Full wwPDB EM Validation Report ⓘ

Feb 22, 2024 – 09:22 AM EST

PDB ID	:	4V6L
EMDB ID	:	EMD-1850
Title	:	Structural insights into cognate vs. near-cognate discrimination during decoding.
Authors	:	Agirrezabala, X.; Schreiner, E.; Trabuco, L.G.; Lei, J.; Ortiz-Meoz, R.F.; Schulten, K.; Green, R.; Frank, J.
Deposited on	:	2011-01-07
Resolution	:	13.20 Å(reported)
Based on initial models	:	2I2U, 3FIH

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:

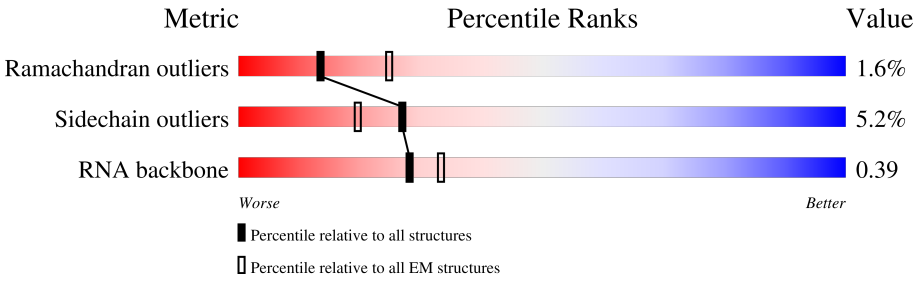
EMDB validation analysis	:	0.0.1.dev70
Mogul	:	1.8.5 (274361), CSD as541be (2020)
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

1 Overall quality at a glance

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

The reported resolution of this entry is 13.20 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)
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	AA	1542	23% 49% 25% ·
2	AB	76	5% 21% 47% 30% ·
2	AE	76	· 16% 57% 24% ·
3	AC	393	13% 95% 5%
4	AD	24	12% 12% 50% 29% 8%
5	AF	241	8% 94% 5%
6	AG	233	9% 94% 5%
7	AH	206	7% 94% 5%

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Mol	Chain	Length	Quality of chain
8	AI	167	9% 93% 6%
9	AJ	135	6% 89% 10%
10	AK	179	92% 7%
11	AL	130	93% 6%
12	AM	130	91% 8%
13	AN	103	5% 90% 9%
14	AO	129	12% 95% 5%
15	AP	124	6% 90% 9%
16	AQ	118	97%
17	AR	101	85% 14%
18	AS	89	92% 7%
19	AT	82	95% 5%
20	AU	84	96%
21	AV	75	91% 8%
22	AW	92	95%
23	AX	87	94% 5%
24	AY	71	10% 87% 11%
25	BA	120	21% 50% 25%
26	BB	2904	21% 49% 26%
27	BC	234	14% 95% 5%
28	BD	273	93% 7%
29	BE	209	91% 8%
30	BF	201	93% 6%
31	BG	179	92% 7%
32	BH	177	91% 8%

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Mol	Chain	Length	Quality of chain
33	BI	149	30% 93% 7%
34	BJ	142	95%
35	BK	142	96%
36	BL	123	93% 7%
37	BM	144	94% 6%
38	BN	136	93% 7%
39	BO	127	94% 6%
40	BP	117	95% 5%
41	BQ	115	5% 91% 8%
42	BR	118	96%
43	BS	103	91% 8%
44	BT	110	95% 5%
45	BU	100	94% 6%
46	BV	104	95%
47	BW	94	94% 6%
48	BX	85	8% 86% 13%
49	BY	78	91% 6%
50	BZ	63	94% 6%
51	Ba	59	95%
52	Bb	70	9% 96%
53	Bc	57	5% 91% 7%
54	Bd	55	98%
55	Be	46	98%
56	Bf	65	95%
57	Bg	38	87% 13%

2 Entry composition

There are 57 unique types of molecules in this entry. The entry contains 153634 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 ribosomal RNA.

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

- Molecule 2 is a RNA chain called A/T-site tRNA Phe.

Mol	Chain	Residues	Atoms						AltConf	Trace
			Total	C	N	O	P	S		
2	AB	76	1635	735	291	532	75	2	0	0
			Total	C	N	O	P	S		
2	AE	76	1635	735	291	532	75	2	0	0

- Molecule 3 is a protein called Elongation factor Tu 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	AC	393	3036	1918	523	582	13	0	0

- Molecule 4 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
4	AD	24	495	222	68	181	24	0	0

- Molecule 5 is a protein called 30S ribosomal protein S2.

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

- Molecule 6 is a protein called 30S ribosomal protein S3.

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

- Molecule 7 is a protein called 30S ribosomal protein S4.

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

- Molecule 8 is a protein called 30S ribosomal protein S5.

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

- Molecule 9 is a protein called 30S ribosomal protein S6.

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

- Molecule 10 is a protein called 30S ribosomal protein S7.

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

- Molecule 11 is a protein called 30S ribosomal protein S8.

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

- Molecule 12 is a protein called 30S ribosomal protein S9.

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

- Molecule 13 is a protein called 30S ribosomal protein S10.

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

- Molecule 14 is a protein called 30S ribosomal protein S11.

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

- Molecule 15 is a protein called 30S ribosomal protein S12.

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

- Molecule 16 is a protein called 30S ribosomal protein S13.

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

- Molecule 17 is a protein called 30S ribosomal protein S14.

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

- Molecule 18 is a protein called 30S ribosomal protein S15.

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

- Molecule 19 is a protein called 30S ribosomal protein S16.

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

- Molecule 20 is a protein called 30S ribosomal protein S17.

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

- Molecule 21 is a protein called 30S ribosomal protein S18.

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

- Molecule 22 is a protein called 30S ribosomal protein S19.

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

- Molecule 23 is a protein called 30S ribosomal protein S20.

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

- Molecule 24 is a protein called 30S ribosomal protein S21.

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

- Molecule 25 is a RNA chain called 50S ribosomal RNA 5S.

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

- Molecule 26 is a RNA chain called 50S ribosomal RNA 23S.

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

- Molecule 27 is a protein called 50S ribosomal protein L1.

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

- Molecule 28 is a protein called 50S ribosomal protein L2.

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

- Molecule 29 is a protein called 50S ribosomal protein L3.

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

- Molecule 30 is a protein called 50S ribosomal protein L4.

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

- Molecule 31 is a protein called 50S ribosomal protein L5.

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

- Molecule 32 is a protein called 50S ribosomal protein L6.

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

- Molecule 33 is a protein called 50S ribosomal protein L9.

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

- Molecule 34 is a protein called 50S ribosomal protein L11.

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

- Molecule 35 is a protein called 50S ribosomal protein L13.

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

- Molecule 36 is a protein called 50S ribosomal protein L14.

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

- Molecule 37 is a protein called 50S ribosomal protein L15.

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

- Molecule 38 is a protein called 50S ribosomal protein L16.

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

- Molecule 39 is a protein called 50S ribosomal protein L17.

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

- Molecule 40 is a protein called 50S ribosomal protein L18.

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

- Molecule 41 is a protein called 50S ribosomal protein L19.

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

- Molecule 42 is a protein called 50S ribosomal protein L20.

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

- Molecule 43 is a protein called 50S ribosomal protein L21.

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

- Molecule 44 is a protein called 50S ribosomal protein L22.

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

- Molecule 45 is a protein called 50S ribosomal protein L23.

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

- Molecule 46 is a protein called 50S ribosomal protein L24.

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

- Molecule 47 is a protein called 50S ribosomal protein L25.

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

- Molecule 48 is a protein called 50S ribosomal protein L27.

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

- Molecule 49 is a protein called 50S ribosomal protein L28.

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

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

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

- Molecule 51 is a protein called 50S ribosomal protein L30.

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

- Molecule 52 is a protein called 50S ribosomal protein L31.

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

- Molecule 53 is a protein called 50S ribosomal protein L32.

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

- Molecule 54 is a protein called 50S ribosomal protein L33.

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

- Molecule 55 is a protein called 50S ribosomal protein L34.

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

- Molecule 56 is a protein called 50S ribosomal protein L35.

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

- Molecule 57 is a protein called 50S ribosomal protein L36.

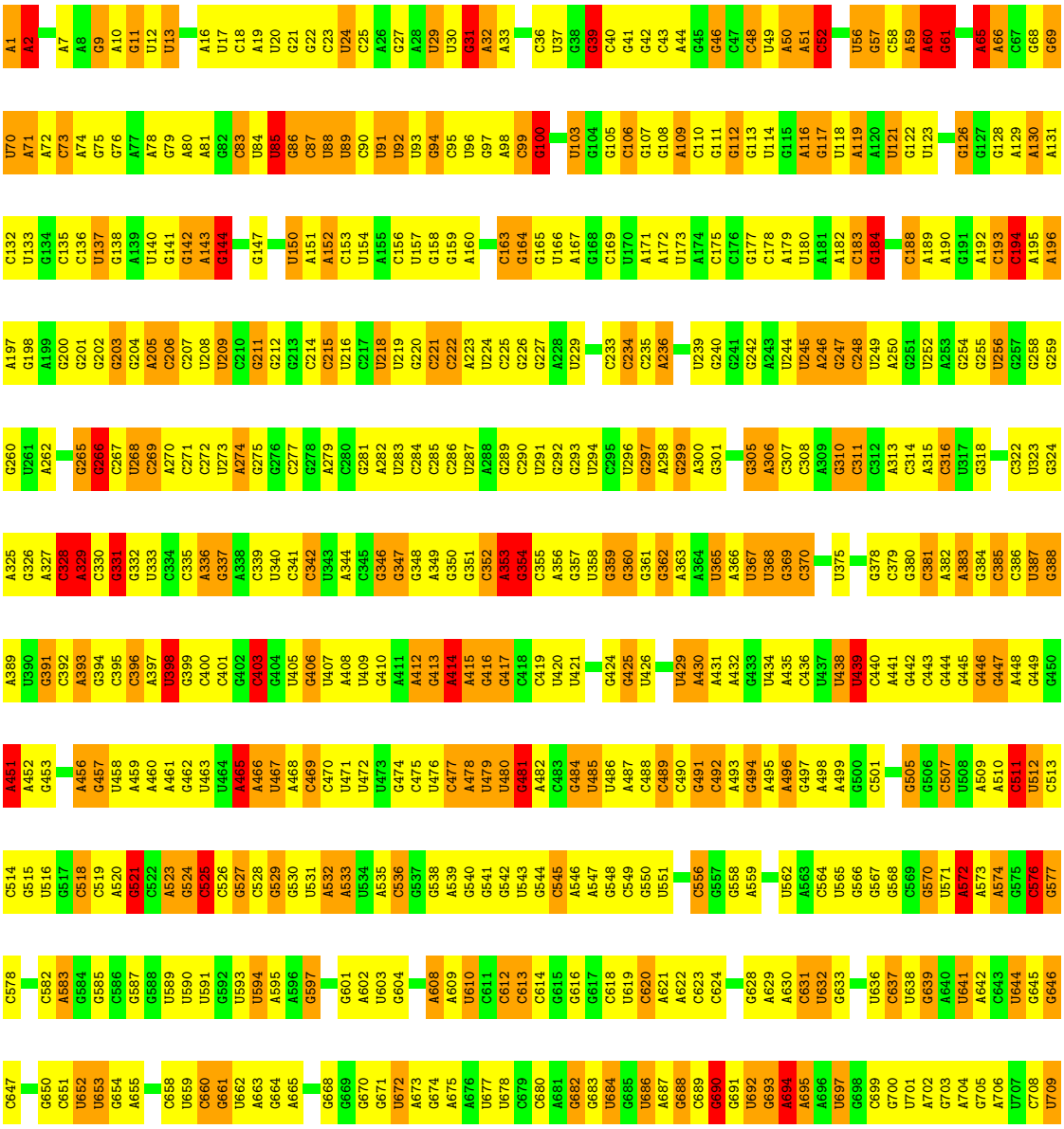
Mol	Chain	Residues	Atoms					AltConf	Trace
57	Bg	38	Total	C	N	O	S	0	0
			302	185	65	48	4		

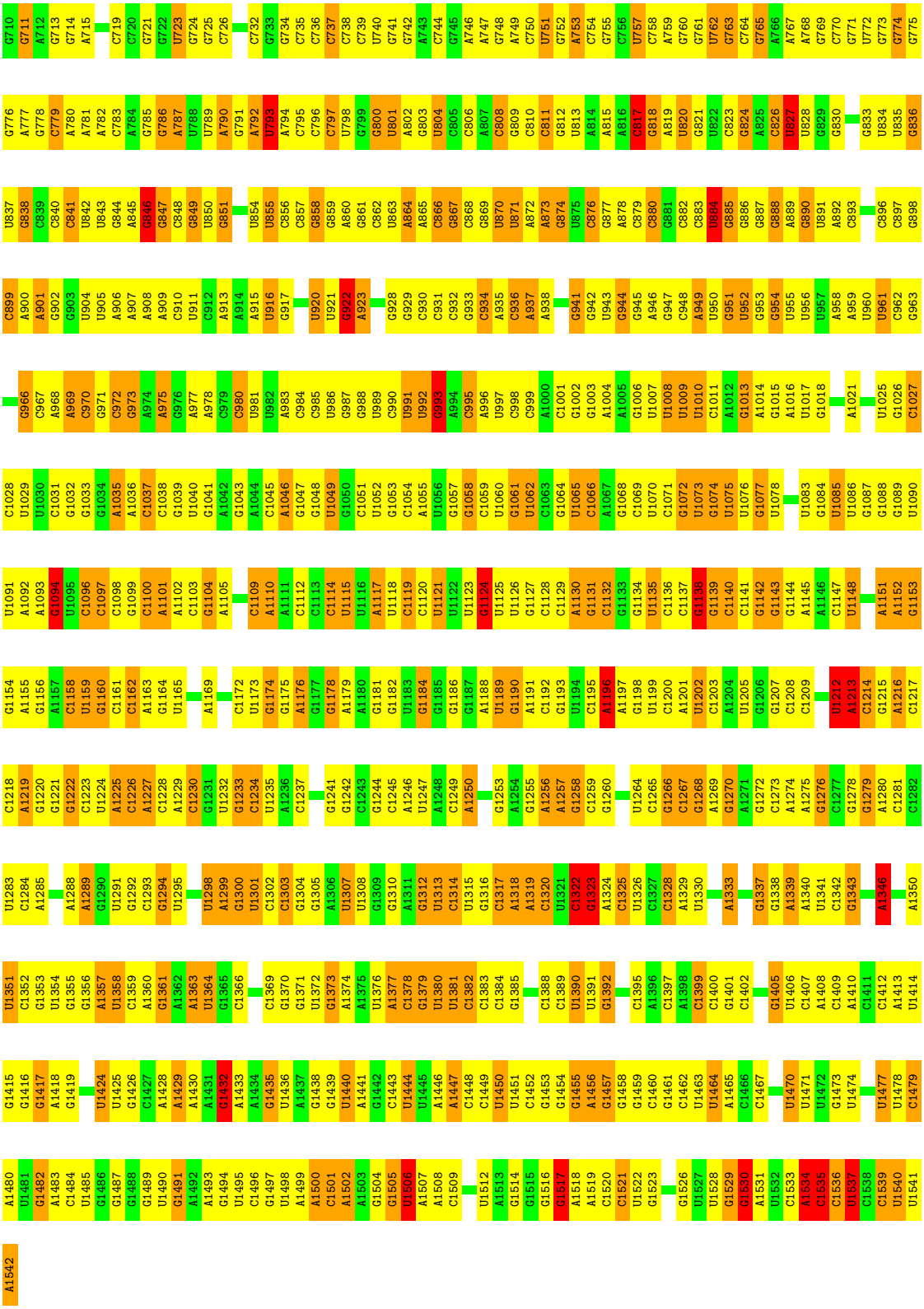
3 Residue-property plots (i)

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 ribosomal RNA

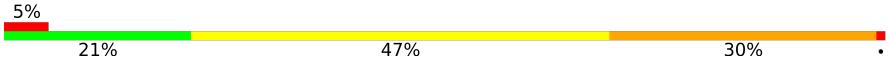
Chain AA: 23% 49% 25%

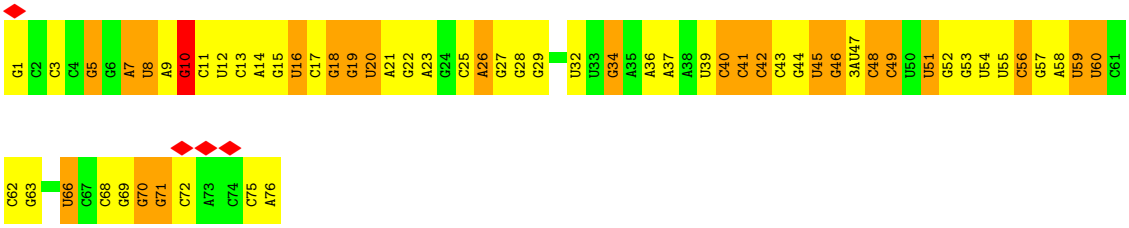




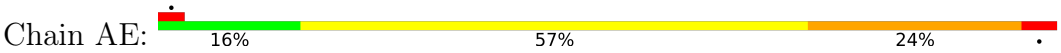
• Molecule 2: A/T-site tRNA Phe

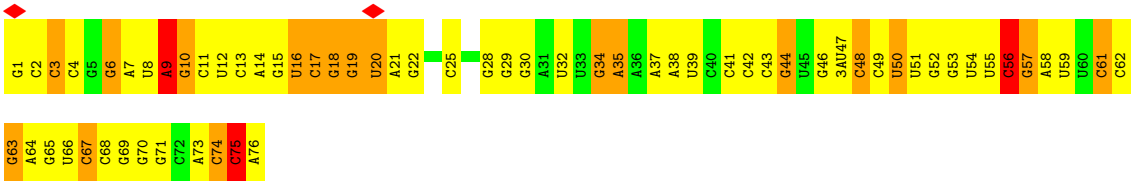
Chain AB:



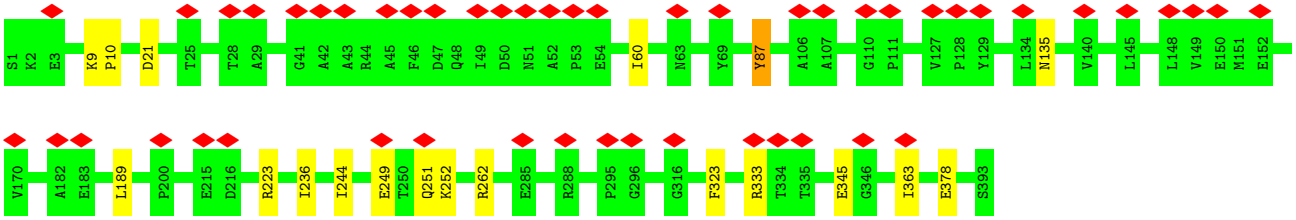


• Molecule 2: A/T-site tRNA Phe

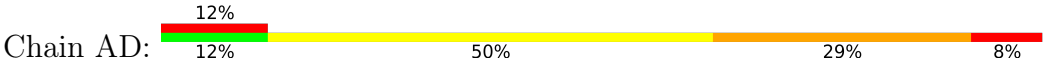


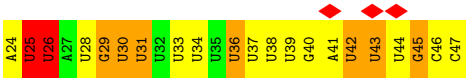


• Molecule 3: Elongation factor Tu 2

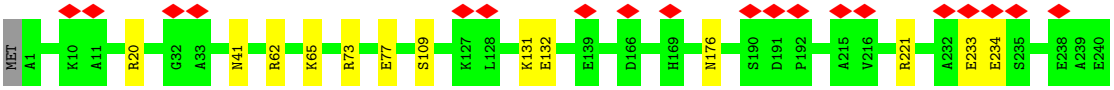


• Molecule 4: mRNA

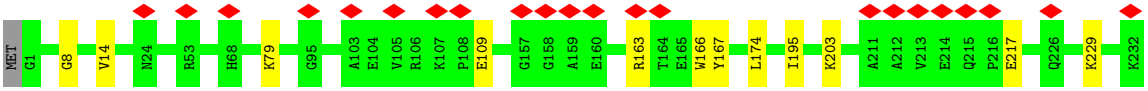




• Molecule 5: 30S ribosomal protein S2

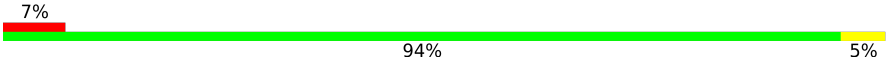


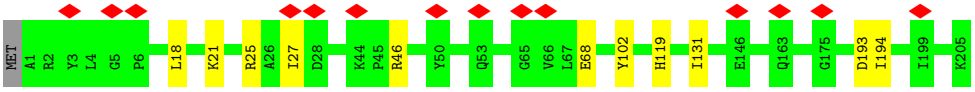
• Molecule 6: 30S ribosomal protein S3



• Molecule 7: 30S ribosomal protein S4

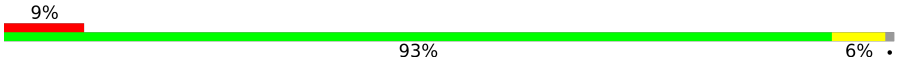
Chain AH:

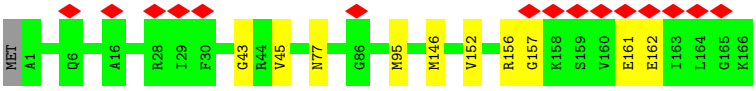




• Molecule 8: 30S ribosomal protein S5

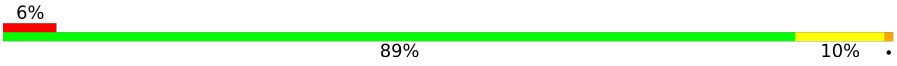
Chain AI:

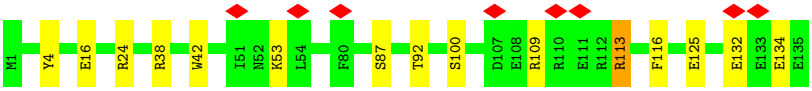




• Molecule 9: 30S ribosomal protein S6

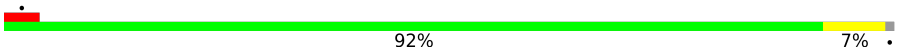
Chain AJ:

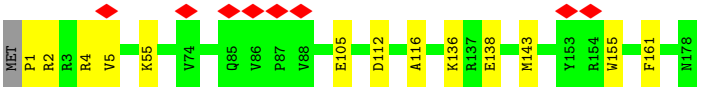




• Molecule 10: 30S ribosomal protein S7

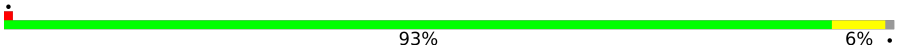
Chain AK:





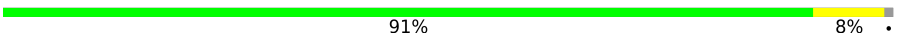
• Molecule 11: 30S ribosomal protein S8

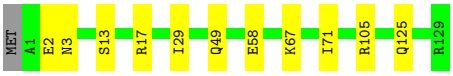
Chain AL:



• Molecule 12: 30S ribosomal protein S9

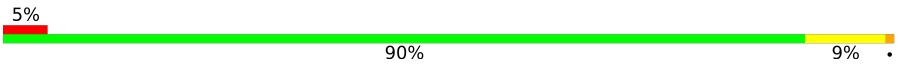
Chain AM:

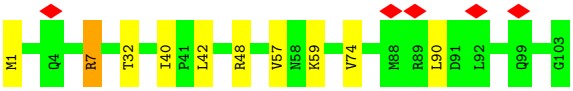




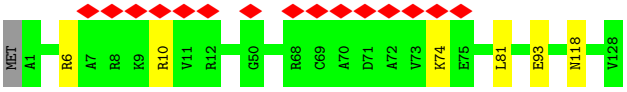
• Molecule 13: 30S ribosomal protein S10

Chain AN:

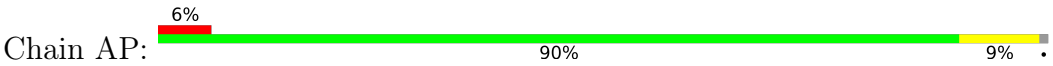


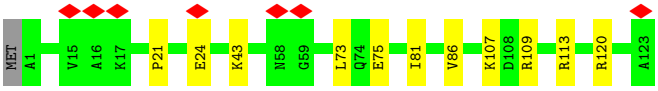


• Molecule 14: 30S ribosomal protein S11

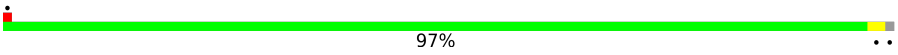


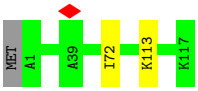
• Molecule 15: 30S ribosomal protein S12



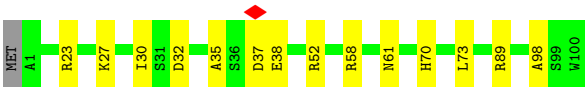


• Molecule 16: 30S ribosomal protein S13

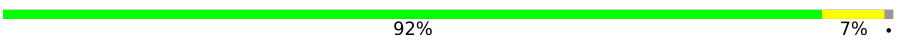


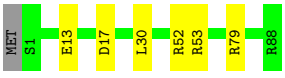


• Molecule 17: 30S ribosomal protein S14

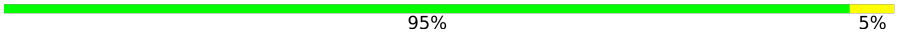


• Molecule 18: 30S ribosomal protein S15



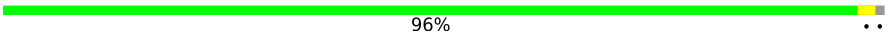


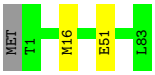
• Molecule 19: 30S ribosomal protein S16



• Molecule 20: 30S ribosomal protein S17

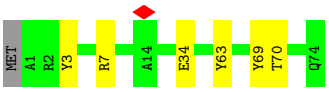
Chain AU:





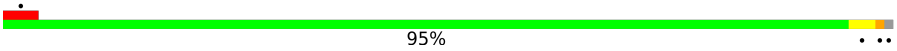
• Molecule 21: 30S ribosomal protein S18

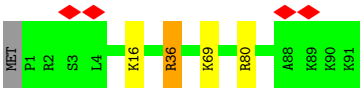
Chain AV:



• Molecule 22: 30S ribosomal protein S19

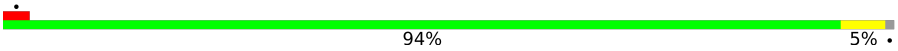
Chain AW:





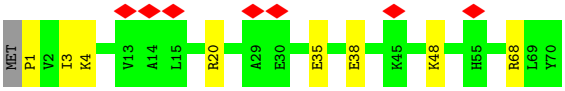
• Molecule 23: 30S ribosomal protein S20

Chain AX:



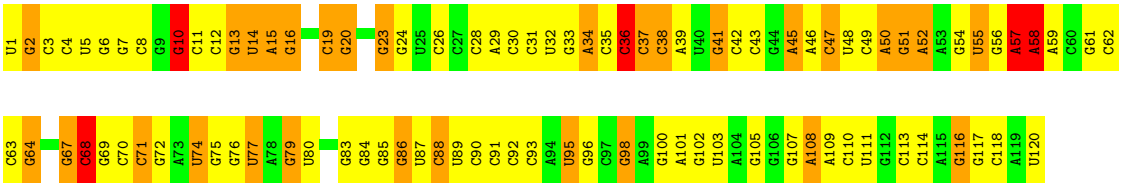
• Molecule 24: 30S ribosomal protein S21

Chain AY:



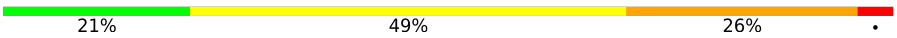
• Molecule 25: 50S ribosomal RNA 5S

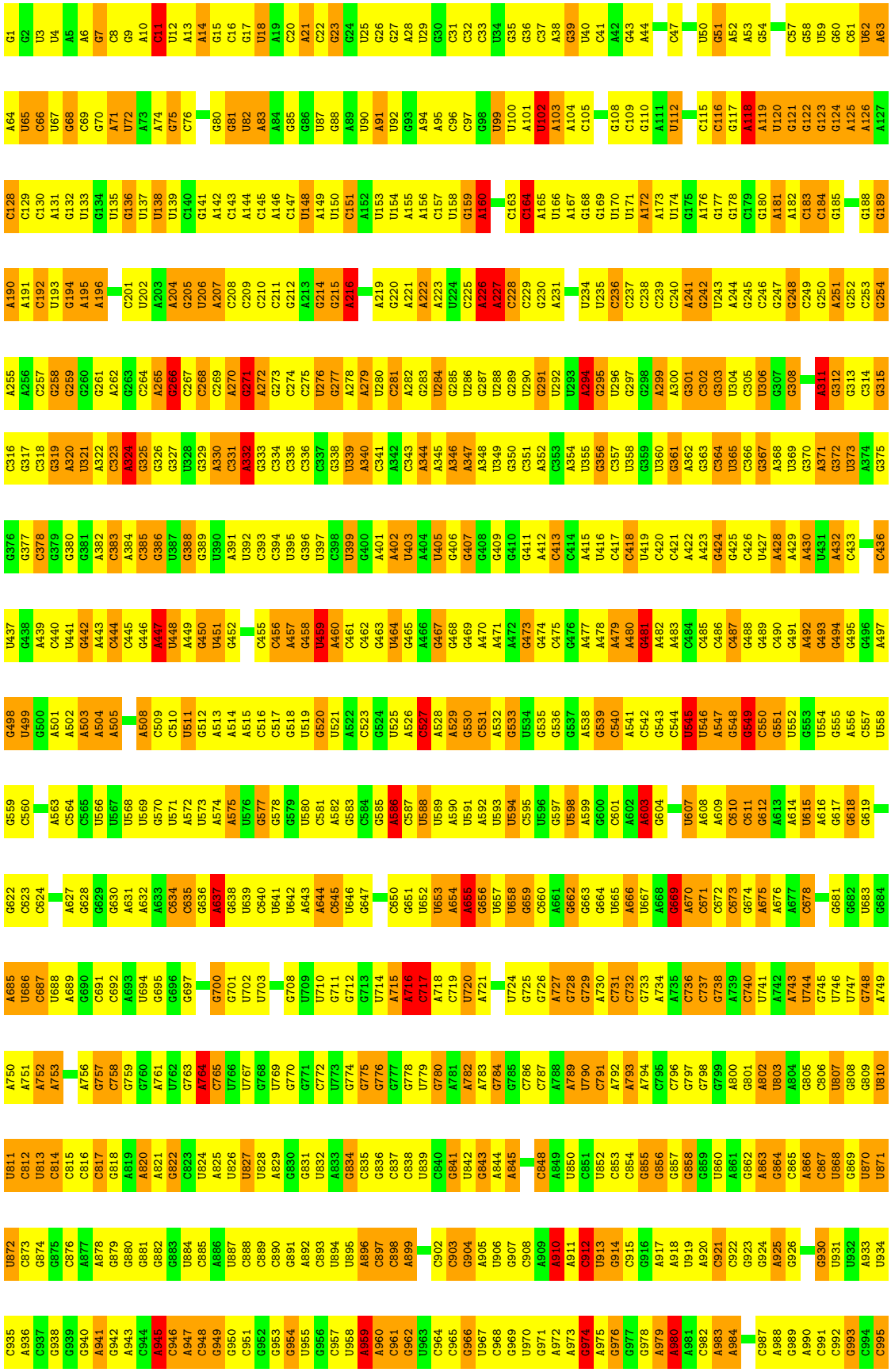
Chain BA:

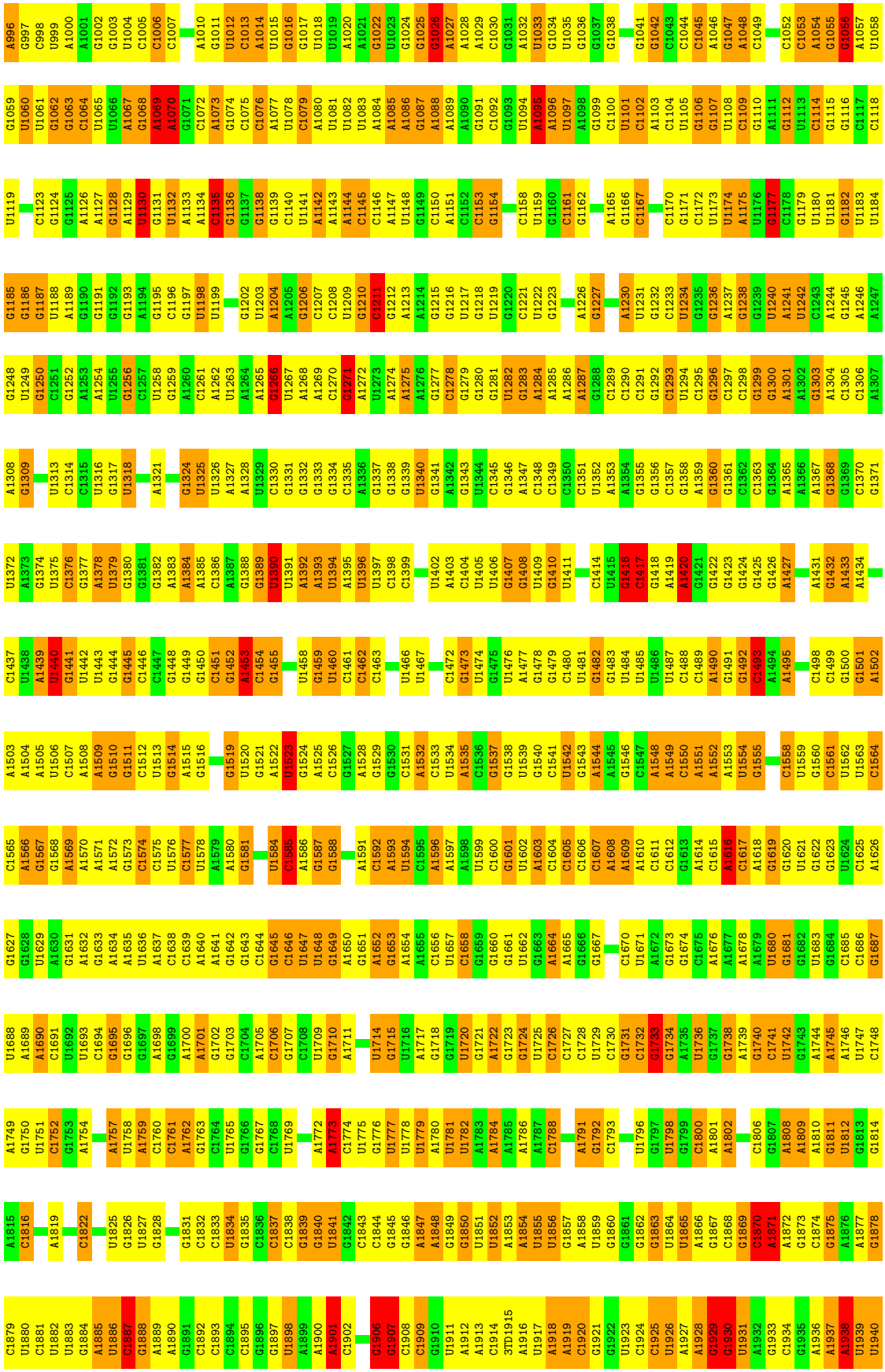


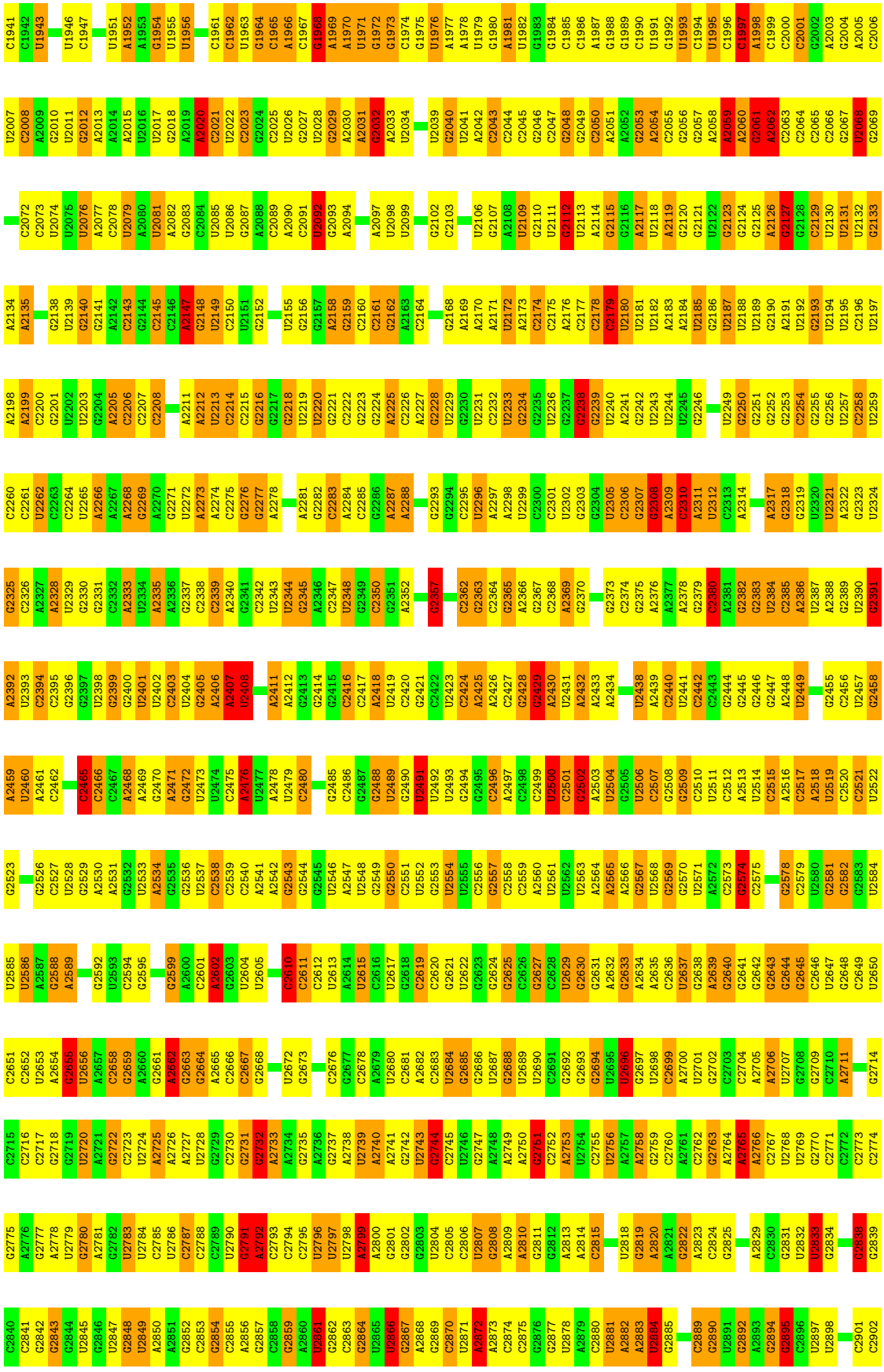
• Molecule 26: 50S ribosomal RNA 23S

Chain BB:



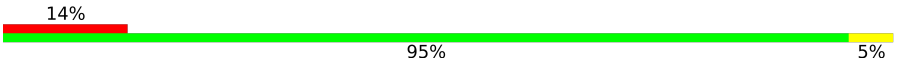


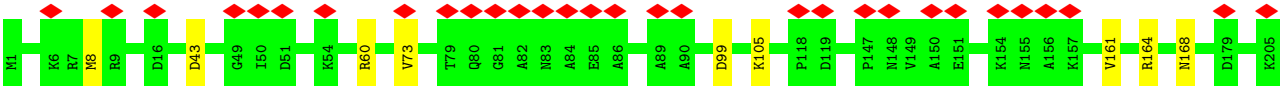


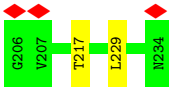


• Molecule 27: 50S ribosomal protein L1

Chain BC:

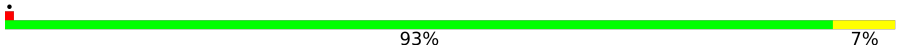






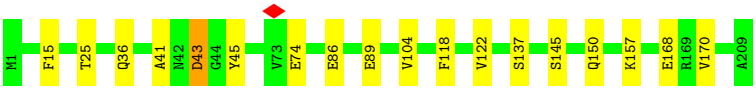
• Molecule 28: 50S ribosomal protein L2

Chain BD:



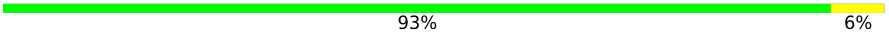
• Molecule 29: 50S ribosomal protein L3

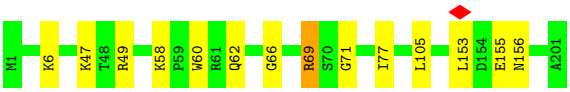
Chain BE:



• Molecule 30: 50S ribosomal protein L4

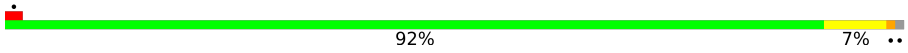
Chain BF:





• Molecule 31: 50S ribosomal protein L5

Chain BG:

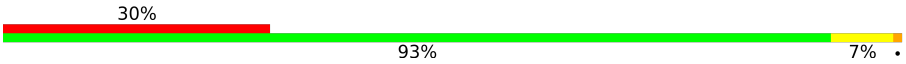


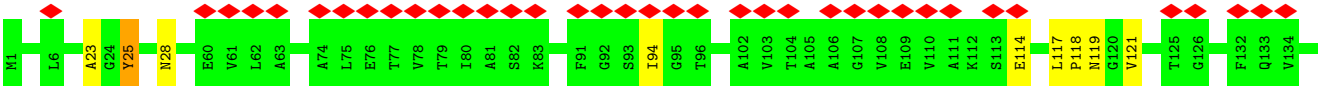
• Molecule 32: 50S ribosomal protein L6

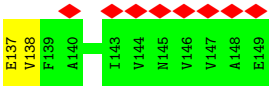
Chain BH:

• Molecule 33: 50S ribosomal protein L9

Chain BI:

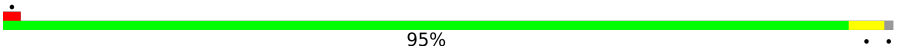


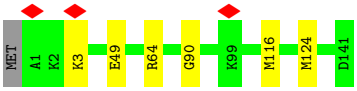




• Molecule 34: 50S ribosomal protein L11

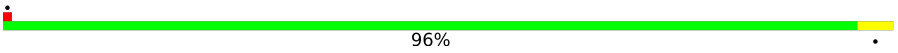
Chain BJ:





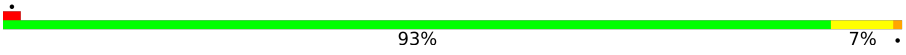
• Molecule 35: 50S ribosomal protein L13

Chain BK:



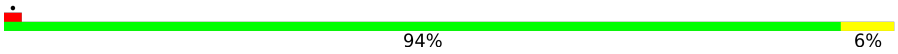
• Molecule 36: 50S ribosomal protein L14

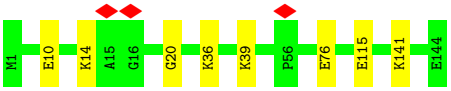
Chain BL:



• Molecule 37: 50S ribosomal protein L15

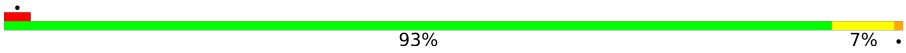
Chain BM:

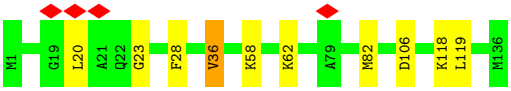




• Molecule 38: 50S ribosomal protein L16

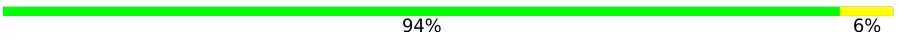
Chain BN:

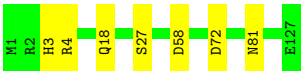




• Molecule 39: 50S ribosomal protein L17

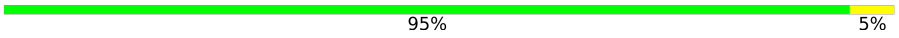
Chain BO:





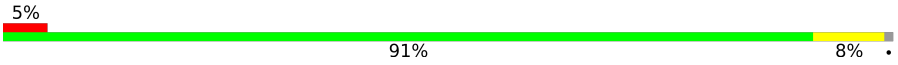
• Molecule 40: 50S ribosomal protein L18

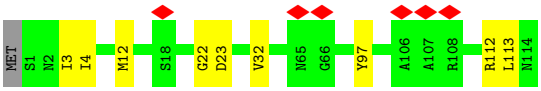
Chain BP:



• Molecule 41: 50S ribosomal protein L19

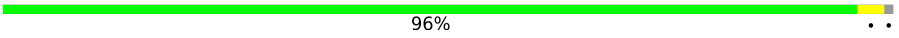
Chain BQ:

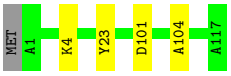




• Molecule 42: 50S ribosomal protein L20

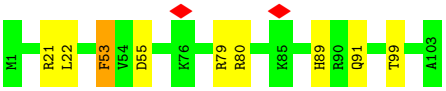
Chain BR:





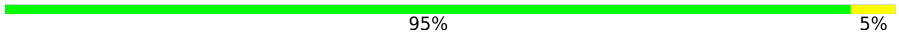
• Molecule 43: 50S ribosomal protein L21

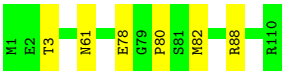
Chain BS:



• Molecule 44: 50S ribosomal protein L22

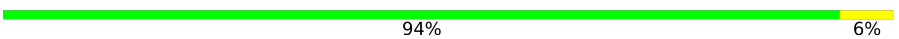
Chain BT:

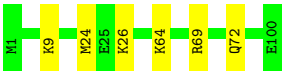




• Molecule 45: 50S ribosomal protein L23

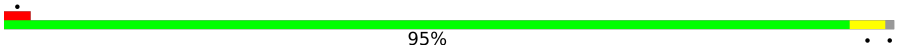
Chain BU:

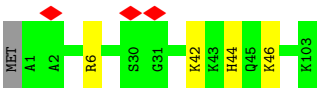




• Molecule 46: 50S ribosomal protein L24

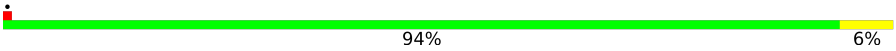
Chain BV:





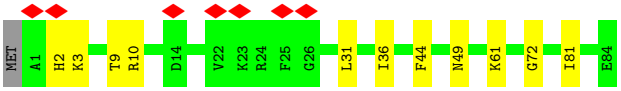
• Molecule 47: 50S ribosomal protein L25

Chain BW:



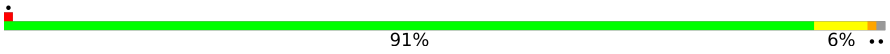
• Molecule 48: 50S ribosomal protein L27

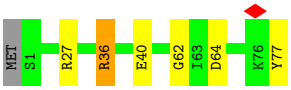
Chain BX:



• Molecule 49: 50S ribosomal protein L28

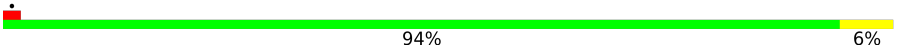
Chain BY:

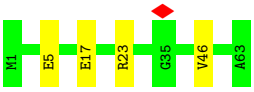




• Molecule 50: 50S ribosomal protein L29

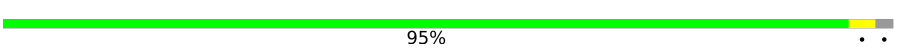
Chain BZ:

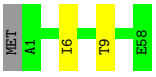




• Molecule 51: 50S ribosomal protein L30

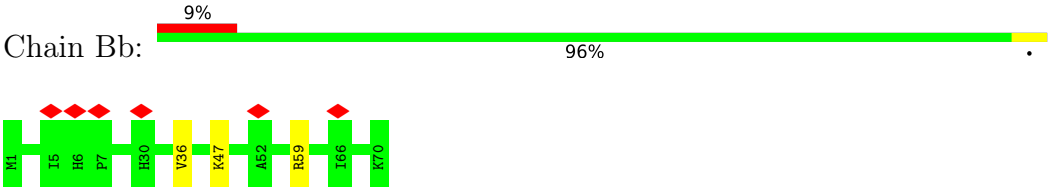
Chain Ba:





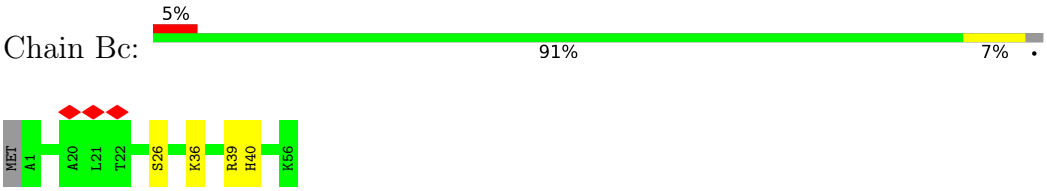
• Molecule 52: 50S ribosomal protein L31

Chain Bb:



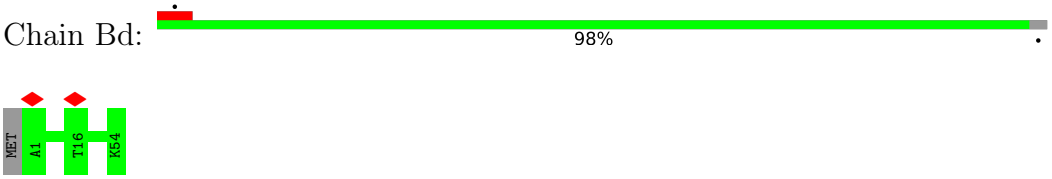
• Molecule 53: 50S ribosomal protein L32

Chain Bc:



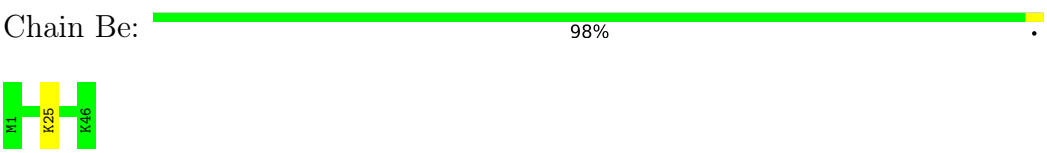
• Molecule 54: 50S ribosomal protein L33

Chain Bd:



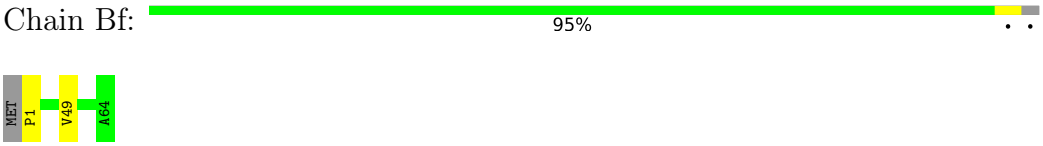
• Molecule 55: 50S ribosomal protein L34

Chain Be:



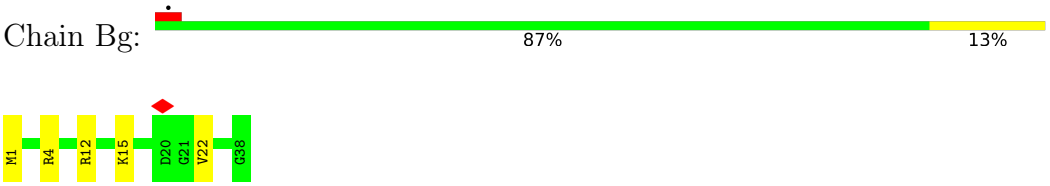
• Molecule 56: 50S ribosomal protein L35

Chain Bf:



• Molecule 57: 50S ribosomal protein L36

Chain Bg:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	26873	Depositor
Resolution determination method	Not provided	
CTF correction method	Not provided	
Microscope	FEI TECNAI F30	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	20	Depositor
Minimum defocus (nm)	1200	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	59000	Depositor
Image detector	TVIPS TEMCAM-F415 (4k x 4k)	Depositor
Maximum map value	267.364	Depositor
Minimum map value	-80.270	Depositor
Average map value	5.966	Depositor
Map value standard deviation	25.669	Depositor
Recommended contour level	32.5	Depositor
Map size (Å)	375, 375, 375	wwPDB
Map dimensions	250, 250, 250	wwPDB
Map angles (°)	90, 90, 90	wwPDB
Pixel spacing (Å)	1.5, 1.5, 1.5	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	AA	1.22	1/36769 (0.0%)	2.00	1273/57354 (2.2%)
2	AB	1.25	0/1580	2.01	56/2459 (2.3%)
2	AE	1.26	0/1580	2.04	66/2459 (2.7%)
3	AC	0.61	0/3092	0.97	1/4183 (0.0%)
4	AD	1.37	0/548	1.98	20/848 (2.4%)
5	AF	0.60	0/1904	1.00	1/2565 (0.0%)
6	AG	0.61	0/1852	1.04	0/2490
7	AH	0.64	0/1665	0.99	0/2227
8	AI	0.59	0/1239	1.07	1/1664 (0.1%)
9	AJ	0.62	0/1121	1.05	2/1509 (0.1%)
10	AK	0.63	0/1422	1.07	1/1908 (0.1%)
11	AL	0.59	0/989	1.01	0/1326
12	AM	0.65	0/1048	1.05	1/1394 (0.1%)
13	AN	0.57	0/835	1.08	1/1127 (0.1%)
14	AO	0.61	0/982	1.04	0/1323
15	AP	0.62	0/969	1.12	0/1300
16	AQ	0.58	0/919	1.02	0/1226
17	AR	0.63	0/817	1.15	2/1088 (0.2%)
18	AS	0.59	0/724	0.96	1/966 (0.1%)
19	AT	0.63	0/659	1.08	1/884 (0.1%)
20	AU	0.58	0/681	0.97	0/913
21	AV	0.73	0/637	1.08	0/851
22	AW	0.60	0/744	1.00	1/995 (0.1%)
23	AX	0.58	0/676	0.98	0/895
24	AY	0.69	0/598	1.18	1/792 (0.1%)
25	BA	1.24	0/2869	2.16	127/4474 (2.8%)
26	BB	1.22	0/69257	2.02	2547/108040 (2.4%)
27	BC	0.55	0/1748	0.98	0/2355
28	BD	0.62	0/2131	1.09	0/2863
29	BE	0.59	0/1586	1.04	0/2134
30	BF	0.58	0/1571	1.01	1/2113 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
31	BG	0.66	0/1444	1.10	0/1937
32	BH	0.59	0/1343	1.05	2/1816 (0.1%)
33	BI	0.58	0/1122	1.01	1/1515 (0.1%)
34	BJ	0.57	0/1046	0.93	0/1410
35	BK	0.64	0/1152	1.00	0/1551
36	BL	0.58	0/956	1.03	0/1279
37	BM	0.62	0/1062	1.07	0/1413
38	BN	0.63	0/1093	1.04	0/1460
39	BO	0.62	0/1021	1.06	0/1364
40	BP	0.60	0/910	1.01	0/1219
41	BQ	0.63	0/929	1.05	0/1242
42	BR	0.67	0/960	1.03	1/1278 (0.1%)
43	BS	0.63	0/829	1.06	0/1107
44	BT	0.54	0/864	0.98	0/1156
45	BU	0.57	0/794	1.02	0/1060
46	BV	0.58	0/797	1.02	0/1062
47	BW	0.61	0/766	0.98	0/1025
48	BX	0.64	0/642	1.10	0/848
49	BY	0.64	0/635	1.10	1/848 (0.1%)
50	BZ	0.56	0/510	1.05	0/677
51	Ba	0.55	0/453	0.97	0/605
52	Bb	0.62	0/559	1.10	0/745
53	Bc	0.62	0/450	1.12	0/599
54	Bd	0.60	0/448	0.96	0/594
55	Be	0.64	0/380	1.04	0/498
56	Bf	0.60	0/513	1.02	0/676
57	Bg	0.55	0/303	1.09	0/397
All	All	1.07	1/165193 (0.0%)	1.79	4109/246106 (1.7%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	AA	0	502
2	AB	0	19
2	AE	0	15
3	AC	0	1
4	AD	0	9
6	AG	0	1
7	AH	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
8	AI	0	3
9	AJ	0	1
11	AL	0	1
13	AN	0	1
14	AO	0	1
15	AP	0	1
17	AR	0	2
21	AV	0	1
24	AY	0	1
25	BA	0	37
26	BB	0	952
27	BC	0	3
28	BD	0	2
29	BE	0	2
30	BF	0	2
32	BH	0	2
33	BI	0	1
41	BQ	0	1
42	BR	0	1
43	BS	0	1
48	BX	0	1
49	BY	0	1
53	Bc	0	1
All	All	0	1567

