329	A
1	A	330	C
1	A	331	G
1	A	332	G
1	A	344	A
1	A	345	C
1	A	346	G
1	A	347	G
1	A	351	G
1	A	352	C
1	A	353	A
1	A	354	G
1	A	363	A
1	A	366	A
1	A	367	U
1	A	369	G
1	A	372	C
1	A	373	A
1	A	374	A
1	A	384	G
1	A	388	G
1	A	389	A
1	A	390	U
1	A	392	C
1	A	398	U
1	A	405	U
1	A	406	G
1	A	411	A
1	A	412	A
1	A	413	G
1	A	414	A
1	A	422	C
1	A	423	G
1	A	424	G
1	A	428	G
1	A	429	U
1	A	430	A
1	A	431	A
1	A	439	U
1	A	441	A
1	A	448	A

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Mol	Chain	Res	Type
1	A	451	A
1	A	452	A
1	A	458	U
1	A	459	A
1	A	461	A
1	A	462	G
1	A	463	U
1	A	466	A
1	A	467	U
1	A	468	A
1	A	469	C
1	A	481	G
1	A	482	A
1	A	484	G
1	A	485	U
1	A	486	U
1	A	496	A
1	A	497	G
1	A	498	A
1	A	499	A
1	A	500	G
1	A	501	C
1	A	508	U
1	A	509	A
1	A	511	C
1	A	512	U
1	A	518	C
1	A	523	A
1	A	527	G
1	A	530	G
1	A	531	U
1	A	532	A
1	A	533	A
1	A	534	U
1	A	536	C
1	A	537	G
1	A	546	A
1	A	548	G
1	A	549	C
1	A	556	C
1	A	559	A
1	A	560	A

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Mol	Chain	Res	Type
1	A	562	U
1	A	563	A
1	A	564	C
1	A	566	G
1	A	567	G
1	A	572	A
1	A	573	A
1	A	574	A
1	A	575	G
1	A	576	C
1	A	577	G
1	A	579	A
1	A	588	G
1	A	595	A
1	A	596	A
1	A	604	G
1	A	606	G
1	A	607	A
1	A	610	U
1	A	619	U
1	A	629	A
1	A	631	C
1	A	632	U
1	A	633	G
1	A	642	A
1	A	649	A
1	A	653	U
1	A	661	G
1	A	663	A
1	A	665	A
1	A	694	A
1	A	702	A
1	A	703	G
1	A	718	A
1	A	719	C
1	A	720	C
1	A	721	G
1	A	722	G
1	A	723	U
1	A	724	G
1	A	731	G
1	A	733	G

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Mol	Chain	Res	Type
1	A	744	C
1	A	745	G
1	A	748	G
1	A	754	C
1	A	755	G
1	A	767	A
1	A	776	G
1	A	777	A
1	A	787	A
1	A	788	U
1	A	790	A
1	A	792	A
1	A	793	U
1	A	794	A
1	A	811	C
1	A	812	G
1	A	813	U
1	A	815	A
1	A	816	A
1	A	817	C
1	A	818	G
1	A	819	A
1	A	828	U
1	A	829	G
1	A	832	G
1	A	843	U
1	A	844	G
1	A	845	A
1	A	846	G
1	A	855	U
1	A	861	G
1	A	871	U
1	A	874	G
1	A	884	U
1	A	885	G
1	A	890	G
1	A	914	A
1	A	926	G
1	A	927	G
1	A	932	C
1	A	934	C
1	A	935	A

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Mol	Chain	Res	Type
1	A	936	C
1	A	944	G
1	A	960	U
1	A	961	U
1	A	966	G
1	A	967	C
1	A	968	A
1	A	969	A
1	A	970	C
1	A	971	G
1	A	972	C
1	A	974	A
1	A	975	A
1	A	976	G
1	A	977	A
1	A	982	U
1	A	983	A
1	A	992	U
1	A	993	G
1	A	994	A
1	A	1003	G
1	A	1004	A
1	A	1008	U
1	A	1017	U
1	A	1018	G
1	A	1022	A
1	A	1028	C
1	A	1029	U
1	A	1030	U
1	A	1031	C
1	A	1032	G
1	A	1033	G
1	A	1034	G
1	A	1036	A
1	A	1037	C
1	A	1050	G
1	A	1052	U
1	A	1053	G
1	A	1054	C
1	A	1055	A
1	A	1064	G
1	A	1065	U

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Mol	Chain	Res	Type
1	A	1066	C
1	A	1067	A
1	A	1078	U
1	A	1079	G
1	A	1085	U
1	A	1086	U
1	A	1087	G
1	A	1088	G
1	A	1091	U
1	A	1092	A
1	A	1094	G
1	A	1095	U
1	A	1100	C
1	A	1101	A
1	A	1102	A
1	A	1104	G
1	A	1111	A
1	A	1112	C
1	A	1113	C
1	A	1124	G
1	A	1125	U
1	A	1126	U
1	A	1127	G
1	A	1129	C
1	A	1130	A
1	A	1133	G
1	A	1135	U
1	A	1137	C
1	A	1138	G
1	A	1139	G
1	A	1140	C
1	A	1141	C
1	A	1144	G
1	A	1145	A
1	A	1151	A
1	A	1152	A
1	A	1158	C
1	A	1159	U
1	A	1160	G
1	A	1161	C
1	A	1162	C
1	A	1167	A

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Mol	Chain	Res	Type
1	A	1168	U
1	A	1169	A
1	A	1181	G
1	A	1182	G
1	A	1188	A
1	A	1189	U
1	A	1190	G
1	A	1191	A
1	A	1192	C
1	A	1196	A
1	A	1197	A
1	A	1198	G
1	A	1200	C
1	A	1201	A
1	A	1202	U
1	A	1211	U
1	A	1213	A
1	A	1223	C
1	A	1224	U
1	A	1225	A
1	A	1226	C
1	A	1227	A
1	A	1228	C
1	A	1229	A
1	A	1238	A
1	A	1239	A
1	A	1240	U
1	A	1241	G
1	A	1250	A
1	A	1252	A
1	A	1256	A
1	A	1257	A
1	A	1258	G
1	A	1275	A
1	A	1278	G
1	A	1279	G
1	A	1280	A
1	A	1281	C
1	A	1282	C
1	A	1283	U
1	A	1286	U
1	A	1287	A

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Mol	Chain	Res	Type
1	A	1293	C
1	A	1297	G
1	A	1298	U
1	A	1299	A
1	A	1303	C
1	A	1305	G
1	A	1308	U
1	A	1315	U
1	A	1316	G
1	A	1320	C
1	A	1322	C
1	A	1323	G
1	A	1332	A
1	A	1337	G
1	A	1338	G
1	A	1346	A
1	A	1348	U
1	A	1349	A
1	A	1353	G
1	A	1358	U
1	A	1359	C
1	A	1362	A
1	A	1363	A
1	A	1364	U
1	A	1365	G
1	A	1371	G
1	A	1380	U
1	A	1381	U
1	A	1394	A
1	A	1396	A
1	A	1397	C
1	A	1398	A
1	A	1399	C
1	A	1400	C
1	A	1432	G
1	A	1433	A
1	A	1440	U
1	A	1441	A
1	A	1446	A
1	A	1448	C
1	A	1451	U
1	A	1452	C

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Mol	Chain	Res	Type
1	A	1453	G
1	A	1454	G
1	A	1469	C
1	A	1470	U
1	A	1482	G
1	A	1492	A
1	A	1493	A
1	A	1494	G
1	A	1497	G
1	A	1498	U
1	A	1499	A
1	A	1502	A
1	A	1503	A
1	A	1505	G
1	A	1506	U
1	A	1507	A
1	A	1517	G
1	A	1529	G
1	A	1530	G
1	A	1531	A
1	A	1532	U
1	A	1533	C
1	A	1534	A

All (200) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	A	5	U
1	A	7	A
1	A	8	A
1	A	13	U
1	A	30	U
1	A	31	G
1	A	47	C
1	A	49	U
1	A	51	A
1	A	60	A
1	A	65	A
1	A	71	A
1	A	73	C
1	A	75	G
1	A	81	A

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Mol	Chain	Res	Type
1	A	84	U
1	A	86	G
1	A	87	C
1	A	90	C
1	A	92	U
1	A	94	G
1	A	95	C
1	A	109	A
1	A	115	G
1	A	119	A
1	A	120	A
1	A	129	A
1	A	130	A
1	A	131	A
1	A	134	G
1	A	140	U
1	A	167	A
1	A	168	G
1	A	173	U
1	A	178	C
1	A	181	A
1	A	183	C
1	A	197	A
1	A	198	G
1	A	203	G
1	A	204	G
1	A	210	C
1	A	243	A
1	A	246	A
1	A	251	G
1	A	256	U
1	A	266	G
1	A	267	C
1	A	274	A
1	A	275	G
1	A	279	A
1	A	280	C
1	A	305	G
1	A	315	A
1	A	320	A
1	A	327	A
1	A	344	A

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Mol	Chain	Res	Type
1	A	345	C
1	A	346	G
1	A	347	G
1	A	351	G
1	A	352	C
1	A	366	A
1	A	368	U
1	A	372	C
1	A	373	A
1	A	388	G
1	A	391	G
1	A	408	A
1	A	412	A
1	A	422	C
1	A	428	G
1	A	429	U
1	A	430	A
1	A	438	U
1	A	450	G
1	A	451	A
1	A	467	U
1	A	481	G
1	A	484	G
1	A	485	U
1	A	495	A
1	A	496	A
1	A	499	A
1	A	500	G
1	A	505	G
1	A	508	U
1	A	511	C
1	A	513	C
1	A	530	G
1	A	531	U
1	A	532	A
1	A	535	A
1	A	536	C
1	A	547	A
1	A	548	G
1	A	559	A
1	A	563	A
1	A	566	G

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Mol	Chain	Res	Type
1	A	575	G
1	A	576	C
1	A	637	C
1	A	641	U
1	A	652	U
1	A	681	A
1	A	686	U
1	A	717	U
1	A	720	C
1	A	721	G
1	A	723	U
1	A	744	C
1	A	754	C
1	A	772	U
1	A	792	A
1	A	793	U
1	A	817	C
1	A	820	U
1	A	823	C
1	A	843	U
1	A	845	A
1	A	870	U
1	A	884	U
1	A	889	A
1	A	913	A
1	A	914	A
1	A	922	G
1	A	934	C
1	A	941	G
1	A	960	U
1	A	966	G
1	A	974	A
1	A	982	U
1	A	991	U
1	A	1030	U
1	A	1036	A
1	A	1041	G
1	A	1046	A
1	A	1049	U
1	A	1053	G
1	A	1054	C
1	A	1064	G