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	439	U	C2-N3	5.10	1.41	1.37

All (4109) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2092	U	O4'-C1'-N1	16.66	121.53	108.20
25	BA	49	C	O4'-C1'-N1	15.19	120.35	108.20
1	AA	465	A	O4'-C1'-N9	14.84	120.07	108.20
26	BB	736	C	O4'-C1'-N1	12.90	118.52	108.20
26	BB	1535	A	O4'-C1'-N9	12.89	118.51	108.20
26	BB	2799	A	O4'-C1'-N9	12.66	118.33	108.20
26	BB	1967	C	O4'-C1'-N1	12.66	118.33	108.20
26	BB	1195	G	O4'-C1'-N9	12.14	117.91	108.20
26	BB	354	A	O4'-C1'-N9	12.11	117.89	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1763	G	O4'-C1'-N9	12.04	117.83	108.20
1	AA	396	C	O4'-C1'-N1	12.02	117.81	108.20
26	BB	1325	U	O4'-C1'-N1	11.99	117.80	108.20
26	BB	1185	G	O4'-C1'-N9	11.97	117.78	108.20
1	AA	1227	A	O4'-C1'-N9	11.90	117.72	108.20
1	AA	1152	A	O4'-C1'-N9	11.85	117.68	108.20
1	AA	1322	C	O4'-C1'-N1	11.75	117.60	108.20
26	BB	2795	C	O4'-C1'-N1	11.71	117.57	108.20
1	AA	658	C	O4'-C1'-N1	11.70	117.56	108.20
26	BB	1730	C	O4'-C1'-N1	11.70	117.56	108.20
4	AD	30	U	O4'-C1'-N1	11.66	117.53	108.20
26	BB	2559	C	O4'-C1'-N1	11.62	117.50	108.20
26	BB	2832	U	O4'-C1'-N1	11.60	117.48	108.20
1	AA	485	U	O4'-C1'-N1	11.54	117.44	108.20
26	BB	2212	A	O4'-C1'-N9	11.54	117.43	108.20
26	BB	302	C	O4'-C1'-N1	11.51	117.41	108.20
26	BB	1493	C	O4'-C1'-N1	11.51	117.41	108.20
26	BB	169	G	O4'-C1'-N9	11.48	117.39	108.20
2	AE	17	C	O4'-C1'-N1	11.44	117.35	108.20
26	BB	2742	G	O4'-C1'-N9	11.44	117.35	108.20
26	BB	2684	U	O4'-C1'-N1	11.44	117.35	108.20
26	BB	316	C	O4'-C1'-N1	11.35	117.28	108.20
26	BB	908	C	O4'-C1'-N1	11.33	117.27	108.20
25	BA	30	C	O4'-C1'-N1	11.31	117.25	108.20
1	AA	1444	U	O4'-C1'-N1	11.25	117.20	108.20
26	BB	70	G	O4'-C1'-N9	11.25	117.20	108.20
1	AA	880	C	O4'-C1'-N1	11.24	117.19	108.20
26	BB	1275	A	O4'-C1'-N9	11.22	117.18	108.20
26	BB	546	U	O4'-C1'-N1	11.19	117.16	108.20
26	BB	1209	U	O4'-C1'-N1	11.17	117.14	108.20
26	BB	306	U	O4'-C1'-N1	11.16	117.12	108.20
26	BB	550	C	O4'-C1'-N1	11.15	117.12	108.20
26	BB	116	C	O4'-C1'-N1	11.14	117.11	108.20
26	BB	1294	U	O4'-C1'-N1	11.02	117.02	108.20
1	AA	1094	G	O4'-C1'-N9	11.02	117.01	108.20
26	BB	323	C	O4'-C1'-N1	11.00	117.00	108.20
1	AA	332	G	O4'-C1'-N9	10.91	116.93	108.20
26	BB	268	C	O4'-C1'-N1	10.90	116.92	108.20
26	BB	1901	A	O4'-C1'-N9	10.86	116.89	108.20
26	BB	1409	U	O4'-C1'-N1	10.85	116.88	108.20
26	BB	995	C	O4'-C1'-N1	10.82	116.86	108.20
1	AA	770	C	O4'-C1'-N1	10.79	116.84	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2667	C	O4'-C1'-N1	10.79	116.83	108.20
2	AB	25	C	O4'-C1'-N1	10.74	116.79	108.20
25	BA	93	C	O4'-C1'-N1	10.64	116.71	108.20
26	BB	1703	G	O4'-C1'-N9	10.63	116.70	108.20
26	BB	614	A	O4'-C1'-N9	10.62	116.69	108.20
26	BB	2903	U	O4'-C1'-N1	10.54	116.63	108.20
26	BB	2311	A	C5'-C4'-C3'	-10.49	99.21	116.00
1	AA	1212	U	O4'-C1'-N1	10.49	116.59	108.20
26	BB	382	A	O4'-C1'-N9	10.48	116.58	108.20
26	BB	1868	C	O4'-C1'-N1	10.47	116.57	108.20
26	BB	366	C	O4'-C1'-N1	10.45	116.56	108.20
1	AA	1078	U	O4'-C1'-N1	10.43	116.55	108.20
26	BB	2396	G	O4'-C1'-N9	10.40	116.52	108.20
26	BB	645	C	O4'-C1'-N1	10.38	116.51	108.20
1	AA	192	A	O4'-C1'-N9	10.37	116.50	108.20
1	AA	488	C	O4'-C1'-N1	10.36	116.49	108.20
26	BB	100	U	O4'-C1'-N1	10.36	116.49	108.20
26	BB	1081	U	O4'-C1'-N1	10.31	116.45	108.20
1	AA	90	C	O4'-C1'-N1	10.30	116.44	108.20
26	BB	2098	U	O4'-C1'-N1	10.28	116.42	108.20
26	BB	1512	C	O4'-C1'-N1	10.27	116.42	108.20
26	BB	834	G	C8-N9-C4	-10.24	102.30	106.40
26	BB	1539	U	O4'-C1'-N1	10.22	116.37	108.20
26	BB	1870	C	O4'-C1'-N1	10.21	116.37	108.20
26	BB	2864	G	C5'-C4'-C3'	-10.19	99.69	116.00
26	BB	1701	A	O4'-C1'-N9	10.19	116.35	108.20
1	AA	1061	G	O4'-C1'-N9	10.18	116.34	108.20
1	AA	1223	C	C5'-C4'-C3'	-10.11	99.82	116.00
26	BB	870	U	O4'-C1'-N1	10.10	116.28	108.20
26	BB	1025	G	O4'-C1'-N9	10.10	116.28	108.20
26	BB	2732	G	O4'-C1'-N9	10.10	116.28	108.20
26	BB	365	U	O4'-C1'-N1	10.08	116.26	108.20
26	BB	1941	C	O4'-C1'-N1	10.06	116.25	108.20
26	BB	351	C	O4'-C1'-N1	10.03	116.22	108.20
1	AA	472	U	O4'-C1'-N1	10.02	116.22	108.20
1	AA	941	G	O4'-C1'-N9	10.02	116.22	108.20
26	BB	2637	U	O4'-C1'-N1	10.02	116.22	108.20
1	AA	1534	A	O4'-C1'-N9	10.01	116.21	108.20
1	AA	1533	C	O4'-C1'-N1	9.99	116.19	108.20
1	AA	1141	C	O4'-C1'-N1	9.96	116.17	108.20
26	BB	1542	U	O4'-C1'-N1	9.96	116.17	108.20
26	BB	2076	U	C1'-O4'-C4'	-9.94	101.95	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1463	C	O4'-C1'-N1	9.92	116.13	108.20
26	BB	1549	A	O4'-C1'-N9	9.91	116.13	108.20
26	BB	1420	A	O4'-C1'-N9	9.91	116.13	108.20
1	AA	1464	U	O4'-C1'-N1	9.89	116.11	108.20
26	BB	236	C	O4'-C1'-N1	9.88	116.10	108.20
1	AA	143	A	O4'-C1'-N9	9.88	116.10	108.20
26	BB	1173	U	O4'-C1'-N1	9.86	116.09	108.20
1	AA	225	C	O4'-C1'-N1	9.83	116.06	108.20
26	BB	2076	U	O4'-C1'-N1	9.82	116.06	108.20
1	AA	1098	C	O4'-C1'-N1	9.82	116.05	108.20
26	BB	1417	C	O4'-C1'-N1	9.78	116.02	108.20
26	BB	2773	C	O4'-C1'-N1	9.77	116.02	108.20
26	BB	1658	C	O4'-C1'-N1	9.72	115.97	108.20
1	AA	1522	U	O4'-C1'-N1	9.71	115.97	108.20
26	BB	168	G	O4'-C1'-N9	9.71	115.97	108.20
1	AA	834	U	O4'-C1'-N1	9.71	115.97	108.20
26	BB	105	C	O4'-C1'-N1	9.69	115.95	108.20
1	AA	970	C	O4'-C1'-N1	9.69	115.95	108.20
1	AA	1136	C	O4'-C1'-N1	9.69	115.95	108.20
1	AA	274	A	O4'-C1'-N9	9.68	115.94	108.20
1	AA	158	G	O4'-C1'-N9	9.65	115.92	108.20
1	AA	358	U	O4'-C1'-N1	9.63	115.90	108.20
26	BB	321	U	O4'-C1'-N1	9.62	115.90	108.20
26	BB	1714	U	O4'-C1'-N1	9.61	115.89	108.20
1	AA	1382	C	O4'-C1'-N1	9.61	115.89	108.20
1	AA	1533	C	C1'-O4'-C4'	-9.61	102.21	109.90
26	BB	206	U	O4'-C1'-N1	9.58	115.86	108.20
1	AA	1351	U	O4'-C1'-N1	9.57	115.86	108.20
26	BB	1639	C	O4'-C1'-N1	9.57	115.86	108.20
26	BB	2652	C	O4'-C1'-N1	9.57	115.85	108.20
26	BB	405	U	O4'-C1'-N1	9.55	115.84	108.20
26	BB	1211	C	O4'-C1'-N1	9.55	115.84	108.20
26	BB	2750	A	O4'-C1'-N9	9.52	115.82	108.20
1	AA	1066	C	O4'-C1'-N1	9.51	115.81	108.20
1	AA	562	U	O4'-C1'-N1	9.49	115.79	108.20
25	BA	118	C	O4'-C1'-N1	9.48	115.79	108.20
26	BB	744	U	O4'-C1'-N1	9.47	115.78	108.20
26	BB	2662	A	O4'-C1'-N9	9.47	115.77	108.20
26	BB	1041	G	O4'-C1'-N9	9.46	115.77	108.20
26	BB	1588	G	O3'-P-O5'	-9.45	86.04	104.00
26	BB	991	C	O4'-C1'-N1	9.44	115.75	108.20
1	AA	1478	U	O4'-C1'-N1	9.44	115.75	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	458	G	O4'-C1'-N9	9.42	115.74	108.20
26	BB	1405	U	O4'-C1'-N1	9.42	115.74	108.20
1	AA	1121	U	O4'-C1'-N1	9.41	115.73	108.20
26	BB	1886	U	O4'-C1'-N1	9.41	115.72	108.20
25	BA	95	U	O4'-C1'-N1	9.39	115.71	108.20
26	BB	1016	G	O4'-C1'-N9	9.39	115.71	108.20
1	AA	1266	G	O4'-C1'-N9	9.38	115.70	108.20
26	BB	945	A	O4'-C1'-N9	9.38	115.70	108.20
26	BB	960	A	O4'-C1'-N9	-9.37	100.71	108.20
26	BB	1290	C	O4'-C1'-N1	9.37	115.69	108.20
1	AA	703	G	O4'-C1'-N9	9.36	115.69	108.20
1	AA	461	A	O4'-C1'-N9	9.35	115.68	108.20
1	AA	1457	G	O4'-C1'-N9	9.35	115.68	108.20
26	BB	1520	U	O4'-C1'-N1	9.35	115.68	108.20
26	BB	1485	U	O4'-C1'-N1	9.33	115.66	108.20
26	BB	2794	C	O4'-C1'-N1	9.30	115.64	108.20
26	BB	63	A	O4'-C1'-N9	9.28	115.62	108.20
26	BB	355	U	O4'-C1'-N1	9.27	115.61	108.20
1	AA	702	A	O4'-C1'-N9	9.27	115.61	108.20
1	AA	631	C	O4'-C1'-N1	9.26	115.61	108.20
26	BB	2110	G	O4'-C1'-N9	9.24	115.59	108.20
26	BB	1434	A	O4'-C1'-N9	9.22	115.57	108.20
1	AA	664	G	O4'-C1'-N9	9.21	115.57	108.20
26	BB	1552	A	O4'-C1'-N9	9.21	115.57	108.20
26	BB	2185	U	O4'-C1'-N1	9.20	115.56	108.20
1	AA	636	U	O4'-C1'-N1	9.19	115.55	108.20
25	BA	11	C	O4'-C1'-N1	9.18	115.54	108.20
26	BB	921	C	O4'-C1'-N1	9.17	115.54	108.20
1	AA	1443	C	O4'-C1'-N1	9.16	115.53	108.20
1	AA	614	C	O4'-C1'-N1	9.15	115.52	108.20
26	BB	1027	A	C5'-C4'-C3'	9.15	130.64	116.00
26	BB	1971	U	O4'-C1'-N1	9.15	115.52	108.20
26	BB	2786	U	O4'-C1'-N1	9.15	115.52	108.20
26	BB	1648	U	O4'-C1'-N1	9.13	115.50	108.20
1	AA	595	A	C3'-C2'-C1'	9.13	108.80	101.50
26	BB	281	C	O4'-C1'-N1	9.11	115.49	108.20
26	BB	1869	G	O4'-C1'-N9	9.10	115.48	108.20
1	AA	327	A	O4'-C1'-N9	9.10	115.48	108.20
1	AA	1528	U	O4'-C1'-N1	9.10	115.48	108.20
26	BB	2465	C	O4'-C1'-N1	9.09	115.47	108.20
26	BB	349	U	O4'-C1'-N1	9.09	115.47	108.20
26	BB	1094	U	O4'-C1'-N1	9.09	115.47	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2807	U	O4'-C1'-N1	9.07	115.46	108.20
26	BB	718	A	O4'-C1'-N9	9.04	115.43	108.20
2	AE	51	U	O4'-C1'-N1	9.03	115.42	108.20
26	BB	1443	U	O4'-C1'-N1	9.03	115.42	108.20
1	AA	1471	U	O4'-C1'-N1	9.02	115.42	108.20
1	AA	1283	U	O4'-C1'-N1	9.02	115.42	108.20
26	BB	1181	U	O4'-C1'-N1	9.01	115.41	108.20
1	AA	244	U	O4'-C1'-N1	9.01	115.41	108.20
26	BB	304	U	O4'-C1'-N1	9.00	115.40	108.20
26	BB	591	U	O4'-C1'-N1	8.98	115.38	108.20
26	BB	2086	U	O4'-C1'-N1	8.98	115.38	108.20
1	AA	630	A	O4'-C1'-N9	8.97	115.38	108.20
1	AA	677	U	O4'-C1'-N1	8.97	115.38	108.20
26	BB	1167	C	O4'-C1'-N1	8.96	115.37	108.20
26	BB	1976	U	O4'-C1'-N1	8.95	115.36	108.20
1	AA	818	G	O4'-C1'-N9	8.93	115.34	108.20
26	BB	1316	U	O4'-C1'-N1	8.92	115.33	108.20
1	AA	1193	G	O4'-C1'-N9	8.92	115.33	108.20
26	BB	278	A	C5'-C4'-O4'	8.92	119.80	109.10
26	BB	545	U	O4'-C1'-N1	8.92	115.33	108.20
26	BB	1798	U	O4'-C1'-N1	8.92	115.33	108.20
1	AA	353	A	O4'-C1'-N9	8.91	115.33	108.20
26	BB	2855	C	O4'-C1'-N1	8.91	115.33	108.20
26	BB	2123	G	O4'-C1'-N9	8.90	115.32	108.20
26	BB	1985	C	O4'-C1'-N1	8.89	115.31	108.20
25	BA	68	C	O4'-C1'-N1	8.89	115.31	108.20
26	BB	1887	C	O4'-C1'-N1	8.88	115.31	108.20
26	BB	2051	A	O4'-C1'-N9	8.88	115.31	108.20
26	BB	876	C	O4'-C1'-N1	8.88	115.30	108.20
26	BB	362	A	O4'-C1'-N9	8.87	115.30	108.20
26	BB	2784	U	O4'-C1'-N1	8.87	115.30	108.20
26	BB	1777	U	O4'-C1'-N1	8.87	115.30	108.20
26	BB	1902	C	O4'-C1'-N1	8.87	115.29	108.20
25	BA	100	G	C8-N9-C4	-8.87	102.85	106.40
1	AA	31	G	O4'-C1'-N9	8.86	115.29	108.20
26	BB	594	U	O4'-C1'-N1	8.86	115.28	108.20
26	BB	1182	G	O4'-C1'-N9	8.84	115.27	108.20
1	AA	593	U	O4'-C1'-N1	8.84	115.27	108.20
26	BB	1233	C	O4'-C1'-N1	8.83	115.27	108.20
1	AA	1172	C	O4'-C1'-N1	8.83	115.26	108.20
26	BB	1118	C	O4'-C1'-N1	8.82	115.25	108.20
26	BB	1444	G	O4'-C1'-N9	8.81	115.25	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1045	C	O4'-C1'-N1	8.80	115.24	108.20
26	BB	906	U	O4'-C1'-N1	8.80	115.24	108.20
26	BB	2276	G	O4'-C1'-N9	8.80	115.24	108.20
1	AA	379	C	O4'-C1'-N1	8.79	115.23	108.20
26	BB	1629	U	O4'-C1'-N1	8.79	115.23	108.20
1	AA	465	A	C1'-O4'-C4'	-8.78	102.88	109.90
26	BB	1115	G	O4'-C1'-N9	8.78	115.22	108.20
1	AA	29	U	O4'-C1'-N1	8.77	115.22	108.20
26	BB	1729	U	O4'-C1'-N1	8.77	115.22	108.20
26	BB	2849	U	O4'-C1'-N1	8.77	115.21	108.20
1	AA	24	U	O4'-C1'-N1	8.76	115.21	108.20
1	AA	1083	U	O4'-C1'-N1	8.75	115.20	108.20
26	BB	2841	C	O4'-C1'-N1	8.75	115.20	108.20
26	BB	700	G	O4'-C1'-N9	8.74	115.20	108.20
1	AA	1010	U	O4'-C1'-N1	8.74	115.19	108.20
26	BB	39	G	O4'-C1'-N9	8.74	115.19	108.20
26	BB	148	U	O4'-C1'-N1	8.74	115.19	108.20
26	BB	2843	G	O4'-C1'-N9	8.73	115.19	108.20
1	AA	414	A	C8-N9-C4	-8.72	102.31	105.80
1	AA	1165	U	O4'-C1'-N1	8.72	115.17	108.20
1	AA	1	A	O4'-C1'-N9	8.71	115.17	108.20
26	BB	1882	U	O4'-C1'-N1	8.71	115.17	108.20
1	AA	904	U	O4'-C1'-N1	8.71	115.17	108.20
26	BB	2793	C	O4'-C1'-N1	8.70	115.16	108.20
26	BB	2362	C	O4'-C1'-N1	8.70	115.16	108.20
26	BB	2882	A	C5'-C4'-O4'	8.70	119.53	109.10
26	BB	784	G	O4'-C1'-N9	8.69	115.15	108.20
26	BB	1166	G	O4'-C1'-N9	8.69	115.15	108.20
26	BB	2502	G	O4'-C1'-N9	8.69	115.15	108.20
26	BB	2594	C	O4'-C1'-N1	8.68	115.15	108.20
26	BB	737	C	O4'-C1'-N1	8.68	115.14	108.20
26	BB	1931	U	O4'-C1'-N1	8.68	115.14	108.20
26	BB	489	G	O4'-C1'-N9	8.68	115.14	108.20
1	AA	1232	U	O4'-C1'-N1	8.66	115.13	108.20
26	BB	1816	C	O4'-C1'-N1	8.66	115.13	108.20
26	BB	1851	U	O4'-C1'-N1	8.65	115.12	108.20
26	BB	569	U	O4'-C1'-N1	8.65	115.12	108.20
26	BB	1943	U	O4'-C1'-N1	8.65	115.12	108.20
26	BB	2391	G	O4'-C1'-N9	8.65	115.12	108.20
26	BB	2125	G	O4'-C1'-N9	8.65	115.12	108.20
26	BB	2632	A	O4'-C1'-N9	8.65	115.12	108.20
26	BB	1759	A	O4'-C1'-N9	8.64	115.11	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	277	C	O4'-C1'-N1	8.63	115.10	108.20
1	AA	212	G	O4'-C1'-N9	8.62	115.10	108.20
26	BB	593	U	O4'-C1'-N1	8.62	115.10	108.20
26	BB	1227	G	O4'-C1'-N9	8.61	115.09	108.20
26	BB	1374	G	O4'-C1'-N9	8.61	115.09	108.20
1	AA	1153	G	O4'-C1'-N9	8.61	115.09	108.20
1	AA	870	U	O4'-C1'-N1	8.60	115.08	108.20
1	AA	590	U	O4'-C1'-N1	8.60	115.08	108.20
26	BB	1245	G	O4'-C1'-N9	8.60	115.08	108.20
1	AA	256	U	O4'-C1'-N1	8.59	115.07	108.20
26	BB	1526	C	O4'-C1'-N1	8.59	115.07	108.20
1	AA	142	G	C5'-C4'-O4'	8.59	119.41	109.10
26	BB	880	G	O4'-C1'-N9	8.57	115.06	108.20
26	BB	128	C	O4'-C1'-N1	8.57	115.05	108.20
26	BB	475	C	O4'-C1'-N1	8.56	115.05	108.20
1	AA	484	G	O4'-C1'-N9	8.56	115.05	108.20
26	BB	1843	C	O4'-C1'-N1	8.56	115.05	108.20
26	BB	892	A	O4'-C1'-N9	8.55	115.04	108.20
1	AA	58	C	O4'-C1'-N1	8.55	115.04	108.20
25	BA	52	A	O4'-C1'-N9	8.55	115.04	108.20
26	BB	1107	G	O4'-C1'-N9	8.55	115.04	108.20
26	BB	1487	U	O4'-C1'-N1	8.54	115.03	108.20
26	BB	869	G	O4'-C1'-N9	8.54	115.03	108.20
1	AA	60	A	P-O3'-C3'	8.53	129.93	119.70
26	BB	1728	C	O4'-C1'-N1	8.53	115.02	108.20
1	AA	268	U	C5'-C4'-O4'	8.52	119.33	109.10
1	AA	1205	U	O4'-C1'-N1	8.52	115.02	108.20
26	BB	2666	C	O4'-C1'-N1	8.52	115.02	108.20
1	AA	453	G	O4'-C1'-N9	8.51	115.01	108.20
26	BB	16	C	O4'-C1'-N1	8.50	115.00	108.20
25	BA	50	A	C5'-C4'-C3'	-8.49	102.41	116.00
26	BB	2032	G	O4'-C1'-N9	8.49	114.99	108.20
1	AA	88	U	O4'-C1'-N1	8.49	114.99	108.20
26	BB	344	A	O4'-C1'-N9	8.49	114.99	108.20
1	AA	1381	U	P-O3'-C3'	8.48	129.88	119.70
26	BB	1076	C	O4'-C1'-N1	8.48	114.98	108.20
26	BB	2805	C	O4'-C1'-N1	8.48	114.98	108.20
26	BB	2579	C	O4'-C1'-N1	8.48	114.98	108.20
4	AD	38	U	O4'-C1'-N1	8.47	114.98	108.20
1	AA	936	C	O4'-C1'-N1	8.46	114.97	108.20
1	AA	406	G	C5'-C4'-O4'	8.46	119.25	109.10
1	AA	812	G	O4'-C1'-N9	8.46	114.97	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1152	A	C4'-C3'-C2'	-8.46	94.14	102.60
26	BB	2796	U	O4'-C1'-N1	8.46	114.97	108.20
26	BB	2538	C	O4'-C1'-N1	8.45	114.96	108.20
26	BB	954	G	C5'-C4'-O4'	8.45	119.24	109.10
26	BB	1244	A	O4'-C1'-N9	8.45	114.96	108.20
1	AA	214	C	O4'-C1'-N1	8.45	114.96	108.20
26	BB	1172	C	O4'-C1'-N1	8.45	114.96	108.20
26	BB	2438	U	O4'-C1'-N1	8.44	114.95	108.20
26	BB	126	A	C1'-O4'-C4'	-8.44	103.15	109.90
26	BB	137	U	O4'-C1'-N1	8.44	114.95	108.20
26	BB	343	C	O4'-C1'-N1	8.44	114.95	108.20
26	BB	519	U	O4'-C1'-N1	8.44	114.95	108.20
25	BA	92	C	O4'-C1'-N1	8.44	114.95	108.20
4	AD	26	U	O4'-C1'-N1	8.43	114.95	108.20
25	BA	57	A	O4'-C1'-N9	8.43	114.95	108.20
26	BB	2739	U	O4'-C1'-N1	8.43	114.94	108.20
1	AA	107	G	O4'-C1'-N9	8.42	114.94	108.20
25	BA	47	C	O4'-C1'-N1	8.42	114.94	108.20
1	AA	739	C	O4'-C1'-N1	8.42	114.94	108.20
26	BB	2511	U	O4'-C1'-N1	8.42	114.94	108.20
26	BB	2672	U	O4'-C1'-N1	8.40	114.92	108.20
1	AA	1425	U	O4'-C1'-N1	8.40	114.92	108.20
1	AA	69	G	O4'-C1'-N9	8.39	114.91	108.20
26	BB	1477	A	C5'-C4'-O4'	8.39	119.17	109.10
26	BB	2081	U	O4'-C1'-N1	8.39	114.91	108.20
26	BB	291	G	O4'-C1'-N9	8.38	114.91	108.20
26	BB	1678	A	O4'-C1'-N9	8.36	114.89	108.20
1	AA	1540	U	O4'-C1'-N1	8.36	114.89	108.20
1	AA	398	U	O4'-C1'-N1	8.36	114.89	108.20
26	BB	2762	C	O4'-C1'-N1	8.36	114.89	108.20
1	AA	835	U	O4'-C1'-N1	8.35	114.88	108.20
1	AA	1470	U	O4'-C1'-N1	8.35	114.88	108.20
26	BB	1509	A	O4'-C1'-N9	8.35	114.88	108.20
1	AA	471	U	O4'-C1'-N1	8.35	114.88	108.20
1	AA	929	G	O4'-C1'-N9	8.34	114.88	108.20
1	AA	871	U	O4'-C1'-N1	8.34	114.87	108.20
26	BB	1052	C	O4'-C1'-N1	8.34	114.87	108.20
26	BB	1015	U	O4'-C1'-N1	8.34	114.87	108.20
26	BB	1849	G	O4'-C1'-N9	8.34	114.87	108.20
26	BB	2707	U	O4'-C1'-N1	8.34	114.87	108.20
26	BB	2240	U	O4'-C1'-N1	8.33	114.87	108.20
1	AA	1388	C	O4'-C1'-N1	8.33	114.86	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	702	U	O4'-C1'-N1	8.32	114.86	108.20
1	AA	612	C	O4'-C1'-N1	8.32	114.86	108.20
1	AA	1414	U	O4'-C1'-N1	8.32	114.86	108.20
26	BB	2466	C	O4'-C1'-N1	8.32	114.86	108.20
1	AA	294	U	O4'-C1'-N1	8.31	114.85	108.20
26	BB	2178	C	O4'-C1'-N1	8.31	114.85	108.20
26	BB	1196	C	O4'-C1'-N1	8.31	114.85	108.20
26	BB	1916	A	O4'-C1'-N9	8.31	114.85	108.20
26	BB	1871	A	C3'-C2'-C1'	8.30	108.14	101.50
1	AA	206	C	O4'-C1'-N1	8.30	114.84	108.20
1	AA	194	C	C5'-C4'-O4'	8.30	119.06	109.10
26	BB	1303	G	C5'-C4'-C3'	-8.29	102.74	116.00
26	BB	510	C	O4'-C1'-N1	8.29	114.83	108.20
26	BB	165	A	C5'-C4'-C3'	-8.27	102.77	116.00
26	BB	394	C	O4'-C1'-N1	8.27	114.81	108.20
26	BB	934	U	O4'-C1'-N1	8.27	114.81	108.20
26	BB	557	C	O4'-C1'-N1	8.26	114.81	108.20
26	BB	1070	A	C8-N9-C4	-8.26	102.50	105.80
26	BB	967	U	O4'-C1'-N1	8.26	114.81	108.20
26	BB	1372	U	O4'-C1'-N1	8.26	114.81	108.20
26	BB	1612	C	O4'-C1'-N1	8.25	114.80	108.20
26	BB	651	G	O4'-C1'-N9	8.24	114.80	108.20
1	AA	122	G	C5'-C4'-O4'	8.24	118.98	109.10
26	BB	1720	U	O4'-C1'-N1	8.24	114.79	108.20
26	BB	1742	U	O4'-C1'-N1	8.23	114.79	108.20
26	BB	1191	G	O4'-C1'-N9	8.23	114.78	108.20
26	BB	2430	A	O4'-C1'-N9	8.22	114.78	108.20
1	AA	327	A	C5'-C4'-O4'	8.22	118.97	109.10
1	AA	475	C	O4'-C1'-N1	8.22	114.78	108.20
1	AA	456	A	O4'-C1'-N9	8.22	114.77	108.20
1	AA	465	A	O4'-C1'-C2'	-8.21	97.58	105.80
26	BB	58	G	O4'-C1'-N9	8.22	114.77	108.20
1	AA	1190	G	O4'-C1'-N9	8.21	114.77	108.20
1	AA	1196	A	O4'-C1'-N9	8.21	114.77	108.20
1	AA	414	A	O4'-C1'-N9	8.21	114.77	108.20
1	AA	972	C	O4'-C1'-N1	8.21	114.76	108.20
26	BB	305	C	O4'-C1'-N1	8.21	114.77	108.20
26	BB	611	C	O4'-C1'-N1	8.20	114.76	108.20
26	BB	1069	A	O4'-C1'-N9	8.20	114.76	108.20
26	BB	1736	U	O4'-C1'-N1	8.20	114.76	108.20
1	AA	1542	A	O4'-C1'-N9	8.20	114.76	108.20
25	BA	12	C	P-O3'-C3'	8.20	129.53	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AE	22	G	O4'-C1'-N9	8.19	114.75	108.20
1	AA	220	G	O4'-C1'-N9	8.18	114.75	108.20
26	BB	96	C	O4'-C1'-N1	8.18	114.74	108.20
26	BB	135	U	O4'-C1'-N1	8.17	114.74	108.20
1	AA	1479	C	O4'-C1'-N1	8.17	114.74	108.20
26	BB	173	A	O4'-C1'-N9	8.17	114.73	108.20
26	BB	1293	C	O4'-C1'-N1	8.17	114.73	108.20
1	AA	219	U	O4'-C1'-N1	8.16	114.73	108.20
26	BB	2751	G	P-O3'-C3'	8.16	129.50	119.70
26	BB	1351	C	O4'-C1'-N1	8.16	114.73	108.20
26	BB	1359	A	O4'-C1'-N9	8.16	114.73	108.20
1	AA	1086	U	C5'-C4'-C3'	-8.16	102.94	116.00
26	BB	1946	U	O4'-C1'-N1	8.16	114.73	108.20
26	BB	2558	C	O4'-C1'-N1	8.16	114.73	108.20
26	BB	288	U	O4'-C1'-N1	8.16	114.72	108.20
26	BB	331	C	O4'-C1'-N1	8.14	114.72	108.20
26	BB	1402	U	O4'-C1'-N1	8.14	114.71	108.20
26	BB	2215	C	O4'-C1'-N1	8.14	114.71	108.20
1	AA	567	G	O4'-C1'-N9	8.13	114.71	108.20
26	BB	1484	U	O4'-C1'-N1	8.14	114.71	108.20
26	BB	1425	G	O4'-C1'-N9	8.13	114.71	108.20
26	BB	2470	G	O4'-C1'-N9	8.13	114.71	108.20
26	BB	512	G	O4'-C1'-N9	8.12	114.69	108.20
26	BB	2630	G	O4'-C1'-N9	8.12	114.69	108.20
1	AA	419	C	O4'-C1'-N1	8.11	114.69	108.20
1	AA	1480	A	O4'-C1'-N9	8.11	114.69	108.20
26	BB	1185	G	C1'-O4'-C4'	-8.11	103.41	109.90
26	BB	2473	U	O4'-C1'-N1	8.11	114.69	108.20
26	BB	1933	G	O4'-C1'-N9	8.10	114.68	108.20
26	BB	57	C	O4'-C1'-N1	8.09	114.67	108.20
26	BB	1863	G	C5'-C4'-O4'	8.08	118.79	109.10
1	AA	235	C	O4'-C1'-N1	8.07	114.66	108.20
1	AA	963	G	O4'-C1'-N9	8.07	114.66	108.20
1	AA	290	C	C5'-C4'-O4'	8.07	118.78	109.10
26	BB	2054	A	C5'-C4'-C3'	-8.07	103.09	116.00
1	AA	590	U	C5'-C4'-C3'	-8.06	103.10	116.00
26	BB	1231	U	O4'-C1'-N1	8.06	114.65	108.20
26	BB	2825	G	O4'-C1'-N9	8.06	114.65	108.20
26	BB	2769	U	O4'-C1'-N1	8.06	114.65	108.20
26	BB	2724	U	O4'-C1'-N1	8.06	114.65	108.20
1	AA	971	G	C5'-C4'-C3'	-8.05	103.12	116.00
1	AA	1040	U	O4'-C1'-N1	8.05	114.64	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1279	G	O4'-C1'-N9	8.05	114.64	108.20
1	AA	52	C	O4'-C1'-N1	8.05	114.64	108.20
26	BB	1937	A	O4'-C1'-N9	8.04	114.63	108.20
26	BB	2138	G	O4'-C1'-N9	8.04	114.63	108.20
26	BB	344	A	C3'-C2'-C1'	-8.03	95.07	101.50
26	BB	971	G	O4'-C1'-N9	8.03	114.62	108.20
1	AA	701	U	O4'-C1'-N1	8.03	114.62	108.20
25	BA	13	G	C1'-O4'-C4'	-8.03	103.48	109.90
26	BB	1541	C	O4'-C1'-N1	8.03	114.62	108.20
26	BB	1695	G	O4'-C1'-N9	8.03	114.62	108.20
1	AA	613	C	O4'-C1'-N1	8.02	114.62	108.20
1	AA	1377	A	C5'-C4'-O4'	8.02	118.73	109.10
1	AA	711	G	O4'-C1'-N9	8.02	114.61	108.20
26	BB	2479	U	O4'-C1'-N1	8.02	114.61	108.20
26	BB	279	A	O4'-C1'-N9	8.02	114.61	108.20
26	BB	2500	U	O4'-C1'-N1	8.01	114.61	108.20
25	BA	19	C	O4'-C1'-N1	8.01	114.61	108.20
1	AA	726	C	O4'-C1'-N1	8.01	114.60	108.20
26	BB	1621	U	O4'-C1'-N1	8.00	114.60	108.20
26	BB	1575	C	O4'-C1'-N1	8.00	114.60	108.20
26	BB	407	G	O4'-C1'-N9	7.99	114.59	108.20
26	BB	1748	C	O4'-C1'-N1	7.99	114.59	108.20
26	BB	1506	U	O4'-C1'-N1	7.99	114.59	108.20
26	BB	2233	U	O4'-C1'-N1	7.99	114.59	108.20
26	BB	1769	U	O4'-C1'-N1	7.99	114.59	108.20
26	BB	618	G	O4'-C1'-N9	7.99	114.59	108.20
26	BB	915	C	O4'-C1'-N1	7.98	114.59	108.20
1	AA	387	U	O4'-C1'-N1	7.98	114.59	108.20
1	AA	571	U	O4'-C1'-N1	7.98	114.58	108.20
1	AA	1536	C	O4'-C1'-N1	7.98	114.58	108.20
26	BB	225	C	O4'-C1'-N1	7.97	114.58	108.20
1	AA	400	C	O4'-C1'-N1	7.97	114.57	108.20
25	BA	108	A	C1'-O4'-C4'	-7.97	103.53	109.90
2	AB	11	C	C5'-C4'-O4'	7.96	118.66	109.10
1	AA	409	U	O4'-C1'-N1	7.96	114.57	108.20
1	AA	133	U	O4'-C1'-N1	7.96	114.57	108.20
26	BB	1649	G	C5'-C4'-O4'	7.96	118.65	109.10
26	BB	2226	C	O4'-C1'-N1	7.96	114.57	108.20
1	AA	1255	G	O4'-C1'-N9	7.95	114.56	108.20
26	BB	658	U	O4'-C1'-N1	7.95	114.56	108.20
1	AA	1467	C	O4'-C1'-N1	7.95	114.56	108.20
25	BA	107	G	C5'-C4'-C3'	-7.94	103.29	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1323	G	C5'-C4'-O4'	7.94	118.63	109.10
26	BB	226	A	C5'-C4'-O4'	7.94	118.63	109.10
26	BB	1097	U	O4'-C1'-N1	7.93	114.55	108.20
26	BB	1370	C	O4'-C1'-N1	7.93	114.55	108.20
2	AE	41	C	O4'-C1'-N1	7.93	114.54	108.20
26	BB	1529	G	O4'-C1'-N9	7.93	114.54	108.20
26	BB	246	C	O4'-C1'-N1	7.93	114.54	108.20
1	AA	327	A	C1'-O4'-C4'	-7.92	103.56	109.90
26	BB	1394	U	C5'-C4'-C3'	-7.92	103.33	116.00
26	BB	210	C	O4'-C1'-N1	7.92	114.54	108.20
26	BB	1986	C	C5'-C4'-O4'	7.92	118.60	109.10
26	BB	193	U	O4'-C1'-N1	7.92	114.53	108.20
26	BB	1297	C	O4'-C1'-N1	7.92	114.53	108.20
26	BB	1479	G	O4'-C1'-N9	7.92	114.53	108.20
25	BA	105	G	O4'-C1'-N9	7.91	114.53	108.20
26	BB	1657	U	O4'-C1'-N1	7.91	114.53	108.20
26	BB	895	U	P-O3'-C3'	7.90	129.18	119.70
26	BB	415	A	O4'-C1'-N9	7.90	114.52	108.20
26	BB	158	U	O4'-C1'-N1	7.90	114.52	108.20
1	AA	1017	U	O4'-C1'-N1	7.89	114.51	108.20
1	AA	1364	U	O4'-C1'-N1	7.89	114.51	108.20
26	BB	1304	A	O4'-C1'-N9	7.89	114.51	108.20
26	BB	2374	C	O4'-C1'-N1	7.89	114.51	108.20
1	AA	163	C	O4'-C1'-N1	7.89	114.51	108.20
25	BA	86	G	O4'-C1'-N9	7.89	114.51	108.20
26	BB	1056	G	P-O3'-C3'	7.88	129.16	119.70
26	BB	863	A	C8-N9-C4	-7.88	102.65	105.80
1	AA	824	G	C5'-C4'-O4'	7.88	118.55	109.10
1	AA	1218	C	O4'-C1'-N1	7.88	114.50	108.20
25	BA	54	G	C8-N9-C4	-7.87	103.25	106.40
26	BB	1647	U	O3'-P-O5'	-7.87	89.04	104.00
26	BB	1309	G	O4'-C1'-N9	7.87	114.50	108.20
1	AA	126	G	O4'-C1'-N9	7.87	114.50	108.20
26	BB	1055	G	C8-N9-C4	-7.87	103.25	106.40
1	AA	1500	A	O4'-C1'-N9	7.87	114.49	108.20
1	AA	809	G	O4'-C1'-N9	7.87	114.49	108.20
2	AB	42	C	O4'-C1'-N1	7.87	114.49	108.20
1	AA	287	U	O4'-C1'-N1	7.86	114.49	108.20
26	BB	2404	U	O4'-C1'-N1	7.86	114.49	108.20
1	AA	151	A	O4'-C1'-N9	7.86	114.49	108.20
26	BB	2554	U	O4'-C1'-N1	7.86	114.49	108.20
1	AA	646	G	O4'-C1'-N9	7.86	114.48	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1435	G	O4'-C1'-N9	7.86	114.48	108.20
26	BB	1423	G	O4'-C1'-N9	7.86	114.48	108.20
1	AA	1007	U	O4'-C1'-N1	7.85	114.48	108.20
26	BB	1841	U	O4'-C1'-N1	7.84	114.48	108.20
1	AA	405	U	O4'-C1'-N1	7.84	114.47	108.20
26	BB	119	A	P-O3'-C3'	7.84	129.11	119.70
26	BB	2659	G	O4'-C1'-N9	7.83	114.46	108.20
1	AA	1413	A	O4'-C1'-N9	7.82	114.46	108.20
26	BB	1781	U	O4'-C1'-N1	7.82	114.46	108.20
26	BB	2476	A	O4'-C1'-N9	7.82	114.45	108.20
26	BB	640	C	O4'-C1'-N1	7.81	114.45	108.20
1	AA	1223	C	C4'-C3'-C2'	-7.81	94.79	102.60
26	BB	1832	C	O4'-C1'-N1	7.81	114.45	108.20
26	BB	2758	A	C5'-C4'-O4'	7.81	118.47	109.10
26	BB	1930	G	O4'-C1'-N9	7.80	114.44	108.20
26	BB	2496	C	O4'-C1'-N1	7.80	114.44	108.20
26	BB	694	U	O4'-C1'-N1	7.79	114.44	108.20
26	BB	2461	A	O4'-C1'-N9	7.79	114.43	108.20
26	BB	893	C	O4'-C1'-N1	7.79	114.43	108.20
2	AE	62	C	O4'-C1'-N1	7.78	114.43	108.20
26	BB	1153	C	O4'-C1'-N1	7.78	114.42	108.20
26	BB	1331	G	C8-N9-C4	-7.78	103.29	106.40
26	BB	1643	G	O4'-C1'-N9	7.78	114.43	108.20
1	AA	651	C	C5'-C4'-O4'	7.78	118.44	109.10
26	BB	974	G	O4'-C1'-N9	7.78	114.42	108.20
1	AA	620	C	C5'-C4'-O4'	7.77	118.43	109.10
26	BB	386	G	O4'-C1'-N9	7.77	114.42	108.20
26	BB	1146	C	O4'-C1'-N1	7.77	114.42	108.20
1	AA	401	C	O4'-C1'-N1	7.77	114.42	108.20
26	BB	32	C	O4'-C1'-N1	7.77	114.42	108.20
26	BB	2099	U	O4'-C1'-N1	7.77	114.42	108.20
1	AA	1453	G	O4'-C1'-N9	7.77	114.41	108.20
26	BB	1981	A	O4'-C1'-N9	7.76	114.41	108.20
26	BB	1833	C	O4'-C1'-N1	7.76	114.41	108.20
26	BB	2200	C	O4'-C1'-N1	7.75	114.40	108.20
25	BA	111	U	O4'-C1'-N1	7.75	114.40	108.20
26	BB	2489	U	O4'-C1'-N1	7.75	114.40	108.20
26	BB	239	C	O4'-C1'-N1	7.75	114.40	108.20
26	BB	1522	A	P-O3'-C3'	7.74	128.99	119.70
26	BB	528	A	O4'-C1'-N9	7.74	114.39	108.20
26	BB	360	U	O4'-C1'-N1	7.73	114.39	108.20
26	BB	1609	A	O4'-C1'-N9	7.73	114.39	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	372	G	O4'-C1'-N9	7.73	114.38	108.20
26	BB	2419	U	O4'-C1'-N1	7.73	114.38	108.20
26	BB	2205	A	O4'-C1'-N9	7.73	114.38	108.20
26	BB	2586	U	O4'-C1'-N1	7.72	114.38	108.20
26	BB	1033	U	C5'-C4'-C3'	-7.72	103.64	116.00
26	BB	2711	A	O4'-C1'-N9	7.72	114.38	108.20
1	AA	331	G	O4'-C1'-N9	7.72	114.38	108.20
26	BB	2109	U	O4'-C1'-N1	7.72	114.38	108.20
26	BB	1499	C	O4'-C1'-N1	7.72	114.37	108.20
26	BB	2310	C	O4'-C1'-N1	7.72	114.38	108.20
26	BB	2181	U	O4'-C1'-N1	7.72	114.37	108.20
1	AA	1097	C	O4'-C1'-N1	7.71	114.37	108.20
26	BB	975	A	C5'-C4'-O4'	7.71	118.35	109.10
26	BB	2025	C	O4'-C1'-N1	7.71	114.37	108.20
1	AA	150	U	O4'-C1'-N1	7.71	114.36	108.20
26	BB	2615	U	O4'-C1'-N1	7.71	114.36	108.20
1	AA	518	C	O4'-C1'-N1	7.70	114.36	108.20
1	AA	988	G	O4'-C1'-N9	7.70	114.36	108.20
1	AA	998	C	O4'-C1'-N1	7.70	114.36	108.20
26	BB	1676	A	O4'-C1'-N9	7.70	114.36	108.20
26	BB	2518	A	O4'-C1'-N9	7.70	114.36	108.20
1	AA	414	A	O3'-P-O5'	-7.70	89.38	104.00
26	BB	948	C	O4'-C1'-N1	7.70	114.36	108.20
1	AA	961	U	C5'-C4'-O4'	7.69	118.33	109.10
1	AA	348	G	O4'-C1'-N9	7.69	114.35	108.20
1	AA	812	G	O3'-P-O5'	-7.69	89.39	104.00
26	BB	1180	U	O4'-C1'-N1	7.69	114.35	108.20
1	AA	465	A	C5'-C4'-O4'	7.68	118.32	109.10
1	AA	890	G	O4'-C1'-N9	7.68	114.34	108.20
1	AA	930	C	O4'-C1'-N1	7.68	114.34	108.20
26	BB	1878	G	O4'-C1'-N9	7.68	114.34	108.20
26	BB	259	G	O4'-C1'-N9	7.67	114.34	108.20
26	BB	1462	C	O4'-C1'-N1	7.67	114.34	108.20
26	BB	1183	U	O4'-C1'-N1	7.67	114.33	108.20
1	AA	301	G	O4'-C1'-N9	7.66	114.33	108.20
26	BB	2044	C	O4'-C1'-N1	7.66	114.33	108.20
1	AA	299	G	C8-N9-C4	-7.66	103.34	106.40
26	BB	891	G	O4'-C1'-N9	7.66	114.33	108.20
26	BB	1696	G	O4'-C1'-N9	7.66	114.33	108.20
26	BB	2743	U	O4'-C1'-N1	7.66	114.32	108.20
26	BB	38	A	O4'-C1'-N9	7.65	114.32	108.20
26	BB	1347	A	O4'-C1'-N9	7.65	114.32	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1349	C	O4'-C1'-N1	7.65	114.32	108.20
26	BB	1920	C	O4'-C1'-N1	7.65	114.32	108.20
1	AA	99	C	O4'-C1'-N1	7.64	114.31	108.20
26	BB	424	G	O4'-C1'-N9	7.64	114.31	108.20
1	AA	1216	A	O4'-C1'-N9	7.64	114.31	108.20
1	AA	1356	G	O4'-C1'-N9	7.64	114.31	108.20
1	AA	786	G	O4'-C1'-N9	7.63	114.31	108.20
26	BB	121	G	C8-N9-C4	-7.63	103.35	106.40
26	BB	2515	C	O4'-C1'-N1	7.63	114.30	108.20
26	BB	395	U	O4'-C1'-N1	7.62	114.30	108.20
26	BB	1102	C	O4'-C1'-N1	7.62	114.30	108.20
26	BB	2218	G	O4'-C1'-N9	7.62	114.29	108.20
1	AA	9	G	C8-N9-C4	-7.62	103.35	106.40
26	BB	1271	G	C8-N9-C4	-7.62	103.35	106.40
1	AA	1124	G	O4'-C1'-N9	7.61	114.29	108.20
1	AA	477	C	O4'-C1'-N1	7.61	114.29	108.20
26	BB	2219	U	O4'-C1'-N1	7.61	114.28	108.20
25	BA	91	C	O4'-C1'-N1	7.60	114.28	108.20
26	BB	459	U	O4'-C1'-N1	7.60	114.28	108.20
1	AA	862	C	O4'-C1'-N1	7.59	114.28	108.20
26	BB	2367	G	O4'-C1'-N9	7.59	114.27	108.20
1	AA	68	G	O4'-C1'-N9	7.59	114.27	108.20
26	BB	1792	G	C5'-C4'-O4'	7.59	118.21	109.10
26	BB	2236	U	O4'-C1'-N1	7.59	114.27	108.20
26	BB	157	C	O4'-C1'-N1	7.59	114.27	108.20
1	AA	1071	C	O4'-C1'-N1	7.58	114.27	108.20
1	AA	81	A	O4'-C1'-N9	7.58	114.27	108.20
26	BB	776	G	O4'-C1'-N9	7.58	114.26	108.20
1	AA	507	C	O4'-C1'-N1	7.58	114.26	108.20
26	BB	2760	C	C5'-C4'-C3'	-7.58	103.88	116.00
26	BB	1734	G	O4'-C1'-N9	7.57	114.26	108.20
26	BB	2063	C	O4'-C1'-N1	7.57	114.25	108.20
26	BB	23	G	O4'-C1'-N9	7.57	114.25	108.20
26	BB	1767	G	O4'-C1'-N9	7.57	114.25	108.20
26	BB	583	G	O4'-C1'-N9	7.56	114.25	108.20
26	BB	1234	U	O4'-C1'-N1	7.56	114.25	108.20
25	BA	50	A	C5'-C4'-O4'	7.56	118.17	109.10
26	BB	25	U	O4'-C1'-N1	7.55	114.24	108.20
1	AA	96	U	O4'-C1'-N1	7.55	114.24	108.20
1	AA	682	G	O4'-C1'-N9	7.55	114.24	108.20
26	BB	2205	A	N9-C4-C5	7.55	108.82	105.80
1	AA	270	A	O4'-C1'-N9	7.55	114.24	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	858	G	O4'-C1'-N9	7.55	114.24	108.20
26	BB	2214	C	C5'-C4'-C3'	-7.55	103.92	116.00
26	BB	2299	U	O4'-C1'-N1	7.54	114.24	108.20
26	BB	598	U	O4'-C1'-N1	7.54	114.23	108.20
26	BB	1049	C	O4'-C1'-N1	7.54	114.23	108.20
26	BB	2901	C	O4'-C1'-N1	7.54	114.23	108.20
1	AA	684	U	O4'-C1'-N1	7.54	114.23	108.20
26	BB	1898	U	C5'-C4'-O4'	7.54	118.15	109.10
26	BB	2073	C	O4'-C1'-N1	7.54	114.23	108.20
26	BB	2212	A	N9-C1'-C2'	-7.54	103.71	112.00
26	BB	445	C	O4'-C1'-N1	7.54	114.23	108.20
2	AE	64	A	O4'-C1'-N9	7.54	114.23	108.20
1	AA	1110	A	O4'-C1'-N9	7.53	114.22	108.20
26	BB	894	U	O4'-C1'-N1	7.53	114.23	108.20
26	BB	2265	U	O4'-C1'-N1	7.53	114.22	108.20
1	AA	1380	U	O4'-C1'-N1	7.53	114.22	108.20
26	BB	538	A	O4'-C1'-N9	7.53	114.22	108.20
1	AA	458	U	O4'-C1'-N1	7.53	114.22	108.20
26	BB	1300	G	O4'-C1'-N9	7.53	114.22	108.20
26	BB	1605	C	O4'-C1'-N1	7.53	114.22	108.20
26	BB	2321	U	O4'-C1'-N1	7.52	114.22	108.20
26	BB	11	C	O4'-C1'-N1	7.52	114.22	108.20
26	BB	2406	A	O4'-C1'-N9	7.52	114.22	108.20
1	AA	386	C	C5'-C4'-O4'	7.51	118.11	109.10
1	AA	1235	U	O4'-C1'-N1	7.51	114.21	108.20
26	BB	1578	U	O4'-C1'-N1	7.51	114.21	108.20
26	BB	183	C	O4'-C1'-N1	7.51	114.21	108.20
26	BB	1002	G	O4'-C1'-N9	7.51	114.21	108.20
26	BB	2343	U	O4'-C1'-N1	7.51	114.20	108.20
26	BB	1088	A	O4'-C1'-N9	7.50	114.20	108.20
26	BB	1070	A	C3'-C2'-C1'	7.50	107.50	101.50
26	BB	2342	C	O4'-C1'-N1	7.50	114.20	108.20
1	AA	1458	G	O4'-C1'-N9	7.50	114.20	108.20
26	BB	719	C	O4'-C1'-N1	7.50	114.20	108.20
26	BB	2126	A	O3'-P-O5'	-7.50	89.75	104.00
26	BB	2687	U	O4'-C1'-N1	7.50	114.20	108.20
1	AA	265	G	C8-N9-C4	-7.50	103.40	106.40
1	AA	485	U	O4'-C1'-C2'	-7.49	98.31	105.80
1	AA	952	U	O4'-C1'-N1	7.49	114.19	108.20
26	BB	1912	A	O3'-P-O5'	-7.49	89.76	104.00
26	BB	2215	C	C5'-C4'-O4'	7.49	118.09	109.10
26	BB	2264	C	O4'-C1'-N1	7.49	114.19	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2853	C	O4'-C1'-N1	7.49	114.19	108.20
1	AA	384	G	O4'-C1'-N9	7.49	114.19	108.20
26	BB	1747	U	O4'-C1'-N1	7.48	114.19	108.20
26	BB	1853	A	O4'-C1'-N9	7.48	114.19	108.20
26	BB	108	G	C5'-C4'-C3'	-7.48	104.03	116.00
26	BB	2213	U	O4'-C1'-N1	7.48	114.18	108.20
1	AA	122	G	C5'-C4'-C3'	-7.47	104.04	116.00
26	BB	841	G	C5'-C4'-O4'	7.47	118.07	109.10
26	BB	1186	G	C5'-C4'-C3'	-7.47	104.05	116.00
26	BB	2015	A	O4'-C1'-N9	7.47	114.17	108.20
26	BB	464	U	O4'-C1'-N1	7.47	114.17	108.20
26	BB	185	G	O4'-C1'-N9	7.46	114.17	108.20
26	BB	2214	C	O4'-C1'-N1	7.46	114.17	108.20
26	BB	1006	C	O4'-C1'-N1	7.46	114.17	108.20
1	AA	1342	C	O4'-C1'-N1	7.46	114.17	108.20
26	BB	2633	G	O4'-C1'-N9	7.46	114.17	108.20
1	AA	1508	A	C5'-C4'-C3'	-7.46	104.07	116.00
1	AA	73	C	O4'-C1'-N1	7.45	114.16	108.20
1	AA	747	A	O4'-C1'-N9	7.45	114.16	108.20
1	AA	1462	C	O4'-C1'-N1	7.45	114.16	108.20
25	BA	33	G	O4'-C1'-N9	7.45	114.16	108.20
1	AA	827	U	O4'-C1'-N1	7.45	114.16	108.20
25	BA	71	C	O4'-C1'-N1	7.45	114.16	108.20
26	BB	2704	C	O4'-C1'-N1	7.45	114.16	108.20
26	BB	2787	C	O4'-C1'-N1	7.45	114.16	108.20
26	BB	1533	C	O4'-C1'-N1	7.45	114.16	108.20
26	BB	1573	G	C8-N9-C4	-7.44	103.42	106.40
26	BB	1907	G	O4'-C1'-N9	7.44	114.15	108.20
1	AA	1147	C	O4'-C1'-N1	7.44	114.15	108.20
26	BB	2140	G	O4'-C1'-N9	7.44	114.15	108.20
2	AE	61	C	O4'-C1'-N1	7.44	114.15	108.20
26	BB	319	G	O4'-C1'-N9	7.44	114.15	108.20
26	BB	1130	U	O4'-C1'-N1	7.44	114.15	108.20
26	BB	556	A	O4'-C1'-N9	7.43	114.15	108.20
1	AA	1058	G	C8-N9-C4	-7.43	103.43	106.40
26	BB	2139	U	O4'-C1'-N1	7.43	114.14	108.20
26	BB	965	C	O4'-C1'-N1	7.43	114.14	108.20
1	AA	254	G	O4'-C1'-N9	7.42	114.14	108.20
1	AA	375	U	O4'-C1'-N1	7.42	114.14	108.20
26	BB	1877	A	O4'-C1'-N9	7.42	114.14	108.20
1	AA	826	C	C3'-C2'-C1'	7.41	107.43	101.50
25	BA	38	C	O4'-C1'-N1	7.41	114.13	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	947	A	O4'-C1'-N9	7.41	114.13	108.20
1	AA	548	G	O4'-C1'-N9	7.41	114.13	108.20
1	AA	245	U	O4'-C1'-N1	7.41	114.12	108.20
26	BB	1691	C	O4'-C1'-N1	7.41	114.12	108.20
26	BB	1909	C	O4'-C1'-N1	7.41	114.12	108.20
26	BB	1982	U	C5'-C4'-O4'	7.40	117.98	109.10
26	BB	2391	G	C1'-O4'-C4'	-7.40	103.98	109.90
1	AA	208	U	O4'-C1'-N1	7.39	114.11	108.20
26	BB	339	U	O4'-C1'-N1	7.39	114.11	108.20
26	BB	581	C	O4'-C1'-N1	7.39	114.11	108.20
26	BB	2311	A	O4'-C1'-N9	7.39	114.12	108.20
26	BB	2684	U	N1-C2-N3	7.39	119.34	114.90
26	BB	984	A	C1'-O4'-C4'	-7.39	103.98	109.90
26	BB	2112	G	C8-N9-C4	-7.39	103.44	106.40
24	AY	1	PRO	CA-N-CD	-7.39	101.16	111.50
1	AA	1115	U	O4'-C1'-N1	7.38	114.11	108.20
26	BB	2811	G	O4'-C1'-N9	7.38	114.11	108.20
26	BB	133	U	O4'-C1'-N1	7.38	114.11	108.20
26	BB	1291	C	O4'-C1'-N1	7.38	114.11	108.20
1	AA	80	A	O4'-C1'-N9	7.38	114.10	108.20
26	BB	35	G	N3-C4-C5	-7.37	124.91	128.60
1	AA	100	G	C5'-C4'-O4'	7.37	117.94	109.10
2	AE	30	G	O4'-C1'-N9	7.37	114.09	108.20
26	BB	769	U	O4'-C1'-N1	7.37	114.09	108.20
26	BB	984	A	O4'-C1'-C2'	-7.37	98.43	105.80
26	BB	2629	U	C3'-C2'-C1'	7.37	107.39	101.50
26	BB	286	U	O4'-C1'-N1	7.37	114.09	108.20
26	BB	1580	A	O4'-C1'-N9	7.37	114.09	108.20
26	BB	1811	G	O4'-C1'-N9	7.36	114.09	108.20
26	BB	1930	G	O5'-C5'-C4'	-7.36	97.72	111.70
26	BB	2020	A	C5'-C4'-O4'	7.36	117.93	109.10
26	BB	2725	A	C8-N9-C4	-7.36	102.86	105.80
26	BB	2556	C	O4'-C1'-N1	7.36	114.09	108.20
26	BB	2610	C	O4'-C1'-N1	7.36	114.08	108.20
26	BB	2664	G	C8-N9-C4	-7.35	103.46	106.40
1	AA	117	G	O4'-C1'-N9	7.35	114.08	108.20
26	BB	559	G	C5'-C4'-O4'	7.35	117.92	109.10
26	BB	1852	U	P-O3'-C3'	7.35	128.52	119.70
1	AA	847	G	C8-N9-C4	-7.34	103.46	106.40
2	AE	42	C	O4'-C1'-N1	7.34	114.07	108.20
26	BB	47	C	O4'-C1'-N1	7.34	114.07	108.20
26	BB	2001	C	O4'-C1'-N1	7.34	114.07	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	827	U	P-O3'-C3'	7.34	128.51	119.70
26	BB	1088	A	C3'-C2'-C1'	7.34	107.37	101.50
26	BB	1112	G	C5'-C4'-O4'	7.34	117.90	109.10
26	BB	2848	G	O4'-C1'-N9	7.34	114.07	108.20
1	AA	1091	U	C5'-C4'-O4'	7.33	117.90	109.10
26	BB	2654	A	O4'-C1'-N9	7.33	114.07	108.20
26	BB	452	G	O4'-C1'-N9	7.33	114.07	108.20
1	AA	837	U	O4'-C1'-N1	7.33	114.06	108.20
1	AA	637	C	O4'-C1'-N1	7.33	114.06	108.20
26	BB	2007	U	O4'-C1'-N1	7.32	114.06	108.20
26	BB	2066	C	O4'-C1'-N1	7.32	114.06	108.20
26	BB	423	A	N1-C6-N6	-7.32	114.21	118.60
26	BB	2189	U	O4'-C1'-N1	7.32	114.06	108.20
26	BB	2804	U	O4'-C1'-N1	7.31	114.05	108.20
1	AA	165	G	C5'-C4'-C3'	-7.31	104.30	116.00
26	BB	1642	G	O4'-C1'-N9	7.31	114.05	108.20
1	AA	1203	C	C5'-C4'-O4'	7.31	117.87	109.10
1	AA	1320	C	C5'-C4'-O4'	7.31	117.87	109.10
1	AA	678	U	O4'-C1'-N1	7.31	114.05	108.20
26	BB	92	U	O4'-C1'-N1	7.31	114.05	108.20
26	BB	2064	C	O4'-C1'-N1	7.30	114.04	108.20
1	AA	78	A	O4'-C1'-N9	7.30	114.04	108.20
26	BB	1361	G	O4'-C1'-N9	7.30	114.04	108.20
26	BB	1874	C	O4'-C1'-N1	7.30	114.04	108.20
26	BB	2819	G	C5'-C4'-C3'	-7.30	104.32	116.00
1	AA	17	U	O4'-C1'-N1	7.30	114.04	108.20
26	BB	2688	G	O4'-C1'-N9	7.30	114.04	108.20
1	AA	848	C	O4'-C1'-N1	7.29	114.04	108.20
26	BB	1724	G	C8-N9-C4	-7.29	103.48	106.40
26	BB	2696	U	C5'-C4'-O4'	7.29	117.85	109.10
26	BB	2760	C	C5'-C4'-O4'	7.29	117.85	109.10
26	BB	547	A	O4'-C1'-N9	7.29	114.03	108.20
26	BB	2133	G	O4'-C1'-N9	7.29	114.03	108.20
25	BA	120	U	O4'-C1'-N1	7.29	114.03	108.20
26	BB	992	C	O4'-C1'-N1	7.28	114.03	108.20
2	AE	2	C	O4'-C1'-N1	7.28	114.02	108.20
26	BB	2716	C	O4'-C1'-N1	7.28	114.02	108.20
1	AA	180	U	O4'-C1'-N1	7.28	114.02	108.20
26	BB	444	C	O4'-C1'-N1	7.28	114.02	108.20
26	BB	1634	A	O4'-C1'-N9	7.27	114.02	108.20
26	BB	2011	U	O4'-C1'-N1	7.27	114.02	108.20
26	BB	1652	A	C5'-C4'-C3'	-7.27	104.38	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1399	C	O4'-C1'-N1	7.26	114.01	108.20
26	BB	363	G	C5'-C4'-C3'	-7.26	104.38	116.00
26	BB	2685	G	O4'-C1'-N9	7.26	114.01	108.20
1	AA	403	C	O4'-C1'-N1	7.26	114.01	108.20
26	BB	961	C	O4'-C1'-N1	7.26	114.01	108.20
1	AA	218	U	O4'-C1'-N1	7.26	114.00	108.20
26	BB	720	U	C5'-C4'-O4'	7.26	117.81	109.10
26	BB	131	A	O4'-C1'-N9	7.25	114.00	108.20
26	BB	1516	G	O4'-C1'-N9	7.25	114.00	108.20
1	AA	1151	A	O4'-C1'-N9	7.25	114.00	108.20
1	AA	737	C	O4'-C1'-N1	7.25	114.00	108.20
26	BB	242	G	O4'-C1'-N9	7.24	113.99	108.20
1	AA	1339	A	O4'-C1'-N9	7.24	113.99	108.20
26	BB	285	G	O4'-C1'-N9	7.24	113.99	108.20
26	BB	797	G	O4'-C1'-N9	7.24	113.99	108.20
26	BB	1928	A	O4'-C1'-N9	7.24	113.99	108.20
1	AA	690	G	O4'-C1'-N9	7.24	113.99	108.20
26	BB	1879	C	O4'-C1'-N1	7.24	113.99	108.20
1	AA	44	A	O4'-C1'-N9	7.23	113.99	108.20
25	BA	100	G	N7-C8-N9	7.23	116.71	113.10
26	BB	1513	U	O4'-C1'-N1	7.22	113.98	108.20
26	BB	1670	C	O4'-C1'-N1	7.22	113.98	108.20
26	BB	1073	A	C5'-C4'-O4'	7.22	117.77	109.10
26	BB	494	G	O4'-C1'-N9	7.22	113.98	108.20
26	BB	603	A	O4'-C1'-N9	7.22	113.98	108.20
26	BB	196	A	O4'-C1'-N9	7.22	113.97	108.20
1	AA	123	U	O4'-C1'-N1	7.21	113.97	108.20
26	BB	2798	U	O4'-C1'-N1	7.21	113.97	108.20
26	BB	1318	U	O4'-C1'-N1	7.21	113.97	108.20
26	BB	2147	A	O4'-C1'-N9	7.21	113.97	108.20
1	AA	1182	G	C8-N9-C4	-7.20	103.52	106.40
26	BB	2352	A	C5'-C4'-O4'	7.20	117.75	109.10
1	AA	543	U	O4'-C1'-N1	7.20	113.96	108.20
1	AA	111	G	O4'-C1'-N9	7.20	113.96	108.20
1	AA	469	C	O4'-C1'-N1	7.20	113.96	108.20
26	BB	1109	C	O4'-C1'-N1	7.20	113.96	108.20
26	BB	1392	A	O4'-C1'-N9	-7.19	102.45	108.20
26	BB	701	G	O4'-C1'-N9	7.19	113.95	108.20
1	AA	1534	A	C1'-O4'-C4'	-7.19	104.15	109.90
26	BB	817	C	O4'-C1'-N1	7.19	113.95	108.20
1	AA	1460	C	O4'-C1'-N1	7.19	113.95	108.20
26	BB	772	C	O4'-C1'-N1	7.19	113.95	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	970	C	C5'-C4'-O4'	7.18	117.72	109.10
1	AA	1410	A	O4'-C1'-N9	7.18	113.95	108.20
26	BB	683	U	O4'-C1'-N1	7.18	113.95	108.20
26	BB	2026	U	O4'-C1'-N1	7.18	113.94	108.20
1	AA	415	A	O4'-C1'-N9	7.18	113.94	108.20
25	BA	34	A	N9-C4-C5	7.18	108.67	105.80
26	BB	172	A	O4'-C1'-N9	7.18	113.94	108.20
26	BB	874	G	O4'-C1'-N9	7.18	113.94	108.20
26	BB	889	C	O4'-C1'-N1	7.18	113.94	108.20
26	BB	1854	A	O4'-C1'-N9	7.18	113.94	108.20
26	BB	21	A	O4'-C1'-N9	7.18	113.94	108.20
26	BB	341	C	O4'-C1'-N1	7.17	113.94	108.20
1	AA	883	C	O4'-C1'-N1	7.17	113.94	108.20
1	AA	1449	C	O4'-C1'-N1	7.17	113.94	108.20
1	AA	490	C	O4'-C1'-N1	7.17	113.94	108.20
1	AA	582	C	O4'-C1'-N1	7.17	113.94	108.20
26	BB	1144	A	O4'-C1'-N9	7.17	113.93	108.20
26	BB	1188	U	O4'-C1'-N1	7.17	113.93	108.20
2	AE	18	G	O4'-C1'-N9	7.17	113.93	108.20
26	BB	657	U	C3'-C2'-C1'	7.17	107.23	101.50
1	AA	369	G	O4'-C1'-N9	7.16	113.93	108.20
1	AA	1541	U	O5'-C5'-C4'	-7.16	98.09	111.70
26	BB	1159	U	O4'-C1'-N1	7.16	113.93	108.20
1	AA	269	C	O4'-C1'-N1	7.16	113.92	108.20
26	BB	266	G	C8-N9-C4	-7.15	103.54	106.40
1	AA	1086	U	C5'-C4'-O4'	7.15	117.68	109.10
26	BB	2884	U	C5'-C4'-C3'	-7.15	104.56	116.00
26	BB	1069	A	C4'-C3'-C2'	-7.15	95.45	102.60
26	BB	601	C	O4'-C1'-N1	7.14	113.92	108.20
26	BB	1162	G	O4'-C1'-N9	7.14	113.92	108.20
26	BB	560	C	O4'-C1'-N1	7.14	113.91	108.20
26	BB	1511	G	O4'-C1'-N9	7.14	113.91	108.20
26	BB	297	G	O4'-C1'-N9	7.14	113.91	108.20
2	AB	22	G	O4'-C1'-N9	7.14	113.91	108.20
1	AA	923	A	O4'-C1'-N9	7.14	113.91	108.20
1	AA	13	U	O4'-C1'-N1	7.13	113.91	108.20
1	AA	662	U	O4'-C1'-N1	7.13	113.91	108.20
26	BB	2568	U	O4'-C1'-N1	7.13	113.91	108.20
1	AA	1424	U	O4'-C1'-N1	7.13	113.91	108.20
26	BB	2617	U	O4'-C1'-N1	7.13	113.90	108.20
1	AA	956	U	O4'-C1'-N1	7.13	113.90	108.20
1	AA	1105	A	O4'-C1'-N9	7.13	113.90	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2456	C	O4'-C1'-N1	7.13	113.90	108.20
1	AA	342	C	O4'-C1'-N1	7.12	113.90	108.20
4	AD	36	U	O4'-C1'-N1	7.12	113.90	108.20
26	BB	151	C	O4'-C1'-N1	7.12	113.89	108.20
1	AA	558	G	O4'-C1'-N9	7.11	113.89	108.20
26	BB	942	G	C8-N9-C4	-7.11	103.56	106.40
1	AA	1533	C	C5'-C4'-O4'	7.11	117.63	109.10
26	BB	1600	C	O4'-C1'-N1	7.11	113.89	108.20
26	BB	1872	A	C8-N9-C4	-7.11	102.96	105.80
26	BB	1991	U	O4'-C1'-N1	7.10	113.88	108.20
1	AA	286	C	O4'-C1'-N1	7.10	113.88	108.20
2	AE	56	C	O4'-C1'-N1	7.10	113.88	108.20
26	BB	314	C	O4'-C1'-N1	7.10	113.88	108.20
26	BB	20	C	O4'-C1'-N1	7.10	113.88	108.20
26	BB	765	C	O4'-C1'-N1	7.10	113.88	108.20
26	BB	2629	U	O4'-C4'-C3'	7.10	111.78	106.10
26	BB	2890	G	O4'-C1'-N9	7.10	113.88	108.20
26	BB	1012	U	O4'-C1'-N1	7.10	113.88	108.20
1	AA	1051	C	O4'-C1'-N1	7.09	113.88	108.20
26	BB	2818	U	O4'-C1'-N1	7.09	113.88	108.20
1	AA	1355	G	O4'-C1'-N9	7.09	113.87	108.20
2	AB	44	G	C8-N9-C4	-7.09	103.56	106.40
26	BB	1584	U	O4'-C1'-N1	7.09	113.87	108.20
26	BB	2193	G	O4'-C1'-N9	7.09	113.87	108.20
26	BB	139	U	O4'-C1'-N1	7.09	113.87	108.20
26	BB	1177	G	C5'-C4'-O4'	7.09	117.60	109.10
26	BB	1752	C	O4'-C1'-N1	7.09	113.87	108.20
26	BB	1881	C	O4'-C1'-N1	7.08	113.86	108.20
26	BB	1573	G	C5'-C4'-O4'	7.08	117.59	109.10
26	BB	2401	U	O4'-C1'-N1	7.08	113.86	108.20
26	BB	2395	C	O4'-C1'-N1	7.08	113.86	108.20
1	AA	233	C	O4'-C1'-N1	7.08	113.86	108.20
26	BB	2699	C	O4'-C1'-N1	7.08	113.86	108.20
26	BB	1177	G	C8-N9-C4	-7.07	103.57	106.40
26	BB	1746	A	O3'-P-O5'	-7.07	90.56	104.00
26	BB	774	G	C8-N9-C4	-7.07	103.57	106.40
1	AA	1315	U	C5'-C4'-O4'	7.07	117.58	109.10
26	BB	174	U	O4'-C1'-N1	7.07	113.86	108.20
1	AA	811	C	O4'-C1'-N1	7.07	113.85	108.20
26	BB	1989	G	O4'-C1'-N9	7.07	113.85	108.20
26	BB	2164	C	O4'-C1'-N1	7.07	113.85	108.20
1	AA	1021	A	O4'-C1'-N9	7.06	113.85	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BA	4	C	O4'-C1'-N1	7.06	113.85	108.20
26	BB	393	C	O4'-C1'-N1	7.06	113.85	108.20
26	BB	109	C	O4'-C1'-N1	7.06	113.84	108.20
26	BB	2528	U	O4'-C1'-N1	7.06	113.84	108.20
1	AA	1328	C	O4'-C1'-N1	7.05	113.84	108.20
26	BB	399	U	O4'-C1'-N1	7.05	113.84	108.20
26	BB	2512	C	O4'-C1'-N1	7.05	113.84	108.20
26	BB	1104	C	C6-N1-C2	-7.05	117.48	120.30
26	BB	441	U	O4'-C1'-N1	7.05	113.84	108.20
1	AA	367	U	O4'-C4'-C3'	7.05	111.74	106.10
26	BB	627	A	O4'-C1'-N9	7.05	113.84	108.20
26	BB	1480	C	O4'-C1'-N1	7.04	113.83	108.20
26	BB	616	A	C5'-C4'-C3'	-7.04	104.74	116.00
1	AA	623	C	O4'-C1'-N1	7.04	113.83	108.20
26	BB	2405	G	O4'-C1'-N9	7.04	113.83	108.20
26	BB	2852	G	O4'-C1'-N9	7.04	113.83	108.20
2	AB	49	C	O4'-C1'-N1	7.03	113.83	108.20
26	BB	2302	U	C5'-C4'-O4'	7.03	117.54	109.10
2	AE	35	A	C5'-C4'-O4'	7.03	117.54	109.10
1	AA	694	A	O4'-C1'-N9	7.03	113.82	108.20
26	BB	147	C	O4'-C1'-N1	7.03	113.82	108.20
1	AA	650	G	O4'-C1'-N9	7.03	113.82	108.20
1	AA	1279	G	C3'-C2'-C1'	7.03	107.12	101.50
26	BB	1822	C	O4'-C1'-N1	7.03	113.82	108.20
1	AA	1380	U	N3-C2-O2	-7.02	117.28	122.20
26	BB	570	G	O4'-C1'-N9	7.02	113.82	108.20
25	BA	16	G	N3-C4-C5	-7.02	125.09	128.60
26	BB	913	U	O4'-C1'-N1	7.02	113.81	108.20
26	BB	867	C	O4'-C1'-N1	7.02	113.81	108.20
1	AA	585	G	C5'-C4'-O4'	7.02	117.52	109.10
1	AA	465	A	C5'-C4'-C3'	-7.01	104.78	116.00
26	BB	1537	G	O4'-C1'-N9	7.01	113.81	108.20
1	AA	551	U	O4'-C1'-N1	7.01	113.81	108.20
26	BB	170	U	O4'-C1'-N1	7.01	113.81	108.20
26	BB	2085	U	O4'-C1'-N1	7.01	113.81	108.20
26	BB	644	A	O4'-C1'-N9	7.01	113.81	108.20
26	BB	1242	U	O4'-C1'-N1	7.01	113.81	108.20
26	BB	1871	A	C5'-C4'-C3'	-7.01	104.78	116.00
26	BB	66	C	O4'-C1'-N1	7.00	113.80	108.20
1	AA	12	U	O4'-C1'-N1	7.00	113.80	108.20
1	AA	1117	A	C5'-C4'-C3'	-7.00	104.80	116.00
1	AA	804	U	O4'-C1'-N1	7.00	113.80	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	481	G	O4'-C1'-N9	7.00	113.80	108.20
26	BB	1551	A	O4'-C1'-N9	7.00	113.80	108.20
26	BB	1554	U	O4'-C1'-N1	7.00	113.80	108.20
26	BB	1069	A	C1'-O4'-C4'	-7.00	104.30	109.90
26	BB	2731	G	C8-N9-C4	-7.00	103.60	106.40
1	AA	845	A	O4'-C1'-N9	7.00	113.80	108.20
26	BB	803	U	O4'-C1'-N1	7.00	113.80	108.20
26	BB	2257	U	O4'-C1'-N1	6.99	113.79	108.20
26	BB	2702	G	C5'-C4'-C3'	-6.99	104.81	116.00
4	AD	31	U	C5'-C4'-O4'	6.99	117.49	109.10
1	AA	524	G	O4'-C1'-N9	6.99	113.79	108.20
1	AA	512	U	O4'-C1'-N1	6.98	113.78	108.20
26	BB	2460	U	O4'-C1'-N1	6.98	113.78	108.20
1	AA	1409	C	O4'-C1'-N1	6.97	113.78	108.20
26	BB	214	G	C8-N9-C4	-6.97	103.61	106.40
26	BB	660	C	C5'-C4'-C3'	-6.97	104.84	116.00
26	BB	789	A	C5'-C4'-C3'	-6.97	104.84	116.00
26	BB	1686	C	O4'-C1'-N1	6.97	113.78	108.20
1	AA	194	C	C5'-C4'-C3'	-6.97	104.85	116.00
1	AA	1454	G	O4'-C1'-N9	6.97	113.78	108.20
26	BB	2647	U	O4'-C1'-N1	6.97	113.77	108.20
1	AA	882	C	O4'-C1'-N1	6.96	113.77	108.20
1	AA	810	C	O4'-C1'-N1	6.96	113.77	108.20
1	AA	1148	U	O4'-C1'-N1	6.96	113.77	108.20
1	AA	1440	U	O4'-C1'-N1	6.96	113.77	108.20
1	AA	271	C	C5'-C4'-O4'	6.96	117.45	109.10
26	BB	839	U	O3'-P-O5'	-6.96	90.78	104.00
26	BB	1221	C	O4'-C1'-N1	6.96	113.77	108.20
26	BB	2718	G	C5'-C4'-O4'	6.96	117.45	109.10
26	BB	865	C	O4'-C1'-N1	6.95	113.76	108.20
26	BB	1844	C	O4'-C1'-N1	6.95	113.76	108.20
1	AA	1258	G	O4'-C1'-N9	6.95	113.76	108.20
26	BB	497	A	O4'-C1'-N9	6.95	113.76	108.20
26	BB	424	G	C5'-C4'-C3'	-6.95	104.89	116.00
2	AB	15	G	C8-N9-C4	-6.95	103.62	106.40
1	AA	89	U	O4'-C1'-N1	6.94	113.75	108.20
26	BB	529	A	C1'-O4'-C4'	-6.94	104.35	109.90
26	BB	1148	U	O4'-C1'-N1	6.94	113.75	108.20
1	AA	426	U	O4'-C1'-N1	6.94	113.75	108.20
25	BA	41	G	O4'-C1'-N9	6.94	113.75	108.20
26	BB	296	U	O4'-C1'-N1	6.94	113.75	108.20
26	BB	462	C	O4'-C1'-N1	6.94	113.75	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	3	U	O4'-C1'-N1	6.94	113.75	108.20
26	BB	1396	U	O4'-C1'-N1	6.94	113.75	108.20
1	AA	597	G	C8-N9-C4	-6.93	103.63	106.40
1	AA	1506	U	O4'-C1'-N1	6.93	113.75	108.20