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Mol	Chain	Res	Type
1	A	1066	C
1	A	1078	U
1	A	1087	G
1	A	1094	G
1	A	1101	A
1	A	1111	A
1	A	1129	C
1	A	1136	C
1	A	1140	C
1	A	1151	A
1	A	1160	G
1	A	1161	C
1	A	1167	A
1	A	1168	U
1	A	1185	G
1	A	1188	A
1	A	1189	U
1	A	1190	G
1	A	1191	A
1	A	1197	A
1	A	1201	A
1	A	1223	C
1	A	1224	U
1	A	1228	C
1	A	1239	A
1	A	1263	C
1	A	1280	A
1	A	1282	C
1	A	1283	U
1	A	1285	A
1	A	1298	U
1	A	1299	A
1	A	1303	C
1	A	1319	A
1	A	1331	G
1	A	1336	C
1	A	1337	G
1	A	1345	U
1	A	1348	U
1	A	1358	U
1	A	1362	A
1	A	1363	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1364	U
1	A	1380	U
1	A	1396	A
1	A	1399	C
1	A	1432	G
1	A	1440	U
1	A	1452	C
1	A	1477	U
1	A	1482	G
1	A	1493	A
1	A	1494	G
1	A	1498	U
1	A	1502	A
1	A	1506	U
1	A	1530	G
1	A	1532	U
1	A	1533	C

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

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	A	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A	70:U	O3’	71:A	P	1.39

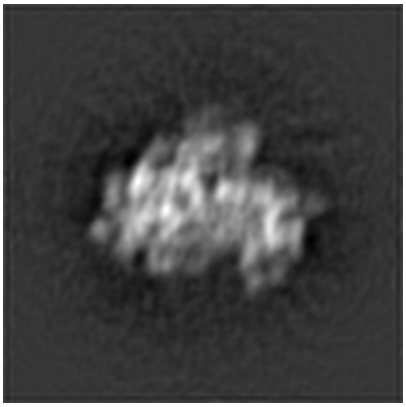
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-1884. These allow visual inspection of the internal detail of the map and identification of artifacts.

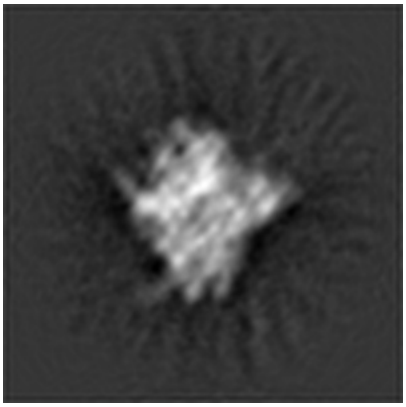
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

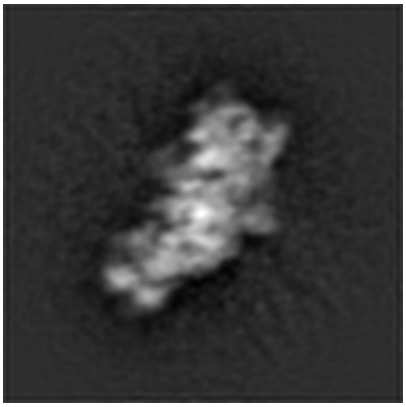
6.1.1 Primary map



X



Y

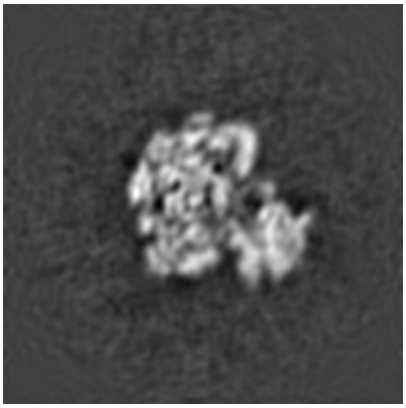


Z

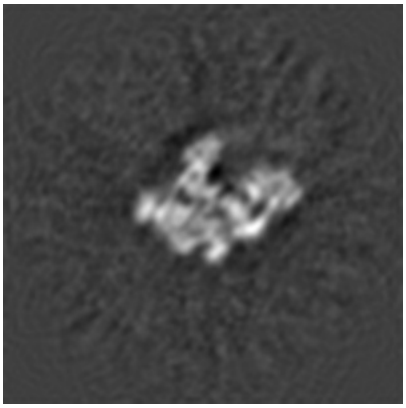
The images above show the map projected in three orthogonal directions.