26	BB	1562	U	O4'-C1'-N1	6.93	113.75	108.20
26	BB	53	A	O4'-C1'-N9	6.93	113.74	108.20
26	BB	253	C	C5'-C4'-O4'	6.93	117.41	109.10
1	AA	1372	U	O4'-C1'-N1	6.93	113.74	108.20
1	AA	1092	A	C8-N9-C4	-6.92	103.03	105.80
26	BB	358	U	O4'-C1'-N1	6.92	113.74	108.20
26	BB	1078	U	O4'-C1'-N1	6.92	113.74	108.20
26	BB	2197	U	O4'-C1'-N1	6.92	113.74	108.20
26	BB	2244	U	O4'-C1'-N1	6.92	113.74	108.20
26	BB	280	U	O4'-C1'-N1	6.92	113.74	108.20
26	BB	347	A	C8-N9-C4	-6.92	103.03	105.80
1	AA	655	A	O4'-C1'-N9	6.92	113.74	108.20
1	AA	1117	A	C5'-C4'-O4'	6.92	117.40	109.10
26	BB	416	U	C5'-C4'-O4'	6.92	117.40	109.10
26	BB	1283	G	C8-N9-C4	-6.92	103.63	106.40
26	BB	2188	U	O4'-C1'-N1	6.92	113.73	108.20
1	AA	48	C	O4'-C1'-N1	6.92	113.73	108.20
26	BB	2622	U	C5'-C4'-O4'	6.92	117.40	109.10
1	AA	215	C	C5'-C4'-C3'	-6.91	104.94	116.00
1	AA	782	A	O4'-C1'-N9	6.91	113.73	108.20
2	AB	19	G	N3-C4-C5	-6.91	125.14	128.60
26	BB	238	C	C5'-C4'-O4'	6.91	117.39	109.10
26	BB	1080	A	O4'-C1'-N9	6.91	113.73	108.20
26	BB	184	C	O4'-C1'-N1	6.91	113.73	108.20
25	BA	32	U	O4'-C1'-N1	6.90	113.72	108.20
26	BB	2419	U	C5'-C4'-O4'	6.90	117.38	109.10
26	BB	2500	U	P-O3'-C3'	6.90	127.98	119.70
26	BB	2651	C	O4'-C1'-N1	6.90	113.72	108.20
26	BB	2174	C	O4'-C1'-N1	6.90	113.72	108.20
26	BB	2549	G	O4'-C1'-N9	6.89	113.72	108.20
26	BB	2079	U	O4'-C1'-N1	6.89	113.71	108.20
26	BB	423	A	N9-C4-C5	6.89	108.56	105.80
2	AE	67	C	O4'-C1'-N1	6.89	113.71	108.20
26	BB	650	C	O4'-C1'-N1	6.89	113.71	108.20
1	AA	1389	C	O4'-C1'-N1	6.89	113.71	108.20
26	BB	276	U	O4'-C1'-N1	6.89	113.71	108.20
26	BB	2207	C	O4'-C1'-N1	6.89	113.71	108.20
26	BB	1348	C	O4'-C1'-N1	6.89	113.71	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1411	U	O4'-C1'-N1	6.89	113.71	108.20
26	BB	1067	A	O4'-C1'-N9	6.88	113.71	108.20
26	BB	1209	U	N1-C1'-C2'	-6.88	104.43	112.00
1	AA	659	U	O4'-C1'-N1	6.88	113.70	108.20
1	AA	884	U	O4'-C1'-N1	6.88	113.70	108.20
26	BB	1560	G	C8-N9-C4	-6.88	103.65	106.40
26	BB	2753	A	C8-N9-C4	-6.88	103.05	105.80
26	BB	417	C	O4'-C1'-N1	6.88	113.70	108.20
26	BB	2293	G	O4'-C1'-N9	6.88	113.70	108.20
1	AA	361	G	O4'-C1'-N9	6.88	113.70	108.20
1	AA	273	U	O4'-C1'-N1	6.87	113.70	108.20
1	AA	1137	C	C5'-C4'-C3'	-6.87	105.00	116.00
26	BB	622	G	O4'-C1'-N9	6.87	113.69	108.20
26	BB	790	U	O4'-C1'-N1	6.87	113.69	108.20
26	BB	1523	U	C4'-C3'-C2'	-6.87	95.73	102.60
26	BB	2869	G	O4'-C1'-N9	6.87	113.69	108.20
1	AA	211	G	N3-C4-C5	-6.86	125.17	128.60
26	BB	1727	C	C5'-C4'-O4'	6.86	117.33	109.10
1	AA	266	G	O4'-C1'-N9	6.86	113.69	108.20
1	AA	92	U	O4'-C1'-N1	6.86	113.69	108.20
26	BB	1199	U	O4'-C1'-N1	6.86	113.69	108.20
1	AA	991	U	C5'-C4'-O4'	6.85	117.32	109.10
26	BB	1722	A	C5'-C4'-C3'	-6.85	105.04	116.00
26	BB	2411	A	C5'-C4'-O4'	6.85	117.32	109.10
1	AA	1162	C	O4'-C1'-N1	6.85	113.68	108.20
26	BB	555	G	C8-N9-C4	-6.85	103.66	106.40
1	AA	1103	C	O4'-C1'-N1	6.84	113.67	108.20
26	BB	490	C	O4'-C4'-C3'	6.84	111.57	106.10
26	BB	672	C	O4'-C1'-N1	6.84	113.67	108.20
26	BB	2097	A	O4'-C1'-N9	6.84	113.67	108.20
26	BB	1895	C	O4'-C1'-N1	6.84	113.67	108.20
26	BB	2751	G	C1'-O4'-C4'	-6.84	104.43	109.90
1	AA	909	A	C8-N9-C4	-6.84	103.06	105.80
25	BA	5	U	O4'-C1'-N1	6.84	113.67	108.20
26	BB	1827	U	O4'-C1'-N1	6.84	113.67	108.20
26	BB	1340	U	O4'-C1'-N1	6.84	113.67	108.20
26	BB	1384	A	O4'-C1'-N9	-6.84	102.73	108.20
26	BB	1525	A	O4'-C1'-N9	6.84	113.67	108.20
26	BB	160	A	C5'-C4'-C3'	-6.83	105.06	116.00
26	BB	291	G	O3'-P-O5'	-6.83	91.01	104.00
26	BB	811	U	O4'-C1'-N1	6.83	113.67	108.20
26	BB	1331	G	N3-C4-C5	-6.83	125.18	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1588	G	O4'-C1'-N9	6.83	113.67	108.20
26	BB	1856	U	O4'-C1'-N1	6.83	113.67	108.20
26	BB	2780	G	C8-N9-C4	-6.83	103.67	106.40
26	BB	1524	G	C8-N9-C4	-6.83	103.67	106.40
1	AA	1374	A	O4'-C1'-N9	6.83	113.66	108.20
26	BB	481	G	C8-N9-C4	-6.83	103.67	106.40
1	AA	884	U	C1'-O4'-C4'	-6.82	104.44	109.90
26	BB	493	G	O4'-C1'-N9	6.82	113.66	108.20
26	BB	1706	C	O4'-C1'-N1	6.82	113.66	108.20
26	BB	813	U	O4'-C1'-N1	6.82	113.66	108.20
26	BB	2091	C	O4'-C1'-N1	6.82	113.66	108.20
1	AA	1520	C	O4'-C1'-N1	6.82	113.65	108.20
26	BB	357	C	O4'-C1'-N1	6.82	113.65	108.20
26	BB	848	C	O4'-C1'-N1	6.82	113.65	108.20
1	AA	686	U	O4'-C1'-N1	6.81	113.65	108.20
1	AA	570	G	O4'-C1'-N9	6.81	113.65	108.20
26	BB	433	C	O4'-C1'-N1	6.81	113.65	108.20
1	AA	296	U	C5'-C4'-C3'	-6.81	105.11	116.00
26	BB	919	U	O4'-C1'-N1	6.81	113.65	108.20
26	BB	1634	A	O3'-P-O5'	-6.81	91.06	104.00
1	AA	406	G	N3-C4-C5	-6.81	125.20	128.60
1	AA	525	C	C5'-C4'-O4'	6.81	117.27	109.10
26	BB	607	U	O4'-C1'-N1	6.81	113.65	108.20
26	BB	779	U	O4'-C1'-N1	6.81	113.65	108.20
26	BB	815	C	C3'-C2'-C1'	6.81	106.95	101.50
26	BB	1058	U	O4'-C1'-N1	6.81	113.64	108.20
1	AA	1073	U	O4'-C1'-N1	6.81	113.64	108.20
1	AA	1319	A	C5'-C4'-C3'	-6.80	105.11	116.00
26	BB	884	U	O4'-C1'-N1	6.80	113.64	108.20
26	BB	1332	G	O4'-C1'-N9	6.80	113.64	108.20
1	AA	1448	C	O4'-C1'-N1	6.80	113.64	108.20
26	BB	595	C	O4'-C1'-N1	6.80	113.64	108.20
26	BB	2442	C	O4'-C1'-N1	6.80	113.64	108.20
26	BB	1453	A	O4'-C1'-N9	6.80	113.64	108.20
1	AA	538	G	O4'-C1'-N9	6.80	113.64	108.20
1	AA	147	G	C8-N9-C4	-6.79	103.68	106.40
1	AA	838	G	C8-N9-C4	-6.79	103.68	106.40
1	AA	823	C	O4'-C1'-N1	6.79	113.63	108.20
26	BB	403	U	O4'-C1'-N1	6.79	113.63	108.20
1	AA	907	A	C5'-C4'-C3'	-6.79	105.14	116.00
26	BB	2751	G	C2'-C3'-O3'	6.79	124.56	113.70
1	AA	25	C	O4'-C1'-N1	6.78	113.63	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1492	G	O4'-C1'-N9	6.78	113.63	108.20
26	BB	2799	A	C3'-C2'-C1'	-6.78	96.07	101.50
1	AA	1006	G	O4'-C1'-N9	6.78	113.62	108.20
26	BB	2043	C	C5'-C4'-C3'	-6.78	105.15	116.00
1	AA	259	G	O4'-C1'-N9	6.78	113.62	108.20
1	AA	1244	G	O4'-C1'-N9	6.78	113.62	108.20
26	BB	970	U	O4'-C1'-N1	6.78	113.62	108.20
1	AA	844	G	O4'-C1'-N9	6.78	113.62	108.20
26	BB	1073	A	C5'-C4'-C3'	-6.78	105.16	116.00
2	AB	3	C	O4'-C1'-N1	6.78	113.62	108.20
26	BB	1145	C	C5'-C4'-O4'	6.78	117.23	109.10
1	AA	574	A	O4'-C1'-N9	6.77	113.62	108.20
26	BB	1709	U	C5'-C4'-O4'	6.77	117.23	109.10
26	BB	2698	U	O4'-C1'-N1	6.77	113.62	108.20
2	AB	5	G	O4'-C1'-N9	6.77	113.62	108.20
26	BB	333	G	N3-C4-C5	-6.77	125.22	128.60
1	AA	1059	C	O4'-C1'-N1	6.77	113.61	108.20
26	BB	418	C	O4'-C1'-N1	6.77	113.61	108.20
26	BB	1482	G	O4'-C1'-N9	6.77	113.62	108.20
26	BB	1652	A	C5'-C4'-O4'	6.77	117.22	109.10
26	BB	1662	U	O4'-C1'-N1	6.77	113.62	108.20
1	AA	328	C	N1-C2-O2	6.77	122.96	118.90
26	BB	1119	U	O4'-C1'-N1	6.77	113.61	108.20
1	AA	327	A	C5'-C4'-C3'	-6.76	105.18	116.00
1	AA	46	G	O4'-C1'-N9	6.76	113.61	108.20
26	BB	416	U	O4'-C1'-N1	6.76	113.61	108.20
26	BB	153	U	O4'-C1'-N1	6.76	113.61	108.20
26	BB	834	G	N3-C4-C5	-6.76	125.22	128.60
1	AA	85	U	O4'-C1'-N1	6.75	113.60	108.20
26	BB	231	A	O4'-C1'-N9	6.75	113.60	108.20
26	BB	1339	G	O3'-P-O5'	6.75	116.83	104.00
26	BB	1796	U	O4'-C1'-N1	6.75	113.60	108.20
1	AA	60	A	C2'-C3'-O3'	6.75	124.50	113.70
1	AA	1415	G	O4'-C1'-N9	6.75	113.60	108.20
26	BB	1786	A	C5'-C4'-O4'	6.75	117.20	109.10
26	BB	2723	C	O4'-C1'-N1	6.75	113.60	108.20
26	BB	1573	G	O4'-C1'-N9	6.75	113.60	108.20
26	BB	2819	G	C5'-C4'-O4'	6.75	117.20	109.10
26	BB	1403	A	O4'-C1'-N9	6.75	113.60	108.20
26	BB	1594	U	O4'-C1'-N1	6.74	113.59	108.20
1	AA	1213	A	P-O3'-C3'	6.74	127.79	119.70
26	BB	2370	G	O4'-C1'-N9	6.74	113.59	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	171	U	O4'-C1'-N1	6.74	113.59	108.20
26	BB	1501	G	N9-C4-C5	6.74	108.09	105.40
26	BB	2788	C	O4'-C1'-N1	6.74	113.59	108.20
26	BB	1523	U	P-O3'-C3'	6.74	127.78	119.70
1	AA	1138	G	O4'-C1'-N9	6.74	113.59	108.20
2	AE	29	G	C5'-C4'-O4'	6.74	117.18	109.10
26	BB	335	C	O4'-C1'-N1	6.74	113.59	108.20
26	BB	2089	C	O4'-C1'-N1	6.74	113.59	108.20
26	BB	2692	G	C4'-C3'-C2'	-6.74	95.86	102.60
1	AA	1002	G	O4'-C1'-N9	6.73	113.59	108.20
1	AA	1385	G	C5'-C4'-O4'	6.73	117.18	109.10
1	AA	1075	U	O4'-C1'-N1	6.73	113.58	108.20
1	AA	1292	G	O4'-C1'-N9	6.73	113.58	108.20
1	AA	621	A	C5'-C4'-O4'	6.73	117.17	109.10
2	AE	68	C	O4'-C1'-N1	6.73	113.58	108.20
26	BB	1930	G	C3'-C2'-C1'	6.73	106.88	101.50
1	AA	291	U	O4'-C1'-N1	6.73	113.58	108.20
1	AA	1303	C	O4'-C1'-N1	6.73	113.58	108.20
1	AA	850	U	O4'-C1'-N1	6.72	113.58	108.20
25	BA	85	G	O4'-C1'-N9	6.72	113.58	108.20
1	AA	421	U	O4'-C1'-N1	6.72	113.58	108.20
26	BB	1784	A	O4'-C1'-N9	6.72	113.58	108.20
26	BB	277	G	C5'-C4'-O4'	6.72	117.17	109.10
1	AA	11	G	C5'-C4'-O4'	6.72	117.16	109.10
1	AA	97	G	C8-N9-C4	-6.72	103.71	106.40
25	BA	70	C	O4'-C1'-N1	6.72	113.58	108.20
26	BB	872	U	O4'-C1'-N1	6.72	113.58	108.20
26	BB	1758	U	O4'-C1'-N1	6.72	113.58	108.20
26	BB	2770	G	O4'-C1'-N9	6.72	113.57	108.20
1	AA	1281	C	O4'-C1'-N1	6.72	113.57	108.20
26	BB	895	U	C4'-C3'-O3'	-6.72	95.30	109.40
26	BB	2488	G	C8-N9-C4	-6.72	103.71	106.40
1	AA	868	C	O4'-C1'-N1	6.71	113.57	108.20
26	BB	2799	A	C5'-C4'-O4'	6.71	117.16	109.10
1	AA	154	U	O4'-C1'-N1	6.71	113.57	108.20
2	AE	10	G	N3-C4-C5	-6.71	125.25	128.60
26	BB	2838	G	C5'-C4'-O4'	6.71	117.15	109.10
1	AA	1173	U	C5'-C4'-C3'	-6.71	105.27	116.00
26	BB	896	A	O3'-P-O5'	-6.71	91.26	104.00
26	BB	1303	G	C5'-C4'-O4'	6.71	117.15	109.10
26	BB	2329	U	O4'-C1'-N1	6.71	113.56	108.20
1	AA	987	G	C8-N9-C4	-6.70	103.72	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1266	G	C3'-C2'-C1'	-6.70	96.14	101.50
1	AA	1502	A	C5'-C4'-C3'	-6.70	105.28	116.00
26	BB	764	A	O4'-C1'-C2'	-6.70	99.10	105.80
26	BB	853	C	O4'-C1'-N1	6.70	113.56	108.20
26	BB	2182	U	O4'-C1'-N1	6.70	113.56	108.20
26	BB	548	G	C2-N3-C4	6.70	115.25	111.90
26	BB	1193	G	O4'-C1'-N9	6.70	113.56	108.20
26	BB	946	C	O4'-C1'-N1	6.70	113.56	108.20
1	AA	688	G	C8-N9-C4	-6.69	103.72	106.40
26	BB	1433	A	O4'-C1'-N9	6.69	113.55	108.20
26	BB	2010	G	C5'-C4'-O4'	6.69	117.13	109.10
1	AA	791	G	C8-N9-C4	-6.69	103.72	106.40
26	BB	1740	G	C8-N9-C4	-6.69	103.72	106.40
1	AA	970	C	N1-C1'-C2'	-6.69	104.64	112.00
4	AD	33	U	O4'-C1'-N1	6.69	113.55	108.20
26	BB	647	G	O4'-C1'-N9	6.69	113.55	108.20
26	BB	1210	G	P-O3'-C3'	6.69	127.72	119.70
1	AA	1408	A	C5'-C4'-O4'	6.69	117.12	109.10
1	AA	356	A	O4'-C1'-N9	6.68	113.55	108.20
1	AA	1482	G	O4'-C1'-N9	6.68	113.55	108.20
26	BB	1681	G	O4'-C1'-N9	6.68	113.55	108.20
1	AA	108	G	O4'-C1'-N9	6.68	113.54	108.20
1	AA	121	U	P-O3'-C3'	6.68	127.71	119.70
26	BB	65	U	O4'-C1'-N1	6.68	113.54	108.20
26	BB	667	U	O4'-C1'-N1	6.68	113.54	108.20
26	BB	2634	A	O4'-C1'-N9	6.68	113.54	108.20
26	BB	1914	C	O4'-C1'-N1	6.68	113.54	108.20
26	BB	2471	A	O4'-C1'-N9	6.68	113.54	108.20
26	BB	2582	G	C8-N9-C4	-6.67	103.73	106.40
2	AB	40	C	O4'-C1'-N1	6.67	113.53	108.20
1	AA	1401	G	C8-N9-C4	-6.67	103.73	106.40
26	BB	1258	U	O4'-C1'-N1	6.66	113.53	108.20
1	AA	167	A	O4'-C1'-N9	6.66	113.53	108.20
26	BB	999	U	O4'-C1'-N1	6.66	113.53	108.20
26	BB	2649	C	O4'-C1'-N1	6.66	113.53	108.20
2	AB	7	A	O4'-C1'-N9	6.66	113.53	108.20
26	BB	520	G	O4'-C1'-N9	6.66	113.53	108.20
26	BB	1271	G	N9-C4-C5	6.66	108.06	105.40
26	BB	2889	C	O4'-C1'-N1	6.66	113.53	108.20
1	AA	715	A	O4'-C1'-N9	6.66	113.52	108.20
1	AA	1028	C	O4'-C1'-N1	6.66	113.52	108.20
1	AA	1156	G	O4'-C1'-N9	6.66	113.52	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	498	A	C8-N9-C4	-6.65	103.14	105.80
1	AA	196	A	O4'-C1'-N9	6.65	113.52	108.20
26	BB	1414	C	O4'-C1'-N1	6.65	113.52	108.20
26	BB	160	A	C5'-C4'-O4'	6.65	117.08	109.10
26	BB	1154	G	C8-N9-C4	-6.65	103.74	106.40
26	BB	2509	G	O4'-C1'-N9	6.65	113.52	108.20
26	BB	2797	U	O4'-C1'-N1	6.65	113.52	108.20
26	BB	97	C	O4'-C1'-N1	6.64	113.51	108.20
26	BB	1501	G	O4'-C1'-N9	6.64	113.51	108.20
1	AA	193	C	C5'-C4'-O4'	6.64	117.06	109.10
26	BB	873	C	O4'-C1'-N1	6.64	113.51	108.20
26	BB	1437	C	O4'-C1'-N1	6.64	113.51	108.20
26	BB	1938	A	O4'-C1'-N9	6.64	113.51	108.20
26	BB	2493	U	O4'-C1'-N1	6.64	113.51	108.20
26	BB	352	A	O4'-C1'-N9	6.63	113.51	108.20
26	BB	2658	C	O4'-C1'-N1	6.63	113.51	108.20
1	AA	166	U	O4'-C1'-N1	6.63	113.51	108.20
19	AT	28	ARG	NE-CZ-NH2	-6.63	116.98	120.30
26	BB	487	C	O4'-C1'-N1	6.63	113.51	108.20
26	BB	740	C	O4'-C1'-N1	6.63	113.51	108.20
1	AA	1352	C	O4'-C1'-N1	6.63	113.50	108.20
26	BB	2546	U	O4'-C1'-N1	6.63	113.50	108.20
26	BB	1151	A	O4'-C1'-N9	6.63	113.50	108.20
1	AA	383	A	O4'-C1'-N9	6.63	113.50	108.20
26	BB	451	U	O4'-C1'-N1	6.63	113.50	108.20
26	BB	1788	C	C5'-C4'-O4'	6.63	117.06	109.10
26	BB	1045	C	O4'-C1'-N1	6.62	113.50	108.20
1	AA	436	C	O4'-C1'-N1	6.62	113.50	108.20
1	AA	797	C	C2'-C3'-O3'	6.62	124.29	113.70
1	AA	1315	U	C5'-C4'-C3'	-6.62	105.41	116.00
26	BB	1952	A	C3'-C2'-C1'	6.62	106.80	101.50
26	BB	326	G	O4'-C1'-N9	6.62	113.49	108.20
26	BB	1116	G	O4'-C1'-N9	6.62	113.49	108.20
26	BB	1490	A	C8-N9-C4	-6.62	103.15	105.80
1	AA	778	G	C5'-C4'-C3'	-6.62	105.42	116.00
26	BB	839	U	O4'-C1'-N1	6.62	113.49	108.20
26	BB	527	C	N1-C2-O2	6.61	122.87	118.90
26	BB	2068	U	O4'-C1'-N1	6.61	113.49	108.20
26	BB	2238	G	C8-N9-C4	-6.61	103.75	106.40
26	BB	2779	U	O4'-C1'-N1	6.61	113.49	108.20
26	BB	2050	C	O4'-C1'-N1	6.61	113.49	108.20
26	BB	257	C	O4'-C1'-N1	6.61	113.49	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1053	C	O4'-C1'-N1	6.61	113.49	108.20
26	BB	2223	G	O4'-C1'-N9	6.61	113.49	108.20
26	BB	2368	C	O4'-C1'-N1	6.61	113.49	108.20
26	BB	1100	C	O4'-C1'-N1	6.61	113.49	108.20
26	BB	1865	U	P-O3'-C3'	6.61	127.63	119.70
1	AA	542	G	O4'-C1'-N9	6.61	113.49	108.20
26	BB	214	G	N3-C4-C5	-6.61	125.30	128.60
26	BB	834	G	O4'-C1'-N9	6.61	113.49	108.20
26	BB	2254	C	C5'-C4'-O4'	6.61	117.03	109.10
1	AA	777	A	C5'-C4'-C3'	-6.61	105.43	116.00
26	BB	1738	G	N9-C4-C5	6.61	108.04	105.40
1	AA	1060	U	O4'-C1'-N1	6.60	113.48	108.20
1	AA	818	G	C8-N9-C4	-6.60	103.76	106.40
1	AA	886	G	O4'-C1'-N9	6.60	113.48	108.20
1	AA	1379	G	C5'-C4'-C3'	-6.60	105.44	116.00
4	AD	31	U	C1'-O4'-C4'	-6.60	104.62	109.90
26	BB	586	A	C8-N9-C4	-6.60	103.16	105.80
26	BB	1282	U	O4'-C1'-N1	6.60	113.48	108.20
26	BB	2417	C	O4'-C1'-N1	6.60	113.48	108.20
2	AB	13	C	O4'-C1'-N1	6.60	113.48	108.20
2	AB	28	G	C8-N9-C4	-6.60	103.76	106.40
26	BB	336	C	O4'-C1'-N1	6.60	113.48	108.20
26	BB	1070	A	C5'-C4'-C3'	-6.60	105.44	116.00
26	BB	1441	G	O4'-C1'-N9	6.60	113.48	108.20
26	BB	671	C	O4'-C1'-N1	6.60	113.48	108.20
26	BB	2317	A	O4'-C1'-N9	6.60	113.48	108.20
26	BB	189	G	C5'-C4'-O4'	6.59	117.01	109.10
26	BB	1906	G	O4'-C1'-N9	6.59	113.48	108.20
26	BB	2537	U	O4'-C1'-N1	6.59	113.48	108.20
1	AA	1299	A	O4'-C1'-N9	6.59	113.47	108.20
26	BB	237	C	O4'-C1'-N1	6.59	113.47	108.20
1	AA	738	C	O4'-C1'-N1	6.59	113.47	108.20
26	BB	1079	C	O4'-C1'-N1	6.59	113.47	108.20
26	BB	2629	U	O4'-C1'-N1	6.59	113.47	108.20
26	BB	188	G	O4'-C1'-N9	6.59	113.47	108.20
26	BB	854	C	O4'-C1'-N1	6.59	113.47	108.20
1	AA	589	U	O4'-C1'-N1	6.59	113.47	108.20
26	BB	252	G	O4'-C1'-N9	6.59	113.47	108.20
26	BB	277	G	O4'-C1'-N9	6.59	113.47	108.20
26	BB	356	G	O4'-C1'-N9	6.59	113.47	108.20
26	BB	1645	G	C8-N9-C4	-6.59	103.77	106.40
26	BB	1778	U	O4'-C1'-N1	6.59	113.47	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1105	U	O4'-C1'-N1	6.58	113.47	108.20
26	BB	2582	G	N3-C4-C5	-6.58	125.31	128.60
1	AA	129	A	O4'-C1'-N9	6.58	113.47	108.20
26	BB	2635	A	O4'-C1'-N9	6.58	113.47	108.20
1	AA	849	G	C8-N9-C4	-6.58	103.77	106.40
26	BB	1973	G	C5'-C4'-O4'	6.58	117.00	109.10
26	BB	1114	C	C5'-C4'-O4'	6.58	116.99	109.10
1	AA	1477	U	C5'-C4'-O4'	6.58	116.99	109.10
26	BB	518	G	C5'-C4'-O4'	6.58	116.99	109.10
1	AA	61	G	C8-N9-C4	-6.57	103.77	106.40
26	BB	920	A	O4'-C1'-N9	6.57	113.46	108.20
26	BB	1063	G	C8-N9-C4	-6.57	103.77	106.40
26	BB	1504	A	O4'-C1'-N9	6.57	113.46	108.20
2	AB	28	G	N3-C4-C5	-6.57	125.31	128.60
26	BB	748	G	C5'-C4'-O4'	6.57	116.99	109.10
1	AA	1390	U	O4'-C1'-N1	6.57	113.46	108.20
26	BB	333	G	C8-N9-C4	-6.57	103.77	106.40
26	BB	2045	C	O4'-C1'-N1	6.57	113.46	108.20
25	BA	36	C	C5'-C4'-C3'	-6.57	105.50	116.00
26	BB	1993	U	O4'-C1'-N1	6.56	113.45	108.20
26	BB	592	A	O4'-C1'-N9	6.56	113.45	108.20
1	AA	793	U	O3'-P-O5'	-6.56	91.54	104.00
26	BB	10	A	C5'-C4'-C3'	-6.56	105.50	116.00
26	BB	195	A	C5'-C4'-O4'	6.56	116.97	109.10
26	BB	1897	G	O4'-C1'-N9	6.56	113.45	108.20
26	BB	2238	G	N9-C4-C5	6.56	108.02	105.40
26	BB	2393	U	O4'-C1'-N1	6.56	113.45	108.20
1	AA	759	A	O4'-C1'-N9	6.56	113.45	108.20
1	AA	798	U	O4'-C1'-N1	6.56	113.44	108.20
1	AA	1230	C	O4'-C1'-N1	6.56	113.44	108.20
26	BB	566	U	C5'-C4'-O4'	6.55	116.97	109.10
26	BB	2060	A	O4'-C1'-C2'	-6.55	99.25	105.80
26	BB	1751	U	O4'-C1'-N1	6.55	113.44	108.20
26	BB	2744	G	C5'-C4'-O4'	6.55	116.96	109.10
26	BB	599	A	O4'-C1'-N9	6.55	113.44	108.20
26	BB	796	C	O4'-C1'-N1	6.55	113.44	108.20
1	AA	224	U	O4'-C1'-N1	6.55	113.44	108.20
26	BB	2260	C	O4'-C1'-N1	6.55	113.44	108.20
26	BB	2738	A	O4'-C1'-N9	6.55	113.44	108.20
26	BB	122	G	O4'-C1'-N9	6.54	113.44	108.20
1	AA	156	C	O4'-C1'-N1	6.54	113.44	108.20
1	AA	787	A	O4'-C1'-N9	6.54	113.44	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1318	A	C5'-C4'-C3'	-6.54	105.53	116.00
26	BB	548	G	O4'-C1'-N9	6.54	113.44	108.20
26	BB	1261	C	O4'-C1'-N1	6.54	113.43	108.20
1	AA	2	A	C3'-C2'-C1'	-6.54	96.27	101.50
1	AA	70	U	O4'-C1'-N1	6.54	113.43	108.20
26	BB	15	G	C8-N9-C4	-6.54	103.78	106.40
26	BB	558	U	O4'-C1'-N1	6.54	113.43	108.20
26	BB	2219	U	C2-N3-C4	-6.54	123.08	127.00
26	BB	2131	U	O4'-C1'-N1	6.54	113.43	108.20
26	BB	124	G	O4'-C1'-N9	6.54	113.43	108.20
26	BB	205	G	O4'-C1'-N9	6.54	113.43	108.20
26	BB	2693	G	O4'-C1'-N9	6.53	113.43	108.20
1	AA	1380	U	N1-C2-N3	6.53	118.82	114.90
1	AA	360	G	O4'-C1'-N9	6.53	113.42	108.20
26	BB	2890	G	C8-N9-C4	-6.52	103.79	106.40
4	AD	39	U	O4'-C1'-N1	6.52	113.42	108.20
26	BB	2319	G	O4'-C1'-N9	6.52	113.42	108.20
26	BB	160	A	O4'-C1'-N9	6.52	113.42	108.20
26	BB	691	C	O4'-C1'-N1	6.52	113.42	108.20
1	AA	267	C	O4'-C1'-N1	6.52	113.41	108.20
1	AA	595	A	O4'-C4'-C3'	6.52	111.31	106.10
26	BB	1606	C	N1-C2-O2	6.52	122.81	118.90
26	BB	1127	A	O4'-C1'-N9	-6.52	102.99	108.20
26	BB	2739	U	C4'-C3'-C2'	-6.52	96.08	102.60
26	BB	2008	C	O4'-C1'-N1	6.51	113.41	108.20
26	BB	2134	A	O4'-C1'-N9	6.51	113.41	108.20
1	AA	1455	G	O4'-C1'-N9	6.51	113.41	108.20
1	AA	628	G	O4'-C1'-N9	6.51	113.41	108.20
1	AA	865	A	C3'-C2'-C1'	6.51	106.71	101.50
1	AA	1452	C	O4'-C1'-N1	6.51	113.41	108.20
26	BB	2338	C	O4'-C1'-N1	6.51	113.41	108.20
1	AA	1374	A	C5'-C4'-C3'	-6.51	105.59	116.00
26	BB	2000	C	O4'-C1'-N1	6.51	113.41	108.20
26	BB	2800	A	O4'-C1'-N9	6.51	113.41	108.20
26	BB	2847	U	O4'-C1'-N1	6.51	113.41	108.20
26	BB	1883	U	O4'-C1'-N1	6.50	113.40	108.20
1	AA	628	G	C8-N9-C4	-6.50	103.80	106.40
26	BB	525	U	O4'-C1'-N1	6.50	113.40	108.20
26	BB	2007	U	C5'-C4'-C3'	-6.50	105.59	116.00
1	AA	352	C	C5'-C4'-O4'	6.50	116.90	109.10
26	BB	664	G	O4'-C1'-N9	6.50	113.40	108.20
1	AA	732	C	O4'-C1'-N1	6.50	113.40	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1481	U	O4'-C1'-N1	6.50	113.40	108.20
1	AA	955	U	O4'-C1'-N1	6.50	113.40	108.20
1	AA	1474	U	O4'-C1'-N1	6.50	113.40	108.20
26	BB	368	A	C8-N9-C4	-6.50	103.20	105.80
26	BB	568	U	O4'-C1'-N1	6.50	113.40	108.20
26	BB	2379	G	O4'-C1'-N9	6.50	113.40	108.20
26	BB	612	G	C8-N9-C4	-6.50	103.80	106.40
2	AE	19	G	O4'-C1'-N9	6.49	113.39	108.20
26	BB	1828	G	O4'-C1'-N9	6.49	113.39	108.20
26	BB	1837	C	O4'-C1'-N1	6.49	113.39	108.20
26	BB	1986	C	O4'-C1'-N1	6.49	113.39	108.20
26	BB	2705	A	C4'-C3'-C2'	-6.49	96.11	102.60
26	BB	540	C	O4'-C1'-N1	6.49	113.39	108.20
1	AA	1291	U	O4'-C1'-N1	6.49	113.39	108.20
26	BB	502	A	O4'-C1'-N9	6.49	113.39	108.20
26	BB	862	G	C8-N9-C4	-6.49	103.81	106.40
26	BB	2053	G	O4'-C1'-N9	6.49	113.39	108.20
1	AA	911	U	O4'-C1'-N1	6.48	113.39	108.20
25	BA	59	A	C8-N9-C4	-6.48	103.21	105.80
26	BB	1847	A	O4'-C1'-N9	6.48	113.39	108.20
1	AA	644	U	O4'-C1'-N1	6.48	113.38	108.20
26	BB	144	A	O4'-C1'-N9	6.48	113.38	108.20
1	AA	359	G	O4'-C1'-N9	6.48	113.38	108.20
25	BA	62	C	O4'-C1'-N1	6.48	113.38	108.20
26	BB	99	U	O4'-C1'-N1	6.48	113.38	108.20
1	AA	398	U	C5'-C4'-C3'	-6.47	105.64	116.00
26	BB	216	A	O4'-C1'-N9	6.47	113.38	108.20
26	BB	455	C	C3'-C2'-C1'	6.47	106.68	101.50
26	BB	1707	G	C8-N9-C4	-6.47	103.81	106.40
1	AA	909	A	O4'-C1'-N9	6.47	113.38	108.20
26	BB	231	A	C5'-C4'-C3'	-6.47	105.65	116.00
26	BB	2339	C	C5'-C4'-O4'	6.47	116.86	109.10
26	BB	94	A	O4'-C1'-N9	6.47	113.38	108.20
26	BB	1812	U	O4'-C1'-N1	6.47	113.38	108.20
26	BB	2149	U	O4'-C1'-N1	6.47	113.38	108.20
26	BB	1901	A	C1'-O4'-C4'	-6.47	104.73	109.90
26	BB	2507	C	O4'-C1'-N1	6.47	113.38	108.20
1	AA	896	C	O4'-C1'-N1	6.47	113.37	108.20
26	BB	1717	A	O4'-C1'-N9	6.47	113.37	108.20
2	AE	66	U	O4'-C1'-N1	6.46	113.37	108.20
1	AA	178	C	O4'-C1'-N1	6.46	113.37	108.20
26	BB	1606	C	O4'-C1'-N1	6.46	113.37	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2728	U	O4'-C1'-N1	6.46	113.37	108.20
2	AB	41	C	O4'-C1'-N1	6.46	113.37	108.20
26	BB	843	G	C8-N9-C4	-6.46	103.82	106.40
26	BB	1070	A	C1'-O4'-C4'	-6.46	104.73	109.90
26	BB	2560	A	O3'-P-O5'	-6.46	91.72	104.00
1	AA	1432	G	O4'-C1'-N9	6.46	113.37	108.20
26	BB	1974	C	O4'-C1'-N1	6.46	113.37	108.20
26	BB	1402	U	C5'-C4'-O4'	6.46	116.85	109.10
26	BB	1279	G	O4'-C1'-N9	6.45	113.36	108.20
26	BB	2428	G	C8-N9-C4	-6.45	103.82	106.40
1	AA	1100	C	O4'-C1'-N1	6.45	113.36	108.20
3	AC	87	TYR	CB-CG-CD1	-6.45	117.13	121.00
2	AB	44	G	N3-C4-C5	-6.45	125.38	128.60
26	BB	1933	G	C5'-C4'-C3'	-6.45	105.68	116.00
26	BB	1765	U	O4'-C1'-N1	6.45	113.36	108.20
26	BB	2191	A	O4'-C1'-N9	6.45	113.36	108.20
26	BB	2783	U	O4'-C1'-N1	6.45	113.36	108.20
1	AA	1184	G	C8-N9-C4	-6.45	103.82	106.40
1	AA	1225	A	O4'-C1'-N9	-6.45	103.04	108.20
1	AA	118	U	O4'-C1'-N1	6.44	113.36	108.20
26	BB	2172	U	P-O3'-C3'	6.44	127.43	119.70
26	BB	461	C	O4'-C1'-N1	6.44	113.35	108.20
1	AA	532	A	O4'-C1'-N9	6.44	113.35	108.20
26	BB	1656	C	O4'-C1'-N1	6.44	113.35	108.20
26	BB	1727	C	O4'-C1'-N1	6.44	113.35	108.20
1	AA	891	U	O4'-C1'-N1	6.44	113.35	108.20
26	BB	191	A	O4'-C1'-N9	6.44	113.35	108.20
26	BB	1999	C	C5'-C4'-O4'	6.44	116.83	109.10
26	BB	2665	A	C5'-C4'-C3'	-6.44	105.70	116.00
26	BB	1637	A	C5'-C4'-C3'	-6.43	105.70	116.00
25	BA	113	C	O4'-C1'-N1	6.43	113.34	108.20
26	BB	759	G	N3-C4-C5	-6.43	125.38	128.60
25	BA	37	C	C6-N1-C2	-6.43	117.73	120.30
26	BB	2162	G	C8-N9-C4	-6.43	103.83	106.40
26	BB	1845	G	O4'-C1'-N9	6.43	113.34	108.20
25	BA	79	G	C8-N9-C4	-6.42	103.83	106.40
2	AE	70	G	O4'-C1'-N9	6.42	113.34	108.20
26	BB	332	A	C5'-C4'-O4'	6.42	116.80	109.10
26	BB	1103	A	O4'-C1'-N9	6.42	113.34	108.20
26	BB	597	G	O4'-C1'-N9	6.42	113.33	108.20
1	AA	108	G	N3-C4-C5	-6.42	125.39	128.60
1	AA	639	G	C8-N9-C4	-6.42	103.83	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	836	G	C8-N9-C4	-6.42	103.83	106.40
1	AA	1300	G	P-O3'-C3'	6.42	127.40	119.70
26	BB	2875	C	O4'-C1'-N1	6.42	113.33	108.20
1	AA	414	A	C1'-O4'-C4'	6.41	115.03	109.90
26	BB	1773	A	C5'-C4'-O4'	6.41	116.80	109.10
25	BA	20	G	O4'-C1'-N9	6.41	113.33	108.20
1	AA	1273	C	O4'-C1'-N1	6.41	113.33	108.20
26	BB	2344	U	O4'-C1'-N1	6.41	113.33	108.20
26	BB	954	G	C5'-C4'-C3'	-6.41	105.75	116.00
26	BB	966	G	O4'-C1'-N9	6.41	113.33	108.20
25	BA	77	U	C3'-C2'-C1'	-6.40	96.38	101.50
25	BA	16	G	C8-N9-C4	-6.40	103.84	106.40
26	BB	970	U	C4'-C3'-C2'	6.40	109.00	102.60
26	BB	1060	U	P-O3'-C3'	6.40	127.38	119.70
26	BB	2350	C	O4'-C1'-N1	6.40	113.32	108.20
1	AA	847	G	N3-C4-C5	-6.40	125.40	128.60
26	BB	1410	G	O4'-C1'-N9	6.40	113.32	108.20
26	BB	1792	G	C5'-C4'-C3'	-6.40	105.77	116.00
26	BB	350	G	O4'-C1'-N9	6.39	113.32	108.20
26	BB	1694	C	N1-C2-O2	6.39	122.74	118.90
26	BB	1869	G	N9-C4-C5	6.39	107.96	105.40
26	BB	2308	G	C8-N9-C4	-6.39	103.84	106.40
26	BB	2006	C	C5'-C4'-O4'	6.39	116.77	109.10
1	AA	876	C	O4'-C1'-N1	6.39	113.31	108.20
26	BB	1026	G	O4'-C1'-N9	6.39	113.31	108.20
26	BB	397	U	O4'-C1'-N1	6.39	113.31	108.20
26	BB	688	U	O4'-C1'-N1	6.39	113.31	108.20
1	AA	594	U	O4'-C1'-N1	6.39	113.31	108.20
26	BB	1610	A	O4'-C1'-N9	6.39	113.31	108.20
26	BB	1177	G	C5'-C4'-C3'	-6.39	105.78	116.00
26	BB	2574	G	C8-N9-C4	-6.38	103.85	106.40
26	BB	2767	C	O4'-C1'-N1	6.38	113.31	108.20
1	AA	1288	A	C8-N9-C4	-6.38	103.25	105.80
26	BB	935	C	O4'-C1'-N1	6.38	113.30	108.20
26	BB	1064	C	C3'-C2'-C1'	-6.38	96.40	101.50
1	AA	1013	G	O4'-C1'-N9	6.38	113.30	108.20
2	AB	12	U	O4'-C1'-N1	6.38	113.30	108.20
26	BB	419	U	O4'-C1'-N1	6.38	113.30	108.20
26	BB	29	U	O4'-C1'-N1	6.38	113.30	108.20
26	BB	1489	C	O4'-C1'-N1	6.38	113.30	108.20
1	AA	1009	U	O4'-C1'-N1	6.37	113.30	108.20
1	AA	1015	G	O4'-C1'-N9	6.37	113.30	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1103	C	C5'-C4'-C3'	-6.37	105.80	116.00
26	BB	1408	G	C3'-C2'-C1'	-6.37	96.40	101.50
26	BB	2771	C	O4'-C1'-N1	6.37	113.30	108.20
1	AA	160	A	O4'-C1'-N9	6.37	113.30	108.20
25	BA	43	C	O4'-C1'-N1	6.37	113.30	108.20
26	BB	378	C	C5'-C4'-O4'	6.37	116.75	109.10
26	BB	2301	C	O4'-C1'-N1	6.37	113.30	108.20
26	BB	1177	G	N3-C4-C5	-6.37	125.42	128.60
26	BB	1990	C	O4'-C1'-N1	6.37	113.30	108.20
1	AA	619	U	C5'-C4'-C3'	-6.36	105.82	116.00
26	BB	1313	U	C5'-C4'-O4'	6.36	116.73	109.10
1	AA	200	G	C5'-C4'-C3'	-6.36	105.82	116.00
1	AA	268	U	C5'-C4'-C3'	-6.36	105.82	116.00
1	AA	705	G	O4'-C1'-N9	6.36	113.29	108.20
2	AE	4	C	O4'-C1'-N1	6.36	113.29	108.20
1	AA	72	A	C5'-C4'-O4'	6.36	116.73	109.10
1	AA	860	A	O4'-C1'-N9	6.36	113.29	108.20
1	AA	962	C	C5'-C4'-O4'	6.36	116.73	109.10
26	BB	1889	A	C8-N9-C4	-6.36	103.26	105.80
26	BB	2018	G	O4'-C1'-N9	6.36	113.29	108.20
26	BB	2852	G	C8-N9-C4	-6.36	103.86	106.40
1	AA	1158	C	C3'-C2'-C1'	6.35	106.58	101.50
26	BB	2565	A	C8-N9-C4	-6.35	103.26	105.80
26	BB	810	U	O4'-C1'-N1	6.35	113.28	108.20
1	AA	818	G	O4'-C1'-C2'	-6.35	99.45	105.80
26	BB	1746	A	O4'-C1'-N9	6.35	113.28	108.20
1	AA	222	C	O4'-C1'-N1	6.35	113.28	108.20
1	AA	603	U	O4'-C1'-N1	6.35	113.28	108.20
2	AB	76	A	O4'-C1'-N9	6.35	113.28	108.20
26	BB	1592	C	O4'-C1'-N1	6.35	113.28	108.20
26	BB	1998	A	O4'-C1'-N9	6.35	113.28	108.20
26	BB	2192	U	C5'-C4'-O4'	6.35	116.72	109.10
26	BB	2822	G	C5'-C4'-C3'	-6.35	105.84	116.00
1	AA	1089	G	C8-N9-C4	-6.34	103.86	106.40
26	BB	1560	G	C5'-C4'-C3'	-6.34	105.85	116.00
1	AA	65	A	O4'-C1'-N9	6.34	113.27	108.20
26	BB	1476	U	O4'-C1'-N1	6.34	113.27	108.20
26	BB	2548	U	O4'-C1'-N1	6.34	113.27	108.20
26	BB	1218	G	O4'-C1'-N9	6.34	113.27	108.20
26	BB	2741	A	C4'-C3'-C2'	-6.34	96.26	102.60
1	AA	1046	A	C5'-C4'-O4'	6.34	116.70	109.10
2	AE	44	G	O4'-C1'-N9	6.34	113.27	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	59	U	P-O3'-C3'	6.34	127.31	119.70
26	BB	856	G	C5'-C4'-O4'	6.34	116.70	109.10
26	BB	2206	C	O4'-C1'-N1	6.33	113.27	108.20
26	BB	2398	U	C5'-C4'-O4'	6.33	116.70	109.10
1	AA	1128	C	C5'-C4'-O4'	6.33	116.70	109.10
1	AA	1401	G	N3-C4-C5	-6.33	125.44	128.60
26	BB	126	A	C5'-C4'-O4'	6.33	116.70	109.10
26	BB	364	C	O4'-C1'-N1	6.33	113.26	108.20
1	AA	826	C	O4'-C4'-C3'	6.33	111.16	106.10
26	BB	469	G	C8-N9-C4	-6.33	103.87	106.40
1	AA	632	U	O4'-C1'-N1	6.33	113.26	108.20
26	BB	2810	A	C8-N9-C4	-6.33	103.27	105.80
26	BB	60	G	O4'-C1'-N9	6.33	113.26	108.20
26	BB	402	A	C8-N9-C4	-6.33	103.27	105.80
26	BB	2541	A	C5'-C4'-O4'	6.32	116.69	109.10
1	AA	843	U	C3'-C2'-C1'	6.32	106.56	101.50
26	BB	575	A	O4'-C1'-N9	6.32	113.26	108.20
26	BB	989	G	C1'-O4'-C4'	-6.32	104.84	109.90
1	AA	793	U	O4'-C1'-N1	6.32	113.26	108.20
26	BB	834	G	N7-C8-N9	6.32	116.26	113.10
26	BB	2255	G	C8-N9-C4	-6.32	103.87	106.40
26	BB	2393	U	N1-C1'-C2'	-6.32	105.05	112.00
1	AA	79	G	O4'-C1'-N9	6.32	113.25	108.20
26	BB	548	G	N3-C4-C5	-6.32	125.44	128.60
1	AA	91	U	C5'-C4'-O4'	6.32	116.68	109.10
26	BB	1637	A	C5'-C4'-O4'	6.32	116.68	109.10
2	AB	70	G	O4'-C1'-N9	6.31	113.25	108.20
26	BB	389	G	N3-C4-C5	-6.31	125.44	128.60
26	BB	988	A	O4'-C1'-N9	6.31	113.25	108.20
26	BB	1154	G	N7-C8-N9	6.31	116.26	113.10
26	BB	724	U	O4'-C1'-N1	6.31	113.25	108.20
26	BB	230	G	C4'-C3'-C2'	-6.31	96.29	102.60
1	AA	915	A	O4'-C1'-N9	6.31	113.25	108.20
26	BB	2643	G	O4'-C1'-N9	6.31	113.25	108.20
1	AA	246	A	C5'-C4'-O4'	6.30	116.67	109.10
1	AA	760	G	O4'-C1'-N9	6.30	113.24	108.20
1	AA	1025	U	O4'-C1'-N1	6.30	113.24	108.20
26	BB	236	C	N1-C1'-C2'	-6.30	105.07	112.00
26	BB	798	G	O4'-C1'-N9	6.30	113.24	108.20
1	AA	285	C	O4'-C1'-N1	6.30	113.24	108.20
1	AA	843	U	O4'-C4'-C3'	6.30	111.14	106.10
1	AA	1143	G	C8-N9-C4	-6.30	103.88	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	103	A	C8-N9-C4	-6.30	103.28	105.80
26	BB	2733	A	O4'-C1'-N9	6.30	113.24	108.20
9	AJ	113	ARG	NE-CZ-NH1	6.30	123.45	120.30
26	BB	925	A	O4'-C1'-N9	6.30	113.24	108.20
26	BB	1564	C	O4'-C1'-N1	6.30	113.24	108.20
26	BB	1561	C	O4'-C1'-N1	6.30	113.24	108.20
1	AA	858	G	C8-N9-C4	-6.29	103.88	106.40
26	BB	1535	A	O3'-P-O5'	-6.29	92.04	104.00
26	BB	1730	C	N1-C2-O2	6.29	122.68	118.90
1	AA	1227	A	O3'-P-O5'	-6.29	92.05	104.00
1	AA	861	G	N3-C4-C5	-6.29	125.45	128.60
1	AA	699	C	O4'-C1'-N1	6.29	113.23	108.20
1	AA	951	G	C8-N9-C4	-6.29	103.89	106.40
26	BB	1511	G	C5'-C4'-O4'	6.29	116.64	109.10
1	AA	122	G	N3-C4-C5	-6.29	125.46	128.60
1	AA	1037	C	O4'-C1'-N1	6.29	113.23	108.20
26	BB	473	G	C5'-C4'-O4'	6.28	116.64	109.10
1	AA	1052	U	O4'-C1'-N1	6.28	113.23	108.20
25	BA	34	A	C5'-C4'-O4'	6.28	116.64	109.10
26	BB	244	A	O4'-C1'-N9	6.28	113.23	108.20
26	BB	1337	G	C8-N9-C4	-6.28	103.89	106.40
26	BB	1867	G	O4'-C1'-N9	6.28	113.23	108.20
26	BB	2386	A	C3'-C2'-C1'	-6.28	96.47	101.50
26	BB	2429	G	P-O3'-C3'	6.28	127.24	119.70
25	BA	100	G	N3-C4-C5	-6.28	125.46	128.60
26	BB	14	A	C5'-C4'-O4'	6.28	116.64	109.10
26	BB	1455	G	C5'-C4'-O4'	6.28	116.64	109.10
26	BB	2094	A	O4'-C1'-N9	6.28	113.22	108.20
26	BB	2306	C	P-O3'-C3'	6.28	127.23	119.70
25	BA	64	G	O4'-C1'-N9	6.28	113.22	108.20
26	BB	324	A	C5'-C4'-C3'	-6.28	105.95	116.00
26	BB	1918	A	O4'-C1'-N9	6.28	113.22	108.20
26	BB	22	C	O4'-C1'-N1	6.28	113.22	108.20
26	BB	1175	A	C5'-C4'-C3'	-6.28	105.96	116.00
26	BB	190	A	C5'-C4'-C3'	-6.27	105.97	116.00
26	BB	1793	C	O4'-C1'-N1	6.27	113.22	108.20
26	BB	1343	G	N3-C4-C5	-6.27	125.47	128.60
26	BB	1543	G	C5'-C4'-O4'	6.27	116.62	109.10
26	BB	1761	C	P-O3'-C3'	6.27	127.22	119.70
26	BB	1138	G	C8-N9-C4	-6.27	103.89	106.40
1	AA	157	U	O4'-C1'-N1	6.26	113.21	108.20
1	AA	1164	G	O4'-C1'-N9	6.26	113.21	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1203	U	N3-C2-O2	-6.26	117.82	122.20
26	BB	1460	U	O4'-C1'-N1	6.26	113.21	108.20
26	BB	479	A	P-O3'-C3'	6.26	127.21	119.70
26	BB	1242	U	N1-C2-N3	6.26	118.66	114.90
26	BB	1887	C	C4'-C3'-C2'	6.26	108.86	102.60
1	AA	351	G	O4'-C1'-N9	6.26	113.21	108.20
2	AB	43	C	O4'-C1'-N1	6.26	113.21	108.20
25	BA	34	A	P-O3'-C3'	6.26	127.21	119.70
26	BB	209	C	O4'-C1'-N1	6.26	113.21	108.20
26	BB	1101	U	O4'-C1'-N1	6.26	113.21	108.20
26	BB	1574	C	O4'-C1'-N1	6.26	113.21	108.20
26	BB	1964	G	C8-N9-C1'	6.26	135.14	127.00
26	BB	820	A	C5'-C4'-O4'	6.25	116.61	109.10
26	BB	1036	G	O4'-C1'-N9	6.25	113.20	108.20
1	AA	803	G	N3-C4-C5	-6.25	125.47	128.60
1	AA	249	U	O4'-C1'-N1	6.25	113.20	108.20
1	AA	779	C	O4'-C1'-N1	6.25	113.20	108.20
26	BB	2780	G	O4'-C1'-N9	6.25	113.20	108.20
26	BB	2806	C	O4'-C1'-N1	6.25	113.20	108.20
1	AA	652	U	O4'-C1'-N1	6.24	113.19	108.20
1	AA	986	U	O4'-C1'-N1	6.24	113.20	108.20
26	BB	827	U	O4'-C1'-N1	6.24	113.19	108.20
1	AA	709	U	O4'-C1'-N1	6.24	113.19	108.20
26	BB	733	G	C5'-C4'-O4'	6.24	116.59	109.10
1	AA	1312	G	C5'-C4'-O4'	6.24	116.59	109.10
26	BB	1726	C	O4'-C1'-N1	6.24	113.19	108.20
1	AA	59	A	C5'-C4'-O4'	6.24	116.58	109.10
2	AE	65	G	O4'-C1'-N9	6.24	113.19	108.20
26	BB	1786	A	C5'-C4'-C3'	-6.24	106.02	116.00
1	AA	901	A	O4'-C1'-N9	6.23	113.19	108.20
26	BB	241	A	O4'-C1'-N9	6.23	113.18	108.20
26	BB	2192	U	O4'-C1'-N1	6.23	113.19	108.20
1	AA	207	C	O4'-C1'-N1	6.23	113.18	108.20
26	BB	2810	A	C5'-C4'-C3'	-6.23	106.03	116.00
26	BB	26	G	O4'-C1'-N9	6.23	113.18	108.20
26	BB	997	G	O4'-C1'-N9	6.23	113.18	108.20
1	AA	1085	U	C3'-C2'-C1'	-6.23	96.52	101.50
1	AA	661	G	C8-N9-C4	-6.22	103.91	106.40
1	AA	266	G	C5'-C4'-O4'	-6.22	101.63	109.10
1	AA	854	U	C5'-C4'-O4'	6.22	116.57	109.10
26	BB	998	C	O4'-C1'-N1	6.22	113.18	108.20
26	BB	1963	U	P-O3'-C3'	6.22	127.17	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1060	U	P-O3'-C3'	6.22	127.17	119.70
1	AA	1512	U	O4'-C1'-N1	6.22	113.18	108.20
26	BB	54	G	C8-N9-C4	-6.22	103.91	106.40
26	BB	969	G	O4'-C1'-N9	6.22	113.18	108.20
26	BB	1240	U	O4'-C1'-N1	6.22	113.17	108.20
26	BB	2114	A	O4'-C1'-N9	6.22	113.17	108.20
26	BB	2740	A	C5'-C4'-O4'	6.22	116.56	109.10
26	BB	2881	U	C2-N3-C4	-6.22	123.27	127.00
1	AA	675	A	O4'-C1'-N9	6.22	113.17	108.20
1	AA	1326	U	O4'-C1'-N1	6.22	113.17	108.20
26	BB	1355	G	O4'-C1'-N9	6.22	113.17	108.20
26	BB	2241	A	O4'-C1'-N9	6.22	113.17	108.20
26	BB	2807	U	C4'-C3'-C2'	-6.22	96.38	102.60
1	AA	1358	U	N1-C2-N3	6.21	118.63	114.90
26	BB	536	G	O4'-C1'-N9	6.21	113.17	108.20
26	BB	2497	A	O4'-C1'-N9	6.21	113.17	108.20
1	AA	741	G	C8-N9-C4	-6.21	103.92	106.40
26	BB	743	A	C5'-C4'-O4'	6.21	116.55	109.10
26	BB	1217	U	O4'-C1'-N1	6.21	113.17	108.20
1	AA	776	G	C8-N9-C4	-6.21	103.92	106.40
1	AA	817	C	O4'-C1'-N1	6.21	113.16	108.20
1	AA	937	A	O4'-C1'-N9	6.21	113.17	108.20
26	BB	662	G	O4'-C1'-N9	6.21	113.17	108.20
1	AA	57	G	O4'-C1'-N9	6.21	113.16	108.20
26	BB	413	C	O4'-C1'-N1	6.20	113.16	108.20
26	BB	1786	A	C1'-O4'-C4'	-6.20	104.94	109.90
1	AA	1485	U	O4'-C1'-N1	6.20	113.16	108.20
1	AA	672	U	O4'-C1'-N1	6.20	113.16	108.20
25	BA	10	G	O4'-C1'-N9	6.20	113.16	108.20
26	BB	40	U	O4'-C1'-N1	6.20	113.16	108.20
26	BB	825	A	C5'-C4'-O4'	6.20	116.54	109.10
26	BB	2176	A	O4'-C1'-N9	6.20	113.16	108.20
1	AA	1099	G	O4'-C1'-N9	6.20	113.16	108.20
1	AA	997	U	O4'-C1'-N1	6.19	113.15	108.20
26	BB	356	G	C8-N9-C4	-6.19	103.92	106.40
1	AA	631	C	P-O3'-C3'	6.19	127.13	119.70
1	AA	1430	A	O4'-C1'-N9	6.19	113.15	108.20
26	BB	1531	C	O4'-C1'-N1	6.19	113.15	108.20
26	BB	2458	G	O4'-C1'-N9	6.19	113.15	108.20
26	BB	1572	A	C5'-C4'-O4'	6.19	116.53	109.10
26	BB	1680	U	C5'-C4'-O4'	6.19	116.53	109.10
1	AA	515	G	C8-N9-C4	-6.19	103.92	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	523	A	O4'-C1'-N9	6.19	113.15	108.20
1	AA	1316	G	C4'-C3'-C2'	-6.19	96.41	102.60
2	AE	75	C	O4'-C1'-N1	6.19	113.15	108.20
26	BB	897	C	O4'-C1'-N1	6.19	113.15	108.20
26	BB	1454	C	O4'-C1'-N1	6.19	113.15	108.20
26	BB	609	A	C8-N9-C4	-6.18	103.33	105.80
26	BB	121	G	O4'-C1'-N9	6.18	113.14	108.20
26	BB	1850	G	O4'-C1'-N9	6.18	113.15	108.20
26	BB	1963	U	O3'-P-O5'	-6.18	92.25	104.00
26	BB	2559	C	C1'-O4'-C4'	-6.18	104.95	109.90
26	BB	2601	C	C2-N3-C4	6.18	122.99	119.90
1	AA	1131	G	C5'-C4'-O4'	6.18	116.52	109.10
26	BB	2268	A	N9-C1'-C2'	-6.18	105.20	112.00
1	AA	74	A	O4'-C1'-N9	6.18	113.14	108.20
1	AA	742	G	N9-C4-C5	6.18	107.87	105.40
1	AA	1109	C	O4'-C1'-N1	6.18	113.14	108.20
26	BB	1929	G	O4'-C1'-N9	6.18	113.14	108.20
26	BB	2732	G	N9-C1'-C2'	-6.18	105.20	112.00
26	BB	2882	A	C5'-C4'-C3'	-6.18	106.11	116.00
1	AA	1385	G	C5'-C4'-C3'	-6.18	106.11	116.00
1	AA	226	G	C5'-C4'-O4'	6.18	116.51	109.10
26	BB	1138	G	N3-C4-C5	-6.18	125.51	128.60
26	BB	2161	C	N1-C2-O2	6.18	122.61	118.90
26	BB	2585	U	O4'-C1'-N1	6.17	113.14	108.20
26	BB	2892	G	C5'-C4'-C3'	-6.17	106.12	116.00
26	BB	2043	C	O4'-C1'-N1	6.17	113.14	108.20
1	AA	462	G	O4'-C1'-N9	6.17	113.14	108.20
1	AA	865	A	O4'-C1'-N9	6.17	113.13	108.20
26	BB	272	A	O4'-C1'-N9	6.17	113.13	108.20
26	BB	1393	A	O4'-C1'-N9	-6.17	103.27	108.20
26	BB	2523	G	C5'-C4'-O4'	6.17	116.50	109.10
26	BB	2802	G	O4'-C1'-N9	6.17	113.13	108.20
1	AA	1192	C	O4'-C1'-N1	6.16	113.13	108.20
1	AA	1245	C	O4'-C1'-N1	6.16	113.13	108.20
26	BB	2829	A	O4'-C1'-N9	6.16	113.13	108.20
1	AA	742	G	C8-N9-C4	-6.16	103.94	106.40
26	BB	1333	G	C5'-C4'-O4'	6.16	116.49	109.10
26	BB	910	A	O4'-C1'-N9	6.16	113.13	108.20
26	BB	2255	G	O4'-C1'-N9	6.16	113.13	108.20
26	BB	2784	U	C5'-C4'-C3'	-6.16	106.15	116.00
1	AA	1153	G	C8-N9-C4	-6.16	103.94	106.40
26	BB	2039	U	O4'-C1'-N1	6.16	113.12	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	830	G	C5'-C4'-O4'	6.15	116.48	109.10
2	AE	52	G	O4'-C1'-N9	6.15	113.12	108.20
26	BB	1864	U	O4'-C1'-N1	6.15	113.12	108.20
26	BB	2243	U	C5'-C4'-O4'	6.15	116.48	109.10
1	AA	1337	G	O3'-P-O5'	-6.15	92.32	104.00
26	BB	2502	G	C8-N9-C4	-6.15	103.94	106.40
26	BB	880	G	C8-N9-C4	-6.15	103.94	106.40
1	AA	670	G	O4'-C1'-N9	6.14	113.11	108.20
25	BA	34	A	C8-N9-C4	-6.14	103.34	105.80
26	BB	624	C	O4'-C1'-N1	6.14	113.12	108.20
26	BB	2048	G	C8-N9-C4	-6.14	103.94	106.40
1	AA	98	A	O4'-C1'-N9	6.14	113.11	108.20
26	BB	2012	G	C8-N9-C4	-6.14	103.94	106.40
26	BB	1304	A	C5'-C4'-C3'	-6.14	106.17	116.00
26	BB	1440	U	O4'-C1'-N1	6.14	113.11	108.20
1	AA	367	U	C1'-O4'-C4'	-6.14	104.99	109.90
1	AA	541	G	O4'-C1'-N9	6.14	113.11	108.20
26	BB	424	G	C3'-C2'-C1'	-6.14	96.59	101.50
26	BB	812	C	O4'-C1'-N1	6.14	113.11	108.20
26	BB	1500	G	O4'-C1'-N9	6.14	113.11	108.20
26	BB	1299	G	O4'-C1'-N9	6.14	113.11	108.20
26	BB	2060	A	O3'-P-O5'	-6.14	92.34	104.00
26	BB	2229	U	O4'-C1'-N1	6.14	113.11	108.20
26	BB	2318	G	O4'-C1'-N9	6.14	113.11	108.20
1	AA	61	G	C5'-C4'-C3'	6.13	125.82	116.00
1	AA	1304	G	O4'-C1'-N9	6.13	113.11	108.20
1	AA	202	G	O4'-C1'-N9	6.13	113.11	108.20
26	BB	373	U	O4'-C1'-N1	6.13	113.11	108.20
26	BB	1308	A	C5'-C4'-C3'	-6.13	106.19	116.00
26	BB	251	A	C8-N9-C4	-6.13	103.35	105.80
1	AA	653	U	C3'-C2'-C1'	6.13	106.40	101.50
26	BB	354	A	C8-N9-C4	-6.13	103.35	105.80
26	BB	2663	G	N3-C4-C5	-6.13	125.54	128.60
26	BB	2842	G	O4'-C1'-N9	6.13	113.10	108.20
1	AA	873	A	C5'-C4'-O4'	6.13	116.45	109.10
1	AA	916	U	O4'-C1'-N1	6.13	113.10	108.20
1	AA	1223	C	O4'-C4'-C3'	6.13	111.00	106.10
26	BB	112	U	O4'-C1'-N1	6.13	113.10	108.20
1	AA	859	G	C5'-C4'-O4'	6.12	116.45	109.10
2	AE	69	G	O4'-C1'-N9	6.12	113.10	108.20
25	BA	45	A	C5-C6-N6	-6.12	118.80	123.70
26	BB	2775	G	C8-N9-C4	-6.12	103.95	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1323	G	N3-C4-C5	-6.12	125.54	128.60
26	BB	290	U	C5'-C4'-O4'	6.12	116.45	109.10
26	BB	440	C	O4'-C1'-N1	6.12	113.10	108.20
26	BB	635	C	O4'-C1'-N1	6.12	113.10	108.20
26	BB	2398	U	C5'-C4'-C3'	-6.12	106.20	116.00
26	BB	2872	A	C5'-C4'-O4'	6.12	116.45	109.10
26	BB	235	U	O4'-C1'-N1	6.12	113.10	108.20
1	AA	1256	A	O4'-C1'-N9	6.12	113.09	108.20
26	BB	308	G	O4'-C1'-N9	6.12	113.09	108.20
2	AE	10	G	C5'-C4'-O4'	6.12	116.44	109.10
2	AE	10	G	C8-N9-C4	-6.12	103.95	106.40
25	BA	79	G	N3-C4-C5	-6.12	125.54	128.60
26	BB	1378	A	O4'-C1'-N9	6.12	113.09	108.20
26	BB	2193	G	C5'-C4'-C3'	-6.12	106.21	116.00
1	AA	1353	G	C5'-C4'-O4'	6.11	116.44	109.10
1	AA	346	G	C3'-C2'-C1'	6.11	106.39	101.50
1	AA	601	G	O4'-C1'-N9	6.11	113.09	108.20
26	BB	1488	C	O4'-C1'-N1	6.11	113.09	108.20
26	BB	1731	G	C8-N9-C4	-6.11	103.96	106.40
26	BB	2242	G	O4'-C1'-N9	6.11	113.09	108.20
26	BB	2387	U	O4'-C1'-N1	6.11	113.09	108.20
2	AB	45	U	C3'-C2'-C1'	6.11	106.39	101.50
26	BB	784	G	C1'-O4'-C4'	-6.11	105.01	109.90
26	BB	2199	A	C5'-C4'-O4'	6.11	116.43	109.10
26	BB	118	A	O4'-C4'-C3'	6.11	110.98	106.10
26	BB	824	U	C5'-C4'-O4'	6.11	116.43	109.10
26	BB	1230	A	O4'-C1'-N9	6.11	113.08	108.20
26	BB	764	A	O4'-C1'-N9	6.10	113.08	108.20
26	BB	1338	G	O4'-C1'-N9	6.10	113.08	108.20
1	AA	1209	C	O4'-C1'-N1	6.10	113.08	108.20
26	BB	1695	G	N3-C4-C5	-6.10	125.55	128.60
26	BB	2256	G	C8-N9-C4	-6.10	103.96	106.40
26	BB	2898	U	O4'-C1'-N1	6.10	113.08	108.20
1	AA	132	C	O4'-C1'-N1	6.10	113.08	108.20
26	BB	481	G	N3-C4-C5	-6.10	125.55	128.60
26	BB	806	C	O4'-C1'-N1	6.10	113.08	108.20
26	BB	132	G	O4'-C1'-N9	6.09	113.08	108.20
26	BB	1142	A	O4'-C1'-N9	6.09	113.08	108.20
26	BB	1923	U	C5'-C4'-C3'	-6.09	106.25	116.00
26	BB	2631	G	C5'-C4'-O4'	6.09	116.41	109.10
2	AE	63	G	O4'-C1'-N9	6.09	113.08	108.20
25	BA	51	G	O4'-C1'-N9	6.09	113.07	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	617	G	O4'-C1'-N9	6.09	113.07	108.20
26	BB	899	A	O4'-C1'-N9	6.09	113.07	108.20
26	BB	2513	A	C5'-C4'-O4'	6.09	116.41	109.10
1	AA	314	C	C4'-C3'-C2'	-6.09	96.51	102.60
1	AA	944	G	O4'-C1'-N9	6.09	113.07	108.20
1	AA	1295	U	O4'-C1'-N1	6.09	113.07	108.20
26	BB	973	A	O4'-C1'-N9	6.09	113.07	108.20
26	BB	2683	C	O4'-C1'-N1	6.09	113.07	108.20
1	AA	137	U	O4'-C1'-N1	6.09	113.07	108.20
26	BB	903	C	C5'-C4'-O4'	6.09	116.40	109.10
26	BB	976	G	C8-N9-C4	-6.09	103.97	106.40
1	AA	877	G	O4'-C1'-N9	6.08	113.07	108.20
1	AA	109	A	O4'-C1'-N9	6.08	113.06	108.20
26	BB	1599	U	O4'-C1'-N1	6.08	113.06	108.20
26	BB	1951	U	P-O3'-C3'	6.08	127.00	119.70
26	BB	2252	G	C4'-C3'-C2'	-6.08	96.52	102.60
1	AA	764	C	O4'-C1'-N1	6.08	113.06	108.20
2	AB	29	G	C8-N9-C4	-6.08	103.97	106.40
26	BB	1375	U	O4'-C1'-N1	6.08	113.06	108.20
42	BR	23	TYR	CB-CG-CD1	-6.08	117.35	121.00
2	AE	3	C	C5'-C4'-O4'	6.08	116.39	109.10
26	BB	1703	G	C5'-C4'-C3'	-6.08	106.28	116.00
26	BB	2074	U	O4'-C1'-N1	6.08	113.06	108.20
26	BB	1451	C	C2'-C3'-O3'	6.07	123.42	113.70
26	BB	729	G	O3'-P-O5'	-6.07	92.47	104.00
26	BB	1337	G	N3-C4-C5	-6.07	125.56	128.60
1	AA	1489	G	N3-C4-C5	-6.07	125.57	128.60
26	BB	119	A	C1'-O4'-C4'	-6.07	105.05	109.90
26	BB	1308	A	C8-N9-C4	-6.07	103.37	105.80
26	BB	1446	C	O4'-C1'-N1	6.07	113.06	108.20
26	BB	2485	G	C3'-C2'-C1'	-6.07	96.65	101.50
26	BB	2488	G	N3-C4-C5	-6.07	125.57	128.60
26	BB	2655	G	O4'-C1'-N9	6.07	113.05	108.20
1	AA	792	A	O4'-C1'-N9	6.07	113.05	108.20
1	AA	540	G	O4'-C1'-N9	6.06	113.05	108.20
26	BB	770	G	O4'-C1'-N9	6.06	113.05	108.20
26	BB	1886	U	P-O3'-C3'	6.06	126.97	119.70
26	BB	2269	G	C5'-C4'-C3'	-6.06	106.30	116.00
26	BB	2601	C	C3'-C2'-C1'	6.06	106.35	101.50
1	AA	863	U	C1'-O4'-C4'	-6.06	105.05	109.90
26	BB	1416	G	N9-C4-C5	6.06	107.83	105.40
1	AA	175	C	C5'-C4'-O4'	6.06	116.37	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	408	A	C8-N9-C4	-6.06	103.38	105.80
1	AA	847	G	O4'-C1'-N9	6.06	113.05	108.20
26	BB	2627	G	C8-N9-C4	-6.06	103.98	106.40
26	BB	2863	C	C5'-C4'-O4'	6.06	116.37	109.10
1	AA	1329	A	O4'-C1'-N9	6.06	113.05	108.20
25	BA	76	G	O4'-C1'-N9	6.06	113.05	108.20
26	BB	1550	C	C3'-C2'-C1'	6.06	106.34	101.50
26	BB	1921	G	O4'-C1'-N9	6.06	113.05	108.20
26	BB	1183	U	C3'-C2'-C1'	6.05	106.34	101.50
26	BB	1206	G	C5'-C4'-C3'	-6.05	106.31	116.00
26	BB	2667	C	C5'-C4'-C3'	-6.05	106.31	116.00
1	AA	1323	G	C8-N9-C4	-6.05	103.98	106.40
26	BB	2425	A	O4'-C1'-C2'	-6.05	99.75	105.80
26	BB	2023	C	O4'-C1'-N1	6.05	113.04	108.20
26	BB	2047	C	O4'-C1'-N1	6.05	113.04	108.20
1	AA	59	A	C3'-C2'-C1'	-6.05	96.66	101.50
1	AA	726	C	C5'-C4'-O4'	6.05	116.36	109.10
1	AA	1085	U	O4'-C1'-N1	6.05	113.04	108.20
1	AA	1497	G	O4'-C1'-N9	6.05	113.04	108.20
26	BB	471	A	O4'-C1'-N9	6.05	113.04	108.20
26	BB	809	G	N3-C4-C5	-6.05	125.58	128.60
26	BB	2622	U	O4'-C1'-N1	6.05	113.04	108.20
26	BB	521	U	C5'-C4'-O4'	6.04	116.35	109.10
26	BB	2219	U	N1-C2-N3	6.04	118.53	114.90
1	AA	694	A	C3'-C2'-C1'	6.04	106.33	101.50
26	BB	2730	C	O4'-C1'-N1	6.04	113.03	108.20
2	AB	63	G	O4'-C1'-N9	6.04	113.03	108.20
26	BB	1033	U	O4'-C4'-C3'	6.04	110.93	106.10
26	BB	447	A	C8-N9-C4	-6.04	103.39	105.80
26	BB	673	C	O4'-C1'-N1	6.04	113.03	108.20
26	BB	1952	A	O4'-C4'-C3'	6.04	110.93	106.10
26	BB	2364	C	O4'-C1'-N1	6.04	113.03	108.20
2	AE	2	C	C5'-C4'-O4'	6.04	116.34	109.10
26	BB	442	G	O4'-C1'-N9	6.04	113.03	108.20
26	BB	1138	G	O4'-C1'-N9	6.04	113.03	108.20
26	BB	2078	C	C5'-C4'-O4'	6.04	116.34	109.10
26	BB	2747	G	O4'-C1'-N9	6.04	113.03	108.20
1	AA	154	U	C5'-C4'-O4'	6.04	116.34	109.10
26	BB	689	A	C5'-C4'-O4'	6.04	116.34	109.10
26	BB	1560	G	N3-C4-C5	-6.03	125.58	128.60
2	AE	12	U	O4'-C1'-N1	6.03	113.03	108.20
26	BB	960	A	C2'-C3'-O3'	6.03	123.35	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1136	G	N3-C4-C5	-6.03	125.58	128.60
26	BB	1109	C	C3'-C2'-C1'	6.03	106.32	101.50
26	BB	1507	C	O4'-C1'-N1	6.03	113.02	108.20
26	BB	2551	C	C5'-C4'-C3'	-6.03	106.35	116.00
1	AA	740	U	O4'-C1'-N1	6.03	113.02	108.20
26	BB	7	G	C5'-C4'-C3'	-6.03	106.35	116.00
26	BB	167	A	C5'-C4'-O4'	6.03	116.33	109.10
26	BB	1972	G	N3-C2-N2	-6.03	115.68	119.90
26	BB	1975	G	O4'-C1'-N9	6.03	113.02	108.20
26	BB	421	C	O4'-C1'-N1	6.03	113.02	108.20
26	BB	731	C	O4'-C1'-N1	6.03	113.02	108.20
26	BB	1940	U	N1-C1'-C2'	6.03	121.83	114.00
1	AA	757	U	O3'-P-O5'	-6.02	92.55	104.00
26	BB	675	A	C5'-C4'-O4'	6.02	116.33	109.10
1	AA	922	G	O4'-C1'-N9	6.02	113.02	108.20
26	BB	809	G	C8-N9-C4	-6.02	103.99	106.40
26	BB	1352	U	O4'-C1'-N1	6.02	113.02	108.20
26	BB	2384	U	O4'-C1'-N1	6.02	113.02	108.20
1	AA	1006	G	C8-N9-C4	-6.02	103.99	106.40
1	AA	1010	U	N1-C2-N3	6.02	118.51	114.90
26	BB	2423	U	O4'-C1'-N1	6.02	113.02	108.20
2	AB	14	A	O4'-C1'-N9	6.02	113.01	108.20
26	BB	515	A	O4'-C1'-N9	6.02	113.01	108.20
26	BB	1208	C	O4'-C1'-N1	6.02	113.01	108.20
26	BB	1997	C	O4'-C1'-N1	6.02	113.01	108.20
49	BY	36	ARG	NE-CZ-NH1	-6.02	117.29	120.30
1	AA	1490	U	O4'-C1'-N1	6.02	113.01	108.20
26	BB	1361	G	N3-C4-C5	-6.02	125.59	128.60
26	BB	1619	G	C5'-C4'-O4'	6.02	116.32	109.10
1	AA	1319	A	C5'-C4'-O4'	6.01	116.32	109.10
26	BB	1570	A	O4'-C1'-N9	6.01	113.01	108.20
26	BB	2129	C	N1-C2-O2	6.01	122.51	118.90
26	BB	150	U	O4'-C1'-N1	6.01	113.01	108.20
26	BB	211	C	O4'-C1'-N1	6.01	113.01	108.20
1	AA	1276	G	C5'-C4'-O4'	6.01	116.31	109.10
26	BB	294	A	C8-N9-C4	-6.01	103.39	105.80
26	BB	1054	A	O4'-C1'-N9	6.01	113.01	108.20
26	BB	1688	U	C5'-C4'-O4'	6.01	116.31	109.10
26	BB	2403	C	O4'-C1'-N1	6.01	113.01	108.20
26	BB	1088	A	P-O3'-C3'	6.01	126.91	119.70
26	BB	1324	G	C5'-C4'-C3'	-6.01	106.39	116.00
26	BB	1913	A	O4'-C1'-C2'	-6.01	99.79	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2668	G	C8-N9-C4	-6.01	104.00	106.40
26	BB	2864	G	C5'-C4'-O4'	6.01	116.31	109.10
26	BB	141	G	C4'-C3'-C2'	-6.00	96.59	102.60
26	BB	871	U	O4'-C1'-N1	6.00	113.00	108.20
26	BB	2854	G	C5'-C4'-O4'	6.00	116.31	109.10
25	BA	4	C	O3'-P-O5'	6.00	115.41	104.00
26	BB	1954	G	O4'-C1'-N9	6.00	113.00	108.20
26	BB	50	U	O4'-C1'-N1	6.00	113.00	108.20
26	BB	485	C	O4'-C1'-N1	6.00	113.00	108.20
26	BB	1084	A	O4'-C1'-N9	6.00	113.00	108.20
26	BB	2041	U	O4'-C1'-N1	6.00	113.00	108.20
26	BB	2769	U	C5'-C4'-O4'	6.00	116.30	109.10
1	AA	183	C	C5'-C4'-C3'	-6.00	106.40	116.00
26	BB	1532	A	C8-N9-C4	-6.00	103.40	105.80
26	BB	2408	U	O4'-C1'-N1	6.00	113.00	108.20
26	BB	2508	G	C3'-C2'-C1'	-6.00	96.70	101.50
26	BB	951	C	O4'-C1'-N1	6.00	113.00	108.20
26	BB	1525	A	C5'-C4'-O4'	6.00	116.30	109.10
1	AA	858	G	C5'-C4'-O4'	5.99	116.29	109.10
1	AA	1036	A	C5'-C4'-C3'	-5.99	106.41	116.00
26	BB	486	C	O4'-C1'-N1	5.99	112.99	108.20
26	BB	2309	A	O4'-C1'-N9	5.99	113.00	108.20
1	AA	898	G	O4'-C1'-N9	5.99	112.99	108.20
1	AA	1018	G	O4'-C1'-N9	5.99	112.99	108.20
26	BB	736	C	C3'-C2'-C1'	5.99	106.29	101.50
26	BB	738	G	C8-N9-C4	-5.99	104.00	106.40
26	BB	1025	G	C8-N9-C4	-5.99	104.00	106.40
1	AA	706	A	C5'-C4'-C3'	-5.99	106.42	116.00
2	AE	59	U	O4'-C1'-N1	5.99	112.99	108.20
26	BB	494	G	N9-C1'-C2'	-5.99	105.41	112.00
26	BB	1198	U	O4'-C1'-N1	5.99	112.99	108.20
26	BB	2640	G	C5'-C4'-O4'	5.99	116.29	109.10
1	AA	341	C	O4'-C1'-N1	5.99	112.99	108.20
26	BB	301	G	P-O3'-C3'	5.99	126.88	119.70
26	BB	1511	G	C5'-C4'-C3'	-5.99	106.42	116.00
1	AA	221	C	O4'-C1'-N1	5.98	112.99	108.20
1	AA	240	G	N3-C4-C5	-5.98	125.61	128.60
25	BA	84	G	O4'-C1'-N9	5.98	112.99	108.20
26	BB	160	A	N9-C1'-C2'	-5.98	105.42	112.00
26	BB	1734	G	N3-C4-C5	-5.98	125.61	128.60
26	BB	2262	U	C5'-C4'-C3'	-5.98	106.43	116.00
1	AA	339	C	O4'-C1'-N1	5.98	112.98	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2650	U	O4'-C1'-N1	5.98	112.98	108.20
1	AA	1495	U	O4'-C1'-N1	5.98	112.98	108.20
1	AA	196	A	C4'-C3'-C2'	-5.98	96.62	102.60
1	AA	1541	U	O4'-C1'-N1	5.98	112.98	108.20
1	AA	52	C	C1'-O4'-C4'	-5.97	105.12	109.90
1	AA	783	C	C5'-C4'-O4'	5.97	116.27	109.10
1	AA	863	U	O4'-C1'-N1	5.97	112.98	108.20
1	AA	1395	C	C5'-C4'-O4'	5.97	116.27	109.10
26	BB	1301	A	N9-C1'-C2'	5.97	121.77	114.00
1	AA	772	U	O4'-C1'-N1	5.97	112.98	108.20
1	AA	1216	A	C3'-C2'-C1'	5.97	106.28	101.50
26	BB	1740	G	O4'-C1'-N9	5.97	112.98	108.20
26	BB	1810	A	C4'-C3'-C2'	-5.97	96.63	102.60
26	BB	2187	U	C5'-C4'-O4'	5.97	116.27	109.10
26	BB	580	U	O4'-C1'-N1	5.97	112.98	108.20
2	AE	50	U	O4'-C1'-N1	5.97	112.97	108.20
26	BB	845	A	O4'-C1'-N9	5.97	112.98	108.20
26	BB	2543	G	C8-N9-C4	-5.97	104.01	106.40
26	BB	2685	G	C5'-C4'-O4'	5.97	116.26	109.10
26	BB	1068	G	O3'-P-O5'	-5.97	92.66	104.00
26	BB	1074	G	O4'-C1'-N9	5.97	112.97	108.20
1	AA	406	G	C8-N9-C4	-5.96	104.01	106.40
1	AA	1043	G	C8-N9-C4	-5.96	104.01	106.40
1	AA	1221	G	O4'-C1'-N9	5.96	112.97	108.20
26	BB	303	G	C8-N9-C4	-5.96	104.01	106.40
26	BB	301	G	N9-C4-C5	5.96	107.78	105.40
26	BB	2676	C	O4'-C1'-N1	5.96	112.97	108.20
26	BB	315	G	O4'-C1'-N9	5.96	112.97	108.20
26	BB	2516	A	O4'-C1'-N9	5.96	112.97	108.20
25	BA	87	U	O4'-C1'-N1	5.96	112.97	108.20
1	AA	326	G	C8-N9-C4	-5.96	104.02	106.40
26	BB	826	U	O4'-C1'-N1	5.96	112.97	108.20
1	AA	513	C	O4'-C1'-N1	5.96	112.97	108.20
26	BB	578	G	O4'-C1'-N9	5.96	112.97	108.20
26	BB	2519	U	O4'-C1'-N1	5.96	112.97	108.20
1	AA	258	G	O4'-C1'-N9	5.96	112.96	108.20
1	AA	1192	C	N1-C2-O2	5.96	122.47	118.90
26	BB	1035	U	O4'-C1'-N1	5.96	112.96	108.20
26	BB	1326	U	O4'-C1'-N1	5.96	112.96	108.20
26	BB	2625	G	N3-C4-C5	-5.95	125.62	128.60
1	AA	453	G	C8-N9-C4	-5.95	104.02	106.40
2	AE	17	C	N1-C2-O2	5.95	122.47	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	610	C	O4'-C1'-N1	5.95	112.96	108.20
26	BB	1033	U	C3'-C2'-C1'	5.95	106.26	101.50
1	AA	255	G	C5'-C4'-C3'	-5.95	106.48	116.00
26	BB	700	G	N9-C1'-C2'	-5.95	105.46	112.00
26	BB	989	G	O4'-C1'-N9	5.95	112.96	108.20
26	BB	2385	C	C5'-C4'-O4'	5.95	116.24	109.10
1	AA	463	U	O4'-C1'-N1	5.95	112.96	108.20
26	BB	59	U	O4'-C1'-N1	5.94	112.95	108.20
26	BB	1528	A	O4'-C1'-N9	5.94	112.95	108.20
26	BB	2272	U	O4'-C1'-N1	5.94	112.95	108.20
1	AA	1378	C	C5'-C4'-C3'	-5.94	106.49	116.00
1	AA	1514	G	O4'-C1'-N9	5.94	112.95	108.20
25	BA	95	U	C5'-C4'-O4'	5.94	116.23	109.10
26	BB	311	A	O4'-C1'-N9	5.94	112.95	108.20
26	BB	1070	A	N9-C4-C5	5.94	108.18	105.80
26	BB	1593	A	O4'-C1'-N9	5.94	112.95	108.20
26	BB	1634	A	C3'-C2'-C1'	-5.94	96.75	101.50
1	AA	9	G	N3-C4-C5	-5.94	125.63	128.60
26	BB	637	A	O4'-C1'-N9	5.94	112.95	108.20
26	BB	983	A	O4'-C4'-C3'	5.94	110.85	106.10
26	BB	1664	A	C5'-C4'-C3'	-5.94	106.50	116.00
26	BB	407	G	C8-N9-C4	-5.94	104.02	106.40
26	BB	1732	C	O4'-C4'-C3'	5.94	110.85	106.10
26	BB	1615	C	O4'-C1'-N1	5.94	112.95	108.20
1	AA	622	A	C8-N9-C4	-5.94	103.43	105.80
26	BB	1638	C	O4'-C1'-N1	5.94	112.95	108.20
1	AA	869	G	C8-N9-C4	-5.93	104.03	106.40
26	BB	1760	C	O4'-C1'-N1	5.93	112.95	108.20
26	BB	2062	A	O4'-C1'-N9	5.93	112.94	108.20
26	BB	340	A	O4'-C1'-N9	5.93	112.94	108.20
26	BB	1108	U	O4'-C1'-N1	5.93	112.94	108.20
26	BB	2763	G	C8-N9-C4	-5.93	104.03	106.40
1	AA	491	G	C5'-C4'-C3'	-5.93	106.52	116.00
1	AA	1417	G	C5'-C4'-O4'	5.93	116.21	109.10
26	BB	1388	G	O4'-C1'-N9	5.93	112.94	108.20
26	BB	1490	A	O4'-C1'-N9	-5.93	103.46	108.20
1	AA	1160	G	N3-C4-C5	-5.92	125.64	128.60
26	BB	192	C	O4'-C1'-N1	5.92	112.94	108.20
26	BB	1540	G	N3-C4-C5	-5.92	125.64	128.60
26	BB	312	G	C8-N9-C4	-5.92	104.03	106.40
26	BB	1956	U	C5'-C4'-O4'	5.92	116.21	109.10
1	AA	107	G	N9-C1'-C2'	-5.92	105.49	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1860	G	C8-N9-C4	-5.92	104.03	106.40
1	AA	1429	A	O4'-C1'-N9	5.92	112.93	108.20
1	AA	1065	U	O4'-C4'-C3'	5.91	110.83	106.10
26	BB	389	G	C8-N9-C4	-5.91	104.03	106.40
1	AA	1088	G	O3'-P-O5'	-5.91	92.77	104.00
26	BB	69	C	O4'-C1'-N1	5.91	112.93	108.20
26	BB	1091	G	O4'-C1'-N9	5.91	112.93	108.20
26	BB	1908	C	O4'-C1'-N1	5.91	112.93	108.20
26	BB	62	U	O4'-C1'-N1	5.91	112.93	108.20
1	AA	989	U	O4'-C1'-N1	5.91	112.93	108.20
1	AA	1161	C	O4'-C1'-N1	5.91	112.93	108.20
1	AA	1509	C	O4'-C1'-N1	5.91	112.93	108.20
2	AB	21	A	O4'-C1'-N9	5.91	112.93	108.20
26	BB	2318	G	C8-N9-C4	-5.91	104.04	106.40
1	AA	1223	C	C3'-C2'-C1'	5.90	106.22	101.50
25	BA	55	U	C5'-C4'-C3'	-5.90	106.56	116.00
26	BB	852	U	N1-C2-N3	5.90	118.44	114.90
1	AA	861	G	C8-N9-C4	-5.90	104.04	106.40
1	AA	1153	G	N3-C4-C5	-5.90	125.65	128.60
25	BA	108	A	O4'-C1'-N9	5.90	112.92	108.20
26	BB	1926	U	C5'-C4'-C3'	-5.90	106.56	116.00
26	BB	710	U	O3'-P-O5'	-5.90	92.79	104.00
1	AA	220	G	N3-C4-C5	-5.90	125.65	128.60
2	AE	9	A	C3'-C2'-C1'	5.90	106.22	101.50
26	BB	1075	C	O4'-C1'-N1	5.89	112.92	108.20
26	BB	2295	C	O4'-C1'-N1	5.89	112.92	108.20
26	BB	2514	U	O4'-C1'-N1	5.89	112.92	108.20
1	AA	171	A	C5'-C4'-C3'	-5.89	106.57	116.00
26	BB	283	G	O4'-C1'-N9	5.89	112.91	108.20
1	AA	1312	G	N3-C4-C5	-5.89	125.65	128.60
26	BB	2112	G	N3-C4-C5	-5.89	125.65	128.60
26	BB	976	G	C5'-C4'-O4'	5.89	116.17	109.10
26	BB	1523	U	N1-C1'-C2'	5.89	121.66	114.00
26	BB	1577	C	C5'-C4'-O4'	5.89	116.17	109.10
1	AA	616	G	O4'-C1'-N9	5.89	112.91	108.20
1	AA	1072	G	C8-N9-C4	-5.89	104.05	106.40
1	AA	1489	G	C8-N9-C4	-5.89	104.05	106.40
2	AB	69	G	O4'-C1'-N9	5.89	112.91	108.20
26	BB	508	A	O4'-C1'-N9	5.88	112.91	108.20
26	BB	832	U	O4'-C1'-N1	5.88	112.91	108.20
26	BB	511	U	C5'-C4'-O4'	5.88	116.16	109.10
25	BA	67	G	O4'-C1'-N9	5.88	112.91	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1573	G	C5'-C4'-C3'	-5.88	106.59	116.00
26	BB	2491	U	O4'-C1'-N1	5.88	112.90	108.20
1	AA	528	C	O4'-C1'-N1	5.88	112.90	108.20
26	BB	412	A	C5'-C4'-C3'	-5.88	106.59	116.00
26	BB	2380	C	C4'-C3'-C2'	-5.88	96.72	102.60
26	BB	1551	A	C3'-C2'-C1'	-5.88	96.80	101.50
26	BB	1801	A	O4'-C1'-N9	5.88	112.90	108.20
26	BB	636	G	C3'-C2'-C1'	5.88	106.20	101.50
26	BB	499	U	O4'-C1'-N1	5.87	112.90	108.20
26	BB	968	C	O4'-C1'-N1	5.87	112.90	108.20
1	AA	347	G	O4'-C1'-N9	5.87	112.90	108.20
25	BA	10	G	N3-C4-C5	-5.87	125.66	128.60
26	BB	1069	A	O4'-C4'-C3'	5.87	110.80	106.10
26	BB	503	A	O4'-C1'-N9	5.87	112.90	108.20
26	BB	2205	A	C8-N9-C4	-5.87	103.45	105.80
26	BB	279	A	O3'-P-O5'	-5.87	92.85	104.00
26	BB	2017	U	C3'-C2'-C1'	5.87	106.19	101.50
26	BB	2751	G	N9-C1'-C2'	5.87	121.63	114.00
26	BB	2863	C	O4'-C1'-N1	5.87	112.89	108.20
1	AA	198	G	C5'-C4'-O4'	5.87	116.14	109.10
1	AA	240	G	C8-N9-C4	-5.87	104.05	106.40
26	BB	1390	U	O4'-C1'-N1	5.87	112.89	108.20
26	BB	1532	A	O4'-C1'-N9	5.87	112.89	108.20
1	AA	1496	C	O4'-C1'-N1	5.86	112.89	108.20
26	BB	439	A	O4'-C1'-N9	5.86	112.89	108.20
26	BB	76	C	O4'-C1'-N1	5.86	112.89	108.20
26	BB	802	A	C5'-C4'-C3'	-5.86	106.62	116.00
26	BB	1855	U	C5'-C4'-O4'	5.86	116.13	109.10
26	BB	1937	A	C8-N9-C4	-5.86	103.46	105.80
1	AA	545	C	O4'-C1'-N1	5.86	112.89	108.20
26	BB	2072	C	O4'-C1'-N1	5.86	112.89	108.20
26	BB	2462	C	O4'-C1'-N1	5.86	112.89	108.20
26	BB	33	C	O4'-C1'-N1	5.86	112.89	108.20
26	BB	2195	U	O4'-C1'-N1	5.86	112.89	108.20
26	BB	2862	G	O4'-C1'-N9	5.86	112.89	108.20
1	AA	1234	C	O4'-C1'-N1	5.86	112.89	108.20
26	BB	564	C	O4'-C1'-N1	5.86	112.89	108.20
26	BB	2087	G	N3-C4-C5	-5.85	125.67	128.60
1	AA	536	C	O4'-C1'-N1	5.85	112.88	108.20
2	AB	34	G	C8-N9-C4	-5.85	104.06	106.40
26	BB	9	G	C5'-C4'-C3'	-5.85	106.64	116.00
26	BB	1145	C	O4'-C1'-N1	5.85	112.88	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1236	G	O4'-C1'-N9	5.85	112.88	108.20
26	BB	961	C	C6-N1-C2	-5.85	117.96	120.30
26	BB	1379	U	O4'-C1'-N1	5.85	112.88	108.20
26	BB	1710	G	C5'-C4'-O4'	5.85	116.12	109.10
26	BB	2179	C	O4'-C1'-N1	5.85	112.88	108.20
26	BB	2373	G	N9-C1'-C2'	-5.85	105.57	112.00
26	BB	2494	G	C5'-C4'-O4'	5.85	116.11	109.10
26	BB	2581	G	O4'-C1'-N9	5.85	112.88	108.20
1	AA	177	G	C8-N9-C4	-5.84	104.06	106.40
1	AA	300	A	C8-N9-C4	-5.84	103.46	105.80
1	AA	1186	G	N3-C4-C5	-5.84	125.68	128.60
2	AE	1	G	N3-C4-C5	-5.84	125.68	128.60
26	BB	1303	G	N3-C4-C5	-5.84	125.68	128.60
1	AA	1529	G	O4'-C1'-N9	5.84	112.87	108.20
1	AA	195	A	C5'-C4'-C3'	-5.84	106.66	116.00
1	AA	887	G	O4'-C1'-N9	5.84	112.87	108.20
26	BB	2352	A	C5'-C4'-C3'	-5.84	106.66	116.00
26	BB	1195	G	N9-C1'-C2'	-5.84	105.58	112.00
26	BB	1270	C	O4'-C1'-N1	5.83	112.87	108.20
1	AA	51	A	O4'-C1'-N9	5.83	112.87	108.20
1	AA	236	A	O4'-C1'-N9	5.83	112.87	108.20
1	AA	917	G	N3-C4-C5	-5.83	125.68	128.60
26	BB	1940	U	O4'-C4'-C3'	5.83	110.77	106.10
26	BB	1986	C	C5'-C4'-C3'	-5.83	106.67	116.00
26	BB	9	G	P-O3'-C3'	5.83	126.70	119.70
26	BB	964	C	O4'-C1'-N1	5.83	112.86	108.20
26	BB	2848	G	C2-N3-C4	5.83	114.81	111.90
25	BA	69	G	O4'-C1'-N9	5.83	112.86	108.20
26	BB	669	G	N3-C4-C5	-5.83	125.69	128.60
26	BB	734	A	C5'-C4'-O4'	5.83	116.09	109.10
26	BB	2418	A	O4'-C1'-N9	5.83	112.86	108.20
1	AA	1521	C	O4'-C1'-N1	5.83	112.86	108.20
26	BB	2716	C	C5'-C4'-O4'	5.83	116.09	109.10
26	BB	2751	G	O4'-C1'-N9	5.83	112.86	108.20
26	BB	81	G	O4'-C1'-N9	5.82	112.86	108.20
1	AA	172	A	C8-N9-C4	-5.82	103.47	105.80
1	AA	457	G	C8-N9-C4	-5.82	104.07	106.40
26	BB	820	A	C5'-C4'-C3'	-5.82	106.69	116.00
26	BB	821	A	O4'-C1'-N9	5.82	112.86	108.20
26	BB	243	U	O4'-C1'-N1	5.82	112.86	108.20
26	BB	1140	C	O4'-C1'-N1	5.82	112.86	108.20
26	BB	1280	G	O4'-C1'-N9	5.82	112.86	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1617	C	O4'-C1'-N1	5.82	112.86	108.20
26	BB	2656	U	O4'-C1'-N1	5.82	112.86	108.20
26	BB	907	G	C5'-C4'-O4'	5.82	116.08	109.10
26	BB	1736	U	N1-C2-N3	5.82	118.39	114.90
26	BB	345	A	P-O3'-C3'	5.82	126.68	119.70
26	BB	1325	U	O4'-C1'-C2'	-5.82	99.98	105.80
26	BB	1622	G	N3-C4-C5	-5.82	125.69	128.60
26	BB	2790	U	O4'-C4'-C3'	5.82	110.75	106.10
1	AA	1120	C	O3'-P-O5'	-5.82	92.95	104.00
26	BB	226	A	C5'-C4'-C3'	-5.82	106.69	116.00
1	AA	1151	A	O3'-P-O5'	-5.81	92.96	104.00
26	BB	1972	G	N9-C4-C5	5.81	107.72	105.40
26	BB	2440	C	O4'-C1'-N1	5.81	112.85	108.20
26	BB	2480	C	O4'-C1'-N1	5.81	112.85	108.20
1	AA	367	U	C5'-C4'-C3'	-5.81	106.70	116.00
1	AA	533	A	P-O3'-C3'	5.81	126.67	119.70
1	AA	697	U	C5'-C4'-O4'	5.81	116.07	109.10
1	AA	773	G	O4'-C1'-N9	5.81	112.85	108.20
1	AA	1304	G	C5'-C4'-O4'	5.81	116.07	109.10
25	BA	14	U	C5'-C4'-C3'	-5.81	106.70	116.00
26	BB	1597	A	O4'-C1'-N9	5.81	112.85	108.20
26	BB	793	A	O4'-C1'-N9	5.81	112.84	108.20
26	BB	1232	G	O4'-C1'-N9	5.81	112.84	108.20
26	BB	1473	G	C3'-C2'-C1'	-5.81	96.86	101.50
1	AA	367	U	C3'-C2'-C1'	5.80	106.14	101.50
1	AA	1505	G	N9-C4-C5	5.80	107.72	105.40
26	BB	284	U	O4'-C1'-N1	5.80	112.84	108.20
26	BB	2620	C	O4'-C1'-N1	5.80	112.84	108.20
26	BB	230	G	O4'-C1'-N9	5.80	112.84	108.20
26	BB	2567	G	C8-N9-C4	-5.80	104.08	106.40
1	AA	1358	U	O4'-C1'-C2'	-5.80	100.00	105.80
25	BA	11	C	O3'-P-O5'	-5.80	92.98	104.00
26	BB	687	C	O4'-C1'-N1	5.80	112.84	108.20
26	BB	1072	C	O4'-C1'-N1	5.80	112.84	108.20
26	BB	1406	U	O4'-C1'-N1	5.80	112.84	108.20
26	BB	1566	A	C3'-C2'-C1'	5.80	106.14	101.50
26	BB	902	C	C5'-C4'-O4'	5.80	116.06	109.10
26	BB	831	G	O4'-C1'-N9	5.79	112.84	108.20
26	BB	1284	A	O4'-C1'-N9	5.79	112.84	108.20
1	AA	357	G	C5'-C4'-O4'	5.79	116.05	109.10
1	AA	539	A	C5'-C4'-O4'	5.79	116.05	109.10
1	AA	876	C	C5'-C4'-O4'	5.79	116.05	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	892	A	C5'-C4'-C3'	-5.79	106.73	116.00
1	AA	1099	G	C5'-C4'-C3'	-5.79	106.73	116.00
26	BB	368	A	C5'-C4'-C3'	-5.79	106.73	116.00
26	BB	555	G	N3-C4-C5	-5.79	125.70	128.60
26	BB	922	C	O4'-C1'-N1	5.79	112.84	108.20
26	BB	1024	G	O4'-C1'-N9	5.79	112.83	108.20
26	BB	2664	G	C5'-C4'-O4'	5.79	116.05	109.10
26	BB	2777	G	N3-C4-C5	-5.79	125.70	128.60
1	AA	623	C	C5'-C4'-O4'	5.79	116.05	109.10
26	BB	1128	G	O4'-C1'-N9	5.79	112.83	108.20
26	BB	385	C	O4'-C1'-N1	5.79	112.83	108.20
1	AA	512	U	C4'-C3'-C2'	-5.79	96.81	102.60
1	AA	653	U	O4'-C1'-N1	5.79	112.83	108.20
26	BB	1653	G	O4'-C1'-N9	5.79	112.83	108.20
26	BB	1930	G	C8-N9-C4	-5.79	104.08	106.40
26	BB	2485	G	N3-C4-C5	-5.79	125.71	128.60
1	AA	1392	G	N9-C1'-C2'	-5.79	105.63	112.00
26	BB	960	A	P-O3'-C3'	5.79	126.64	119.70
1	AA	525	C	C5'-C4'-C3'	-5.79	106.74	116.00
1	AA	1463	U	O4'-C1'-N1	5.79	112.83	108.20
26	BB	361	G	O4'-C1'-N9	5.79	112.83	108.20
26	BB	1171	G	C8-N9-C4	-5.79	104.09	106.40
26	BB	1661	G	O4'-C1'-N9	5.79	112.83	108.20
26	BB	1467	U	O4'-C1'-N1	5.78	112.83	108.20
26	BB	1855	U	O4'-C1'-N1	5.78	112.83	108.20
26	BB	1109	C	O4'-C4'-C3'	5.78	110.72	106.10
2	AB	56	C	O4'-C1'-N1	5.78	112.82	108.20
26	BB	1197	G	C5'-C4'-O4'	5.78	116.03	109.10
1	AA	813	U	C4'-C3'-C2'	-5.77	96.83	102.60
26	BB	437	U	O4'-C1'-N1	5.77	112.82	108.20
26	BB	673	C	C5'-C4'-O4'	5.77	116.03	109.10
26	BB	930	G	N3-C4-C5	-5.77	125.71	128.60
26	BB	808	G	C8-N9-C4	-5.77	104.09	106.40
26	BB	2820	A	C4'-C3'-C2'	-5.77	96.83	102.60
1	AA	1119	C	O4'-C1'-N1	5.77	112.81	108.20
1	AA	1188	A	O4'-C1'-N9	5.77	112.81	108.20
26	BB	2720	U	C5'-C4'-O4'	5.77	116.02	109.10
26	BB	2765	A	O4'-C1'-N9	5.77	112.81	108.20
1	AA	491	G	N3-C4-C5	-5.77	125.72	128.60
1	AA	639	G	N3-C4-C5	-5.77	125.72	128.60
1	AA	931	C	O4'-C1'-N1	5.77	112.81	108.20
4	AD	42	U	O4'-C1'-N1	5.77	112.81	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1135	C	C5'-C4'-O4'	5.77	116.02	109.10
26	BB	1890	A	C8-N9-C4	-5.77	103.49	105.80
1	AA	943	U	O4'-C1'-N1	5.77	112.81	108.20
1	AA	1377	A	C5'-C4'-C3'	-5.76	106.78	116.00
26	BB	2283	C	O4'-C1'-N1	5.76	112.81	108.20
26	BB	305	C	C5'-C4'-C3'	-5.76	106.78	116.00
26	BB	1029	A	C8-N9-C4	-5.76	103.50	105.80
26	BB	2102	G	O4'-C1'-N9	5.76	112.81	108.20
1	AA	597	G	N3-C4-C5	-5.76	125.72	128.60
26	BB	623	C	O4'-C1'-N1	5.76	112.81	108.20
26	BB	1385	A	C1'-O4'-C4'	-5.76	105.29	109.90
26	BB	2543	G	N3-C4-C5	-5.76	125.72	128.60
26	BB	2589	A	C5'-C4'-C3'	-5.76	106.79	116.00
2	AB	59	U	O4'-C1'-N1	5.76	112.81	108.20
1	AA	1294	G	O4'-C1'-N9	5.76	112.80	108.20
26	BB	628	G	O4'-C1'-N9	5.76	112.81	108.20
26	BB	1294	U	C2-N1-C1'	5.76	124.61	117.70
26	BB	2567	G	N3-C4-C5	-5.76	125.72	128.60
1	AA	1275	A	C5'-C4'-C3'	-5.75	106.79	116.00
2	AE	28	G	C8-N9-C4	-5.75	104.10	106.40
26	BB	612	G	N3-C4-C5	-5.75	125.72	128.60
26	BB	2312	U	C5'-C4'-C3'	-5.75	106.80	116.00
1	AA	114	U	O4'-C1'-N1	5.75	112.80	108.20
25	BA	29	A	O4'-C1'-N9	5.75	112.80	108.20
26	BB	1074	G	N3-C4-C5	-5.75	125.72	128.60
26	BB	2266	A	O4'-C1'-N9	5.75	112.80	108.20
26	BB	312	G	N3-C4-C5	-5.75	125.72	128.60
26	BB	1183	U	C5'-C4'-C3'	-5.75	106.80	116.00
1	AA	721	G	O4'-C1'-N9	5.75	112.80	108.20
1	AA	863	U	C5'-C4'-O4'	5.75	116.00	109.10
26	BB	164	C	O4'-C1'-N1	5.75	112.80	108.20
26	BB	315	G	N9-C4-C5	5.75	107.70	105.40
26	BB	1106	G	C8-N9-C4	-5.75	104.10	106.40
1	AA	897	C	O4'-C1'-N1	5.75	112.80	108.20
25	BA	89	U	O4'-C1'-N1	5.75	112.80	108.20
1	AA	929	G	N9-C1'-C2'	-5.74	105.68	112.00
1	AA	1066	C	N1-C2-O2	5.74	122.35	118.90
26	BB	2554	U	O3'-P-O5'	-5.74	93.09	104.00
26	BB	554	U	C5'-C4'-O4'	5.74	115.99	109.10
1	AA	460	A	O4'-C1'-N9	5.74	112.79	108.20
1	AA	491	G	C8-N9-C4	-5.74	104.10	106.40
1	AA	246	A	C5'-C4'-C3'	-5.74	106.82	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	857	C	O4'-C1'-N1	5.74	112.79	108.20
25	BA	72	G	C8-N9-C4	-5.74	104.11	106.40
26	BB	1534	U	O4'-C1'-N1	5.74	112.79	108.20
26	BB	1888	G	N3-C4-C5	-5.74	125.73	128.60
26	BB	2029	G	C5'-C4'-O4'	5.74	115.99	109.10
26	BB	2127	G	C5'-C4'-O4'	5.74	115.99	109.10
1	AA	873	A	C5'-C4'-C3'	-5.74	106.82	116.00
1	AA	451	A	O4'-C1'-N9	5.74	112.79	108.20
26	BB	551	G	O4'-C1'-N9	5.73	112.79	108.20
26	BB	953	G	C5'-C4'-C3'	-5.73	106.83	116.00
1	AA	1225	A	N9-C1'-C2'	5.73	121.45	114.00
26	BB	913	U	O4'-C4'-C3'	5.73	110.68	106.10
1	AA	171	A	C5'-C4'-O4'	5.73	115.97	109.10
26	BB	1230	A	C5'-C4'-C3'	-5.73	106.83	116.00
26	BB	2494	G	O4'-C1'-N9	5.73	112.78	108.20
26	BB	1003	G	O4'-C1'-N9	5.72	112.78	108.20
26	BB	2506	U	O4'-C1'-N1	5.72	112.78	108.20
1	AA	688	G	N3-C4-C5	-5.72	125.74	128.60
26	BB	589	U	O4'-C1'-N1	5.72	112.78	108.20
26	BB	949	G	O4'-C1'-N9	5.72	112.78	108.20
1	AA	1325	C	C5'-C4'-O4'	5.72	115.97	109.10
26	BB	790	U	P-O3'-C3'	5.72	126.56	119.70
26	BB	2878	U	O4'-C1'-N1	5.72	112.78	108.20
1	AA	119	A	O4'-C1'-N9	5.72	112.78	108.20
25	BA	8	C	O4'-C1'-N1	5.72	112.78	108.20
26	BB	2744	G	C1'-O4'-C4'	-5.72	105.32	109.90
1	AA	583	A	O4'-C1'-N9	5.72	112.77	108.20
26	BB	1175	A	O4'-C1'-N9	5.72	112.78	108.20
26	BB	1359	A	C5'-C4'-C3'	-5.72	106.85	116.00
26	BB	2190	G	C5'-C4'-O4'	5.72	115.96	109.10
1	AA	204	G	C8-N9-C4	-5.72	104.11	106.40
1	AA	314	C	O4'-C1'-N1	5.72	112.77	108.20
26	BB	2663	G	C8-N9-C4	-5.72	104.11	106.40
1	AA	177	G	N3-C4-C5	-5.71	125.74	128.60
1	AA	874	G	N3-C4-C5	-5.71	125.74	128.60
26	BB	91	A	C4'-C3'-C2'	-5.71	96.89	102.60
26	BB	1738	G	C4-N9-C1'	-5.71	119.07	126.50
26	BB	1859	U	O4'-C1'-N1	5.71	112.77	108.20
26	BB	1571	A	O4'-C1'-N9	5.71	112.77	108.20
1	AA	83	C	O4'-C1'-N1	5.71	112.77	108.20
1	AA	1123	U	O4'-C1'-N1	5.71	112.77	108.20
1	AA	1132	C	O4'-C1'-N1	5.71	112.77	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2678	C	O4'-C1'-N1	5.71	112.77	108.20
1	AA	1223	C	C5'-C4'-O4'	5.71	115.95	109.10
26	BB	2588	G	N3-C4-C5	-5.71	125.75	128.60
25	BA	107	G	C3'-C2'-C1'	5.71	106.07	101.50
26	BB	1586	A	C4'-C3'-C2'	-5.71	96.89	102.60
26	BB	2252	G	O4'-C1'-N9	5.71	112.77	108.20
26	BB	2648	G	C8-N9-C4	-5.71	104.12	106.40
26	BB	657	U	O4'-C1'-N1	5.71	112.77	108.20
26	BB	2521	C	O4'-C1'-N1	5.71	112.77	108.20
26	BB	480	A	C5'-C4'-O4'	5.71	115.95	109.10
26	BB	2825	G	N3-C4-C5	-5.70	125.75	128.60
26	BB	2877	G	C4'-C3'-C2'	-5.70	96.90	102.60
26	BB	194	G	C5'-C4'-O4'	5.70	115.94	109.10
26	BB	274	C	C5'-C4'-O4'	5.70	115.94	109.10
26	BB	2028	U	O4'-C1'-N1	5.70	112.76	108.20
26	BB	2508	G	O4'-C1'-N9	5.70	112.76	108.20
1	AA	501	C	C4'-C3'-C2'	-5.70	96.90	102.60
26	BB	1442	U	O4'-C1'-N1	5.70	112.76	108.20
26	BB	1779	U	O4'-C1'-N1	5.70	112.76	108.20
1	AA	780	A	O3'-P-O5'	-5.70	93.18	104.00
26	BB	1069	A	O4'-C1'-C2'	-5.70	100.10	105.80
26	BB	2720	U	O4'-C1'-N1	5.70	112.76	108.20
1	AA	442	G	C5'-C4'-C3'	-5.70	106.89	116.00
26	BB	1124	G	N3-C4-C5	-5.70	125.75	128.60
26	BB	80	G	O4'-C1'-N9	5.69	112.75	108.20
26	BB	271	G	N9-C1'-C2'	5.69	121.40	114.00
26	BB	555	G	O4'-C1'-N9	5.69	112.75	108.20
26	BB	1241	A	O4'-C1'-N9	5.69	112.75	108.20
1	AA	795	C	O4'-C1'-N1	5.69	112.75	108.20
1	AA	1453	G	N3-C4-C5	-5.69	125.75	128.60
26	BB	1385	A	C4'-C3'-C2'	-5.69	96.91	102.60
1	AA	169	C	N1-C2-O2	5.69	122.31	118.90
1	AA	1017	U	C5'-C4'-O4'	5.69	115.93	109.10
26	BB	2135	A	C3'-C2'-C1'	5.69	106.05	101.50
26	BB	2143	C	O4'-C1'-N1	5.69	112.75	108.20
26	BB	1346	G	N3-C4-C5	-5.69	125.75	128.60
26	BB	1822	C	N1-C2-O2	5.69	122.31	118.90
1	AA	1104	G	C5'-C4'-O4'	5.69	115.92	109.10
1	AA	1118	U	O4'-C1'-N1	5.69	112.75	108.20
26	BB	896	A	C4'-C3'-C2'	5.69	108.29	102.60
26	BB	2380	C	C5'-C4'-O4'	5.69	115.92	109.10
26	BB	2792	A	C8-N9-C4	-5.69	103.53	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2262	U	O4'-C1'-N1	5.69	112.75	108.20
26	BB	2571	U	O4'-C1'-N1	5.69	112.75	108.20
1	AA	337	G	C5'-C4'-C3'	-5.68	106.90	116.00
1	AA	32	A	O4'-C1'-N9	5.68	112.75	108.20
1	AA	1058	G	N3-C4-C5	-5.68	125.76	128.60
26	BB	866	A	C5'-C4'-O4'	5.68	115.92	109.10
26	BB	1266	G	C3'-C2'-C1'	-5.68	96.95	101.50
26	BB	1694	C	O4'-C1'-N1	5.68	112.75	108.20
26	BB	2222	C	O4'-C1'-N1	5.68	112.75	108.20
26	BB	2277	G	N3-C4-C5	-5.68	125.76	128.60
26	BB	2424	C	O4'-C1'-N1	5.68	112.75	108.20
1	AA	435	A	O4'-C1'-N9	5.68	112.75	108.20
1	AA	1057	G	N3-C4-C5	-5.68	125.76	128.60
1	AA	1173	U	O4'-C1'-N1	5.68	112.75	108.20
26	BB	514	A	C5'-C4'-O4'	5.68	115.92	109.10
1	AA	140	U	C5'-C4'-O4'	5.68	115.92	109.10
1	AA	1313	U	O4'-C1'-N1	5.68	112.74	108.20
26	BB	868	U	O4'-C1'-N1	5.68	112.74	108.20
26	BB	2214	C	C5'-C4'-O4'	5.68	115.92	109.10
1	AA	597	G	N9-C4-C5	5.68	107.67	105.40
2	AE	44	G	C8-N9-C4	-5.68	104.13	106.40
26	BB	505	A	O4'-C1'-N9	5.68	112.74	108.20
26	BB	2184	A	C5'-C4'-O4'	5.68	115.91	109.10
26	BB	290	U	O4'-C1'-N1	5.68	112.74	108.20
26	BB	2801	G	C5'-C4'-C3'	-5.68	106.92	116.00
1	AA	496	A	C8-N9-C4	-5.67	103.53	105.80
1	AA	636	U	C5'-C4'-O4'	5.67	115.91	109.10
1	AA	1143	G	N7-C8-N9	5.67	115.94	113.10
26	BB	646	U	O4'-C1'-N1	5.67	112.74	108.20
26	BB	1104	C	C5'-C4'-O4'	5.67	115.91	109.10
26	BB	1215	G	C8-N9-C4	-5.67	104.13	106.40
26	BB	1733	G	N3-C4-C5	-5.67	125.76	128.60
26	BB	2220	U	O4'-C1'-N1	5.67	112.74	108.20
26	BB	2231	U	O4'-C1'-N1	5.67	112.74	108.20
26	BB	814	C	C6-N1-C2	-5.67	118.03	120.30
26	BB	2855	C	C5'-C4'-C3'	-5.67	106.92	116.00
1	AA	937	A	C8-N9-C4	-5.67	103.53	105.80
1	AA	996	A	C5'-C4'-O4'	5.67	115.91	109.10
26	BB	1203	U	C2-N3-C4	-5.67	123.60	127.00
26	BB	2059	A	C8-N9-C4	-5.67	103.53	105.80
25	BA	91	C	C5'-C4'-C3'	-5.67	106.93	116.00
26	BB	554	U	C5'-C4'-C3'	-5.67	106.93	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	813	U	C5'-C4'-O4'	5.67	115.90	109.10
1	AA	683	G	C8-N9-C4	-5.67	104.13	106.40
2	AE	34	G	O4'-C1'-N9	5.67	112.73	108.20
26	BB	481	G	C2-N3-C4	5.67	114.73	111.90
26	BB	1007	C	C5'-C4'-O4'	5.67	115.90	109.10
26	BB	1209	U	C2-N1-C1'	5.67	124.50	117.70
26	BB	2065	C	C5'-C4'-O4'	5.67	115.90	109.10
26	BB	2328	A	C5'-C4'-O4'	5.67	115.90	109.10
1	AA	247	G	N3-C4-C5	-5.67	125.77	128.60
1	AA	1142	G	O4'-C1'-N9	5.67	112.73	108.20
26	BB	1187	G	O4'-C4'-C3'	5.67	110.63	106.10
26	BB	1452	G	N3-C4-C5	-5.67	125.77	128.60
26	BB	1929	G	N9-C4-C5	5.67	107.67	105.40
26	BB	1996	C	O4'-C1'-N1	5.67	112.73	108.20
26	BB	2398	U	O4'-C1'-N1	5.67	112.73	108.20
1	AA	800	G	C8-N9-C4	-5.67	104.13	106.40
2	AB	26	A	C8-N9-C4	-5.67	103.53	105.80
26	BB	1875	G	O4'-C1'-N9	5.67	112.73	108.20
1	AA	216	U	O4'-C1'-N1	5.66	112.73	108.20
26	BB	549	G	C5'-C4'-C3'	-5.66	106.94	116.00
26	BB	1128	G	C1'-O4'-C4'	-5.66	105.37	109.90
26	BB	1847	A	C1'-O4'-C4'	-5.66	105.37	109.90
2	AB	29	G	N3-C4-C5	-5.66	125.77	128.60
26	BB	665	U	O4'-C1'-N1	5.66	112.72	108.20
26	BB	2431	U	C2'-C3'-O3'	5.66	122.75	113.70
26	BB	712	G	O4'-C1'-N9	5.66	112.72	108.20
26	BB	817	C	C5'-C4'-O4'	5.66	115.89	109.10
26	BB	166	U	C4'-C3'-C2'	-5.65	96.95	102.60
26	BB	2750	A	C5'-C4'-C3'	-5.65	106.95	116.00
1	AA	446	G	O4'-C1'-N9	5.65	112.72	108.20
1	AA	1222	G	O4'-C1'-N9	5.65	112.72	108.20
26	BB	733	G	O4'-C1'-N9	5.65	112.72	108.20
26	BB	1569	A	O4'-C1'-N9	5.65	112.72	108.20
26	BB	1591	A	C8-N9-C4	-5.65	103.54	105.80
26	BB	2216	G	C5'-C4'-C3'	-5.65	106.96	116.00
2	AB	52	G	C8-N9-C4	-5.65	104.14	106.40
26	BB	4	U	O4'-C1'-N1	5.65	112.72	108.20
26	BB	146	A	O4'-C1'-N9	5.65	112.72	108.20
26	BB	703	U	O4'-C1'-N1	5.65	112.72	108.20
26	BB	843	G	N3-C4-C5	-5.65	125.78	128.60
26	BB	1308	A	C5'-C4'-O4'	5.65	115.88	109.10
26	BB	2312	U	C5'-C4'-O4'	5.65	115.88	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1090	U	O4'-C1'-N1	5.65	112.72	108.20
26	BB	758	C	O4'-C1'-N1	5.65	112.72	108.20
26	BB	2040	G	N3-C4-C5	-5.65	125.78	128.60
26	BB	2732	G	C5'-C4'-C3'	-5.65	106.96	116.00
1	AA	854	U	O4'-C1'-N1	5.64	112.72	108.20
1	AA	1293	C	O4'-C1'-N1	5.64	112.72	108.20
1	AA	1324	A	O4'-C1'-N9	5.64	112.72	108.20
2	AE	28	G	N3-C4-C5	-5.64	125.78	128.60
25	BA	20	G	C8-N9-C4	-5.64	104.14	106.40
26	BB	703	U	C5'-C4'-C3'	-5.64	106.97	116.00
1	AA	1035	A	O4'-C1'-N9	5.64	112.71	108.20
26	BB	1869	G	C8-N9-C4	-5.64	104.14	106.40
1	AA	705	G	C8-N9-C4	-5.64	104.14	106.40
1	AA	1058	G	N7-C8-N9	5.64	115.92	113.10
1	AA	1212	U	C5'-C4'-O4'	-5.64	102.33	109.10
26	BB	2486	C	O4'-C1'-N1	5.64	112.71	108.20
1	AA	406	G	C5'-C4'-C3'	-5.64	106.98	116.00
26	BB	1603	A	C5'-C4'-O4'	5.64	115.86	109.10
26	BB	2468	A	O4'-C1'-N9	5.64	112.71	108.20
25	BA	46	A	N1-C6-N6	-5.64	115.22	118.60
1	AA	378	G	O4'-C1'-N9	5.63	112.71	108.20
26	BB	1357	C	O4'-C1'-N1	5.63	112.71	108.20
26	BB	1446	C	C5'-C4'-O4'	5.63	115.86	109.10
26	BB	2261	C	O4'-C1'-N1	5.63	112.71	108.20
26	BB	1056	G	C2'-C3'-O3'	5.63	122.71	113.70
26	BB	2506	U	C4'-C3'-C2'	-5.63	96.97	102.60
33	BI	25	TYR	CB-CG-CD1	-5.63	117.62	121.00
25	BA	1	U	O4'-C1'-N1	5.63	112.70	108.20
26	BB	2366	A	O4'-C1'-N9	5.63	112.70	108.20
1	AA	311	C	O4'-C1'-N1	5.63	112.70	108.20
1	AA	1182	G	C3'-C2'-C1'	5.63	106.00	101.50
26	BB	436	C	O4'-C1'-N1	5.63	112.70	108.20
26	BB	1278	C	O4'-C1'-N1	5.63	112.70	108.20
26	BB	498	G	O4'-C1'-N9	5.63	112.70	108.20
26	BB	655	A	P-O3'-C3'	5.62	126.45	119.70
26	BB	738	G	N9-C4-C5	5.62	107.65	105.40
26	BB	247	G	C5'-C4'-O4'	5.62	115.85	109.10
26	BB	732	C	O4'-C1'-N1	5.62	112.70	108.20
26	BB	880	G	N3-C4-C5	-5.62	125.79	128.60
26	BB	1376	C	O4'-C1'-N1	5.62	112.70	108.20
25	BA	31	C	C5'-C4'-O4'	5.62	115.85	109.10
26	BB	824	U	C5'-C4'-C3'	-5.62	107.01	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2258	C	P-O3'-C3'	5.62	126.45	119.70
26	BB	68	G	C8-N9-C4	-5.62	104.15	106.40
26	BB	245	G	C8-N9-C4	-5.62	104.15	106.40
26	BB	2697	G	O4'-C1'-N9	5.62	112.70	108.20
1	AA	512	U	C1'-O4'-C4'	-5.62	105.41	109.90
1	AA	742	G	C2-N3-C4	5.62	114.71	111.90
2	AE	59	U	C3'-C2'-C1'	5.62	105.99	101.50
26	BB	802	A	C5'-C4'-O4'	5.62	115.84	109.10
26	BB	890	C	C5'-C4'-O4'	5.62	115.84	109.10
26	BB	1507	C	C4'-C3'-C2'	-5.62	96.98	102.60
26	BB	270	A	C3'-C2'-C1'	-5.62	97.01	101.50
26	BB	344	A	C1'-O4'-C4'	-5.62	105.41	109.90
26	BB	656	G	N3-C4-C5	-5.62	125.79	128.60
26	BB	2885	G	C8-N9-C4	-5.62	104.15	106.40
1	AA	1426	G	O4'-C1'-N9	5.61	112.69	108.20
26	BB	685	A	C8-N9-C4	-5.61	103.56	105.80
26	BB	1995	U	O4'-C1'-N1	5.61	112.69	108.20
26	BB	2639	A	C5'-C4'-C3'	-5.61	107.02	116.00
26	BB	2082	A	C8-N9-C4	-5.61	103.56	105.80
1	AA	1242	G	C8-N9-C4	-5.61	104.16	106.40
26	BB	1448	G	C5'-C4'-O4'	5.61	115.83	109.10
1	AA	818	G	C3'-C2'-C1'	5.61	105.99	101.50
1	AA	885	G	C8-N9-C4	-5.61	104.16	106.40
26	BB	123	G	O4'-C1'-N9	5.61	112.69	108.20
26	BB	938	G	N3-C4-C5	-5.61	125.80	128.60
1	AA	226	G	C3'-C2'-C1'	-5.61	97.02	101.50
1	AA	893	C	O4'-C1'-N1	5.61	112.68	108.20
26	BB	2337	G	C5'-C4'-O4'	5.61	115.83	109.10
26	BB	108	G	O4'-C1'-N9	5.60	112.68	108.20
1	AA	184	G	O4'-C1'-N9	5.60	112.68	108.20
1	AA	440	C	O4'-C1'-N1	5.60	112.68	108.20
1	AA	1443	C	P-O3'-C3'	5.60	126.42	119.70
25	BA	101	A	C5'-C4'-O4'	5.60	115.82	109.10
26	BB	2781	A	C3'-C2'-C1'	-5.60	97.02	101.50
5	AF	221	ARG	NE-CZ-NH1	5.60	123.10	120.30
26	BB	1759	A	N9-C1'-C2'	-5.60	105.84	112.00
1	AA	1163	A	O4'-C1'-N9	5.60	112.68	108.20
1	AA	1200	C	P-O3'-C3'	5.60	126.42	119.70
26	BB	1645	G	C3'-C2'-C1'	5.60	105.98	101.50
1	AA	212	G	N3-C4-C5	-5.60	125.80	128.60
26	BB	1538	G	N3-C4-C5	-5.60	125.80	128.60
26	BB	2268	A	C5'-C4'-O4'	5.60	115.82	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2741	A	C5'-C4'-C3'	-5.60	107.04	116.00
4	AD	44	U	O4'-C1'-N1	5.60	112.68	108.20
26	BB	2704	C	C5'-C4'-O4'	5.60	115.81	109.10
26	BB	163	C	O4'-C1'-N1	5.59	112.68	108.20
26	BB	242	G	C5'-C4'-C3'	-5.59	107.05	116.00
26	BB	367	G	O4'-C1'-N9	5.59	112.68	108.20
26	BB	1569	A	C5'-C4'-O4'	5.59	115.81	109.10
26	BB	653	U	P-O3'-C3'	5.59	126.41	119.70
1	AA	441	A	C5'-C4'-C3'	-5.59	107.05	116.00
26	BB	1292	G	C8-N9-C4	-5.59	104.16	106.40
26	BB	1775	U	O4'-C1'-N1	5.59	112.67	108.20
26	BB	2119	A	O4'-C1'-N9	5.59	112.67	108.20
1	AA	836	G	O3'-P-O5'	-5.59	93.38	104.00
1	AA	1038	C	O4'-C1'-N1	5.59	112.67	108.20
2	AE	7	A	O4'-C1'-N9	5.59	112.67	108.20
25	BA	39	A	O4'-C1'-N9	5.59	112.67	108.20
26	BB	895	U	O3'-P-O5'	-5.59	93.38	104.00
26	BB	2156	G	C8-N9-C4	-5.59	104.17	106.40
26	BB	2870	C	C5'-C4'-O4'	5.59	115.81	109.10
1	AA	844	G	C8-N9-C4	-5.59	104.17	106.40
1	AA	1032	G	N3-C4-C5	-5.59	125.81	128.60
26	BB	716	A	O4'-C1'-N9	5.59	112.67	108.20
26	BB	1086	A	C8-N9-C4	-5.59	103.56	105.80
26	BB	1491	G	C8-N9-C4	-5.59	104.17	106.40
1	AA	164	G	C5'-C4'-O4'	5.59	115.80	109.10
26	BB	855	G	N9-C4-C5	5.59	107.63	105.40
26	BB	1724	G	O4'-C1'-N9	5.59	112.67	108.20
26	BB	2348	U	O4'-C1'-N1	5.59	112.67	108.20
1	AA	1003	G	O4'-C1'-N9	5.58	112.67	108.20
26	BB	1514	G	C8-N9-C4	-5.58	104.17	106.40
1	AA	443	C	O4'-C1'-N1	5.58	112.67	108.20
1	AA	995	C	O4'-C1'-N1	5.58	112.67	108.20
1	AA	1027	C	C5'-C4'-O4'	5.58	115.80	109.10
25	BA	33	G	N9-C1'-C2'	-5.58	105.86	112.00
26	BB	531	C	O4'-C4'-C3'	5.58	110.56	106.10
26	BB	552	U	O4'-C1'-N1	5.58	112.66	108.20
26	BB	1834	U	O4'-C1'-N1	5.58	112.66	108.20
26	BB	2190	G	O4'-C1'-N9	5.58	112.66	108.20
26	BB	2760	C	O4'-C1'-N1	5.58	112.66	108.20
1	AA	741	G	O4'-C1'-N9	5.58	112.66	108.20
1	AA	1310	G	O4'-C1'-N9	5.58	112.66	108.20
26	BB	540	C	C5'-C4'-O4'	5.58	115.80	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	308	C	O4'-C1'-N1	5.58	112.66	108.20
26	BB	229	C	O4'-C1'-N1	5.58	112.66	108.20
1	AA	1350	A	C5'-C4'-C3'	-5.58	107.08	116.00
26	BB	1135	C	C5'-C4'-C3'	-5.58	107.08	116.00
26	BB	1650	A	O4'-C1'-N9	5.58	112.66	108.20
25	BA	86	G	C8-N9-C4	-5.57	104.17	106.40
26	BB	923	G	C8-N9-C4	-5.57	104.17	106.40
26	BB	1187	G	C8-N9-C4	-5.57	104.17	106.40
1	AA	111	G	N3-C4-C5	-5.57	125.81	128.60
1	AA	136	C	O4'-C1'-N1	5.57	112.66	108.20
1	AA	529	G	O4'-C1'-N9	5.57	112.66	108.20
26	BB	283	G	C5'-C4'-C3'	-5.57	107.09	116.00
26	BB	1187	G	C5'-C4'-O4'	5.57	115.78	109.10
26	BB	1395	A	O4'-C4'-C3'	5.57	110.56	106.10
1	AA	654	G	C8-N9-C4	-5.57	104.17	106.40
1	AA	1074	G	C5'-C4'-O4'	5.57	115.78	109.10
26	BB	103	A	C5'-C4'-O4'	5.57	115.78	109.10
1	AA	861	G	C5'-C4'-O4'	5.57	115.78	109.10
25	BA	98	G	C5'-C4'-O4'	5.57	115.78	109.10
26	BB	1587	G	C8-N9-C4	-5.57	104.17	106.40
1	AA	211	G	C8-N9-C4	-5.56	104.17	106.40
26	BB	1604	C	C5'-C4'-O4'	5.56	115.78	109.10
26	BB	2636	C	O4'-C1'-N1	5.56	112.65	108.20
1	AA	1010	U	N3-C2-O2	-5.56	118.31	122.20
1	AA	1380	U	C1'-O4'-C4'	-5.56	105.45	109.90
1	AA	1258	G	N3-C4-C5	-5.56	125.82	128.60
1	AA	858	G	C5'-C4'-C3'	-5.56	107.10	116.00
26	BB	442	G	C8-N9-C4	-5.56	104.18	106.40
26	BB	879	G	C8-N9-C4	-5.56	104.18	106.40
1	AA	332	G	C1'-O4'-C4'	-5.56	105.45	109.90
1	AA	492	C	O4'-C1'-N1	5.56	112.65	108.20
26	BB	1233	C	C5'-C4'-O4'	-5.56	102.43	109.10
25	BA	54	G	N3-C4-C5	-5.56	125.82	128.60
26	BB	987	C	O4'-C1'-N1	5.56	112.64	108.20
1	AA	633	G	C8-N9-C4	-5.55	104.18	106.40
1	AA	993	G	N3-C4-C5	-5.55	125.82	128.60
26	BB	1929	G	C8-N9-C4	-5.55	104.18	106.40
1	AA	867	G	N3-C4-C5	-5.55	125.82	128.60
1	AA	944	G	C8-N9-C4	-5.55	104.18	106.40
1	AA	1084	G	C8-N9-C4	-5.55	104.18	106.40
26	BB	1044	C	O4'-C1'-N1	5.55	112.64	108.20
26	BB	2731	G	N3-C4-C5	-5.55	125.82	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	544	G	O4'-C1'-N9	5.55	112.64	108.20
1	AA	1257	A	O4'-C1'-N9	5.55	112.64	108.20
1	AA	1357	A	O4'-C1'-N9	5.55	112.64	108.20
26	BB	1256	G	N3-C4-C5	-5.55	125.83	128.60
26	BB	2814	A	O4'-C1'-N9	5.55	112.64	108.20
1	AA	362	G	C5'-C4'-C3'	-5.55	107.12	116.00
1	AA	893	C	C5'-C4'-O4'	5.55	115.76	109.10
26	BB	972	A	O4'-C1'-N9	5.55	112.64	108.20
26	BB	1408	G	C8-N9-C4	-5.55	104.18	106.40
26	BB	1538	G	O4'-C1'-N9	5.55	112.64	108.20
26	BB	2028	U	C5'-C4'-O4'	5.55	115.76	109.10
26	BB	2268	A	O3'-P-O5'	-5.55	93.45	104.00
26	BB	2040	G	C8-N9-C4	-5.55	104.18	106.40
1	AA	1381	U	O4'-C1'-N1	5.55	112.64	108.20
2	AE	13	C	O4'-C1'-N1	5.55	112.64	108.20
2	AE	18	G	C8-N9-C4	-5.55	104.18	106.40
26	BB	1757	A	P-O3'-C3'	5.55	126.36	119.70
26	BB	2399	G	O4'-C1'-N9	5.54	112.64	108.20
26	BB	2644	G	C8-N9-C4	-5.54	104.18	106.40
26	BB	571	U	O4'-C1'-N1	5.54	112.64	108.20
1	AA	1031	C	O4'-C1'-N1	5.54	112.63	108.20
26	BB	1538	G	C8-N9-C4	-5.54	104.18	106.40
26	BB	2345	G	N3-C4-C5	-5.54	125.83	128.60
26	BB	1509	A	P-O3'-C3'	5.54	126.35	119.70
1	AA	346	G	N3-C4-C5	-5.54	125.83	128.60
26	BB	323	C	N1-C2-O2	5.54	122.22	118.90
26	BB	424	G	N9-C1'-C2'	-5.54	105.91	112.00
26	BB	2126	A	O4'-C1'-N9	5.54	112.63	108.20
1	AA	780	A	O4'-C1'-N9	5.54	112.63	108.20
25	BA	103	U	O4'-C1'-N1	5.54	112.63	108.20
26	BB	765	C	C5'-C4'-O4'	5.54	115.74	109.10
26	BB	869	G	N9-C1'-C2'	-5.54	105.91	112.00
26	BB	1062	G	C8-N9-C4	-5.54	104.19	106.40
26	BB	1338	G	C8-N9-C4	-5.54	104.19	106.40
26	BB	2232	C	O4'-C1'-N1	5.54	112.63	108.20
26	BB	2653	U	O4'-C1'-N1	5.54	112.63	108.20
1	AA	392	C	O4'-C1'-N1	5.53	112.63	108.20
26	BB	90	U	C5'-C4'-C3'	-5.53	107.15	116.00
26	BB	201	C	C2-N3-C4	5.53	122.67	119.90
26	BB	808	G	O4'-C1'-N9	5.53	112.63	108.20
26	BB	1722	A	C8-N9-C4	-5.53	103.59	105.80
26	BB	2834	G	C8-N9-C4	-5.53	104.19	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1114	C	C3'-C2'-C1'	5.53	105.93	101.50
26	BB	1368	G	O4'-C1'-N9	5.53	112.62	108.20
1	AA	23	C	O4'-C1'-N1	5.53	112.62	108.20
1	AA	765	G	C8-N9-C4	-5.53	104.19	106.40
26	BB	997	G	C8-N9-C4	-5.53	104.19	106.40
26	BB	1731	G	N3-C4-C5	-5.53	125.83	128.60
26	BB	2271	G	C5'-C4'-C3'	-5.53	107.15	116.00
1	AA	1184	G	N3-C4-C5	-5.53	125.83	128.60
26	BB	942	G	O4'-C1'-N9	5.53	112.62	108.20
26	BB	740	C	C5'-C4'-O4'	5.53	115.73	109.10
26	BB	759	G	C8-N9-C4	-5.53	104.19	106.40
26	BB	1018	U	O4'-C1'-N1	5.53	112.62	108.20
26	BB	1042	G	C5'-C4'-O4'	5.53	115.73	109.10
26	BB	1206	G	C5'-C4'-O4'	5.53	115.73	109.10
26	BB	2640	G	N3-C4-C5	-5.53	125.84	128.60
1	AA	652	U	C5'-C4'-C3'	-5.53	107.16	116.00
2	AB	36	A	C5'-C4'-O4'	5.53	115.73	109.10
26	BB	2824	C	O4'-C1'-N1	5.53	112.62	108.20
1	AA	248	C	O4'-C1'-N1	5.52	112.62	108.20
1	AA	736	C	C5'-C4'-O4'	5.52	115.73	109.10
26	BB	354	A	N9-C4-C5	5.52	108.01	105.80
26	BB	938	G	C8-N9-C4	-5.52	104.19	106.40
26	BB	1537	G	C8-N9-C4	-5.52	104.19	106.40
1	AA	1191	A	O4'-C1'-N9	5.52	112.62	108.20
26	BB	2751	G	N3-C4-C5	-5.52	125.84	128.60
26	BB	190	A	O4'-C1'-N9	5.52	112.62	108.20
26	BB	334	C	O4'-C1'-N1	5.52	112.62	108.20
1	AA	838	G	N3-C4-C5	-5.52	125.84	128.60
1	AA	874	G	C8-N9-C4	-5.52	104.19	106.40
1	AA	1178	G	C8-N9-C4	-5.52	104.19	106.40
1	AA	671	G	O4'-C1'-N9	5.52	112.61	108.20
1	AA	892	A	C5'-C4'-O4'	5.52	115.72	109.10
1	AA	1310	G	C5'-C4'-O4'	5.52	115.72	109.10
26	BB	1611	C	C5'-C4'-O4'	5.52	115.72	109.10
26	BB	2186	G	C8-N9-C4	-5.51	104.19	106.40
1	AA	998	C	C5'-C4'-C3'	-5.51	107.18	116.00
25	BA	77	U	C2'-C3'-O3'	5.51	122.52	113.70
26	BB	1227	G	O3'-P-O5'	-5.51	93.53	104.00
26	BB	1523	U	O4'-C4'-C3'	5.51	110.51	106.10
26	BB	1989	G	C5'-C4'-O4'	5.51	115.71	109.10
1	AA	524	G	C3'-C2'-C1'	5.51	105.91	101.50
1	AA	641	U	O4'-C4'-C3'	5.51	110.51	106.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1138	G	N3-C4-C5	-5.51	125.84	128.60
26	BB	240	C	N1-C2-O2	5.51	122.20	118.90
26	BB	1479	G	N9-C4-C5	5.51	107.60	105.40
26	BB	2796	U	C2-N3-C4	-5.51	123.69	127.00
26	BB	18	U	O4'-C1'-N1	5.51	112.61	108.20
26	BB	409	G	C5'-C4'-O4'	5.51	115.71	109.10
26	BB	822	G	O4'-C1'-N9	5.51	112.61	108.20
4	AD	31	U	O4'-C1'-N1	5.51	112.61	108.20
26	BB	2845	U	O4'-C1'-N1	5.51	112.61	108.20
1	AA	391	G	O4'-C1'-N9	5.50	112.60	108.20
1	AA	803	G	C8-N9-C4	-5.50	104.20	106.40
26	BB	1278	C	C4'-C3'-C2'	-5.50	97.09	102.60
1	AA	818	G	N3-C4-C5	-5.50	125.85	128.60
26	BB	119	A	O4'-C1'-N9	5.50	112.60	108.20
26	BB	905	A	O4'-C1'-N9	5.50	112.60	108.20
26	BB	2386	A	C5'-C4'-O4'	5.50	115.70	109.10
32	BH	162	ARG	NE-CZ-NH2	5.50	123.05	120.30
26	BB	2648	G	C5'-C4'-O4'	5.50	115.70	109.10
1	AA	1541	U	C3'-C2'-C1'	5.50	105.90	101.50
26	BB	1800	C	O4'-C4'-C3'	5.50	110.50	106.10
26	BB	2040	G	C5'-C4'-C3'	-5.50	107.20	116.00
26	BB	2866	U	O4'-C1'-N1	5.50	112.60	108.20
1	AA	1072	G	N3-C4-C5	-5.50	125.85	128.60
26	BB	913	U	N1-C2-N3	5.50	118.20	114.90
26	BB	1013	C	O4'-C1'-N1	5.50	112.60	108.20
26	BB	1495	A	O4'-C1'-N9	5.50	112.60	108.20
26	BB	2083	G	O4'-C1'-N9	5.50	112.60	108.20
1	AA	899	C	O3'-P-O5'	-5.50	93.56	104.00
4	AD	31	U	C3'-C2'-C1'	5.50	105.90	101.50
26	BB	242	G	C3'-C2'-C1'	-5.50	97.10	101.50
1	AA	1467	C	N1-C2-O2	5.50	122.20	118.90
26	BB	1973	G	C5'-C4'-C3'	-5.50	107.21	116.00
26	BB	2751	G	C4'-C3'-O3'	-5.50	97.86	109.40
1	AA	1346	A	O4'-C1'-N9	5.49	112.59	108.20
26	BB	517	C	O4'-C1'-N1	5.49	112.59	108.20
26	BB	1540	G	O4'-C1'-N9	5.49	112.59	108.20
1	AA	93	U	O4'-C1'-N1	5.49	112.59	108.20
1	AA	112	G	C1'-O4'-C4'	-5.49	105.51	109.90
26	BB	189	G	C8-N9-C4	-5.49	104.20	106.40
26	BB	545	U	C5'-C4'-C3'	-5.49	107.22	116.00
26	BB	835	C	O4'-C1'-N1	5.49	112.59	108.20
26	BB	1047	G	O3'-P-O5'	-5.49	93.57	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2328	A	C5'-C4'-C3'	-5.49	107.22	116.00
1	AA	1001	C	O4'-C1'-N1	5.49	112.59	108.20
26	BB	1695	G	C8-N9-C4	-5.49	104.20	106.40
1	AA	211	G	C2-N3-C4	5.49	114.64	111.90
1	AA	1246	A	O4'-C1'-N9	5.49	112.59	108.20
26	BB	880	G	N9-C4-C5	5.49	107.59	105.40
1	AA	227	G	O4'-C1'-N9	5.48	112.59	108.20
26	BB	2874	C	O4'-C1'-N1	5.48	112.59	108.20
1	AA	234	C	O4'-C1'-N1	5.48	112.59	108.20
1	AA	1530	G	O4'-C1'-N9	5.48	112.59	108.20
26	BB	148	U	P-O3'-C3'	5.48	126.28	119.70
26	BB	728	G	N3-C4-C5	-5.48	125.86	128.60
26	BB	2145	C	C3'-C2'-C1'	-5.48	97.11	101.50
1	AA	624	C	O4'-C1'-N1	5.48	112.58	108.20
1	AA	906	A	O4'-C1'-N9	5.48	112.58	108.20
1	AA	1395	C	C5'-C4'-C3'	-5.48	107.23	116.00
25	BA	54	G	N9-C4-C5	5.48	107.59	105.40
26	BB	1180	U	C5'-C4'-O4'	5.48	115.68	109.10
26	BB	1869	G	C8-N9-C1'	5.48	134.12	127.00
1	AA	511	C	O3'-P-O5'	-5.48	93.59	104.00
1	AA	774	G	C5'-C4'-O4'	5.48	115.67	109.10
2	AE	74	C	O3'-P-O5'	-5.48	93.59	104.00
26	BB	990	A	O3'-P-O5'	-5.48	93.59	104.00
26	BB	1059	G	C8-N9-C4	-5.48	104.21	106.40
26	BB	1687	G	C8-N9-C4	-5.48	104.21	106.40
26	BB	1859	U	C5'-C4'-O4'	5.48	115.67	109.10
26	BB	2416	C	O4'-C1'-N1	5.48	112.58	108.20
26	BB	2537	U	C5'-C4'-O4'	5.48	115.67	109.10
26	BB	2756	U	P-O3'-C3'	5.48	126.27	119.70
1	AA	856	C	O4'-C1'-N1	5.48	112.58	108.20
4	AD	43	U	N1-C1'-C2'	5.48	121.12	114.00
26	BB	1361	G	C8-N9-C4	-5.48	104.21	106.40
1	AA	46	G	C8-N9-C4	-5.47	104.21	106.40
26	BB	1510	G	O4'-C1'-N9	5.47	112.58	108.20
26	BB	2357	G	C5'-C4'-O4'	5.47	115.67	109.10
1	AA	112	G	C8-N9-C4	-5.47	104.21	106.40
26	BB	467	G	C8-N9-C4	-5.47	104.21	106.40
26	BB	871	U	C5'-C4'-O4'	5.47	115.67	109.10
26	BB	1324	G	O4'-C1'-N9	5.47	112.58	108.20
26	BB	1360	G	O4'-C1'-N9	5.47	112.58	108.20
26	BB	1623	G	O4'-C1'-N9	5.47	112.58	108.20
26	BB	2087	G	C8-N9-C4	-5.47	104.21	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2588	G	O4'-C1'-N9	5.47	112.58	108.20
1	AA	1200	C	N1-C2-O2	5.47	122.18	118.90
1	AA	1225	A	C5'-C4'-O4'	5.47	115.67	109.10
26	BB	207	A	O4'-C1'-N9	5.47	112.58	108.20
26	BB	1934	C	O4'-C1'-N1	5.47	112.58	108.20
1	AA	520	A	C8-N9-C4	-5.47	103.61	105.80
1	AA	1198	G	O4'-C1'-N9	5.47	112.58	108.20
26	BB	412	A	O4'-C1'-N9	5.47	112.58	108.20
26	BB	1145	C	C5'-C4'-C3'	-5.47	107.25	116.00
26	BB	2164	C	N1-C2-O2	5.47	122.18	118.90
1	AA	447	G	C8-N9-C4	-5.47	104.21	106.40
1	AA	725	G	O4'-C1'-N9	5.47	112.57	108.20
26	BB	301	G	C8-N9-C4	-5.47	104.21	106.40
1	AA	1159	U	O4'-C1'-N1	5.46	112.57	108.20
1	AA	1499	A	C5'-C4'-O4'	5.46	115.66	109.10
25	BA	108	A	C5'-C4'-O4'	5.46	115.66	109.10
26	BB	695	G	O4'-C1'-N9	5.46	112.57	108.20
1	AA	75	G	O4'-C1'-N9	5.46	112.57	108.20
26	BB	2780	G	N3-C4-C5	-5.46	125.87	128.60
1	AA	324	G	C8-N9-C4	-5.46	104.22	106.40
1	AA	668	G	C5'-C4'-O4'	5.46	115.65	109.10
1	AA	768	A	C5'-C4'-O4'	5.46	115.65	109.10
26	BB	2578	G	C5'-C4'-O4'	5.46	115.66	109.10
2	AE	71	G	O4'-C1'-N9	5.46	112.57	108.20
26	BB	2408	U	C5'-C4'-O4'	5.46	115.65	109.10
26	BB	164	C	C5'-C4'-O4'	5.46	115.65	109.10
26	BB	942	G	N3-C4-C5	-5.46	125.87	128.60
26	BB	2557	G	O4'-C1'-N9	5.46	112.57	108.20
26	BB	2625	G	C5'-C4'-O4'	5.46	115.65	109.10
2	AB	18	G	O4'-C1'-N9	5.46	112.56	108.20
26	BB	912	C	O4'-C1'-N1	5.46	112.57	108.20
26	BB	2447	G	P-O3'-C3'	5.46	126.25	119.70
1	AA	310	G	C8-N9-C4	-5.45	104.22	106.40
26	BB	253	C	O4'-C1'-N1	5.45	112.56	108.20
26	BB	885	C	O4'-C1'-N1	5.45	112.56	108.20
26	BB	2619	C	C5'-C4'-O4'	5.45	115.64	109.10
26	BB	2744	G	C8-N9-C4	-5.45	104.22	106.40
1	AA	50	A	O4'-C1'-N9	5.45	112.56	108.20
1	AA	1049	U	O3'-P-O5'	-5.45	93.64	104.00
26	BB	870	U	N1-C2-N3	5.45	118.17	114.90
1	AA	1461	G	C5'-C4'-O4'	5.45	115.64	109.10
26	BB	15	G	N7-C8-N9	5.45	115.83	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	806	C	C5'-C4'-C3'	-5.45	107.28	116.00
26	BB	2706	A	O4'-C1'-N9	5.45	112.56	108.20
1	AA	1208	C	O4'-C1'-N1	5.45	112.56	108.20
2	AE	49	C	O4'-C1'-N1	5.45	112.56	108.20
12	AM	17	ARG	NE-CZ-NH1	5.45	123.02	120.30
26	BB	1150	C	O4'-C1'-N1	5.45	112.56	108.20
26	BB	1478	G	C5'-C4'-O4'	5.45	115.64	109.10
26	BB	1605	C	C5'-C4'-C3'	-5.45	107.28	116.00
26	BB	1338	G	C5'-C4'-O4'	5.45	115.64	109.10
26	BB	2416	C	C5'-C4'-C3'	-5.45	107.28	116.00
26	BB	370	G	C8-N9-C4	-5.45	104.22	106.40
26	BB	1219	U	O4'-C1'-N1	5.45	112.56	108.20
26	BB	109	C	C5'-C4'-C3'	-5.44	107.29	116.00
26	BB	1063	G	C3'-C2'-C1'	-5.44	97.14	101.50
26	BB	1298	C	O4'-C1'-N1	5.44	112.56	108.20
1	AA	329	A	O4'-C1'-N9	5.44	112.55	108.20
1	AA	1377	A	C1'-O4'-C4'	-5.44	105.55	109.90
26	BB	1826	G	N3-C4-C5	-5.44	125.88	128.60
1	AA	910	C	C5'-C4'-C3'	-5.44	107.30	116.00
1	AA	1279	G	N3-C4-C5	-5.44	125.88	128.60
26	BB	654	A	P-O3'-C3'	5.44	126.23	119.70
1	AA	394	G	N9-C4-C5	5.44	107.58	105.40
26	BB	1204	A	O4'-C1'-N9	5.44	112.55	108.20
26	BB	1263	U	O4'-C1'-N1	5.44	112.55	108.20
26	BB	2791	G	C1'-O4'-C4'	-5.44	105.55	109.90
1	AA	1203	C	C5'-C4'-C3'	-5.44	107.30	116.00
26	BB	1446	C	C5'-C4'-C3'	-5.44	107.30	116.00
26	BB	1871	A	C5'-C4'-O4'	5.44	115.63	109.10
26	BB	2549	G	N9-C4-C5	5.44	107.58	105.40
1	AA	763	G	O4'-C1'-N9	5.44	112.55	108.20
26	BB	36	G	C4'-C3'-C2'	-5.44	97.16	102.60
26	BB	456	C	O4'-C1'-N1	5.44	112.55	108.20
25	BA	3	C	O4'-C1'-N1	5.43	112.55	108.20
26	BB	554	U	O4'-C1'-N1	5.43	112.55	108.20
26	BB	1089	A	O3'-P-O5'	-5.43	93.67	104.00
26	BB	1341	G	O4'-C1'-N9	5.43	112.55	108.20
1	AA	403	C	C5'-C4'-O4'	5.43	115.62	109.10
1	AA	439	U	O4'-C1'-N1	5.43	112.55	108.20
2	AE	30	G	C8-N9-C4	-5.43	104.23	106.40
26	BB	1850	G	C8-N9-C4	-5.43	104.23	106.40
26	BB	2129	C	O4'-C1'-N1	5.43	112.55	108.20
1	AA	103	U	O4'-C1'-N1	5.43	112.54	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	169	C	C2-N3-C4	5.43	122.61	119.90
26	BB	35	G	C8-N9-C4	-5.43	104.23	106.40
26	BB	566	U	C5'-C4'-C3'	-5.43	107.31	116.00
26	BB	1968	G	C3'-C2'-C1'	-5.43	97.16	101.50
26	BB	2135	A	C4'-C3'-C2'	-5.43	97.17	102.60
26	BB	2870	C	O4'-C1'-N1	5.43	112.54	108.20
1	AA	299	G	N7-C8-N9	5.43	115.81	113.10
1	AA	1436	U	C4'-C3'-C2'	-5.43	97.17	102.60
26	BB	185	G	N9-C1'-C2'	-5.43	106.03	112.00
26	BB	280	U	C5'-C4'-C3'	-5.43	107.31	116.00
26	BB	1096	A	C5'-C4'-O4'	5.43	115.61	109.10
26	BB	1563	U	O4'-C1'-N1	5.43	112.54	108.20
26	BB	1786	A	O4'-C1'-C2'	-5.43	100.37	105.80
26	BB	322	A	C5'-C4'-C3'	-5.43	107.32	116.00
26	BB	396	G	C8-N9-C4	-5.43	104.23	106.40
26	BB	504	A	O4'-C1'-N9	5.43	112.54	108.20
26	BB	686	U	C3'-C2'-C1'	5.43	105.84	101.50
26	BB	864	G	C8-N9-C4	-5.43	104.23	106.40
26	BB	1314	C	N1-C2-O2	5.43	122.16	118.90
26	BB	2602	A	O4'-C1'-N9	5.43	112.54	108.20
1	AA	663	A	C8-N9-C4	-5.42	103.63	105.80
26	BB	273	G	N3-C4-C5	-5.42	125.89	128.60
2	AB	28	G	O4'-C1'-N9	5.42	112.54	108.20
25	BA	48	U	C4'-C3'-C2'	-5.42	97.18	102.60
26	BB	943	A	C5'-C4'-O4'	5.42	115.61	109.10
26	BB	2208	C	C4'-C3'-C2'	-5.42	97.18	102.60
26	BB	2797	U	O4'-C1'-C2'	-5.42	100.38	105.80
1	AA	1409	C	C5'-C4'-C3'	-5.42	107.32	116.00
26	BB	2407	A	C4'-C3'-C2'	-5.42	97.18	102.60
1	AA	768	A	C2'-C3'-O3'	5.42	122.37	113.70
26	BB	687	C	N1-C2-O2	5.42	122.15	118.90
26	BB	1885	A	C5'-C4'-O4'	5.42	115.61	109.10
1	AA	39	G	N3-C4-C5	-5.42	125.89	128.60
26	BB	143	C	O4'-C1'-N1	5.42	112.53	108.20
26	BB	317	G	O4'-C1'-N9	5.42	112.53	108.20
26	BB	1788	C	C5'-C4'-C3'	-5.42	107.33	116.00
1	AA	762	U	O4'-C1'-N1	5.42	112.53	108.20
1	AA	1033	G	N3-C4-C5	-5.42	125.89	128.60
1	AA	1091	U	C5'-C4'-C3'	-5.42	107.33	116.00
26	BB	1587	G	C4'-C3'-C2'	-5.42	97.18	102.60
26	BB	2344	U	P-O3'-C3'	5.42	126.20	119.70
26	BB	815	C	C4'-C3'-C2'	-5.42	97.19	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	175	C	O4'-C1'-N1	5.41	112.53	108.20
1	AA	1011	C	O4'-C1'-N1	5.41	112.53	108.20
26	BB	388	G	P-O3'-C3'	5.41	126.19	119.70
26	BB	545	U	O3'-P-O5'	-5.41	93.72	104.00
26	BB	651	G	C8-N9-C4	-5.41	104.23	106.40
26	BB	1964	G	N9-C4-C5	5.41	107.56	105.40
26	BB	2426	A	O4'-C1'-N9	5.41	112.53	108.20
1	AA	689	C	O4'-C1'-N1	5.41	112.53	108.20
26	BB	165	A	C5'-C4'-O4'	5.41	115.59	109.10
26	BB	2278	A	O4'-C1'-N9	5.41	112.53	108.20
1	AA	130	A	O4'-C1'-N9	5.41	112.53	108.20
26	BB	757	G	O4'-C1'-N9	5.41	112.53	108.20
1	AA	336	A	C5'-C4'-O4'	5.41	115.59	109.10
1	AA	356	A	N9-C1'-C2'	-5.41	106.05	112.00
1	AA	921	U	O4'-C1'-N1	5.41	112.53	108.20
26	BB	292	U	O4'-C1'-N1	5.41	112.53	108.20
26	BB	332	A	C1'-O4'-C4'	-5.41	105.57	109.90
26	BB	716	A	P-O3'-C3'	5.41	126.19	119.70
26	BB	997	G	N3-C4-C5	-5.41	125.90	128.60
26	BB	1404	C	O4'-C1'-N1	5.41	112.53	108.20
26	BB	2051	A	C5'-C4'-C3'	-5.41	107.34	116.00
32	BH	108	PHE	CB-CG-CD2	-5.41	117.01	120.80
1	AA	694	A	C8-N9-C4	-5.41	103.64	105.80
1	AA	849	G	C5'-C4'-O4'	5.41	115.59	109.10
26	BB	2611	C	O4'-C1'-N1	5.41	112.53	108.20
1	AA	165	G	O4'-C1'-N9	5.41	112.52	108.20
1	AA	467	U	O4'-C1'-N1	5.41	112.53	108.20
2	AE	75	C	C3'-C2'-C1'	5.41	105.83	101.50
26	BB	1865	U	O4'-C1'-N1	5.41	112.53	108.20
26	BB	2768	U	O4'-C1'-N1	5.40	112.52	108.20
1	AA	410	G	O4'-C1'-N9	5.40	112.52	108.20
1	AA	1418	A	O4'-C1'-N9	5.40	112.52	108.20
25	BA	111	U	C5'-C4'-C3'	-5.40	107.36	116.00
26	BB	1581	G	C8-N9-C4	-5.40	104.24	106.40
1	AA	18	C	O4'-C1'-N1	5.40	112.52	108.20
1	AA	521	G	N3-C4-C5	-5.40	125.90	128.60
2	AB	26	A	O4'-C1'-N9	5.40	112.52	108.20
2	AE	43	C	O4'-C1'-N1	5.40	112.52	108.20
26	BB	949	G	C8-N9-C4	-5.40	104.24	106.40
1	AA	608	A	C5'-C4'-O4'	5.40	115.58	109.10
1	AA	1047	G	N3-C4-C5	-5.40	125.90	128.60
1	AA	1361	G	O4'-C1'-N9	5.40	112.52	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	159	G	P-O3'-C3'	5.40	126.18	119.70
1	AA	645	G	C8-N9-C4	-5.40	104.24	106.40