6.2 Central slices

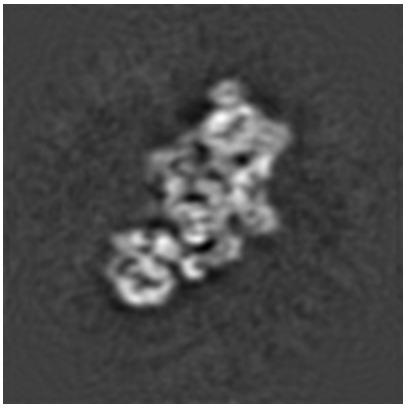
6.2.1 Primary map



X Index: 62



Y Index: 62

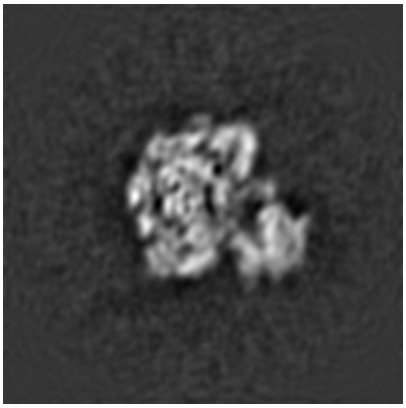


Z Index: 62

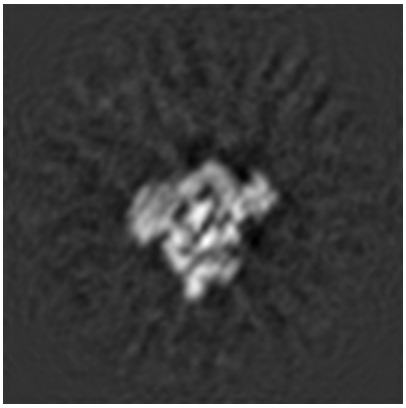
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

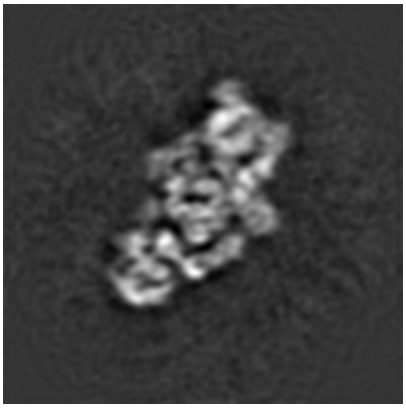
6.3.1 Primary map



X Index: 61



Y Index: 51

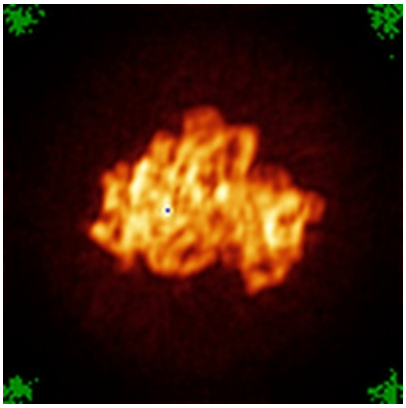


Z Index: 63

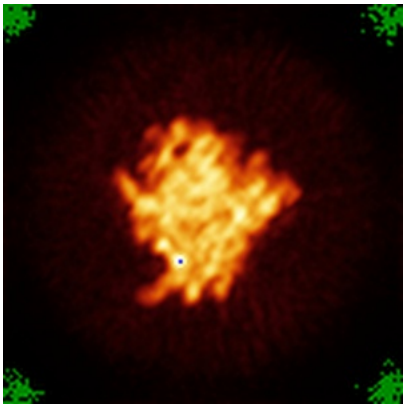
The images above show the largest variance slices of the map in three orthogonal directions.