26	BB	1848	A	C8-N9-C4	-5.40	103.64	105.80
1	AA	202	G	N9-C4-C5	5.39	107.56	105.40
26	BB	904	G	N9-C1'-C2'	-5.39	106.06	112.00
26	BB	1425	G	C8-N9-C4	-5.39	104.24	106.40
26	BB	2455	G	N3-C4-C5	-5.39	125.90	128.60
1	AA	445	G	O4'-C1'-N9	5.39	112.51	108.20
1	AA	595	A	C5'-C4'-C3'	-5.39	107.37	116.00
26	BB	2233	U	N1-C1'-C2'	-5.39	106.07	112.00
26	BB	2705	A	C5'-C4'-C3'	-5.39	107.37	116.00
25	BA	105	G	N3-C4-C5	-5.39	125.91	128.60
26	BB	1269	A	C5'-C4'-C3'	-5.39	107.37	116.00
26	BB	2843	G	C3'-C2'-C1'	-5.39	97.19	101.50
1	AA	1270	G	O4'-C1'-N9	5.39	112.51	108.20
26	BB	984	A	N9-C1'-C2'	5.39	121.01	114.00
26	BB	1519	G	C8-N9-C4	-5.39	104.25	106.40
26	BB	2540	C	O4'-C1'-N1	5.39	112.51	108.20
1	AA	1160	G	C5'-C4'-O4'	5.39	115.56	109.10
1	AA	1213	A	C5'-C4'-O4'	5.39	115.56	109.10
26	BB	541	A	O4'-C1'-N9	5.39	112.51	108.20
26	BB	646	U	C4'-C3'-C2'	-5.39	97.21	102.60
26	BB	1587	G	O5'-C5'-C4'	-5.39	101.47	111.70
26	BB	1685	C	O4'-C1'-N1	5.39	112.51	108.20
26	BB	1738	G	C8-N9-C4	-5.39	104.25	106.40
26	BB	2124	G	C5'-C4'-O4'	5.39	115.56	109.10
1	AA	851	G	O4'-C1'-N9	5.38	112.51	108.20
1	AA	1501	C	C3'-C2'-C1'	5.38	105.81	101.50
26	BB	1892	C	O4'-C1'-N1	5.38	112.51	108.20
26	BB	2488	G	O4'-C1'-N9	5.38	112.51	108.20
26	BB	177	G	N3-C4-C5	-5.38	125.91	128.60
26	BB	492	A	C8-N9-C4	-5.38	103.65	105.80
26	BB	930	G	O4'-C1'-N9	5.38	112.51	108.20
26	BB	2563	U	C5'-C4'-O4'	5.38	115.56	109.10
1	AA	209	U	O4'-C1'-N1	5.38	112.50	108.20
26	BB	495	G	N9-C4-C5	5.38	107.55	105.40
26	BB	1334	G	C8-N9-C4	-5.38	104.25	106.40
26	BB	2883	A	O4'-C1'-N9	5.38	112.51	108.20
2	AE	30	G	N9-C4-C5	5.38	107.55	105.40
26	BB	11	C	O4'-C1'-C2'	-5.38	100.42	105.80
26	BB	1063	G	N3-C4-C5	-5.38	125.91	128.60
1	AA	214	C	C3'-C2'-C1'	-5.38	97.20	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	432	A	C5'-C4'-C3'	-5.38	107.40	116.00
26	BB	829	A	O4'-C4'-C3'	5.38	110.40	106.10
26	BB	1104	C	C5-C6-N1	5.38	123.69	121.00
26	BB	1776	G	N3-C4-C5	-5.38	125.91	128.60
1	AA	768	A	C8-N9-C4	-5.38	103.65	105.80
1	AA	1083	U	C3'-C2'-C1'	5.38	105.80	101.50
9	AJ	113	ARG	NE-CZ-NH2	-5.38	117.61	120.30
26	BB	136	G	C3'-C2'-C1'	-5.38	97.20	101.50
26	BB	1627	G	C5'-C4'-O4'	5.38	115.55	109.10
26	BB	2564	A	C5'-C4'-O4'	5.38	115.55	109.10
26	BB	2766	A	C5'-C4'-O4'	5.38	115.55	109.10
1	AA	909	A	O3'-P-O5'	5.38	114.21	104.00
26	BB	1474	U	O4'-C1'-N1	5.38	112.50	108.20
26	BB	460	A	O4'-C1'-N9	5.37	112.50	108.20
26	BB	808	G	N3-C4-C5	-5.37	125.91	128.60
26	BB	2302	U	C5'-C4'-C3'	-5.37	107.40	116.00
1	AA	385	C	C2'-C3'-O3'	5.37	122.30	113.70
1	AA	1138	G	P-O3'-C3'	5.37	126.14	119.70
10	AK	1	PRO	CA-N-CD	-5.37	103.98	111.50
26	BB	1501	G	C8-N9-C4	-5.37	104.25	106.40
26	BB	2612	C	C3'-C2'-C1'	5.37	105.80	101.50
26	BB	1171	G	O4'-C1'-N9	5.37	112.50	108.20
1	AA	1264	U	O4'-C1'-N1	5.37	112.49	108.20
26	BB	787	C	O3'-P-O5'	-5.37	93.80	104.00
26	BB	864	G	O4'-C1'-N9	5.37	112.50	108.20
26	BB	1065	U	C3'-C2'-C1'	5.37	105.80	101.50
26	BB	1535	A	N9-C1'-C2'	-5.37	106.09	112.00
26	BB	2111	U	P-O3'-C3'	5.37	126.14	119.70
26	BB	1277	G	O4'-C1'-N9	5.37	112.49	108.20
26	BB	2133	G	O4'-C1'-C2'	-5.37	100.43	105.80
1	AA	576	C	N1-C2-O2	5.37	122.12	118.90
26	BB	205	G	C8-N9-C4	-5.37	104.25	106.40
1	AA	1096	C	N1-C2-O2	5.36	122.12	118.90
26	BB	362	A	C5'-C4'-C3'	-5.36	107.42	116.00
26	BB	2673	G	O4'-C1'-N9	5.36	112.49	108.20
1	AA	1508	A	O4'-C1'-N9	5.36	112.49	108.20
1	AA	1530	G	O5'-C5'-C4'	-5.36	101.51	111.70
1	AA	758	C	N1-C2-O2	5.36	122.12	118.90
2	AB	53	G	O4'-C1'-N9	5.36	112.49	108.20
26	BB	2459	A	C8-N9-C4	-5.36	103.66	105.80
26	BB	450	G	O4'-C1'-N9	5.36	112.49	108.20
26	BB	663	G	C8-N9-C4	-5.36	104.26	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2378	A	C5'-C4'-O4'	5.36	115.53	109.10
25	BA	28	C	C5'-C4'-O4'	5.36	115.53	109.10
26	BB	1640	A	O4'-C1'-N9	5.36	112.49	108.20
1	AA	801	U	O4'-C1'-N1	5.36	112.48	108.20
1	AA	950	U	O4'-C1'-N1	5.36	112.48	108.20
1	AA	1450	U	C3'-C2'-C1'	5.36	105.78	101.50
26	BB	6	A	O4'-C1'-N9	5.36	112.48	108.20
26	BB	2861	U	O4'-C1'-N1	5.36	112.48	108.20
1	AA	395	C	O4'-C1'-N1	5.35	112.48	108.20
26	BB	246	C	C5'-C4'-C3'	-5.35	107.43	116.00
1	AA	629	A	O4'-C1'-N9	5.35	112.48	108.20
26	BB	37	C	C5'-C4'-O4'	5.35	115.52	109.10
26	BB	543	G	C1'-O4'-C4'	-5.35	105.62	109.90
26	BB	2005	A	O4'-C1'-N9	5.35	112.48	108.20
2	AB	52	G	N3-C4-C5	-5.35	125.92	128.60
26	BB	481	G	O4'-C1'-C2'	-5.35	100.45	105.80
26	BB	1512	C	N1-C1'-C2'	-5.35	106.12	112.00
26	BB	2180	U	O4'-C1'-N1	5.35	112.48	108.20
26	BB	2770	G	C8-N9-C4	-5.35	104.26	106.40
1	AA	792	A	O4'-C4'-C3'	5.35	110.38	106.10
26	BB	314	C	C2-N3-C4	5.35	122.57	119.90
26	BB	1445	G	C8-N9-C4	-5.35	104.26	106.40
1	AA	42	G	C8-N9-C4	-5.35	104.26	106.40
1	AA	708	C	O4'-C1'-N1	5.35	112.48	108.20
26	BB	555	G	C2-N3-C4	5.35	114.57	111.90
26	BB	2378	A	O4'-C1'-N9	5.35	112.48	108.20
1	AA	116	A	N9-C1'-C2'	-5.34	106.12	112.00
1	AA	484	G	C3'-C2'-C1'	-5.34	97.22	101.50
25	BA	23	G	C8-N9-C4	-5.34	104.26	106.40
26	BB	2054	A	O3'-P-O5'	-5.34	93.85	104.00
1	AA	56	U	O4'-C1'-N1	5.34	112.47	108.20
1	AA	214	C	N3-C2-O2	-5.34	118.16	121.90
26	BB	862	G	N3-C4-C5	-5.34	125.93	128.60
1	AA	1289	A	C8-N9-C4	-5.34	103.66	105.80
1	AA	1522	U	N1-C2-N3	5.34	118.10	114.90
26	BB	1757	A	O4'-C4'-C3'	5.34	110.37	106.10
26	BB	2895	G	C8-N9-C4	-5.34	104.26	106.40
1	AA	87	C	O4'-C1'-N1	5.34	112.47	108.20
26	BB	289	G	O4'-C1'-N9	5.34	112.47	108.20
26	BB	639	U	O4'-C1'-N1	5.34	112.47	108.20
26	BB	1330	C	C5'-C4'-O4'	5.34	115.51	109.10
26	BB	1826	G	C4'-C3'-C2'	-5.34	97.26	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2666	C	N1-C2-O2	5.34	122.10	118.90
1	AA	1144	G	C5'-C4'-O4'	5.34	115.50	109.10
26	BB	660	C	C5'-C4'-O4'	5.34	115.50	109.10
26	BB	2785	C	O4'-C1'-N1	5.34	112.47	108.20
1	AA	68	G	N3-C4-C5	-5.33	125.93	128.60
1	AA	203	G	C8-N9-C4	-5.33	104.27	106.40
26	BB	659	G	C8-N9-C4	-5.33	104.27	106.40
26	BB	2234	G	N7-C8-N9	5.33	115.77	113.10
1	AA	322	C	O4'-C1'-N1	5.33	112.47	108.20
1	AA	480	U	O4'-C1'-N1	5.33	112.47	108.20
4	AD	37	U	O4'-C1'-N1	5.33	112.47	108.20
26	BB	526	A	O4'-C1'-N9	-5.33	103.93	108.20
26	BB	1928	A	C8-N9-C4	-5.33	103.67	105.80
1	AA	410	G	C5'-C4'-C3'	-5.33	107.47	116.00
1	AA	1152	A	C3'-C2'-C1'	5.33	105.77	101.50
26	BB	514	A	O4'-C1'-N9	5.33	112.47	108.20
1	AA	489	C	C5'-C4'-O4'	5.33	115.50	109.10
1	AA	1135	U	O4'-C1'-N1	5.33	112.46	108.20
2	AB	48	C	C5'-C4'-O4'	5.33	115.49	109.10
26	BB	1505	A	O4'-C1'-N9	5.33	112.46	108.20
26	BB	1888	G	C8-N9-C4	-5.33	104.27	106.40
1	AA	354	G	C8-N9-C4	-5.33	104.27	106.40
1	AA	843	U	O4'-C1'-N1	5.33	112.46	108.20
26	BB	1645	G	O4'-C4'-C3'	5.33	110.36	106.10
1	AA	489	C	O4'-C1'-N1	5.33	112.46	108.20
26	BB	2150	C	O4'-C1'-N1	5.33	112.46	108.20
26	BB	2303	G	C8-N9-C4	-5.33	104.27	106.40
1	AA	1314	C	C5'-C4'-C3'	-5.32	107.48	116.00
1	AA	1436	U	C3'-C2'-C1'	5.32	105.76	101.50
26	BB	1092	C	C5'-C4'-O4'	5.32	115.49	109.10
26	BB	1580	A	C5'-C4'-C3'	-5.32	107.48	116.00
26	BB	1855	U	C5'-C4'-C3'	-5.32	107.48	116.00
30	BF	69	ARG	NE-CZ-NH2	-5.32	117.64	120.30
1	AA	407	U	O4'-C1'-N1	5.32	112.46	108.20
26	BB	491	G	N3-C4-C5	-5.32	125.94	128.60
26	BB	2243	U	O4'-C1'-N1	5.32	112.46	108.20
26	BB	764	A	C8-N9-C4	-5.32	103.67	105.80
26	BB	1540	G	C8-N9-C4	-5.32	104.27	106.40
26	BB	1555	G	P-O3'-C3'	5.32	126.08	119.70
1	AA	19	A	O4'-C1'-N9	5.32	112.45	108.20
1	AA	572	A	C1'-O4'-C4'	-5.32	105.64	109.90
1	AA	849	G	N9-C4-C5	5.32	107.53	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1505	G	C8-N9-C4	-5.32	104.27	106.40
1	AA	94	G	N3-C4-C5	-5.32	125.94	128.60
1	AA	1337	G	P-O3'-C3'	5.32	126.08	119.70
26	BB	145	C	O4'-C1'-N1	5.32	112.45	108.20
26	BB	1967	C	N1-C2-O2	5.32	122.09	118.90
26	BB	2115	G	C8-N9-C4	-5.32	104.27	106.40
26	BB	2297	A	C8-N9-C4	-5.32	103.67	105.80
1	AA	907	A	C5'-C4'-O4'	5.32	115.48	109.10
1	AA	1087	G	C4'-C3'-C2'	-5.32	97.28	102.60
26	BB	267	C	O4'-C1'-N1	5.32	112.45	108.20
26	BB	2885	G	O4'-C1'-N9	5.32	112.45	108.20
25	BA	85	G	C8-N9-C4	-5.31	104.27	106.40
26	BB	21	A	C5'-C4'-O4'	5.31	115.48	109.10
26	BB	655	A	O4'-C1'-N9	5.31	112.45	108.20
1	AA	272	C	O4'-C1'-N1	5.31	112.45	108.20
1	AA	1208	C	C5'-C4'-O4'	5.31	115.47	109.10
1	AA	1366	C	O4'-C1'-N1	5.31	112.45	108.20
25	BA	76	G	C8-N9-C4	-5.31	104.28	106.40
26	BB	666	A	O4'-C1'-N9	5.31	112.45	108.20
26	BB	1367	A	O4'-C1'-N9	5.31	112.45	108.20
26	BB	1016	G	N9-C4-C5	5.31	107.52	105.40
1	AA	212	G	C8-N9-C4	-5.31	104.28	106.40
1	AA	1061	G	C8-N9-C4	-5.31	104.28	106.40
26	BB	235	U	C5'-C4'-C3'	-5.31	107.50	116.00
26	BB	1947	C	O4'-C1'-N1	5.31	112.45	108.20
1	AA	1373	G	C5'-C4'-O4'	5.31	115.47	109.10
26	BB	302	C	C4'-C3'-C2'	-5.31	97.29	102.60
26	BB	348	A	O4'-C1'-N9	5.31	112.45	108.20
26	BB	2808	G	P-O3'-C3'	5.31	126.07	119.70
26	BB	2872	A	C1'-O4'-C4'	-5.31	105.65	109.90
1	AA	481	G	C2'-C3'-O3'	5.31	122.19	113.70
1	AA	1089	G	O4'-C1'-N9	5.31	112.44	108.20
26	BB	1850	G	N9-C4-C5	5.31	107.52	105.40
1	AA	1384	C	C5'-C4'-C3'	-5.30	107.51	116.00
26	BB	468	G	C8-N9-C4	-5.30	104.28	106.40
1	AA	987	G	O4'-C1'-N9	5.30	112.44	108.20
1	AA	1114	C	N3-C2-O2	-5.30	118.19	121.90
26	BB	1416	G	C8-N9-C1'	5.30	133.89	127.00
1	AA	1176	A	C8-N9-C4	-5.30	103.68	105.80
26	BB	426	C	O4'-C1'-N1	5.30	112.44	108.20
26	BB	1124	G	C8-N9-C4	-5.30	104.28	106.40
1	AA	1507	A	C5'-C4'-O4'	5.30	115.46	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1683	U	O4'-C1'-N1	5.30	112.44	108.20
26	BB	1786	A	O4'-C1'-N9	5.30	112.44	108.20
26	BB	2403	C	N1-C2-O2	5.30	122.08	118.90
26	BB	15	G	N3-C4-C5	-5.30	125.95	128.60
26	BB	363	G	C5'-C4'-O4'	5.30	115.46	109.10
1	AA	610	U	O4'-C1'-N1	5.30	112.44	108.20
26	BB	67	U	O4'-C1'-N1	5.30	112.44	108.20
26	BB	1025	G	N3-C4-C5	-5.30	125.95	128.60
26	BB	2208	C	O4'-C1'-N1	5.30	112.44	108.20
26	BB	2488	G	N9-C4-C5	5.30	107.52	105.40
1	AA	866	C	P-O3'-C3'	5.29	126.06	119.70
4	AD	46	C	O4'-C1'-N1	5.29	112.44	108.20
25	BA	55	U	C5'-C4'-O4'	5.29	115.45	109.10
26	BB	634	C	O4'-C1'-N1	5.29	112.44	108.20
26	BB	612	G	N7-C8-N9	5.29	115.75	113.10
26	BB	718	A	C5'-C4'-O4'	5.29	115.45	109.10
26	BB	2664	G	N9-C4-C5	5.29	107.52	105.40
26	BB	274	C	O4'-C1'-N1	5.29	112.43	108.20
26	BB	749	A	O4'-C1'-N9	5.29	112.43	108.20
26	BB	1325	U	C3'-C2'-C1'	-5.29	97.27	101.50
26	BB	1698	A	C8-N9-C4	-5.29	103.68	105.80
13	AN	7	ARG	NE-CZ-NH2	-5.29	117.66	120.30
26	BB	181	A	C5'-C4'-O4'	5.29	115.45	109.10
1	AA	1528	U	O3'-P-O5'	-5.29	93.95	104.00
25	BA	38	C	N1-C1'-C2'	-5.29	106.18	112.00
26	BB	2028	U	C3'-C2'-C1'	-5.29	97.27	101.50
26	BB	2432	A	O4'-C1'-N9	5.29	112.43	108.20
26	BB	320	A	O4'-C1'-N9	5.29	112.43	108.20
26	BB	852	U	O4'-C1'-N1	5.29	112.43	108.20
26	BB	1092	C	O4'-C1'-N1	5.29	112.43	108.20
26	BB	1732	C	C3'-C2'-C1'	5.29	105.73	101.50
26	BB	818	G	C8-N9-C4	-5.28	104.29	106.40
26	BB	1724	G	N9-C4-C5	5.28	107.51	105.40
26	BB	2277	G	C5'-C4'-C3'	-5.28	107.55	116.00
26	BB	2281	A	C5'-C4'-C3'	-5.28	107.55	116.00
26	BB	717	C	O4'-C1'-N1	5.28	112.43	108.20
26	BB	838	C	C5'-C4'-O4'	5.28	115.44	109.10
1	AA	36	C	O4'-C1'-N1	5.28	112.42	108.20
1	AA	41	G	C8-N9-C4	-5.28	104.29	106.40
1	AA	969	A	O4'-C1'-N9	5.28	112.42	108.20
26	BB	533	G	O4'-C1'-N9	5.28	112.42	108.20
26	BB	2298	A	C5'-C4'-O4'	5.28	115.44	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1076	U	C2'-C3'-O3'	5.28	122.15	113.70
1	AA	999	C	O4'-C1'-N1	5.28	112.42	108.20
26	BB	1808	A	O4'-C1'-N9	5.28	112.42	108.20
26	BB	2347	C	O4'-C1'-N1	5.28	112.42	108.20
26	BB	2874	C	O3'-P-O5'	-5.28	93.97	104.00
1	AA	591	U	O4'-C1'-N1	5.28	112.42	108.20
1	AA	1098	C	N1-C1'-C2'	-5.28	106.20	112.00
17	AR	58	ARG	NE-CZ-NH1	5.28	122.94	120.30
25	BA	107	G	O4'-C4'-C3'	5.28	110.32	106.10
26	BB	1840	G	C8-N9-C4	-5.28	104.29	106.40
26	BB	2006	C	C5'-C4'-C3'	-5.28	107.56	116.00
1	AA	1487	G	O4'-C1'-N9	5.27	112.42	108.20
26	BB	102	U	C1'-O4'-C4'	-5.27	105.68	109.90
26	BB	323	C	N3-C2-O2	-5.27	118.21	121.90
26	BB	1919	A	C4'-C3'-O3'	5.27	123.55	113.00
26	BB	2216	G	C5'-C4'-O4'	5.27	115.43	109.10
26	BB	2234	G	C8-N9-C4	-5.27	104.29	106.40
1	AA	57	G	C8-N9-C4	-5.27	104.29	106.40
1	AA	163	C	C4'-C3'-C2'	-5.27	97.33	102.60
1	AA	1178	G	O4'-C1'-N9	5.27	112.42	108.20
1	AA	1491	G	N3-C4-C5	-5.27	125.96	128.60
4	AD	41	A	O4'-C1'-N9	5.27	112.42	108.20
26	BB	774	G	O4'-C1'-N9	5.27	112.42	108.20
26	BB	1345	C	O4'-C1'-N1	5.27	112.42	108.20
1	AA	549	C	C5'-C4'-O4'	5.27	115.42	109.10
26	BB	1880	U	O4'-C1'-N1	5.27	112.42	108.20
26	BB	2379	G	C8-N9-C4	-5.27	104.29	106.40
1	AA	71	A	C8-N9-C4	-5.27	103.69	105.80
1	AA	1435	G	C8-N9-C4	-5.27	104.29	106.40
26	BB	1416	G	C4-C5-N7	-5.27	108.69	110.80
26	BB	2488	G	C2-N3-C4	5.27	114.53	111.90
26	BB	756	A	C3'-C2'-C1'	-5.27	97.29	101.50
1	AA	126	G	N9-C4-C5	5.26	107.51	105.40
1	AA	1162	C	C5'-C4'-C3'	-5.26	107.58	116.00
26	BB	1292	G	N3-C4-C5	-5.26	125.97	128.60
1	AA	1363	A	C1'-O4'-C4'	-5.26	105.69	109.90
1	AA	340	U	O4'-C1'-N1	5.26	112.41	108.20
1	AA	736	C	O4'-C1'-N1	5.26	112.41	108.20
1	AA	833	G	C5'-C4'-O4'	5.26	115.41	109.10
26	BB	917	A	O4'-C1'-N9	5.26	112.41	108.20
26	BB	1806	C	O4'-C1'-N1	5.26	112.41	108.20
1	AA	242	G	O4'-C1'-N9	5.26	112.41	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	751	U	O4'-C1'-N1	5.26	112.41	108.20
26	BB	2043	C	C5'-C4'-O4'	5.26	115.41	109.10
26	BB	2057	G	O4'-C1'-N9	5.26	112.41	108.20
26	BB	2449	H2U	P-O3'-C3'	5.26	126.01	119.70
26	BB	2049	G	C4'-C3'-C2'	-5.26	97.34	102.60
26	BB	2486	C	C5'-C4'-C3'	-5.26	107.59	116.00
26	BB	2581	G	C8-N9-C4	-5.26	104.30	106.40
1	AA	412	A	O4'-C1'-N9	5.26	112.41	108.20
26	BB	87	U	C3'-C2'-C1'	5.26	105.70	101.50
1	AA	497	G	C8-N9-C4	-5.25	104.30	106.40
26	BB	285	G	C8-N9-C4	-5.25	104.30	106.40
26	BB	2646	C	O4'-C1'-N1	5.25	112.40	108.20
1	AA	595	A	O4'-C1'-N9	5.25	112.40	108.20
1	AA	947	G	C8-N9-C4	-5.25	104.30	106.40
1	AA	1418	A	C8-N9-C4	-5.25	103.70	105.80
26	BB	156	A	O4'-C1'-N9	5.25	112.40	108.20
26	BB	488	G	C5'-C4'-O4'	5.25	115.40	109.10
26	BB	511	U	O4'-C1'-N1	5.25	112.40	108.20
26	BB	2902	C	O4'-C1'-N1	5.25	112.40	108.20
26	BB	264	C	O4'-C1'-N1	5.25	112.40	108.20
26	BB	702	U	C5'-C4'-O4'	5.25	115.40	109.10
26	BB	2642	G	C8-N9-C4	-5.25	104.30	106.40
1	AA	37	U	O4'-C1'-N1	5.25	112.40	108.20
1	AA	509	A	C5'-C4'-C3'	-5.25	107.60	116.00
1	AA	638	U	O4'-C1'-N1	5.25	112.40	108.20
1	AA	1440	U	N1-C1'-C2'	-5.25	106.23	112.00
26	BB	170	U	C4'-C3'-C2'	-5.25	97.35	102.60
26	BB	1510	G	N3-C4-C5	-5.25	125.97	128.60
26	BB	2640	G	C8-N9-C4	-5.25	104.30	106.40
1	AA	316	C	O4'-C1'-N1	5.25	112.40	108.20
26	BB	959	A	O4'-C1'-N9	5.25	112.40	108.20
1	AA	1217	C	O4'-C1'-N1	5.25	112.40	108.20
1	AA	1247	U	O4'-C1'-N1	5.25	112.40	108.20
26	BB	295	G	C5'-C4'-C3'	-5.25	107.61	116.00
26	BB	2171	A	O4'-C1'-N9	5.25	112.40	108.20
1	AA	791	G	N3-C4-C5	-5.24	125.98	128.60
1	AA	808	C	O4'-C1'-N1	5.24	112.39	108.20
26	BB	58	G	C4'-C3'-C2'	-5.24	97.36	102.60
26	BB	993	G	N3-C4-C5	-5.24	125.98	128.60
1	AA	714	G	O4'-C1'-N9	5.24	112.39	108.20
26	BB	555	G	C5'-C4'-O4'	5.24	115.39	109.10
26	BB	1544	A	C5'-C4'-O4'	5.24	115.39	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	147	G	N3-C4-C5	-5.24	125.98	128.60
1	AA	556	C	O4'-C1'-N1	5.24	112.39	108.20
1	AA	621	A	C4'-C3'-C2'	-5.24	97.36	102.60
1	AA	742	G	N3-C4-C5	-5.24	125.98	128.60
1	AA	1454	G	C8-N9-C4	-5.24	104.30	106.40
26	BB	1416	G	N3-C4-C5	-5.24	125.98	128.60
1	AA	106	C	O4'-C1'-N1	5.24	112.39	108.20
26	BB	311	A	O3'-P-O5'	-5.24	94.05	104.00
26	BB	368	A	C5'-C4'-O4'	5.24	115.39	109.10
1	AA	628	G	N9-C4-C5	5.24	107.50	105.40
1	AA	203	G	N3-C4-C5	-5.24	125.98	128.60
1	AA	1062	U	O4'-C1'-N1	5.24	112.39	108.20
1	AA	1068	G	C5'-C4'-C3'	-5.24	107.62	116.00
26	BB	315	G	C8-N9-C4	-5.24	104.31	106.40
26	BB	923	G	N9-C4-C5	5.24	107.49	105.40
26	BB	966	G	C8-N9-C4	-5.24	104.31	106.40
26	BB	1198	U	C5'-C4'-C3'	-5.24	107.62	116.00
26	BB	1774	C	O4'-C1'-N1	5.24	112.39	108.20
1	AA	122	G	O4'-C4'-C3'	5.23	110.29	106.10
1	AA	744	C	C5'-C4'-C3'	-5.23	107.63	116.00
25	BA	96	G	O4'-C1'-N9	5.23	112.39	108.20
26	BB	428	A	O4'-C1'-N9	5.23	112.39	108.20
26	BB	1601	G	O4'-C1'-N9	5.23	112.39	108.20
1	AA	1258	G	C8-N9-C4	-5.23	104.31	106.40
25	BA	55	U	C4'-C3'-C2'	-5.23	97.37	102.60
25	BA	83	G	C8-N9-C4	-5.23	104.31	106.40
26	BB	2032	G	C8-N9-C4	-5.23	104.31	106.40
1	AA	604	G	C8-N9-C4	-5.23	104.31	106.40
26	BB	869	G	N9-C4-C5	5.23	107.49	105.40
26	BB	1749	A	O4'-C1'-N9	5.23	112.39	108.20
26	BB	2162	G	N9-C4-C5	5.23	107.49	105.40
1	AA	205	A	C8-N9-C4	-5.23	103.71	105.80
25	BA	56	G	O4'-C1'-N9	5.23	112.38	108.20
1	AA	457	G	O4'-C1'-N9	5.23	112.38	108.20
1	AA	1233	G	N3-C4-C5	-5.23	125.99	128.60
4	AD	25	U	C3'-C2'-C1'	5.23	105.68	101.50
25	BA	77	U	C5'-C4'-O4'	5.23	115.37	109.10
26	BB	1346	G	O4'-C1'-N9	5.23	112.38	108.20
26	BB	1407	G	C5'-C4'-O4'	5.23	115.37	109.10
1	AA	591	U	C5'-C4'-O4'	5.23	115.37	109.10
1	AA	863	U	C5'-C4'-C3'	-5.23	107.64	116.00
1	AA	1457	G	C4'-C3'-C2'	-5.23	97.37	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AE	3	C	O4'-C1'-N1	5.23	112.38	108.20
26	BB	1745	A	O4'-C1'-N9	5.23	112.38	108.20
1	AA	200	G	C4'-C3'-C2'	-5.22	97.38	102.60
1	AA	416	G	C8-N9-C4	-5.22	104.31	106.40
1	AA	1193	G	N9-C1'-C2'	-5.22	106.25	112.00
25	BA	74	U	O4'-C1'-N1	5.22	112.38	108.20
26	BB	957	C	O4'-C1'-N1	5.22	112.38	108.20
26	BB	2839	G	C8-N9-C4	-5.22	104.31	106.40
1	AA	975	A	C2'-C3'-O3'	5.22	122.06	113.70
1	AA	1069	C	O4'-C1'-N1	5.22	112.38	108.20
4	AD	30	U	C5'-C4'-O4'	5.22	115.37	109.10
2	AE	38	A	C5'-C4'-O4'	5.22	115.37	109.10
26	BB	1396	U	C3'-C2'-C1'	-5.22	97.32	101.50
26	BB	1537	G	N3-C4-C5	-5.22	125.99	128.60
1	AA	558	G	C8-N9-C4	-5.22	104.31	106.40
1	AA	631	C	C4'-C3'-C2'	-5.22	97.38	102.60
26	BB	2485	G	C8-N9-C4	-5.22	104.31	106.40
1	AA	674	G	C4'-C3'-C2'	-5.22	97.38	102.60
26	BB	8	C	O4'-C1'-N1	5.22	112.38	108.20
26	BB	1936	A	O4'-C1'-N9	5.22	112.38	108.20
26	BB	2194	U	O4'-C1'-N1	5.22	112.38	108.20
26	BB	2833	U	O4'-C1'-N1	5.22	112.38	108.20
26	BB	1161	C	O4'-C1'-N1	5.22	112.38	108.20
26	BB	2148	G	N3-C4-C5	-5.22	125.99	128.60
1	AA	1065	U	C1'-O4'-C4'	-5.22	105.73	109.90
26	BB	803	U	C4'-C3'-C2'	-5.22	97.38	102.60
26	BB	852	U	C2-N3-C4	-5.22	123.87	127.00
26	BB	1074	G	N9-C4-C5	5.22	107.49	105.40
26	BB	1158	C	O4'-C1'-N1	5.22	112.37	108.20
26	BB	1171	G	C1'-O4'-C4'	-5.22	105.73	109.90
26	BB	1559	U	O4'-C1'-N1	5.22	112.37	108.20
26	BB	2065	C	C5'-C4'-C3'	-5.22	107.65	116.00
26	BB	2147	A	C1'-O4'-C4'	-5.22	105.73	109.90
26	BB	2581	G	N3-C4-C5	-5.22	125.99	128.60
26	BB	2645	G	P-O3'-C3'	5.22	125.96	119.70
25	BA	107	G	O3'-P-O5'	5.21	113.91	104.00
26	BB	318	C	O4'-C1'-N1	5.21	112.37	108.20
26	BB	1222	U	O4'-C1'-N1	5.21	112.37	108.20
26	BB	1525	A	C5'-C4'-C3'	-5.21	107.66	116.00
26	BB	1758	U	P-O3'-C3'	5.21	125.96	119.70
26	BB	2792	A	C5'-C4'-O4'	5.21	115.36	109.10
26	BB	255	A	C5'-C4'-C3'	-5.21	107.66	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1984	G	O4'-C1'-N9	5.21	112.37	108.20
26	BB	2412	A	C5'-C4'-C3'	-5.21	107.66	116.00
2	AE	12	U	C5'-C4'-O4'	5.21	115.35	109.10
26	BB	389	G	N7-C8-N9	5.21	115.71	113.10
26	BB	727	A	O4'-C1'-N9	5.21	112.37	108.20
26	BB	855	G	O4'-C1'-N9	5.21	112.37	108.20
26	BB	2501	C	O4'-C1'-N1	-5.21	104.03	108.20
1	AA	693	G	C8-N9-C4	-5.21	104.32	106.40
26	BB	945	A	P-O3'-C3'	5.21	125.95	119.70
26	BB	2883	A	N9-C1'-C2'	-5.21	106.27	112.00
1	AA	1048	G	C8-N9-C4	-5.21	104.32	106.40
26	BB	1645	G	N3-C4-C5	-5.21	126.00	128.60
26	BB	2611	C	C3'-C2'-C1'	5.21	105.67	101.50
26	BB	2688	G	C8-N9-C4	-5.21	104.32	106.40
26	BB	2760	C	C4'-C3'-C2'	-5.21	97.39	102.60
1	AA	1517	G	N3-C4-C5	-5.21	126.00	128.60
26	BB	810	U	C3'-C2'-C1'	5.21	105.66	101.50
26	BB	1491	G	N9-C4-C5	5.21	107.48	105.40
1	AA	165	G	N3-C4-C5	-5.20	126.00	128.60
1	AA	702	A	C3'-C2'-C1'	5.20	105.66	101.50
1	AA	1453	G	C8-N9-C4	-5.20	104.32	106.40
26	BB	1845	G	C8-N9-C4	-5.20	104.32	106.40
26	BB	2307	G	N3-C4-C5	-5.20	126.00	128.60
26	BB	2777	G	C8-N9-C4	-5.20	104.32	106.40
1	AA	1320	C	C3'-C2'-C1'	-5.20	97.34	101.50
26	BB	1238	G	N3-C4-C5	-5.20	126.00	128.60
1	AA	1046	A	C2'-C3'-O3'	5.20	122.02	113.70
26	BB	141	G	C3'-C2'-C1'	5.20	105.66	101.50
26	BB	212	G	N3-C4-C5	-5.20	126.00	128.60
26	BB	659	G	C5'-C4'-O4'	5.20	115.34	109.10
26	BB	953	G	N9-C4-C5	5.20	107.48	105.40
22	AW	36	ARG	NE-CZ-NH1	5.20	122.90	120.30
26	BB	465	G	C5'-C4'-O4'	5.20	115.34	109.10
26	BB	1074	G	C8-N9-C4	-5.20	104.32	106.40
26	BB	2365	G	C8-N9-C4	-5.20	104.32	106.40
1	AA	494	G	C5'-C4'-O4'	5.20	115.34	109.10
1	AA	1384	C	P-O5'-C5'	5.20	129.21	120.90
26	BB	297	G	C8-N9-C4	-5.20	104.32	106.40
26	BB	681	G	O4'-C1'-N9	5.20	112.36	108.20
26	BB	860	U	O4'-C1'-N1	5.20	112.36	108.20
26	BB	1408	G	O3'-P-O5'	-5.20	94.13	104.00
26	BB	1853	A	P-O3'-C3'	5.20	125.94	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	141	G	O4'-C1'-N9	5.19	112.36	108.20
2	AB	15	G	N9-C4-C5	5.19	107.48	105.40
26	BB	371	A	O4'-C1'-N9	5.19	112.36	108.20
26	BB	1332	G	N3-C4-C5	-5.19	126.00	128.60
26	BB	2048	G	C5'-C4'-O4'	5.19	115.33	109.10
2	AE	15	G	O4'-C1'-N9	5.19	112.35	108.20
26	BB	442	G	N9-C4-C5	5.19	107.48	105.40
26	BB	530	G	C8-N9-C4	-5.19	104.32	106.40
26	BB	1591	A	O4'-C1'-N9	5.19	112.35	108.20
26	BB	1627	G	N3-C4-C5	-5.19	126.00	128.60
26	BB	1998	A	N9-C1'-C2'	-5.19	106.29	112.00
1	AA	723	U	O4'-C1'-N1	5.19	112.35	108.20
26	BB	54	G	N3-C4-C5	-5.19	126.01	128.60
26	BB	240	C	O4'-C1'-N1	5.19	112.35	108.20
26	BB	2117	A	O3'-P-O5'	5.19	113.86	104.00
26	BB	2159	G	C8-N9-C4	-5.19	104.33	106.40
26	BB	2211	A	C3'-C2'-C1'	5.19	105.65	101.50
26	BB	2363	G	C8-N9-C4	-5.19	104.33	106.40
1	AA	379	C	C4'-C3'-C2'	-5.19	97.41	102.60
25	BA	116	G	N9-C4-C5	5.19	107.47	105.40
26	BB	1724	G	N3-C4-C5	-5.19	126.01	128.60
1	AA	1307	U	O4'-C1'-N1	5.18	112.35	108.20
26	BB	276	U	P-O3'-C3'	5.18	125.92	119.70
26	BB	1078	U	O3'-P-O5'	-5.18	94.15	104.00
26	BB	1567	G	O4'-C1'-N9	5.18	112.35	108.20
26	BB	1994	C	O4'-C1'-N1	5.18	112.35	108.20
26	BB	2218	G	C5'-C4'-C3'	-5.18	107.70	116.00
1	AA	355	C	O4'-C1'-N1	5.18	112.35	108.20
26	BB	117	G	C2-N3-C4	5.18	114.49	111.90
26	BB	906	U	N3-C2-O2	-5.18	118.57	122.20
26	BB	1548	A	C8-N9-C4	-5.18	103.73	105.80
26	BB	1695	G	C2-N3-C4	5.18	114.49	111.90
26	BB	2399	G	C8-N9-C4	-5.18	104.33	106.40
26	BB	2731	G	C5'-C4'-O4'	5.18	115.32	109.10
26	BB	2735	G	C5'-C4'-O4'	5.18	115.32	109.10
26	BB	2780	G	N7-C8-N9	5.18	115.69	113.10
1	AA	126	G	N9-C1'-C2'	-5.18	106.30	112.00
1	AA	1154	G	C5'-C4'-O4'	5.18	115.32	109.10
1	AA	1484	C	O4'-C1'-N1	5.18	112.34	108.20
26	BB	430	A	C5'-C4'-O4'	5.18	115.32	109.10
26	BB	1174	U	O4'-C1'-N1	5.18	112.34	108.20
26	BB	1380	G	C8-N9-C4	-5.18	104.33	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	878	A	O4'-C1'-N9	5.18	112.34	108.20
1	AA	1461	G	C8-N9-C4	-5.18	104.33	106.40
26	BB	274	C	C5'-C4'-C3'	-5.18	107.71	116.00
26	BB	1622	G	C8-N9-C4	-5.18	104.33	106.40
26	BB	2369	A	O4'-C1'-N9	5.18	112.34	108.20
2	AB	71	G	C5'-C4'-O4'	5.18	115.31	109.10
26	BB	287	G	C8-N9-C4	-5.18	104.33	106.40
26	BB	681	G	C5'-C4'-O4'	5.18	115.31	109.10
26	BB	1763	G	O4'-C1'-C2'	-5.18	100.62	105.80
1	AA	1088	G	N3-C4-C5	-5.18	126.01	128.60
1	AA	1189	U	P-O3'-C3'	5.18	125.91	119.70
2	AB	22	G	N3-C4-C5	-5.18	126.01	128.60
26	BB	1392	A	C3'-C2'-C1'	5.18	105.64	101.50
26	BB	1913	A	C5'-C4'-C3'	-5.18	107.72	116.00
26	BB	2666	C	C4'-C3'-C2'	-5.18	97.42	102.60
1	AA	621	A	C5'-C4'-C3'	-5.17	107.72	116.00
1	AA	806	C	C5'-C4'-O4'	5.17	115.31	109.10
1	AA	1446	A	C5'-C4'-C3'	-5.17	107.72	116.00
25	BA	51	G	N1-C6-O6	-5.17	116.80	119.90
26	BB	305	C	C4'-C3'-C2'	-5.17	97.42	102.60
1	AA	1220	G	O4'-C1'-N9	5.17	112.34	108.20
25	BA	83	G	N3-C4-C5	-5.17	126.01	128.60
26	BB	2684	U	C3'-C2'-C1'	-5.17	97.36	101.50
1	AA	41	G	N3-C4-C5	-5.17	126.01	128.60
1	AA	628	G	N9-C1'-C2'	-5.17	106.31	112.00
1	AA	1053	G	P-O3'-C3'	5.17	125.91	119.70
1	AA	1268	G	C5'-C4'-O4'	5.17	115.31	109.10
26	BB	1651	G	N3-C4-C5	-5.17	126.01	128.60
26	BB	2145	C	O4'-C1'-N1	5.17	112.34	108.20
1	AA	247	G	C8-N9-C4	-5.17	104.33	106.40
1	AA	1438	G	O4'-C1'-N9	5.17	112.34	108.20
8	AI	156	ARG	NE-CZ-NH1	5.17	122.89	120.30
26	BB	670	A	C5'-C4'-C3'	-5.17	107.73	116.00
1	AA	282	A	C8-N9-C4	-5.17	103.73	105.80
1	AA	602	A	O4'-C1'-N9	5.17	112.33	108.20
1	AA	769	G	C5'-C4'-O4'	5.17	115.30	109.10
1	AA	1102	A	C5'-C4'-O4'	5.17	115.30	109.10
2	AB	10	G	N3-C4-C5	-5.17	126.02	128.60
26	BB	136	G	C5'-C4'-O4'	5.17	115.30	109.10
26	BB	343	C	P-O3'-C3'	5.17	125.90	119.70
26	BB	1782	U	O4'-C1'-N1	5.17	112.33	108.20
26	BB	1800	C	N1-C2-O2	5.17	122.00	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1838	C	N1-C2-O2	5.17	122.00	118.90
26	BB	2527	C	O4'-C1'-N1	5.17	112.33	108.20
1	AA	420	U	O4'-C1'-N1	5.17	112.33	108.20
1	AA	735	C	C5'-C4'-O4'	5.17	115.30	109.10
26	BB	650	C	C4'-C3'-C2'	-5.17	97.43	102.60
26	BB	1233	C	P-O3'-C3'	5.17	125.90	119.70
26	BB	1546	G	O3'-P-O5'	-5.17	94.19	104.00
1	AA	434	U	O4'-C1'-N1	5.17	112.33	108.20
2	AB	56	C	C3'-C2'-C1'	5.17	105.63	101.50
1	AA	888	G	O4'-C1'-N9	5.16	112.33	108.20
2	AB	62	C	O4'-C1'-N1	5.16	112.33	108.20
4	AD	30	U	C1'-O4'-C4'	-5.16	105.77	109.90
2	AE	74	C	O4'-C1'-C2'	-5.16	100.64	105.80
26	BB	82	U	O4'-C1'-N1	5.16	112.33	108.20
26	BB	1385	A	O4'-C4'-C3'	5.16	110.23	106.10
26	BB	1925	C	N1-C2-O2	5.16	122.00	118.90
1	AA	1195	C	N1-C2-O2	5.16	122.00	118.90
26	BB	282	A	O4'-C1'-N9	5.16	112.33	108.20
26	BB	425	G	O4'-C1'-N9	5.16	112.33	108.20
26	BB	1389	G	O4'-C1'-N9	5.16	112.33	108.20
26	BB	1493	C	O3'-P-O5'	-5.16	94.19	104.00
26	BB	1726	C	C5'-C4'-C3'	-5.16	107.74	116.00
26	BB	711	G	C8-N9-C4	-5.16	104.34	106.40
26	BB	1004	U	O4'-C1'-N1	5.16	112.33	108.20
26	BB	1502	A	O4'-C1'-N9	5.16	112.33	108.20
26	BB	1690	A	O4'-C1'-N9	5.16	112.33	108.20
1	AA	514	C	C4'-C3'-C2'	-5.16	97.44	102.60
1	AA	1310	G	C5'-C4'-C3'	-5.16	107.75	116.00
1	AA	1419	G	O4'-C1'-N9	5.16	112.33	108.20
1	AA	1508	A	C5'-C4'-O4'	5.16	115.29	109.10
26	BB	70	G	C5'-C4'-C3'	-5.16	107.75	116.00
26	BB	641	U	C5'-C4'-O4'	5.16	115.29	109.10
26	BB	1937	A	P-O3'-C3'	5.16	125.89	119.70
26	BB	2400	G	O4'-C1'-N9	5.16	112.33	108.20
26	BB	2722	G	C5'-C4'-O4'	5.16	115.29	109.10
25	BA	69	G	C5'-C4'-C3'	-5.16	107.75	116.00
25	BA	75	G	C8-N9-C4	-5.16	104.34	106.40
26	BB	1649	G	C8-N9-C4	-5.16	104.34	106.40
1	AA	682	G	C8-N9-C4	-5.16	104.34	106.40
26	BB	248	G	O4'-C1'-N9	5.16	112.32	108.20
1	AA	30	U	C3'-C2'-C1'	5.15	105.62	101.50
26	BB	2802	G	N9-C1'-C2'	-5.15	106.33	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	980	C	N1-C2-O2	5.15	121.99	118.90
25	BA	63	C	O4'-C1'-N1	5.15	112.32	108.20
26	BB	83	A	C8-N9-C4	-5.15	103.74	105.80
26	BB	130	C	O4'-C1'-N1	5.15	112.32	108.20
26	BB	1444	G	C8-N9-C4	-5.15	104.34	106.40
1	AA	1267	C	O4'-C1'-N1	5.15	112.32	108.20
1	AA	1333	A	C5'-C4'-O4'	5.15	115.28	109.10
26	BB	641	U	O4'-C1'-N1	5.15	112.32	108.20
26	BB	842	U	C5'-C4'-C3'	-5.15	107.76	116.00
26	BB	1501	G	C2-N3-C4	5.15	114.47	111.90
26	BB	1601	G	C5'-C4'-C3'	-5.15	107.76	116.00
26	BB	2175	C	O3'-P-O5'	-5.15	94.22	104.00
26	BB	2578	G	N3-C4-C5	-5.15	126.03	128.60
26	BB	2823	A	C8-N9-C4	-5.15	103.74	105.80
1	AA	568	G	C8-N9-C4	-5.15	104.34	106.40
26	BB	325	G	C8-N9-C4	-5.15	104.34	106.40
26	BB	615	U	O3'-P-O5'	-5.15	94.22	104.00
26	BB	1741	C	C5'-C4'-O4'	5.15	115.28	109.10
26	BB	1872	A	O4'-C1'-C2'	-5.15	100.65	105.80
26	BB	2790	U	C5'-C4'-C3'	-5.15	107.76	116.00
1	AA	1504	G	N3-C4-C5	-5.15	126.03	128.60
26	BB	16	C	C5'-C4'-C3'	-5.15	107.77	116.00
26	BB	2156	G	O4'-C1'-N9	5.15	112.32	108.20
26	BB	2337	G	N3-C4-C5	-5.15	126.03	128.60
26	BB	2103	C	O4'-C1'-N1	5.15	112.32	108.20
1	AA	505	G	N3-C4-C5	-5.14	126.03	128.60
1	AA	622	A	O4'-C1'-N9	5.14	112.32	108.20
1	AA	633	G	O4'-C1'-N9	5.14	112.32	108.20
1	AA	941	G	N3-C4-C5	-5.14	126.03	128.60
1	AA	1333	A	C8-N9-C4	-5.14	103.74	105.80
1	AA	1360	A	O4'-C1'-N9	5.14	112.31	108.20
2	AB	51	U	O4'-C1'-N1	5.14	112.32	108.20
26	BB	728	G	C8-N9-C4	-5.14	104.34	106.40
26	BB	1154	G	N3-C4-C5	-5.14	126.03	128.60
26	BB	1859	U	C5'-C4'-C3'	-5.14	107.77	116.00
26	BB	1916	A	C8-N9-C4	-5.14	103.74	105.80
26	BB	2506	U	O4'-C1'-C2'	-5.14	100.66	105.80
26	BB	2569	G	O4'-C1'-N9	5.14	112.31	108.20
2	AB	66	U	C5'-C4'-O4'	5.14	115.27	109.10
26	BB	121	G	N3-C4-C5	-5.14	126.03	128.60
26	BB	716	A	O4'-C1'-C2'	-5.14	100.66	105.80
26	BB	891	G	C8-N9-C4	-5.14	104.34	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1461	C	C1'-O4'-C4'	-5.14	105.79	109.90
26	BB	1647	U	P-O3'-C3'	5.14	125.87	119.70
26	BB	2823	A	C3'-C2'-C1'	5.14	105.61	101.50
26	BB	2892	G	O4'-C1'-N9	5.14	112.31	108.20
26	BB	275	C	O4'-C1'-N1	5.14	112.31	108.20
26	BB	1139	G	C8-N9-C4	-5.14	104.34	106.40
26	BB	2133	G	C8-N9-C4	-5.14	104.34	106.40
1	AA	479	U	O4'-C1'-N1	5.14	112.31	108.20
1	AA	774	G	O4'-C1'-N9	5.14	112.31	108.20
25	BA	80	U	O4'-C1'-N1	5.14	112.31	108.20
26	BB	1189	A	C5'-C4'-O4'	5.14	115.27	109.10
26	BB	2392	A	C8-N9-C4	-5.14	103.74	105.80
26	BB	1445	G	N3-C4-C5	-5.14	126.03	128.60
1	AA	435	A	C5'-C4'-O4'	5.14	115.26	109.10
1	AA	922	G	C8-N9-C4	-5.14	104.34	106.40
25	BA	102	G	C8-N9-C4	-5.14	104.34	106.40
26	BB	325	G	O4'-C1'-N9	5.14	112.31	108.20
26	BB	542	C	C5'-C4'-O4'	5.14	115.27	109.10
26	BB	652	U	C5'-C4'-C3'	-5.14	107.78	116.00
26	BB	1073	A	C5-C6-N6	-5.14	119.59	123.70
1	AA	194	C	C2'-C3'-O3'	5.13	121.92	113.70
1	AA	595	A	C8-N9-C4	-5.13	103.75	105.80
1	AA	678	U	C5'-C4'-O4'	5.13	115.26	109.10
1	AA	985	C	O4'-C1'-N1	5.13	112.31	108.20
1	AA	1140	C	O4'-C1'-N1	5.13	112.31	108.20
2	AB	72	C	O4'-C1'-N1	5.13	112.31	108.20
26	BB	1014	A	O4'-C1'-N9	5.13	112.31	108.20
26	BB	1371	G	C3'-C2'-C1'	5.13	105.61	101.50
26	BB	1386	C	O4'-C1'-N1	5.13	112.31	108.20
26	BB	2692	G	N3-C4-C5	-5.13	126.03	128.60
26	BB	2702	G	C5'-C4'-O4'	5.13	115.26	109.10
1	AA	954	G	C8-N9-C4	-5.13	104.35	106.40
1	AA	1077	G	C8-N9-C4	-5.13	104.35	106.40
1	AA	485	U	C1'-O4'-C4'	-5.13	105.80	109.90
1	AA	604	G	C3'-C2'-C1'	-5.13	97.39	101.50
1	AA	920	U	O4'-C1'-N1	5.13	112.31	108.20
1	AA	1142	G	C8-N9-C4	-5.13	104.35	106.40
26	BB	2382	G	N3-C4-C5	-5.13	126.03	128.60
26	BB	2544	G	C8-N9-C4	-5.13	104.35	106.40
26	BB	2668	G	O4'-C1'-N9	5.13	112.31	108.20
26	BB	878	A	O4'-C1'-N9	5.13	112.30	108.20
26	BB	1095	A	C4'-C3'-O3'	5.13	123.26	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2682	A	O4'-C1'-N9	5.13	112.30	108.20
1	AA	750	C	C5'-C4'-C3'	-5.13	107.79	116.00
26	BB	958	U	P-O3'-C3'	5.13	125.85	119.70
26	BB	980	A	C5'-C4'-C3'	-5.13	107.80	116.00
26	BB	1259	G	C8-N9-C4	-5.13	104.35	106.40
26	BB	2499	C	O4'-C1'-N1	5.13	112.30	108.20
1	AA	1342	C	P-O3'-C3'	5.13	125.85	119.70
1	AA	1451	U	O3'-P-O5'	-5.13	94.26	104.00
25	BA	43	C	C3'-C2'-C1'	5.13	105.60	101.50
26	BB	798	G	N9-C1'-C2'	-5.13	106.36	112.00
26	BB	2062	A	P-O3'-C3'	5.13	125.85	119.70
1	AA	183	C	N1-C2-O2	5.12	121.97	118.90
1	AA	1439	G	C8-N9-C4	-5.12	104.35	106.40
26	BB	544	C	O4'-C4'-C3'	5.12	110.20	106.10
26	BB	2031	A	O4'-C4'-C3'	5.12	110.20	106.10
26	BB	2883	A	C5'-C4'-O4'	5.12	115.25	109.10
1	AA	20	U	O4'-C1'-N1	5.12	112.30	108.20
26	BB	752	A	O4'-C1'-N9	5.12	112.30	108.20
26	BB	1625	C	C2'-C3'-O3'	5.12	121.89	113.70
1	AA	1173	U	C5'-C4'-O4'	5.12	115.24	109.10
26	BB	530	G	N3-C4-C5	-5.12	126.04	128.60
26	BB	712	G	N3-C4-C5	-5.12	126.04	128.60
26	BB	1936	A	O3'-P-O5'	5.12	113.73	104.00
1	AA	284	C	O4'-C1'-N1	5.12	112.30	108.20
1	AA	753	A	O4'-C1'-N9	5.12	112.30	108.20
1	AA	1255	G	N9-C4-C5	5.12	107.45	105.40
26	BB	278	A	O4'-C1'-N9	-5.12	104.11	108.20
26	BB	383	C	N1-C2-O2	5.12	121.97	118.90
26	BB	2676	C	C5'-C4'-O4'	5.12	115.24	109.10
1	AA	1265	C	C5'-C4'-O4'	5.12	115.24	109.10
26	BB	1223	G	C8-N9-C4	-5.12	104.35	106.40
26	BB	2067	G	O4'-C1'-N9	5.12	112.29	108.20
26	BB	2875	C	O3'-P-O5'	-5.12	94.28	104.00
1	AA	188	C	O3'-P-O5'	-5.12	94.28	104.00
26	BB	102	U	C3'-C2'-C1'	5.12	105.59	101.50
26	BB	1585	C	N1-C2-O2	5.12	121.97	118.90
26	BB	2027	G	C8-N9-C4	-5.12	104.35	106.40
26	BB	2462	C	N3-C2-O2	-5.12	118.32	121.90
1	AA	826	C	N3-C2-O2	-5.11	118.32	121.90
1	AA	1537	U	N3-C2-O2	-5.11	118.62	122.20
25	BA	72	G	C5'-C4'-O4'	5.11	115.24	109.10
26	BB	2256	G	N3-C4-C5	-5.11	126.04	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	65	A	O4'-C1'-C2'	-5.11	100.69	105.80
1	AA	690	G	C5'-C4'-C3'	-5.11	107.82	116.00
26	BB	1241	A	C8-N9-C4	-5.11	103.75	105.80
26	BB	1422	G	C5'-C4'-O4'	5.11	115.23	109.10
26	BB	1483	G	C5'-C4'-O4'	5.11	115.23	109.10
26	BB	1636	U	O4'-C1'-N1	5.11	112.29	108.20
1	AA	583	A	N1-C6-N6	-5.11	115.53	118.60
26	BB	1064	C	C2-N3-C4	-5.11	117.35	119.90
26	BB	2090	A	C4'-C3'-C2'	-5.11	97.49	102.60
26	BB	2106	U	O4'-C1'-N1	5.11	112.29	108.20
1	AA	827	U	C1'-O4'-C4'	-5.11	105.81	109.90
26	BB	277	G	C5'-C4'-C3'	-5.11	107.83	116.00
26	BB	2127	G	O4'-C4'-C3'	5.11	110.19	106.10
26	BB	2550	G	C5'-C4'-C3'	-5.11	107.83	116.00
1	AA	425	G	C8-N9-C4	-5.11	104.36	106.40
26	BB	363	G	N3-C4-C5	-5.11	126.05	128.60
1	AA	1358	U	C1'-O4'-C4'	-5.10	105.82	109.90
1	AA	144	G	N3-C4-C5	-5.10	126.05	128.60
1	AA	842	U	C5'-C4'-O4'	5.10	115.22	109.10
1	AA	1152	A	C1'-O4'-C4'	-5.10	105.82	109.90
1	AA	1428	A	N9-C1'-C2'	-5.10	106.39	112.00
26	BB	178	G	C8-N9-C4	-5.10	104.36	106.40
26	BB	1718	G	C8-N9-C4	-5.10	104.36	106.40
26	BB	1866	A	C8-N9-C4	-5.10	103.76	105.80
1	AA	1383	C	C5'-C4'-O4'	5.10	115.22	109.10
1	AA	811	C	C5'-C4'-C3'	-5.10	107.84	116.00
1	AA	1308	U	O4'-C1'-N1	5.10	112.28	108.20
26	BB	550	C	C2-N1-C1'	-5.10	113.19	118.80
26	BB	1105	U	C5'-C4'-O4'	5.10	115.22	109.10
26	BB	1648	U	N3-C2-O2	-5.10	118.63	122.20
26	BB	2073	C	C5'-C4'-O4'	5.10	115.22	109.10
26	BB	2444	G	C8-N9-C4	-5.10	104.36	106.40
1	AA	430	A	C5'-C4'-O4'	5.10	115.22	109.10
26	BB	440	C	C5'-C4'-O4'	5.10	115.22	109.10
26	BB	2061	G	P-O3'-C3'	5.10	125.82	119.70
1	AA	439	U	C2-N3-C4	-5.10	123.94	127.00
25	BA	58	A	P-O3'-C3'	5.10	125.81	119.70
26	BB	278	A	O3'-P-O5'	-5.10	94.32	104.00
26	BB	1569	A	C5'-C4'-C3'	-5.10	107.85	116.00
26	BB	1635	A	C5'-C4'-C3'	-5.10	107.85	116.00
1	AA	417	G	C8-N9-C4	-5.09	104.36	106.40
1	AA	628	G	N3-C4-C5	-5.09	126.05	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
17	AR	58	ARG	NE-CZ-NH2	-5.09	117.75	120.30
26	BB	182	A	O4'-C1'-N9	5.09	112.28	108.20
26	BB	1962	5MC	P-O3'-C3'	5.09	125.81	119.70
1	AA	39	G	O4'-C1'-N9	5.09	112.28	108.20
26	BB	1112	G	C4'-C3'-C2'	-5.09	97.51	102.60
26	BB	1432	G	C8-N9-C4	-5.09	104.36	106.40
26	BB	2110	G	O4'-C4'-C3'	5.09	110.17	106.10
1	AA	357	G	C5'-C4'-C3'	-5.09	107.86	116.00
1	AA	644	U	C2-N3-C4	-5.09	123.94	127.00
1	AA	1219	A	O4'-C1'-N9	5.09	112.27	108.20
1	AA	1456	A	C8-N9-C4	-5.09	103.76	105.80
26	BB	871	U	C5'-C4'-C3'	-5.09	107.85	116.00
26	BB	1242	U	C6-N1-C2	-5.09	117.94	121.00
26	BB	2054	A	C3'-C2'-C1'	5.09	105.57	101.50
1	AA	41	G	O4'-C1'-N9	5.09	112.27	108.20
2	AE	19	G	N3-C4-C5	-5.09	126.06	128.60
26	BB	228	C	O4'-C1'-N1	5.09	112.27	108.20
26	BB	375	G	C8-N9-C4	-5.09	104.36	106.40
26	BB	1380	G	N3-C4-C5	-5.09	126.06	128.60
26	BB	1616	A	C1'-O4'-C4'	-5.09	105.83	109.90
26	BB	2885	G	O3'-P-O5'	-5.09	94.33	104.00
1	AA	577	G	N3-C4-C5	-5.09	126.06	128.60
1	AA	992	U	O4'-C1'-N1	5.09	112.27	108.20
18	AS	53	ARG	NE-CZ-NH1	5.09	122.84	120.30
1	AA	1008	U	O4'-C1'-N1	5.09	112.27	108.20
25	BA	11	C	N1-C2-O2	5.09	121.95	118.90
26	BB	227	A	O3'-P-O5'	-5.09	94.34	104.00
26	BB	539	G	O4'-C1'-N9	5.09	112.27	108.20
26	BB	2365	G	C5'-C4'-O4'	5.09	115.20	109.10
26	BB	2502	G	N9-C4-C5	5.09	107.44	105.40
1	AA	945	G	N3-C4-C5	-5.08	126.06	128.60
26	BB	1585	C	C6-N1-C2	-5.08	118.27	120.30
26	BB	1988	G	C5'-C4'-O4'	5.08	115.20	109.10
26	BB	2238	G	C2-N3-C4	5.08	114.44	111.90
1	AA	449	G	C8-N9-C4	-5.08	104.37	106.40
1	AA	790	A	C5'-C4'-O4'	5.08	115.20	109.10
26	BB	2745	C	O4'-C1'-N1	5.08	112.27	108.20
1	AA	913	A	P-O3'-C3'	5.08	125.80	119.70
26	BB	41	C	O4'-C1'-N1	5.08	112.27	108.20
26	BB	258	G	C5'-C4'-O4'	5.08	115.20	109.10
26	BB	2093	G	N3-C4-C5	-5.08	126.06	128.60
25	BA	2	G	N3-C4-C5	-5.08	126.06	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	864	G	C8-N9-C1'	5.08	133.60	127.00
26	BB	1177	G	N7-C8-N9	5.08	115.64	113.10
1	AA	1225	A	O4'-C4'-C3'	5.08	110.16	106.10
2	AB	48	C	C3'-C2'-C1'	-5.08	97.44	101.50
26	BB	349	U	P-O3'-C3'	5.08	125.79	119.70
26	BB	1346	G	C8-N9-C4	-5.08	104.37	106.40
26	BB	1514	G	P-O3'-C3'	5.08	125.80	119.70
26	BB	1987	A	C5'-C4'-O4'	5.08	115.19	109.10
26	BB	489	G	N9-C1'-C2'	-5.08	106.42	112.00
26	BB	1416	G	C6-N1-C2	-5.08	122.05	125.10
26	BB	2253	G	O4'-C1'-N9	5.08	112.26	108.20
1	AA	734	G	C5'-C4'-O4'	5.08	115.19	109.10
1	AA	1065	U	O4'-C1'-N1	5.08	112.26	108.20
1	AA	1439	G	N3-C4-C5	-5.08	126.06	128.60
1	AA	1529	G	C8-N9-C4	-5.08	104.37	106.40
26	BB	370	G	N3-C4-C5	-5.08	126.06	128.60
26	BB	617	G	C8-N9-C4	-5.08	104.37	106.40
1	AA	981	U	C5'-C4'-O4'	5.07	115.19	109.10
1	AA	1029	U	P-O3'-C3'	5.07	125.79	119.70
26	BB	275	C	N1-C2-O2	5.07	121.94	118.90
26	BB	1551	A	C8-N9-C4	-5.07	103.77	105.80
2	AE	15	G	C8-N9-C4	-5.07	104.37	106.40
26	BB	377	G	C5'-C4'-C3'	-5.07	107.89	116.00
26	BB	2010	G	C5'-C4'-C3'	-5.07	107.89	116.00
1	AA	1070	U	C5'-C4'-C3'	-5.07	107.89	116.00
26	BB	807	U	C4'-C3'-C2'	-5.07	97.53	102.60
26	BB	1069	A	O3'-P-O5'	5.07	113.63	104.00
26	BB	2791	G	C5'-C4'-C3'	-5.07	107.89	116.00
1	AA	855	U	O4'-C1'-N1	5.07	112.25	108.20
26	BB	2225	A	O3'-P-O5'	5.07	113.63	104.00
1	AA	135	C	O4'-C1'-N1	5.07	112.25	108.20
1	AA	220	G	C2-N3-C4	5.07	114.43	111.90
2	AB	19	G	C8-N9-C4	-5.07	104.37	106.40
26	BB	155	A	N9-C1'-C2'	-5.07	106.43	112.00
26	BB	1439	A	C8-N9-C4	-5.07	103.77	105.80
26	BB	1479	G	N9-C1'-C2'	-5.07	106.42	112.00
26	BB	1725	U	C5'-C4'-C3'	-5.07	107.89	116.00
26	BB	1776	G	C8-N9-C4	-5.07	104.37	106.40
26	BB	2057	G	C5'-C4'-C3'	-5.07	107.89	116.00
1	AA	292	G	C4'-C3'-C2'	-5.07	97.53	102.60
1	AA	352	C	N1-C2-O2	5.07	121.94	118.90
1	AA	438	U	O4'-C1'-N1	5.07	112.25	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	1036	A	C5'-C4'-O4'	5.07	115.18	109.10
1	AA	1461	G	N3-C4-C5	-5.07	126.07	128.60
26	BB	829	A	C4'-C3'-C2'	-5.07	97.53	102.60
26	BB	1142	A	P-O3'-C3'	5.07	125.78	119.70
26	BB	1451	C	P-O3'-C3'	5.07	125.78	119.70
1	AA	16	A	O4'-C1'-N9	5.06	112.25	108.20
1	AA	389	A	N9-C1'-C2'	-5.06	106.43	112.00
1	AA	550	G	N3-C4-C5	-5.06	126.07	128.60
1	AA	1174	G	N3-C4-C5	-5.06	126.07	128.60
26	BB	11	C	C1'-O4'-C4'	-5.06	105.85	109.90
26	BB	1483	G	C5'-C4'-C3'	-5.06	107.90	116.00
1	AA	352	C	O4'-C1'-N1	5.06	112.25	108.20
1	AA	942	G	P-O3'-C3'	5.06	125.77	119.70
1	AA	1467	C	N3-C2-O2	-5.06	118.36	121.90
26	BB	1016	G	N3-C2-N2	-5.06	116.36	119.90
2	AB	34	G	O4'-C1'-N9	5.06	112.25	108.20
26	BB	1140	C	C5'-C4'-O4'	5.06	115.17	109.10
25	BA	14	U	O4'-C4'-C3'	5.06	110.15	106.10
26	BB	503	A	P-O3'-C3'	5.06	125.77	119.70
26	BB	1973	G	N3-C4-C5	-5.06	126.07	128.60
26	BB	2201	G	N3-C4-C5	-5.06	126.07	128.60
26	BB	2366	A	C5'-C4'-C3'	-5.06	107.91	116.00
26	BB	2433	A	P-O3'-C3'	5.06	125.77	119.70
26	BB	577	G	O4'-C1'-N9	5.06	112.25	108.20
26	BB	2446	G	P-O3'-C3'	5.06	125.77	119.70
26	BB	2641	G	N3-C4-C5	-5.06	126.07	128.60
26	BB	2897	U	O4'-C1'-N1	5.06	112.24	108.20
1	AA	305	G	P-O3'-C3'	5.05	125.77	119.70
26	BB	780	G	C8-N9-C4	-5.05	104.38	106.40
26	BB	940	G	C5'-C4'-C3'	-5.05	107.91	116.00
26	BB	678	C	O4'-C1'-N1	5.05	112.24	108.20
1	AA	1078	U	C4-C5-C6	5.05	122.73	119.70
1	AA	1353	G	C5'-C4'-C3'	-5.05	107.92	116.00
26	BB	902	C	P-O5'-C5'	5.05	128.98	120.90
26	BB	1416	G	C8-N9-C4	-5.05	104.38	106.40
26	BB	2184	A	O4'-C1'-N9	5.05	112.24	108.20
1	AA	65	A	C8-N9-C4	-5.05	103.78	105.80
1	AA	333	U	O4'-C1'-N1	5.05	112.24	108.20
1	AA	470	C	C5'-C4'-O4'	5.05	115.16	109.10
1	AA	558	G	N3-C4-C5	-5.05	126.08	128.60
1	AA	1354	U	C5'-C4'-O4'	5.05	115.16	109.10
26	BB	458	G	C3'-C2'-C1'	-5.05	97.46	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1165	A	O4'-C1'-N9	5.05	112.24	108.20
26	BB	1987	A	O4'-C1'-N9	5.05	112.24	108.20
26	BB	2228	G	C8-N9-C4	-5.05	104.38	106.40
26	BB	2269	G	O4'-C1'-N9	5.05	112.24	108.20
26	BB	2394	C	C4'-C3'-C2'	-5.05	97.55	102.60
1	AA	1535	C	O4'-C1'-N1	5.05	112.24	108.20
2	AE	48	C	N1-C2-O2	5.05	121.93	118.90
26	BB	1252	G	C3'-C2'-C1'	5.05	105.54	101.50
26	BB	2534	A	O4'-C1'-N9	5.05	112.24	108.20
1	AA	2	A	O4'-C1'-N9	5.05	112.24	108.20
26	BB	1884	G	C8-N9-C4	-5.05	104.38	106.40
26	BB	1975	G	N9-C1'-C2'	-5.05	106.45	112.00
1	AA	990	C	C5'-C4'-O4'	5.04	115.15	109.10
25	BA	54	G	N7-C8-N9	5.04	115.62	113.10
26	BB	424	G	N3-C4-C5	-5.04	126.08	128.60
26	BB	791	C	P-O3'-C3'	5.04	125.75	119.70
26	BB	2490	G	C8-N9-C4	-5.04	104.38	106.40
1	AA	439	U	N1-C2-N3	5.04	117.93	114.90
26	BB	832	U	C5'-C4'-O4'	5.04	115.15	109.10
26	BB	1087	G	C8-N9-C4	-5.04	104.38	106.40
26	BB	1334	G	C5'-C4'-C3'	-5.04	107.93	116.00
26	BB	1929	G	C2-N3-C4	5.04	114.42	111.90
26	BB	1933	G	C4'-C3'-C2'	-5.04	97.56	102.60
1	AA	394	G	C5'-C4'-O4'	5.04	115.15	109.10
1	AA	830	G	O4'-C1'-N9	5.04	112.23	108.20
26	BB	1636	U	C5'-C4'-O4'	5.04	115.15	109.10
26	BB	2523	G	N3-C4-C5	-5.04	126.08	128.60
26	BB	2579	C	C3'-C2'-C1'	5.04	105.53	101.50
1	AA	660	C	O4'-C1'-N1	5.04	112.23	108.20
2	AB	57	G	N3-C4-C5	-5.04	126.08	128.60
26	BB	863	A	N7-C8-N9	5.04	116.32	113.80
26	BB	2169	A	C8-N9-C4	-5.04	103.78	105.80
1	AA	152	A	O4'-C1'-N9	5.04	112.23	108.20
1	AA	570	G	C8-N9-C4	-5.04	104.38	106.40
1	AA	1124	G	C8-N9-C4	-5.04	104.39	106.40
1	AA	1208	C	C5'-C4'-C3'	-5.04	107.94	116.00
2	AE	53	G	N3-C4-C5	-5.04	126.08	128.60
25	BA	32	U	C3'-C2'-C1'	-5.04	97.47	101.50
26	BB	266	G	N3-C4-C5	-5.04	126.08	128.60
26	BB	271	G	P-O3'-C3'	5.04	125.75	119.70
26	BB	1049	C	C2'-C3'-O3'	5.04	121.76	113.70
26	BB	1267	U	C5'-C4'-O4'	5.04	115.15	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	2061	G	C4'-C3'-C2'	-5.04	97.56	102.60
4	AD	47	C	N1-C2-O2	5.04	121.92	118.90
26	BB	121	G	C5'-C4'-C3'	-5.04	107.94	116.00
26	BB	1339	G	C8-N9-C4	-5.04	104.39	106.40
26	BB	1576	U	O4'-C1'-N1	5.04	112.23	108.20
26	BB	2429	G	N3-C4-C5	-5.04	126.08	128.60
26	BB	2871	U	O4'-C1'-N1	5.04	112.23	108.20
1	AA	429	U	C5'-C4'-C3'	-5.03	107.94	116.00
1	AA	515	G	N3-C4-C5	-5.03	126.08	128.60
1	AA	973	G	C5'-C4'-O4'	5.03	115.14	109.10
1	AA	1087	G	N3-C4-C5	-5.03	126.08	128.60
26	BB	996	A	C5'-C4'-C3'	-5.03	107.95	116.00
1	AA	744	C	O4'-C1'-N1	5.03	112.22	108.20
1	AA	1253	G	O4'-C1'-N9	5.03	112.22	108.20
2	AB	5	G	N3-C4-C5	-5.03	126.08	128.60
25	BA	14	U	P-O3'-C3'	-5.03	113.66	119.70
26	BB	254	G	C2-N3-C4	5.03	114.42	111.90
26	BB	369	U	O4'-C1'-N1	5.03	112.22	108.20
26	BB	1498	C	C5'-C4'-O4'	5.03	115.14	109.10
26	BB	2017	U	P-O3'-C3'	5.03	125.74	119.70
26	BB	2709	G	C5'-C4'-C3'	-5.03	107.95	116.00
26	BB	2831	G	O3'-P-O5'	-5.03	94.44	104.00
26	BB	2867	G	O4'-C1'-N9	5.03	112.22	108.20
1	AA	384	G	N3-C4-C5	-5.03	126.09	128.60
26	BB	364	C	C4'-C3'-C2'	-5.03	97.57	102.60
26	BB	2083	G	C8-N9-C4	-5.03	104.39	106.40
1	AA	1473	G	N3-C4-C5	-5.03	126.09	128.60
2	AE	28	G	O4'-C1'-N9	5.03	112.22	108.20
26	BB	763	G	C8-N9-C4	-5.03	104.39	106.40
26	BB	1869	G	O5'-C5'-C4'	-5.03	102.15	111.70
26	BB	2227	A	O4'-C1'-N9	5.03	112.22	108.20
1	AA	1006	G	N3-C4-C5	-5.03	126.09	128.60
26	BB	1	G	N3-C4-C5	-5.03	126.09	128.60
26	BB	1452	G	C3'-C2'-C1'	5.03	105.52	101.50
26	BB	1558	C	O4'-C1'-N1	5.03	112.22	108.20
26	BB	1725	U	C5'-C4'-O4'	5.03	115.13	109.10
26	BB	1837	C	P-O3'-C3'	5.03	125.73	119.70
26	BB	2694	G	O4'-C1'-N9	5.03	112.22	108.20
1	AA	297	G	O4'-C1'-N9	5.02	112.22	108.20
1	AA	781	A	C5'-C4'-O4'	5.02	115.13	109.10
1	AA	1405	G	N3-C4-C5	-5.02	126.09	128.60
26	BB	814	C	O4'-C1'-N1	5.02	112.22	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1171	G	N3-C4-C5	-5.02	126.09	128.60
1	AA	969	A	C4'-C3'-C2'	-5.02	97.58	102.60
2	AE	11	C	C5'-C4'-O4'	5.02	115.13	109.10
26	BB	890	C	O4'-C1'-N1	5.02	112.22	108.20
26	BB	1619	G	C5'-C4'-C3'	-5.02	107.97	116.00
26	BB	2749	A	O3'-P-O5'	-5.02	94.46	104.00
25	BA	75	G	O4'-C1'-N9	5.02	112.22	108.20
26	BB	14	A	C5'-C4'-C3'	-5.02	107.97	116.00
26	BB	1907	G	N9-C1'-C2'	-5.02	106.48	112.00
1	AA	1224	U	O3'-P-O5'	-5.02	94.46	104.00
1	AA	1383	C	C2-N3-C4	5.02	122.41	119.90
2	AB	1	G	N3-C4-C5	-5.02	126.09	128.60
2	AE	57	G	C8-N9-C4	-5.02	104.39	106.40
25	BA	32	U	N1-C2-N3	5.02	117.91	114.90
26	BB	521	U	O4'-C1'-N1	5.02	112.22	108.20
26	BB	708	G	C8-N9-C4	-5.02	104.39	106.40
26	BB	1377	G	C8-N9-C4	-5.02	104.39	106.40
1	AA	1010	U	C2-N3-C4	-5.02	123.99	127.00
26	BB	725	G	C2'-C3'-O3'	5.02	121.73	113.70
26	BB	1266	G	N9-C4-C5	5.02	107.41	105.40
26	BB	1345	C	C5'-C4'-C3'	-5.02	107.97	116.00
26	BB	898	C	O4'-C1'-N1	5.02	112.21	108.20
26	BB	1058	U	N1-C2-N3	5.02	117.91	114.90
26	BB	1064	C	C5-C4-N4	-5.02	116.69	120.20
26	BB	1123	C	C5'-C4'-O4'	5.02	115.12	109.10
26	BB	1314	C	C5'-C4'-O4'	5.02	115.12	109.10
1	AA	410	G	C8-N9-C4	-5.01	104.39	106.40
1	AA	692	U	N3-C2-O2	-5.01	118.69	122.20
1	AA	846	G	N3-C4-C5	-5.01	126.09	128.60
1	AA	1264	U	C4'-C3'-C2'	-5.01	97.58	102.60
2	AE	38	A	O4'-C1'-N9	5.01	112.21	108.20
25	BA	49	C	N1-C2-O2	5.01	121.91	118.90
26	BB	363	G	C8-N9-C4	-5.01	104.39	106.40
26	BB	474	G	O4'-C1'-N9	5.01	112.21	108.20
26	BB	2148	G	C8-N9-C4	-5.01	104.39	106.40
26	BB	2296	U	O4'-C4'-C3'	5.01	110.11	106.10
26	BB	2604	U	O4'-C1'-N1	5.01	112.21	108.20
26	BB	2625	G	C8-N9-C4	-5.01	104.39	106.40
26	BB	1139	G	N3-C4-C5	-5.01	126.09	128.60
26	BB	2802	G	C5'-C4'-C3'	-5.01	107.98	116.00
1	AA	930	C	C5'-C4'-O4'	5.01	115.11	109.10
1	AA	1199	U	O4'-C1'-N1	5.01	112.21	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BB	1274	A	P-O3'-C3'	5.01	125.71	119.70
26	BB	1936	A	P-O3'-C3'	5.01	125.71	119.70
26	BB	2177	C	N1-C2-O2	5.01	121.91	118.90
26	BB	2859	G	P-O3'-C3'	5.01	125.71	119.70
1	AA	761	G	O4'-C1'-N9	5.01	112.21	108.20
1	AA	1047	G	C8-N9-C4	-5.01	104.40	106.40
1	AA	1229	A	O4'-C1'-N9	5.01	112.21	108.20
25	BA	67	G	C8-N9-C4	-5.01	104.40	106.40
26	BB	1864	U	C3'-C2'-C1'	5.01	105.51	101.50
26	BB	2517	C	N1-C2-O2	5.01	121.91	118.90
26	BB	2642	G	N3-C4-C5	-5.01	126.10	128.60
2	AB	11	C	O4'-C1'-N1	5.01	112.21	108.20
26	BB	1420	A	C8-N9-C4	-5.01	103.80	105.80
1	AA	734	G	N3-C4-C5	-5.01	126.10	128.60
2	AE	6	G	C5'-C4'-O4'	5.01	115.11	109.10
26	BB	2328	A	O3'-P-O5'	-5.01	94.49	104.00
1	AA	1354	U	O4'-C1'-N1	5.00	112.20	108.20
26	BB	1191	G	N3-C4-C5	-5.00	126.10	128.60
1	AA	142	G	C5'-C4'-C3'	-5.00	108.00	116.00
1	AA	344	A	C5'-C4'-O4'	5.00	115.10	109.10
26	BB	51	G	O4'-C1'-N9	5.00	112.20	108.20
26	BB	1503	A	O4'-C1'-N9	5.00	112.20	108.20
26	BB	1988	G	O4'-C1'-N9	5.00	112.20	108.20
1	AA	164	G	N3-C4-C5	-5.00	126.10	128.60
26	BB	172	A	N9-C1'-C2'	-5.00	106.50	112.00
26	BB	1420	A	O3'-P-O5'	-5.00	94.50	104.00