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

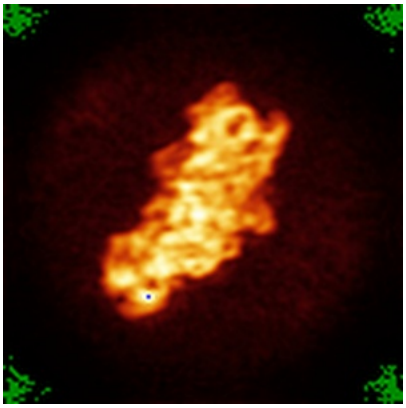
6.4.1 Primary map



X



Y

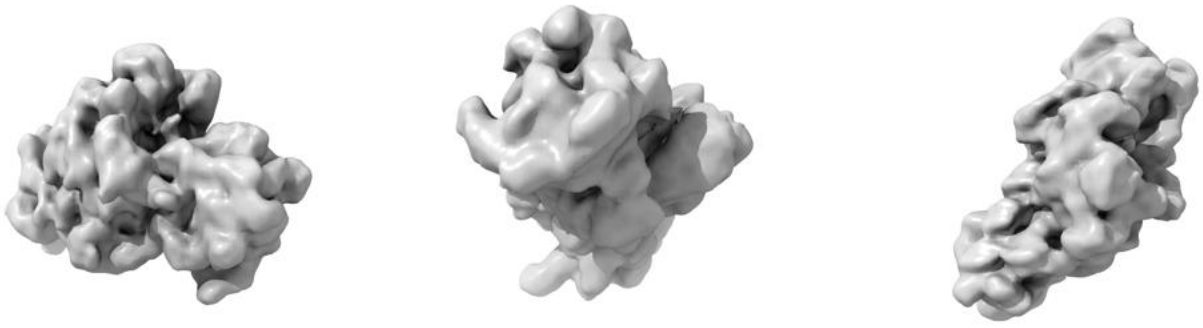


Z

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

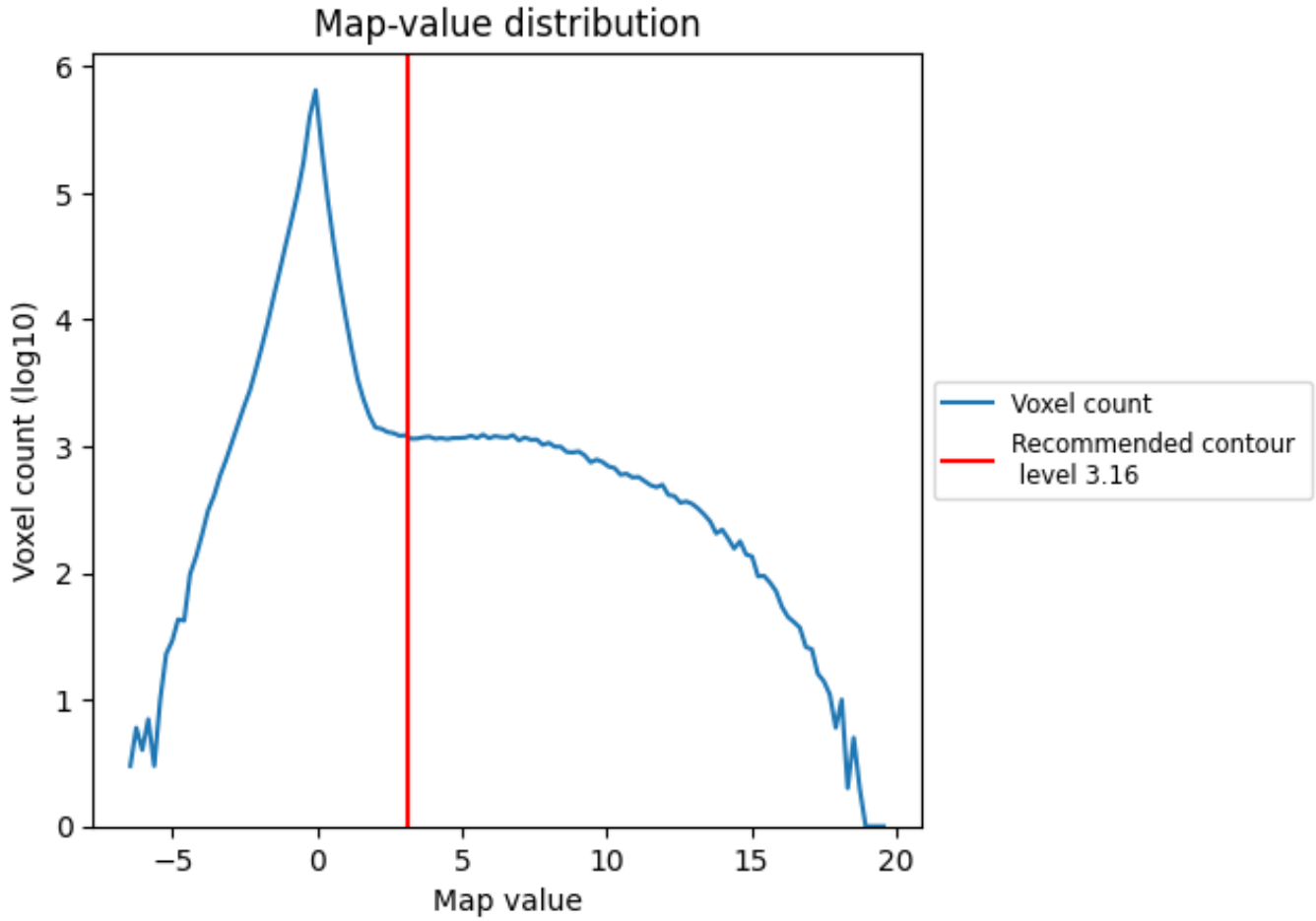
6.6 Mask visualisation (i)