There are no chirality outliers.

All (1567) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	AA	10	A	Sidechain
1	AA	100	G	Sidechain
1	AA	1008	U	Sidechain
1	AA	1009	U	Sidechain
1	AA	1010	U	Sidechain
1	AA	1013	G	Sidechain
1	AA	1014	A	Sidechain
1	AA	1016	A	Sidechain
1	AA	1026	G	Sidechain
1	AA	1027	C	Sidechain
1	AA	103	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1035	A	Sidechain
1	AA	1037	C	Sidechain
1	AA	1039	G	Sidechain
1	AA	1046	A	Sidechain
1	AA	1049	U	Sidechain
1	AA	105	G	Sidechain
1	AA	1054	C	Sidechain
1	AA	1055	A	Sidechain
1	AA	1058	G	Sidechain
1	AA	106	C	Sidechain
1	AA	1061	G	Sidechain
1	AA	1062	U	Sidechain
1	AA	1072	G	Sidechain
1	AA	1073	U	Sidechain
1	AA	1074	G	Sidechain
1	AA	1075	U	Sidechain
1	AA	1077	G	Sidechain
1	AA	1093	A	Sidechain
1	AA	1094	G	Sidechain
1	AA	1096	C	Sidechain
1	AA	1097	C	Sidechain
1	AA	11	G	Sidechain
1	AA	110	C	Sidechain
1	AA	1100	C	Sidechain
1	AA	1101	A	Sidechain
1	AA	1109	C	Sidechain
1	AA	1110	A	Sidechain
1	AA	1114	C	Sidechain
1	AA	1115	U	Sidechain
1	AA	1117	A	Sidechain
1	AA	1119	C	Sidechain
1	AA	112	G	Sidechain
1	AA	1121	U	Sidechain
1	AA	1124	G	Sidechain
1	AA	1125	U	Sidechain
1	AA	1126	U	Sidechain
1	AA	1127	G	Sidechain
1	AA	113	G	Sidechain
1	AA	1130	A	Sidechain
1	AA	1132	C	Sidechain
1	AA	1134	G	Sidechain
1	AA	1135	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1138	G	Sidechain
1	AA	1139	G	Sidechain
1	AA	1140	C	Sidechain
1	AA	1142	G	Sidechain
1	AA	1143	G	Sidechain
1	AA	1145	A	Sidechain
1	AA	1148	U	Sidechain
1	AA	1151	A	Sidechain
1	AA	1153	G	Sidechain
1	AA	1155	A	Sidechain
1	AA	1158	C	Sidechain
1	AA	116	A	Sidechain
1	AA	1160	G	Sidechain
1	AA	1162	C	Sidechain
1	AA	1169	A	Sidechain
1	AA	117	G	Sidechain
1	AA	1174	G	Sidechain
1	AA	1175	G	Sidechain
1	AA	1176	A	Sidechain
1	AA	1178	G	Sidechain
1	AA	1179	A	Sidechain
1	AA	1181	G	Sidechain
1	AA	1184	G	Sidechain
1	AA	119	A	Sidechain
1	AA	1196	A	Sidechain
1	AA	1197	A	Sidechain
1	AA	1201	A	Sidechain
1	AA	1202	U	Sidechain
1	AA	1212	U	Sidechain
1	AA	1213	A	Sidechain
1	AA	1214	C	Sidechain
1	AA	1215	G	Sidechain
1	AA	1216	A	Sidechain
1	AA	1219	A	Sidechain
1	AA	1222	G	Sidechain
1	AA	1226	C	Sidechain
1	AA	1228	C	Sidechain
1	AA	1230	C	Sidechain
1	AA	1233	G	Sidechain
1	AA	1234	C	Sidechain
1	AA	1237	C	Sidechain
1	AA	1249	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1250	A	Sidechain
1	AA	1258	G	Sidechain
1	AA	1259	C	Sidechain
1	AA	126	G	Sidechain
1	AA	1260	G	Sidechain
1	AA	1266	G	Sidechain
1	AA	1267	C	Sidechain
1	AA	1268	G	Sidechain
1	AA	1269	A	Sidechain
1	AA	1270	G	Sidechain
1	AA	1272	G	Sidechain
1	AA	1274	A	Sidechain
1	AA	1276	G	Sidechain
1	AA	128	G	Sidechain
1	AA	1284	C	Sidechain
1	AA	1289	A	Sidechain
1	AA	1294	G	Sidechain
1	AA	1298	U	Sidechain
1	AA	13	U	Sidechain
1	AA	1301	U	Sidechain
1	AA	1305	G	Sidechain
1	AA	1307	U	Sidechain
1	AA	1313	U	Sidechain
1	AA	1314	C	Sidechain
1	AA	1317	C	Sidechain
1	AA	1318	A	Sidechain
1	AA	1319	A	Sidechain
1	AA	1322	C	Sidechain
1	AA	1323	G	Sidechain
1	AA	1325	C	Sidechain
1	AA	1328	C	Sidechain
1	AA	1330	U	Sidechain
1	AA	1333	A	Sidechain
1	AA	1337	G	Sidechain
1	AA	1339	A	Sidechain
1	AA	1343	G	Sidechain
1	AA	1346	A	Sidechain
1	AA	1351	U	Sidechain
1	AA	1357	A	Sidechain
1	AA	1358	U	Sidechain
1	AA	1361	G	Sidechain
1	AA	1363	A	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1364	U	Sidechain
1	AA	1369	C	Sidechain
1	AA	137	U	Sidechain
1	AA	1370	G	Sidechain
1	AA	1371	G	Sidechain
1	AA	1373	G	Sidechain
1	AA	1376	U	Sidechain
1	AA	1377	A	Sidechain
1	AA	1378	C	Sidechain
1	AA	138	G	Sidechain
1	AA	1380	U	Sidechain
1	AA	1390	U	Sidechain
1	AA	1391	U	Sidechain
1	AA	1392	G	Sidechain
1	AA	1400	C	Sidechain
1	AA	1405	G	Sidechain
1	AA	1406	U	Sidechain
1	AA	1412	C	Sidechain
1	AA	1416	G	Sidechain
1	AA	1417	G	Sidechain
1	AA	142	G	Sidechain
1	AA	1424	U	Sidechain
1	AA	1429	A	Sidechain
1	AA	143	A	Sidechain
1	AA	1432	G	Sidechain
1	AA	1433	A	Sidechain
1	AA	1435	G	Sidechain
1	AA	144	G	Sidechain
1	AA	1440	U	Sidechain
1	AA	1444	U	Sidechain
1	AA	1447	A	Sidechain
1	AA	1450	U	Sidechain
1	AA	1455	G	Sidechain
1	AA	1456	A	Sidechain
1	AA	1457	G	Sidechain
1	AA	1459	G	Sidechain
1	AA	1464	U	Sidechain
1	AA	1465	A	Sidechain
1	AA	1470	U	Sidechain
1	AA	1477	U	Sidechain
1	AA	1479	C	Sidechain
1	AA	1482	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	1483	A	Sidechain
1	AA	1491	G	Sidechain
1	AA	1493	A	Sidechain
1	AA	150	U	Sidechain
1	AA	1500	A	Sidechain
1	AA	1501	C	Sidechain
1	AA	1502	A	Sidechain
1	AA	1506	U	Sidechain
1	AA	1517	G	Sidechain
1	AA	152	A	Sidechain
1	AA	1521	C	Sidechain
1	AA	1523	G	Sidechain
1	AA	1526	G	Sidechain
1	AA	153	C	Sidechain
1	AA	1530	G	Sidechain
1	AA	1531	A	Sidechain
1	AA	1534	A	Sidechain
1	AA	1535	C	Sidechain
1	AA	1536	C	Sidechain
1	AA	1537	U	Sidechain
1	AA	1539	C	Sidechain
1	AA	1540	U	Sidechain
1	AA	159	G	Sidechain
1	AA	163	C	Sidechain
1	AA	173	U	Sidechain
1	AA	179	A	Sidechain
1	AA	182	A	Sidechain
1	AA	184	G	Sidechain
1	AA	189	A	Sidechain
1	AA	190	A	Sidechain
1	AA	194	C	Sidechain
1	AA	196	A	Sidechain
1	AA	197	A	Sidechain
1	AA	2	A	Sidechain
1	AA	201	G	Sidechain
1	AA	203	G	Sidechain
1	AA	205	A	Sidechain
1	AA	206	C	Sidechain
1	AA	21	G	Sidechain
1	AA	211	G	Sidechain
1	AA	215	C	Sidechain
1	AA	218	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	22	G	Sidechain
1	AA	221	C	Sidechain
1	AA	222	C	Sidechain
1	AA	223	A	Sidechain
1	AA	229	U	Sidechain
1	AA	234	C	Sidechain
1	AA	236	A	Sidechain
1	AA	239	U	Sidechain
1	AA	24	U	Sidechain
1	AA	245	U	Sidechain
1	AA	246	A	Sidechain
1	AA	248	C	Sidechain
1	AA	250	A	Sidechain
1	AA	252	U	Sidechain
1	AA	256	U	Sidechain
1	AA	260	G	Sidechain
1	AA	262	A	Sidechain
1	AA	265	G	Sidechain
1	AA	266	G	Sidechain
1	AA	268	U	Sidechain
1	AA	269	C	Sidechain
1	AA	27	G	Sidechain
1	AA	274	A	Sidechain
1	AA	279	A	Sidechain
1	AA	283	U	Sidechain
1	AA	29	U	Sidechain
1	AA	297	G	Sidechain
1	AA	298	A	Sidechain
1	AA	299	G	Sidechain
1	AA	305	G	Sidechain
1	AA	306	A	Sidechain
1	AA	307	C	Sidechain
1	AA	31	G	Sidechain
1	AA	310	G	Sidechain
1	AA	311	C	Sidechain
1	AA	313	A	Sidechain
1	AA	315	A	Sidechain
1	AA	316	C	Sidechain
1	AA	323	U	Sidechain
1	AA	325	A	Sidechain
1	AA	328	C	Sidechain
1	AA	329	A	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	33	A	Sidechain
1	AA	330	C	Sidechain
1	AA	331	G	Sidechain
1	AA	335	C	Sidechain
1	AA	336	A	Sidechain
1	AA	337	G	Sidechain
1	AA	342	C	Sidechain
1	AA	346	G	Sidechain
1	AA	347	G	Sidechain
1	AA	349	A	Sidechain
1	AA	350	G	Sidechain
1	AA	353	A	Sidechain
1	AA	354	G	Sidechain
1	AA	359	G	Sidechain
1	AA	360	G	Sidechain
1	AA	362	G	Sidechain
1	AA	363	A	Sidechain
1	AA	365	U	Sidechain
1	AA	368	U	Sidechain
1	AA	370	C	Sidechain
1	AA	380	G	Sidechain
1	AA	381	C	Sidechain
1	AA	382	A	Sidechain
1	AA	383	A	Sidechain
1	AA	387	U	Sidechain
1	AA	388	G	Sidechain
1	AA	39	G	Sidechain
1	AA	391	G	Sidechain
1	AA	393	A	Sidechain
1	AA	396	C	Sidechain
1	AA	398	U	Sidechain
1	AA	399	G	Sidechain
1	AA	403	C	Sidechain
1	AA	412	A	Sidechain
1	AA	413	G	Sidechain
1	AA	414	A	Sidechain
1	AA	417	G	Sidechain
1	AA	425	G	Sidechain
1	AA	43	C	Sidechain
1	AA	430	A	Sidechain
1	AA	431	A	Sidechain
1	AA	439	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	444	G	Sidechain
1	AA	446	G	Sidechain
1	AA	447	G	Sidechain
1	AA	448	A	Sidechain
1	AA	451	A	Sidechain
1	AA	452	A	Sidechain
1	AA	456	A	Sidechain
1	AA	457	G	Sidechain
1	AA	459	A	Sidechain
1	AA	46	G	Sidechain
1	AA	465	A	Sidechain
1	AA	466	A	Sidechain
1	AA	467	U	Sidechain
1	AA	469	C	Sidechain
1	AA	474	G	Sidechain
1	AA	476	U	Sidechain
1	AA	477	C	Sidechain
1	AA	478	A	Sidechain
1	AA	479	U	Sidechain
1	AA	480	U	Sidechain
1	AA	481	G	Sidechain
1	AA	485	U	Sidechain
1	AA	487	A	Sidechain
1	AA	491	G	Sidechain
1	AA	492	C	Sidechain
1	AA	493	A	Sidechain
1	AA	496	A	Sidechain
1	AA	499	A	Sidechain
1	AA	50	A	Sidechain
1	AA	505	G	Sidechain
1	AA	507	C	Sidechain
1	AA	510	A	Sidechain
1	AA	511	C	Sidechain
1	AA	519	C	Sidechain
1	AA	52	C	Sidechain
1	AA	521	G	Sidechain
1	AA	523	A	Sidechain
1	AA	525	C	Sidechain
1	AA	526	C	Sidechain
1	AA	529	G	Sidechain
1	AA	530	G	Sidechain
1	AA	533	A	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	535	A	Sidechain
1	AA	536	C	Sidechain
1	AA	545	C	Sidechain
1	AA	546	A	Sidechain
1	AA	556	C	Sidechain
1	AA	565	U	Sidechain
1	AA	57	G	Sidechain
1	AA	572	A	Sidechain
1	AA	574	A	Sidechain
1	AA	576	C	Sidechain
1	AA	577	G	Sidechain
1	AA	578	C	Sidechain
1	AA	583	A	Sidechain
1	AA	587	G	Sidechain
1	AA	594	U	Sidechain
1	AA	597	G	Sidechain
1	AA	60	A	Sidechain
1	AA	608	A	Sidechain
1	AA	609	A	Sidechain
1	AA	61	G	Sidechain
1	AA	610	U	Sidechain
1	AA	612	C	Sidechain
1	AA	613	C	Sidechain
1	AA	618	C	Sidechain
1	AA	631	C	Sidechain
1	AA	637	C	Sidechain
1	AA	639	G	Sidechain
1	AA	641	U	Sidechain
1	AA	642	A	Sidechain
1	AA	644	U	Sidechain
1	AA	646	G	Sidechain
1	AA	647	C	Sidechain
1	AA	65	A	Sidechain
1	AA	652	U	Sidechain
1	AA	66	A	Sidechain
1	AA	660	C	Sidechain
1	AA	661	G	Sidechain
1	AA	672	U	Sidechain
1	AA	673	A	Sidechain
1	AA	680	C	Sidechain
1	AA	682	G	Sidechain
1	AA	684	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	686	U	Sidechain
1	AA	688	G	Sidechain
1	AA	69	G	Sidechain
1	AA	690	G	Sidechain
1	AA	692	U	Sidechain
1	AA	693	G	Sidechain
1	AA	694	A	Sidechain
1	AA	695	A	Sidechain
1	AA	697	U	Sidechain
1	AA	7	A	Sidechain
1	AA	704	A	Sidechain
1	AA	709	U	Sidechain
1	AA	71	A	Sidechain
1	AA	711	G	Sidechain
1	AA	713	G	Sidechain
1	AA	719	C	Sidechain
1	AA	723	U	Sidechain
1	AA	73	C	Sidechain
1	AA	737	C	Sidechain
1	AA	748	G	Sidechain
1	AA	751	U	Sidechain
1	AA	752	G	Sidechain
1	AA	754	C	Sidechain
1	AA	757	U	Sidechain
1	AA	76	G	Sidechain
1	AA	762	U	Sidechain
1	AA	763	G	Sidechain
1	AA	765	G	Sidechain
1	AA	767	A	Sidechain
1	AA	771	G	Sidechain
1	AA	774	G	Sidechain
1	AA	775	G	Sidechain
1	AA	779	C	Sidechain
1	AA	786	G	Sidechain
1	AA	787	A	Sidechain
1	AA	789	U	Sidechain
1	AA	790	A	Sidechain
1	AA	793	U	Sidechain
1	AA	800	G	Sidechain
1	AA	801	U	Sidechain
1	AA	802	A	Sidechain
1	AA	804	U	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	808	C	Sidechain
1	AA	817	C	Sidechain
1	AA	820	U	Sidechain
1	AA	826	C	Sidechain
1	AA	827	U	Sidechain
1	AA	836	G	Sidechain
1	AA	838	G	Sidechain
1	AA	84	U	Sidechain
1	AA	840	C	Sidechain
1	AA	841	C	Sidechain
1	AA	846	G	Sidechain
1	AA	847	G	Sidechain
1	AA	849	G	Sidechain
1	AA	85	U	Sidechain
1	AA	851	G	Sidechain
1	AA	855	U	Sidechain
1	AA	858	G	Sidechain
1	AA	86	G	Sidechain
1	AA	864	A	Sidechain
1	AA	866	C	Sidechain
1	AA	870	U	Sidechain
1	AA	873	A	Sidechain
1	AA	874	G	Sidechain
1	AA	876	C	Sidechain
1	AA	879	C	Sidechain
1	AA	880	C	Sidechain
1	AA	884	U	Sidechain
1	AA	888	G	Sidechain
1	AA	89	U	Sidechain
1	AA	900	A	Sidechain
1	AA	901	A	Sidechain
1	AA	902	G	Sidechain
1	AA	905	U	Sidechain
1	AA	908	A	Sidechain
1	AA	91	U	Sidechain
1	AA	916	U	Sidechain
1	AA	92	U	Sidechain
1	AA	920	U	Sidechain
1	AA	922	G	Sidechain
1	AA	923	A	Sidechain
1	AA	928	G	Sidechain
1	AA	932	C	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	933	G	Sidechain
1	AA	934	C	Sidechain
1	AA	936	C	Sidechain
1	AA	937	A	Sidechain
1	AA	938	A	Sidechain
1	AA	94	G	Sidechain
1	AA	944	G	Sidechain
1	AA	946	A	Sidechain
1	AA	948	C	Sidechain
1	AA	949	A	Sidechain
1	AA	951	G	Sidechain
1	AA	952	U	Sidechain
1	AA	953	G	Sidechain
1	AA	954	G	Sidechain
1	AA	958	A	Sidechain
1	AA	959	A	Sidechain
1	AA	970	C	Sidechain
1	AA	972	C	Sidechain
1	AA	973	G	Sidechain
1	AA	977	A	Sidechain
1	AA	978	A	Sidechain
1	AA	980	C	Sidechain
1	AA	983	A	Sidechain
1	AA	984	C	Sidechain
1	AA	99	C	Sidechain
1	AA	991	U	Sidechain
1	AA	992	U	Sidechain
1	AA	993	G	Sidechain
1	AA	995	C	Sidechain
2	AB	10	G	Sidechain
2	AB	17	C	Sidechain
2	AB	23	A	Sidechain
2	AB	26	A	Sidechain
2	AB	27	G	Sidechain
2	AB	34	G	Sidechain
2	AB	40	C	Sidechain
2	AB	41	C	Sidechain
2	AB	42	C	Sidechain
2	AB	5	G	Sidechain
2	AB	51	U	Sidechain
2	AB	56	C	Sidechain
2	AB	58	A	Sidechain

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Mol	Chain	Res	Type	Group
2	AB	60	U	Sidechain
2	AB	66	U	Sidechain
2	AB	68	C	Sidechain
2	AB	70	G	Sidechain
2	AB	71	G	Sidechain
2	AB	75	C	Sidechain
3	AC	10	PRO	Mainchain
4	AD	25	U	Sidechain
4	AD	26	U	Sidechain
4	AD	28	U	Sidechain
4	AD	29	G	Sidechain
4	AD	30	U	Sidechain
4	AD	31	U	Sidechain
4	AD	34	U	Sidechain
4	AD	43	U	Sidechain
4	AD	45	G	Sidechain
2	AE	14	A	Sidechain
2	AE	19	G	Sidechain
2	AE	21	A	Sidechain
2	AE	25	C	Sidechain
2	AE	34	G	Sidechain
2	AE	35	A	Sidechain
2	AE	44	G	Sidechain
2	AE	48	C	Sidechain
2	AE	50	U	Sidechain
2	AE	56	C	Sidechain
2	AE	6	G	Sidechain
2	AE	63	G	Sidechain
2	AE	67	C	Sidechain
2	AE	75	C	Sidechain
2	AE	9	A	Sidechain
6	AG	229	LYS	Mainchain
7	AH	102	TYR	Sidechain
8	AI	146	MET	Mainchain
8	AI	157	GLY	Peptide
8	AI	161	GLU	Mainchain
9	AJ	87	SER	Peptide
11	AL	92	PRO	Peptide
13	AN	40	ILE	Mainchain
14	AO	81	LEU	Peptide
15	AP	120	ARG	Peptide
17	AR	38	GLU	Mainchain

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Mol	Chain	Res	Type	Group
17	AR	98	ALA	Mainchain
21	AV	63	TYR	Sidechain
24	AY	48	LYS	Mainchain
25	BA	10	G	Sidechain
25	BA	110	C	Sidechain
25	BA	114	C	Sidechain
25	BA	116	G	Sidechain
25	BA	117	G	Sidechain
25	BA	14	U	Sidechain
25	BA	15	A	Sidechain
25	BA	19	C	Sidechain
25	BA	2	G	Sidechain
25	BA	20	G	Sidechain
25	BA	23	G	Sidechain
25	BA	24	G	Sidechain
25	BA	26	C	Sidechain
25	BA	34	A	Sidechain
25	BA	35	C	Sidechain
25	BA	36	C	Sidechain
25	BA	37	C	Sidechain
25	BA	41	G	Sidechain
25	BA	47	C	Sidechain
25	BA	50	A	Sidechain
25	BA	51	G	Sidechain
25	BA	52	A	Sidechain
25	BA	55	U	Sidechain
25	BA	57	A	Sidechain
25	BA	58	A	Sidechain
25	BA	6	G	Sidechain
25	BA	61	G	Sidechain
25	BA	64	G	Sidechain
25	BA	67	G	Sidechain
25	BA	68	C	Sidechain
25	BA	7	G	Sidechain
25	BA	74	U	Sidechain
25	BA	79	G	Sidechain
25	BA	86	G	Sidechain
25	BA	88	C	Sidechain
25	BA	95	U	Sidechain
25	BA	98	G	Sidechain
26	BB	1000	A	Sidechain
26	BB	1005	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1006	C	Sidechain
26	BB	1010	A	Sidechain
26	BB	1011	G	Sidechain
26	BB	1014	A	Sidechain
26	BB	1017	G	Sidechain
26	BB	102	U	Sidechain
26	BB	1020	A	Sidechain
26	BB	1022	G	Sidechain
26	BB	1026	G	Sidechain
26	BB	1027	A	Sidechain
26	BB	1028	A	Sidechain
26	BB	103	A	Sidechain
26	BB	1030	C	Sidechain
26	BB	1038	G	Sidechain
26	BB	104	A	Sidechain
26	BB	1042	G	Sidechain
26	BB	1048	A	Sidechain
26	BB	1053	C	Sidechain
26	BB	1054	A	Sidechain
26	BB	1055	G	Sidechain
26	BB	1056	G	Sidechain
26	BB	1057	A	Sidechain
26	BB	1060	U	Sidechain
26	BB	1061	U	Sidechain
26	BB	1062	G	Sidechain
26	BB	1063	G	Sidechain
26	BB	1064	C	Sidechain
26	BB	1069	A	Sidechain
26	BB	1070	A	Sidechain
26	BB	1073	A	Sidechain
26	BB	1076	C	Sidechain
26	BB	1077	A	Sidechain
26	BB	1082	U	Sidechain
26	BB	1083	U	Sidechain
26	BB	1085	A	Sidechain
26	BB	1095	A	Sidechain
26	BB	1097	U	Sidechain
26	BB	1099	G	Sidechain
26	BB	11	C	Sidechain
26	BB	1101	U	Sidechain
26	BB	1102	C	Sidechain
26	BB	1106	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1107	G	Sidechain
26	BB	1114	C	Sidechain
26	BB	112	U	Sidechain
26	BB	1126	A	Sidechain
26	BB	1130	U	Sidechain
26	BB	1131	G	Sidechain
26	BB	1132	U	Sidechain
26	BB	1135	C	Sidechain
26	BB	1138	G	Sidechain
26	BB	1141	U	Sidechain
26	BB	1142	A	Sidechain
26	BB	1144	A	Sidechain
26	BB	1145	C	Sidechain
26	BB	1147	A	Sidechain
26	BB	115	C	Sidechain
26	BB	1153	C	Sidechain
26	BB	1154	G	Sidechain
26	BB	116	C	Sidechain
26	BB	1161	C	Sidechain
26	BB	1167	C	Sidechain
26	BB	1174	U	Sidechain
26	BB	1177	G	Sidechain
26	BB	1179	G	Sidechain
26	BB	118	A	Sidechain
26	BB	1182	G	Sidechain
26	BB	1187	G	Sidechain
26	BB	1198	U	Sidechain
26	BB	12	U	Sidechain
26	BB	120	U	Sidechain
26	BB	1202	G	Sidechain
26	BB	1204	A	Sidechain
26	BB	1207	C	Sidechain
26	BB	121	G	Sidechain
26	BB	1211	C	Sidechain
26	BB	1216	G	Sidechain
26	BB	122	G	Sidechain
26	BB	1226	A	Sidechain
26	BB	1227	G	Sidechain
26	BB	123	G	Sidechain
26	BB	1230	A	Sidechain
26	BB	1234	U	Sidechain
26	BB	1236	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1237	A	Sidechain
26	BB	1238	G	Sidechain
26	BB	124	G	Sidechain
26	BB	1240	U	Sidechain
26	BB	1242	U	Sidechain
26	BB	1246	A	Sidechain
26	BB	125	A	Sidechain
26	BB	1250	G	Sidechain
26	BB	1265	A	Sidechain
26	BB	1266	G	Sidechain
26	BB	1268	A	Sidechain
26	BB	1271	G	Sidechain
26	BB	1275	A	Sidechain
26	BB	1278	C	Sidechain
26	BB	1281	G	Sidechain
26	BB	1282	U	Sidechain
26	BB	1283	G	Sidechain
26	BB	1284	A	Sidechain
26	BB	1285	A	Sidechain
26	BB	1287	A	Sidechain
26	BB	1289	C	Sidechain
26	BB	129	C	Sidechain
26	BB	1293	C	Sidechain
26	BB	1295	C	Sidechain
26	BB	1296	G	Sidechain
26	BB	1299	G	Sidechain
26	BB	1303	G	Sidechain
26	BB	1306	C	Sidechain
26	BB	1309	G	Sidechain
26	BB	1317	G	Sidechain
26	BB	1318	U	Sidechain
26	BB	1321	A	Sidechain
26	BB	1324	G	Sidechain
26	BB	1325	U	Sidechain
26	BB	1327	A	Sidechain
26	BB	1328	A	Sidechain
26	BB	1335	C	Sidechain
26	BB	1340	U	Sidechain
26	BB	1353	A	Sidechain
26	BB	1356	G	Sidechain
26	BB	1358	G	Sidechain
26	BB	136	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1360	G	Sidechain
26	BB	1363	C	Sidechain
26	BB	1368	G	Sidechain
26	BB	1376	C	Sidechain
26	BB	138	U	Sidechain
26	BB	1382	G	Sidechain
26	BB	1384	A	Sidechain
26	BB	1389	G	Sidechain
26	BB	1390	U	Sidechain
26	BB	1392	A	Sidechain
26	BB	1393	A	Sidechain
26	BB	1394	U	Sidechain
26	BB	1396	U	Sidechain
26	BB	1397	U	Sidechain
26	BB	1398	C	Sidechain
26	BB	1399	C	Sidechain
26	BB	1408	G	Sidechain
26	BB	1410	G	Sidechain
26	BB	1416	G	Sidechain
26	BB	1417	C	Sidechain
26	BB	1418	G	Sidechain
26	BB	1419	A	Sidechain
26	BB	1420	A	Sidechain
26	BB	1424	G	Sidechain
26	BB	1426	G	Sidechain
26	BB	1427	A	Sidechain
26	BB	1431	A	Sidechain
26	BB	1432	G	Sidechain
26	BB	1433	A	Sidechain
26	BB	1439	A	Sidechain
26	BB	1440	U	Sidechain
26	BB	1441	G	Sidechain
26	BB	1445	G	Sidechain
26	BB	1449	G	Sidechain
26	BB	1450	G	Sidechain
26	BB	1453	A	Sidechain
26	BB	1454	C	Sidechain
26	BB	1459	G	Sidechain
26	BB	1466	U	Sidechain
26	BB	1472	C	Sidechain
26	BB	1473	G	Sidechain
26	BB	148	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1490	A	Sidechain
26	BB	1492	G	Sidechain
26	BB	1493	C	Sidechain
26	BB	1495	A	Sidechain
26	BB	1501	G	Sidechain
26	BB	1502	A	Sidechain
26	BB	151	C	Sidechain
26	BB	1511	G	Sidechain
26	BB	1514	G	Sidechain
26	BB	1515	A	Sidechain
26	BB	1519	G	Sidechain
26	BB	1521	G	Sidechain
26	BB	1523	U	Sidechain
26	BB	1532	A	Sidechain
26	BB	1535	A	Sidechain
26	BB	1537	G	Sidechain
26	BB	1542	U	Sidechain
26	BB	1544	A	Sidechain
26	BB	1548	A	Sidechain
26	BB	1549	A	Sidechain
26	BB	1550	C	Sidechain
26	BB	1551	A	Sidechain
26	BB	1553	A	Sidechain
26	BB	1554	U	Sidechain
26	BB	1555	G	Sidechain
26	BB	1561	C	Sidechain
26	BB	1564	C	Sidechain
26	BB	1565	C	Sidechain
26	BB	1567	G	Sidechain
26	BB	1568	G	Sidechain
26	BB	1574	C	Sidechain
26	BB	1577	C	Sidechain
26	BB	1581	G	Sidechain
26	BB	1585	C	Sidechain
26	BB	1587	G	Sidechain
26	BB	1588	G	Sidechain
26	BB	159	G	Sidechain
26	BB	1592	C	Sidechain
26	BB	1593	A	Sidechain
26	BB	1594	U	Sidechain
26	BB	1596	A	Sidechain
26	BB	160	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1601	G	Sidechain
26	BB	1603	A	Sidechain
26	BB	1605	C	Sidechain
26	BB	1607	C	Sidechain
26	BB	1608	A	Sidechain
26	BB	1609	A	Sidechain
26	BB	1616	A	Sidechain
26	BB	1619	G	Sidechain
26	BB	1620	G	Sidechain
26	BB	1626	A	Sidechain
26	BB	1631	G	Sidechain
26	BB	1632	A	Sidechain
26	BB	1633	G	Sidechain
26	BB	164	C	Sidechain
26	BB	1641	A	Sidechain
26	BB	1644	C	Sidechain
26	BB	1645	G	Sidechain
26	BB	1646	C	Sidechain
26	BB	1652	A	Sidechain
26	BB	1653	G	Sidechain
26	BB	1658	C	Sidechain
26	BB	1660	G	Sidechain
26	BB	1664	A	Sidechain
26	BB	1665	A	Sidechain
26	BB	1667	G	Sidechain
26	BB	1671	U	Sidechain
26	BB	1673	G	Sidechain
26	BB	1680	U	Sidechain
26	BB	1681	G	Sidechain
26	BB	1687	G	Sidechain
26	BB	1689	A	Sidechain
26	BB	1690	A	Sidechain
26	BB	1693	U	Sidechain
26	BB	1695	G	Sidechain
26	BB	17	G	Sidechain
26	BB	1701	A	Sidechain
26	BB	1702	G	Sidechain
26	BB	1706	C	Sidechain
26	BB	1710	G	Sidechain
26	BB	1711	A	Sidechain
26	BB	1715	G	Sidechain
26	BB	172	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1720	U	Sidechain
26	BB	1721	G	Sidechain
26	BB	1722	A	Sidechain
26	BB	1723	G	Sidechain
26	BB	1724	G	Sidechain
26	BB	1726	C	Sidechain
26	BB	1731	G	Sidechain
26	BB	1733	G	Sidechain
26	BB	1734	G	Sidechain
26	BB	1736	U	Sidechain
26	BB	1738	G	Sidechain
26	BB	1739	A	Sidechain
26	BB	1740	G	Sidechain
26	BB	1741	C	Sidechain
26	BB	1742	U	Sidechain
26	BB	1744	A	Sidechain
26	BB	1745	A	Sidechain
26	BB	1750	G	Sidechain
26	BB	1752	C	Sidechain
26	BB	1754	A	Sidechain
26	BB	1757	A	Sidechain
26	BB	1759	A	Sidechain
26	BB	176	A	Sidechain
26	BB	1762	A	Sidechain
26	BB	1772	A	Sidechain
26	BB	1773	A	Sidechain
26	BB	1777	U	Sidechain
26	BB	1779	U	Sidechain
26	BB	1780	A	Sidechain
26	BB	1784	A	Sidechain
26	BB	1788	C	Sidechain
26	BB	1791	A	Sidechain
26	BB	1792	G	Sidechain
26	BB	1798	U	Sidechain
26	BB	18	U	Sidechain
26	BB	180	G	Sidechain
26	BB	1802	A	Sidechain
26	BB	1809	A	Sidechain
26	BB	181	A	Sidechain
26	BB	1811	G	Sidechain
26	BB	1812	U	Sidechain
26	BB	1814	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1819	A	Sidechain
26	BB	1822	C	Sidechain
26	BB	1825	U	Sidechain
26	BB	183	C	Sidechain
26	BB	1831	G	Sidechain
26	BB	1834	U	Sidechain
26	BB	1837	C	Sidechain
26	BB	1839	G	Sidechain
26	BB	184	C	Sidechain
26	BB	1841	U	Sidechain
26	BB	1846	G	Sidechain
26	BB	1847	A	Sidechain
26	BB	1848	A	Sidechain
26	BB	1850	G	Sidechain
26	BB	1852	U	Sidechain
26	BB	1854	A	Sidechain
26	BB	1855	U	Sidechain
26	BB	1856	U	Sidechain
26	BB	1857	G	Sidechain
26	BB	1858	A	Sidechain
26	BB	1862	G	Sidechain
26	BB	1863	G	Sidechain
26	BB	1865	U	Sidechain
26	BB	1869	G	Sidechain
26	BB	1870	C	Sidechain
26	BB	1871	A	Sidechain
26	BB	1875	G	Sidechain
26	BB	1878	G	Sidechain
26	BB	1885	A	Sidechain
26	BB	1886	U	Sidechain
26	BB	1887	C	Sidechain
26	BB	1888	G	Sidechain
26	BB	189	G	Sidechain
26	BB	1893	C	Sidechain
26	BB	1898	U	Sidechain
26	BB	190	A	Sidechain
26	BB	1901	A	Sidechain
26	BB	1906	G	Sidechain
26	BB	1907	G	Sidechain
26	BB	1909	C	Sidechain
26	BB	1919	A	Sidechain
26	BB	192	C	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	1920	C	Sidechain
26	BB	1924	C	Sidechain
26	BB	1925	C	Sidechain
26	BB	1926	U	Sidechain
26	BB	1927	A	Sidechain
26	BB	1928	A	Sidechain
26	BB	1929	G	Sidechain
26	BB	1930	G	Sidechain
26	BB	1938	A	Sidechain
26	BB	194	G	Sidechain
26	BB	1940	U	Sidechain
26	BB	195	A	Sidechain
26	BB	1961	C	Sidechain
26	BB	1965	C	Sidechain
26	BB	1966	A	Sidechain
26	BB	1968	G	Sidechain
26	BB	1969	A	Sidechain
26	BB	1970	A	Sidechain
26	BB	1973	G	Sidechain
26	BB	1976	U	Sidechain
26	BB	1977	A	Sidechain
26	BB	1978	A	Sidechain
26	BB	1979	U	Sidechain
26	BB	1995	U	Sidechain
26	BB	1997	C	Sidechain
26	BB	1998	A	Sidechain
26	BB	2001	C	Sidechain
26	BB	2004	G	Sidechain
26	BB	2008	C	Sidechain
26	BB	2012	G	Sidechain
26	BB	2013	A	Sidechain
26	BB	202	U	Sidechain
26	BB	2020	A	Sidechain
26	BB	2021	C	Sidechain
26	BB	2022	U	Sidechain
26	BB	2029	G	Sidechain
26	BB	2031	A	Sidechain
26	BB	2032	G	Sidechain
26	BB	2033	A	Sidechain
26	BB	2034	U	Sidechain
26	BB	204	A	Sidechain
26	BB	2040	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2046	G	Sidechain
26	BB	2048	G	Sidechain
26	BB	2050	C	Sidechain
26	BB	2053	G	Sidechain
26	BB	2054	A	Sidechain
26	BB	2055	C	Sidechain
26	BB	2058	A	Sidechain
26	BB	2059	A	Sidechain
26	BB	206	U	Sidechain
26	BB	2060	A	Sidechain
26	BB	2061	G	Sidechain
26	BB	2062	A	Sidechain
26	BB	2068	U	Sidechain
26	BB	207	A	Sidechain
26	BB	2077	A	Sidechain
26	BB	2079	U	Sidechain
26	BB	208	C	Sidechain
26	BB	2081	U	Sidechain
26	BB	2092	U	Sidechain
26	BB	21	A	Sidechain
26	BB	2107	G	Sidechain
26	BB	2109	U	Sidechain
26	BB	2112	G	Sidechain
26	BB	2113	U	Sidechain
26	BB	2115	G	Sidechain
26	BB	2117	A	Sidechain
26	BB	2118	U	Sidechain
26	BB	2121	G	Sidechain
26	BB	2123	G	Sidechain
26	BB	2126	A	Sidechain
26	BB	2127	G	Sidechain
26	BB	214	G	Sidechain
26	BB	2141	G	Sidechain
26	BB	2143	C	Sidechain
26	BB	2145	C	Sidechain
26	BB	2147	A	Sidechain
26	BB	2148	G	Sidechain
26	BB	2149	U	Sidechain
26	BB	215	G	Sidechain
26	BB	2152	G	Sidechain
26	BB	2155	U	Sidechain
26	BB	2158	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	216	A	Sidechain
26	BB	2160	C	Sidechain
26	BB	2161	C	Sidechain
26	BB	2162	G	Sidechain
26	BB	2168	G	Sidechain
26	BB	2170	A	Sidechain
26	BB	2178	C	Sidechain
26	BB	2179	C	Sidechain
26	BB	2180	U	Sidechain
26	BB	2183	A	Sidechain
26	BB	2185	U	Sidechain
26	BB	2187	U	Sidechain
26	BB	219	A	Sidechain
26	BB	2193	G	Sidechain
26	BB	2196	C	Sidechain
26	BB	2198	A	Sidechain
26	BB	220	G	Sidechain
26	BB	2205	A	Sidechain
26	BB	2206	C	Sidechain
26	BB	2208	C	Sidechain
26	BB	2216	G	Sidechain
26	BB	2218	G	Sidechain
26	BB	222	A	Sidechain
26	BB	2220	U	Sidechain
26	BB	2221	G	Sidechain
26	BB	2224	G	Sidechain
26	BB	2228	G	Sidechain
26	BB	2233	U	Sidechain
26	BB	2234	G	Sidechain
26	BB	2238	G	Sidechain
26	BB	2239	G	Sidechain
26	BB	2246	G	Sidechain
26	BB	2249	U	Sidechain
26	BB	2250	G	Sidechain
26	BB	2254	C	Sidechain
26	BB	2258	C	Sidechain
26	BB	2259	U	Sidechain
26	BB	226	A	Sidechain
26	BB	2262	U	Sidechain
26	BB	2268	A	Sidechain
26	BB	2269	G	Sidechain
26	BB	227	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2273	A	Sidechain
26	BB	2274	A	Sidechain
26	BB	2275	C	Sidechain
26	BB	2276	G	Sidechain
26	BB	2277	G	Sidechain
26	BB	228	C	Sidechain
26	BB	2282	G	Sidechain
26	BB	2284	A	Sidechain
26	BB	2285	C	Sidechain
26	BB	2287	A	Sidechain
26	BB	2288	A	Sidechain
26	BB	23	G	Sidechain
26	BB	2305	U	Sidechain
26	BB	2306	C	Sidechain
26	BB	2307	G	Sidechain
26	BB	2308	G	Sidechain
26	BB	2310	C	Sidechain
26	BB	2311	A	Sidechain
26	BB	2312	U	Sidechain
26	BB	2314	A	Sidechain
26	BB	2317	A	Sidechain
26	BB	2318	G	Sidechain
26	BB	2323	G	Sidechain
26	BB	2324	U	Sidechain
26	BB	2325	G	Sidechain
26	BB	2326	C	Sidechain
26	BB	2328	A	Sidechain
26	BB	2330	G	Sidechain
26	BB	2331	G	Sidechain
26	BB	2333	A	Sidechain
26	BB	2335	A	Sidechain
26	BB	234	U	Sidechain
26	BB	2340	A	Sidechain
26	BB	2344	U	Sidechain
26	BB	2345	G	Sidechain
26	BB	2348	U	Sidechain
26	BB	2357	G	Sidechain
26	BB	236	C	Sidechain
26	BB	2362	C	Sidechain
26	BB	2365	G	Sidechain
26	BB	2369	A	Sidechain
26	BB	2375	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2376	A	Sidechain
26	BB	2380	C	Sidechain
26	BB	2383	G	Sidechain
26	BB	2384	U	Sidechain
26	BB	2386	A	Sidechain
26	BB	2388	A	Sidechain
26	BB	2389	G	Sidechain
26	BB	2391	G	Sidechain
26	BB	2392	A	Sidechain
26	BB	2394	C	Sidechain
26	BB	2401	U	Sidechain
26	BB	2402	U	Sidechain
26	BB	2403	C	Sidechain
26	BB	2405	G	Sidechain
26	BB	2407	A	Sidechain
26	BB	2408	U	Sidechain
26	BB	241	A	Sidechain
26	BB	2411	A	Sidechain
26	BB	2414	G	Sidechain
26	BB	2416	C	Sidechain
26	BB	2418	A	Sidechain
26	BB	242	G	Sidechain
26	BB	2420	C	Sidechain
26	BB	2421	G	Sidechain
26	BB	2424	C	Sidechain
26	BB	2427	C	Sidechain
26	BB	2429	G	Sidechain
26	BB	2430	A	Sidechain
26	BB	2434	A	Sidechain
26	BB	2438	U	Sidechain
26	BB	2442	C	Sidechain
26	BB	2458	G	Sidechain
26	BB	2459	A	Sidechain
26	BB	2460	U	Sidechain
26	BB	2465	C	Sidechain
26	BB	2468	A	Sidechain
26	BB	2469	A	Sidechain
26	BB	2471	A	Sidechain
26	BB	2472	G	Sidechain
26	BB	2476	A	Sidechain
26	BB	2480	C	Sidechain
26	BB	2488	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2489	U	Sidechain
26	BB	249	C	Sidechain
26	BB	2491	U	Sidechain
26	BB	2492	U	Sidechain
26	BB	2496	C	Sidechain
26	BB	250	G	Sidechain
26	BB	2500	U	Sidechain
26	BB	2502	G	Sidechain
26	BB	2509	G	Sidechain
26	BB	251	A	Sidechain
26	BB	2510	C	Sidechain
26	BB	2515	C	Sidechain
26	BB	2517	C	Sidechain
26	BB	2518	A	Sidechain
26	BB	2519	U	Sidechain
26	BB	2520	C	Sidechain
26	BB	2521	C	Sidechain
26	BB	2522	U	Sidechain
26	BB	2526	G	Sidechain
26	BB	2529	G	Sidechain
26	BB	2531	A	Sidechain
26	BB	2533	U	Sidechain
26	BB	2534	A	Sidechain
26	BB	2536	G	Sidechain
26	BB	2538	C	Sidechain
26	BB	2539	C	Sidechain
26	BB	254	G	Sidechain
26	BB	2547	A	Sidechain
26	BB	2550	G	Sidechain
26	BB	2553	G	Sidechain
26	BB	2554	U	Sidechain
26	BB	2557	G	Sidechain
26	BB	2561	U	Sidechain
26	BB	2565	A	Sidechain
26	BB	2569	G	Sidechain
26	BB	2570	G	Sidechain
26	BB	2574	G	Sidechain
26	BB	258	G	Sidechain
26	BB	2582	G	Sidechain
26	BB	2588	G	Sidechain
26	BB	2589	A	Sidechain
26	BB	259	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2592	G	Sidechain
26	BB	2595	G	Sidechain
26	BB	2599	G	Sidechain
26	BB	2602	A	Sidechain
26	BB	261	G	Sidechain
26	BB	2610	C	Sidechain
26	BB	2611	C	Sidechain
26	BB	262	A	Sidechain
26	BB	2621	G	Sidechain
26	BB	2624	G	Sidechain
26	BB	2625	G	Sidechain
26	BB	2627	G	Sidechain
26	BB	2633	G	Sidechain
26	BB	2637	U	Sidechain
26	BB	2638	G	Sidechain
26	BB	2640	G	Sidechain
26	BB	2643	G	Sidechain
26	BB	2644	G	Sidechain
26	BB	2645	G	Sidechain
26	BB	265	A	Sidechain
26	BB	2655	G	Sidechain
26	BB	2656	U	Sidechain
26	BB	2658	C	Sidechain
26	BB	2659	G	Sidechain
26	BB	266	G	Sidechain
26	BB	2661	G	Sidechain
26	BB	2662	A	Sidechain
26	BB	2663	G	Sidechain
26	BB	2664	G	Sidechain
26	BB	268	C	Sidechain
26	BB	2680	U	Sidechain
26	BB	2681	C	Sidechain
26	BB	2684	U	Sidechain
26	BB	2685	G	Sidechain
26	BB	2686	G	Sidechain
26	BB	2688	G	Sidechain
26	BB	2694	G	Sidechain
26	BB	2696	U	Sidechain
26	BB	27	G	Sidechain
26	BB	2701	U	Sidechain
26	BB	2706	A	Sidechain
26	BB	271	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2711	A	Sidechain
26	BB	2720	U	Sidechain
26	BB	2722	G	Sidechain
26	BB	2725	A	Sidechain
26	BB	2727	A	Sidechain
26	BB	2731	G	Sidechain
26	BB	2732	G	Sidechain
26	BB	2737	G	Sidechain
26	BB	2739	U	Sidechain
26	BB	2740	A	Sidechain
26	BB	2743	U	Sidechain
26	BB	2744	G	Sidechain
26	BB	2751	G	Sidechain
26	BB	2753	A	Sidechain
26	BB	2755	C	Sidechain
26	BB	2759	G	Sidechain
26	BB	276	U	Sidechain
26	BB	2763	G	Sidechain
26	BB	2764	A	Sidechain
26	BB	2765	A	Sidechain
26	BB	2774	C	Sidechain
26	BB	2783	U	Sidechain
26	BB	2787	C	Sidechain
26	BB	2791	G	Sidechain
26	BB	2792	A	Sidechain
26	BB	2796	U	Sidechain
26	BB	2797	U	Sidechain
26	BB	2799	A	Sidechain
26	BB	2807	U	Sidechain
26	BB	2808	G	Sidechain
26	BB	2809	A	Sidechain
26	BB	281	C	Sidechain
26	BB	2810	A	Sidechain
26	BB	2813	A	Sidechain
26	BB	2815	C	Sidechain
26	BB	2819	G	Sidechain
26	BB	2822	G	Sidechain
26	BB	2833	U	Sidechain
26	BB	2838	G	Sidechain
26	BB	284	U	Sidechain
26	BB	2843	G	Sidechain
26	BB	2849	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	2854	G	Sidechain
26	BB	2856	A	Sidechain
26	BB	2857	G	Sidechain
26	BB	2859	G	Sidechain
26	BB	2861	U	Sidechain
26	BB	2864	G	Sidechain
26	BB	2866	U	Sidechain
26	BB	2868	A	Sidechain
26	BB	2872	A	Sidechain
26	BB	2881	U	Sidechain
26	BB	2882	A	Sidechain
26	BB	2884	U	Sidechain
26	BB	2889	C	Sidechain
26	BB	2890	G	Sidechain
26	BB	2892	G	Sidechain
26	BB	2894	G	Sidechain
26	BB	2895	G	Sidechain
26	BB	291	G	Sidechain
26	BB	294	A	Sidechain
26	BB	295	G	Sidechain
26	BB	299	A	Sidechain
26	BB	300	A	Sidechain
26	BB	301	G	Sidechain
26	BB	303	G	Sidechain
26	BB	306	U	Sidechain
26	BB	308	G	Sidechain
26	BB	31	C	Sidechain
26	BB	311	A	Sidechain
26	BB	312	G	Sidechain
26	BB	313	G	Sidechain
26	BB	315	G	Sidechain
26	BB	319	G	Sidechain
26	BB	320	A	Sidechain
26	BB	321	U	Sidechain
26	BB	324	A	Sidechain
26	BB	325	G	Sidechain
26	BB	327	G	Sidechain
26	BB	329	G	Sidechain
26	BB	330	A	Sidechain
26	BB	332	A	Sidechain
26	BB	339	U	Sidechain
26	BB	340	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	344	A	Sidechain
26	BB	346	A	Sidechain
26	BB	347	A	Sidechain
26	BB	356	G	Sidechain
26	BB	361	G	Sidechain
26	BB	364	C	Sidechain
26	BB	365	U	Sidechain
26	BB	367	G	Sidechain
26	BB	371	A	Sidechain
26	BB	378	C	Sidechain
26	BB	384	A	Sidechain
26	BB	385	C	Sidechain
26	BB	388	G	Sidechain
26	BB	39	G	Sidechain
26	BB	392	U	Sidechain
26	BB	399	U	Sidechain
26	BB	401	A	Sidechain
26	BB	402	A	Sidechain
26	BB	403	U	Sidechain
26	BB	405	U	Sidechain
26	BB	406	G	Sidechain
26	BB	407	G	Sidechain
26	BB	413	C	Sidechain
26	BB	420	C	Sidechain
26	BB	422	A	Sidechain
26	BB	424	G	Sidechain
26	BB	427	U	Sidechain
26	BB	428	A	Sidechain
26	BB	429	A	Sidechain
26	BB	43	G	Sidechain
26	BB	430	A	Sidechain
26	BB	432	A	Sidechain
26	BB	436	C	Sidechain
26	BB	44	A	Sidechain
26	BB	442	G	Sidechain
26	BB	443	A	Sidechain
26	BB	446	G	Sidechain
26	BB	447	A	Sidechain
26	BB	448	U	Sidechain
26	BB	449	A	Sidechain
26	BB	450	G	Sidechain
26	BB	457	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	459	U	Sidechain
26	BB	460	A	Sidechain
26	BB	463	G	Sidechain
26	BB	464	U	Sidechain
26	BB	467	G	Sidechain
26	BB	470	A	Sidechain
26	BB	473	G	Sidechain
26	BB	477	A	Sidechain
26	BB	478	A	Sidechain
26	BB	481	G	Sidechain
26	BB	483	A	Sidechain
26	BB	487	C	Sidechain
26	BB	492	A	Sidechain
26	BB	493	G	Sidechain
26	BB	494	G	Sidechain
26	BB	498	G	Sidechain
26	BB	499	U	Sidechain
26	BB	501	A	Sidechain
26	BB	51	G	Sidechain
26	BB	511	U	Sidechain
26	BB	513	A	Sidechain
26	BB	516	C	Sidechain
26	BB	520	G	Sidechain
26	BB	523	C	Sidechain
26	BB	527	C	Sidechain
26	BB	535	G	Sidechain
26	BB	539	G	Sidechain
26	BB	540	C	Sidechain
26	BB	545	U	Sidechain
26	BB	549	G	Sidechain
26	BB	550	C	Sidechain
26	BB	551	G	Sidechain
26	BB	572	A	Sidechain
26	BB	577	G	Sidechain
26	BB	582	A	Sidechain
26	BB	585	G	Sidechain
26	BB	586	A	Sidechain
26	BB	587	C	Sidechain
26	BB	588	U	Sidechain
26	BB	590	A	Sidechain
26	BB	594	U	Sidechain
26	BB	598	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	603	A	Sidechain
26	BB	604	G	Sidechain
26	BB	608	A	Sidechain
26	BB	610	C	Sidechain
26	BB	611	C	Sidechain
26	BB	612	G	Sidechain
26	BB	618	G	Sidechain
26	BB	619	G	Sidechain
26	BB	62	U	Sidechain
26	BB	63	A	Sidechain
26	BB	630	G	Sidechain
26	BB	631	A	Sidechain
26	BB	632	A	Sidechain
26	BB	634	C	Sidechain
26	BB	635	C	Sidechain
26	BB	637	A	Sidechain
26	BB	638	G	Sidechain
26	BB	642	U	Sidechain
26	BB	643	A	Sidechain
26	BB	644	A	Sidechain
26	BB	653	U	Sidechain
26	BB	655	A	Sidechain
26	BB	658	U	Sidechain
26	BB	659	G	Sidechain
26	BB	66	C	Sidechain
26	BB	662	G	Sidechain
26	BB	666	A	Sidechain
26	BB	669	G	Sidechain
26	BB	674	G	Sidechain
26	BB	675	A	Sidechain
26	BB	676	A	Sidechain
26	BB	678	C	Sidechain
26	BB	68	G	Sidechain
26	BB	685	A	Sidechain
26	BB	687	C	Sidechain
26	BB	692	C	Sidechain
26	BB	697	G	Sidechain
26	BB	7	G	Sidechain
26	BB	700	G	Sidechain
26	BB	71	A	Sidechain
26	BB	714	U	Sidechain
26	BB	715	A	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	716	A	Sidechain
26	BB	717	C	Sidechain
26	BB	72	U	Sidechain
26	BB	721	A	Sidechain
26	BB	726	G	Sidechain
26	BB	727	A	Sidechain
26	BB	731	C	Sidechain
26	BB	732	C	Sidechain
26	BB	738	G	Sidechain
26	BB	74	A	Sidechain
26	BB	741	U	Sidechain
26	BB	744	U	Sidechain
26	BB	75	G	Sidechain
26	BB	750	A	Sidechain
26	BB	751	A	Sidechain
26	BB	753	A	Sidechain
26	BB	757	G	Sidechain
26	BB	758	C	Sidechain
26	BB	761	A	Sidechain
26	BB	764	A	Sidechain
26	BB	765	C	Sidechain
26	BB	767	U	Sidechain
26	BB	775	G	Sidechain
26	BB	778	G	Sidechain
26	BB	780	G	Sidechain
26	BB	782	A	Sidechain
26	BB	783	A	Sidechain
26	BB	789	A	Sidechain
26	BB	794	A	Sidechain
26	BB	800	A	Sidechain
26	BB	801	G	Sidechain
26	BB	802	A	Sidechain
26	BB	803	U	Sidechain
26	BB	807	U	Sidechain
26	BB	81	G	Sidechain
26	BB	810	U	Sidechain
26	BB	811	U	Sidechain
26	BB	813	U	Sidechain
26	BB	814	C	Sidechain
26	BB	816	C	Sidechain
26	BB	817	C	Sidechain
26	BB	82	U	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	820	A	Sidechain
26	BB	822	G	Sidechain
26	BB	83	A	Sidechain
26	BB	834	G	Sidechain
26	BB	836	G	Sidechain
26	BB	837	C	Sidechain
26	BB	841	G	Sidechain
26	BB	843	G	Sidechain
26	BB	844	A	Sidechain
26	BB	845	A	Sidechain
26	BB	848	C	Sidechain
26	BB	85	G	Sidechain
26	BB	850	U	Sidechain
26	BB	855	G	Sidechain
26	BB	856	G	Sidechain
26	BB	857	G	Sidechain
26	BB	858	G	Sidechain
26	BB	863	A	Sidechain
26	BB	864	G	Sidechain
26	BB	866	A	Sidechain
26	BB	867	C	Sidechain
26	BB	868	U	Sidechain
26	BB	870	U	Sidechain
26	BB	871	U	Sidechain
26	BB	872	U	Sidechain
26	BB	88	G	Sidechain
26	BB	881	G	Sidechain
26	BB	882	G	Sidechain
26	BB	887	U	Sidechain
26	BB	888	C	Sidechain
26	BB	897	C	Sidechain
26	BB	899	A	Sidechain
26	BB	903	C	Sidechain
26	BB	904	G	Sidechain
26	BB	910	A	Sidechain
26	BB	911	A	Sidechain
26	BB	912	C	Sidechain
26	BB	913	U	Sidechain
26	BB	914	G	Sidechain
26	BB	918	A	Sidechain
26	BB	921	C	Sidechain
26	BB	924	G	Sidechain

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Mol	Chain	Res	Type	Group
26	BB	925	A	Sidechain
26	BB	926	G	Sidechain
26	BB	930	G	Sidechain
26	BB	933	A	Sidechain
26	BB	936	A	Sidechain
26	BB	941	A	Sidechain
26	BB	945	A	Sidechain
26	BB	947	A	Sidechain
26	BB	949	G	Sidechain
26	BB	95	A	Sidechain
26	BB	950	G	Sidechain
26	BB	954	G	Sidechain
26	BB	959	A	Sidechain
26	BB	960	A	Sidechain
26	BB	961	C	Sidechain
26	BB	962	G	Sidechain
26	BB	966	G	Sidechain
26	BB	974	G	Sidechain
26	BB	976	G	Sidechain
26	BB	978	G	Sidechain
26	BB	979	A	Sidechain
26	BB	980	A	Sidechain
26	BB	982	C	Sidechain
26	BB	983	A	Sidechain
26	BB	99	U	Sidechain
26	BB	993	G	Sidechain
27	BC	161	VAL	Mainchain
27	BC	43	ASP	Peptide
27	BC	99	ASP	Mainchain
28	BD	216	ARG	Sidechain
28	BD	270	ARG	Sidechain
29	BE	118	PHE	Sidechain
29	BE	45	TYR	Sidechain
30	BF	69	ARG	Peptide
30	BF	77	ILE	Peptide
32	BH	114	HIS	Peptide
32	BH	61	TRP	Mainchain
33	BI	117	LEU	Peptide
41	BQ	4	ILE	Peptide
42	BR	4	LYS	Peptide
43	BS	99	THR	Mainchain
48	BX	3	LYS	Peptide

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Mol	Chain	Res	Type	Group
49	BY	77	TYR	Sidechain
53	Bc	36	LYS	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	33089	0	16678	0	0
2	AB	1635	0	849	0	0
2	AE	1635	0	849	0	0
3	AC	3036	0	3052	0	0
4	AD	495	0	249	0	0
5	AF	1872	0	1885	0	0
6	AG	1822	0	1913	0	0
7	AH	1643	0	1710	0	0
8	AI	1225	0	1273	0	0
9	AJ	1101	0	1050	0	0
10	AK	1400	0	1449	0	0
11	AL	979	0	1034	0	0
12	AM	1036	0	1084	0	0
13	AN	825	0	865	0	0
14	AO	965	0	997	0	0
15	AP	955	0	1019	0	0
16	AQ	910	0	981	0	0
17	AR	805	0	847	0	0
18	AS	716	0	742	0	0
19	AT	649	0	666	0	0
20	AU	672	0	716	0	0
21	AV	626	0	651	0	0
22	AW	727	0	769	0	0
23	AX	670	0	722	0	0
24	AY	590	0	631	0	0
25	BA	2566	0	1302	0	0
26	BB	62351	0	31387	0	0
27	BC	1733	0	1824	0	0
28	BD	2092	0	2170	0	0
29	BE	1565	0	1616	0	0
30	BF	1552	0	1619	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
31	BG	1420	0	1460	0	0
32	BH	1323	0	1374	0	0
33	BI	1111	0	1148	0	0
34	BJ	1032	0	1088	0	0
35	BK	1129	0	1162	0	0
36	BL	947	0	1023	0	0
37	BM	1053	0	1129	0	0
38	BN	1074	0	1157	0	0
39	BO	1008	0	1045	0	0
40	BP	900	0	935	0	0
41	BQ	917	0	965	0	0
42	BR	947	0	1022	0	0
43	BS	816	0	839	0	0
44	BT	857	0	922	0	0
45	BU	787	0	846	0	0
46	BV	789	0	847	0	0
47	BW	753	0	780	0	0
48	BX	634	0	656	0	0
49	BY	625	0	655	0	0
50	BZ	509	0	543	0	0
51	Ba	449	0	491	0	0
52	Bb	549	0	552	0	0
53	Bc	444	0	461	0	0
54	Bd	441	0	485	0	0
55	Be	377	0	418	0	0
56	Bf	504	0	574	0	0
57	Bg	302	0	343	0	0
All	All	153634	0	105519	0	0

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

There are no clashes within the asymmetric unit.

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
3	AC	391/393 (100%)	367 (94%)	21 (5%)	3 (1%)	19 60
5	AF	238/241 (99%)	215 (90%)	21 (9%)	2 (1%)	19 60
6	AG	230/233 (99%)	210 (91%)	18 (8%)	2 (1%)	17 57
7	AH	203/206 (98%)	189 (93%)	12 (6%)	2 (1%)	15 55
8	AI	164/167 (98%)	143 (87%)	18 (11%)	3 (2%)	8 40
9	AJ	133/135 (98%)	128 (96%)	3 (2%)	2 (2%)	10 46
10	AK	176/179 (98%)	159 (90%)	15 (8%)	2 (1%)	14 52
11	AL	127/130 (98%)	117 (92%)	8 (6%)	2 (2%)	9 44
12	AM	127/130 (98%)	111 (87%)	14 (11%)	2 (2%)	9 44
13	AN	101/103 (98%)	86 (85%)	11 (11%)	4 (4%)	3 23
14	AO	126/129 (98%)	113 (90%)	11 (9%)	2 (2%)	9 44
15	AP	121/124 (98%)	103 (85%)	13 (11%)	5 (4%)	3 23
16	AQ	115/118 (98%)	108 (94%)	7 (6%)	0	100 100
17	AR	98/101 (97%)	82 (84%)	9 (9%)	7 (7%)	1 14
18	AS	86/89 (97%)	83 (96%)	3 (4%)	0	100 100
19	AT	80/82 (98%)	78 (98%)	2 (2%)	0	100 100
20	AU	81/84 (96%)	73 (90%)	8 (10%)	0	100 100
21	AV	72/75 (96%)	65 (90%)	6 (8%)	1 (1%)	11 46
22	AW	89/92 (97%)	81 (91%)	8 (9%)	0	100 100
23	AX	84/87 (97%)	77 (92%)	7 (8%)	0	100 100
24	AY	68/71 (96%)	62 (91%)	5 (7%)	1 (2%)	10 46
27	BC	232/234 (99%)	204 (88%)	25 (11%)	3 (1%)	12 48
28	BD	270/273 (99%)	239 (88%)	22 (8%)	9 (3%)	4 26
29	BE	207/209 (99%)	186 (90%)	15 (7%)	6 (3%)	4 29
30	BF	199/201 (99%)	182 (92%)	14 (7%)	3 (2%)	10 46
31	BG	176/179 (98%)	148 (84%)	25 (14%)	3 (2%)	9 42
32	BH	174/177 (98%)	162 (93%)	9 (5%)	3 (2%)	9 42
33	BI	147/149 (99%)	126 (86%)	16 (11%)	5 (3%)	3 26
34	BJ	139/142 (98%)	121 (87%)	17 (12%)	1 (1%)	22 63
35	BK	140/142 (99%)	131 (94%)	9 (6%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
36	BL	121/123 (98%)	107 (88%)	12 (10%)	2 (2%)	9 42
37	BM	142/144 (99%)	124 (87%)	16 (11%)	2 (1%)	11 46
38	BN	134/136 (98%)	122 (91%)	9 (7%)	3 (2%)	6 35
39	BO	125/127 (98%)	116 (93%)	8 (6%)	1 (1%)	19 60
40	BP	115/117 (98%)	106 (92%)	8 (7%)	1 (1%)	17 57
41	BQ	112/115 (97%)	99 (88%)	11 (10%)	2 (2%)	8 40
42	BR	115/118 (98%)	109 (95%)	5 (4%)	1 (1%)	17 57
43	BS	101/103 (98%)	91 (90%)	7 (7%)	3 (3%)	4 28
44	BT	108/110 (98%)	98 (91%)	9 (8%)	1 (1%)	17 57
45	BU	98/100 (98%)	86 (88%)	11 (11%)	1 (1%)	15 55
46	BV	101/104 (97%)	90 (89%)	10 (10%)	1 (1%)	15 55
47	BW	92/94 (98%)	85 (92%)	5 (5%)	2 (2%)	6 35
48	BX	82/85 (96%)	68 (83%)	11 (13%)	3 (4%)	3 24
49	BY	75/78 (96%)	64 (85%)	9 (12%)	2 (3%)	5 31
50	BZ	61/63 (97%)	49 (80%)	9 (15%)	3 (5%)	2 20
51	Ba	56/59 (95%)	53 (95%)	2 (4%)	1 (2%)	8 40
52	Bb	68/70 (97%)	57 (84%)	10 (15%)	1 (2%)	10 46
53	Bc	54/57 (95%)	46 (85%)	6 (11%)	2 (4%)	3 24
54	Bd	52/55 (94%)	45 (86%)	7 (14%)	0	100 100
55	Be	44/46 (96%)	40 (91%)	4 (9%)	0	100 100
56	Bf	62/65 (95%)	59 (95%)	3 (5%)	0	100 100
57	Bg	36/38 (95%)	32 (89%)	3 (8%)	1 (3%)	5 30
All	All	6548/6682 (98%)	5895 (90%)	547 (8%)	106 (2%)	13 44

All (106) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
7	AH	18	LEU
12	AM	3	ASN
13	AN	74	VAL
14	AO	118	ASN
15	AP	86	VAL
17	AR	70	HIS
24	AY	3	ILE

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Mol	Chain	Res	Type
28	BD	260	LYS
29	BE	43	ASP
29	BE	122	VAL
29	BE	150	GLN
29	BE	170	VAL
38	BN	36	VAL
40	BP	68	LYS
43	BS	91	GLN
46	BV	6	ARG
48	BX	9	THR
53	Bc	26	SER
3	AC	21	ASP
3	AC	60	ILE
5	AF	41	ASN
8	AI	77	ASN
10	AK	55	LYS
13	AN	90	LEU
14	AO	74	LYS
17	AR	37	ASP
27	BC	217	THR
27	BC	229	LEU
28	BD	119	VAL
28	BD	237	ARG
33	BI	23	ALA
37	BM	36	LYS
42	BR	104	ALA
48	BX	72	GLY
49	BY	27	ARG
49	BY	62	GLY
50	BZ	46	VAL
51	Ba	9	THR
53	Bc	39	ARG
5	AF	132	GLU
8	AI	43	GLY
8	AI	162	GLU
10	AK	116	ALA
15	AP	24	GLU
15	AP	75	GLU
17	AR	73	LEU
28	BD	193	GLU
28	BD	240	GLY
29	BE	137	SER

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Mol	Chain	Res	Type
30	BF	62	GLN
31	BG	148	VAL
32	BH	50	THR
32	BH	164	ALA
36	BL	70	ARG
43	BS	53	PHE
43	BS	80	ARG
47	BW	85	LYS
50	BZ	23	ARG
57	Bg	4	ARG
9	AJ	92	THR
12	AM	13	SER
17	AR	32	ASP
17	AR	35	ALA
17	AR	61	ASN
28	BD	140	VAL
28	BD	190	THR
28	BD	263	ASP
29	BE	41	ALA
30	BF	66	GLY
36	BL	3	GLN
39	BO	81	ASN
45	BU	69	ARG
3	AC	9	LYS
6	AG	14	VAL
9	AJ	100	SER
13	AN	42	LEU
15	AP	21	PRO
15	AP	43	LYS
31	BG	132	ARG
32	BH	8	VAL
38	BN	106	ASP
50	BZ	17	GLU
6	AG	8	GLY
21	AV	3	TYR
28	BD	141	HIS
30	BF	71	GLY
33	BI	28	ASN
37	BM	20	GLY
38	BN	23	GLY
13	AN	57	VAL
27	BC	73	VAL

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Mol	Chain	Res	Type
31	BG	73	VAL
47	BW	65	VAL
11	AL	125	ILE
17	AR	30	ILE
33	BI	121	VAL
34	BJ	90	GLY
41	BQ	22	GLY
52	Bb	36	VAL
7	AH	27	ILE
11	AL	81	GLY
33	BI	118	PRO
41	BQ	32	VAL
44	BT	80	PRO
33	BI	94	ILE
48	BX	36	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
3	AC	326/326 (100%)	311 (95%)	15 (5%)	27 52
5	AF	198/199 (100%)	188 (95%)	10 (5%)	24 48
6	AG	189/190 (100%)	180 (95%)	9 (5%)	25 51
7	AH	172/173 (99%)	164 (95%)	8 (5%)	26 51
8	AI	125/126 (99%)	122 (98%)	3 (2%)	49 69
9	AJ	116/116 (100%)	104 (90%)	12 (10%)	7 25
10	AK	146/147 (99%)	136 (93%)	10 (7%)	16 41
11	AL	104/105 (99%)	99 (95%)	5 (5%)	25 51
12	AM	106/107 (99%)	98 (92%)	8 (8%)	13 38
13	AN	90/90 (100%)	85 (94%)	5 (6%)	21 46
14	AO	98/99 (99%)	95 (97%)	3 (3%)	40 62
15	AP	103/104 (99%)	98 (95%)	5 (5%)	25 50

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
16	AQ	95/96 (99%)	93 (98%)	2 (2%)	53	72
17	AR	83/84 (99%)	79 (95%)	4 (5%)	25	51
18	AS	76/77 (99%)	71 (93%)	5 (7%)	16	41
19	AT	65/65 (100%)	62 (95%)	3 (5%)	27	52
20	AU	77/78 (99%)	75 (97%)	2 (3%)	46	66
21	AV	64/65 (98%)	60 (94%)	4 (6%)	18	43
22	AW	78/79 (99%)	74 (95%)	4 (5%)	24	48
23	AX	65/66 (98%)	61 (94%)	4 (6%)	18	43
24	AY	60/61 (98%)	55 (92%)	5 (8%)	11	34
27	BC	181/181 (100%)	176 (97%)	5 (3%)	43	65
28	BD	217/218 (100%)	210 (97%)	7 (3%)	39	61
29	BE	164/164 (100%)	153 (93%)	11 (7%)	16	41
30	BF	165/165 (100%)	156 (94%)	9 (6%)	21	47
31	BG	149/150 (99%)	138 (93%)	11 (7%)	13	38
32	BH	137/138 (99%)	128 (93%)	9 (7%)	16	41
33	BI	114/114 (100%)	109 (96%)	5 (4%)	28	53
34	BJ	109/110 (99%)	104 (95%)	5 (5%)	27	52
35	BK	116/116 (100%)	110 (95%)	6 (5%)	23	48
36	BL	104/104 (100%)	96 (92%)	8 (8%)	13	37
37	BM	103/103 (100%)	97 (94%)	6 (6%)	20	45
38	BN	109/109 (100%)	101 (93%)	8 (7%)	14	39
39	BO	103/103 (100%)	97 (94%)	6 (6%)	20	45
40	BP	87/87 (100%)	82 (94%)	5 (6%)	20	45
41	BQ	99/100 (99%)	93 (94%)	6 (6%)	18	44
42	BR	89/90 (99%)	88 (99%)	1 (1%)	73	84
43	BS	84/84 (100%)	78 (93%)	6 (7%)	14	39
44	BT	93/93 (100%)	88 (95%)	5 (5%)	22	47
45	BU	84/84 (100%)	79 (94%)	5 (6%)	19	44
46	BV	84/85 (99%)	81 (96%)	3 (4%)	35	59
47	BW	78/78 (100%)	74 (95%)	4 (5%)	24	48
48	BX	62/63 (98%)	55 (89%)	7 (11%)	6	21

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
49	BY	67/68 (98%)	64 (96%)	3 (4%)	27 52
50	BZ	55/55 (100%)	54 (98%)	1 (2%)	59 77
51	Ba	48/49 (98%)	47 (98%)	1 (2%)	53 72
52	Bb	62/62 (100%)	60 (97%)	2 (3%)	39 61
53	Bc	47/48 (98%)	46 (98%)	1 (2%)	53 72
54	Bd	48/49 (98%)	48 (100%)	0	100 100
55	Be	38/38 (100%)	37 (97%)	1 (3%)	46 66
56	Bf	51/52 (98%)	49 (96%)	2 (4%)	32 56
57	Bg	34/34 (100%)	30 (88%)	4 (12%)	5 20
All	All	5417/5447 (99%)	5138 (95%)	279 (5%)	27 48

All (279) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	AC	87	TYR
3	AC	135	ASN
3	AC	189	LEU
3	AC	223	ARG
3	AC	236	ILE
3	AC	244	ILE
3	AC	249	GLU
3	AC	251	GLN
3	AC	252	LYS
3	AC	262	ARG
3	AC	323	PHE
3	AC	333	ARG
3	AC	345	GLU
3	AC	363	ILE
3	AC	378	GLU
5	AF	20	ARG
5	AF	62	ARG
5	AF	65	LYS
5	AF	73	ARG
5	AF	77	GLU
5	AF	109	SER
5	AF	131	LYS
5	AF	176	ASN
5	AF	233	GLU
5	AF	234	GLU

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Mol	Chain	Res	Type
6	AG	79	LYS
6	AG	109	GLU
6	AG	163	ARG
6	AG	166	TRP
6	AG	167	TYR
6	AG	174	LEU
6	AG	195	ILE
6	AG	203	LYS
6	AG	217	GLU
7	AH	21	LYS
7	AH	25	ARG
7	AH	46	ARG
7	AH	68	GLU
7	AH	119	HIS
7	AH	131	ILE
7	AH	193	ASP
7	AH	194	ILE
8	AI	45	VAL
8	AI	95	MET
8	AI	152	VAL
9	AJ	4	TYR
9	AJ	16	GLU
9	AJ	24	ARG
9	AJ	38	ARG
9	AJ	42	TRP
9	AJ	53	LYS
9	AJ	109	ARG
9	AJ	113	ARG
9	AJ	116	PHE
9	AJ	125	GLU
9	AJ	132	GLU
9	AJ	134	GLU
10	AK	2	ARG
10	AK	4	ARG
10	AK	5	VAL
10	AK	105	GLU
10	AK	112	ASP
10	AK	136	LYS
10	AK	138	GLU
10	AK	143	MET
10	AK	155	TRP
10	AK	161	PHE

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Mol	Chain	Res	Type
11	AL	14	ARG
11	AL	48	PHE
11	AL	49	LYS
11	AL	59	GLU
11	AL	127	TYR
12	AM	2	GLU
12	AM	29	ILE
12	AM	49	GLN
12	AM	58	GLU
12	AM	67	LYS
12	AM	71	ILE
12	AM	105	ARG
12	AM	125	GLN
13	AN	1	MET
13	AN	7	ARG
13	AN	32	THR
13	AN	48	ARG
13	AN	59	LYS
14	AO	6	ARG
14	AO	10	ARG
14	AO	93	GLU
15	AP	73	LEU
15	AP	81	ILE
15	AP	107	LYS
15	AP	109	ARG
15	AP	113	ARG
16	AQ	72	ILE
16	AQ	113	LYS
17	AR	23	ARG
17	AR	27	LYS
17	AR	52	ARG
17	AR	89	ARG
18	AS	13	GLU
18	AS	17	ASP
18	AS	30	LEU
18	AS	52	ARG
18	AS	79	ARG
19	AT	32	PHE
19	AT	38	PHE
19	AT	47	GLU
20	AU	16	MET
20	AU	51	GLU

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Mol	Chain	Res	Type
21	AV	7	ARG
21	AV	34	GLU
21	AV	69	TYR
21	AV	70	THR
22	AW	16	LYS
22	AW	36	ARG
22	AW	69	LYS
22	AW	80	ARG
23	AX	19	HIS
23	AX	48	LYS
23	AX	52	GLU
23	AX	56	ILE
24	AY	4	LYS
24	AY	20	ARG
24	AY	35	GLU
24	AY	38	GLU
24	AY	68	ARG
27	BC	8	MET
27	BC	60	ARG
27	BC	105	LYS
27	BC	164	ARG
27	BC	168	ASN
28	BD	2	VAL
28	BD	43	ASN
28	BD	114	GLN
28	BD	145	MET
28	BD	198	GLU
28	BD	247	TRP
28	BD	272	LYS
29	BE	15	PHE
29	BE	25	THR
29	BE	36	GLN
29	BE	43	ASP
29	BE	74	GLU
29	BE	86	GLU
29	BE	89	GLU
29	BE	104	VAL
29	BE	145	SER
29	BE	157	LYS
29	BE	168	GLU
30	BF	6	LYS
30	BF	47	LYS

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Mol	Chain	Res	Type
30	BF	49	ARG
30	BF	58	LYS
30	BF	60	TRP
30	BF	105	LEU
30	BF	153	LEU
30	BF	155	GLU
30	BF	156	ASN
31	BG	14	LYS
31	BG	62	GLN
31	BG	63	LYS
31	BG	68	LYS
31	BG	80	GLN
31	BG	91	ARG
31	BG	101	ARG
31	BG	124	ARG
31	BG	132	ARG
31	BG	147	ARG
31	BG	152	ASP
32	BH	18	ILE
32	BH	40	VAL
32	BH	84	LYS
32	BH	94	ARG
32	BH	98	LYS
32	BH	102	ILE
32	BH	108	PHE
32	BH	110	HIS
32	BH	169	ARG
33	BI	25	TYR
33	BI	114	GLU
33	BI	119	ASN
33	BI	137	GLU
33	BI	138	VAL
34	BJ	3	LYS
34	BJ	49	GLU
34	BJ	64	ARG
34	BJ	116	MET
34	BJ	124	MET
35	BK	12	LYS
35	BK	37	ARG
35	BK	71	ASP
35	BK	72	LYS
35	BK	84	ILE

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Mol	Chain	Res	Type
35	BK	96	ARG
36	BL	1	MET
36	BL	8	LEU
36	BL	29	HIS
36	BL	45	GLU
36	BL	49	ARG
36	BL	70	ARG
36	BL	106	GLU
36	BL	114	LYS
37	BM	10	GLU
37	BM	14	LYS
37	BM	39	LYS
37	BM	76	GLU
37	BM	115	GLU
37	BM	141	LYS
38	BN	20	LEU
38	BN	28	PHE
38	BN	36	VAL
38	BN	58	LYS
38	BN	62	LYS
38	BN	82	MET
38	BN	118	LYS
38	BN	119	LEU
39	BO	3	HIS
39	BO	4	ARG
39	BO	18	GLN
39	BO	27	SER
39	BO	58	ASP
39	BO	72	ASP
40	BP	7	ARG
40	BP	27	VAL
40	BP	35	ILE
40	BP	61	GLN
40	BP	94	ARG
41	BQ	3	ILE
41	BQ	12	MET
41	BQ	23	ASP
41	BQ	97	TYR
41	BQ	112	ARG
41	BQ	113	LEU
42	BR	101	ASP
43	BS	21	ARG

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Mol	Chain	Res	Type
43	BS	22	LEU
43	BS	53	PHE
43	BS	55	ASP
43	BS	79	ARG
43	BS	89	HIS
44	BT	3	THR
44	BT	61	ASN
44	BT	78	GLU
44	BT	82	MET
44	BT	88	ARG
45	BU	9	LYS
45	BU	24	MET
45	BU	26	LYS
45	BU	64	LYS
45	BU	72	GLN
46	BV	42	LYS
46	BV	44	HIS
46	BV	46	LYS
47	BW	11	GLU
47	BW	34	LYS
47	BW	55	GLU
47	BW	61	LEU
48	BX	2	HIS
48	BX	10	ARG
48	BX	31	LEU
48	BX	44	PHE
48	BX	49	ASN
48	BX	61	LYS
48	BX	81	ILE
49	BY	36	ARG
49	BY	40	GLU
49	BY	64	ASP
50	BZ	5	GLU
51	Ba	6	ILE
52	Bb	47	LYS
52	Bb	59	ARG
53	Bc	40	HIS
55	Be	25	LYS
56	Bf	1	PRO
56	Bf	49	VAL
57	Bg	1	MET
57	Bg	12	ARG

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Mol	Chain	Res	Type
57	Bg	15	LYS
57	Bg	22	VAL

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

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1539/1542 (99%)	193 (12%)	73 (4%)
2	AB	73/76 (96%)	12 (16%)	2 (2%)
2	AE	73/76 (96%)	13 (17%)	6 (8%)
25	BA	119/120 (99%)	15 (12%)	4 (3%)
26	BB	2898/2904 (99%)	401 (13%)	137 (4%)
4	AD	24/24 (100%)	4 (16%)	5 (20%)
All	All	4726/4742 (99%)	638 (13%)	227 (4%)

All (638) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	2	A
1	AA	9	G
1	AA	31	G
1	AA	32	A
1	AA	39	G
1	AA	40	C
1	AA	48	C
1	AA	49	U
1	AA	51	A
1	AA	60	A
1	AA	61	G
1	AA	65	A
1	AA	66	A
1	AA	83	C
1	AA	86	G
1	AA	87	C
1	AA	88	U
1	AA	95	C
1	AA	109	A
1	AA	121	U
1	AA	130	A

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Mol	Chain	Res	Type
1	AA	131	A
1	AA	144	G
1	AA	164	G
1	AA	183	C
1	AA	184	G
1	AA	188	C
1	AA	247	G
1	AA	266	G
1	AA	275	G
1	AA	281	G
1	AA	289	G
1	AA	293	G
1	AA	306	A
1	AA	328	C
1	AA	329	A
1	AA	331	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	366	A
1	AA	367	U
1	AA	368	U
1	AA	369	G
1	AA	370	C
1	AA	381	C
1	AA	388	G
1	AA	393	A
1	AA	397	A
1	AA	398	U
1	AA	406	G
1	AA	413	G
1	AA	414	A
1	AA	416	G
1	AA	424	G
1	AA	429	U
1	AA	439	U
1	AA	465	A
1	AA	466	A
1	AA	468	A
1	AA	478	A
1	AA	482	A
1	AA	484	G

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Mol	Chain	Res	Type
1	AA	486	U
1	AA	495	A
1	AA	511	C
1	AA	512	U
1	AA	518	C
1	AA	521	G
1	AA	525	C
1	AA	527	7MG
1	AA	531	U
1	AA	532	A
1	AA	547	A
1	AA	559	A
1	AA	564	C
1	AA	566	G
1	AA	570	G
1	AA	572	A
1	AA	573	A
1	AA	576	C
1	AA	632	U
1	AA	653	U
1	AA	665	A
1	AA	687	A
1	AA	690	G
1	AA	691	G
1	AA	694	A
1	AA	695	A
1	AA	700	G
1	AA	724	G
1	AA	746	A
1	AA	749	A
1	AA	755	G
1	AA	792	A
1	AA	793	U
1	AA	794	A
1	AA	796	C
1	AA	811	C
1	AA	815	A
1	AA	817	C
1	AA	818	G
1	AA	819	A
1	AA	820	U
1	AA	821	G

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Mol	Chain	Res	Type
1	AA	827	U
1	AA	828	U
1	AA	841	C
1	AA	846	G
1	AA	864	A
1	AA	867	G
1	AA	871	U
1	AA	872	A
1	AA	884	U
1	AA	885	G
1	AA	889	A
1	AA	890	G
1	AA	899	C
1	AA	922	G
1	AA	934	C
1	AA	935	A
1	AA	941	G
1	AA	949	A
1	AA	960	U
1	AA	961	U
1	AA	966	2MG
1	AA	968	A
1	AA	969	A
1	AA	975	A
1	AA	993	G
1	AA	1004	A
1	AA	1041	G
1	AA	1064	G
1	AA	1065	U
1	AA	1066	C
1	AA	1085	U
1	AA	1094	G
1	AA	1101	A
1	AA	1129	C
1	AA	1130	A
1	AA	1138	G
1	AA	1139	G
1	AA	1152	A
1	AA	1159	U
1	AA	1189	U
1	AA	1190	G
1	AA	1196	A

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Mol	Chain	Res	Type
1	AA	1202	U
1	AA	1212	U
1	AA	1213	A
1	AA	1214	C
1	AA	1225	A
1	AA	1226	C
1	AA	1227	A
1	AA	1241	G
1	AA	1250	A
1	AA	1256	A
1	AA	1278	G
1	AA	1279	G
1	AA	1280	A
1	AA	1285	A
1	AA	1298	U
1	AA	1299	A
1	AA	1300	G
1	AA	1301	U
1	AA	1303	C
1	AA	1317	C
1	AA	1320	C
1	AA	1322	C
1	AA	1338	G
1	AA	1340	A
1	AA	1341	U
1	AA	1343	G
1	AA	1346	A
1	AA	1359	C
1	AA	1379	G
1	AA	1381	U
1	AA	1382	C
1	AA	1397	C
1	AA	1399	C
1	AA	1432	G
1	AA	1447	A
1	AA	1494	G
1	AA	1505	G
1	AA	1506	U
1	AA	1517	G
1	AA	1529	G
1	AA	1530	G
1	AA	1534	A

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Mol	Chain	Res	Type
1	AA	1535	C
1	AA	1537	U
1	AA	1539	C
1	AA	1542	A
2	AB	7	A
2	AB	8	4SU
2	AB	10	G
2	AB	16	H2U
2	AB	18	G
2	AB	19	G
2	AB	20	H2U
2	AB	46	7MG
2	AB	48	C
2	AB	49	C
2	AB	59	U
2	AB	60	U
4	AD	25	U
4	AD	26	U
4	AD	36	U
4	AD	40	G
2	AE	10	G
2	AE	16	H2U
2	AE	17	C
2	AE	18	G
2	AE	20	H2U
2	AE	56	C
2	AE	57	G
2	AE	58	A
2	AE	61	C
2	AE	73	A
2	AE	74	C
2	AE	75	C
2	AE	76	A
25	BA	10	G
25	BA	13	G
25	BA	15	A
25	BA	16	G
25	BA	36	C
25	BA	38	C
25	BA	42	C
25	BA	45	A
25	BA	57	A

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Mol	Chain	Res	Type
25	BA	58	A
25	BA	68	C
25	BA	71	C
25	BA	88	C
25	BA	90	C
25	BA	109	A
26	BB	11	C
26	BB	13	A
26	BB	14	A
26	BB	28	A
26	BB	52	A
26	BB	61	C
26	BB	64	A
26	BB	65	U
26	BB	71	A
26	BB	72	U
26	BB	75	G
26	BB	91	A
26	BB	101	A
26	BB	102	U
26	BB	118	A
26	BB	119	A
26	BB	120	U
26	BB	125	A
26	BB	126	A
26	BB	128	C
26	BB	138	U
26	BB	142	A
26	BB	149	A
26	BB	154	U
26	BB	196	A
26	BB	204	A
26	BB	205	G
26	BB	215	G
26	BB	216	A
26	BB	221	A
26	BB	222	A
26	BB	223	A
26	BB	226	A
26	BB	248	G
26	BB	265	A
26	BB	266	G

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Mol	Chain	Res	Type
26	BB	269	C
26	BB	270	A
26	BB	271	G
26	BB	272	A
26	BB	277	G
26	BB	279	A
26	BB	294	A
26	BB	299	A
26	BB	302	C
26	BB	323	C
26	BB	324	A
26	BB	330	A
26	BB	331	C
26	BB	338	G
26	BB	346	A
26	BB	373	U
26	BB	383	C
26	BB	386	G
26	BB	391	A
26	BB	411	G
26	BB	418	C
26	BB	432	A
26	BB	444	C
26	BB	447	A
26	BB	448	U
26	BB	451	U
26	BB	456	C
26	BB	457	A
26	BB	458	G
26	BB	459	U
26	BB	479	A
26	BB	480	A
26	BB	481	G
26	BB	482	A
26	BB	504	A
26	BB	505	A
26	BB	508	A
26	BB	509	C
26	BB	527	C
26	BB	529	A
26	BB	530	G
26	BB	531	C