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

7 Map analysis

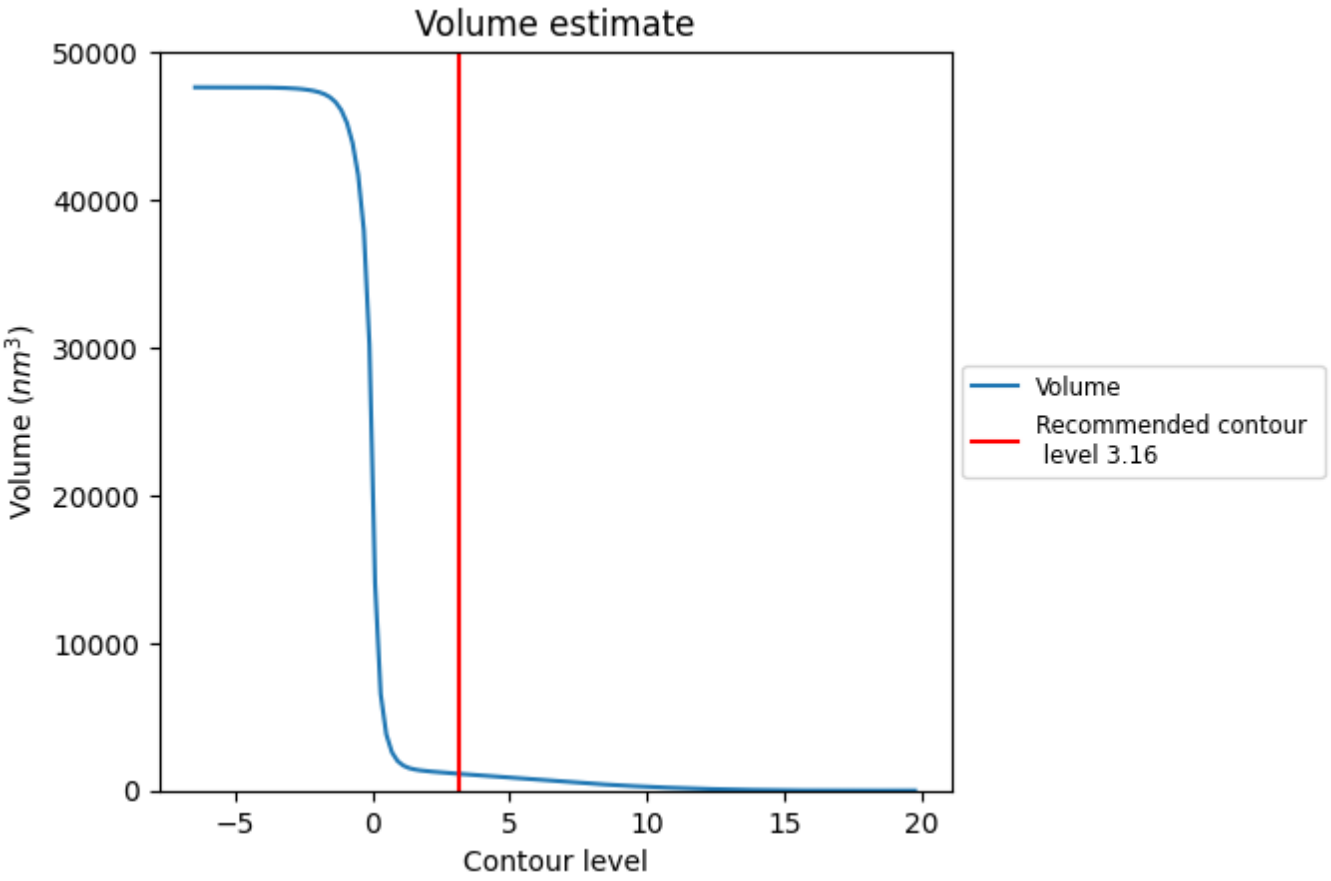
This section contains the results of statistical analysis of the map.

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.

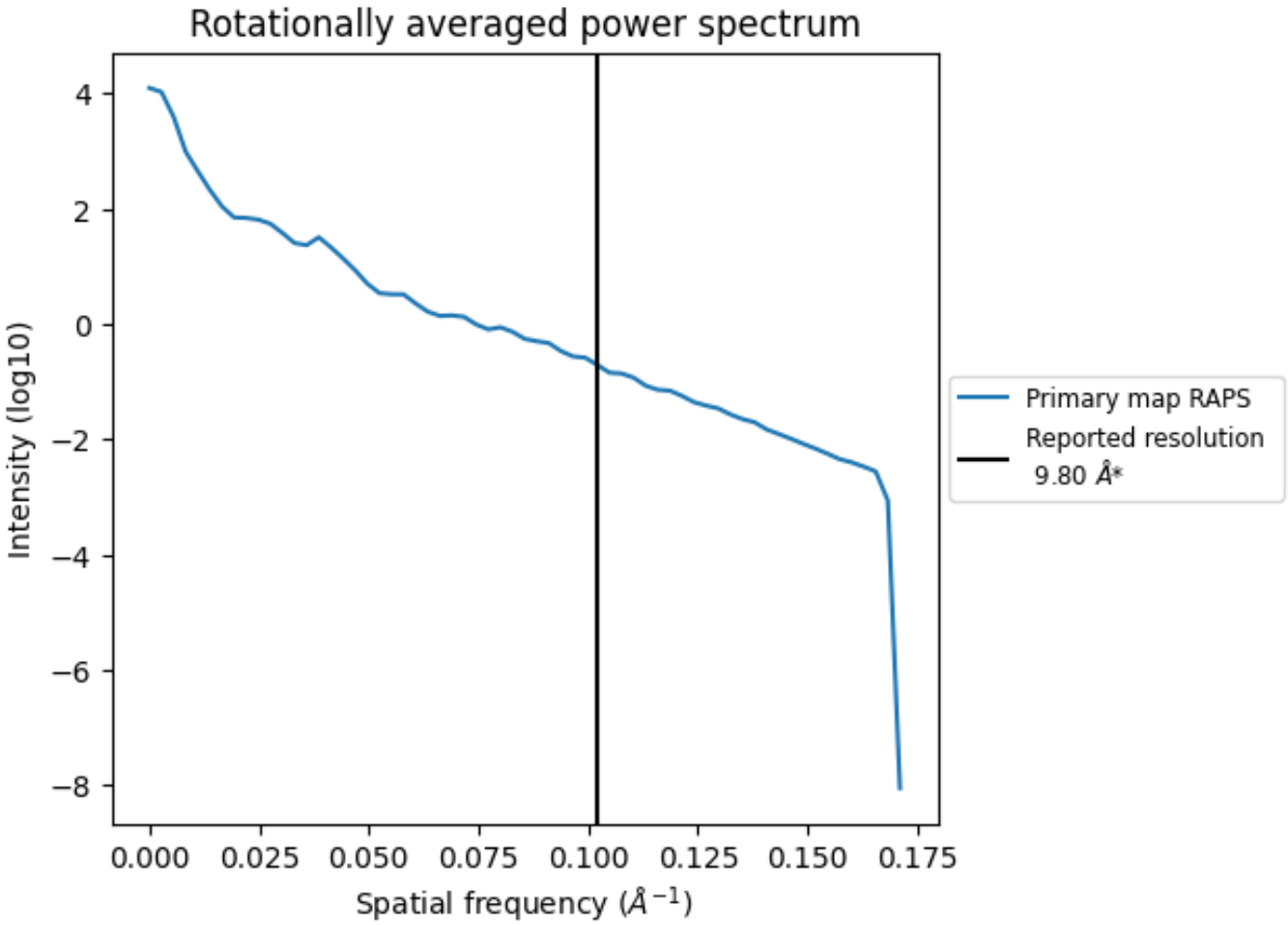
7.2 Volume estimate



The volume at the recommended contour level is 1134 nm^3; this corresponds to an approximate mass of 1025 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 0.102 Å^{-1}

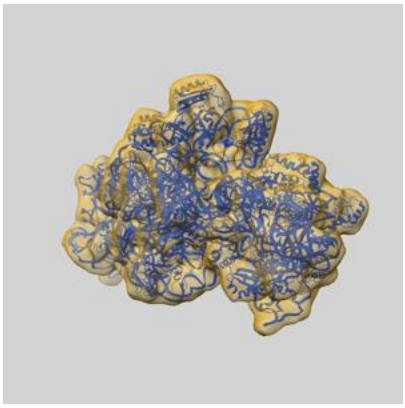
8 Fourier-Shell correlation

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

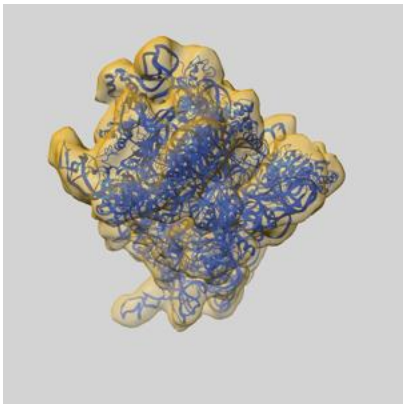
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-1884 and PDB model 2YKR. Per-residue inclusion information can be found in section 3 on page 8.

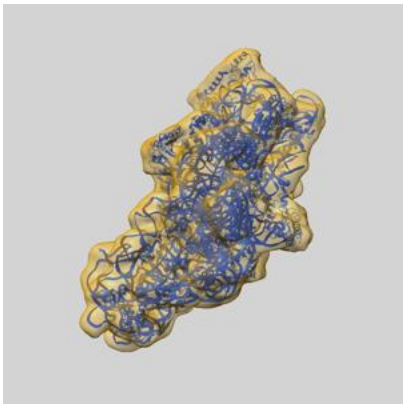
9.1 Map-model overlay



X



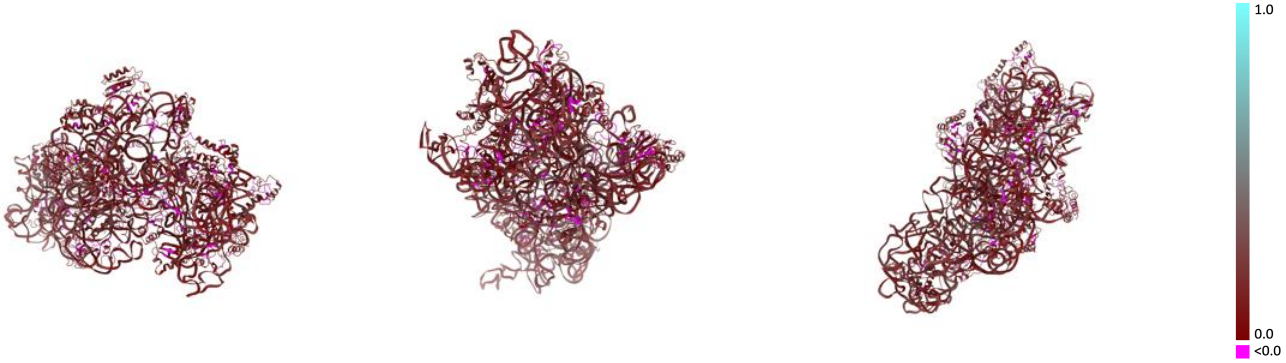
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 3.16 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

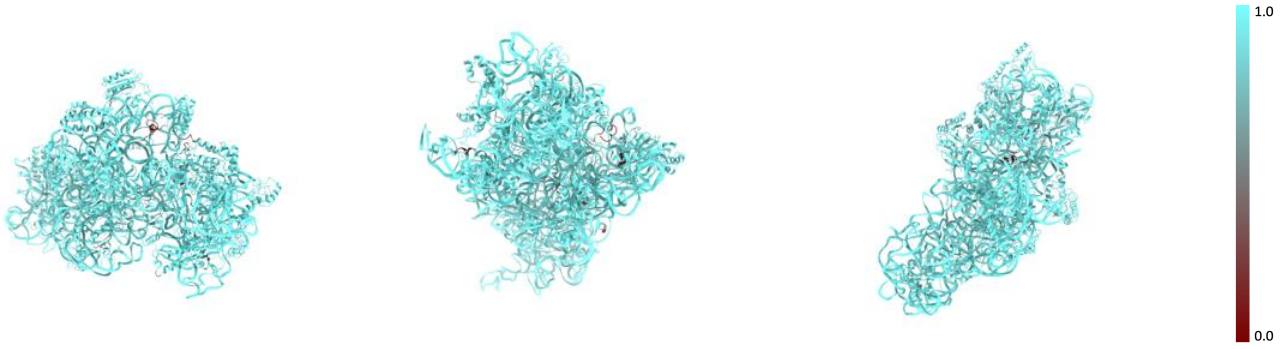
9.2 Q-score mapped to coordinate model (i)



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.