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Mol	Chain	Res	Type
26	BB	532	A
26	BB	533	G
26	BB	546	U
26	BB	547	A
26	BB	548	G
26	BB	549	G
26	BB	563	A
26	BB	573	U
26	BB	574	A
26	BB	575	A
26	BB	586	A
26	BB	588	U
26	BB	603	A
26	BB	607	U
26	BB	637	A
26	BB	645	C
26	BB	654	A
26	BB	655	A
26	BB	656	G
26	BB	669	G
26	BB	670	A
26	BB	686	U
26	BB	715	A
26	BB	717	C
26	BB	728	G
26	BB	730	A
26	BB	736	C
26	BB	737	C
26	BB	740	C
26	BB	748	G
26	BB	753	A
26	BB	764	A
26	BB	775	G
26	BB	776	G
26	BB	782	A
26	BB	784	G
26	BB	786	C
26	BB	790	U
26	BB	791	C
26	BB	792	A
26	BB	793	A
26	BB	805	G

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Mol	Chain	Res	Type
26	BB	812	C
26	BB	828	U
26	BB	910	A
26	BB	914	G
26	BB	931	U
26	BB	941	A
26	BB	945	A
26	BB	946	C
26	BB	948	C
26	BB	959	A
26	BB	962	G
26	BB	974	G
26	BB	980	A
26	BB	984	A
26	BB	995	C
26	BB	996	A
26	BB	1012	U
26	BB	1013	C
26	BB	1016	G
26	BB	1022	G
26	BB	1025	G
26	BB	1026	G
26	BB	1033	U
26	BB	1034	G
26	BB	1047	G
26	BB	1048	A
26	BB	1056	G
26	BB	1067	A
26	BB	1069	A
26	BB	1070	A
26	BB	1079	C
26	BB	1086	A
26	BB	1088	A
26	BB	1095	A
26	BB	1096	A
26	BB	1110	G
26	BB	1112	G
26	BB	1128	G
26	BB	1129	A
26	BB	1130	U
26	BB	1132	U
26	BB	1133	A

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Mol	Chain	Res	Type
26	BB	1134	A
26	BB	1135	C
26	BB	1136	G
26	BB	1143	A
26	BB	1170	C
26	BB	1175	A
26	BB	1177	G
26	BB	1184	U
26	BB	1185	G
26	BB	1186	G
26	BB	1206	G
26	BB	1211	C
26	BB	1212	G
26	BB	1213	A
26	BB	1249	U
26	BB	1250	G
26	BB	1256	G
26	BB	1266	G
26	BB	1271	G
26	BB	1272	A
26	BB	1286	A
26	BB	1287	A
26	BB	1296	G
26	BB	1300	G
26	BB	1301	A
26	BB	1365	A
26	BB	1378	A
26	BB	1379	U
26	BB	1391	U
26	BB	1416	G
26	BB	1417	C
26	BB	1427	A
26	BB	1440	U
26	BB	1452	G
26	BB	1453	A
26	BB	1455	G
26	BB	1458	U
26	BB	1459	G
26	BB	1460	U
26	BB	1462	C
26	BB	1482	G
26	BB	1493	C

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Mol	Chain	Res	Type
26	BB	1509	A
26	BB	1510	G
26	BB	1523	U
26	BB	1558	C
26	BB	1566	A
26	BB	1569	A
26	BB	1584	U
26	BB	1585	C
26	BB	1596	A
26	BB	1607	C
26	BB	1608	A
26	BB	1616	A
26	BB	1617	C
26	BB	1646	C
26	BB	1647	U
26	BB	1648	U
26	BB	1654	A
26	BB	1700	A
26	BB	1705	A
26	BB	1715	G
26	BB	1732	C
26	BB	1733	G
26	BB	1762	A
26	BB	1773	A
26	BB	1781	U
26	BB	1782	U
26	BB	1791	A
26	BB	1800	C
26	BB	1802	A
26	BB	1808	A
26	BB	1809	A
26	BB	1839	G
26	BB	1840	G
26	BB	1871	A
26	BB	1873	G
26	BB	1900	A
26	BB	1901	A
26	BB	1906	G
26	BB	1907	G
26	BB	1918	A
26	BB	1929	G
26	BB	1930	G

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Mol	Chain	Res	Type
26	BB	1931	U
26	BB	1937	A
26	BB	1938	A
26	BB	1939	5MU
26	BB	1943	U
26	BB	1952	A
26	BB	1954	G
26	BB	1955	U
26	BB	1956	U
26	BB	1962	5MC
26	BB	1964	G
26	BB	1965	C
26	BB	1966	A
26	BB	1970	A
26	BB	1971	U
26	BB	1972	G
26	BB	1981	A
26	BB	1992	G
26	BB	1993	U
26	BB	1997	C
26	BB	2003	A
26	BB	2021	C
26	BB	2023	C
26	BB	2032	G
26	BB	2042	A
26	BB	2043	C
26	BB	2056	G
26	BB	2059	A
26	BB	2061	G
26	BB	2062	A
26	BB	2068	U
26	BB	2076	U
26	BB	2092	U
26	BB	2112	G
26	BB	2119	A
26	BB	2120	G
26	BB	2127	G
26	BB	2129	C
26	BB	2131	U
26	BB	2132	U
26	BB	2133	G
26	BB	2135	A

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Mol	Chain	Res	Type
26	BB	2140	G
26	BB	2147	A
26	BB	2158	A
26	BB	2159	G
26	BB	2172	U
26	BB	2173	A
26	BB	2174	C
26	BB	2179	C
26	BB	2199	A
26	BB	2203	U
26	BB	2212	A
26	BB	2213	U
26	BB	2214	C
26	BB	2225	A
26	BB	2238	G
26	BB	2239	G
26	BB	2250	G
26	BB	2266	A
26	BB	2273	A
26	BB	2283	C
26	BB	2287	A
26	BB	2288	A
26	BB	2296	U
26	BB	2305	U
26	BB	2308	G
26	BB	2309	A
26	BB	2310	C
26	BB	2321	U
26	BB	2322	A
26	BB	2325	G
26	BB	2333	A
26	BB	2335	A
26	BB	2350	C
26	BB	2357	G
26	BB	2363	G
26	BB	2382	G
26	BB	2383	G
26	BB	2385	C
26	BB	2390	U
26	BB	2391	G
26	BB	2399	G
26	BB	2406	A

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Mol	Chain	Res	Type
26	BB	2407	A
26	BB	2408	U
26	BB	2425	A
26	BB	2428	G
26	BB	2429	G
26	BB	2432	A
26	BB	2439	A
26	BB	2440	C
26	BB	2441	U
26	BB	2448	A
26	BB	2449	H2U
26	BB	2465	C
26	BB	2466	C
26	BB	2472	G
26	BB	2475	C
26	BB	2476	A
26	BB	2478	A
26	BB	2491	U
26	BB	2501	C
26	BB	2502	G
26	BB	2504	PSU
26	BB	2506	U
26	BB	2507	C
26	BB	2530	A
26	BB	2543	G
26	BB	2566	A
26	BB	2567	G
26	BB	2573	C
26	BB	2574	G
26	BB	2578	G
26	BB	2586	U
26	BB	2599	G
26	BB	2610	C
26	BB	2613	U
26	BB	2615	U
26	BB	2629	U
26	BB	2630	G
26	BB	2639	A
26	BB	2655	G
26	BB	2689	U
26	BB	2690	U
26	BB	2699	C

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Mol	Chain	Res	Type
26	BB	2700	A
26	BB	2714	G
26	BB	2726	A
26	BB	2732	G
26	BB	2733	A
26	BB	2751	G
26	BB	2752	C
26	BB	2756	U
26	BB	2765	A
26	BB	2766	A
26	BB	2778	A
26	BB	2780	G
26	BB	2791	G
26	BB	2792	A
26	BB	2799	A
26	BB	2815	C
26	BB	2820	A
26	BB	2833	U
26	BB	2848	G
26	BB	2850	A
26	BB	2861	U
26	BB	2867	G
26	BB	2873	A
26	BB	2880	C
26	BB	2883	A
26	BB	2884	U
26	BB	2894	G
26	BB	2895	G
26	BB	2904	U

All (227) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	1	A
1	AA	31	G
1	AA	52	C
1	AA	56	U
1	AA	59	A
1	AA	60	A
1	AA	65	A
1	AA	70	U
1	AA	85	U

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Mol	Chain	Res	Type
1	AA	100	G
1	AA	193	C
1	AA	194	C
1	AA	209	U
1	AA	318	G
1	AA	365	U
1	AA	367	U
1	AA	368	U
1	AA	369	G
1	AA	385	C
1	AA	403	C
1	AA	415	A
1	AA	438	U
1	AA	451	A
1	AA	465	A
1	AA	481	G
1	AA	484	G
1	AA	489	C
1	AA	494	G
1	AA	524	G
1	AA	531	U
1	AA	572	A
1	AA	620	C
1	AA	690	G
1	AA	694	A
1	AA	753	A
1	AA	785	G
1	AA	793	U
1	AA	794	A
1	AA	797	C
1	AA	815	A
1	AA	817	C
1	AA	818	G
1	AA	824	G
1	AA	884	U
1	AA	889	A
1	AA	934	C
1	AA	968	A
1	AA	975	A
1	AA	1065	U
1	AA	1104	G
1	AA	1112	C

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Mol	Chain	Res	Type
1	AA	1124	G
1	AA	1129	C
1	AA	1131	G
1	AA	1212	U
1	AA	1213	A
1	AA	1227	A
1	AA	1257	A
1	AA	1278	G
1	AA	1279	G
1	AA	1280	A
1	AA	1298	U
1	AA	1299	A
1	AA	1300	G
1	AA	1302	C
1	AA	1312	G
1	AA	1320	C
1	AA	1323	G
1	AA	1340	A
1	AA	1399	C
1	AA	1441	A
1	AA	1529	G
1	AA	1534	A
2	AB	9	A
2	AB	45	U
4	AD	24	A
4	AD	25	U
4	AD	29	G
4	AD	42	U
4	AD	45	G
2	AE	3	C
2	AE	9	A
2	AE	18	G
2	AE	20	H2U
2	AE	56	C
2	AE	73	A
25	BA	15	A
25	BA	77	U
25	BA	108	A
25	BA	109	A
26	BB	13	A
26	BB	72	U
26	BB	75	G

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Mol	Chain	Res	Type
26	BB	102	U
26	BB	110	G
26	BB	125	A
26	BB	126	A
26	BB	160	A
26	BB	164	C
26	BB	196	A
26	BB	221	A
26	BB	222	A
26	BB	227	A
26	BB	311	A
26	BB	331	C
26	BB	332	A
26	BB	372	G
26	BB	380	G
26	BB	448	U
26	BB	479	A
26	BB	503	A
26	BB	504	A
26	BB	529	A
26	BB	532	A
26	BB	545	U
26	BB	574	A
26	BB	586	A
26	BB	615	U
26	BB	669	G
26	BB	671	C
26	BB	673	C
26	BB	716	A
26	BB	720	U
26	BB	729	G
26	BB	736	C
26	BB	743	A
26	BB	752	A
26	BB	786	C
26	BB	790	U
26	BB	791	C
26	BB	805	G
26	BB	827	U
26	BB	896	A
26	BB	898	C
26	BB	912	C

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Mol	Chain	Res	Type
26	BB	979	A
26	BB	995	C
26	BB	1032	A
26	BB	1033	U
26	BB	1045	C
26	BB	1046	A
26	BB	1068	G
26	BB	1069	A
26	BB	1085	A
26	BB	1087	G
26	BB	1109	C
26	BB	1112	G
26	BB	1128	G
26	BB	1132	U
26	BB	1133	A
26	BB	1185	G
26	BB	1210	G
26	BB	1241	A
26	BB	1248	G
26	BB	1254	A
26	BB	1262	A
26	BB	1286	A
26	BB	1305	C
26	BB	1365	A
26	BB	1383	A
26	BB	1390	U
26	BB	1407	G
26	BB	1420	A
26	BB	1451	C
26	BB	1458	U
26	BB	1508	A
26	BB	1552	A
26	BB	1602	U
26	BB	1608	A
26	BB	1614	A
26	BB	1616	A
26	BB	1646	C
26	BB	1647	U
26	BB	1649	G
26	BB	1674	G
26	BB	1714	U
26	BB	1732	C

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Mol	Chain	Res	Type
26	BB	1761	C
26	BB	1773	A
26	BB	1816	C
26	BB	1839	G
26	BB	1870	C
26	BB	1887	C
26	BB	1900	A
26	BB	1918	A
26	BB	1930	G
26	BB	1952	A
26	BB	1955	U
26	BB	1968	G
26	BB	1969	A
26	BB	1980	G
26	BB	2020	A
26	BB	2021	C
26	BB	2119	A
26	BB	2130	U
26	BB	2172	U
26	BB	2309	A
26	BB	2339	C
26	BB	2357	G
26	BB	2380	C
26	BB	2390	U
26	BB	2391	G
26	BB	2439	A
26	BB	2448	A
26	BB	2465	C
26	BB	2500	U
26	BB	2542	A
26	BB	2581	G
26	BB	2584	U
26	BB	2602	A
26	BB	2619	C
26	BB	2655	G
26	BB	2662	A
26	BB	2667	C
26	BB	2696	U
26	BB	2717	C
26	BB	2726	A
26	BB	2732	G
26	BB	2744	G

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Mol	Chain	Res	Type
26	BB	2751	G
26	BB	2758	A
26	BB	2791	G
26	BB	2838	G
26	BB	2866	U
26	BB	2870	C
26	BB	2872	A
26	BB	2894	G

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

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

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
2	PSU	AE	32	2	18,21,22	0.95	1 (5%)	22,30,33	1.14	2 (9%)
26	3TD	BB	1915	26	18,22,23	0.86	0	22,32,35	1.18	2 (9%)
2	MIA	AB	37	2	24,31,32	1.04	3 (12%)	26,44,47	1.61	4 (15%)
2	PSU	AB	32	2	18,21,22	0.93	1 (5%)	22,30,33	1.10	1 (4%)
2	H2U	AB	20	2	18,21,22	0.85	0	21,30,33	1.05	1 (4%)
2	4SU	AE	8	2	18,21,22	1.38	2 (11%)	26,30,33	1.45	3 (11%)
26	PSU	BB	1917	26	18,21,22	0.92	0	22,30,33	0.99	2 (9%)
2	H2U	AE	16	2	18,21,22	0.79	0	21,30,33	1.01	1 (4%)
26	PSU	BB	2605	26	18,21,22	0.91	1 (5%)	22,30,33	0.93	1 (4%)
2	5MU	AE	54	2	19,22,23	0.64	0	28,32,35	0.98	2 (7%)
26	CH	BB	2575	26	16,21,22	1.02	1 (6%)	20,30,33	1.06	1 (5%)
2	3AU	AB	47	-	24,28,29	0.83	1 (4%)	33,40,43	0.80	1 (3%)
2	3AU	AE	47	-	24,28,29	0.85	1 (4%)	33,40,43	1.19	2 (6%)
26	OMU	BB	2552	26	19,22,23	0.75	0	26,31,34	0.99	1 (3%)
1	MA6	AA	1518	1	19,26,27	1.01	1 (5%)	18,38,41	1.03	0
2	PSU	AB	55	2	18,21,22	0.95	1 (5%)	22,30,33	0.93	1 (4%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
2	H2U	AE	20	2	18,21,22	0.81	0	21,30,33	1.00	1 (4%)
26	5MC	BB	1962	26	18,22,23	0.56	0	26,32,35	1.22	2 (7%)
26	PSU	BB	2457	26	18,21,22	0.97	1 (5%)	22,30,33	1.31	3 (13%)
1	UR3	AA	1498	1	19,22,23	0.70	0	26,32,35	1.17	3 (11%)
26	PSU	BB	746	26	18,21,22	0.97	1 (5%)	22,30,33	1.10	2 (9%)
2	PSU	AE	39	2	18,21,22	0.89	1 (5%)	22,30,33	1.20	1 (4%)
26	5MU	BB	747	26	19,22,23	0.73	0	28,32,35	1.39	3 (10%)
2	7MG	AE	46	2	22,26,27	4.46	2 (9%)	29,39,42	1.50	3 (10%)
1	5MC	AA	967	1	18,22,23	0.67	0	26,32,35	0.85	1 (3%)
2	H2U	AB	16	2	18,21,22	0.86	0	21,30,33	1.32	2 (9%)
26	2MA	BB	2503	26	17,25,26	1.19	3 (17%)	17,37,40	1.43	3 (17%)
2	4SU	AB	8	2	18,21,22	1.42	1 (5%)	26,30,33	1.01	2 (7%)
26	OMC	BB	2498	26	19,22,23	0.61	0	26,31,34	0.87	0
1	2MG	AA	966	1	18,26,27	1.18	1 (5%)	16,38,41	1.34	2 (12%)
26	5MU	BB	1939	26	19,22,23	0.82	0	28,32,35	1.37	3 (10%)
2	5MU	AB	54	2	19,22,23	0.66	0	28,32,35	1.21	4 (14%)
26	6MZ	BB	2030	26	18,25,26	1.01	1 (5%)	16,36,39	1.45	3 (18%)
1	4OC	AA	1402	1	20,23,24	0.72	0	26,32,35	1.11	1 (3%)
2	MIA	AE	37	2	24,31,32	1.08	3 (12%)	26,44,47	1.55	3 (11%)
26	PSU	BB	2580	26	18,21,22	0.95	0	22,30,33	0.94	0
2	PSU	AB	39	2	18,21,22	0.91	0	22,30,33	0.92	1 (4%)
26	2MG	BB	1835	26	18,26,27	1.22	3 (16%)	16,38,41	0.73	0
1	MA6	AA	1519	1	19,26,27	1.01	1 (5%)	18,38,41	1.20	1 (5%)
26	2MG	BB	2445	26	18,26,27	1.24	3 (16%)	16,38,41	0.60	0
1	5MC	AA	1407	1	18,22,23	0.62	0	26,32,35	0.81	1 (3%)
26	1MG	BB	745	26	18,26,27	1.13	1 (5%)	19,39,42	1.26	1 (5%)
26	PSU	BB	2504	26	18,21,22	0.95	0	22,30,33	1.20	2 (9%)
1	7MG	AA	527	1	22,26,27	4.57	2 (9%)	29,39,42	1.35	1 (3%)
26	6MZ	BB	1618	26	18,25,26	0.95	1 (5%)	16,36,39	1.35	2 (12%)
26	OMG	BB	2251	26	18,26,27	1.11	2 (11%)	19,38,41	1.02	1 (5%)
26	PSU	BB	955	26	18,21,22	0.96	1 (5%)	22,30,33	1.08	1 (4%)
1	2MG	AA	1207	1	18,26,27	1.22	2 (11%)	16,38,41	0.95	0
2	7MG	AB	46	2	22,26,27	4.64	2 (9%)	29,39,42	1.32	1 (3%)
26	7MG	BB	2069	26	22,26,27	4.58	1 (4%)	29,39,42	1.39	2 (6%)
26	H2U	BB	2449	26	18,21,22	0.81	0	21,30,33	1.12	1 (4%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
1	2MG	AA	1516	1	18,26,27	1.20	2 (11%)	16,38,41	0.79	0
2	PSU	AE	55	2	18,21,22	0.98	1 (5%)	22,30,33	1.08	1 (4%)
1	PSU	AA	516	1	18,21,22	0.85	0	22,30,33	1.31	2 (9%)
26	PSU	BB	1911	26	18,21,22	0.84	0	22,30,33	1.02	1 (4%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	PSU	AE	32	2	-	0/7/25/26	0/2/2/2
26	3TD	BB	1915	26	-	0/7/25/26	0/2/2/2
2	MIA	AB	37	2	-	0/11/33/34	0/3/3/3
2	PSU	AB	32	2	-	0/7/25/26	0/2/2/2
2	H2U	AB	20	2	-	1/7/38/39	0/2/2/2
2	4SU	AE	8	2	-	0/7/25/26	0/2/2/2
26	PSU	BB	1917	26	-	0/7/25/26	0/2/2/2
2	H2U	AE	16	2	-	0/7/38/39	0/2/2/2
26	PSU	BB	2605	26	-	0/7/25/26	0/2/2/2
2	5MU	AE	54	2	-	0/7/25/26	0/2/2/2
26	CH	BB	2575	26	-	1/5/25/26	0/2/2/2
2	3AU	AB	47	-	-	2/16/34/35	0/2/2/2
2	3AU	AE	47	-	-	5/16/34/35	0/2/2/2
26	OMU	BB	2552	26	-	0/9/27/28	0/2/2/2
1	MA6	AA	1518	1	-	0/7/29/30	0/3/3/3
2	PSU	AB	55	2	-	1/7/25/26	0/2/2/2
2	H2U	AE	20	2	-	0/7/38/39	0/2/2/2
26	5MC	BB	1962	26	-	5/7/25/26	0/2/2/2
26	PSU	BB	2457	26	-	0/7/25/26	0/2/2/2
1	UR3	AA	1498	1	-	0/7/25/26	0/2/2/2
26	PSU	BB	746	26	-	4/7/25/26	0/2/2/2
2	PSU	AE	39	2	-	0/7/25/26	0/2/2/2
26	5MU	BB	747	26	-	4/7/25/26	0/2/2/2
2	7MG	AE	46	2	-	0/7/37/38	0/3/3/3
1	5MC	AA	967	1	-	0/7/25/26	0/2/2/2
2	H2U	AB	16	2	-	1/7/38/39	0/2/2/2
26	2MA	BB	2503	26	-	0/3/25/26	0/3/3/3
2	4SU	AB	8	2	-	0/7/25/26	0/2/2/2
26	OMC	BB	2498	26	-	1/9/27/28	0/2/2/2
1	2MG	AA	966	1	-	0/5/27/28	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
26	5MU	BB	1939	26	-	0/7/25/26	0/2/2/2
2	5MU	AB	54	2	-	0/7/25/26	0/2/2/2
26	6MZ	BB	2030	26	-	1/5/27/28	0/3/3/3
1	4OC	AA	1402	1	-	0/9/29/30	0/2/2/2
2	MIA	AE	37	2	-	0/11/33/34	0/3/3/3
26	PSU	BB	2580	26	-	2/7/25/26	0/2/2/2
2	PSU	AB	39	2	-	0/7/25/26	0/2/2/2
26	2MG	BB	1835	26	-	0/5/27/28	0/3/3/3
1	MA6	AA	1519	1	-	0/7/29/30	0/3/3/3
26	2MG	BB	2445	26	-	0/5/27/28	0/3/3/3
1	5MC	AA	1407	1	-	0/7/25/26	0/2/2/2
26	1MG	BB	745	26	-	0/3/25/26	0/3/3/3
26	PSU	BB	2504	26	-	1/7/25/26	0/2/2/2
1	7MG	AA	527	1	-	1/7/37/38	0/3/3/3
26	6MZ	BB	1618	26	-	0/5/27/28	0/3/3/3
26	OMG	BB	2251	26	-	0/5/27/28	0/3/3/3
26	PSU	BB	955	26	-	0/7/25/26	0/2/2/2
1	2MG	AA	1207	1	-	0/5/27/28	0/3/3/3
2	7MG	AB	46	2	-	1/7/37/38	0/3/3/3
26	7MG	BB	2069	26	-	0/7/37/38	0/3/3/3
26	H2U	BB	2449	26	-	0/7/38/39	0/2/2/2
1	2MG	AA	1516	1	-	0/5/27/28	0/3/3/3
2	PSU	AE	55	2	-	1/7/25/26	0/2/2/2
1	PSU	AA	516	1	-	0/7/25/26	0/2/2/2
26	PSU	BB	1911	26	-	1/7/25/26	0/2/2/2

All (49) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	AB	46	7MG	C8-N9	-21.46	1.34	1.46
26	BB	2069	7MG	C8-N9	-21.24	1.34	1.46
1	AA	527	7MG	C8-N9	-21.18	1.34	1.46
2	AE	46	7MG	C8-N9	-20.62	1.34	1.46
2	AB	8	4SU	C5-C4	-5.15	1.35	1.42
2	AE	8	4SU	C5-C4	-4.78	1.36	1.42
26	BB	2575	CH	C5-C4	3.16	1.44	1.39
26	BB	745	1MG	C8-N7	-2.87	1.30	1.35
26	BB	2445	2MG	C8-N7	-2.68	1.30	1.35
1	AA	1516	2MG	C8-N7	-2.64	1.30	1.35
1	AA	1207	2MG	C8-N7	-2.55	1.30	1.35
26	BB	2503	2MA	C8-N7	-2.52	1.30	1.35
26	BB	2030	6MZ	C8-N7	-2.51	1.30	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	966	2MG	C8-N7	-2.48	1.30	1.35
26	BB	1835	2MG	C8-N7	-2.43	1.30	1.35
2	AE	37	MIA	C2-S10	2.42	1.77	1.75
1	AA	1519	MA6	C8-N7	-2.42	1.30	1.34
26	BB	2251	OMG	C8-N7	-2.38	1.31	1.35
2	AB	37	MIA	C2-S10	2.35	1.77	1.75
1	AA	1518	MA6	C8-N7	-2.33	1.30	1.34
2	AB	37	MIA	C8-N7	-2.30	1.30	1.34
2	AE	37	MIA	C6-N1	2.30	1.36	1.32
26	BB	955	PSU	C2-N1	2.29	1.39	1.36
26	BB	1618	6MZ	C8-N7	-2.28	1.30	1.34
26	BB	746	PSU	C2-N1	2.25	1.39	1.36
2	AE	37	MIA	C8-N7	-2.24	1.30	1.34
26	BB	2457	PSU	C2-N1	2.22	1.39	1.36
2	AB	32	PSU	C2-N1	2.22	1.39	1.36
2	AB	55	PSU	C2-N1	2.21	1.39	1.36
2	AE	39	PSU	C2-N1	2.20	1.39	1.36
2	AE	47	3AU	O31-C13	-2.20	1.23	1.30
2	AB	47	3AU	O31-C13	-2.16	1.23	1.30
26	BB	2503	2MA	O4'-C4'	-2.14	1.40	1.45
2	AE	32	PSU	C2-N1	2.13	1.39	1.36
26	BB	2503	2MA	C5-C4	-2.10	1.37	1.43
26	BB	2605	PSU	C2-N1	2.10	1.39	1.36
26	BB	1835	2MG	C5-C4	-2.10	1.37	1.43
2	AB	46	7MG	C5-N7	2.09	1.38	1.35
26	BB	2445	2MG	C5-C6	-2.09	1.43	1.47
1	AA	527	7MG	C5-N7	2.09	1.38	1.35
2	AB	37	MIA	C6-N1	2.09	1.35	1.32
2	AE	8	4SU	C4-S4	-2.06	1.64	1.68
26	BB	2445	2MG	C5-C4	-2.06	1.37	1.43
26	BB	1835	2MG	C5-C6	-2.04	1.43	1.47
26	BB	2251	OMG	C5-C4	-2.03	1.37	1.43
1	AA	1516	2MG	C5-C6	-2.03	1.43	1.47
2	AE	55	PSU	C2-N1	2.02	1.39	1.36
2	AE	46	7MG	C5-N7	2.01	1.38	1.35
1	AA	1207	2MG	C5-C4	-2.01	1.38	1.43

All (86) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AE	46	7MG	N9-C8-N7	6.12	112.13	103.38
26	BB	2069	7MG	N9-C8-N7	6.09	112.09	103.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	527	7MG	N9-C8-N7	6.04	112.02	103.38
2	AB	46	7MG	N9-C8-N7	5.67	111.49	103.38
1	AA	516	PSU	C6-C5-C4	4.37	121.26	118.20
2	AE	8	4SU	C4-N3-C2	-4.18	123.28	127.34
2	AE	37	MIA	C11-S10-C2	4.13	105.35	102.27
2	AB	37	MIA	C11-S10-C2	4.05	105.29	102.27
26	BB	2457	PSU	C6-C5-C4	3.99	120.99	118.20
26	BB	745	1MG	C2-N1-C6	3.95	124.16	120.95
2	AE	39	PSU	C6-C5-C4	3.89	120.92	118.20
2	AE	8	4SU	C5-C4-N3	3.85	118.26	114.69
26	BB	1939	5MU	C6-C5-C4	3.79	121.20	118.03
2	AE	37	MIA	C5-C6-N1	-3.69	117.75	120.81
2	AE	32	PSU	C6-C5-C4	3.69	120.78	118.20
26	BB	955	PSU	C6-C5-C4	3.65	120.75	118.20
26	BB	746	PSU	C6-C5-C4	3.64	120.75	118.20
2	AE	55	PSU	C6-C5-C4	3.60	120.71	118.20
2	AB	37	MIA	C5-C6-N1	-3.55	117.86	120.81
26	BB	1915	3TD	C6-C5-C4	3.53	120.66	118.22
26	BB	747	5MU	C6-C5-C4	3.49	120.95	118.03
2	AB	32	PSU	C6-C5-C4	3.45	120.61	118.20
2	AB	37	MIA	C12-N6-C6	3.40	127.58	122.55
26	BB	2504	PSU	C3'-C2'-C1'	3.28	105.45	101.64
2	AE	47	3AU	O4'-C4'-C3'	3.26	111.56	105.11
26	BB	1911	PSU	C6-C5-C4	3.14	120.40	118.20
26	BB	747	5MU	O3'-C3'-C2'	3.12	121.93	111.82
26	BB	1618	6MZ	C2-N1-C6	3.07	119.22	116.59
2	AE	16	H2U	O4'-C1'-N1	3.06	113.47	109.30
2	AB	54	5MU	C6-C5-C4	3.02	120.55	118.03
26	BB	747	5MU	C5M-C5-C6	-3.00	118.85	122.85
2	AB	8	4SU	C5-C4-N3	2.95	117.43	114.69
26	BB	2605	PSU	C6-C5-C4	2.95	120.26	118.20
26	BB	2504	PSU	C6-C5-C4	2.94	120.25	118.20
1	AA	1519	MA6	O3'-C3'-C2'	2.89	121.19	111.82
2	AE	54	5MU	C6-C5-C4	2.89	120.44	118.03
26	BB	1618	6MZ	C9-N6-C6	2.88	125.36	122.87
26	BB	1962	5MC	C3'-C2'-C1'	-2.88	95.96	101.43
26	BB	2030	6MZ	C9-N6-C6	2.86	125.34	122.87
2	AB	37	MIA	C2-N3-C4	-2.85	111.40	115.32
1	AA	966	2MG	C2'-C3'-C4'	-2.78	97.24	102.64
26	BB	2503	2MA	N1-C2-N3	2.75	127.62	123.06
26	BB	2575	CH	C5-C4-N3	2.75	119.61	118.04
26	BB	2030	6MZ	C2-N1-C6	2.73	118.93	116.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	AB	16	H2U	O4'-C1'-C2'	-2.68	100.79	106.64
26	BB	2457	PSU	C3'-C2'-C1'	2.68	104.76	101.64
26	BB	1917	PSU	C3'-C2'-C1'	2.68	104.76	101.64
2	AE	37	MIA	C2-N3-C4	-2.66	111.66	115.32
26	BB	1915	3TD	C2'-C3'-C4'	-2.65	97.49	102.64
2	AB	55	PSU	C6-C5-C4	2.65	120.05	118.20
26	BB	2503	2MA	C5-C6-N1	2.63	118.56	114.02
2	AB	54	5MU	C5M-C5-C6	-2.63	119.33	122.85
2	AB	39	PSU	C6-C5-C4	2.61	120.03	118.20
2	AE	20	H2U	O4'-C1'-N1	2.59	112.83	109.30
26	BB	1939	5MU	C5M-C5-C6	-2.52	119.48	122.85
1	AA	1498	UR3	O5'-C5'-C4'	2.52	117.56	108.99
2	AE	46	7MG	O3'-C3'-C4'	2.50	118.28	111.05
1	AA	1498	UR3	O4'-C1'-N1	2.46	113.99	108.36
2	AB	8	4SU	C4-N3-C2	-2.39	125.02	127.34
26	BB	2503	2MA	O3'-C3'-C2'	2.38	119.51	111.82
1	AA	1402	4OC	O4'-C1'-N1	2.37	113.79	108.36
26	BB	2449	H2U	O3'-C3'-C4'	-2.37	104.20	111.05
2	AE	32	PSU	O4'-C1'-C2'	2.34	108.44	105.14
26	BB	1939	5MU	C5-C6-N1	-2.32	120.95	123.34
1	AA	967	5MC	CM5-C5-C6	-2.32	119.75	122.85
2	AB	54	5MU	O3'-C3'-C2'	2.29	119.24	111.82
26	BB	746	PSU	O3'-C3'-C4'	-2.27	104.48	111.05
2	AE	8	4SU	O3'-C3'-C4'	2.26	117.60	111.05
26	BB	1917	PSU	C6-C5-C4	2.23	119.76	118.20
26	BB	2251	OMG	O5'-C5'-C4'	2.18	116.40	108.99
1	AA	966	2MG	O3'-C3'-C4'	2.15	117.26	111.05
2	AE	54	5MU	C5M-C5-C6	-2.11	120.02	122.85
26	BB	1962	5MC	C5-C6-N1	-2.09	121.18	123.34
1	AA	1498	UR3	O3'-C3'-C2'	-2.08	105.09	111.82
2	AB	54	5MU	O4'-C4'-C5'	2.07	116.20	109.37
1	AA	1407	5MC	CM5-C5-C6	-2.07	120.08	122.85
26	BB	2030	6MZ	C2'-C3'-C4'	-2.07	98.62	102.64
2	AB	47	3AU	O4-C4-N3	2.06	121.63	119.16
26	BB	2457	PSU	O4'-C1'-C2'	2.04	108.01	105.14
26	BB	2552	OMU	C2'-C3'-C4'	-2.03	97.58	101.99
26	BB	2069	7MG	O5'-C5'-C4'	2.03	115.91	108.99
2	AE	47	3AU	O3'-C3'-C4'	-2.03	105.18	111.05
2	AB	20	H2U	O4'-C1'-N1	2.03	112.06	109.30
2	AB	16	H2U	O4'-C1'-N1	2.01	112.04	109.30
2	AE	46	7MG	O4'-C1'-N9	2.01	112.04	109.30
1	AA	516	PSU	O4'-C1'-C2'	2.01	107.97	105.14

There are no chirality outliers.

All (33) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	AA	527	7MG	C4'-C5'-O5'-P
2	AB	46	7MG	C4'-C5'-O5'-P
26	BB	746	PSU	C2'-C1'-C5-C4
26	BB	746	PSU	C2'-C1'-C5-C6
26	BB	747	5MU	C2'-C1'-N1-C2
26	BB	747	5MU	C2'-C1'-N1-C6
26	BB	2580	PSU	C2'-C1'-C5-C4
26	BB	2580	PSU	C2'-C1'-C5-C6
2	AE	47	3AU	N40-C12-C13-O31
26	BB	1962	5MC	C2'-C1'-N1-C6
2	AB	47	3AU	O4'-C4'-C5'-O5'
2	AB	47	3AU	C3'-C4'-C5'-O5'
2	AE	47	3AU	N40-C12-C13-O30
26	BB	1962	5MC	O4'-C1'-N1-C6
2	AE	47	3AU	O4'-C1'-N1-C2
26	BB	1962	5MC	O4'-C1'-N1-C2
2	AE	47	3AU	O4'-C1'-N1-C6
26	BB	747	5MU	O4'-C1'-N1-C6
2	AB	16	H2U	O4'-C4'-C5'-O5'
2	AE	47	3AU	O4'-C4'-C5'-O5'
2	AB	55	PSU	O4'-C1'-C5-C4
26	BB	746	PSU	O4'-C1'-C5-C4
26	BB	1911	PSU	O4'-C1'-C5-C4
26	BB	1962	5MC	C2'-C1'-N1-C2
26	BB	2504	PSU	O4'-C4'-C5'-O5'
2	AE	55	PSU	O4'-C1'-C5-C6
26	BB	746	PSU	O4'-C1'-C5-C6
26	BB	2575	CH	O4'-C1'-N1-C2
26	BB	747	5MU	O4'-C1'-N1-C2
26	BB	2030	6MZ	O4'-C4'-C5'-O5'
26	BB	1962	5MC	C4'-C5'-O5'-P
2	AB	20	H2U	O4'-C4'-C5'-O5'
26	BB	2498	OMC	C4'-C5'-O5'-P

There are no ring outliers.

No monomer is involved in short contacts.

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

There are no ligands in this entry.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

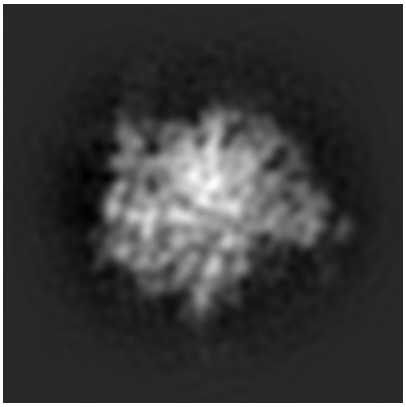
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-1850. These allow visual inspection of the internal detail of the map and identification of artifacts.

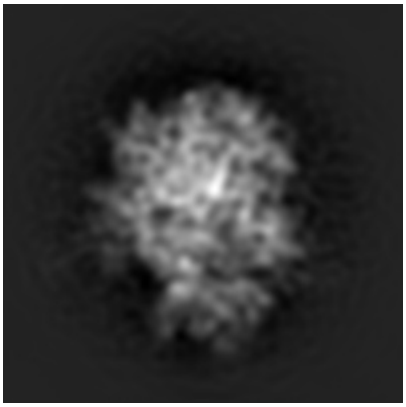
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

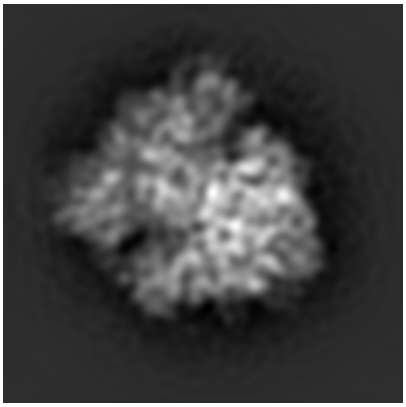
6.1.1 Primary map



X



Y

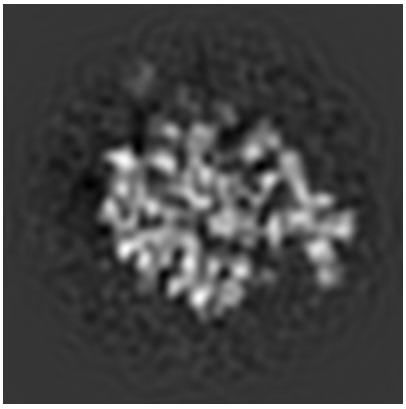


Z

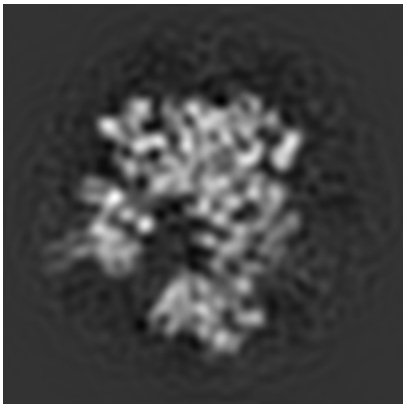
The images above show the map projected in three orthogonal directions.

6.2 Central slices

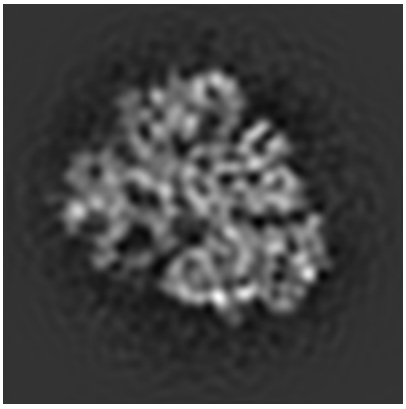
6.2.1 Primary map



X Index: 125



Y Index: 125

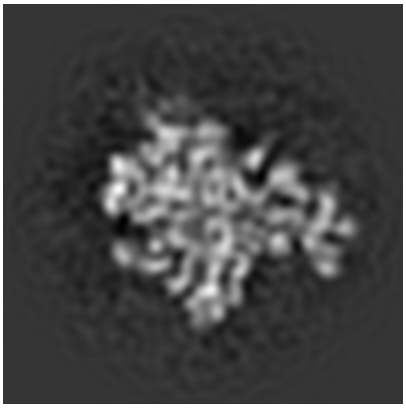


Z Index: 125

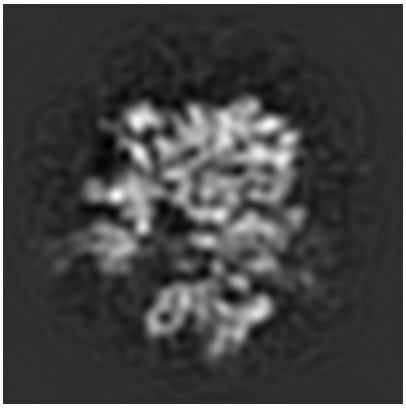
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

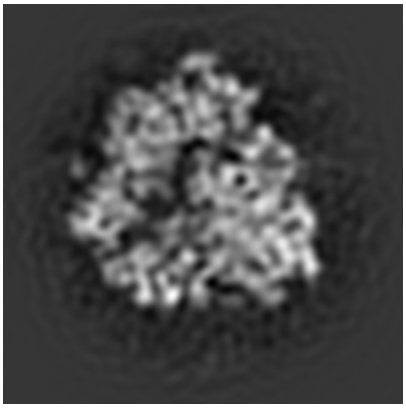
6.3.1 Primary map



X Index: 131



Y Index: 130

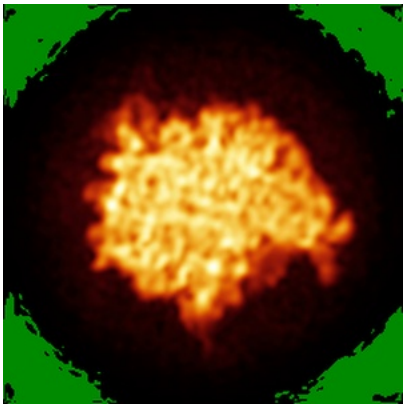


Z Index: 115

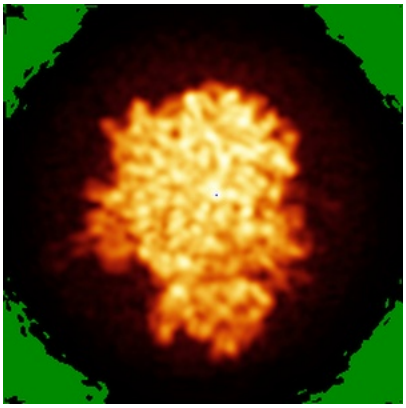
The images above show the largest variance slices of the map in three orthogonal directions.

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

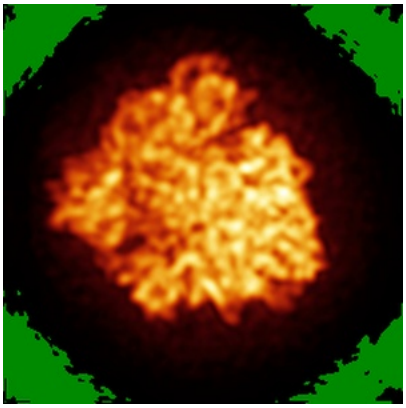
6.4.1 Primary map



X



Y

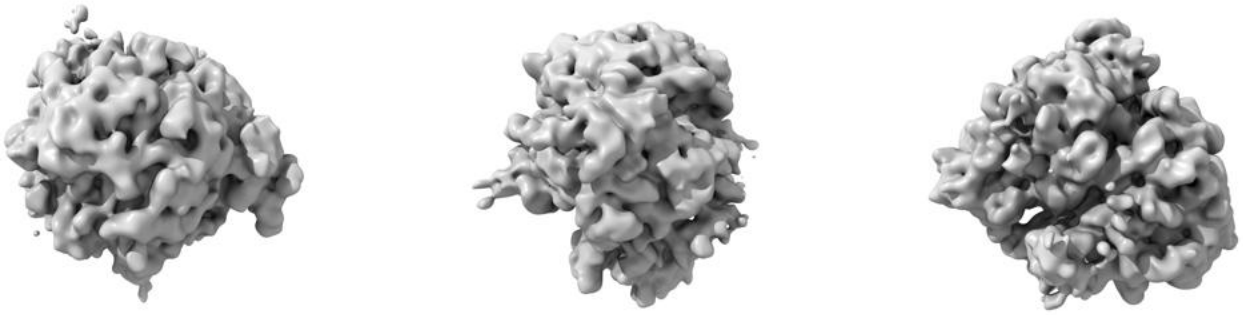


Z

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

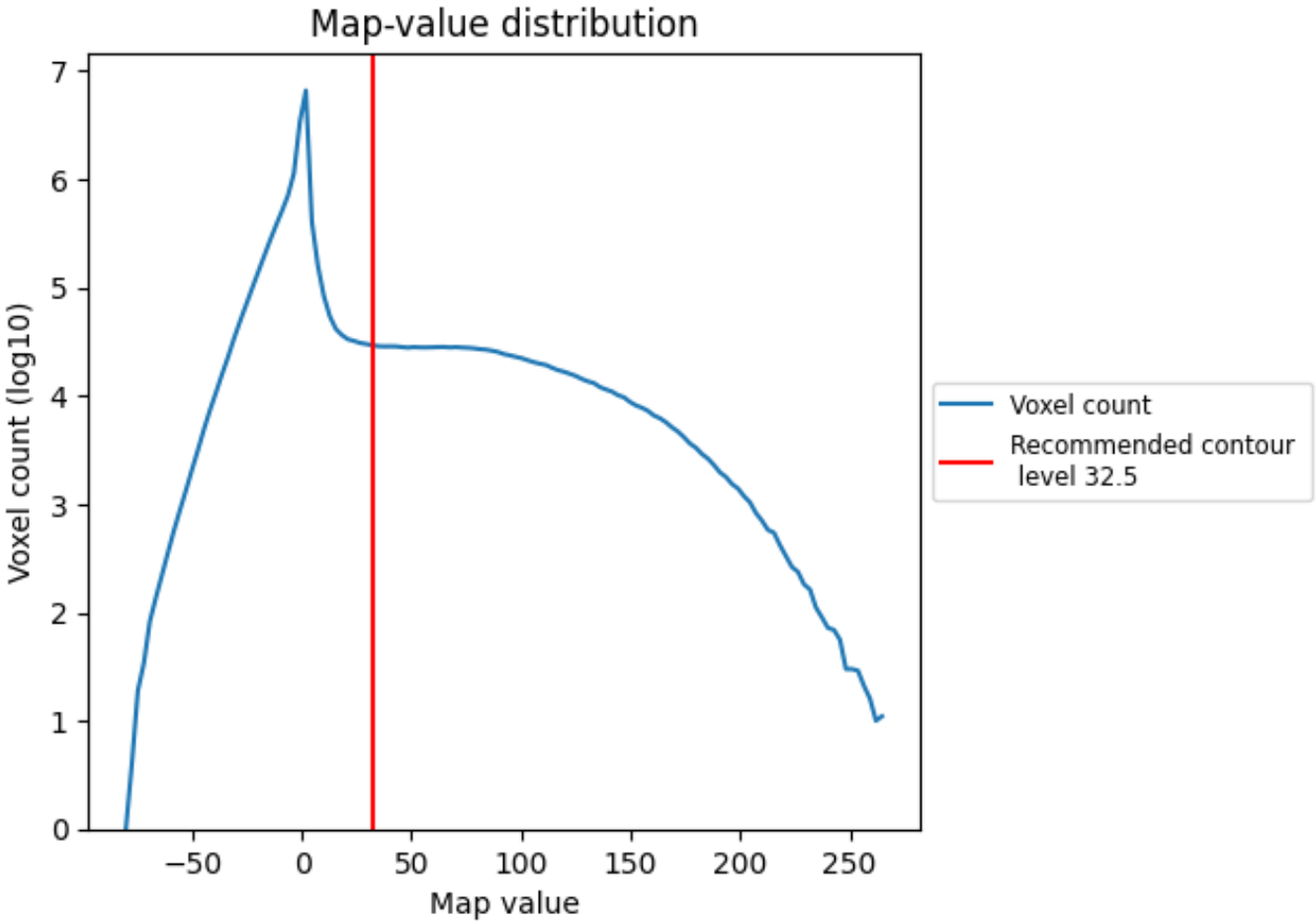
6.6 Mask visualisation (i)

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

7 Map analysis

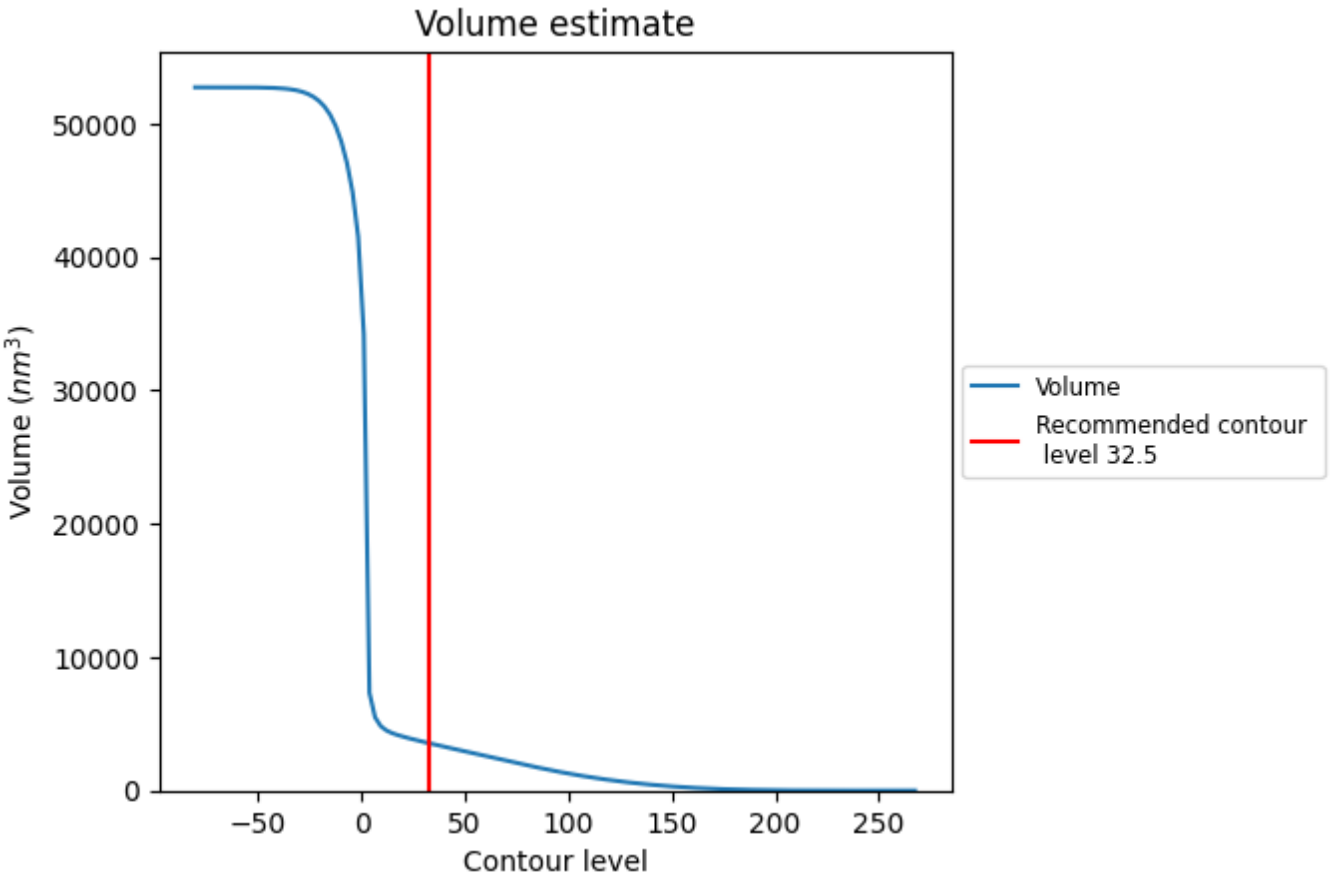
This section contains the results of statistical analysis of the map.

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.

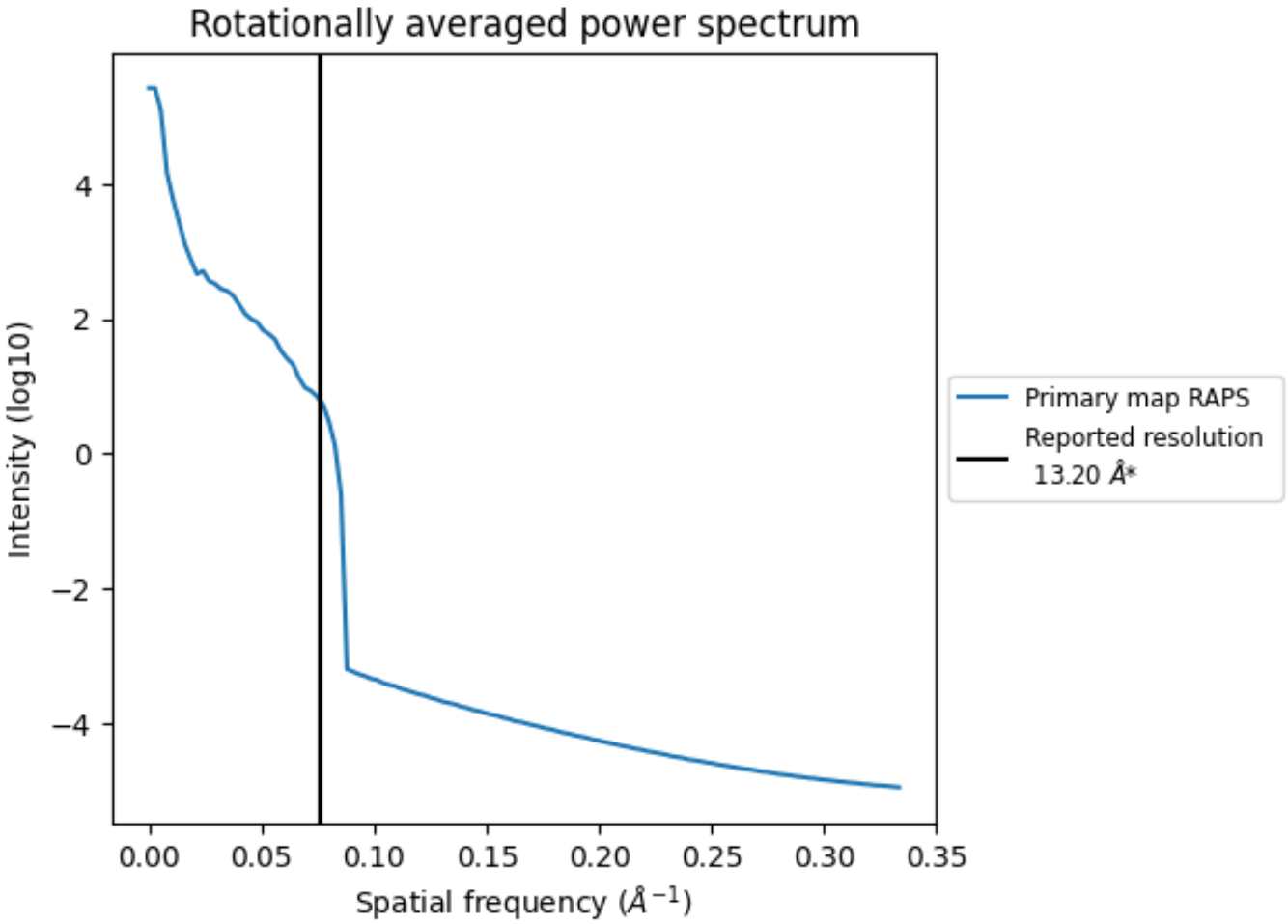
7.2 Volume estimate



The volume at the recommended contour level is 3559 nm^3; this corresponds to an approximate mass of 3215 kDa.

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

7.3 Rotationally averaged power spectrum (i)



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

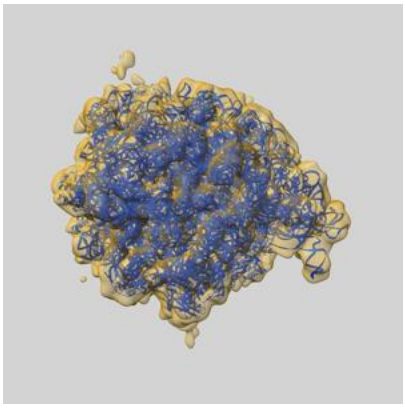
8 Fourier-Shell correlation (i)

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

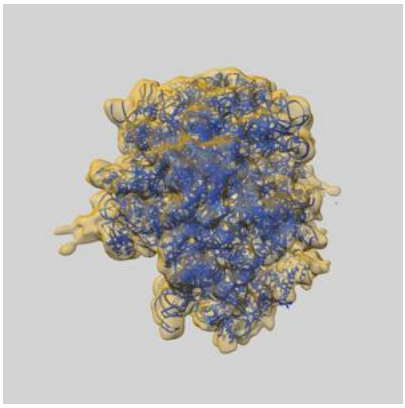
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-1850 and PDB model 4V6L. Per-residue inclusion information can be found in section 3 on page 14.

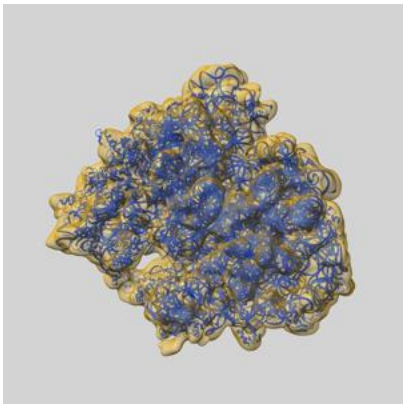
9.1 Map-model overlay



X



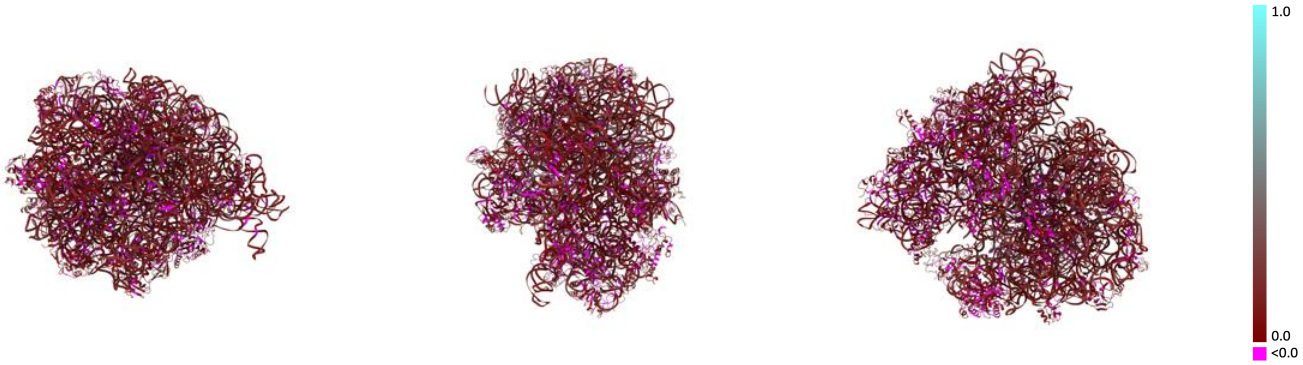
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 32.5 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.

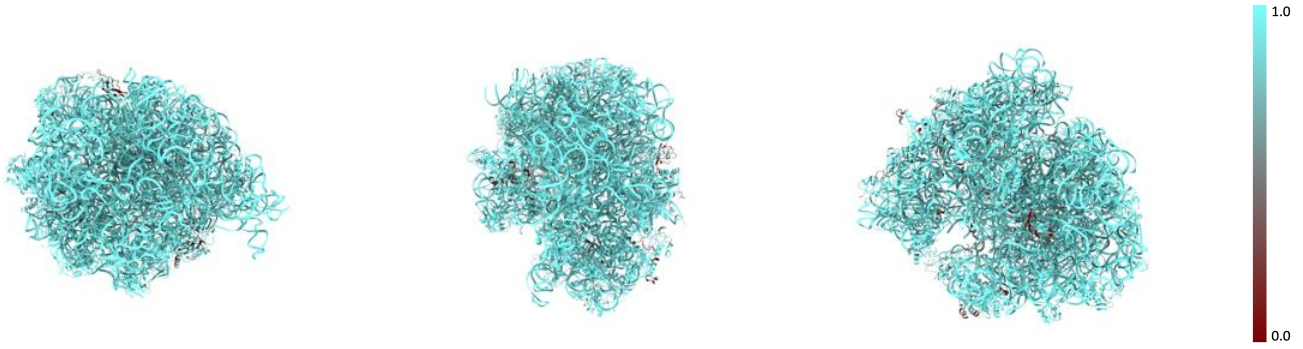
9.2 Q-score mapped to coordinate model (i)



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.

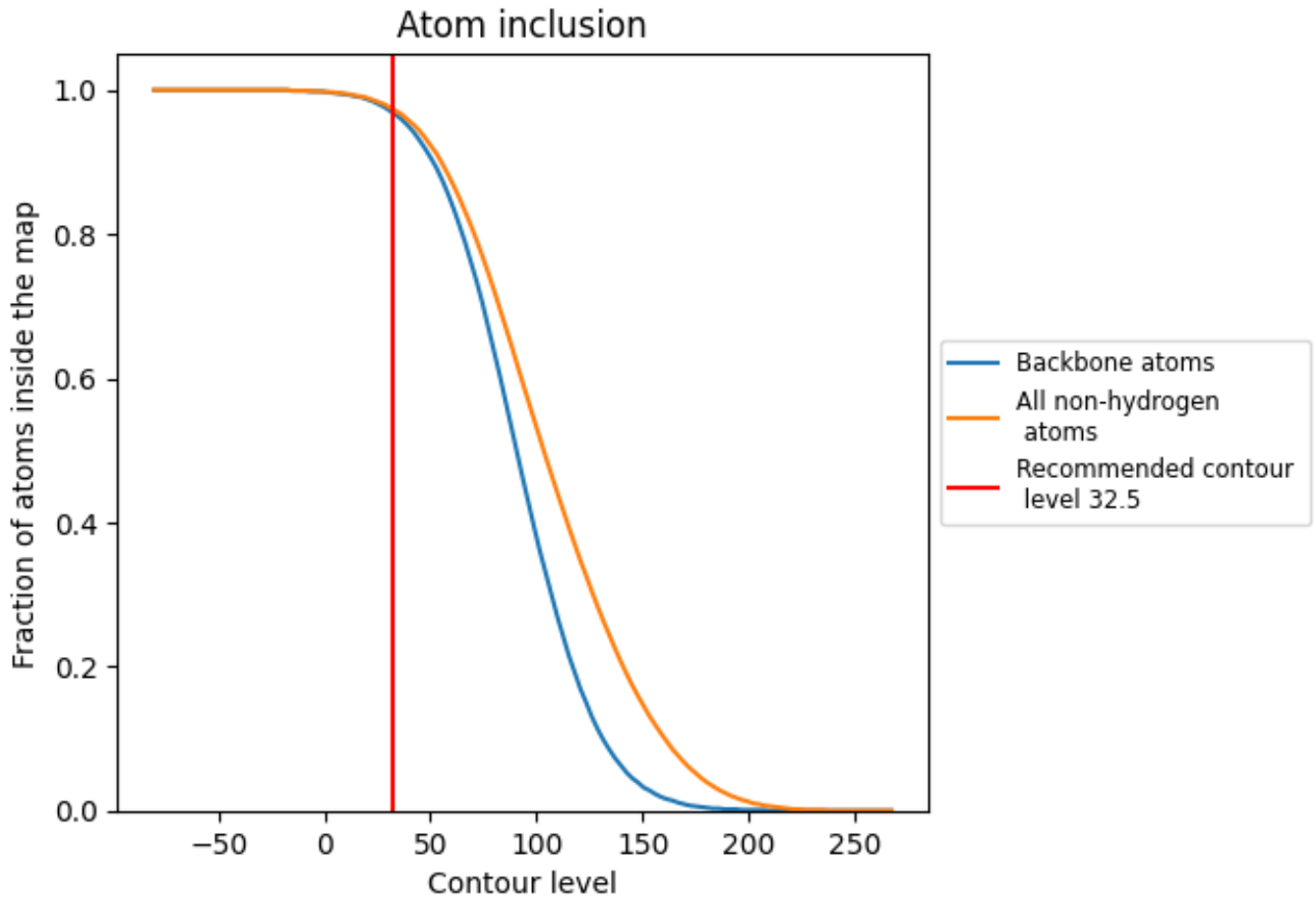
9.3 Atom inclusion mapped to coordinate model (i)



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 (32.5).

9.4 Atom inclusion (i)



At the recommended contour level, 97% of all backbone atoms, 97% 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 (32.5) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.9730	0.0980
AA	0.9910	0.1100
AB	0.8780	0.0990
AC	0.8430	0.0640
AD	0.8790	0.0820
AE	0.9550	0.1100
AF	0.9030	0.0860
AG	0.9010	0.0700
AH	0.9080	0.0520
AI	0.8840	0.0690
AJ	0.8840	0.0670
AK	0.9320	0.0820
AL	0.9760	0.0640
AM	0.9880	0.0900
AN	0.9310	0.0220
AO	0.8600	0.0650
AP	0.9350	0.0400
AQ	0.9820	0.0790
AR	0.9870	0.0490
AS	0.9990	0.0720
AT	0.9870	0.0420
AU	0.9860	0.0910
AV	0.9730	0.0630
AW	0.9560	0.0560
AX	0.9570	0.0440
AY	0.8980	0.0720
BA	0.9970	0.1240
BB	0.9950	0.1180
BC	0.8210	0.0410
BD	0.9890	0.0490
BE	0.9830	0.0520
BF	0.9810	0.0670
BG	0.9740	0.0790
BH	0.9890	0.0910
BI	0.6640	0.0550

Continued on next page...

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Chain	Atom inclusion	Q-score
BJ	0.9630	0.0800
BK	0.9630	0.0660
BL	0.9730	0.0580
BM	0.9760	0.0380
BN	0.9520	0.0600
BO	0.9970	0.0630
BP	0.9890	0.0680
BQ	0.9450	0.0880
BR	0.9870	0.0620
BS	0.9670	0.0750
BT	0.9960	0.0720
BU	0.9900	0.0730
BV	0.9650	0.0830
BW	0.9840	0.0860
BX	0.8830	0.0410
BY	0.9780	0.0720
BZ	0.9780	0.0990
Ba	0.9840	0.0660
Bb	0.9030	0.0860
Bc	0.9490	0.0380
Bd	0.9540	0.0570
Be	0.9970	0.0200
Bf	0.9590	0.0230
Bg	0.9800	0.0240