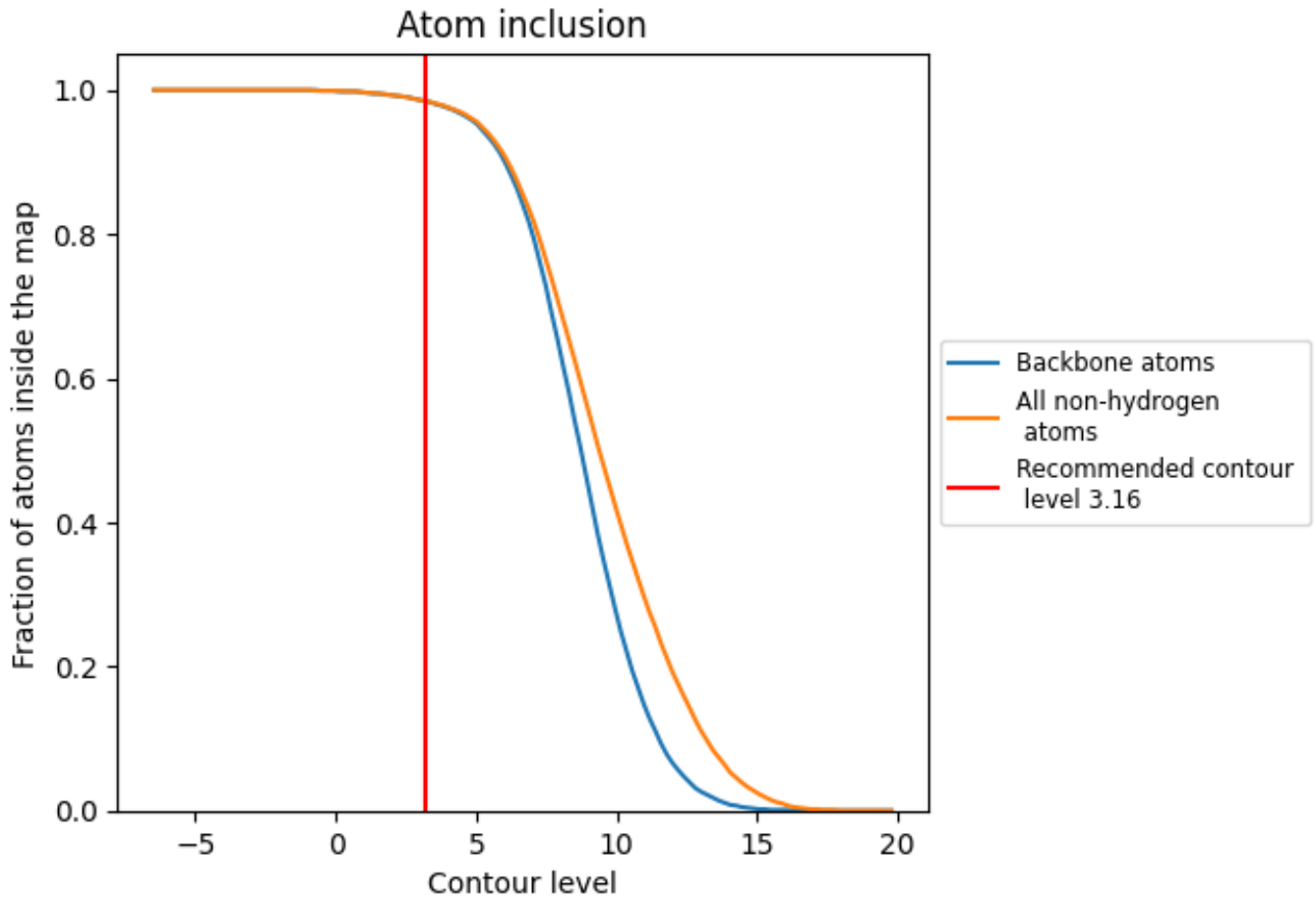
9.3 Atom inclusion mapped to coordinate model (i)



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 (3.16).

9.4 Atom inclusion (i)



At the recommended contour level, 98% of all backbone atoms, 98% 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 (3.16) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.9850	0.1530
A	0.9990	0.1730
B	0.9700	0.1270
C	0.9850	0.1370
D	0.9760	0.1140
E	0.9800	0.1420
F	0.9650	0.1330
G	0.8990	0.1010
H	0.9830	0.1310
I	0.9910	0.1110
J	0.9650	0.0940
K	0.9800	0.1120
L	0.9870	0.1060
M	0.9950	0.1390
N	0.9560	0.0920
O	0.9940	0.1460
P	0.9950	0.1050
Q	0.9730	0.1290
R	1.0000	0.1060
S	0.9970	0.1010
T	0.9990	0.1300
U	0.5600	0.0310
W	0.9350	0.1390